List of Periodicals Indexed

A S M E Trans—Transactions of the American Society of Mechanical Engineers
Acoustical Soc Am J—Journal of the Acoustical Society of America
Adv & Sell—Advertising and Selling
Advanced Management—Advanced Management
Aero Digest—Aero Digest
Aeronautical Eng R—Aeronautical Engineering Review
Air Transport—Air Transport
Am Assn of Textile Chemists and Colorists
Am Assn Pet Geologists Bul—Bulletin of the American Association of Petroleum Geologists
Am Bankers Assn J. See Banking
Am Bld—American Builder and Building Age
Am Bsns—American Business combined with System
Am Cer Soc Bul—Bulletin of the American Ceramic Society
Am Cer Soc J—Journal of the American Ceramic Society
Am Chem Soc J—Journal of the American Chemical Society
Am Concrete Inst J—Journal of the American Concrete Institute
Am Dyestuff Rep—American Dyestuff Reporter
Am Gas Assn Mo—American Gas Association Monthly
Am Gas Assn Proc—American Gas Association Proceedings
Am Gas J—American Gas Journal
Am Inst Banking Bul—Bulletin of the American Institute of Banking
Am Inst Chem Eng Trans—American Institute of Chemical Engineers
Am Inst E E J. See Elec Eng
Am Inst of Mining and Metallurgical Engineers. See Min & Met
Am J Sci—American Journal of Science
Am Mach—American Machinist
Am Pet Inst Proc—American Petroleum Institute Proceedings
Am Soc C E Proc—Proceedings of American Society of Civil Engineers
Am Soc for Metals Trans—Transactions of the American Society for Metals
Am Soc Heat & V E J. See Heating-Piping
Am Soc M E J. See Mech Eng
Am Soc M E Trans. See A S M E Trans
Am Soc Steel Tr Trans. See Am Soc for Metals Trans
Am Soc T M Proc—American Society for Testing Materials
Am Stat Assn J—Journal of the American Statistical Association
Am Water Works Assn J—Journal of the American Water Works Association
Ann Am Acad—Annals of the American Academy of Political and Social Science
Arch Forum—Architectural Forum
Arch Rec—Architectural Record
Assn of Sp Lib & Inf Bur Proc—Association of Special Libraries and Information Bureaux Proceedings
Automobile Eng—The Automobile Engineer
Automotive & Aviation Ind—Automotive and Aviation Industries
Aviation—Aviation
Aviation N—Aviation News

Bankers Mo—Bankers Monthly
Banking—Banking; Journal of the American Bankers Association
Banking Law J—Banking Law Journal
Barron's—Barron's
Bell System Tech J—Bell System Technical Journal
Blast F & Steel Pl—Blast Furnace and Steel Plant
Boston Soc C E J—Journal of the Boston Society of Civil Engineers
Brick & Clay Rec—Brick and Clay Record
Bsns W—Business Week
Burroughs Clearing House—Burroughs Clearing House
Bus Transportation—Bus Transportation

CAA J—CAA Journal; issued monthly by the Civil Aeronautics Administration
Can Chem & Process Ind—Canadian Chemistry and Process Industries
Can Min J—Canadian Mining Journal
Cer Ind—Ceramic Industry
Chem Age (Lond)—The Chemical Age
Chem & Eng N—Chemical and Engineering News
Chem & Ind—Chemistry and Industry
Chem & Met Eng—Chemical and Metallurgical Engineering
Chem Eng—Chemical Engineering
Chem Ind—Chemical Industries
Chem R—Chemical Reviews
Chem Soc J—Journal of the Chemical Society
Chimie & Ind—Chimie & Industrie
Civil Aero J—Civil Aeronautics Journal
Civil Eng—Civil Engineering
Coal Age—Coal Age
Comm & Fin Chr—Commercial & Financial Chronicle
Comp Air Mag—Compressed Air Magazine
Concrete—Concrete
Consumers Res Bul—Consumers' Research Bulletin (Not Confidential)
Credit & Fin Management—Credit and Financial Management

Diesel Power—Diesel Power and Diesel Transportation
Dom Comm—Domestic Commerce
Dom Eng—Domestic Engineering
Dun's R—Dun's Review
Dun's Stat R—Dun's Statistical Review

East Underw—Eastern Underwriter
Econ Geol—Economic Geology
Economist—Economist
Edison Elec Inst Bul—Edison Electric Institute Bulletin
Elec Eng—Electrical Engineering
Elec R (Lond)—Electrical Review
Elec West—Electrical West
Elec World—Electrical World
Electrician—Electrician
Electrochem Soc Trans—The Electrochemical Society
Electronics—Electronics
Eng & Min J—Engineering and Mining Journal
Eng Educ. See J Eng Educ
Eng N—Engineering News-Record
Engineer—Engineer
Engineering—Engineering
Explosives Eng—The Explosives Engineer

Factory Management—Factory Management and Maintenance
Fed Res Bul—Federal Reserve Bulletin
Food Ind—Food Industries
For Comm W—Foreign Commerce Weekly
Fortune—Fortune
Foundry—Foundry
Franklin Inst J—Journal of the Franklin Institute

Gas Age—Gas Age combining Natural Gas, Gas Age, Gas Record
Gas J (Lond)—Gas Journal
Gen Elec R—General Electric Review
Génie Civil—Génie Civil
Geol Soc Bul—Bulletin of the Geological Society of America
Geol Soc Proc—Proceedings volume of Geological Society of America for 1945
Glass Ind—Glass Industry

Harvard Bsns R—Harvard Business Review
Heat & Ven—Heating and Ventilating
Heating-Piping—Heating, Piping and Air Conditioning

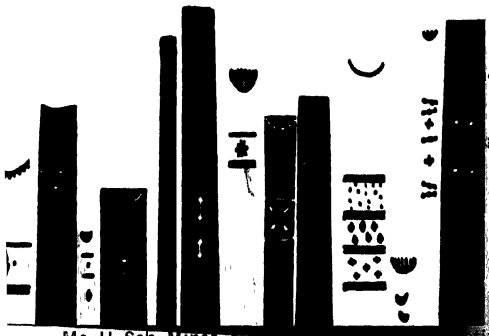
LIST OF PERIODICALS INDEXED

Ill U Eng Exp Sta Bul—Illinois University Engineering Experiment Station
Ill U Eng Exp Sta Circ—Illinois University Engineering Experiment Station
Illum Eng—Illuminating Engineering including Transactions of the Illuminating Engineering Society
Illum Engr. See Light & Lighting
Ind & Eng Chem—Industrial and Engineering Chemistry
Ind & Eng Chem Anal ed—Industrial and Engineering Chemistry Analytical Edition
Ind Marketing—Industrial Marketing
Ind Med—Industrial Medicine
Ind Stand—Industrial Standardization
Index—Index
India Rubber World—India Rubber World, Natural & Synthetic
Inland Ptr—Inland Printer
Inst Chem Eng Trans—Transactions of the Institution of Chemical Engineers
Inst E E J—Journal of the Institution of Electrical Engineers

q016.600 I42 1946 61-25435

reference collection book

kansas city public library kansas city, missouri



Mo U Sch Mines & Met ... of the University of Missouri, School of Mines and Metallurgy
Mod Packaging—Modern Packaging
Mod Plastics—Modern Plastics

N A C A Bul—N.A.C.A. Bulletin
N E Water Works Assn J—Journal of the New England Water Works Association
Nat City Bank—National City Bank of New York
Nat Pet N—National Petroleum News
Nat Res Council Bul—National Research Council Bulletin
Nat Safety N—National Safety News
Nat Underw—National Underwriter
Nat Underw (Life ed)—National Underwriter Life Insurance Edition
New England Water Works Assn. See N E Water Works Assn J
N Y Pub Lib Bul—New York Public Library

Oil & Gas J—Oil and Gas Journal
Oil Paint & Drug Rep—Oil, Paint and Drug Reporter
Opt Soc Am J—Journal of the Optical Society of America

Paint Oil & Chem R—Paint, Oil and Chemical Review
Paper Ind—Paper Industry and Paper World
Paper Tr J—Paper Trade Journal
Personnel J—Personnel Journal
Pet Eng—Petroleum Engineer
Pet Processing—Petroleum Processing
Pet Refiner—Petroleum Refiner
Phys R—The Physical Review
Power—Power
Power Pl Eng—Power Plant Engineering
Product Eng—Product Engineering
Ptr Ink—Printers' Ink
Pub Health Rep—Public Health Reports
Pub Roads—Public Roads
Pub Util—Public Utilities Fortnightly
Pub Works—Public Works Magazine
Pulp & Pa of Can—Pulp and Paper Magazine of Canada

RCA R—RCA Review
R Econ Stat—Review of Economic Statistics
R Sci Instr—Review of Scientific Instruments
Radio N—Radio News
Rayon—Rayon Textile Monthly
Ref Shelf—The Reference Shelf
Refrig Eng—Refrigerating Engineering
Review of Economic Statistics. See R Econ Stat
Roads & Bridges—Roads and Bridges
Roads & Sts—Roads and Streets
Rock Prod—Rock Products
Rough Notes—Rough Notes
Roy Aeronautical Soc J—Journal of the Royal Aeronautical Society
Rs Mod Phys—Reviews of Modern Physics
Rubber Age—Rubber Age
Ry Age—Railway Age
Ry Mech Eng—Railway Mechanical Engineer with which is incorporated the Railway Electrical Engineer

S A E J—S.A.E. Journal
Safety Eng—Safety Engineering
Sales Management—Sales Management
Sci Am—Scientific American
Science—Science
Sheet Metal Worker—Sheet Metal Worker
Soap & San Chem—Soap and Sanitary Chemicals
Soc Chem Ind J—Journal of the Society of Chemical Industry
Soc Dyers & Col J—Journal of the Society of Dyers and Colourists
Soc for Advan of Management J. See Advanced Management
Soc Motion Picture Eng J—Journal of the Society of Motion Picture Engineers
Society of Automotive Engineers Journal. See S A E J
Special Lib—Special Libraries
Spectator (Life ed)—Spectator; Life Insurance in Action
Spectator (Property ed)—Spectator; Property Insurance Review
Stahl & Eisen—Stahl und Eisen
Steel—Steel
Survey of Cur Bsns—Survey of Current Business

Tech R—Technology Review
Textile Col—Textile Colorist and Converter
Textile Inst J—Journal of the Textile Institute
Textile World—Textile World
Transactions of the American Society of Mechanical Engineers. See A S M E Trans
Trust Companies. See Trusts & Estates
Trusts & Estates—Trusts and Estates

LIST OF PERIODICALS INDEXED

U S Agric—Publications. U.S. Dept. of Agriculture, Division of Publications, Washington, D.C.
U S Bur For & Dom Com Economic Ser—U.S. Bureau of Foreign and Domestic Commerce, Washington, D.C.
U S Bur Labor Statistics Bul—United States. Bureau of Labor Statistics
U S Bur Mines Bul—United States. Bureau of Mines, Bulletin
U S Bur Mines Information Circ—United States. Bureau of Mines. Information Circular
U S Bur Mines Rep of Invest—United States. Bureau of mines. Reports of Investigations
U S Bur Mines Tech Pa—United States. Bureau of mines. Technical Papers
U S Geol S Bul—United States Geological Survey. Bulletin
U S Geol S Professional Pa—United States Geological Survey. Professional Paper
U S Nat Advisory Com for Aeronautics—United States National Advisory Committee for Aeronautics, Washington, D.C. Annual reports .
U S Nat Bur Stand—United States National Bureau of Standards
U S Women's Bur Bul—United States. Women's Bureau. Bulletin

V D I—Zeitschrift des Vereines Deutscher Ingenieure

Water & Sewage—Water and Sewage
Water & Sewage Works—Water & Sewage Works
Water Works & Sewerage—Water Works & Sewerage
Waves and Electrons. See Inst Radio Eng Proc
Weekly Underw—Weekly Underwriter
Welding J—Welding Journal
Western Soc E J—Journal of the Western Society of Engineers
Wireless Eng—Wireless Engineer

Key to General Abbreviations

+	continued on later pages of the issue	Je	June
abr	abridged	Jl	July
Ag	August	Mr	March
Ap	April	My	May
arch	architect	n s	new series
bibliog	bibliography	N	November
comp	compiled or compiler	no	number
cond	condensed	O	October
cont	continued	p	page
D	December	pl	plate
diag	diagram	por	portrait
ed	edited or edition or editor	pseud	pseudonym
F	February	pt	part
i	index	rev	revised
il	illustrations	S	September
inc	incorporated	sup	supplement
Ja	January	tr	translated or translation or translator
		v	volume

Sample entry: Budgeting to cut unit costs; Talon, incorporated. P. K. Poulton and P. H. Goldsmith. Factory Management 97:48-52+ O '39

Explanation: An article with the title given above will be found in Factory Management, volume 97, pages 48 to 52 (continued on later pages of the same issue) the October 1939 number

THE
INDUSTRIAL ARTS INDEX

THIRTY-FOURTH ANNUAL VOLUME

1946

SUBJECT INDEX TO A SELECTED LIST OF ENGINEERING, TRADE AND BUSINESS PERIODICALS

EDITED BY

MARION E. POTTER, LEONE BAKER, LUCILLE CRAUMER

NEW YORK
THE H. W. WILSON COMPANY
1947

Printed in the United States of America

This volume has been supplied on a contract which provides that it is not to be sold or given away without the permission of the publishers.

Ref.
9 016.600
I 42i
1946

PREFACE

This volume, the thirty-fourth annual of the Industrial Arts Index, cumulates the monthly issues published from December, 1945, thru November, 1946. Two new periodicals have been indexed in this volume: *Journal of Documentation* and *Domestic Commerce*. The delayed volumes of the National Advisory Committee for Aeronautics, Reports for 1940 and 1941, are also indexed, and the indexing of *RCA Review,* that suspended publication from April, 1942 until March, 1946, and *Génie Civil* have been resumed. A few numbers of *Chimie & Industrie,* all that were obtainable, are also indexed. A new periodical, *Science Progress,* is indexed in the 1947 current numbers.

M. E. P.

6125435

Magazine Notes

Compiled with the aid of Johanna Kramm and Jessie Van Strander

(Reprinted from monthly issues of 1946) *

Aero Review, the monthly digest of world flight, edited by John L. Scherer, is a small size magazine that began publication in February. It presents popular type aviation articles. The editors are all AAF veterans (officer-pilots) with previous experience on national magazines. It will not carry advertising. Published by Westlake Publishing Company, W. Lake Road, Penn Yan, New York. Subscription $3; single copies 25 cents.

Agenda, Things to Do, a new periodical in the women's club field, designed especially for club program planners, is being sponsored by Printers' Ink Publishing Company, 205 E. 42d Street, New York. First issue is scheduled for April 15, 1947.

Agricultural Engineering Record is a new quarterly publication of the National Institute of Agricultural Engineering, Askham Bryan, York. The main purpose is to place on record the results of the testing, experimental, and research work of the Institute. Subscription 4s 4d.

Air Affairs, an International Quarterly Journal, began publication in September. William D. Pardridge is editor and also president of the publishing company, Air Affairs, Inc., 1829 G Street, N.W, Washington 6. "The Quarterly will consider aeronautics in the broadest aspects and will number among its contributors both academicians and professional men not engaged in aviation who are trained in estimating the effects of new inventions. It will devote a substantial part of its space to problems which are aeronautical in the main but which by their very nature have a wider significance." Subscription $5 a year postfree thruout the world; $1.25 a single copy.

Alchemical Libraries Almanack is the new name of the Bulletin of the Science and Technology Group, Special Libraries Association. The September, 1946, issue is Tome 1, fasc. no. 1, 2 A. E. (2nd Year of Atomic Energy).

América is the organ of the Interamerican Federation of Automobile Clubs. It began with a June issue; its motto, "Para el mejor conocimiento entre los pueblos de América". Various problems relating to traffic, roads, and travel are discussed. Published at Avenida Alvear 2750, Buenos Aires, Argentina.

American Antiques Journal is an illustrated monthly "intended to help the modest collector and not to deal with museum pieces." Publication was begun last January by Guide Publishing Company, 44 Public Square, Mount Vernon, Ohio. Subscription $2.50 a year; single numbers 25 cents.

American Culture, announced by Rayner Publishing Company to appear the first of September, will sell at a subscription price of $180 a year, "the highest yearly subscription price ever fixed by an American magazine publisher." It will be sold on an annual subscription only (no single copy sales), will be 11 by 14 inches, with over 200 pages, craft-printed on the finest paper, in library or plastic binding. Its stated editorial policy: "to give the public a master magazine that will oppose the subversive forces rampant in the country."—*Advertising and Selling.*

American Journal of Medicine, beginning with a July issue, is edited by Alexander B. Gutman, Assistant Professor of Medicine, Columbia University. The associate editors and the members of the advisory board are professors in the leading medical colleges of the United States. The new monthly will publish only original contributions. Published by The Yorke Publishing Company, 49 West 45th Street, New York 19. Subscription $10 in the United States; $12 in other countries; single number $2.

American Turf Monthly is dedicated to the interests of the American racing fan. It began with an August issue. Published by Amerpub Co., 225 West 34th Street, New York 1. Subscription $4 a year; single copies 35 cents.

Armenian Quarterly, edited by Constant Zarian, and published by the American-Armenian Cultural Association, began with a spring number. Its object is to make known abroad the results of the research of scholars in Armenia and to assemble the contributions of Armenists residing in Europe and America. To non-members $6 a year; $2 a copy. Editorial and business offices are at 9 East 89th Street, New York.

Army Information Digest is published monthly by the War Department to serve commanding officers and their staffs (particularly public relations and information-education officers) in the field of army information. Editorial office is at Carlisle Barracks, Pennsylvania.

* These notes have been reprinted by request. Thoro revision has not been possible.

Ars Medici; Revue Internationale pour le Médecin Practicien, is a monthly abstract journal that began with a September issue. Published by Academia, 2 Rue Longue de la Croix, Ghent, Belgium. Subscription 180 fr B in Belgium; 12 fl in Netherlands; 200 fr B in other countries.

Aslib Book-List has increased its subscription rate to 10 shillings a year to members and 12s 6d to non-members. The price of the *Aslib Book-List* has remained unchanged since it was established in 1935, altho the cost of production since that time has doubled. Published quarterly by Association of Special Libraries and Information Bureaux, 52 Bloomsbury Street, London, W.C.1.

The Atomic Age, a small size monthly, beginning with a January issue, is "a non-technical publication aiming to apply the scientific method to the solution of all human problems." It is edited and published by Ronald H. Jump at 135 Dayton Street, Sea Cliff, New York. Subscription $1 a year; single copies 10 cents.

Atomic Engineer and Scientist, published by the Oak Ridge Engineers and Scientists, has been discontinued, and its news coverage will be included in *Bulletin of the Atomic Scientists,* beginning with the issue of April 1, volume 1, no. 8. The *Bulletin* is published semimonthly by the Atomic Scientists of Chicago, 1126 59th Street, Chicago. Subscription $2 a year; single copy 10 cents.

Atomic Information is published every other Thursday by the National Committee on Atomic Information, 1621 K Street, NW, Washington 6. It will be sent free on request to interested groups or individuals, insofar as Committee funds permit. Volume 1, number 1, eight pages, is dated March 4.

Australasian Book News and Library Journal, is a new monthly, edited by George Farwell and published by F. H. Johnston Publishing Company, 34 Jamieson Street, Sydney. Subscription 12s 6d a year, within the Commonwealth; 15s elsewhere; single copies one shilling. The second number, August, contains a complete list of books supplied to the National Library, Canberra, April-June.

The Australian Journal of Dairy Technology is the official quarterly publication of the Australian Society of Dairy Technology, Melbourne. Subscription 10/6 a year; single copies 3/6.

Automotive Jobber, beginning with a June issue, supplements *Dealer News,* also published by the Dealer Publishing Company, Los Angeles. It will have a controlled circulation of 3,500 selected jobbers and distributors thruout the Nation.—*Sales Management.*

Baker Street Journal, an Irregular Quarterly of Sherlockiana, is edited by Edgar W. Smith. Associate editors are W. S. Hall, Christopher Morley, Charles Honce, Ellery Queen, Lee Wright. The *Journal* "is dedicated to the proposition that there is still infinitely much to be said about the scene in Baker Street." Published by Ben Abramson, 3 West 46th Street, New York 19. Subscription, four numbers, $5.

Best Stories is a monthly fiction digest that began publishing last March. It is edited by Lucile V. Tolces. Published by B. E. C. Publishing Company, 1745 Broadway, New York 19. Subscription $3 a year; single copies 25 cents.

Boletin del Instituto de Quimica, de la Universidad Nacional Autonoma de Mexico, began with a December issue. Summaries in English are included.

Book-Reader, a Magazine of Book Abridgements, began with a July issue, which abridges in the author's own words: "Farmer Takes a Wife," by John Gould; "The Unforeseen," by Dorothy Macardle; and "Washington Tapestry," by Olive Ewing Clapper. Published monthly by Omnibook, Inc., 76 Ninth Avenue, New York 11. Subscription $3 a year; 25 cents a copy.

The Bookshelf, a one penny monthly, is published by Alliance Press, Thanet House, 231 Strand, London, W.C. 2. Subscription two shillings a year. It began publication in January.

The British Magazine, first issue, May 1946, replaces *Britain Magazine* which was published by the British Information Services during the war. It is a "digest of the best that is published in the press of the more than eighty members of the British Commonwealth of Nations." Published by H. S. H. Enterprises, Inc., 30 Rockefeller Plaza, New York 20. The pocket-size monthly sells for 25 cents a copy; $3 a year in the United States and Canada, $4 elsewhere.

The Californian, an illustrated monthly fashion magazine, began publishing with a February issue. Published at 210 W. Seventh Street, Los Angeles 14; New York office, 1450 Broadway. Subscription $3 a year in the United States and Canada; one dollar additional postage elsewhere; 25 cents a copy.

Canuck, a Canadian youth magazine, began publication in February. It is printed in French and English. Published monthly by Canuck Publications, 198 Bay Street, Toronto 1. Subscription $1 a year; single copies 10 cents.

Caribe is a new monthly, a journal of public opinion, published in Mexico, D.F.

Catholic Youth begins its second volume in September. Published monthly, except July and August, at 128 East 10th Street, Saint Paul 1, Minnesota. Subscription $1.50 a year; single copies 25 cents.

Character and Personality has changed its title to *Journal of Personality.* Published by Duke University Press, Durham, N.C.

Chemical and Engineering News is to be issued weekly beginning January 1947. It first made its appearance on January 10, 1923. Since then, it has been issued twice monthly. The first issue contained twelve pages and reached about 15,000 readers. Recent issues have been averaging about 140 pages and have a circulation of about 55,000.

Chicago Aviation News, a four-page semimonthly, began publication February 1, at 8 So. Dearborn, Chicago 3. Subscription $1 a year; 5 cents a copy.

China Magazine begins with a May issue as the successor to *China at War,* suspended last December. It is pocket size but contains original contributions; it is not a digest. It is published monthly by Chinese News Service, an agency of the Chinese government, 30 Rockefeller Plaza, New York 20. Subscription $1.50 a year.

Christian Life and Times, advertised as the Christian photo magazine, begins with a May issue. Its objective is "to make available to Christians everywhere a magazine that is dependable, dignified, inspirational, devotional, enjoyable, unbiased. It is published monthly by Good Books, Inc., independent book and magazine publishers, owned by a group of Christian business men." Address is 111 North Wacker Drive, Chicago 6. Subscription $3 a year; $3.50 in Canada. Single number 25 cents; 30 cents in Canada.

Christian Voice for a Jewish Palestine is a magazine published by the American Palestine Committee, 41 East 42d Street, New York 17. The first issue, a summer number, contains among other illustrations, portraits of the distinguished officers and other members of the organization.

Chromosoma and *Zeitschrift für Zellforschung und Mikroskopische Anatomie,* two biological publications of an international scope, will resume publication. The two journals, the former devoted to cytogenetics, will be published again by Springer, but will now be issued from Vienna instead of Berlin as before the war.

The *Clarkson Letter* is a publication of the Department of Business Administration, Clarkson College of Technology, Potsdam, New York. It began with an April issue. The intention is to give a broader knowledge, better understanding, and a stimulation to thinking about the concepts underlying business, economic, and governmental problems. It is directed especially to supervisors, foremen, and junior executives.

Coal Technology is a new bi-monthly containing the technical publications of the Coal division of the American Institute of Mining and Metallurgical Engineers, 29 West 39th Street, New York 18. Other Division publications are: *Mining Technology, Metals Technology, Petroleum Technology.* The new periodical began with a February issue. Subscription $6 a year; single copies $1.50.

Colorado Business is the Colorado State Chamber of Commerce official magazine. It will sell for 25 cents a copy; $2 yearly subscription. Its combination controlled and paid circulation is guaranteed to be 4,000.

Commerce Review, a Digest of Business Developments in the Empire State, is a new service of the New York State Department of Commerce, a quarterly publication, beginning with a November number.

Congressional Quarterly is a Washington Service for editors and commentators who have purchased reproduction rights to the material as it is combined and edited. Every quarter the service is bound and indexed. The bound copies may be purchased by libraries and individuals, but without rights of reproduction. The weekly service called *Congressional Notebook* costs $3 a month. This includes *Congressional Quarterly.* Back numbers of the *Quarterly* are $5 each. Published by Press Research, Inc., 732 Seventeenth Street, NW, Washington 6.

Construction Buyers' Directory is published bi-monthly at 343 S. Dearborn Street, Room 306, Chicago 4. Subscription $5 a year.

Construction World is a Miller Freeman publication, published monthly, Royal Bank Building, Vancouver, B.C., first issued last November. It is generously illustrated. Subscription $3 a year; single copies 25 cents.

La Coopération Intellectuelle Internationale, U. N. E. S. C. O., is successor to the monthly bulletin of the International Institute of Intellectual Cooperation, published from 1931 to 1940. Number 1-2 of the periodical is dated January-March 1946. The provisional subscription price in France is 30 fr for single numbers and 60 fr for double numbers; in other countries 40 fr and 80 fr. Published by Institut International de Coopération Intellectuelle, 2 Rue Montpensier, Paris.

Craig Rice Crime Digest began with an August-September number. It condenses outstanding mystery stories. Published by Anson Bond Publications, 913 North La Cienega Boulevard, Hollywood 46, California. Single numbers 25 cents.

Critique, a Review of Contemporary Art, published monthly from October thru May, began with an October issue. It will include articles, exhibition reviews, book reviews, and reproductions. Published by Critique, 506 East 82d Street, New York 28. Subscription $2.50 a year; single number 35 cents.

Deadline, distributed free to 6,255 house organ editors of the United States and Canada, has for its purpose the development of house publications, improving their content and appearance. Offices are at 480 Lexington Avenue, New York 17.

Deb, previously announced, is an illustrated monthly, published by the Bilbara Publishing Company, 4600 Diversey Avenue, Chicago 39. Editorial and executive offices, 295 Madison Avenue, New York 17. Subscription $2.50 a year; single copies 25 cents.

Delaware History, a publication of the Historical Society of Delaware, is devoted entirely to the history of the State. The first issue appeared in January. While no definite commitment is made as to future issues, two numbers a year are expected. Subscription included in the Society's annual membership fee of $5; single copies $1 at Old Town Hall, Sixth and Market Streets, Wilmington, Delaware.

Diesel Journal is the official organ of the Diesel Engineers International Association, 576 Newark Avenue, Jersey City, New Jersey. The June issue, volume one, number six, announces that there will be no issue of the Journal thru the summer, the next number to be published October 15. Subscription $3 a year; single numbers 25 cents.

Disc, the Record Magazine, began with an August issue. It is published monthly by Triad Magazines, at 404 North Wesley Avenue, Mount Morris, Illinois. Subscription $2.50 a year.

Documenta Agraria; Landbouwkundig en Landbouwtechnologisch Documentatietijdschrift published by Academia, Lange Kruisstraat 2, (2 rue Longue de la Croix) Ghent, Belgium, began with an August issue. It is a survey of more than 250 agricultural periodicals. The abstracts are in Dutch. Subscription in Belgium 100 fr; in Netherlands 8 fl; in other countries 125 fr B.

Economic Affairs is the new title of *After The War,* eight-page bulletin published ten times a year by the Institute on Postwar Reconstruction at New York University. The subscription price of $1, less 25 per cent discount to agencies, remains the same.

Editorial Digest, as its name indicates, is one of a growing family of small size periodicals, digesting editorials. It began last June. Published and edited by A. R. Powers, P.O. Box 1224, Roanoke, Virginia. Subscription $3 a year; single copies 25 cents.

Edoth (Communities) is a Hebrew quarterly for folklore and ethnology, with summary in English. Published by The Palestine Institute of Folklore and Ethnology, 34 David Street, Jerusalem. Subscription abroad $6 or £ 1/8 a year.

Electronic Industries will be published in two editions beginning with the January 1947 issues. *Tele-Tech* will cover tele-communications technics, embracing radio, television, FM, telephony, sound reproduction, railroad, and aircraft communications. *Electronic Industries & Instrumentation* is designed to meet the needs of men thruout industry interested in factory electronic applications. Caldwell-Clements, Inc, 480 Lexington Avenue, New York 17, are publishers.

Employee Benefit Plan Review, a new quarterly, beginning with a mid-year number, provides a medium by which employers can gain the benefit of the experiences and views of experts in employee relations. Published by Charles D. Spencer & Associates, 175 West Jackson Boulevard, Chicago 4. Subscription $2 a year; single copies 50 cents.

Erasmus Speculum Scientiarum, an international bulletin of contemporary scholarship, is a new fortnightly to which competent specialists from all over the world will contribute circumstantial reviews of all publications of value in the field of the moral and political sciences. Volume one, number one is dated 1947. Each number will also include a list of recently published works. The reviews will be written in English, French or German. Address: Pantheon Press, Amsterdam, 78, Leidschegracht, Holland. Subscription rate: 280 Belg. frs. ($12).

Everyday Art Quarterly, published by Walker Art Center, 1710 Lyndale Avenue South, Minneapolis 5, began with a summer number. "It presents only modern furniture, table ware, fabrics, radios, kitchen ware, household appliances and other products for everyday use." Subscription $1 for two years; 15 cents a copy.

FAO Information Service Bulletin is published by the Food and Agriculture Organization of the United Nations, 2000 Massachusetts Avenue, NW, Washington 6. "It contains material for the information of National FAO Committees, press, radio, and others concerned with the work of FAO. A companion publication, the *Information Service Record,* contains the official texts of such FAO documents as are suitable and sufficiently brief for publication in this form." For further information address: Gove Hambidge, Director of Information, 64 St Paul Street, Kensington, Washington, D. C.

The Family, became *Journal of Social Casework* with the October issue. The new name, the editor explains, more accurately describes the magazine's content. Indexed in *International Index.*

Family Circle, a new monthly, replaced the 14-year old weekly in September. The monthly magazine will be sold thru Safeway Stores at 5 cents a copy.

The Family Digest is a small-size monthly, sponsored by Most Rev. John F. Noll. Published by Our Sunday Visitor, Inc., at Huntington, Indiana. Subscription $2 a year.

The *Far East Trader* is a weekly information service on foreign trade with the Orient, published by Foreign Trade Publications Company, 1119-23 Harrison Street. San Francisco. Publication began last March.

Farm Quarterly made a March appearance with an initial spring issue. It is aimed at the farmer with money to spend "to get the most out of the soil while improving on it so that the next crop will be better." Subscription $3.50 for two years; 50 cents a copy. Published by the Automobile Digest Publishing Corporation, 22 East 12th Street, Cincinnati.

Fascination, a new illustrated woman's magazine, began publication with a February issue. Published by Avon-Fascination Company, 119 West 57th Street, New York 19. Twenty-five cents a copy.

Fighting Worker Supplement, beginning publication in January, is intended to discuss workers' problems in more detail than is possible in the four-page monthly *Fighting Worker.* Published by Demos Press, 708 N. Clark Street, Chicago, for Revolutionary Workers League.

Film Forum Review, a quarterly, devoted to the use of motion pictures in adult education, is published by Institute of Adult Education, Teachers College, Columbia University, in cooperation with National Committee on Film Forums, at 525 West 120th Street, New York 27. Subscription $1 a year.

Fisac, Revista Interamericana de los Derechos de Autor is the official organ, quarterly, of the Federación Interamericana de Sociedades de Autores y Compositores. Its purpose is to further the protection of intellectual property. The first issue is dated Julio-Agosto-Septiembre, 1945. Published at Calle de Cuba 355, Habana, Cuba.

Flow has for a subtitle "the magazine which integrates material handling equipment into the flow of production." It is an illustrated monthly, published by The Bolivar Publishing Company, 812 Huron Road, Cleveland 15. Subscription $2 a year; single copies 25 cents.

Focus on Business and Industry, is an April newcomer in the library bulletin field. It is published by the Indiana State Library, Indianapolis, in cooperation with the Public Relations Committee of the Indiana Library Association. "The purpose of this monthly publication is to foster and encourage library service to business and industry. The editorial responsibility rests with the Committee on Relations with Business and Industry of the Indiana Library Association. It is for the librarians in the smaller libraries in the smaller towns that this publication is primarily intended." The first issue consists of four leaves, typewritten.

The Free Lance Weekly is a market news service for writers, photographers, artists and cartoonists that began publication April 20. $4 for ten issues, 50 cents a copy. It is published every Saturday at 28 West 70th Street, New York 23.

Freedom & Union; Journal of the World Republic, edited by Clarence K. Streit, a monthly, began publication with an October issue. "It will champion the principle of individual liberty, equality and fraternity through an ever-peacefully-expanding federal union of the free, beginning with the new Atlantis." Published by Federal Union, Inc., 700 9th Street, NW, Washington 1. Subscription $4 a year anywhere in the world; 35 cents a copy.

Frequency Modulation Business is published monthly by Telecasting Publications, Inc., with publication office at Lebanon, Pa., and editorial, advertising and executive office at 103 Park Avenue, New York 17. Subscription $3 a year. Publication began last March.

Frozen Food Industry and Locker Plant Journal began with a November number. It is an illustrated monthly, published by Food Publications, at 205 East 42nd Street, New York 17. Subscription $3 a year; single numbers 50 cents.

Gala, a new Spanish language monthly to be edited and published in Latin America but printed in New York, will reach 15,000 newsstands in 500 cities January 25 and will guarantee 50,000 paid circulation for the first issue, dated February 1947. New York offices will be at 11 East 44th Street.

Gas Abstracts is published monthly by the Institute of Gas Technology, affiliated with Illinois Institute of Technology, Chicago. It consists of abstracts of papers appearing in current technical journals in the field of gas technology and related subjects.

Geriatrics, the official journal of the American Geriatrics Society, published bimonthly at 84 South Tenth Street, Minneapolis 2, began with a January-February issue. "It is devoted to research and clinical study of the diseases and processes of the aged and aging." It includes a section, Digests from current literature. Subscription $3 a year.

The Glasgow Art Gallery and Museums Association Review, first announced as *Art Review,* is a new beautifully illustrated quarterly, published by Art Gallery, Kelvingrove, Glasgow. Membership in the Association is open to all interested on payment of a minimum annual subscription of one shilling. Subscriptions in excess of the minimum are invited. The Review is indexed in the *Art Index.*

Goodyear's Magazine for Men is an illustrated house organ, published at 5031 Grandy Avenue, Detroit 11.

Grapevine is the national monthly journal of Alcoholics Anonymous, now in its second volume. Box 328 Grand Central Annex, New York 17. Subscription $2.50 a year; 25 cents a copy.

Graphic Arts Summary began publication last January as *Graphic Arts Review.* It is a monthly review and checklist of the leading articles on printing from printing trade journals and other periodicals on file at the Research Library, Printing Industry of America, 719 15th Street, NW, Washington 5, D.C.

Guia Oficial de Centro-America; Revista Mensual de Información y Propaganda Comercial, began publication with a February issue. Published by Enrique de la Flor, Tegucigalpa, D. C, Honduras, C. A. Subscription in Central America $2.50; in other countries $3.50.

Guide Posts, published by B'Nai B'rith Hillel Foundations, 212 Fifth Avenue, New York 10, will appear bimonthly in the school year.

The Guild Race Review, an illustrated monthly that began publication in May, presents news and views on horse racing and associated activities. Published by The Thoroughbred Guild, Connor Bldg, 6625 Delmar Blvd, University City 5 (St Louis Post Office), Missouri. Subscription $3 a year; single copies 35 cents.

Highlights for Children, a new illustrated monthly, began in June, edited by Garry Cleveland Myers, Ph.D. Its purpose is to provide the growing child with the best possible materials for the cultivation of his mental, moral, and spiritual development. It is published monthly, except July and August, at 37 East Long Street, Columbus, Ohio. Subscription $4 a year.

Holiday, a monthly devoted primarily to recreation and travel, is a Curtis Publication, similar in make-up to *Country Gentleman.* It began with a March issue. Subscription in the Western hemisphere, except the Guianas, $5 a year; other countries $7 a year; single number 50 cents.

Home Fashions Reporter, devoted to the home furnishing industries, that began publication with a May issue, has been purchased from Reporter Publications, by the Haire Publishing Company, 1170 Broadway, New York and will be incorporated into *Home Furnishings.* Subscription $5 a year; 50 cents a copy.

The Home Owner, that began in January, is an illustrated monthly, concerned with homes and their equipment, food, gardening, decorating, and other home matters. Published by the Home Owner Corporation, 80 Bolyston Street, Boston 16. Subscription rates: $1.50 a year; single copies 15 cents.

Imprimatur, a Literary Quarterly for Bibliophiles, is announced for January. It will carry articles on book collecting and kindred matters, such as fine printing, bibliography, bookbinding, private presses and illustrated editions, by eminent authorities on the subjects. It will be edited and published by Lloyd Emerson Siberell, assisted by Lawrence S. Thompson and L. M. Wilson. Price: four issues $2. Send subscriptions to Box 322, Winston-Salem 1, N.C.

In Short follows the pattern of other digest magazines. It is published monthly by William J. Smith, Inc., 350 East 22nd Street, Chicago; editorial and general offices at 420 Lexington Avenue, New York. Subscription $1.50 a year; single copies 15 cents.

India Quarterly, a publication of the Indian Council of World Affairs, is handled in this country by the Oxford University Press, 114 Fifth Avenue, New York. It is now in its second volume. Subscription $4.25 a year; single number $1.06.

Indian India, an illustrated monthly, is published by the Chamber of Princes, New Delhi, "to acquaint the world with the activities and achievements of Indian States in the social, economic, educational and industrial spheres." Price 12/- inland and 1 shilling foreign.

Indian Librarian, P. O. Forman College, Lahore, India, began with a June issue. It will be published quarterly in June, September, December and March. Subscription $3 a year; single copies Rs. 2.

Industrial Engineering Digest answers questions about production short cuts and methods and provides news for industrial engineers. The March issue, number three, has eight pages, newspaper size. Published by Kurtz Publishing Company, 106½ Pulaski Road, Chicago 24. Subscription $2 a year; single copies 25 cents.

Industrial Plastics is a controlled circulation magazine, published monthly "for the technical and shop men in the plastics and allied industries who design, process, fabricate, finish, assemble and use products made from plastics formulations." Published at 2460 Fairmount Boulevard, Cleveland 6. Subscription $2.50 a year.

Inspiration, the Magazine of Human Interest, began with a February number. Published monthly at 171 Madison Avenue, New York 16. Subscription $3 a year; single numbers 25 cents.

Integrity, a magazine about Catholic lay life today, began with an October issue. Its theme is "we must make a new synthesis of religion and life." Published monthly by Integrity Publishing Company, 1556 York Avenue, New York 28. Edited by Edward F. Willock and Carol Jackson. Subscription $3 a year; 25 cents a copy.

International America, an illustrated bimonthly, begins with a June-July issue. It plans "to reflect the diversified production of American industry in the field of consumer goods," and to become ultimately a source of full information for buyers abroad. The text is in English, but printed also in French and Spanish are Secretary Wallace's commendation and a quotation from Mrs. Roosevelt, "I hope that in foreign trade we will serve the best interests of every country we contact, for in that way we will serve our own." Published by Industrial World Trade Publications, 220 West 42d Street, New York 18.

International Journal is published quarterly by The Canadian Institute of International Affairs, 230 Bloor Street West, Toronto 5. Subscription price: in Canada and the United States, $3 a year; to teachers and students, $2.50; in the United Kingdom and other British countries, 15s. a year.

The *International Nursing Bulletin* is a quarterly publication of The International Council of Nurses, 1819 Broadway, New York 23. It is edited by Anna Schwarzenberg. Subscription $1 a year.

International Outlook, the Journal of the United Nations Association, volume 1, no. 4, February, gives an account of UNA's welcome to UNO. Published at 11 Maiden Lane, London, W.C. 2. 3d a copy.

The Jewish Community is a recent publication of the Council of Jewish Federations and Welfare Funds, 165 West 46th Street, New York 19. Volume 1, no. 3 is dated July. Subscription $1 a year.

Journal of Colloid Science, a bimonthly, is published by Academic Press, 125 East 23d Street, New York 10. The *Journal* is devoted to scientific, technological and biological aspects of colloid science. Subscription $10 a year.

Journal of Education, a quarterly, is published by the State University of Iowa. Subscription $2 a year. Address Business Office, University Hall, Iowa City.

Journal of Gerontology is published quarterly for the Gerontological Society by Charles C. Thomas, 301-327 East Lawrence Avenue, Springfield, Illinois. It is published in two parts, the second part being a non-technical supplement in which each article in the *Journal* is abstracted and rewritten in a style understandable by the average person. Editorial offices are at 507 South Euclid, St. Louis. Subscription in United States, Canada, Mexico, Cuba, Central and South America is $6; the Non-Technical Supplement, when purchased separately is $3; in other countries, $6.50 and $3.50. Single copies of the Journal are available at $1.50 and the Supplement at $1. Corresponding issues of the Supplement are sent at no extra charge with all issues of the Journal purchased.

Journal of High Polymer Research was announced as a new bimonthly periodical, to be published by Interscience Publishers, 215 Fourth Avenue, New York 3. The first issue of this periodical appeared as *Journal of Polymer Research,* with the announcement that an arrangement for a merger had been made with the Elsevier Publishing Company, who were also about to release the first issue of a journal on the same subject. With the title, *Journal of Polymer Science,* the new publication is now issued jointly by the two publishers. The subscription rate remains $8.50; single copies $1.75.

Journal of Industrial Hygiene and Toxicology has a ten-year index in preparation. The post-publication price is $15; advance orders $13.50. Orders should be sent to Journal of Industrial Hygiene & Toxicology, Mt. Royal & Guilford Avenues, Baltimore 2.

Journal of Insurance Medicine, a new quarterly, began with a June-July-August issue, published by The Insurance Index, 900 Baxter Avenue, Louisville 4, Kentucky. Subscription $3 in the United States; in Canada $3.50.

Journal of Negro Business, a monthly that began last January, is the official organ of the National Negro Business League. Published at Oklahoma City, Oklahoma. Subscription $2.50 a year; single copy 25 cents.

Journal of Personality. See *Character and Personality*

Journal of Soil and Water Conservation is published quarterly by Soil Conservation Society of America, 32d Street and Elm Avenue, Baltimore 11. It began with a July issue. Walter C. Gumbel is editor. Subscription $3 a year; single copies 75 cents.

Journal of the History of Medicine and Allied Sciences is a new quarterly, issued first in January, devoted to the prompt publication of work relating to all aspects of the history of medicine, public health, dentistry, nursing, pharmacy, veterinary medicine and the various sciences that impinge on medicine. Published by Henry Schuman, 20 East 70th Street, New York 21. Subscription $7.50 a year in the United States, Canada and Latin America; $8.50 in other countries; single copies, $2.50.

Labor and Nation is published bimonthly by the Inter-Union Institute for Labor and Democracy, 112 East 19th Street, New York 3. Subscription $7.50 a year; single copies 75 cents.

Latin American Thought is a quarterly four-page bulletin that aims to interpret the basic ideas and aspirations of intellectual leaders of Latin America. Articles and reviews are based on original Latin American publications not printed in English. The first issue is dated October 1945. Published and edited by John H. Hershey, 15 Hale Street, Bridgewater, Massachusetts. Subscription $1 a year.

Law and Social Action is a four-page monthly, published by Commission on Law and Social Action of the American Jewish Congress, 212 West 50th Street, New York 19. The first issue appeared in January.

The Lawyer and *Law Notes* have been combined in a new magazine with title *The Lawyer and Law Notes,* published jointly by the American Law Book Company and Edward Thompson Company, Brooklyn. Editor is August A. Cordes, 272 Flatbush Avenue Extension, Brooklyn 1.

Let's Go, the Magazine of Travel, is an illustrated quarterly, published at 545 Fifth Avenue, New York 17. Subscription $1 a year in United States and Canada; $1.50 in other countries. It is in its second volume.

Life magazine, international edition, to be distributed every other week to more than 70 nations thruout the world starting July 22, is announced. The fortnightly edition, made up of editorial material selected from the two previous domestic issues of *Life,* will circulate to most parts of the world excepting the U.S., Canada, Alaska and Hawaii, which will continue to receive *Life's* domestic edition.

Limited Edition changes its title to *Art Outlook* with the February issue and will appear hereafter on the first of each month. Published by Maude Kemper Riley, 360 East 55th Street, New York 22.

The *McGraw-Hill Digest,* an outgrowth of the Overseas Digest, technical manual published during the war and distributed free of charge to the armed services, will have an initial circulation of 20,000 copies covering all countries except the United States and Canada. Subscription rate is $5 a year.

Magazine Weekly is a news weekly for the magazine publishing industry. Subscription $4 a year; single copies 10 cents. Mailing address is P. O. Box 139 Station F, New York 16.

Magazine World became a semi-monthly with the March 1946 issue. Subscriptions $5 a year; single copies 25 cents. Editorial and business offices, 40 East 49th Street, New York 17.

Maine Coast Fisherman, a monthly in tabloid form, will report news of the Maine fishing industry as well as news of all national wholesale and retail seafood markets.—*Advertising and Selling.*

Mécanique Populaire is the French edition of *Popular Mechanics Magazine,* appearing in France, Switzerland and Belgium.

The Mining Journal and *Mining World* have merged, retaining *Mining World* as the name of the enlarged magazine. The journal is edited and published at 121 Second Street, San Francisco 5. Subscription $3 a year; single copy 35 cents.

Model and Hobby Industry began publication with a July number. Published monthly at 1700 Walnut Street, Philadelphia 3. Subscription $2 a year; single copies 25 cents.

Modern Distribution, 347 Madison Avenue, New York 17, is a weekly service presenting "news, developments and forecasts for marketing more goods at lower costs," in a four page bulletin, and in a pictorial four page section, also weekly. An additional service is the publication of frequent supplementary reports "spot-lighting profitable opportunities in specified lines and territories." Subscription $25 a year.

Modern Medicine of Canada; Journal of Diagnosis & Treatment, began with an October number. It is a monthly digest of medical literature published by W. W. Seccombe, 9 Duke Street, Toronto 2. Subscription $2.50 a year; 25 cents a copy.

Music of the West is a "monthly report to the Nation on music and musicians of western America." Published by Voice Publications, Clyde J. Garrett, President and Editor, 20 West Colorado Street, Pasadena 1, California. Subscription one dollar a year; single numbers 15 cents.

Musicology, a quarterly, began publication with an Autumn 1945 number. Subscription $4 a year; single copies one dollar. Published by M & H Publications, P. O. Box 476, Middlebury, Vermont.

N B C Digest, a new quarterly of "digest" size, began with an October issue. In this issue are included the broadcasts of Secretary Byrnes on United States policy in Germany, Omar Bradley on Our responsibility to the veterans, Edwin W. Pauley on Reparations and lasting peace, and other broadcasts. Published by National Broadcasting Company, 30 Rockefeller Plaza, New York 20. Subscription 50 cents a year.

National Petroleum News began July 29, 1942, to publish its monthly technical section separately as part 2 of the regular issue, with the subtitle Refinery Management and Petroleum Chemical Technology. With the September, 1946, issue this technical section bears a new title, *Petroleum Processing,* volume 1, number 1, becoming an independent monthly with a subscription price of $3. It is indexed in the Industrial Arts Index as the successor to *National Petroleum News,* section 2.

New Books Digest is a monthly digest of best-selling books, condensed in the authors' words. It began in March. Paul Sarazen is editor. Published by Publishers Service Company, 75 West Street, New York 6. Subscription $4 a year; 35 cents a copy.

New South, that The Southern Regional Council began publishing in January, takes the place of *Southern Frontier. New South* will have from eight to twelve pages each month with the exception of once each quarter when an enlarged issue will deal with a subject of particular interest to the South. The first quarterly edition, "Wanted: The South's Future for the Nation," based on Dr. Rupert B. Vance's new book "All These People," was published in March. Address of the Council is Room 432, 63 Auburn Avenue, N. E. Atlanta 3, Georgia. Subscription $1 a year.

News Letter of the Institute of Ethnic Affairs, 1719 K Street, NW, Washington 6, began publication in February. The second number, dated April, discusses Trusteeship, independent peoples, and United Nations London accomplishment. Free upon request.

Newsdealer, business paper for publication retailers, began publication with a March issue. Roy Quinlan is editor and publisher. A feature of the periodical is a magazine directory, to be revised each month. Subscription $3 a year; Canada $4; foreign $5; single copies 25 cents. Publication office 40 East 49th Street, New York 17.

Northern Review; New Writing in Canada is a bimonthly that began with a December-January number. It contains poetry, stories, articles and reviews. Published by the First Statement Press at 635 St Paul Street W., Montreal. Subscription $2 a year; 35 cents a copy.

Northwest Host, a monthly that began last January, serves hotels, restaurants, resorts of Minnesota, the Dakotas, Montana, northern Wisconsin, Iowa, and Michigan. Published the 20th of each month by Richard L. Forrest Publishing Company, 808 Thorpe Building, Minneapolis 2.

NYSAC News Letter which The New York State Aviation Council began publishing in February, is a four-page processed bulletin. Address: P. O. Box 1283, Syracuse, New York.

Occupational Medicine, an illustrated monthly, is published by the American Medical Association, 535 North Dearborn Street, Chicago 10. William A. Sawyer, 343 State Street, Rochester, New York, is editor-in-chief. Many of the illustrations are in color. An abstract section of considerable extent is included. Publication began in January. Subscription $6 a year.

Oil Forum, a new monthly devoted to the national and international petroleum industry, will be published by Orchard Lisle Publications, 80 Warren Street, New York. Eliminating news coverage and purely descriptive articles, it will publish views and opinions of qualified persons on all phases of management, engineering, operation and legislation of the petroleum industry. Subscription $1 a year.

Opportunities on Parade is "wholly devoted to bringing together people who want something and all the things they want." It began with a May number. Published by Chelle Janis, 150 Powell Street, San Francisco. Subscription $3 a year; single number 25 cents.

L'Orientation Technique, a new review of general technology, aims to outline the trends of scientific research and their repercussion on the various branches of industry. "It includes otherwise unpublished papers by eminent research workers and a wide and carefully compiled selection of abstracts from the world press." M. R. Bazannery, of the École Centrale des Artes et Manufactures, is editor.—*Chemistry and Industry.*

Our Lady's Digest, Olivet, Illinois, is published monthly, September to June; with July-August a combined number. "It contains Marian articles of outstanding interest chosen from Catholic books and periodicals." Subscription price $2 a year; single copies 20 cents.

Our Merchant Fleet began publishing, January, to furnish background information on the composition, use and problems of the Merchant Marine. It is intended primarily for schools. To have your name put on the mailing list send a postcard to Education Section, Division of Information, Maritime Commission, Washington 25, D.C.

Our World is a picture magazine for the Negro family, published monthly by John P. Davis, 1440 Broadway, New York 18. Subscription $1.50 a year; single copies 15 cents.

Pacific, a literary journal, began publication last November. The second number, January 1946, announces that suitable advertising will be accepted. Published four times a year by Mills College, Oakland 13, California, Box 467. Subscription $2 a year; single number 50 cents.

Pacific Pathways is a pictorial monthly that began publishing last March, intended to present the attractions of the Pacific Coast to travelers. Many of the illustrations are in color. Published by Pacific Highways, 416 West Eighth Street, Los Angeles 14. Subscription $3.50 a year.

Palestine Economist, edited by Ernst Kahn and Emil Kollek, is a monthly, now in its second volume, published at 8 Keren Kajemeth Street, Jerusalem. Subscription £P 1.500. D. B. Aaronson, agent, P.O.B. 1175, Jerusalem, Palestine.

Papel e Imprenta, Spanish language publication for the paper and printing industry of Latin America, a bimonthly, goes to paper importers, distributors, manufacturers, converters and printers south of the border. Offices are at 22 East Huron Street, Chicago 11.

Parnassus, a new poetry magazine, is published monthly at 367 Woodbine Avenue, Toronto 8, Canada, by James Penman Rae. It includes poems, articles, reviews, and criticisms. Subscription $2 a year; single copies 25 cents.

Petroleum Processing is the new name of National Petroleum News, Technical Section, part 2.

Philips Research Review, a new bimonthly, contains physical, chemical and technical papers dealing with the result of research work, experimental and theoretical, executed in the laboratories of the N. V. Philips Gloeilampenfabrieken Eindhoven (Netherlands). It is published in English. Number two is dated January, 1946. The volume will be completed in December, 1946 (six numbers). Subscription $5; single numbers $1.

Phoebus is a new quarterly, published in Basle, devoted to the service of international research in art—"a journal of art in all ages." The text in the first number is predominantly German. It is generously illustrated. Published by Holbein Publishing Company, Basle, Switzerland. Subscription $5.60 in the United States; single copies $1.50. Size 31 x 23 cm.

Photographic Age; Business and Industrial Photography, an illustrated monthly, began with a July number, and will serve photographic manufacturers, commercial photographers and business and industry in general. It will cover photography as an instrument in training and educating employees, in research work, in selling and advertising and in its various other applications. Published by Trans-World Publishing Company, 16 East 52d Street, New York 22. Subscription $4 a year; 50 cents a copy.

Plain Talk, published monthly beginning with an October issue, at 240 Madison Avenue, New York 16, will "report on the totalitarian underground." Isaac Don Levine is editor. Subscription $3 a year in the United States; elsewhere $4; single copies 25 cents.

Poland of Today is a monthly bulletin of information from the Library of the Polish Embassy. The first number is dated March. Publishing office is at 151 East 67th Street, New York 21.

Polemic, a new magazine of philosophy, psychology and esthetics, is published by Rodney Phillips & Company Limited, 5 Bathurst Street, London, W.2. Its method is to publish articles written from different and opposite points of view on all subjects directly and indirectly relevant to the editorial purpose. Edited by Humphrey Slater. 2s 6d a copy.

Practical English, a new national magazine of English and the communication arts, is designed for high school students in general, business, or vocational courses, and is published weekly during the school year, by Scholastic Magazines, 220 East 42d Street, New York 17. Subscription $2 a school year.

Prep; Preparation for Practical Living, that began with a September 16 issue, is another magazine for high school students, published weekly during the school year by Scholastic Magazines, 220 East 42d Street, New York 17. Subscription $2.50 a school year.

Profitable Hobbies begins its second volume (June) enlarged in size and with a new dress. It is twenty-five cents a copy; annual subscriptions $3 in the United States and its possessions, and in the countries of the Pan American Union; $3.50 in Canada; foreign subscriptions, $4. Published monthly by Modern Handcraft, 3958 Central Street, Westport Station, Kansas City, Missouri.

Progress Thru Research, beginning with an October issue, is published quarterly by General Mills, Inc., Research Laboratories, 2010 East Hennepin Avenue, Minneapolis 13. It will carry reports of General Mills' research activities, new products, new methods and semi-popular informational articles on scientific subjects. Distribution will be free within the continental United States. Indexed in *Agricultural Index.*

Public Relations Journal is a monthly publication of the American Council on Public Relations, sent to all members in the United States and Canada as a part of the Council service. Subscriptions are offered to individuals, libraries and institutions that are non-members at $5 a year, 50 cents a copy. Editorial and advertising offices are at 369 Pine Street, San Francisco.

Public Works News, a national newspaper of public works, is published every other week by Lebhar-Friedman Publications, 145 East 32d Street, New York 16. Subscription $5 a year; 25 cents a copy.

The Quarterly Review of Pediatrics, is an abstract journal published by the Washington Institute of Medicine, 1720 M Street, NW, Washington 6. Dr. Irving J. Wolman, Philadelphia, is editor. Subscription $9 a year.

Quarterly Review of Psychiatry and Neurology began publication with a January number. It is edited by Winfred Overholser, M.D., Professor of psychiatry, George Washington University School of Medicine. The purpose of the *Review* is to present promptly brief abstracts, non-critical in character, of the more significant articles in the periodical medical literature of Europe and the Americas. This is the seventh in the Quarterly Reviews, published by the Washington Institute of Medicine, 1720 M Street, NW, Washington 4. Subscription $9 a year.

Quarterly Review of Urology is a recent addition to the list of quarterlies published by the Washington Institute of Medicine, 1720 M Street, NW, Washington 6. The first number is dated March 1. Subscription $9 a year.

Radio & Appliances, a new monthly is published at 185 N. Wabash Street, Chicago.

Radio Maintenance appeared in two quarterly issues in 1945. It becomes a monthly with the January 1946 issue. Published by Boland & Boyce, Inc., 295 Broadway, New York 7. Subscription rates: In U.S., Mexico, South and Central America, and U.S. possessions, $2 a year; single copies 25 cents; in Canada, $2.50 a year; single copies 30 cents; in British Empire, $3 a year; single copies 40 cents; all other foreign countries, $4 a year.

Radio Market Guide is a "monthly service for radio advertising, marketing, merchandising and promotion" that began publication in November. With it is merged the *Radio Advertising Review.* The *Guide* gathers and compiles basic coverage data from all radio stations. It is published by Radio Market Guide Publishing Company, 360 North Michigan Avenue, Chicago 1. $12 a year.

Recovery Journal, beginning with a June issue, is a monthly magazine for the study of self-help methods in the treatment of nervous and former mental patients. Published by Recovery Inc, 185 N. Wabash Avenue, Chicago. Subscription $2 a year; for members of Recovery $1.

Refrigeration Abstracts is the name of a new abstract journal, published quarterly by the American Society of Refrigerating Engineers, 40 West 40th Street, New York 18. Professor J. Mack Tucker, University of Tennessee, is editor. Subscription prices: domestic, $7 a year; foreign, $8 a year.

Revista Bolivariana, the organ of the Sociedad Bolivariana de Mexico, began publication in Mexico, D. F., with a July issue.

Revista de Economía Continental is a new monthly published in Mexico, D. F., beginning with an August issue. Subscription $2 a year.

Science Illustrated, a new McGraw-Hill monthly, began publication in April. Address all correspondence regarding subscriptions to J. E. Blackburn, jr., Director of Circulation, Science Illustrated, 330 West 42d Street, New York 18. Subscription $3 a year; single copies 25 cents.

The Screen Writer, a monthly, published by The Screen Writers Guild, is edited by Dalton Trumbo. Subscription $2.50 a year; single copies 25 cents. The Guild offices are at 1655 No. Cherokee Avenue, Hollywood 28, California.

Sea Breezes, the Ship Lovers' Digest, is a small-size illustrated monthly published by Charles Birchall & Sons, 17 James Street, Liverpool 2. Suspended during the war, it resumed publication in January 1946, New series, volume one, in smaller size.

The 16 Millimeter Reporter began publication March 2, as a weekly digest of events in the 16mm, 8mm and non-theatrical film industry. Published by Douglas N. Taussig, 545 Fifth Avenue, New York 17. Subscription $10 a year; single copies 20 cents.

Social Service Digest, a digest of social work literature, began publication in May as an aid to social workers. It will prove of interest to many others. Joseph Andriola is editor. Published monthly except July and August by Social Service Digest, 373 Spreckels Building, San Diego 1, California. Subscription $3 a year; single copies 35 cents.

The South Dakota Certified Public Accountant Bulletin is published quarterly by the South Dakota Society of Certified Public Accountants, Vermillion, S.D.

Southern Building Supplies, a monthly, is mailed without charge to the wholesale and retail lumber and building material dealers in eighteen southern and southwestern states and the District of Columbia. To others subscription price is $2 a year; 25 cents a copy. Published by W. R. C. Smith Publishing Company, Grant Building, Atlanta 3, Georgia.

Southern California Forum, a new weekly publication for readership among wage-earners, is sponsored by the Merchants and Manufacturers Association of Los Angeles.

Southern Plastics is published monthly at 44½ Marietta Street Building, Atlanta 3, Georgia. Subscription $2 a year; 25 cents a copy.

Southland Magazine, an illustrated quarterly, is published at 44½ Marietta Street, P. O. Box 1251, Atlanta, Georgia. First issue December 1945. Subscription $3 a year; single number 25 cents.

The Soviet Theatre is issued irregularly (for the present) by the Theatre Committee, National Council of American Soviet Friendship, 114 East 32d Street, New York 16. Number one is dated February. A similar periodical from the same source bears the title *The American Theatre.* Membership in the National Council is $3 a year, including bulletins.

Sportfolio; Illustrated All-Sports Digest, a monthly, began publication in July at East Carolina Avenue, Clinton, South Carolina. Subscription $3 a year; single copies 25 cents.

The *STM Book News* is intended to fill every need of the librarian or individual who uses scientific, technical or medical books. It is a bi-monthly, beginning with an April issue. The books published within the two-months period are classified, with full bibliographical details, prices, publishers, and notes as to contents. Following this is a list, similarly classified, of books to be published during the next four months. Then follows, on pages 40 to 61, a list of books published during 1945. The final section lists outstanding reference books. Additions to the List of books published during 1945 and Outstanding reference books will be included in the cloth bound volume, titled "STM Reference Guide," to be published June 1, 1946. Publisher is W. E. Falk, 701 Main Street, Cincinnati 2. Subscription to *STM Book News* $3.50 a year. STM Reference Guide, bound in cloth $2.

Story Digest is published monthly by Popular Publications, Inc., 2256 Grove Street, Chicago 16; Editorial and executive office, 205 East 42d Street, New York 17. It provides a story a day. Subscription $2.50 a year; single number 25 cents.

The Storyteller; Britain's Miniature Modern Fiction Digest, began publication in February. Published monthly by Pan Press Publications, Thanet House, 231, Strand, London, W.C. 2.

Suma Bibliográfica, Guia del Lector Hispanoamericano, is a monthly review published in Mexico, D.F. Subscription $2; single numbers 20 cents.

Tax Law Review, a new quarterly, is published by New York University. Subscriptions should be sent to Miguel deCapriles, Business Manager, New York University School of Law, Washington Square, New York 3. The price is $5 a year.

Tennis: Amateur—Professional, is a 24-page monthly, the official organ of the Professional Lawn Tennis Association of the United States. Price is $2.50 a year. Publication offices are in Greenwich, Connecticut, Box 877.

Travel America, a semi-annual published by Ahrens Publications, 71 Vanderbilt Avenue, New York 17, serves the informational needs of the traveler. 50 cents a copy.

Travel and Camera, a large-size illustrated monthly, is published by United States Camera Publishing Corporation, 420 Lexington Ave., New York 17. The August issue is the first. Subscription $3.75 a year; 35 cents a copy.

The Trollopian is a semiannual journal devoted to studies in Anthony Trollope and his contemporaries in Victorian fiction. Published by University of California Press. Subscription $1.75 a year; $1 a copy. Subscriptions, remittances, and all editorial communications should be addressed to The Trollopian, Royce Hall 310, University of California, Los Angeles 24, California.

True Police Cases, is published monthly by Fawcett Publications, 1501 Broadway, New York. 25 cents a copy.

Turismo en la Argentina is an illustrated magazine, the official quarterly organ of La Direccion de Parques Nacionales Y Turismo, Ministerio de Agricultura, Buenos Aires. Price $.30 a copy.

Two To Six, for parents of very young children, is published monthly at 420 Madison Avenue, New York. Subscription $2 a year

United Nations News, published by Woodrow Wilson Foundation, 45 East 65th Street, New York 21, is a new monthly, the first issue appearing in January. Subscription $2 a year.

United Nations Weekly Bulletin began publication August 3. It is issued by the Department of Public Information in order to provide a concise account of the activities of the United Nations and its specialized agencies. Proceedings and resolutions are reported and events set in perspective by background information. The periodical publishes messages and statements from leading United Nations personalities, surveying the work of the parts of the organization with which they are connected. English and French editions are published at the temporary headquarters of the United Nations at Lake Success, Nassau County, New York. Price of single copies of the English and French editions is 15 cents and the annual subscription $6. It is distributed in North and South America by International Documents Service, Columbia University Press, 2960 Broadway, New York 27. This publication is indexed in the *Readers' Guide.*

United States Cuban Sugar Council Bulletin began publication with a May issue. The Council is a group of companies owning or operating sugar properties in Cuba, the stockholders of which are predominantly United States citizens. Published monthly at 136 Front Street, New York 5.

U.S. Home, with subtitle "house and apartment ideas for modern living," is an illustrated bimonthly, the first issue dated October. Published by Harvey Publications, Inc, 1117 Wolfendale Street, Pittsburgh. Subscription $1.80; single numbers 15 cents.

Universities Quarterly, a new English magazine, announced for November, will be devoted to the aims and methods of university education and problems of administration. Subscription one pound ($4) a year; five shillings ($1) an issue. Prepublication rate $3.

The Vanguard, a laymen's magazine of social welfare, is devoted primarily to preventing delinquency. It began last March as a quarterly with the expectation of monthly publication in 1947. Published by The Continental Press, Box 476, Cleburne, Texas. Subscription $1 a year.

West Coast Hobby Manual, a monthly, beginning in June, is published by H. Lyle Thomas, 117 E. Colorado Street, Pasadena 1. Subscription $2.50 a year; 25 cents a single copy. It is a magazine for antique dealers, collectors and hobbyists.

The World in Books is announced for June, with a minimum of 16 pages of tabloid size and reviewing from three hundred to five hundred books. Thirty thousand copies will go to the book trade and libraries and seventy-thousand to newsstands. Published by United Publishers Association, 30 Winchester Street, Boston 16. New York office, 16 East 43rd Street. Five cents a copy.

World Report, the Weekly Newsmagazine of World Affairs was noted in the February Index. This new weekly is published at 24th and N Street, NW, Washington 7. Lloyd Lehrbas is Executive editor; Russell Willson, Associate editor. Subscription $4 a year in the United States and Pan American Union countries; $5 in other countries; single copies 15 cents.

World Wide Music of the Month contains compositions of classic, semi-classic, opera and dance music arranged for piano solo (grades 3-5) and also articles and news about music and musicians, and the theater and radio. Subscription and free membership in Standard Music Society, 20 Broadway, New York 7, $5.

Young Democrat, official organ of the Affiliated Young Democrats, Inc. of New York State, issued a double number, March-April (volume 1, no. 7). Subscription $3 a year; 25 cents a copy. Published at 8 East 41st Street, New York 17.

Your Music is similar in format to various digest magazines, but except for condensing one book a month, it is made up of original contributions, covering all kinds of music and subjects of interest to music lovers. Publication began December, 1945, at 359 Lexington Avenue, New York 17. Subscription $3 a year; single copies 25 cents.

Your Own Home, a new monthly that began with a June number, provides sketches and plans, decorating ideas, and services for the homeowner. At least 12 house plans are to be included in each number, ranging from the small bungalow to the four bedroom house. Published by Style Publications, Inc., 221 Conyngham Street, Wilkes-Barre, Pennsylvania. Executive Offices, 60 East 42nd Street, New York 17. Subscription $1.80 a year; single copies 15 cents.

List of Periodicals Indexed

A S M E Trans—Transactions of the American Society of Mechanical Engineers. $12; single numbers $1.50. m (except Mr, Je, S, D) American Society of Mechanical Engineers, 29 W 39th St, New York 18 (1v:Ja v68;i-l)
$7.50 to members and affiliates

Acoustical Soc Am J—Journal of the Acoustical Society of America. $8; single numbers $1.80. q American Institute of Physics, 57 E 55th St, New York 22 (1v:Jl v18;i-s)
Indexing began July 1940 v 12, no 1
Became a bimonthly January, 1947

Adv & Sell—Advertising and Selling. $4; single numbers 35c. m Robbins Pub. Co, Inc, 9 E 38th St, New York 16 (1v:Ja v39;i-none)

Advanced Management—Advanced Management, $6; single numbers $1.50. q Society for the Advancement of Management, Inc, 84 William St, New York 7 (1v:Mr v11;i-l)
Formerly Society for the Advancement of Management Journal, a bi-monthly

Aero Digest—Aero Digest. $3; single numbers 50c. m Aeronautical Digest Pub. Corp, 515 Madison Av, New York 22 (2v:Ja,Jl v52-53; i-s)
Published semi-monthly beginning January 1944, changed to monthly beginning January 1946

Aeronautical Eng R—Aeronautical Engineering Review. $3; single numbers 30c. m Institute of the Aeronautical Sciences, Inc, 2 E 64th St, New York 21 (1v:Ja v5;i-s)
Formerly Journal of the Aeronautical Sciences, Aeronautical Review Section

Air Transport—Air Transport. $3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v4;i-none)
Began publication September, 1943

Am Assn of Textile Chemists and Colorists. Proceedings. Published in American Dyestuff Reporter

Am Assn Pet Geologists Bul—Bulletin of the American Association of Petroleum Geologists. $15; single numbers $1.50. m American Association of Petroleum Geologists, Inc, Box 979, Tulsa 1, Oklahoma (1v:Ja v30;i-s)

Am Bankers Assn J. See Banking

Am Bld—American Builder and Building Age. $3; single numbers 35c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v68;i-none)

Am Bsns—American Business combined with System. $3; single numbers 35c. m Dartnell Publications, Inc, 4660 Ravenswood Av, Chicago 40 (1v:Ja v16;i-none)
Indexing began August 1935 when it was combined with System

Am Cer Soc Bul—Bulletin of the American Ceramic Society $1.50; single numbers 25c. m American Ceramic Society, 2525 N High St, Columbus 2, Ohio (1v:Ja v25;i-s)
Ceramic Abstracts, formerly published as part of the Bulletin, is included in American Ceramic Society Journal beginning January 1946

Am Cer Soc J—Journal of the American Ceramic Society; Ceramic Abstracts. $15; single numbers $1.50. m American Ceramic Society, 2525 N High St, Columbus 2, Ohio (1v:Ja v29;i-s)

Am Chem Soc J—Journal of the American Chemical Society. $8.50; single numbers 75c. m American Chemical Society, 1155 16th St, N.W, Washington 6, D.C. (1v:Ja v68;i-s)

Am Concrete Inst J—Journal of the American Concrete Institute. $7.50; single numbers $1.50. 6 times a year (S, N, Ja, F, Ap, Je) American Concrete Institute, 7400 Second Blvd, Detroit 2, Mich. (1v:S v18;i-l)
Changed to monthly (S to Je) with September 1946 number. Single copies $1.25

Am Dyestuff Rep—American Dyestuff Reporter. $5. bi-w Howes Pub. Co, 1 Madison Av, New York 10 (1v:Ja v35;i-s)
Includes Proceedings of American associations of textile chemists and colorists

Am Gas Assn Mo—American Gas Association Monthly. $3. m (bi-m Jl-Ag) American Gas Assn, Inc, 420 Lexington Av, New York 17 (1v:Ja v28;i-l)

Am Gas Assn Proc—American Gas Association Proceedings. Annual convention proceedings. annual American Gas Association, Inc, 420 Lexington Av, New York (27th annual convention, 1945)

Am Gas J—American Gas Journal. $2; single numbers 25c. m American Gas Journal, Inc, 53 Park Pl, New York 7 (2v:Ja,Jl v164-165; i-l)

Am Inst Banking Bul—Bulletin of the American Institute of Banking. $1; single numbers 25c. q American Bankers Assn, American Institute of Banking Section, 12 E. 36th St, New York 16 (1v:Ja v28;i-r)

Am Inst Chem Eng Trans—American Institute of Chemical Engineers. Transactions. $10; single numbers $2. bi-m American Institute of Chemical Engineers, 50 E 41st St, New York 17 (1v:F v42;i-s)
Published as section of Chemical Engineering Progress beginning with v43, January, 1947

Am Inst E E J. See Elec Eng

Am Inst of Mining and Metallurgical Engineers. See Min & Met

Am J Sci—American Journal of Science. $6; single numbers 60c. m American Journal of Science, New Haven, Conn. (1v:Ja v244;i-s)

Am Mach—American Machinist. $5; single numbers 35c. bi-w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v90;i-r)

Am Pet Inst Proc—American Petroleum Institute Proceedings, 50 W 50th St, New York

Am Soc C E Proc—Proceedings of American Society of Civil Engineers. $8; single numbers $1. m (except Jl and Ag) American Society of Civil Engineers, 33 W 39th St, New York 18 (1v:Ja v72;i-s)

Am Soc for Metals Trans—Transactions of the American Society for Metals. 2v v34, 35 '45 American Society for Metals, 7301 Euclid Av, Cleveland 3, Ohio
Published in 2 volumes soon after annual meeting
v 34 indexed in this volume
Formerly Transactions of American Society for Steel Treating

Am Soc Heat & V E J. See Heating-Piping

Am Soc M E J. See Mech Eng

Am Soc M E Trans. See A S M E Trans

Am Soc Steel Tr Trans. See Am Soc for Metals Trans

Am Soc T M Proc—American Society for Testing Materials. Proceedings. annual American Society for Testing Materials, 1916 Race St, Philadelphia 3 (1v:v45)

Publications of societies, institutions, etc. are listed under the names of the organizations. i-l=index sent loose; i-r=index sent upon request; i-s=index stitched in volume.
Month abbreviation followed by volume number=Month in which new volume begins and the number of the new volume beginning in 1946.

Am Stat Assn J—Journal of the American Statistical Association. $6; single numbers $1.50. q American Statistical Association, 1603 K St, N.W, Washington 6, D.C. (1v:Mr v41;i-s)

Am Water Works Assn J—Journal of the American Water Works Association. $7; single numbers 75c, to members 50c. m American Water Works Assn, 500 Fifth Av, New York 18 (1v:Ja v38;i-s)
Index, 1940-1944 published as pt. 2 of March '45 number

Ann Am Acad—Annals of the American Academy of Political and Social Science. $5; single numbers $2. bi-m American Academy of Political and Social Science, 3457 Walnut St, Philadelphia 4 (6v:Ja,Mr,My,Jl,S,N v243-248; i-s)
Published also in cloth $7.50; single numbers $2.50

Arch Forum—Architectural Forum. $4; single numbers $1. m Time, Inc, 540 North Michigan Av, Chicago 11 (2v:Ja,Jl v84-85;i-r)

Arch Rec—Architectural Record. $4.50; single numbers $1. m F. W. Dodge Corp, 119 W 40th St, New York 18 (2v:Ja,Jl v99-100;i-l)

Assn of Sp Lib & Inf Bur Proc—Association of Special Libraries and Information Bureaux Proceedings. 6s. annual Association of Special Libraries and Information Bureaux, 52, Bloomsbury St, London, W C. 1
Not published in 1940 or 1941
1945 indexed in this volume

Automobile Eng—The Automobile Engineer. £1 17s 4d; single numbers 2s 6d. m Iliffe & Sons, Ltd, Dorset House, Stamford St, London, S E. 1 (1v:Ja v36;i-r;cost 6d)
Annual extra number published in November

Automotive & Aviation Ind—Automotive and Aviation Industries. $1; single numbers 25c. s-m Chilton Co, Chestnut & 56th Sts, Philadelphia 39 (2v:Ja,Jl v94-95;i-none)
Formerly Automotive Industries
Price of March 15 issue is 50c

Aviation—Aviation. $5; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v45;i-none)

Aviation N—Aviation News. $5; single numbers 50c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (2v:Ja,Jl v5-6;i-none)
Began publication August 2, 1943

Bankers Mo—Bankers Monthly. $5; single numbers 50c. m Rand McNally & Co, 536 South Clark St, Chicago 5 (1v.Ja v63;1-none)
Formerly Rand McNally Bankers Monthly

Banking—Banking; Journal of the American Bankers Association. $3; single numbers 25c. m American Bankers Association, 12 E 36th St, New York 16 (1v:Jl v39;i-r)
Formerly American Bankers Association Journal

Banking Law J—Banking Law Journal (combined with the Bankers Magazine) $8; single numbers 75c. m Bankers Publishing Co, 465 Main St, Cambridge 42, Mass. (1v:Ja v63;i-s)
Combined with Bankers Magazine, July 1943

Barron's—Barron's. $10; single numbers 25c. w Barron's Pub. Co, Inc, 40 New St, New York 4 (1v:Ja v26;i-r)

Bell System Tech J—Bell System Technical Journal. $1.50; single numbers 50c. q American Telephone and Telegraph Co, 195 Broadway, New York (1v:Ja v25;i-r)

Blast F & Steel Pl—Blast Furnace and Steel Plant. $2.50; single numbers 50c. January and August numbers $1 ea. m Steel Publications, Inc, Thaw Bldg, 108 Smithfield St, Pittsburgh 30, Pa. (1v:Ja v34;i-s)

Boston Soc C E J—Journal of the Boston Society of Civil Engineers. $4; single numbers $1. q Boston Society of Civil Engineers, 715 Tremont Temple, Boston (1v:Ja v33;1-s)

Brick & Clay Rec—Brick and Clay Record. $5; single numbers 50c. m Industrial Publications, Inc, 59 E Van Buren St, Chicago 5 (2v:Ja,Jl v108-109;i-s)

Bsns W—Business Week. $5; single numbers 20c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (without v no;i-r)

Burroughs Clearing House—Burroughs Clearing House. m Burroughs Adding Machine Co, Second Blvd. and Burroughs Av, Detroit 32, Mich. (1v:O v31;i-none)

Bus Transportation—Bus Transportation. $5; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v25; i-r)
Price of January issue is $1

CAA J—CAA Journal; issued monthly by the Civil Aeronautics Administration. 50c. m Superintendent of Documents, Washington 25, D C. (1v:Ja v7;i-s)
Formerly Civil Aeronautics Journal; name changed with April 15, 1945 number

Can Chem & Process Ind—Canadian Chemistry and Process Industries. $4; single numbers 40c. m Westman Publications, Ltd, 137 Wellington St, West, Toronto, Ont. 1 (1v:Ja v30; i-r)
Formerly Canadian Chemistry and Metallurgy

Can Min J—Canadian Mining Journal. $3; single numbers 25c. m National Business Publications, Ltd, Gardenvale, Que. (1v:Ja v67;i-s)

Cer Ind—Ceramic Industry. $4; single numbers 50c. m Industrial Publications, Inc, 59 E Van Buren St, Chicago 5 (2v:Ja,Jl v46-47;i-s)
Price of January issue $2

Chem Age (Lond)—The Chemical Age. 26s; single numbers 10d. w Benn Brothers, Ltd, Bouverie House, 154 Fleet St, London, E.C. 4 (2v:Ja,Jl v54-55;i-r)

Chem & Eng N—Chemical and Engineering News. $2; single numbers 15c. s-m American Chemical Society, 1155 16th St, N.W. Washington 6, D.C. (1v:Ja v24;1-s)
Changed to weekly 1947

Chem & Ind—Chemistry and Industry. £2 15s. single numbers 2s. w Society of Chemical Industry, 56 Victoria St, London, S.W.1 (without v no;i-r)
Published as section of Journal of the Society of Chemical Industry until 1937

Chem & Met Eng—Chemical and Metallurgical Engineering. $3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v53;i-r)
Name changed to Chemical Engineering August, 1946

Chem Eng—Chemical Engineering. $3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v53;i-l)

Chem Ind—Chemical Industries. $4; single numbers 50c. m Maclean-Hunter Pub. Corp, 309 W Jackson Blvd, Chicago 6 (2v:Ja,Jl v58-59;i-l)
Published twice in November; regular issue 75c; second issue, Buyer's Guidebook number

Chem R—Chemical Reviews. $9. ($7 to members of American Chemical Society) bi-m Williams & Wilkins Co, Mount Royal and Guilford Avs, Baltimore 2, Md. (2v:F,Ag v38-39;1-s)

Chem Soc J—Journal of the Chemical Society. £3 15s. m D. C. Martin, The Chemical Society, Burlington House, Piccadilly, London, W. 1 (without v no;i-l)

Chimie & Ind—Chimie & Industrie. m Société de Chimie Industrielle, 28 Rue Saint-Dominique, Paris, France (7e)
Indexing resumed 1946
January thru March indexed in this volume. Succeeding issues will be indexed in 1947 current numbers when obtainable

Civil Aero J—Civil Aeronautics Journal. See CAA J

Civil Eng—Civil Engineering. $5; single numbers 50c. m American Society of Civil Engineers, 33 W 39th St, New York 18 (1v:Ja v16; i-s)

Coal Age—Coal Age. $5; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v51;i-r)

Comm & Fin Chr—Commercial & Financial Chronicle. $35; single numbers Monday ed. 75c, Thursday ed. 30c. s-w William B. Dana Co, 25 Park Pl, New York 8 (2v:Ja,Jl v163-164;i-l)

Comp Air Mag—Compressed Air Magazine. $3; single numbers 35c. m Compressed Air Magazine Co, Phillipsburg, New Jersey (1v:Ja v51; i-r)

Concrete—Concrete. $3; single numbers 40c. m Concrete Pub. Corp, Daily News Plaza, 400 W Madison St, Chicago 6 (1v:Ja v54;i-s)

Consumers Res Bul—Consumers' Research Bulletin (Not Confidential). $3; single numbers 30c. m Consumers' Research, Inc, Washington, New Jersey (2v:Ja,Jl v17-18;i-s)

Credit & Fin Management—Credit and Financial Management. $3; single numbers 25c. m National Association of Credit Men, 1309 Noble St, Philadelphia 23, Pa.; 1 Park Av, New York 16 (1v:Ja v48;i-s)

Diesel Power—Diesel Power and Diesel Transportation. $3; single numbers 35c. m Diesel Publications, Inc, 192 Lexington Av, New York 16 (1v:Ja v24;i-none)

Dom Comm—Domestic Commerce. Issued by U.S. Department of Commerce. $2; single numbers 20c. m Superintendent of Documents, Washington 25, D.C. (1v:Ja v34;i-none)

Dom Eng—Domestic Engineering. $3; single numbers 30c. m Domestic Engineering Co, 1900 Prairie Av, Chicago 16 (2v:Ja,Jl v167-168;i-none)

Dun's R—Dun's Review. $4; single numbers 35c. m Dun & Bradstreet, Inc, 290 Broadway, New York 8 (1v:Ja v54;i-r)
Formerly Dun & Bradstreet Monthly Review

Dun's Stat R—Dun's Statistical Review. $2. m Dun & Bradstreet, Inc, 290 Broadway, New York 8 (1v:Ja v10;i-none)

East Underw—Eastern Underwriter. $5; single numbers 25c. w Eastern Underwriter Co, 41 Maiden Lane, New York 7 (1v:Ja v47;i-none)

Econ Geol—Economic Geology. $5; single numbers $1. s-q Economic Geology Pub. Co, M. M. Leighton, Business Mgr, Urbana, Ill. (1v:Ja v41;i-s)

Economist—Economist. £3; single numbers 1s. w Economist Newspaper, Ltd, Brettenham House, Lancaster Place, Strand, London, W.C. 2 (2v:Ja,Jl v150-151;i-l)

Edison Elec Inst Bul—Edison Electric Institute Bulletin. $2; single numbers 25c. m Edison Electric Institute, 420 Lexington Av, New York 17 (1v:Ja v14;i-l)

Elec Eng—Electrical Engineering. $12; single numbers $1.50. m American Institute of Electrical Engineers, 33 W 39th St, New York 18 (1v:Ja v65;i-l)

Elec R (Lond)—Electrical Review. £2 7s 8d; Canadian subs £2 3s 4d; single numbers 9d. w Electrical Review, Dorset House, Stamford St, London, S.E. 1 (2v:Ja,Jl v138-139;i-r)

Elec West—Electrical West. $2; single numbers 25c. m McGraw-Hill Co. of California, 68 Post St, San Francisco 4, Calif. (2v:Ja,Jl v96-97;i-r)

Elec World—Electrical World. $6; single numbers 35c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (2v:Ja,Jl v125-126;i-l)
Regular issue alternates with a News Edition

Electrician—Electrician. 30s; single numbers 6d. w Benn Bros, Ltd, Bouverie House, 154 Fleet St, London, E.C. 4 (2v:Ja,Jl v136-137; i-l)

Electrochem Soc Trans—The Electrochemical Society. Transactions. The Electrochemical Society, Columbia University, New York 27
Formerly American Electrochemical Society
Preprints are indexed

Electronics—Electronics. $6; single numbers 75c. m McGraw-Hill Pub. Co. Inc, 330 W 42d St, New York 18 (1v:Ja v19;i-s)
Price of Directory issue $1

Eng & Min J—Engineering and Mining Journal. $3; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v: Ja v147;i-l)

Eng Educ. See J Eng Educ

Eng N—Engineering News-Record. $6; single numbers 35c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (2v:Ja,Jl v136-137; i-r)
Regular issue alternates with a News Edition
Construction costs number, April 18 $2

Engineer—Engineer. £4 10s; Canadian subs £4 5s; single numbers 1s 9d w Engineer, 28, Essex St, Strand, London, W.C. 2 (2v:Ja, Jl v181-182,i-l)

Engineering—Engineering. £4 10s; Canadian subs £4 5s. single numbers 1s 6d w Engineering, Ltd, 35 and 36 Bedford St, Strand, London, W.C. 2 (2v:Ja,Jl v161-162;i-r)

Explosives Eng—The Explosives Engineer. $1; single numbers 25c. bi-m Explosives Engineer, 848 Delaware Trust Bldg, Wilmington, Delaware (1v:Ja v24;i-l)
Changed to a bi-monthly beginning January 1943

Factory Management—Factory Management and Maintenance. $3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v104;i-r)

Fed Res Bul—Federal Reserve Bulletin. $2; single numbers 20c (to non-members). m Board of Governors of the Federal Reserve System, Constitution Av at 20th St, Washington 25, D.C. (1v:Ja v32;i-s)

Food Ind—Food Industries. $3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v18;i-r)

For Comm W—Foreign Commerce Weekly. Issued by U.S. Department of Commerce. $6; single numbers 15c. w Superintendent of Documents, Washington 25, D.C. (4v:13 issues in each v22-25;i-none)
Replaces Commerce Reports and Comparative Law Series

Fortune—Fortune. $10; single numbers $1. m Time, Inc, 540 North Michigan Av, Chicago 11 (2v:Ja,Jl v33-34;i-r)

Foundry—Foundry. $3; single numbers 35c. m Penton Pub. Co, Penton Bldg, Cleveland 13, O. (1v:Ja v74;i-r)

Franklin Inst J—Journal of the Franklin Institute. $6; single numbers 60c. m Franklin Institute, Benjamin Franklin Parkway at 20th St, Philadelphia 3 (2v:Ja,Jl v241-242;i-s)

Gas Age—Gas Age combining Natural Gas, Gas Age, Gas Record. $3; single numbers 25c. bi-w Robbins Pub. Co, Inc, 9 E 38th St, New York 16 (2v:Ja,Jl v97-98;i-l)

Gas J (Lond)—Gas Journal. single numbers 1s. w Walter King, Ltd, 11, Bolt Court, Fleet St, London, E.C. 4 (2v:Ja,Jl v247-248;i-l)

Gen Elec R—General Electric Review. $3.50; single numbers 35c. m General Electric Co, Schenectady 5, N.Y. (1v:Ja v49;i-l)

Génie Civil—Génie Civil. 500 fr; single numbers 50 fr. s-m Génie Civil, 5 Rue Jules-Lefebvre, Paris (9e), France (1v:Ja v123;i-l)
Indexing resumed January 1946

Geol Soc Bul—Bulletin of the Geological Society of America. $10. m Geological Society of America, H. R. Aldrich, sec, 419 W 117th St, New York 27 (1v:Ja v57;i-l)

Geol Soc Proc—Proceedings volume of Geological Society of America for 1945. Geological Society of America, H. R. Aldrich, sec, 419 W 117th St, New York 27

Glass Ind—Glass Industry. $3; single numbers 25c. m Ogden Pub. Co, 55 W 42d St, New York 18 (1v:Ja v27;i-s)

Harvard Bsns R—Harvard Business Review. $5; single numbers $1.50. q Harvard Business Review, Soldiers Field, Boston 63 (1v: [O] v25;i-s)

Heat & Ven—Heating and Ventilating. $3; single numbers 30c. m Industrial Press, 148 Lafayette St, New York 13 (1v:Ja v43;i-r)

Heating-Piping—Heating, Piping and Air Conditioning. $3; single numbers 35c. m Keeney Pub. Co, 6 N Michigan Av, Chicago 2 (1v:Ja v18;i-s)
Includes American Society of Heating and Ventilating Engineers Journal section

Ill U Eng Exp Sta Bul—Illinois University Engineering Experiment Station. Bulletin. irr Univ. of Ill, Urbana

Ill U Eng Exp Sta Circ—Illinois University Engineering Experiment Station. Circular. irr Univ. of Ill. Urbana

Illum Eng—Illuminating Engineering including Transactions of the Illuminating Engineering Society. $10; single numbers $1.50. m (except Ag and O) Illuminating Engineering Society, 51 Madison Av, New York 10 (1v:Ja v41;i-s)

Illum Engr. See Light & Lighting

Ind & Eng Chem—Industrial and Engineering Chemistry. Industrial Edition. single numbers 75c. m American Chemical Society, 1155 16th St, N W, Washington 6, D.C. (1v:Ja v38;i-s)
Analytical Edition now Analytical Chemistry and sold only as a unit with Industrial and Engineering Chemistry $4

Ind & Eng Chem Anal ed—Industrial and Engineering Chemistry Analytical Edition. single numbers 50c. m American Chemical Society, 1155 16th St, N.W, Washington 6, D.C. (1v: Ja v18;i-s)
Name changed to Analytical Chemistry January, 1947

Ind Marketing—Industrial Marketing. $2; single numbers 20c. m (s-m during O) Advertising Publications, Inc, 100 East Ohio St, Chicago 11 (1v:Ja v31;i-none)
October 25th issue not sold separately

Ind Med—Industrial Medicine. $5; single numbers 75c. m Industrial Medicine Pub. Co, 605 North Michigan Av, Chicago 11 (1v:Ja v15;i-s)

Ind Stand—Industrial Standardization. $4; single numbers 35c. m American Standards Association, 70 E 45th St, New York 17 (1v:Ja v17;i-l)

Index—Index. q New York Trust Company, 100 Broadway, New York (1v:[Mr] v26;i-s)

India Rubber World—India Rubber World, Natural & Synthetic. $3; single numbers 35c. m Bill Brothers Publishing Corporation, 386 4th Av, New York 16 (2v:Ap,O v114-115;i-s)

Inland Ptr—Inland Printer. $4; single numbers 40c. m Maclean-Hunter Pub. Corp, 309 W Jackson Blvd, Chicago 6; 522 5th Av, New York 18 (2v:Ap,O v117-118;i-none)
December 1945 and January 1946 is a combined number

Inst Chem Eng Trans—Transactions of the Institution of Chemical Engineers. annual Institution of Chemical Engineers, 56 Victoria St, Westminster, London, S.W. 1 (1v:v20 1942)

Inst E E J—Journal of the Institution of Electrical Engineers. single numbers pt1 5s; pt2 7s 6d; pt3 7s 6d m The Institution, Savoy Place, Victoria Embankment, London, W.C.2; E. & F. N. Spon, Ltd, 57 Haymarket, London, S.W. 1 (1v:Ja v93;i-l)
Beginning with volume 88 published in three parts: pt 1, General, m (Ja); pt 2, Power Engineering, bi-m (F); pt 3, Radio and Communication Engineering, bi-m (Ja)

Inst Mech Eng J & Proc—Institution of Mechanical Engineers. Journal and Proceedings. Institution of Mechanical Engineers, Storey's Gate, St. James's Park, London, S.W. 1
Four numbers indexed in 1946 annual (v 152, nos 3-4, Dec. 1945 and March 1946; v 154 nos 1-2, June, Sept. 1946) Journal published separately in other months
Volume 153 War Emergency issue indexed in January 1947 issue
Index to volume 151 Ja-D 1944 in Mr 1945 number

Inst Pet J—Journal of the Institute of Petroleum. £3 13s 6d; single numbers 7s 6d. m Institute of Petroleum, 26 Portland Pl, London, W. 1 (1v:Ja v32;i-s)
Formerly Journal of the Institution of Petroleum Technologists

Inst Radio Eng Proc—Proceedings of the Institute of Radio Engineers and Waves and Electrons $12; single numbers $1.25. m Institute of Radio Engineers, Inc, 1 East 79th St, New York 21 (1v:Ja v34;i-l)
Includes, beginning volume 34, January 1946, a section, Waves and Electrons, with separate volume number [1] and pagination thru April 1946. Paging continuous beginning with May number

Int Labour R—International Labour Review. $5; single numbers 50c. m International Labour Office, 734 Jackson Pl, Washington 6, D.C. (2v:Ja,Jl v53-54;i-s)
Two numbers in one issue through 1946

Inv Banking—Investment Banking. irr Investment Bankers Association of America, 33 S Clark St, Chicago 3 (v16;i-none)
Suspended January, 1945

Iron Age—Iron Age. $8; single numbers 35c. w Chilton Co, Inc, Chestnut & 56th Sts, Philadelphia 39; 100 E 42d St, New York 17 (2v:Ja,Jl v157-158;i-r)

Iron & Steel Inst J—Journal of the Iron and Steel Institute. s-annual Iron and Steel Institute, 4. Grosvenor Gardens, London, S. W. 1 (2v:v150 no2 1944, v151 no 1 1945 indexed in this volume)
Changed to monthly with v155, January, 1947

J Account—Journal of Accountancy. $4; single numbers 35c. m American Institute Pub. Co, Inc, 13 E 41st St, New York 17 (2v:Ja,Jl v81-82;i-s)

J Aeronautical Sci—Journal of the Aeronautical Sciences. $7; single numbers 70c. m Institute of the Aeronautical Sciences, Inc, 2 E 64th St, New York 21 (1v:Ja v13;i-s)
Review section now published as Aeronautical Engineering Review
Changed from monthly to quarterly July, 1943. Monthly publication resumed January, 1946

J Ap Phys—Journal of Applied Physics. $7; single numbers 70c. m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v17;i-s)
$5 to members of Scientific Societies

J Bsns—Journal of Business of the University of Chicago. $4; single numbers $1.25. q University of Chicago Press, 5750 Ellis Av, Chicago (1v:Ja v19;i-s)

J Chem Educ—Journal of Chemical Education. $3; single numbers 50c. m Journal of Chemical Education, 20th and Northampton Sts, Easton, Pa. (1v:Ja v23;i-s)

J Chem Phys—Journal of Chemical Physics. $10; single numbers $1. m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v14;i-s)

J Doc—Journal of Documentation. 25s or $6; single numbers 7s 6d or $1.75. q Association of Special Libraries and Information Bureaux, 52 Bloomsbury St, London, W.C. 1 (1v:Je v1; 1-s)

J Eng Educ—Journal of Engineering Education. $3; single numbers 50c. m except (Jl and Ag) American Society for Engineering Education, F. L. Bishop, Ed, University of Pittsburgh, Pittsburgh 13, Pa. (1v:S v37;i-s)

J Fr Inst—See Franklin Inst J

J Ind Hygiene—The Journal of Industrial Hygiene and Toxicology. $6; single numbers $1.25. bi-m Williams & Wilkins Co, Mt Royal & Guilford Avs, Baltimore 2, Md. (1v:Ja v28; i-s)

J Land & Pub Util Econ—Journal of Land and Public Utility Economics. $5; single numbers $1.50. q University of Wisconsin, Madison 6, Wis. (1v:F v22,i-s)

J Phys Chem—The Journal of Physical Chemistry. $10; single numbers $1.75. bi-m Williams & Wilkins Co, Mt Royal & Guilford Avs, Baltimore 2, Md. (1v:Ja v50;i-s)
Changed to a bi-monthly beginning January, 1944
Name changed to Journal of Physical and Colloid Chemistry January, 1947

J Res Nat Bur Stand—Journal of Research of the National Bureau of Standards. $3.50; single numbers 30c. m Superintendent of Documents, Washington 25, D.C. (2v:Ja,Jl v36-37;i-l)

J Retailing—Journal of Retailing. $1.50; single numbers 40c. q New York University School of Retailing, 100 Washington Square, New York 3 (1v:F v22;i-r)
Index published every two years

Life Ins Courant—Life Insurance Courant. $4; single numbers 40c m Flitcraft, Inc, 613 Maple Av, Oak Park, Illinois (1v:Ja v51;i-l)

Light & Lighting—Light and Lighting. 10s 6d; single numbers 9d. m Light and Lighting, 32 Victoria St, London, S.W. 1 (1v:Ja v39;i-1)

Locomotive—Locomotive. 50c; single numbers gratis; bound volumes [8 nos in a volume] issued every 2 years $1. q Hartford Steam Boiler Inspection & Insurance Co. 56 Prospect St, Hartford 2, Conn. (1v:Ja v46;i-r)

Mach—Machinery. $4; single numbers 40c. m Industrial Press, 148 Lafayette St, New York 13 (1v:S v53;i-r)

Machine Design—Machine Design. $10; single numbers $1. m Penton Pub. Co, Penton Bldg, Cleveland 13, O. (1v:Ja v18;i-r)

Mag of Wall St—Magazine of Wall Street and Business Analyst. $10; single numbers 50c. bi-w Ticker Pub. Co. Inc, 90 Broad St, New York 4 (2v:Ap,O v78-79;i-s)
Extra number, Manual of Magazine of Wall Street discontinued for duration of the war

Management R—Management Review. $5; single numbers 50c. m American Management Association, 330 W 42d St, New York 18 (1v:Ja v35;i-s)
Formerly American Management Review

Manuf Rec—Manufacturers Record. $3; single numbers 25c. m Manufacturers Record Publishing Co, 109 Market Place, Baltimore 3, Md. (1v:Ja v115;i-none)

Marine Eng—Marine Engineering and Shipping Review. $3; single numbers 35c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v51;i-r)

Mass Transportation—Mass Transportation. $2; single numbers 25c. m Kenfield-Davis Pub. Co, 608 S. Dearborn St, Chicago 5 (1v: Ja v42;i-s)

Materials & Methods—Materials and Methods. $4; single numbers 50c. m Reinhold Pub. Corp, 330 W 42d St, New York 18 (2v:Ja,Jl v23-24;i-l)
Formerly Metals and Alloys; name changed October, 1945

Mech Eng—Mechanical Engineering. $6; single numbers 75c m American Society of Mechanical Engineers, 29 W 39th St, New York 18 (1v:Ja v68;i-r)

Mech Handling—Mechanical Handling. 14s; single numbers 1s m Louis Cassier Co, Ltd, Dorset House, Stamford St, London S.E. 1 (1v:Ja v33;i-l)

Metal Finishing—Metal Finishing. $3; single numbers 35c. m Metal Industry Pub. Co. Inc, 11 W 42d St, New York 18 (1v:Ja v44;i-s)
Formerly Metal Industry

Metal Prog—Metal Progress. $5; single numbers $1. m American Society for Metals, 7301 Euclid Av, Cleveland 3, O. (2v:Ja,Jl v49-50; i-s)

Metals & Alloys—Metals and Alloys. $2; single numbers 25c. m Reinhold Pub. Corp, 330 W 42d St, New York 18 (2v:Ja,Jl v21-22; i-l)
Name changed to Materials & Methods with October, 1945 number

Min & Met—Mining and Metallurgy. $3; single numbers 50c. m American Institute of Mining and Metallurgical Engineers, Inc, 29 W 39th St, New York 18 (1v:Ja v27;i-l)
Back numbers and special issues $1

Min Cong J—Mining Congress Journal. $3; single numbers 30c. m American Mining Congress, 309 Munsey Bldg, Washington 4, D.C. (1v:Ja v32;i-r)

Mo Labor R—Monthly Labor Review. $3.50; single numbers 30c. m Superintendent of Documents, Washington 25, D.C. (2v:Ja,Jl v62-63;i-l)
Free to labor departments and bureaus and other offices connected with the administration of labor laws

Mo U Sch Mines & Met Bul tech ser—Bulletin of the University of Missouri, School of Mines and Metallurgy. Technical Series. irr Univ. of Mo, Rolla

Mod Packaging—Modern Packaging. $5; single numbers 50c. m Modern Packaging Corp, 122 E 42d St, New York 17 (1v:S v20;i-l)
Indexing began September 1940, v 14 no 1

Mod Plastics—Modern Plastics. $5; single numbers 50c. m Modern Plastics Inc, 122 E 42d St, New York 17 (1v:S v24;i-l)
Formerly Plastic Products

N A C A Bul—N.A.C.A. Bulletin. $10 s-m National Association of Cost Accountants, 385 Madison Av, New York 17 (1v:S v28;i-r)

N E Water Works Assn J—Journal of the New England Water Works Association. $4; single numbers $1.25. q New England Water Works Association, 609 Statler Bldg, Boston (1v:Mr v60;i-s)

Nat City Bank—National City Bank of New York. m 55 Wall St, New York (without v no; i-none)

Nat Pet N—National Petroleum News. $5; single numbers 20c. w National Petroleum Pub. Co, 1213 W 3d St, Cleveland 13, O. (1v: Ja v38;i-none)
Monthly technical section beginning July 29, 1942, published separately as pt 2 of the regular issue with subtitle Refinery Management and Petroleum Chemical Technology thru August, 1946; name changed to Petroleum Processing, September, 1946

Nat Res Council Bul—National Research Council Bulletin. irr National Research Council, 2101 Constitution Av, Washington 25, D.C.
Individual numbers variously priced. Price-list sent on request

Nat Safety N—National Safety News. $6; single numbers 60c. m National Safety Council, Inc, 20 N Wacker Drive, Chicago 6 (2v: Ja,Jl v53-54;i-r)

Nat Underw—National Underwriter. $5; single numbers 20c. w National Underwriter Co, 175 W Jackson Blvd, Chicago (1v:Ja v50;i-none)

Nat Underw (Life ed)—National Underwriter Life Insurance Edition. $4; single numbers 20c. w National Underwriter Co, 175 W Jackson Blvd, Chicago (1v:Ja v50;i-none)

New England Water Works Assn. See N E Water Works Assn J

N Y Pub Lib Bul—New York Public Library. Bulletin. $1; single numbers 10c. m New York Public Library, 5th Av & 42d St, New York 18 (1v:Ja v50;i-s)
Bibliographies of interest to special libraries are indexed

Oil & Gas J—Oil and Gas Journal. $3; single numbers 20c. w Petroleum Pub. Co, 211 South Cheyenne St, Tulsa 1, Oklahoma (1v:My v45; i-r)

Oil Paint & Drug Rep—Oil, Paint and Drug Reporter. $5; single numbers 25c. w Schnell Pub. Co. Inc, 59 John St, New York 7 (2v:Ja, Jl v149-150;i-r)

Opt Soc Am J—Journal of the Optical Society of America. $7; single numbers 70c. m American Institute of Physics, Inc, 57 E 55th St, New York 22 (1v:Ja v36;i-s)

Paint Oil & Chem R—Paint, Oil and Chemical Review. $3; single numbers 20c. bi-w Trade Review Co, 537 S Dearborn St, Chicago 5 (1v:Ja v109;i-none)

Paper Ind—Paper Industry and Paper World. $2. m Fritz Publications, Inc, 59 E. Van Buren St, Chicago 5 (1v:Ap v28;i-l)

Paper Tr J—Paper Trade Journal. $5; single numbers 15c. w Lockwood Trade Journal Co. Inc, 15 W 47th St, New York 19 (2v:Ja,Jl v122-123;i-s)

Personnel J—Personnel Journal. $5; single numbers 75c. m (except Jl and Ag) Personnel Research Federation, 60 E 42d St, New York (1v:My v25;i-s)

Pet Eng—Petroleum Engineer. $2; single numbers 25c. m Petroleum Engineer Pub. Co, Irwin-Keasler Bldg, Dallas 1, Texas (1v:O v18;i-l)
Extra number [Ref annual] published July 1

Pet Processing—Petroleum Processing. $3; single numbers 35c. m National Petroleum Pub. Co, 1213 W 3d St, Cleveland 13 (1v:S v1:i-none)
Formerly monthly technical section of National Petroleum News

Pet Refiner—Petroleum Refiner. $2; single numbers 35c. m Gulf Pub. Co, 3301 Buffalo Drive, Houston, Texas (1v:Ja v25;i-s)
Began indexing with January, 1943 number

Phys R—The Physical Review. Second Series. $15; single numbers $1.50. m American Institute of Physics, Inc, 57 E 55th St, New York 22 (2v:Ja,Jl v69-70;i-s)
Resumed semi-monthly publication January, 1947. Single copies $1

Power—Power. $5; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v.Ja v90;i-r)
Extra number published in Mid-December

Power Pl Eng—Power Plant Engineering. $3 m Technical Pub. Co, 53 West Jackson Blvd, Chicago 4 (1v·Ja v50;i-s)

Product Eng—Product Engineering. $5; single numbers 50c. m McGraw-Hill Pub Co, Inc, 330 W 42d St, New York 18 (1v:Ja v17;i-r)

Ptr Ink—Printers' Ink. $4; single numbers 20c. w Printers' Ink Pub. Co, Inc, 205 E 42d St, New York 17 (4v:Ja,Ap,Jl,O v214-217;i-none)

Pub Health Rep—Public Health Reports. $4; single numbers 10c. w Superintendent of Documents, Washington 25, D.C. (1v Ja v61; i-r)
Distributed gratuitously to state and municipal health officers, etc., by the Surgeon general of the United States public health service, Washington, D.C.

Pub Roads—Public Roads. 50c; single numbers 15c. q Superintendent of Documents, Washington 25. D.C. (1v [12 nos] Jl v24 ['44-46]; i-r)

Pub Util—Public Utilities Fortnightly. $15; single numbers 75c. bi-w Public Utilities Reports, Inc, Munsey Bldg, Washington 4, D.C. (2v:Ja,Jl v37-38,i-s)

Pub Works—Public Works Magazine. $3; single numbers 35c. m Public Works Journal Corp, 310 E 45th St, New York 17 (1v:Ja v77;i-r)

Pulp & Pa of Can—Pulp and Paper Magazine of Canada. $5, single numbers 50c. m National Business Publications, Ltd, Gardenvale, Que. (1v:Ja v47;i-s)
Extra convention number published in February

RCA R—RCA Review. $2; single numbers 75c q Radio Corporation of America, RCA Laboratories Division, Princeton, New Jersey (1v: Mr v7;i-s)
Publication suspended with v 6, no 4 April 1942. Publication and indexing resumed v 7, no 1 March 1946

R Econ Stat—Review of Economic Statistics $5. q Harvard University Press, Cambridge 38, Mass. (1v:F v28;i-s)

R Sci Instr—Review of Scientific Instruments. $5; single numbers 50c. m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v17;i-s)
$3 to members of Scientific Societies

Radio N—Radio News. $4; single numbers 35c. m Ziff-Davis Pub. Co, 185 N Wabash Av, Chicago 1 (2v:Ja,Jl v35-36;i-s)

Rayon—Rayon Textile Monthly. $5; single numbers 60c. m Rayon Pub. Corp, 303 Fifth Av, New York 16 (1v:Ja v27;i-s)

Ref Shelf—The Reference Shelf. irr The H. W. Wilson Co, 958 University Av, New York 52

Refrig Eng—Refrigerating Engineering. $3; single numbers 35c. m American Society of Refrigerating Engineers, 40 W 40th St, New York 18 (2v:Ja,Jl v51-52;i-s)

Review of Economic Statistics. See R Econ Stat

Roads & Bridges—Roads and Bridges. $2; $2.50 in U.S; single numbers 25c; 30c in U.S. m Monetary Times Printing Co. of Canada, Ltd, 341 Church St, Toronto 2, Ont. (1v:Ja v84;i-none)

Roads & Sts—Roads and Streets. $3. m Gillette Pub. Co, 22 West Maple St, Chicago 10 (1v: Ja v89;i-r)

Rock Prod—Rock Products. $2; single numbers 25c. m Maclean-Hunter Pub. Corp, 309 W Jackson Blvd, Chicago 6 (1v:Ja v49;i-none)

Rough Notes—Rough Notes. $2; single numbers 20c. m Rough Notes Co. Inc, 1142 N Meridian St, Indianapolis 6, Ind. (1v:Ja v89;i-none)

Roy Aeronautical Soc J—Journal of the Royal Aeronautical Society. £4 13s; single numbers 7s 9d. m Royal Aeronautical Society, 4 Hamilton Place, Piccadilly, London, W. 1 (1v:Ja v50;i-s)

Rs Mod Phys—Reviews of Modern Physics. $4; single numbers $1.20. q American Institute of Physics, Inc, 57 E 55th St, New York 22 (1v:Ja v18;i-none)

Rubber Age—Rubber Age. $3; single numbers 35c. m Palmerton Pub. Co, Inc, 250 W 57th St, New York 19 (2v:Ap,O v59-60;i-s)

Ry Age—Railway Age. $6; single numbers 50c. w Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (2v:Ja,Jl v120-121;i-r)
Annual statistical and outlook number, January 5, price $1
Freight progress annual number, May 18, price $1

Ry Mech Eng—Railway Mechanical Engineer with which is incorporated the Railway Electrical Engineer. $3; single numbers 50c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v120;i-r)

S A E J—S.A.E. Journal. $10; single numbers $1. m Society of Automotive Engineers, Inc, 29 W 39th St, New York 18 (1v:Ja v54;i-r)

Safety Eng—Safety Engineering. $3; single numbers 25c. m Alfred M. Best Co. Inc, 75 Fulton St, New York 7 (2v:Ja,Jl v91-92;i-s)

Sales Management—Sales Management. $5; single numbers 25c. s-m Sales management, Inc, 386 4th Av, New York 16 (2v:Ja,Jl v56-57;i-none)
Published semi-monthly except in May and November when it is published three times a month
Survey of buying power, May 10 number, price $1

Sci Am—Scientific American. $4; single numbers 35c m Munn & Co, Inc, 24 W 40th St, New York 18 (2v:Ja,Jl v174-175;i-s)

Science—Science. $7.50; single numbers 25c. w American Association for the Advancement of Science, Lancaster, Pa. (2v:Ja,Jl v103-104;i-s)

Sheet Metal Worker—Sheet Metal Worker. $3; single numbers 25c. m Edwin A. Scott Pub. Co, 45 W 45th St, New York 19 (1v:Ja v37;i-s)

Soap & San Chem—Soap and Sanitary Chemicals. $3. m MacNair-Dorland Co, Inc, 254 W 31st St, New York 1 (1v:Ja v22)
Annual index appears in Soap Blue Book which is sent to all subscribers

Soc Chem Ind J—Journal of the Society of Chemical Industry. £1 15s; single numbers 3s 6d m Society of Chemical Industry, 56 Victoria St, London, S.W. 1 (1v:Ja v65;i-r)
Formerly two separately paged sections; Transactions and British Chemical Abstracts British Chemical and Physiological Abstracts published separate beginning January 1941

Soc Dyers & Col J—Journal of the Society of Dyers and Colourists. 60s; single numbers 5s. m Society of Dyers and Colourists, Ocean Chambers, 32-34 Piccadilly, Bradford, Yorkshire, England (1v:Ja v62;i-l)

Soc for Advan of Management J. See Advanced Management

Soc Motion Picture Eng J—Journal of the Society of Motion Picture Engineers. $10; single numbers $1 25. m Society of Motion Picture Engineers, Hotel Pennsylvania, New York 1 (2v:Ja,Jl v46-47;i-s)

Society of Automotive Engineers Journal. See S A E J

Special Lib—Special Libraries. $7; single numbers 50c. m (S-Ap) bi-m (My-Ag) Special Libraries Association, 31 E 10th St, New York 3 (1v:Ja v37;i-l)

Spectator (Life ed)—Spectator; Life Insurance in Action. $5; single numbers 50c. m Chilton Co. Inc, Chestnut & 56th Sts, Philadelphia 39 (1v:Jl v154;i-s)
Extra number [Endorsement no] published in December

Spectator (Property ed)—Spectator; Property Insurance Review. $2; single numbers 25c. bi-w Chilton Co, Inc, Chestnut & 56th Sts, Philadelphia 39 (1v:Jl v12;i-s)

Stahl & Eisen—Stahl und Eisen. Düsseldorf, Germany
Indexing not yet regularly resumed

Steel—Steel. $10; single numbers 35c. w Penton Pub. Co, Penton Bldg, Cleveland 13, O. (2v: Ja,Jl v118-119;i-r)

Survey of Cur Bsns—Survey of Current Business. U.S. Bureau of Foreign and Domestic Commerce, Division of Business Review. $3; single numbers 25c. m Superintendent of Documents, Washington 25, D.C. (1v:Ja v26; i-none)

Tech R—Technology Review. $3.50; single numbers 50c. m except (Ag, S, O) Massachusetts Institute of Technology, room 7-203, Cambridge 39, Mass. (1v:N v49;i-r)
Indexing began November 1940, v 43 no 1

Textile Col—Textile Colorist and Converter. $5. m Howes Pub. Co, 1 Madison Av, New York 10 (1v:Ja v68;i-s)

Textile Inst J—Journal of the Textile Institute. 48s; single numbers 4s. m Textile Institute, 16 St Mary's Parsonage, Manchester 3, England (1v:Ja v37;i-l)

Textile World—Textile World. $2; single numbers 35c. m McGraw-Hill Pub. Co. Inc, 330 W 42d St, New York 18 (1v:Ja v96;i-r)

Transactions of the American Society of Mechanical Engineers. See A S M E Trans

Trust Companies. See Trusts & Estates

Trusts & Estates—Trusts and Estates. The Journal of Capital. $5; single numbers 60c. m Fiduciary Publishers, Inc, 50 E 42d St, New York 17 (2v:Ja,Jl v82-83;i-s)
Formerly Trust Companies

U S Agric—Publications. U.S. Dept. of Agriculture, Division of Publications, Washington, D.C.
Selected contributions on technical subjects are indexed

U S Bur For & Dom Com Economic Ser—U.S. * Bureau of Foreign and Domestic Commerce, Washington, D.C.

U S Bur Labor Statistics Bul—United States Bureau of Labor Statistics. Bulletin. Distributed free of charge. U.S. Bureau of Labor Statistics, Washington, D.C.

U S Bur Mines Bul—United States. Bureau of † Mines, Bulletin. U.S. Bureau of Mines, Washington, D.C.

U S Bur Mines Information Circ—United States. † Bureau of Mines. Information Circular. U.S. Bureau of Mines, Washington, D.C.

U S Bur Mines Rep of Invest—United States. † Bureau of mines. Reports of Investigations. U.S. Bureau of Mines, Washington, D.C.

U S Bur Mines Tech Pa—United States. Bu- † reau of mines. Technical Papers. U.S. Bureau of Mines, Washington, D.C.

U S Geol S Bul—United States Geological Survey. Bulletin. U.S. Geological Survey, Washington, D.C.
For sale by Superintendent of Documents, Washington, D.C.

U S Geol S Professional Pa—United States Geological Survey. Professional Paper. U.S. Geological Survey, Washington, D.C.
For sale by Superintendent of Documents, Washington, D.C.

U S Nat Advisory Com for Aeronautics—United States National Advisory Committee for Aeronautics, Washington, D.C. Annual reports.
26th and 27th annual reports, 1940 and 1941, not available during the war, are indexed in this number

U S Nat Bur Stand—United States National ‡ Bureau of Standards. Circular. U.S. National Bureau of Standards, Washington, D.C.

U S Women's Bur Bul—United States. Women's Bureau. Bulletin. U.S. Women's Bureau, Washington, D.C.

V D I—Zeitschrift des Vereines Deutscher Ingenieure. Berlin, Germany
Indexing not yet regularly resumed

Water & Sewage—Water and Sewage. $2; $2.50 in U.S; single numbers 25c; 30c in U.S. m Monetary Times Printing Co. of Canada, Ltd, 341 Church St, Toronto 2, Ont. (1v:Ja v84;i-none)

Water & Sewage Works—Water & Sewage Works. $2; single numbers 25c. m Gillette Pub. Co, 22 West Maple St, Chicago 10 (1v: Ja v93;i-l)

Water Works & Sewerage—Water Works & Sewerage. $2; single numbers 25c. m Gillette Pub. Co, 330 S Wells St, Chicago 6 (1v:Ja v93;i-s)
Name changed to Water & Sewage Works, January 1946

Waves and Electrons. See Inst Radio Eng Proc

Weekly Underw—Weekly Underwriter. $5; single numbers 25c. w Underwriter Printing and Publishing Co, 116 John St, New York 7 (2v:Ja,Jl v154-155;i-l)

Welding J—Welding Journal. $5; single numbers 75c. October and December numbers $1 ea. m American Welding Society, 33 W 39th St, New York 18 (1v:Ja v25;i-s)

Western Soc E J—Journal of the Western Society of Engineers. $3; single numbers 75c. q Western Society of Engineers, 205 W Wacker Drive, Chicago 6 (1v:Mr v51;i-s)

Wireless Eng—Wireless Engineer. 32s; single numbers 2s 6d. m Iliffe & Sons, Ltd, Dorset House, Stamford St, London, S.E. 1 (1v:Ja v23;i-s)
Formerly Experimental Wireless and The Wireless Engineer

* The free distribution of publications of the Bureau of Foreign and Domestic Commerce is confined almost entirely to government officers, educational institutions, libraries, the press, and commercial organizations. Others may purchase them from the Superintendent of Documents, Government Printing Office, Washington, D.C.

† United States Bureau of Mines Publications for sale by Superintendent of Documents, Government Printing Office, Washington, D.C. Reports of Investigations and Information Circulars distributed by Bureau.

‡ The official (free) distribution of publications of the Bureau is limited to government offices, public libraries, educational institutions, scientific societies, and cooperating experts. Others may purchase them from the Superintendent of Documents, Government Printing Office, Washington, D.C.

Key to General Abbreviations

+	continued on later pages of the issue	Je	June
abr	abridged	Jl	July
Ag	August	Mr	March
Ap	April	My	May
arch	architect	n s	new series
bibliog	bibliography	N	November
comp	compiled or compiler	no	number
cond	condensed	O	October
cont	continued	p	page
D	December	pl	plate
diag	diagram	por	portrait
ed	edited or edition or editor	pseud	pseudonym
F	February	pt	part
i	index	rev	revised
il	illustrations	S	September
inc	incorporated	sup	supplement
Ja	January	tr	translated or translation or translator
		v	volume

Sample entry: Budgeting to cut unit costs; Talon, incorporated. P. K. Poulton and P. H. Goldsmith. Factory Management 97:48-52+ O '39

Explanation: An article with the title given above will be found in Factory Management, volume 97, pages 48 to 52 (continued on later pages of the same issue) the October 1939 number

Industrial Arts Index

A Cumulative Subject Index to Engineering, Trade and Business Periodicals

1946

A. and P. See Great Atlantic and Pacific tea company

A.B.C. See American and British-Commonwealth association

ABACA. See Manila hemp

ABALONES
Technique of inducing spawning in haliotis rufescens Swainson. J. G. Carlisle, jr. Science 102:566 N 30 '45

ABBOTT laboratories
Abbott laboratories medical care. Ind Med 15:sup38+ F '46
Stock sold. Comm & Fin Chr 164:1077 Ag 26 '46
Stocks for defensive investment. Mag of Wall St 79:86 O 26 '46
Thumbnail stock appraisal. Mag of Wall St 78:20 Ap 13 '46

ABBREVIATIONS
Abbreviations of generic names. C. E. Skinner. Science 104:62 Jl 19 '46
Allen's dictionary of abbreviations and symbols. E. F. Allen. 189p Coward-McCann, 2 W. 45th st, New York '46

ABERCROMBIE, J. S., company
New company buys capital stock of J. S. Abercrombie. Oil & Gas J 45:40 Je 1 '46

ABERRATION, Chromatic and spherical. See Achromatism; Lenses

ABILITY
See also
Creative ability

ABILITY tests
Aptitude testing of Ford workers. F. A. Miller. Automotive & Aviation Ind 94:28-9+ My 1 '46
Aptitude tests. G. C. Compton. il Inland Ptr 117:39-42 My '46
Aptitude tests aid placing of workers at Clearwater. il Textile World 96:137+ O '46
How aptitude tests can help select agency personnel. R. A. Stevens. Ptr Ink 216:36-7 S 13 '46
How to use personnel tests. R. S. Schultz. Personnel J 25:94-9 S '46
Inequalities in adult capacity; from military data. W. V. Bingham. bibliog Science 104: 147-52 Ag 16 '46
Joe and his foreman. J. E. Horrocks and J. R. Kinzer. Personnel J 25:135-8 O '46
Pre-employment tests; Sonoco products co; abstract. J. A. Reagan. Textile World 96: 198+ My '46
Pre-planning a personnel selection program. W. V. Ronner. Factory Management 104: 88-92 Ap '46
Psycho-physical tests in driver selection. Bus Transportation 25:44-5 Ag '46
Report of the subcommittee on employee selection tests. Am Gas Assn Proc 1945: 57-9
Scientific matching of salesman and job produces good results; Minneapolis-Honeywell combines consideration of human qualities, pre-employment tests and a company-devised zone method of measurement. H. E. Green. Ptr Ink 213:17-19+ N 16 '45
Selection of engineering personnel. F. Holliday. Roy Aeronautical Soc J 50:240-61 bibliog(p261); Discussion. 262-74 Ap '46
To test or not to test. L. Cohen. Personnel J 25:72-5 Je '46
Would-be copy writers must take aptitude test; part of Cincinnati club's help for veterans. Ptr Ink 214:27 Mr 29 '46
See also
Personality tests

ABITIBI power and paper company
Abitibi rides again. Pulp & Pa of Can 47: 109-10+ My '46
Fall and rise of Abitibi. Paper Tr J 122: 46-7 My 16 '46

ABRAMS, Frank W.
Abrams for Gallagher. por Fortune 33:175 Mr '46
President of Standard of New Jersey. por (cover) Bsns W p8 Je 22 '46

ABRASION
Abrasion resistance of paper and paperboard; TAPPI suggested method T 476 sm-46. Paper Tr J 123:47-8 Jl 11 '46
High speed rain abrasion of glass cloth laminates. R. M. Robertson, R. J. Lobisser and R. E. Stein. il diag Ind & Eng Chem 38: 590-1 Je '46
Wear-testing ceramic finishes; Taber abraser tests enamel, glaze, and glass surfaces. il Cer Ind 47:72 S '46

ABRASIVE wheels
Abrasive-wheel cutting of non-metallic materials; Abrasaw. Engineering 161:20 Ja 4 '46

ABRASIVES
Abrasive belt grinding. il diags Steel 119:78-81+ Jl 29; 128-30+ Ag 5 '46
Abrasive output declines in 1944. Chem Ind 57:958-60 N '45
Abrasives; technological advances in an essential industry. W. H. Waggaman and O. C. Ralston. bibliog il Chem & Eng N 24:2612-15 O 10 '46
Carborundum, one name for the family. il Mod Packaging 19:120-3 Je '46
Coated abrasives solve many reconversion metal-finishing problems. il diag Mach 52: 174-5 Je '46
Effect of molybdenum and other oxides on surface tension of silicate melts and on properties of refractories and abrasives. C. R. Amberg. bibliog diag Am Cer Soc J 29: 87-93 Ap 1 '46
Grinding, surfacing and stock removal by wet belt machining. W. F. Schleicher. il Steel 119:94-5+ Jl 8 '46
Maintaining conveyors exposed to abrasive dust. C. W. Daniels. il diag Factory Management 103:134-5 D '45
Pointers on abrasive points. W. S. Hallowell and W. S. Hemsley. diags Am Mach 89:106-9 D 20 '45
Production processes; their influence on design; abrasive belt machining. R. W. Bolz. il Machine Design 18:93-6 O '46
Resistance of plastics to abrasive particles. M. E. Marks and P. Conrad. il diags Mod Plastics 23:165-8+ Mr '46

ABRASIVES—*Continued*
Wet-belt machining. W. F. Schleicher. il Iron Age 157:52-5 F 28 '46
See also
Pulpstones
Pumice

ABSENTEEISM (labor)
Absenteeism and turnover; how North Star controls them. R. E. Hibbs. il Textile World 96:153+ S '46
Age factor in disabling morbidity, 1940-44; experience of the Boston Edison company. W. M. Gafafer. Pub Health Rep 60:1447-62 D 7 '45
Rates of absenteeism and turnover in personnel in relation to employees' work attitudes. K. Brodman. Ind Med 14:953-7 D '45
Sickness absenteeism among industrial workers, third and fourth quarters of 1945. W. M. Gafafer. Pub Health Rep 61:1095-9 Jl 26 '46
Study of handicaps in industry. S. G. Ohlhausen. Ind Med 15:105-9 F '46
Why do workers stay away? E. W. Noland. Factory Management 104:131-2 Ja '46

ABSOLUTE bel (term)
Absolute bels. F. S. G. Scott. diags Wireless Eng 23:132-9 My '46

ABSOLUTE zero
Logarithmic temperature scale. M. B. Donald. bibliog Chem & Ind p342 S 14 '46

ABSORPTIOMETER
Morgan method of soil testing; use of the Spekker absorptiometer for estimating phosphate. J. Tinsley and N. H. Pizer. bibliog Soc Chem Ind J 65:208-11 Jl '46
Setting a new lamp in the Spekker photoelectric absorptiometer. N. H. Pizer. Chem & Ind p5 Ja 5 '46
Simple photo-electric absorptiometer. H. R. Clayson and B. A. Scott. bibliog il diags Soc Chem Ind J 65:97-101 Ap '46

ABSORPTION
Absorption and humidification. H. C. Carlson. bibliog Ind & Eng Chem 38:14-15+ Ja '46
Method for the micro-determination of the sorption of fumigants. F. P. W. Winteringham. bibliog diags Soc Chem Ind J 65:48-51 F '46
Statistical mechanics of multimolecular adsorption; localized and mobile adsorption and absorption. T. L. Hill. J Chem Phys 14:441-53 Jl '46
See also
Adsorption
Silica gel

ABSORPTION apparatus
Absorber pressure increase of 200 lb. reduces repressuring horsepower 37%. H. N. Wade. diag Oil & Gas J 44:120+ Ap 20 '46; Same. Pet Eng (Ref annual) 17:235+ Jl 1 '46; Same. Pet Refiner 25:92-6 My '46
Absorption plant aids gas conservation. W. J. Davis. il Pet Eng 17:199+ My '46
Automatic apparatus for determination of small concentrations of sulfur dioxide in air; new countercurrent absorber for rapid recording of low and high. M. D. Thomas, J. O. Ivie and T. C. Fitt. bibliog il diags Ind & Eng Chem Anal ed 18:383-7 Je '46
Continuous absorption oil purifier keeps circulatory system clean. flow sheet il Pet Processing 1:33-4+ S '46
Equipment advances 1944-45; distillation and absorption. A. E. Chute. Chem Ind 57:859 N '45
Fat-oil deethanization. A. M. Whistler. flow diags Oil & Gas J 45:105-6+ O 26 '46
Hypersorption process for separation of light gases. C. Berg. il diags Am Inst Chem Eng Trans 42:665-79; Discussion. 679-80 Ag '46
Improved gas absorber; application to determination of butadiene. P. J. Elving and T. L. Stein. bibliog diag Ind & Eng Chem Anal ed 17:722-3 N '45
Limiting capacity of dumped tower packings. W. E. Lobo and others. bibliog Am Inst Chem Eng Trans 41:693-710 D '45
New Gulf Coast gasoline plant serves three fields. E. H. Short, jr. flow chart il map Oil & Gas J 45:114-17+ My 25 '46
Plate efficiency of fractionating columns and absorbers. H. E. O'Connell. bibliog Am Inst Chem Eng Trans 42:741-55 Ag '46
Practical refrigeration for natural-gasoline plants. R. W. Heath and others. bibliog flow sheets il Oil & Gas J 44:128-9+ F 23 '46; Same. Nat Pet N 38 pt 2:R202-4+ Mr 6 '46; Same. Pet Refiner 25:93-100 Mr '46; Same. Pet Eng 17:162+ My '46
Process improvements mark design and operation of Abercrombie plant; pressure-maintenance plant, Old Ocean field; gasoline and other liquid products produced in the operation. flow chart il Oil & Gas J 44:88-90+ D 15 '45
Production trend in Lone Star's Grapeland recycling plant. A. L. Foster. il flow chart Oil & Gas J 45:76-9+ Ag 24 '46
Protecting karbate tubes in an HCl absorber. L. J. Govornale. Chem & Met Eng 53:145 My '46
Separate processing for rich and lean gas. il Pet Refiner 25:106-8 My '46
South Coles levee unit pressure maintenance and cycling project. L. P. Foote. flow sheet il map Pet Eng 17:146+ Ag; 106+ S '46; Same cond. flow diag Oil & Gas J 45:70-3+ Ag 3 '46
Use of absorption towers for recovery of pressure relief gases. A. G. Hellstrom. diags Pulp & Pa of Can (Convention no) 47:119-22 [F] '46; Same cond. Paper Ind 27:1572-4 Ja '46
Volatile hydrocarbons separated from condensate at Sheridan cycling plant. W. J. Davis. il plan Pet Eng 17:103+ Ap '46

Cleaning
Chemical methods for cleaning bubble towers save down-time, man-hours, materials. Nat Pet N 38 pt 2:R171-2 Mr 6 '46

Design
Design plan of United's new Carthage plant; 170,000 gallons of liquid products per day. G. Weber. il map diag Oil & Gas J 45:86-9 Jl 20 '46
Gauss's formula in chemical engineering calculations. A. E. Kroll. bibliog Chem Eng 53:102-4 S '46
Nomograph for absorption factor equation. G. E. Mapstone. Ind & Eng Chem 37:1222-3 D '45

ABSORPTION coefficients
Light scattering and absorption coefficients from reflectance data; optical properties of paper. W. B. Campbell and J. Benny. Pulp & Pa of Can 47:74-8 Je '46

ABSORPTION of neutrons. See Neutrons

ABSORPTION of rays
Absorption curve of 31-second $_8O^{19}$ beta-rays and cross section for production by thermal neutrons L. Seren and others. Phys R 70:561 O 1 '46
Absorption of microwaves by gases. W. D. Hershberger and J. E. Walter. diag J Ap Phys 17:495-500, 814-22 Je, O '46
Absorption of one-half centimeter electromagnetic waves in oxygen. R. Beringer. diags Phys R 70:53-7 Jl 1 '46
Absorption of slow mesotrons in lead, iron, aluminum, and water. H. P. Koenig. diags Phys R 69:590-6 Je 1 '46
Atmospheric absorption measurements with a microwave radiometer. R. H. Dicke and others. bibliog diags Phys R 70:340-8 S 1 '46
Molecular weights and other properties of viruses as determined by light absorption. G. Oster. bibliog Science 103:306-8 Mr 8 '46
Monochromatic light absorption by normal chicken erythrocytes. J. O. Ely and M. H. Ross. il Franklin Inst J 242:85-9 Jl '46
Studies in light absorption; *p*-benzoquinones. E. A. Braude. Chem Soc J p490-7 Ag '45
Studies in light absorption; 2 : 4-dinitrophenylhydrazones. E. A. Braude and E. R. H. Jones. Chem Soc J p498-503 Ag '45
Theory of a microwave spectroscope. W. E. Lamb, jr. bibliog diag Phys R 70:308-17 S 1 '46
Thermal and acoustic effects attending absorption of microwaves by gases. W. D. Hershberger and others bibliog il RCA R 7:422-31 S '46

ABSORPTION of rays—*Continued*
Water vapor absorption of electromagnetic radiation in the centimeter wave-length range. G. E. Becker and S. H. Autler. diag Phys R 70:300-7 S 1 '46
See also
Black body
Spectrum—Absorption spectra
X-rays—Absorption

ABSTRACTS
Operating an abstracting and information service within an industrial organization; Arc manufacturing company, London. W. C. E. Barnes. J Chem Educ 23:152-3 Mr '46

ACADEMY of sciences of the U.S.S.R.
L'activité de l'Académie des sciences russe depuis sa fondation. Génie Civil 123:148 Je 1 '46
Bibliography of the bulletin (Izvestîa) of the Academy of sciences of the U.S.S.R. T. Besterman. J Doc 1:45-56 Je '45

ACAPULCO, Mexico
Riviera of Americas is objective of Acapulco plans. For Comm W 22:26 F 23 '46

ACCELERATION
See also
Motor buses—Acceleration

ACCELERATION (education)
Acceleration: disgrace or challenge? S. L. Pressey. bibliog Science 104:215-19 S 6 '46
Few accelerated programs now given in mineral engineering schools. J. W. Stewart. Min & Met 27:504 O '46
Returns from a questionnaire on the accelerated program. J. W. Stewart. J Eng Educ 36:188-92 N '45

ACCELERATION of machinery. See Machinery, Kinematics of

ACCELERATOR, Electron. See Electron accelerator

ACCELERATORS. See Vulcanization—Accelerators

ACCELEROMETERS
Golden Gate bridge vibration studies. il diag Eng N 137:184-5 Ag 8 '46
V-2 range control technique. T. M. Moore. il diag Elec Eng 65:303-5 Jl '46

ACCEPTANCES, Trade
Trade acceptances in credit; possible solution to distribution problems. J. H. Peto. Credit & Fin Management 48:4-5 My '46

ACCESS to highway. See Expressways; Highway law

ACCIDENT law
See also
Employers' liability
Negligence
Personal injuries
Workmen's compensation

ACCIDENT prevention. See Safety devices and measures

ACCIDENTAL means (term). See Insurance, Accident—Policies

ACCIDENTS
Emotional factors in safety. H. R. Bixler. Personnel J 25:9-14 My '46
I didn't think. E. Beaumont. Am Gas Assn Mo 28:374-5 S '46
Make way for the crowd; safety in places of public assembly. J. McElraevy, jr. il Safety Eng 91:38+ Ap '46
See also
Automobile accidents
Aviation—Accidents
Burns and scalds
Collisions at sea
Electricity, Injuries from
Engineering colleges—Accidents
Explosions
Fires
First aid in illness and injury
Insurance, Accident
Motor bus lines—Accidents
Negligence
Railroads—Accidents
Safety devices and measures
Safety movement
Street accidents

Statistics
Accidents replace disease as prime killer of youth. Nat Underw 50:19 Ja 31 '46; Same abr. Nat Underw (Life ed) 50:9 F 1 '46
Fatal accidents in 1945. Safety Eng 91:62 F '46
'45 accident toll doesn't show current trend; fatalities up only 1% but traffic deaths curve alarming. Nat Underw 50:23+ F 7 '46; Same. Nat Underw (Life ed) 50:2+ F 8 '46
1945 record; 96,000 accidental deaths. W. C. James. map Nat Safety N 54:26-7+ Ag '46

ACCIDENTS, Automobile. See Automobile accidents

ACCIDENTS, Industrial
Accident cause classification; abstract. E. R. Granniss. Mech Eng 68:830-1 S '46
Accident prevention in the dyeing and finishing industry. J. B. H. Morton. Soc Dyers & Col J 62:229-34 Ag '46
Are accidents predictable? A. J. Cardall. Nat Safety N 52:85-6 O '45
Bad shop. B. Andrews. Nat Safety N 54:36-7 Ag '46
Build safety in your scaffolds. A. Turnbull, jr. il Safety Eng 91:52-5 Je '46
Factories in 1944; annual report of the Chief inspector of factories. Chem Age (Lond) 53: 533-5 D 8 '45
How much do we know about accident causes? C. E. Jurgensen. Nat Safety N 52:26-7+ N '45
Neuropsychiatric aspects of industrial accidents. J. L. Fetterman. bibliog Ind Med 15:96-100 F '46
New man and frequency rates. G. H. Cornick. Safety Eng 90:67-8 N '45
Portable power tools; precaution should be taken to prevent injuries. Safety Eng 91:55 Mr '46
What are the standards for analyzing accidents? G. S. Ennis. Ind Med 15:523-4 S '46
When is a minor injury? il Safety Eng 91:61 F '46
See also
Boiler explosions
Burns and scalds
Coal mines and mining—Safety measures
Disabled—Rehabilitation
Dust explosions
Electricity, Injuries from
Employers' liability
Explosions
Factory inspection
First aid in illness and injury
Mine accidents
Practical jokes
Safety codes
Safety devices and measures
Workmen's compensation
also subdivision Accidents under special subjects, e.g.
Coal mines and mining
Electric utilities
Lumbering
Machine shops
Metal working plants

Cost
How much did that accident cost? Le Tourneau study. P. Windsor. il Nat Safety N 53:32-3+ Ja '46
Indirect costs can be direct! G. K. McKenzie. Safety Eng 91:62 Mr '46

Records
Accident report form fosters self-analysis. il Elec World 125:151 Ap 13 '46

Statistics
Accident experience of the gas industry, 1944. I. Dunston. Mo Labor R 62:82-4 Ja '46
Accidental deaths in 1945. Nat Safety N 53:13 Mr '46
Annual report on industrial accidents in Illinois for 1944. 54p 59 tables Illinois. Dept. of labor, 205 W. Wacker drive, Chicago '46
Industrial injuries in manufacturing, third quarter of 1945. Mo Labor R 62:237-40 F '46
Industrial injuries in manufacturing, fourth quarter of 1945. Mo Labor R 62:597-600 Ap '46
Industrial injuries in manufacturing, first quarter of 1946. Mo Labor R 63:68-71 Jl '46
Industrial injuries in manufacturing, second quarter 1946. Mo Labor R 63:393-6 S '46
Industrial injuries in 1945; preliminary estimates. M. D. Kossoris and F. S. McElroy. Mo Labor R 62:411-12 Mr '46
New approach to accident frequency rates. H. P. Goode. il Safety Eng 92:25-6+ Ag '46
Significance tests for industrial injury rates. D. C. Stewart. Edison Elec Inst Bul 13: 361-3+ D '45
Statistical control of accidents. J. M. Howell and L. Johnson. Iron Age 158:56-9 Jl 18 '46

ACCIDENTS, Industrial—Statistics—*Continued*
Statistics in pictures sell safety to supervisors. J. F. Collins. Factory Management 104:75-7 Ap '46
Statistics put to use; revised standard will help bring about uniformity in computing and reporting industrial injury rates. W. S. Paine. il Ind Stand 17:44-5 F '46; Same. Nat Safety N 53:30-1+ F '46
Work accidents in Chile, 1932-1944. Mo Labor R 62:914 Je '46
Work injuries in the slaughtering and meat-packing industry, 1943. F. S. McElroy and G. R. McCormack. Mo Labor R 61:955-71, 1153-68 N-D '45; Same, with additional data. U S Bur Labor Statistics Bul 855:1-58; pa 15c Supt. of doc. '45
Work injuries in the United States during 1945. M. D. Kossoris. Mo Labor R 63:390-3 S '46

ACCOMMODATION coefficients
Accommodation coefficients for heat conduction between gas and bright platinum, for nine gases between 80° K (or their boiling points) and 380° K. E. R. Grilly and others. bibliog J Chem Phys 14:435-40 Jl '46
Interpretation of pressure dependence of accommodation coefficients. J. L. Morrison. J Chem Phys 14:466 Jl '46
Pressure dependence of accommodation coefficients; values for ten gases on platinum. I. Amdur. bibliog J Chem Phys 14:339-42 My '46

ACCOUNTANTS
Co-ordination for accountants. Economist 150:718-19, 896-8 My 4, Je 1 '46
Estate planning; the rôle of the accountant. E. N. Polisher. J Account 82:140-7 Ag '46
Industrial accounting in a competitive economy. M. Smith. N A C A Bul 27:995-1007 Je 15 '46
Industrial research and the accountant. N. A. Shepard. N A C A Bul 27:955-66 Je 1 '46
Navigating your business is a streamlined specialty for your accountant. J. K. Lasser. Ind Marketing 31:41+ Mr '46

Working papers
Physical aspects of working papers. L. H. Pilié. J Account 82:248-9 S '46

ACCOUNTANTS, Public
Accountants and utilitarian writing. J. M. Clapp. J Account 81:384-96 My '46
Accounting and the national economy. T. D. Williams. J Account 82:190-5 S '46
Audit of insurance. S. Chan and J. S. Miller. J Account 80:444-8 D '45
Goodwill value of public accounting practice. J Account 81:516 Je '46
How small a community will support a public accountant's office? R. C. Rea. J Account 81:289-90 Ap '46
National conference of lawyers and certified public accountants. D. F. Maxwell and W. Charles. J Account 81:120-6 F '46
Operating problems of the moderate-sized public accounting firm. N. H. S. Vincent. J Account 82:60-5 Jl '46
Public accounting as a career. J Account 81: 306-13 Ap '46
Relationship of the accountant and the appraiser. C. Crocheron. J Account 81:27-33 Ja '46
What is the accountant's proper responsibility? I. B. McGladrey. J Account 82: 373-7 N '46

Law
Accountant's responsibility under the law. G. I. Gross. Weekly Underw 154:227-9, 466-8 Ja 19, F 16 '46
Constitutionality of the Texas public accounting act; Attorney General of Texas opinion. J Account 81:169-72 F '46
Independence, scope of audit; findings and opinion of Securities and exchange commission in matter of Red Bank oil company. O. L. DuBois. J Account 81:251-8 Mr '46
State legislation relative to the practice of accountancy. C. F. Coates. J Account 82: 221-9 S '46
Tax consequences of sale of corporate stock; negligence of public accountants. J Account 80:494-5 D '45

Service
Management services provided by the independent accountant; advisory services to clients. C. E. Fernald. J Account 82:378-87 N '46

ACCOUNTANTS' reports
Accountants and utilitarian writing. J. M. Clapp. J Account 81:384-96 My '46; Discussion. L. Ashman. 82:158 Ag '46
Cost accounting in the education of management. J. H. Jackson. N A C A Bul 27:1183-93 Ag 15 '46
Short form report, its development, purpose, and limitations. L. Lilly. J Account 82: 297-304 O '46
Standards of auditing procedure and reports. P. Barnes. J Account 82:45-50 Jl '46

ACCOUNTING
Accounting by causes vs. accounting by accounts. J. B. Copper. N A C A Bul 27:315-34 D 15 '45
Accounting for the use of special war reserves. J Account 82:388-91 N '46
Accounting in decentralized organization; RCA Victor division. A. Macgillivray. N A C A Bul 28:3-13 S 1 '46
Accounting in wage disputes. J Account 80: 329-37 N '45
Accounting service to management. G. W. Rooney. N A C A Bul 27:177-88 N 1 '45
Fundamentals of accounting; a cost and revenue approach. D. H. Mackenzie. 683p $4 Macmillan co, 60 Fifth av, New York '46
Index numbers and analysis of gross profit variation as a management tool. C. F. Axelson. J Account 81:463-5 Je '46
Industrial accounting in competitive enterprise. M. A. Moore. J Account 80:433-8 D '45
Microphotography. E. L. Anfindsen. J Account 81:300-5 Ap '46
Price administration and the postwar fact finder; basic information about price control useful to accountants. C. V. Burns. J Account 81:372-6 My '46
Technical papers of the twentieth annual Michigan accounting conference, Nov. 10, 1945, Ann Arbor. (Michigan business papers no. 17) 27p pa $1 Univ. of Mich, School of business administration, Bur. of business research, Ann Arbor, Mich. '46
Trends in accounting. W. W. Werntz. J Account 81:34-41 Ja '46
Use of color in accounting; abstracts. F. B. Hull. Management R 35:21-2 Ja '46; J Account 81:240 Mr '46

See also
Accountants, Public
Auditing
Bank accounting
Billing
Cash accounting
Cost accounting
Depreciation
Farm accounting
Financial statements
Forms and blanks, Business
Foundry accounting
Government accounting
Income statements
Internal check
Invoices
Mine accounting
Municipal accounting
Obsolescence
Overhead expense
Profit and loss statements
Punched card system
Reserves
Vouchers

also subdivision Accounting under special subjects, e.g.
Airports
Chemical industries
Coal mines and mining
Colleges and universities
Corporations
Department stores
Electric utilities
Engineering
Factories
Gas, Natural
Gas companies
Income tax
Inventories
Investment trusts
Laundries
Packing industry
Paint industry and trade
Partnership
Payrolls
Petroleum engineering
Petroleum industry and trade
Public utilities
Railroads
Securities
Steamboat lines
Stock purchase options
Trusts and trustees

Bibliography
Complete topical index, N.A.C.A. publications, April, 1920, to April 15, 1946. N A C A Bul 27:801-88 sec 2 My 1 '46

ACCOUNTING—*Continued*

Laws and regulations

Accountant's responsibility under the law. G. I. Gross. Weekly Underw 154:227-9, 466-8 Ja 19, F 16 '46
Authoritative financial accounting. G. O. May. J Account 82:102-19 Ag '46
Original cost and corporate cost; United States Supreme court; US et al. v. New York telephone company. G. O. May. J Account 81:351 Ap '46
Review of reviews of accounting progress; accounting and financial reporting in England and the United States. T. H. Sanders. J Account 81:9-26 Ja '46
SEC activities in accounting and auditing; excerpt from 11th annual report. J Account 81:351-4 Ap '46

Mechanical aids

Aiding commercial account tellers; machine method of recording and receipting account deposits. H. J. Boone. il Burroughs Clearing House 30:22-4+ Ag '46
Payroll work speeded by modern machine equipment. J. C. McNeil. il Coal Age 51:92-6 Ag '46

See also
Microfilm records
Punched card system

Study and teaching

College training for industrial accounting. S. A. Pressler. N A C A Bul 27:1056-63 Jl 1 '46

Terminology

Net income for the year. G. O. May and H. T. Chamberlain. J Account 81:363-71 My '46
Semantics of financial reports; public misunderstanding fed by technical wording. D. Knowlton. Trusts & Estates 82:543-6 Je '46

War problems

Statements of recast war-period income and related problems. W. H. Whitney. J Account 81:377-83 My '46

Great Britain

British company law reform; implications for accounting practice. M. E. Murphy. J Bsns 19:151-60 Jl '46
Review of reviews of accounting progress; report of committee on company law amendment. T. H. Sanders. J Account 81: 9-26 Ja '46

ACCOUNTING, Forensic

Forensic accounting, its place in today's economy. M. E. Peloubet. J Account 81: 458-62 Je '46
Some fundamental rules of evidence. L. S. Popkin. J Account 81:466-70 Je '46

ACCOUNTING ethics

Alleged violations of by-laws and rules of professional conduct; American institute of accountants trial board. J Account 82:180-2 Ag '46
National conference of lawyers and certified public accountants. D. F. Maxwell and W. Charles. J Account 81:120-6 F '46

ACCOUNTING research

Research in industrial accounting. N A C A Bul 27:253-7 N 15 '45

ACCOUNTS receivable

Accounts receivable in volume. J. D. Elliott. N A C A Bul 27:598-603 Mr 1 '46
Accounts receivable yardstick. W. H. Hurtzman. Banking 38:84 Ap '46
Assignment of accounts receivable; public notice vs. secrecy. H. Wells. Banking 38: 132-4 Ap '46
Supplementary methods of financing to provide working capital; inventory financing and accounts-receivable financing. R. L. Gordon. J Account 81:471-5 Je '46

See also
Assignment of book accounts

ACCOUNTS receivable insurance. See Insurance, Accounts receivable

ACCUMULATORS, Electric. See Storage batteries

ACCUMULATORS, Hydraulic. See Hydraulic accumulators

ACETALDEHYDE

Analysis

Polarographic determination of acetaldehyde; application to routine determination in complex mixtures. P. J. Elving and E. Rutner. bibliog Ind & Eng Chem Anal ed 18:176-9 Mr '46
Simultaneous determination of ethylene and 1,2-propylene glycols. B. Warshowsky and P. J. Elving. bibliog Ind & Eng Chem Anal ed 18:253-4 Ap '46

ACETALS

3,5-Benzylidene and 3,5-methylene acetals of gluco-*gulo*-heptitol. R. M. Hann, A. T. Ness and C. S. Hudson. bibliog Am Chem Soc J 68:1769-74 S '46
Condensation reactions; a laboratory preparation of ethylidene glycerol. M. M. Maglio and C. A. Burger. bibliog J Chem Educ 23: 174-5 Ap '46
Cyclic acetals and ethers of the carbohydrates; abstract. Can Chem & Process Ind 30:46 Je '46
Ketene acetals; phenylketene diethyl- and dimethylacetals from the pyrolysis of the corresponding orthoesters. S. M. McElvain and C. L. Stevens. bibliog Am Chem Soc J 68:1917-21 O '46
Ketene acetals; the alkylation and acylation of substituted ketene acetals S. M. McElvain, R. E. Kent and C. L. Stevens. bibliog Am Chem Soc J 68:1922-5 O '46
Reaction of some cyclic acetals with acid anhydrides. M. Senkus. bibliog Am Chem Soc J 68:734-6 My '46

ACETAMIDE

N-substituted tri-alkyl acetamides. W. M. Degnan and C. J. Shoemaker. bibliog Am Chem Soc J 68:104-5 Ja '46

ACETAMIDOACETOPHENONE

Nitration of 3-acetamidoacetophenone. W. A. Waters. Chem Soc J p629 S '45

ACETANILIDE

Effect of KCl, NaCl and Na_2SO_4 on the aqueous solubility of acetanilide. T. S. Logan. Am Chem Soc J 68:1660-1 Ag '46

Bibliography

Acetanilid; a critical bibliographic review. M. Gross. 155p $3 Hillhouse Press, 432 Temple st, New Haven 11 '46

ACETIC acid

Acetic acid-ethyl ether-water system; mutual solubility and tie line data. C. J. Major and O. J. Swenson. bibliog diags Ind & Eng Chem 38:834-6 Ag '46
Acid catalyzed decomposition of diazoacetic ester in some aprotic solvents at 25°. R. J. Hartman, C. J. Hochanadel and E. G. Bobalek. bibliog Am Chem Soc J 68:2071-4 O '46
Action of chlorine on 2-mercaptobenzothiazole in aqueous acetic acid. S. P. Findlay and G. Dougherty. Am Chem Soc J 68:1666 Ag '46
Force constant of the association bond in the formic and acetic acid dimers. J. O. Halford. diags J Chem Phys 14:395-8 Je '46
Ionization constant of acetic acid in 50% glycerol-water solution from 0 to 90°. H. S. Harned and F. H. M. Nestler. Am Chem Soc J 68:966-7 Je '46
Kinetics of halogen addition to unsaturated compounds; αβ-unsaturated aldehydes. P. B. D. de la Mare and P. W. Robertson. Chem Soc J p888-91 D '45
Liquid-liquid extraction in spray towers. H. F. Johnson, jr. and H. Bliss. bibliog flow sheet diags Am Inst Chem Eng Trans 42: 331-58 Ap '46
Procedure for the characterisation of the acetic acid bacteria. J. Tošić and T. K. Walker. bibliog Soc Chem Ind J 65:104-7, 180-4 Ap, Je '46
Some heterocyclic acetic acids in plant hormone tests. H. Gilman and S. Avakian. Am Chem Soc J 68:2104-5 O '46

See also
Acetoacetic acid
Mercaptoacetic acid

ACETIC anhydride

Acetic anhydride made by vapor phase catalytic dehydration of acetic acid; abstract. V. C. Bidlack and others. Chem & Met Eng 53:220+ F '46

ACETIC anhydride—*Continued*
Behavior of nitro alcohols toward formic acetic anhydride. C. D. Hurd, S. S. Drake and O. Fancher. bibliog Am Chem Soc J 68:789-91 My '46
Cinnolines; reaction between pyridine, acetic anhydride, and 4-hydroxycinnoline-3-carboxylic acid. K. Schofield and J. C. E. Simpson. Chem Soc J p472-9 Je '46
Determination of menthol in peppermint oil; acetic anhydride and pyridine as reagent. J. S. Jones and S. C. Fang. bibliog Ind & Eng Chem Anal ed 18:130-1 F '46
Iodometric method of analysis for organic peroxides. K. Nozaki. Ind & Eng Chem Anal ed 18:583 S '46
Water absorption of plastics molded from acylated casein. W. G. Gordon, A. E. Brown and C. M. McGrory. bibliog Ind & Eng Chem 38:90-4 Ja '46

ACETOACETANILIDE
Synthesis of 3-alkyl-4-methylquinolines. A. L. Searles and H. G. Lindwall. bibliog Am Chem Soc J 68:988-90 Je '46

ACETOACETIC acid
Reaction of chloromethyl ether with ethyl acetoacetate in the presence of boron trifluoride. R. Levine and C. R. Hauser. Am Chem Soc J 67:2050 N '45
Study of alternate methods for the alkylation of acetoacetic esters. W. B. Renfrow and A. Renfrow. bibliog Am Chem Soc J 68:1801-4 S '46

ACETOBACTER
Procedure for the characterisation of the acetic acid bacteria. J. Tošić and T. K. Walker. bibliog Soc Chem Ind J 65:104-7, 180-4 Ap, Je '46

ACETOIN
Liquid-vapor equilibria in the acetylmethylcarbinol-water system. R. H. Blom and A. Efron. bibliog il Ind & Eng Chem 37:1237-40 D '45

ACETONAMINE
Temperature and dielectric constant effects in the decomposition of nitrosotriacetoneamine. C. V. King and F. Lionetti. bibliog Am Chem Soc J 67:2248-50 D '45

ACETONE
Acetone derivatives of hexahydric alcohols; triacetone mannitol and its conversion into *d*-arabinose. L. F. Wiggins. Chem Soc J p13-14 Ja '46
Application of the principle of the concentration cell to kinetic studies; hydrolysis of *t*-butyl chloride in 95% water-5% acetone solution. C. G. Swain and S. D. Ross. diag Am Chem Soc J 68:658-61 Ap '46
Aryloxyacetones. C. D. Hurd and P. Perletz. bibliog Am Chem Soc J 68:38-40 Ja '46
Chemistry of western pines; distribution and nature of acetone soluble extractives in ponderosa pine. A. B. Anderson. bibliog il Ind & Eng Chem 38:450-4 Ap '46
Composition of vapors from boiling binary solutions; apparatus for determinations under pressure. D. F. Othmer and F. R. Morley. bibliog diags Ind & Eng Chem 38: 751-7 Jl '46
Derivatives of acetyl hydroxy furans and their conversion into substituted acetones. A. L. Wilds, W. J. Close and J. A. Johnson, jr. bibliog Am Chem Soc J 68:89-92 Ja '46
Kinetics of exchange reactions; influence of solvent and molecular structure. L. J. le Roux and others. Chem Soc J p586-8 S '45
Kinetics of the halogenation of acetone in alkaline solutions. R. P. Bell and H. C. Longuet-Higgins. Chem Soc J p636-8 Jl '46
Knock ratings of gasoline substitutes. A. D. Puckett. diag J Res Nat Bur Stand 35:273-84 O '45
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance; comparison of the rates of reaction of ethyl and *neo*pentyl bromides with inorganic iodides in acetone solution. I. Dostrovsky and E. D. Hughes. Chem Soc J p161-4 Mr '46
N-substituted α-aminoisobutyronitriles from acetone cyanohydrin. R. A. Jacobson. bibliog Am Chem Soc J 67:1996-8 N '45
Processing penicillin. F. C. Whitmore and others. diags Ind & Eng Chem 38:942-8 S '46
Reaction of hydrogen atoms with acetone. G. M. Harris and E. W. R. Steacie. J Chem Phys 13:554-9 D '45
Rectification in ternary systems containing binary azeotropes. R. H. Ewell and L. M. Welch. bibliog Ind & Eng Chem 37:1224-31 D '45
Solubility of acetylene in acetone. V. E. Brameld and M. T. Clark. bibliog diag Soc Chem Ind J 65:58-61 F '46
Solubility of acetylene in acetone. A. S. Carpenter. Chem & Ind p316 Ag 24 '46
Solubility of potassium iodide in acetone. R. Livingston and R. R. Halverson. bibliog J Phys Chem 50:1-6 Ja '46
System acetone water-1,1,2-trichloroethane; ternary liquid and binary vapor equilibria. R. E. Treybal, L. D. Weber and J. F. Daley. bibliog diags Ind & Eng Chem 38: 817-21 Ag '46
Systems containing isobutanol and tetrachloroethane; liquid-vapor and liquid-liquid equilibria. R. H. Fritzsche and D. L. Stockton. bibliog diags Ind & Eng Chem 38:737-40 Jl '46
Utilization of nonpetroleum fuels in automotive engines. J. T. Duck and C. S. Bruce. bibliog J Res Nat Bur Stand 35:439-65 D '45
Viscosities and densities of solvent-vegetable oil mixtures. F. C. Magne and E. L. Skau. bibliog diags Ind & Eng Chem 37:1097-1101 N '45

Analysis
Determination of acetone; ultraviolet spectrophotometric method. G. L. Barthauer, F. V. Jones and A. V. Metler. bibliog Ind & Eng Chem Anal ed 18:354-5 Je '46
Specificity of the salicylaldehyde reaction for the detection of acetone. T. Thomson. bibliog Soc Chem Ind J 65:121-4 Ap '46

Manufacture
Acetone direct from acetylene; unique process by Shawinigan Chemicals. A. W. J. Dyck. flow sheet il Can Chem & Process Ind 30: 34-6 S '46

Statistics
Acetone production data: 1944-1945. Oil Paint & Drug Rep 150:49 Jl 1 '46

ACETONITRILE
Effect of added components on the relative volatility of two binary mixtures. O. L. Updike, jr. and others. bibliog Am Inst Chem Eng Trans 41:717-36 D '45
Studies on hydrogen cyanide; the action of hydrogen chloride on methyl cyanide. L. E. Hinkel and G. J. Treharne. Chem Soc J p866-7 D '45

ACETOPHENONE
o-Amino-ketones of the acetophenone and benzophenone types. J. C. E. Simpson and others. bibliog Chem Soc J p646-57 O '45
Coupling of aryl methyl ketones by the action of sodium hypohalite solutions. R. C. Fuson and R. Johnson. Am Chem Soc J 68:1668-9 Ag '46
Preparation of phenyl (α-ethyl-α-*n*-decyl)-*n*-tridecyl ketone (ω-ethyl-ω-*n*-decyl-ω-*n*-dodecylacetophenone) and related substances. C. L. Carter and S. N. Slater. Chem Soc J p130-3 F '46
Reaction of acetophenone with thiourea and oxidizing agents. R. M. Dodson and L. C. King. Am Chem Soc J 68:871 My '46
Reactions of acetophenone and iodine with some nitrogenous bases. L. C. King and M. McWhirter. bibliog Am Chem Soc J 68: 717 Ap '46
Some substituted acetophenones. E. Campaigne and W. B. Reid, jr. Am Chem Soc J 68:1663 Ag '46
Willgerodt reaction; a study of reaction conditions with acetophenone and other ketones. D. F. DeTar and M. Carmack. bibliog Am Chem Soc J 68:2025-9 O '46

ACETOXY compounds
Quaternary ammonium salts as germicides; acetoxy and carbethoxy derivatives of aliphatic quaternary ammonium salts. R. S. Shelton and others. Am Chem Soc J 68: 755-7 My '46

ACETOXYACETYL compounds
Synthetic analogues of corticosterone. W. C. J. Ross. Chem Soc J p538-40 Ag '45

ACETOXYISOBUTYRATES
Pyrolytic preparation of α-carbalkoxyalkyl acrylates and methacrylates. E. M. Filachione, J. H. Lengel and C. H. Fisher. bibliog Am Chem Soc J 68:330-3 F '46

ACETOXYPROPIONATES
Pyrolytic preparation of α-carbalkoxyalkyl acrylates and methacrylates. E. M. Filachione, J. H. Lengel and C. H. Fisher. bibliog Am Chem Soc J 68:330-3 F '46

ACETYLACETONE. See Pentanedione

ACETYLCHOLINE
Acetylcholine synthesis. C. Torda and H. C. Wolff. bibliog(33 references) Science 103: 645-6 My 24 '46
Some effects of salts on true cholinesterase. B. Mendel and H. Rudney. bibliog Science 102:616-17 D 14 '45
Theory of anesthetic action based upon acetylcholine competition. F. W. Schueler. J Chem Educ 22:585 D '45

ACETYL toluidine
Solubility of acetyl-*p*-toluidine in various solvents. D. L. Pollock and others. bibliog J Phys Chem 50:23-8 Ja '46

ACETYLATION
Acetylated cotton highly resistant to rotting. C. F. Goldthwait and others. bibliog il Textile World 96:115-17+ F '46
Acetylation of cellulose in phosphoric acid solution; abstract. E. Heuser and others. Am Dyestuff Rep 35:461 S 23 '46
Acetylation of D-mannose phenylhydrazone. M. L. Wolfrom and M. G. Blair. bibliog Am Chem Soc J 68:2110-11 O '46
Acetylation of some 5-aminoacridines. J. H. Wilkinson and I. L. Finar. Chem Soc J p115-17 F '46
Catalytic acetylation of steroid compounds. B. Whitman and E. Schwenk. Am Chem Soc J 68:1865-6 S '46
Detoxification by acetylation of soluble antigens from shigella dysenteriae (shiga) and E. typhosa. H. P. Treffers. bibliog Science 103:387-9 Mr 29 '46
Effect of alkaline pulping on the acetylating properties of wood pulp. J. W. McKinney. bibliog Paper Tr J 122:58-62 Ja 24 '46
Migration of acyl groups in certain derivatives of *o*-aminophenol. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 67:2163-5 D '45

ACETYLENE
Acetone direct from acetylene; unique process by Shawinigan Chemicals. A. W. J. Dyck. flow sheet il Can Chem & Process Ind 30:34-6 S '46
Acetylene as the basis of new plastics. W. Reppe. diag Mod Plastics 23:169-76+ F '46
Acetylene by the arc process; plant at Chemische werke Huls. Chem & Met Eng 53:216+ Ja '46
Acetylene industry in wartime Germany. R. L. Hasche. il Chem & Met Eng 52:116-19 O '45; Same cond. Chem Age (Lond) 53: 623-5 D 29 '45
Boost for acetylene chemistry; war-born German developments. Bsns W p46+ N 2 '46
Condensation of acetylene by molten salts. P. C. Johnson and S. Swann, jr. bibliog diags Ind & Eng Chem 38:990-6 O '46
German research reports; acetylene in chemical operations. Oil Paint & Drug Rep 150:47 Ag 12 '46
Germany made acetylene and carbon black by cracking natural gas in electric arc. E. S. Pettyjohn. il diags Nat Pet N 38 pt 2:R596+ Ag 7 '46
Heats, equilibrium constants, and free energies of formation of the acetylene hydrocarbons through the pentynes, to 1,500° K. D. D. Wagman and others. bibliog J Res Nat Bur Stand 35:467-96 D '45
Resins from phenol and acetylene; report at 23d Kuko (Plastics committee) meeting in Frankfort. Hecht. Mod Plastics 23:152 Jl '46
Significance of German acetylene developments. C. C. Monrad. il Chem & Met Eng 53:120-3 Jl '46
Solubility of acetylene in acetone. V. E. Brameld and M. T. Clark. bibliog diag Soc Chem Ind J 65:58-61 F '46
Solubility of acetylene in acetone. A. S. Carpenter. Chem & Ind p316 Ag 24 '46

See also
Oxyacetylene cutting
Oxyacetylene flame
Oxyacetylene welding

Analysis
Determination of traces of acetylene in liquid oxygen in rectifying columns. H. P. McKoon and H. D. Eddy. bibliog diags Ind & Eng Chem Anal ed 18:133-6 F '46

Generators
Explosions in medium-pressure acetylene generators. G. W. Jones and others. diags U S Bur Mines Rep of Invest 3755:1-20 '44

ACETYLENE black. See Carbon black

ACETYLENE compounds
Acetylene polymer from silent discharge; reactions with hydrogen halides. G. Glockler and A. E. Walz. diag Electrochem Soc Trans 88 (preprint 14):151-60 '45
Di-*t*-butylacetylene. G. F. Hennion and T. F. Banigan, jr. bibliog Am Chem Soc J 68: 1202-4 Jl '46
Molecular refractions of the higher acetylenic hydrocarbons. G. F. Hennion and T. F. Banigan, jr. Am Chem Soc J 68:1381-2 Jl '46
Researches on acetylenic compounds. K. Bowden and others. Chem Soc J p39-58 Ja '46
Researches on acetylenic compounds; αβ-acetylenic hydroxy-acids. L. J. Haynes and E. R. H. Jones. Chem Soc J p503-6 Je '46
Willgerodt and Kindler reactions; amides from acetylenes and olefins; studies relating to the reaction mechanisms. M. Carmack and D. F. DeTar. bibliog Am Chem Soc J 68:2029-33 O '46
Willgerodt reaction; acetylenes, olefins, and tertiary carbinols. D. B. Pattison and M. Carmack. bibliog Am Chem Soc J 68:2033-5 O '46

ACHROMATISM
Correcting the spherical and chromatic aberrations of the eye. A. C. S. van Heel. diag Opt Soc Am J 36:237-9 Ap '46

ACID chlorides. See Chlorides

ACID containers
Packaging of acids and corrosive liquids. T. P. Callahan. il Chem Ind 58:102+ Ja '46

See also
Acid tanks

ACID handling
Acid pumps; abstract. J. Sprecher. diags Mech Eng 68:828-9 S '46
How a combined hoist, carriage and tipper was built for acid carboys. L. K. Arnold. il diags Chem & Met Eng 53:115 Ap '46
No vacuum pumps needed for this siphon for discharging acid tank cars. W. O. Ordinanz. diag Chem Eng 53:125 S '46

See also
Acid containers
Acid tanks
Carboys

ACID resisting materials
Acid pumps; abstract. J. Sprecher. diags Mech Eng 68:828-9 S '46
Corrosion by hydrofluoric acid. W. Z. Friend and H. O. Teeple. bibliog flow sheet il Oil & Gas J 44:87+ Mr 16 '46
Corrosion in hydrofluoric acid alkylation. M. E. Holmberg and F. A. Prange. il diag Ind & Eng Chem 37:1030-3 N '45
Corrosion limits metals that can be used for construction of HF alkylation units. il Nat Pet N 38 pt 2:R618+ Ag 7 '46
Corrosion resistance of aluminum welds in nitric acid; abstract. R. B. Khmel'nitskaya. Welding J 25:sup162 Mr '46
Corrosion resistant alloys; acid penetration test results of Hastelloy; tabulation. Steel 119:73 Jl 29 '46
Further note on the microstructure of high-silicon acid-resisting iron. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 151:105-7, pl 7-8; Discussion. 107-8 no 1 '45
Heat and chemical resistant plastic; Teflon. il Materials & Methods 23:1571-3 Je '46

ACID resisting materials—*Continued*
Phosphoric acid vs. materials of chemical plant construction. W. E. Pratt and others. il Chem & Met Eng 53:221-2+ Jl '46; [cont as] Chem Eng 53:203-4+ Ag; 203-4+ S '46

Resisting hydrochloric acid; with list of materials. W. L. Nelson. Oil & Gas J 44:155 Ap 20 '46

ACID tanks
Liquid sealed vent for acetic acid tanks. W. Tarpley. diag Chem & Met Eng 52:117 N '45

Means for raising acid tank valves. H. L. Crosby. diag Oil & Gas J 45:66 Je 1 '46

Storage tank dispenses sulfuric acid safely. plan diags Pet Processing 1:18-19 S '46

ACID waste
Acid recovery from pickle liquor; methods at recent British plants; abstract. N. Swindin. Am Water Works Assn J 38:796-7 Je '46

Treatment of spent pickling liquors [résumé of two papers in Industrial and engineering chemistry, March, 1944 and June, 1945]. R. D. Hoak, C. J. Lewis and W. W. Hodge. Steel 118:104+ F 11 '46

ACIDATION of oil wells. See Petroleum—Acidation of wells

ACIDITY
Acid catalyzed decomposition of diazoacetic ester in some aprotic solvents at 25°. R. J. Hartman, C. J. Hochanadel and E. G. Bobalek. bibliog Am Chem Soc J 68:2071-4 O '46

Determination of acid in the presence of aluminum. R. P. Graham. bibliog Ind & Eng Chem Anal ed 18:472-4 Ag '46

Drying oil and oleoresinous varnish films; increase in acidity on aging. bibliog V. J. Frilette. Ind & Eng Chem 38:493-6 My '46

Precision scientific co.'s titrometer. il Rubber Age 58:622+ F '46

Teaching total acidity. Sister M. Clotilde. J Chem Educ 23:433 S '46

ACIDS
Action of acids on *N*-bromoacetanilides. G. C. Israel, A. W. N. Tuck and F. G. Soper. Chem Soc J p547-8 Ag '45

Condensations by sodium; the metalation of olefins and the preparation of β,γ-unsaturated acids. A. A. Morton and others. bibliog Am Chem Soc J 67:2224-8 D '45

Covalent adsorption on base-exchange resins; the adsorption of monobasic acids. J. A. Bishop. bibliog J Phys Chem 50:6-12 Ja '46

Cyclization of pseudoionone by acidic reagents. E. E. Royals. bibliog Ind & Eng Chem 38:546-8 My '46

Endo-exo-rearrangement in the addition of acids to dicyclopentadiene. P. D. Bartlett and A. Schneider. bibliog Am Chem Soc J 68:6-8 Ja '46

See also
Acidity

also names of acids, e.g.

Acetic acid	Nitric acid
Hydrochloric acid	Phosphoric acid
Hydrofluoric acid	Sulfuric acid

Analysis

Analysis of binary mixtures of normal aliphatic dibasic acids and esters; use of composition; melting point relations of the acids. D. F. Houston and W. A. Van Sandt. bibliog Ind & Eng Chem Anal ed 18:538-40 S '46

Use of refractive indices of dimethyl esters. D. F. Houston and J. S. Furlow. bibliog Ind & Eng Chem Anal ed 18:541-2 S '46

ACIDS, Fatty
Adsorption of fatty acids on nickel and platinum catalysts. H. A. Smith and J. F. Fuzek. bibliog diag Am Chem Soc J 68: 229-31 F '46

Branched-chain fatty acids; a further study of the preparation of ketones and keto esters by means of organocadmium reagents. J. Cason. bibliog Am Chem Soc J 68:2078-81 O '46

Butter from coal at Imhausen soap-manufacturing plant. il Chem Age (Lond) 54: 602-3 Je 1 '46

Complexes of fatty acids with amylose. F. F. Mikus, R. M. Hixon and R. E. Rundle. bibliog Am Chem Soc J 68:1115-23 Je '46

Conductometric investigation of electrolytic solutions in hydrocarbons. A. Gemant. bibliog J Chem Phys 14:424-34 Jl '46

Detection of conjugated unsaturated fatty acids with tetranitromethane; abstract. H. P. Kaufmann and P. Kirsch. Paint Oil & Chem R 109:30 Mr 21 '46

Effects of radioactivity on fatty acids. C. W. Sheppard and V. L. Burton. bibliog diags Am Chem Soc J 68:1636-9 Ag '46

Esterification of fatty acids with glycerol. N. Ivanoff. Chem & Met Eng 53:270 Mr '46

Excessive corrosion rates in high-pressure condensate wells; abstract. E. C. Greco and H. T. Griffin. Oil & Gas J 45:93 My 18 '46

Fatty acid fractionation; abstract. F. Lachampt. Soap & San Chem 12:79 My '46

Fatty acid soaps in emulsion polymerization. L. W. Rainard. India Rubber World 114: 67-9 Ap '46

Fatty acids in potash soaps. D. V. Stingley. Soap & San Chem 22:67+ Mr '46

Fatty acids of corn oil. F. J. Baur, jr. and J. B. Brown. bibliog Am Chem Soc J 67: 1899-1900 N '45

Formation of hydrocarbons from fatty acids by alpha-particle bombardment. C. W. Sheppard and W. L. Whitehead. bibliog il diags Am Assn Pet Geologists Bul 30:32-51 Ja '46

German chemical industries; synthetic fatty acids. Chem & Met Eng 52:182+ D '45

High-pressure gas-well corrosion caused by CO_2, H_2S, and fatty acids. T. S. Bacon. il Oil & Gas J 44:119-20+ My 4 '46

Investigation of the seed oils of some Sudan cæsalpinioideæ. D. N. Grindley. bibliog Soc Chem Ind J 65:118-19 Ap '46

Lac-glycol esters; their preparation, properties, and use. Chem Age (Lond) 53:619-20 D 29 '45

Preparation of phenyl (α-ethyl-α-*n*-decyl)-*n*-tridecyl ketone (ω-ethyl-ω-*n*-decyl-ω-*n*-dodecylacetophenone) and related substances. C. L. Carter and S. N. Slater. Chem Soc J p130-3 F '46

Wetting of steel surfaces by esters of unsaturated fatty acids. N. F. Miller. bibliog il diags J Phys Chem 50:300-19 Jl '46

See also
Lauric acid

Analysis

Colorimetric determination of fatty acids and esters. U. T. Hill. Ind & Eng Chem Anal ed 18:317-19 My '46

Determination of free fatty acids in dried egg powders. C. M. Johnson and L. Kline. bibliog Ind & Eng Chem Anal ed 18:617-19 O '46

Determination of small amounts of soaps or fatty acids on cotton materials. C. L. Hoffpauir and J. H. Kettering. bibliog Am Dyestuff Rep 35:265-6 My 20 '46

Factors influencing estimation of free fatty acids in dried egg powders. L. Kline and C. M. Johnson. bibliog Ind & Eng Chem Anal ed 18:35-8 Ja '46

Fat in fatty acids; abstract. N. D. Sylvester and others. Soap & San Chem 21:47 D '45

Separation of acids by chromatographic adsorption of their *p*-phenylphenacyl esters. J. G. Kirchner, A. N. Prater and A. J. Haagen-Smit. bibliog Ind & Eng Chem Anal ed 18:31-2 Ja '46

Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain elaeostearic as well as linoleic and oleic acids. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 65:74-81 Mr '46

Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain linolenic as well as linoleic and oleic acids. F. D. Gunstone and T. P. Hilditch. Soc Chem Ind J 65:8-13 Ja '46

ACIDS, Organic
Humic acids and true organic acids as solvents of minerals. W. G. Fetzer. bibliog Econ Geol 41:47-56 Ja '46

ACIDS, Organic—*Continued*
Organic acids by direct oxidation of coal. N. W. Franke and M. W. Kiebler. il diag Chem Ind 58:580-1 Ap '46

See also
Acids, Fatty
Amino acids
Pectinic acids

ACME steel company
Two steel firms bucked downtrend in net. Barron's 26:7 Jl 1 '46

ACONITIC acid
Extraction of aconitic acid from sorgo. E. K. Ventre and others. bibliog Ind & Eng Chem 38:201-4 F '46
Sugar byproduct; calcium aconitate. Bsns W p51 F 23 '46

ACONITIC anhydride
Adduct of anthracene with *cis*-aconitic anhydride. J. Werner and P. Nawiasky. Am Chem Soc J 68:151 Ja '46

ACOUSTIC mines. See Mines, Submarine

ACOUSTIC patents
Review of acoustical patents. R. W. Young. diags Acoustical Soc Am J 17:305-13 Ja '46 [cont quarterly]

ACOUSTIC trauma. See Ear—Injuries

ACOUSTICAL society of America
Program of the 31st meeting, New York, May 10-11; with abstracts of papers. Acoustical Soc Am J 18:244-55 Jl '46
Report on membership reorganization. Acoustical Soc Am J 18:224-5 Jl '46

ACOUSTICS, Architectural
Acoustics of modern auditoriums. F. R. Watson. il diags Arch Rec 99:119-23 Je '46
Design and construction of anechoic sound chambers. L. L. Beranek and H. P. Sleeper, jr. il diags Acoustical Soc Am J 18:140-50 Jl '46
Effect of non-uniform wall distributions of absorbing material on the acoustics of rooms. H. Feshbach and C. M. Harris. bibliog plan diags Acoustical Soc Am J 18:472-87 O '46
Fluctuation phenomena in room acoustics. D. Maa. bibliog Acoustical Soc Am J 18: 134-9 Jl '46
Normal frequency statistics for rectangular rooms. R. H. Bolt. Acoustical Soc Am J 18:130-3 Jl '46
Reverberation chambers for rerecording. M. Rettinger. diags Soc Motion Picture Eng J 45:350-7 N '45
Small theater acoustics. diags Arch Rec 99: 116 Je '46
Television must sound right; fallacies in studio design and equipment must be corrected. R. Hubbell. il Radio N 35:46-7+ F '46

See also
Sound absorbent materials

ACREAGE adjustment. See Agricultural laws and legislation—Acreage adjustment

ACRIDINE
Absorption spectra of acridines; steric interference with ionisation. D. P. Craig. Chem Soc J p534-7 Je '46
Absorption spectra of acridines; the hydroxyacridines. A. Albert and L. N. Short. Chem Soc J p760-3 N '45
Chemoprophylaxis of experimental influenza infections in eggs. R. H. Green and others. Pub Health Rep 61:1401-3 S 27 '46
Heterocyclic basic compounds; 3,6-dichloro-9-(1-methyl-4-diethylaminobutyl)-aminoacridine. D. P. Spalding and others. bibliog Am Chem Soc J 68:1596-8 Ag '46
Improved syntheses of acridines; the dechlorination of 5-chloroacridines and a new synthesis of acridine. A. Albert and J. B. Willis. bibliog Soc Chem Ind J 65:26-8 Ja '46
Pyrryl derivatives of pyridine, quinoline and acridine. H. Gilman, C. G. Stuckwisch and J. F. Nobis. bibliog Am Chem Soc J 68: 326-8 F '46
Structure and antimalarial activity; some acridine derivatives. D. M. Hall and E. E. Turner. Chem Soc J p694-9 O '45
Synthesis of substituted aminobenzacridines. G. B. Bachman and G. M. Picha. bibliog Am Chem Soc J 68:1599-1602 Ag '46

ACROLEIN
Dipole moments and structures of ketene and of several polar molecules containing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:1357-60 Jl '46

ACRYLATES
Pyrolytic preparation of α-carbalkoxyalkyl acrylates and methacrylates. E. M. Filachione, J. H. Lengel and C. H. Fisher. bibliog Am Chem Soc J 68:330-3 F '46
Rapid vulcanization of saturated acrylic elastomers. W. C. Mast and others. bibliog il India Rubber World 113:223-8+ N '45
Some derivatives of simple carbohydrates containing unsaturated substituents. W. N. Haworth, Mrs H. Gregory and L. F. Wiggins. Chem Soc J p488-91 Je '46

ACRYLIC acid
β-Alkoxypropionates; addition of alcohols to the olefinic linkage of alkyl acrylates. C. E. Rehberg, M. B. Dixon and C. H. Fisher. bibliog Am Chem Soc J 68:544-6 Ap '46
Synthesis of 4-hydroxyquinolines; direct synthesis of β-substituted acrylic esters. H. R. Snyder and R. E. Jones. Am Chem Soc J 68:1253-5 Jl '46

ACRYLONITRILE
Integrating plastic and rubber industries; parts made from polyvinyl plastics and acrylonitrile-butadiene type synthetic rubbers. R. P. Kenney. il Mod Plastics 24:106-7 S '46
Processes for making nitrile compounds patented by three oil companies. D. P. Thornton, jr. Nat Pet N 38 pt 2:R221-2 Mr 6 '46
Reaction of acrylonitrile with aliphatic alcohols. J. H. MacGregor and C. Pugh. Chem Soc J p535-6 Ag '45
Some amine derivatives of acrylonitrile. O. F. Wiedeman and W. H. Montgomery. Am Chem Soc J 67:1994-6 N '45

ACTINOCRINUS parvus
Redefinition of actinocrinus parvus Shumard. E. Kirk. bibliog Am J Sci 244:658-60 S '46

ACTIVATED carbon. See Carbon, Activated

ACTIVATED charcoal. See Carbon, Activated

ACTIVATED sludge method. See Sewage disposal—Activated sludge method

ACTIVATION
Some physical properties of activated bauxite. H. Heinemann, K. A. Krieger and W. S. W. McCarter. bibliog Ind & Eng Chem 38:839-42 Ag '46

ACTIVITY coefficients
Activity coefficients of sulfuric acid in aqueous solutions of ethanol at 25°C. H. D. Crockford and S. A. Wideman. J Phys Chem 50:418-22 S '46
Activity of 1-*n*-dodecanesulfonic acid in aqueous solutions. H. F. Walton. bibliog Am Chem Soc J 68:1180-2 Jl '46
Activity of hydrochloric acid in solutions of 1-*n*-dodecanesulfonic acid. H. F. Walton. Am Chem Soc J 68:1182-4 Jl '46
Osmotic and activity coefficients of zinc nitrate, zinc perchlorate and magnesium perchlorate; transference numbers in zinc perchlorate solutions. R. H. Stokes and B. J. Levien. bibliog diag Am Chem Soc J 68:333-7 F '46
Salt effects of potassium nitrate, sodium sulfate and trisodium citrate on the activity coefficients of *p*-phenolsulfonate buffers. R. G. Bates and others. bibliog J Res Nat Bur Stand 37:251-61 O '46
Thermodynamic evaluation of binary and ternary liquid systems. K. Wohl. bibliog Am Inst Chem Eng Trans 42:215-49 Ap '46
Transference numbers and activity coefficients in zinc iodide solutions at 25°. R. H. Stokes and B. J. Levien. bibliog Am Chem Soc J 68:1852-4 S '46

ACTORS and actresses
Applause from the applauded; Broadway stars believe in insurance. R. Rhodes. il Spectator (Life ed) (Endorsement no) 153:6-9+ D '45

ACTUARIAL society of America
Annual meeting, New York, May 20-21. East Underw 47:3+ My 24 '46; Nat Underw (Life ed) 50:1+ My 24 '46

ACTUARIES. See Insurance actuaries

ACYL group
Migration of acyl groups in certain derivatives of *o*-aminophenol. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 67:2163-5 D '45

ACYLATION
Acylation and carbethoxylation of nitriles in the presence of sodium amide. R. Levine and C. R. Hauser. bibliog Am Chem Soc J 68:760-1 My '46
Acylation of 4-hydroxy-3-carbethoxy-2-methylthiophen. J. H. Beynon and A. B. A. Jansen. Chem Soc J p600-1 S '45
Acylation of polyuronides with formamide as a dispersing agent. J. F. Carson and W. D. Maclay. bibliog Am Chem Soc J 68:1015-17 Je '46
Ketene acetals; the alkylation and acylation of substituted ketene acetals. S. M. McElvain, R. E. Kent and C. L. Stevens. bibliog Am Chem Soc J 68:1922-5 O '46
Synthesis of methyl ketones and diethyl acylmalonates. H. G. Walker and C. R. Hauser. bibliog Am Chem Soc J 68:1386-8 Jl '46
Water absorption of plastics molded from acylated casein. W. G. Gordon, A. E. Brown and C. M. McGrory. bibliog Ind & Eng Chem 38:90-4 Ja '46

ADAMS, Roger, 1889-
Adams receives Richards medal. por Chem & Eng N 24:1513+ Je 10 '46
Priestley medal recipient. por Chem & Eng N 24:2486-9 S 25 '46
Priestley medal won by Dr Roger Adams. por Oil Paint & Drug Rep 150:7+ Ag 26 '46
Roger Adams delivers first Remsen memorial lecture at Johns Hopkins. por Chem & Eng N 24:1642 Je 25 '46
Roger Adams to receive Richards medal. por Chem & Eng N 24:1021 Ap 25 '46
Sketch. por(cover) Chem & Eng N 24:2341 S 10 '46

ADAMS, S. S., company
Adams' ribs aren't missing; Sam Adams fabricates metals, plastics and other materials into tricks. E. J. Tangerman. il diags Am Mach 90:106-9 Ag 15 '46

ADAPTATION, Visual. See Eye—Accommodation and refraction

ADDING machines
Man-building policies that will gird Victor for hot competition. A. F. Bakewell. il Sales Management 56:94+ My 20 '46
War training technique turns out order-getting salesmen quickly; Victor uses sound slide films, manuals, and questionnaires. P. J. Schutt. il Sales Management 55:69+ D 15 '45

ADDITION compounds
Addition compounds of sulfur dioxide with pyridine and the picolines. K. R. Hoffman and C. A. VanderWerf. bibliog Am Chem Soc J 68:997-1000 Je '46
Addition of olefinic esters to maleic anhydride. J. Ross, A. I. Gebhart and J. F. Gerecht. bibliog Am Chem Soc J 68:1373-6 Jl '46
Allylic rearrangements; some addition reactions of butenylmagnesium bromide. W. G. Young and J. D. Roberts. bibliog Am Chem Soc J 68:649-52 Ap '46
Chemistry of dicyclopentadiene; addition of alcohols and phenols. H. A. Bruson and T. W. Riener. Am Chem Soc J 68:8-10 Ja '46
Endo-exo-rearrangement in the addition of acids to dicyclopentadiene. P. D. Bartlett and A. Schneider. bibliog Am Chem Soc J 68:6-8 Ja '46

ADDITIVITY (term)
Molecular constants and chemical theories; some remarks on physical constants and theories of higher valence states. R. Samuel. bibliog J Chem Phys 13:572-84 D '45

ADDRESSING machines
Redesigning? consider materials changes; graphotype; machine for embossing plates for addressing machine. R. K. Lotz. il diags Machine Design 17:127-9 D '45

ADENOSINE triphosphatase
Possibility of a histochemical method for localizing adenosinetriphosphatase. F. Moog and H. B. Steinbach. bibliog Science 103:144 F 1 '46; Reply. D. Glick. 103:599 My 10 '46

ADHESION
Adhesion to glass. W. A. Weyl. bibliog Glass Ind 26:557-60+ D '45
Adhesives and theory of adhesion. bibliog il diags Steel 118:100-4+ Ap 15 '46
Methods for testing adhesion of electrodeposits; abstract. A. L. Ferguson. Steel 119: 106 Jl 8 '46
Some of the newer concepts of adhesion; abstract. L. Van Roy. Paper Ind 28:280+ My '46
Structure of alkylphenol resin tackifiers for GR-S. G. E. P. Smith, jr., J. C. Ambelang and G. W. Gottschalk. bibliog il Ind & Eng Chem 38:1166-70 N '46
Study of the H test for evaluating the adhesive properties of tire cord in natural and GR-S rubbers. W. J. Lyons and others. India Rubber World 114:213-17+ My '46

ADHESIVE tape
Non-oxidizing resins for pressure-sensitive tapes. India Rubber World 113:671 F '46

Testing
Tackiness of GR-S and other elastomers. W. F. Busse and others. bibliog il diag J Ap Phys 17:376-85 My '46

ADHESIVES
Accessory functions of adhesives. F. C. Campins. Mod Packaging 19:148-50 O '45; Same cond. Paper Ind 27:1420+ D '45; Discussion. Mod Packaging 19:150-1 O '45
Adhesiveness of seals and closures for packages. diags Paper Tr J 123:42-3 Jl 4 '46
Adhesives; abstract. F. P. Bartlett, jr. Mod Packaging 19:132 D '45
Adhesives and theory of adhesion. bibliog il diags Steel 118:100-4+ Ap 15 '46
Adhesives for rubber. J. A. Merrill. il Rubber Age 59:313-16 Je '46
Adhesives; modern tool of fabrication. D. L. Swayze. il S A E J 54:412-17 Ag '46
Adhesives, raised to new levels of permanence and efficiency by the war, will be important aids to postwar building. il Arch Forum 83:206+ N '45
Adhesives; types, composition properties, service conditions; engineering file facts. K. Rose, comp. Materials & Methods 22:1785 D '45
Flexible organic adhesives as structural elements; Plastilock 500. D. L. Loughborough and F. D. Snyder. bibliog India Rubber World 115:84-7 O '46
Honeycomb core structures; improvement in adhesives and core materials. O. S. Tuttle and W. B. Kennedy. il diags Mod Plastics 24:129-35+ S '46
Industrial adhesives. L. F. Weyand. Chem Ind 59:274 Ag '46
Laminating adhesives and their applications. A. Biddle. Paper Tr J 122:34-40 Je 6 '46
Specifications for adhesives; abstract. G. Reinsmith. Mod Packaging 19:153-4 Ap '46
Thermal-expansion stresses in reinforced plastics; polystyrene and aluminum oxide; phenol-formaldehyde resin and glass fibers; plywood, etc. P. S. Turner. J Res Nat Bur Stand 37:239-50 O '46
Thermosetting adhesives for wood; properties, techniques and applications. P. C. Fuller and R. L. Hiller. il diags Product Eng 17:[no7] 84-9 Jl '46
Universal adhesive stems from a family of synthetic rubbers; Pliobond. Sci Am 174:37+ Ja '46
Use of adhesives in cold drawing stainless steel tubing. H. K. Ihrig. il diags Steel 119: 102-4+ O 21 '46

See also
Binding materials
Glue
Mucilage
Paste

Manufacture
Chemicals increase versatility of starch adhesives. A. Frieden. il Chem Ind 59:641-4 O '46

ADHESIVES—*Continued*

Water resistance

Accessory functions of adhesives. F. C. Campins. Mod Packaging 19:148-50 O '45; Same cond. Paper Ind 27:1420+ D '45; Discussion. Mod Packaging 19:150-1 O '45

ADIPIC acid

Synthesis of β,β'-dipropyladipic acid. C. F. Koelsch. Am Chem Soc J 68:148-9 Ja '46

ADMINISTRATION

Introductory course in administration for engineers. H. Rubey. J Eng Educ 36:185-7 N '45

See also

Management

ADMINISTRATION, International

Case study in international organization. M. Katz. Harvard Bsns R 25 no 1:1-20 [O] '46

ADMINISTRATION, Public

Filing practice in the civil service. K. S. Jefferies. J Doc 2:8-16 Je '46

Our regulatory commissions. J. C. Hammer. Pub Util 36:702-3 N 22 '45

Rule of law usurped by federal agencies? R. Pound. Pub Util 37:703-4 My 23 '46

See also

Agricultural administration
Bureaucracy
Highway administration
Public health administration
Public officers
Tax administration

ADMINISTRATION of estates. See Executors and administrators

ADMINISTRATIVE procedure act, 1946

Administrative procedure act; editorial. Comm & Fin Chr 164:607+ Ag 1 '46

Administrative procedure act; text of legislation enacted by Congress to regulate and curb judicial powers of government agencies. Comm & Fin Chr 164:619+ Ag 1 '46

Federal administrative procedure act. Comm & Fin Chr 164:2334+ N 7 '46

Menace of discretionary government agencies. P. McCarran. Comm & Fin Chr 164:2336+ N 7 '46

Why did federal commissions adopt new rules? changes required by Administrative procedure act. A. Haines. Pub Util 38:593-601 N 7 '46

ADMIRALTY

Court rules on liability of government when character of vessel is changed. East Underw 47:30 F 22 '46

No admiralty jurisdiction over land carriage after ocean trip. East Underw 47:34 Ap 12 '46

Sister act at sea; salvaging American Farmer after abandonment stirs up Anglo-American tempest. Bsns W p42-3 Ag 17 '46

ADOBE

California motel builders beat materials shortages; use adobe brick, fashioned on the property. il plan Am Bld 68:90 Ag '46

ADRENALIN

Note on the purification and resolution of *dl*-adrenaline. S. Pickholz. Chem Soc J p928 D '45

Reduction of sympathetic synaptic transmission as an index of inhibition at adrenergic junctions in general. A. S. Marrazzi. bibliog Science 104:6-8 Jl 5 '46

Ventricular fibrillation induced by hydrocarbons and epinephrine. M. B. Chenoweth. bibliog il J Ind Hygiene 28:151-8 Jl '46

ADRENALIN, Analogs of

Pressor amines containing nuclear chlorine and fluorine. L. S. Fosdick, O. Fancher and K. F. Urbach. bibliog Am Chem Soc J 68:840-3 My '46

ADRENOCHROME

Adrenochrome synthesis in Germany. Chem & Eng N 24:956 Ap 10 '46

ADSORPTION

Activated adsorption of nitrogen on a finely divided tungsten powder. R. T. Davis, jr. bibliog diag Am Chem Soc J 68:1395-1402 Ag '46

Adsorption isotherms for hydrogen-bonded liquids on charcoal. D. H. Volman and I. M. Klotz. J Chem Phys 14:642 O '46

Adsorption of aneurin (vitamin B_1) on sand. H. N. Ridyard. bibliog diag Soc Chem Ind J 65:92-5 Mr '46

Adsorption of fatty acids on nickel and platinum catalysts. H. A. Smith and J. F. Fuzek. bibliog diag Am Chem Soc J 68: 229-31 F '46

Adsorption of oxygen at low temperature and pressure on smooth iron. M. H. Armbruster and J. B. Austin. bibliog Am Chem Soc J 68:1347-54 Jl '46

Adsorption of strontium and barium ions and their exchange on hydrous ferric oxide. J. D. Kurbatov, J. L. Kulp and E. Mack, jr. Am Chem Soc J 67:1923-9 N '45

Adsorption wave. I. M. Klotz. bibliog diags Chem R 39:241-68 O '46

Aggregational states in adsorbed films on incompletely wettable solid surfaces. D. H. Bangham. J Chem Phys 14:352-3 My '46

Analysis of oil-soluble petroleum sulfonates; extraction-adsorption method. F. Brooks, E. D. Peters and L. Lykken. diags Ind & Eng Chem Anal ed 18:544-7 S '46

Conditions affecting the sequence of organic compounds in Tswett adsorption columns. H. H. Strain. bibliog Ind & Eng Chem Anal ed 18:605-9 O '46

Continuous drying of adsorbent materials. E. Ledoux. Chem Eng 53:109-10 S '46

Covalent adsorption on base-exchange resins; the adsorption of monobasic acids. J. A. Bishop. bibliog J Phys Chem 50:6-12 Ja '46

Criticism of some theories of multi-molecular adsorption applied to wool; abstract. G. A. Gilbert. Am Dyestuff Rep 35:453 S 23 '46

Drying natural gas with adsorbents; simplified flow diagram. W. L. Nelson. Oil & Gas J 44:273 Mr 30 '46

Drying of liquids with adsorbents. W. L. Nelson. flow diag Oil & Gas J 45:72 Je 1 '46

Hysteresis in the physical adsorption of nitrogen on bone char and other adsorbents. L. F. Gleysteen and V. R. Deitz. bibliog J Res Nat Bur Stand 35:285-307 O '45

Influence of adsorption on the crystallisation of sucrose from impure solutions. S. E Coalstad. Soc Chem Ind J 65:206-8 Jl '46

Methods of separation and tests for purity. H. G. Cassidy. bibliog diags J Chem Educ 23:427-33 S '46

Modification of the Brunauer-Emmett-Teller theory of multimolecular adsorption. G. Pickett. Am Chem Soc J 67:1958-62 N '45; Discussion. T. L. Hill. 68:535 Mr '46

Modifications of the Brunauer, Emmett and Teller equation. R. B. Anderson. Am Chem Soc J 68:686-91 Ap '46

Moisture adsorption of textile yarns at low temperatures. R. C. Darling and H. S. Belding. bibliog Ind & Eng Chem 38:524-9 My '46; Discussion. 38:1203-4 N '46

Multilayer adsorption equations. P. H. Emmett. bibliog Am Chem Soc J 68:1784-9 S '46

Nitrogen and stearic acid adsorption by supported and unsupported catalysts. H. E. Ries, jr and others. J Chem Phys 14:465-6 Jl '46

Polarographic reduction of carbon dioxide; polymerization and adsorption at the dropping mercury cathode. P. Van Rysselberghe. bibliog Am Chem Soc J 68:2047-9 O '46

Pressure dependence of accommodation coefficients; values for ten gases on platinum. I. Amdur. bibliog J Chem Phys 14:339-42 My '46

Processing penicillin. F. C. Whitmore and others. diags Ind & Eng Chem 38:942-8 S '46

Reactivation of adsorbent desiccants. E. Ledoux. Chem & Met Eng 53:127-8 Ja '46

Recognition of phase transitions in adsorbed films on solids. D. H. Bangham. J Chem Phys 14:352 My '46

Role of surface area in dehydrocyclization catalysis. A. S. Russell and J. J. Stokes, jr. diag Ind & Eng Chem 38:1071-4 O '46

Separation of diastereoisomers by adsorption from the vapor phase. D. L. Isom and H. Hunt. J Phys Chem 50:28-32 Ja '46

Some physical properties of activated bauxite. H. Heinemann, K. A. Krieger and W. S. W. McCarter. bibliog Ind & Eng Chem 38:839-42 Ag '46

ADSORPTION—*Continued*
Sorption of condensable vapours by porous solids; linear isothermals and the Langmuir equation. A. G. Foster. bibliog Chem Soc J p773-6 N '45
Sorption of condensable vapours by porous solids; multimolecular adsorption. A. G. Foster. Chem Soc J p769-73 N '45
Sorption of methyl bromide by wheat. F. P. W. Winteringham and A. Harrison. bibliog Soc Chem Ind J 65:140-9 My '46
Sorption of vapours by ferric oxide gel. D. W. Broad and A. G. Foster. Chem Soc J p446-50 Je '46
Sorption of water vapor at low pressure on the surface of some cold-rolled steels at 20°. M. H. Armbruster. Am Chem Soc J 68:1342-7 Jl '46
Statistical mechanics of multimolecular adsorption. T. L. Hill. bibliog J Chem Phys 14:263-7, 441-53 Ap, Jl '46
Studies of the physical properties of hardened portland cement paste. T. C. Powers and T. L. Brownyard. bibliog diags Am Concrete Inst J 18:101-32 O '46 (to be cont)
Surface area measurements of activiated carbons, silica gel and other adsorbents. L. G. Joyner, E. B. Weinberger and C. W. Montgomery. bibliog Am Chem Soc J 67: 2182-8 D '45
Surface area of powders; heat of wetting of metal surfaces by oils. H. H. Herbst. bibliog diag Pet Refiner 25:121-5 Mr '46
Surfaces of solids; a first- and a second-order phase change in the adsorbed film of *n*-heptane on graphite. G. Jura and others. bibliog J Chem Phys 14:344-7 My '46
Surfaces of solids; a unitary thermodynamic theory of the adsorption of vapors on solids and of insoluble films on liquid subphases. G. Jura and W. D. Harkins. bibliog Am Chem Soc J 68:1941-52 O '46
Surfaces of solids; adsorbed films of water and normal heptane on the surface of graphite. W. D. Harkins, G. Jura and E. H. Loeser. bibliog Am Chem Soc J 68:554-7 Ap '46
Surfaces of solids; first-order phase changes of adsorbed films on the surfaces of solids; the film of *n*-heptane on ferric oxide. G. Jura and others. bibliog J Chem Phys 14: 117-23 Mr '46
Theory of multimolecular adsorption from a mixture of gases. T. L. Hill. bibliog J Chem Phys 14:268-75 Ap '46
Theory of multimolecular adsorption from a mixture of gases; two gases. T. L. Hill. J Chem Phys 14:46-7 Ja '46
Vapour phase adsorption. H. Griffiths. Chem Age (Lond) 54:423-5 Ap 20 '46
See also
Absorption
Chromatographic analysis

ADSORPTION, Heat of
Electrical sorption balance and calorimeter. S. J. Gregg. diags Chem Soc J p563-7 Jl '46
Moisture relationships of jute; adsorption isotherm and heat of wetting. W. G. Macmillan and others. bibliog Textile Inst J 37:T13-24 F '46

ADSORPTION apparatus
Adsorption apparatus without stopcocks for use with hydrocarbon gases. C. B. Wendell, jr. and G. L. Cabot. bibliog diags Ind & Eng Chem Anal ed 18:454-6 Jl '46
Electrical sorption balance. S. J. Gregg. diag Chem Soc J p561-2 Jl '46
Electrical sorption balance and calorimeter. S. J. Gregg. diags Chem Soc J p563-7 Jl '46
Equipment advances 1944-45; adsorption. C. L. Mantell. Chem Ind 57:850-1 N '45
Fullers earth as a binder for catalysts and adsorbents; Florigel. R. G. Capell and others. bibliog il Pet Refiner 25:117-19 F '46
Improved adsorption vessel. R. B. Anderson. diag Ind & Eng Chem Anal ed 18:156 F '46
Packaged type dehydration plants. H. F. Dawe. flow diag il diags Pet Eng 17:119-22 Mr '46

ADVERTISEMENTS
Armstrong ads by Hawley. il Ind Marketing 31:113-14+ Ja '46
Copy that clicked; True magazine Christmas ad. R. Manville. il Ptr Ink 216:46 Jl 26 '46
How to win sales support and influence buyers! advertisement of Black & Decker, makers of portable electric tools tells why it pays to buy thru distributors. L. R. O'Neill. Ptr Ink 216:44-5 Ag 16 '46
16-page ad and reprints solve catalog problem; Lionel ad in Liberty. E. M. Housman. il Ptr Ink 217:56+ N 8 '46
There'll always be a letter-writer to criticize your advertisements. T. H. Thompson. Sales Management 55:147 D 15 '45
Wartime advertising awards. il Adv & Sell 39:41-72 Ja '46
See also
Match books

Books and booklets
American Cyanamid looks to the future by promoting chemical research; booklet on melamine. H. Peck. il Ind Marketing 30: 78+ O '45
Booklet continues to pull after 20 years; Story of Bunny Esmond. Ptr Ink 214:76 F 22 '46
Books, a new kind of public relations advertising. D. L. Parsons. il Ptr Ink 214: 26-8 Mr 1 '46
Co-ordinated campaign for new product; case history of Thompson truform grinders. E. H. Mook. il Ptr Ink 215:42-3+ Ap 26 '46
Department store describes Dayton's prospects in booklets for suppliers. Ptr Ink 214:36 F 8 '46
Fifty facts booklet pulls 7,000 inquiries; Perfection tool & metal heat treating co. Sales Management 57:81 Ag 1 '46
How to kindle a spark in the eye of a home furnishings buyer. H. J. Siesel. il Sales Management 56:147+ F 15 '46
Industrial companies find war reports are excellent sales promotion devices. Ind Marketing 31:76 O '46
Investors' primer simplifies financial terms. Sales Management 56:86 Mr 1 '46
Offers library service on promotion pieces; Davis, Delaney, New York printers. Sales Management 57:112 Ag 1 '46
Public selects cover and title for promotion piece; Glidden company consumer book on color in the home. R. C. Shaw. Ptr Ink 217: 44-5 N 8 '46
Single book accomplishes a three-fold purpose; Uxbridge worsted co. il Ptr Ink 213: 44+ D 28 '45
Three varieties of industry war record; U.S. Steel, Shell Oil and Du Pont show high effectiveness. il Ptr Ink 215:69 Ap 5 '46
Westinghouse takes the blue out of blue Monday; Reference handbook on modern home laundering. Sales Management 56:136 Ja 15 '46

Christmas cards
You'll be talked about after Christmas; originality of your Christmas card. A. Izzard. il Ind Marketing 30:68+ O '45

Cookbooks and recipes
Thrice-a-week ads sell single product; monthly ads show relationship of several; recipes build new demand for foods. D. Markstein. il Ptr Ink 216:39 Jl 26 '46

Coupons
Combination offers. il Ptr Ink 215:42-3 My 3 '46
Copy that clicked; advertisement of book "Houses for homemakers." R. Manville. il Ptr Ink 214:29 F 8 '46
Copy that clicked; United States envelope company, new fastener. R. Manville. il Ptr Ink 215:47 My 31 '46
How to use coupons in a sampling campaign; distribution through newspapers. R. Coller. il Ptr Ink 215:38-9+ Je 14 '46
Planned economies reduce cost of handling inquiries; Mullins manufacturing co. M. Adams, il Ptr Ink 216:38 Jl 26 '46
Selecting the premium plan. il Ptr Ink 215: 48+ Je 21 '46
Testing and measuring industrial advertising factors through inquiries. W. H. Green. Ptr Ink 214:52+ Mr 29 '46

ADVERTISEMENTS—Coupons—*Continued*
To charge, or not to charge, for samples. Ptr Ink 216:56+ S 6 '46

Design

Gadgets help small-space advertiser tell big story. C. J. Swan. il Ptr Ink 217:44-5 O 11 '46
New package design can be used in other promotion; symbols and pattern for sportswear package appear in labels, price tags and stationery. C. J. Swan. il Ptr Ink 216:36-7 Jl 19 '46

Headlines

See Advertising copy—Headlines

Layout

Gallery; white-space salesman, John Philip Cunningham. J. G. Schneider. Adv & Sell 38:150+ N '45
Time-saving way to gauge type area; 1½ inches equals 25 characters. C. Sinatra. diags Ptr Ink 213:28-9 N 30 '45

Position

Right-hand page near front preferred! E. J. Cunningham. Ptr Ink 215:44-5 My 3 '46

Rating

Copy Chasers' selection of NIAA panel winners suggest ideas to ad men. il Ind Marketing 31:81-2+ Ag '46
O.K. as inserted; by the Copy Chasers; tenth anniversary. Ind Marketing 31:91-2+ S '46
This formula keeps client criticism of ads within bounds; measuring stick for evaluating advertisements. W. D. Lindsay. Ptr Ink 214:28 Mr 15 '46
Were you there, Mr. Sawyer? before you indict the Penalty of leadership as corn, you should know what prompted it. J. Cleary. Ptr Ink 213:46+ D 7 '45

Readership

Ads top news stories in teen-age readership; study by Minneapolis star. L. E. Borg. Adv & Sell 39:58+ O '46
Advertising research foundation's continuing study of newspaper reading; abstract. H. J. Benner. Ptr Ink 215:62 Je 7 '46
High readership doesn't necessarily mean high sales or inquiries; Wickwire Spencer case study. R. Manville. il Ptr Ink 215:33-5 Ap 19 '46
How a copy pattern will strengthen your readership. W. T. Laing. il Ptr Ink 216:46-9 S 27 '46
How an ad's sales power compares with its readership. D. Starch. Adv & Sell 39:48+ Jl '46
Leading ads in Wisconsin survey join Foundation's best-read groups. Ptr Ink 214:120 Mr 22 '46
O.K. as inserted; by the Copy Chasers; tenth anniversary; comments on readership studies. Ind Marketing 31:91-2+ S; 105-6 O '46
Popular advertising formula; but isn't it too pat? comic strip technique and readership report. M. Ancker. il Ptr Ink 215:33-4 My 24 '46
Readership survey shows bad shooting; both ads and editorial matter miss their actual target. G. Gladfelder. il Ptr Ink 214:27-8 Ja 11 '46
Six ways to obtain readership for industrial advertising. B. E. Sawyer. Ptr Ink 215:29-30 Ap 5 '46
Teen-agers' ad readership matches adults', Minneapolis star-journal finds. Ptr Ink 216:104 Jl 19 '46
Utica paper's Sunday ad readership beats previous medians of 94 dailies. Ptr Ink 214:108 Mr 8 '46
What makes newspaper ads pull? how they can gain more readership at no extra cost. A. B. Stanford. Adv & Sell 39:41-2+ S '46
Why readership of ads has increased 24%. D. Starch. Adv & Sell 39:47+ Ag '46

Repetition

Don't abandon sales themes just because they bore you! Sales Management 57:80 O 1 '46
How to make small-space ads do a large size job. C. J. Swan. il Ptr Ink 217:40-1 O 4 '46

Reprints

Multiple use of ad plates in a major sales campaign; Edward valve & mfg. company. W. A. Marsteller. il Ind Marketing 30:50+ N '45
Reprint economies for today's production problems; photographic processes. H. C. Latimer. Ptr Ink 216:48+ Jl 26 '46

Size

See also
Advertisements, Small space

Testing

Index of advertising effectiveness. F. T. Schreier and A. J. Wood. Ptr Ink 215:39-40 My 17 '46
Researching director looks at copy testing. Adv & Sell 39:52+ F '46
Test of 5 appeals shows how logic pulls in headlines; National radio institute. W. Weintz. il Ptr Ink 216:36-7 Jl 5 '46
Testing and measuring industrial advertising factors through inquiries. W. H. Green. Ptr Ink 214:52+ Mr 29 '46

See also
Advertisements—Readership

Typography

Copywriter in utopia. G. J. Church. Inland Ptr 116:40 Mr '46
Hand-lettering, a pearl or a prize-package? A. R. Hopper. il Ind Marketing 31:49+ Ja '46
Initials; their use and misuse. J. M. Secrest. il Ptr Ink 217:54-5 O 18 '46
Jigsawed typography. Ptr Ink 215:107 Ap 12 '46
New printing methods will mean better advertising. J. M. Secrest. Ptr Ink 216:112+ S 6 '46
That logotype bugaboo. R. S. Durstine. Adv & Sell 39:34 Mr '46
Using type to recapture spirit of the gay nineties. J. M. Secrest. il Ptr Ink 216:34-5 Ag 9 '46

ADVERTISEMENTS, Classified

Want ads

Ad seeking honesty challenges auto industry; honest car dealer wanted. M. Rapp. Ptr Ink 215:73 Je 28 '46
Desperate housing shortage reflected by classifieds. W. R. Bruner. Ptr Ink 213:66 D 7 '45
Even a good ad can't close the sale; more on house hunting through the classifieds. M. Worthington. Ptr Ink 213:152+ D 14 '45

ADVERTISEMENTS, Humorous

Don't shout at women: humor them. B. Kidd. il Adv & Sell 39:62+ Mr '46
Gwolphs, Martians, Thinkles in Casco's new campaign debunk atomic age craze; Casco products. il Ptr Ink 213:20 N 30 '45
Humor's place in advertising. S. Garfield. Adv & Sell 39:76 S '46

ADVERTISEMENTS, Pictorial

Kissing is a business; romantic antics in our national ads. F. J. Ostler. il Adv & Sell 38:50+ D '45
Union Oil ads animate industrial research. il Ind Marketing 30:35+ O '45

See also
Advertising art
Advertising characters
Posters

Animal pictures

Animals invade container ads successfully; General box company of Chicago. il Ind Marketing 30:47+ D '45

Cartoons

Cartoon mailing softens buyers for salesman's calls. C. A. Lipman. il Ptr Ink 213:26 D 14 '45
Cartoon strips rate high in readership study no. 93. Ptr Ink 214:94 Ja 4 '46
Cartoon touch in bank ads. Banking 38:29 My '46
G.I. cartoonist helps banks tell home loan story to veterans. il Ptr Ink 215:99 Ap 12 '46

ADVERTISEMENTS, Pictorial — Cartoons — *Continued*
Nothing rolls like a ball! New Departure's famous cartoon campaign. il Ind Marketing 31:36-7+ Ja '46
Ones that got away; some Leonard Lionni rejected cartoons. D. W. Koppes. il Adv & Sell 38:52+ N '45
Readers write the ads in this cartoon contest. Ptr Ink 216:38-9 Jl 19 '46
Why Arcturus cartoon ads appeal to West Coast forging buyers. il Ind Marketing 31: 43 Mr '46

Comic strip
Comics are a serious business. N. R. Abelson. Adv & Sell 39:41-2+ Jl; 80+ Ag '46
Popular advertising formula; but isn't it too pat? comic strip technique and readership report. M. Ancker. il Ptr Ink 215:33-4 My 24 '46

Dog pictures
Dog pictures in advertising. Adv & Sell 38:62 D '45

Exhibitions
Art directors show 1946. C. Coiner. il Adv & Sell 39:46-7 My '46
Awards by Art directors club of Chicago. il Ptr Ink 215:38-9 My 10 '46
N.Y. art directors name 293 contest winners. Ptr Ink 214:100 Mr 29 '46
West Coast art group holds first exhibition. il Ptr Ink 214:32-3 Mr 15 '46
Winning advertising art at Art directors club of New York exhibit. Ptr Ink 215:26-7 Ap 5 '46

Paintings
Making an advertising illustration; book research, study and analysis for Continental Distilling advertisement. il Ptr Ink 215:47-9 My 17 '46
Pepsi contest winners provide calendar art. il Ptr Ink 213:46 N 23 '45
Then-and-now theme gains attention for ads; historically correct paintings of century-old customs feature copy for Nescafé. il Ptr Ink 215:45 Je 21 '46

Photographs
Beauty and the slick chick; real, happy, attractive woman and your product. J. Ecclesine. Adv & Sell 39:58 Je '46
Dramatically lighted color photography features Canadian ad campaign; Gordon Mackay & co. G. D. Johnstone. Ptr Ink 215: 66+ Je 7 '46
For better industrial photography; don't take pictures, think them. K. Hedrich. il Ind Marketing 31:40-2 Ag '46
Know how to be your own photographer? F. B. Koss. il Ind Marketing 31:34-5+ Ap '46
Slicing art costs by cutting up your products for the art specialist; Robert H. Kimes' Cutaway engineers. M. H. Mook. il Ind Marketing 31:53 My '46
Why must copy and layout come before art? W. Engel. il Ptr Ink 216:33-5 S 13 '46; Discussion. B. Segal. 217:92 O 4 '46

Portraits
Portraits of an industry. Chem Age (Lond) 55:540-1 N 2 '46

Santa Claus
Hands off Santa Claus. W. R. Simpson. Ptr Ink 213:117 D 21 '45

ADVERTISEMENTS, Small space
Bank uses small space effectively. il Ptr Ink 214:30 F 15 '46
14 rules assure success of new small-space advertiser; Norcross greeting cards. il Ptr Ink 217:49 O 18 '46
Gadgets help small-space advertiser tell big story. C. J. Swan. il Ptr Ink 217:44-5 O 11 '46
How to make small-space ads do a large size job. C. J. Swan. il Ptr Ink 217:40-1 O 4 '46
Small newspaper ads prove powerful. Ptr Ink 216:42 Ag 30 '46
39 check points for small-space advertisers. C. J. Swan. Ptr Ink 216:33-5 S 27 '46

ADVERTISERS
Advertisers have big good-will opportunity as consumers mobilize; product standards and labeling. H. E. Green. Ptr Ink 214: 49+ F 22 '46
Copy Chasers honored these companies more than once in 10 years. Ind Marketing 31: 92 S '46
How advertisers are helping consumers in their buying; report on the current status of the consumer movement. H. E. Green. Ptr Ink 214:21-2+ F 15 '46
If you were appointed czar of advertising, where would you start a reform movement; with the advertiser, agency or publisher? Printers' Ink jury of marketing. Ptr Ink 214:26-7 F 15 '46
New network advertisers since 1939; more than 300 advertisers featuring new products not previously on the nets during nine years (1931-39). B. W. Lyndon. Ptr Ink 214:43-4+ F 1 '46
Printers' Ink jury of marketing opinion says: responsibility for bad advertising rests with the advertiser. Ptr Ink 214:21-3 F 8 '46

ADVERTISING
Advertising and public relations. P. B. West. Ind Marketing 30:39+ D '45
Advertising changes since 1941. H. B. West. Adv & Sell 39:43+ S '46
A.F.A. convention ok's big campaign to sell advertising. il Sales Management 56:133-4 Je 15 '46
Advertising man discovers the wheelbarrow. K. Groesbeck. Ptr Ink 213:41 N 23 '45
Advertising raises its already high fact content, says consumer relations report. Ptr Ink 214:89+ Ja 4 '46
Advertising volume for 1946? L. D. H. Weld. Ptr Ink 213:21-3 D 14 '45
A.N.A. wrestles with four major problems confronting advertising. Sales Management 57:130+ O 15 '46
Design protection can be a stimulus to advertising. B. Breen. Adv & Sell 38:56+ N '45
Distribution; challenge to advertising. A. Weatherhead, Jr. Ind Marketing 31:39+ Ag '46
Does advertising need a rash of new talent? J. Thompson. Adv & Sell 38:45+ N '45
Don't blame advertising, blame some advertisers. W. S. Townsend. il Ptr Ink 217: 34-6 N 1 '46
Final word on that book. A. R. Tofte; M. Abbott. Adv & Sell 39:62 O '46
Four plank platform to improve advertising. F. R. Gamble. Adv & Sell 39:51-2+ Ap '46
GM cancels $5,000,000 worth of ads; many media, agencies, printers affected. H. L. Stephen. Ptr Ink 213:55+ D 7 '45
How advertising trends will affect printing and publishing. P. B. B. Andrews. Ptr Ink 216:79-80+ Jl 12 '46
Industry and public opinion. J. R. York. Am Pet Inst Proc 25(1):92-8 '45
Just not quite enough. N. LeValley. Adv & Sell 39:68 Ap '46
Media advertising, distribution to rise despite paper, labor, equipment deficit. T. M. Jones. Ptr Ink 213:51+ D 28 '45
Memo to a swordsman stalking an advertising budget. Sales Management 57:117-18 Ag 15 '46
1946 will be a big year for advertising printing. D. Craig. Inland Ptr 116:53 D '45-Ja '46
Period pieces from an ad man's album; advertisements in Saturday evening post of Jan. 9, 1926. J. J. McCarthy. il Adv & Sell 39:58+ F '46
Power of reality in advertising; real-life situations as basic topics. R. E. M. Morris. Adv & Sell 38:33-4+ N '45
There is something terribly wrong with advertising. H. K. Reynolds. il Ptr Ink 216: 33-5+ Jl 5 '46
Third horseman; power of advertising to tell America real facts about threatening famine abroad. K. G. Keen, jr. Ptr Ink 214: 140 Mr 29 '46
This is the silly season in advertising; advertising men must draw on their knowledge of fundamentals instead of shifting statistics. M. Campbell. Ptr Ink 213:52+ D 14 '45

ADVERTISING—*Continued*

Three major services of newspaper advertising. J. O. Adler. Adv & Sell 39:120d+ My '46

What advertising learned from the war. J. W. Young. Adv & Sell 39:34 Ja '46

What can you say in advertising if you have nothing to sell? five rules for small manufacturers. il Sales Management 57:123 N 1 '46

What is advertising? C. R. Hogen. Adv & Sell 39:78 | Jl '46

What reference books should admen have? personalized system of information. J. A. Murphy. Adv & Sell 39:102+ F '46

What's the outlook for advertising in 1946 and future years" L. M. Krautter. Ind Marketing 31:28+ Ja '46

Why advertising is here to stay. C. Pemberton. Ptr Ink 213:150 N 30 '45

See also

Advertisements
Advertising agencies and other headings beginning Advertising
Airships in advertising
Bank advertising
Catalogs
Color in advertising
Employment systems—Advertising aids
Exhibits
Follow-up systems
Government advertising
House organs
Merchandizing
Moving pictures in advertising
Municipal advertising
Premiums (merchandizing)
Publicity
Radio advertising
Recruiting campaigns
Safety advertising
Sales letters
Show windows
Television advertising
Welcome wagon service company

also subdivision Advertising under special subjects, e.g.

Airports
Brewing industry
Building trades
Department stores
Food, Frozen
Gas industry
Hats
Insurance
Insurance, Life
Insurance agents
Insurance companies
Lubricating oil industry
Mail order business
Medicines, Proprietary
Motor bus lines
Newspapers
Oil companies
Publishers
Railroads
Real estate business
Retail trade
Technical products
Trade marks
Trust companies

Architects, Appeal to

Mail order can build national distribution even for ironwork: Hinderer iron works caters to architects who influence purchases of consumers. D. Markstein. Ptr Ink 216:50 Ag 2 '46

Children, Appeal to

Children's clubs are potent sales makers; 11 fundamentals. il Ptr Ink 217:52-3 O 18 '46

Tumblin Tim is star salesman for Acrobat shoes for children. il Sales Management 57:136+ S 15 '46

See also

Advertising—Schools, Appeal to

Continuity

Sleepers: an argument for advertising continuity! four drug stores quickly round up 149 items no longer called for, in Printers' Ink investigation. V. J. Dallaire. il Ptr Ink 214:23-4 Ja 18 '46; Reply. O. Kleppner. 214:43 F 15 '46

Too many orders? advertise! O. S. Tyson. Ptr Ink 216:46 Jl 19 '46

Cost

Cost-per-reader formula found for newspaper ads. Ptr Ink 215:111 Je 21 '46

How an ad's sales power compares with its readership. D. Starch. Adv & Sell 39:48+ Jl '46

Rising costs won't inflate ad appropriations; P.I. jury reports. V. J. Dallaire. Ptr Ink 217:35-8+ O 4 '46

What is the real cost of Spam advertising? H. H. Haupt. Adv & Sell 39:57-8+ Jl '46

Dealer cooperation

Coordinates local with national ads; Pan-American coffee bureau's booklet. Ptr Ink 215:86 Je 14 '46

How to merchandise a consumer ad; Pepperell sheets. il Ptr Ink 216:78+ S 6 '46

How to talk to dealers about radio advertising. T. Cox, jr. Sales Management 57:103-4 Ag 15 '46

In merchandising your advertising story to dealers, localize it! more sales and windows for Bauer & Black. H. E. Green. Ptr Ink 213:21-2 N 30 '45

Lumber dealers spend own money on this idea column for farmers. L. A. Castell. Sales Management 56:115-16+ Je 15 '46

Spot radio campaign gets cooperation of dealers; Esso wants rest rooms clean; spot radio plug was dealer premium. Ptr Ink 217:37 N 1 '46

Steps up its merchandising of advertising to dealers; National biscuit co. Ptr Ink 215: 88+ My 10 '46

To charge, or not to charge, for samples. Ptr Ink 216:56+ S 6 '46

Dealer helps

Continuous point-of-sale program follows survey of dealer wants; retailers ordered $400,000 worth of sales kits from Landers, Frary & Clark in three weeks. il Ptr Ink 215:48-9 Ap 19 '46

Devoe & Raynolds has time-saving mat service. il Ptr Ink 214:23 Mr 15 '46

Gorham finds a way to help hum-haw customers reach buying decisions. Sales Management 56:122+ Ap 15 '46

How Esso builds dealer interest in calendars. il Sales Management 56:93-4 Ap 1 '46

How to cut waste in dealer displays. N. J. Leigh. il Adv & Sell 39:36+ F; 52+ Mr '46

How to improve your dealer-help advertising. M. I. Bevans. Adv & Sell 39:82+ F '46

One-man ad department creates ads, paints signs, designs stores; Robert Orr & co., wholesale grocer, Nashville. il Ptr Ink 215: 71 Je 21 '46

Should retailers pay for dealer helps? how much? C. J. Swan. il Ptr Ink 216:32-4 Ag 30 '46

This plan avoids waste of point-of-sale materials; dealer helps tailored to communities of specific size; Vess beverage co. B. R. Merrill. il Ptr Ink 217:50-1 O 25 '46

Dealers, Appeal to

Association campaign to create new uses for its product; advertising ice to promote vegetable display idea. E. M. Housman. il Ptr Ink 214:28-30 F 15 '46

Bauer & Black campaign rides tide of wartime interest in first aid. C. K. Perkins. il Sales Management 56:41-4 Mr 15 '46

Dealer direct-mail campaign brings increased service business; Pontiac motor division of General Motors. il Ptr Ink 214:36+ Ja 25 '46

Direct mail to dealers that says, it's back. il Ptr Ink 213:124 D 7 '45

Druggists urged to push radio-advertised products; Miles laboratories mailing goes to 50,000 retailers. il Ptr Ink 215:43 My 31 '46

How advertisers tell dealers about national campaigns; points to stress, others to soft-pedal. il Ptr Ink 215:115-16+ My 3 '46

Persuaded to try a business paper, company is now a national advertiser; Lombardy's hard-hitting trade messages. E. M. Housman. il Ptr Ink 214:74+ Ja 4 '46

Reconverting distributors by direct mail. W. D. Molitor. Ind Marketing 30:43+ N '45

75% return from dealer mail questionnaire helps style item; paves way for buying guide covering nine questions about WPB-affected outercoats. C. A. Lipman. il Ptr Ink 214:64+ Ja 4 '46

Dentists, Appeal to

Keeping customers sold when you can't deliver; Ritter company, Rochester, N.Y. A. G. Scheible. il Ptr Ink 214:25-6+ Ja 25 '46

Designers, Appeal to

Case histories of business-paper advertising campaigns; selling product designers ideas and services; Corning Glass. il Ptr Ink 215: 46 My 17 '46

ADVERTISING—*Continued*

Economic aspects

Advertising and its place in tomorrow's world trade. E. E. Schnellbacher. Adv & Sell 39: 68+ My '46

Age of confidence. P. B. West. Adv & Sell 38:113 N '45

Mr Ernst doesn't like the ad business; reply to Ben Laitin. M. Ernst. Adv & Sell 39: 36+ Mr '46

Open letter to Morris Ernst. B. S. Laitin. Adv & Sell 39:116+ Ja '46

They laughed when I sat down, but I learned how to explain advertising to top management. S. Hopper. Adv & Sell 39:42 O '46

Employees, Appeal to

General Motors advertising creates goodwill among employes at Moraine Products. il Ind Marketing 31:26-7+ Ja '46

How plant-city ads can build loyalty in newly acquired mills. Ptr Ink 215:145 Ap 26 '46

If employee advertising will work in wartime; why not now. H. Hartogensis. il Ptr Ink 214:45-6+ Mr 1 '46

Plant community advertising can increase production, obtain better labor, lower turnover. F. Rudge. Ptr Ink 215:33-5 Je 7 '46

Printed promotional pieces now being used to solve problem of obtaining and keeping employes; Whiting corporation, Harvey, Illinois. Inland Ptr 118:31 N '46

Republic Steel talks to workers about their company, their jobs, their future. C. W. Ruth. Sales Management 57:44-6 Ag 15 '46

Reynolds Metals tells what it is doing to fill pay envelopes in Louisville; public relations series directed to employes and the community. D. P. Reynolds. il Ind Marketing 31:50+ F '46

Seven-point formula for enlisting employee support; General Mills seeks workers' participation in institutional campaign. H. E. Green. il Ptr Ink 214:30-1 Ja 25 '46

Single book accomplishes a three-fold purpose; Uxbridge worsted co. il Ptr Ink 213: 44+ D 28 '45

Story of a strike told in excerpts from the company's advertising. Adv & Sell 39:53-4 F '46

What the advertising manager can do to help employe relations. L. H. Hill. il Ind Marketing 31:31-2+ My '46

Engineers, Appeal to

Engineer analyzes industrial advertising. H. S. Pardee. Ind Marketing 31:31-2+ Je '46; Discussion. 31:25-6+ Ag; 41+ O '46

Promote your house organ to stimulate interest; Superdraulic corporation's Hydraulic progress. L. A. Clark. Ptr Ink 217:49 O 25 '46

Six ways to obtain readership for industrial advertising. B. E. Sawyer. Ptr Ink 215:29-30 Ap 5 '46

Family of products

Advertising budget and the line of products; specific practices of advertisers with a varied line of products to promote. Ptr Ink 214:40+ Ja 11 '46

Buyers thought Chatham made only one product, so advertising points out equally good products in other lines. V. J. Dallaire. il Ptr Ink 216:32-3 Ag 2 '46

Case histories of business-paper advertising campaigns; uses successful 13-year-old format; Industrial products division, B. F. Goodrich company. il Ptr Ink 215:45 My 17 '46

Cleveland Pneumatic's basic ad program. E. L. Oldham. il Ind Marketing 31:37+ Mr '46

Dazey sells the entire line; kitchen helps. Ptr Ink 216:35 Ag 30 '46

Industrial advertiser designs catalog so it can be used 6 ways; Joseph Dixon crucible company. il Ptr Ink 216:38-9 Jl 5 '46

Thrice-a-week ads sell single product; monthly ads show relationship of several; recipes build new demand for foods. D. Markstein. il Ptr Ink 216:39 Jl 26 '46

Farmers, Appeal to

Copy that clicked; Plymouth cordage company ad, how to make rope last longer. R. Manville. il Ptr Ink 213:106 N 23 '45

Farm; industry's big opportunity; United States rubber company's exhibit and advertising campaign. A. B. Ecke. il Sales Management 56:37-40 Je 1 '46

Lumber dealers spend own money on this idea column for farmers. L. A. Castell. Sales Management 56:115-16+ Je 15 '46

Sells results, not product, and gets farmers' orders; farm publication advertising helps Graham-Paige break into farm equipment market. H. E. Green. Ptr Ink 216:38-9 Ag 30 '46

See also

Advertising mediums —Farm papers

Fiction

The hucksters; comments on Fred Wakeman's new book. W. Weir. Adv & Sell 39:64+ Je '46

Foreign language market, Appeal to

Hints on advertising to foreign language groups. C. D. Maddy. Adv & Sell 38:68+ N '45

History

50 years ago in Printers' Ink; memorabilia, curios and gems of wisdom. il Ptr Ink 214: 103-4+ Ja 25 '46 [cont monthly]

It was very much the same in 1919-21; reprinted from Printer's Ink fiftieth anniversary issue. Ptr Ink 217:59-60+ O 25 '46

Industries, Appeal to

See Advertising, Industrial

Inquiries

Converting advertising inquiries into sales; Turco products, Los Angeles. H. Rorick. il Ind Marketing 31:40-1+ Ja '46

High readership doesn't necessarily mean high sales or inquiries; Wickwire Spencer case study. R. Manville. il Ptr Ink 215:33-5 Ap 19 '46

How to cut servicing costs on inquiries. W. I. Brennan. il Ind Marketing 31:38+ S '46

How to follow leads that result from advertising; two check lists; 17 steps for processing inquiries; 26 things that follow-up letters can do. C. J. Swan. Ptr Ink 217:37-9 N 8 '46

Planned economies reduce cost of handling inquiries; Mullins manufacturing co. M. Adams. il Ptr Ink 216:38 Jl 26 '46

See also

Advertising, Industrial—Inquiries

Follow-up systems

Jobber helps

Back your distributors with sound advertising; six successful selling points, time-tested by Black & Decker. L. R. O'Neill. il Ind Marketing 31:43-4+ Je '46

Jobbers, Appeal to

Influencing the industrial supply salesman; Lubriplate tailormade business-paper copy, sales meetings and monthly bulletin mailings. il Ptr Ink 214:83-4+ F 15 '46

Laws and regulations

Agency, media men on controversial ad haled before Rankin committee. Ptr Ink 215:136 Ap 19 '46

American Dietaids final FTC ad hearing. Oil Paint & Drug Rep 150:5 O 28 '46

Five outdoor ad bills die in N.Y. legislature. Ptr Ink 215:126 Ap 5 '46

Hughes fights for O.K. on Jane Russell movie displays; N.Y. ponders film ad code. il Ptr Ink 215:133+ My 3 '46

New York state rulings on discrimination in help-wanted ads. Ptr Ink 215:108+ Ap 12 '46

P.O. bans retail ad for nylon sale; rules customer drawing a lottery. il Ptr Ink 213:55+ D 7 '45

Public service ads seen threatened by Wood-Rankin tax proposal. Ptr Ink 215:124 Je 14 '46

ADVERTISING—Laws and regulations—*Cont.*
When does sales puffing become misrepresentation? A. W. Gray. Adv & Sell 39:40+ F '46

Measurement

Index of advertising effectiveness. F. T. Schreier and A. J. Wood. Ptr Ink 215:39-40 My 17 '46
Testing and measuring industrial advertising factors through inquiries. W. H. Green Ptr Ink 214:52+ Mr 29 '46

Men, Appeal to

Fez woos skittish male market with he-man sales promotion. il Sales Management 56: 170 F 15 '46
Merchandising to a timid market; men's toiletry items. E. M. Housman. il Ptr Ink 213:24-7+ N 30 '45
Sex angle used to sell toiletries to men. il Ptr Ink 217:44 N 1 '46

Objectives

Getting the generals to go along with your budget; show them some objectives that they will support. J. T. Chirurg. Ptr Ink 213:112+ N 30 '45

Physicians, Appeal to

Class appeal in direct mail; three approaches in pharmaceutical selling. W. T. Doyle. il Ptr Ink 216:79-80+ Jl 19 '46
Distinctive mailings avoid the waste basket; color and frequency make drug pieces stand out in doctors' heavy mail. il Ptr Ink 214: 28 F 1 '46
How advertisers reach key professional men; four principal ways to influence a market (pharmaceuticals). W. T. Doyle. il Ptr Ink 214:61+ Mr 1 '46
How to write copy in a straitjacket; problems in the ethical medical field. J. R. Swain. Adv & Sell 39:53-4 Ap '46
This many-purpose direct-mail campaign strikes happy medium in copy, art and typography; Abbott laboratories. E. M. Housman. il Ptr Ink 213:141-3 D 7 '45

Planning

Most advertisers plan new product program a full year ahead; P.I. budget study. Ptr Ink 215:31-2+ Ap 5 '46
We quizzed our salesmen about our ad plans; Investors syndicate, Minneapolis. W. R. Gerler. il Ptr Ink 217:44-5 O 25 '46
Why so many promotion pieces make a bee line to the wastebasket. D. E. Thompson. il Sales Management 57:86+ Jl 15 '46

Prize contests

Consumer contests are back in a new selling role; to overcome buying inertia. H. E. Green. il Ptr Ink 216:33-5+ Jl 12 '46
Contest takes customers' minds off shortages; New Bedford Cordage fish story contest. il Ptr Ink 215:42 Je 14 '46
Don't capitalize on scarcities. J. Williams. Ptr Ink 217:160 O 25 '46
Eight basic rules for conducting a successful consumer contest. T. Armstrong. Sales Management 56:78+ F 15 '46
Electrical group stages contest. Ptr Ink 215: 102 My 10 '46
14 helpful guides for conducting a consumer contest. Ptr Ink 216:46-7 Ag 16 '46
Frequent contests serving many purposes for this advertiser; Swingline stapling machines and staples. Ptr Ink 213:23 N 30 '45
Hazards of consumer contests and how to avoid them. Ptr Ink 216:42-3 Ag 23 '46
How to keep a consumer contest from blowing up in your face. A. J. Bremner. il Sales Management 56:60+ F 1 '46
National advertisers cash in on beauty by aiding Miss America scholarship. Ptr Ink 216:126 S 6 '46
Pepsi contest winners provide calendar art. il Ptr Ink 213:46 N 23 '45
Readers write the ads in this cartoon contest. Ptr Ink 216:38-9 Jl 19 '46
Tailoring the consumer contest to fit the problem. Ptr Ink 216:40-1 Ag 9 '46
12 principal objectives of consumer contests. il Ptr Ink 216:42-3 Ag 2 '46

See also
Radio advertising—Prize contests
Show windows—Contests

Psychology

Copy can capitalize on conditioned reflexes; engineers look at blue prints, women at recipes. W. Weintz. Ptr Ink 215:35 My 31 '46
Let advertising be as realistic as personal selling. F. W. Gray. Ptr Ink 216:70+ S 6 '46
Never the twain shall meet; is there an advertising deadlock between men's and women's minds? B. Kidd. Adv & Sell 38: 54+ D '45
Safety has a wide sales appeal. C. D. Murphy. il Ptr Ink 214:30+ Ja 11 '46
What makes them want to buy? not instincts, but motives. C. N. Allen. Ptr Ink 215:40-1+ Je 14 '46

Public attitude

Wage earner forum. Ptr Ink 216:99 Ag 9 '46

Purchasing agents, Appeal to

Ads aimed at purchasing agents. il Ind Marketing 31:87-8+ Jl '46

Radio engineers, Appeal to

Research, sales and ad program pushes FM; General Electric's FM campaign. R. D. Jordan. il Ind Marketing 31:29-30 Ag '46

Rates

Leininger rate; adecdote. M. Goldgar. Ptr Ink 214:34 F 15 '46
Losing ads despite soaring circulation, Pittsburgh daily reviews disputed rate. B. Tolk. Ptr Ink 216:117+ Ag 16 '46
Newspapers offer a package; advertising network organized. Bsns W p79-80 D 15 '45
Newspapers' reaction to discount issue poses selling job in 4A's campaign. D. Bruner. Ptr Ink 216:93+ Jl 19 '46

Returns

Copy that clicked; United States envelope company, new fastener. R. Manville. il Ptr Ink 215:47 My 31 '46
$5,000 annual ad budget revived a dying business; Imperial glass corp. E. M. Housman. il Ptr Ink 216:33-4 Jl 19 '46
What is the real cost of Spam advertising? H. H. Haupt. Adv & Sell 39:57-8+ Jl '46

Salesmen, Appeal to

Influencing the industrial supply salesman; Lubriplate tailormade business-paper copy, sales meetings and monthly bulletin mailings. il Ptr Ink 214:83-4+ F 15 '46

Samples

See Samples (merchandizing)

Schools, Appeal to

Advertisers and agencies get guide for preparing acceptable school materials. Ptr Ink 216:119+ S 6 '46
Films for schools: public relations tool for industry. H. Kerkow. il Sales Management 56:68+ Mr 1 '46
Getting advertising understood in schools. Ptr Ink 215:80 My 24 '46
Puppets tell lighting story in schools. R. H. Knox. il Elec World 125:138 F 16 '46
Sells its territory to sell itself; New Haven's advertising and public relations program emphasizes New England; school program. E. J. Dever, jr. Ptr Ink 214:70+ F 15 '46
This company's school material starts with six-year-olds; work with club women centers around portfolio; American viscose corporation. A. Ten Eyck. Ptr Ink 216:55-6+ Jl 26 '46
To create prospects, show proper use of your product; educational work in schools and before organized groups. Ptr Ink 217:89-90+ O 11 '46
Today's children are tomorrow's customers; some projects meeting with teacher acceptance. il Sales Management 57:90-2+ S 15 '46

ADVERTISING—*Continued*

Service

See Advertising, Educational

Statistics

Advertising volume figures for December issues of business papers and totals for 1945 and 1944. Ind Marketing 31:174-5 Ja '46

Advertising volume of Canadian business papers for 1945 and 1944. Ind Marketing 31: 181 Ja '46

Advertising volume up 5.3% in 1945. L. D. H. Weld. Ptr Ink 214:27-9 Ja 25 '46

Agencies place 454,539 pages of advertising in business papers in 1945; show 22.4% gain. Ind Marketing 31:57-8+ Ag '46

848 business papers report advertising up 15.57%; annual survey; list of journals classified by industry. Ptr Ink 214:85+ F 22; 90 Mr 22 '46

Farm publications; advertising linage for January; statistics for January monthlies and December semi-monthlies and weeklies. Ptr Ink 214:166 Ja 18 '46 [cont monthly]

Farm publications; advertising linage; three-year comparative totals, 1943-1945; tables. Ptr Ink 214:134 F 1 '46

How many people in advertising? Ptr Ink 215:45-6 My 31 '46

January magazine advertising, 1944-1946. Ptr Ink 214:136+ Ja 11 '46 [cont monthly]

Leading advertisers of 1945 and their expenditures; 653 companies invested $446,928,447 in magazines, farm papers and network radio; tabulation 1942-1945. Ptr Ink 214:31-2+ Mr 22 '46; Correction. 215:94 Ap 5 '46

Leading newspaper advertisers in 1945. Ptr Ink 215:48-50+ Ap 26 '46

Magazine linage; total linage for five years, 1941-1945; tabulation. Ptr Ink 214:128+ F 1 '46

Magazines score; national advertising media, 1945 vs. 1944. Bsns W p70-2+ Mr 2 '46

1945 advertising volume $2,386,000,000. L. D. H. Weld. Ptr Ink 214:21-3 Mr 15 '46

1947 advertising dollar analyzed by ad agency. Ptr Ink 216:100+ S 27 '46

Product expenditures of newspaper advertisers in 1945; individual products and services listed alphabetically. Ptr Ink 215: 57-8+ My 3 '46

Report reveals advertising investments in major media. Sales Management 57:64 Ag 15 '46

See also

Advertising, Mail—Statistics

Radio advertising—Statistics

Stockholders, Appeal to

Stockholders prove potential customers; Duplan glass cloth. Ptr Ink 216:54 S 6 '46

Study and teaching

Ad courses break registration records. B. Tolk. Ptr Ink 217:91+ N 1 '46

Advertising course written by ad men begins at University of Rochester. Ind Marketing 31:168+ Mr '46

British advertisers attempt to make advertising a profession. J. L. Love. Ptr Ink 216:83-4+ S 20 '46

How an agency trains veterans under the G.I. bill of rights. H. E. Cassidy. Ptr Ink 216:81-2+ S 27 '46

Listen, McCarthy, admen *can* be trained; suggesting establishment of advertising agency at some university. M. Goldgar. Ptr Ink 213:32+ N 16 '45

NAEA asks jobs for teachers, students; to improve advertising education. Ptr Ink 215:93+ My 24 '46

Teachers of advertising; at $3,000 a year! E. C. Stark. Ptr Ink 216:132 Ag 9 '46; Replies. C. E. Wolff and others. Ptr Ink 216:58+ Ag 30 '46

Three more ad courses draw record enrollment. Ptr Ink 213:74 N 16 '45

Why teach advertising on the side? businessman gets intangible but real benefits from running evening class. G. R. Ashbey. Ptr Ink 216:98+ S 20 '46

Working model for convention program, ad club course, or marketing class. Ptr Ink 215:88+ My 17 '46

Taxation

Lose free speech protection against taxation of advertising. A. W. Gray. Inland Ptr 118:52-3 O '46

Women, Appeal to

Ad campaign promotes jeweled specs. N. Kelne. il Ptr Ink 215:74 Ap 19 '46

Don't shout at women; humor them. B. Kidd. il Adv & Sell 39:62+ Mr '46

How advertising can capitalize on style as added attention getter. Ptr Ink 215:100+ Ap 12 '46

Never the twain shall meet; is there an advertising deadlock between men's and women's minds? B. Kidd. Adv & Sell 38: 54+ D '45

Selling poise puts over home beauty course; an insight into modern theme for women. il Ptr Ink 214:70+ Mr 1 '46

Should only women write copy for women? K. Millard. Ptr Ink 216:35 Jl 19 '46; Reply (Let's keep sex out of this). V. S. Francis; Reply (Women's work is never won). B. Kellogg. 216:46 Ag 2 '46; Reply (Run for cover, Mr Millard)! H. Bernstein and others. 216:57-8+ Ag 16 '46; Reply (Writing advertising isn't a matter of sex)! M. Brown. 216:58+ Ag 23 '46

Soap gets in their eyes; certain campaigns in the light of BJ Kidd's analysis of male-female impasse of minds. M. Mayfield. il Adv & Sell 39:58+ Ap '46

This company's school material starts with six-year-olds; work with club women centers around portfolio; American viscose corporation. A. Ten Eyck. Ptr Ink 216:55-6+ Jl 26 '46

What money means to a woman. B. Kidd. Ptr Ink 215:37-8+ My 17 '46

Women and insurance advertising. B. Kidd. Ptr Ink 215:61+ My 24 '46

Women read ads for facts! J. Kift. Ptr Ink 216:33-4 S 6 '46

Women's clubs welcome an honest business approach. T. B. Wells. il Ptr Ink 216:41-3 S 27 '46

Youth, Appeal to

Ads top news stories in teen-age readership; study by Minneapolis star. L. E. Borg. Adv & Sell 39:58+ O '46

Rising national economy to be reflected in promising juvenile market for '46-'47. Ptr Ink 214:95+ Mr 29 '46

There are 17,000,000 of 'em; appeals to the Teen-ager. G. A. Bishop. il Gas Age 98:23-4 O 17 '46

Alaska

Alaska admen battle for post-war business; media thrive in concentrated markets. M. Bartlett. Ptr Ink 217:128+ N 8 '46

Belgium

Advertising in wartime Belgium. J. H. Cerny. il Ptr Ink 214:33-4 F 15 '46

Canada

Advertising in Canada, 1944. For Comm W 21:31 N 10 '45

Copy considerations when writing to Canadians. J. Matthews. Ptr Ink 217:46 O 25 '46

How to approach the French-Canadian market; six wrong ways. C. W. Cook. Ptr Ink 216:71 Ag 23 '46

Europe

Report on advertising in 10 European countries. I. A. Vladimir. Adv & Sell 39:53-4+ S '46

Great Britain

Advertising in England as it is today; shortages of paper and merchandise. F. Caspers. il Adv & Sell 39:56+ Ag '46

British advertisers attempt to make advertising a profession. J. L. Love. Ptr Ink 216:83-4+ S 20 '46

British export advertisers get the green light. Adv & Sell 39:116 Ja '46

British paper shortage develops subsidiary media. H. J. Warman. Ptr Ink 213:114 D 21 '45

Latin America

ABC rules (3 only) for Latin-American copy writing. L. G. Dillon. Ptr Ink 215:81-2+ Je 21 '46

ADVERTISING—Latin America—*Continued*
He learned about Latin-American Spanish the hard way; insurance publisher uses North American translator. R. W. Osler. Ptr Ink 215:69 Ap 19 '46
Public-service ads make sales in Latin America; educational campaigns are prime need. T. Aitken, jr. Ptr Ink 217:70+ N 8 '46

Philippine Islands

Advertising and business in the Philippines; a current report. D. Alvarez. Ptr Ink 215: 33 Je 28 '46

Russia

U.S. advertising in Soviet publications; demand for machinery and other equipment presents opportunity to U.S. manufacturers. D. R. Crone. For Comm W 24:27+ Ag 17 '46

ADVERTISING, Association
A.F.A. convention ok's big campaign to sell advertising. Sales Management 56:133-4 Je 15 '46
Association campaign to create new uses for its product; advertising ice to promote vegetable display idea. E. M. Housman. il Ptr Ink 214:28-30 F 15 '46
California medics to sponsor state-wide promotion drive; to sell California physicians' service, and to push health insurance plans. Sales Management 55:186+ N 15 '45
More fruit, lower prices, stiffer competition: Sunkist's problem. Sales Management 55:69 N 15 '45
Paint industry looks to advertising. E. D. Peck. Paint Oil & Chem R 108:11-12 N 1 '45
Paint industry raises fund for $500,000 ad drive. Ptr Ink 215:132 Ap 19 '46
Range men set promotion sights on 12,500,000 decrepit stoves. J. I. Gorton. il Sales Management 56:46+ My 20 '46
Research showed this industry its sales-limiting factors; hat association will strive for multiple sales. E. J. Cunningham. il Ptr Ink 215:35-6+ My 17 '46
Selling printing as a career; Los Angeles using printed material to interest students in high schools. il Ptr Ink 213:156+ D 14 '45
Today's children are tomorrow's customers; some projects meeting with teacher acceptance. il Sales Management 57:90-2+ S 15 '46

ADVERTISING, Cooperative
Ad campaign to push California brand is set by apparel makers. il Sales Management 56:46+ F 1 '46
Bell companies continue ad teamwork in peace. G. McCulloh. il Ind Marketing 31: 49+ Ag '46
California dairy industry enters ranks of cooperative advertisers. Sales Management 55:122+ D 1 '45
Co-op advertising, consumer education urged for frozen foods industry; abstract. J. M. Bess. Ptr Ink 215:97+ Je 7 '46
Coordinating a cooperative campaign at national and local levels; public relations effort of 170 electric light and power companies challenges government-sponsored power projects. V. Dallaire. Ptr Ink 216: 40-1 Jl 26 '46
Dairymen pool efforts in drink-more-milk drive. Sales Management 57:96+ O 15 '46
Enterprising utilities cooperate in territorial trade development; industrial facilities of Chicago and northern Illinois form basis for promotion program. il Ind Marketing 31:32+ F '46
Lectures and dealer tie-ins boost sales of pianos and teaching methods; dealer-publishing house cooperation. N. Kelne. Ptr Ink 216:86+ Ag 9 '46
Media pool data to sell San Diego as a market. Sales Management 56:68 Ja 15 '46

See also
Radio advertising, Cooperative

Manufacturers and dealers

ANA report declares higher readership obtained by co-op ads with local touch. Ptr Ink 215:113+ My 10 '46
A.N.A. report presents case for and against cooperative advertising. Sales Management 56:110-14 My 20 '46
Cooperative merchandising program; how producers, manufacturers, wholesalers and retailers of St Paul are promoting sale of coal fired equipment. il Sheet Metal Worker 37:131-2+ Ja '46
Does cooperative advertising defeat its own purpose? questions about 50-50 ads. M. Adams. Ptr Ink 216:96+ S 13 '46
Local cooperative advertising, the game in which nobody wins; neither manufacturer nor retailer comes out on top. J. A. Spooner. il Ptr Ink 213:19-21+ N 23 '45
Started advertising club with dealers; 92% joined immediately; Nyal of Canada. L. E. Wicklum. il Ptr Ink 213:24-6 D 14 '45
Successful cooperative advertising. R. Winslow. Ind Marketing 31:36-7 Jl '46
Too little is known about cooperative advertising; A.N.A. report highlights divergence of opinion. M. Adams. Ptr Ink 215:77+ My 17 '46
Vertical cooperative advertising. 79p bibliog (p75-9) pa $7.50 Association of national advertisers, 285 Madison av, New York 17 '46

Manufacturers and jobbers

Presenting the case for cooperative advertising. S. Apt. il Adv & Sell 38:38+ D '45

ADVERTISING, Direct mail. See Advertising, Mail

ADVERTISING, Educational
Ads promoting American way made available to advertisers. Ptr Ink 216:75 S 27 '46
Ads to quell fear of pressure cookers. Ptr Ink 215:110 Je 14 '46
Advertising can and must do a public relations job for distribution; distribution doesn't cost enough. D. Belding. Ptr Ink 213:36+ N 30 '45
Advertising can provide the leadership that will save our democracy. P. B. West. Ptr Ink 216:64+ Jl 5 '46
Advertising's biggest campaign. P. B. West. Adv & Sell 39:110+ Jl '46
Allocate 10% of ad budgets to educate public to need of management-labor teamwork. H. W. Steinkraus. Ptr Ink 215:35-7 My 3 '46
APRA presents 44 annual awards for outstanding achievements. L. Ross. il Ind Marketing 31:50-1+ My '46
Anti-liquor advertising drive to use five million protest stickers. Ptr Ink 214:122 F 22 '46
Atom bomb plant designers advertise man's hope. il Ptr Ink 214:56 Ja 18 '46
Biggest sales job of today. H. W. Steinkraus. Sales Management 56:90 My 1 '46
Business moves into new arenas. D. Belding. Adv & Sell 39:76 My '46
Can cooperative effort save free enterprise? D. L. Logan. Adv & Sell 39:58 Ag '46
Copy clinic; apples for the teacher. B. Tyler. il Adv & Sell 39:44-5+ My '46
Don't change rules, publish them; advertising as a tool of economic education. K. G. Patrick. Trusts & Estates 83:29-30 Jl '46
Don't cross that picket line! strike ads not effective. J. G. Schneider. Adv & Sell 39:60 F '46
Don't forget to sign your name; public service radio advertising. J. A. Ecclesine. Adv & Sell 39:49+ Ap '46
Electric industry fights back; 170 companies use advertising to oppose government ownership. A. C. Spurr. Adv & Sell 39:47-8 S '46
Enterprise needs a two-way concourse; five years of A.N.A. opinion research. P. S. Ellison. Trusts & Estates 82:229-30 F '46
Good will; the fourth dimension in advertising. C. Healy. Adv & Sell 39:90 My '46
Has advertising any use for a hero? P. J. Kelly. il Adv & Sell 38:42+ N '45
High-falutin' language won't sell private enterprise. G. Kerr. Ptr Ink 216:80+ S 13 '46
How to protect a quality label; Stroock fabrics guard prestige by limiting outlets, by educational advertising and by constant vigilance. E. M. Murphy. il Ptr Ink 215:59-60+ Ap 5 '46

ADVERTISING, Educational—*Continued*
If you want to keep free enterprise, advertise its benefits! il Trusts & Estates 82: 365-71 Ap '46
Jelke ad reprint includes dealer display slip. il Ptr Ink 215:58 Ap 12 '46
Let's wipe out economic illiteracy. O. H. Lamborn. Comm & Fin Chr 164:2075+ O 24 '46
Maine uses advertising to get jobs for veterans. R. I. Miller. Ptr Ink 217:39 O 4 '46
Match-book messages on racial intolerance may extend to other media; liquor distributor to test before-and-after effect. E. Cunningham. il Ptr Ink 213:24 D 7 '45
Milwaukee admen run personal campaign, preaching right to become wealthy. H. E. Green. il Ptr Ink 216:124 S 6 '46
New uses for advertising; applications to management problems. G. Carson. il Adv & Sell 39:48+ Je '46
Plant community advertising can increase production, obtain better labor, lower turnover. F. Rudge. Ptr Ink 215:33-5 Je 7 '46
Public opinion poll decided theme of Stock exchange ads; clear up misconceptions, explain exchange's functions, promote public-welfare objectives. E. J. Dever, jr. il Ptr Ink 216:38-40 Jl 12 '46
Public relations advertising. Trusts & Estates 83:215-18 S '46
Public relations, or selling? a challenge. J. E. Matthews. Ptr Ink 214:142 F 1 '46
Public-service ads make sales in Latin America; educational campaigns are prime need. T. Aitken, jr. Ptr Ink 217:70+ N 8 '46
Remarkable role of advertising in anti-inflation drive. Ptr Ink 214:74 Ja 18 '46
Say it with advertising; why the story of American enterprise must be told; abstracts. D. Belding. Trusts & Estates 82: 469-71 My '46; Pub Util 37:787-91 Je 6 '46
Sell public on actions, good intentions, NAM executive tells industry congress. W. B. Weisenburger. Ptr Ink 213:76 D 14 '45
Strike advertising is not like competitive product copy. L. Graves. il Ptr Ink 214:52+ Mr 1 '46
Strike advertising shows lack of know-how. F. Rudge. il Ptr Ink 214:21-2+ F 1 '46
Studebaker's advertising gets nationwide recognition. il Ind Marketing 31:54+ Mr '46
To further world peace. C. E. Murphy. Adv & Sell 39:113 Ag '46
Wants advertising to promote sound economy. M. S. Rukeyser. Comm & Fin Chr 163:714+ F 7 '46
Warner & Swasey sells America and sells machine tools too. Ind Marketing 31:45+ O '46
What about those Peaceways ads? Ptr Ink 213:49 D 14 '45
What advertising can do during a strike; GE advertising used to preserve employee and community good-will. F. LaClave. il Ptr Ink 214:23-4+ Mr 22 '46
What should a business do about public relations? it should tell its own story, not try to speak for economic system. A. W. Page and K. S. McHugh. Adv & Sell 39:41-2+ O '46
Whimsical industrial ad copy fights unethical competition; Bright light reflector co. il Ptr Ink 213:146-7 N 16 '45
Why Parke, Davis is advertising to build prestige for pharmacists. D. G. Baird. Sales Management 57:72+ S 15 '46
Women in advertising organize for educational work under A.N.A. sponsorship. E. M. Housman. Ptr Ink 215:77+ Ap 5 '46

See also
Advertisements—Books and booklets
Advertising, Association
Advertising, Institutional
Government advertising
Publicity
Safety advertising
United nations advertising council (proposed)

ADVERTISING, Foreign
Advertisements in Spanish and Portuguese appeal to prospective foreign purchasers of domestic surplus war property. For Comm W 25:16 O 26 '46
AIA veto of export advertising may bring even stronger drive. Aviation N 4:22 Ja 7 '46
Coming era of Anglo-American copy. Adv & Sell 38:113+ D '45
Difficulties of selling abroad by mail order. Ptr Ink 214:34 Ja 11 '46
Direct mail à la Nigeria; Dorr company gets requests for free copies of Popular Mechanics. Adv & Sell 39:80+ Je '46
Films sell foreign markets; motion pictures of industrial products in action educate, train and sell. J. T. Kolbert. il Ind Marketing 30:48-9+ O '45
Getting results with export advertising. J. G. Robel. Ind Marketing 31:37+ Ap; 57-8+ My '46
How to approach the French-Canadian market; six wrong ways. C. W. Cook. Ptr Ink 216:71 Ag 23 '46
90 American concerns advertise in Paris. il Ptr Ink 213:51+ D 28 '45
26 points about export promotion material. P. W. Stone. Ptr Ink 216:46-7 S 20 '46
U.S. advertising in Soviet publications; demand for machinery and other equipment presents opportunity to U.S. manufacturers. D. R. Crone. For Comm W 24:27+ Ag 17 '46

See also
Advertising—Latin America

ADVERTISING, Indirect
Advertising branded parts to consumers. N. H. Borden. Harvard Bsns R 25 no 1:129-44 [O] '46
Graton & Knight advertising stresses a product it does not make! leather belting campaign partly devoted to pivot bases. il Ind Marketing 30:39+ N '45
How Fiberglas tells to sell; promotes warm air heating and air conditioning. W. R. Northlich. Ind Marketing 31:37-8+ Ag '46; Same. il Ptr Ink 216:36-8 Ag 23 '46
Lectures and dealer tie-ins boost sales of pianos and teaching methods; dealer-publishing house cooperation. N. Kelne. Ptr Ink 216:86+ Ag 9 '46
Machinery manufacturer builds acceptance for end product; hosiery machine for seamless nylons. E. M. Housman. il Ptr Ink 215: 42-4 Je 21 '46
Maker of raw material controls use of product through consumer advertising; Celanese plastics corp. il Ptr Ink 216:42-3 Jl 26 '46
Theaters are their customers; but promotion woos movie audiences; Altec makes radio and loudspeaker equipment. H. Bessey. il Sales Management 56:46+ Ap 15 '46

ADVERTISING, Industrial
Ads aimed at purchasing agents. il Ind Marketing 31:87-8+ Jl '46
AFA industrial session stresses research, bigger role for advertising managers. Ind Marketing 31:50 Jl '46
Advertising helps prospective customers solve reconversion problems; Allis Chalmers' inventory kit exposes manufacturers' war-beaten facilities. N. H. Jacobsen. Ind Marketing 30:33-4 D '45
Agencies predict increase in 1946 industrial advertising volume. Ind Marketing 31:34+ Ja '46
Answer 11 questions about industrial direct mail; executives favor large illustrations, frown on jumbo mailings. Ptr Ink 213:119-20+ N 30 '45
ABP winners receive awards in New York and Chicago. il Ind Marketing 31:34-6+ My '46
Basic sales idea copy urged on industrial admen. Ptr Ink 216:120+ S 27 '46
Beardsley & Piper's 3-way campaign; publications, house organ and mail advertising to foundries. S. P. Owen. il Ind Marketing 31:59+ Jl '46
Belden manufacturing company hitches horsepower to name promotion. il Ind Marketing 31:45+ Ag '46
Benjamin's program correlates production, markets and promotion; three-year campaign plan. Ind Marketing 30:40-1+ D '45
CFAC honors industrial campaigns. Ind Marketing 31:40-2+ Je '46
Chrysler's horsepower with a pedigree is basic theme of new campaign for industrial engines. J. T. Condon. il Ind Marketing 31:40+ F '46

ADVERTISING, Industrial—*Continued*
Cleveland Pneumatic's basic ad program. E. L. Oldham. il Ind Marketing 31:37+ Mr '46
Co-ordinated campaign for new product; case history of Thompson truform grinders. E. H. Mook. il Ptr Ink 215:42-3+ Ap 26 '46
Do your salesmen wear white shirts or overalls? time industrial advertising dresses up for real selling job! H. L. Harrison. Ind Marketing 31:33+ Je '46
Don't embrace fallacies in industrial advertising copy. E. S. Green. Ind Marketing 31:46+ O '46
Engineer analyzes industrial advertising. H. S. Pardee. Ind Marketing 31:31-2+ Je '46
Expanded sales and advertising activities planned for 1946. Ind Marketing 31:23-4+ Ja '46
Feature function in industrial ads to up their pulling power; how-and-why copy sells dial indicators and gages to technical audiences. I. A. Hunt. il Ptr Ink 213:36+ D 21 '45
Formula for sure-fire industrial copy: earthiness, authenticity; Yuba manufacturing co. dredges for mining. H. A. Sawin. il Sales Management 55:106+ N 15 '45
14 basic functions of an industrial ad manager. M. R. Crossman. Ptr Ink 216:38-9 Ag 9 '46
From industrial advertising to industrial buying and vice versa. J. Barrington. Ind Marketing 30:57-8+ O '45
Fruehauf ties in advertising campaign with new building construction. il Ind Marketing 31:74 F '46
Getting past those technical men! Ptr Ink 213:27 N 30 '45
Getting the most out of your industrial catalog; summary of recent panel discussion and newly issued study. Ptr Ink 213:132+ D 14 '45
Glimpse at industrial advertising of the 80's. il Ind Marketing 31:49+ F '46
How advertising managers can grow in stature; management's viewpoint. N. C. Hurley, jr. Ind Marketing 31:51-2 Jl '46
How Eastman slants umbrella copy to vertical, horizontal markets; campaign to promote use of sales and training films. Ind Marketing 31:47+ S '46
How RCA unearthed 50,000 leads for post-war sales to industry. H. L. Edsall. il Sales Management 56:42-4 My 20 '46
How to become (and remain) an industrial copy writer; ten helpful tips. R. A. Sholl, jr. Ptr Ink 214:58+ Ja 18 '46
How to make whatever's in a name something to touch; Dresser Industries. S. A. Hunt. il Ind Marketing 31:30-1+ Ja '46
Industrial advertisers increase budgets; NIAA national survey. Ind Marketing 30:102+ D '45
Industrial advertising as a career for the ex-serviceman. R. D. Towne. il Ptr Ink 214: 32-4+ F 8 '46
Industrial advertising costs and appropriations; survey. H. Burnett. Ind Marketing 31:33-5+ S; 29-30+ O '46
Industrial advertising must do a better job; agency viewpoint. A. Maescher, jr. Ind Marketing 31:50-1+ Jl '46
Industrial copy should feature a basic sales idea. J. T. Chirurg. il Ptr Ink 216:34-6 Ag 2 '46
Industrial market research in relation to advertising. F. Juraschek. il Ind Marketing 31:45-6+ F; 47-8 Mr; 47+ Ap '46
Link-Belt sells company as symbol of quality for one source supply. G. D. Crain, jr. il Ind Marketing 31:29+ Ja '46
Multiple use of ad plates in a major sales campaign; Edward valve & mfg. company. W. A. Marsteller. il Ind Marketing 30:50+ N '45
NIAA adopts long range program to strengthen professional status of industrial advertising men. W. L. Witt. Ind Marketing 31:37+ O '46
News in industrial advertising. J. O. Harte. Ptr Ink 217:40-1 O 18 '46
Okonite keys promotion to backdoor selling; convincing industry of need for adequate wiring. il Ind Marketing 31:62+ Mr '46
Petroleum research develops new products and wider markets for the Texas company; Beacon laboratories, house organ, booklets. il diags Ind Marketing 31:44-5+ Mr '46
Porter-Cable's marketing campaign solves problem of new product promotion; wet belt machines. W. F. Schleicher. il Ind Marketing 30:48-9+ D '45
Primer for engineers. H. E. Fry. Ind Marketing 31:25-6+ Ag '46
Product expenditures of newspaper advertisers in 1945; industrial. Ptr Ink 215:66+ My 3 '46
Putting the peak on a pyramid of industrial advertising; basic technics of Cleveland Pneumatic campaign. N. Bayless. il Ind Marketing 31:36+ Mr '46
Research, teamwork, follow-through; Rubberset company's campaign for nylon brushes won NIAA award. W. Doty. il Ind Marketing 31:51-2+ S '46
Sales research applied to advertising reduces the selling load. J. O. Peck. Ind Marketing 30:42+ N '45
Sells its territory to sell itself; New Haven's advertising and public relations program emphasizes New England; aims to develop industries and attract new ones. E. J. Dever, jr. il Ptr Ink 214:63-4+ F 15 '46
Six ways to obtain readership for industrial advertising. B. E. Sawyer. Ptr Ink 215:29-30 Ap 5 '46
Slicing art costs by cutting up your products for the art specialist; Robert H. Kimes' Cutaway engineers. E. H. Mook. il Ind Marketing 31:53 My '46
Swords into plowshares; challenge for industrial advertising; three companies exploring peacetime markets for war-born products and techniques. W. E. Rainsley. il Ptr Ink 213:24-5 D 28 '45
There's something to be said for both admen and engineers. V. W. Palen. Ind Marketing 31:41+ O '46
This industrial equipment manufacturer bears down on four fundamentals; case study: Pangborn corporation. A. L. Gardner. il Ptr Ink 213:25-7+ N 23 '45
Veteran views industrial advertising. J. R. Armstrong. Ind Marketing 31:51+ Ag '46
What the composite industrial customer has to say about the efforts of salesmen and advertisers.. C. S. Wilkinson. Ind Marketing 30:92+ D '45
What's wrong with industrial advertising? M. R. Crossman. Ind Marketing 31:33+ Ag '46
Whimsical industrial ad copy fights unethical competition; Bright light reflector co. il Ptr Ink 213:146-7 N 16 '45

See also
Advertising mediums—Trade journals
Equipment industries—Advertising
National industrial advertisers association
Warehouses—Advertising

Cost

Industrial advertisers seek ways to offset rising expenses. H. Burnett. Ind Marketing 31:33-5+ S '46

Inquiries

Is the end of your ad in sight? B. Craig. Ind Marketing 31:128 O '46
Putting inquiries to work in industrial advertising; 8 types. W. H. Green. Ptr Ink 214: 29-30+ Mr 22 '46
Testing and measuring industrial advertising factors through inquiries. W. H. Green. Ptr Ink 214:52+ Mr 29 '46

ADVERTISING, Institutional
Advertises the territory it serves and its own contribution; Seaboard Railway's public relations copy. E. J. Dever, jr. il Ptr Ink 215:58+ Ap 19 '46
Belden manufacturing company hitches horsepower to name promotion. il Ind Marketing 31:45+ Ag '46
Bell companies continue ad teamwork in peace. G. McCulloh. il Ind Marketing 31: 49+ Ag '46
Books, a new kind of public relations advertising. D. L. Parsons. il Ptr Ink 214:26-8 Mr 1 '46

ADVERTISING, Institutional—*Continued*
Few advertisers see value in featuring Army-Navy E awards from here on. Ptr Ink 213: 118 D 21 '45
General Motors advertising creates goodwill among employes at Moraine Products. il Ind Marketing 31:26-7+ Ja '46
Greenfield changes ad strategy; from specific product tell-all to broad institutional sell-all. R. C. Helbig. Ind Marketing 31:52+ Ap '46
How to make whatever's in a name something to touch; Dresser Industries. S. A. Hunt. il Ind Marketing 31:30-1+ Ja '46
Long-range institutional campaign is among mail leaders; Schaible co., Cincinnati. Ptr Ink 214:96+ Ja 18 '46
Lyon metal products; where public relations is practiced at the community level. D. D. McMahon. Ind Marketing 31:47+ Ja '46
New uses for advertising; applications to management problems. G. Carson. il Adv & Sell 39:48+ Je '46
Pennsy cements traffic relations by publicizing industries it serves. Ind Marketing 31:39-40 O '46
Plant-city relations ads win welcoming response; Rubberset announces its coming to Salisbury. Ptr Ink 216:38 S 6 '46
Plant community advertising can increase production, obtain better labor, lower turnover. F. Rudge. Ptr Ink 215:33-5 Je 7 '46
Pointers on promotion when changing name of subsidiaries; General Mills identification program. il Ptr Ink 216:40-1 Ag 23 '46
Policy story behind Boeing's consistent consumer advertising. E. Gidlow. il Sales Management 57:37-9 S 15 '46
Public relations ads glorify employees, not the company; Louisiana power & light company. Ptr Ink 216:106 S 13 '46
Put your war record story in permanent form in detailed article, manual or bound book. R. Newcomb. il Ptr Ink 214:26-7 Mr 22 '46
Reynolds Metals tells what it is doing to fill pay envelopes in Louisville; public relations series directed to employes and the community. D. P. Reynolds. il Ind Marketing 31:50+ F '46
Seven-point formula for enlisting employee support; General Mills seeks workers' participation in institutional campaign. H. E. Green. il Ptr Ink 214:30-1 Ja 25 '46
Single book accomplishes a three-fold purpose; Uxbridge worsted co. il Ptr Ink 213: 44+ D 28 '45
Sports movies build friendly feeling for Tide Water Oil. Sales Management 56:168 F 15 '46
Story behind Standard Oil's radio broadcasts for students. il Sales Management 55:35-7 D 15 '45
These advertising approaches sell private enterprise; Union oil co. of California campaign. L. F. Thomann. Ptr Ink 216:48-9 S 13 '46
Three American microscope builders, a history with a history. il Ind Marketing 30:66 N '45
Three varieties of industry war record; U.S. Steel, Shell Oil and Du Pont show high effectiveness. il Ptr Ink 215:69 Ap 5 '46

ADVERTISING, Mail
Addressing the proper person. Ind Marketing 31:126+ My '46
Agency executive gets 137 pieces of direct mail a week. I. Cunningham. Ptr Ink 215: 35 My 24 '46
American Brass winning DMAA theme: make it right from the start. C. E. Woodward. il Ind Marketing 31:47-8+ F '46
Answer 11 questions about industrial direct mail; executives favor large illustrations, frown on jumbo mailings. Ptr Ink 213:119-20+ N 30 '45
Auto heater is oversold by direct mail debut; Motorola. V. A. Irvine. il Sales Management 57:92+ S 1 '46
Class appeal in direct mail; three approaches in pharmaceutical selling. W. T. Doyle. il Ptr Ink 216:79-80+ Jl 19 '46
Clever mailing piece tells of phone change. Ptr Ink 216:90 S 27 '46
Customers hand-picked by new distribution industry; air-freight salesmen develop prospect list. il Ptr Ink 217:54+ O 25 '46
Dealer direct-mail campaign brings increased service business; Pontiac motor division of General Motors. il Ptr Ink 214:36+ Ja 25 '46
Debate on gifts with direct mail. J. H. Rader and others. East Underw 46:15 N 23 '45
Direct mail cost in larger cities increasing, returns lower. C. T. Redfield and others. Nat Underw 50:30 O 24 '46; Same. Nat Underw (Life ed) 50:8 O 25 '46
Direct mail diary. Published in monthly numbers of Advertising and selling
Direct mail to dealers that says, it's back. il Ptr Ink 213:124 D 7 '45
Distinctive mailings avoid the waste basket; color and frequency make drug pieces stand out in doctors' heavy mail. il Ptr Ink 214:28 F 1 '46
Does direct mail really help salesmen? R. Stone. il Ind Marketing 31:64+ F '46
Druggists urged to push radio-advertised products; Miles laboratories mailing goes to 50,000 retailers. il Ptr Ink 215:43 My 31 '46
50 winners named in annual DMAA contest. Ptr Ink 217:60 N 1 '46
Frequent contests serving many purposes for this advertiser; Swingline stapling machines and staples. Ptr Ink 213:23 N 30 '45
Give your letters the personal touch; direct mail advertising techniques tested for results. D. Ross. Adv & Sell 39:66+ Je '46
How advertisers tell dealers about national campaigns; points to stress, others to soft-pedal. il Ptr Ink 215:115-16+ My 3 '46
How Northwestern Mutual recruits salesmen by direct mail. Sales Management 56:106+ My 20 '46
How to make mail advertising pay. J. W. Mason. Rough Notes 88:17-18 D '45
How to protect your direct mail advertising, if undeliverable. Dom Eng 168:119-20 Ag '46
Long-range institutional campaign is among mail leaders; Schaible co., Cincinnati. Ptr Ink 214:96+ Ja 18 '46
Mail plans unearth thousands of leads for insurance men. Sales Management 56:74 F 15 '46
Mailings as a supplement to salesmen's calls; Spartan saw works. F. Emerson. il Ptr Ink 213:132+ N 30 '45
Making more profit with mail advertising dollars. P. M. Jaques. Ptr Ink 214:29 Ja 11 '46
More use of direct mail looms as magazines study circulation and ad linage drives. N. Kelne. Ptr Ink 217:121+ O 11 '46
Planned economies reduce cost of handling inquiries; Mullins manufacturing co. M. Adams. il Ptr Ink 216:38 Jl 26 '46
Porter-Cable's marketing campaign solves problem of new product promotion; wet belt machines. W. F. Schleicher. il Ind Marketing 30:48-9+ D '45
Postage stamps do affect results of your mailing; color, slanting your printed permit; third-class metering. E. N. Mayer, jr. Ptr Ink 217:91 O 4 '46
Preferences in direct mail; abstract. Management R 35:19-20 Ja '46
Reconverting distributors by direct mail. W. D. Molitor. Ind Marketing 30:43+ N '45
Select envelopes for the job your letters must do. E. N. Mayer, jr. Ptr Ink 217:39 O 18 '46
Separate mailings prepared for different markets; TelAutograph corp. Ptr Ink 213:48 N 30 '45
75% return from dealer mail questionnaire helps style item; paves way for buying guide covering nine questions about WPB-affected outercoats. C. A. Lipman. il Ptr Ink 214:64+ Ja 4 '46
Single book accomplishes a three-fold purpose; Uxbridge worsted co. il Ptr Ink 213: 44+ D 28 '45
Some hints on direct mail for the small business; 15 years have taught insurance agency man lessons about copy, postage, calendars, blotters; Bowen company. H. S. Bowen. il Ptr Ink 214:28-30 Mr 29 '46; Same. Rough Notes 89:34+ Je '46
This industrial equipment manufacturer bears down on four fundamentals; case study: Pangborn corporation. A. L. Gardner. il Ptr Ink 213:25-7+ N 23 '45

ADVERTISING, Mail—*Continued*
This many-purpose direct-mail campaign strikes happy medium in copy, art and typography; Abbott laboratories. E. M. Housman. il Ptr Ink 213:141-3 D 7 '45
Why so many promotion pieces make a bee line to the wastebasket. D. E. Thompson. il Sales Management 57:86+ Jl 15 '46

See also
Follow-up systems
Mailing lists

Brochures

Mailings pull 45% from designers and engineers; Bakelite brochures. il Sales Management 57:108 S 15 '46

Folders

Trick folds add attention value. Z. Reeves. il Inland Ptr 117:62-3 My '46

Printing

Tips on preparing advertising for offset; when to provide spreads of facing pages; when to furnish text or photograph on acetate. W. D. Molitor. Ptr Ink 213:41-2 N 23 '45

Return envelopes

Don't be stingy about the size of your envelopes. D. Ross. Ptr Ink 217:43 O 25 '46

Schedules

Systematic direct mail follow-up gets maximum results. R. Stone. il Ind Marketing 30:40-1 N '45
When's best time to mail calendars? Ptr Ink 214:32 Mr 1 '46

Statistics

Monthly direct-mail volume. L. J. Raymond. Ptr Ink 214:64 Ja 18 '46 [cont monthly]

ADVERTISING, Municipal. See Municipal advertising

ADVERTISING, National
Advertising branded parts to consumers. N. H. Borden. Harvard Bsns R 25 no 1:129-44 [O] '46
Advertising with an echo. N. LeValley. Adv & Sell 39:52 F '46
Arrived yesterday; a buyer's market in radio sets; public not accepting unknown brands. Sales Management 57:80+ S 1 '46
Battle of brands looms. H. M. Tremaine. il Mag of Wall St 78:627-8+ Ag 31 '46
Battle of the brands. A. O. Buckingham. Adv & Sell 39:96 Je '46
Brand loyalty during the cigarette shortage. F. T. Schreier and A. J. Wood. Adv & Sell 38:113-14+ N '45
Brand names and free enterprise. H. E. Abt. Comm & Fin Chr 163:3477+ Je 27 '46
Carey's, Grand Central, a store built on brand acceptance; men's furnishings. J. A. Murphy. Adv & Sell 38:97 D '45
$8,000,000,000 textile industry; is it ripe for brand name promotion? J. C. Cumming. il Sales Management 54:52+ Ap 15; 53-4+ Je 1; 55+ Je 15; 55:100-2 Jl 1; 142+ Jl 15; 71+ Ag 1; 124+ S 1; 153-4+ S 15; 163-4+ O 1; 118+ N 15; 146+ D 1; 154+ D 15 '45; 56:93-4+ Ja 1; 164+ Ja 15; 110+ F 1; 161-3 F 15; 160+ Mr 15 '46 [reprint 25c]
Home inventory survey gives advertised brands increased preferences; tenth study by Cleveland press. Ptr Ink 215:102+ My 3 '46
Million annual gross for sales stands offering low-price brand name products. L. F. Thomann. Ptr Ink 217:118 O 4 '46
Persuaded to try a business paper, company is now a national advertiser; Lombardy's hard-hitting trade messages. E. M. Housman. il Ptr Ink 214:74+ Ja 4 '46
Selling newspaper space to national advertisers. N. H. Borden. Harvard Bsns R 24 no 4:438-52 [Jl] '46
There is a place for all good brands. W. R. Barry. Adv & Sell 39:57-8+ Ag '46
Use of newspapers by national advertisers. N. H. Borden. Harvard Bsns R 24 no 3:295-305 [Ap] '46
Uses national ads after 50 years; manufacturer of hospital and sick-room supplies develops Barca-Loafer chair. E. M. Housman. il Ptr Ink 216:55-6 S 13 '46
Value of brands to consumers gets new promotion for 1946. Sales Management 56: 119 Mr 1 '46

Statistics

See Advertising—Statistics

ADVERTISING, Outdoor
Advertising went on the rocks before company achieved success; New York frame and picture co. Ptr Ink 215:120 Ap 19 '46
Five outdoor ad bills die in N.Y. legislature. Ptr Ink 215:126 Ap 5 '46
New outdoor network to raise industry standards. Ptr Ink 213:52 D 28 '45
Outdoor ads read by 91% of people in 3 markets. Ptr Ink 216:122 S 27 '46
Outdoor posters moving from highways, stressing city, road junction sites. Ptr Ink 216:91+ Jl 5 '46
Projector for outdoor ads uses colored slidefilms. il Am Bsns 16:30 Ag '46
Standard outdoor network sets up sales headquarters. Ptr Ink 215:86 Je 28 '46
22% of Shell advertising budget goes to outdoor. J. B. Lowery. il Sales Management 57:108+ Ag 1 '46

See also
Airships in advertising
Billboards
Posters

ADVERTISING, Point-of-sale
Automatic salesman delivers commercial; Ad vox merchandiser. il Ptr Ink 215:34 Ap 26 '46
Bacardi sales up 300% in novel demonstration; guest bartenders used in point-of-sale promotion. il Ptr Ink 213:131 D 14 '45
California apparel creators new retail store tie-in. Ptr Ink 216:90 Ag 9 '46
Continuous point-of-sale program follows survey of dealer wants; retailers ordered $400,000 worth of sales kits from Landers, Frary & Clark in three weeks. il Ptr Ink 215:48-9 Ap 19 '46
More advertising, point-of-purchase emphasis for home furnishings this year. Ptr Ink 214:96 Ja 11 '46
Tags that tell, and sell, Spiegel's planned program. R. Epstein. il Mod Packaging 19: 98-100+ D '45
This plan avoids waste of point-of-sale materials; dealer helps tailored to communities of specific size; Vess beverage co. B. R. Merrill. il Ptr Ink 217:50-1 O 25 '46

ADVERTISING, Radio. See Radio advertising

ADVERTISING, Soliciting of
Agency executive gets 137 pieces of direct mail a week. I. Cunningham. Ptr Ink 215: 35 My 24 '46
Brief case notes. D. Crowell. Published in weekly numbers of Printers' ink
Footnote on footwork. J. Ecclesine. Ptr Ink 216:124 Jl 26 '46
Horseplay in an advertising agency. il Ptr Ink 215:86 Je 21 '46
Now that I've both sold and bought space; appraisal of media buyer's job. M. F. Decker. Ptr Ink 215:33-4 My 10 '46
Prepared advertising as an aid to space sales; help to ex-GI businessman and builds accounts for a newspaper. F. A. Schneller. Adv & Sell 38:70+ N '45
Selling agency service. L. W. Ellis. Adv & Sell 39:101 Jl '46
Selling newspaper space to national advertisers. N. H. Borden. Harvard Bsns R 24 no 4:438-52 [Jl] '46
What advertisers think of agencies solicitation methods; agencies seeking accounts should inform themselves about advertisers' problems. E. J. Dever, jr. Ptr Ink 217:50-1+ N 8 '46
What advertisers think of agency solicitation methods. E. J. Dever, jr. Ptr Ink 217: 31-3+ N 1 '46

ADVERTISING, Trade union
Union advertises for job-seeking disabled veterans. Ptr Ink 215:64 My 17 '46

ADVERTISING agencies
Agencies predict fall business upturn, deny abnormal summer slump. Ptr Ink 215:83+ Je 28 '46
Calendar manufacturer adds advertising agency division to build new accounts. Ptr Ink 214:127+ Ja 18 '46

ADVERTISING agencies—*Continued*
Enright's revenge; he didn't get Spooner's $3,000,000 account but at least he got his goat. R. E. de Castro. Ptr Ink 213:27-8 D 14 '45
First 60 days are the hardest. Adv & Sell 39:35+ F '46
Growing pains of a new advertising agency. P. de Guzman. Adv & Sell 39:62+ My '46
Help for the veteran who starts an agency. L. W. Ellis. Adv & Sell 39:40+ Ap '46
If you were appointed czar of advertising, where would you start a reform movement; with the advertiser, agency or publisher? Printers' Ink jury of marketing. Ptr Ink 214:26-7 F 15 '46
It takes all kinds; cartoons based on interview with agency receptionists. B. Owen. Ptr Ink 215:46-7 Ap 19 '46
Mr Ernst doesn't like the ad business; reply to Ben Laitin. M. Ernst. Adv & Sell 39:36+ Mr '46
One agency or several? Ptr Ink 213:45-6 N 23 '45
Organizing an advertising agency; reprinted from Feb. 8, 1928, issue. M. B. Ellis. Adv & Sell 39:58+ My '46
Salaried man or small agency owner? pro and con of being own boss in a small town. H. C. Jones. Ptr Ink 214:33-4 F 22 '46
Selling agency service. L. W. Ellis. Adv & Sell 39:101 Jl '46
To sell agency service build a sales manual. L. W. Ellis. Adv & Sell 39:64 S '46
What advertisers think of agency solicitation methods. E. J. Dever, jr. Ptr Ink 217:31-3+ N 1 '46
What should an agency do about television today? J. Southwell. Adv & Sell 39:66+ My '46

Art departments

It takes all kinds; cartoons of art directors. B. Owen. Ptr Ink 216:40 Jl 5 '46
Why commercial art needs a code of buying ethics. R. E. Washburn. Ptr Ink 216:49-50 S 6 '46

Client relations

Advertiser-agency relationship in selecting type of media. Ptr Ink 215:75-6 My 24 '46
Agency-client relationship; advertiser's viewpoint; agency man's viewpoint. C. E. Gischel; C. Stevens. Ind Marketing 31:33-5+ Jl '46
This formula keeps client criticism of ads within bounds; measuring stick for evaluating advertisements. W. D. Lindsey. Ptr Ink 214:28 Mr 15 '46
What advertisers think of agency solicitation methods; agencies seeking accounts should inform themselves about advertisers' problems. E. J. Dever, jr. Ptr Ink 217:50-1+ N 8 '46

Contracts

See also
Radio advertising—Contracts

Employees

Choosing a first assistant in the one-man agency. M. B. Ellis. Adv & Sell 39:57-8 Je '46
G.I. on-the-job training program offered by ad agencies and publishers. N. Kelne. Ptr Ink 215:111+ Ap 5 '46
Hidden advertising jobs. M. Wiseman. Adv & Sell 39:74+ Ag '46
How agencies compensate account executives. Ptr Ink 215:47-8 My 10 '46
How an agency trains veterans under the G.I. bill of rights. H. E. Cassidy. Ptr Ink 216:81-2+ S 27 '46
How aptitude tests can help select agency personnel. R. A. Stevens. Ptr Ink 216:36-7 S 13 '46
It takes all kinds; cartoons. B. Owen. Ptr Ink 215:46-7 Ap 19; 42-3 My 24; 216:40 Jl 5 '46
Small-town agency, stepping stone to big city job; one veteran's experience. I. L. Goldman. Ptr Ink 214:31-2 F 15 '46
Time and a laugh for overtime. J. Barnetson. Ptr Ink 216:45 Ag 16 '46
Veteran lands an agency job. H. V. Thomas. Ptr Ink 213:31-2+ D 21 '45
Who's the new guy? J. Barnetson. Ptr Ink 216:36 Ag 2 '46

Fiction

Antidote for The hucksters; Big noise, novel by F. Farrington. Ptr Ink 215:101 Je 21 '46
The hucksters; comments on Fred Wakeman's new book. W. Weir. Adv & Sell 39:64+ Je '46

Management

Army sessions were something, but agency conferences, oh, brother! Ptr Ink 216:39-40 S 6 '46
Handling the copy cub. C. V. Walker. Ptr Ink 213:50+ N 16 '45
How agencies get new business. J. A. Murphy. Adv & Sell 39:46+ O '46
Let's create a new job in the agency; Why? man. Ptr Ink 215:170 My 3 '46
Stretch to make room for veterans. F. L. McKibben, jr. Ptr Ink 213:132 D 21 '45
What did they hire me for, anyway? J. Barnetson. Ptr Ink 216:49 S 27 '46

Offices

Conference rooms and main offices. il plans diags Arch Forum 83:122-6 D '45

Records

Save a day a week with the client dope book. L. W. Ellis. Adv & Sell 39:68+ O '46

Selection

Chose its agency by rating replies to these 10 questions. M. Adams. Ptr Ink 215:34-6 Je 14 '46
How to measure an agency's worth. L. W. Ellis. Adv & Sell 38:52+ D '45

Service

Employe publications, a boon to agencies, a service for advertisers. P. F. Biklen and R. D. Breth. Ind Marketing 30:55+ N '45
Union Oil ads animate industrial research; close agency contact with Union's advertising, sales and research departments plus periodic field trips. il Ind Marketing 30:35+ O '45

Space buyers

Now that I've both sold and bought space; appraisal of media buyer's job. M. F. Decker. Ptr Ink 215:33-4 My 10 '46

Statistics

In Canada agencies place 50%, in U.S., 80% of total ads. Ptr Ink 213:68 N 16 '45

Taxation

Here's tax relief for that abnormal income. H. K. Marks. Adv & Sell 39:37+ Mr '46

ADVERTISING and bankers
Banker tells how industrial advertising affects soundness of investment. G. E. Wiedenmayer. Ptr Ink 216:36-7 Jl 26 '46

ADVERTISING and credit
See also
Advertising and bankers

ADVERTISING and employees
Advertising; luxury or investment? Hormel gives employes the facts. H. Haupt. il Sales Management 56:46+ Mr 15 '46
Employes hear about firm's promotion plans; Imperial glass corporation. Sales Management 55:82 N 15 '45
Merchandise your ads to your workers. C. Rondomanski. il Ptr Ink 216:72 Ag 9 '46
See also
Advertising—Employees, Appeal to

ADVERTISING and salesmen
Do your salesmen wear white shirts or overalls? time industrial advertising dresses up for real selling job! H. L. Harrison. Ind Marketing 31:33+ Je '46
Does direct mail really help salesmen? R. Stone. il Ind Marketing 31:64+ F '46
Educating salesmen to use advertising; how Armstrong Cork does it. C. Hawley. Ptr Ink 213:130+ D 7 '45; Same. Sales Management 55:52+ D 1 '45

ADVERTISING and salesmen—*Continued*
How to cut waste in dealer displays; the role of the salesman and the jobber. N. J. Leigh. il Adv & Sell 39:52+ Mr '46
In merchandising your advertising story to dealers, localize it! more sales and windows for Bauer & Black. H. E. Green. Ptr Ink 213:21-2 N 30 '45
Mailings as a supplement to salesmen's calls; Spartan saw works. F. Emerson. il Ptr Ink 213:132+ N 30 '45
25 points in selling your advertising to sales trainees. F. A. South. Ptr Ink 217:35-7 O 11 '46
$200 stunt made our salesmen wild about this selling tool; Remington Rand sales brochure wins sales department's enthusiastic acceptance. S. Hiles. il Ptr Ink 217:50-1 O 18 '46
We quizzed our salesmen about our ad plans; Investors syndicate, Minneapolis. W. R. Gerler. il Ptr Ink 217:44-5 O 25 '46

ADVERTISING and war
Most wartime ads were good! R. S. Nicholson. Ptr Ink 213:21 N 16 '45
Shift from service to sell in Frigidaire advertising. F. H. Peters. il Adv & Sell 39: 84+ Ja '46
Studebaker's advertising gets nationwide recognition. il Ind Marketing 31:54+ Mr '46
Team work and mobility explain remarkable success of fat salvage drive. R. W. Peet. il Ptr Ink 214:21-2+ Ja 11 '46
Three varieties of industry war record; U.S. Steel, Shell Oil and Du Pont show high effectiveness. il Ptr Ink 215:69 Ap 5 '46
Wartime advertising awards. il Adv & Sell 39:41-72 Ja '46

ADVERTISING appropriations
Ad manager still key man when appropriations are set. H. Burnett. Ind Marketing 31:29-30+ O '46
Advertising budget and the line of products; specific practices of advertisers with a varied line of products to promote. Ptr Ink 214:40+ Ja 11 '46
Advertising budgets need specific objectives to win management's ok. Ind Marketing 30: 206 D '45
Advertising reserves are essential to flexible budgets. Ptr Ink 214:65-6+ F 1 '46
Allocate 10% of ad budgets to educate public to need of management-labor teamwork. H. W. Steinkraus. Ptr Ink 215:35-7 My 3 '46
Did we or didn't we get our ad budget approved? T. Marvin. il Ind Marketing 31:70+ Mr '46
Flexible advertising budgets essential to sound selling; how far ahead appropriation policies should be planned. Ptr Ink 214: 84+ Ja 18; 78+ Ja 25 '46
Four dangers in setting up the advertising budget. Ptr Ink 213:36+ D 14 '45
How much of new product budget for trade media? P.I. study. Ptr Ink 215:74+ Ap 12 '46
How much should we appropriate for advertising? Ptr Ink 214:63-4+ F 8 '46; Correction. 214:44 F 22 '46
How new product budget is set by months. Ptr Ink 215:43-4+ Ap 19 '46
How to determine the size of the advertising budget; percentage of sales and task. Ptr Ink 213:26-8 D 28 '45
How to spend the advertising appropriation for advertising. Ptr Ink 213:28-30 D 21 '45
Huge '47 ad budgets for luxury gifts predicted in battle for consumer dollar; perfume and cosmetics, jewelry, candy, flowers. N. Keine. Ptr Ink 216:69+ Ag 30 '46
Industrial advertisers increase budgets; NIAA national survey. Ind Marketing 30:102+ D '45
Leading advertisers of 1945 and their expenditures; 653 companies invested $446,928,447 in magazines, farm papers and network radio; tabulation 1942-1945. Ptr Ink 214:31-2+ Mr 22 '46; Correction. 215:94 Ap 5 '46
Rail advertising shows decline in 1945. F. Snow. il Adv & Sell 39:70+ Jl '46
Report reveals advertising investments in major media. Sales Management 57:64 Ag 15 '46
Rising costs won't inflate ad appropriations; P.I. jury reports. V. J. Dallaire. Ptr Ink 217:35-8+ O 4 '46
Setting up the advertising budget for the new product. Ptr Ink 214:21-2+ Mr 22; 31-2+ Mr 29 '46
Seven basic points for the advertising appropriation policy. Ptr Ink 213:19-20 D 7 '45
Some case studies in advertising budget methods; based on field study among 50 leading advertisers. Ptr Ink 214:46+ Ja 4 '46
These are advertising's overspenders; analysis of three chief classes of offenders. R. R. Updegraff. Adv & Sell 39:41-2+ My '46
Van and storage company finds 4% for advertising good investment. Ptr Ink 214:66 Ja 18 '46

ADVERTISING art
Art directors show, 1946. C. Coiner. il Adv & Sell 39:46-7 My '46
Chicago art directors club picks 29 ad art winners. Ptr Ink 215:138 My 3 '46
Doesn't believe that advertising art can be art. M. Morris. il Ptr Ink 214:95+ Mr 1 '46
In defense of art directors. M. Ancker. il Ptr Ink 216:50+ S 20 '46
Must ad art be obviously relevant to product? no, says Minneapolis-Moline. H. E. Green. il Ptr Ink 213:22-3 D 7 '45
N.Y. art directors name 293 contest winners. Ptr Ink 214:100 Mr 29 '46
Philadelphia art directors aid Blue cross exhibit. il Ptr Ink 213:37 N 16 '45
There's good hunting on 57th st., Mr art director; kinship between advertising and gallery art. F. N. Price. il Ptr Ink 214: 26-8 Mr 8 '46
West Coast art exhibit award winners named. Ptr Ink 214:77 Mr 8 '46
Why commercial art needs a code of buying ethics. R. E. Washburn. Ptr Ink 216:49-50 S 6 '46
See also
Advertisements, Pictorial
Posters

ADVERTISING artists
Swell piece of art—but! reason why agencies and advertisers drive artists mad. C. W. Cook. il Ptr Ink 214:28 Mr 22 '46
See also
Advertising agencies —Art departments

ADVERTISING as a profession
Advertising youth must be served. M. B. Pearlman. Adv & Sell 38:74 N '45
British advertisers attempt to make advertising a profession. J. L. Love. Ptr Ink 216: 83-4+ S 20 '46
Gentleman to see you. E. H. Pearson. Ptr Ink 214:160 F 15 '46
Guidance group finds promising sales talent among veterans. C. K. Brett. Sales Management 56:77+ My 20 '46
How many people in advertising? Ptr Ink 215: 45-6 My 31 '46
Industrial advertising as a career for the ex-serviceman. R. D. Towne. il Ptr Ink 214:32-4+ F 8 '46
Job front, 1946. M. Wiseman. Adv & Sell 39:109-10+ Je '46
Job-seeking servicemen o.k. advertising industry's cooperation; P.I. survey. W. Wegge. Ptr Ink 215:56+ Je 14 '46
Jobs in advertising. A. T. Falk. 16p $1 for 25 Bureau of research and education, Advertising federation of America, 330 W. 42d st, New York 18 '46
Listen, McCarthy, admen *can* be trained; suggesting establishment of advertising agency at some university. M. Goldgar. Ptr Ink 213:32+ N 16 '45
My life in advertising; reprint of autobiography. C. C. Hopkins. Adv & Sell 39: 41-8 F; 41-8 Mr; 41-8 Ap; 49-56 My; 49-56 Je; 49-56 Jl '46
New York advertisers help vets perfect job-finding techniques. Sales Management 55: 159+ D 1 '45
Small-town agency, stepping stone to big city job; one veteran's experience. I. L. Goldman. Ptr Ink 214:31-2 F 15 '46

ADVERTISING as a profession—*Continued*
So you want to go into advertising? M. O'Dea. Ptr Ink 213:33-4+ D 28 '45
Teachers of advertising; at $3,000 a year! E. C. Stark. Ptr Ink 216:132 Ag 9 '46; Replies. C. E. Wolff and others. Ptr Ink 216:58+ Ag 30 '46
Training advertising personnel. C. Hawley. Ind Marketing 31:31-3+ Jl '46
Veteran lands an agency job. H. V. Thomas. Ptr Ink 213:31-2+ D 21 '45
What ex-servicemen think about jobs in advertising; P.I. survey. W. Wegge. Ptr Ink 215:75-6+ Je 21 '46
What the veteran wants to know about jobs in advertising; false encouragement is no encouragement. J. McCarthy. Ptr Ink 213: 32+ N 23 '45

ADVERTISING association of the West
Pacific association renamed, adds west Canada; to extend public service advertising. L. Thomann. Ptr Ink 216:92 Jl 5 '46

ADVERTISING associations
Women in advertising organize for educational work under A.N.A. sponsorship. E. M. Housman. Ptr Ink 215:77+ Ap 5 '46

See also
Association of national advertisers
Automotive advertisers council
National industrial advertisers association

ADVERTISING awards
American Brass winning DMAA theme: make it right from the start. C. E. Woodward. il Ind Marketing 31:47-8+ F '46
APRA presents 44 annual awards for outstanding achievements. L. Ross. il Ind Marketing 31:50-1+ My '46
ABP makes awards for best business-paper campaigns. Ptr Ink 215:30-2 Ap 12 '46
ABP winners receive awards in New York and Chicago. il Ind Marketing 31:34-6+ My '46
Awards by Art directors club of Chicago. il Ptr Ink 215.38-9 My 10 '46
Case histories of business-paper advertising campaigns; ABP award winners. il Ptr Ink 215:40-2+ My 10; 44-6 My 17 '46
Chicago art directors club picks 29 ad art winners. Ptr Ink 215:138 My 3 '46
CFAC honors industrial campaigns. il Ind Marketing 31:40-2+ Je '46
Copy chasers name ad panel winners at NIAA conference in Atlantic City. il Ind Marketing 31:130-2 Jl '46
Elizabeth Eyerly wins Erma Proetz award. Ptr Ink 215:98 Je 7 '46
50 winners named in annual DMAA contest. Ptr Ink 217:60 N 1 '46
Louisville publisher wins NNPA award for varied use of newspaper promotion. Ptr Ink 215:134+ My 3 '46
N.Y. ad women distribute prizes. Ptr Ink 215: 114 My 10 '46
N.Y. art directors name 293 contest winners. Ptr Ink 214:100 Mr 29 '46
P.U.A.A. awards prizes. Gas Age 98:21-3 Jl 11 '46
Research, teamwork, follow-through; Rubberset company's campaign for nylon brushes won NIAA award. W. Doty. il Ind Marketing 31:51-2+ S '46
Wartime advertising awards. il Adv & Sell 39:41-72 Ja '46
West Coast art exhibit award winners named. Ptr Ink 214:77 Mr 8 '46
Winners in Chicago federated advertising club competition. Ptr Ink 215:120 My 10 '46
Winning advertising art at Art directors club of New York exhibit. il Ptr Ink 215: 26-7 Ap 5 '46

See also
Radio advertising—Awards

ADVERTISING campaigns
Benjamin's program correlates production, markets and promotion; three-year campaign plan. Ind Marketing 30:40-1+ D '45
Better product, but it looks like cheaper rivals; what to do? Libbey Glass heat-treated tumbler. K. C. White. il Sales Management 56:60+ Mr 1 '46
Bulk cleanser sold to institutions now branded and packaged for consumers; advertising helped win acceptance for Marvene. il Ptr Ink 215:105 Je 14 '46
Case histories of business-paper advertising campaigns; ABP award winners. il Ptr Ink 215:40-2+ My 10; 44-6 My 17 '46
Coordination is key to this advertising success; new Rubberset nylon paint brush. E. R. Brown. il Ptr Ink 217:59-60 O 18 '46
Eight department stores bunch Wilkens fashion ads in one magazine. il Ptr Ink 215:99 Ap 5 '46
Fashion is theme of advertising for sun glasses; textiles, sport clothes, compacts, build department-store promotion around sun glasses. il Ptr Ink 215:44-5 Ap 26 '46
Point-of-purchase promotion plus merchandising use of product and other high spots in 1946 campaign of Bendix home appliances. H. E. Green. Ptr Ink 213:29-30+ D 14 '45
Sales strategy that opened a rich new market for Rit. P. H. Schatz. il Sales Management 57:37-41 Ag 1 '46
Team work and mobility explain remarkable success of fat salvage drive. R. W. Peet. il Ptr Ink 214:21-2+ Ja 11 '46
Theaters are their customers; but promotion woos movie audiences; Altec makes radio and loudspeaker equipment. H. Bessey. il Sales Management 56:46+ Ap 15 '46
This unusual campaign solves a common problem; case history of ad campaign by House of Vision. E. J. Dever, jr. il Ptr Ink 217:46-8 O 18 '46
Tie-in with Conover models draws spotlight to new style luggage. Ptr Ink 217:78 O 25 '46
Westinghouse electronics industry campaign. il Ind Marketing 31:37+ F '46

See also
Recruiting campaigns

Moving picture tie-in
Marxman Pipes and Warner brothers cooperate in ad-promotion tie-in. il Ptr Ink 215:104 Je 21 '46

Special weeks
1946 merchandising days and weeks. Ptr Ink 213:26 N 16 '45

Teaser campaigns
Interest in teaser technique revives. E. J. Cunningham. il Ptr Ink 214:25-7+ Ja 18 '46

ADVERTISING cards
Factors in car card appeal listed in Transit-ad survey. Ptr Ink 216:134 S 13 '46
How effective is transportation advertising; results of 6 studies. A. W. Lehman. il Adv & Sell 39:51-2+ Ag '46
Milwaukee transportation advertising gets 20% average readership, study shows. Ptr Ink 214:123 Mr 15 '46

ADVERTISING characters
Animated trade characters; evaluation by 14 consumer-industrial advertisers. R. H. Ganly. il Ptr Ink 213:26-7+ D 21 '45
Claytoons reach out for new markets in merchandise lines; Mother Goose Claytoon-illustrated; next step may be Claytoon-character dolls, etc. il Sales Management 55:79 N 15 '45
Fisk tires trade-mark; how it doubles in brass. il Sales Management 56:107+ Je 15 '46
Little man in checked coat to sell driving safety; Raybestos has abandoned scare approach. il Sales Management 57:75-6+ Ag 1 '46
New trade character is a rag doll. il Ptr Ink 216:72 S 27 '46
One company's trade character embarrased another company. il Ptr Ink 214:34 Ja 4 '46
Phoebe Snow's inventor. E. E. Calkins. Adv & Sell 39:132+ Je '46
Presenting Johnny; the life and times of Philip Morris' mighty midget. P. W. Kearney. il Adv & Sell 38:35+ N '45
Quaker oats modernizes a 69-year-old character. il Mod Packaging 19:126-31 Mr '46
Sue Chard, living trade-mark, to help simplify pronunciation of candy name. il Ptr Ink 216:94 Jl 12 '46

ADVERTISING characters—*Continued*
Tumblin Tim is star salesman for Acrobat shoes for children. il Sales Management 57: 136+ S 15 '46

ADVERTISING clubs
Army ad men ready for reconversion. G. M. Worden. il Ind Marketing 30:54+ O '45

ADVERTISING contracts
See also
Radio advertising—Contracts

ADVERTISING conventions
Stones for bread; advertising conventions. A. H. Dix. Ptr Ink 213:164 N 16 '45

ADVERTISING copy
Ad that tells a story; examples from cooperative campaign of Canadian life insurance companies. C. Bradley. il Ptr Ink 215.103 Ap 19 '46
Advertising the competitor. Ptr Ink 215:116 Ap 12 '46
Copy can capitalize on conditioned reflexes; engineers look at blue prints, women at recipes. W. Weintz. Ptr Ink 215:35 My 31 '46
Copy capsules. H. Stebbins. Ptr Ink 216: 136 Jl 19 '46
Copy clinic. B. Tyler. il Published in monthly numbers of Advertising & selling
Copy that clicked (cont). R. Manville. il Ptr Ink 213:106 N 23 '45; 214:29 F 8; 215:47 My 31; 216:46 Jl 26; 217:43 O 18 '46
Dr Starch tells what makes ads pay off. Ptr Ink 214:101 Mr 1 '46
Does advertising need a rash of new talent? J. Thompson. Adv & Sell 38:45+ N '45
Don't blame advertising, blame some advertisers. W. S. Townsend. il Ptr Ink 217:34-6 N 1 '46
Don't bury boners, capitalize them. Ptr Ink 216:90+ S 6 '46
Don't embrace fallacies in industrial advertising copy. E. S. Green. Ind Marketing 31: 46+ O '46
Don't shout at women; humor them. B. Kidd. il Adv & Sell 39.62+ Mr '46
Exciting, isn't it; exclamation points in copy. J. E. Matthews. Adv & Sell 39:48 O '46
Fancy Dans pay off; reply to critics who think copy should stick to the facts, stop. B. Cort. Adv & Sell 39:82 Mr '46
Field work provides best sales promotion material; Cochrane corporation. S. D. Distelhorst. il Ind Marketing 31:58+ S '46
Four scientific steps in constructing effective ads. L. D. H. Weld. Ptr Ink 215:29+ Je 28 '46
How a copy pattern will strengthen your readership. W. T. Laing. il Ptr Ink 216: 46-9 S 27 '46
How ad copy derails readers; thirteen types of copy that throw them off the track leading to sales. J. W. Beuret. Ptr Ink 215:50+ Ap 12 '46
Is your advertising in tune with public opinion? A.N.A. studies summarized. P. S. Ellison. Ptr Ink 213:25-6+ N 16 '45
It's the reasons for not buying we should worry about. H. G. Sawyer. Ptr Ink 213: 110+ D 28 '45
Let advertising be as realistic as personal selling. F. W. Gray. Ptr Ink 216:70+ S 6 '46
Logic or liking, which is the more powerful sales stimulant? H. G. Sawyer. Ptr Ink 214:23-4 Ja 25 '46
Manufacturers and retailers shift ad copy to selling to prepare for buyers' day. N. Kelne. Ptr Ink 217:121+ O 18 '46
Meet Mr Burpp; contact with the public. J. Harrington-Harris. Adv & Sell 39:102 Je '46
Merchandise information in retail advertising. H. M. Cowee. J Retailing 22:33-6+ Ap '46
New, improved, revolutionary; baloney! J. F. Quinn. Ptr Ink 217:168 O 18 '46
Precision performers; underacting; lesson for advertisers. J. McCarthy. Ptr Ink 216:138 Jl 12 '46
Q and A type copy builds industrial prestige; case history of Dayton grinding wheels. E. H. Mook. Ptr Ink 213:126 D 7 '45
Readers worry when copy isn't clear. Ptr Ink 216:61 Jl 26 '46
Return to copy that sells. L. Burnett. Adv & Sell 39:41-2+ Je '46
Ringing message of Dr Bell; nomination for advertising's Hall of fame. J. C. Knollin. il Ptr Ink 213:30+ N 30 '45
Salesman's corner; suggestions on writing copy. F. Rundell. Inland Ptr 116:72-3 D '45-Ja '46
Sealed Power gears copy five ways for five markets. J. E. Norwood. Ind Marketing 31: 48+ S '46
Shift from service to sell in Frigidaire advertising. F. H. Peters. il Adv & Sell 39: 84+ Ja '46
Some of our best advertising is being written in research laboratories. J. A. Cairns. Adv & Sell 39.42 Je '46
Stick to the facts and ignore the frills. W. Weir. Adv & Sell 38:50+ N '45
There is something terribly wrong with advertising. H. K. Reynolds. il Ptr Ink 216: 33-5+ Jl 5 '46
There's only one way to evaluate copy. J. D. Woolf. Ptr Ink 216:44 S 6 '46; Reply. R. C. Shaw. 216.63+ S 20 '46
To believe that the consumer is a jerk is dangerous doctrine. R. L. Edsall. Ptr Ink 214:44+ Mr 15 '46
Why must copy and layout come before art? W. Engel. il Ptr Ink 216:33-5 S 13 '46; Discussion. B. Segal. 217:92 O 4 '46
Why readership of ads has increased 24%. D. Starch. Adv & Sell 39:47+ Ag '46
See also
Advertisements
Advertising—Psychology
Advertising ethics
Sales letters

Dealer listing
Where can I get it? C. O. Morris. Ptr Ink 213:117 D 21 '45

Dealer tie-up
Advertising ties local manufacturer to retailers; Miller table pad and venetian blind mfg. co., Brooklyn. Ptr Ink 216:64+ Ag 23 '46

Economy appeal
Mystery of the missing payload; how the Flying Tigers solved it. il Sales Management 56:76+ Je 15 '46
Warehouse adopts distribution costs as advertising theme; Lehigh & Lackawanna campaign. Ptr Ink 214:67-8 Mr 15 '46

Emotional appeal
Advertising emotions. M. Wiseman. il Adv & Sell 39:70+ Mr; 84 Ap; 70+ My '46
Direct ads to the emotions but plan by statistics. M. Berkowitz. Ptr Ink 216:67-8+ S 27 '46
Or would you rather be a fish? ads need emotion. P. Beuret. Adv & Sell 39:78 F '46

Fashion appeal
Dorothy Gray Flamingo campaign links cosmetics and fashion. B. Carpenter. il Sales Management 56:140+ Ap 15 '46
Fashion is theme of advertising for sun glasses; textiles, sport clothes, compacts, build department-store promotion around sun glasses. il Ptr Ink 215:44-5 Ap 26 '46
How advertising can capitalize on style as added attention getter. Ptr Ink 215:100+ Ap 12 '46
Missing ingredient in furniture advertising; fashion would help. G. T. Sweetser. il Adv & Sell 39:68+ Mr '46
National promotions fan women's zeal for reusable cotton bags. il Sales Management 57:126+ S 15 '46
Oculens promotion stresses high fashion appeal in sun glasses. il Sales Management 57:62+ Jl 1 '46

Headlines
Advertisement is he or she. M. Wiseman. Adv & Sell 39:70, 112 O '46
It shouldn't happen to a headline. J. Barnetson. Ptr Ink 216:78 Jl 5 '46
Should a headline sing as well as sell? F. A. Kummer, jr. Adv & Sell 39:62+ S '46
Test of 5 appeals shows how logic pulls in headlines; National radio institute. W. Weintz. il Ptr Ink 216:36-7 Jl 5 '46
When it comes to the headline, do you freeze up? J. L. Jones. Ptr Ink 213:170+ D 14 '45

ADVERTISING copy—*Continued*

Historical appeal

American Brakeblok series dramatizes brake history. il Ind Marketing 31:60 Mr '46
Then-and-now theme gains attention for ads; historically correct paintings of century-old customs feature copy for Nescafé. il Ptr Ink 215:45 Je 21 '46

Language, style, etc.

ABC rules (three only) for Latin-American copy writing. L. G. Dillon. Ptr Ink 215:81-2+ Je 21 '46
Be sure it's clear. W. R. Mason. Ptr Ink 216:74 S 20 '46
Careful thinker, lucid writer. W. R. Bowler. Ptr Ink 215:156 Ap 26 '46
He learned about Latin-American Spanish the hard way; insurance publisher uses North American translator. R. W. Osler. Ptr Ink 215:69 Ap 19 '46
More about writing. M. Wiseman. Adv & Sell 39:92+ F '46
Right across the ditch. H. Halsell. Adv & Sell 38:44 N '45
Where's your grammar? she's dead. J. Barnetson. Ptr Ink 214:164 Ja 25 '46

Moving picture tie-in

How movies provide promotion for products. B. de Baltazár. il Ptr Ink 217:42-3 O 11 '46
Royal Crown opens biggest movie tie-up, featuring Bing Crosby. il Ptr Ink 214:124 Ja 25 '46

News appeal

News angles give life to run-of-mine ads. J. Williams. il Ptr Ink 217:39-40 N 1 '46

Numerals

Numbers are good copy; B & W advertising shows figures need not be cold. C. M. Neighbors. il Ind Marketing 31:43+ Je '46

Premium offers

Featuring the premium in printed advertising. il Ptr Ink 216:55-6+ Jl 5 '46
Premium users and their offers. il Ptr Ink 215:83-5+ My 10 '46

Price quoting

Price, an essential element in copy. C. J. Swan. Ptr Ink 217:37-8+ O 18 '46
Shall we display and advertise price? public says yes! Sales Management 56:46+ F 15 '46

Quality appeal

High-priced items using hidden product provide dramatic theme; Talon fasteners. Ptr Ink 216:60 Ag 9 '46
Maker of raw material controls use of product through consumer advertising; Celanese plastics corp. il Ptr Ink 216:42-3 Jl 26 '46

Reason appeal

News in industrial advertising. J. O. Harte. Ptr Ink 217:40-1 O 18 '46
Tell me quick and tell me true (or else, my love, to hell with you!) satire. V. O. Schwab. Adv & Sell 39:64 Mr '46

Revision

Some clients always rewrite copy. C. Rondomanski. Ptr Ink 216:60 S 13 '46

Romantic appeal

Kissing is a business; romantic antics in our national ads. F. J. Ostler. il Adv & Sell 38: 50+ D '45

Safety appeal

Accident that didn't happen; Bear mfg. company's 1946 plans. il Ind Marketing 31:60+ My '46
Little man in checked coat to sell driving safety; Raybestos has abandoned scare approach. il Sales Management 57:75-6+ Ag 1 '46
Safety has a wide sales appeal. C. D. Murphy. il Ptr Ink 214:30+ Ja 11 '46

Service appeal

Link-Belt sells company as symbol of quality for one source supply. G. D. Crain, jr. il Ind Marketing 31:29+ Ja '46

Sex appeal

Sex angle used to sell toiletries to men. il Ptr Ink 217:44 N 1 '46

Shorthand

Shorthand ad copy proves effective for Max Schling. Ptr Ink 216:110 S 6 '46

Special offers

Advantages and disadvantages of special deals; advice on use of word free. il Ptr Ink 215:27-9 Ap 12 '46
Combination offers. il Ptr Ink 215:42-3 My 3 '46
Special offers to introduce new products; from price reduction to trial packages. il Ptr Ink 215:40-1 Ap 26 '46

Sports appeal

Public's interest in sports reflected in ad campaign. A. P. Bondurant. il Ptr Ink 217: 40 O 11 '46

Testimonials

Study shows stamps of approval influence women in buying; 62.4% of respondents to Good Housekeeping survey say product endorsements guide selection. Ptr Ink 213:157 D 7 '45

Themes

Don't abandon sales themes just because they bore you! Sales Management 57:80 O 1 '46
Industrial copy should feature a basic sales idea. J. T. Chirurg. il Ptr Ink 216:34-6 Ag 2 '46
Power of reality in advertising; real-life situations as basic topics. R. E. M. Morris. Adv & Sell 38:33-4+ N '45
What can you say in advertising if you have nothing to sell? five rules for small manufacturers. il Sales Management 57:123 N 1 '46

Use appeal

Advertising broadens opportunity to sell new brake linings; negative fear appeal gives place to positive. Ptr Ink 215:123 My 3 '46
Feature function in industrial ads to up their pulling power; how-and-why copy sells dial indicators and gages to technical audiences. I. A. Hunt. il Ptr Ink 213:36+ D 21 '45
Giddings & Lewis advertises field performance facts. E. K. Morgan. il Ind Marketing 30:48-9 N '45
Women read ads for facts! J. Kift. Ptr Ink 216:33-4 S 6 '46

ADVERTISING copy writers

Advertising men can have literary careers. W. A. Lowen. pors Ptr Ink 213:22-3 N 23 '45
Can you write? M. Wiseman. Adv & Sell 38: 69+ D '45
Copywriter's job. M. Wiseman. Adv & Sell 38:62+ N '45
Cub answers the grizzlies. E. Gramm. Ptr Ink 214:160 F 22 '46
Handling the copy cub. C. V. Walker. Ptr Ink 213:50+ N 16 '45
How to become (and remain) an industrial copy writer; ten helpful tips. R. A. Sholl, jr. Ptr Ink 214:58+ Ja 18 '46
How to get copy-writing experience, maybe a job. M. Abbott. Ptr Ink 215:48+ Ap 5 '46
It takes all kinds; cartoons. B. Owen. Ptr Ink 215:42-3 My 24 '46
Listen, McCarthy, admen *can* be trained; suggesting establishment of advertising agency at some university. M. Goldgar. Ptr Ink 213:32+ N 16 '45
More about writing. M. Wiseman. Adv & Sell 39:92+ F '46
New York ain't America; New York copy writers. L. C. Flaherty. Ptr Ink 213:124 D 28 '45
Organizing an advertisement. M. Wiseman. Adv & Sell 39:78+ S '46
P is for Poochey: W D Y T. Ptr Ink 217:77-8 O 11 '46
Random thoughts of a copy man. J. H. Rogers. Ptr Ink 216:108 Ag 30 '46
Rx for New Yorkitis. C. Helm. Ptr Ink 214: 158 F 8 '46
Salesman asks; why don't copy writers go out and sell the product? R. W. Lake. Ptr Ink 216:29-31 Ag 30 '46

ADVERTISING copy writers—*Continued*
Should only women write copy for women? K. Millard. Ptr Ink 216:35 Jl 19 '46; Reply (Let's keep sex out of this). V. S. Francis; Reply (Women's work is never won). B. Kellogg. 216:46 Ag 2 '46; Reply (Run for cover, Mr Millard)! H. Bernstein and others. 216:57-8+ Ag 16 '46; Reply (Writing advertising isn't a matter of sex)! M. Brown. 216:58+ Ag 23 '46
Stick to the facts and ignore the frills. W. Weir. Adv & Sell 38:50+ N '45
Today's copy writers are getting soft. J. D. Woolf. il Ptr Ink 216:36-7 Jl 12 '46
Would-be copy writers must take aptitude test; part of Cincinnati club's help for veterans. Ptr Ink 214:27 Mr 29 '46
You, and people. M. Wiseman. Adv & Sell 39:122+ Ja '46

ADVERTISING council
Have we failed to sell peace? M. G. Rollins. Adv & Sell 39:112 Ap '46
New Advertising council campaign aims to relieve shortage of nurses. il Ptr Ink 215: 44+ My 24 '46
What the Advertising council means to industrial marketing. C. B. McDonough. Ind Marketing 31:55-6+ Je '46
Young re-elected chairman. Ptr Ink 214:124 Mr 15 '46

ADVERTISING departments
Ad clinic for non-advertising personnel proves popular; U.S. Rubber division home-office dress parade of its advertising and sales-promotion program. R. Hanes. il Ptr Ink 215:23-6 Ap 12 '46
ANA analyzes advertising setup as part of company organization. Sales Management 57:46 Jl 15 '46
Bakelite's advertising organization chart. Ind Marketing 30:92 D '45
Broadening functions of advertising charted by ANA; study of 202 company advertising departments. Ptr Ink 215:46 Je 28 '46
Did we or didn't we get our ad budget approved? T. Marvin. il Ind Marketing 31:70+ Mr '46
How one industrial supplier reorganized for postwar sales; Chase bag company centralizes advertising, sales promotion, publicity, market research in one department. J. P. Grady. Ind Marketing 31:27-8+ Ag '46
Improving industrial design through the advertising department. J. G. Jondeleit. Ind Marketing 31:33 Mr '46
New responsibilities for the advertising department; should become creative service center, help management with merchandising problems. H. E. Fry. Ptr Ink 216:36-7 Ag 30 '46
Opportunity for advertising to promote better employe relations. W. F. Rockwell. Ind Marketing 31:62+ Ap '46
Study on organization of the advertising function. 173p Assn. of National advertisers, 285 Madison av, New York 17 '46
Top management less active in selection of media; study of executives responsible for selecting the list shows more authority given advertising departments. Ptr Ink 215: 33-4+ My 17 '46
What the advertising manager can do to help employe relations. L. H. Hill. il Ind Marketing 31:31-2+ My '46
Why Esso advertising men spend half their time in the field. R. M. Gray. Sales Management 57:48+ Jl 15 '46

See also
Advertising managers

ADVERTISING displays
Designing with acrylics; some considerations. D. A. Rothrock. il diags Mod Packaging 19: 112-15 F '46
How to cut waste in dealer displays. N. J. Leigh. il Adv & Sell 39:36+ F; 52+ Mr '46
Mammoth acrylic display dome; in downtown Detroit, carrying out Ford slogan. il Mod Plastics 24:106-7 O '46
Premiums in plastics. C. A. Breskin. il Sci Am 174:158-60 Ap '46
Too good to be true; Imitation food display company; Mary Inman's studio. L. H. Singer. il Adv & Sell 38:93 D '45
Vitalized blue flame for display. D. W. Frye. il Gas Age 96:25 D 27 '45; Same. Am Gas Assn Mo 28:19 Ja '46

ADVERTISING ethics
Advertising is already regulating itself on a big scale through the Better business bureaus; what more is needed? E. L. Greene. Ptr Ink 214:40+ F 8 '46
Before advertising can regulate itself; questions to be faced. Ptr Ink 213:21-2 D 21 '45
Confucius had a word for it. S. Hopper. Ind Marketing 31:43-4 Ag '46
Consumer has his say on advertising code. J. E. Rooney. Ptr Ink 214:50 Mr 15 '46
Consumer is a jerk! hence responsible for offensive advertising. H. G. Sawyer. Ptr Ink 214:23-5 Mr 1 '46; Reply (To believe that the consumer is a jerk is dangerous doctrine). R. L. Edsall. 214:44+ Mr 15 '46; Discussion. 214:73-6 Mr 22 '46
Credit jewelers adopt fair trade practice rules. Ptr Ink 215:92 Je 28 '46
Drug, cosmetic and tobacco ads are greatest offenders. Ptr Ink 214:23-4 F 22 '45
How is your advertising advertising advertising? J. Barnetson. Ptr Ink 215:45 My 10 '46
How sensitive is the conscience of advertising? J. Benson. Ptr Ink 215:146 Je 21 '46
Hughes fight tightens administration of Hollywood code on advertising. L. F. Thomann. Ptr Ink 216:122 S 13 '46
If you were appointed czar of advertising, where would you start a reform movement; with the advertiser, agency or publisher? Printers' Ink jury of marketing. Ptr Ink 214:26-7 F 15 '46
NAEA adopts revised code of ad ethics. Ptr Ink 215:110 Je 21 '46
One way to increase public confidence in business. J. Benson. Adv & Sell 39:54 O '46
Printers' Ink jury of marketing opinion says: responsibility for bad advertising rests with the advertiser. Ptr Ink 214:21-3 F 8 '46
Proprietary Association hits medical ad copy, urges self-regulation with media help. Ptr Ink 215:125+ My 17 '46
Responsibilities of a commercial radio sponsor. S. C. Gale. Adv & Sell 39:220 Ja '46
The truth, so help me! A. J. Griffin. Adv & Sell 39:106 O '46
When does sales puffing become misrepresentation? A. W. Gray. Adv & Sell 39: 40+ F '46

ADVERTISING federation of America
Annual meeting, 42d. Ptr Ink 215:98 Je 7 '46
Convention, Milwaukee, May 28. Sales Management 56:133-4 Je 15 '46
Industrial advertising departmental session. Ind Marketing 31:50 Jl '46

ADVERTISING literature
Today's children are tomorrow's customers; some projects meeting with teacher acceptance. il Sales Management 57:90-2+ S 15 '46
U.S. Steel shows how to merchandise technical literature. M. L. Neison and H. J. Anderson. il Ind Marketing 31:38-9 Jl '46
Women's clubs welcome an honest business approach. T. B. Wells. il Ptr Ink 216:41-3 S 27 '46
Working formula for technical manuals; design specialists revamped literature. G. Cushing. il diag Ind Marketing 31:44+ S '46

See also
Catalogs

Bibliography

Free for the asking. Published in monthly numbers of Textile world
Helpful bulletins containing answers to many operating and maintenance problems. Published in monthly numbers of Power plant engineering
Manufacturers' literature. Published in monthly numbers of Materials & methods
New bulletins; 478 items covering equipment and supplies used by power engineers. Power 89:918A-918B+ Mid-D '45
New products and practices; selected information. Aviation 45:153-4+ Ja '46
Trade literature. Published in monthly numbers of Aero digest
What's new in manufacturers' literature; metals, metal work, equipment, etc. Metal Prog 49:160a-160b Ja '46 [cont monthly]

ADVERTISING managers
Ad manager still key man when appropriations are set. H. Burnett. Ind Marketing 31:29-30+ O '46
14 basic functions of an industrial ad manager. M. R. Crossman. Ptr Ink 216:38-9 Ag 9 '46
Getting the generals to go along with your budget; show them some objectives that they will support. J. T. Chirurg. Ptr Ink 213:112+ N 30 '45
How advertising managers can grow in stature; management's viewpoint. N. C. Hurley, jr. Ind Marketing 31:51-2 Jl '46
Just what is an advertising manager's job? N. B. Jackson. Ptr Ink 216:40-1 Jl 19 '46
See also
Marsteller, William A.

ADVERTISING mediums
Advertiser-agency relationship in selecting type of media. Ptr Ink 215:75-6 My 24 '46
British paper shortage develops subsidiary media. H. J. Warman. Ptr Ink 213:114 D 21 '45
How new product budget is set by months; media changes and preliminary testing. Ptr Ink 215:43-4+ Ap 19 '46
Major advertising media show big gains. Bsns W p38 Ag 24 '46
Media pool data to sell San Diego as a market. Sales Management 56:68 Ja 15 '46
Radio, movies, publications increase each other's audience. L. Handel. Ptr Ink 216: 42-3 Jl 19 '46
Selecting media list is joint client and agency job, with advertiser retaining final say. Ptr Ink 215:69-71 My 31 '46
Top management less active in selection of media; study of executives responsible for selecting the list shows more authority given advertising departments. Ptr Ink 215: 33-4+ My 17 '46
See also
Advertising, Soliciting of
Airships in advertising
Comics (books, strips, etc.)
Match books
Moving pictures in advertising
Radio advertising
Slide films
Television advertising

Advertising
Agency executive gets 137 pieces of direct mail a week. I. Cunningham. Ptr Ink 215:35 My 24 '46
Don't let your media ads die on the vine. il Adv & Sell 39:66+ Ap '46
Help; agency man weary of publication literature. R. Kircher. Adv & Sell 39:52 Ag '46
Let media advertising quit being coy! F. A. Kummer, jr. il Ptr Ink 216:158 S 6 '46; Discussion. 217:63 O 1 '46

Engineering journals
Primer for engineers. H. E. Fry. Ind Marketing 31:25-6+ Ag '46
Promotion program to radio engineers. Ind Marketing 31:127 O '46

Farm papers
Farm Journal releases data sheets for all counties in the U.S. R. C. Schindler. Sales Management 56:106-7 Ja 15 '46
Farm publications; advertising linage; three-year comparative totals, 1943-1945; tables. Ptr Ink 214:134 F 1 '46
Leading advertisers of 1945 and their expenditures; 653 companies invested $446,928,447 in magazines, farm papers and network radio; tabulation 1942-1945. Ptr Ink 214:31-2+ Mr 22 '46; Correction. 215:94 Ap 5 '46
Sells results, not product, and gets farmers' orders; farm publication advertising helps Graham-Paige break into farm equipment market. H. E. Green. Ptr Ink 216:38-9 Ag 30 '46

Fiction
Media men, say howdy to your newest competitor; introducing commercials into fiction. J. L. Love. Sales Management 56:90+ Ap 15 '46

Finance
Timely survey of publishing and broadcasting stocks; with statistics on leading companies. G. L. Merton. Mag of Wall St 79: 89-91 O 26 '46

Foreign language press
Hints on advertising to foreign language groups. C. D. Maddy. Adv & Sell 38:68+ N '45

Match books
How book matches became an advertising medium. S. Little. Adv & Sell 39:64+ My '46
Match-book messages on racial intolerance may extend to other media; liquor distributor to test before-and-after effect. E. Cunningham. il Ptr Ink 213:24 D 7 '45

Newspapers
Ad bureau announces analytical plan to boost space sales sectionally; abstract. A. B. Stanford. Ptr Ink 214:92 F 1 '46
Ads top news stories in teen-age readership; study by Minneapolis Star. L. E. Borg. Adv & Sell 39:58+ O '46
Advertises even though only 2% of audience are prospects; newspaper copy helps build million-dollar volume for Morton show case co. Ptr Ink 216:62+ Ag 9 '46
Advertising. R. W. Babson. Comm & Fin Chr 164:2217 O 31 '46
Ailing press; neglect of market research. Bsns W p90+ Mr 23 '46
ANAN asks support of newspaper reps to meet challenge of radio, magazines. Ptr Ink 214:115+ F 15 '46
Cooperation with admen urged on publishers; abstract. C. H. Ferguson. Ptr Ink 215:128 Je 14 '46
How to use coupons in a sampling campaign; distribution through newspapers. R. Coller. il Ptr Ink 215:38-9+ Je 14 '46
Leading newspaper advertisers in 1945. Ptr Ink 215:48-50+ Ap 26 '46
Monthly index of newspaper advertising; graph. Ptr Ink 214:118 Ja 4 '46 [cont monthly]
National advertising in newspapers. N. Borden, M. Taylor and H. T. Hovde. 500p $5 Harvard univ. press; Review by R. Webster. Ptr Ink 214:94+ Mr 22 '46
Newspaper campaign raises insecticide sales il Ptr Ink 213:138-9 N 16 '45
Newspapers discussed. R. W. Babson. Comm & Fin Chr 162:2370 N 15 '45
Newspapers expanding color facilities to satisfy advertisers, combat television. D. Bruner. Ptr Ink 216:109+ S 20 '46
Newspapers offer a package; advertising network organized. Bsns W p79-80 D 15 '45
Newspapers take another swing at larger share of nation's advertising. Ptr Ink 214: 113 Mr 15 '46
Non-profit Council issues first rating report on weekly newspapers; Maryland. Ptr Ink 215:52+ Ap 5 '46
Product expenditures of newspaper advertisers in 1945; individual products and services listed alphabetically. Ptr Ink 215:57-8+ My 3 '46
Selling newspaper space to national advertisers. N. H. Borden. Harvard Bsns R 24 no 4:438-52 [Jl] '46
$16 million ad gain. Adv & Sell 39:148 Jl '46
Small newspaper ads prove powerful. Ptr Ink 216:42 Ag 30 '46
Successful newspaper campaign of auto parts jobber. L. R. Jalenak. Ptr Ink 213:126+ N 16 '45
Taylor blames banker thinking for newspaper ad losses. Ptr Ink 215:126 Ap 12 '46
Three major services of newspaper advertising. J. O. Adler. Adv & Sell 39:120d+ My '46
Use of newspapers by national advertisers. N. H. Borden. Harvard Bsns R 24 no 3:295-305 [Ap] '46
Utility and newspaper advertising. B. L. Walters. Edison Elec Inst Bul 14:153-4+ My '46
What do people read most in Sunday newspapers? A. W. Lehman. Adv & Sell 39:35-6+ Ap '46

ADVERTISING mediums—Newspapers—*Cont.*
What makes newspaper ads pull? how they can gain more readership at no extra cost. A. B. Stanford. Adv & Sell 39:41-2+ S '46

Periodicals

Curtis counts its chips; analyzes success of its consumer magazines. Bsns W p47-8+ S 28 '46
January magazine advertising, 1944-1946. Ptr Ink 214:136+ Ja 11 '46 [cont monthly]
Leading advertisers of 1945 and their expenditures; 653 companies invested $446,928,447 in magazines, farm papers and network radio; tabulation 1942-1945. Ptr Ink 214:31-2+ Mr 22 '46; Correction. 215:94 Ap 5 '46
Magazine linage; total linage for five years, 1941-1945; tabulation. Ptr Ink 214:128+ F 1 '46
Monthly index of magazine advertising; graph. Ptr Ink 214:162 Ja 18 '46 [cont monthly]
Rising costs won't inflate ad appropriations; P.I. jury reports; what about circulation gains? Ptr Ink 217:104-6 O 4 '46
Uniform advertising standards practices needed by labor press. Ptr Ink 213:64 N 16 '45

See also
Comics (books, strips, etc.)

Statistics

Farm publications; advertising linage for January; statistics for January monthlies and December semi-monthlies and weeklies. Ptr Ink 214:166 Ja 18 '46 [cont monthly]

Testing

Small budget test of media. T. Ridgway. Ptr Ink 216:40 S 20 '46

Trade Journals

Advertising volume figures for December issues of business papers and totals for 1945 and 1944. Ind Marketing 31:174-5 Ja '46
Advertising volume of Canadian business papers for 1945 and 1944. Ind Marketing 31:181 Ja '46
Agencies place 454,539 pages of advertising in business papers in 1945; show 22.4% gain. Ind Marketing 31:57-8+ Ag '46
ABP makes awards for best business-paper campaigns. Ptr Ink 215:30-2 Ap 12 '46
Case histories of business-paper advertising campaigns; ABP award winners. il Ptr Ink 215:40-2+ My 10; 44-6 My 17 '46
848 business papers report advertising up 15.57%; annual survey; list of journals classified by industry. Ptr Ink 214:85+ F 22; 90 Mr 22 '46
Get rid of the $42 complex. Ptr Ink 217:63 O 11 '46
How much of new product budget for trade media? P.I. study. Ptr Ink 215:74+ Ap 12 '46
Market data book number, 1946. Ind Marketing 30:1-536 O 25 '45
New business paper study based on 5 point program. Ind Marketing 31:33+ My '46
Predict business papers in for a postwar facelifting. Ind Marketing 30:72+ O '45
Union Oil ads animate industrial research. il Ind Marketing 30:35+ O '45
Why most publicity hits the waste basket; seven errors in preparing releases to trade press. F. J. Serdahely. Ptr Ink 216:44+ Ag 9 '46

See also
Advertising, Industrial

ADVERTISING men
These are the new advisers; advertising and public relations increasingly important. J. A. Ecclesine. Adv & Sell 39:110 Mr '46

See also
Advertising agencies —Employees
Advertising as a profession
Advertising copy writers
Advertising managers

ADVERTISING novelties
Promotion piece proves useful; Higgins ink co. color cards. il Ptr Ink 217:86 N 1 '46

ADVERTISING policies
Advertiser-agency relationship in selecting type of media. Ptr Ink 215:75-6 My 24 '46
Advertising plans of A.N.A. members. Adv & Sell 38:66+ N '45
Avoid overselling items still scarce, reconversion director urges sales execs. Ptr Ink 213:64 N 30 '45
Don't confuse me with facts! R. S. Durstine. Adv & Sell 38:34 N '45
High spots in Philco's merchandising. J. H. Carmine. il Ptr Ink 213:21-3+ D 28 '45
Horatio Alger story; how advertising developed a weakling into a giant; Taylor-Reed Cocoa Marsh. E. M. Housman. il Ptr Ink 216:33-5 S 20 '46
Industrial advertisers seek ways to offset rising expenses. H. Burnett. Ind Marketing 31:33-5+ S '46
This industrial equipment manufacturer bears down on four fundamentals; case study: Pangborn corporation. A. L. Gardner. il Ptr Ink 213:25-7+ N 23 '45
Top management less active in selection of media; study of executives responsible for selecting the list shows more authority given advertising departments. Ptr Ink 215:33-4+ My 17 '46

ADVERTISING research
Advertising: the two-way street. P. S. Ellison. Adv & Sell 38:46 D '45
Answer 11 questions about industrial direct mail; executives favor large illustrations, frown on jumbo mailings. Ptr Ink 213:119-20+ N 30 '45
Caterpillar customers tell what they read and why they buy; door to door research. L. Hosler. il Ind Marketing 30:56+ D '45
How an ad's sales power compares with its readership. D. Starch. Adv & Sell 39:48+ Jl '46
Public selects cover and title for promotion piece; Glidden company consumer book on color in the home. R. C. Shaw. Ptr Ink 217:44-5 N 8 '46
Radio, movies, publications increase each other's audience. L. Handel. Ptr Ink 216:42-3 Jl 19 '46
Sense qualities research and your products; measuring impressions of color, taste, smell. A. J. Wood and F. T. Schreier. il Adv & Sell 39:49+ O '46
Shall we display and advertise price? public says yes! Sales Management 56:46+ F 15 '46
Six ways to obtain readership for industrial advertising. B. E. Sawyer. Ptr Ink 215:29-30 Ap 5 '46
Surveys uncover responsive sales themes for bank; Security-First national bank, Los Angeles, spots potent advertising appeals. Sales Management 57:67 S 15 '46
This plan avoids waste of point-of-sale materials; dealer helps tailored to communities of specific size; Vess beverage co. B. R. Merrill. il Ptr Ink 217:50-1 O 25 '46
Union Oil ads animate industrial research; close agency contact with Union's advertising, sales and research departments plus periodic field trips. il Ind Marketing 30:35+ O '45
What is the evidence? J. W. Young. Adv & Sell 39:42 My '46
Word association tests help in product and copy research. A. J. Wood. Ptr Ink 217:48-9 O 11 '46

ADVERTISING stickers. See Stickers

ADVISORY committee on scientific personnel. See Civil service commission—Advisory committee on scientific personnel

AEDES. See Mosquitoes

AERATORS
Semi-continuous tap-water aerator. E. C. Cantino and E. D. Hatfield. diag Science 103:75-6 Ja 18 '46

AERIAL mapping. See Mapping, Aerial

AERIAL photography. See Photography, Aerial

AERIAL surveying. See Surveying, Aerial

AERIAL warfare. See Aeronautics, Military

AERIALS. See Radio antennas

AEROBACTER aerogenes
Production of 2,3-butanediol from acid-hydrolyzed starch. G. E. Ward, O. G. Pettijohn and R. D. Coghill. bibliog Ind & Eng Chem 37:1189-94 D '45

AEROBACTER aerogenes—*Continued*
Vanillic acid esters as food preservatives. I. A. Pearl and J. F. McCoy. il Food Ind 17:1458-61+ D '45

AERODYNAMICS
Additional-mass effect of plates as determined by experiments. W. Gracey. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:81-90 '42
Aerodynamic characteristics of horizontal tail surfaces. A. Silverstein and S. Katzoff. bibliog diags U S Nat Advisory Com for Aeronautics 1940:175-95 '41
Aerodynamics of glider flight. W. Z. Stepniewski. bibliog diags Aero Digest 51:56-8+ O 1 '45; 52:58-60+ F; 53:82-4+ S '46
Air flow separation at high speed. B. V. Korvin-Kroukovsky. bibliog Franklin Inst J 240:477-85 D '45
Airfoil theory for rotary wing aircraft. R. Isaacs. J Aeronautical Sci 13:218-20 Ap '46
Airplane maneuvering loads. E. C. Posner. bibliog J Aeronautical Sci 13:325-31 Je '46
Approximate calculation of the range of a winged jet projectile. M. Z. Krzywoblocki. J Ap Phys 17:515-19 Je '46
Calculated effect of various hydrodynamic and aerodynamic factors on the take-off of a large flying boat. R. E. Olson and J. M. Allison. bibliog diags U S Nat Advisory Com for Aeronautics 1940:497-512 '41
Compressibility effects data. C. W. Terry. Aero Digest 53:76-7+ Ag '46
Design of bridges against wind. D. B. Steinman. il diags Civil Eng 15:501-4, 558-60; 16:20-3, 66-8 N '45-F '46
Determination of control-surface characteristics from NACA plain-flap and tab data. M. B. Ames, jr. and R. I. Sears. bibliog diags U S Nat Advisory Com for Aeronautics 1941:295-311 '42
Determination of ground effect from tests of a glider in towed flight. J. W. Wetmore and L. I. Turner, jr. bibliog il diags U S Nat Advisory Com for Aeronautics 1940: 295-307 '41
Determination of the stalling speed and the maximum lift coefficient in flight. E. W. Graham and H. Luskin. bibliog il diag J Aeronautical Sci 13:95-107 F '46
Flight investigation of the effects of surface finish on wing profile drag. W. H. Day and J. M. Schwarzbach. il diags J Aeronautical Sci 13:209-13+ Ap '46
Fourteenth annual meeting of the Institute of the aeronautical sciences; review of technical papers. il diags Aeronautical Eng R 5:5-9 Ap '46
Graphical method of determining pressure distribution in two-dimensional flow. R. T. Jones and D. Cohen. bibliog diags U S Nat Advisory Com for Aeronautics 1941: 313-19 '42
Internal-flow systems for aircraft. F. M. Rogallo. bibliog diags U S Nat Advisory Com for Aeronautics 1941:165-91 '42
Lessons in bridge design taught by aerodynamic studies; Tacoma Bridge investigations indicate instability of stiffening girders for suspended spans. F. B. Farquharson. il Civil Eng 16:344-5 Ag '46; Discussion. D. B. Steinman. 16:462 O '46
Mathematical theory of gas flow. M. M. Munk. Aero Digest 51:49+ D 1 '45; 52:52+ F '46
Maximum lift as affected by variations of Mach and Reynolds numbers; abstract. J. R. Spreiter and P. J. Steffen. Automotive & Aviation Ind 94:36 My 1 '46
Mechanism of flutter; a theoretical and experimental investigation of the flutter problem. T. Theodorsen and I. E. Garrick. bibliog(p 141) il U S Nat Advisory Com for Aeronautics 1940:101-46 '41
Preliminary wind-tunnel investigation of an N.A.C.A. 23012 airfoil with various arrangements of venetian-blind flaps. C. J. Wenzinger and T. A. Harris. bibliog diags U S Nat Advisory Com for Aeronautics 1940: 197-212 '41
Pressure distribution over an NACA 23021 airfoil with a slotted and a split flap. T. A. Harris and J. G. Lowry. bibliog diags U S Nat Advisory Com for Aeronautics 1941:241-66 '42
Principles of rotary wing aircraft. A. Klemin. il diags Aero Digest 49:80-3+ Ap 1; 77-80+ My 1; 82-8+ Je 1; 50:80-2+ Jl 1; 87-8+ Ag 1; 83-4+ S 1; 51:50-3+ N 1 '45; 52:52-3+ Ja '46
Proposed air engineering development center. diag plans Product Eng 17:132-4 O '46
Recent aerodynamic developments. E. F. Relf. il Roy Aeronautical Soc J 50:424-48 Je '46; Same cond. Engineering 162:188-9, 214-16 Ag 23-30 '46; Abstract. Aviation N 6:18 Jl 15 '46
Reduction of flight-test performance data to standard air conditions by the temperature altitude method. J. G. Beerer. bibliog diags J Aeronautical Sci 13:543-55 O '46
Report of N.A.C.A. committee on aerodynamics. U S Nat Advisory Com for Aeronautics 1940:4-11 '41
Response in yaw. E. J. N. Archbold and K. T. McKenzie. Roy Aeronautical Soc J 50: 275-86 Ap '46
Simplified theoretical method of determining the characteristics of a lifting rotor in forward flight. F. J. Bailey, jr. bibliog diags U S Nat Advisory Com for Aeronautics 1941:209-26 '42
Steady flow of a gas through a tube with heat exchange or chemical reaction. P. Chambre and C. Lin. bibliog diags J Aeronautical Sci 13:537-42 O '46
Supersonic wave drag of thin airfoils. A. E. Puckett. bibliog diags J Aeronautical Sci 13:475-84 S '46
Tests of the NACA 0025 and 0035 airfoils in the full-scale wind tunnel. W. K. Bullivant. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:91-107 '42
Unsteady lift of a wing of finite aspect ratio. R. T. Jones. bibliog diags U S Nat Advisory Com for Aeronautics 1940:31-8 '41
Vortex frequency and flow pattern in the wake of two parallel cylinders at varied spacing normal to an air stream. H. M. Spivack. bibliog diags J Aeronautical Sci 13:289-301 Je '46
Wind-tunnel investigation of NACA 23012, 23021, and 23030 airfoils equipped with 40-percent-chord double slotted flaps. T. A. Harris and I. G. Recant. bibliog diags U S Nat Advisory Com for Aeronautics 1941: 321-51 '42

See also
Aeronautics
Air flow
Airplane stability and stabilizers
Airplanes—Design
Ballistics
Wind power
Wind tunnels
Winds

AERONAUTIC associations

See also
Institute of the aeronautical sciences
National association of flying clubs
Royal aeronautical society

AERONAUTIC engineering
A.S.M.E. aviation division, annual meeting, Los Angeles, June 3-6. Mech Eng 68:668-72 Jl '46
Aviation engineering emerges; annual meeting of Institute of aeronautical sciences. A. Klemin. il diag Sci Am 174:216-18 My '46
Control of engineering projects; organization and statistical control used by army air forces Equipment laboratory. T. B. Holliday. Product Eng 17:177-81 Mr '46
Fourteenth annual meeting of the Institute of the aeronautical sciences; review of technical papers. il diags Aeronautical Eng R 5:5-25 Ap '46
Jet propulsion and rockets for assisted take-off. M. J. Zucrow. bibliog il diags A S M E Trans 68:177-88 Ap '46; Same cond. Aero Digest 52:88+ Ap '46
Practical engineering of rotary wing aircraft. P. H. Stanley. bibliog il diags Aviation 45: 55-65 Jl; 76-82 Ag; 67-70 S; 74-7 O '46
Rocket powerplant. M. J. Zucrow. bibliog il diags S A E J 54:375-88 Jl '46
SAE annual meeting, Detroit, Jan. 7-11; aeronautic papers. Aero Digest 52:93+ Mr '46
SAE national aeronautic meeting; abstracts of papers. diag Automotive & Aviation Ind 94:34-7 My 1 '46

AERONAUTIC engineering—*Continued*
SAE national aeronautic meeting, Los Angeles. Automotive & Aviation Ind 95:17+ O 15 '46
SAE national aeronautic meeting, New York, April 3-5. S A E J 54:sup17-19+ My '46; Metal Prog 49:967-9 My '46
SAE Southern California section victory aeronautic meetings, Los Angeles, Oct. 4 and Nov. 1. S A E J 53:sup31+ N; sup30-1+ D '45
Technical aspects of rockets and jet-assisted takeoff. M. J. Zucrow. bibliog il diags Aero Digest 52:88+ Ap '46
See also
Aeronautic research
Airplane engines
Airplanes
Airports
Airways

Bibliography

British air ministry translations in the Paul Kollsman library (cont). Aeronautical Eng R 5:99 Ja '46
Periodical articles, government publications, books, house organs and catalogues. Aeronautical Eng R 5:51+ Ja '46 [cont monthly]

Study and teaching

Objectives of a laboratory course in airplane structures. N. J. Hoff. il diag J Eng Educ 36:262-8 D '45
Streamline graphics. J. P. Vidosic. J Eng Educ 36:282-3 D '45

Tables, calculations, etc.

Calculation of flow of air and diatomic gases. C. W. Smith. bibliog J Aeronautical Sci 13:309-15 Je '46
Charts for fuselage torsion versus control-surface flutter. W. T. Thomson. A S M E Trans 68:51-6 Ja '46
Combination of dynamical systems. T. G. Sofrin. bibliog J Aeronautical Sci 13:281-8 Je '46
Estimating plane performance via comparison method. D. B. Thurston. bibliog diags Aviation 45:55-62 S '46
Flutter of propeller blades. J. V. Inglesby. bibliog Roy Aeronautical Soc J 50:98-118 F '46
General instability of semimonocoque structures under bending. Tsun Kuei Wang. bibliog J Aeronautical Sci 13:29-37 Ja '46
Helicopter performance. R. L. Lichten. J Aeronautical Sci 13:353-63 bibliog(p362) Jl '46
Investigation of three methods for solving the flutter equations and their relative merits. R. J. Ruggiero. bibliog J Aeronautical Sci 13:3-22 Ja '46
Numerical transformation procedures for shear-flow calculation. S. U. Benscoter. bibliog J Aeronautical Sci 13:438-43 Ag '46
Preliminary calculation of the mass ratio, range, and average coefficients of efficiency of a long-distance stratospheric jet-plane. M. Z. Krzywoblocki. Franklin Inst J 241: 255-74 Ap '46
Principles of rotary wing aircraft. A. Klemin. il diags Aero Digest 49:80-3+ Ap 1; 77-80+ My 1; 82-8+ Je 1; 50:80-2+ Jl 1; 87-8+ Ag 1; 83-4+ S 1; 51:50-3+ N 1 '45; 52:52-3+ Ja '46
Propeller analysis from experimental data. G. W. Stickle and J. L. Crigler. bibliog diags U S Nat Advisory Com for Aeronautics 1941:147-64 '42
Propeller performance analysis. E. Kessler. Aero Digest 52:80-1+ Je '46
Simple tabular method of calculating deflections and influence coefficients of beams. N. O. Myklestad. J Aeronautical Sci 13: 23-8 Ja '46
Transport efficiency of aerial trains; airplane towing a number of gliders. P. Shih. il Aero Digest 51:69-70+ D 1 '45
See also
Aerodynamics
Airplane stability and stabilizers
Airplanes—Design

AERONAUTIC engineers
Aircraft producers try to bolster badly depleted engineering staffs. Aviation N 4:22 N 19 '45

AERONAUTIC instruments
All-in-one mapigator simplifies that flight plot; instrument features use of aero charts in conjunction with built-in plotting devices. Aviation 45:50+ Ap '46
Army-navy precipitation-static project; aircraft instrumentation for precipitation-static research. R. C. Waddel and others. bibliog il diags Inst Radio Eng Proc 34:161-6 Ap '46
Auditory signals for instrument flying. T. W. Forbes. il J Aeronautical Sci 13:255-8 My '46
Automatic pilots; past, present, and future. R. L. Johnson. il diag Aeronautical Eng R 5:22-9 S '46
Aviation engineering emerges; annual meeting of Institute of aeronautical sciences. A. Klemin. il diag Sci Am 174:216-18 My '46
Bellows expansion changes leverage; Airspeed indicator. il diags Product Eng 17: 99 S '46
Electronic control of plane in landing approach; Sperry A-12 Gyropilot. diag Aviation 45:80 O '46
Electronic flight trainer; computing system. il Electronics 19:170+ S '46; Abstract. Aero Digest 53:47+ S '46
Electronic-type fuel gage, developed by Aeronautical division, Minneapolis-Honeywell regulator co. il diags Machine Design 18: 106 Ja '46
Fourteenth annual meeting of the Institute of the aeronautical sciences; review of technical papers. il Aeronautical Eng R 5:17-19 Ap '46
Fuel consumption indicator. D. W. Moore, jr. il diag Electronics 19:152-3 Mr '46
Future of electronics in aviation. J. D. Goodell and D. J. Coleman. il Radio N 35:25-8+ F '46
Inertia stall indicator. il diags Aero Digest 52:63 Je '46
Instrument research demands unremitting efforts. C. H. Colvin. il Aviation 45:68-70 Je '46
Liquid mass measurement ups fuel gaging accuracy. C. H. Odell. il diags Aviation 45: 72-3 Je '46
New device permits automatic landings; Minneapolis-Honeywell announcement. Aviation N 5:34 F 18 '46
New fuel gauge for aircraft; Pacitor gauge. il diag Engineer 181:204-5 Mr 1 '46; Engineering 162:31-3 Jl 12 '46
Pacitor measures fuel electronically. il diags Air Transport 3:44 D '45; Electronics 18: 234+ D '45; Product Eng 16:829 D '45
Square D develops airspeed indicator. il Aviation N 5:22 Ja 14 '46
Standard computers aid the avigator. L. LeKashman. il Aero Digest 51:56-7+ N 15 '45
True air speed indicator. il diag Aero Digest 52:44+ My '46
Unique engine-synchronism indicator for aircraft. D. B. Pearson. bibliog il diags Elec Eng 65:Trans 650-3 O '46
Wider operating scope attained by new automatic pilot. R. N. Greif. il diags Aviation 45:68-72 Ap '46; Excerpts. Aviation N 5:27 Ap 22 '46
See also
Airborne instruments laboratory
Altimeters
Direction finding apparatus
Radio apparatus on aircraft
Radio beacons
Radio meteorographs
Sextant

Lubrication

Oils for instrument bearings. C. H. Braithwaite, jr. il Aero Digest 53:94+ O '46

Manufacture

Assembly tools that speed straight-line production; Friez instrument division, Bendix aviation corporation. E. W. Zabriskie. il Factory Management 103:105-8 D '45

Mounting

Instrument shock mount adapted for personal planes. il diag Aviation 45:75 Je '46
Vibration absorption mounts. il diag Aero Digest 53:90 O '46

AERONAUTIC laboratories
Bavarian motor works altitude-test facilities. E. E. Stoeckly. il diags A S M E Trans 68:743-50 O '46

AERONAUTIC laboratories—*Continued*
CAA's technical development laboratory. M. S. Gilbert. il Air Transport 4:51-2+ Mr '46
Control of engineering projects; organization and statistical control used by army air forces Equipment laboratory. T. B. Holliday. Product Eng 17:177-81 Mr '46
Cornell aeronautical laboratory. Mech Eng 68: 354 Ap '46
Design of a refrigerated altitude chamber. C. J. Lyall. il Mech Eng 68:537-8 Je '46
Man-made wind at 130 to -67 F tests aircraft-engine gasoline injectors; American Bosch corp. laboratory. il plan Power 90: 6-8 Ja '46
National aeronautical establishment. Engineer 182:173-4 Ag 23 '46
Pressure chamber will house aircraft; North American aviation, inc. il Aviation N 6:22 Jl 29 '46
Research for power; Cleveland aircraft engine laboratory. A. Klemin. il Sci Am 174: 164-6 Ap '46
Test house, Harefield; Aeronautical inspection department of the Ministry of aircraft production. il Engineer 180:342-4, 361-2 N 2-9 '45; Engineering 160:442-3 N 30 '45

AERONAUTIC libraries
Book reviews in aviation periodicals as aids in book selection in the aeronautical reference library. W. K. Dennis. Special Lib 37:45-9 F '46

AERONAUTIC meteorology. See Meteorology, Aeronautic

AERONAUTIC research
Additional-mass effect of plates as determined by experiments. W. Gracey. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:81-90 '42
Air forces out to clinch lease on the sky. Bsns W p7 My 18 '46
Air research demonstration; General electric company's new Flight test center. il Mech Eng 68:737-8 Ag '46
Aircraft materials research; the role of government and industry. Product Eng 17: 146-8 F '46
AAF plans for the future. R. K. Winkleblack. il Automotive & Aviation Ind 95: 30-1+ Ag 1 '46
Attainment of supersonic speed by end of year indicated; research underway at Langley Field NACA laboratory. A. McSurely. il Aviation N 5:7-9 F 18 '46
Avionic group will probe air frontier. Aviation N 6:22 S 2 '46
British aircraft gas turbines. H. R. Cox. il diags J Aeronautical Sci 13:53-83 F '46; Excerpts. Engineer 181:512-13, 534-5 Je 7-14 '46; Discussion. J Aeronautical Sci 13.83-7, 180-2 F, Ap '46
Counter-rotating prop research meets jet propulsion challenge. A. McSurely. Aviation N 5:19+ My 13 '46
Crash research from the point of view of cabin design. H. DeHaven. il Aeronautical Eng R 5:11-17 Je '46
Draft slows research; testimony before War mobilization subcommittee of the Senate military affairs committee. R. E. Gillmor. Aviation N 4:27 N 12 '45
Engineers back AAF proposals for supersonic research center. S. Bangs. Aviation N 5:19 My 20 '46
Faster than sound; piloted craft beyond 700-m.p.h. range; new research center asked. Bsns W p17-18 Ap 27 '46
Future of research and development. B. W. Chidlaw. Mech Eng 68:199-202 Mr '46
German research airplane for supersonic flight. Automotive & Aviation Ind 94:200+ Mr 15 '46
Martin, Cal Tech use new supersonic tests. il Aviation N 5:8 Je 24 '46
Mechanism of flutter; a theoretical and experimental investigation of the flutter problem T. Theodorsen and I. E. Garrick. bibliog(p 141) il U S Nat Advisory Com for Aeronautics 1940:101-46 '41
NACA bares wartime research for lightplane manufacturers; Langley field conference. il Aviation N 6:25-6 S 30 '46
Recent aerodynamic developments. E. F. Relf. il Roy Aeronautical Soc J 50:424-48 Je '46; Same cond. Engineering 162:188-9, 214-16 Ag 23-30 '46; Abstract. Aviation N 6:18 Jl 15 '46
Research and development in aeronautics. H. E. Wimperis. Inst Mech Eng J & Proc 152:Proc 353-61, pl 1-2 Mr '46; Same. Engineering 158:465, 503-5 D 15, 29 '44; Same cond. Engineer 178:410-12 N 24 '44
Vortex frequency and flow pattern in the wake of two parallel cylinders at varied spacing normal to an air stream. H. M. Spivack. bibliog diags J Aeronautical Sci 13:289-301 Je '46

See also
Aeronautic laboratories
Wind tunnels

AERONAUTIC schools
Many operators express concern as ex-GI's rush to flying schools. W. Kroger. Aviation N 5:7-8 Mr 4 '46
Parks air college non-profit airline; managed by advanced Aviation operators engineering school students. G. Kropf. il Air Transport 4:55-6+ Jl '46
St Louis university gets Parks college. Aviation N 6:14 S 9 '46
Selling block time through gift certificates. R. L. Fln. Aviation 45:108+ Ja '46
Soldier beware, opportunities and pitfalls in the aviation industry. K. R. MacDonald. il Aviation 45:41+ Jl '46
There's real business in that GI flight training program. P. B. Woolley. il Aviation 45: 38-9 My '46

See also
Transcontinental and western air, inc.—Flight engineer school

AERONAUTIC workers
Good neighbor training program in South America pays dividends. CAA J 7:136 O 15 '46
Hours of work and earnings in aviation occupations; air lines, fixed-base operators and Civil aeronautics administration. H. Wood and others. Mo Labor R 63.186-94 Ag '46

See also
Airlines—Employees
Airplane factories—Employees
Airplane mechanics
Aviators

AERONAUTICAL sciences, Institute of the. See Institute of the aeronautical sciences

AERONAUTICS
Aviation, a phase of transportation. E. Warner. Metal Prog 49:1200-1 Je '46
Aviation facts and figures, 1945. R. Modley, ed. 173p $2.50 McGraw-Hill book co, 330 W. 42d st, New York 18 '45
Increased research, world air police force urged at National aviation clinic. Aviation N 4:7-9 N 26 '45
Relationship of military air power to civil aviation; abstract. L. W. Pogue. CAA J 6.134 D 15 '45
Research and development in aeronautics. H. E. Wimperis. Inst Mech Eng J & Proc 152:Proc 353-61, pl 1-2 Mr '46; Same. Engineering 158:465, 503-5 D 15, 29 '44; Same cond. Engineer 178:410-12 N 24 '44

See also
Aerodynamics
Air navigation
Air power
Air travel
Aircraft
Airfoils
Airlines
Airplane carriers
Airplane engines
Airplane propellers
Airplanes
Airports
Airships
Airways
Aviation
Aviators
Bombs, Flying
Flying boats
Gliders
Helicopters
Meteorology, Aeronautic
Photography, Aerial
Radio aids to aviation
Seaplanes

Bibliography
British air ministry translations in the Paul Kollsman library (cont). Aeronautical Eng R 5:99 Ja '46
New books. Published in monthly numbers of Aero digest
Periodical articles, government publications, books, house organs and catalogues. Aeronautical Eng R 5:51+ Ja '46 [cont monthly]

AERONAUTICS—Bibliography—*Continued*
Private flying; selective bibliography prepared by A. G. Renstrom. Aeronautical Eng R 4:22-33+ N '45
Recent aeronautical literature, a selective subject index. W. K. Dennis, comp. Published monthly by Willard Kelso Dennis, 3017 E. 21st st, Wichita, Kansas
Recent aeronautical literature; a selected subject index for 1945. W. K. Dennis, comp. and ed. pa 337p Beech Aircraft Corporation, Wichita 1, Kansas '46
Recent books. Aviation 45:120+ Ja '46 [cont monthly]
Technical publications of the National advisory committee for aeronautics. U S Nat Advisory Com for Aeronautics 1940:26-8 '41

Exhibitions

British air show opens drive for $64,000,000 export trade. F. R. Brewster. il Aviation N 6:17-18 S 30 '46
Flying display of British aircraft; Society of British aircraft constructors. il Engineering 162:282-3 S 20 '46; Engineer 182:255 S 20 '46
Perplexing air show problem well on way to settlement. S. Hershey. Aviation N 5:7-8 Ap 22 '46
Private flyer tourists swarm to first postwar Miami air show. Aviation N 4:7 Ja 7; 5:7-8 Ja 14 '46

History

Gallery of aviation's frontiersmen. J. Hettich. il Aero Digest 51:40+ D 15 '45; 52: 40+ Ja; 38+ F; 28+ Mr; 28+ Ap; 28+ My; 24+ Je; 53:28+ Ag; 26+ S; 30+ O '46
New historical booklet by A. F. Zahm disregards Wrights' aviation contribution; O. Wright cites record in answer. A. McSurely. Aviation N 5:10 Mr 11 '46
Propeller thrust, 1912; work of A. V. de Forest and L. de Florez; first measurement of thrust of airplane propeller in flight. J. C. Hunsaker. il Tech R 48:96-7 D '45

See also
Aeronautics, Military—History

Laws and regulations

Air battle, 1946; outfits organized by war veterans attack CAB's rules. il Bsns W p17-19 Je 29 '46
Air jurisdiction agreement made at 2-day session. CAA J 7:25+ Mr 15 '46
Air liability question debated; proposed federal legislation. S. C. Morris; R. B. Lynch. Nat Underw 50:18-19 N 7 '46
Air transportation by surface carriers; proposed amendment to Merchant marine act. J. A. Eubank. Marine Eng 51:119-20 Jl '46
Assumption of risk as defense to air passenger's suit for injuries. C. S. Rhyne. Weekly Underw 155:497 Ag 31 '46
Bills in Congress of insurance interest. C. M. Smith. East Underw 46:34+ D 21 '45
CAB challenged by Brayton on grandfather clause certificate. M. Mickel. Aviation N 6:27 S 16 '46
CAB issues new safety rules for nonscheduled carriers. Aviation N 5:27 My 13 '46
Congress should preempt compensation air law field. K. R. Thompson. East Underw 46:35 D 21 '45
Federal bill amends Merchant marine act respecting air transportation. Weekly Underw 154:816-17 Mr 30 '46
Federal vs. state regulation of aircraft nearing showdown. W. Kroger. Aviation N 4: 13+ D 17 '45
Fight at Cincinnati over federal air liability question; American bar association Insurance section meeting. G. W. Orr and others. Nat Underw 49:23+ D 20 '45
Highlights of the new Civil air regulations. F. M. Reck. il Aero Digest 52:36-7+ F '46
Law that may be created by statutory enactment of more import in aviation than existing law. W. P. McDonald. Weekly Underw 155:1081-2 N 2 '46
New airworthiness rules summary issued by CAB. CAA J 6:123 N 15 '45
New CAR part 03 held first effort to set up full engine requirements. Aviation N 4:13 Ja 7 '46
New CAB rules; regulations for safety of charter and nonscheduled flights. Bsns W p30 My 18 '46
Part state may have in enforcing CAA air safety rules; abstract. G. W. Burgess. CAA J 6:135 D 15 '45
Regulation pot boils for contract carriers. Air Transport 4:104+ Ag '46
Restrictive state regulations attacked at Northwest air parley. Aviation N 5:16 F 11 '46
Review of recent aviation accident decisions. C. S. Rhyne. Weekly Underw 155:560 S 7 '46
Rules for air traffic are clearly explained in Student pilot guide. CAA J 7:15 F 15 '46
State-federal agreement reached on model state aviation law. CAA J 7:70 Je 15 '46
States, CAA agree on new model bill. Aviation N 5:15 My 6 '46
Supreme court verdict alters airspace ideas. Aviation N 5:13 Je 10 '46
U.S. air accident liability legislation as menace. G. W. Orr. il Nat Underw (Auto & aviation no) 50:13+ Ap 19 '46
U.S. junior chamber of commerce broadens aviation referendum. M. Mickel. Aviation N 5:34 Ap 15 '46

See also
Airplanes—Registration
Civil aeronautics administration
International conference on private law affecting air questions, 2d, Warsaw, 1929

Patents

Review of patents. A. H. Crowell. Aviation 45:120 Ja '46 [cont monthly]
Trend of invention. Published in monthly numbers of Aero digest

Periodicals

Book reviews in aviation periodicals as aids in book selection in the aeronautical reference library. W. K. Dennis. Special Lib 37:45-9 F '46
Source material; periodicals, house organs, and other publications; prices listed. Aeronautical Eng R 5:83-5+ Ja '46 [published irregularly]

Safety measures

See Airlines—Safety measures; Airplanes—Safety measures; Aviation—Safety measures

Study and teaching

Aviation schooling in New York. F. W. Butterfield. il Aero Digest 53:26-7+ Ag '46
Illinois U. airport is commissioned. il Aviation N 4:12 N 19 '45
27 aviation education workshops will give courses for teachers. CAA J 7:87 Jl 15 '46

Yearbooks

Aircraft annual, 1946. D. C. Cooke, ed. 3d ed 304p $3 R. M. McBride & co, 116 E. 16th st, New York 3 '46
Aviation annual of 1946. R. M. Cleveland and F. P. Graham, eds. 245p $4 Doubleday & co, 14 W. 49th st, New York 20 '46

Alaska

Uncle Sam's arctic airline; Naval air transport service. P. Wollstadt. il Nat Pet N 37:44+ D 5 '45

Australia

Australia in Empire air transport; past history and future prospects. W. H. Fysh. il map Roy Aeronautical Soc J 50:21-72 Ja '46

Brazil

Brazilians anxious to buy U.S. planes CAA official says. C. J. Tippett. CAA J 7:26+ Mr 15 '46
Enthusiasm for flying very high in Brazil. C. J. Tippett. Aviation N 5:16 Mr 4 '46

Great Britain

Air estimates. J. Strachey. Engineer 181: 245 Mr 15 '46

India

Bright future seen for Indian flying. J. Van Denburg, jr. il Aviation N 6:17 N 4 '46

AERONAUTICS—*Continued*

Michigan

Lansing aeronautics conference. F. M. Reck. Aero Digest 53:43+ Ag '46

United States

Airports keystone to aviation boom. W. A. M. Burden. CAA J 7:13+ F 15 '46

Future U.S. air policies plotted at fourth National aviation clinic. A. McSurely. Aviation N 6:7-8 O 21 '46

National aviation clinic, 4th, Oklahoma City. Aviation N 6:12 O 28 '46

Number of certified civil aircraft and pilots by years, 1937-1945; tabulation. Automotive & Aviation Ind 94:98 Mr 15 '46

Roadable plane boon to private aviation; other aspects of aeronautics. J. H. Geisse. CAA J 6:122 N 15 '45

Top figures gather at air clinic to discuss industry's problems. Aviation N 4:7 N 19 '45

Truman requests increased funds for CAA, CAB; NACA boost ok'd. W. Kroger. Aviation N 5:7 Ja 28 '46

See also

National aeronautic association of the United States

AERONAUTICS, Commercial

Aviation's progress; address before Hemispheric insurance conference. W. A. Patterson. Comm & Fin Chr 163:2782+ My 23 '46

Big and little aviation leaders discuss problems at pow-wow; Oklahoma City open-session National aviation clinic. Sales Management 55:148+ D 15 '45

CAA study forecasts vast increase in aviation jobs. CAA J 6:121+ N 15 '45

Nobody pulls his punches at 1946 aviation clinic. Sales Management 57:112+ N 1 '46

See also

Air express service
Air mail service
Airlines
Airplane industry and trade
Airports
Airways
Photography, Aerial

International aspects

Agreement with Britain clouded despite conditions on loan. Aviation N 4:39 D 17 '45

Air transportation and world understanding. J. P. Van Zandt. Mech Eng 68:605-7 Jl '46

Air travel red tape is target of IATA. Aviation N 6:26 Ag 19 '46

Alas sobre Cuba (Wings over Cuba); Expreso aereo interamericano. O. Leiding. il map Air Transport 4:86+ O '46

American air policy in the international field; radio broadcast. W. A. M. Burden; T. P. Wright; S. Fisher. il For Comm W 21:14-17+ N 10 '45

Assembly shapes PICAO policy at first session in Montreal. CAA J 7:85 Jl 15 '46

Backers of world air authority seen increasing in influence. E. P. Warner. Aviation N 4:41 N 19 '45

Bermuda agreement; script of a broadcast by the National broadcasting co. Air Transport 4:63-4 My '46

Bermuda air conference started on way to satisfactory agreement. Aviation N 5:9 Ja 28 '46

Bermuda-type aviation agreements attacked by Senate committee. Aviation N 5:32 Ap 22 '46

British deny easing attitude on trans-Atlantic traffic split. il Aviation N 4:39+ D 24 '45

CAA men study peace uses of ATC facilities. CAA J 6:121+ N 15 '45

CAB Latin American decision opens area to U.S. competition. C. L. Adams. Aviation N 5:7-8 Je 3 '46

Civil aviation progress. Economist 151:165-6 Ag 3 '46

Clark sustains legality of executive air pacts. Aviation N 6:14 Jl 1 '46

Commerce committee resolution challenged by Senator Barkley; questions group's jurisdiction over international air agreements. Aviation N 5:9 Ap 29 '46

Committee seeks simplification of passport, customs red tape. Aviation N 5:37 Ap 15 '46

Cuban, Danish and Dutch carriers given transport routes to U.S. CAA J 7:58 My 15 '46

First PICAO general assembly. il Aero Digest 53:23+ Ag '46

Five freedoms of the air, agreed upon between United States and Great Britain. E. C. Kreutzberg. Steel 119:72 O 21 '46

Homeland dispute, last at issue at Bermuda conference, sidetracked. Aviation N 5:34 F 11 '46

IATA, league of airlines. J. C. Cooper. Air Transport 4:29-33 Ja '46

New road? Air Transport 4:21 S '46; Discussion. J. Landis. 4:5+ N '46

Organization chart for an international airline. Air Transport 4:37-9 Je '46

Predicted obstacles to expansion of world air transport arise; Pan American's joust with Britain over rates. Aviation N 4:7-8 D 10 '45

Proposed PICAO airworthiness standards. map Automotive & Aviation Ind 95:20-3+ S 15; 24-7+ O 1; 36-9+ O 15 '46

PICAO attacks problems of passports and customs. Air Transport 4:81 Mr '46

PICAO communications and traffic committees report. Air Transport 4:85 F '46

PICAO meet hears U.S. policies; Russians still among absentees. Aviation N 5:28 My 27 '46

PICAO tackles differences of language and terminology; conference principally devoted to organization and planning. Air Transport 3:97-8 D '45

Question of cabotage delaying agreement on use of leased bases; opening of Caribbean Island fields, settled in principle. Aviation N 5:34 Ja 28 '46

Ratification of Bermuda agreement breaks world transport bottleneck. Aviation N 5:33-4 F 18 '46

Recommends uniform airway bills of lading; committee report, Bankers' association for foreign trade. Comm & Fin Chr 162:2499 N 22 '45

Routes, flights, rates settled at Anglo-American conference. map Air Transport 4:77-8 Mr '46

Senate foreign relations committee asks ratification of PICAO treaty. il Aviation N 5:27 Je 24 '46

Senate ratifies Convention of international civil aviation; State department withdraws from Five freedoms agreement. Comm & Fin Chr 164.667 Ag 1 '46

Shelving of multilateral basis in U.S. foreign air policy seen; Senate commerce committee hearings. Aviation N 5:30 Mr 18 '46

State gives conditional backing to TWA on Italian agreement. M. Mickel. Aviation N 5:28 My 20 '46

Status of civil aviation in 1946. H. Self. Roy Aeronautical Soc J 50:732-41 O '46

Technical data tops agenda of PICAO. Aviation N 5:38 Je 10 '46

U.S. abandons free air policy; approves organization of ICAO. Aviation N 6:31 Ag 5 '46

U.S., Britain begin new attempt to resolve air transport fight. Aviation N 5:31+ Ja 14 '46

U.S.-British accord binds Bermuda pact. Aviation N 6:30 S 30 '46

U.S., England agree to air policy of free competition in world trade. CAA J 7:129 O 15 '46

U.S. wins valuable international air rights at Bermuda conference. CAA J 7:42 Ap 15 '46

Warner reveals PICAO is expected to become permanent this year. Aviation N 5:33 Ja 28 '46

Work of the interim council of the PICAO. E. Warner. Aero Digest 52:24-5+ Mr '46

World air services start as agreements are completed. Air Transport 4:92 F '46

See also

Airlines—Trans-oceanic lines

Alaska

Alaskan air chaos expected to stir CAB regulating action. M. Mickel. Aviation N 6:29 O 21 '46

AERONAUTICS, Commercial—*Continued*

Argentina

Argentina moves for world airways. R. C. Leslie and W. Leonhart. il For Comm W 24:8-9+ S 21 '46

Bermuda

Bermuda tourist trade hinges on air travel. Aviation N 5:40 F 4 '46

Brazil

Aviation in Brazil; new developments show vigorous, far-flung progress. R. C. Leslie. il map For Comm W 21:8-10+ D 15 '45

California

Putting your community on the airmap; San Francisco Chamber of commerce coordinates aviation activities. G. Tenney. map Aviation 45:38-41 O '46

Caribbean area

Caribbean meeting opened by Burden with unity plea. CAA J 7:113 S 15 '46

Question of cabotage delaying agreement on use of leased bases; opening of Caribbean Island fields, settled in principle. Aviation N 5:34 Ja 28 '46

Czechoslovakia

Aviation agreements and flights. For Comm W 25:15 O 5 '46

Great Britain

Bureaucratic stifling of progress feared in British airways picture. Aviation N 4:44 N 19 '45

Civil aviation progress. Economist 150:164-5 F 2 '46

Freedom for charter lines asked in U.K. Aviation N 5:32 Je 10 '46

Great Britain's role in civil aviation today. R. C. Leslie. il maps For Comm W 22:8-11+ Mr 30 '46

Priority given housing in Britain hampers production of aircraft. Aviation N 5:19 F 18 '46

Status of civil aviation in 1946. H. Self. 3 pls map diags Roy Aeronautical Soc J 50:719-86 O '46

Latin America

CAB Latin American decision opens area to U.S. competition. C. L. Adams. Aviation N 5:7-8 Je 3 '46

Peru

Civil-aviation developments. For Comm W 21:37 N 10 '45

Spain

New aviation decree. For Comm W 24:31 S 21 '46

United States

Air age. R. Ramspeck. Air Transport 4:50-2+ Ap '46

Airline transportation, a major industry. M. Pescatello. Comm & Fin Chr 162:3003+ D 20 '45

Aviation in 1955; CAA report on Civil aviation and the national economy. Bsns W p28+ N 10 '45

CAA reviews aviation in 1945. T. P. Wright. CAA J 7:1-2 Ja 15 '46

National air policy board sought in Senate resolution. Aviation N 4:12 D 10 '45

Our industry's records and ranges. Aviation 45:72-5 F '46

AERONAUTICS, Military

Aircraft behavior data gathered in bomb test. Aviation N 6:21 Jl 15 '46

Evaluating operation crossroads; radio controlled bombers. S. Bangs. il Aviation 45: 38-41 Ag '46

L'évolution de la technique maritime et aéronautique depuis 1939. M. Bahon. Génie Civil 123:204-5 Ag 1 '46

Naval airborne radar. L. V. Berkner. il diags Inst Radio Eng Proc 34:671-706 S '46

Victory through air power. I. C. Eaker. Mech Eng 68:5-6+ Ja '46

See also

Air raids
Airplanes, Military
Airports, Military
Aviators, Military
Balloons, Military
Bombs, Flying
Guns, Aircraft
World war, 1939-1945—Aerial operations

History

Recollections of early naval flying. F. J. Rutland. il Engineering 162:17-18, 27-8, 49-51, 97-100 Jl 5-19, Ag 2 '46

When the aeroplane joined the army. J. Hettich. il Aero Digest 53:22+ Jl '46

Germany

Role of air technical intelligence in defeat of the Luftwaffe. Aero Digest 51:40+ D 1 '45

Great Britain

Military aviation procurement in Britain is twice that of U.S. S. Hershey. Aviation N 4:13-14 D 3 '45

Recollections of early naval flying. F. J. Rutland. il Engineering 162:17-18, 27-8, 48-51, 97-100 Jl 5-19, Ag 2 '46

United States

Air industrial planning in the postwar period. B. W. Chidlaw and E. W. Rawlings. Mech Eng 68:971-5 N '46

Airplane in national defense; reprinted from Annals of the American academy of political and social science, May, 1927. W. Mitchell. Aero Digest 51:35-7 D 15 '45

Future of research and development. B. W. Chidlaw. Mech Eng 68:199-202 Mr '46

Work of aeronautical engineers in the war. J. H. Doolittle. Aeronautical Eng R 5:29-32 Mr '46

See also

United States—Air service, Army
United States—Air service, Navy

AERONCA aircraft corporation

Aeronca challenges Piper lead in plane production. il Aviation N 5:23-4 Je 17 '46

AEROSOLS (insecticides). See Insecticides

AFRICA

Industries and resources

Chemist views Africa. J. R. Sampey. J Chem Educ 23:318-20 Jl '46

AFRICA, British East

See also

Electric apparatus industry—Africa, British East
Railroads—Electrification—Africa, British East

Economic conditions

News by countries. For Comm W 22:24-5 Ja 26 '46

AFRICA, British West

West African council. Economist 150:300 F 23 '46

Commerce

West Africa's terms of trade. Economist 149: 563-4 O 20 '45

AFRICA, North. See Morocco; Tripolitania; Tunis (state)

AFRICA, South. See South Africa

AFRICA, West

See also

Electric apparatus industry—Africa, West

AGAR

Agar technique for arresting movement in protozoa. W. S. Bullough. Science 104:227 S 6 '46

Australia's agar industry. A. Makaroff. il Food Ind 18:1545-7 O '46

New sterile technic for preparing agar cupplates. J. E. Christian and M. L. Neuroth. il Science 103:172-3 F 8 '46

New Zealand seaweed for agar-manufacture; abstract. L. B. Moore. Food Ind 17:1406+ N '45

Underwater harvest; Australia's agar-agar. M. Pratt. il For Comm W 24:6+ Ag 31 '46

Utilization of seaweeds from the South Atlantic and Gulf coasts for agar and its decomposition by bacteria. bibliog il diags 80p pa $2 Duke univ. press, Durham, North Carolina '46

AGE

Age factor in disabling morbidity, 1940-44; experience of the Boston Edison company. W. M. Gafafer. Pub Health Rep 60:1447-62 D 7 '45

AGE (animals)
Growth and aging problems in agriculture. S. Brody. Science 104:307-12 O 4 '46

AGE and employment
Employment and the older worker. M. T. Waggaman. Mo Labor R 62:386-96 Mr '46

AGENCIES, Advertising. See Advertising agencies

AGENCY (law)
See also
Insurance agents—Law

AGENTS, Insurance. See Insurance agents

AGENTS, Manufacturers'. See Manufacturers' agents

AGGREGATES
Alabama state highway specifications. Rock Prod 49:83-4+ My '46
Anti-stripping asphalt additives. J. C. Sprague. il Roads & Bridges 84:63-71+ S '46
Examples of aggregates operations; crushed-stone quarry operations in Illinois. il Rock Prod 48:90-1 O '45
Geology of aggregate deposits. J. A. Allan. diag Roads & Bridges 84:66-7+ O '46
See also
Concrete—Aggregate
Sand and gravel plants

Testing
Examination and testing of concrete materials. L. A. Thorssen. diags Roads & Bridges 84:67+ F '46
Physical properties of road aggregates as affecting road performance. B. H. Knight. bibliog Soc Chem Ind J 64:254-9 S '45

AGITATORS
Saran agitator for a 65-gal. vessel. A. Stein. diag Chem & Met Eng 53:147 My '46
Some fundamental factors in choice of liquid agitators. I. S. Brumagim. il diags Chem & Met Eng 53:110-14 Ap '46
Use of propeller for stock circulation and agitation. J. J. Keon. il diags Pulp & Pa of Can (Convention no) 47:188-94 [F] '46
See also
Shaking apparatus

AGRICULTURAL administration
Wants American agriculture unregimented. J. A. Higgons, jr. Comm & Fin Chr 164:2135 O 24 '46
See also
Land settlement

AGRICULTURAL chemistry
Chemical crop insurance. H. C. E. Johnson. il Sci Am 174:258-60 Je '46
New agricultural chemicals combat pests and improve crops. E. D. Witman. il Chem Ind 58:590-2 Ap '46
Trace elements in agriculture; abstract. W. G. Ogg. Chem & Ind p156-7 Ap 13 '46
See also
Carver, George Washington
Chemurgy
Farm produce—By-products
Feeding and feeding stuffs
Fertilizers
Soil analysis

AGRICULTURAL clubs
See also
4-H clubs

AGRICULTURAL colonization

California
What has happened to Durham and Delhi land settlements of California? A. Poli. J Land & Pub Util Econ 22:182-90 My '46

Kenya colony
European farming in Kenya. Economist 151: 100-1 Jl 20 '46

AGRICULTURAL credit
AAA helps us get commodity credit loans. W. M. Willy. Bankers Mo 63:18 Ja '46
A.B.A. asks non-political farm credit; Flannagan bill hearings. Banking 38:63+ Je '46
Bank-managed farming; State central savings bank in Keokuk forms Iowa-Missouri company. J. L. De Jong. Banking 38:47+ F '46
Bank talks turkey; First national bank of Portland extends lending program to turkey raiser and breeder. il Banking 38:47-8 Mr '46
Direct approach to farm loans; program of Industrial trust company, Providence, R.I. R. G. Cooke. Banking 39:63+ S '46
Electrical farm hand; opportunity for country banks in rural electrification. R. O'Neill. il Banking 39:47-9+ Jl '46
Farm contracting loans to veterans by Trust company of Georgia; object to combat soil erosion. Banking 38:71 N '45; Excerpts. Burroughs Clearing House 30:13 N '45
Farm credit act. N. P. Gregory. Burroughs Clearing House 30:23-4 Mr '46
Farm credit agencies merged under bill. Comm & Fin Chr 164:1067 Ag 22 '46
Farm financial statements as used by Dyersville national bank, Iowa. A. W. Bird. Banking 38:72-3 F '46
Farm loan volumes increased by local improvement programs. E. B. Carruth, jr. and others. il Bankers Mo 63:138-9 Mr '46
Farm machinery loans. V. B. Hart. il Banking 38:52 My '46
Farm mortgage lending seminar sponsored by Mortgage bankers association of America. E. L. Butz. Burroughs Clearing House 30:20-1+ Jl '46
Farm real estate and non-real estate debt; with tables giving data for 1940-1946. Fed Res Bul 32:983-90 S '46
Farmers borrowing from banks, PCA's, and federal land banks, and amounts borrowed at any time in 1944; maps. Banking 38:61-2 N '45
Funds for farms. Bsns W p32+ Mr 23 '46
Government farm credit system revised; Farmers' home administration act. Burroughs Clearing House 30:28+ S '46
How to render an improved service to farmers. J. Bishop, jr. il Bankers Mo 63: 276 Je '46
Loans for better drainage. C. C. Lewis. il Banking 39:52 Jl '46
Loans to improve farm buildings. V. B. Hart. il Banking 38:56 Ap '46
Making good land from bad; project to aid Georgia agriculture through the Callaway plan; role of long-term commercial bank credit. F. M. Call and J. L. DeJong. il Banking 39:50-1+ Jl '46
New farm credit legislation; Farmers' home administration act of 1946 (Cooley bill). Banking 39:73-4+ S '46
Successful farm loan advertising techniques; Industrial trust company of Providence, R.I. Banking 38:59 D '45
These banks increased farm loans by knowing their farmers. W. F. Easter and others. il Bankers Mo 63:61-3 F '46
What is a good farm loan? V. B. Hart. Banking 38:58 Je '46
See also
Farm credit administration

AGRICULTURAL engineering
Engineering planning can help solve problems of surplus crops and assure a supply of farm raw materials for factories; abstract. F. C. Vilbrandt. Chem & Met Eng 53:250+ Mr '46
Mechanized agriculture; abstract. A. W. Turner. Mech Eng 68:900-1 O '46
Trends in agricultural mechanization. H. B. Walker. Mech Eng 68:723-6 Ag '46
See also
Agricultural machinery
Drainage
Electricity on the farm
Irrigation

AGRICULTURAL insecticide and fungicide association
Annual meeting, 13th, Spring Lake, N.J. Chem & Eng N 24:2622+ O 10 '46

AGRICULTURAL insurance. See Insurance, Agricultural

AGRICULTURAL laboratories
Shell agricultural laboratory and experimental farm. il Chem & Eng N 24:2506 S 25 '46

AGRICULTURAL laws and legislation
See also
Corn laws

AGRICULTURAL laws and legislation—*Cont.*

Acreage adjustment

Acreage allotments and land prices; with special reference to tobacco areas. J. E. Mason. bibliog J Land & Pub Util Econ 22:176-81 My '46

United States

Agricultural surplus plan is reported to Congress. Oil Paint & Drug Rep 150:3+ Jl 1 '46

AGRICULTURAL limestone. See Lime as fertilizer

AGRICULTURAL machinery

Can farmers afford their new tools? L. Haystead. il Fortune 34:177+ S '46

Engineer and the farmer. Engineer 182:369 O 25 '46

High-clearance of crop-spraying vehicle. il plan Engineering 162:341-2 O 11 '46

Hydraulic power for farm machinery; abstract. L. R. Twyman. Machine Design 18: 174 Ja '46

Machines that weren't there. L. Haystead. Fortune 33:195-6+ Je '46

Mechanical loaders for the farm; for shifting manure; with cost data. il Mech Handling 32:707-10 D '45

More power to the little fellow; power tools designed for small acreages. il Fortune 33: 200-2 F '46

National institute of agricultural engineering; demonstrations of machinery. il Engineer 182:323 O 11 '46

Revolution in sugar beets; mechanization of entire growing process. il Bsns W p50 D 8 '45

Trends in agricultural mechanization. H. B. Walker. Mech Eng 68:723-6 Ag '46

Twenty-five years of power farming. J. R. Warburton. Engineer 182:308-9 O 4 '46

See also
Cultivators
Harvesting machinery
Tractors

Manufacture

Induction hardening as applied to farm machinery. F. F. Vaughn. il S A E J 54:38-43; Discussion. 43-4 Ja '46

AGRICULTURAL machinery industry

Federal threat in farm equipment strikes. Bsns W p102+ Je 8 '46

I.H.C. experiment; exclusive distribution of farm terracing machine. Bsns W p56 S 28 '46

Lost chance; strikes and shortages end farm machinery makers' hopes. Bsns W p29-30+ Je 1 '46

Parts needed. Bsns W p22+ O 5 '46

Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. Iron Age 157:117-18 Ja 3 '46

Too many irons in the fire; farm implement retailers added many semi-related products. Bsns W p62-4 Je 1 '46

Unprecedented sales predicted for farm implement industry; abstract. J. S. Duncan. Iron Age 157:138 Ap 11 '46

What factories can do for the farm; farmer's view. A. P. Whallon. il Manuf Rec 114:46-7+ N '45

See also
International harvester company

Advertising

Must ad art be obviously relevant to product? no, says Minneapolis-Moline. H. E. Green. il Ptr Ink 213:22-3 D 7 '45

Sells results, not product, and gets farmers' orders; farm publication advertising helps Graham-Paige break into farm equipment market. H. E. Green. Ptr Ink 216:38-9 Ag 30 '46

Finance

Farm machinery loans. V. B. Hart. il Banking 38:52 My '46

Securities

Farm equipment companies under today's conditions; with position of leading stocks. S. Devlin. Mag of Wall St 77:707+ Mr 16 '46

What's ahead for farm equipments? with financial survey of leading companies. G. L. Merton. il Mag of Wall St 78:636-7+ Ag 31 '46

Canada

Massey-Harris; biggest farm-tool builders in the Empire. il Fortune 33:108-15+ Je '46

Finland

Mechanization of agriculture, Finland; 1930 and 1941 compared. For Comm W 24:39 Jl 6 '46

Great Britain

Engineering outlook. Engineering 161:172-4 F 22 '46

Farm machinery. Economist 151:422-4 S 14 '46

AGRICULTURAL pests

See also
Insecticides
Insects, Injurious and beneficial
Weeds

AGRICULTURAL products

See also
Crops
Farm produce
Flax
Rice
Rubber plants and planting
Tea
Tobacco
Wheat

AGRICULTURAL research

Agricultural research costing $4,500,000 annually proposed in Flannagan bill. Oil Paint & Drug Rep 149:7+ Je 3 '46

Animal shelter; research conference at Missouri. plan Heat & Ven 43:110+ S '46

Applications of science to food production. H. A. White. il Tech R 48:557-60+ Jl '46

Benefits from research; abstract. R. M. Salter. Oil Paint & Drug Rep 150:44 Jl 1 '46

Farm products research expansion bill passes House. Oil Paint & Drug Rep 150: 7+ Jl 22 '46

Grants to aid research in agricultural chemistry offered by Herman Frasch foundation for chemical research. Science 103:626 My 17 '46

Growth and aging problems in agriculture. S. Brody. Science 104:307-12 O 4 '46

Iowa state college Tropical research center, Antigua, Guatemala. Science 103:139 F 1 '46

Law directs marketing study on all agricultural products; Flannagan-Hope act. il Food Ind 18:1563 O '46

Mexico's agricultural research program promises highly beneficial economic results. For Comm W 25:17 O 12 '46

Petroleum industry research helps agriculture to minimize crop losses; Union oil company laboratory to study control of insects, fungi, and bacteria. R. Sneddon. il Pet Eng 17:77-8+ Je '46

Research progress at Midwest research institute; abstract of first annual report. H. Vagtborg. il Chem & Eng N 24:1183-91 My 10 '46

Shell Oil's research center. il Sales Management 57:130 N 1 '46

Shell starts operation of agricultural lab and experimental farm as proving ground for Shell products. il Oil & Gas J 45:166 S 21 '46

See also
Farm produce—By-products

AGRICULTURAL tool industry

China

UNRRA sets Chinese farm implement goal at $21 million. G. Hardy. Iron Age 158:104 O 31 '46

AGRICULTURE

Third Inter-American conference on agriculture, Caracas, July 24-Aug. 7, 1945. Int Labour R 52:494-503 N '45

See also
Agricultural machinery
Airplanes in agriculture
Chemurgy
Cotton
Crops
Dairy products
Dairying
Electricity on the farm
Electrohorticulture
Farm buildings
Farm labor
Farm produce
Farmers

AGRICULTURE—*Continued*
Feeding and feeding stuffs
Fertilizers
Flax
Food supply
Forests and forestry
Irrigation
Land settlement
Land tenure
Live stock
Radio broadcasting—Agricultural programs
Rice
Rubber plants and planting
Soil disinfection
Soils
Sugar
Wheat

Bibliography

Agricultural index, October 1942—September 1945. 1537p H. W. Wilson co, New York 52 '46

Economic aspects

Agricultural prices and production. Survey of Cur Bsns 26:4-7 O '46
Agricultural question mark of 1946; address before American farm bureau federation. C. P. Anderson. Comm & Fin Chr 162:3133+ D 27 '45
Balance sheet of agriculture, 1946; United States Department of agriculture report; abstract. N. J. Wall and others. Fed Res Bul 32:974-94 S '46
Banker and a more abundant earth. L. Bromfield. il Banking 38:33-5+ Ap '46
Better farming, better markets; Business Week reports to executives. Bsns W p61-5 N 2 '46
Better farms mean better cities; views of George M. Clark, president, Pioneer bank of Chattanooga, Tenn. H. Severson. Banking 38:58-9 Ja '46
Corn belt fumes; National farm institute delegates flay Administration for indecision on subsidies and prices. Bsns W p21-2 F 23 '46
Evaluation of the wartime farm price-support programs. G. Hadary. J Bsns 18:219-21 O '45
Evolution of the American farmer. F. R. Walters. il Mag of Wall St 78:501-3+ Ag 3 '46
Farmer's stake in full employment. H. A. Wallace. Comm & Fin Chr 163:247+ Ja 17 '46
Fruits and vegetables; foreign-trade outlook. C. W. Kitchen. il For Comm W 22:3-5 Ja 12 '46
Furnishes postwar blueprint of agricultural policy; special House Committee on postwar economic policy. Comm & Fin Chr 164: 933+ Ag 15 '46
Institutional obstacles to land improvement; summary of results of three watershed surveys in the South. J. F. Timmons. bibliog J Land & Pub Util Econ 22:140-50 My '46
1946 business of farming. A. G. Brown. Banking 38:57+ Ja '46
Petroleum, natural gas and agriculture. G. Egloff. Pet Refiner 25:146+ Jl '46
Postwar adjustments in cotton production in the southeastern United States. P. E. Jones. map J Land & Pub Util Econ 21:339-51 N '45
Price relationships and the food markets. C. P. Anderson. Comm & Fin Chr 163:966+ F 21 '46
Some problems facing industry; address before Wisconsin farm and industry conference. L. R. Clausen. Comm & Fin Chr 162: 2449+ N 22 '45
Uncertain tomorrow. E. L. Butz. Comm & Fin Chr 164:2333+ N 7 '46
U.S. population growth promises new era for farmer. J. Van Wagenen, jr. Barron's 26:3 Ag 26 '46
Wanted: fewer and better farmers; present ways of helping food producer harm everyone. J. Van Wagenen, jr. Barron's 26:11 My 27 '46
Wartime balance sheet of agriculture. F. R. Walters. il Mag of Wall St 77:393-4+ Ja 5 '46
Wartime wages, income, and wage regulation in agriculture. M. Sworzyn. Mo Labor R 63:36-44, 195-204 Jl-Ag '46
What of the farm? summary of C.E.D.'s research committee. Bsns W p31-2+ D 8 '45
Will farm bloc upset national economy? N. T. Carruthers. Mag of Wall St 77:700-2+ Mr 16 '46

See also
Agricultural credit
Farm income
Farm market
Farm produce—Prices
Farmers
Land tenure
Public works, Rural

Statistics

Changes in farms and acreage; preliminary survey of 1945 census of agriculture; market exploration map. W. P. Burn. Ptr Ink 214: 29-32 F 1 '46
Should non-farm agricultural land be included in the census of agriculture? K. S. Landstrom. J Land & Pub Util Econ 22: 295-6 Ag '46

Study and teaching

Program in agricultural science, Yale university. E. W. Sinnott. Science 103:623-4 My 17 '46

Albania

Drought's disastrous effect on Albania's agricultural economy. For Comm W 22:23 Mr 9 '46

Belgium

Belgian agriculture. L. Delvaux. Ann Am Acad 247:142-7 S '46

Bolivia

See also
Irrigation—Bolivia

Canada

Farmers benefit; guaranteed British market for animal products. Bsns W p110+ Ap 6 '46

Florida

Florida agriculture progresses. J. F. Cooper. il Manuf Rec 115:36-7+ Mr '46
Florida's state farmers markets. W. A. Dunlap. il Dom Comm 34:17-19 Ja '46

Georgia

Making good land from bad; project to aid Georgia agriculture through the Callaway plan. F. M. Call and J. L. DeJong. il Banking 39:50-1+ Jl '46

Great Britain

Agricultural dilemma. Economist 150:998-9 Je 22 '46
New Domesday book; National farm survey of England and Wales. Economist 151:366-7 S 7 '46
Unnationalized British farmer. F. B. Makin. il Banking 39:58+ S '46

Haiti

Shaky S.H.A.D.A.; Société haitienne américaine de développement agricole. Fortune 33:195-6 F '46

India

India's problem; industrial and agricultural planning. D. A. Kearns-Preston. il For Comm W 24:8-11+ Jl 20 '46

Iowa

Farm column. L. Haystead. il Fortune 32: 190+ D '45

Italy

Tenant-farm and land-use regulation in Italy. Mo Labor R 61:923-4 N '45

Japan

Japanese agriculture. Economist 150:176 F 2 '46

Mississippi

Story of Mississippi. il Manuf Rec 115:77-80 Ja '46

Missouri

Missouri banker shows them balanced farming; Citizens bank, Amsterdam. E. J. Evens. il Burroughs Clearing House 30: 17-19+ Ag '46

Netherlands

Agricultural situation during German occupation. C. H. J. Maliepaard. Ann Am Acad 245:48-54 My '46

Pacific coast

Japanese agriculture on the Pacific coast. A. Poli and W. M. Engstrand. map J Land & Pub Util Econ 21:352-64 N '45

AGRICULTURE—*Continued*

Russia

Crisis in Russian agriculture. Economist 150: 406-7 Mr 16 '46
Soviet agriculture. Economist 151:86-7 Jl 20 '46

Southeastern states

Farm land values in the Southeast. D. Young. J Land & Pub Util Econ 22:213-22 Ag '46
Industrial development in the Southeast. J. P. Ferris. il Mech Eng 68:787-91 S '46
Postwar adjustments in cotton production in the southeastern United States. P. E. Jones. map J Land & Pub Util Econ 21:339-51 N '45

Sweden

Squandering the public domain in Sweden; 1820-1870. R. Freund. maps J Land & Pub Util Econ 22:119-30 My '46

Tennessee

Blueprinting better communities; program for rehabilitating Putnam county. H. Severson. il Banking 38:52-3+ D '45
How one county grew more food; Johnson county. H. Severson. il Banking 38:54-5, 113 Ap '46

Texas

Dividends from double cropping; south Texas farmers plant cotton or sorghums in spring and vegetables in winter. H. Severson. il Banking 39:56-7+ N '46
Featuring Texas. il Manuf Rec 115:134-40 Jl '46

United States

Agricultural question mark of 1946; address before American farm bureau federation. C. P. Anderson. Comm & Fin Chr 162:3133+ D 27 '45
Balance sheet of agriculture, 1946; United States Department of agriculture report; abstract. N. J. Wall and others. Fed Res Bul 32:974-94 S '46
Economy in war and transition; agricultural production. Survey of Cur Bsns 26:15-16 F '46
Farm goals for '46. Bsns W p22+ D 15 '45
Full crops again; Department of agriculture wants high production maintained. il Bsns W p21 O 19 '46
Government moves promise new farm surpluses. Barron's 26:7+ N 4 '46
Growing season is off to a good start. Bsns W p16 Mr 30 '46
Machines that weren't there. L. Haystead. Fortune 33:195-6+ Je '46
Will farm bloc upset national economy? N. T. Carruthers. Mag of Wall St 77:700-2+ Mr 16 '46

Farm relief

Agricultural planning achieves magnificent failure; grain and meat by-passing normal outlets. H. S. Taylor. Barron's 26:3 Jl 1 '46
Farm parity policy shifts; plan for assuring parity income. Bsns W p21-2+ D 29 '45

AGRICULTURE, Soilless. See Plants—Soilless culture

AGSTONE. See Lime as fertilizer

AILERONS

Aileron reversal speed by influence coefficients and matrix iteration. W. T. Thomson. bibliog J Aeronautical Sci 13:192-4 Ap '46
Effect on hinge moment of fitting strips near aileron trailing edge, of increasing aileron chord and of extending aileron to wing tip; abstract. A. S. Batson and J. H. Warsap. Aeronautical Eng R 5:99 My '46
Lateral control required for satisfactory flying qualities based on flight tests of numerous airplanes. R. R. Gilruth and W. N. Turner. bibliog U S Nat Advisory Com for Aeronautics 1941:201-7 '42

AIR

Air we live in. S. R. Lewis. Heating-Piping 18:96 My; 98-9 Je '46
Dielectric constants of eight gases. L. G. Hector and D. L. Woernley. bibliog il Phys R 69:101-5 F 1 '46
Evaporation of liquids in currents of air. S. H. Wade. il Inst Chem Eng Trans 20:1-8; Discussion. 9-13 '42
Production of photons in a Townsend gap in air, nitrogen, and argon. L. H. Fisher. Phys R 68:279 D 1 '45
Variable path ultrasonic interferometer for the four megacycle region with some measurements on air, CO_2, and H_2. J. L. Stewart. bibliog diags R Sci Instr 17:59-65 F '46

See also

Aerodynamics
Air conditioning
Atmosphere, Upper
Atmospheric pressure
Compressed air
Humidity
Meteorology
Sea air
Ventilation

Analysis

Apparatus for rapid sampling of large air volumes for industrial air analyses. L. Silverman and C. R. Williams. bibliog il J Ind Hygiene 28:21-5 Ja '46
Automatic apparatus for determination of small concentrations of sulfur dioxide in air; new countercurrent absorber for rapid recording of low and high. M. D. Thomas, J. O. Ivie and T. C. Fitt. bibliog il diags Ind & Eng Chem Anal ed 18:383-7 Je '46
Determination of chlorinated hydrocarbon vapors in air. R. W. Schayer and H. H. Ackerman. diag J Ind Hygiene 28:237-40 S '46
Determination of helium group gases in natural gases and in the atmosphere. G. H. Cady and H. P. Cady. bibliog diags Ind & Eng Chem Anal ed 17:760-6 D '45
Determination of methyl chloride in air. J. L. Franklin, E. L. Gunn and R. L. Martin. diags Ind & Eng Chem Anal ed 18:314-16 My '46
Determination of nicotine in the air. W. E. McCormick and M. Smith. bibliog Ind & Eng Chem Anal ed 18:508-12 Ag '46
Estimation of oxygen in inert oxygen-free atmospheres. E. H. Winslow and H. A. Liebhafsky. bibliog diag Ind & Eng Chem Anal ed 18:565-8 S '46
Filter paper collection of cadmium and iron fumes in air. L. Silverman and C. Valenzuela. J Ind Hygiene 28:107-11 My '46
Gasoline loss control and molecular weight determinations. H. G. Koefoed. bibliog 4pls diags Inst Pet J 32:529-74 S '46
L'intérêt des analyses toxicologiques de l'atmosphère dans les industries insalubres. J. Auffret and H. Bour. Chimie & Ind 55: 219-23 Mr '46
New developments in commercial instruments for air analysis; abstract. N. W. Hartz, M. G. Jacobson and H. N. Cotabish. Ind Med 15:477 Ag '46
Sampling and determination of methanol in air. G. W. Rogers. bibliog diags J Ind Hygiene 27:224-30 O '45

See also

Air sampling

Bacteriology

Sampling air for bacterial content; new mechanical designs and applications of electrostatic fields. M. Luckiesh and others. il diags Gen Elec R 49:8-17 Mr '46

AIR, Liquid. See Liquid air

AIR bases. See Airports, Military; Naval air stations

AIR-blast circuit breakers. See Electric circuit breakers—Oilless

AIR brake hose

Air hose coupling hooks. il Ry Mech Eng 120: 132-3 Mr '46

AIR brakes

Air brake questions and answers (cont). Ry Mech Eng 119:603-4; 120:17-19, 132, 209-11, 265, 309, 362, 415 D '45-Ja, Mr-Ag '46
Angle bracket for L-3 triple valve. T. Birch. il Ry Mech Eng 120:131 Mr '46
Brakes; fundamentals, design and performance; abstract. S. Johnson, jr. S A E J 54:sup49-50 Je '46
Committee on brakes and brake equipment. diags Ry Mech Eng 120:465-7 S '46; Same abr, without diags. Ry Age 121:262-3 Ag 17 '46
Linderman industrial brake expands under air pressure. il Am Mach 89:162 D 20 '45; Comp Air Mag 51:113 Ap '46

AIR brakes—*Continued*
Recent developments in speed controls. C. D. Stewart. il Ry Age 121:604-7 O 12 '46
See also
Air brake hose

Manufacture

Projection welding push rod. E. B. Rhodes. diags Welding J 25:842-3 S '46

Repair

Report on locomotive brake equipment; Locomotive maintenance officers' association. Ry Mech Eng 120:528-9 O '46

AIR brakes, Motor bus
Automotive air brakes. C. H. Vivian. il diags Comp Air Mag 51:202-10 Ag '46
Wagner rotary compressor for motor bus air brake. il Bus Transportation 25:189-90 F '46

AIR brakes, Motor truck
Automotive air brakes. C. H. Vivian. il diags Comp Air Mag 51:202-10 Ag '46

AIR cargo carriers. See Air carriers—Non-scheduled operations—Freight carriers; Airlines—Freight service

AIR cargo transport corporation
Common stock offered. Comm. & Fin Chr 162: 2265 N 12 '45

AIR carriers
See also
Airlines

Non-scheduled operations

Air battle, 1946. il Bsns W p17-19 Je 29 '46
ATA approves recommendations to curb non-scheduled service. Aviation N 4:41 D 3 '45
Airline row; charter carriers fight with regular lines. Bsns W p37 N 2 '46
Barnstormers of 1946 include many wartime pilots with surplus C-47's. G. Herrick. il Air Transport 4:73-5 Mr '46
C & S seeking probe of Waterman flights. Aviation N 6:28 S 9 '46
CAA predicts boom in charter services. Aviation N 4:38 D 10 '45
CAB challenged by Brayton on grandfather clause certificate. M. Mickel. Aviation N 6:27 S 16 '46
CAB clarifies issues raised by non-scheduled decisions. il Aviation N 5:23-4 Je 24 '46
CAB defines nonscheduled service; offers sample action in two cases. CAA J 7:88 Jl 15 '46
CAB defines unscheduled service; finds two carriers in violation. Aviation N 5:7+ Je 10 '46
CAB issues new safety rules for non-scheduled carriers. Aviation N 5:27 My 13 '46
CAB restriction order indicated as non-scheduled hearing closes. Aviation N 4:37-8 D 3 '45
CAB sets up safety rules for nonscheduled carriers. CAA J 7:69+ Je 15 '46
Contract carriers aim for special services, predetermined flights; with directory of carriers. il Air Transport 4:82-4 Ap '46
Contract carriers discover some new insurance problems. Air Transport 4:84 Ap '46
Demand for CAA, CAB regulation highlights non-scheduled meeting. Aviation N 5:16-18 Ap 22 '46
Federal regulation of feeder-charter lines attacked. J. Garside. Aviation N 4:35 N 26 '45
Free-lance lines solidifying. il Bsns W p50-2+ S 21 '46
Keeping contract carrier fleets flying safely; maintenance-overhaul bases. G. Herrick. il Air Transport 4:41+ O '46
Let the bird grow up before you pluck it. W. A. Mara. Aero Digest 51:38-9 D 15 '45
McCarran denounces proposed CAB economic regulations. C. L. Adams. Aviation N 6:13-14 S 16 '46
May the fitter survive. D. Kirschbaum. il Aero Digest 53:44-5+ Ag '46
Miami non-scheduled operators organize to combat restrictions. Aviation N 6:25-6 Jl 29 '46
More C.A.B. regulation for non-scheduled air lines. Ry Age 120:1198 Je 15 '46
New CAB rules; regulations for safety of charter and nonscheduled flights. Bsns W p30 My 18 '46
Nine uncertificated operators organize to promote business. Aviation N 5:23-4 Mr 18 '46
Non-scheduled air carriers expanding. Barron's 26:1+ S 23 '46
Nonscheduled carrier planning air coach passenger service; American air export & import co. C. Adams. il Aviation N 6:15 S 2 '46
Nonscheduled carriers eye profits from overseas charter operation. C. L. Adams. Aviation N 6:13 O 21 '46
Nonscheduled carriers get small slice of air passenger business. C. L. Adams. Aviation N 6:28 N 4 '46
Nonscheduled international air carriers organized in U.S. Air Transport 4:85 Ap '46
One woman airline; Terry air transport, F. Terry. il Aviation N 5:18 My 20 '46
Only bona fide N-S's eligible for exemption. Aviation N 6:18 Jl 8 '46
Period of catch-as-catch-can contract operation nears end; non-scheduled carriers approve CAB safety rules; cargo rate war with airlines looms. Air Transport 4:75 Je '46
Planes for hire; charter operators, free of CAB regulation. il Bsns W p34+ Ap 6 '46
Protests against CAB rulings mounting as deadline nears. Aviation N 6:13-14 Jl 15 '46
Regulation pot boils for contract carriers. Air Transport 4:104+ Ag '46
Rehearing of nonscheduled case is urged by Wallace. CAA J 7:113+ S 15 '46
Rough landing; CAB's new definition. Bsns W p18 Je 15 '46
Seven charter lines serving Miami organize to share ground facilities. Aviation N 5:12 F 25 '46
Several names suggested to Wright for non-scheduled committee post. A. McSurely. Aviation N 5:15 F 4 '46
Uncertificated operators discuss steps necessary to expansion. W. Kroger. Aviation N 5:7-8 Mr 18 '46
Unscheduled carriers determined to fight full federal control. W. Kroger. Aviation N 5:7 Je 17 '46
Wallace champions cause of non-scheduled operators. il Aviation N 6:11+ Ag 26 '46
Waterman nets profit from tramp flights. Aviation N 6:27 O 14 '46

Advertising

Planning service operator publicity. R. L. Fli. Aero Digest 51:38-9+ N 15 '45

Freight carriers

Air cargo carriers seeking to stake vast freight claim. C. L. Adams. il Aviation N 6:26-7 O 28 '46
Air freight bonanza is seen in New York garment trade. C. L. Adams. il Aviation N 6:33 O 7 '46
Airlines may open rate-cut war on non-scheduled cargo lines. S. Bangs. Aviation N 5:31 My 13 '46
Contract carriers of the United States; list. Air Transport 4:90-1 Jl '46
Cut-throat competition among cargo carriers scored; abstract. H R. Penzell. Aviation N 6:20 S 9 '46
Domestic air freight load triples as air lines face stiff competition. map Aviation N 6:27 Ag 12 '46
Emergency air cargo shipments increasing. il Aviation N 6:14 S 30 '46
Exemption as common carriers asked for pioneer cargo lines. Aviation N 4:35-6 D 17 '45
Expanded markets by air freight; progress of Slick airways. R. McDaniel. il Am Bsns 16:10-11+ O '46
Flies anything any place any time; Veterans air express. G. Herrick. il map Air Transport 4:36-8 Jl '46
Forwarding by air; Air dispatch, inc. Bsns W p42 Jl 27 '46
Freight by air; unregulated, hotly competitive. il Fortune 33:134-9+ My '46
Glider freight; air force veterans launch first licensed U.S. glider cargo service. il Bsns W p38+ My 4 '46
Ground lessons in air freight. G. O. Noville. Aero Digest 52:19+ Je '46
Independent air cargo carriers need coverage. W. H. Rodda. Nat Underw 50:15 Je 27 '46

AIR carriers—Non-scheduled operations—Freight carriers—*Continued*
Major airlines gird for battle with non-scheds over cargo. Aviation N 5:8-9 Je 10 '46
Miami-based line serves South America; non-scheduled air express airline, Skyways international trading transport co. Aviation N 4:28 Ja 7 '46
Miami now leading air gateway as Latin-American trade booms. C. L. Adams. il Aviation N 6:13 S 30 '46
Mystery of the missing payload; how the Flying Tigers solved it. il Sales Management 56:76+ Je 15 '46
New lines planning to meet competition. Aviation N 5:19 My 27 '46
Newcomers hatch a new one; overseas service by Veterans air express co. il Bsns W p16 Ap 27 '46
Non-scheduled cargo companies seen attracting venture capital. Aviation N 4:34 D 10 '45
Non-scheduled line in European flights; Veterans air express. Aviation N 5:28+ My 13 '46
Non-scheduled lines can corner air freight field. A. P. Adams. Aviation N 5:24 Mr 11 '46
Profit, out of the wide blue yonder; Meteor air transport. F. Barker. il map Air Transport 4:25-9 O '46
Rank cargo carriers on their own. J. H. Frederick. il Aviation 45:41-3 Ap '46
Slick Airways hits million-mile mark. Aviation N 5:14 Je 17 '46
Texas freight service takes place on Nation's skyways; Slick airways, inc. il Manuf Rec 115:35+ S '46
Unscheduled operators charge airline monopoly freight war. Aviation N 6:27 Jl 1 '46

AIR cleaners
Air cleaners for internal combustion engines. L. Silverman. il diags Heat & Ven 42:85-7 D '45; 43:74-7 Ja; 96-9 F '46
Air de-odorant dispensed through air-conditioner, portable unit, or wick-bottle. diag Sci Am 174:273 Je '46
Electronics makes a dustless house possible; Precipitron. il Am Bld 68:117 Ap '46
Factors in maintaining precipitator performance. O. E. Fawcett. il Elec World 126:74-6 O 12 '46
First home unit Precipitron. il diag Sheet Metal Worker 37:76+ F '46
Oil spray collection on thread-grinding machines. il Engineer 180:423 N 23 '45
Passenger car auxiliaries. H. H. Hanft. il diag Ry Mech Eng 120:90-2 F '46
Precipitator provides clean air for industry or home. il Sci Am 174:274-5 Je '46
Testing air cleaners for tanks. il Engineering 160:394 N 16 '45
See also
Air filters

AIR cleaners, Automobile
The cleaner the air cleaner, the cleaner the air. diags Bus Transportation 24:81-2 N '45

AIR cleaning
Characteristics of air cleaning methods; reference data. J. M. Dalla Valle. Heat & Ven 43:72a-72b Mr '46
Dust removal cuts merchandise losses; air conditioning system with electronic air cleaner; American sporting goods co. store. il Heat & Ven 43:51-2 Je '46
See also
Air filters

AIR commuting, inc.
Air commuting planned. Bsns W p21 Ja 26 '46
15 leading industrialists organize New York area shuttle air service. Aviation N 5:35 F 4 '46

AIR compressors
Aircraft gas turbines with centrifugal compressors. R. S. Hall. S A E J 54:476-80 S '46
Combustion-gas turbine in the Houdry process. J. E. Evans and R. C. Lassiat. bibliog il diag Pet Refiner 24:135-40 N '45; Same cond. Power Pl Eng 50:118+ Mr '46
Compression by rotary squeezing; Elliott-Lysholm positive displacement rotary compressor. J. W. Crocker. il diags Pet Eng 17: 136+ My '46
Dartford tunnel compressed air stations. il diag Engineer 181:125-6 F 8 '46
Davey departmental air compressors. il Ry Age 121:442 S 14 '46
43-year-old air compressors still serve quarries. il Comp Air Mag 51:2-5 Ja '46
Free-piston compressor; German design. il Mech Eng 67:852-4 D '45
Fundamentals of the Elliott-Lysholm compressor. W. A. Wilson and J. W. Crocker. il diags Mech Eng 68:514-18 Je '46; Discussion (Marine gas-turbine plant). A. Lysholm. 68:992 N '46
German air compressor has integral Diesel drive. il Product Eng 17:107 F '46
Power plant services for 3 new G-M assembly plants. F. L. Einberger. diags Power Pl Eng 50:76-8 O '46
Split connecting rods and bearings reduce compressor size. il diag Product Eng 17:98 N '46
Wagner rotary compressor for motor bus air brake. il Bus Transportation 25:189-90 F '46
Westinghouse axial flow compressor reduces jet engine diameter. il diag Product Eng 17:90-3 Ag '46

Failures
What is cause of compressed-air explosion? diag Power 90:780-1+ N '46

History
Development of the compressor. il diags Comp Air Mag 51:64-70 Mr '46

Lubrication
Cures compressor overoiling. O. J. Kinzler. diag Bus Transportation 25:80 My '46

Safety measures
Safe practices for air compressor operation. D. Attaway. il Pet Refiner 25:134-6 Je '46

AIR compressors, Portable
Compressor trailer releases truck units. B. J. Dowd. il Elec World 126:90 Ag 17 '46
Hymatic lightweight portable air compressor. il Engineer 182:101 Ag 2 '46; Mech Handling 33:583-4 S '46; Engineering 162:309 S 27 '46

AIR conditioning
Air conditioning an essential for underground invasion headquarters. W. B. Hutchinson. il plan Heating-Piping 17:538-40 O-N '45
Air conditioning; what it is and what it does. G. A. Van Brunt. il diags Factory Management 104:113-120 Ag '46
Air we live in. S. R. Lewis. Heating-Piping 18:98-9 Je '46
Analysis of multi-room air conditioning systems. G. W. Meek. diags Refrig Eng 52: 23-30 Jl '46; Same. Heating-Piping 18:71-7 Ag '46; Discussion. Refrig Eng 52:30+ Jl '46
Basic elements of air conditioning. S. C. Moncher. il Sheet Metal Worker 37:52+ Je; 58+ Jl; 60+ Ag; 78+ S; 62+ O '46
Dry bulb thermometers are misleading in winter air conditioning. E. J. Davis. Heating-Piping 18:105 Jl '46
Engineer, physiologist and psychologist are involved in heating, conditioning. B. von H. Gilmer. il diag Heating-Piping 18:77-9 Je '46; Discussion. 18:93-5 Jl '46
Heating and air conditioning applications with the forward curve blade fan. il Dom Eng 167:154-5 F '46
Heir conditioner; air conditioned crib. Heating-Piping 18:80 Mr '46
Increased efficiency with industrial air conditioning. Dom Eng 166:156+ N '45
Plumbing and air conditioning in TVA hydro-electric plants. H. J. Petersen. il Power Pl Eng 50:128+ O '46
Quality air conditioning; part played by air conditioning contractor. A. C. Buensod. Heating-Piping 18:90-1+ Jl '46
Quality air conditioning; part played by consulting engineer and architect. S. R. Lewis. Heating-Piping 18:88-9 Jl '46
Quality air conditioning; summary of application practices. G. T. Fenn. Refrig Eng 51:521+ Je '46
Refinements in a modern winter air conditioning system. il plans Sheet Metal Worker 36:60+ D '45

AIR conditioning—*Continued*
Saving fuel is good business; losses in air conditioning systems affect fuel and energy consumption. Heating-Piping 18:111-12 Ja '46
Using the reverse cycle for heating, conditioning. G. E. Clancy. il diags Heating-Piping 18:90-3 Ap; 82-5 Je; 84-6 Ag '46
Veterans learn watchmaking in an air conditioned school; Bulova school of watchmaking. il Heat & Ven 43:90 Ja '46
Who's who in navy air conditioning. Heating-Piping 18:130-2 S '46
Winter air-conditioning of mines helps prevent coal-dust explosions. Coal Age 50:116+ N '45

See also
Air filters
Air purification
Cold storage
Cooling
Deodorization
Electricity in air conditioning
Exhaust systems
Gas in air conditioning
Heating
Humidity
Ventilation

also subdivision Air conditioning under special subjects, e.g.
Airplanes
Cars
Department stores
Factories
Hosiery mills
Moving picture theaters
Ships
Trolley buses

Bibliography

Reprints of ASHVE papers; list. Heating-Piping 18:123-9 Jl '46

Cost

Air conditioning costs for theaters. Elec World 125:128 F 16 '46
How to select economical condensing pressures for air conditioning; using Freon 12. A. P. Boehmer. il Heating-Piping 18:77-81 S; data sheet(p99-100) 94-8 O '46
Man-made weather for metalworking; with cost data. E. J. Tangerman. il maps diags Am Mach 90:120-7 O 10 '46
Operating and maintenance charges for air conditioning machine shops; Wright aeronautical corp. H. B. Lammers. il Heating-Piping 18:93-6 F '46

Patents

Court orders dedication of air conditioning patents to public; list. Heating-Piping 18:124 F '46

Specifications

Simplified procedure for specification writing. G. W. Campbell. il Heating-Piping 18:86-9 Ap '46

Standards

Air conditioning standards; temperature, humidity, ventilation. B. B. Reilly. Elec World 125:94 F 2 '46

Study and teaching

Education in refrigeration; opportunity for A.S.R.E. to promote sound training for veterans. R. C. Jordan. Refrig Eng 51:39-41 Ja '46
Educational guide to refrigeration and air conditioning training facilities in the U.S. Refrig Eng 51:sup1-27 Ja '46
Schools with courses in air conditioning; list. Heat & Ven 42:78 N '45
Selecting and training application engineers for gas air conditioning. G. E. May. Gas Age 98:34-5+ Ag 22 '46; Same abr. Am Gas J 165:15-17 Ag '46

Tables, calculations, etc.

Air conditioning map is provided by psych chart. Heating-Piping 17:532-4 O-N '45
Coil shall be not less than six rows deep. W. D. Sampson. il charts Heating-Piping 18:105-7 F '46
New psychrometric chart; with examples of problems solved by its use. E. P. Palmatier and D. D. Wile. diags Refrig Eng 52: 31-6, 74, insert Jl '46; Discussion. 141-2+ Ag '46
Psychrometric determination of absolute humidity at elevated pressures. W. M. Rohsenow. bibliog Refrig Eng 51:423-4; Discussion. 424+ My '46
Thermodynamics for the air conditioning engineer. E. P. Palmatier. diags Heat & Ven 43:66-72 Jl; 83-94 Ag '46

Terminology

Air conditioning terminology, objectives. B. B. Reilly. Elec World 125:170 Ja 19 '46
Definitions of terms used in heating, ventilating and air conditioning; reference data. Heat & Ven 43:94a-94b Ag; 88a-88b S '46

AIR conditioning, Industrial
Air conditioning a Canadian windowless textile mill. G. L. Wiggs. il plan diags Heating-Piping 18:118-22 Jl '46
Air conditioning applications in industrial plants. R. V. Mehaffey. Dom Eng 167:148+ Ap '46
Air diffusion and distribution system meets requirements of factory process; Minneapolis-Honeywell regulator co. E. E. Herbacek. il plan diags Heating-Piping 17:601-4 D '45
Automatic heat and humidity control for curing concrete masonry units; McCleery and Weston, ltd. Concrete 54:27 Mr '46
Climate control; impetus for southern industry. G. I. Tucker. il plan diag Manuf Rec 115:39-40+ Ag '46
Evaporative cooling for textile mills; practice in the Argentine. G. T. Lang. il Heat & Ven 42:89-94 D '45
Increased efficiency with industrial air conditioning. Dom Eng 166:156+ N '45
Loom checks determine optimum relative humidity. Textile World 96:191 F '46
Man-made weather for metalworking; with cost data. E. J. Tangerman. il maps diags Am Mach 90:117-32 O 10 '46
Man-made wind at 130 to -67 F tests aircraft-engine gasoline injectors; American Bosch corp. laboratory. il plan Power 90:6-8 Ja '46
Modern textile mills make their own weather. il Rayon 27:433-5 Ag '46
Nylon weather achieved by refrigerated air conditioning; Hudson hosiery mills. C. M. Bowden. il Textile World 96:116-17 My '46
Packaged air conditioning unit holds uniform temperature for master gages. E. Rasmussen. il diags Heating-Piping 17:524-6 O-N '45
Reducing heat loads in industrial air conditioning; manufacture of vacuum tubes, RCA Victor division of Radio corporation of America. L. R. St Onge. il diags Refrig Eng 51:35-8; Discussion. 38+ Ja '46
Watch workers' clothing if operations must be dust-free. Am Mach 90:119 O 24 '46

AIR conditioning equipment
Air conditioning machine. il diag Machine Design 18:150-1 Ag '46
Air conditioning; what it is and what it does. G. A. Van Brunt. il diags Factory Management 104:113-120 Ag '46
Aluminum ducts in model home. il plans diag Sheet Metal Worker 37:56+ My '46
Chemical removal of scales, sludges and oxides. G. F. Williams. bibliog il diags Heating-Piping 18:108-11 Ag '46
Design of air conditioning systems for low maintenance. M. G. Kershaw. il Refrig Eng 52:315-16+ O '46
Diffusion defeats drafts. L. R. Phillips. il diag Sci Am 175:27-9 Jl '46
Eliminating drafts with air outlets. il Sheet Metal Worker 37:118+ Ja '46
Heating, ventilating, and air conditioning equipment reviewed by Factory during past 10 months. il Factory Management 104:162+ Jl '46
Hot or cold air for foods in transit; air conditioning unit on trailer with reversible refrigeration. il diags Food Ind 18:28-9 Ja '46
Man-made weather for metalworking; with cost data. E. J. Tangerman. il maps diags Am Mach 90:117-32 O 10 '46
Progress, 1926-1946; heating; air conditioning; automatic controls and equipment. il diag Am Bld 68:122-6 O '46

See also
Cooling equipment
Dehumidifiers
Gas in air conditioning
Heat pump

Control

Volume control and its place in better air conditioning. V. M. Lathers. diags Dom Eng 167:162-4 Ap '46

AIR conditioning equipment—*Continued*

Fires and fire protection

New York city permits use of Freons 21, 22 and 113. Heating-Piping 18:96 S '46

Maintenance and repair

How to cut air conditioning costs. M. G. Kershaw. il Heating-Piping 18:78-82 O '46

Operations of a service company; Airaconda air conditioning co. il Sheet Metal Worker 37:35-6+ Je '46

Noise

Effect of branch take-off design on noise in ventilating duct systems. O. Imalis and others. plan diags Heating-Piping 18: 115-18 Ap '46

Experimental investigation of the effect of change in atmospheric conditions and noise upon performance; investigation on desirability of air conditioning naval vessels. M. S. Viteles and K. R. Smith. Heating-Piping 18:107-12 Mr '46

Sidelights on sound isolation in air conditioning. il diags Sheet Metal Worker 37:38-40 Mr '46

Testing

Laboratory for the testing of refrigeration and air conditioning units. R. C. Cross and J. S. Hansen. il diag Refrig Eng 52:122-4+ Ag '46

Water requirements

Conservation of municipal water supplies in air-conditioning systems. N. C. Ebaugh. il diags Am Water Works Assn J 38:206-14 F '46

Drainage disposal from air conditioning systems. T. W. Reynolds. diags Heat & Ven 43:71-2 Mr '46

AIR conditioning industries

Air conditioning prepares for rapid expansion. D. W. Russell. Ind Marketing 31:51-2+ Je '46

Declaration of principles adopted at meeting of Sheet metal contractors national association. Sheet Metal Worker 37:64+ Je '46

Indoor climate institute annual meeting, Detroit. Dom Eng 166:155+ N '45

Indoor climate institute, special meeting, Detroit, Aug. 15-16. Dom Eng 168:138+ S '46

Jobber setup gives Trane access to huge neglected market; residence building, smaller construction and repair jobs. il Sales Management 57:62+ O 1 '46

Surveys air conditioning industry; abstract. S. M. Ahmed. Heating-Piping 17:554 O-N '45

Theatre air conditioning is vast potential market. J. H. Toler. il plans Dom Eng 167: 138-42 Mr '46

Advertising

Marketing air-conditioning equipment; survey made for Anemostat corporation. J. F. Brinley. il Ind Marketing 30:44-5+ N '45

Packaged promotion to a technical audience; regional meetings, direct mail, business paper advertising used by Airtopia. il Ptr Ink 215:45 Ap 19 '46

Directories

Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. Sheet Metal Worker 37:173-90 Ja '46

1946 directory of heating, piping, and air conditioning equipment for industrial, commercial, institutional and public buildings; classified by products, trade names and manufacturers' addresses. Heating-Piping 18:265-366 Ja '46

Law

Recent court decisions of interest to air conditioning engineers. L. T. Parker. Heat & Ven 43:76-8 Je '46

Securities

Is air conditioning ready to make money? with comparative positions of manufacturers. il Mag of Wall St 78:396-7+ Jl 6 '46

India

Comfort problem in northern India. W. C. Thoburn. il map diags Heating-Piping 18: 120-5 S '46

Southern states

Development of South seen as southern industry responds to use of air conditioning. W. B. Henderson. Heat & Ven 43:110+ O '46

AIR conditions

Conversion of measurements of power output of Diesel engines to standard atmospheric conditions. M. A. Elliott. bibliog diags A S M E Trans 68:525-39 Jl '46

Effect of inert atmospheres on fatigue tests. H. J. Gough and D. G. Sopwith. Engineering 162:197 Ag 30 '46

Fire weather records and forecasts; abstract. I. C. McQueen. il Pulp & Pa of Can 47:99-100 Jl '46

See also

Air conditioning
Air pollution
Humidity
Ventilation

AIR diffusers

Airports, a vast new market for draftless air conditioning. G. R. Wallen. il Sheet Metal Worker 37:68+ O '46

Diffusion defeats drafts. L. R. Phillips. il diag Sci Am 175:27-9 Jl '46

Draftless air-conditioning in airport buildings. L. R. Phillips. il Aero Digest 53:55-6 Ag '46

Eliminating drafts with air outlets. il Sheet Metal Worker 37:118+ Ja '46

Experiences with ceiling distributors. il Sheet Metal Worker 36:70+ D '45

If you have been wondering about the word Anemostat. Mass Transportation 42:412 S '46

AIR dispatch, inc. See Forwarding companies (air freight)

AIR ejectors

Condenser and steam-jet air ejector. P. Freneau. il diag Power 90:85-8+ F '46

How to use metering characteristics of steam jet ejectors. P. Freneau. diag Chem & Met Eng 53.104-7 Je '46

AIR engines

Air engines; abstract. H. Rinia and F. K. Du Pré. diags Mech Eng 68:899-900 O '46

Noise

Note on the silencing of air-stirring motors. W. H. Eberhardt. Science 103:429-30 Ap 5 '46

AIR entrainment. See Concrete—Air entrainment

AIR express service

Air delivery can boost profits; Scott aviation corp. sales policy. A. S. Brown. il Aero Digest 52:59 Je '46

Air express cut followed by revision of Airfreight. il Air Transport 4:93 Ja '46

Contact! speeds up industrial distribution and air cargo transportation. il Ind Marketing 31:48-9+ My '46

Cuba's avocado output; air shipments loom large. P. M. Davenport. il For Comm W 25: 5-6+ N 2 '46

Flowers by air in eye appeal packages. il Mod Packaging 19:100-3 Ja '46

Meat moves by air over Bolivia's peaks. C. S. Macaulay. il map For Comm W 23:10-11+ My 4 '46

Miami-based line serves South America; nonscheduled air express airline, Skyways international trading transport co. Aviation N 4:28 Ja 7 '46

More news by air; publications trying out faster distribution methods. Bsns W p86 F 16 '46

New peaks hit by international air express. For Comm W 22:26 F 16 '46

Special delivery; messenger service on air express shipments. Bsns W p32+ Je 29 '46

See also

Airlines—Freight service
Airplanes, Freight

AIR filters

Clean air reduces product rejects; dial painting, Weston electrical instrument corp. C. D. Goodsell. diag Factory Management 104: 143-4 F '46

Cleaning Diesel engine filters. il diags Ry Mech Eng 120:139-41 Mr '46

Electro-cell air filter. il Blast F & Steel Pl 34:622 My '46

AIR filters—*Continued*
Electronic air cleaning. W. L. Gabbert. il diags Nat Safety N 54:96-7+ O '46
Electronic air filter. il Ry Mech Eng 120:373 Jl '46
Electronic air-filter; Electro-Matic filter used at station WSM. B. F. Taylor. il Radio N 35:52-3+ My '46
Electronic air filtration. H. J. Noles. il diag Paper Ind 27:1025-7 O '45
Filters keep dust out of exciter commutators. A. W. Francis. il Elec World 124:144 D 8 '45
Visco self-cleaning air filter. diag Engineer 182:378 O 25 '46

AIR flow
Air duct design for industrial ventilating systems. C. C. Hermann. diags Chem & Met Eng 53:118-21 Mr '46
Air flow separation at high speed. B. V. Korvin-Kroukovsky. bibliog Franklin Inst J 240:477-85 D '45
Air flow through small orifices; chart. B. Maddock. Power Pl Eng 49:128 D '45
Air-gas ratio control applied to non-atmospheric-pressure furnaces. H. C. McRae. diags A S M E Trans 68:385-90 My '46
Breathers, means of cooling machines; moisture problems in outdoor machinery. A. Raines and J. H. Rosenbloom. il diag Machine Design 18:75-7+ O '46
Calculation of flow of air and diatomic gases. C. W. Smith. bibliog J Aeronautical Sci 13:309-15 Je '46
Design of exhaust systems; plotting air currents approaching an air intake. F. H. Stebbins. diags Sheet Metal Worker 37:47-8+ Ag; 46-8 S '46
Especially developed for gas turbines, airflow chart has many uses; data sheet. W. M. Rohsenow. Power 90:203 Mr '46
Flow coefficients of monosleeve valves. C. D. Waldron. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:227-39 '42
For good operation, remember air is a fuel; importance of volume of air flow to furnaces. E. J. Davis. Heating-Piping 17:627 D '45
Gauss's formula in chemical engineering calculations. A. E. Kroll. bibliog Chem Eng 53: 102-4 S '46
Heat transfer from a cylindrical surface to air in parallel flow with and without unheated starting sections. M. Jakob and W. M. Dow. bibliog diags A S M E Trans 68: 123-34 F '46
How to test the performance of an exhaust ventilating system. J. M. Dalla Valle. diags Heat & Ven 43:70-3 Je '46
Induced air flow for engine cooling; investigations of Henri Coanda. diags Automotive & Aviation Ind 94:30-1+ F 15 '46
New direct reading meter for air flow measurements. L. Silverman and L. Epstein. il diags Heating-Piping 18:100-4 My '46
New friction chart for round ducts. D. K. Wright, jr. bibliog Heating-Piping 17:577-84; Discussion. 584 O-N '45
Respiratory air flow characteristics and their relation to certain lung conditions occurring in industry. L. Silverman. bibliog il J Ind Hygiene 28:183-96 S '46
Superheated air flows upward; abstract. T. A. Fleming. Safety Eng 92:31 Ag '46
Two-phase, two-component flow in the viscous region. R. C. Martinelli, J. A. Putnam and R. W. Lockhart. diag Am Inst Chem Eng Trans 42:681-702; Discussion. 702-5 Ag '46

See also
Aerodynamics
Anemometers
Gas flow

AIR freight. See Air carriers—Non-scheduled operations—Freight service; Airlines—Freight service

AIR injectors
Design of injectors for low-pressure air flow. G. E. McElroy. bibliog U S Bur Mines Tech Pa 678:1-50; pa 10c Supt. of doc. '45

AIR lifts
Air lift elevates ash in sluicing system. A. W. Groenewold and W. E. Kinnebrew. diag Elec World 124:61 D 22 '45
Pipe corrosion caused by air lift; sewage-treatment plant of the Greater Winnipeg sanitary district. L. R. Sowerby. il diag Water & Sewage 84:15-16 Ja '46
Sulphuric acid air-lift used as an air dryer. W. Cowen and J. A. Storrow. diags Soc Chem Ind J 64:334-5 D '45

AIR lines. See Airlines

AIR mail service
Air mail growth seen in new rates. il Aviation N 6:37+ O 7 '46
Airlines study CAB overseas mail rate. Aviation N 6:29 Jl 29 '46
Airmail meeting; Post office department, CAB and airline officials confer in Washington. M. Mickel. Aviation N 5:34 Ja 14 '46
All first-class mail by air threshed out in Washington. Air Transport 4:87 F '46
Army 'copters Los Angeles mail test. map Aviation N 5:28 Je 24; 28 Jl 15; 36 Ag 5 '46
By rail or air? post office would speed both mail services. Bsns W p24+ My 4 '46
Expect CAB ruling on mail pay will give 25 cent rate to feeders. Aviation N 6:34+ Jl 22 '46
Fairchild C-82 Packet modification seen as possible cargo mailplane. S. Hershey. il Aviation N 5:7-8 Ap 1 '46
Feeder liners; this time for mail. il Bsns W p20 Jl 20 '46
First flying mailcar. il Aero Digest 52:42-3+ My '46
Future of air mail transportation; abstract. G. Sullivan. Ry Age 120:651+ Mr 23 '46
Highway post office and airmail. H. K. Gilbert, jr. il plan Air Transport 4:33-6 Je '46
Newer transports might fly long haul first-class mail. il Air Transport 4:80 My '46
Overseas mail rates set by the Board. CAA J 7:105 Ag 15 '46
Planning body would foster air transport. Ry Age 120:877 Ap 27 '46
Post office declares helicopter practical for transporting mail. CAA J 7:115 S 15 '46
Post office department launches comprehensive study of airmail. M. Mickel. Aviation N 5:27 Mr 25 '46
Post office interest welcomed by CAB. M. Mickel. Aviation N 5:8-9 Ap 29 '46
Post office pushes action on airmail. Aviation N 5:34 My 6 '46
39 cent mail rate is asked by Empire. Aviation N 6:29 S 9 '46
U.S. cuts world airmail rates; map. Bsns W p42 O 26 '46

AIR navigation
Aircraft radar; Teleran, GCA, Lanac, Loran. V. Zeluff. il plan Sci Am 174:204-6 My '46
All-in-one mapigator simplifies that flight plot; instrument features use of aero charts in conjunction with built-in plotting devices. map Aviation 45:50+ Ap '46
Ball integrator averages sextant readings. R. F. Deimel and W. A. Black. il diag Machine Design 18:116-20 Mr '46
ETA—minus E; flight control plan, Naval air transport service. S. Bangs. il Air Transport 4:29-34 F '46
Evaluation of hyperbolic radio avigation. Aviation 45:51+ Ag '46
Finding the navigational stars (cont). B. C. Kenny. il Aero Digest 51:62+ D 15 '45
Globe computer, new avigation aid. R. A. Bleier. il Aero Digest 52:87+ Ja '46
Navigating by altimeter. H. F. Langdon. diags Air Transport 4:53-4+ My; 47+ Jl '46
Navy flight tests pressure navigation; Lockheed Neptune will fly from Perth to U.S. Aviation N 6:9 S 30 '46
Standard computers aid the avigator. L. LeKashman. il Aero Digest 51:56-7+ N 15 '45
Teleran proposal; system of navigation and traffic control, utilizing existing television and radar. P. J. Herbst and others. plan diags Electronics 19:124-7 F '46
Ultrasonic trainer circuits for teaching use of airborne radar for bombing or navigation. F. J. Larsen. il diags Electronics 19:126-9 Je '46

AIR navigation—*Continued*
Use of the bubble sextant. E. F. Flint. map Aero Digest 52:48-50+ Ap '46

See also
Aeronautic instruments
Loran system
Radio aids to aviation

Charts

Roller-mounted maps expedite position finding. il Aviation 45:74 Jl '46

AIR pipes
Air handling work for industry; manufacture of drying and ventilating equipment; Universal sheet metal corp. il Sheet Metal Worker 37:50+ Mr '46
Aluminum ducts in model home. il plans diag Sheet Metal Worker 37:56+ My '46
Effect of branch take-off design on noise in ventilating duct systems. O. Imalis and others. plan diags Heating-Piping 18:115-18 Ap '46
Heat gains and losses from air ducts; reference data. C. H. Kilpatrick. charts Heat & Ven 43:90a-90b F '46
Patterns for several T connections. O. W. Kothe. diags Sheet Metal Worker 37:82-3 Ag '46
Rectangular ducts and fittings (cont). O. W. Kothe. diags Sheet Metal Worker 36:58+ N; 53-4 D '45; 37:146-7 Ja '46
Splitting up a ventilation problem. P. R. Jordan. diags Sheet Metal Worker 37:122+ Ja '46
Ventilation of typical Liberty ships; work done by Consolidated sheet metal works. plan diags Sheet Metal Worker 36:84+ N '45

Tables, calculations, etc.

Air duct design for industrial ventilating systems. C. C. Hermann. diags Chem & Met Eng 53:118-21 Mr '46
Duct sizing with partial static regain; with data sheet. R. H. Anderegg and F. W. Hutchinson. il diags Heating-Piping 18:97-100 Ag '46
New friction chart for round ducts. D. K. Wright, jr. bibliog Heating-Piping 17:577-84; Discussion. 584 O-N '45

AIR pollution
Absorption of phenol vapors by plants. E. G. Beinhart. Science 103:207-8 F 15 '46
Air pollution, Leicester survey of the D.S.I.R. Chem Age (Lond) 53:599 D 22 '45
Atmospheric concentrations of fluorides in aluminum reduction plants. C. D. Yaffe. il J Ind Hygiene 28:29-31 Mr '46
Atmospheric pollution in Leicester. N. M. Potter. Chem & Ind p218-20 Je 8 '46
Atmospheric pollution; results of investigation. Elec R (Lond) 137:949 D 28 '45
Atmospheric sewage; air pollution problem; abstract. C. A. Mills. Heating-Piping 18: 85 Mr '46
Control of the lead poisoning hazard in can manufacturing; bodymaking machine (side-seamer). M. Eisenbud and J. W. McEwan. il diags J Ind Hygiene 27:284-8 D '45
Fighting dangerous fumes; Cessna aircraft company, Wichita, Kan. il Factory Management 104:84-5 Ap '46
β-Glycoside formation in plants from absorbed chemicals. L. P. Miller. Science 103:458 Ap 12 '46
Guides for industrial ventilation. A. D. Brandt. il Heat & Ven 43:67-70 Mr '46
How faulty operating methods increase pollution of city air. F. A. Chambers. Heating-Piping 18:109-10 Ja '46
L'intérêt des analyses toxicologiques de l'atmosphère dans les industries insalubres. J. Auffret and H. Bour. Chimie & Ind 55:219-23 Mr '46
Lead intoxication by inhalation. L. H. Cotter. J Ind Hygiene 28:44-6 Mr '46
Maximum allowable concentrations. Ind Med 14:931-2 N '45
Maximum allowable concentrations of industrial atmosphere contaminants. W. A. Cook. Ind Med 14:936-46 N '45
Nitrogen dioxide; rate of oxidation of nitric oxide and its bearing on the nitrogen dioxide content of electric arc fumes. H. B. Elkins. bibliog J Ind Hygiene 28:37-9 Mr '46
Observations on the effects of gamma-valerolactone upon experimental animals. W. B. Deichmann and others. il diag J Ind Hygiene 27:263-8 N '45
Observations on the use of a Diesel freight locomotive through a railway tunnel. L. B. Berger and H. L. McGuire. 5 pls U S Bur Mines Rep of Invest 3887:1-20 '46
Plant health surveys. W. C. L. Hemeon. Safety Eng 90:71-3 D '45
Save your breath; industrial poisons absorbed by respiration. L. Greenburg and S. Moskowitz. il Safety Eng 92:14-16+ Ag; 42-4+ S '46
Suspended particulate matter in New York City air; air pollution survey. B. Feiner and J. Siegel. Heating-Piping 17:557-8 O-N '45
Testimony in cement dust suit against Washington-Idaho lime products co. Rock Prod 49:178-9+ Ag '46
Toxicology of 1,2-dichloroethane (ethylene dichloride); effects of daily inhalations. L. A. Heppel and others. bibliog J Ind Hygiene 28:113-20 Jl '46
Ventilation requirements for industrial solvents. W. C. L. Hemeon. il diags Heat & Ven 42:95-8 D '45; 43:69-73 Ja; 82-6 Mr; 79-81 Ap '46
What the ventilating engineer should know about chlorinated naphthalene and diphenyl. E. C. Riley. Heat & Ven 42:77-8 N '45

See also
Dust
Fumes
Gases, Asphyxiating and poisonous
Respiratory apparatus
Smoke prevention

Terminology

New term and classification covering substances suspended in the air or dissolved by it. J. Bandeira de Mello. J Ind Hygiene 28:162-3 Jl '46

AIR power
Action on that air policy is the no. 1 must. E. E. Wilson. il Aviation 45:38-40 Ap '46
Badge of airpower. C. A. Spaatz. Aero Digest 52:41 F '46
Relationship of military air power to civil aviation; abstract. L. W. Pogue. CAA J 6:134 D 15 '45
Victory through air power. I. C. Eaker. Mech Eng 68:5-6+ Ja '46

AIR preheaters
Can breeching serve as air preheater? diags Power 89:852-3 D '45
Experimental determination of the factors governing the design of regenerators, with special reference to coke ovens. T. C. Finlayson and A. Taylor. Gas J (Lond) 247:22+ Ja 2 '46
Hot-blast cupola design. E. Longden. diags Iron Age 158:44-50 Ag 29 '46
Soot fires around air heaters. Marine Eng 51: 131-2 S '46

AIR products, inc.
Homemade oxygen. Fortune 34:172 O '46
Stock offered. Comm & Fin Chr 163:2573 My 13 '46

AIR pumps
Air for the fish; pumps of cast phenolic. il Mod Plastics 23:113 D '45

AIR purification
Air quality control with chlorophyll. il diags Sheet Metal Worker 37:60+ F '46
Air sterilization by triethylene glycol; abstract. F. R. Weaver. Chem Eng 53:262+ Ag '46
Circulation in sanitary ventilation by bactericidal irradiation of air. W. F. Wells. bibliog diags Franklin Inst J 240:379-95 N '45
Control of air-borne infection. Nat Safety N 53:50 F '46
Dehumidifying and air sterilization with triethylene glycol. diags Heat & Ven 43:78-80 Ja '46
Effectiveness of air disinfection. A. C. Stern. il Heat & Ven 43:95-7 Ag '46
Recovery of return air with activated carbon. il plans Sheet Metal Worker 36:56+ D '45
Simple vaporizing device for the attainment of bactericidal concentrations of glycol vapors in air. T. N. Harris and J. Stokes, jr. bibliog diag Science 104:423-5 N 1 '46

AIR purification—*Continued*
Sterile air was an absolute necessity; Avoset processed cream; California milk products co. il Elec West 95:91 N '45
Ultraviolet for air sanitation. A. R. Dennington. il Heat & Ven 43:57-8 Jl '46
Ultraviolet lamps as germ killers. il diags Sheet Metal Worker 37:64+ Ap '46
Ultraviolet protection for an entire school. il Elec West 95:89 N '45

See also
Air cleaners
Air cleaning
Air conditioning
Air filters
Ventilation

AIR raid shelters
London underground power station. il Engineer 181.111-13 F 1 '46; Abstracts. Engineering 161:92-3 Ja 25 '46; Elec R (Lond) 138:71 Ja 11 '46; Electrician 136:103-4 Ja 11 '46; Comp Air Mag 51:167 Je '46; Eng N 136:927 Je 13 '46

AIR raids
Air attack on the chemical Reich. Chem Age (Lond) 54:399-401 Ap 13 '46
Aircrew evaluation plan means more bomb hits; system of mathematical surety for judging A-bomb crews. W. H. Blanchard and S. Bangs. Aviation 45:44-6 O '46
British test bomb damage in destroying Heligoland structure. il Eng N 137:438 O 3 '46
Crossroads critique; test at Bikini; aviation's role. H. Powell. il diag Aviation 45:38-9+ Je '46
La destruction complète d'une exploitation maraîchère par les bombardements aériens dans la région d'Avignon. Génie Civil 123:88 Ap 1 '46
Destruction of enemy oil plants a lesson to be remembered in future strategy. H. H. Arnold. Nat Pet N 37:40 N 21 '45
Engineering defence work in London. T. P. Frank. il Engineering 160:381-2, 400, 408-12 N 9-16 '45; Same cond. Engineer 180:372-3+, 385-6 N 9-16 '45
Here is the Allied bombing record. il Aviation 44:106-7+ D '45
How German plants were knocked out by strategic bombs. R. P. Russell and H. D. Dale. il Chem & Met Eng 53:150-3 F '46
Impact of strategic air attack on the German rubber industry. E. W. Pittman and others. India Rubber World 113:647-52+ F '46
Radar for blind bombing. J. V. Holdam and others. il diags Electronics 19:138-43 My; 142-9 Je '46
Repair of bomb-damaged structures in France; use of non-contracting cement. diags Engineer 180:484-5 D 14 '45
Shows Allied bombings of Germany's steel plants not decisive. Iron Age 156:148+ N 22 '45
Some notable wartime oil fires. V. J. Wilmoth. 8pls Inst Pet J 32:1-9; Discussion. 10-17 Ja '46

See also
Electric plants (central stations)—Damage from air raids
World war, 1939-1945—Aerial operations

Protective measures

German methods of protecting petroleum stocks during war effective but costly; helped preserve much usable equipment. A. F. Holler. il Nat Pet N 38:30+ Mr 13 '46

AIR raids and building
Action of impulsive loads on elastic structures. J. B. Wilbur. diags Boston Soc C E J 33:163-73 Jl '46
Behavior of concrete structures under atomic bombing; destruction in Hiroshima and Nagasaki. E. H. Praeger. il Am Concrete Inst J 17:709-20 Je '46

AIR reduction company
Strikes cut net. Barron's 26:16 S 30 '46

AIR sampling
Apparatus for rapid sampling of large air volumes for industrial air analyses. L. Silverman and C. R. Williams. bibliog il J Ind Hygiene 28:21-5 Ja '46
Microbe trap; Duplex electrostatic air-sampler. diag Sci Am 175:126 S '46
Pollen in the air. A. C. Stern. il diag Heat & Ven 42:63-6 N '45
Sampling air for bacterial content; new mechanical designs and applications of electrostatic fields. M. Luckiesh and others. il diags Gen Elec R 49:8-17 Mr '46
Sampling and determination of methanol in air. G. W. Rogers. bibliog diags J Ind Hygiene 27:224-30 O '45

AIR transport association of America
Governmental affairs committee to be established. M. Mickel. Aviation N 5:28 F 25 '46
Vice-admiral Emory S. Land; new command. Bsns W p8 Ja 26 '46

AIR transport service. See United States—Air service, Navy—Transport service

AIR transportation, Institute of. See Institute of air transportation

AIR travel
Air transportation and world understanding. J. P. Van Zandt. Mech Eng 68:605-7 Jl '46
Air travel factors. A. Jaworski. Aero Digest 53:42-4 O '46
Air travel is gaining on Pullman volume. Aviation N 6:33 N 4 '46
Air travel makes longer week ends; vacation traffic promotion by Colonial airlines. E. Forbes. il map Air Transport 4:26-31 Ap '46
Committee seeks simplification of passport, customs red tape. Aviation N 5:37 Ap 15 '46
Flies salesmen and buyers free within 150-mile radius; CAVU Clothes builds goodwill. il Ptr Ink 215:105-6 My 17 '46
Flying tastes. Bsns W p98+ Ap 13 '46
Government air travel and the taxpayer; comparative costs of rail, sea and air travel for naval officers. R. H. Wood. Aviation N 5:34 Je 24 '46
Greater traffic still depends on broad public education; nation-wide survey. Air Transport 4:67-8 Ag '46
Lack of foresight laid to AAF, airlines; failure to meet soaring post-war travel demands. B. Stubblefield. Aviation N 4:39 Ja 7 '46
Night flight to Jacksonville; NAL's flight 53 from Newark. Air Transport 4:51-2 S '46
Riders of the airlines; a classification of passengers. W. L. Grossman. Air Transport 3.72+ D '45
Too many airplanes? A. P. Adams. Air Transport 4:28-30 Jl '46
2,000 planes due to join in tour. Aviation N 4:18 D 24 '45
Vacation air tours are offered for $785. Aviation N 5:24 Je 24 '46
What's wrong with the airlines. il Fortune 34: 73-9+ Ag '46; Discussion. J. L. McDougall. 34:36+ O '46

See also
Motor bus lines—Air-line connections

AIR turbines
Hot-air turbine power plant. J. Ackeret and C. Keller. il diags Engineering 161:1-4, 12, 25-6, 36, 49-53 Ja 4-18 '46; Abstract. Mech Eng 68:362-3 Ap '46
Refrigeration for air conditioning pressurized transport aircraft. B. L. Messinger. il diags S A E J 54:104-6+ Mr '46; Same cond. Refrig Eng 51:24-5+ Ja '46; Abstracts. Automotive & Aviation Ind 94:33-4 Ja 1 '46; Heat & Ven 43:67-8 Ja '46
Ring-drilling machine employs high-speed air turbine. A. G. Means, jr. il diag Am Mach 90:141 Je 6 '46
La turbine à air chaud à circulation en circuit fermé; comparaison avec les turbines à vapeur et les turbines à gaz. R. Papault. il diags Génie Civil 123:81-4 Ap 1 '46

AIRBORNE Instruments laboratory
Airborne instruments laboratory. R. F. Simons. R Sci Instr 17:317-19 Ag '46

AIRCRAFT

See also
Airplanes
Airships
Autogiros
Flying boats
Gliders
Helicopters
Seaplanes

Patents

Trend of invention. Published in monthly numbers of Aero digest

AIRCRAFT accidents. See Aviation—Accidents

AIRCRAFT gas turbines. See Gas turbines, Aircraft

AIRCRAFT guns. See Guns, Aircraft

AIRCRAFT industries association
Annual meeting, Los Angeles. Aviation N 4:7 D 17 '45
Annual report. Aviation N 5:7 F 25 '46

AIRCRAFT steel. See Steel, Aircraft

AIRFOILS
Airfoil development and structure within the cambered surface. R. A. Liming. il diags Aero Digest 51:66-8+ N 1; 64-6+ D 1 '45; 52:56-8+ Ja; 47-9+ F; 76-9 Mr; 76-8+ Ap; 78-9+ My; 76-9+ Je; 53:107-9 Jl; 72-5+ Ag '46

Airfoil theory for rotary wing aircraft. R. Isaacs. J Aeronautical Sci 13:218-20 Ap '46

Determination of control-surface characteristics from NACA plain-flap and tab data. M. B. Ames, jr. and R. I. Sears. bibliog diags U S Nat Advisory Com for Aeronautics 1941:295-311 '42

Graphical method of determining pressure distribution in two-dimensional flow. R. T. Jones and D. Cohen. bibliog diags U S Nat Advisory Com for Aeronautics 1941:313-19 '42

Maximum lift as affected by variations of Mach and Reynolds numbers; abstract. J. R. Spreiter and P. J. Steffen. Automotive & Aviation Ind 94:36 My 1 '46

Systematic wing-section development; abstract. G. S. Schairer. il Aeronautical Eng R 5:7-8 Ap '46

Tests of the NACA 0025 and 0035 airfoils in the full-scale wind tunnel. W. K. Bullivant. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:91-107 '42

See also
Airplane wings

AIRLINE foods corporation
Food merger. Bsns W p88 Mr 30 '46
Securities offered. Comm & Fin Chr 163: 1413 Mr 18 '46

AIR line pilots association
ALPA reported forced to deal with airline negotiating group. B. Stubblefield. Aviation N 5:36 F 18 '46

AIRLINES
Air transport progress; passenger comfort, cargo handling, navigation and traffic control. A. Klemin. il Sci Am 174:116-18 Mr '46

Aviation fuels; what the airlines want and expect. G. K. Brower. S A E J 54:125-32+ Mr '46

Domestic scheduled airline equipment; table of transport planes in service, under conversion and on order. Aero Digest 53:37 Ag '46

General use of radar by airlines considered still 2-3 years away. M. Mickel. Aviation N 5:27 Mr 18 '46

Independent operators swarm to set up new uncertificated lines. Aviation N 5:17-18 Mr 4 '46

Plane shuttle service begun across Puget Sound; Bremerton-Seattle air lines. Aviation N 6:14 Jl 15 '46

Status of civil aviation in 1946. H. Self. 3pls map diags Roy Aeronautical Soc J 50:719-86 O '46

See also
Aeronautics, Commercial
Air carriers—Non-scheduled operations
Air express service
Air mail service
Airports
Airways
Motor bus lines—Airline connections

also Chicago and southern air lines, inc.; Northwest airlines, inc.; Pan American-Grace airways; Transcontinental and western air, inc.

Accidents

Worst commercial airline crash; Overseas Airline liability on 31 passengers is under Warsaw convention. Nat Underw 50:25 O 10 '46

Accounting

Airlines accounting. C. A. Zarini. N A C A Bul 27:507-14 F 1 '46

Advertising

Customers hand-picked by new distribution industry; air-freight salesmen develop prospect list. il Ptr Ink 217:54+ O 25 '46

Quick change of package proves beneficial, provides copy theme; Chicago & southern air lines restyled everything the public sees. V. J. Dallaire. il Ptr Ink 216:44-6 Jl 12 '46

Claims

Fight at Cincinnati over air law liability question; American bar association Insurance section meeting. G. W. Orr and others. Nat Underw 49:23+ D 20 '45

Commuter service

15 leading industrialists organize New York area shuttle air service. Aviation N 5:35 F 4 '46

Consolidation

Airline mergers; Pennsylvania-Central and Northeast combine. map Bsns W p18 N 17 '45

American mid-continent merger is rejected by CAB as unsound. Aviation N 6:35 O 7 '46

CAB opens hearings on AA-MCA merger. Aviation N 5:36 Ja 28 '46

Smaller lines attack PCA-NEA merger plan. Aviation N 5:39 My 13 '46

Emergency service

Co-ordinated air effort meets rail needs in 48 hour crisis; ATA, army, navy and non-scheduled carriers pool resources. B. Stubblefield. Aviation N 5:40+ Je 3 '46

Employees

Airline mobile training units. il Aero Digest 52:42-3 Ap '46

ALPA eyes American, Eastern as TWA strike drags on. B. Stubblefield. il Aviation N 6:9-10 N 4 '46

Air lines board rules on TWA pilot case. B. Stubblefield. Aviation N 6:28-9 Jl 15 '46

Bargaining between ALPA, airlines seems headed for showdown. B. Stubblefield. Aviation N 5:36 Ja 14 '46

Crew chief. B. Stubblefield. Air Transport 4:39-40 Jl '46

Development of an airline training program for flight personnel involving 4-engine equipment; abstract. W. B. Lester, jr. S A E J 53:sup26 N '45

Employment outlook in commercial aviation. A. F. Hinrichs. Aero Digest 52:24-5+ My '46

Indoctrination period for operation of new type airline aircraft; abstract. R. C. Stunkel. S A E J 53:sup26 N '45

More pay for pilots raises question of other crew members. Air Transport 4:83 F '46

Pilot-pay claims detailed by union. Aviation N 5:43 Je 3 '46

Pilot-pay hearings continued to July 7. Aviation N 5:38 Je 10 '46

Recognition of airline committee by ALPA held of no importance in pilot wage negotiations. B. Stubblefield. Aviation N 5:37 Ja 28 '46

TWA opens Flight engineers' school. il Aero Digest 51:72 N 15 '45

TWA pilot strike forecasts wage pattern for airlines. B. Stubblefield. Aviation N 6:7 O 28 '46

TWA starts training Air France crewmen. Aviation N 5:44 F 4 '46

Unionization in air transport; comparison with railroad unions. T. W. Kheel and D. B. Straus. Air Transport 4:29-33 My '46

Equipment and supplies

Airlines recommend standardized designs of equipment, to guide manufacturer; recommendations by ATA committee. il Air Transport 4:43-5 Je '46

Welding in airline practice. J. R. Morrill. il Aero Digest 53:55 S '46

Fares

Air fares set. Bsns W p18-19 Mr 16 '46

Air rate row; Pan American boosts fare to London after British protest reduction. Bsns W p21-2 D 8 '45

CAB approves North Atlantic fare reductions as initial cut. M. Mickel. Aviation N 6:28 S 30 '46

AIRLINES—Fares—*Continued*
CAB members are highly critical of North Atlantic rate agreement. C. L. Adams. Aviation N 5:34-5 Ap 22 '46
CAB North Atlantic rate veto poses problem for carriers. C. L. Adams. Aviation N 5:27 My 20 '46
Fare cut necessary to boost air travel; Commerce department report. Ry Age 121:737+ N 2 '46
Government air travel and the taxpayer; comparative costs of rail, sea and air travel for naval officers. R. H. Wood. Aviation N 5:34 Je 24 '46
IATA sets new Atlantic fares pending operating cost study. Air Transport 4:86 Ap '46
International air fares still unsettled question. Air Transport 4:89-90 Ja '46
New trans-Atlantic fares drafted as stopgap pending cost study. Aviation N 5:31-2 Mr 11 '46
Predicted obstacles to expansion of world air transport arise; Pan American's joust with Britain over rates. Aviation N 4:7-8 D 10 '45

Feeder airlines

Airlines decision; CAB authorizes new West coast routes. map Bsns W p31-2+ Je 8 '46
Battle of the feeders. K. Kahle. Air Transport 4:29-32 Je '46
Chicago-Seattle case probes feeder lines. Aviation N 5:39 Je 10 '46
Expect CAB ruling on mail pay will give 25 cent rate to feeders. Aviation N 6:34+ Jl 22 '46
Farmer will not be earthbound. F. Bailey. Aero Digest 51:35+ N 15 '45
Feeder liners; growth of small airlines. il Bsns W p19-21 Jl 13 '46
Feeder lines O.K; CAB approves new routes. Bsns W p32+ Ap 27 '46
Flight requirements for the feeder airline; abstract. B. R. Otto. S A E J 54:sup24 Mr '46
Helicopters may link Chicago suburbs. map Bsns W p46 Jl 27 '46
New Empire routes will test feederlines. Aviation N 5:37 Je 10 '46
New England decision of CAB authorizes seventh new feeder. map Aviation N 6: 30+ Jl 1 '46
New local-feeder airlines to serve Rocky Mountain and Florida areas. CAA J 7:54 My 15 '46
New York state feeder line will develop own airport; Robinson airlines. il Aviation N 4:13 D 31 '45
Pacific feederlines extended by CAB veto of big carriers. Aviation N 5:36+ Je 3 '46
Rocky Mountain, Florida cases assure national feeder system. C. L. Adams. Aviation N 5:7-8 Ap 8 '46
Vast feeder network is seen as result of CAB decisions. C. L. Adams. Aviation N 5:28 Je 17 '46

Finance

Airline earnings peak six months off? R. L. Hoadley. Aviation 44:195+ D '45
Airline expectations waver. Bsns W p66+ O 26 '46
Airline losses cushioned by U.S. income tax credits; first quarter statements. Aviation N 5:29 Je 3 '46
Airlines face costly adjustments in 1946. R. P. Cooke. Barron's 25:9+ D 31 '45
Airlines facing prospects of narrowing profits for 1946. Aviation N 6:18 S 2 '46
Airlines over reconversion hump, but face new hurdles. R. P. Cooke. Barron's 26:15 O 7 '46
Airlines raise sights on capital requirements for next five years. Aviation N 6:25 Jl 1 '46
Airlines whet Street's appetite. Bsns W p68+ D 15 '45
Airlines will need $500 million new capital by 1950. W. D. Gay. Barron's 25:9+ D 3 '45
Annual airline reports show Eastern led big four last year. Aviation N 5:26 Ap 29 '46
Braniff's break. il map Bsns W p40+ Je 15 '46
Caution lights on airline earnings. R. L. Hoadley. Aviation 45:43+ My '46
How an airline's money comes and goes; charts. Air Transport 4:27 My '46
Improvement of equity positions shown by 1945 airlines reports. Aviation N 5:27 My 6 '46
Over-optimism on airlines? W. C. Hanson. il Mag of Wall St 78:400-1+ Jl 6 '46
Subsidies hit; criticism of public expenditures for construction and maintenance of airports. Bsns W p44+ O 5 '46
TWA loan definitely establishes financial maturity of airlines. Aviation N 4:32 D 17 '45
What price airlines? F. K. Sanders, jr. Air Transport 4:51-2 Jl '46

See also
Airlines—Securities

Food service

Flight meals; pros and cons of feeding passengers aloft. C. W. Archbold. il map Air Transport 4:32-5 Ap '46
Frozen cooked meals. Electrician 136:1304 My 17 '46

Freight service

Air cargo problems; the carriers' viewpoint. E. F. Johnson. il diag Mod Packaging 19: 120-4 Ap '46
Air potentials in the N.Y. women's apparel industry; study directed by L. H. Brittin; reviewed by R. H. Rush. Air Transport 4:37 N '46
Air transport a must for Central America. il Air Transport 4:35-6 N '46
Air transport of perishables. il Aero Digest 52:76-7+ Ja '46
Airlines form shippers research unit to study safe transport regulations. Weekly Underw 153:1486 D 22 '45
Baby chicks fly the Pacific. For Comm W 25:45 O 19 '46
Biggest contract cargo line flying to Tokyo and Shanghai; Pacific overseas airlines. Aviation N 5:33 Je 3 '46
Boston tests inland shipments of fresh fish by ice box plane. il Sales Management 55: 129 D 1 '45
Cargo by air. il Sci Am 173:281-3 N '45
Clams by plane; regular deliveries from east to west coasts started. Bsns W p32+ My 11 '46
Continental air lines serves Sears, Roebuck. il Aviation N 6:40 Jl 22 '46
Customers hand-picked by new distribution industry; air-freight salesmen develop prospect list. il Ptr Ink 217:54+ O 25 '46
Domestic air freight load triples as air lines face stiff competition. map Aviation N 6:27 Ag 12 '46
Exemption as common carriers asked for pioneer cargo lines. Aviation N 4:35-6 D 17 '45
Flying machines; air delivery of bag-making equipment. il Mod Packaging 19:116-17+ Jl '46
Freight by air; how much? how soon? W. F Butler. il Air Transport 4:22-4 O '46
Freight by air; unregulated, hotly competitive. il Fortune 33:134-9+ My '46
Hoosier air freight maps stock issue. Aviation N 5:28 Ap 1 '46
How the air age is changing marketing; some straws in the wind. il Sales Management 56:70+ Je 1 '46
How to build volume air freight. R. H. Rush. il Air Transport 4:26-30 Mr '46
Major airlines gird for battle with nonscheds over cargo. Aviation N 5:8-9 Je 10 '46
Mechanized air cargo handling. F. M. Reck. il diags Aero Digest 53:55-6+ Jl '46
Miami now leading air gateway as Latin-American trade booms. C. L. Adams. il Aviation N 6:13 S 30 '46
New lines planning to meet competition. Aviation N 5:19 My 27 '46
Non-scheduled cargo companies seen attracting venture capital. Aviation N 4:34 D 10 '45
NWA signs cargo agreement with Railway express agency. Aviation N 5:33-4 My 6 '46
Pacific overseas airlines cargo backlog to 100,000 tons. Aviation N 5:33 Je 10 '46
PCA moves to cargo field with C-54 fleet. il Aviation N 5:32 Je 24 '46
Produce by air; pre-packaged and pre-cooled. il Mod Packaging 19:96-100+ N '45
Slick Airways of Texas brings oil millions to cargo work. Aviation N 5:25 Ap 8 '46

AIRLINES—Freight service—*Continued*
UAL broadens air freight service. Aviation N 4:11 Ja 7 '46

See also
Air carriers—Non-scheduled operations—Freight carriers
Air express service
Airplanes, Freight
Containers (for air transport)
Institute of air transportation

Parachute delivery
Is paradropping the way to supply isolated areas? Operation Musk Ox seems to answer yes. For Comm W 23:21 Je 22 '46

Rates
See Airlines—Rates

History
Commemorate airline inaugural, Grand Rapids, Mich. il Aero Digest 53:41+ O '46

Insurance requirements
Aviation insurance; airlines. D. M. Stewart. Weekly Underw 153:584-5, 1155-7 S 15, N 17 '45
Independent air cargo carriers need coverage. W. H. Rodda. Nat Underw 50:15 Je 27 '46

Maintenance and repair
Crew chief. B. Stubblefield. Air Transport 4: 39-40 Jl '46
Design for profit; reducing ground time and facilitating maintenance. H. G. Lesley. il Air Transport 3:50+ D '45; 4:49-50+ F; 44+ Mr '46
Inspection every 30 hours; Colonial's preventive maintenance. H. E. Dubuy. diags Air Transport 4:37-8 My '46
Line maintenance. L. Harris. il Air Transport 4:43-4; Discussion. 44-5 Ag '46
Maintenance control for big transports. il Air Transport 4:39-40 My '46
Maintenance meeting, Detroit, Feb. 26. M. H. Mickel. Air Transport 4:39-43 Ap '46
Overhaul and conversion, an old story to TACA. il Air Transport 4:47-8 N '46
Overhaul procedures. J. F. Nycum. il plan Air Transport 4:36-9 Ag '46
PCA leases Willow Run field as main maintenance base. Aviation N 5:36 Je 10 '46
Retraining is the answer as maintenance goes diverse; PAA's Atlantic div. A. G. Thomas and A. Merkin. il Aviation 44:112-14 D '45
Right bower for the mechanic; repair procedure developed by BNF directs all similar type repairs be made to identical specifications. B. J. Cumnock. diags Air Transport 4:42-4 Ja '46
Standby planes; factory overhaul system assures constant aircraft fleet. Bsns W p20-1 D 1 '45
Trade tricks (cont). il Air Transport 4:40-1 Ja; 42-4+ F; 39-42 Mr '46
Who's who in airline maintenance; work of Airline maintenance committee and Aviation. L. E. Neville. Air Transport 4:41-2 Ag '46

See also
Airlines—Shops
Airplanes—Maintenance and repair

Management
Air transport problems. O. E. Kirchner. il Air Transport 4:29-32+ Ag '46
Air travel makes longer week ends; vacation traffic promotion by Colonial airlines. E. Forbes. il map Air Transport 4:26-31 Ap '46
Braniff means business. O. Leiding. il maps Air Transport 4:22-8 F '46
Chicago & Southern comfort. G. Herrick. il map Air Transport 4:22-8 My '46
Cut luxury, seek mass market; terminal handling of passengers and baggage must be simplified; abstract. S. J. Solomon. Aviation N 5:44 Je 3 '46
From sand-dune hopping to big league transport; NAL's route of the Buccaneers. G. Herrick. il map Air Transport 4:24-30 S '46
Indestructible airline; Western air lines. S. Bangs. il Air Transport 4:24-8 Je '46
Operating an airline the hard way; TACA. G. Herrick. il map Air Transport 4:22-6 N '46
Organization chart for an international airline. Air Transport 4:37-9 Je '46
Out of a Pittsburgh pasture; story of Pennsylvania central airlines. G. Herrick. il map Air Transport 4:22-8 Ja '46
Ramp control; preventing delays in plane departures and arrivals; United air lines. R. Walton. il Air Transport 4:39-41 S '46
S.A.E. summer meeting; air transport session. S A E J 54:sup 21-2 Jl '46
Soldier beware; opportunities and pitfalls in the aviation industry. K. R. MacDonald. il Aviation 45:38-41+ Jl '46

See also
Airlines—Schedules

Military use
Airlines hurrying to carry out ODT set-aside of military space. M. Mickel. Aviation N 4:39 N 26 '45

Non-scheduled operations
See Air carriers—Non-scheduled operations

Non-stop flights
Nonstop transport service. W. J. Platt. diag Aero Digest 53:40-1+ S '46

Officials
Top airline executive salaries gained slightly, survey shows. Aviation N 6:26 S 9 '46

Pickup service
Air pickup, progress and prospects. H. R. Stringer. Aero Digest 51:36-7 N 15 '45
AAA pick-up passenger tests will start in June with D18-C. M. Mickel. Aviation N 5:32 My 13 '46
Board grants first pickup-passenger service to new West coast carriers. CAA J 7:74 Je 15 '46
Maintenance system mainsprings pick-up line's efficiency. E. E. Thorp. il plans Aviation 44:128-30 D '45
Will gliders close South America's transport gap? G. M. Galster. il Aviation 45:42-3 Jl '46

Public relations
New fleets for old; survey of passenger preferences precedes redesign of Chicago and Southern planes. il plan Air Transport 4:57-8+ My '46

Purchasing
How and what a major airline buys; breakdown of one year's purchase by United air lines. M. L. Van Slyck. il Air Transport 4:30-4 O '46
How United air lines buys $9,000,000 supplies annually. V. Taylor. il Ind Marketing 31:32-3+ O '46

Radio communication
CAA would hold advances in electronics for future use. B. Stubblefield. Aviation N 4:44-5 D 3 '45
Marconi radio-teletype. D. W. Bond. il Aero Digest 53:61+ O '46

Rates
Air express commodity rates accepted by more airlines. Air Transport 3:106 D '45
Air express cut followed by revision of Air-freight. il Air Transport 4:93 Ja '46
Air freight truce; rate war comes to end. Bsns W p34 My 4 '46
Air freight war. Bsns W p18 Ja 12 '46
Air rates cut. Bsns W p19-20 D 1 '45
Airlines may open rate-cut war on non-scheduled cargo lines. S. Bangs. Aviation N 5:31 My 13 '46
Contract air cargo rates are well under scheduled airlines. Air Transport 4:88 Ap '46
Five lines carry air freight at rates down to 20c. a ton mile. Air Transport 4:86 F '46
Major airlines file consolidated air freight tariff with CAB. M. Mickel. Aviation N 6:27 Jl 8 '46

See also
Airlines—Fares

Records
Maintenance control for big transports. il Air Transport 4:39-40 My '46

AIRLINES—*Continued*

Regulation

Board removes last wartime restrictions on airline route stops. CAA J 7:75 Je 15 '46

Safety measures

He never learns; Wing Ding, cartoon character promotes safety in TWA shops. Nat Safety N 52:42 N '45

Industrial safety turns a page at PAA; accident prevention manual. G. F. Tyler. il Air Transport 4:34-9 Ja '46

See also
Parachutes

Schedules

C&S halves time for Chicago-Houston. Aviation N 6:14 Jl 1 '46

Design for profit; reducing ground time and facilitating maintenance. H. G. Lesley. il Air Transport 3:50+ D '45

Relation of air-line operations to transport design. E. P. Hall. Aeronautical Eng R 4:7-11+ N '45

Securities

Airline dividends set record but most income is retained; summary for 1945. Aviation N 4:38 D 24 '45

Airline equities now selling at many times book values. Aviation N 4:18 Ja 7 '46

Airline expansion induces waves of stock offerings. Aviation N 5:27 Je 17 '46

Airline preferred stocks shuffled in significant trend. Aviation N 5:27 Je 10 '46

Airline shares heavily mauled in recent general selling wave. Aviation N 5:26 Mr 4 '46

Airline shares suffer sharpest setback in stock market drop. Aviation N 6:25 O 28 '46

Airline stocks continue to sell at up to seven times book values. Aviation N 6:22 Jl 15 '46

Air lines as investments. R. W. Babson. Comm & Fin Chr 163:372+ Ja 24 '46

Airline's share capitalization due to rival rail stock issues soon. Aviation N 5:28 Ap 8 '46

Appraisal of growth potential of air transport; with position of leading air line stocks. Mag of Wall St 77:586-7+ F 16 '46

Aviation specialty trusts show strong share appreciation in '45. Aviation N 5:14 F 25 '46

Colonial Airlines stock shows most sensational rise of 1945; other stocks. Aviation N 5:30 Ja 21 '46

IBA industrial securities committee concerned over control of aviation issues. Comm & Fin Chr 162:2726 D 6 '45

Investment services continue hopeful on airline share values. Aviation N 4:35 D 3 '45

Investment trusts see worthy future in aviation securities. R. L. Hoadley. Aviation 45:53+ Ap '46

Losing altitude. Bsns W p107 F 2 '46

New wave of airline financing is forecast after recent lull. Aviation N 6:21 Ag 26 '46

Official transactions in aviation shares detailed in SEC reports. Aviation N 5:26 Je 24 '46

Should air-line securities be regulated? W. D. Gay. Pub Util 36:760-5 D 6 '45

Stock splits of American, Eastern show officials' ownership position. Aviation N 6:18 Ag 5 '46

Service

C&S flight panels informs passengers. Aviation N 6:37 Jl 22 '46

Medford station on United air lines' coast route 11. V. S. Smith. il Air Transport 4:22-7 Jl '46

What's wrong with the airlines. il Fortune 34:73-9+ Ag '46; Discussion. J. L. McDougall. 34:36+ O '46

See also
Airlines—Food service
Moving pictures on airplanes

Shops

All-purpose workstand for aircraft; Pacific Engineering's Aerostands. il Aero Digest 51: 70 D 15 '45

Dock for DC-4's and DC-6's; shop platforms cut overhaul time; United air lines. M. B. Crawford. il Air Transport 4:35-41 F '46

Maintenance system mainsprings pick-up line's efficiency. E. E. Thorp. il plans Aviation 44:128-30 D '45

Metering the mixture at Dinner Key: Pan American's accessory shop. W. Frey. il Air Transport 4:31-3 S '46

MCA's modern design for engine testing. R. L. Sullivan. il Air Transport 4:47-8+ Ja '46

PCA's hangar no. 4. F. Barker. il Air Transport 4:46-9 Ag '46

Planning an overhaul base, large or small. il Air Transport 4:61-2 S '46

Where Buccaneers recuperate; NAL shops. Air Transport 4:28 S '46

Statistics

Airlines set records in 1945. Air Transport 4:94 Ja '46

Domestic air carrier statistics; operations for calendar year 1945 as compared with calendar year 1944. CAA J 7:19 F 15 '46

1945 airline operations establish new records. Automotive & Aviation Ind 94:56 F 1 '46

Operation statistics of domestic air lines, 1938-1945; tabulation. Automotive & Aviation Ind 94:98 Mr 15 '46

Review of air-line operations in 1945. Aeronautical Eng R 5:93 F '46

U.S. commercial airline lead boosted by recent CAB decisions. C. L. Adams. Aviation N 6:29 Jl 1 '46

Suburban traffic

See also
Air commuting, inc

Terminals

Better terminals cheaply; checkoff list for greater passenger comfort. L. R. Hartenfeld and H. O. Wright, jr. Air Transport 4:61-2 Je '46

New York's airport for world commerce. il maps Eng N 136:123-6 Ja 24 '46

Newark again reborn; airlines set for third try of airport as major terminal; army releases most of field after 4-year occupancy. J. H. Riseley. il Air Transport 4:65-6+ F '46

Problem of increased traffic at terminals draws attention. Aviation N 4:42 D 17 '45

What's wrong with our air terminals? Marc Thompson's national survey. il plans diags Arch Forum 84:122-8+ Ja '46

See also
Airport buildings
Airports
Seaplane bases

Ticket offices

Air line office with a lift; Eastern air lines, Boston. il plan Arch Rec 99:104-5 Ap '46

Reservations data machine used by AA. il Aviation N 5:39 Ap 1 '46

Western Airlines' new ticket office in Los Angeles. il plan diags Arch Forum 84:105-8 My '46

Tickets

CAB acts to solve no-show problem. Aviation N 6:29-30 Ag 26 '46

Major airlines ponder 10 percent penalty for no-show passengers. Aviation N 6:34 Ag 5 '46

New system saves $60,000 a year; Pennsylvania-Central airlines ticket sales routine. il Am Bsns 15:14-15+ N '45

No-shows on spot; campaign against canceled tickets. Bsns W p35 S 7 '46

Traffic

Air travel factors. A. Jaworski. Aero Digest 53:42-4 O '46

Air travel makes longer week ends; vacation traffic promotion by Colonial airlines. E. Forbes. il map Air Transport 4:26-31 Ap '46

Evaluating intercity air traffic. W. J. Platt. Air Transport 4:55-8 S; 79+ O '46

Riders of the airlines; a classification of passengers. W. L. Grossman. Air Transport 3:72+ D '45

Volume of air passenger traffic. W. L. Grossman. il Air Transport 4:54+ Je '46

Transoceanic lines

Air agreement; Canada and Australia. Bsns W p116 S 14 '46

American steps up flights to London. Aviation N 4:46 N 19 '45

AIRLINES—Transoceanic lines—*Continued*
Back to flag line; revived proposal to set up single all-American overseas air system; McCarran bill. Bsns W p44 Ja 12 '46
Background of postwar aviation; North Atlantic flight the scenic route to Europe. R. C. Dreher. Weekly Underw 153:1421-3 D 15 '45
Baltimore transatlantic airport by new Aeronautics Board ruling. CAA J 7:17 F 15 '46
Biggest contract cargo line flying to Tokyo and Shanghai; Pacific overseas airlines. Aviation N 5:33 Je 3 '46
CAB approves North Atlantic fare reductions as initial cut. M. Mickel. Aviation N 6:28 S 30 '46
CAB North Atlantic rate veto poses problem for carriers. C. L. Adams. Aviation N 5:27 My 20 '46
CAB Pacific route awards lay foundations for globe-girdling. map Aviation N 6:29 Ag 12 '46
Court decision questions CAB review of presidential decision; reopened Hawaii case. M. Mickel. Aviation N 6:28 O 14 '46
Defense, trade prospects spur South Atlantic route awards. map Aviation N 6:28-9 Ag 26 '46
Dublin delegates indicate drive to increase alternate airports. Aviation N 5:33 Mr 11 '46
ETA—minus E; flight control plan, Naval air transport service. S. Bangs. il Air Transport 4:29-34 F '46
Flying Vikings on way; Det Norske luftfartselskap to fly Oslo-New York route. P. M. Willcox. maps Air Transport 4:63+ Jl '46
IATA sets new Atlantic fares pending operating cost study. Air Transport 4:86 Ap '46
New air routes are authorized by CAB in Pacific case ruling. CAA J 7:114 S 15 '46
New trans-Atlantic fares drafted as stop-gap pending cost study. Aviation N 5:31-2 Mr 11 '46
Non-stop N.Y.-London service seen as PAA orders 20 C-97's. il Aviation N 4:46 D 3 '45
North Atlantic aviation service topic at Dublin. CAA J 7:25+ Mr 15 '46
North Atlantic traffic conference opens. Aviation N 5:32 Mr 4 '46
Pacific overseas airlines cargo backlog to 100,000 tons. Aviation N 5:33 Je 10 '46
Sea-air plea; CAB urged to alter policy. Bsns W p51-2+ S 14 '46
Search-rescue plans progress at Dublin; North Atlantic route service conference. Aviation N 5:30 Mr 25 '46
TCA starts separating its overseas services. Aviation N 4:48 N 26 '45
Transoceanic pilot; what it takes to be captain of super-airliner. R. H. Jackson. il Air Transport 4:22-5 Ap '46

See also
Steamboat lines—
Airplane auxiliaries

Alaska

Bush line grows up; Wien-Alaska airlines; illustrations with text. Air Transport 4:47-8 O '46

Argentina

Argentina moves for world airways. R. C. Leslie and W. Leonhart. il For Comm W 24:8-9+ S 21 '46
Planes over the pampas. G. Herrick. il maps Air Transport 3:22-7 D '45

Australia

Australia in Empire air transport; past history and future prospects. W. H. Fysh. il map Roy Aeronautical Soc J 50:21-72 Ja '46
Post-war aviation in Australia. F. Rowley. Aero Digest 52:170 Je '46
Private enterprise fights to keep flying. H. B. Fletcher. Aviation 45:40-1+ Ja '46

Bolivia

Developments in commercial aviation. For Comm W 23:14 Je 29 '46

Brazil

Aviation in Brazil; new developments show vigorous, far-flung progress. R. C. Leslie. il map For Comm W 21:8-10+ D 15 '45
Brazil opens up huge new tract in interior slated for future cross-country air route. il CAA J 7:128 O 15 '46

Canada

In the bush; operations and maintenance at airport in northern Ontario. J. Montagnes. il Air Transport 4:67-8+ Mr '46
T.C.A. expansion. Bsns W p116 N 24 '45

Caribbean area

Caribbean meeting lays the groundwork for air facilities. CAA J 7:127 O 15 '46

Central America

Air transport a must for Central America. il Air Transport 4:35-6 N '46
Flying the jungle runs via steeples and trees; bush pilots fly the TACA network. il Air Transport 4:56-7 N '46
Operating an airline the hard way; TACA. G. Herrick. il map Air Transport 4:22-6 N '46
Overhaul and conversion, an old story to TACA. il Air Transport 4:47-8 N '46
Transport plane for bush airlines; Northrop's Pioneer. W. Kroger. il Air Transport 4:40-1 N '46

Chile

Air-line services extended. For Comm W 23: 21 Ap 6 '46

Cuba

Alas sobre Cuba (Wings over Cuba); Expreso aereo interamericano. O. Leiding. il map Air Transport 4:86+ O '46
Express Aero opens new passenger run. Aviation N 5:30 Je 24 '46

Ecuador

Air-line service. For Comm W 24:13 Ag 31 '46

Egypt

Beechcrafts to Cairo; Air carrier supply corp. arranges details and ferries delivery. il Air Transport 4:72+ Ap '46

France

Air-transport expansion program for 1946. For Comm W 22:25 Mr 30 '46
TWA starts training Air France crewmen. Aviation N 5:44 F 4 '46

Germany

Report on the German commercial airline, Deutsche Luft-Hansa; abstract. O. E. Kirchner. S A E J 54:106-8 O '46

Great Britain

Australia in Empire air transport; past history and future prospects. W. H. Fysh. il map Roy Aeronautical Soc J 50:21-72 Ja '46
Britain nationalizes airlines. Bsns W p117-18 N 17 '45
Britain's socialized airlines do not include charter services. il Air Transport 3:105-6 D '45
British overseas airways corporation; annual report. Engineering 162:269 S 20 '46
England to South Africa air service. Engineering 160:431 N 23 '45
Great Britain's role in civil aviation today. R. C. Leslie. il maps For Comm W 22:8-11+ Mr 30 '46

Guatemala

Air-line services. For Comm W 24:25 S 14 '46

Italy

British protests snag TWA Italian deal. Aviation N 5:28 Ap 29 '46
State gives conditional backing to TWA on Italian agreement. M. Mickel. Aviation N 5:28 My 20 '46

Kentucky

Bluegrass airlines serves seven cities in Kentucky with Cessna UC-78's. il map Aviation N 4:35 N 19 '45

Latin America

Seven U.S. carriers get certificates for air service to Latin America. map CAA J 7:71+ Je 15 '46
Will gliders close South America's transport gap? G. M. Galster. il Aviation 45:42-3 Jl '46

AIRLINES—*Continued*

Madagascar

Air-line schedules. For Comm W 23:29 My 25 '46

Maryland

Maryland franchise transfer sought; bus line asks permission to assign rights to Chesapeake airways. Aviation N 5:27 Ja 21 '46

Mexico

Aviation developments. For Comm W 23:28 Je 8 '46

Civil aviation. For Comm W 22:24 Ja 12 '46

Mexicans now have full control of CMA air-line network. For Comm W 22:21 Mr 9 '46

Netherlands

K.L.M. comeback; Royal Dutch airlines. Bsns W p104 N 2 '46

New England

Board decision in New England case adds carrier; extends air service. map CAA J 7:89 Jl 15 '46

New York (state)

Concept of regional carrier advanced by Robinson airlines. il Aviation N 6:25-6 Ag 19 '46

North Carolina

Intrastate line gaining popularity. S. T. Henry. Aviation N 5:28 My 6 '46

Norway

Flying Vikings on way; Det Norske luftfartselskap to fly Oslo-New York route. P. M. Willcox. maps Air Transport 4:63+ Jl '46

Norway's plans in world aviation field. For Comm W 23:25 Ap 27 '46

Peru

Commercial air-line operations. For Comm W 22:27 F 2 '46

Philippine Islands

Organization of commercial air lines. For Comm W 25:21 O 5 '46

Portugal

Island airport; Portuguese want big terminal in south Atlantic. Bsns W p110 Ja 26 '46

Portugal looks to new air commerce. E. E. Crocker. il For Comm W 24:4-5+ Ag 31 '46

Sweden

Aviation developments. For Comm W 24:31-2 S 21 '46

Texas

Texas air lines, new to field, serves about 50 communities. map Aviation N 5:27 Ap 1 '46

United States

Air age. R. Ramspeck. Air Transport 4:50-2+ Ap '46

Air service to reach grass roots soon; more moderate-sized communities will be on certificated lines. C. L. Adams. maps Aviation N 5:36 Ap 15 '46

Air space coming; airline seats may be almost tripled. Bsns W p22+ F 9 '46

Air transport industry; Northern trust company of Chicago. Comm & F'in Chr 163:2365 My 2 '46

Airlines decision; CAB authorizes new West coast routes. map Bsns W p31-2+ Je 8 '46

Close airline; CAA cooperation on readjustment problems seen. W. Kroger. Aviation N 4:38+ N 12 '45

522 planes in domestic service; expect 1,095 by end of next year. Aviation N 5:27 My 27 '46

It all seems so rosy! C. Froesch. Aero Digest 53:20-1 Jl '46

More competition. map Bsns W p114+ Je 1 '46

Relationship between rail and air transportation. C. R. Smith. Am Pet Inst Proc 25(1):20-4 '45

Status of air transport industry. E. S. Land. Air Transport 4:22-3 S '46

Too many airplanes? A. P. Adams. Air Transport 4:28-30 Jl '46

United fights CAB; Denver-Los Angeles route. Bsns W p20-1 N 10 '45

U.S. air service up 25% in eight months following Japanese surrender. Aviation N 5: 45 Je 3 '46

Who gets best air service; East, or South and West? map Bsns W p40 Je 22 '46

See also

Institute of air transportation

Venezuela

Aviation developments. For Comm W 24:34 S 21 '46

Expansion of air services. For Comm W 22:25 Ja 12 '46

Yugoslavia

Domestic and international air-line activities. For Comm W 22:25 Ja 5 '46

AIRPARKS. See Aviation landing stations

AIRPLANE accessories industry

Air delivery can boost profits; Scott aviation corp. sales policy. A. S. Brown. il Aero Digest 52:59 Je '46

Airport stores; tire companies plan for retailing to air amateurs. Bsns W p80 Mr 16 '46

Counting on counter appeal; retail sales stores for aviation supplies and accessories. il Aero Digest 53:74-5 Jl '46

Sales and service; Pacific airmotive corp. Aero Digest 53:56 S '46

Trends in distribution policy. F. M. Reck. Aero Digest 52:50-2+ Je '46

Wanted: aircraft and accessory retailers. A. S. Brown. Aviation 45:107+ Ja '46

Statistics

Aeronautic exports, by years, 1912-1945; by type of product, 1942-1945; tabulations. Automotive & Aviation Ind 94:99 Mr 15 '46

AIRPLANE assembly plants

Medical and environmental control of health hazards in aircraft assembly plants. E. B. Ley and F. J. Vintinner. bibliog il Ind Med 14:779-87 O '45

AIRPLANE carriers

Air power given main emphasis in immediate post-war navy plans. S. Hershey. Aviation N 5:9-10 F 11 '46

H.M.S. Leviathan. Engineer 182:130 Ag 9 '46

Icebergs as ships; artificial reinforced icebergs as aircraft carriers or seadromes; Habbakuk project. Engineer 181:517-18 Je 7 '46

Merchant aircraft carrier Empire Macalpine. il Engineer 180:365-6 N 9 '45; Engineering 160:468-9 D 7 '45

Merchant aircraft carriers. Electrician 135: 442 O 26 '45

Navy's twin-jet Phantom fighter scores success in carrier test. il Aviation N 6:11-12 Jl 29 '46

Recollections of early naval flying. F. J. Rutland. il Engineering 162:17-18, 27-8, 97-100, 108 Jl 5-12, Ag 2 '46

Though nature hides the flat-top, radar homes its planes. il Aviation 45:43+ S '46

Unorthodox deck-edge elevators in service. Elec Eng 64:400 N '45

AIRPLANE catapults. See Airplanes—Take-off

AIRPLANE engines

Aircraft engine progress. D. J. Kiern. Automotive & Aviation Ind 93:42+ D 1 '45

AAF contracts boost Allison into engine production lead. Aviation N 5:22 Je 3 '46

Big field for new United Aircraft engine; Wasp Major. Barron's 25:14 D 31 '45

British jet engines pass 500 hr. operation tests. J. R. Hight. il Iron Age 156:96+ N 22 '45

Chrysler's new 2,500-hp. V engine features lightness, accessibility. il diags Aviation 45: 89-90 Ja '46; Automotive & Aviation Ind 93:29 N 15 '45; Product Eng 17:162 F '46

CAA orders faulty engine piston check on Continental A-65. Aviation N 6:29 S 2 '46

Comparison of propeller and reaction-propelled airplane performances. B. Hamlin and F. Spenceley. diags J Aeronautical Sci 13:425-37 Ag '46

Continental climbs to peak of light-plane engine production. Aviation N 6:16 Ag 12 '46

Convenient engine-trade plan offered by Continental; provides rebuilt power plants as replacements for used engines. il Aviation 45:84 My '46

AIRPLANE engines—*Continued*
Details of Wasp Major released. il Aero Digest 52:65 Ja '46; Product Eng 17:148 F '46
Development of propjet; two-way harnessing of gas turbine force drives propeller and boosts with jet thrust simultaneously. il Steel 117:92+ O 29 '45; Aviation N 4:20+ O 29 '45; Automotive & Aviation Ind 93: 28+ N 15 '45; Nat Pet N 37:64 N 14 '45; Mech Eng 67:854-5 D '45
Development of the I-40 jet propulsion gas turbine. D. D. Streid. il diag Automotive & Aviation Ind 94:36-8+ Ja 1 '46
Disposal of engines, final phase of surplus task, taking shape. W. Kroger. Aviation N 5:12 F 4 '46
Double Wasp for airline use. il Aero Digest 53:93 O '46
Double Wasp makes commercial debut; aircraft power plant with water injection emergency power boost. il Aviation N 6:23 S 9 '46
Experimental engine sets new records; Continental Hyper. il Aviation N 4:10 Ja 7 '46
Gas turbine in aviation; its past and future. S. R. Puffer and J. S. Alford. Mech Eng 67:803-12 D '45
General requirements for helicopter engines; abstracts. C. T. Doman. il S A E J 54: sup37 Je '46; Automotive & Aviation Ind 95:44+ Ag 1 '46
Goblin jet-propulsion engine. il Engineer 180: 482-3 D 14 '45
How Nazis' Walter engine pioneered manned rocket-craft. R. Healy. il diag Aviation 45: 77-80 Ja '46
Jet engines; abstract. G. H. Woodward and R. P. Kroon. il Mech Eng 68:34-6 Ja '46
Jet-propeller combinations versus conventional propulsion systems for airplanes; abstract. S A E J 54:sup28+ F '46
Jet propulsion; the U.S. is behind. il Fortune 34:141-3+ S '46
Light Diesel passes sky test; powers a Stinson. il Bsns W p50 Mr 16 '46
Lighter engine; Nelson Aircraft uses magnesium parts. Bsns W p56+ Je 15 '46
Lightest jet aircraft engines in world. il Product Eng 17:77 Ja '46
Matching the engine and generator of aircraft auxiliary powerplants. H. J. Finison. il Aero Digest 51:77-9+ D 1 '45
Merlin 130 and 131 aero engines. il Engineering 161:465 My 17 '46
Merlin 620 aero engine. Engineering 162:117 Ag 2 '46
New Continental aircraft engines. il Automotive & Aviation Ind 93:31+ D 15 '45
New liquid-cooled aircraft engine designed and built by Chrysler corp. il Steel 117:112 N 12 '45
Newest navy jet power units are lightest yet constructed. il Aviation N 4:10 N 26 '45
Powerplant package readied for DC-4's. diag Aviation N 5:26 F 4 '46
Pratt & Whitney Wasp Major engine. diag Automotive & Aviation Ind 95:42-3 S 15 '46
Pratt & Whitney Wasp Major to power five giant transports. il Aviation N 4:11 D 3 '45
Reflections on powerplants. C. L. Lawrance. Aero Digest 53:24-5 Ag '46
Report of N.A.C.A. committee on power plants for aircraft. U S Nat Advisory Com for Aeronautics 1940:11-14 '41
Republic to try exhaust turbines in compound engine on Rainbow. Aviation N 4:10 N 12 '45
Rolls-Royce Derwent jet-propelled aero engine. il Engineering 160:406-7 N 16 '45; Abstracts. Mech Eng 68:252 Mr '46; Engineer 180:345 N 2 '45
Rolls-Royce Griffon (65) engine; drawing. Automotive & Aviation Ind 94:30-1 Ja 15 '46
Sabre aero engine. il Engineering 161:79-81 Ja 25 '46
S.A.E. annual meeting; aeronautic sessions. S A E J 54:sup56-60 F '46
SAE national aeronautic meeting; aircraft powerplant sessions. S A E J 54:sup38-44 My '46
S.A.E. summer meeting; aircraft powerplant sessions. S A E J 54:sup22-6+ Jl '46
Supersonic ram jet engine. W. Goss and others. il diags Automotive & Aviation Ind 95:34-7+ S 15 '46
Thrust; power that makes the rocket; portfolio of new prime movers and how they work. col il Fortune 34:128-40 S '46
La turbine à combustion et la propulsion des avions par réaction. Destival. Génie Civil 123:132-3 My 15 '46
Turbine compounding of the piston aero engine. H. R. Ricardo. Roy Aeronautical Soc J 50:323-9; Discussion. 329-32, 358-74 My '46
Unique engine-synchronism indicator for aircraft. D. B. Pearson. bibliog il diags Elec Eng 65:Trans 650-3 O '46
Westinghouse jet engines and their components; illustrations with text. Automotive & Aviation Ind 93:22-3 D 15 '45
Wright becomes first U.S. firm to offer commercial power egg; nacelle unit housing new 9HD Cyclone. Aviation N 5:24 Mr 25 '46

See also
Gas turbines, Aircraft
Jet propulsion of aircraft

Bearings
Bond testing of silver-plated engine bearings. F. D. Hallworth. il diags Automotive & Aviation Ind 95:30-3+ Jl 15 '46
Characteristics of aluminum bearings. N. E. Woldman. bibliog il Iron Age 158:60-4 S 12 '46
High-duty engines; problems involved in development. A. Towle. il diags Automobile Eng 36:105-13, 191-203 Mr, My '46
Silver bearings. E. B. Etchells and A. F. Underwood. il diags S A E J 53:497-503 S '45; Abstract. Metal Prog 50:524+ S '46
Testing of highly loaded sleeve bearings. J. Palsulich and R. W. Blair. il S A E J 54: 481-90 S '46; Excerpts. Materials & Methods 24:188 Jl '46

Carbon deposits
Aircraft engine induction system deposits; abstract. W. J. Sweeney and others. Automotive & Aviation Ind 94:38-9 F 1 '46
Investigation of piston-ring sticking in high-duty aero-engines. A. Lahiri and E. Mikolajewski. bibliog 4pls Inst Pet J 32:59-77; Discussion. 78-89 F '46
Soft-grit blasting; using ground corncobs and rice hulls. E. C. Lathrop and S. I. Aronovsky. il Steel 119:102+ Jl 22 '46

Cleaning
Soft-grit blasting of cylinders. J. Albin. il Iron Age 156:65-7 N 22 '45

Conversion
Engine conversion line is new base activity; Southwest airmotive co. il Aviation 45:48 O '46

Cooling
Advantages of water injection. F. J. Wiegand and D. W. Meador. Aero Digest 53:84-6+ O '46
Aircraft engine oil cooling. F. Nixon. bibliog il diags Roy Aeronautical Soc J 50:123-85; Discussion. 185-98 Mr '46
Cooling characteristics of steel- and aluminum-finned cylinder barrels for in-line air-cooled engines. M. Piry. il diags S A E J 53:630-9 N '45
Correlation of cooling data from an air-cooled cylinder and several multicylinder engines. B. Pinkel and H. H. Ellerbrock, jr. bibliog il U S Nat Advisory Com for Aeronautics 1940:59-83 '41
Cruising economy by use of water injection. D. C. Eaton. S A E J 54:81-7+ F '46
Design and application of high-pressure coefficient axial-flow fans. J. G. Sawyer. bibliog diags J Aeronautical Sci 12:281-4 Jl '45; Discussion. F. Dallenbach. 13:141-2 Mr '46
Design of fins for air-cooled cylinders. A. E. Biermann and H. H. Ellerbrock, jr. bibliog diags U S Nat Advisory Com for Aeronautics 1941:401-24 '42
Effect of exit-slot position and opening on the available cooling pressure for N.A.C.A. nose-slot cowlings. G. W. Stickle and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:163-74 '41
Exhaust pump for engine cooling. C. de Ganahl. il diag Aeronautical Eng R 5:34-7 Ag '46

AIRPLANE engines—Cooling—*Continued*
Factors pertaining to the installation of inverted, in-line, aircooled aircraft engines. T. F. Hammen, jr. and W. H. Rowley. bibliog il diags S A E J 54:138-52 Mr '46; Abstract. Automotive & Aviation Ind 94:32-3 Ja 15 '46
Heat transfer from a baffled-finned cylinder to air. A. W. Lemmon, jr. and others. bibliog il diags A S M E Trans 67:601-10; Discussion. 610-12 N '45
High-conductivity cooling fins for aircraft engines. J. W. Cunningham. il diags S A E J 53:742-8 D '45
Induced air flow for engine cooling; investigations of Henri Coanda. diags Automotive & Aviation Ind 94:30-1+ F 15 '46
Injection of anti-detonating fluids in aircraft engines. diags Automotive & Aviation Ind 93:34-6+ D 1 '45
Local coefficients of heat transfer for air flowing around a finned cylinder. W. H. McAdams and others. bibliog il diags A S M E Trans 67:613-20 N '45
Pressure available for cooling with cowling flaps. G. W. Stickle and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:283-93 '42
Problem of cooling an air-cooled cylinder on an aircraft engine. M. J. Brevoort and U. T. Joyner. bibliog diags U S Nat Advisory Com for Aeronautics 1941:267-81 '42
Water injection for aircraft engines. M. R. Rowe and G. T. Ladd. il diags S A E J 54:26-37+ Ja '46
Water injection in a spark-ignition engine. W. P. Green and C. A. Shreeve, jr. bibliog diag A S M E Trans 68:541-5 Jl '46
See also
Airplane engines—Radiators

Cowlings

Effect of exit-slot position and opening on the available cooling pressure for N.A.C.A. nose-slot cowlings. G. W. Stickle and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:163-74 '41
Pressure available for cooling with cowling flaps. G. W. Stickle and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:283-93 '42
Split engine cowling. diags Aero Digest 53:65 O '46

Design

Axial-flow design makes possible light, compact aircraft gas turbines; jet units designed by Westinghouse electric corp. il Power 90:19 Ja '46
Continental finds Stresscoat analysis valuable guide in redesigning engine parts. J. Geschelin. il Automotive & Aviation Ind 95:36-9+ Ag 15 '46
Continental GR 9-A and R9-A. il Aero Digest 52:84-7 Ap '46
Design of fins for air-cooled cylinders. A. E. Biermann and H. H. Ellerbrock, jr. bibliog diags U S Nat Advisory Com for Aeronautics 1941:401-24 '42
Details of Chrysler 2500 hp. engine developed for army air forces. il diag Automotive & Aviation Ind 94:24-5+ Ja 15 '46
Engine design for the helicopter. il Aero Digest 52:57+ F '46
Engine reliability enhanced by stresscoat analysis. C. S. Ricker. il diags Aviation 45: 115+ Ja; 86-8 Mr '46
Engineering drawings of the Chrysler 2500 hp aircraft engine. Automotive & Aviation Ind 94:43 Ap 15 '46
Factors pertaining to installation of inverted, in-line, aircooled aircraft engines. T. F. Hammen, jr. and W. H. Rowley. bibliog il diags S A E J 54:138-52 Mr '46
Flow coefficients of monosleeve valves. C. D. Waldron. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:227-39 '42
Fuel sensitivity and engine severity in aircraft engines. S. D. Heron. S A E J 54: 511-12 S '46
High-duty engines; problems involved in development. A. Towle. il diags Automobile Eng 36:105-13, 173-81, 191-203 Mr-My '46
Improving engine parts by direct measurement of strain. R. G. Anderson. bibliog il diags S A E J 54:466-75+ S '46; Same cond. Machine Design 18:137-42 S '46
Interchangeability is major design factor; Continental engines for powering personal planes. il Machine Design 18:114 Ja '46
Novel design features of Jack & Heintz engines. il Automotive & Aviation Ind 95: 18-20+ Jl 1 '46
See two-cycle engine powering personal plane. J. L. Ryde. il S A E J 54:98 O '46
Simplified design for personal plane engines. C. T. Doman. il Aeronautical Eng R 5:29-33 Ag '46

Detonation

Detection of detonation and other operating abnormalities in aircraft engines by means of special instrumentation. J. W. Streett. il diags S A E J 53:660-9 N '45
Effect of fuel-air ratio, inlet temperature, and exhaust pressure on detonation. E. S. Taylor and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1940: 423-47 '41
High-speed motion-picture study of normal combustion, knock and preignition in a spark-ignition engine. A. M. Rothrock and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:15-30 '42
How flight detonation testing keys engine-fuel performance. R. J. Clark and R. M. Adams. il diags Aviation 45:63-7 Ap '46
Injection of anti-detonating fluids in aircraft engines. diags Automotive & Aviation Ind 93:34-6+ D 1 '45
Roles of detonation waves and autoignition in spark ignition engine knock as shown by photographs taken at 40,000 and 200,000 frames per second. C. D. Miller. bibliog il diag Pet Processing 1:28-9+ S '46; Abstract. S A E J 54:34-5 O '46; Summary. Automotive & Aviation Ind 95:35 Jl '46

Efficiency

Cruising economy by use of water injection. D. C. Eaton. S A E J 54:81-7+ F '46
Effect of engine exhaust pressure on performance of compressor-engine-turbine units. C. F. Taylor. bibliog diags S A E J 54:64-73 F '46

Exhaust

Design trends in aircraft exhaust systems; abstract. R. L. Haver and H. A. Goodin, jr. S A E J 54:100 O '46
Effect of engine exhaust pressure on performance of compressor-engine-turbine units. C. F. Taylor. bibliog diags S A E J 54:64-73 F '46; Abstract. Automotive & Aviation Ind 94:37-8 Ja 15 '46
Effect of fuel-air ratio, inlet temperature, and exhaust pressure on detonation. E. S. Taylor and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1940: 423-47 '41
Exhaust pump for engine cooling. C. de Ganahl. il diag Aeronautical Eng R 5:34-7 Ag '46

Fuel

Address; oil's part in the war. J. H. Doolittle. Am Pet Inst Proc 25(1):41-4 '45
AAF and petroleum research; airplane engine fuel; rocket propellants. D. L. Putt. Am Pet Inst Proc 25(3):30-7 '45
AAF's Aviation petroleum branch kept the tanks full of avgas. il Nat Pet N 38:34+ Mr 6 '46
Aviation fuels; what the airlines want and expect. G. K. Brower. S A E J 54:125-32+ Mr '46
Basic petroleum chemistry for refinery employes; manufacture of aviation gasoline components. J. J. Stadtherr. bibliog diags Pet Refiner 25:136-42 Ag '46
Cold-starting fuels eliminate preheating. il Air Transport 4:59 Mr '46; Same abr. Aero Digest 52:68 Je '46
Expendable-cartridge filter for aircraft fuel. F. B. Harvuot. il Aero Digest 52:60 Mr '46
Fuel sensitivity and engine severity in aircraft engines. S. D. Heron. S A E J 54: 511-12 S '46
German wartime aviation fuels largely made by hydrogenation of coal. il Oil & Gas J 44:92-3+ F 16 '46
Industry group raps SPA avgas plant report. Nat Pet N 38:28 F 27 '46

AIRPLANE engines—Fuel—*Continued*
Jet turbine fuel. E. M. Holbrook. il Can Chem & Process Ind 30:26-8 F '46
Light aircraft service experience with all-purpose fuel; abstract. R. V. Kerley. diag Automotive & Aviation Ind 95:34 Jl 1 '46
Mechanics of the manufacture of aviation gasoline; abstract. L. Steffens. S A E J 53: sup 27 N '45
New fuel gauge for aircraft; Pacitor gauge. il diag Engineer 181:204-5 Mr 1 '46; Engineering 162:31-3 Jl 12 '46
Pacitor measures fuel electronically. diags Air Transport 3:44 D '45; Electronics 18:234+ D '45; Product Eng 16:829 D '45
Petroleum research engineer's outlook on fuels for conventionally powered and gas turbine powered aircraft. A. G. Cattaneo and others. il S A E J 54:55-63 F '46; Abstract. Automotive & Aviation Ind 93:30+ D 15 '45
Preignition characteristics of several fuels under simulated engine conditions. R. C. Spencer. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:121-36 '42
Private capital paid 53% of war expansion in avgas industry. Nat Pet N 38:50 Ap 24 '46
Process development and production of isohexane and isoheptane as aviation fuel components. S. F. Birch and others. diags Inst Pet J 32:167-99; Discussion. 200-5 Ap '46
Safety fuel awaits engine designers before taking its place in avgas field. Nat Pet N 38:36+ Je 26 '46
State avgas taxes range from 0-7c with high in Tennessee, Louisiana. Nat Pet N 38:28 S 18 '46
Story of diisopropyl. R. C. Alden and others. bibliog flow diag il Oil & Gas J 44:70-3+ F 9 '46
Synthetics hold aromatic fuels; Hycar parts and seals. W. A. Parrish. il Aero Digest 52:62+ F '46

Fuel consumption

Fuel consumption indicator. D. W. Moore, jr. il diag Electronics 19:152-3 Mr '46

Fuel feeding

Apparatus for measuring rates of discharge of a fuel-injection system. F. J. Dutee. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:193-200 '42
Compact fuel injection system developed for small personal craft. il diags Aviation 45:78-9 O '46
Constellation's fuel injection; simplified diagram. Aviation N 6:22 O 14 '46
Construction and operation of new injection carburetor. il diags Aviation 44:153-7 D '45
Direct fuel injection system. il Diesel Power 23:1348+ N '45
Effect of fuel-air ratio, inlet temperature, and exhaust pressure on detonation. E. S. Taylor and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1940: 423-47 '41
Effect of the NACA injection impeller on the mixture distribution of a double-row radial aircraft engine; abstract. F. E. Marble and others. Aeronautical Eng R 5:67 Ag '46
Fuel injection system for small aircraft; designed by Ex-Cell-O corp. diag Machine Design 18:108 Jl '46
Fuel system test procedure. W. B. Gurney. diag Aero Digest 52:59+ My '46
High-amplification gage and internal grinder hold tolerances to millionths of an inch; airplane fuel injection device; Eclipse-Bendix plant. il Steel 118:116 Ap 8 '46
How to service and maintain the Marvel-Schebler carburetor. il diags Aviation 45: 80-3 My '46
Injection carburetor for light aircraft. il diag Product Eng 17:368 My '46
Man-made wind at 130 to -67 F tests aircraft-engine gasoline injectors; American Bosch corp. laboratory. il plan Power 90:6-8 Ja '46
Vapor lock in aircraft engines. W. A. Craig. il Pet Eng 18:278+ O '46

Gearing

Finishing spur gears for aircraft engines. S. Cornell. il diags Iron Age 156:46-50 D 27 '45
Grinding hardened steel precision gears. E. A. Koether. il Materials & Methods 22:1754-8 D '45
Manufacture of file hard precision gears. W. G. Guthrie. il Metal Prog 48:1300-5 D '45
Rolls-Royce Griffon 130 aero-engine; use of three-speed supercharger. il diags Engineer 181:77-9 Ja 25 '46; Engineering 161:128-30 F 8 '46
Should aircraft engine gears be ground? abstract. E. A. Koether. Metal Prog 49:654+ Mr '46

Ignition

Bell jar for aircraft ignition research. il Sci Am 174:166 Ap '46
Flame speeds and energy considerations for explosions in a spherical bomb. E. F. Fiock and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:39-58 '41
Gasoline explosion pressures. M. S. Plesset and F. R. Gilmore. bibliog diag A S M E Trans 68:89-97 F '46
High-speed motion-picture study of normal combustion, knock and preignition in a spark-ignition engine. A. M. Rothrock and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:15-30 '42
Preignition characteristics of several fuels under simulated engine conditions. R. C. Spencer. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:121-36 '42

Ignition devices

Electrical measurements on aircraft-engine ignition circuits. W. E. Berkey. bibliog il diags Elec Eng 65:Trans 49:53 F '46
German engines used liquid for ignition. Aviation N 5:22 My 20 '46
High-frequency aircraft ignition system. diag Electronics 18:264+ D '45
Ignition problems; tests with low tension electric and with oil injection. Automobile Eng 36:413 S '46
Plastic dome for ignition testing at high altitude. il Aero Digest 51:95+ D 1 '45
Production of ignition radio shields. F. T. Van Syckel. il Iron Age 158:56-8 Ag 29 '46
Unit system of ignition aims at better performance. il diag Aviation 45:74 Je '46
Use of ether as ignition agent; Ring process in German aircraft. R. J. Bender. Automotive & Aviation Ind 95:41-2+ S 1 '46

Industrial uses

RFC fosters program to convert aircraft engines to new uses. Iron Age 157:154+ F 7 '46

Length of service

Actuarial analysis of the operating life of B-29 aircraft engines. O. L. Altman and C. G. Goor. Am Stat Assn J 41:190-203 Je '46

Lubrication

Aircraft engine oil cooling. F. Nixon. bibliog il diags Roy Aeronautical Soc J 50: 123-85; Discussion. 185-98 Mr '46
Application of heavy duty additives to aviation oils. C. O. Tongberg and others. il Automotive & Aviation Ind 94:28-9+ F 15 '46
Aviation lubricating oils; abstract. B. M. Berry and F. S. Rollins. Automotive & Aviation Ind 93:70+ D 15 '45
Factors in aeration and deaeration of aircraft-engine oil. W. L. Weeks. diags S A E J 54:174-90 Ap '46; Abstract. Automotive & Aviation Ind 94:38+ Ja 15 '46
Investigation of piston-ring sticking in high-duty aero-engines. A. Lahiri and E. Mikolajewski. bibliog 4pls Inst Pet J 32:59-77; Discussion. 78-89 F '46
Lubrication guide for personal planes; tabulation. Aero Digest 52:48 My '46
Manufacture and application of lubricants in Germany. M. E. Spaght. bibliog Pet Processing 1:126+ O '46
Positive action lube system proved for Goodyear F2G. V. S. Kupelian. il diag Aviation 45:66-7 Jl '46
S-S system of lubrication for aircraft engines; abstract. P. H. Schweitzer and L. P. Sharples. diags S A E J 54:sup28-9 Mr '46

AIRPLANE engines—Lubrication—*Continued*
Visual study of cylinder lubrication. M. C. Shaw and T. J. Nussdorfer. il diags S A E J 54:68-72 O '46; Abstract. Automotive & Aviation Ind 94:36-7 Je 15 '46

Manifolds

Carbon absorption of 18-8 stainless steel used for aircraft exhaust manifolds. W. G. Hubbell. il Iron Age 157:56-9 Je 20 '46
Heat treatment of stainless steel for exhaust manifolds. W. G. Hubbell. il Aero Digest 50:98+ Jl 1 '45; Same. Iron Age 155: 56-60 Je 21 '45; Abstract. Metal Prog 49: 1230+ Je '46
Low cost patterns for multi-stage dies; Sol-A-Die process. R. R. Kay. il diags Iron Age 158:56-8 Ag 22 '46
Production of ignition radio shields. F. T. Van Syckel. il Iron Age 158:56-8 Ag 29 '46
Salt bath for heat treating 18-8; aircraft exhaust manifold; Ryan aeronautical co. K. Whitcomb. il Metal Prog 50:294-8 Ag '46; Same cond. Automotive & Aviation Ind 95:36-9+ Jl 15 '46
Tailoring 18-8; properties investigated by Ryan Aeronautical to find best formula for exhaust manifold equipment. W. G. Hubbell. il Steel 118:112-13+ My 20 '46

Manufacture

Assembly line production methods adopted by Continental Motors. il Steel 117:95 D 17 '45
Development of forgings and stampings. J. T. Robinson. il Steel 118:110-11+ Mr 18 '46
Engine assembly operations; mechanical handling equipment installed by Rolls-Royce. il Mech Handling 33:297-9 My '46
Improving engine parts by direct measurement of strain; abstract. R. G. Anderson. Metal Prog 49:967-8 My '46
Method for welding sheet aluminum to S.A.E. 4140 steel. W. F. Hess and E. F. Nippes, jr. bibliog il diags Welding J 25: supl29-48 Mr '46; Abstract. Metal Prog 50: 328+ Ag '46
Nitriding engine parts. W. Roth. il Steel 117: 122-3+ N 19 '45
Resistance welding on stainless steel aircraft engines and accessories. F. G. Harkins and W. L. Hales. il diags Welding J 25:39-46 Ja '46
Slashing aircraft-engine costs. diag Am Mach 90:137 O 10 '46
Upsetting aluminum heads. H. G. Howell. il Steel 119:108-11+ S 23 '46
Vacuum permanent mold casting. J. W. Wheeler. il Foundry 74:90-3+ Je '46
Why Packard made new drawings for the Rolls Royce Merlin engine. il diags Product Eng 17:81-5 N '46

Models

Crankcase scavenge target engine; abstract. J. L. Ryde. Automotive & Aviation Ind 94: 34-5 My 1 '46
Mockups cut time and headaches; models of wood, plywood, plaster and clay used by Chrysler in producing its aircraft engine; illustrations with text. C. S. Ricker. Am Mach 90:116-18 My 9 '46
Tiny jet engines perfected for models. il diag Aviation N 5:10 Mr 25 '46

Mounting

Practicability of vibration control in light aircraft. D. C. Kennard, jr. il diags A S M E Trans 68:81-8 F '46

Radiators

Internal-flow systems for aircraft. F. M. Rogallo. bibliog diags U S Nat Advisory Com for Aeronautics 1941:165-91 '42

Repair

Conveyor line for engine maintenance. il Aero Digest 51:80 N 15 '45
Engine disassembly is more than tearing down. E. F. Lindsley. diags Aviation 45:89-91+ Mr '46
Intercooler repair. R. E. Desch. il diag Aero Digest 52:52-3 Ap '46
Mass production methods applied to aircraft engine overhaul; Warner Robins air technical service command. A. M. Whitmer. flow chart il Automotive & Aviation Ind 94:22-7+ F 1 '46
Metering the mixture at Dinner Key: Pan American's accessory shop. W. Frey. il Air Transport 4:31-3 S '46
Powerplant specialists. il Aero Digest 52:80-1+ Ja '46

Specifications

Aero Digest's chart of statistical data on aircraft engines currently in production in the United States; tabulation. Aero Digest 51:54-5 N 15 '45
American aircraft engines; tabulations. Automotive & Aviation Ind 94:128-9 Mr 15 '46
Aviation's American engine specifications; tabulation. Aviation 45:134 F '46
British aircraft engines; tabulation. Automotive & Aviation Ind 94:130 Mr 15 '46

Starting

Aircraft engine starters; abstract. A. Beier. Automotive & Aviation Ind 95:35-6 Jl 1 '46
Engine starter uses cartridge to rotate crankshaft. diags Sci Am 174:34 Ja '46
Mechanical starter offered by McDowell. il Aviation N 4:20 D 24 '45
New starting device developed for Aero engines. diags Power Pl Eng 49:105-6 O '45

Superchargers

Application of turbosuperchargers to postwar commercial aircraft. F. W. Disch. il diags S A E J 54:158-68 Ap '46
Axial vs centrifugal superchargers for aircraft engines. W. J. King. il diags S A E J 53:736-41+ D '45
Exhaust ejector improves both turbo cooling and propulsion. W. O. Meckley. il diags Aviation 45:74-5+ Mr '46
First two stage turbo supercharger. diag Product Eng 17:330 Ap '46
Going to Tesla for a turbo supercharger. L. Myrick. diags Automotive & Aviation Ind 95:47 Jl 1 '46
Intercooler repair. R. E. Desch. il diag Aero Digest 52:52-3 Ap '46
Rolls-Royce Griffon 130 aero-engine; use of three-speed supercharger. il diags Engineer 181:77-9 Ja 25 '46; Engineering 161:128-30 F 8 '46
Turbosupercharger overhaul. A. R. Kelly. diags Aero Digest 52:48-9+ Je '46
Various types of compressors for supercharging. R. J. S. Pigott. diags S A E J 53:678-84 N '45; Same cond. Machine Design 17:119-22 Ag '45

Temperature

Piston temperatures in an air-cooled engine for various operating conditions. E. J. Manganiello. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:413-21 '41

Testing

Bavarian motor works altitude-test facilities. E. E. Stoeckly. il diags A S M E Trans 68:743-50 O '46
Calculation of flow of air and diatomic gases. C. W. Smith. bibliog J Aeronautical Sci 13:309-15 Je '46
Detection of detonation and other operating abnormalities in aircraft engines by means of special instrumentation. J. W. Streett. il diags S A E J 53:660-9 N '45
Flow coefficients of monosleeve valves. C. D. Waldron. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:227-39 '42
Fuel system test procedure. W. B. Gurney. diag Aero Digest 52:59+ My '46
High-duty engines; problems involved in development. A. Towle. il diags Automobile Eng 36:105-13, 173-81, 191-203 Mr-My '46
How flight detonation testing keys engine-fuel performance. R. J. Clark and R. M. Adams. il diags Aviation 45:63-7 Ap '46
Improving engine parts by direct measurement of strain. R. G. Anderson. bibliog il diags S A E J 54:466-75+ S '46; Same cond. Machine Design 18:137-42 S '46; Abstracts. Automotive & Aviation Ind 94:34 My 1 '46; Metal Prog 49:967-8 My '46
Investigation of an opposed piston light aircraft engine; abstract. J. W. Oehrli and V. J. Jandasek. Automotive & Aviation Ind 94:35 My 1 '46
MCA's modern design for engine testing. R. L. Sullivan. il Air Transport 4:47-8+ Ja '46

AIRPLANE engines—Testing—*Continued*
Piston temperatures in an air-cooled engine for various operating conditions. E. J. Manganiello. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:413-21 '41
Plastic dome for ignition testing at high altitude. il Aero Digest 51:95+ D 1 '45
Proposed PICAO airworthiness standards. map Automotive & Aviation Ind 95:20-3+ S 15 '46
Some experiences in full-scale power-plant testing. M. U. Clauser. il diags J Aeronautical Sci 13:247-54 My '46
Wind tunnel provides test conditions for engines and propellers. il Sci Am 175:74 Ag '46

Valves

Flow coefficients of monosleeve valves. C. D. Waldron. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:227-39 '42
Hydraulic tappet; patent assigned to Wright aeronautical corp. diag Machine Design 18: 172 Ja '46
Materials for motor valves. H. Cornelius. Materials & Methods 23:796+ Mr '46

Vibration

Combination of dynamical systems. T. G. Sofrin. bibliog diags J Aeronautical Sci 13:281-8 Je '46
Electrical model for the investigation of crankshaft torsional vibrations in inline engines. H. B. Stewart. il diags S A E J 54: 238-44 My '46; Excerpts. Automotive & Aviation Ind 94.35-6 Ja 15 '46
Torsiograph observations on a Merlin II engine, using a serrated-condenser pick-up, with five different pitch settings of the propeller blades; abstract. B. C. Carter and J. R. Forshaw. Aeronautical Eng R 5:69 Ag '46

AIRPLANE engines, Jet propulsion. See Gas turbines, Aircraft; Jet propulsion of aircraft

AIRPLANE factories
Comprehensive conveyor system at Rotol limited's aircraft propeller factory. B. S. Jelley. il diag Mech Handling 32:687-94 D '45
Conversion of DPC Dallas plant to subcontract work is unique; Texas engineering & manufacturing co. to handle output of consumer goods. Aviation N 5:20 Ja 28 '46
Industry proving poor market for war surplus aircraft plants. Aviation N 5:16 F 25 '46
Latest leases indicate WAA shift to sales-percentage basis. Aviation N 5:27 Ap 22 '46
Major move with minor loss of production; Bell aircraft corp, Buffalo. W. A. Baumgart. il Factory Management 104:105-8 Ap '46
Standby factories officially listed. Aviation N 5:10 Ja 21 '46
Tentative AAF plant dispersal plan stresses Los Angeles area problem; atomic explosives could neutralize the bulk of the industry. map Aviation N 4:11 N 12 '45

See also
Airplane engines—Manufacture
Airplanes—Manufacture

Air conditioning

Operating and maintenance charges for air conditioning machine shops; Wright aeronautical corp. H. B. Lammers. il Heating-Piping 18:93-6 F '46

Costs

Peacetime cost estimating requires new learning curves. G. W. Carr. Aviation 45: 76-7 Ap '46
Simplified design slashes plane production costs; Republic aviation corporation. A. Marchev and A. Z. Boyajian. il diags Am Mach 90:99-102 Mr 28 '46
Slashing aircraft-engine costs. diag Am Mach 90:137 O 10 '46

Electric equipment

Safeguarding service lines by centralized control; Boeing's aircraft plant at Renton, Wash. E. J. Strickland. il Factory Management 104:98-102 Ap '46
Works distribution; switchgear arrangements in a propeller factory. il Elec R (Lond) 137: 677 N 9 '45

Employees

Aircraft wages show new increase pattern. Aviation N 5:10 My 13 '46
Employee forums on company operations; Kellett aircraft corporation. il Am Mach 90: 102-3 Ap 25 '46
Piper incentive pay contract points way to industrial peace. Aviation N 5:20 Mr 11 '46
Selection of engineering personnel. F. Holliday. Roy Aeronautical Soc J 50:240-61 bibliog(p261); Discussion. 262-74 Ap '46
Wage incentives, the way out. W. R. Donnell. Automotive & Aviation Ind 95:18-19+ Ag 1 '46
Wartime labor force of St Paul propeller plant. E. B. Harris. Mo Labor R 62:93-103 Ja '46
Work and wage experience of Willow Run workers. J. F. Bober and C. Glasser. Mo Labor R 61:1074-90 D '45
Wright employes suit asks $1,500,000 portal-to-portal pay. Aviation N 6:8 S 23 '46

Equipment

All-purpose workstand for aircraft; Pacific Engineering's Aerostands. il Aero Digest 51:70 D 15 '45
Aluminium chip handling system; Pratt & Whitney aircraft corporation. Mech Handling 33:238-9+ Ap '46
Lockheed Aircraft finds many uses for metallizing. il Steel 118:113-14+ F 25 '46
Mechanical aids to Mosquito manufacture; Standard motor company. S. C. Johnson. il Mech Handling 32:608-14 N '45
Milling large spar caps with positive rake cutters; Northrop aircraft, inc. F. M. Gibian. il diags Automotive & Aviation Ind 94:32-4+ F 15 '46
North American installs sheet metal conveyor system. il Automotive & Aviation Ind 94:34-5+ Ap 15 '46; Iron Age 157:55 Ap 25 '46
Overhead rails overcome awkward positioning of drills. L. Mooradian. il diags Am Mach 90:136-7 Mr 14 '46
Reconversion problems in aircraft tooling. N. A. Lombard. Mech Eng 68:794-6 S '46
Standardized airframe assembly fixtures; German practices. L. Worley. diags Aviation 45:60-1 O '46

Bibliography

Aero equipment and trade literature digest index; list of items described in Aero equipment digest section from May 1, 1945, to October 15, 1945; with addresses of manufacturers. Aero Digest 52:171-3+ Ja '46

Layout

North American aviation's new factory arrangement. Aeronautical Eng R 5:53 Jl '46

Lighting

Boeing aircraft company cafeteria. B. A. Travis. il plan diag Illum Eng 41:561-4 Jl '46
Lights up, but accessible; Ryan plane plant. il Elec West 96:90 Ap '46

Management

Applying wage incentives to job shop operation; Edo aircraft corporation. R. P. Wright. diags Factory Management 104:113-16 Ja '46
Efficient production and cost control; Lockheed aircraft corp. W. M. Mirisch. il Factory Management 103:109-13 D '45
Foreseeing production limitations; abstract. W. A. Reichel. Machine Design 17:162 D '45
Industry warned against use of war time techniques in peace. H. N. Gilbert. Aviation N 6:21 O 14 '46
Inspection plan improves plant housekeeping; Wright aeronautical corporation. V. McCabe. Factory Management 103:150-1 N '45
One-fifth the paperwork but closer control; methods engineering techniques, Curtiss-Wright propeller division. L. A. Hradesky. diags Factory Management 103:109-13 N '45
Service begins at the factory; spare parts manufacture and control; Aeronca aircraft corp. L. B. Nelson. il Aviation 45:44-5+ Ap '46

AIRPLANE factories—Management—*Cont.*
Statistical quality control at Lockheed; abstract. J. R. Crawford and P. C. Hammer. Metal Prog 50:150+ Jl '46

Records

One-fifth the paperwork but closer control; methods engineering techniques, Curtiss-Wright propeller division. L. A. Hradesky. diags Factory Management 103:109-13 N '45
Two-part inspection form means lower upkeep costs; Ryan aeronautical corporation, San Diego. D. H. Palmer. il Factory Management 104:100-1 Je '46

Safety measures

No accidents marred their victory effort; Lockheed aircraft corp. J. F. Hatton. il Nat Safety N 52:52 D '45
One million miles a year; in-plant vehicles; Glenn L. Martin company trains operators. il Nat Safety N 52:25+ D '45

AIRPLANE industry and trade
Aircraft companies turn talents to non-aviation manufacturing. B. Stubblefield. Aviation N 6:21-2 S 23 '46
Aircraft firms diversify products. R. McLarren. Automotive & Aviation Ind 94:17-18+ F 15 '46
Aircraft industry sponsors drive to lift export license controls. Aviation N 6:11 S 16 '46
Aircraft industry will make aluminum houses for veterans. B. Stubblefield. il Aviation N 6:7 S 2 '46
Aircraft makers diversifying. Bsns W p21-2 S 28 '46
Aircraft manufacturing industry, present and future prospects, by Col George Bryant Woods; review. Comm & Fin Chr 164:1273 S 5 '46
Aircraft producers try to bolster badly depleted engineering staffs. Aviation N 4:22 N 19 '45
Aviation facts and figures, 1945. R. Modley, ed. 173p $2.50 McGraw-Hill book co, 330 W. 42d st, New York 18 '45
Deft dealers make airshows pay. F. R. Brine. il Aviation 45:52, 139+ S '46
Denver store sells 8 Ercoupes in week. il Aviation N 4:20 N 19 '45
Excess capacity vs. expansion. J. D. C. Weldon. Mag of Wall St 78:622-3 Ag 31 '46
Field day reveals growing market for farm planes; Prairie farmer and WLS are hosts at West Lafayette, Indiana. il Sales Management 57:67+ Ag 15 '46
Flyaway service established in Dayton for delivery of aircraft from manufacturers to dealers and distributors. Aviation N 5:14 F 11 '46
Flying farmers. Bsns W p33 Ag 3 '46
How to sell a $125,000 hotcake; Beechcrafts. S. Nesbitt. il Sales Management 57:44-5 Ag 1 '46
Latin America scene of major U.S.-British export battle. il Aviation N 6:21 Jl 8 '46
Lockheed enthrones passenger as king of post-war sales setup. L. K. Schwartz. Sales Management 55:92+ D 1 '45
Open home sales school for dealers-distributors; correspondence course in airplane selling. K. H. Holmgren. il Aviation 44:176-7 D '45
Parks to handle 1,800 Ercoupes annually under expansion plan. Aviation N 4:17 D 10 '45
Piper puts appliance selling methods to work to sell private planes. W. B. St John. il Sales Management 57:100+ Jl 1 '46
Piper's sales training course. Aero Digest 52:88+ Ja '46
Plane marketing pivots on specialized sales training. V. C. Rasmussen. Aviation 45:44+ Mr '46
Private-plane makers struggle forward. J. A. McWethy. Barron's 26:7 Jl 29 '46
Real sales clincher is the follow-up. K. H. Holmgren. Aviation 45:51+ Je '46
Subcontractor to manufacture Fairchild F-24's at Texas plant. il Aviation N 4:16-17 D 3 '45
U.S. dollar loan program seen bolstering export of aircraft. Aviation N 6:23-4 N 4 '46
Wanted: aircraft and accessory retailers. A. S. Brown. Aviation 45:107+ Ja '46
We're losing our export markets. R. L. Hoadley. il Aviation 45:44-5 S '46
What price airplanes? mass production and tool engineering will lower costs. A. M. Sargent. Aero Digest 53:26-7 O '46

See also
Airplane sales buildings

Advertising

AIA veto of export advertising may bring even stronger drive. Aviation N 4:22 Ja 7 '46
Policy story behind Boeing's consistent consumer advertising. E. Gidlow. il Sales Management 57:37-9 S 15 '46

Directories

Aviation's directory of aircraft and helicopter manufacturers. Aviation 45:143 F '46

Finance

Aircraft earnings reflect trend from war boom to peace level. Aviation N 5:25 My 27 '46
Aircraft makers' business finding new peacetime level; with thumbnail sketches of leading manufacturers. R. P. Cooke. Barron's 26:9+ Je 17 '46
Aircraft manufacturing shares undervalued according to analysts. Aviation N 6:19 Jl 29 '46
Current assets and liabilities of 23 U.S. aircraft and equipment companies, 1939-1945; tabulation. Automotive & Aviation Ind 95:52 Ag 15 '46
Ex-G.I. starts afresh; industry has yet to establish permanent status in nation's peacetime economic structure. Bsns W p 119 Mr 23 '46
Financial yardsticks for '46. R. L. Hoadley. Aviation 45:76-7 F '46
Largest sales finance group enters lightplane market; Universal CIT credit corp. W. Kroger. Aviation N 6:14 Jl 29 '46
More lightplane manufacturers likely to enter financing programs. Aviation N 5:22 Mr 25 '46
Profits balanced by reconversion costs. R. L. Hoadley. Aviation 45:84+ Jl; 52+ Ag '46
Prospects of billion dollar year seen for reconverted aircraft industry. W. Kroger. Aviation N 6:20+ S 2 '46
Sound financial status braces industry in readjustment. R. L. Hoadley. Aviation 45:42-3 Je '46
34 aircraft, equipment companies had 1.2% average profit in '44. Aviation N 5:19 Ap 1 '46

Officials

Breech tops executive salaries in world's largest industry. Aviation N 6:15-16 Ag 26 '46

Private planes

See Airplanes—Private ownership

Securities

Aero industry dividend payments will assume uncertain pattern. Aviation N 5:20 Ap 15 '46
Aircraft and equipment equities show market declines in 1946. Aviation N 6:33 Jl 22 '46
Aircraft shares top V-J day level despite market slump. Aviation N 6:27 N 4 '46
Aviation specialty trusts show strong share appreciation in '45. Aviation N 5:14 F 25 '46
Dow-Jones 30 industrials and 8 principal airlines; financial comparisons; tabulation. Comm & Fin Chr 162:3032 D 20 '45
Engine-stock position stronger than market indicates. R. L. Hoadley. Aviation 45:131+ Ja '46
Factors dominating aircrafts outlook; with financial survey of aircraft stocks. H. F. Travis. il Mag of Wall St 78:694-5 S 14 '46
Investment trusts see worthy future in aviation securities. R. L. Hoadley. Aviation 45:53+ Ap '46
Leading lightplane stocks decline in a general slump in market. Aviation N 6:21 Ag 12 '46
Manufacturers' stocks in 1946. Aviation N 5:12 My 13 '46

AIRPLANE industry and trade—Securities— *Continued*
Post war prospects for aircraft manufacturers; with position of leading stocks. W. Beecher. Mag of Wall St 77:584-5+ F 16 '46
Re-appraising aircrafts today; with statistical highlights of leading aircraft manufacturers. W. Beecher. il Mag of Wall St 78:146-7+ My 11 '46
Selective aircraft shares showed substantial gains during 1945. Aviation N 5:18 Ja 14 '46
Survey indorses aircraft stocks, citing undervalued position. Aviation N 4:22 D 31 '45

Service
Standby planes; factory overhaul system assures constant aircraft fleet. Bsns W p20-1 D 1 '45

Statistics
Aeronautic exports, by years, 1912-1945; by type of product, 1942-1945; tabulations. Automotive & Aviation Ind 94:99 Mr 15 '46
Aircraft production and other statistics; tables and charts. Automotive & Aviation Ind 94:93-7 Mr 15 '46
Aircraft production estimates for 1946. Automotive & Aviation Ind 94:33 F 1 '46
Our industry's records and ranges. Aviation 45:72-5 F '46

Australia
Australian aircraft builders primed for salient role. H. B. Fletcher. il Aviation 45: 80-1 F '46

Brazil
Brazilian lightplane makers cite expanding Latin markets. A. McSurely. il Aviation N 6:23-4 Ag 26 '46

California
Tentative AAF plant dispersal plan stresses Los Angeles area problem; atomic explotives could neutralize the bulk of the industry. map Aviation N 4:11 N 12 '45

Canada
Avro interests start Canadian production. J. Montagnes. il Aviation 45:65-6 S '46
Canada's air industry is really ready for business. J. Montagnes. il Aviation 45:78-9+ F '46
Canadian aircraft industry swings into postwar production. A. V. Roe. Aviation N 6:27-8 Jl 22 '46

France
French aircraft industry pushes production for export markets. Aviation N 6:28+ O 7 '46
New French personal planes mark revival of tricolor industry. A. Charriou. il Aviation 45:40-2 My '46

Germany
Blohm & Voss was due for larger role. diags Aviation N 4:12 D 31 '45
German production; charts and tables. Automotive & Aviation Ind 94:51 Je 1 '46
Industry reported disappointed by work of technical missions. Aviation N 4:21 Ja 7 '46
Survey of production techniques used in the German aircraft industry; abstract. M. J. Meader. Automotive & Aviation Ind 94:172+ Mr 15 '46
U.S. aircraft industry can learn little from German methods. Aviation N 4:22 D 17 '45

Great Britain
Airframe lag slows British jet program; status of British production of transports. Aviation N 5:22 Je 24 '46
British air show opens drive for $64,000,000 export trade. F. R. Brewster. il Aviation N 6:17-18 S 30 '46
British push jet development in campaign to gain air lead. W. Kroger. il Aviation N 5:12 Je 10 '46
Engineering outlook. Engineering 161:77-8 Ja 25 '46
Folland aircraft annual general meeting, London. Economist 149:577 O 20 '45
Reports Britain leads world in development of jet propulsion. Iron Age 157:175 Ap 25 '46

Italy
New Italian transport waits allied approval. Aviation N 5:40 Je 10 '46

Latin America
Selling in the export market; rules for representatives in Latin America. R. L. Hoadley. il Aviation 45:42-3 O '46

United States
Air industrial planning in the postwar period. B. W. Chidlaw and E. W. Rawlings. Mech Eng 68:971-5 N '46
Air industry's job. H. Woodhead. Aviation N 4:8 D 31 '45
Air merger; Lockheed-Consolidated Vultee deal. Bsns W p56 S 21 '46
Aircraft industries association annual meeting, Los Angeles. Aviation N 4:7 D 17 '45
Aircraft industry gross for year not measuring up to expectations. W. Kroger. Aviation N 6:20+ S 30 '46
Aircraft industry makes good progress in 1946. R. McLarren. Automotive & Aviation Ind 95:17-19+ S 15 '46
Aircraft output in 1946 expected to fall to 6 per cent of war peak. Steel 118:416 Ja 7 '46
Armed services size up Nation's plane potential. map Bsns W p20 N 24 '45
Industry at the crossroads. C. B. Squier. il Aero Digest 52:35-7+ Ja '46
Industry faces rise in cost of research as output drops. E. R. Breech. Aviation N 4:15 D 31 '45
Mobilization of aircraft industry; planning to maintain it in state of readiness for war. J. C. Ward, jr. Mech Eng 68:871-4 O '46
Personal airplane market expanding. P. R. Lockhart. il Dom Comm 34:12-15 Ap '46
Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. Iron Age 157:116-17 Ja 3 '46
U.S. aircraft exports soar to $100,000,000. Aviation N 6:12 S 2 '46
Vigorous convention indicates strong aviation role for Aviation distributors and manufacturers association. Aviation N 4:11-12 D 17 '45
Webb-Pomerene law is promising plan to augment export efforts. R. L. Hoadley. Aviation 45:99+ Mr '46

See also
Call aircraft company

AIRPLANE landing stations. See Aviation landing stations

AIRPLANE materials. See Airplanes—Materials

AIRPLANE mechanics
G.I. mechanic's outlook. F. B. Howe. il Aero Digest 52:56+ Je '46
Mechanics' and foremen's round table. il diag Air Transport 4:49 Ap; 49 Je; 44 Jl; 65 Ag; 65 S; 42-4 N '46
New VA set of standards due to clarify veterans training. Aviation N 5:11 Ap 1 '46
Retraining is the answer as maintenance goes diverse; PAA's Atlantic div. A. G. Thomas and A. Merkin. il Aviation 44:112-14 D '45

See also
Bowser, Weldon

AIRPLANE models
Airline mobile training units. il Aero Digest 52:42-3 Ap '46

See also
Airplane engines—Models

AIRPLANE parts
Advantages of double-flared tubing; oxygen systems of combat airplanes. L. Virgile. diags Aero Digest 51:89+ D 1 '45
Chart for the design of wooden spars. E. Etkin. J Aeronautical Sci 13:498-500 S '46
Copper furnace brazed parts and principles of design. K. Schmidt. il diags Product Eng 17:103-7 O '46
Fatigue failures of aircraft parts, their cause and cure. D. M. Davis. bibliog il Aeronautical Eng R 5:15-23 Ja '46
Foreign liquidation commissioner reported ready to scrap most overseas surplus parts. W. Kroger. Aviation N 5:9 F 25 '46
Forgings for stressed fittings. W. Naujoks, il Aero Digest 53:82-3+ O '46

AIRPLANE parts—*Continued*
Service begins at the factory; spare parts manufacture and control; Aeronca aircraft corp. L. B. Nelson. il Aviation 45:44-5+ Ap '46

Testing
Case for 100 pct X ray aircraft castings. J. G. Schneeman. il Iron Age 158:56-8 O 10 '46

Transportation
Aero parts packaging task speeded by SAE committee. il S A E J 54:sup22+ My '46

AIRPLANE propellers
Aeromatic eight-bladed counter-rotating prop. il Aero Digest 53:112+ Jl '46; Aeronautical Eng R 5:111+ Je '46
Approved propeller hub for steel blades. il Aero Digest 52:80-1 F '46
Beech aircraft corporation's controllable-pitch propeller for light airplanes. il Aeronautical Eng R 4:123 D '45; Aero Digest 52:62 Ja '46; Product Eng 17:280-1 Ap '46; Aviation 44:175 D '45
Comparison of propeller and reaction-propelled airplane performances. B. Hamlin and F. Spenceley. diags J Aeronautical Sci 13:425-37 Ag '46
Continental propeller. il Aero Digest 52:90 My '46
Controllable lightplane prop is easily adjusted and serviced. il Aviation 45:33-5 Je '46
Counter-rotating prop research meets jet propulsion challenge. A. McSurely. Aviation N 5:19+ My 13 '46
Effect of body nose shape on the propulsive efficiency of a propeller. G. W. Stickle and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:371-99 '42
Efficient use of propellers seen at speed well into sonic realm. il Aviation N 5:18+ Mr 18 '46
Flutter of propeller blades. J. V. Inglesby. bibliog Roy Aeronautical Soc J 50:98-118 F '46
Future scope of propellers. L. G. Fairhurst. diags Roy Aeronautical Soc J 49:688-720; Discussion. 720-40 D '45
Hand-carved propeller made from mahogany. Aviation N 5:15 My 20 '46
How the controllable pitch propeller increases personal airplane utility. P. Altman. il Automotive & Aviation Ind 95:22-5+ Jl 15 '46
Lightning recorded by aeroplane propeller. J. M. Bryant and M. Newman. il J Ap Phys 17:555-7 Jl '46
NACA propeller formula may throttle lightplane noise. A. McSurely. Aviation N 6:27+ S 2 '46
New Sensenich controllable propeller built for lightplanes. A. McSurely. il diag Aviation N 6:13-14 Jl 22 '46
New variable pitch propellers added to many lightplanes. A. McSurely. Aviation N 6:23 Jl 15 '46
Nickel plate propeller promises lower cost. il Aviation N 5:21 Je 17 '46
Optional; jet or propeller. W. Ehlers. diags Aero Digest 53:74-6+ S '46
Pressure available for cooling with cowling flaps. G. W. Stickle and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:283-93 '42
Propeller analysis from experimental data. G. W. Stickle and J. L. Crigler. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:147-64 '42
Propeller balancing problems. S. G. Best. il diags S A E J 53:648-59 '45; Excerpts. Automotive & Aviation Ind 92:28-9+ My 1 '45
Propeller care rewarded by long service life. il Aero Digest 51:58 D 15 '45
Propeller performance analysis. E. Kessler. Aero Digest 52.80-1+ Je '46
Propellers for aircraft gas turbines. G. W. Brady. diags J Aeronautical Sci 13:449-56+ S '46
Redesign reduces cost and improves automatic variable pitch aircraft propeller. il Product Eng 17:[no 7]100-1 Jl '46
Simplified construction plus weight reduction keynotes novel high-hp. wood contra-prop. il Aviation 45:103+ Ag '46
Transition in propeller design. G. Rosen. il diags Aero Digest 52:82-4+ My '46
Weight reduction of aircraft braking system through use of reverse-thrust propellers. W. E. Eldred and others. il S A E J 54:107-18 Mr '46; Abstract. Automotive & Aviation Ind 94:36-7 Ja 15 '46; Discussion. S A E J 54:118-19 Mr '46

Manufacture
Calibration of pit furnaces for airplane propellers. C. A. Liedholm. il diags Metal Prog 49:361-8, 744-9, F, Ap '46
Comprehensive conveyor system at Rotol limited's aircraft propeller factory. B. S. Jelley. il diag Mech Handling 32:687-94 D '45
Forging costs cut by improved die lubricant. L. R Pistoles. il Iron Age 158:55-6 O 17 '46
Forming heavy plate with Kirksite dies; Curtiss-Wright corp. L. R. Pistoles. il Iron Age 157:74-5 Mr 14 '46
Hoists and rollers lighten the handling load; American propeller corporation; illustrations with text. Factory Management 103:94-6 D '45
One-fifth the paperwork but closer control; methods engineering techniques, Curtiss-Wright propeller division. L. A. Hradesky. diags Factory Management 103:109-13 N '45
Precise measurements and inspection by stereoscopic radiography. B. J. DeSimone. il diags Metal Prog 50:71-4 Jl '46
Precision atmosphere forging; A. O. Smith corp. E. G. de Coriolis. il Steel 118:90-4 Ap 8 '46
Upsetting tubular members simplified by special grippers. L. R. Pistoles. il diags Iron Age 158:42-8 Ag 15 '46

Testing
Propeller thrust, 1912; work of A. V. de Forest and L. de Florez; first measurement of thrust of airplane propeller in flight. J. C. Hunsaker. il Tech R 48:96-7 D '45
Proposed PICAO airworthiness standards. map Automotive & Aviation Ind 95:92+ S 15 '46
Static thrust and power characteristics of six full-scale propellers. E. P. Hartman and D. Biermann. bibliog diags U S Nat Advisory Com for Aeronautics 1940:85-100 '41
Stress gages simplify analysis. S. B. Williams. il Machine Design 18:132-6+ Jl '46
Sweptback propeller blades are under test. Aviation N 6:10 O 7 '46

AIRPLANE purchase financing. See Banks and banking—Airplane purchase financing

AIRPLANE races
Air races revived. Bsns W p42 Ag 24 '46
Meteor sets 606-mph. record; NAA establishes racing classes. il Aviation N 4:13 N 12 '45
1946 National air races. C. F. Elliott. il Aero Digest 53.23-5+ O '46
Perplexing air show problem well on way to settlement. S. Hershey. Aviation N 5:7-8 Ap 22 '46
Wartime speed boosts smash all national air race records. A. McSurely. il Aviation N 6.7-9 S 9 '46
World war fighter planes vie at National air races. A. Walker. il Automotive & Aviation Ind 95.28-31 S 15 '46

AIRPLANE repair stations
Fairchild center section removal. il Aero Digest 52:49 Mr '46
Hangar equipment roundup. I. F. Angstadt il Aero Digest 53:72-3 Jl '46
Keeping contract carrier fleets flying safely; maintenance-overhaul bases. G. Herrick. il Air Transport 4:41+ O '46
Lehigh's extra service keeps bringing 'em back. E. E. Thorp. il diags Aviation 45:82-6 Ap '46
Network of service bases started by Lockheed. il Aviation 45.44-5 Ag '46
Pattern for aircraft service; Southwest airmotive company. A. Harting. il Aero Digest 53:46-7 O '46
Powerplant specialists. il Aero Digest 52:80-1+ Ja '46
War-baby flight school becomes focal servicing base. il Aviation 45:46-9 Jl '46

AIRPLANE repair stations—*Continued*

Heating and ventilation

Industrial ventilation; naval air station at Coco Solo, Canal Zone; illustrations with text. F. F. Kravath. Heat & Ven 43:63-7 Ag '46

Layout

Mass production methods applied to aircraft engine overhaul; Warner Robins air technical service command. A. M. Whitmer. flow chart il Automotive & Aviation Ind 94:22-7+ F 1 '46

AIRPLANE sales buildings

Airplane row for volume sales. H. W. Hitchcock. il Aero Digest 51:82+ D 15 '45

AIRPLANE service stations

Airport development. F. P. S. Glassey. il plan Nat Pet N 38:25+ Jl 17 '46

Combination auto and aircraft service stations will be needed as interest in flying gains; abstract. A. Keif. Nat Pet N 38:40 Ja 30 '46

Flying aids. il Sci Am 173:352-4 D '45

Loan equipment eats up gasoline profits on current volume at smaller airports. E. Lamm. Nat Pet N 38:37-8+ S 25 '46

Personal plane, and no gas! A. Keif. Aero Digest 52:24-5 Ap '46

When Jones says: My radio's on the blink; extra dollars can be made by small airport operator. W. A. Burroughs, 3d. il diags Aviation 45:92-5 Ja '46

AIRPLANE shops

Engine conversion line is new base activity; Southwest airmotive co. il Aviation 45:48 O '46

AIRPLANE stability and stabilizers

Aerodynamic characteristics of horizontal tail surfaces. A. Silverstein and S. Katzoff. bibliog diags U S Nat Advisory Com for Aeronautics 1940:175-95 '41

Aileron reversal speed by influence coefficients and matrix iteration. W. T. Thomson. bibliog J Aeronautical Sci 13:192-4 Ap '46

Analysis and prediction of longitudinal stability of airplanes. R. R. Gilruth and M. D. White. diags U S Nat Advisory Com for Aeronautics 1941:137-45 '42

Analysis of the stability of an airplane with free controls. R. T. Jones and D. Cohen. bibliog diags U S Nat Advisory Com for Aeronautics 1941:109-20 '42

Application of established automatic control methods to the study of basic flight problems. O. B. Johnston and J. M. Anderson. bibliog diags J Aeronautical Sci 13:235-46+ My '46

Charts for fuselage torsion versus control-surface flutter. W. T. Thomson. A S M E Trans 68:51-6 Ja '46

Control surface spring tabs. F. W. Davis. diag Aeronautical Eng R 4:7-9 D '45

Coupled surfaces; new type of airplane control surface. J. B. Kendrick. bibliog diags J Aeronautical Sci 13:316-24 Je '46

Estimation of static longitudinal stability. E. J. N. Archbold. Roy Aeronautical Soc J 49: 616-38 O '45

Expanding domain of aeroelasticity. A. R. Collar. bibliog(62 titles) Roy Aeronautical Soc J 50:613-36 Ag '46

Flying qualities requirements for military aircraft. M. J. Abzug. Aeronautical Eng R 5: 16-22 O '46

Helicopter stability with Young's lifting rotor. B. Kelley. il diags S A E J 53:685-90 D '45

Lateral control required for satisfactory flying qualities based on flight tests of numerous airplanes. R. R. Gilruth and W. N. Turner. bibliog diags U S Nat Advisory Com for Aeronautics 1941:201-7 '42

Longitudinal stability and control with special reference to slipstream effects. S. Katzoff. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:213-41 '41

Preliminary investigation of the flying qualities of airplanes. H. A. Soulé. il diags U S Nat Advisory Com for Aeronautics 1940: 449-65 '41

Propeller balancing problems. S. G. Best. il diags S A E J 53:648-59 N '45

Stability of semimonocoque wing structures. H. L. Langhaar. il diags J Aeronautical Sci 13:119-25 Mr '46

Theoretical principles of wing-tip fins for tailless airplanes and their practical application. M. A. Garbell. bibliog diags J Aeronautical Sci 13:525-36 O '46

Theoretical study of lateral stability with an automatic pilot. F. H. Imlay. bibliog diags U S Nat Advisory Com for Aeronautics 1940:273-85 '41

Wind-tunnel investigation of effect of interference on lateral-stability characteristics of four NACA 23012 wings, an elliptical and a circular fuselage and vertical fins. R. O. House and A. R. Wallace. bibliog diags U S Nat Advisory Com for Aeronautics 1941:31-50 '42

See also

Airplane wings—
Flutter

Airplanes—Spinning

AIRPLANE struts

Euler critical load for pinned-pinned polynomial tapered struts. F. J. Turton. Roy Aeronautical Soc J 49:639-45 O '45

AIRPLANE wings

Aileron reversal speed by influence coefficients and matrix iteration. W. T. Thomson. bibliog J Aeronautical Sci 13:192-4 Ap '46

Airfoil development and structure within the cambered surface. R. A. Liming. il diags Aero Digest 51:66-8+ N 1; 64-6+ D 1 '45; 52:56-8+ Ja; 47-9+ F '46

Application of high strength plastic to monocoque wing construction. W. I. Beach. diags Automotive & Aviation Ind 93:25-7+ N 15 '45

Control operation of Spratt wing. G. G. Spratt. il diags Aeronautical Eng R 5:16-19 Mr '46

Design charts relating to the stalling of tapered wings. H. A. Soulé and R. F. Anderson. bibliog diags U S Nat Advisory Com for Aeronautics 1940:513-23 '41

Design of simplified structures for low-cost airplanes. A. Z. Boyajian. il diags Aeronautical Eng R 5:18-24+ Jl '46

Development and application of heated wings. M. Tribus. bibliog il diags S A E J 54:261-9+ Je '46

Effective control of stalling characteristics of highly tapered and swept-back wings. M. A. Garbell. il J Aeronautical Sci 13:88-93 F '46

Effective width of elastically supported flat plates. G. Gerard. bibliog diags J Aeronautical Sci 13:518-24 O '46

First sweepback wing data reveals supersonic flight needs. Aviation N 5:19 Je 10 '46

Folding wings for personal planes. J. H. Geisse. il Aero Digest 52:51+ Ap '46

Folding wings more than double hangar capacity. diags CAA J 7:45 Ap 15 '46

Free-spinning wind-tunnel tests of a low-wing monoplane with systematic changes in wings and tails. O. Seidman and A. I. Neihouse. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:243-62 '41

Geisse urges folding wings be incorporated in new planes. A. McSurely. diags Aviation N 5:12 Mr 4 '46

High-strength plastics in future aircraft design. W. I. Beach. diags Mech Eng 68:225-32 Mr '46; Abstract. Automotive & Aviation Ind 93:25-7+ N 15 '45

Lateral control required for satisfactory flying qualities based on flight tests of numerous airplanes. R. R. Gilruth and W. N. Turner. bibliog U S Nat Advisory Com for Aeronautics 1941:201-7 '42

Notch effects in high-strength aluminum-alloy spar caps. D. L. Moseley. il diags J Aeronautical Sci 13:397-401 Ag '46

Simplified supersonic speed wings being rushed by major producers. S. Bangs. Aviation N 4:7 N 12 '45

Stability of semimonocoque wing structures. H. L. Langhaar. il diags J Aeronautical Sci 13:119-25 Mr '46

Supersonic wave drag of thin airfoils. A. E. Puckett. bibliog diags J Aeronautical Sci 13:475-84 S '46

Supersonic wing experiment: German four-jet P-188; drawings with text. Aviation N 4:16 D 31 '45

AIRPLANE wings—*Continued*
Theoretical principles of wing-tip fins for tailless airplanes and their practical application. M. A. Garbell. bibliog diags J Aeronautical Sci 13:525-36 O '46
Unsteady lift of a wing of finite aspect ratio. R. T. Jones. bibliog diags U S Nat Advisory Com for Aeronautics 1940:31-8 '41
See also
Airplanes, Flying
wing

Flutter

Acceleration damper; development, design, and some applications. P. Lieber and D. P. Jensen. diags A S M E Trans 67:523-30 O '45; Discussion. 68:175-6 F '46
Analogy among torsional rigidity, rotating fluid inertia and self-inductance for an infinite cylinder; inertia of airplane wing containing fuel; flutter and stability calculations. J. W. Miles. diags J Aeronautical Sci 13:377-80 Jl '46
Expanding domain of aeroelasticity. A. R. Collar. bibliog(62 titles) Roy Aeronautical Soc J 50:613-36 Ag '46
Investigation of three methods for solving the flutter equations and their relative merits. R. J. Ruggiero. bibliog J Aeronautical Sci 13:3-22 Ja '46
Mechanism of flutter; a theoretical and experimental investigation of the flutter problem. T. Theodorsen and I. E. Garrick. bibliog(p 141) il U S Nat Advisory Com for Aeronautics 1940:101-46 '41

Testing

Adhesive tension patch; neoprene used in testing airplane wings. E. R. Weaver. Metal Prog 49:538 Mr '46
Constellation wing given shake test to solve problem of fuel tank leakage. il Aviation N 4:24 D 3 '45
De Havilland wing test rig. W. Hampton. il diags Roy Aeronautical Soc J 50:287-92 Ap '46
Experimental determination of the boundary layer and wake characteristics of a simple Joukowski aerofoil, with particular reference to the trailing edge region; abstract. J. H. Preston and N. E. Sweeting. Aeronautical Eng R 5:37 S '46
Experimental determination of the two-dimensional interference on a large chord Piercy 12/40 aerofoil in a closed tunnel fitted with a flexible roof and floor; abstract. J. H. Preston, N. E. Sweeting and D. K. Cox. Aeronautical Eng R 5:91 Je '46
Flight investigation of the effects of surface finish on wing profile drag. W. H. Day and J. M. Schwarzbach. il diags J Aeronautical Sci 13:209-13+ Ap '46
Flight-test investigation of the strength of a square-tipped wing. L. A. Minor. J Aeronautical Sci 13:469-74 S '46
Ground-testing of wings. il Aero Digest 52: 100 Ja '46
NACA tests airfoils for boundary control. il Aviation N 6:12 S 23 '46
Preliminary wind-tunnel investigation of an N.A.C.A. 23012 airfoil with various arrangements of venetian-blind flaps. C. J. Wenzinger and T. A. Harris. bibliog diags U S Nat Advisory Com for Aeronautics 1940: 197-212 '41
Pressure distribution over an NACA 23021 airfoil with a slotted and a split flap. T. A. Harris and J. G. Lowry. bibliog diags U S Nat Advisory Com for Aeronautics 1941:241-66 '42
Wind-tunnel investigation of effect of interference on lateral-stability characteristics of four NACA 23012 wings, an elliptical and a circular fuselage and vertical fins. R. O. House and A. R. Wallace. bibliog diags U S Nat Advisory Com for Aeronautics 1941:31-50 '42
Wind-tunnel investigation of NACA 23012, 23021, and 23030 airfoils equipped with 40-percent-chord double slotted flaps. T. A. Harris and I. G. Recant. bibliog diags U S Nat Advisory Com for Aeronautics 1941: 321-51 '42
Wind-tunnel investigation of spoiler, deflector, and slot lateral-control devices on wings with full-span split and slotted flaps. C. J. Wenzinger and F. M. Rogallo. bibliog diags U S Nat Advisory Com for Aeronautics 1941:51-80 '42

AIRPLANES
Aeronautics in 1945. il Engineer 181:8-10, supp 4-5, 30-1, supp 1, 52 Ja 4-18 '46
Announcing the Convair 240. il Aero Digest 52:41+ Ap '46
Army-navy precipitation-static project; electrification of aircraft flying in precipitation areas. R. G. Stimmel and others. il Inst Radio Eng Proc 34:167-77 Ap '46
Army-navy precipitation-static project; high-voltage characteristics of aircraft in flight. R. Gunn and J. P. Parker. bibliog il Inst Radio Eng Proc 34:241-7 My '46
Aviation's 1946 yearbook; American and foreign planes; brief descriptions and illustrations. Aviation 45:88-123 F '46
Avro Tudor II prototype. il Aero Digest 52:86 My '46
Bellatrix spearheads French market quest. il Aviation N 5:12 Je 3 '46
Boeing model 417 to cruise at 196 mph. diag Aviation N 6:23 Jl 1 '46
Bristol 170 transport plane. il plans Aero Digest 52:54-5+ Ap '46
British proving three diverse new craft. il Aviation 45:100 My '46
Burnelli CBY-3 air transport. il diags Aero Digest 52:50-1+ F '46
Consolidated Vultee's Model 240 can use propjets later on. diags Aviation N 5:21 Ap 8 '46
De Havilland Dove light transport aircraft. il Engineer 181:538 Je 14 '46
Details of Model 202 revealed. il Aero Digest 51:70 N 15 '45
Domestic scheduled airline equipment; table of transport planes in service, under conversion and on order. Aero Digest 53:37 Ag '46
Evolution of a new workhorse airplane for the airlines; abstract. M. B. Bassett. Automotive & Aviation Ind 94:36 My 1 '46
Feeder liners; growth of small airlines. il Bsns W p19-21 Jl 13 '46
522 planes in domestic service; expect 1,095 by end of next year. Aviation N 5:27 My 27 '46
French S.O.-30R Bellatrix is swift new airliner. il diags Aviation 45:93 Je '46
Here's the Constellation; pressurized 350-mph transport. Machine Design 18:114 Je '46
Lockheed enters Saturn in postwar feederline race. il Aviation 45:93 Ag '46
Lockheed shows the Constitution. il Aero Digest 53:73 O '46; Aeronautical Eng R 5:41+ O '46
Lockheed test flies new Saturn feeder. il Aviation N 6:11 Jl 1 '46
Long-range plane has cargo handling equipment built-in; Globemaster. il Sci Am 175: 122 S '46
Miles Marathon civil-transport aircraft. il Engineering 162:258-9 S 13 '46
Model 240; new Consolidated Vultee transport. il Aviation N 4:36 Ja 7 '46
P-82 Twin Mustang. diag Aeronautical Eng R 5:123-4 Ja '46
Power switch on Constitution revives airline interest in plane. Aviation N 5:9 Je 24 '46
Production of Beech D18S in full swing at Wichita plant. Aviation N 4:26 D 24 '45
Radical flying pancake design announced. il Product Eng 17:148 Ag '46
Republic's RC-2 stratospheric liner. diags Automotive & Aviation Ind 94:23 Ja 1 '46
Republic's Rainbow. C. B. Allen. il Air Transport 4:42-4 S '46
Research and development in aeronautics. H. E. Wimperis. Inst Mech Eng J & Proc 152: Proc 353-61, pl 1-2 Mr '46; Same. Engineering 158:465, 503-5 D 15, 29 '44; Same cond. Engineer 178:410-12 N 24 '44
Rocket's future influence on transport designs. M. Summerfield. il diags Aviation 45:73-6 Ja '46
S.A.E. annual meeting; aeronautic sessions. S A E J 54:sup56-60 F '46
SAE national aeronautic meeting; air transport sessions. S A E J 54:sup37d My '46

AIRPLANES—*Continued*
Transport plane for bush airlines; Northrop's Pioneer. W. Kroger. il Air Transport 4:40-1 N '46
Utility and comfort merge in Boeing Stratocruiser. il diags Aero Digest 51:56-7+ D 15 '45
Western contracts for 20 Model 240's. S. Bangs. Aviation N 5:39 Ap 1 '46
What's up, and what's going up? information on new aircraft. il Aero Digest 52:92 Ja '46

See also
Aeronautics
Airfoils
Airplane engines
Airplane propellers
Airplane wings
Airships
Autogiros
Aviation
Flying boats
Gliders
Hangars
Helicopters
Loading and unloading—Airplanes
Seaplanes

Air conditioning

High speed airliners need refrigeration. J. T. Fisher. il diag Refrig Eng 52:303-5 O '46
Refrigeration for air conditioning pressurized transport aircraft. B. L. Messinger. il diags S A E J 54:93-106+ Mr '46; Same cond. Refrig Eng 51:21-5+ Ja '46; Abstracts. Automotive & Aviation Ind 94:32-4 Ja 1 '46; Heat & Ven 43:63-8 Ja '46

Airworthiness

CAA announces changes to be made in Constellations. CAA J 7:103 Ag 15 '46
Constellation grounding gets unusual public attention. G. Herrick. Air Transport 4:97+ Ag '46
Fire in the air; Constellation grounding order. il Bsns W p17-18 Jl 20 '46
New airworthiness rules summary issued by CAB. CAA J 6:123 N 15 '45
New CAR part 03 held first effort to set up full engine requirements. Aviation N 4:13 Ja 7 '46
Proposed PICAO airworthiness standards. map Automotive & Aviation Ind 95:20-3+ S 15; 24-7+ O 1; 36-9+ O 15 '46
Safety in air; Constellations, may be first to meet new specifications. Bsns W p50+ Ag 10 '46

Anchorage

See Airplanes—Mooring

Auxiliary power

Air forces' needs in electric equipment. G. C. Crom, jr. il diags Elec Eng 65:17-22 Ja '46
Alternating current power for large aircraft. T. B. Holliday. il diags Product Eng 17: 503-8 Je '46
Applying 400 cycle motors to accessories. R. G. Holt. il Steel 118:94+ Ja 21 '46
Basic design principles for a-c electric-power systems in large military aircraft. C. K. Chappuis and L. M. Olmsted. bibliog diag Elec Eng 65:Trans 12-17 Ja '46
Case for the full-pneumatic system for aircraft auxiliary systems. J. L. Dooley. diags Aviation 45:68-72 My; 76-80 Je '46
D-c power systems for aircraft. H. J. Finison and R. H. Kaufmann. bibliog il diags Gen Elec R 48:22-6 S; 35-41 O; 59-62 N; 56-63 D '45; 49:51-7 Mr; 46-54 My; 46-52 Je; 41-8 Ag '46
Governor for variable-ratio transmission used in developmental 400-cycle electric system for large aircraft. P. F. Desch and others. il diags Elec Eng 65:Trans 194-8 Ap '46
Matching the engine and generator of aircraft auxiliary powerplants. H. J. Finison. il Aero Digest 51:77-9+ D 1 '45
Power-operated aircraft controls. diag Engineer 182:240-1 S 13 '46

Bearings

Anti-friction bushings. il Sci Am 175:17 Jl '46
Torque tube bearing swage utilized for light, inexpensive, quickly made fitting. il diag Aviation 45:101 Jl '46

Cabins

Aircraft acoustical problems and possible solutions. K. R. Jackman. bibliog il diags Aviation 45:75-9 Jl; 83-9 Ag; 71-8 S; 69-73 O '46
Cabins can be quieter. A. Klemin. il diag Sci Am 175:163-5 O '46
Crash research from the point of view of cabin design. H. DeHaven. il Aeronautical Eng R 5:11-17 Je '46; Abstract. Mech Eng 68:824-5 S '46
Psychological requirements for aircraft passenger cabin design; abstracts. H. K. Edwards. S A E J 54:sup26 Ap '46; Automotive & Aviation Ind 94:58+ Ja 1 '46

Supercharging

Aero medical aspects of cabin pressurization for military and commercial aircraft. W. R. Lovelace, 2d and A. P. Gagge. J Aeronautical Sci 13:143-50 Mr '46
British airliner pressurization initiated on Tudor I; includes combined heating and ventilation system. il diags Aviation 45:70-1 Jl '46
Cabin supercharger types. D. Gregg. diags Aero Digest 52:88+ Je '46
Design of pressurized cabin aircraft. D. O. Dommasch. bibliog J Aeronautical Sci 13: 302-8 Je '46; Discussion. 13:536+ O '46; Reply to discussion. D. O. Dommasch. 13: 580 N '46
High speed airliners need refrigeration. J. T. Fisher. il diag Refrig Eng 52:303-5 O '46
Integral sealing ring featured in new rivet for pressurized cabin construction. diags Aviation 45:103+ Je '46
It's hotter higher. Fortune 34:148+ Jl '46
Pressure cabin tests successful on Tudor I. il Aviation N 5:26 Je 3 '46
Pressurisation of the Tudor I air liner. il plan Engineer 181:450-2 My 17 '46
Pressurization of the Tudor I. il diags Aero Digest 53:80-1 S '46
Pressurized airplane cabins for stratosphere flights. diag Comp Air Mag 51:222 Ag '46
Refrigeration for air conditioning pressurized transport aircraft. B. L. Messinger. il diags S A E J 54:93-106+ Mr '46; Same cond. Refrig Eng 51:21-5+ Ja '46; Abstracts. Automotive & Aviation Ind 94:32-4 Ja 1 '46; Heat & Ven 43:63-8 Ja '46
Tests of pressure-controlled aeroplane cabin. il Engineering 162:7-9, 12 Jl 5 '46

Chartering

Barnstormers of 1946 include many wartime pilots with surplus C-47's. G. Herrick. il Air Transport 4:73-5 Mr '46
CAA predicts boom in charter services. Aviation N 4:38 D 10 '45
Freedom for charter lines asked in U.K. Aviation N 5:32 Je 10 '46
New charter plan may solve return load problem; Caribbean air transport, inc. map Aviation N 5:15 Ja 28 '46
Tap those sources of air charter business. C. A. Parker. il Aviation 45:87-8 O '46
Trans-Marine charters DC-3's from Colonial. Aviation N 5:13 F 25 '46
Wisconsin group hits charter curbs. Aviation N 4:38 N 19 '45

Cockpits

Canopy of plastic offers good vision. il Aviation N 6:28+ Jl 22 '46
Flight control standardization. C. G. Peterson. diags Aero Digest 52:82-3+ Ap '46
Flight engineer station design and requirements; abstract. M. F. Vanik. S A E J 54: sup71-2 Jl '46
Noteworthy types of cockpit enclosure. il diags Aero Digest 52:60-3 My '46
Standardization of navy cockpit arrangement. L. de Florez. il Aeronautical Eng R 5:26-9 Ap '46

Cold weather operation

Cold starting fuels eliminate preheating. il Aero Digest 52:68 Je '46

Control

Airplane maneuvering loads. E. C. Posner. bibliog J Aeronautical Sci 13:325-31 Je '46
Analysis of the stability of an airplane with free controls. R. T. Jones and D. Cohen. bibliog diags U S Nat Advisory Com for Aeronautics 1941:109-20 '42
Application of established automatic control methods to the study of basic flight problems. O. B. Johnston and J. M. Anderson. bibliog diags J Aeronautical Sci 13:235-46+ My '46

AIRPLANES—Control—*Continued*
Army target plane controlled by radio transmitter. il Electronics 18:300 D '45; Radio N 35:66 Ja '46
Automatic flying with electronic equipment; automatic pilots, incorporating automatic airport approach facilities. Electronics 19: 186+ My '46
Automatic instrument approach. W. F. McDonald. il plan Air Transport 4:70-1 Ag '46
Automatic pilots; past, present, and future. R. L. Johnson. il diag Aeronautical Eng R 5:22-9 S '46
Control decks for long range aircraft; abstract. H. J. Chase. Automotive & Aviation Ind 94:56+ Ja 1 '46
Control operation of Spratt wing. G. G. Spratt. il diags Aeronautical Eng R 5:16-19 Mr '46
Control surface spring tabs. F. W. Davis. diag Aeronautical Eng R 4:7-9 D '45
Controlling flight by pushbutton; development, by Air technical service command. il Machine Design 18:148 Ap '46
Controls coordinated in the three-in-one system. il Aero Digest 51:108 D 15 '45
Coupled surfaces; new type of airplane control surface. J. B. Kendrick. bibliog diags J Aeronautical Sci 13:316-24 Je '46
Culver's Simplifly control explained. Aviation N 4:14 Ja 7 '46
Determination of control-surface characteristics from NACA plain-flap and tab data. M. B. Ames, jr. and R. I. Sears. bibliog diags U S Nat Advisory Com for Aeronautics 1941:295-311 '42
Drones; prelude to push-button warfare? O. Read. il map Radio N 36:25-9+ O '46
Effective control of stalling characteristics of highly tapered and swept-back wings. M. A. Garbell. il J Aeronautical Sci 13:88-93 F '46
Electronic control of plane in landing approach; Sperry A-12 Gyropilot. diag Aviation 45:80 O '46
Flight control standardization. C. G. Peterson. diags Aero Digest 52:82-3+ Ap '46
Flying qualities requirements for military aircraft. M. J. Abzug. Aeronautical Eng R 5:16-22 O '46
Lateral control required for satisfactory flying qualities based on flight tests of numerous airplanes. R. R. Gilruth and W. N. Turner. bibliog diags U S Nat Advisory Com for Aeronautics 1941:201-7 '42
Longitudinal stability and control with special reference to slipstream effects. S. Katzoff. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:213-41 '41
Minneapolis-Honeywell making bid to stay in aviation business. Aviation N 6:20+ Jl 1 '46
Navy demonstrates pilotless aircraft. Electronics 19:262+ F '46
Navy exhibits telemetering as pilotless testing technique. B. Stubblefield. il Aviation N 6:19 Ag 19 '46
New robot pilot; automatic flight controller. il Bsns W p48 F 23 '46
New system of radio telemetering; aircraft flight testing and flying of radio-controlled aircraft. D. W. Moore, jr. il diags Aeronautical Eng R 5:30-1+ S '46
Pilot and the controls. W. Langewiesche. Aeronautical Eng R 5:25-8 Ag '46
Pilotless plane run by radio. S. R. Winters. il Radio N 35:35+ My '46
Radio-controlled Hellcat. Product Eng 17:150 F '46
Radio operated airplane. S. R. Winters. il Radio N 35:29+ Ja '46
Remote radio control of test aircraft and transmission of flight data to recording instruments; equipment developed by ATSC and Bell Aircraft. il Steel 117:108+ N 19 '45; Aero Digest 52:53+ F '46; Aeronautical Eng R 5:115+ Ja '46; Machine Design 18: 107-10 Mr '46
Safe testing of supersonic planes seen in new radio control device. il Aviation N 4:11 N 19 '45
Simplifying the airplane for the private owner. J. M. Gwinn, jr. diags S A E J 54:491-502 S '46
Theoretical study of lateral stability with an automatic pilot. F. H. Imlay. bibliog diags U S Nat Advisory Com for Aeronautics 1940:273-85 '41
Wider operating scope attained by new automatic pilot. R. N. Greif. il diags Aviation 45:68-72 Ap '46; Excerpts. Aviation N 5:27 Ap 22 '46
Wind-tunnel investigation of spoiler, deflector, and slot lateral-control devices on wings with full-span split and slotted flaps. C. J. Wenzinger and F. M. Rogallo. bibliog diags U S Nat Advisory Com for Aeronautics 1941:51-80 '42

See also
Airplane stability and stabilizers
Airplanes—Spinning

Cost of operation

See also
Airplanes, Light—Cost of operation

Design

Aerodynamic characteristics of horizontal tail surfaces. A. Silverstein and S. Katzoff. bibliog U S Nat Advisory Com for Aeronautics 1940:175-95 '41
Aileron reversal speed by influence coefficients and matrix iteration. W. T. Thomson. bibliog J Aeronautical Sci 13:192-4 Ap '46
Aircraft interiors from the airlines' viewpoint; abstract. R. W. Rummel. S A E J 54:sup35 Jl '46
Airplane graphics; abstract. J. P. Vidosic. Product Eng 17:127 F '46
Airplane maneuvering loads. E. C. Posner. bibliog J Aeronautical Sci 13:325-31 Je '46
Analysis and prediction of longitudinal stability of airplanes. R. R. Gilruth and M. D. White. diags U S Nat Advisory Com for Aeronautics 1941:137-45 '42
Analysis of the stability of an airplane with free controls. R. T. Jones and D. Cohen. bibliog diags U S Nat Advisory Com for Aeronautics 1941:109-20 '42
Applying biomechanics to airplanes. F. K. Teichmann. Mech Eng 68:628-9 Jl '46
British eyeing prop-jets for newly tested airlines. il Aviation 45:85 S '46
Canard aircraft principle regarded as valuable in transport design. diags Aviation N 4:24 N 26 '45
Comparison of propeller and reaction-propelled airplane performances. B. Hamlin and F. Spenceley. diags J Aeronautical Sci 13:425-37 Ag '46
Computation of the axis of rotation of retractable landing gear. E. Katzberg. Aero Digest 51:62-3 D 1 '45
Consairway war experience sharpens Convair peace designs. J. B. Rea. il Aviation 44: 191-4+ D '45
Control decks for long range aircraft; abstracts. H. J Chase. Automotive & Aviation Ind 94:56+ Ja 1 '46; S A E J 54:sup72-3 Jl '46
De Havilland Dove transport aircraft. il diag Engineering 162:156, 162 Ag 16 '46
Design analysis of Republic Seabee. I. Stone. il diags Aviation 45:45-62 My '46
Design charts relating to the stalling of tapered wings. H. A. Soulé and R. F. Anderson. bibliog diags U S Nat Advisory Com for Aeronautics 1940:513-23 '41
Design for profit; reducing ground time and facilitating maintenance. H. G. Lesley. il Air Transport 3:50+ D '45; 4:49-50+ F; 44+ Mr '46
Design of pressurized cabin aircraft. D. O. Dommasch. bibliog J Aeronautical Sci 13: 302-8 Je '46; Discussion. 13:536+ O '46; Reply to discussion. D. O. Dommasch. 13: 580 N '46
Design of simplified structures for low-cost airplanes. A. Z. Boyajian. il diags Aeronautical Eng R 5:18-24+ Jl '46
Design requirements for pickup aircraft. A. B. Schultz. il plans diags S A E J 54:1-17 Ja '46
Designing tomorrow's personal plane (cont). R. H. Upson. il diags Aviation 45:84-8 Ja; 76-80 Mr '46
Determination of control-surface characteristics from NACA plain-flap and tab data. M. B. Ames, jr. and R. I. Sears. bibliog diags U S Nat Advisory Com for Aeronautics 1941:295-311 '42

AIRPLANES—Design—*Continued*
Dynamic loads in airplane structures during landing. S. Tu. diags J Aeronautical Sci 13:381-7 Jl '46
Effect of body nose shape on the propulsive efficiency of a propeller. G. W. Stickle and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:371-99 '42
Effect on hinge moment of fitting strips near aileron trailing edge, of increasing aileron chord and of extending aileron to wing tip; abstract. A. S. Batson and J. H. Warsap. Aeronautical Eng R 5:99 My '46
Effective gust structure at low altitudes as determined from the reactions of an airplane. P. Donely. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:263-71 '41
Effects of open holes on the tensile strength of some aluminum alloys. C. H. Stevenson. J Aeronautical Sci 13:395-7 Ag '46
Elimination of direct-reading compass errors by proper aircraft design. J. F. Manildi. diags Aeronautical Eng R 5:3-10 My '46
Estimating plane performance via comparison method. D. B. Thurston. bibliog diags Aviation 45:55-62 S '46
Estimation of static longitudinal stability. E. J. N. Archbold. Roy Aeronautical Soc J 49: 616-38 O '45
Euler critical load for pinned-pinned polynomial tapered struts. F. J. Turton. Roy Aeronautical Soc J 49:639-45 O '45
Evolution of a modern transport airplane. M. B. Bassett. plans diags Machine Design 18:148-52 My '46
Expanding domain of aeroelasticity. A. R. Collar. bibliog(62 titles) Roy Aeronautical Soc J 50:613-36 Ag '46
Flight-test investigation of the strength of a square-tipped wing. L. A. Minor. J Aeronautical Sci 13:469-74 S '46
Fourteenth annual meeting of the Institute of the aeronautical sciences; review of technical papers; il diags Aeronautical Eng R 5:10-12 Ap '46
Free-spinning wind-tunnel tests of a low-wing monoplane with systematic changes in wings and tails. O. Seidman and A. I. Neihouse. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:243-62 '41
Fueling: a half-forgotten bit of aircraft design; abstract. A. O. Payne. S A E J 54: sup29 Ja '46
General instability of semimonocoque structures under bending. Tsun Kuei Wang. bibliog J Aeronautical Sci 13:29-37 Ja '46
High-strength plastics in future aircraft design. W. I. Beach. diags Mech Eng 68: 225-32 Mr '46
Ideas in the air. A. Klemin. il Sci Am 175: 208-10 N '46
Influence of different factors on buckling loads of curved thin aluminum-alloy sheets for monocoque constructions. G. Welter. il J Aeronautical Sci 13:204-8+ Ap '46
Internal flow systems for aircraft; abstract. F. R. Rogallo. Aeronautical Eng R 5:6-7 Ap '46
Investigations on the incompletely developed plane diagonal-tension field. P. Kuhn. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:387-412 '41
Landing gear strength envelopes. J. F. McBrearty and D. C. Hill. diags J Aeronautical Sci 13:229-34 My '46
Longitudinal stability and control with special reference to slipstream effects. S. Katzoff. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:213-41 '41
M.52 supersonic aircraft. il Engineer 182:233 S 13 '46
Materials and manufacturing processes determine economical tolerances. A. L. Klein. diags Product Eng 17:374-6 My '46
New airliner designs compared; Martin 202 and Convair 110. il Machine Design 17:145 N '45
New planes for personal flying; spinproof design, cost of flying, 1946 models, shopper's guide. il Fortune 33:124-9+ F '46
Objectives of a laboratory course in airplane structures. N. J. Hoff. il diag J Eng Educ 36:262-8 D '45
Optional; jet or propeller. W. Ehlers. diags Aero Digest 53:74-6+ S '46
Pay load factors influence design. W. M. Hawkins, jr. Aviation N 6:28 Jl 22 '46
Preliminary investigation of the flying qualities of airplanes. H. A. Soulé. il diags U S Nat Advisory Com for Aeronautics 1940: 449-65 '41
Pressed-out planes; Republic Seabee amphibian. A. Klemin. il Sci Am 175:120-2 S '46
Procedure for determining the critical load for a column of varying section. G. H. Martin. bibliog J Aeronautical Sci 13:135-40 Mr '46
Propeller balancing problems. S. G. Best. il diags S A E J 53:648-59 '45; Excerpts. Automotive & Aviation Ind 92:28-9+ My 1 '45
Proposed PICAO airworthiness standards; design standards. Automotive & Aviation Ind 95:24-7+ O 1 '46
Provisions for overwater operation; abstract. F. R. Canney. S A E J 54:sup25 Ap '46
Relation of air-line operations to transport design. E. P. Hall. Aeronautical Eng R 4: 7-11+ N '45
Report of N.A.C.A. committee on aircraft structures. U S Nat Advisory Com for Aeronautics 1940:16-18 '41
Republic's XF-12 photo plane; transport version, Rainbow. il Aero Digest 52:44-5 Ap '46
Response in yaw. E. J. N. Archbold and K. T. McKenzie. Roy Aeronautical Soc J 50:275-86 Ap '46
Secant modulus method for determining plate instability above the proportional limit. G. Gerard. bibliog il diag J Aeronautical Sci 13:38-44+ Ja '46; Discussion. N. J. Hoff. 13:363+ Jl '46
Simplified design for low-cost airplanes. A. Marchev. il diags Aeronautical Eng R 5: 5-9 Ja '46
Simplified design slashes plane production costs; Republic aviation corporation. A. Marchev and A. Z. Boyajian. il diags Am Mach 90:99-102 Mr 28 '46
Simplifying personal plane design. R. H. Upson. Aviation 45:55-9 Je; 71-5+ Ag '46
Simplifying the airplane for the private owner. J. M. Gwinn, jr. diags S A E J 54:491-502 S '46
Stability of semimonocoque wing structures. H. L. Langhaar. il diags J Aeronautical Sci 13:119-25 Mr '46
Stress-area method applied to frames. G. C. Best. J Aeronautical Sci 13:151-5 Mr '46
Stresses in ring structures. L. G. Whitehead. Roy Aeronautical Soc J 49:646-51 O '45
Supersonic flight poses many design hurdles. E. H. Heinemann. diags Aviation 45:69-70 Ag '46
Supersonic wave drag of thin airfoils. A. E. Puckett. bibliog diags J Aeronautical Sci 13:475-84 S '46
Systematic wing-section development; abstract. G. S. Schairer. il Aeronautical Eng R 5:7-8 Ap '46
Theoretical principles of wing-tip fins for tailless airplanes and their practical application. M. A. Garbell. bibliog diags J Aeronautical Sci 13:525-36 O '46; Abstract. Aeronautical Eng R 5:8-9 Ap '46
Wood vs metal construction in aircraft. H. Rawdon. il diags S A E J 53:691-712+ D '45

See also
Airplanes, Flying wing
Airplanes, Military—Design
Airplanes, Light—Design

Doors

Push-pull mechanism simplifies design; airplane door mechanism. J. S. Baker. il Machine Design 18:114-15 Ap '46

Drawings

Aviation's sketchbook of design detail. Aviation 45:125+ Ja; 107+ My '46 [cont monthly]
Northrop Pioneer. diags Automotive & Aviation Ind 95:39 N 1 '46

Electric equipment

Air forces' needs in electric equipment. G. C. Crom, jr. il diags Elec Eng 65:17-22 Ja '46
Aircraft circuit-breakers. C. H. Flurscheim and J. A. Nott. il diags Roy Aeronautical Soc J 49:663-79 N '45

AIRPLANES—Electric equipment—*Continued*
Aircraft electrical equipment; R.A.E. exhibition at Farnborough. Electrician 135:629-30 D 7 '45; il Elec R (Lond) 137:875-7 D 14 '45
Alternating current power for large aircraft. T. B. Holliday. il diags Product Eng 17: 503-8 Je '46
Analysis of relay servomechanisms. H. K. Weiss. bibliog diags J Aeronautical Sci 13: 364-76 Jl '46
Applying 400 cycle motors to accessories. R. G. Holt. il Steel 118:94+ Ja 21 '46
Automotive and aircraft electrical equipment; abstract. S. F. Stewart. S A E J 54:sup24 Mr '46
Basic design principles for a-c electric-power systems in large military aircraft. C. K. Chappuis and L. M. Olmsted. bibliog diag Elec Eng 65:Trans 12-17 Ja '46
Bristol gun turret. il diags Engineer 181: 68-9 Ja 18 '46; Abstract. Electrician 136: 150 Ja 18 '46
Carbon-pile speed governor. C. T. Button. diags Elec Eng 65:Trans 4-7 Ja '46
Constant-speed drives for aircraft alternators. C. J. Breitwieser. il diags Elec Eng 64:Trans 763-8 N '45
Control and protection of aircraft d-c power systems. B. O. Austin. il diags Elec Eng 65:Trans 741-5 N '46
Design for profit; hydraulic vs. electrical controls, conduit vs. cable, etc. H. G. Lesley. il Air Transport 4.44+ Mr '46
D-c power systems for aircraft. H. J. Finison and R. H. Kaufmann. bibliog il diags Gen Elec R 48:22-6 S; 35-41 O; 59-62 N; 56-63 D '45; 49:51-7 Mr; 46-54 My; 46-52 Je; 41-8 Ag '46
Effect of altitude on ventilation and rating of aircraft electric machines. C. G. Veinott. Elec Eng 65:Trans 84-90 F '46
Electrical and allied developments of 1945; aviation. G. Bartlett. il Gen Elec R 49:38-41 Ja '46
Electrical equipment for aircraft; exhibition, Royal aircraft establishment. Engineering 160:469-70 D 7 '45
Elimination of direct-reading compass errors by proper aircraft design. J. F. Manildi. diags Aeronautical Eng R 5:3-10 My '46
Exciter-regulator for aircraft alternators. P. T. Hadley and others. il diags Electronics 19:120-2 Jl '46
Future of electronics in aviation. J. D. Goodell and D. J. Coleman. il Radio N 35:25-8+ F '46
Generation and regulation of electric power in aircraft; a survey of design features of generators and their control. I. O. Hockmeyer. bibliog il diags Inst E E J 93 pt 2: 2-14 F '46
Governor for variable-ratio transmission used in developmental 400-cycle electric system for large aircraft. P. F. Desch and others. il diags Elec Eng 65:Trans 194-8 Ap '46
Hermes' electrical equipment. il Electrician 137:663 S 6 '46
Instability in d-c aircraft systems. H. B. Bunce and others. il diags Elec Eng 64: Trans 786-91 N '45
Investigation of porcelain insulators at high altitudes. C. V. Fields and C. L. Cadwell. bibliog diags Elec Eng 65:Trans 656-60 O '46
Lightweight electrical systems design problems and solutions. T. B. Holliday. il Product Eng 17:122-6 Ag '46
Maintenance testing of dynamotors. H. M. Tremaine. il diag Electronics 19:158+ Je '46
Matching the engine and generator of aircraft auxiliary powerplants. H. J. Finison. il Aero Digest 51:77-9+ D 1 '45
Mr Churchill's luxury 'plane; electrical equipment in the Skymaster. il Electrician 135: 569-70 N 23 '45
Motor ventilation requirements for aircraft service. L. W. Wightman. diags Product Eng 17:377-9 My '46
Parallel operation of main-engine-driven 400-cycle aircraft generators. L. G. Levoy, jr. il diags Elec Eng 64:Trans 811-16 D '45
Portable electrical tester insures quick airliner checks. il Aviation 45:49 O '46
Precision autosyns for servo systems. J. P. Glass and P. F. Bechberger. il diags Aeronautical Eng R 5:5-10 Je '46
Pressure-arc-interruption circuit breakers for 400-cycle aircraft electric-power system. B. O. Austin il Elec Eng 65:Trans 58-60 F '46
Privateer generator operation improved. il Aero Digest 51:62 N 15 '45
Progress in engineering knowledge during 1945; aeronautical equipment. P. L. Alger and others. il diag Gen Elec R 49:32-3 F '46
Progress in engineering knowledge during 1945; aircraft power supply. P. L. Alger and others. il diag Gen Elec R 49:46-7 bibliog(p65) F '46
Short-time current ratings for aircraft wire and cable. B. W. Jones and J. A. Scott. diag Elec Eng 65:Trans 644-8 O '46
Small rotary transformers for aircraft. Engineering 162:246 S 13 '46
Society of British aircraft constructors exhibition; examples of airfield lighting; communications equipment. il Electrician 137: 647-8 S 6 '46
Unique engine-synchronism indicator for aircraft. D. B. Pearson. bibliog il diags Elec Eng 65:Trans 650-3 O '46

Equipment

Aviation's showplace of accessories and field units. il diags Aviation 45:144-54+ F '46
Comfortization of the DC-6. A. A. Arnhym. il Aero Digest 52:159 F '46
Control cable quick-disconnect expedites maintenance access. il diag Aviation 45:105 Je '46
Flame test room permits testing of hose used on military aircraft. il Steel 117:128 D 10 '45
Flight engineer station design and requirements; abstract. M. F. Vanik. Automotive & Aviation Ind 94:34+ Ja 1 '46
High-pressure gear pumps. T. E. Beacham. il diags Engineering 161:284-5, 310-12, 334-5 Mr 22-Ap 5 '46; Same cond. Engineer 181: 182-4 F 22 '46; Discussion. Engineering 161: 185-6 F 22 '46; Engineer 181:180-2 F 22 '46
Life expectancy of an accessory; overhaul time and cost. G. Herrick. Air Transport 4: 62-3 Ag '46
New fleets for old; survey of passenger preferences precedes redesign of Chicago and Southern planes. il plan Air Transport 4:57-8+ My '46
Production costs clipped with clips; holder for emergency crank. il Aviation 44:199+ D '45
Pulley design for modern planes. R. R. Richolt. il Aero Digest 52:54-5+ Ja '46
Roller-mounted maps expedite position finding. il Aviation 45:74 Jl '46

See also
Aeronautic instruments
Airplane accessories industry
Airplanes—Pick-up equipment
Radio apparatus on aircraft

Fires and fire protection

Aircraft firefighting equipment. P. W. Eberhardt. il Aero Digest 52:59+ Mr '46
Drive against fire hazards of planes initiated by Aeronautics board. Weekly Underw 155: 218 Jl 27 '46
Engineered fire protection. I. J. Hammill. il Air Transport 4:61-2 N '46
Modified Connies will fly again as TWA hearing vindicates plane; electrical bulkhead connections cited as fire cause. Aviation N 6:7-8 Ag 12 '46
Slick fire protection. il Air Transport 4:60 Jl '46

Flying wings

See Airplanes, Flying wing

Fuel tanks

Analogy among torsional rigidity, rotating fluid inertia and self-inductance for an infinite cylinder; inertia of airplane wing containing fuel; flutter and stability calculations. J. W. Miles. diags J Aeronautical Sci 13:377-80 Jl '46
Constellation wing given shake test to solve problem of fuel tank leakage. il Aviation N 4:24 D 3 '45
Flexible fuel tanks. il Engineer 181:336 Ap 12 '46

AIRPLANES—Fuel tanks—*Continued*
Flying fuel tank; made from needled rope manila or sisal fiber blanket impregnated with phenolformaldehyde resin. il Mod Plastics 23:132-3 D '45
Liquid mass measurement ups fuel gaging accuracy. C. H. Odell. il diags Aviation 45: 72-3 Je '46
Marflex flexible fuel cells for aircraft. il Engineering 161:584-5 Je 21 '46

Fuselage

Charts for fuselage torsion versus control-surface flutter. W. T. Thomson. A S M E Trans 68:51-6 Ja '46
Wind-tunnel investigation of effect of interference on lateral-stability characteristics of four NACA 23012 wings, an elliptical and a circular fuselage and vertical fins. R. O. House and A. R. Wallace. bibliog diags U S Nat Advisory Com for Aeronautics 1941:31-50 '42

Gearing

Gear for gas turbine plane. il Product Eng 17:486 Je '46
Precision production of steel aircraft gears. O. E. Brown. il Materials & Methods 23: 1303-6 My '46
Selective induction hardening of previously hardened parts. R. C. Gibbons. il Steel 118: 92-3+ My 27 '46

See also
Airplane engines—Gearing
Gas turbines, Aircraft—Gearing

Heating and ventilation

Air conditioning a luxury airliner. il Heat & Ven 43:95-6 O '46
Air conditioning and panel heat give top comfort in new planes. il diags Dom Eng 168:134-5+ Ag '46
Airplane heating and ventilating involves many special problems. M. Martin. bibliog il diags Heating-Piping 18:89-93 Je '46
Good air distribution is vital in airplane heating, ventilating. M. Martin. bibliog il Heating-Piping 18:93-5 S '46
Heating and ventilating for transport airplanes. B. M. Brod. il diags Heating-Piping 18:124-9 Ja '46
Janitrol aircraft heater for radiant heating, ventilating, and de-icing systems. il diags Heating-Piping 18:179 Jl '46
Janitrol heater kit adaptable to Cessna airplane. il Aeronautical Eng R 5:130-1 My '46
Package heater developed for Boeing Stratoliner. H. R. Porter. il diags S A E J 54: 191-9 Ap '46
Surface Combustion adaptable heater kit. diag Aero Digest 52:90 My '46
Surface Combustion radiant heating for air liners. il Sheet Metal Worker 37:80 Jl '46
Thermal de-icing on the DC-6; cabin heating system. il Aero Digest 53:89+ Ag '46

Hydraulic equipment

Aircraft hydraulic systems. il Aero Digest 53: 92+ S '46
Burrs blasted by shell; walnut shell flour used to deburr precise and fragile hydraulic parts for aircraft. W. L. Lewis. il Am Mach 89:104-5 D 20 '45
Constellation brings new line maintenance procedures. G. Herrick. diags Air Transport 4:33-4, 36 Mr '46
Dimethyl-silicone-polymer fluids and their performance characteristics in hydraulic systems. V. G. Fitzsimmons and others. il A S M E Trans 68:361-9 My '46
Eliminating brittleness in aluminum-silicon-bronze hydraulic sleeves for aircraft. L. J. Barker. il Automotive & Aviation Ind 94: 34-5 Ap 1 '46
German aircraft hydraulic systems and their components. R. H. Davies. diags S A E J 54:418-35 Ag '46
Hydraulic actuator; patent assigned to North American aviation, inc. diag Machine Design 17:174 D '45
Hydraulic tubing design. B. J. McCabe. diags Aero Digest 52:95-6+ Je '46
Inspection and servicing of light-amphibian hydraulics. E. E. Thorp. il diags Aviation 45:46-8 S '46
Lockheed Constellation hydraulic mock-up tests. B. A. Rose. il diags Aeronautical Eng R 4:12-19 D '45
Plastics in precision hydraulic equipment. W. L. Lewis. il Mod Plastics 23:198+ Je '46
Power-operated aircraft controls. diag Engineer 182:240-1 S 13 '46
Research and development of aircraft accumulators; abstracts. K. C. Monroe. Automotive & Aviation Ind 94:64+ Ja 15 '46; il S A E J 54:sup28-9 F '46

Ice protection

Airplane icing problem and its alleviation through research; abstract. A. R. Jones. Automotive & Aviation Ind 94:62+ Ja 15 '46
Anti-icing aircraft windshields. A. A. Arnhym. Mech Eng 68:564 Je '46
CAB shelves deicing proposal in face of industry opposition. Aviation N 6:27 S 23 '46
Development and application of heated wings. M. Tribus. bibliog il diags S A E J 54:261-9+ Je '46
Electronic timer for aircraft de-icer. D. W. Bloser and G. R. Holt. il diags Electronics 18:152-5 D '45
Future scope of propellers. L. G. Fairhurst. Roy Aeronautical Soc J 49:712-15 D '45
Icing problems and the thermal anti-icing system. F. L. Boeke and R. A. Paselk. bibliog diags J Aeronautical Sci 13:485-97 S '46
Janitrol aircraft heater for radiant heating, ventilating, and de-icing systems. il diags Heating-Piping 18:179 Jl '46
Nature of ice formation on aircraft as related to airline operation; abstract. C. M. Christenson. diags S A E J 54:103-4 O '46
Reduction of the adhesion of ice to de-icer surfaces; use of silane and silicones. D. L. Loughborough and E. G. Haas. bibliog il diags J Aeronautical Sci 13:126-34 Mr '46
Some suggested specifications for thermal ice-prevention system for aircraft. L. A. Rodert. bibliog A S M E Trans 68:781-9 O '46
Thermal de-icing on the DC-6; cabin heating system. il Aero Digest 53:89+ Ag '46; Same cond. Air Transport 4:71 Jl '46

Inspection

Check the plane and you check the costs. H. A. Senior. il Aviation 44:122-4 D '45
New test method of CAA increases safe plane output. CAA J 7:1+ Ja 15 '46

Instrument boards

Flight engineer station design and requirements; abstract. M. F. Vanik. Automotive & Aviation Ind 94:34+ Ja 1 '46
Instrument panel lighting design and development. T. B. Holliday. il Product Eng 16: 838-40 D '45

Jet propulsion

See Jet propulsion of aircraft

Landing

Aids to flight; new radar ground approach system, plus automatic pilot. Bsns W p48 O 5 '46
All-weather flying. il Electronics 19:84-7 S '46
Approach-angle indicator draws green landing path. il Air Transport 4:75 F '46
Automatic landing instrument; picks up beamed radio waves and follows them down to the landing strip. il Aero Digest 52:123 Ap '46
Brodie system provides a portable airport; device enables airplane to land and take-off on a cable. J. H. Brodie. il Eng & Min J 146:80-1 D '45
Brodie to produce clothesline airstrips; system for landing small airplanes on an overhead cable. Aviation N 5:22 Ap 1 '46
Centenary of the Imperial college; development of fog dispersal equipment. il Engineering 160:437-8 N 30 '45
CAA's blind landing system put into use. CAA J 7:72+ Je 15 '46
Development of approach- and contact-light systems. F. C. Breckenridge and C. A. Douglas. il Illum Eng 40:785-829 N '45
Done with wires; Brodie aerial runway. il Air Transport 4:102+ Ja '46

AIRPLANES—Landing—*Continued*
Dynamic loads in airplane structures during landing. S. Tu. diags J Aeronautical Sci 13:381-7 Jl '46
Electronic control of plane in landing approach; Sperry A-12 Gyropilot. diag Aviation 45:80 O '46
Field of marker light guidance in airplane landing. H. J. C. Pearson and A. J. Sweet. Aeronautical Eng R 4:10-11+ D '45
Ground control approach system; combination of radar and communications devices. J. K. McDuffie. il Radio N 36:38-40+ Jl '46
Lightplane arrestor aids in emergencies; designed to enable small planes to make emergency landings in very small fields. Aviation N 5:13 My 20 '46
Navy tests proving practicality of de-fogging devices for airfields. il Eng N 135:759 D 6 '45
New device permits automatic landings; Minneapolis-Honeywell announcement. Aviation N 5:34 F 18 '46
New eye for pilots; Teleran. il diag Bsns W p63-4 Mr 23 '46
Runway orientation in terms of aircraft takeoff and landing characteristics. T. E. Greacen, 2d. diags Aeronautical Eng R 5:13-17 F '46
SCS-51 and Bartow lights deglamorize blind landings. P. R. Arnold. plan Air Transport 4:51+ Je '46
Standardized system expected in instrument landing dispute; private flyers and segments of industry criticize CAA opposition to radar-based method. W. Kroger. il Aviation N 4:9-10 D 10 '45
Though nature hides the flat-top, radar homes its planes. il Aviation 45:43+ S '46
Visual aids for blind landings; lighted symbols and distinctive colors on runways suggested. H. M. Cone, jr. il diags Air Transport 4:22-5 Mr '46
W. A. Pennow and R. T. Burns, Westinghouse Electric, have developed an indicator to guide pilot landing at night. Science 103: 18 Ja 4 '46

See also
Aviation landing stations

Landing gear

Airfoil development and structure within the cambered surface. R. A. Liming. il diags Aero Digest 52:76-9 Mr; 76-8+ Ap '46
Airplane landing-gear fatigue problems. J. A. MacLean. bibliog il diags Aeronautical Eng R 4:12-21 N '45
Application of pressure welding to the manufacture of aircraft landing gear. E. R. Proctor. il Welding J 24:1011-15; Discussion. E. P. Jones; A. Z. Boyajian. 1015-17 N '45
Computation of the axis of rotation of retractable landing gear. E. Katzberg. Aero Digest 51:62-3 D 1 '45
Crosswind landing gear experiments fostered by CAA. B. Stubblefield. Aviation N 5:14 Je 10 '46
Landing gear strength envelopes. J. F. McBrearty and D. C. Hill. diags J Aeronautical Sci 13:229-34 My '46
Low-cost landing gears for personal airplanes. il Aeronautical Eng R 5:87+ Jl '46
Metallurgical aspects of high quality pressure welded joints for landing gear. L. Fine and others. il Metal Prog 49:350-5, 530-6 F-Mr '46
New Firestone SuperFlex undercarriage. diag Rubber Age 59:570 Ag '46
New landing gear will lower costs. il Aviation N 5:23 My 27 '46
Noteworthy landing gear types. il diags Aero Digest 52:84-7 Je; 53:74-8 O '46
Novel landing gear shock-absorber unit teams rubber spring with compressed air. il diags Aviation 45:80 S '46
Pre-polishing cuts plating time 40%; main landing gear piston on P-38. G. R. Makepeace. il Am Mach 90:79 Ja 31 '46
Research started on cross-wind gear for small planes. CAA J 7:103 Ag 15 '46
Retardation efficiency of shock-absorber and arrester gear. P. B. Walker. diags Roy Aeronautical Soc J 49:652-7 O '45
Roadability and landing ability in aircraft undercarriages. R. M. Rosenberg. diags J Aeronautic Sci 13:270-6 My '46
Rotational drop-testing of airplane main landing gear. W. H. Gayman. il diags A S M E Trans 68:773-9 O '46
Rotovanes save ton on tandem gear. il Aviation N 6:21 S 16 '46
Spring steel landing gear proves attraction on Cessna models. A. McSurely. Aviation N 6:16 N 4 '46
Stability of castering wheels for aircraft landing gears. A. Kantrowitz. il diags U S Nat Advisory Com for Aeronautics 1940: 147-62 '41

Lighting

Fluorescent lighting for commercial airline interiors; abstract. F. A. Rugge. Automotive & Aviation Ind 94:60+ Ja 1 '46
Taylorcraft pushes expansion as '46 production passes 2800. il Aviation N 6:13-4 Ag 19 '46

Load

Dynamic loads in airplane structures during landing. S. Tu. diags J Aeronautical Sci 13:381-7 Jl '46
Flight-test investigation of the strength of a square-tipped wing. L. A. Minor. J Aeronautical Sci 13:469-74 S '46

Lubrication

Problems involved in airframe lubrication; abstracts. D. H. Moreton. diag Automotive & Aviation Ind 93:27+ D 15 '45; S A E J 54:sup28 Ja '46

Maintenance and repair

Aviation's maintenance notebook; sketches, detail drawings, photographs (cont). Aviation 44:137-51 D '45; 45:98-100 Ja; 92-3 Mr; 87-9 Ap; 85 My; 86 Je; 50-2 Jl; 46 Ag; 49-50 S; 50-2 O '46
Constellation brings new line maintenance procedures. G. Herrick. il diags Air Transport 4:31-8 Mr '46
Fixed maintenance docks. il diag Aero Digest 51:64-5+ N 15 '45
Interchangeable tools for Douglas transports; list. Aviation 45:47 Ag '46
Life expectancy of an accessory; overhaul time and cost. G. Herrick. Air Transport 4:62-3 Ag '46
Maintenance do's and don'ts. Air Transport 4:44 Ap; 43 My; 46 Je; 68 Jl; 66 S; 38 O '46
Make those minor details pay off in speed and range; smooth surfaces maintain aerodynamic efficiency. T. H. Bonser. il Aviation 44:119-21 D '45
Mechanics' and foremen's round table. il diag Air Transport 4:49 Ap; 45 My; 49 Je; 44 Jl; 65 Ag; 63 S; 42-4 N '46
NATS cuts a pattern for DC-4 maintenance. E. L. Ryder; S. Bangs. il diags Air Transport 3:34-41 D '45
Renewal of aircraft surfaces. il Aero Digest 52:66+ My '46
Right bower for the mechanic; repair procedure developed by BNF directs all similar type repairs be made to identical specifications. B. J. Cumnock. diags Air Transport 4:42-4 Ja '46
Structural repair techniques; use of Hi Shear rivets and close tolerance bolts. N. Harlan and J. J. Rodgers. il Aero Digest 52:54-5 My '46
Whipping corrosion before it starts; seaplane maintenance. P. Battilana. il diag Aviation 44:134-6+ D '45

Manning

Transoceanic pilot; what it takes to be captain of a super-airliner. R. H. Jackson. il Air Transport 4:22-5 Ap '46

Manufacture

Adhesives; modern tool of fabrication. D L. Swayze. il S A E J 54:412-17 Ag '46
Aeronca plant conveyor line paces post-war lightplane field. il Aviation N 4:15 D 24 '45
Aircraft quality castings; use of radiography and fluoroscopy; Northrop aircraft inc. T. E. Piper. il diags Foundry 74:96-101+ Je '46; Same cond. Iron Age 157:46-9 My 2 '46
Applying motion study to aircraft assemblies. F. C. Bailey. diags Iron Age 157:40-5 My 30 '46

AIRPLANES—Manufacture—*Continued*

Blind riveting in assembly work. L. Virgile. il diags Aero Digest 52:66+ Ja '46

Conveyor production at Aeronca. il Aero Digest 52:86+ Mr '46

Direct resistance heating method of hot dimpling 75S-T. T. E. Piper and A. Schoellerman. il diags Automotive & Aviation Ind 95:24-6+ S 15 '46

Elevated-temperature stretch-flanging of some aluminum alloys. E. G. Thomsen and others. il diags A S M E Trans 68: 643-6 Ag '46

Heat-treated rivets for high strength joints; Hi-Shear rivets. N. L. Marvin. il Materials & Methods 23:1574-7 Je '46

Mechanical properties of flush-riveted joints. W. C. Brueggeman and F. C. Roop. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:467-95 '41

Navion production; flow sheet. il Automotive & Aviation Ind 94:50 Je 1 '46

Reconversion problems in aircraft tooling. N. A. Lombard. Mech Eng 68:794-6 S '46

Ryan's photo template process. D. E. Clark. il Aero Digest 53:78-9+ Ag '46

Short cuts; illustrations with text. Automotive & Aviation Ind 95:28-9 Ag 15 '46

Special rivets for shear loading. K. Schmidt. il diags Product Eng 17:236-8 Mr '46

Steel can be Guerinned too; Douglas aircraft rubber-shrinks corrosion-resistant steel with plastic dies and pressure plates. il Am Mach 90:102-3 Ag 1 '46

Stretch-forming; Boeing aircraft co. A. Jacobson. il Steel 117:100-1+ D 17 '45

Survey of production techniques used in the German aircraft industry; abstract. M. J. Meader. Automotive & Aviation Ind 94: 172+ Mr 15 '46

Torque values for standard AN bolts and nuts used in airplane construction. Iron Age 158:59 O 10 '46

Wartime production skills disappear during reconversion. Aviation N 5:15+ Je 17 '46

What price airplanes? mass production and tool engineering will lower costs. A. M. Sargent. Aero Digest 53:26-7 O '46

See also

Airplane engines—Manufacture
Airplane factories
Airplanes—Welding operations
Airplanes, Military—Manufacture

Drafting room practice

Airfoil development and structure within the cambered surface. R. A. Liming. il diags Aero Digest 51:66-8+ N 1; 64-6+ D 1 '45; 52:56-8+ Ja; 47-9+ F; 76-9 Mr; 76-8+ Ap; 78-9+ My; 76-9+ Je; 53:107-9 Jl; 72-5+ Ag '46

Dual dimensioning of drawings for machining and casting uses. G. N. Cole. diags Product Eng 17:398-400 My '46

Extent of decimal dimensioning probed by aero drafting group. diags S A E J 54:81-3 O '46

Layout reproduction system; direct contact negatives and prints produced without camera or projector. A. H. Allen. il Steel 117:96-8 N 26 '45

Production illustration. G. Tharratt. diags J Eng Educ 37:140-8 O '46

Survey of phototemplate methods. F. Davis. il Soc Motion Picture Eng J 46:134-56 F '46

Use of sensitized metal in engineering. A. Batley. Chem & Ind p378-80; Discussion. 380 D 8 '45

Materials

Aeronautics and the metallurgist. L. Aitchison. Roy Aeronautical Soc J 50:677-93; Discussion. 693-709 S '46

Aircraft materials research; the role of government and industry. Product Eng 17: 146-8 F '46

Anodising magnesium alloys. Chem Age (Lond) 54:374 Ap 6 '46

Castings successful in aircraft use. E. K. Smith. Foundry 74:158 Ap '46

Classification and inspection of castings for airplanes. M. A. Melcon. Automotive & Aviation Ind 94:40+ Ap 1 '46

Cooling characteristics of steel- and aluminum-finned cylinder barrels for in-line aircooled engines. M. Piry. il diags S A E J 53:630-9 N '45

Corrosion is no accident; corrosion study on eighty C-47 type aircraft. H. E. Smith, jr. il Mech Eng 68:943-8 N '46

Development of magnesium alloys as aircraft materials; abstracts. J. C. DeHaven. S A E J 54:74-5 O '46; Automotive & Aviation Ind 94:37 My 1 '46; Machine Design 18 178 Jl '46

Effect of aging on mechanical properties of aluminum-alloy rivets. F. C. Roop. bibliog(39 titles) diags U S Nat Advisory Com for Aeronautics 1941:353-69 '42

Effect of bend width upon minimum bend radii; properties of aluminum alloys; Republic aviation corporation. G. Gerard. bibliog il diags J Aeronautical Sci 13:161-70 Ap '46

Eliminating brittleness in aluminum-silicon-bronze hydraulic sleeves for aircraft. L. J. Barker. il Automotive & Aviation Ind 94: 34-5 Ap 1 '46

Evaluation of aeroplane metals. J. A. Van Den Broek. il diags Roy Aeronautical Soc J 50:811-28 O '46

Experimental verification of cumulative fatigue damage; abstracts. M. A. Miner. bibliog il diags Automotive & Aviation Ind 93: 20-4+ D 1 '45; Machine Design 17:111-15 D '45

Fabricating high-strength aluminum alloys. R. A. Miller and M. E. Tatman. Iron Age 156:40-4 D 27 '45

Featherweight structural material; Metalite, a metal-faced sandwich. Chem & Eng N 24:830 Mr 25 '46; diag Iron Age 157:45 My 30 '46

Glycerine as used in aviation. G. Leffingwell and M. A. Lesser. bibliog il Aero Digest 51:97+ D 1 '45

High temperature oxidation in aluminum alloy forgings. L. J. Barker. il Iron Age 157: 60-4 My 9 '46

Improved treatments of aluminum alloys. M. E. Tatman. il Metal Prog 49:323-7 F '46

Influence of different factors on buckling loads of curved thin aluminum-alloy sheets for monocoque constructions. G. Welter. il J Aeronautical Sci 13:204-8+ Ap '46

Insulation of dissimilar metal faying surfaces; tests of Ryan aeronautical co. B. W. Floersch. il Automotive & Aviation Ind 95:37+ O 1 '46

Interpretation of radiographs; particularly of aircraft parts. L. W. Ball. il Am Soc for Metals Trans 34:545-75 bibliog(p575) '45; Same cond. Machine Design 16:135-40 D '44; Same cond. Foundry 73:82-5+ F '45; Discussion. Am Soc for Metals Trans 34:575-88 '45

Magnesium alloys for aircraft. F. A. Rappleyea. il Aero Digest 52:79-81 Ap; 53:87-8+ S '46

Materials inspection in aircraft. R. B. Faurote. Materials & Methods 23:194 Ja '46

Metal-balsa sandwich; Metalite. diag Sci Am 174:254 Je '46

Metalite aircraft structural material; sheets of aluminum alloy, separated by core of balsa wood bonded firmly together. il diag Automotive & Aviation Ind 94:160+ Mr 15 '46; Aeronautical Eng R 5:97 Ap '46

Metalite for structural uses. il diag Aero Digest 53:82+ Ag '46

Metallurgy at the Royal aircraft establishment. Engineering 161:236 Mr 8 '46

Method of testing thin sheet material in compression. B. C. Madden, jr. bibliog il diags J Aeronautical Sci 13:346-52 Ap '46

Navy recovers aluminum and byproducts from wrecked planes. J. Anthony. Iron Age 157:100-1 Ap 11 '46

Nickel in the B-29; abstract. Metal Prog 48: 1148+ N '45

Probable materials of construction for the postreconversion light airplane. F. B. Lane. bibliog Aeronautical Eng R 5:11-18 My '46

Report of N.A.C.A. committee on aircraft materials. U S Nat Advisory Com for Aeronautics 1940:14-16 '41

Sandwich materials under test at Boeing. Aviation N 5:16 Ap 15 '46

Sandwich-type shear panels of wood-aluminum construction. H. Langhaar and R. Fefferman. il diags Product Eng 16:841-4 D '45

AIRPLANES—Materials—*Continued*

Strain analysis quickly finds formability limits. G. Gerard. il diags Aviation 45:73-5 Ap; 81-2 Je '46

Symposium on notch effects in high-strength aluminum alloys. L. Schapiro and others. il diags J Aeronautical Sci 13:391-404 Ag '46

Synthetics hold aromatic fuels; Hycar parts and seals. W. A. Parrish. il Aero Digest 52:62+ F '46

Tensile elastic properties of typical stainless steels and nonferrous metals as affected by plastic deformation and by heat treatment. D. J. McAdam, jr. and R. W. Mebs. il diags U S Nat Advisory Com for Aeronautics 1940:309-86 bibliog(p356-7) '41

Tensile properties affecting the formability of aluminum-alloy sheet at elevated temperatures. A. E. Flanigan and others. bibliog il diag J Aeronautical Sci 13:457-68 S '46

Utilization of new high strength aluminum alloys; abstract. J. F. McBrearty. Automotive & Aviation Ind 94:34-5 Ja 15 '46

See also

Steel, Aircraft

Plastics

Application of high strength plastic to monocoque wing construction. W. I. Beach. diags Automotive & Aviation Ind 93:25-7+ N 15 '45

Canopy of plastic offers good vision. il Aviation N 6:28+ Jl 22 '46

Cellular plastics in aircraft. C. C. Sachs. bibliog Mech Eng 68:233-6 Mr '46; Same cond Mod Plastics 23:173-6 D '45

Design of radar antenna housings. E. B. McMillan and others. bibliog il diag Aero Digest 52:89-90+ Mr; 53:80-1+ Ag '46

Fabric base plastics; abstract. F. T. Barwell. Chem & Ind p411-12 D 29 '45

Fabric base plastics; reconnaissance. K. W Pepper and others. il diag Soc Chem Ind J 65:153-64 Je '46

Fighter canopies. B. Jones and R. Mayne. il diags Aeronautical Eng R 5:23-9 O '46

Flying fuel tank; made from needled rope manila or sisal fiber blanket impregnated with phenolformaldehyde resin. il Mod Plastics 23:132-3 D '45

Forming of bakelite laminated sheet. il Engineering 161:248-9 Mr 15 '46

Four new plastics in use in aviation; Plastipeel, Plastiform, Plastipaste, and Plastitool. T. A. Dickinson. il Aero Digest 51:73-4+ D 1 '45

Glass laminates and their application to aircraft structures. G. B. Rheinfrank, jr. and W. A. Norman. il Aeronautical Eng R 5:10-14+ Ja '46

High-strength plastics in future aircraft design. W. I. Beach. diags Mech Eng 68:225-32 Mr '46; Abstract. Automotive & Aviation Ind 93:25-7+ N 15 '45

Laminated edge attachment for acrylics. E. H. Snyder. il diags Mod Plastics 24:138-45 S '46; Same. A S M E Trans 68:767-71 O '46

Laminated window designs forecast by plastic domes. L. M. Purdue and G. E. Hughes. il Aviation 45:81-3 Ja '46

Light weight a must in aircraft. il Mod Plastics 23:106-7 Mr '46

New lightplane floats developed from glass. Aviation N 5:26 Je 17 '46

Planes of glass? Bsns W p56 N 10 '45

Plastics and plywood in a private plane. il Mod Plastics 23:158-60 Ap '46

Plastics in precision hydraulic equipment. W. L. Lewis. il Mod Plastics 23:198+ Je '46

Plastics in the Douglas DC-6. il Mod Plastics 24:90-2 O '46

Plastics in the Martin airliners. il plan Mod Plastics 24:94-5 O '46

See promise in low-density core for aircraft laminate components. R. E. Maier. il Aviation 45:72-3 Jl '46

Take care of those airplane eyes; maintenance of transparent plastic windshields and enclosures. J. J. Rodgers and N. Harlan. diags Aviation 44:131-3+ D '45

Wood

Chart for the design of wooden spars. B. Etkin. J Aeronautical Sci 13:498-500 S '46

Plywood airplanes. Mech Eng 68:40 Ja '46

Wood vs metal construction in aircraft. H. Rawdon. il diags S A E J 53:691-712+ D '45

Model testing

Development of precision radio-controlled dynamically similar flying models. E. G. Stout. bibliog il diags J Aeronautical Sci 13:335-45 Jl '46; Abstract. Aeronautical Eng R 5:20-1 Ap '46

Dynamometer testing of high speed motors for powered aircraft models. H. O. Cox. il plan diag Automotive & Aviation Ind 94: 30-3+ My 15 '46

Precision tachometer for use in wind-tunnel testing. R. K. Fairley and H. L. Clark. il diags A S M E Trans 68:719-22 O '46

Radio-controlled dynamic model augments hydrodynamic research. E. G. Stout. il Aviation 45:171-3 F '46

Mooring

Proper mooring essential to prevent windstorm damage to airplanes. W. H. Rodda. Weekly Underw 155:884+ O 12 '46

Noise

Aircraft acoustical problems and possible solutions. K. R. Jackman. bibliog il diags Aviation 45:75-9 Jl; 83-9 Ag; 71-8 S; 69-73 O '46

ALA at work on noise problem in aircraft engines and propellers. CAA J 7:126 O 15 '46

Aircraft sound-proofing; improved by newly developed material; fiberglas. Sci Am 175:74 Ag '46

Anti-noise campaign is making progress. Aviation N 6:15 Jl 22 '46

Cabins can be quieter. A. Klemin. il diag Sci Am 175:163-5 O '46

Effort to reduce aircraft noise. T. P. Wright. CAA J 7:101+ Ag 15 '46

Fear of plane noise penalizes many communities. M. W. Cochran. il Air Transport 4:27-9 N '46

Fundamentals in vehicle acoustics. T. M. Prudden. Mech Eng 68:875-8 O '46

NACA propeller formula may throttle lightplane noise. A. McSurely. Aviation N 6:27+ S 2 '46

Noise levels due to an airplane passing overhead. F. M. Wiener and R. J. Marquis. il Acoustical Soc Am J 18:450-2 O '46

Noise tests at Paoli compare car, plane. Aviation N 6:15 Ag 5 '46

Silencing of aircraft. N. Fleming. Roy Aeronautical Soc J 50:639-63 bibliog(p663); Discussion. 663-76 S '46

Sound conquests. il Bsns W p54 Ja 19 '46

Stinson cuts down noise in Voyager. Aviation N 4:17 N 26 '45

Painting

Color stability of olive drab infrared-reflecting camouflage finishes. E. E. Jukkola and R. Cohen. bibliog il Ind & Eng Chem 38: 927-30 S '46

Finishes for aircraft. C. E. Spooner. Paint Oil & Chem R 108:98-100 N 1 '45

Flight investigation of the effects of surface finish on wing profile drag. W. H. Day and J. M. Schwarzbach. il diags J Aeronautical Sci 13:209-13+ Ap '46

Glycerine as used in aviation. G. Leffingwell and M. A. Lesser. bibliog il Aero Digest 51:97+ D 1 '45

Infra-red lamp heating equipment in the aircraft industry. il Mech Handling 33:75-7 F '46; Electrician 135:680 D 14 '45; Automobile Eng 36:133-4 Mr '46

Patents

Review of patents. A. H. Crowell. Aviation 45:120 Ja '46 [cont monthly]

Trend of invention. Published in monthly numbers of Aero digest

Performance

Comparison of propeller and reaction-propelled airplane performances. B. Hamlin and F. Spenceley. diags J Aeronautical Sci 13:425-37 Ag '46

AIRPLANES—Performance—*Continued*
Estimating plane performance via comparison method. D. B. Thurston. bibliog diags Aviation 45:44-62 S '46
How the controllable pitch propeller increases personal airplane utility. P. Altman. il Automotive & Aviation Ind 95:22-5+ Jl 15 '46
Plane efficiency geared to range versus payload. G. S. Schairer. S A E J 54:99-100 O '46

Pickup equipment

AAA pick-up passenger tests will start in June with D18-C. M. Mickel. Aviation N 5:32 My 13 '46
Air pickup, progress and prospects. H. R. Stringer. Aero Digest 51:36-7 N 15 '45
Design requirements for pickup aircraft. A. B. Schultz. il plans diags S A E J 54:1-17 Ja '46

Private ownership

Aero Digest's sampler chart of personal aircraft radio. L. LeKashman. il Aero Digest 52:39-43+ Je '46
Airplanes on time; financing purchases of private craft. Bsns W p39 Jl 27 '46
Airport for specific purpose; project for private pilots at Greenville, S.C. C. W. Bendigo. il Air Transport 4:69-70+ F '46
Airport users plan for tomorrow; NAA's first Airport users' private flying conference, Washington, D.C. R. E. Saunders. Aero Digest 52:75 Ja '46
Change to VHF will be easy on private flyers. T. P. Wright. Aviation N 5:17 F 18 '46
Flaws in U.S. personal aviation sharply outlined at National aviation clinic. il Aviation N 4:15-16 N 26 '45
Flying's easier, now. A. Klemin. il Sci Am 175:15-17 Jl '46
Future possibilities of the private-owner plane. W. B. Stout. Aero Digest 52:38-9+ Ja '46
Here's what the public wants. Aviation 45: 42-3 Ag '46
Ideas in the air. A. Klemin. il Sci Am 175: 208-10 N '46
NAA conference brings demand for better private flying policies. A. McSurely. Aviation N 4:7-9 D 3 '45
New planes for personal flying; spinproof design, cost of flying, 1946 models, shopper's guide. il Fortune 33:124-9+ F '46
1,000,000 personal planes in 1955. V. Perlo. Aviation N 4:19 N 26 '45
Personal airplane market expanding. P. R. Lockhart. il Dom Comm 34:12-15 Ap '46
Personal flying is deciding factor in world leadership. J. H. Geisse. CAA J 7:28+ Mr 15 '46
Personal plane, and no gas! A. Keif. Aero Digest 52:24-5 Ap '46
Plane future; personal airplane sporting goods or consumer goods? M. C. Faught. il Banking 38:36-8 My '46
Plane sense and safety. A. Klemin. il Sci Am 175:72-4 Ag '46
Private plane prospects. A. Klemin. il Sci Am 174:252-4 Je '46
Public must demand right plane for personal flying. J. H. Geisse. CAA J 7:78 Je 15 '46
Teterboro's new air terminal for private fliers and Robinson airlines. il Aero Digest 52:87 F '46
Tips for the personal plane buyer. W. L. Nye. il diag Aero Digest 51:50-1+ D 15 '45
2,000 planes due to join in tour. Aviation N 4:18 D 24 '45
Why not check lists for private pilots? W. L. Nye. Aviation 45:44-5 Jl '46

See also
Air carriers—Non-scheduled operation

Bibliography

Private flying; selective bibliography prepared by A. G. Renstrom. Aeronautical Eng R 4:22-33+ N '45

Radio equipment

See Radio apparatus on aircraft

Reconstruction

More passengers, less fuel in AA's unconventional DC-3's. J. T. Fisher. il plan Air Transport 4:55-6+ Ja '46

Refueling

Airport fueling installations. R. L. Holdridge. il diags Aero Digest 52:55-6+ Mr '46
For safe and fast fueling; Intava slide film. il Air Transport 4:64-5 N '46
Fueling: a half-forgotten bit of aircraft design; abstract. A. O. Payne. S A E J 54: sup29 Ja '46
In-flight refueling studied in Britain. Aviation N 4:40 N 26 '45
Install new type plane fueling system at New Orleans airport. il Nat Pet N 38:28-9 O 9 '46
Large capacity refueling unit can pump 290 gpm. il Air Transport 4:75 Ap '46
Mobile dual refueler affords high-rate service. T. H. McConnell, jr. il plan diag Aviation 45:105+ Ja '46
Modern aircraft refueling; abstract. J. E. Knight and C. H. Baxley. S A E J 54:sup32 F '46
Portable fuel dispenser for airport use. il Aero Digest 53:52 Jl '46
Some aspects of under-wing or pressure refueling; abstract. C. S. Brandt and W. C. Wold. S A E J 54:sup32+ Ja '46
Under-the-wing refueling. C. S. Brandt. diags Aero Digest 52:74-6+ F '46

See also
Airplane service stations

Registration

CAA registration fee stirs early criticism. Aviation N 6:16 Jl 29 '46

Renting

Design of planes for rental service; abstract. H. Ailor. Machine Design 18:178 Jl '46
Fly it yourself system in operation at Kansas City. il Bsns W p18 My 25 '46
Fly-yourself service revived by Saunders. il Aviation N 5:15 My 27 '46
Geisse heads new plane rental service. Aviation N 6:16 S 9 '46
Rental plan will make planes more useful. J. Geisse. CAA J 7:68 My 15 '46

Safety measures

New cockpit designs stress pilot protection for crashes. Aviation N 6:15-16 O 14 '46
St Elmo licked. Bsns W p74 D 1 '45

Seats

Los Angeles concern develops new type air seats. Aviation N 6:25 Ag 5 '46
New fleets for old; survey of passenger preferences precedes redesign of Chicago and Southern planes. il plan Air Transport 4: 57-8 My '46

Specifications

American commercial and private aircraft; tabulations. Automotive & Aviation Ind 94: 126-7 Mr 15 '46
Aviation's American and foreign aircraft specifications; tabulations. Aviation 45:135-8 F '46

Speed

Airspeed conversion chart. R. F. Boehme. il diag Aero Digest 53:85+ Ag '46
Analyzing the aspects of future flight. C. E. Pappas and M. G. Harrison. bibliog Aviation 44:131-4 N; 158-62 D '45
Attainment of supersonic speed by end of year indicated; research underway at Langley Field NACA laboratory. A. McSurely. il Aviation N 5:7-9 F 18 '46
Boundary layer control offers promise of more efficient planes. diags Aviation N 6: 18 S 16 '46
C&S halves time for Chicago-Houston. Aviation N 6:14 Jl 1 '46
Compressibility effects data. C. W. Terry. Aero Digest 53:76-7+ Ag '46
Determination of air-speed system errors; abstract. H. R. Crawford. Aeronautical Eng R 5:19-20 Ap '46
Efficient use of propellers seen at speed well into sonic realm. il Aviation N 5:18+ Mr 18 '46

AIRPLANES—Speed—*Continued*
Engineering behind that 606-mph. Meteor. A. H. Narracott. il Aviation 45:69-72 Ja '46
Faster coast-to-coast schedules seen as Constellation sets records. il Aviation N 5:35 F 11 '46
Faster than sound; piloted craft beyond 700-m.p.h. range; new research center asked. Bsns W p17-18 Ap 27 '46
First supersonic airplane, XS-1. Aeronautical Eng R 5:37+ O '46
First sweepback wing data reveals supersonic flight needs. Aviation N 5:19 Je 10 '46
German research airplane for supersonic flight. Automotive & Aviation Ind 94:200+ Mr 15 '46
How we are preparing to reach supersonic speeds. J. Woolams. il Aviation 45:38-9 S '46
M.52 supersonic aircraft. il Engineer 182:233 S 13 '46
Martin, Cal Tech use new supersonic tests. il Aviation N 5:8 Je 24 '46
Meteor sets 606-mph. record; NAA establishes racing classes. il Aviation N 4:13 N 12 '45
Navy plans world's largest centrifuge for supersonic study. Iron Age 158:120 O 3 '46
PAA asks domestic routes; proposes high speed travel. map Air Transport 4:60 O '46
Propellers for aircraft gas turbines. G. W. Brady. diags J Aeronautical Sci 13:449-56+ S '46
Rainbow marks high in large plane speeds. il Product Eng 17:140 O '46
Recent aerodynamic developments. E. F. Relf. il Roy Aeronautical Soc J 50:424-48 Je '46; Same cond. Engineering 162:188-9, 214-16 Ag 23-30 '46
Sonic trail blazer is unveiled; Bell's XS-1. il Bsns W p48+ S 14 '46
Supersonic airplane; XS-1. Mech Eng 68:897 O '46
Supersonic flight poses many design hurdles. E. H. Heinemann. diags Aviation 45:69-70 Ag '46
Supersonic speed forecasts beginning to be borne out. Air Transport 3:109 D '45
Timing a meteor aircraft; systems used for world speed record flights, at Herne bay. Electrician 135:591-2 N 30 '45

Spinning

Free-spinning wind-tunnel tests of a low-wing monoplane with systematic changes in wings and tails. O. Seidman and A. I. Neihouse. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:243-62 '41

Stalling

Design charts relating to the stalling of tapered wings. H. A. Soulé and R. F. Anderson. bibliog diags U S Nat Advisory Com for Aeronautics 1940:513-23 '41
Determination of the stalling speed and the maximum lift coefficient in flight. E. W. Graham and H. Luskin. bibliog il diag J Aeronautical Sci 13:95-107 F '46
Effective control of stalling characteristics of highly tapered and swept-back wings. M. A. Garbell. il J Aeronautical Sci 13:88-93 F '46
Inertia stall indicator. il diags Aero Digest 52:63 Je '46

Standards

Flight control standardization. C. G. Peterson. diags Aero Digest 52:82-3+ Ap '46
Note on the use of preferred number series in aircraft. H. G. Conway. Roy Aeronautical Soc J 50:416-20 My '46
Proposed PICAO airworthiness standards. map Automotive & Aviation Ind 95:20-3+ S 15; 24-7+ O 1; 36-9+ O 15 '46
Standardization of navy cockpit arrangement. L. de Florez. il Aeronautical Eng R 5:26-9 Ap '46
Standardization tomorrow? what the aircraft industry has accomplished. B. C. Boulton. diags Mech Eng 67:729-34 N '45; Same. Ind Stand 17:30-5+ F '46; Same abr. Machine Design 17:162-3 D '45; 18:126-8 F '46; Same cond. Aviation 44:167-8+ D '45

Stresses

Buckling of a flanged plate. H. L. Langhaar. diags J Aeronautical Sci 13:187-91 Ap '46
Decarburization in highly stressed steels. P. A. Haythorne. bibliog il Iron Age 158:52-61 Jl 4 '46
Effect of notches on static and fatigue strength. D. W. Drake. bibliog il diags J Aeronautical Sci 13:259-69 My '46
Effective width of elastically supported flat plates. G. Gerard. bibliog diags J Aeronautical Sci 13:518-24 O '46
Euler critical load for pinned-pinned polynomial tapered struts. F. J. Turton. Roy Aeronautical Soc J 49:639-45 O '45
Fatigue failures of aircraft parts, their cause and cure. D. M. Davis. bibliog il Aeronautical Eng R 5:15-23 Ja '46
Investigations on the incompletely developed plane diagonal-tension field. P. Kuhn. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:387-412 '41
Method for the stress analysis of helicopter blades. D. O. Dommasch. diags J Aeronautical Sci 13:195-203 Ap '46; Discussion. W. Z. Stepniewski. 13:409-10 Ag '46
Nondimensional buckling curves, their development and application. F. P. Cozzone and M. A. Melcon. bibliog J Aeronautical Sci 13:511-17 O '46
Numerical transformation procedures for shear-flow calculation. S. U. Benscoter. bibliog J Aeronautical Sci 13:438-43 Ag '46
Sandwich-type shear panels of wood-aluminum construction. H. Langhaar and R. Fefferman. il diags Product Eng 16:841-4 D '45
Secant modulus method for determining plate instability above the proportional limit. G. Gerard. bibliog il diag J Aeronautical Sci 13:38-44+ Ja '46; Discussion. N. J. Hoff. 13:363+ Jl '46
Strain analysis quickly finds formability limits. G. Gerard. il diags Aviation 45:73-5 Ap; 81-2 Je '46
Strength of countersunk screws in shear and tension. H. Adams. il diags Product Eng 17:380-3 My '46
Stress-strain formulas. W. R. Osgood. bibliog J Aeronautical Sci 13:45-8 Ja '46
Stresses in ring structures. L. G. Whitehead. Roy Aeronautical Soc J 49:646-51 O '45
Symposium on notch effects in high-strength aluminum alloys. L. Schapiro and others. il diags J Aeronautical Sci 13:391-404 Ag '46
Torsion with variable twist. T. von Kármán and W. Chien. bibliog diags J Aeronautical Sci 13:503-10 O '46

Struts

See Airplane struts

Surplus airplanes

Agency agreements viewed as key to speedy surplus liquidation. W. Kroger. il Aviation N 5:19+ Ap 8 '46
Analysis of surplus plane sales shows California and Texas lead. Aviation N 5:9 Mr 4 '46
Junking of old planes pressed before economy clamor rises. W. Kroger. il Aviation N 4:13-14 N 26 '45
Larger dealer role in disposal of surplus PT's appears justified. Aviation N 4:15 D 3 '45
Navy disposal of aircraft aluminum scrap to produce 15 million lbs of secondary metal. E. J. Hardy. il Iron Age 156:104-5 D 20 '45
Navy turns excess aircraft material into secondary aluminum. il Iron Age 157:105 Je 13 '46
Plan disposal set-up refined; 1945 totals show improving picture. W. Kroger. Aviation N 5:11 Ja 21 '46
Pots from planes; salvaging aluminum from scrapped military planes. J. E. Nichols. il Nat Safety N 54:20-1+ Ag '46

Tail surfaces

Aerodynamic characteristics of horizontal tail surfaces. A. Silverstein and S. Katzoff. bibliog diags U S Nat Advisory Com for Aeronautics 1940:175-95 '41
Charts for fuselage torsion versus control-surface flutter. W. T. Thomson. A S M E Trans 68:51-6 Ja '46
Coupled surfaces; new type of airplane control surface. J. B. Kendrick. bibliog diags J Aeronautical Sci 13:316-24 Je '46

AIRPLANES—Tail surfaces—*Continued*
Free-spinning wind-tunnel tests of a low-wing monoplane with systematic changes in wings and tails. O. Seidman and A. I. Neihouse. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:243-62 '41

Take-off

Brodie system provides a portable airport; device enables airplane to land and take-off on a cable. J. H. Brodie. il Eng & Min J 146:80-1 D '45

Done with wires; Brodie aerial runway. il Air Transport 4:102+ Ja '46

Electrical runway; electropult. il Engineer 182:379 O 25 '46

Electropult, an electric catapult. Science 104: 321 O 4 '46

Launching aircraft electrically. M. F. Jones. il diag Aviation 45:62-5 O '46

New plane launcher; electropult. il Mech Eng 68:990-1 N '46

Quarter mile long electric catapult launches navy planes. Iron Age 158:140+ S 12 '46

Rocket boost forecast for lightplane use; and to lift gliders and sailplanes up to soaring altitudes. il Aviation N 5:25 Je 17 '46

Runway orientation in terms of aircraft take-off and landing characteristics. T. E. Greacen, 2d. diags Aeronautical Eng R 5: 13-17 F '46

Testing

Air pressure for testing aircraft structures. C. R. Smith. il Automotive & Aviation Ind 95:18-19+ S 1 '46

Application of established automatic control methods to the study of basic flight problems. O. B. Johnston and J. M. Anderson. bibliog diags J Aeronautical Sci 13:235-46+ My '46

Crash testing of surplus planes being arranged. Nat Underw 49:35 D 13 '45

Determination of the stalling speed and the maximum lift coefficient in flight. E. W. Graham and H. Luskin. bibliog il diag J Aeronautical Sci 13:95-107 F '46

Effective gust structure at low altitudes as determined from the reactions of an airplane. P. Donely. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:263-71 '41

Electronically balanced recorder for flight testing and spectroscopy. A. J. Williams, jr. and others. il diags Elec Eng 65:Trans 205-8 Ap '46

Failure-sequence indicator for static test specimens. R. W. Powell. il diags A S M E Trans 68:763-6 O '46

Fourteenth annual meeting of the Institute of the aeronautical sciences; review of technical papers; flight test. diag Aeronautical Eng R 5:19-21 Ap '46

Instruments for testing aircraft. il Engineering 160:396-7 N 16 '45

Lateral control required for satisfactory flying qualities based on flight tests of numerous airplanes. R. R. Gilruth and W. N. Turner. bibliog diags U S Nat Advisory Com for Aeronautics 1941:201-7 '42

New system of radio telemetering; aircraft flight testing and flying of radio-controlled aircraft. D. W. Moore, jr. il diags Aeronautical Eng R 5:30-1+ S '46

Prototype crashes; Mixmaster, the army's XB-42. Fortune 33:213-14 Mr '46

Reduction of flight-test performance data to standard air conditions by the temperature altitude method. J. G. Beerer. bibliog diags J Aeronautical Sci 13:543-55 O '46

Remote radio control of test aircraft and transmission of flight data to recording instruments; equipment developed by ATSC and Bell Aircraft. il Steel 117:108+ N 19 '45; Aero Digest 52:53+ F '46; Aeronautical Eng R 5:115+ Ja '46; Machine Design 18: 107-10 Mr '46

Rotational drop-testing of airplane main landing gear. W. H. Gayman. il diags A S M E Trans 68:773-9 O '46

Safe testing of supersonic planes seen in new radio control device. il Aviation N 4:11 N 19 '45

See also
Aeronautic laboratories
Airplane engines—Testing
Airplane wings—Testing
Airplanes—Model testing
Airplanes, Military—Testing
Wind tunnels

Transportation

Plane ferrying grows up. Bsns W p45 Jl 20 '46

Undercarriages

See Airplanes—Landing gear

Vibration

Acceleration damper; development, design, and some applications. P. Lieber and D. P. Jensen. diags A S M E Trans 67:523-30 O '45; Discussion. 68:175-6 F '46

Analysis of problems involving beats. C. D. P. Pancu. diags J Aeronautical Sci 13:140-1 Mr '46

Combination of dynamical systems. T. G. Sofrin. bibliog diags J Aeronautical Sci 13:281-8 Je '46

Design shock mounts for personal planes. Aviation N 5:20 Je 10 '46

Determination of higher modes of vibration by a method of sweeping; abstract. L. Beskin and R. M. Rosenberg. Aeronautical Eng R 5:13-14 Ap '46

Flutter of propeller blades. J. V. Inglesby. bibliog Roy Aeronautical Soc J 50:98-118 F '46

Future scope of propellers. L. G. Fairhurst. Roy Aeronautical Soc J 49:717-18 D '45

Practicability of vibration control in light aircraft. D. C. Kennard, jr. il diags A S M E Trans 68:81-8 F '46

Punch card machines aid studies of flutter and vibration in planes. CAA J 7:2 Ja 15 '46

See also
Airplane wings—Flutter

Weight

Lightweight electrical systems design problems and solutions. T. B. Holliday. il Product Eng 17:122-6 Ag '46

Weight reduction of aircraft braking systems through use of reverse-thrust propellers. W. E. Eldred and others. il S A E J 54:107-18; Discussion. 118-19 Mr '46

Welding operations

Application of pressure welding to the manufacture of aircraft landing gear. E. R. Proctor. il Welding J 24:1011-15; Discussion. E. P. Jones; A. Z. Boyajian. 1015-17 N '45

Atomic hydrogen welding in aviation. F. S. Dever. il Welding J 25:309-12 Ap '46

Bellcrank production boosted by switching weld location. il Aviation 44:197 D '45

Design of fixtures for projection welding; Lockheed aircraft corp. M. L. Ochieano. diags Iron Age 157:55-6 My 2 '46

Heliarc welding process as applied in the aircraft industry. T. E. Piper. il Welding J 24:903-6 O '45; Discussion. 25:32 Ja '46

Heliarc welding technique. il diag Aero Digest 53:54+ O '46

High-speed spotwelding. B. Gross. il Iron Age 157:52-5 F 21 '46

How to pressure-weld hollow parts; cooler elements for German aircraft engines. diags Am Mach 90:110-12 O 10 '46

Impact strength of arc-welded joints in aircraft steel. H. O. Klinke. il Welding J 23:sup 633-4 D '44; Same. Aero Digest 52:82-3 Je '46

Investigation of electrode pressure-cycles and current wave-forms for spot welding Alclad 24S-T. W. F. Hess and others. bibliog il diags Welding J 25:sup148-62 Mr '46

Investigation of the effect of spot welding on the sheet efficiency of aluminum alloy 24S-T. W. F. Hess and others. il diags Welding J 25:sup288-306, sup361-75 My, Jl '46

AIRPLANES—Welding operations—*Continued*
Metallurgical aspects of high quality pressure welded joints for landing gear. L. Fine and others. il Metal Prog 49:350-5, 530-6 F-Mr '46
Method for welding sheet aluminum to S.A.E. 4140 steel. W. F. Hess and E. F. Nippes, jr. bibliog il diags Welding J 25:sup129-48 Mr '46; Abstract. Metal Prog 50:328+ Ag '46
Multiple tip torches speed stainless steel welding. W. P. Brotherton. il Iron Age 157: 70-3 Je 20 '46
Pressure welding thin aluminum parts. H. E. Linsley. il diags Iron Age 158:56-60 Ag 8 '46
Some observations of spot-weld consistency in aluminum alloys. W. F. Hess and others. bibliog il Welding J 25:sup201-22 Ap '46
Spot weld strengths and structures of 75ST Alclad aluminum alloy M. L. Ochieano. il diags Product Eng 17:102-5 S '46
Spot welding design data. F. S. Dever. il diags Product Eng 17:105-9 N '46; Same cond. Aviation 45:66-8 O; 64-5 N '46
Spot welding of ten aluminum alloys in the 0.040-inch gage including XB75S-T (bare and Alclad), R-301-T, Alclad 24S-T81, 24S-T (bare and Alclad), 3S-½H, 14S-T, 52S-½, and 61S-T. W. F. Hess and others. bibliog il diags Welding J 25:sup467-84 Ag '46
Tube-welding fixtures allow for distortion; engine-mount assemblies and support bays for navy PV-2. E. H. Farmer. il Am Mach 89:122-4 D 6 '45
Uniwelding produces high joint efficiency. E. R. Proctor. il Iron Age 157:46-51 Mr 7 '46
Well-planned tooling makes sound flash welds. C. B. Smith. il diags Am Mach 90: 127-30 S 12; 114-16 S 26 '46

Wheels

Bendix roll test machine. il Automotive & Aviation Ind 95:42 O 1 '46
Stability of castering wheels for aircraft landing gears. A. Kantrowitz. il diags U S Nat Advisory Com for Aeronautics 1940: 147-62 '41

Windows

Laminated window designs forecast by plastic domes. L. M. Purdue and G. E. Hughes. il Aviation 45:81-3 Ja '46

Windshields

Anti-icing aircraft windshields; abstract. A. A. Arnhym. Mech Eng 68:564 Je '46
Anti-icing and anti-fogging coated glass. Air Transport 4:69 S '46
Coated glass eliminates icing and fogging. il Product Eng 17:153 N '46
Take care of those airplane eyes; maintenance of transparent plastic windshields and enclosures. J. J. Rodgers and N. Harlan. diags Aviation 44:131-3+ D '45

AIRPLANES, Amphibious
Cleveland firm developing Duckling personal amphib. il diags Aviation 45:84 O '46
Design analysis of Republic Seabee. I. Stone. il diags Aviation 45:45-62 My '46
Inspection and servicing of light-amphibian hydraulics. E. E. Thorp. il diags Aviation 45:46-8 S '46
Mallard 10 place amphibian latest plane in Grumman line. il Aviation N 6:11-12 O 14 '46
Plywood amphibian plane. il Mod Plastics 23: 128-9 Ag '46
Pressed-out planes; Republic Seabee amphibian. A. Klemin. il Sci Am 175:120-2 S '46
30-ton amphibian version of PBM. il Aeronautical Eng R 5:107 F '46
Three-place pusher amphibian being tested by N.Y. designer. il Aviation N 5:13-14 Ap 29 '46

See also
Seaplanes

AIRPLANES, Flying wing
Flying wing carries heavy load at unusual speeds. il Sci Am 175:165 O '46
Flying wing may hold promise of revising transport designs. S. Bangs. il Aviation N 5:7-8 My 6 '46
Special flying wing section. il diags Aviation 45:55-68 Ag '46

AIRPLANES, Freight
Air giant's progress; the Hercules. Bsns W p39 Mr 30; p39 Ap 6 '46
Boeing Stratofreighter double-deck cargo plane. Aeronautical Eng R 5:39 O '46
Bristol 170 freighter; drawing and specifications. Automotive & Aviation Ind 94:40-1 Je 15 '46
Burnelli will build new cargo model of flying wing design. il Aviation N 5:22 My 27 '46
Fairchild C-82 Packet modification seen as possible cargo mailplane. S. Hershey. il Aviation N 5:7-8 Ap 1 '46
Fairchild of Canada is building new single-engine bush freighter. diag(p11) Aviation N 5:15 Ap 15 '46
Martin sells first cargo version of 202. Aviation N 5:31 Je 24 '46
Northrop trimotor Pioneer design is aimed at export markets. il Aviation N 6:21+ O 7 '46
Northrop unveils trimotor cargo plane. Aviation N 6:11 S 30 '46
Refrigeration; perishables being handled by UAL. Air Transport 3:109-10 D '45
Stratofreighter cargo hauler designed by Boeing. W. E. Beall. il Aviation 45:81 O '46
Stratofreighter marks 30 years of Boeing achievement. il diags Aero Digest 53:71-3+ S '46
Trimotor returns; Northrop Aircraft carrier designed for Latin American duty. Bsns W p47 O 5 '46

See also
Airlines—Freight service
Loading and unloading—Airplanes

Cargo handling

Aircraft cargo loading problems. D. W. Long. Mech Handling 33:436-9+, 526-7 Jl-Ag '46
Cargo-handling system for aircraft devised by the Glenn L. Martin company. il Mech Handling 33:27-8 Ja '46

AIRPLANES, Industrial
Arizona laundry uses plane for deliveries. il Aviation N 5:20 Mr 25 '46
High-line patrol by airplane. W. H. Blankmeyer. il Elec West 97:90-1 S '46
Milwaukee store uses air delivery service. Aviation N 5:17 Ap 29 '46
Patrolling a pipe line by light plane. A. D. Morton. il Gas Age 96:20-1 N 29 '45
Patrolling natural gas pipe lines by airplane. A. W. Sommerville. il Pet Eng 17:180+ Ja '46

AIRPLANES, Light
Aero Digest's sampler chart of personal aircraft; 49 models analyzed according to particular attributes, under nearly 200 selected headings [reprint enlarged 50c]. C. F. Elliott. Aero Digest 52:39-44 Mr '46
Aero-Flight reveals all-metal tandem two-placer. il Aviation 45:83 S '46
Aeronca challenges Piper lead in plane production. il Aviation N 5:23-4 Je 17 '46
All-metal personal plane; Wheelair 111-A. il Product Eng 17:146 S '46
All-metal Swift; personal airplane. Aeronautical Eng R 4:137+ N '45
Army liaison flying accident rate; Office of flying safety study. East Underw 46:26+ D 14 '45; Abstract. Nat Underw 49:25 N 8 '45
Aviation's 1946 yearbook; American and foreign planes; brief descriptions and illustrations. Aviation 45:88-109 F '46
Beech aircraft corporation's controllable-pitch propeller for light airplanes. il Aeronautical Eng R 4:123 D '45; Aero Digest 52:62 Ja '46
Beech four-place Bonanza aimed at executive transport market. il Aviation N 6:13-14 Ag 5 '46
Beech producing deluxe Bonanza four placer; with estimated operating costs. il diags Aviation 45:90-1 Ag '46
Beechcraft Bonanza. il diags Aero Digest 53: 46-7+ Ag '46
Beechcraft Bonanza model 35. il Automotive & Aviation Ind 95:23+ Ag 1 '46
Bendix using three lightplanes in demonstration-test of VHF. il Aviation N 5:13 Ap 22 '46
Better aircraft; CAA pushes move for greater safety and utility. il Bsns W p40+ Ap 6 '46
British firm working on two-control plane; Chrislea aircraft co. il Aviation N 5:14 My 20 '46
Canard type light personal airplane. B. F. Raynes. il diags Automotive & Aviation Ind 95:34-5+ Ag 15 '46

AIRPLANES, Light—*Continued*
Compact fuel injection system developed for small personal craft. il diags Aviation 45:78-9 O '46
Controllable lightplane prop is easily adjusted and serviced. il Aviation 45:83-5 Je '46
Culver testing speedy new model V. il Aviation 44:186 D '45
Culver's Simplifly control explained. Aviation N 4:14 Ja 7 '46
Ercoupe seen leading lightplane among private pilot owners. A. McSurely. il Aviation N 6:15-16 S 23 '46
Eshelman Winglet flown in Baltimore. il Aviation N 4:16 D 24 '45
Experimental lightplane under test by Bendix; price of $2,500 is goal. A. McSurely. Aviation N 5:27 Ja 28 '46
First Bellanca Cruisair Sr. listed at $5,375, delivered to dealer. A. McSurely. il Aviation N 5:13-14 Ap 8 '46
First post-war Canadian-designed lightplane goes into production. A. McSurely. il Aviation N 4:15-16 N 19 '45
Fleet Canuck. G. E. Otter. il Aero Digest 51:66+ D 15 '45
Flivverless sky; plane in $1,000 class far from reality. Bsns W p19 Mr 30 '46
Flying farmers offer big market for light planes. il Sales Management 56:119 Ja 1 '46
Folding wings for personal planes. J. H. Geisse. il Aero Digest 52:51+ Ap '46
Forced landings are obsolete; maintenance, simplification of light planes and changes in license rules. H. G. Moe. Aero Digest 53: 38-9 Ag '46
Four-place personal design features novel structural ideas. il Aviation 45:50 Mr '46
Four-seat Waco Aristocraft is novel pusher. il Aviation 45:82-3 O '46
Funk plans to make 500 Bees during year. il Aviation N 5:16 Je 10 '46
Geisse urges folding wings be incorporated in new planes. A. McSurely. diags Aviation N 5:12 Mr 4 '46
Gemini four-placer is Miles' latest. il diags Aviation 45:99 Ap '46
Geodetic construction applied to new experimental lightplane. il Aviation N 5:25 F 25 '46
Geodetic structure featured in speedy Thalman Special. il Aviation 45:97 My '46
Globe mass-producing metal side-by-side Swift. il Aviation 44:187 D '45
How the controllable pitch propeller increases personal airplane utility. P. Altman. il Automotive & Aviation Ind 95:22-5+ Jl 15 '46
Improved Funk two-placer goes into production. il Aviation 45:87 Jl '46
Improved merchandising answer to personal plane sales; Parks aircraft sales & service. Aviation N 6:21 O 28 '46
IAS lightplane meeting. Aero Digest 53:39+ S '46
Institute of the aeronautical sciences; National light aircraft meeting, Detroit. Aeronautical Eng R 5:6-8 Jl '46; Automotive & Aviation Ind 95:56+ Jl 1 '46
It'll pay you to promote lightplane insurance. R. L. Templeton. Aviation 45:82-3 F; 86+ My '46
Kaiser-Hammond presents metal two-control pusher. il Aviation 45:97 Ap '46
Lightplane improvement projects offered NACA by CAA, AOPA, AIA. B. Stubblefield. Aviation N 5:13 Mr 25 '46
Little Dipper designer building new plane; John W. Thorp & co. S. Bangs. Aviation N 5:16 Mr 11 '46
Lubrication guide for personal planes; tabulation. Aero Digest 52:48 My '46
Luscombe testing low-wing one-placer. il Aviation 45:91 Ap '46
Meyers grooming fast new two-placer. il Aviation 45:92 Je '46
Michigan company to produce Darts. il Aviation N 4:15-16 D 17 '45
Miles Gemini aeroplane. il Engineering 161: 174 F 22 '46; Engineer 181:173 F 22 '46
Military pilots versus light planes. CAA J 7:107 Ag 15 '46
NACA propeller formula may throttle lightplane noise. A. McSurely. Aviation N 6: 27+ S 2 '46
National light aircraft meeting; papers summarized. Aeronautical Eng R 4:53+ N '45
Navion, four-passenger personal airplane. il Automotive & Aviation Ind 94:40 Ap 15 '46; diags Aero Digest 52:47+ My '46; Aeronautical Eng R 5:127+ My '46; Aviation 45:95+ My '46
New French personal planes mark revival of tricolor industry. A. Charriou. il Aviation 45:40-2 My '46
New lightplane radio equipment will embody many advantages. A. McSurely. Aviation N 4:23-4 D 31 '45
New Luscombe one-place ship flight tested. A. McSurely. Aviation N 5:17 F 11 '46
New North American lightplane to sell for $6,100 at factory. A. McSurely. il Aviation N 5:13-14 Ap 1 '46
New planes for personal flying; spinproof design, cost of flying, 1946 models, shopper's guide. il Fortune 33:124-9+ F '46
New Sensenich controllable propeller built for lightplanes. A. McSurely. il diag Aviation N 6:13-14 Jl 22 '46
New-twin engine pusher is developed by Baumann corp. Aviation N 6:13 Jl 8 '46
New variable pitch propellers added to many lightplanes. A. McSurely. Aviation N 6:23 Jl 15 '46
New Voyager 150 four-placer delivered by Stinson. il Aviation 44:184 D '45
North American Navion getting service test on 12,000 mile tour. A. McSurely. il Aviation N 6:23-4 S 16 '46
Personal plane problems; analysis of papers and summary of discussions at I.A.S. annual Light aircraft meeting, Detroit, June 13-14. Aeronautical Eng R 5:18-24 Ag '46
Piper Skysedan joins trend toward all-metal construction. A. McSurely. il Aviation N 5: 13-14 My 27 '46
Piper Super-Cruiser at $2,905 seen as long-desired plane. il Aviation N 5:14 My 6 '46
Piper's low-wing Skysedan put through paces. il Aviation 45:94 My '46
Post-war Luscombe Silvaires rolling out of new Texas plant. A. McSurely. il Aviation N 4:15-16 D 10 '45
Practicability of vibration control in light aircraft. D. C. Kennard, jr. il diags A S M E Trans 68:81-8 F '46
Price of new Cessna model 120 likely to jolt other producers. A. McSurely. il Aviation N 5:13-14 Ja 14 '46
Private-plane makers struggle forward. J. A. McWethy. Barron's 26:7 Jl 29 '46
Private plane prospects. A. Klemin. il Sci Am 174:252-4 Je '46
Probable materials of construction for the postreconversion light airplane. F. B. Lane. bibliog Aeronautical Eng R 5:11-18 My '46
Rawdon monoplane is set for production. il Aviation N 5:17 Je 3 '46
Rohr M. O.-1 Canard. B. F. Raynes. il diag Aero Digest 53:90+ Ag '46
Ross sport plane set for production. il Aviation 45:95 Ap '46
Small pusher transport readied by Baumann. il Aviation 45:84 S '46
Spring steel landing gear proves attraction on Cessna models. A. McSurely. Aviation N 6:16 N 4 '46
Tailor lightplanes to meet market needs, experts advise. A. McSurely. Aviation N 5:12 My 20 '46
Taylorcraft's ace will sell for $1,995. N. Russ. Aviation N 6:15 S 9 '46
Texas firm develops all-metal aeroplane; Luscombe Silvaire. il Manuf Rec 115:52-3+ O '46
Texas plane factory has $16,000,000 backlog; Swifts, all-metal, low-wing monoplanes. il Manuf Rec 115:47+ F '46
Tips for the personal plane buyer. W. L. Nye. il diag Aero Digest 51:50-1+ D 15 '45
Two-control sky skooter is Thorp entry. il Aviation 45:93 Ap '46
Two new personal planes groomed in Canada and England. il Aviation 45:86 S '46
Two-place parasol-type lightplane costing $1,320 offered by N.Y. firm; Rose sport plane. il Aviation N 5:15 Mr 4 '46
Unique Wyoming aircraft plant builds planes for mountain work; Call aircraft co., Afton, Wyo. il Aviation N 5:19 F 4 '46

AIRPLANES, Light—*Continued*
Versatile aerocar offered by British. il diags Aviation 45.52 Mr '46
Waco Aristocraft. il Automotive & Aviation Ind 95:43 O 1 '46
Waco enters postwar plane market with Aristocraft pusher. A. McSurely. il Aviation N 6:23-4 S 30 '46
Warnings on lightplane future are sounded at National clinic. Aviation N 6:25-6 O 21 '46
Weatherly-Campbell develops new four-place personal plane. A. McSurely. il Aviation N 6:15 O 7 '46

Automobile combinations

Hervey travelplane is new roadable project. diags Aviation 45:100 Ap '46; Aviation N 5:14 Mr 25 '46
Roadability and landing ability in aircraft undercarriages. R. M. Rosenberg. diags J Aeronautic Sci 13:270-6 My '46
Texas firm tests roadable. il Aviation 45:51 Mr '46

Cost of operation

Beech producing deluxe Bonanza four placer; with estimated operating costs. Aviation 45: 91 Ag '46
Flight costs for lightplanes. L. Brady. il Aero Digest 52:77+ F '46
What does it actually cost to fly your plane? C. A. Parker. il Aviation 45:44-6 Je '46

Design

Comfort can be compatible with design efficiency. W. L. Lewis. il diags Aviation 45: 55-9+ O '46
Continental Motor's annual aircraft design competition. E. L. Davenport, jr; W. Laster. diags Aero Digest 51:58-9 N 15 '45
Designing tomorrow's personal plane (cont) R. H. Upson. il diags Aviation 45:84-8 Ja; 76-80 Mr '46
Midnight Oiler radical design lightplane is built by Rohr. il diags Aviation N 6:15 Jl 1 '46
Mixmaster-type lightplane design completed by Ercoupe engineer. Aviation N 5:17 Ja 21 '46
New cockpit designs stress pilot protection for crashes. Aviation N 6:15-16 O 14 '46
Simplified design for personal plane engines. C. T. Doman. il Aeronautical Eng R 5:29-33 Ag '46
Simplifying personal plane design. R. H. Upson. Aviation 45:55-9 Je; 71-5+ Ag '46
Simplifying the airplane for the private owner. J. M. Gwinn, jr. diags S A E J 54: 491-502 S '46
Twin-engine plane has radical design; co-inventors, A. C. Johnson and H. W. Funke. Aviation N 5:16 Je 24 '46

AIRPLANES, Military
Advantages of double-flared tubing; oxygen systems of combat airplanes. L. Virgile. diags Aero Digest 51:89+ D 1 '45
Application of jet propulsion to military aircraft. W. G. Carter. Roy Aeronautical Soc J 50:347-52; Discussion. 352-74 My '46
Armament for jet-propelled bombardment airplanes. R. A. Averitt. Aeronautical Eng R 5:5-8 F '46
Aviation's 1946 yearbook; American and foreign planes; brief descriptions and illustrations. Aviation 45:124-32 F '46
Basic design principles for a-c electric-power systems in large military aircraft. C. K. Chappuis and L. M. Olmsted. bibliog diag Elec Eng 65:Trans 12-17 Ja '46
Electrical and allied developments of 1945; aviation. G. Bartlett. il Gen Elec R 49:38-41 Ja '46
Evaluating operation crossroads; radio controlled bombers. S. Bangs. il Aviation 45: 38-41 Ag '46
Fighter canopies. B. Jones and R. Mayne. il diags Aeronautical Eng R 5:23-9 O '46
Flying boats. C. H. Schildhauer. il map Aeronautical Eng R 5:5-9+ Mr '46
Flying qualities requirements for military aircraft. M. J. Abzug. Aeronautical Eng R 5:16-22 O '46
For long flights to somewhere. il Bsns W p17 Ag 17 '46
Simplified supersonic speed wings being rushed by major producers. S. Bangs. Aviation N 4:7 N 12 '45
Standardization of navy cockpit arrangement. L. de Florez. il Aeronautical Eng R 5:26-9 Ap '46

See also
Airplanes, Military transport
Guns, Aircraft
Guns, Anti-aircraft

Conversion

Converting a C-54 into a DC-4 luxury liner. Air Transport 4.26 My '46
Martin reconversion contracts heavy. il Aviation N 4:45 D 24 '45
Modification of the UC-78. W. L. Blythe. il Aero Digest 52:78-9 F '46
New fleets for old; survey of passenger preferences precedes redesign of Chicago and Southern planes. il plan Air Transport 4:57-8+ My '46
Reconditioning of surplus trainers; with cost data. W. L. Blythe. il Aero Digest 50:69-70+ Ag 15 '45; 52:80-1 F '46
Texas firm licensed for modifying C-54's. Aviation N 5:20 Je 24 '46

Design

Beech AT-7 Navigator. il diags Aero Digest 52:82-5+ Mr '46
Composite-engine aircraft as a basic conception; Ryan FR-1 Fireball; combination of piston and turbojet power. R. B. Johnston and H. S. Gordon. Aviation 45:59-62 Ap '46
Design and production of Japanese military aircraft. A. P. West. Roy Aeronautical Soc J 50:526-49 Jl '46
Design and tooling aspects of the Ryan Fireball fighter. B. T. Salmon. il diags Automotive & Aviation Ind 94:24-7+ F 15 '46
Design details of the Northrop P-61. il diags Aero Digest 51:54-8 N 1; 50-4 D 1 '45
Lockheed Neptune record flight reveals efficiency of new design. W. Kroger. il Aviation N 6:7-8 O 7 '46
Northrop XB-35 and the F-15. il Aero Digest 52:44-5+ Je '46
Northrop XB-35 flying wing superbomber. J. R. Northrop. il diags Aviation 45:55-61 Ag '46
Northrop's XB-35 flying wing. il Automotive & Aviation Ind 94:45+ Je 1 '46
Radical Vought XF5U-1 opens new flying wing vistas. il Aviation 45:62 Ag '46
Skyraider's high performance stems from pin-point designing. E. H. Heinemann. il diags Aviation 45:55-8 Ap; 77-9 My '46
Structural design problems in the B-29 airplane. G. Snyder. il diags Aeronautical Eng R 5:9-12 F '46

Gun cameras

Eastman Kodak company gun sight aiming point camera. Soc Motion Picture Eng J 46:80-1 Ja '46

Gun turrets

Bristol gun turret. il diags Engineer 181: 68-9 Ja 18 '46; Abstract. Electrician 136: 150 Ja 18 '46
Gun turrets for aircraft. Engineering 161:18 Ja 4 '46

Maintenance and repair

ATSC maintenance never halts. il Aviation 44:125-7 D '45
Maintenance principles for gas turbine jet engines. J. Foster, jr. il diags Aviation 44: 115-18 D '45

Manufacture

Design and tooling aspects of the Ryan Fireball fighter. B. T. Salmon. il diags Automotive & Aviation Ind 94:24-7+ F 15 '46
Mechanical aids to Mosquito manufacture; Standard motor company. S. C. Johnson. il Mech Handling 32:608-14 N '45

Testing

Flight investigation of the effects of surface finish on wing profile drag. W. H. Day and J. M. Schwarzbach. il diags J Aeronautical Sci 13:209-13+ Ap '46
Lonely Mojave Desert test base will try out nearly all new craft. S. Bangs. il Aviation N 4:9-10 N 19 '45

AIRPLANES, Military—Testing—*Continued*
Unique hangar built for army test work; to permit largest army aircraft to be tested at extreme temperatures. il diag Eng N 137:28-32 Jl 11 '46

Australia

Speedy C.A.15 fighter built in Australia. il Aviation 45:89 Jl '46

China

Boeing Kaydet picked for Chinese air force. Aviation N 6:20 Ag 19 '46

Germany

Analysis of rocket engines; German interceptor plane Me 163. Machine Design 17:130 D '45
BMW-003 turbo-jet engine compared with Jumo 004. W. G. Lundquist and R. W. Cole. il diags S A E J 54:503-10 S '46; Same cond. plans Automotive & Aviation Ind 94: 30-3 Je 15; 95:26-9 Jl 1 '46
Design analysis of BMW 003 turbojet. R. C. Schulte. il diags Aviation 45:55-68 Mr '46
Design and construction of German 109-011 A-O turbojet. il diag Aviation 45:63-4 S '46
Design development of Horten flying wings. diags Aviation 45:65-8 Ag '46
German aircraft hydraulic systems and their components. R. H. Davies. diags S A E J 54:418-35 Ag '46
How Nazis' Walter engine pioneered manned rocket-craft. R. Healy. il diag Aviation 45: 77-80 Ja '46
Use of ether as ignition agent; Ring process in German aircraft. R. J. Bender. Automotive & Aviation Ind 95:41-2+ S 1 '46

Great Britain

Aeronautics in 1945. il Engineer 181:8-10, supp4-5, 30-1, supp 1 Ja 4-11 '46
Avro Lincoln bomber. il Engineering 161:224 Mr 8 '46
Bristol military aircraft. il Engineering 161: 392-4 Ap 26 '46
British naval aircraft. il Engineering 160: 310, 316-17 O 19 '45
Engineering behind that 606-mph. Meteor. A. H. Narracott. il Aviation 45:69-72 Ja '46
Fairey Firefly Mark IV. il Engineer 180:364 N 9 '45
Fairey Spearfish. Aeronautical Eng R 5:99+ Ap '46
Fairey Spearfish naval aircraft. il Engineer 181:153 F 15 '46
Firebrand and Lincoln up RAF might. il Aviation 44:188+ D '45
Interest in British jet work stimulated. Aviation N 4:13 N 19 '45
Percival three-seater is new type RAF trainer. il Aviation 45:91 Jl '46
Recent types of Fairey naval aircraft. il Engineering 161:583, 588 Je 21 '46
Sabre aero engine. il Engineering 161:79-81 Ja 25 '46

Japan

Design and production of Japanese military aircraft. A. P. West. Roy Aeronautical Soc J 50:526-49 Jl '46
Last-ditch Jap warplanes undergo AAF scrutiny; illustrations and descriptions. Aviation 45:95 Ag '46
Pusher-type fighter perfected by Japs. il Aviation N 4:14 D 24 '45

United States

Air forces' needs in electric equipment. G. C. Crom, jr. il diags Elec Eng 65:17-22 Ja '46
Aircraft production and other statistics; tables and charts. Automotive & Aviation Ind 94:93-7 Mr 15 '46
AAF experimental craft revealed by builder; Kaiser, Fleetwings, inc. il Aviation 45: 87 S '46
Biggest bomber flies; XB-36. il Aviation N 6:9 Ag 19 '46
Consolidated XB-36 may be flown soon. il Aviation N 4:11 D 24 '45
Design details of the Northrop P-61. il diags Aero Digest 51:54-8 N 1; 50-4 D 1 '45
Develop potent rocket engine for navy's supersonic planes. il Aviation 45:71 Je '46
Douglas twin-jet bomber makes first flight under wraps. il Aviation N 5:9 My 27 '46
Dreamboat flight is prelude to B-50; transpolar flight. il Aviation N 6:9-10 O 14 '46
Features of new Flying Wing seen adaptable to sonic speed. il Aviation N 5:23-4 My 13 '46
First all-jet fighter announced by navy; FD-1 Phantom. il Aviation N 5:11 Ja 14 '46
Heavily gunned XA-41 was groomed as ground strafer. il diags Aviation 45:95 Je '46
Jet, rocket advances marked in AAF show. Aviation N 5:12 Je 10 '46
Navy reveals Flying Pancake as radical experimental model. il Aviation N 6:7-8 Jl 1 '46
Navy's new Grumman F8F Bearcat. il Aero Digest 51:83 D 1 '45
Navy's twin-jet Phantom fighter scores success in carrier test. il Aviation N 6:11-12 Jl 29 '46
New Bell jet fighter exceeds 500 mph. il Aviation N 4:24 N 19 '45
New Lockheed P2V sets navy precedent. il Aviation N 4:12 D 24 '45
Northrop XB-35 Flying Wing set for flight tests. il Aviation 45:92-3 My '46
Northrop XB-35 flying wing superbomber. J. K. Northrop. il diags Aviation 45:55-61 Ag '46
Prop-nosed dual-jet XP-81 put through AAF trials. il Aviation 45:95 Mr '46
Republic reconnaissance craft, Rainbow prototype, is unveiled. Aviation N 4:10-11 D 31 '45
Republic unveils speedy XP-84 jetplane. il Aviation 45:90 Ap '46
Shooting Stars use Jato successfully for added take-off power. Aviation N 5:22 Mr 11 '46
Skyraider's high performance stems from pin-point designing. E. H. Heinemann. il diags Aviation 45:55-8 Ap; 77-9 My '46
Supersonic plane and jet bombers revealed by Army air forces; drive for research funds. il Aviation 45:68-9 Jl '46
Three new military planes give forecast of future developments. S. Hershey. il Aviation N 5:10-11 Ja 28 '46
World war fighter planes vie at National air races. A. Walker. il Automotive & Aviation Ind 95:28-31 S 15 '46
XA-38 tactical airplane. Aeronautical Eng R 5:115 Ja '46
XB-42 flight gives demonstration of propeller-in-tail advantages. Aviation N 4:9 D 17 '45
XB-44 super bomber announced by ATSC. Automotive & Aviation Ind 94:74 Ap 1 '46
XP-81 fighter; BTM dive bomber. il Automotive & Aviation Ind 94:21 Mr 1 '46
XP-81, first jet-propjet model. il diag Aero Digest 52:80-1 Mr '46

AIRPLANES, Military transport
Lockheed unveils Constitution as giant new navy transport. il Aviation 45:86 O '46

AIRPLANES, Target
Crankcase scavenge target engine; abstract. J. L. Ryde. Automotive & Aviation Ind 94: 34-5 My 1 '46

AIRPLANES, Training
Chipmunk trainer will sell for $7,500. Aviation N 6:24 S 16 '46
Fairchild trainer meets new need. Aviation N 6:18 N 4 '46
New British trainer is built by Percival. il Aviation N 5:15 Je 10 '46
Percival three-seater is new type RAF trainer. il Aviation 45:91 Jl '46

AIRPLANES in agriculture
Arkansas flying farmers organized at Little Rock. Aviation N 6:32 S 2 '46
Farmer will not be earthbound. F. Bailey. Aero Digest 51:35+ N 15 '45
Flying farmers are finding new uses for small planes, CAA survey shows. CAA J 7:124 S 15 '46
Flying farmers rapid growth points to bigger plane market. Aviation N 6:23-4 Ag 12 '46
National flying farmers association, 1st annual meeting, Stillwater, Okla. Aero Digest 53:19+ S '46
Western range flyers realize greatest lightplane utility. Aviation N 5:15 My 13 '46
Wings over forest and field. O. D. Hall. il Aero Digest 52:39-41+ My '46

AIRPLANES in business
Airborne fish bring higher prices; delivery service of Tex-Air sea foods co. R. McDaniel. il Air Transport 4:84-5 O '46
Company-owned planes: new tool for quick contacts. il Sales Management 55:38-9 N 15 '45
How to operate industrial aid plane; Aero insurance underwriters manual for use of company-owned aircraft. Nat Underw 49:26 N 8 '45; Same. Weekly Underw 153:1154 N 17 '45
Special safety factors to secure favorable insurance coverage for all air-minded executives. G. R. Wilson. Weekly Underw 155: 275+ Ag 3 '46

AIRPLANES in forestry
Wings over forest and field. O. D. Hall. il Aero Digest 52:39-41+ My '46

AIRPLANES in insect control
Analysis of the design and performance of airplane exhaust generators for the production of DDT aerosols for the control of anopheles quadrimaculatus. C. W. Krusé and R. L. Metcalf. diags Pub Health Rep 61:1171-84 Ag 9 '46

AIRPLANES in mining
Aerial photographs speed reconnaissance work; advantages in the tropics. J. Edwin. il Eng & Min J 147:88-9 Je '46
Airborne magnetometer. il plan Min Cong J 32:48-50+ Jl '46
Airborne magnetometer, new aid to geophysics. A. W. Knoerr. il diags Eng & Min J 147.70-5 Je '46
Detailed magnetometer surveys quickly made from helicopters. il Min & Met 27:474 S '46
La Luz takes it by air; case history of an airborne gold mine. il Air Transport 4:38-9 N '46
New airborne magnetometer demonstrated in Ottawa; experimental flights in northern Quebec and Ontario. il diag Can Min J 67: 953-6 O '46
New prospecting aid; airborne magnetic detector. Comp Air Mag 51:192 Jl '46

AIRPLANES in selling
Flying salesmen win favor by new approach; Laclede agency in St Louis. Weekly Underw 155:84 Jl 13 '46
Flying store takes U.S. wares to Latin America; Trans-Caribbean Air's distributing venture. il Sales Management 56:41 Mr 1 '46
Will future salesmen be pilots, too? Bond corp., Portland, Ore., studies costs of experimental 9,000-mile sales trip. Sales Management 57:96 O 1 '46

AIRPLANES in the petroleum industry
Air patrol of pipe lines. M. W. Balfour. il Pet Eng 17:229-31 Ja '46
Airborne magnetometer. J. R. Balsley, jr. bibliog il maps Pet Eng 17:77-8+ Jl; 104+ Ag '46
Airborne magnetometer; new geophysical tool. E. A. Eckhardt. il Oil & Gas J 45: 78-9+ Je 8 '46
Aviation at work. H. David. il Oil & Gas J 45:78-81+ Je 22 '46
Development and applications of airborne magnetometers in the U.S.S.R. A. A. Logachev. bibliog maps Pet Eng (Ref annual) 17:211-12+ Jl 1 '46
Flying eye, which helped defeat Axis subs, expected to open up era of aerial oil surveys; airborne magnetometer. il Nat Pet N 38:6 Je 5 '46
Humble joins companies using airplanes to spot trouble on long miles of pipeline. Nat Pet N 37:35 N 28 '45; Pet Eng 17:178 D '45
Majors lead the way as oil industry takes to the air. H. Ridder. il Nat Pet N 38:33-4+ Jl 17 '46
Oil exploration from the air; flying eye, or airborne magnetometer. il Diesel Power 24: 1221+ O '46
Oil industry one of largest users of commercial aviation. H. D. Ralph. il Oil & Gas J 45:82+ Je 22 '46
Operational procedure for the airborne magnetometer. H. Jensen. diags Oil & Gas J 45:80-3 Jl 13 '46
Opportunities for the use of small aircraft in Venezuela. H. R. Moorman. Oil & Gas J 45:63+ S 7 '46
Shell's pipe-line patrol averages 15,000 miles per month. H. H. Anderson. il Oil & Gas J 45:243-4+ S 21 '46
Trimetrogon aerial photography; oil industry's newest surveying tool. R. W. Disney. il map diags Oil & Gas J 45:112-15 O 19 '46

AIRPLANES in wildlife service
Flying biologists match migrations of birds in making survey trips. CAA J 7:90 Jl 15 '46

AIRPORT buildings
Air terminal for California's Long Beach municipal airport. il plans Arch Forum 85:94 O '46
Airport buildings. 86p pa 20c Supt. of doc, Washington 25, D.C. '46
Municipal airport; terminal building for a small community; Hutchinson, Kan. il map plans Arch Forum 83:158-9 N '45
Plans for the Panama national airport. C. B. Hall. il plan Aero Digest 51:52-4+ D 15 '45
What's wrong with our air terminals? Marc Thompson's national survey. il plans diags Arch Forum 84:122-8+ Ja '46
See also
Hangars
Air conditioning

Airports, a vast new market for draftless air conditioning. G. R. Wallen. il Sheet Metal Worker 37:68+ O '46
Draftless air-conditioning; air diffusers. L. R. Phillips. il Aero Digest 53:55-6 Ag '46

AIRPORT market
Airports; new market place. T. B. Haire. il Ind Marketing 31:45-6+ S '46

AIRPORTS
Air, sea, land service base in Florida handles petroleum needs of all three; Miami aviation center. map Nat Pet N 38:30 Ap 3 '46
Airlines seeking Willow Run field as interim terminal for Detroit; other airport developments. Aviation N 5:38-9 Ja 28 '46
Airport development. F. P. S. Glassey. il plan Nat Pet N 38:25+ Jl 17 '46
Airport news highlighted by start of ATA survey of operations. M. Mickel. il Aviation N 5:37-8 F 18 '46
Airport planning. C. Froesch and W. Prokosch. Review, by O. Leiding. Air Transport 4:40 Ag '46
Airport stores; tire companies plan for retailing to air amateurs. Bsns W p80 Mr 16 '46
Airports for the next decade. P. McCarran. Aero Digest 53:18-19 Jl '46
Airports have increased tenfold since 1926, but aviation's growth still outstrips supply. CAA J 7:60 My 15 '46
Airports keystone to aviation boom. W. A. M. Burden. CAA J 7:13+ F 15 '46
April count shows 4,167 U.S. airports. CAA J 7:76 Je 15 '46
Condemnation of land for airports. C. S. Rhyne. Aero Digest 53:41+ Jl '46
Counting on counter appeal; retail sales stores for aviation supplies and accessories. il Aero Digest 53:74-5 Jl '46
Eight musts for an airport. C. Froesch. map plan Air Transport 4:61-2+ Ja '46
Illinois U. airport is commissioned. il Aviation N 4:12 N 19 '45
Island airport; Portuguese want big terminal in south Atlantic. Bsns W p 110 Ja 26 '46
Let us take inventory; airport facilities in the United States. T. P. Wright. Aero Digest 53:17+ Jl '46
Medford station on United air lines' coast route 11. V. S. Smith. il Air Transport 4:22-7 Jl '46
Number of U.S. airports and landing fields, 1936-1945; tabulation. Automotive & Aviation Ind 94:98 Mr 15 '46
Oil company aid for the airport operator. R. R. Brine. Aviation 45:47+ O '46
Oil company helps promote small airports through systematic development program. E. Lamm. il Nat Pet N 38:36+ O 2 '46
Open University of Illinois airport. il Aero Digest 51:65 D 15 '45
PCA leases Willow Run field as main maintenance base. Aviation N 5:36 Je 10 '46

AIRPORTS—*Continued*
Status of civil aviation in 1946. H. Self. diags Roy Aeronautical Soc J 50:741-9 O '46
Teterboro's new air terminal for private fliers and Robinson airlines. il Aero Digest 52:87 F '46
25 cities hastening master airport plans; abstract. E. Smith. CAA J 6:135 D 15 '45
Upping small airport capacity. D. G. Fleet. Aero Digest 53:45+ O '46
Will Rogers airfield selected as training, maintenance center. CAA J 7:36 Mr 15 '46
See also
Aviation landing stations
Seaplane bases

Accidents
AAF ground accident survey cites need for field redesign. Aviation N 4:11 D 10 '45

Accounting
Know where those dollars are. C. A. Parker. Aviation 45:46-9 Ap; 44-6 Je; 80-1+ Jl '46
Standard accounts for airports. J. M. Cunningham. J Account 81:214-16 Mr '46

Advertising
New type of advertiser; the local airport. Ptr Ink 216:98 S 6 '46

Aprons
Designing and building a concrete apron at the Duluth airport. A. W. Tewes. il plans Pub Works 77:22-3+ S '46

Bibliography
Highway and airport digest. plans diag Pub Works 77:48+ Ja; 48-50+ F; 46+ Mr; 59-60+ Ap; 40+ My; 49-52+ Je; 58+ Jl; 52-4 Ag; 48+ S; 51-4 D '46

Buildings
See Airport buildings

Chain airports
Airport chain operation plan. J. F. Woerner. Aero Digest 52:46-7+ Je '46

Concessions
Airports are a business. S. P. Voorhees. il Air Transport 4:32-5 Jl '46
Excessive levies placed on distributors of petroleum products burden aviation; excerpts from Harvard study. L. L. Bollinger and others. Nat Pet N 38:48-9+ S 4 '46
Idlewild fuel concession. R. C. Oertel. il Air Transport 4:47-8+ My '46
Loan equipment eats up gasoline profits on current volume at smaller airports. E. Lamm. Nat Pet N 38:37-8+ S 25 '46
Out for airports? nonaviation concessions. Bsns W p26+ Jl 6 '46

Construction
Airport construction criteria. H. K. Glidden. Aero Digest 53:46-7 Jl '46
Battling wet soil at Dubuque airport. H. J. McKeever. il Roads & Sts 89:65-8 Je '46
Blasting a mountain top to build an airport. J. I. Horty. il Explosives Eng 23:241-3+ N '45
Building an airbase in the Azores. J. S. Bragdon. il Eng N 137:250-3 Ag 22 '46
Building an airport in a hurry. C. H. Vivian. il plans Comp Air Mag 50:315-22 D '45
Construction of United States airport in the Azores. il map Engineering 162:289-92, 300 S 27 '46
Heavy grading required for airport at Charleston, W. Va. L. S. Wescott. il plans Civil Eng 15:553-5 D '45
High production with low accident rate; Wilkes-Barre-Scranton airport. H. K. Glidden. il Roads & Sts 89:74-9 My '46
Kanawha airport construction involves heavy grading. Pub Works 77:40 Ja '46
9½ million yard airport grading job moves into second year; Kanawha County airport, Charleston, W. Va. H. J. McKeever. il Roads & Sts 89:71-6 Ja '46
Stockpiling 85,000 tons of stone ballast for runway base; Kanawha County airport, Charleston, W.Va. il Roads & Sts 89:82-3 F '46

Cost
Airport, Bloomington, Indiana; unit prices. Eng N 135:824 D 13 '45
Airport improvements Toledo municipal airport, Ohio; unit prices. Eng N 137:394 S 19 '46
Recent bids; airport at Boston. Roads & Sts 89:96 My '46

Design
Airport design. il plans Tech R 48:481-6 Je '46
AAF ground accident survey cites need for field redesign. Aviation N 4:11 D 10 '45
Design requirements for airports. W. E. Cullinan, jr. il Roads & Bridges 84:53-4+ Jl '46; Same cond. Pub Work 77:27-8 Mr '46
Designing and building a concrete apron at the Duluth airport. A. W. Tewes. il plans Pub Works 77:22-3+ S '46
Plans for the Panama national airport. C. B. Hall. il plan Aero Digest 51:52-4+ D 15 '45
Speeding up of ground traffic. il plans Roads & Sts 89:86-90 Jl '46
Survey of AAF airport designs. P. French. plan Aero Digest 52:46-7+ Ap '46
Wind analysis for airport design. S. B. Solot. il Civil Eng 16:122-4 Mr '46

Drainage
Drainage conduit, East Boston, Mass.; unit prices. Eng N 136:439 Mr 21 '46
Highways and airports as malaria and mosquito producers. il Pub Works 77:20-1 Mr '46
Idlewild airport drainage. H. K. Glidden. il diags Roads & Sts 89:67-72 Ap '46
Shoulder gutters check airfield erosion. H. A. Scott. il diags Eng N 135:732-4 N 29 '45
Use U-shaped conduit for airport drainage. il Eng N 136:256 F 14 '46

Equipment
Airport fueling installations. R. L. Holdridge. il diags Aero Digest 52:55-6+ Mr '46
Airport wind instrument; Friez Aerovane, combined anemometer and wind vane. il Aero Digest 53:59 Ag '46
Differential wind speed analyzer. J. J. Riley and J. F. Riley. il diag Aero Digest 53:111 Jl '46
Install new type plane fueling system at New Orleans airport. il Nat Pet N 38:28-9 O 9 '46
Large capacity refueling unit can pump 290 gpm. il Air Transport 4:75 Ap '46
Mobile dual refueler affords high-rate service. T. H. McConnell, jr. il plan diag Aviation 45:105+ Ja '46
Navy tests proving practicality of de-fogging devices for airfields. il Eng N 135:759 D 6 '45
New anti-fog device does well in test. S. Bangs. Aviation N 5:12-13 Ja 21 '46
Portable fuel dispenser for airport use. il Aero Digest 53:52 Jl '46

Federal aid
Airport construction program, to cost $250 million, is authorized. Steel 118:70 My 27 '46
Airport construction ready to go with new federal funds. Air Transport 4:80 Je '46
Airport fund allocation revealed; list by states. Aviation N 5:8 Ap 15 '46
Airport funds; federal aid seem likely. Bsns W p19-20 Mr 30 '46
Airport plans of the States. Aero Digest 53:42-5 Jl '46
Allot $30 million for state airports. Eng N 137:199+ Ag 15 '46
Bill is signed authorizing $1 billion for airports. Eng N 136:763+ My 16 '46
CAA action in airport building program. T. P. Wright. CAA J 7:53+ My 15 '46
CAA announces $30,822,750 for states. Roads & Sts 89:76-8 S '46; Excerpt (table). CAA J 7:116 S 15 '46
CAA sets up engineering staff for new $500,000,000 airport program. Eng N 136:954 Je 20 '46
Essential steps for airport aid. T. P. Wright. CAA J 7:125+ O 15 '46
Federal-aid program for airport construction; abstract. P. Moore. Rock Prod 49:68-9 Mr '46
Federal airport act approval sets stage for action. Roads & Sts 89:77 Je '46

AIRPORTS—Federal aid—*Continued*
Federal airport program. Roads & Sts 89: 73-4 Ap '46
Federally-backed airport program seems assured as conferees agree. Aviation N 5:7-8 Mr 25 '46
For an era of better living. J. Randolph. Aero Digest 53:19+ Jl '46
Signing of Federal airport act paves way for building program. W. Kroger. Aviation N 5:7-8 My 20 '46

Fees

Airport fees to meet operating charges; Idlewild airport. Concrete 53:33 N '45
Rental charges for hangars. J. W. Rowe. Aero Digest 53:71+ Jl '46

Finance

Out for airports? nonaviation concessions. Bsns W p26+ Jl 6 '46
Private versus public management of airports. L. L. Bollinger. Harvard Bsns R 24 no 4:518-34 [Jl] '46
Yes votes for that airport; Los Angeles $12,500,000 bond campaign. M. Winters. il Aviation 45:38-41 Mr '46
See also
Airports—Federal aid

Fires and fire protection

Aircraft firefighting equipment. P. W. Eberhardt. il Aero Digest 52:59+ Mr '46
Airport fire losses estimated $38,000,000, N.F.P.A. states. Weekly Underw 154:526 F 23 '46; Excerpt. Nat Underw 50:39 Mr 14 '46
Analysis of airport fires shows need for concerted safety drive. A. McSurely. Aviation N 5:23 F 25 '46
Checking airport fire hazards. G. H. Tryon, 3d. il Aero Digest 53:48-9+ O '46
Foam quells aircraft fires. il Aero Digest 52:62+ Ap '46

Insurance requirements

Insuring the airport operator. D. A. Wilson. il Rough Notes 89:22+ Jl '46

Law

Don't get stuck for damages. R. F. Carroll. Aviation 45:45+ Mr '46

Lighting

Advances in airport lighting. W. A. Pennow. il Elec Eng 65:259-65 Je '46
Airfield lighting. R. H. Redmill. diags Electrician 136:531-4 Mr 1 '46
Airfield lighting control. il Engineer 182: 164-5 Ag 23 '46; Electrician 137:524-5 Ag 23 '46; Elec R (Lond) 139:311-12 Ag 23 '46
Approach and runway lighting for adverse weather conditions. G. M. Kevern. diags Illum Eng 41:455-73 Je '46
Approach-angle indicator draws green landing path. il Air Transport 4:75 F '46
Beacon lights for airfields; Leland electric co. il Aero Digest 53:50+ Ag '46
Development of approach- and contact-light systems. F. C. Breckenridge and C. A. Douglas. il Illum Eng 40:785-829 N '45
Field of marker light guidance in airplane landing. H. J. C. Pearson and A. J. Sweet. Aeronautical Eng R 4:10-11+ D '45
Lighting the small airport. J. H. O'Donnell. il Aero Digest 53:50-1+ Jl '46
Lighting up the runway. il Air Transport 4: 30-2 N '46
Low-cost reflectors simplify runway lighting. R. H. Muehlberg. il Aviation 45:90 My '46
New lighting to aid airport operation. W. A. Pennow. il Pub Works 77:25-6 My '46
Portable lights for airfield. il diag Aero Digest 52:51 Ap '46
Resonant-circuit constant-current regulators; airport-approach and runway-marker light circuits. G. M. Kevern. il diag Elec Eng 64:Trans 807-10 D '45
SCS-51 and Bartow lights deglamorize blind landings. P. R. Arnold. plan Air Transport 4:51+ Je '46
Some developments in the lighting of airports; abstract. S. English. Light & Lighting 39:85-6 My '46
Visual aids for blind landings; lighted symbols and distinctive colors on runways suggested. H. M. Cone, jr. il diags Air Transport 4:22-5 Mr '46

Location

Airport plans for the Detroit area. F. M. Reck. plan maps Aero Digest 51:51-3+ N 15 '45
Fear of plane noise penalizes many communities. M. W. Cochran. il Air Transport 4:27-9 N '46
Milwaukee's downtown airport. F. J. Trecker. il Aero Digest 53:52 Ag '46

Management

Airport expansion depends on shared management; city-run fields and private terminal services are best. P. A. Johnston. Barron's 26:7+ O 21 '46
Airport for specific purpose; project for private pilots at Greenville, S. C. C. W. Bendigo. il Air Transport 4:69-70+ F '46
Airports are a business. S. P. Voorhees. il Air Transport 4:32-5 Jl '46
Excessive levies placed on distributors of petroleum products burden aviation; excerpts from Harvard study. L. L. Bollinger and others. Nat Pet N 38:48-9+ S 4 '46
Lehigh's extra service keeps bringing 'em back. E. E. Thorp. il diags Aviation 45: 82-6 Ap '46
Operation of an airport flying service. C. A. Parker. il Aviation 45:84-5 F; 46-9 Mr; 46-9 Ap; 87-9 My; 44-6 Je; 80-1+ Jl; 48-9+ Ag; 88-9 S; 87-8 O '46
Owner-operator cooperation essential to maximum use of airport facilities. E. H. Sittner. il Civil Eng 16:478-80 N '46
Private versus public management of airports. L. L. Bollinger. Harvard Bsns R 24 no4:518-34 [Jl] '46
Soldier beware; opportunities and pitfalls in the aviation industry. K. R. MacDonald. il Aviation 45:38-41+ Jl '46

Municipal airports

See Airports, Municipal

Obstruction charts

Airport obstruction charts. plan Aero Digest 53:91 Jl '46

Records

System saves $$$ at the airport. C. A. Parker. Aviation 45:46-9 Mr '46

Runways

Airfield load tests in progress at Selfridge field; tests to determine effect of frost conditions. il Roads & Sts 89:94-5 My '46
Airfield paving by U.S. army engineers; abstract. B. J. Bell. Eng N 136:705-6 My 2 '46
Le bétonnage des pistes de l'aéroport de Heathrow, près de Londres. diags Génie Civil 123:280-1 O 15 '46
Building an airbase in the Azores. J. S. Bragdon. il Eng N 137:250-3 Ag 22 '46
Crushing ten thousand tons daily for airport runway sub-base; Morrison-Knudsen co. il diag Rock Prod 48:96-9 D '45
Determination of runway length for different altitudes; graph. Aviation 44:209 D '45
Durability of concrete at an airfield. il Eng N 136:292-3 F 21 '46
Effect of frost conditions on load carrying capacity of pavements. Pub Works 77:33 Jl '46
Good equipment paid on runway repair job. il plan Roads & Sts 88:86-9 N '45
Heavy grading required for airport at Charleston, W. Va. L. S. Wescott. il plans Civil Eng 15:553-5 D '45
Maintenance of airfields and airfield runways. E. C. Todd and O. H. Hays. il Roads & Bridges 84:64-5+ O '46
Major heavy-duty concrete runway with no expansion joints; Fairfield-Suisun airbase. il diags Eng N 137:504-5 O 17 '46
Massive new runway under construction at Wright field for the B-36 and its kind. il diags Roads & Sts 89:74-5+ S '46
Raising sagging pavements and runways by subsealing with asphalt. H. A. Wallace. il Roads & Bridges 83:65-7+ N '45

AIRPORTS—Runways—*Continued*
Round-the-clock job for the task force; runways for airdromes on Pacific isles. W. G. Staggs and J. H. Dudley. il Civil Eng 16.120-1 Mr '46
Runway orientation in terms of aircraft take-off and landing characteristics. T. E. Greacen, 2d. diags Aeronautical Eng R 5:13-17 F '46
Soil cement in aerodrome construction; abstract. W. C. Andrews. Am Concrete Inst J 17:729-30 Je '46
Soil-cement paving methods for the construction of low-traffic roads or secondary airport runways. R. A. Crysler. il Roads & Bridges 83:60-3+ D '45
Stability of runway soils determined by ground-water vapor. H. H. Houk. diags Civil Eng 16:446-7 O '46
Stewart field demonstrates value of air entrainment. il Concrete 54:8-9+ O '46
Stockpiling 85,000 tons of stone ballast for runway base; Kanawha County airport, Charleston, W.Va. il Roads & Sts 89:82-3 F '46
Test coring concrete pavement at Idlewild airport. il Roads & Sts 89:92 Mr '46
Tests of flexible pavement for airfield runways. il diags Eng N 137:36-40, 113-17 Jl 11, 25 '46
Visual aids for blind landings; lighted symbols and distinctive colors on runways suggested. H. M. Cone, jr. il diags Air Transport 4:22-5 Mr '46
Wind analysis for airport design. S. B. Solot. il Civil Eng 16:122-4 Mr '46
See also
Airports—Surfaces

Safety measures

Automotive equipment operators on airport ramps; mental and physical requirements. Nat Safety N 54:40+ S '46
For safe and fast fueling; Intava slide film. il Air Transport 4:64-5 N '46

Sanitation

Bio-filter operation at Keesler field, Miss. R. W. Simpson. flow diag il Water & Sewage Works 93:367-70 S '46

Snow protection and removal

Airport snow removal. il Aero Digest 53:64 Jl '46
Snow-handling on airports; results of R.C.A.F. experience. il Roads & Bridges 83:64-6+ D '45

Surfaces

Design and construction procedures for airfield pavements. B. J. Bell. il Pub Works 77:25-6+ F '46
Importance of consolidation in airfield construction; abstract. B. J. Bell. Roads & Sts 89:113 Ap '46
Maintenance of airfields and airfield runways. E. C. Todd and O. H. Hays. il Roads & Bridges 84:64-5+ O '46
Soil compaction for airports. O. J. Porter; G. P. Tschebotarioff. il Eng N 136:422-6 Mr 21 '46
Soil mechanics in the design of military airfields. G. E. Bertram. il Civil Eng 15:373-5 Ag '45; Same. Roads & Bridges 83:67-8+ D '45
Soil sampling and testing for highways and airports. R. M. Hardy. il diags Roads & Bridges 84:63-6+ F '46

Surfaces, Grass

Grounds maintenance and vegetation for airports, highways and park areas. il Pub Works 77:23-4 Ap '46
Tips on turf airfields. J. R. Yarrow. il Aero Digest 53:48-9+ Jl '46

Traffic control towers

Film-type recorder finds airline use; logging of messages between the control tower and planes landing and taking off. il Air Transport 4:65 Je '46
First CAA radar-equipped control tower unveiled at Indianapolis. il CAA J 7:72 Je 15 '46
100 towers to get VHF by June 1. Aviation N 5:16 My 6 '46
Posts under signal tower replaced during operation. il diags Eng N 135:892 D 27 '45

Argentina

Details regarding new airports. For Comm W 23:19 Je 8 '46

Azores

Construction of United States airport in the Azores. il map Engineering 162:289-92, 300 S 27 '46

Baltimore

Baltimore transatlantic airport by new Aeronautics Board ruling. CAA J 7:17 F 15 '46
Pimlico airport barometer of Baltimore flying boom. Aviation N 6:30 S 2 '46

Camden, New Jersey

Private flying center set for Camden field. il Aviation N 5:15-16 Je 24 '46

Canada

Disposition of Canada's airfields. il Roads & Bridges 83:55-8+ D '45

Central America

Airfields of Central America. il Air Transport 4:33-4 N '46

Charlotte, Michigan

Charlotte's municipal airport. F. M. Reck. il Aero Digest 53:50-1+ O '46

Chicago

New Chicago field near Park Ridge. Bsns W p42-3 Ap 6 '46

Detroit

Detroit airport row. Bsns W p44 Ja 26 '46
Detroit plans a 15-year airport development. map plans Eng N 136:344-6 Mr 7 '46

Honolulu

Honolulu's air center. Bsns W p44 Jl 20 '46

Joliet, Illinois

Dilemma of Joliet; laws provide no means of raising funds for maintenance. M. Wellnitz. il Air Transport 4:59+ Ap '46

London

Le bétonnage des pistes de l'aéroport de Heathrow, près de Londres. diags Génie Civil 123:280-1 O 15 '46
Heathrow airport opened. il plan Engineer 181:47 Ja 11 '46
Herculean Heathrow. J. Christie. il plan Air Transport 4:47-9 S '46

Los Angeles

Los Angeles' airport plan. map Aero Digest 52:51 Mr '46
Yes votes for that airport; $12,500,000 bond campaign. M. Winters. il Aviation 45:38-41 Mr '46

Miami, Florida

Dade county; landlord for airlines. Bsns W p24 Mr 2 '46
Huge Miami land-water base under construction on Lummus Island. il Aviation N 5:15 Ja 14 '46
Miami now leading air gateway as Latin-American trade booms. C. L. Adams. il Aviation N 6:13 S 30 '46

Milwaukee

Milwaukee congratulated as pioneer at opening of her door-step airport. il CAA J 7:27 Mr 15 '46
Milwaukee's downtown airport. F. J. Trecker. il Aero Digest 53:52 Ag '46

Mineola, New York

Open Roosevelt field to private expansion. Aviation N 5:16 Je 3 '46

Netherlands

Schiphol, Amsterdam's airport, a world center again. For Comm W 24:15 Ag 31 '46

New Orleans

Network of runways to catch big flyers. il Bsns W p22 My 18 '46

New York (city)

Airport authority for N.Y. Ry Age 120:832 Ap 20 '46
Fabulous Idlewild. O. Leiding. il map Air Transport 3:28-33 D '45

AIRPORTS—New York (city)—*Continued*
Idlewild airport drainage. H. K. Glidden. il diags Roads & Sts 89:67-72 Ap '46
Idlewild fuel concession. R. C. Oertel. il Air Transport 4:47-8+ My '46
New York's airport for world commerce. il maps Eng N 136:123-6 Ja 24 '46
World's largest airport; Idlewild airport. Mech Eng 68:329 Ap '46
See also
New York city airport authority

Newark, New Jersey
Airport proposal; Port authority outlines $76 million development. Bsns W p48+ Ag 10 '46
Newark again reborn; airlines set for third try of airport as major terminal; army releases most of field after 4-year occupancy. J. H. Riseley. il Air Transport 4:65-6+ F '46
Plan $76 million Newark, N.J. airport. il Eng N 137:149 Ag 8 '46

Ontario
In the bush; operations and maintenance at airport in northern Ontario. J. Montagnes. il Air Transport 4:67-8+ Mr '46

Panama
Plans for the Panama national airport. C. B. Hall. il plan Aero Digest 51:52-4+ D 15 '45

Rio de Janeiro
Cantilevered concrete trusses provide open working areas in hangar; Caquot hangar at the Santos Dumont airport in Rio de Janeiro. A. J. Boase. il plans diags Eng N 136:850-5 My 30 '46

Switzerland
Les projets d'aéroport de Zurich-Kloten. map Génie Civil 123:217-18 Ag 15 '46

Wyoming
Ten-year program for Wyoming airports. il Eng N 137:365-6 S 19 '46

AIRPORTS, County
Broome county plans an airport; with design and cost data. J. L. Drew and E. C. Peters. il map Aero Digest 53:78-9+ Jl '46
Marin county's airport network. map Aero Digest 53:84 Jl '46

AIRPORTS, Floating
Army engineers finish successful tests of floating seadrome model design. il Eng N 136:449 Mr 28 '46
Icebergs as ships; artificial reinforced icebergs as aircraft carriers or seadromes; Habbakuk project. Engineer 181:517-18 Je 7 '46

AIRPORTS, Military
Asphalt plant for an island airbase. A. Keirsey. il Eng N 135:669-71 N 15 '45
Building Saipan. J. C. Howland. il map Civil Eng 16:104-5 Mr '46
Centenary of the Imperial college; development of fog dispersal equipment. il Engineering 160:437-8 N 30 '45
Construction of United States airport in the Azores. il map Engineering 162:289-92, 300 S 27 '46
Huge B-29 airfield on Tinian island has parallel runways. il diag Eng N 135:698 N 22 '45
Lonely Mojave Desert test base will try out nearly all new craft. S. Bangs. il Aviation N 4:9-10 N 19 '45
Navy proving base trying out all fog dispersing systems for military air bases. S. Bangs. il Aviation N 4:12 D 3 '45
Port of aerial embarkation; permanent base for military air transportation on Pacific coast. plans Arch Forum 84:104-6 Ja '46
Round-the-clock job for the task force; runways for airdromes on Pacific isles. W. G. Staggs and J. H. Dudley. il Civil Eng 16: 120-1 Mr '46
Soil mechanics in the design of military airfields. G. E. Bertram. il Civil Eng 15:373-5 Ag '45; Same. Roads & Bridges 83:67-8+ D '45
Survey of AAF airport designs. P. French. plan Aero Digest 52:46-7+ Ap '46
U.S.-built air outposts in Atlantic area shown. il Eng N 137:138-9 Ag 1 '46
See also
Naval air stations

AIRPORTS, Municipal
Airport expansion depends on shared management; city-run fields and private terminal services are best. P. A. Johnston. Barron's 26:7+ O 21 '46
Charlotte's municipal airport. F. M. Reck. il Aero Digest 53:50-1+ O '46
Cities revise airport rentals to make facilities self-supporting. Eng N 136:857 My 30 '46
Condemnation of land for airports. C. S. Rhyne. Aero Digest 53:41+ Jl '46
Dilemma of Joliet; laws provide no means of raising funds for maintenance. M. Wellnitz. il Air Transport 4:59+ Ap '46
Fabulous Idlewild. O. Leiding. il map Air Transport 3:28-33 D '45
Liability protection of public airports considered essential coverage. Weekly Underw 155:393 Ag 17 '46
Municipal airport at Clinton, Iowa. B. R. Anderson. il plan Pub Works 77:31 My '46
Municipal airport; terminal building for a small community; Hutchinson, Kan. il map plans Arch Forum 83:158-9 N '45
Socony's blueprint for municipal airport development. E. Kinney. Sales Management 57:60-1+ Ag 1 '46
That Eldon airport contract. Aero Digest 53: 76 Jl '46
Yes votes for that airport; Los Angeles $12,500,000 bond campaign. M. Winters. il Aviation 45:38-41 Mr '46
See also
Airports—New York (city)

AIRSHIPS

Model testing
Structural model testing. O. W. Loudenslager. bibliog il diags S A E J 54:18-25 Ja '46

AIRSHIPS, Rigid
Early aluminum alloys; metallurgical studies from both British and German rigid airships. K. J. B. Wolf. il Iron Age 156:51-5 D 27 '45
Global carrier? worldwide service, using rigid-type airships, is suggested by Goodyear Aircraft. Bsns W p36+ Ja 5 '46
Navy! why not? failure of navy to develop American lighter-than-air project. Aero Digest 51:45+ D 15 '45
Rigid airships; abstract. K. Arnstein. S A E J 54:sup 19 Ag '46

AIRSHIPS in advertising
Leigh aloft. Fortune 34:152 S '46

AIRWAYS
Global air routes tested for safety by proving flights. CAA J 7:5 Ja 15 '46

Maps
Domestic airlines, with 70,000 route miles, connect to all parts of the U.S.A. Oil & Gas J 45:83 Je 22 '46
International air routes are undergoing rapid expansion. Oil & Gas J 45:87 Je 22 '46

Marking
High school students enlisted in Missouri airmarking program. A. McSurely. Aviation N 5:12 Mr 18 '46

Traffic control
Advances by CAA in traffic control. G. Gilbert. il CAA J 6:132+ N 15 '45
Automatic air traffic control. L. LeKashman. il Aero Digest 52:46-7+ Mr; 53:40-2+ Ag '46
Automatic coordination air traffic's prime need; abstract. S. P. Saint. S A E J 54:32+ My '46
Control of air traffic; abstract. B. A. Denicke. CAA J 7:30 Mr 15 '46
Flight and traffic control aids; Navaglobe, Navar, Navaglide and Navascreen. L. LeKashman. il map Aero Digest 53:42-3 S '46
Recording CAA traffic control instructions. K. M. MacIlvain. il diags Electronics 19:116-19 My '46
Teleran for air traffic control. R. LeKashman. il diags Aero Digest 52:82-4 Ja '46

AIRWAYS—Traffic control—*Continued*
Teleran proposal; system of navigation and traffic control, utilizing existing television and radar. P. J. Herbst and others. plan diags Electronics 19:124-7 F '46
Tool for traffic control, Teleran; traffic maps and aircraft located by radar could be televised to planes. il map diag Air Transport 4:73-4+ Ja '46
Trade tricks speed CAL flight control. S. Johnson. il Air Transport 3:67-8+ D '45

AISHTON, Richard Henry, 1860-1946
Sketch. por Ry Age 121:599-600 O 12 '46

AKABA canal (proposed)
Akaba Canal project. Engineering 161:205-6 Mr 1 '46

ALABAMA
See also
Iron ores—Alabama
Mineral industries—Alabama
Mines and mineral resources—Alabama
Mobile, Alabama—Industries
Petroleum—Alabama
Petroleum industry and trade—Alabama
Roads—Alabama

ALABAMA gas company
Merger approved. Comm & Fin Chr 164:2149 O 28 '46

ALANINE
Growth inhibition of lactic acid bacteria by N-(α,γ-dihydroxy-β,β-dimethylvaleryl-β-alanine and its reversal by pantothenic acid. W. Drell and M. S. Dunn. bibliog Am Chem Soc J 68:1868 S '46
Heats of dilution of aqueous solutions of α- and β-alanine at 25°. H. A. Benesi, L. S. Mason and A. L. Robinson. bibliog Am Chem Soc J 68:1755-9 S '46
Hydrogenolysis of ethyl β-benzylaminopropionate. A. M. Mattocks and W. H. Hartung. Am Chem Soc J 68:2108 O '46

ALARMS
Combustible gas alarm. il Power Pl Eng 50: 116 F '46
Journal alarm system designed to detect an overheated journal box. il Ry Age 121:180 Ag 3 '46
Well-chosen alarm and shutdown instruments guard life and equipment. C. S. Beard. il diags Power 90:310-13, 366-7 My-Je '46

ALASKA
At the top of the world; Seabee camps at Point Barrow and Umiat. P. Wollstadt. il map Nat Pet N 37:28-31 N 28 '45
See also
Airlines—Alaska
Coal—Alaska
Gold mines and mining—Alaska
Nickel mines and mining—Alaska
Petroleum—Alaska

Industries and resources
Basic transportation system first need for industrializing Alaska. il Steel 118:80-2 Mr 25 '46

ALASKA airlines, inc.
Common stock offered. Comm & Fin Chr 162: 3185 D 31 '45

ALASKA highway
Alaska highway. Engineering 162:110 Ag 2 '46
Alaska highway being prepared for civilian travel. il Roads & Bridges 84:70 O '46
Alaska highway insurance cost near $2.5 million. Nat Underw 50:26 Je 13 '46
Driving to Alaska? Bsns W p25-6 Mr 30 '46
House investigation shows Alcan road was an outstanding war project. Eng N 136:453 Mr 28 '46
OK limited civilian use of Alaska road. Eng N 137:545 O 24 '46

ALBERTA, Canada
See also
Geology—Alberta
Petroleum—Alberta
Petroleum industry and trade—Alberta
Water supply—Alberta

Economic policy
Income floor; bill proposed by Alberta's Social credit administration. Bsns W p116-17 Mr 30 '46

ALBRIGHT, Charles E. 1867-1946
Sketch. por East Underw 47:7 Je 21 '46; Nat Underw (Life ed) 50:13 Je 21 '46

ALBUMIN
Binding of organic ions by proteins. I. M. Klotz, F. M. Walker and R. B. Pivan. bibliog Am Chem Soc J 68:1486-90 Ag '46
Fractionation of proteins by electrophoresis-convection. L. E. Nielsen and J. G. Kirkwood. diag Am Chem Soc J 68:181-5 F '46
In vitro proteolysis of egg white. R. A. Harte. bibliog Science 102:563-4 N 30 '45
Physical, chemical and immunological properties of phosphorylated crystalline horse serum albumin. M. Mayer and M. Heidelberger. bibliog Am Chem Soc J 68:18-25 Ja '46
Preparation of vegetable albumen from castor plant; abstract. M. C. Tartakovski and V. D. Matveev. Chem & Met Eng 53:278+ F '46

ALCALIGENES
Effect of penicillin on growth of alcaligenes fecalis. M. Fulton and others. Science 103: 361-2 Mr 22 '46

ALCAN highway. See Alaska highway

ALCLAD
Corrosion tests of multi-arc welded high-strength aluminum alloys. L. W. Smith. bibliog il diag Electrochem Soc Trans 89 (preprint 28):343-63 '46
Effect of bend width upon minimum bend radii. G. Gerard. bibliog il diags J Aeronautical Sci 13:161-70 Ap '46
Effects of corrosion on spot welded 75ST Alclad alloy. M. L. Ochieano. il Product Eng 17:126-8 O '46
Electric resistance brazing of structural aluminum alloys. W. F. Hess and E. F. Nippes. il Welding J 25:sup193-200 Ap '46
Flash welding of Alclad 24S-T alloy in the 0.064-in. thickness. W. F. Hess and F. J. Winsor. il Welding J 25:sup9-20 Ja '46
Heat treating, forming and welding 75S Alclad. M. Raskin. il diags Iron Age 156:66-71 D 6; 59-63 D 13 '45
Interpretation of radiographs of spot welds in Alclad 24S-T and 75S-T aluminum alloys. R. C. McMaster and F. C. Lindvall. bibliog il Welding J 25:707-23 Ag '46
Investigation of current wave-form for spot welding Alclad 24S-T, 0.020 in. in thickness. W. F. Hess and others. il Welding J 25:sup20-9 Ja '46
Investigation of electrode pressure-cycles and current wave-forms for spot welding Alclad 24S-T. W. F. Hess and others. bibliog il diags Welding J 25:sup148-62 Mr '46
Some observations of spot-weld consistency in aluminum alloys. W. F. Hess and others. bibliog il Welding J 25:sup201-22 Ap '46
Spot weld strengths and structures of 75ST Alclad aluminum alloy. M. L. Ochieano. il diags Product Eng 17:102-5 S '46
Spot welding of dissimilar thicknesses of Alclad 24S-T. W. F. Hess and others. il Welding J 24:sup667-72 D '45
Spotwelding of multiple thicknesses of 0.040-in. Alclad 24 S-T. W. F. Hess and others. il diags Welding J 25:sup413-24 Jl '46
Spot welding of ten aluminum alloys in the 0.040-inch gage including XB75S-T (bare and Alclad), R-301-T, Alclad 24S-T81, 24S-T (bare and Alclad), 3S-½H, 14S-T, 52S-½H, and 61S-T. W. F. Hess and others bibliog il diags Welding J 25: sup467-84 Ag '46
Spot welding of wire-brushed 24S-T Alclad aluminum alloy sheets in thicknesses from 0.081 to 0.125 in., inclusive. Welding J 24: sup652-67 D '45
Surface preparation of aluminum alloy sheet for spot welding. R. A. Wyant and others. bibliog Welding J 25:sup65-76 F '46
What to expect of high strength aluminum alloys. R. A. Miller and M. E. Tatman. Automotive & Aviation Ind 93:18-21+ D 15 '45

Testing
Aluminum for elevated temperatures; abstract. A. E. Flanigan, L. F. Tedsen and J. E. Dorn. Materials & Methods 23:782 Mr '46

ALCLAD—Testing—*Continued*
Circular bulging of aluminum-alloy sheet at room and elevated temperatures. G. Sachs and others. il diags A S M E Trans 68:161-73 F '46
Effect of surface scratches on Alclad sheet. Iron Age 158:40 O 3 '46
Experimental verification of cumulative fatigue damage; abstracts. M. A. Miner. bibliog il diags Automotive & Aviation Ind 93:20-4+ D 1 '45; Machine Design 17:111-15 D '45
Investigation of the effect of spot welding on the sheet efficiency of aluminum alloy 24S-T. W. F. Hess and others. il diags Welding J 25:sup288-306, sup361-75 My, Jl '46
Investigation of the fatigue strength of spot welds in the aluminum alloy Alclad 24S-T. W. F. Hess and others. bibliog il Welding J 25:sup344-58 Je '46
Tension tests of single-row spot-welded joints in 24S-T Alclad aluminum alloy sheet. R. Della-Vedowa. il diags Welding J 25:sup115-22 F '46; Discussion. A. R. Hard. 25:sup339+ Je '46

ALCOHOL
Activity coefficients of sulfuric acid in aqueous solutions of ethanol at 25°C. H. D. Crockford and S. A. Wideman. J Phys Chem 50:418-22 S '46
Contents of 55-gal. drum measured with yard stick; charts comp. from measurements of ethanol. Textile World 96:170 F '46
Economic and market aspects of ethyl alcohol from sulphite waste liquor. R. D. Tousley. Paper Tr J 123:37-40 S 5 '46
La fabrication des huiles de graissage à partir de l'alcool éthylique. Génie Civil 123:64 Mr 1 '46
Government alcohol stockpile disposal plans discussed. Oil Paint & Drug Rep 149:3 Ja 14 '46
Local efficiencies of bubble plate fractionators. R. L. Geddes. bibliog Am Inst Chem Eng Trans 42:79-103; Discussion. 103-5 F '46
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance; comparison of the rates of reaction of methyl, ethyl, *n*-propyl, *iso*butyl, and *neo*pentyl bromides with aqueous ethyl alcohol. I. Dostrovsky and E. D. Hughes. Chem Soc J p164-5 Mr '46
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance; comparison of the rates of reaction of methyl, ethyl, *n*-propyl, *iso*butyl, and *neo*pentyl halides with silver nitrate in aqueous ethyl alcohol. I. Dostrovsky and E. D. Hughes. Chem Soc J p169-71 Mr '46
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance; mechanism of the reaction of *neo*pentyl bromide with aqueous ethyl alcohol. I. Dostrovsky and E. D. Hughes. Chem Soc J p166-9 Mr '46
Network analyzer tests of equivalent circuits of vibrating polyatomic molecules. G. K. Carter and G. Kron. diags J Chem Phys 14:32-4 Ja '46
Refractive index of ethanol-water mixtures and density and refractive index of ethanol-water-ethyl ether mixtures. T. A. Scott, jr. bibliog J Phys Chem 50:406-12 S '46
Solubilities of hexyl- and dodecylammonium chloride in various dilutions of aqueous ethanol. A. W. Ralston and C. W. Hoerr. bibliog Am Chem Soc J 68:851-4 My '46
Solubility of water in alcohol-hydrocarbon mixtures. C. B. Kretschmer and R. Wiebe. bibliog Ind & Eng Chem 37:1130-2 N '45

Manufacture

Alcohol from petroleum; pictured flowsheet. Chem & Met Eng 52:136-9 N '45
Alcohol on the hoof; Seagram's designs mobile continuous process alcohol unit. il diags Chem Ind 59:650-1 O '46
Ethyl alcohol made from refinery ethylene; Standard Oil's Baton Rouge plant. il Chem & Met Eng 52:96-8 N '45
Evaluation of malts for production of alcohol from wheat. C. B. Thorne and others. bibliog Ind & Eng Chem 37:1142-4 N '45
Experiment to manufacture liquid fuel from farm wastes under way; converting corncobs into alcohol and by-products. Steel 117:101 N 12 '45
Mold as an adjunct to malt in grain fermentation. N. M. Erb and F. M. Hildebrandt. bibliog Ind & Eng Chem 38:792-4 Ag '46
Mold bran aids production of grain alcohol. J. W. Boyer and L. A. Underkofler. flow diag Chem & Met Eng 52:110-11 D '45
Plants reprieved; alumina-from-clay and alcohol-from-sawdust projects in Oregon. Bsns W p61-2 Jl 20 '46
Production of synthetic alcohol from ethylene; abstract. C. M. Beamer. flow diag Pet Processing 1:88-9 O '46
Production of wood sugar in Germany and its conversion to yeast and alcohol. J. F. Saeman and others. il diags Paper Tr J 123:38-46 S 19 '46; Abstract. Pulp & Pa of Can 47:106 S '46
Prospective postwar costs of producing alcohol from ethylene, molasses, grain, waste sulphite liquor, and wood waste. R. D. Tousley. bibliog il Pulp & Pa of Can 47:48-55 Ja '46
Saccharification of grain mashes for alcoholic fermentation; plant-scale use of mold amylase. L. A. Underkofler, G. M. Severson and K. J. Goering. bibliog il Ind & Eng Chem 38:980-5 O '46
Simplified flow diagrams; ethyl alcohol from ethylene. W. L. Nelson. flow diag Oil & Gas J 44:112 F 16 '46
Sulphite alcohol; Puget Sound pulp & timber co.'s plant in Bellingham. Bsns W p34+ S 28 '46
Utilization of wood wastes; pulp for paper. J. K. Russell. bibliog Pulp & Pa of Can (Convention no) 47:278-9 [F] '46

Prices

Alcohol unloaded; stockpile of government ethyl. Bsns W p31 D 15 '45

ALCOHOL as fuel
Alcohol as fuel; its utilization by direct injection. Automobile Eng 36:372 Ag '46
Alcohol; utilisation as motor fuel by direct injection; abstract. M. Retel. diags Automobile Eng 36:115-16 Mr '46
Every farm may have its distillery for fuel. il Bsns W p83 S 14 '46
Fuel injection; advantages claimed when using alcohol mixtures. Automobile Eng 36:283 Jl '46
Knock ratings of gasoline substitutes. A. D. Puckett diag J Res Nat Bur Stand 35:273-84 O '45
Utilization of nonpetroleum fuels in automotive engines. J. T. Duck and C. S. Bruce. bibliog J Res Nat Bur Stand 35:439-65 D '45

ALCOHOL industry
Economic and market aspects of ethyl alcohol from sulphite waste liquor. R. D. Tousley. Paper Tr J 123:37-40 S 5 '46
Oil alcohol may slash distillers' sales. Barron's 26:6 O 7 '46
Solvents face difficult expansion problems. J. G. Park. il Chem & Met Eng 53:116-18 My '46

Statistics

Alcohol meets heavy war demands. Chem & Met Eng 53:108 Ja '46

ALCOHOLS
β-Alkoxypropionates; addition of alcohols to the olefinic linkage of alkyl acrylates. C. E. Rehberg, M. B. Dixon and C. H. Fisher. bibliog Am Chem Soc J 68:544-6 Ap '46
Alkylation of thiophene by olefins and alcohols. W. M. Kutz and B. B. Corson. Am Chem Soc J 68:1477-9 Ag '46
Amines related to 2,5-dimethoxyphenethylamine; 2-hydroxy and 2-methoxy-5-methylphenylalkanolamines. A. E. Ardis, R. Baltzly and W. Schoen. bibliog Am Chem Soc J 68:591-5 Ap '46
Anhydrides of polyhydric alcohols. L. F. Wiggins and R. Montgomery. Chem Soc J p384-96 My '46
Aqueous solutions of alcohols as confining liquids for gas analysis; solubility of carbon dioxide. K. A. Kobe and G. E. Mason. Ind & Eng Chem Anal ed 18:78-9 Ja '46

ALCOHOLS—*Continued*
Behavior of nitro alcohols toward formic acetic anhydride. C. D. Hurd, S. S. Drake and O. Fancher. bibliog Am Chem Soc J 68:789-91 My '46
Chemistry of dicyclopentadiene; addition of alcohols and phenols. H. A. Bruson and T. W. Riener. Am Chem Soc J 68:8-10 Ja '46
Cholesterol from wool alcohols. C. W. Picard and D. E. Seymour. Soc Chem Ind J 64:304-5 N '45
Condensation of aliphatic alcohols with aryl hydrocarbons in the presence of chlorosulfonic acid. W. H. C. Rueggeberg, M. L. Cushing and W. A. Cook. bibliog Am Chem Soc J 68:191-2 F '46
Constitution of the product of the reaction of benzylethylene oxide with ammonia. A. J. Castro and C. R. Noller. bibliog Am Chem Soc J 68:203-4 F '46
Determination of the terpene alcohol content of steam-distilled pine oil. V. E. Grotlisch and H. N. Burstein. bibliog Am Soc T M Proc 45:1015-22 '45
Emulsion polymerization of ethylene; report presented at 26th Kuko (Plastic committee) meeting in Ludwigshafen, Feb. 18, 1943. Hopff and Kern. Mod Plastics 23:153-60+ Je '46
Epimeric alcohols of the *cyclo*hexane series; the optically inactive 3-methyl*cyclo*hexanols. A. K. Macbeth and J. A. Mills. Chem Soc J p709-12 O '45
Equilibrium studies on the dehydrogenation of primary and secondary alcohols; 2-butanol, 2-octanol, cyclopentanol and benzyl alcohol. A. H. Cubberley and M. B. Mueller. bibliog diag Am Chem Soc J 68:1149-51 Jl '46
Higher fatty alcohols. Soap & San Chem 22: 69 S '46
Polymerization of olefins; the depolymerization of olefins in relation to intramolecular rearrangements. F. C. Whitmore and E. E. Stahly. bibliog Am Chem Soc J 67:2158-60 D '45
Preparation of mercaptans from alcohols. R. L. Frank and P. V. Smith. Am Chem Soc J 68:2103-4 O '46
Preparation of some tertiary alcohols by the addition of organic acids to Grignard reagents. R. C. Huston and D. L. Bailey. bibliog Am Chem Soc J 68:1382-3 Jl '46
Quinazolines; synthesis of an amino alcohol derived from quinazoline. B. E. Christensen, B. Graham and A. M. Griffith. Am Chem Soc J 67:2001-2 N '45
Reaction of acrylonitrile with aliphatic alcohols. J. H. MacGregor and C. Pugh. Chem Soc J p535-6 Ag '46
Reaction of propylene oxide with alcohols. H. C. Chitwood and B. T. Freure. bibliog Am Chem Soc J 68:680-3 Ap '46
Solvents in the paint industry; alcohols. R. B. Pollak. bibliog Paint Oil & Chem R 109:18+ Ap 18; 10+ Je 27 '46
Studies in the anthracene series; methyl ketones and carbinolamines derived from 1,2,3,4-tetrahydroanthracene. E. A. Garlock, jr. and E. Mosettig. bibliog Am Chem Soc J 67:2255-9 D '45
Synthesis of some tertiary amino alcohols related to chelidonine. C. R. Noller and P. D. Kneeland. bibliog Am Chem Soc J 68:201-2 F '46
Wool wax alcohols; their properties and utilisation in industry. Chem Age (Lond) 55: 371-5, 416-18 S 28-O 5 '46

See also
Alcohol
Amyl alcohol
Butyl alcohol
Esters
Isopropyl alcohol
Methanol
Nopol
Sorbitol
Vinyl alcohol

Analysis

Identification of the alcohol components of simple esters. W. B. Renfrow and A. Chaney. Am Chem Soc J 68:150 Ja '46

Manufacture

German soap substitutes; O.X.O. process for manufacture, from Fischer-Tropsch olefins, of fatty alcohols. Soap & San Chem 22:75+ O '46

ALCOHOLYSIS
Alcoholysis of cellulose. R. E. Reeves, W. M. Schwartz and J. E. Giddens. bibliog Am Chem Soc J 68:1383-5 Jl '46
Alcoholysis reactions of alkyl silicates. D. F. Peppard, W. G. Brown and W. C. Johnson. bibliog Am Chem Soc J 68:73-5 Ja '46

ALDEHYDES
Beckmann rearrangement in the preparation of aldehydes. G. H. Coleman and R. E. Pyle. Am Chem Soc J 68:2007-9 O '46
Changes in stored dried eggs; role of phospholipides and aldehydes in discoloration. B. G. Edwards and H. J. Dutton. bibliog Ind & Eng Chem 37:1121-2 N '45
2 : 4-Dinitrophenylsemicarbazide; a reagent for aldehydes and ketones. J. L. McVeigh and J. D. Rose. Chem Soc J p713-14 O '45
Glycol esters from aldehydes. F. J. Villani and F. F. Nord. bibliog Am Chem Soc J 68:1674-5 Ag '46
Improved syntheses of indole-3-aldehyde. A. C. Shabica and others. bibliog Am Chem Soc J 68:1156-7 Jl '46
Kinetics of halogen addition to unsaturated compounds; αβ-unsaturated aldehydes. P. B. D. de la Mare and P. W. Robertson. Chem Soc J p888-91 D '45
New aldehyde synthesis. M. L. Wolfrom and J. V. Karabinos. bibliog Am Chem Soc J 68:724, 1455 Ap, Ag '46
Reactions of phenanthraquinone with aromatic aldehydes and ammonia in alkaline media. E. A. Steck and A. R. Day. bibliog Am Chem Soc J 68:771-2 My '46
Researches on acetylenic compounds; the hydration of some acetylenylcarbinols derived from αβ-unsaturated aldehydes. I. M. Heilbron and others. Chem Soc J p54-8 Ja '46
Synthesis of aromatic aldehydes. L. N. Ferguson. bibliog(302 references) Chem R 38: 227-54 Ap '46
Synthesis of α,β-unsaturated esters. A. Galat. Am Chem Soc J 68:376-7 Mr '46
Thiones and thials. E. Campaigne. bibliog(235 references) Chem R 39:1-77 Ag '46

See also
Acetaldehyde
Formaldehyde
Knoevenagel reaction
Salicylaldehyde

Analysis

X-ray identification and crystallography of aldehydes and ketones as the 2,4-dinitrophenylhydrazones. G. L. Clark, W. I. Kaye and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:310-13 My '46

ALDEN'S, inc.
Catalog magazine; Alden's includes women's feature articles. Bsns W p68 Je 22 '46
Machines speed Aldens payroll. P. Eastman. il Am Bsns 16:16-17+ Je '46
Name changed from Chicago mail order co. Comm & Fin Chr 163:1723 Ap 1 '46
Thumbnail stock appraisal. Mag of Wall St 78:275 Je 8 '46
What's in a name? mail-order company found its personality by emphasizing Alden trademark. Bsns W p59 Ag 3 '46

ALDOLS
Catalytic conversion of aldols over chromia catalysts. J. R. Coley and V. I. Komarewsky. Am Chem Soc J 68:716 Ap '46

ALDONIC acids
Isolation of aldonic acid lactones through their hydrazides. A. Thompson and M. L. Wolfrom. bibliog Am Chem Soc J 68:1509-10 Ag '46

ALDOSES
Systematic tabulation of aldose configurations. R. G. M. Dakers. J Chem Educ 22: 592 D '45

ALDOXIMES. See Oximes

ALEMAN, Miguel, 1902-
Mexico's next. por Bsns W p106+ Jl 6 '46

ALEUTIAN islands
Sand Bay naval fueling station in the Aleutians headed by oil man; can handle any size ship. P. Wollstadt. Nat Pet N 37:28 N 21 '45

ALEXANDER, Harry Walter, 1888-
Sketch. por Mag of Wall St 78:526+ Ag 3 '46

ALFRED university

New York state college of ceramics

Address at inauguration of J. E. Walters as president of Alfred university, Nov. 16, 1945. T. E. Dewey. Am Cer Soc Bul 25:24-5 Ja 15 '46

ALGAE

Algae control in water supplies. M. Gelfand. il Power Pl Eng 50:63-5 Ja '46

Algae in the Carlsbad caverns, New Mexico. W. B. Lang. Science 103:175-6 F 8 '46

Algal structures in a western Australian salt lake. E. de C. Clarke and C. Teichert. bibliog map Am J Sci 244:271-6, pl 1-2 Ap '46

Commercial fertilizer in the culture of freshwater algae. N. E. Rice. Science 104:16 Jl 5 '46

Elimination of tastes and odors from an army post water supply. F. H. Stover. map Pub Works 76:30+ D '45

Practical measures for taste control; water supply of Larchmont, N.Y. H. T. Hotchkiss and V. A. Mascia. il Pub Works 76: 20-2 N '45

Pre-determining effective dosage of copper sulphate in algae control. W. D. Monie. il diag Water & Sewage Works 93:173-6 My '46

Screen clogging by a rare species of algae; dichotomosiphon tuberosus. W. W. De Berard and J. R. Baylis. il Water & Sewage Works 93:223-4 Je '46

ALGAE, Fossil

Algae reefs in cap rock of Ogallala formation on Llano Estacado plateau, New Mexico and Texas. W. A. Price and others. 4 pls map Am Assn Pet Geologists Bul 30:1742-6 O '46

ALGEBRA

See also

Equations, Simultaneous — Interpolation; Matrices

ALGERIA

Economic conditions

News by countries. For Comm W 21:27-9 N 10 '45; 22:29 F 16 '46

ALGIN

Algin, a marine colloid; abstract. C. K. Tseng. Paper Ind 27:1910 Mr '46

Mutarotation and ring structure of mannuronic lactone. H. S. Isbell and H. L. Frush. bibliog J Res Nat Bur Stand 37: 43-9 Jl '46

ALGINIC acid

Alginate rayons are distinctive new fibers. P. Ripley. Textile World 95:112-13 D '45

English report on seaweed rayon. A. Johnson. Rayon 26:649-50 D '45

New and effective hemostatic agent. C. A. H. Smith. Science 103:634 My 17 '46

Scaffolding threads in yarn and cloth structure; use of alginate rayon. A. Johnson. il Textile Inst J 36:P203-15; Discussion. P216 D '45

ALICYCLIC compounds. See Cyclic compounds

ALIEN property custodian. See United States—Alien property custodian

ALIENS

Aliens may not have stock of seized corporations. Comm & Fin Chr 164:1495 S 19 '46

Foreign labour in the United States during the war. J. Henderson. Int Labour R 52: 609-31 D '45

ALINEMENT

Method for precision alignments. A. C. S. van Heel. Opt Soc Am J 36:242 Ap '46

ALINEMENT of machinery

Clamping devices for accurately aligning adjustable parts. L. Kasper. diags Product Eng 17:216-17 Mr '46

ALKALI metal amalgams

Peroxide compounds by oxidation of alkali amalgams. W. G. Cass. Chem & Eng N 24:1426 My 25 '46

ALKALI metal amides

Electron affinity of amide radical and the chemical stability of metal-ammonia solutions. R. A. Ogg, jr. J Chem Phys 14:399-400 Je '46

ALKALI metal halides

Color centers in alkali halide crystals. F. Seitz. bibliog diags Rs Mod Phys 18:384-408 Jl '46

ALKALI metal nitrates

Rare-earth metal oxides; a new study of oxide precipitation by nitrate fusion. J. K. Marsh. Chem Soc J p17-20 Ja '46

ALKALI metals

See also

Lithium
Potassium
Sodium

ALKALIES

Note on reactions of alkali with kaolin and metakaolin. S. Zerfoss and B. A. Utter. Am Cer Soc J 29:205-7 Ag 1 '46

See also

Ammonia — Potassium hydroxide
Concrete, Effect of alkalies on — Soap; Sodium hydroxide

Manufacture

Integrated alkali industry; Wyandotte chemicals corp. production of chlorine, caustic soda, calcium carbonate, calcium chloride, soda ash, sodium bicarbonate, and dry ice; pictured flow sheet. Chem & Met Eng 53: 172-5 F '46

ALKALINE earth nitrates

Electrolyte catalysis in the ammonolysis of 9-phenyl-9-chlorofluorene by liquid ammonia, alkaline-earth nitrates. W. F. Roper, R. C. Anderson and G. W. Watt. Am Chem Soc J 67:2269-70 D '45

ALKALINE earth oxides

Secondary electron emission from oxide-coated cathodes. M. A. Pomerantz. bibliog diags Franklin Inst J 241:415-33; 242: 41-61 Je-Jl '46; Same cond. Phys R 70:33-40 Jl 1 '46

ALKALINE earth titanates

High dielectric constant ceramics. A. von Hippel and others. bibliog il Ind & Eng Chem 38:1097-1109 N '46

ALKALOIDS

Alkaloids of gelsemium sempervirens. W. G. C. Forsyth, S. F. Marrian and T. S. Stevens. Chem Soc J p579-82 S '45

Curare alkaloids from chondodendron tomentosum Ruiz and Pavon. J. D. Dutcher. bibliog Am Chem Soc J 68:419-24 Mr '46

Papilionaceous alkaloids; lupinus macounii, Rydb. L. Marion. Am Chem Soc J 68:759-60 My '46

See also

Chelidonine — Morphine
Cinchona alkaloids — Quinine

ALKAMINE esters. See Esters

ALKANES. See Paraffins

ALKMAAR, Netherlands

Alkmaar's picturesque cheese carriers active again. For Comm W 24:27 Ag 24 '46

ALKOXY group

Alkoxy-*s*-triazines; anti-histamine activity. J. Controulis and C. K. Banks. Am Chem Soc J 67:1946-8 N '45

ALKOXYPROPIONATES

β-Alkoxypropionates; addition of alcohols to the olefinic linkage of alkyl acrylates. C. E. Rehberg, M. B. Dixon and C. H. Fisher. bibliog Am Chem Soc J 68:544-6 Ap '46

ALKYD resins. See Resinous products

ALKYL acrylates

β-Alkoxypropionates; addition of alcohols to the olefinic linkage of alkyl acrylates. C. E. Rehberg, M. B. Dixon and C. H. Fisher. bibliog Am Chem Soc J 68:544-6 Ap '46

ALKYL bromides

Kinetics of exchange reactions; influence of solvent and molecular structure. L. J. le Roux and others. Chem Soc J p586-8 S '45

ALKYL chlorides

Condensation of saturated halides with unsaturated compounds; condensation of alkyl chlorides with polychloroölefins. L. Schmerling. Am Chem Soc J 68:1655-7 Ag '46

ALKYL chlorosilicates
Preparation and synthetic applications of alkyl chlorosilicates. D. F. Peppard, W. G. Brown and W. C. Johnson. bibliog Am Chem Soc J 68:70-2 Ja '46

ALKYL fluorosilicates
Alkyl fluorosilicates. D. F. Peppard, W. G. Brown and W. C. Johnson. Am Chem Soc J 68:76-7 Ja '46

ALKYL group
Alkylphenol sulfides as vulcanizing agents. G. M. Wolf and others. bibliog Ind & Eng Chem 38:1157-66 N '46
Dealkylation of dialkylbenzenes; use of superatmospheric pressure and alumina-silica catalyst in the presence of benzene. W. M. Kutz and B. B. Corson. bibliog flow sheet il Ind & Eng Chem 38:761-4 Jl '46
Physical and chemical properties of organometallic compounds; vapour pressures and freezing points of simple metal alkyls of groups II, III, and V. C. H. Bamford, D. L. Levi and D. M. Newitt. diags Chem Soc J p468-71 Je '46
Polybromination of alkylbenzenes. G. F. Hennion and J. G. Anderson. bibliog Am Chem Soc J 68:424-6 Mr '46
Structure of alkylphenol resin tackifiers for GR-S. G. E. P. Smith, jr., J. C. Ambelang and G. W. Gottschalk. bibliog il Ind & Eng Chem 38:1166-70 N '46

ALKYL halides
Absorption of microwaves by gases. W. D. Hershberger. diag J Ap Phys 17:495-500 Je '46
Condensation of saturated halides with unsaturated compounds; the condensation of alkyl halides with monohaloölefins. L. Schmerling. bibliog Am Chem Soc J 68: 1650-4 Ag '46
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance. I. Dostrovsky and E. D. Hughes. Chem Soc J p157-94 Mr '46

ALKYL isoformanilides
Reactions of alkyl*iso*formanilides; with carboxylic acids, sulphonic acids, and sulphonamides. E. B. Knott. Chem Soc J p686-9 O '45

ALKYL silicates
Alcoholysis reactions of alkyl silicates. D. F. Peppard, W. G. Brown and W. C. Johnson. bibliog Am Chem Soc J 68:73-5 Ja '46
Transesterification reactions of alkyl silicates. D. F. Peppard, W. G. Brown and W. C. Johnson. Am Chem Soc J 68:77-9 Ja '46

ALKYLATION
Alkylation and arylation of aliphatic nitriles in liquid ammonia. F. W. Bergstrom and R. Agostinho. bibliog Am Chem Soc J 67: 2152-4 D '45
Alkylation of alkanes. G. Egloff and G. Hulla. bibliog(56 references) flow diags Chem R 37:323-99 D '45
Alkylation of amines; N,N-dialkylation of nuclear substituted anilines. D. G. Thomas, J. H. Billman and C. E. Davis. Am Chem Soc J 68:895 My '46
Alkylation of isoparaffins; application of the carbonium-ion theory. F. G. Ciapetta. bibliog Ind & Eng Chem 37:1210-16 D '45
Alkylation of paraffins in the presence of homogeneous catalysts; synthesis of neohexane and triptane. A. A. O'Kelly and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:462-7 My '46
Alkylation of thiophene by olefins and alcohols. W. M. Kutz and B. B. Corson. Am Chem Soc J 68:1477-9 Ag '46
Alkylation of triethylsilane. R. N. Meals. bibliog Am Chem Soc J 68:1880 O '46
Catalytic alkylation of chlorobenzenes. G. Vermillion and M. A. Hill. bibliog Am Chem Soc J 68:190-1 F '46
Catalytic isopropylation of *o*-dichlorobenzene. G. Vermillion and M. A. Hill. Am Chem Soc J 67:2209 D '45
Corrosion in hydrofluoric acid alkylation. M. E. Holmberg and F. A. Prange. il diag Ind & Eng Chem 37:1030-3 N '45
Corrosion in hydrofluoric acid alkylation. F. A. Prange and R. A. Findlay. il Pet Refiner 25:85-8 Mr '46
Corrosion limits metals that can be used for construction of HF alkylation units. il Nat Pet N 38 pt 2:R618+ Ag 7 '46
Digest of United States patents on alkylation of hydrocarbons. H. Heinemann, comp. Pet Refiner 25:166+ F '46
Dow process for styrene; abstract. J. E. Mitchell, jr. diags Chem & Met Eng 53: 280+ My '46
Economic and successful operation obtained at HF alkylation plant; Sinclair refining co.'s Corpus Christi refinery. J. A. Scott and R. M. Cooper. flow diags Oil & Gas J 44:204+ Mr 30 '46
Ethylation of benzene in presence of solid phosphoric acid. V. N. Ipatieff and L. Schmerling. bibliog Ind & Eng Chem 38: 400-2 Ap '46
Exchange of hydrogen and tritium ions during alkylation, catalyzed by tritium sulfuric acid. T. D. Stewart and D. Harman. Am Chem Soc J 68:1135-6 Je '46
Experiences in the commercial application of the hydrogen fluoride alkylation process. E. M. Skinner. flow sheet Am Inst Chem Eng Trans 41:647-70 D '45; Discussion. 42: 467-70 Je '46
Heats, equilibrium constants and free energies of formation of the alkylbenzenes; equilibrium constants for some reactions involving alkylation, cyclization and trimerization. W. J. Taylor and others. J Res Nat Bur Stand 37:118-21 Ag '46
HF alkylation process. flow chart il Oil & Gas J 44:153-5 Mr 30 '46
Hydrogen fluoride-paraffin systems; significance of liquid-phase equilibria in the hydrogen fluoride alkylation process. E. B. Butler, C. B. Miles and C. S. Kuhn, jr. diags Ind & Eng Chem 38:147-55 F '46
Increase output of alkylate over 600% by removing equipment bottlenecks. G. B. Ryan and D. G. Stevens. il diags Nat Pet N 38 pt 2:R411-12+ Je 5 '46
Isomerization accompanying alkylation; reaction of cycloheptanol and cycloheptene with benzene; synthesis of cycloheptylbenzene. H. Pines, A. Edeleanu and V. N. Ipatieff. bibliog Am Chem Soc J 67:2193-6 D '45
Ketene acetals; the alkylation and acylation of substituted ketene acetals. S. M. McElvain, R. E. Kent and C. L. Stevens. bibliog Am Chem Soc J 68:1922-5 O '46
Mechanism of catalyzed alkylation of isobutane with olefins. M. H. Gorin, C. S. Kuhn, jr. and C. B. Miles. bibliog Ind & Eng Chem 38:795-9 Ag '46
Mechanism of the alkylation of paraffins; alkylation of isobutane with propene, 1-butene and 2-butene. L. Schmerling. bibliog Am Chem Soc J 68:275-81 F '46
Numerous improvements in HF alkylation will cut costs and reduce losses. W. B. Shanley and H. J. Nebeck. flow charts Oil & Gas J 44:94-6+ D 1 '45
Piperidine derivatives; C-alkylation of 1-benzoyl-3-carbethoxy-4-piperidone; synthesis of ethyl 3-ethyl-4-piperidylacetate (*dl*-ethyl cincholoiponate). G. Stork and S. M. McElvain. Am Chem Soc J 68:1053-7 Je '46
Preparation of some α-dialkylamino-ω-methylaminoalkanes. R. Munch, G. T. Thannhauser and D. L. Cottle. bibliog Am Chem Soc J 68:1297-9 Jl '46
Results of alkylation plant modification. J. H. Kunkel. il Pet Eng 17:168+ N '45
Study of alternate methods for the alkylation of acetoacetic esters. W. B. Renfrow and A. Renfrow. bibliog Am Chem Soc J 68:1801-4 S '46
Sulfuric acid alkylation process. flow charts il Oil & Gas J 44:156-8 Mr 30 '46
Two 6-β-hydroxyethoxy-8-diethylaminoalkylaminoquinolines. M. S. Morgan and L. H. Cretcher. bibliog Am Chem Soc J 68:781-4 My '46

ALKYLISOFORMANILIDES
Reactions of alkyl*iso*formanilides; reactions with pyridinium salts. E. B. Knott. Chem Soc J p120-2 F '46

ALKYLMETHYLQUINOLINE
Synthesis of 3-alkyl-4-methylquinolines. A. L. Searles and H. G. Lindwall. bibliog Am Chem Soc J 68:988-90 Je '46

ALL-American canal. See Irrigation canals

ALLEGHANY corporation
Alleghany exit? Bsns W p66-7 Mr 30 '46
Alleghany shift? Young-Kirby acquisition of interests in Central states electric corp. Bsns W p73-4 Mr 9 '46
Kirby plans to sell about half of his Alleghany corp. common. Bsns W p75-6 N 17 '45

ALLEGHENY Ludlum steel corporation
Allegheny Ludlum buys Magnet producing co. Iron Age 156:158 D 13 '45

ALLEN, Arthur Edward
Off with a uniform; builds small houses. por Fortune 33:218+ Ap '46

ALLEN, Charles, jr
Colorado harvest. Bsns W p64+ Jl 27 '46

ALLEN, Edward Mortimer, 1881-
Sketch. J. S. Daniel. por East Underw 47:38 My 17 '46

ALLEN, George Edward, 1896-
Chairman Roosevelt foundation. East Underw 46:24 N 9 '45
Portrait Bsns W p35 Ja 26 '46
Portrait. Steel 118:72 F 18 '46
Senate committee recommends Allen for RFC director. por Nat Underw 50:4+ F 14 '46

ALLERGY
See also
Hay fever

ALLIED chemical and dye corporation
Allied Chemical's growth products. Barron's 25:9 N 12 '45

ALLIED non-theatrical film association
1946 ANFA year book and audio-visual who's who. W. L. Knighton, ed. 106p Allied non-theatrical film assn, 303 Lexington av, New York 16 '46

ALLIGATOR pear. See Avocados

ALLIS-CHALMERS manufacturing company
A-C tide turns. Bsns W p102+ S 21 '46
Debentures offered. Comm & Fin Chr 164: 1197 S 2 '46
End in sight? fourth Allis-Chalmers local returns to work. Bsns W p90 O 19 '46
Perpetual call on Allis common. Barron's 26:6 S 2 '46
Research center; new facilities of Allis-Chalmers mfg. co.; flexible pilot mill. il Steel 117:80+ D 24 '45
Thumbnail stock appraisal. Mag of Wall St 78:212 My 25 '46

ALLISON engine
AAF contracts boost Allison into engine production lead. Aviation N 5:22 Je 3 '46
Marine conversion of Allison V-1710 aircraft engine. il Automotive & Aviation Ind 94: 31 Je 1 '46

ALLITOL
Sugar interconversion under reducing conditions. M. L. Wolfrom, B. W. Lew and R. M. Goepp, jr. bibliog Am Chem Soc J 68:1443-8 Ag '46

ALLOBIOTIN
Biotin; a stereochemical correlation of *dl*-biotin, *dl*-allobiotin and *dl-epi*-allobiotin. S. A. Harris and others. bibliog Am Chem Soc J 67:2102-6 D '45
Biotin; synthesis of *dl*-biotin, *dl*-allobiotin and *dl-epi*-allobiotin. S. A. Harris and others. bibliog Am Chem Soc J 67:2096-100 D '45

ALLOXAN
Colorimetric determination of less than 0.001% S as thiophen in pure benzoles. K. H. V. French. Soc Chem Ind J 65:18-21 Ja '46
Diabetes produced by feeding alloxan to cats. J. A. Ruben and K. Yardumian. Science 103:220-1 F 22 '46
Effect of alloxan on the in vitro formation of glucose by the liver. A. Canzanelli and others bibliog Science 104:223 S 6 '46

ALLOXAZINE
Preparation of riboflavin; synthesis of alloxazines and isoalloxazines. M. Tishler, J. W. Wellman and K. Ladenburg. bibliog Am Chem Soc J 67:2165-8 D '45

ALLOY casting institute
Annual meeting, Wernersville, Pa. Iron Age 158:144 Ag 22 '46

ALLOYS
A.S.T.M. standards on electrical-heating and resistance alloys (with related information); prepared by A.S.T.M. committee B-4. 173p pa $2 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '46
Bright alloy plating; producing ternary deposit of copper, tin and zinc. Steel 118: 105+ F 25 '46
Determination of coexisting phases in heterogeneous systems of many components. P. A. Beck. J Ap Phys 16:808-15 D '45
French processes for hard alloys and carbides. W. G. Cass. Chem & Eng N 24:2840-2 O 25 '46
Investigation of secondary phases in alloys by electron diffraction and the electron microscope. R. D. Heidenreich and others. bibliog il diags J Ap Phys 17:127-36 F '46
Iron, steel and nonferrous metals listed by tradenames, by producing companies and by principal constituents. Machine Design 18:168-206 O '46
Melting points of metals and alloys. H. R. Morrison. Welding J 25:545-6 Je '46
Metallurgy; wartime developments being integrated with peacetime production. J. Z. Briggs. il Iron Age 157:124-9+ Ja 3 '46
Metals and alloys in the petroleum industry. J. H. Wilson. Inst Pet J 32:230-40 Ap '46
Metals in modern society. C. S. Smith. Min & Met 27:541-3 N '46
Non-ferrous metals and alloys, 1945. F. P. Peters. il Materials & Methods 23:90-5 Ja '46
Obscure alloying metals grew 50 years during the war. J. V. Sherman. Barron's 26:13 Ja 14 '46
Oxide films formed on alloys at moderate temperatures; electron diffraction and electron microscope study. E. A. Gulbransen, R. T. Phelps and J. W. Hickman. bibliog il Ind & Eng Chem Anal ed 18:640-52 O '46
Shear properties of metals and alloys; engineering file facts. R. S. Burpo, jr. comp. Materials & Methods 23:1341, 1343, 1345, 1617, 1619; 24:143, 145 My-Jl '46
Sorting alloys; triboelectric instrument. N. F. Agnew. il diag Electronics 19:124-5 S '46
Substitute metallurgical products. A. M. Portevin; trans. by W. M. Baldwin, jr. Metal Prog 50:485-94 S '46
Superalloys for U.S. industry. Bsns W p46+ F 16 '46
Vickers, Rockwell and Brinell hardness values for various materials and alloys; fold chart J. T. Agnew. Purdue univ. eng. exp. sta, Lafayette, Ind. '46
War turns a page in metal processing. il Am Mach 90:89-93 Ja 31 '46
See also
Aluminum alloys
Babbitt metal
Bearing metals
Brass
Bronze
Copper alloys
Electron metal
Invar
Iron alloys
Lead alloys
Magnesium alloys
Monel metal
Nickel alloys
Silver alloys
Solutions, Solid
Steel alloys
Stellite
Tin alloys
Zinc alloys

Analysis
Some applications of vacuum distillation technique in the analysis of alloys. J. W. Price. bibliog Soc Chem Ind J 64:283-5 O '45

ALLOYS, Hard facing
Hard-facing materials to improve product performance. A. T. Cape. il Product Eng 17:134-7 F '46
How to select wear-resisting alloys for welding. J. A. Cunningham. il diags Welding J 25:915-20 O '46
Microstructure of hard-facing alloys. H. W. Sharp. il Welding J 25:936-41 O '46
Scaling of cobalt-base hard-facing alloys; abstract. H. Cornelius. Materials & Methods 23:1066+ Ap '46
Valve facing alloy resists corrosion at high temperatures; Eatonite developed for facing internal combustion engine valves. V. C. Young. il Materials & Methods 22:1744-5 D '45

ALLOYS, Heat resisting
Alloys beat the heat; key materials of turbosuperchargers, gas turbines, and jet engines. F. P. Peters. il diag Sci Am 174: 152-4 Ap '46
Alloys for high temperature service. W. O. Binder. bibliog il Iron Age 158:46-52 N 7; 92-5 N 14 '46
Cobalt-base high temperature alloys for gas turbines and superchargers. L. E. Browne. Steel 118:88-91+ My 27 '46
Gas turbine and jet propulsion metals. W. L. Nelson. Oil & Gas J 44:105 N 10 '45
Gas turbine in industry. J. R. Carlson. Blast F & Steel Pl 34:874+ Jl '46
Heat and corrosion resistant high temperature alloys; reference book sheet. Product Eng 17:151+ S '46
High temperature alloys; developments in United States during war period. Automobile Eng 36:126 Mr '46
High temperature alloys for gas turbines; abstracts of ASTM papers. Iron Age 158: 73-4 Jl 4 '46
High temperature alloys; research on materials for gas turbines. N. J. Grant. Iron Age 157:42-8 My 23; 50-6 My 30; 77-80 Je 6; 60-3 Je 20 '46
Magnesium-cerium alloy castings for high temperature use. R. F. Marande. bibliog il Materials & Methods 23:418-24 F '46
Materials for motor valves. H. Cornelius. Materials & Methods 23.796+ Mr '46
Metallurgical development of materials for turbosuperchargers and aircraft gas turbines. W. L. Badger. il diags Iron Age 158: 40-5 Jl 25; 60-6 Ag 1 '46; Abstract. Metal Prog 50:510+ S '46
Metallurgy and the gas turbine. F. T. Sisco. diag Min & Met 27:276-7 My '46
New heat resisting metals for engines. R. K. Winkleblack. Automotive & Aviation Ind 95:40-4 O 15 '46
Postwar field for new temperature and stress-resisting alloys. Marine Eng 51:144+ Mr '46
Precision-cast parts of high-temperature alloys. W. O. Sweeny. il diags Product Eng 17:121-6 S '46
Secret wartime high-temperature alloys now available for peacetime use. Mach 52:183-7 Jl '46
Standard alloy designations for heat and corrosion resistant castings; engineering file facts. Materials & Methods 23:765 Mr '46
Super alloys for high temperature service. H. A. Knight. il Materials & Methods 23: 1557-63 Je '46
Superalloys for high temperature service in gas turbines and jet engines; round-table discussion at National metal congress. F. S. Badger and others. il diags Metal Prog 50:97-122 Jl '46
Valve facing alloy resists corrosion at high temperatures; Eatonite developed for facing internal combustion engine valves. V. C. Young. il Materials & Methods 22:1744-5 D '45
Wrought heat resisting alloys for gas turbines service. C. T. Evans, jr. bibliog Metal Prog 48:1083-95+ N '45

ALLOYS, Temperature indicating
Gas turbine takes its own temperature; alloy shows color change for every 25 degree change in temperature. Blast F & Steel Pl 34:264-5 F '46; Same cond. Gen Elec R 49:57 My '46

ALLYL acetate
Polymerization of allyl compounds; peroxide-induced copolymerization of allyl acetate with maleic anhydride. P. D. Bartlett and K. Nozaki. bibliog Am Chem Soc J 68: 1495-1504 Ag '46

ALLYL alcohol
Commercial scale manufacture of allyl chloride and allyl alcohol from propylene; abstract. A. W. Fairbairn, H. A. Cheney and A. J. Cherniavsky. flow diag il Pet Processing 1:87-8 O '46

ALLYL bromide
Condensation of saturated halides with unsaturated compounds; the condensation of alkyl halides with monohaloölefins. L. Schmerling. bibliog Am Chem Soc J 68: 1650-4 Ag '46

ALLYL chloride
Allylic chlorides; catalytic hydrolysis and characterization of 1,3-dichloropropene. L. F. Hatch and G. B. Roberts. bibliog Am Chem Soc J 68:1196-8 Jl '46
Commercial scale manufacture of allyl chloride and allyl alcohol from propylene; abstract. A. W. Fairbairn, H. A. Cheney and A. J. Cherniavsky. flow diag il Pet Processing 1:87-8 O '46
Condensation of saturated halides with unsaturated compounds; the condensation of alkyl halides with monohaloölefins. L. Schmerling. bibliog Am Chem Soc J 68: 1650-4 Ag '46
Copolymerization of styrene and allyl chloride. T. Alfrey and J. G. Harrison, jr. bibliog Am Chem Soc J 68:299-301 F '46
Synthesis of arylpropylamines, from allyl chloride. T. M. Patrick, jr., E. T. McBee and H. B Hass. bibliog Am Chem Soc J 68:1009-11 Je '46

ALLYL compounds
Polymerisation of allyl esters. W. Simpson. bibliog Soc Chem Ind J 65:107-11 Ap '46

ALLYL ethers. See Ethers

ALLYL resins. See Resinous products

ALLYLIC rearrangements. See Molecular rearrangements

ALMONDS
Estimates of French almond production, 1934 to 1945. For Comm W 22:28 Ja 5 '46

ALNICO
Permanent magnet steels; including Alnico group, Comol, Silmanal, Vectolite, Cunico, Cunife and others. W. E. Ruder. il Iron Age 157:65-9 My 9 '46

ALOINS
Comparison between certain reactions of the aloins and those of glucose. J. H. Gardner. bibliog Am Chem Soc J 67:2111-12 D '45

ALPHA chi sigma
18th conclave at St Louis, June 12-16. Chem & Eng N 24:1913 Jl 25 '46

ALPHA rays
Effects of radioactivity on fatty acids. C. W. Sheppard and V. L. Burton. bibliog diags Am Chem Soc J 68:1636-9 Ag '46
Experimental comparison of the chemical effects of deuterons and of alpha particles on methane and *n*-butane. R. E. Honig and C. W. Sheppard. bibliog il diags J Phys Chem 50:119-43 Mr '46
Fine structure of the α-rays from protactinium. S. Tsien and others. bibliog Phys R 69:39 Ja 1 '46
Formation of hydrocarbons from fatty acids by alpha-particle bombardment. C. W. Sheppard and W. L. Whitehead. bibliog il diags Am Assn Pet Geologists Bul 30:32-51 Ja '46
Probability of excitation of the nucleus ^{206}Pb in the α-disintegration of polonium. N. Feather. bibliog Phys R 70:85 Jl 1 '46
Radii of the nuclei of natural α-emitters. M. A. Preston. bibliog Phys R 69:535 My 1 '46
Radioactive light sources. M. Blau and I. Feuer. diag Opt Soc Am J 36:576-80 O '46
Study of the alpha-particles from Po with a cyclotron-magnet alpha-ray spectrograph. W. Y. Chang. bibliog diags Phys R 69:60-77 F 1 '46
Theoretical analysis of the relative chemical effects of alpha particles and deuterons. C. W. Sheppard and R. E. Honig. bibliog J Phys Chem 50:144-52 Mr '46

Therapeutic use
Alphatron radon ointment in industrial practice. H. H. Jordan. bibliog il Ind Med 14: 964-7 D '45

ALPHABETING
Rules for filing cards in the catalogs of Columbia university libraries. 72p pa $1.75 Columbia univ. libraries, New York 27 '46

ALPHATRON. See Ionization gage

ALPHATRON ointment. See Alpha rays—Therapeutic use

ALTIMETERS
Automatic altimeter setting; remote control radio device. Air Transport 4:90 Ag '46
F-M radar altimeter. il diags Electronics 19: 130-4 Ap '46

ALTIMETERS—*Continued*
Navigating by altimeter. H. F. Langdon. diags Air Transport 4:53-4+ My; 47+ Jl '46
New accuracies attained with radio altimeters. il diags Aviation 45:85+ Jl '46
Pulse-type radio altimeter; high-altitude altimeter using radar techniques. A. Goldman. il diags Electronics 19:116-19 Je '46
Surveying altimeter. il R Sci Instr 17:311 Ag '46

ALTITUDE
Bavarian motor works altitude-test facilities. E. E. Stoeckly. il diags A S M E Trans 68:743-50 O '46
Determination of runway length for different altitudes; graph. Aviation 44:209 D '45
High-altitude performance covered in new standard for gas appliances. Ind Stand 17: 127 My '46
See also
Aviation—Altitude flying

ALTITUDE, Influence of
Effect of altitude anoxia in provoking relapse in malaria. C. D. Howe and F. L. Duff. Science 103:223 F 22 '46
Zenith or nadir? man's knowledge of earth restricted by physical limitations binding him to earth's crust. F. W. Nordsiek. il Tech R 48:289-91 Mr '46
See also
Aviation—Medical aspects

ALTITUDE flying. See Aviation—Altitude flying

ALTON railroad
Court takes reorganization plan under advisement. Comm & Fin Chr 163:1021 F 25 '46

ALUM. See Alums

ALUMINA
Action of methanol on phenol in the presence of alumina; formation of anisole, methylated phenols, and hexamethylbenzene. N. M. Cullinane and S. J. Chard. diag Chem Soc J p821-3 N '45
Adventures with alumina. F. C. Frary. il Chem & Ind p 14-16 Ja 12 '46; Same. Ind & Eng Chem 38:129-31 F '46
Alumina produced from Northwest clay; Chemico process tested in experimental plant at Salem, Ore. J. R. Callaham. flow sheet il Chem & Met Eng 52:108-9 D '45
Bauxite, dehydrogenation catalyst for styrene production. W. H. Wood and R. G. Capell. bibliog il diag Ind & Eng Chem 37:1148-52 D '45
Dealkylation of dialkylbenzenes; use of superatmospheric pressure and alumina-silica catalyst in the presence of benzene. W. M. Kutz and B. B. Corson. bibliog flow sheet il Ind & Eng Chem 38:761-4 Jl '46
Dielectric heating of granular materials; aluminum and silicon oxides. P. W. Schutz and E. K. McMahon. bibliog diags Ind & Eng Chem 38:179-84 F '46
Direct catalytic conversion of methylcyclopentane to benzene. B. S. Greensfelder and D. L. Fuller. bibliog Am Chem Soc J 67:2171-3 D '45
L'emploi de la silice et de l'alumine pour dessécher l'air et les gaz dans l'industrie. Génie Civil 123:282-3 O 15 '46
Extraction of alumina from clay; sulfite-sulfate process. O. Redlich and others. bibliog flow sheets diag Ind & Eng Chem 38:1181-7 N '46
Extraction of alumina from clays and high-silica bauxites. E. P. Flint and others. bibliog flow sheets J Res Nat Bur Stand 36: 63-106 Ja '46
Intensity distribution among the rotational lines of AlO. F. P. Coheur and P. M. Coheur. Phys R 69:240 Mr 1 '46
Inter-polymerization of isobutane and 2-methyl-2-butene using an alumina-silica catalyst; composition of the hydrogenated nonenes. G. C. Johnson and F. S. Fawcett. bibliog Am Chem Soc J 68:1416-19 Ag '46
Phase equilibrium relations in a portion of the system Na_2O-CaO-Al_2O_3-SiO_2. K. T. Greene and R. H. Bogue. bibliog J Res Nat Bur Stand 36:185-207 F '46
Pilot-plant investigations; preparation of alumina from potassium alum. C. T. Baroch and others. bibliog flow sheet pl U S Bur Mines Rep of Invest 3845:1-26 '46
Plants reprieved; alumina-from-clay and alcohol-from-sawdust projects in Oregon. Bsns W p61-2 Jl 20 '46
Removal of peroxides from organic solvents. W. Dasler and C. D. Bauer. bibliog Ind & Eng Chem Anal ed 18:52-4 Ja '46
Report on studies of ternary system CaO-C_3A_3-C_2F; quaternary system CaO-C_3A_3-C_2F-C_2S; quaternary system as modified by 5% magnesia. M. A. Swayze. bibliog pl Am J Sci 244:1-30, 65-94 Ja-F '46
Role of surface area in dehydrocyclization catalysis. A. S. Russell and J. J. Stokes, jr. diag Ind & Eng Chem 38:1071-4 O '46
Seailles-Dyckerhoff process for recovery of alumina from coal ashes; abstract. F. M. Lea. Chem & Met Eng 53:210 Je '46
Sedimentary and volcanic processes in the formation of high alumina clay. V. T. Allen. bibliog il diag Econ Geol 41:124-38 Mr '46
Studies of binary and ternary combinations of magnesia, calcia, baria, beryllia, alumina, thoria and zirconia in relation to their use as porcelains. R. F. Geller and others. bibliog pls diags J Res Nat Bur Stand 36: 277-312 Mr '46
Synthesis of methanol from carbon dioxide and hydrogen over copper-alumina catalysts; mechanism of reaction. V. N. Ipatieff and G. S. Monroe. Am Chem Soc J 67:2168-71 D '45
Thoria-alumina catalyst best for isoparaffin synthesis, zinc oxide is less efficient, for use in the Fischer-Tropsch reaction. il Oil & Gas J 44:86+ Ja 19 '46
$3,400,000 pilot plant in South Carolina produces alumina from kaolin. il Manuf Rec 115:54 My '46
Unusual techniques feature the production of synthetic bead catalyst; Socony Vacuum's plant at Paulsboro, N.J. R. W. Porter. flow sheet(p138-41) il diags Chem & Met Eng 53:94-8 Ap '46
See also
Bauxite
Boehmite
Rubies

ALUMINIUM, limited
Boosts output. Barron's 26:6 Ag 19 '46

ALUMINUM
Absorption of slow mesotrons in lead, iron, aluminum, and water. H. P. Koenig. diags Phys R 69:590-6 Je 1 '46
Alcoa really intent on aluminum motors, bearings and axles in coming bus designs. S. V. Malcuit. il Mass Transportation 42: 173-4 Ap '46
Aluminum and chromium as gelatin hardeners. H. L. Baumbach and H. E. Gausman. bibliog diag Soc Motion Picture Eng J 47:22-54 Jl '46
Aluminum and music; aluminum chimes; abstract. F. Hone. Materials & Methods 24: 958 O '46
Aluminum pallet for shipping; with cost data. T. O. Palmer. il Steel 119:125-6 Jl 1 '46
Aluminum pallets cut material handling cost. il Iron Age 158:66-7 Ag 8 '46
Aluminum pallets save handling weight and expense. il Mach 52:156 Jl '46
Aluminum rotors for electric motors; abstract. J. Piget. Materials & Methods 24: 698 S '46
Comparison of aluminum and titanium deoxidation for preventing strain aging embrittlement in low carbon steel. G. F. Comstock and J. R. Lewis. il Am Soc for Metals Trans 34:425-37; Discussion. 437-42 '45
Comparison of the stopping power of lead and aluminum for cosmic-ray mesotrons. E. Fein. diags Phys R 70:567 O 1 '46
Electroplating of aluminum and its alloys. M. Raskin. flow chart il Metal Finishing 44:337-9 Ag '46
Experiments on the elastic single scattering of electrons by nuclei. R. J. Van de Graaff and others. bibliog diags Phys R 69:452-9 My 1 '46
Further observation of graphitization in aluminum-killed carbon-molybdenum-steel steam piping. R. W. Emerson and M. Morrow. bibliog il plan A S M E Trans 68: 597-607 Ag '46

ALUMINUM—*Continued*

Growth of light metals assured; tonnages uncertain. J. L. Head. il Eng & Min J 147: 98-100 F '46

Influence of intercrystalline forces on beta-ray absorption. H. D. Rathgeber. Phys R 69:239-40 Mr 1 '46

Peace demands for aluminum expand. D. L. Schooley. J Chem Educ 23:399-401 Ag '46

Shipping sheet with more efficient packaging. il Mod Packaging 19:120-1 D '45

Stressed aluminum body and air springs among weight saving features of Fairchild semi-trailer. il Automotive & Aviation Ind 93:30-1+ N 15 '45

Wartime progress in alumina and aluminum. Chem & Met Eng 53:157 F '46

See also

Aluminum ware
Bauxite
Glass—Aluminum content

Analysis

Autoradiographic detection of aluminum. W. E. Stephens and M. N. Lewis. il Phys R 69: 43 Ja 1 '46

Determination of acid in the presence of aluminum. R. P. Graham. bibliog Ind & Eng Chem Anal ed 18:472-4 Ag '46

Fluorometric determination of aluminum in steels, bronzes, and minerals. A. Weissler and C. E. White. bibliog Ind & Eng Chem Anal ed 18:530-4 S '46

Spectrochemical determination of small amounts of aluminum in steel. R. Spiers, P. Fischer and K. L. Proctor. bibliog Ind & Eng Chem Anal ed 17:772-4 D '45

Spot tests for aluminum and magnesium alloys. Oil & Gas J 45:115 Je 15 '46

Vacuum-fusion method for determining gases in non-ferrous metals. H. A. Sloman. Engineering 160:419-20 N 23 '45

Volumetric determination of aluminum applied to analyses of silica-alumina catalysts. M. N. Hale. bibliog Ind & Eng Chem Anal ed 18:568-9 S '46

Cleaning

Aluminum cleaners. M. A. Lesser. bibliog il Soap & San Chem 22:44-7+ S '46

Pre-welding treatment for aluminum. B. B. Button. il Steel 118:132+ Mr 18 '46

Soft water rinse improves aluminum finishes. R. S. Herwig. il diag Iron Age 158:58-9 Jl 11 '46

Surface preparation of aluminum alloy sheet for spot welding. R. A. Wyant and others. bibliog Welding J 25:sup65-76 F '46

Corrosion

Corrosion behavior of aluminum; abstract. L. Reschke. Materials & Methods 22:1798+ D '45

Corrosion is no accident; corrosion study on eighty C-47 type aircraft. H. E. Smith, jr. il Mech Eng 68:943-8 N '46

Corrosion resistance of aluminum and its alloys. R. B. Spacht. bibliog J Chem Educ 23: 253-7 My '46

Effects of corrosion on spot welded 75ST Alclad alloy. M. L. Ochieano. il Product Eng 17:126-8 O '46

Influence of quenching temperature on corrosion resistance of aluminum-zinc-magnesium forging alloy; abstract. W. Bungardt. Metal Prog 49:1028+ My '46

Inhibitors of corrosion of aluminum. G. G. Eldredge and R. B. Mears. bibliog Ind & Eng Chem 37:736-41 Ag '45; Abstract. Metal Prog 50:520+ S '46

Intercrystalline corrosion by sodium chloride of a wrought aluminium alloy containing 4 per cent. of copper; summaries and discussions. J. D. Grogan. Engineering 161: 280 Mr 22 '46; Engineer 181:284 Mr 29 '46

Intercrystalline corrosion of aluminium-magnesium alloy rivets; abstract and discussion. G. J. Metcalfe. Engineer 182:282 S 27 '46

Physico-chemical study of the decomposition of some solid solutions of aluminum; abstract. P. Lacombe. Chem & Met Eng 53: 266 Jl '46

Structural deterioration of aluminum and magnesium by corrosion; abstract. W. Patterson. Metal Prog 49:1030+ My '46

Electrotechnical uses

All power handled on aluminum buses; Jennison station of New York state electric & gas corp. D. L. Greene. il diag Elec World 125:57-9 Ap 27 '46

Aluminum building wires proposed as substitute for scarce copper. Eng N 137:522 O 17 '46

Aluminum coulometer. M. Tosterud and R. B. Mason. Electrochem Soc Trans 90(preprint 16):229-34 '46

Aluminum-steel trolley wires; abstract. L. Albert. Materials & Methods 24:960+ O '46

Formulas for conductor size according to cost or resistance loss. H. B. Dwight. Elec Eng 65:Trans 23-5 Ja '46

Underwriters' consider use of aluminum conductors. Elec Eng 65:486 O '46

Finishing

Electroplating on aluminum. bibliog flow sheet il Steel 118:142-4+ My 6 '46

Finishes for aluminum; mechanical, chemical, organic, and electrolytic treatments. R. E. Pettit. il Product Eng 17:113-20 N '46

Porcelain enamel coating for aluminum. J. F. Mason. Iron Age 158:60 Ag 15 '46

Soft water rinse improves aluminum finishes. R. S. Herwig. il diag Iron Age 158:58-9 Jl 11 '46

Spot-checking anodic films. G. Black. diag Materials & Methods 24:680 S '46

Surface finishes for aluminum. J. F. Mason. il Iron Age 158:40-3 Ag 29; 50-3 S 5; 66-9 S 12 '46

Wrought aluminum alloys; finishes. O. L. Mitchell. Materials & Methods 23:466 F '46

Joining to steel, etc.

Method for welding sheet aluminum to S.A.E. 4140 steel; study of different metals used as intermediate. W. F. Hess and E. F. Nippes, jr. bibliog il diags Welding J 25: sup129-48 Mr '46; Abstract. Metal Prog 50:328+ Ag '46

Metallography

Heat treating aluminum. G. W. Birdsall; O. L. Mitchell. il Steel 119:78-9+ Ag 26; 118-20+ S 9; 103-4+ S 16 '46

High temperature oxidation in aluminum alloy forgings. L. J. Barker. il Iron Age 157: 60-4 My 9 '46

Metallographic examination discloses causes of machining difficulties. N. R. Cusworth and others. il Materials & Methods 23: 434-7 F '46

Recrystallization of aluminum; abstract. K. Kaiser. Materials & Methods 23:229-30 Ja '46

Physiological effect

Health aspects of aluminum ponton work. F. E. Rieke. bibliog Ind Med 14:896-7+ N '45

Prices

Aluminum and magnesium alloy prices as of April 1946. W. L. Nelson. Oil & Gas J 45:106 Ag 10 '46

Canadian Aluminum price cut may capture world market. Iron Age 157:119 My 9 '46

Virgin aluminum, 99 pct plus, monthly, 1929-1945; tabulation. Iron Age 157:250 Ja 3 '46

Protection

Anodic oxidation of aluminum; report on progress overseas. W. G. Cass. Chem Age (Lond) 54:259-61 Mr 9 '46

Comparison of the performance of anodic coatings exposed to salt spray and to the weather. J. D. Edwards. Am Soc T M Proc 45:146-8 '45

Continuously anodized aluminum strip for cans. Iron Age 157:55 Je 20 '46

Control methods for anodic oxide films. J. Herenguel and R. Segond. Materials & Methods 22:1508+ N '45

Engineering an anodizing installation. R. S. Herwig. diag Metal Finishing 44:423-5 O '46

Modified chromic acid anodizing process for aluminum. C. J. Slunder and H. A. Pray. bibliog Ind & Eng Chem 38:592-6 Je '46; Same. Metal Finishing 44:479-83 N '46

Motor-driven automatic timer matches generator voltage with process cycle; power for anodizing. A. R. Wismer. il diag Power 90:161-3 Mr '46

ALUMINUM—Protection—*Continued*
Nature of the anodic oxidation film. A. Portevin. il Metal Prog 49:975-6 My '46
Oxide coatings on metals; abstract. A. G. Samartsev. Chem & Eng N 24:1123 Ap 25 '46
Performance and structure of anodic coatings on aluminum. F. Keller and J. D. Edwards. il Iron Age 156:75-8 N 22 '45
Process control for anodizing aluminum; reference book sheet. Am Mach 89:137, 139 D 6 '45
Protecting aluminum; M.B.V. process. Automobile Eng 36:296 Jl '46
Throwing power of anodizing baths; device for visually determining corrosion protection; can be applied to measure throwing power of plating baths. R. S. Herwig and A. Leigh. il diags Iron Age 156:51-3 D 20 '45

See also
Aluminum—Finishing

Bibliography

Literature on anodic coatings. Metal Finishing 43:456 N '45

Patents

Anodizing aluminum; patent history and digest. G. B. Hogaboom. Metal Finishing 43: 500-3 D '45

Testing

Chemical propellants; corrosion and stability studies. F. Bellinger and others. bibliog il diags Ind & Eng Chem 38:310-20 Mr '46

Textile uses

Aluminum; new waterproof yarn. il Textile Col 68:20-1+ S '46
Dobeckmun shows aluminum plies and twists. il Rayon 27:523 O '46

Therapeutic use

See Aluminum, Powdered—Therapeutic use

Uses

Aluminum blast furnace tuyeres; studies conducted in Japan, Germany, England and France since 1920. R. Guillemot. il diags Iron Age 158:68-70 O 10 '46
New alloys, techniques expand markets for aluminum after war. Iron Age 157:143-4 Ja 10 '46
Piano strung on aluminum instead of iron. il Bsns W p58 N 10 '45
Postwar horizons for aluminum. F. Keller. il Min & Met 27:431-3 Ag '46

Welding

Application of capacitor discharge to welding. H. J. Bichsel and J. R. Parsons. il diags Welding J 24:1035-9+ N '45; Discussion. 25:144-5 F '46
Arc welding pure aluminum; abstract. F. H. Keating. Materials & Methods 22:1836+ D '45
Carbon-arc welding for high-strength design; aluminum alloys. diags Iron Age 157:54 My 2 '46
Corrosion resistance of aluminum welds in nitric acid; abstract. R. B. Khmel'nitskaya. Welding J 25:sup162 Mr '46
Corrosion tests of multi-arc welded high-strength aluminum alloys. L. W. Smith. bibliog il diag Electrochem Soc Trans 89 (preprint 28):343-63 '46
Effects of corrosion on spot welded 75ST Alclad alloy. M. L. Ochieano. il Product Eng 17:126-8 O '46
Electric resistance brazing of structural aluminum alloys. W. F. Hess and E. F. Nippes. il Welding J 25:sup193-200 Ap '46
Flash welding of Alclad 24S-T alloy in the 0.064-in. thickness. W. F. Hess and F. J. Winsor. il Welding J 25:sup9-20 Ja '46
Floating aluminum bridges welded by carbon arc process. W. J. Conley. il Civil Eng 15: 561-2 D '45; Same. Materials & Methods 22: 1423-5 N '45
Gas-shielded arc welding of aluminum; use of atomic hydrogen, helium and argon. A. F. Leach. il diags Welding J 24:1129-34 D '45
Heat treating, forming, and welding 75S Alclad. M. Raskin. il diags Iron Age 156:62-3 D 13 '45
High-speed spotwelding. B. Gross. il Iron Age 157:52-5 F 21 '46
How to pressure-weld hollow parts; cooler elements for German aircraft engines. diags Am Mach 90:110-12 O 10 '46
How to weld aluminum. il Iron Age 157:50-5 Je 20; 60-4 Je 27; 158:67-71 Jl 4; 53-7 Jl 11 '46
Interpretation of radiographs of spot welds in Alclad 24S-T and 75S-T aluminum alloys. R. C. McMaster and F. C. Lindvall. bibliog il Welding J 25:707-23 Ag '46; Abstract. Steel 119:104-7 O 14 '46
Investigation of current wave-form for spot welding Alclad 24S-T,0.020 in. in thickness. W. F. Hess and others. il Welding J 25: sup20-9 Ja '46
Investigation of electrode pressure-cycles and current wave-forms for spot welding Alclad 24S-T. W. F. Hess and others. bibliog il diags Welding J 25:sup148-62 Mr '46
Investigation of the effect of spot welding on the sheet efficiency of aluminum alloy 24S-T. W. F. Hess and others. il diags Welding J 25:sup288-306, sup361-75 My, Jl '46
Investigation of the fatigue strength of spot welds in the aluminum alloy Alclad 24S-T. W. F. Hess and others. bibliog il Welding J 25:sup344-58 Je '46
Investigation of the spot welding of aluminum alloys using magnetic energy storage equipment provided by the Sciaky brothers. W. F. Hess and others. diags Welding J 24:sup629-43 D '45
Pressure welding; abstract. R. F. Tylecote. Mech Eng 68:361-2 Ap '46
Pressure welding thin aluminum parts. H. E. Linsley. il diags Iron Age 158:56-60 Ag 8 '46
Pre-welding treatment for aluminum. B. B. Button. il Steel 118:132+ Mr 18 '46
Procedures in aluminum welding. diags Aero Digest 51:60-1 D 15 '45
Radiography of spot welds in light alloy and ferrous sheet materials. R. C. McMaster and F. C. Lindvall. il Welding J 25:851-60 S '46
Some observations of spot-weld consistency in aluminum alloys. W. F. Hess and others. bibliog il Welding J 25:sup201-22 Ap '46
Spot weld strengths and structures of 75ST Alclad aluminum alloy. M. L. Ochieano. il diags Product Eng 17:102-5 S '46
Spot welding of dissimilar thicknesses of Alclad 24S-T. W. F. Hess and others. il Welding J 24:sup667-72 D '45
Spot welding of heavier gages of aluminum alloy; instruments for rapid measurement of current and tip force. R. C. McMaster and N. A. Begovich. il diags Welding J 24:sup644-52 D '45
Spot welding of multiple thicknesses of 0.040-in. Alclad 24S-T. W. F. Hess and others. il diags Welding J 25:sup413-24 Jl '46
Spot welding of ten aluminum alloys in the 0.040-inch gage including XB75S-T (bare and Alclad), R-301-T, Alclad 24S-T81, 24S-T (bare and Alclad), 3S-½H, 14S-T, 52S-½H and 61S-T. W. F. Hess and others. bibliog il diags Welding J 25: sup467-84 Ag '46
Spot welding of wire-brushed 24S-T Alclad aluminum alloy sheets in thicknesses from 0.081 to 0.125 in., inclusive. Welding J 24: sup652-67 D '45
Surface preparation of aluminum alloy sheet for spot welding. R. A. Wyant and others. bibliog Welding J 25:sup65-76 F '46
Tension tests of single-row spot-welded joints in 24S-T Alclad aluminum alloy sheet. R. Della-Vedowa. il diags Welding J 25:sup115-22 F '46; Discussion. A. R. Hard. 25:sup339+ Je '46
Welded aluminum alloy tank cars. A. H. Woollen. Welding J 25:129-30 F '46

See also
Aluminum—Joining to steel, etc.

ALUMINUM, Molten
Influence of the modifier on the nature of aluminum alloys; effect of sodium on viscosity. G. Akimow. Metal Prog 49:973-4 My '46
Viscosity of molten aluminum and its alloys. G. Akimow. diag Metal Prog 49:99 Ja '46

ALUMINUM, Powdered
Aluminum powder production; methods at Reynolds metals co. G. W. Birdsall. il Steel 118:82-5+ Ja 14 '46

Therapeutic use

Aluminum in the prevention and treatment of silicosis; American medical association report; abstracts. J Ind Hygiene 28:sup83 Jl '46; il Safety Eng 91:73 Je '46
Aluminum therapy for silicosis; abstract. D. R. Johns and S. J. Petronella. bibliog Ind Med 14:sup40+ N '45
Industrial health; aluminum therapy treatment for silicosis; compensation insurance rates; abstract. T. C. Waters. Rock Prod 49:124+ Je '46
Know-how in fighting silicosis with aluminum. A. W. Jacob. bibliog il plan diags Eng & Min J 147:70-5 Mr '46
Utilization of aluminum in the prevention and treatment of silicosis. J. W. G. Hannon. Ind Med 15:527-8 S '46

ALUMINUM, Structural
All-aluminum houses and latrines for the Puerto Rican government. il Eng N 137: 135 Ag 1 '46
Aluminum bonded to cellulose core forms new building material; Reynalite. Mach 52: 163 Jl '46
Aluminum co. of America office building in New York to feature new type of aluminum construction. il Chem & Eng N 24:1212 My 10 '46
Aluminum on Park avenue; Alcoa plans aluminum-faced building. il Arch Forum 84:10 My '46
Aluminum prefab house placed on exhibit. il diag Eng N 137:479 O 10 '46
Aluminum sheathed panel, successor to wartime steel model, used in Federal telecommunications laboratories, Nutley, N.J. il diag Arch Forum 84:159 F '46
Aluminum substation structure for eased upkeep and safety. D. R. Pattison and F. Burhenn. il diags Elec World 126:46-8 Ag 3 '46
Builders use new aluminum siding and roofing. il Am Bld 68:103 S '46
Design data of Alcoa aluminum alloy 61S-T used for substation-structure members. diags Elec World 126:84 Ag 3 '46
Electric resistance brazing of structural aluminum alloys. W. F. Hess and E. F. Nippes. il Welding J 25:sup193-200 Ap '46
Engine house gets aluminum roof trusses. il diag Ry Age 121:362-3 Ag 31 '46
Honeycomb house displayed by Lincoln brothers, Marion, Va; aluminum panels with paper-plastic core. Bsns W p66-8+ My 25 '46
Knock-down all-aluminum bodies developed by Reynolds for trucks. diags Automotive & Aviation Ind 95:44+ O 1 '46
Making aluminium houses; electrical aids to large-scale flow production. il Elec R (Lond) 138:975-7 Je 21 '46
Metalumber aluminum for hatch covers; hollow interlocking extrusions reinforced and filled with noncombustible insulation. Marine Eng 51:148 My '46
Plastic-aluminum houses. il Mech Eng 68:898 O '46
Sandwich-type shear panels of wood-aluminum construction. H. Langhaar and R. Fefferman. il diags Product Eng 16:841-4 D '45
Structural plastics in low-cost housing; panels of aluminum skinned expanded paper core plastic material. il Mod Plastics 23:114-15 Jl '46

See also
Bridges, Aluminum
Roofs, Aluminum

Testing

Observations on the behavior of aluminum alloy test girders. R. L. Moore. bibliog il diags Am Soc C E Proc 72:729-48 Je '46

ALUMINUM alloys
Aging heat treatments of 75S aluminum. F. R. Kostoch. Iron Age 158:49 Ag 15 '46
Aging of high purity aluminum alloy containing 4 pct Cu; abstracts. M. L. V. Gayler Iron Age 158:45 O 31 '46; Engineer 182:281 S 27 '46; Engineering 162:306 S 27 '46; Discussion. Engineer 182:281 S 27 '46; Engineering 162:306 S 27 '46
Aluminum alloy bearings for heavy-duty applications. H. R. Clauser. il Materials & Methods 24:633-6 S '46
Aluminum alloy for bearings; abstract. Materials & Methods 23:1072 Ap '46
Aluminium alloys for engineering purposes; abstract. H. K. Hardy. Electrician 137:802 S 20 '46
Aluminum bearings; abstract. A. Deck. il diags Product Eng 17:128-30 F '46
Aluminum bearings for Caterpillar engines. G. B. Grim. il Automotive & Aviation Ind 95:28-9+ N 1 '46
Aluminum pallets. il Mech Eng 68:650 Jl '46
Aluminum spring may be the answer. A. Gelb. il Machine Design 18:137-40+ My '46
Annealed aluminum alloys respond to hot forming. G. Sachs and others. il diags Am Mach 89:91-5 N 8; 114-17 N 22; 98-100 D 6 '45
Bath to electrobrighten aluminum-silicon alloys. Elec World 125:132+ My 11 '46
British practice in heat treatment of wrought aluminum alloys; abstract. E. R. Yarham. Materials & Methods 23:1090+ Ap '46
Brittle failure of hogged-out fittings from 14 S-T billets. G. Brewer and H. C. Ihsen. il diags Metal Prog 49:566-70 Mr '46; Discussion. L. W. Davis. 50:308-9 Ag '46
Characteristics of aluminum bearings. N. E. Woldman. bibliog il Iron Age 158:60-4 S 12 '46
Control of internal stresses in heat-treated aluminium alloy parts; abstracts and discussion. L. E. Benson. Engineer 182:281-2 S 27 '46; Engineering 162:306 S 27 '46
Die casting; materials used. H. Chase. Materials & Methods 22:1444-6 N '45
Drawability of aluminum alloys at elevated temperatures. D. M. Finch, S. Wilson and J. E. Dorn. diag Iron Age 157:70-3 F 14 '46
Early aluminum alloys; metallurgical studies from both British and German rigid airships. K. J. B. Wolf. il Iron Age 156:51-5 D 27 '45
Effect of stresses on fatigue of aluminum alloys; abstract. G. Forrest. Materials & Methods 23:1356+ My '46
Electroplating of aluminum and its alloys. M. Raskin. flow chart il Metal Finishing 44:337-9 Ag '46
Evaluation of aeroplane metals. J. A. Van Den Broek. il diags Roy Aeronautical Soc J 50:811-28 O '46
Fabricating high-strength aluminum alloys. R. A. Miller and M. E. Tatman. Iron Age 156:40-4 D 27 '45
Featherweight structural material; Metalite, a metalfaced sandwich. Chem & Eng N 24: 830 Mr 25 '46; diag Iron Age 157:45 My 30 '46
Forging aluminium alloys. Chem Age (Lond) 54:19 Ja 5 '46
German practice in solution heat treatment of rolled aluminum alloys. W. Lott. il Materials & Methods 23:429-31 F '46
Handy convertible etch for aluminum alloys. L. J. Barker. Metal Prog 49:752 Ap '46
Heat treating aluminum. G. W. Birdsall; O. L. Mitchell. il Steel 119:98-9+ Ag 19; 78-9+ Ag 26; 102-4+ S 2; 118-20+ S 9; 103-4+ S 16 '46
Heat treating aluminum alloys; abstract. W. D. Robertson. Materials & Methods 23:230+ Ja '46
High silicon aluminum alloys; abstract. F. A. Allen. Materials & Methods 22:1800+ D '45
High temperature oxidation in aluminum alloy forgings. L. J. Barker. il Iron Age 157: 60-5 My 9 '46
Important engineering data on aluminum alloy bearings for engines. D. B. Wood. il Automotive & Aviation Ind 94:26-30+ Je 1 '46
Improved treatments of aluminum alloys. M. E. Tatman. il Metal Prog 49:323-7 F '46
Influence of different factors on buckling loads of curved thin aluminum-alloy sheets for monocoque constructions. G. Welter. il J Aeronautical Sci 13:204-8+ Ap '46

ALUMINUM alloys—*Continued*
Influence of quenching temperature on corrosion resistance of aluminum-zinc-magnesium forging alloy; abstract. W. Bungardt. Metal Prog 49:1028+ My '46
Influence of the modifier on the nature of aluminum alloys; effect of sodium on viscosity. G. Akimow. Metal Prog 49:973-4 My '46
Light metals in hoisting equipment; abstract. A. G. Arend. Product Eng 17:116 S '46
Metallographic examination discloses causes of machining difficulties. N. R. Cusworth and others. il Materials & Methods 23:434-7 F '46
Metallurgy; wartime developments being integrated with peacetime production. J. Z. Briggs. Iron Age 157:129+ Ja 3 '46
Miss Alumette; lady with a future; experimental aluminum hull. D. MacIntyre. il Marine Eng 51:158+ Ap '46
Nondimensional buckling curves, their development and application. F. P. Cozzone and M. A. Melcon. bibliog J Aeronautical Sci 13:511-17 O '46
Opportunity for light metals. Economist 150: 60-1 Ja 12 '46
Poisson's ratio of some structural alloys for large strains. A. H. Stang and others. bibliog pl J Res Nat Bur Stand 37:211-21 O '46
Postwar horizons for aluminum. F. Keller. il Min & Met 27:431-3 Ag '46
Precipitation-hardened aluminum-zinc-magnesium-copper forging alloys; abstract. K. L. Dreyer and H. J. Seemann. Materials & Methods 24.964 O '46
Properties and limitations for stepped and tapered extrusions. W. H. Arata. diags Product Eng 17:487-91 Je '46
Refrigerated aluminum trailer. il Automobile Eng 36:135-6 Mr '46
Refrigerating aluminum; abstract. M. L. Rask. Materials & Methods 23:244+ Ja '46
Shear properties of metals and alloys; engineering file facts. R. S. Burpo, jr. comp. Materials & Methods 23:1617, 1619 Je '46
Tank quenching of heat treated aluminum; abstract. Metal Prog 49:180+ Ja '46
Utilization of new high strength aluminum alloys; abstract. J. F. McBrearty. Automotive & Aviation Ind 94:34-5 Ja 15 '46
Velocity of dilatation and Rayleigh waves in metal bars. J. H. McMillen. il diags Acoustical Soc Am J 18:190-9 Jl '46
Viscosity of molten aluminum and its alloys. G. Akimow. diag Metal Prog 49:99 Ja '46
What to expect of high strength aluminum alloys. R. A. Miller and M. E. Tatman. Automotive & Aviation Ind 93:18-21+ D 15 '45
Wrought aluminum alloys; a guide to their selection. O. L. Mitchell. il Materials & Methods 23:447-66 F '46
See also
Alclad
Alnico
Aluminum bronze

Analysis

Determination of magnesium in aluminum alloys. H. C. Deterding and R. G. Taylor. bibliog Ind & Eng Chem Anal ed 18:127-9 F '46
Distinguishing the common aluminum alloys. V. H. Patterson. Metal Prog 49:346-7 F '46
High speed spectrography. L. E. Owen. il Iron Age 158:50-3 Ag 8; 61-4 Ag 15 '46
Polarographic analysis of zinc in aluminum alloys. F. R. De Paola. il Iron Age 158:36-40 O 3 '46
Rapid photometric determination of iron in aluminum alloys. M. S. Pepi. bibliog Ind & Eng Chem Anal ed 18:111-12 F '46

Testing

Aluminum alloys for high duty engine bearings. H. Y. Hunsicker and L. W. Kempf. il Diesel Power 24:856-63 Jl '46; Same abr. S A E J 54:51-3 O '46; Excerpt. Automotive & Aviation Ind 95:36-7; Discussion. E. L. Dahlund. 37+ Jl 1 '46
Autographic method for obtaining load-extension records of high-speed tensile tests on sheet specimens at elevated temperatures. A. E. Flanigan and others. il diags J Aeronautical Sci 13:405-9 Ag '46
Cast-to-size impact specimens for aluminum sand casting alloys. R. A. Quadt. il Am Soc T M Proc 45:705-10 '45
Circular bulging of aluminum-alloy sheet at room and elevated temperatures. G. Sachs and others. il diags A S M E Trans 68:161-73 F '46
Damping capacity and the fatigue of metals. R. F. Hanstock and A. Murray. il diags Engineering 161:358-60, 381-3 Ap 12-19 '46; Discussion. Engineer 181:284-5 Mr 29 '46
E type test piece; abstract. diags Product Eng 17:120 S '46
Effect of aging on mechanical properties of aluminum-alloy rivets. F. C. Roop. bibliog(39 titles) diags U S Nat Advisory Com for Aeronautics 1941:353-69 '42; Excerpts. Materials & Methods 23:514+ F '46
Effect of bend width upon minimum bend radii. G. Gerard. bibliog il diags J Aeronautical Sci 13:161-70 Ap '46
Effect of notches on static and fatigue strength. D. W. Drake. bibliog il diags J Aeronautic Sci 13:259-69 My '46
Effects of temperature on physical properties of aluminum alloy sheet; abstract. A. E. Flanigan, L. F. Tedsen and J. E. Dorn. Iron Age 158:75-6 Jl 4 '46
Failure of ductile metals in tension. G. Sachs and J. D. Lubahn. bibliog diag A S M E Trans 68:271-6 My '46
Fluoroscopy of light-alloy castings. B. Cassen and D. S. Clark. il diag Iron Age 156: 54-9 N 1 '45; 157:48-50 Ap 18 '46; Same cond (pt 1). Automotive & Aviation Ind 94:26-30+ Ja 1 '46
Instability of thin-walled tubes subjected to internal pressure. G. Espey. A S M E Trans 68:281-5 My '46
Necking of tensile-test specimens. J. D. Lubahn. A S M E Trans 68:277-9 My '46
Reaction of an aluminium-magnesium alloy with water vapour, and the absorption of hydrogen. R. Eborall and C. E. Ransley. il diag Engineering 161:428-32, 438-9 My 3-10 '46; Discussion. 161:305 Mr 29 '46; Engineer 181:309 Ap 5 '46
Reversed stress testing of piston materials at high temperatures to determine their usefulness. K. Wellinger and G. Staehli. diags Automotive & Aviation Ind 94:20-3+ F 15 '46
Some experiments on the effects of residual stresses on the fatigue of aluminum alloys; summaries and discussion. G. Forrest. Engineering 161:280-1 Mr 22 '46; Engineer 181: 285 Mr 29 '46
Strain analysis by photogrid method. W. F. Brown, jr. and M. H. Jones. il Iron Age 158:50-5 S 12 '46
Symposium on notch effects in high-strength aluminum alloys. L. Schapiro and others. il diags J Aeronautical Sci 13:391-404 Ag '46
Tensile properties affecting the formability of aluminum-alloy sheet at elevated temperatures. A. E. Flanigan and others. bibliog il diag J Aeronautical Sci 13:457-68 S '46

ALUMINUM bridges. See Bridges, Aluminum

ALUMINUM bromide
Isomerization of *n*-butane catalyzed by aluminum bromide; effect of oxygen and other promoters on the reaction. A. G. Oblad and M. H. Gorin. bibliog Ind & Eng Chem 38:822-8 Ag '46

ALUMINUM bronze
Aluminum bronze and corrosion. Oil & Gas J 45:153 My 18 '46
Aluminum-bronze permanent mold castings. B. Johnson. il Iron Age 157:80-3 Ap 4 '46
Eliminating brittleness in aluminum-silicon-bronze hydraulic sleeves for aircraft. L. J. Barker. il Automotive & Aviation Ind 94: 34-5 Ap 1 '46
Precision casting heat-treatable copper-base alloys; microstructures. H. Rosenthal and others. il Iron Age 158:48-54 S 19 '46

ALUMINUM bronze—*Continued*
Resistance to corrosion by sea-water of some α-tin and α-tin-aluminium bronzes; abstracts. J. W. Cuthbertson. Engineering 162: 270 S 20 '46; Engineer 182:295-6 O 4 '46; Discussion. Engineering 162:329 O 4 '46

ALUMINUM chloride
Addition of primary and secondary amines to ethylenimine in the presence of aluminum chloride. G. H. Coleman and J. E. Callen. bibliog Am Chem Soc J 68:2006-7 O '46
Comparison of zirconium tetrachloride with aluminum chloride as a Friedel-Crafts catalyst. H. W. Heine, D. L. Cottle and H. L. Van Mater. Am Chem Soc J 68:524 Mr '46
Conversion of *n*-heptane to isobutane; metal-aluminum chloride catalysts. O. Grummitt, E. N. Case and C. V. Mitchell. bibliog Ind & Eng Chem 38:141-4 F '46
Isomate process. J. E. Swearingen, R. D. Geckler and C. W. Nysewander. diags Am Inst Chem Eng Trans 42:573-91 bibliog(p591) Ag '46; Same cond. flow sheet flow diag il Pet Processing 1:140+ O '46; Discussion. Am Inst Chem Eng Trans 42:592-3 Ag '46
Isomerization of light hydrocarbons. S. F. Perry. flow plans Am Inst Chem Eng Trans 42:639-46 Ag '46
Liquid-phase isomerization of normal paraffins using a fluid salt catalyst. S. H. McAllister and others. bibliog flow diag il Am Inst Chem Eng Trans 42:33-52; Discussion. 53 F '46
Shell vapor-phase isomerization process for the production of isobutane. H. A. Cheney and C. L. Raymond. bibliog flow diag il Am Inst Chem Eng Trans 42:595-609 Ag '46

ALUMINUM clad steel. See Steel, Aluminum clad

ALUMINUM coating
Aluminum coating in television tube. Gen Elec R 49:54 Je '46

ALUMINUM company of America
Alcoa grants RFC royalty free patent rights in bauxite extraction. Iron Age 157:104 Ja 17 '46
Alcoa, with eye on government, grids for new domestic and future Canadian competition. T. E. Lloyd. il Iron Age 158:98-9+ O 3 '46
Aluminum reborn; four days shook aluminum into a raucous new industry. il map Fortune 33:102-9+ My '46
Davis replies to Justice dept. attack on Alcoa; abstracts. Iron Age 156:119-20 D 6 '45; Steel 117:91 D 10 '45
Nonferrous metals, present and future. C. T. Post. il Iron Age 157:86-90+ Ja 3 '46
Patent pact; Aluminum co. gives Reconstruction finance corp. free use of patents. Bsns W p35 Ja 19 '46
Perkin medal presented to Francis C. Frary; achievements of the medalist. W. N. Jones. Ind & Eng Chem 38:127-8 F '46

ALUMINUM company of Canada
Canadian Aluminum price cut may capture world market. Iron Age 157:119 My 9 '46

ALUMINUM foil
Aluminum foil now available to standardize Mullen tester. Paper Tr J 122:28 My 16 '46; Same. Paper Ind 28:63 Ap '46
Foil bread wrappers, trial runs and storage tests. il Mod Packaging 19:110-11 Ja '46
Foil for freezers; a single-unit container. il Mod Packaging 19:101-3 Ap '46
Foil label; for canned food, beverages, etc. il Mod Packaging 20:91-5 O '46
Foil package extends merchantable life of peas. C. A. Sumner. il Food Ind 18:1538-9+ O '46
Influence of an interior coating of aluminum paper on internal thermal conditions and heat economy. R. J. Lorenzi and others. Heating-Piping 18:109-14 Ap '46
Molded and wrapped in one operation; Lorophyn suppositories. C. Weckesser. il plan Mod Packaging 19:100-2 Je '46
Silver cleaner; foil packet acts as catalyst; Dippo. il Mod Packaging 19:153 Mr '46

ALUMINUM founding
Aluminum alloy die casting; A.F.A. report. Iron Age 157:60 My 16 '46
Aluminum Alloys foundries equipped for large scale production; Aluminum alloys corp. J. Geschelin. il Automotive & Aviation Ind 94: 28-32 F 1 '46
Aluminum and magnesium sessions draw large crowds; American foundrymen's association. Foundry 74:152+ Je '46
Aluminum casting; shipments for 1945 summarized. Foundry 74:254 O '46
Aluminum casting stability; abstract. Materials & Methods 23:1648 Je '46
Aluminium castings; design points. E. G. West. Automobile Eng 36:54 F '46
Aluminum die castings; abstract. E. Carrington. Materials & Methods 23:1656 Je '46
Aluminum foundries raise casting quality. L. W. Eastwood. il Foundry 74:82-7+ Ja '46
Aluminum sand castings il Steel 119:80-2+ Ag 12 '46
Cast-to-size impact specimens for aluminum sand casting alloys. R. A. Quadt. il Am Soc T M Proc 45:705-10 '45
Centrifugal casting aluminum wheels; abstracts. L. Northcott and O. R. J. Lee. Metals & Alloys 22:494 Ag '45; Metal Prog 48:1128 N '45
Controlling aluminum melting temperature. W. H. Gunselman. Foundry 74:91+ Jl '46
Die casting outboard motor parts; Johnson motors. H. Chase. il Iron Age 158:50-3 Ag 15 '46
Expansion in die casting; Cleveland hardware and forging co. J. Parina, jr. il Steel 118: 96-7+ F 11 '46
Fluxing molten aluminum with dry nitrogen. P. M. Hulme. il Materials & Methods 22: 1435-8 N '45
Gravity die casting from the engineer's viewpoint. M. R. Hinchcliffe. il Engineering 161: 45-8 Ja 11 '46
Hot-tearing tendencies of aluminium casting alloys; abstracts and discussion. D. C. G. Lees. Engineer 182:250-1 S 20 '46; Engineering 162:305 S 27 '46
Jack and Heintz lightweight motors built of large aluminum die castings. K. Rose. il Materials & Methods 24:83-6 Jl '46
Light alloy castings; abstract. G. M. Young. Materials & Methods 24:174+ Jl '46
Light alloy founding; abstract. E. W. Fell. Materials & Methods 24:446 Ag '46
Making cored aluminum castings. E. Bremer. il Foundry 74:97-8+ Mr '46
Permanent mold aluminum castings. H. Brown. il Steel 118:124-6 Mr 4 '46
Permanent mold casting of aluminum alloys. Foundry 74:288 My '46
Permanent mold casting of aluminum alloys; tips on gates and risers. S. Frankel. il Materials & Methods 23:1626 Je '46
Permanent-mold casting of pistons by Chrysler's high-production methods. C. H. Wick. il plan Mach 53:148-57 N '46
Permanent mold castings offer production economies. W. F. Schleicher. il Iron Age 158:42-5 O 3 '46
Permanent molds for casting aluminum. V. J. Sedlon. il Foundry 74:82-4+ Ag '46
Sand cast and permanent-mold cast aluminum alloy parts; with cost data. W. J. Klayer. il diags Product Eng 17:81-5 O '46
Semi-continuous casting; abstract. W. M. Doyle. Metal Prog 48:1142+ N '45
Sodium silicate sealing of aluminum castings. Iron Age 157:63 Ja 10 '46
Vacuum permanent mold casting. J. W. Wheeler. il Foundry 74:90-3+ Je '46
Wartime expansion in light-metal foundries. Foundry 74:138, 141 F '46
See also
Aluminum bronze

ALUMINUM freight cars. See Freight cars, Aluminum

ALUMINUM greases. See Lubricating greases

ALUMINUM halides
Isomerization of alkanes; effect of olefins upon the isomerization of *n*-butane in the presence of aluminum halide; hydrogen halide catalyst. H. Pines and R. C. Wackher. bibliog diags Am Chem Soc J 68:595-9 Ap '46

ALUMINUM halides—*Continued*
Isomerization of alkanes; effect of oxygen upon the isomerization of *n*-butane and *n*-pentane in the presence of aluminum bromide and aluminum chloride. H. Pines and R. C. Wackher. diag Am Chem Soc J 68: 599-605 Ap '46
Isomerization of alkanes; the water-aluminum halide reaction and isomerization of *n*-butane with the reaction product. R. C. Wackher and H. Pines. Am Chem Soc J 68:1642-6 Ag '46

ALUMINUM hydroxide
Adventures with alumina. F. C. Frary. il Chem & Ind p 14-16 Ja 12 '46; Same. Ind & Eng Chem 38:129-31 F '46

ALUMINUM industry and trade
Aluminum industry makes ready for peace demands. il Manuf Rec 115:44-6+ Ap '46
Aluminum producers plan drive for broader market during 1946. Steel 118:420 Ja 7 '46
Aluminum production increase seen. Iron Age 157:136-40 Ja 17 '46
Aluminum race; Reynolds leases government plants. Bsns W p59 Mr 9 '46
Aluminum reborn; four days shook aluminum into a raucous new industry. il map Fortune 33:102-9+ My '46
Aluminum shows growth in new markets. J. V. Sherman. Barron's 26:9 S 9 '46
Excess capacity vs. expansion; six industries. J. D. C. Weldon. Mag of Wall St 78:623 Ag 31 '46
How to utilize surplus capacity is postwar problem. R. L. Sebastian. Min & Met 27: 124-5 F '46
Nonferrous metals, present and future. C. T. Post. il Iron Age 157:86-90+ Ja 3 '46
Peace demands for aluminum expand. D. L. Schooley. il Dom Comm 34:27-30 Ap '46
Postwar aluminum; abstract. N. H. Engle. map Chem & Met Eng 52:272+ N '45
Predicts optimistic future for light metals industry. W. B. Griffin. Ind Marketing 31: 151-3 S '46
Reynolds plans for civilian production. il Manuf Rec 115:43+ F '46
Trends in the light metals. J. H. Weitz. il Min Cong J 32:61-2 F '46
Wartime expansion in U.S. aluminum capacity to be 50 pct surplus. Iron Age 156:136+ N 15 '45

See also
Aluminum ware

Statistics

Aluminum output fell 36 per cent in 1945 as war production declined. Iron Age 158:156+ S 26 '46
War-time aluminum statistics. M. D. Goldstein. diag Am Stat Assn J 41:34-52 Mr '46

Great Britain

Opportunity for light metals. Economist 150: 60-1 Ja 12 '46
Post-war aluminum policy. Economist 151:311 Ag 24 '46

Switzerland

Swiss aluminum plants shut down because of alumina shortages. Iron Age 157:107 My 23 '46

Western states

Possibilities for Pacific aluminum; abstract. J. D. Sullivan. Chem & Met Eng 52:258+ N '45

ALUMINUM metallurgy
Alumina produced from Northwest clay; Chemico process tested in experimental plant at Salem, Ore. J. R. Callaham. flow sheet il Chem & Met Eng 52:108-9 D '45
Aluminum issue; whether to maintain plants for extraction of alumina from domestic clays. Bsns W p26+ S 14 '46
Concentration of bauxite for milling in the 50-ton Bureau of mines pilot plant, Bauxite, Ark. S. M. Runke and R. G. O'Meara. pl U S Bur Mines Rep of Invest 3909:1-25 '46
Control of gelation in extraction of alumina from lime-soda-clay sinters. G. Ervin, jr. and others. bibliog 2pls U S Bur Mines Rep of Invest 3923:1-16 '46
Extraction of alumina from clay; sulfite-sulfate process. O. Redlich and others. bibliog flow sheets diag Ind & Eng Chem 38: 1181-7 N '46
Extraction of alumina from clays and high-silica bauxites. E. P. Flint and others. bibliog flow sheets J Res Nat Bur Stand 36:63-106 Ja '46
Extruding aluminum at Reynolds Metals. G. W. Birdsall. il Steel 117:123-4+ D 3 '45
Fluxing molten aluminum with dry nitrogen. P. M. Hulme. il Materials & Methods 22: 1435-8 N '45
German methods for refining aluminum airplane scrap. Iron Age 158:54 O 17 '46
Growth of light metals assured; tonnages uncertain. J. L. Head. il Eng & Min J 147:98-100 F '46
Light metal alloys; degassing by sonic vibrations; abstract. W. Esmarch, T. Rommel and K. Benther. Automobile Eng 36:41 Ja '46
Production of alumina in war time; lessons from American and German practice. flow sheets Chem Age (Lond) 54:573-6 My 25 '46
Recovery of soda in the lime-soda sinter process for the production of alumina. J. M. Hall and S. J. Green. flow sheet il diags Am Inst Chem Eng Trans 41:483-517 O '45
System sodium carbonate—sodium sulfate—sodium hydroxide—water at 100°. S. J. Green and F. J. Frattali. bibliog Am Chem Soc J 68:1789-94 S '46

By-products

Preparation of an active absorbent of hydrogen sulphide from waste oxide of iron. H. K. Whalley. diag Soc Chem Ind J 65:217-24 Ag '46

Electrometallurgy

Atmospheric concentrations of fluorides in aluminum reduction plants. C. D. Yaffe. il J Ind Hygiene 28:29-31 Mr '46

Patents

Alcoa grants RFC royalty free patent rights in bauxite extraction. Iron Age 157:104 Ja 17 '46

ALUMINUM ores
See also
Alunite
Bauxite

ALUMINUM oxides
See also
Alumina

ALUMINUM plating
Methods of preparation of aluminum for electrodeposition. H. Bengston. flow sheet il Electrochem Soc Trans 88 (preprint 25): 267-79 '45; Same. Metal Finishing 44:202-6+ My '46

ALUMINUM powder. See Aluminum, Powdered

ALUMINUM research
Adventures with alumina. F. C. Frary. il Chem & Ind p 14-16 Ja 12 '46; Same. Ind & Eng Chem 38:129-31 F '46
Perkin medal presented to Francis C. Frary; achievements of the medalist. W. N. Jones. Ind & Eng Chem 38:127-8 F '46

ALUMINUM roofs. See Roofs, Aluminum

ALUMINUM shingles. See Shingles, Aluminum

ALUMINUM silicates
See also
Andalusite
Cordierite
Sillimanite
Spodumene

ALUMINUM sulfate
Surface tension of aluminum sulfate solutions. H. L. Cupples. J Phys Chem 50:256-60 My '46

See also
Alunite

Standards

Tentative standard specifications for sulfate of alumina. Am Water Works Assn J 37: 1387-8 D '45

ALUMINUM therapy. See Aluminum, Powdered —Therapeutic use

ALUMINUM trimethyl
Thermal and photochemical decomposition of gaseous aluminum trimethyl. L. M. Yeddanapalli and C. C. Schubert. bibliog diag J Chem Phys 14:1-7 Ja '46

ALUMINUM tubes. See Tubes, Aluminum

ALUMINUM ware
Combine audio-visual selling with sales manual; Mirro's method of training retail salespeople. R. L. Pritchard. il Ptr Ink 215:46-7 Je 14 '46

ALUMINUM waste
Aluminum chip handling system; Pratt & Whitney aircraft corporation. Mech Handling 33:238-9+ Ap '46
German methods for refining aluminum airplane scrap. Iron Age 158:54 O 17 '46
Navy disposal of aircraft aluminum scrap to produce 15 million lb of secondary metal. E. J. Hardy. il Iron Age 156:104-5 D 20 '45
Navy recovers aluminum and byproducts from wrecked planes. J. Anthony. Iron Age 157:100-1 Ap 11 '46
Navy turns excess aircraft material into secondary aluminum. il Iron Age 157:105 Je 13 '46
Pots from planes; salvaging aluminum from scrapped military planes. J. E. Nichols. il Nat Safety N 54:20-1+ Ag '46
Recovery of metal and other valuable products from aluminum dross. O. C. Garst and others. bibliog U S Bur Mines Rep of Invest 3874:1-43, pl 1-2 '46

ALUMINUM work
Aircraft manufacturing technique applied to bus building; American car & foundry co. R. B. Stubbs. il Mach 52:168-75 D '45
Aluminum brazing development; abstract. L. P. Saunders and P. S. Rogers. Automotive & Aviation Ind 94:37 Je 15 '46
Aluminum spinning. diag Automobile Eng 36:136-7 Mr '46
Annealed aluminum alloys respond to hot forming. G. Sachs and others. il diags Am Mach 89:91-5 N 8; 114-17 N 22; 98-100 D 6 '45
Carbide mills aluminum alloys. G. R. Gwynne. il Am Mach 90:106-7 Je 6 '46
Circular bulging of aluminum-alloy sheet at room and elevated temperatures. G. Sachs and others. il diags A S M E Trans 68:161-73 F '46
Cutting compounds for machining aluminum alloys. Mach 52:168 Je '46
Deep drawing and pressing of aluminum alloys. Engineering 161:261 Mr 15 '46
Development of forgings and stampings. J. T. Robinson. il Steel 118:110-11+ Mr 18 '46
Direct resistance heating method of hot dimpling 75S-T. T. E. Piper and A. Schoellerman. il diags Automotive & Aviation Ind 95:24-6+ S 15 '46
Drawability of aluminum alloys at elevated temperatures. D. M. Finch, S. Wilson and J. E. Dorn. diag Iron Age 157:70-3 F 14 '46
Drawing, stretching, stamping of aluminum. H. L. Smith, jr. il Steel 119:88-90+ Jl 22 '46
18,000-ton forging press; with special forging and heat-treating furnaces, produces magnesium and aluminum alloy forgings; Wyman-Gordon products corp. L. E. Browne. il Steel 118:114-16+ Je 17 '46
Elevated-temperature stretch-flanging of some aluminum alloys. E. G. Thomsen and others. il diags A S M E Trans 68:643-6 Ag '46
Example of mechanical aptitude; sheet metal shop fills hurry-up order for tank top assemblies with shop-made machine; Charles Demuth & sons. il diags Sheet Metal Worker 37:43-5 Mr '46
Extruding aluminum at Reynolds Metals. G. W. Birdsall. il Steel 117:123-4+ D 3 '45
Fabricating aluminum sheet. R. P. Kytle, jr. il Steel 118:92-3+ Mr 11 '46
Fabricating high-strength aluminum alloys. R. A. Miller and M. E. Tatman. Iron Age 156:40-4 D 27 '45
Facing large aluminum castings on a milling machine with a lathe tool. H. A. Schreiber. diag Mach 52:198 Ap '46
Flux bath brazing of aluminum parts. M. Beam. il Steel 117:126-7+ N 12 '45
Forming of aluminium alloys; use of the rubber die press. il diag Chem Age (Lond) 55:137-9 Ag 3 '46
German practice in solution heat treatment of rolled aluminum alloys. W. Lott. il Materials & Methods 23:429-31 F '46
Heat treating, forming and welding 75S Alclad. M. Raskin. il diags Iron Age 156:66-71 D 6; 59-63 D 13 '45
Hints on working aluminum alloys. il Sheet Metal Worker 36:44+ D '45
How to select and work aluminum. C. F. Palmer. il Sheet Metal Worker 37:42-4 Je '46
Lubrication in drawing aluminum. S. Spring. bibliog Steel 117:78-9+ D 24 '45
Machining of aluminum alloys; reference book sheets. L. E. Pennington. diags Am Mach 90:145, 147 Je 6; 161, 163 Je 20; 131, 133 Jl 4; 149, 151 Jl 18 '46
Manual oxyacetylene flame brazing of aluminum, aluminum alloy sheet and subassemblies. F. Clark. il diags Welding J 25:505-13 Je '46
Manufacture and production of aluminium-alloy forgings and stampings; abstract. J. R. Handforth and J. T. Robinson. Engineering 161:138 F 8 '46
Mechanical properties of flush-riveted joints. W. C. Brueggeman and F. C. Roop. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:467-95 '41
Metal flow and fillet formation in brazing aluminum. M. A. Miller. bibliog il diags Welding J 25:sup102-14 F '46
Metallographic examination discloses causes of machining difficulties. N. R. Cusworth and others. il Materials & Methods 23:434-7 F '46
Nonferrous forgings. C. H. Pihl. il diags Steel 118:130-2+ Je 17 '46
Shot peening effect on aluminum; illustrations with text. Iron Age 156:45 D 27 '45
Strain analysis quickly finds formability limits. G. Gerard. il diags Aviation 45:73-5 Ap; 81-2 Je '46
Stretch-forming; Boeing aircraft co. A. Jacobson. il Steel 117:100-1+ D 17 '45
Tensile properties affecting the formability of aluminum-alloy sheet at elevated temperatures. A. E. Flanigan and others. bibliog il diag J Aeronautical Sci 13:457-68 S '46
Upsetting aluminum heads. H. G. Howell. il Steel 119:108-11+ S 23 '46
What to expect of high strength aluminum alloys. R. A. Miller and M. E. Tatman. Automotive & Aviation Ind 93:18-21+ D 15 '45
Wrought aluminum alloys; a guide to their selection. O. L. Mitchell. il Materials & Methods 23:447-66 F '46

See also
Aluminum—Welding
Aluminum founding

ALUMINUM works
Alcoa plans constructing new plate and sheet mill at Davenport. T. E. Lloyd. Iron Age 157:89 My 30 '46
Alumina answer; Hurricane Creek (Ark.) alumina plant and Jones Mill reduction plant leased to Reynolds metals co. Bsns W p31 D 22 '45
Atmospheric concentrations of fluorides in aluminum reduction plants. C. D. Yaffe. il J Ind Hygiene 28:29-31 Mr '46
Disposal of aluminum plants. Chem & Eng N 23:1974 N 10 '45
From aluminum oxide to rolled aluminum sheets; illustrations with text. Mach 52:176-9 Ag '46
Kaiser additions; will lease two government-owned aluminum plants. Bsns W p32 F 16 '46
Kaiser gets five year lease on two Spokane aluminum facilities. Iron Age 157:104 F 28 '46; Steel 118:112-13 Mr 4 '46
Spokane sees prosperous future as aluminum plants are reopened. il Steel 119:38 Jl 1 '46

Employees
Health aspects of aluminum ponton work. F. E. Rieke bibliog Ind Med 14:896-7+ N '45

Safety measures
Pots from planes; salvaging aluminum from scrapped military planes. J. E. Nichols. il Nat Safety N 54:20-1+ Ag '46

ALUMINUM yarn. See Aluminum—Textile uses

ALUMS
Pilot-plant investigations; preparation of alumina from potassium alum. C. T. Baroch and others. bibliog flow sheet pl U S Bur Mines Rep of Invest 3845:1-26 '46

ALUNITE
Alunite at Woodbine-Eagle Ford contact in northeastern Texas. L. W. Stephenson. il Am Assn Pet Geologists Bul 30:1764-70 O '46
White Horse alunite deposit, Marysvale, Utah. M. E. Willard and P. D. Proctor. il maps diags Econ Geol 41:619-43 S '46

AMALGAMATED clothing workers of America
Amish aloof; Mennonites may ballot on unionization at Wilson bros. plants. Bsns W p90+ Je 29 '46
P.A.C. blacklist; Amalgamated's convention turns into political rally. Bsns W p103 My 18 '46

AMALGAMS
Manufacture of per-compounds. Chem Age (Lond) 54:495-6 My 4 '46
Reproducibility of the lead electrode and the electromotive force of the lead strick-lead amalgam cell at 0° to 60° C. R. G. Bates and others. bibliog diags J Res Nat Bur Stand 36:159-70 F '46

AMATEUR radio operators. See Radio operators, Amateur

AMBERLITES
Water treatment with Amberlites. il Water & Sewage 84:50-1 F '46

AMEBA
Spindle twisting in the giant amoeba. R. B. Short. diag Science 102:484 N 9 '45
See also
Amebiasis

AMEBIASIS
Saddest story and greatest proof; death from amebic dysentery, resulting from cross connection. W. R. Stewart. Dom Eng 168:84+ Jl '46
Serodiagnosis of amebiasis. J. F. Kent and C. R. Rein. Science 103:598 My 10 '46

AMEBIC dysentery. See Amebiasis

AMERADA petroleum corporation
Amerada plays them close to the chest. il Fortune 33:128-32+ Ja '46

AMERICA
Trade reconstruction in the Americas. S. Braden. il For Comm W 21:3-4+ D 8 '45

Defenses
Truman urges armed aid for all Americas. Comm & Fin Chr 163:2704 My 16 '46

Yearbooks
Pan American yearbook, 1945; an economic handbook and ready-reference directory of the Western Hemisphere, including a special industries section Who's who in inter-American trade. 829p $5 Macmillan co, 60 5th av, New York 11 '45

AMERICA fore companies
Consolidated analysis of semi-annual statements. F. L. Brokaw. East Underw 47: 21+ Ag 9 '46

AMERICAN academy of arts and sciences
Election of new fellows and honorary members. Science 103:691 Je 7 '46

AMERICAN academy of tropical medicine
Annual meeting, 12th, Cincinnati, Nov. 14. Science 102:583 D 7 '45

AMERICAN airlines, inc.
Annual report. Comm & Fin Chr 163:3125 Je 10 '46
CAB decision on AA-MCA merger will establish important precedent. Aviation N 4:34 N 19 '45
Debentures and preferred stock offered. Comm & Fin Chr 163:3278 Je 17 '46
Merger of AA, MCA meets opposition. Aviation N 4:42 N 12 '45
Stock offered. Comm & Fin Chr 163:1997-8 Ap 15 '46

AMERICAN and British-Commonwealth association
A B C; the work of the American and British-Commonwealth association. W. E. Simnett. Assn of Sp Lib & Inf Bur Proc 1945:43-4

AMERICAN and foreign insurance company
Golden anniversary. Spectator (Property ed) 12:20 S 26 '46

AMERICAN and foreign power company, inc.
Annual report. Comm & Fin Chr 163:3126 Je 10 '46
Earnings on upgrade. Barron's 26:7 O 28 '46
New plan. Comm & Fin Chr 164:1784 O 10 '46
New plan. O. Ely. Pub Util 38:556-7 O 24 '46

AMERICAN association for the advancement of science
AAAS buys Washington building site. il plan Science 103:591-2 My 10 '46
Audit of financial records, 1944. F. R. Moulton. Science 103:250-8 Mr 1 '46
Meeting, St Louis, March 27-29; Science exhibition. Science 103:262-70, 273-9 Mr 1 '46
Meeting, one hundred twelfth, St Louis. Science 103:506-24 Ap 26 '46
Officers, 1946. Science 103:9 Ja 4 '46
112th convention, St Louis. Chem & Eng N 24:1054-7 Ap 25 '46
Program, 9th, Gibson Island conference, June 17-Aug. 23, 1946. Science 103:259-61 Mr 1 '46; Same. Chem & Eng N 24:349-51 F 10 '46
Program of Section K for the St Louis meeting, March 27-30. B. L. Melvin. Science 103:105-6 Ja 25 '46
Revision of the Association's constitution. O. W. Caldwell and others, eds. Science 103: 245-50 Mr 1 '46

AMERICAN association for the promotion of science, literature, and the arts
West Point and the AAAS. S. Forman. Science 104:47 Jl 19 '46

AMERICAN association of advertising agencies
4-A members look ahead to "distribution or bust"; 28th annual meeting, New York. Ind Marketing 31:47+ My '46

AMERICAN association of cereal chemists
Annual meeting, 31st, Niagara Falls, May 13-16. Chem & Eng N 24:1529-30 Je 10 '46; Food Ind 18:892+ Je '46; Can Chem & Process Ind 30:84+ Je '46

AMERICAN association of industrial physicians and surgeons
Annual meeting, 31st. Ind Med 15:479 Ag '46
Certification of physicians and surgeons in industry. E. C. Holmblad. Ind Med 14:921-3 N '45
Occupational medicine; retrospect and prospect. M. N. Newquist. Ind Med 15:509-10 S '46

AMERICAN association of insurance general agents
Annual convention, Atlanta. Nat Underw 50:1+ My 2; 3+ My 9 '46

AMERICAN association of oilwell drilling contractors
Annual meeting, 6th, San Antonio, Oct. 1-2. Oil & Gas J 45:58-9+ O 12 '46; Nat Pet N 38:13 O 9 '46
Field safety program. Pet Eng 17:88 D '45

AMERICAN association of passenger traffic officers
Annual meeting, Chicago, Feb. 14-15. Ry Age 120:404-6 F 23 '46

AMERICAN association of petroleum geologists
Annual meeting, Chicago. Oil & Gas J 44: 78, 83-4+ Ap 6 '46
Annual meeting, 31st, Chicago, April 1-4. Am Assn Pet Geologists Bul 30:738-801 My '46
Membership list. Am Assn Pet Geologists Bul 30:361-454 Mr '46

AMERICAN association of railroad superintendents
Reports of committees. il Ry Age 121:44-7 Jl 13 '46

AMERICAN association of state highway officials
Annual meeting, Oklahoma City, Jan. 29-Feb. 1. Eng N 136:253-4, 358-60 F 14, Mr 7 '46; Concrete 54:2-4+ Mr '46; Roads & Sts 89: 72-4+ Mr '46
Joint cooperative committee, Associated general contractors of America and American association of state highway officials, meeting, Salt Lake City, June 10. Roads & Sts 89:97-8+ Jl '46

AMERICAN association of textile chemists and colorists
One hundred and forty-eighth meeting of the Research committee. Am Dyestuff Rep 35: 494-5 O 21 '46
President's corporate membership dinner. Am Dyestuff Rep 35:90-5 F 25 '46
Victory convention, New York, Jan. 3-5. Am Dyestuff Rep 35:1-42 Ja 14 '46; Chem & Eng N 24:176 Ja 25 '46; Oil Paint & Drug Rep 149:7+ Ja 7 '46; Textile World 96:129+ Ja '46

Laboratories
A.A.T.C.C. laboratories at the Lowell textile institute. il Am Dyestuff Rep 35:319-22 Jl 1 '46

AMERICAN association of university teachers of insurance
Annual meeting, Cleveland, Jan. 25. Nat Underw 50:1+ Ja 31 '46; Nat Underw (Life ed) 50:1+ F 1 '46; Weekly Underw 154:312 F 2 '46

AMERICAN bank note company
Selected companies, with an open road to higher earnings and dividends. Mag of Wall St 77:757-8 Mr 30 '46

AMERICAN bankers association
A.B.A. convention; excerpts from principal addresses. Burroughs Clearing House 31:17-23 O '46
A.B.A. holds executive session and elects new officers. Banking Law J 62:841-58 N '45
A. B. A. works and plans; summaries of departmental reports. M. B. Leach. Banking 39:54-6+ O '46
Annual convention, 72d, Chicago, Sept. 23-25. Banking 39:48-53+ N '46; Comm & Fin Chr 164:1777+ O 10 '46
New officers, pors Burroughs Clearing House 30:3-4 N '45
New president outlines plans. C. W. Bailey. Comm & Fin Chr 164:1790 O 10 '46

Country bank operations commission
Chicago meeting; committee members. Banking 38:54-5 D '45
Plans new projects at Detroit meeting; with list of members. Burroughs Clearing House 30:3 Je '46

Small business credit commission
Accent on competence. Banking 38:118-20 My '46
Banking's own post-war product. J. L. Cooley. Banking 38:38-40+ N '45

Trust division
50th anniversary; with names of past presidents. Trusts & Estates 83:375-7, 378-9 O '46
New officers. Trusts & Estates 83:373-4 O '46
Proceedings of Pacific coast and Rocky Mountain states trust conference, Los Angeles, Aug. 7-9. Trusts & Estates 83:151-8, 161-8, 253-6, 258-66 Ag-S '46
Proceedings of 27th mid-winter trust conference, New York, Feb. 4-6. Trusts & Estates 82:161-216 F '46; Banking 38:38-41 Mr '46

AMERICAN bar association
Push N.A.L.U. and Bar cooperation. Nat Underw (Life ed) 50:1 Jl 26 '46

Insurance section
Annual meeting, Atlantic City, Oct. 28-30. East Underw 47:32 N 1 '46; Nat Underw 50:4+ O 31; 3+ N 7 '46; Nat Underw (Life ed) 50:1+ N 1; 4 N 8 '46; Weekly Underw 155:1066-7 N 2 '46
Annual meeting, Cincinnati, Dec. 16-19. East Underw 46:34-6+ D 21 '45; Nat Underw 49: 3+ D 20 '45; Nat Underw (Life ed) 49:3+ D 21 '45

Real property, probate and trust law sections
Annual meeting, Cincinnati, Dec. 17-18. Trusts & Estates 82:21-105 Ja '46

AMERICAN book center for war devastated libraries, inc.
American book center for war devastated libraries, inc. Science 104:110 Ag 2 '46
American book center for war devastated libraries. K. R. Shaffer. Chem & Eng N 24:2340-1 S 10 '46

AMERICAN brake shoe company
Annual report. Comm & Fin Chr 163:2286 Ap 29 '46

AMERICAN broadcasting company
ABC to offer stock to public, affiliates to aid expansion. Ptr Ink 215:140 My 3 '46
Coming attraction: ABC issue; Edward J. Noble's big plans. Bsns W p46+ Je 29 '46

AMERICAN builder (periodical)
B. H. Wambolt joins staff; Sterling H. Albert becomes eastern editor. Am Bld 68:77 Ag '46

AMERICAN bureau of shipping
Officers elected at 84th annual meeting, New York, Feb. 5. Marine Eng 51:148 Mr '46

AMERICAN buslines
American buslines; what's behind the name. il map Bus Transportation 25:45-7 My '46

AMERICAN by-product coke institute
Annual meeting, 1st, Absecon, N J. June 17-18. Iron Age 157:110-11 Je 27 '46; Chem & Eng N 24:1804 Jl 10 '46

AMERICAN can company
Annual report. Comm & Fin Chr 163:1021 F 25 '46
Financial position, H. S. Coffin. Mag of Wall St 77:631 Mr 2 '46

AMERICAN car and foundry company
Annual report. Comm & Fin Chr 164:550 Jl 29 '46

AMERICAN ceramic society
Abstracts of papers read at annual convention. Cer Ind 46:55-96+ Je '46
Annual meeting, 48th, Buffalo, April 28-May 1. Brick & Clay Rec 108:48-9 Ap; 37-41+ My '46
Annual meeting, 48th, Buffalo; with abstracts of papers. Cer Ind 46:54-6 My '46
Building for the Society. C. F. Tefft. Am Cer Soc Bul 25:17 Ja 15 '46
Ceramic world looks to America. C. F. Tefft. Am Cer Soc Bul 25:151 Ap 15 '46
Corporation members. Am Cer Soc Bul 25: 214-32 Je 15 '46
Forty-eighth annual meeting; officers; photographs; committees; president's report. Am Cer Soc Bul 25:173-90 My 15 '46
Forty-eighth annual meeting program. Cer Ind 46:80+ Ap '46
Forty-eighth annual meeting program; with abstracts of papers and author index. plan Am Cer Soc Bul 25:119-46 Ap 15 '46
Membership roster. Am Cer Soc Bul 25:381-418 O 15 '46

Design division
History of the design division of the American ceramic society. Am Cer Soc Bul 25: 352 S 15 '46

Finance
Financing the Society. C. F. Tefft. Am Cer Soc Bul 25:101 Mr 15 '46

Glass division
Annual meeting, 48th, Buffalo; program. Glass Ind 27:182-3+ Ap '46
Annual meeting, 27th, Buffalo, April 28-May 1. Glass Ind 27:285-8+ Je '46
Glimpses of the Glass division's first twenty-five years. S. R. Scholes. il Am Cer Soc Bul 25:41-6 F 15 '46
Meeting, Columbus, Sept. 13-14. Glass Ind 27:497-9+ O '46

AMERICAN chemical society
ACS candidates for 1947. Chem & Eng N 24:2745-6+ O 25 '46
ACS predoctoral fellowship awards. Chem & Eng N 24:1485-6 Je 10 '46
Amendments to the ACS constitution; report of advisory committee. Chem & Eng N 24: 737-8+ Mr 25 '46
Charles Lathrop Parsons and the American chemical society. E. R. Weidlein. Chem & Eng N 24:1206-7 My 10 '46
Chemical group opens clearing houses for chemical engineers. Iron Age 158:167 O 10 '46
Comments on constitutional amendments to be considered at Atlantic City meeting. P. K. Frolich. Chem & Eng N 24:626+ Mr 10 '46

AMERICAN chemical society—*Continued*
Discussion of the Kalamazoo amendment. S. R. Buc. Chem & Eng N 24:794 Mr 25 '46
Does the membership at large control Society affairs? C. L. Parsons. Chem & Eng N 24: 624-5 Mr 10 '46
Local sections of the American chemical society. R. F. Gould. il plans Chem & Eng N 23:2186-8, 2331-3; 24:57-9, 156-60+, 352-4, 484-6, 629-31+, 782-5, 1916-18 D 10 '45-Mr 25, Jl 25 '46
Meeting, 109th, Atlantic City, April 8-12. Oil Paint & Drug Rep 149:7+ Ap 15 '46; Chem & Eng N 24:1040-53, 1223-42 Ap 25, My 10 '46; Chem Ind 58:782-4 My '46
Meeting, 110th, Chicago, Sept. 9-13. Can Chem & Process Ind 30:45-8 O '46; Chem Ind 59:658-60 O '46; Oil Paint & Drug Rep 150:5+ S 16 '46; Chem & Eng N 24:2456-77 S 25 '46
Minutes, board of directors meeting, Dec. 10, 1945. Chem & Eng N 24:9-12 Ja 10 '46
Officers, committees, and student affiliate chapters. Chem & Eng N 24:1536-40 Je 10 '46
Official reports, Chicago meeting, September 1946 Chem & Eng N 24:2643-66 O 10 '46
Official reports for the year 1945. Chem & Eng N 24:513-28 F 25 '46
One hundred and tenth meeting; with abstracts of papers of interest to rubber industry. India Rubber World 115:78-82 O '46
Preliminary program, Atlantic City meeting April 8-12, 1946. Chem & Eng N 24:16+ Ja 10 '46
Program of Atlantic City meeting, April 8-12. plan Chem & Eng N 24:632-50 Mr 10 '46
Program of the Chicago meeting; September 9 to 13, 1946. Chem & Eng N 24:2043-68+ Ag 10 '46
Proposed amendments to the constitution of the ACS. Chem & Eng N 24:1769-70+ Jl 10 '46
Report of the committee on local councilor representation. Chem & Eng N 23:2302+ D 25 '45
Symposia feature 110th ACS meeting. Chem & Eng N 24:2180-2 Ag 25 '46
Symposium on some questions of professional and economic status. bibliog Chem & Eng N 24:1648-65 Je 25 '46

Chicago section
Chicago section of ACS celebrates 50th anniversary. M. H. Arveson and others. Chem & Eng N 23:1946-50 N 10 '45
Chicago technical conference. Chem & Eng N 23:2208-9 D 10 '45

Dayton section
Dayton section observes 15th anniversary, Feb. 9. Chem & Eng N 24:468-9 F 25 '46

Indiana section
Indiana section celebrates 40th anniversary, Indianapolis, Feb. 8. Chem & Eng N 24: 470-1 F 25 '46

Petroleum division
Meeting, Atlantic City, April 8-12; abstracts of papers. Nat Pet N 38 pt 2:R333-6 My 1 '46; Pet Refiner 25:164+ My '46

Pittsburgh section
Pittsburgh section reorganizes. Chem & Eng N 24:142+ Ja 25 '46

Publications
Local section publications of the ACS. R. F. Gould. Chem & Eng N 24:156-60+ Ja 25 '46

Rubber division
Division of rubber chemistry meeting, Chicago, Sept. 11-13; abstracts of papers. Rubber Age 159:571-8 Ag '46; India Rubber World 114:667-72+ Ag '46
Spring meeting, Atlantic City, April 10-12; abstract of papers. Rubber Age 58:715-23 Mr '46; India Rubber World 113:809-17 Mr '46

AMERICAN chicle company
American Chicle vs. Wrigley. R. Carleson. il Mag of Wall St 79:141-3+ N 9 '46

AMERICAN college of life underwriters
Elect trustees, officers. Nat Underw (Life ed) Daily ed 50:38 S 12 '46
Recommend CLU award for 120 candidates; conferment at Cleveland. East Underw 47: 8+ S 6 '46
Report on activities. S. S. Huebner. Nat Underw (Life ed) Daily ed 50:48 S 12 '46
Results of C.L.U. exams. Nat Underw (Life ed) 50:7+ Ag 2 '46

AMERICAN concrete institute
Annual meeting, 42d, Buffalo, Feb. 18-21. Eng N 136:309, 427-9 F 28, Mr 21 '46; Am Concrete Inst J 17:supl-17 Ap '46; Concrete 54:18+ Ap '46; Rock Prod 49:105+ Ap '46

AMERICAN concrete pipe association
Annual meeting, Chicago, April 11-12. Rock Prod 49:130-3 My '46
Annual meeting, 38th, Chicago, April 11-12. Concrete 54:14-16+ My '46

AMERICAN congress on surveying and mapping
Annual meeting, 6th, Washington, D.C. June 28-29. Eng N 137:19+ Jl 11 '46

AMERICAN council on education
Country-wide survey of pharmaceutical education. Science 104:32 Jl 12 '46

AMERICAN crystal sugar company
Stocks with leverage possibilities. Mag of Wall St 78:395 Jl 6 '46

AMERICAN culture (periodical)
Luxury magazine. Bsns W p32 Ap 6 '46

AMERICAN cyanamid and chemical corporation
Cyanamid sales executives strike pay dirt in monthly seminars. A. J. Campbell. Sales Management 55:125-6 N 15 '45

AMERICAN drug manufacturers association
Annual meeting, 34th. Oil Paint & Drug Rep 149:7+ My 13 '46

AMERICAN electroplaters' society
Annual meeting, 33d, Pittsburgh. Metal Finishing 44:280-7+ Jl '46; Iron Age 158:58-62 Jl 25; 68-71 Ag 8 '46

AMERICAN engineering company
How to get a firm for free. Fortune 34: 152+ S '46

AMERICAN export lines, inc.
Street grows ship-conscious. Bsns W p31-2+ My 25 '46

AMERICAN federation of labor
A.F.L. and Lewis bid for power; return of U.M.W. leader to Federation's fold. Bsns W p86+ F 2 '46
A.F.L. attacks C.I.O. Bsns W p82+ Ag 31 '46
AFL demands firmness toward Russia. W. Green. Comm & Fin Chr 164:1378+ S 12 '46
AFL firm against Sovietism. W. Green. Comm & Fin Chr 164:1545+ S 26 '46
AFL responsibilities. H. S. Truman. Comm & Fin Chr 164:1785 O 10 '46
A.F.L. wins Coast victory in California cannery elections. Bsns W p84-6 S 7 '46
Criticism of C.I.O; Gallup poll. Iron Age 158: 91+ O 3 '46
Objectives of AFL. W. Green. Comm & Fin Chr 164:1933+ O 17 '46
Program for peace. Bsns W p100+ O 19 '46
Watch of the A.F. of L. Fortune 33:81 Mr '46

Library
American federation of labor library. E. K. McMahon. Special Lib 37:104-6 Ap '46

AMERICAN federation of musicians
Petrillo again; ban on foreign music broadcasts and musician-quota demand. Bsns W p84-6 Ja 5 '46
Petrillo defiant. Bsns W p98 Ap 20 '46
Petrillo scores major victory. Bsns W p86 My 4 '46
Truman signs bill to curb Petrillo. Comm & Fin Chr 163:2272 Ap 25 '46

AMERICAN foundrymen's association
Annual meeting, 50th, Cleveland, May 6-10. Steel 118:62-3 My 13 '46; Iron Age 157:54-60 My 16 '46; Foundry 74:82-7+ Je; 110-13+ Jl '46; Ind Marketing 31:39+ Je '46
Chapters hold election of officers for 1946-47 period. Iron Age 158:150-4 S 12 '46
Golden jubilee meeting; program, committee members; exhibitors, awards. Foundry 74: 134-47 My '46; Iron Age 157:58-64 My 2 '46

AMERICAN foundrymen's association—*Cont.*
New officers, directors. Foundry 74:170+ Je '46
Serves industry for 50 years. il Foundry 74: 148-51+ My '46

AMERICAN gas and electric company
American Gas keeps old Central system. Elec World 125:83 Ja 5 '46

AMERICAN gas and electric service corporation
High voltage line; power transmission tests to be made. il Bsns W p48+ Ja 5 '46

AMERICAN gas and power company
Amended plan approved. Comm & Fin Chr 163:2149 Ap 22 '46
May alter plan. Barron's 26:7 Ap 8 '46

AMERICAN gas association
A.G.A. at your service; outline of Association's activities. Am Gas Assn Mo 28:170-1 Ap '46
Annual convention, 28th, Atlantic City, Oct. 7-11. Am Gas Assn Mo 28:467-72+ N '46; Gas Age 98:21-41 O 31 '46; Pub Util 38: 622-8 N 7 '46; Sales Management 57:102 N 1 '46; Am Gas J 165:11-15+ N '46
Annual meeting, 27th, New York, Oct. 24-25. Am Gas Assn Mo 27:480-2 N '45; Am Gas J 163:13-18+ N '45; Gas Age 96:41-9 N 15 '45
Food service industry cooperation between the Food service equipment industry and the American gas association. F. H. Trembly, Jr. Am Gas Assn Mo 27:554-5+ D '45; Same. Am Gas J 163:41-2 D '45
Gas sales promotion program. D. A. Hulcy. il Am Gas Assn Mo 28:145-8+ Ap '46; Same. Am Gas J 164:9-11 Ap '46; Same. Gas Age 97:22-4 Ap 4 '46
Going forward with research and promotion. E. R. Acker. Am Gas Assn Proc 1945:16-18
Industrial and commercial hall of flame instituted. Am Gas J 164:22 Ap '46
Industry mobilized; president's address at the A.G.A. annual meeting. J. F. Robinson. Am Gas Assn Mo 27:475-9+ N '45; Same. Gas Age 96:51-3 N 15 '45; Same. Am Gas Assn Proc 1945:12-15
Membership list as of January 1, 1946. Am Gas Assn Mo 28:sup1-56 Mr '46
1945-1946 officers and section chairmen; portraits. Gas Age 98:93 O 3 '46
Program for 1946 convention. Gas Age 98:23-6+ S 19 '46
Residential gas section plans for 1946. J. J. Quinn. Am Gas Assn Mo 28:79-81 F '46
Technical section, an important tool of the gas industry. L. J. Eck. Gas Age 97:39-40+ Ja 24 '46

Appliance testing laboratory

A.G.A. laboratories activities. Am Gas J 164: 44 Ap '46
Laboratories' expansion program. H. J. Hense. il Am Gas Assn Mo 28:42-3 Ja '46
Laboratories open research center. il plan Am Gas Assn Mo 28:379-80 S '46
Laboratories' operations mount. Am Gas Assn Mo 28:433-4 O '46
Performance check at A.G.A. laboratories; illustrations with text. Am Gas Assn Mo 28:208-9 My '46
Underwriting gas appliance progress. Am Gas Assn Mo 28:51-2 F '46

Natural gas department

Spring meeting, Cincinnati, May 7-8. il Gas Age 97:17-21 My 30 '46; Oil & Gas J 45: 72 My 11 '46; Am Gas Assn Mo 28:247-51 Je '46; Am Gas J 164:16-18+ Je '46

AMERICAN gas association monthly (periodical)
As the French see us; editorial from Journal des usines à gaz, March 15, 1946. Am Gas Assn Mo 28:272-3 Je '46

AMERICAN gear manufacturers association
Annual meeting, Chicago, Oct. 27-30. Steel 119:66 N 4 '46
Annual meeting, 30th, Hot Springs, June 3-5. Iron Age 157:60-3 Je 13 '46; Mach 52:164-5 Jl '46

AMERICAN home products corporation
Gain in earnings likely. Barron's 25:6 N 26 '45
Thumbnail stock appraisal. Mag of Wall St 78:20 Ap 13 '46

AMERICAN hospital association

Library

Bacon library of the American hospital association. H. V. Pruitt. Special Lib 37:79-81 Mr '46

AMERICAN industrial radium and X-ray society
Radiographic studies of metals and materials subject of meeting, Cleveland, Feb. 6-8. Steel 118:128+ F 18 '46

AMERICAN institute for property and liability underwriters
American institute for property and liability underwriters. J. A. North. East Underw 46: 60 D 14 '45
C.P.C.U.'s reelect national officers at Chicago meeting. Nat Underw 50:4 O 24 '46
Stellwagen president; Warfield named to board; forty-two students win CPCU designation. East Underw 47:24 Ag 9 '46; Nat Underw 50:3+ Ag 8 '46

AMERICAN institute of accountants
Report of the president. S. J. Broad. J Account 80:425-7 D '45

Awards

Annual Institute awards. J Account 80:492 D '45

AMERICAN institute of actuaries
Annual meeting, Atlantic City. Nat Underw (Life ed) 49:6 N 16 '45
Spring meeting, Chicago. Nat Underw (Life ed) 50:1+ Je 14 '46

AMERICAN institute of architects
Annual convention, 78th, Miami Beach, May 8-10. Arch Forum 84:8-9 Je '46; Arch Rec 100:142+ Jl '46

AMERICAN institute of banking
Annual convention, 44th, Cincinnati. Banking 39:66+ Jl '46; Am Inst Banking Bul 28:2-25 Jl '46
Developing leadership ability; program of the AIB. J. L. Dart. Am Inst Banking Bul 27: 7-9 O '45
Farewell 22 East 40 street. il Am Inst Banking Bul 28:7-9 Ja '46
National committee reports. Am Inst Banking Bul 27:30-2 O '45
National committee reports. Am Inst Banking Bul 28:23-5 Jl '46
New A.I.B. textbooks. Banking 39:120 S '46

AMERICAN institute of biology (proposed)
Proposal for organization to serve interests of biologists. R. Chambers and J. S. Nicholas. Science 103:692 Je 7 '46

AMERICAN institute of chemical engineers
Convention, San Francisco, August 25-28. Chem & Eng N 24:2336-9 S 10 '46; Oil Paint & Drug Rep 150:7+ S 2 '46
Convention breaks attendance record at Chicago. Chem & Eng N 24:44-7 Ja 10 '46
First postwar convention, Chicago, Dec. 16-19. Chem Ind 58:66-8 Ja '46
Regional meeting, Houston, March 31-April 3. Chem & Eng N 24:1062-3 Ap 25 '46
Regional meeting in New York, Feb. 27-28. Chem & Eng N 24:779-80 Mr 25 '46

AMERICAN institute of chemists
AIC gold medal presented to Russell. Chem & Eng N 24:1527 Je 10 '46

AMERICAN institute of electrical engineers
Directors take action to broaden activities. il Elec Eng 65:269-70 Je '46
Officers and committees for 1946-47; local sections and student branches. Elec Eng 65: 478-83 O '46
Pacific coast meeting, Seattle, Aug. 27-30. Elec West 97:87-9 S '46; Elec Eng 65:529-31 N '46; Elec World News ed 126:5 S 7 '46
Planning subcommittee issues progress report on study of organization of engineering profession. Elec Eng 65:169-73 Ap '46
Report of the Board of directors. Elec Eng 65:331-50 Jl '46
Section and branch activities, annual report for 1945-46; tabulation. Elec Eng 65: 352-4 Jl '46
Summer meeting, Detroit, June 24-28. Elec Eng 65:396-407 Ag-S '46; Elec World 126: 70-5, 83-4 Jl 6 '46
Winter convention program; with abstracts of papers. Elec Eng 65:26-35 Ja '46

AMERICAN institute of electrical engineers —*Continued*
Winter meeting, New York, Jan. 21-25. Elec Eng 65:122-30 Mr '46; Elec World 125:60-7 F 2 '46; Elec World News ed 125:7 Ja 26 '46; Power 90:179-82 Mr '46; Power Pl Eng 50:70-3 Mr '46

AMERICAN institute of mining and metallurgical engineers
Annual meeting, Chicago, Feb. 25-28. Min & Met 27:215-31 Ap '46; Eng & Min J 147:106+ Mr '46; Chem & Eng N 24:922 Ap 10 '46; Steel 118:96-7 Mr 4 '46; Iron Age 157:60-2 Mr 7 '46; Metal Prog 49:780-2 Ap '46
Directors act on committee reports; divisional relationships, ways and means. Min & Met 26:611-13 D '45
Final report of special committee on divisional relationships. Min & Met 27:188-92 Mr '46
Membership analyzed. Min & Met 27.424-5 Ag '46
New board organized at Chicago; new officers, standing and technical committees, 1946-1947. Min & Met 27:238-9 Ap '46
Officers and directors of the national organization; principal officers of local sections and regular meeting dates. Min & Met 27: 193 Mr '46
Program for annual meeting, Chicago, Feb. 25-28. Min & Met 27:35-42 Ja '46

Coal division
Annual meeting, Chicago, Feb. 25-28. Coal Age 51:136+ Ap '46; Min & Met 27:225-6 Ap '46

Industrial minerals division
Annual meeting, Chicago, Feb. 25-28. Rock Prod 49:106+ Ap '46
Industrial minerals division holds three fall meetings. Min & Met 26:622-3 D '45

Institute of metals division
Annual meeting, Chicago. Min & Met 27:227-8 Ap '46
Metals divisions and National open hearth committee hold six fall meetings. F. T. Sisco. Min & Met 26:618-20 D '45

Iron and steel division
Annual meeting, Chicago. Min & Met 27:229 Ap '46

Petroleum division
Annual meeting, Chicago, Feb. 24-28. Oil & Gas J 44:56-9 Mr 2; 53-4 Mr 9 '46; Nat Pet N 38:57 Mr 6 '46; Min & Met 27:230 Ap '46
Meeting, Galveston, Oct. 3-5. Chem & Eng N 24:2780 O 25 '46
Meeting, Galveston, Oct. 3-5; abstracts of papers. Oil & Gas J 45:88-90+ O 5 '46
Officers for 1947. Min & Met 27:444-5 Ag '46
Preliminary report of reorganization study committee. Min & Met 27:236 Ap '46

AMERICAN institute of physics
Report of the director for 1945 and other reports. R Sci Instr 17:235-42 Je '46
Report of the Physics headquarters building fund committee. R Sci Instr 16:346-76 D '45
Report on reorganization. Acoustical Soc Am J 18:223-4 Jl '46

AMERICAN institute of smaller business
Small business institute organized. Bsns W p42 D 15 '45

AMERICAN institute of steel construction
Annual meeting, 24th, San Diego. Iron Age 158:110 N 7 '46

AMERICAN insurance company
Completes first 100 years. Nat Underw 50:8-9+ My 2 '46
100th anniversary. East Underw 47:19 Jl 5 '46

AMERICAN iron and steel institute
Annual meeting, 54th, New York, May 23. Iron Age 157:98-100 My 30 '46; Steel 118: 60-2 My 27; 132+ Je 3 '46

AMERICAN law institute
Statement of essential human rights. Ann Am Acad 243:18-26 Ja '46

AMERICAN leather chemists' association
Annual meeting, 42d, Lake George, June 18-21. Chem & Eng N 24:1912 Jl 25 '46

AMERICAN legion magazine
American legion angles magazine for new ex-GI's. Sales Management 56:152 Ap 15 '46

AMERICAN library association
Library rehabilitation programme. H. M. Lydenberg. J Doc 1:72-8 S '45

AMERICAN library in London
American library in London. R. H. Heindel. Assn of Sp Lib & Inf Bur Proc 1945:25-8

AMERICAN life convention
American life convention; annual meeting; retrospective summary. T. J. V. Cullen. Spectator (Life ed) 153:66-7+ N '45
Annual meeting, 41st, Chicago, Oct. 7-11. East Underw 47:1+ O 11 '46; Nat Underw (Life ed) 50:17-18+ O 11; 8-9 O 18 '46; Weekly Underw 155:890-1+ O 12 '46
45 state vice-presidents named. Nat Underw (Life ed) 50:4 Ap 19 '46
Joint committees of ALC and LIAA. East Underw 47:18 Mr 1 '46
Medical section, annual meeting, Hot Springs, Va June 20-22. East Underw 47:12 Je 28 '46; Nat Underw (Life ed) 50:1+ Je 28 '46
Regional conference, Columbus, Ohio. East Underw 47:1, 3-4+ Ap 12 '46; Nat Underw (Life ed) 50:1+ Ap 12 '46; Same. Spectator (Life ed) 153:40-1 My '46

AMERICAN locomotive company
American Locomotive vs. Baldwin; comparative investment audit. H. S. Coffin. Mag of Wall St 77:458-60+ Ja 19 '46
Annual report. Comm & Fin Chr 163:3126 Je 10 '46
Beaumont Iron Works taken over by American Locomotive. il Manuf Rec 115:45+ Je '46
Changes in Alco top executives. Ry Age 120: 146 Ja 12 '45
Thumbnail stock appraisal. Mag of Wall St . 77:277 D 8 '45

AMERICAN lumber and treating company
Big lumber treating plants slated for South Carolina, Maryland. Manuf Rec 115:121+ Ja '46

AMERICAN machine tool distributors' association
Annual meeting, 22d, Hot Springs, Sept. 18-19. Am Mach 90:154 O 10 '46; Mach 53:185-6 O '46; Steel 119:41+ S 30 '46
Meeting, 22d, Chicago, March 25-26. Am Mach 90:152h-152i Ap 11 '46

AMERICAN management association
Hancock and Dodd to head AMA; other officers. Comm & Fin Chr 163:3397+ Je 20 '46

Insurance division
Meeting, New York, March 11-13. East Underw 47:21+, 24, 25, 37+ Mr 15 '46; Nat Underw 50:5+, 25+ Mr 14 '46; Weekly Underw 154:680 Mr 16 '46

Packaging conference
Conference, 15th, Atlantic City, April 2-5. Chem & Eng N 24:1129-30 Ap 25 '46; Sales Management 56:65-6 Ap 15 '46
Packaging conference and exposition, Atlantic City, April 2-5. Mod Packaging 19:139-54 Ap '46

AMERICAN marketing association
Convention, Boston, May 16-17. Ind Marketing 31:55+ Jl '46
Johnson gets AMA award; Prescott cited for 1945 Survey of buying power. Sales Management 57:39 Jl 1 '46

AMERICAN mathematical society
Summer meeting, 51st, New Brunswick, Sept. 15-17. Science 102:523 N 23 '45

AMERICAN meat institute
Meeting, Chicago. Food Ind 17:1504+ D '45

AMERICAN medical association
Insuring health; A.M.A. establishes standards for voluntary benefit plans. Bsns W p20 Mr 9 '46
New prescription; revises its rules against drug advertising. Bsns W p70-2 Je 1 '46

AMERICAN microscopical society
Annual meeting, St Louis, March 29. Science 103:515 Ap 26 '46

AMERICAN mining congress
Annual meeting, 48th, Washington, Feb. 13. Min Cong J 32:48-9 Mr '46
Coal division, annual meeting, Cincinnati; program, committees, speakers. Min Cong J 32:43-54 Ap '46

AMERICAN mining congress—*Continued*
Coal division annual meeting, 23d, Cincinnati, April 29-30 Min Cong J 32:53-9 My '46; Coal Age 51:118+ Je '46
Coal division committees' activities, 1944-1945. G. B. Southward. Min Cong J 32:55 Mr '46
Declaration of policy. Min Cong J 32:56-9 Mr '46
Review of 1944-'45 activities. J. D. Conover. Min Cong J 32:50-3 Mr '46

Western division
Annual meeting, Denver, Sept. 9-12. Eng & Min J 147:82+ O '46
Annual meeting, Denver, Sept. 9-12; committee members, program, exposition. Min Cong J 32:38-52 Ag '46
Declaration of policy. Min Cong J 31:52-5 D '45

AMERICAN news company
Huge tax saving in sight. Barron's 26:6 Ap 8 '46

AMERICAN newspaper advertising network
Newspapers offer a package; advertising network organized. Bsns W p79-80 D 15 '45

AMERICAN newspaper publishers association
Pictorial highlights of convention in New York. Ptr Ink 215:46-7 My 3 '46

AMERICAN oil chemists' society
Annual meeting, 37th, New Orleans, May 15-17. Chem & Eng N 24:1524-6 Je 10 '46; Oil Paint & Drug Rep 149:7+ My 27 '46
Fall meeting, Chicago, Nov. 7-9. Chem & Eng N 23:2198-201 D 10 '45; Soap & San Chem 21:79 D '45

AMERICAN optical company
Scientific instrument division of American optical company; (formerly Spencer lens company). il Am Cer Soc Bul 25:210-13 Je 15 '46

AMERICAN paper and pulp association
American paper and pulp association in the postwar period. E. W. Tinker. Paper Ind 27:1793-4 Mr '46
Annual meeting, 69th, New York. Paper Tr J 122:92+ F 28 '46; Paper Ind 27:1821-2 Mr '46
Report to the industry. D. K. Brown. Paper Ind 27:1888-9 Mr '46; Same. Pulp & Pa of Can 47:45-6 Mr '46

AMERICAN petroleum institute
API agricultural development committee's co-ordination program. E. Lamm. Nat Pet N 38:5 Je 19 '46
API pipeline transportation groups named. Nat Pet N 38:46 Ap 17 '46
Annual meeting, 25th, Chicago, Nov. 12-15. Nat Pet N 37:3-5 N 14; 6-9+ N 21 '45; Oil & Gas J 44:152-4+ N 17; 87-9 N 24 '45; Chem & Eng N 23:2202-5 D 10 '45
Division of marketing, meeting, Denver. P. Wollstadt. Nat Pet N 38:13-16 Jl 17 '46
Eastern district of Production division; meeting, Pittsburgh, June 13-14. Oil & Gas J 45:60-1, 121-2+ Je 22 '46
Expands board of directors. Nat Pet N 38:7 Je 26 '46
Four of 20 oil, gas associations accept API offer to be represented on Board. Nat Pet N 38:14 S 4 '46
Marketing group plans independent participation in activities. Nat Pet N 38:14-15 Ap 10 '46
Mid-continent district of Production division, meeting, Oklahoma City, June 6-7. Oil & Gas J 45:77-8, 120+ Je 15 '46
Pacific Coast district of Production division meeting, Los Angeles, April 11-12. Oil & Gas J 44:106-7, 158+ Ap 20 '46
Pure hydrocarbons; story of API project 46. R. L. Demmerle. il Chem & Eng N 24:2020-8 Ag 10 '46
Resolutions adopted by the Board of directors of the American petroleum institute; extracts from minutes of board and executive-committee meetings; and division and department reports to the board; list of officers, directors and committee members. Am Pet Inst Proc 25(1):109-51 '45
Review of 1946; first year, 27 years of progress, past living presidents, work of Petroleum industries committee. P. Wollstadt and others. Nat Pet N 38:38-9+ O 30 '46
Southwestern district of Production division, spring meeting, Shreveport, May 17-18. Oil & Gas J 45:89-90 My 25 '46

See also
Petroleum industry and trade—United States—Anti-trust suit

AMERICAN pharmaceutical association
Meeting, 92d, Pittsburgh, Aug. 25-30. Chem & Eng N 24:2502 S 25 '46

AMERICAN pharmaceutical manufacturers' association
Annual meeting, 39th, Lake Louise, Alberta, June 10-12. Oil Paint & Drug Rep 149:7+ Je 17 '46

AMERICAN philosophical society
American philosophical society and the National academy of sciences joint meeting, Philadelphia, Nov. 16-17, 1945. L. P. Eisenhart. Science 102:595-6 D 7 '45

AMERICAN physical society
Meeting of New England section, Springfield, Mass. Oct. 13; abstracts of papers. Phys R 68:235-6 N 1 '45
Minutes of the meeting of the Metropolitan section, Nov. 1945; with abstracts of papers. Phys R 68:281-8 D 1 '45
Proceedings, meeting at Berkeley, Calif. July 12-13, 1946; with abstracts of papers. Phys R 70:443 S 1 '46
Proceedings, meeting at Los Angeles, Jan. 12, 1946; with abstracts of papers. Phys R 69:133-6 F 1 '46
Proceedings, meeting at New York, Jan. 24-26, 1946; with abstracts of papers. Phys R 69:246-60 Mr 1 '46
Proceedings; meeting of New York state section at Hamilton, April 13, 1946; with abstracts of papers. Phys R 69:674-702 Je 1 '46
Proceedings, minutes of the meeting at Chicago, June 20-22, 1946; with abstracts of papers. Phys R 70:99-119 Jl 1 '46
Proceedings; minutes of meeting at St Louis, Nov. 30-Dec. 1, 1945; with abstracts of papers. Phys R 69:44-54 Ja 1 '46
Proceedings of the Southeastern section, April 12-13, 1946. Phys R 69:545-7 My 1 '46

AMERICAN phytopathological society
Annual meeting, 37th, St Louis, March 27-30. Science 103:513 Ap 26 '46

AMERICAN plant food council
American plant food council to broaden scope of activities. Oil Paint & Drug Rep 149:3 Ja 21 '46
Annual meeting, 1st, Hot Springs, June 23-25. Oil Paint & Drug Rep 150:7+ Jl 1 '46
Plant food council discusses fertilizer requirements. Oil Paint & Drug Rep 148:7 N 12 '45

AMERICAN potash and chemical corporation
APC in Wall Street. Bsns W p52 Ap 6 '46
Stock offered. Comm & Fin Chr 163:1854 Ap 8 '46
Trona production figures shown to increase. Chem & Met Eng 53:206+ My '46

AMERICAN power and light company
American P. & L. subsidiaries to merge. Barron's 26:1+ Jl 1 '46
American Power & Light's value. Barron's 26:14 S 2 '46
Parent warned. Bsns W p46-7 Je 15 '46
Report on American Power & Light common stock; abstract. T. R. Mackoul. Pub Util 38:374 S 12 '46

AMERICAN public power association
Annual meeting, Memphis. Elec World News ed 125:5 My 18 '46
Annual meeting, Memphis, Tenn. May 9th. Pub Util 37:774-7 Je 6 '46

AMERICAN public relations association
Convention. Ind Marketing 31:50-1+ My '46

AMERICAN public works association
Annual meeting, 51st, Chicago, Nov. 4-6. Eng N 135:639-40 N 15 '45; Roads & Sts 88:74+ D '45
Annual meeting, Fort Worth, Eng N 137: 415+ O 3 '46

AMERICAN pulp and paper mill superintendents association
Abridgments from papers presented at annual meeting, Poland Spring, Maine, June 17-20. Paper Ind 28:564+, 698+, 860+ Jl-S '46
Annual meeting, 27th, Poland Spring, Maine, June 17-20. Paper Tr J 122:41+ Je 20 '46; Paper Ind 28:540 Jl '46

AMERICAN railway bridge and building association
Annual meeting, Chicago, Sept. 17-19. Ry Age 121:561-5+ O 5 '46

AMERICAN railway engineering association
Annual meeting, 45th, Chicago, March 12-14. Ry Age 120:546-63 Mr 16 '46; Eng N 136: 395+ Mr 21 '46

AMERICAN registry of pathology
Army institute of pathology and American registry of pathology. Science 104:272-3 S 20 '46

AMERICAN research and development corporation
Adventure capital. Bsns W p62+ Ag 17 '46
Stock offered. Comm & Fin Chr 164:950 Ag 19 '46

AMERICAN road builders' association
Annual meeting, 43d, Chicago, Jan. 14-17. Eng N 136:101+ Ja 24 '46; Concrete 54:18-19+ F '46; Roads & Bridges 84:70+ F '46; Roads & Sts 89:72-8 F '46

AMERICAN rolling mill company
Annual report. Comm & Fin Chr 163:2430-1 My 6 '46

AMERICAN safety razor corporation
Adds new lines. Barron's 26:1+ My 6 '46

AMERICAN savings and loan institute
Milwaukee meeting, new officers. Comm & Fin Chr 163:1265 Mr 7 '46

AMERICAN seating company
This company is sittin' pretty. M. C. Faught. Banking 38:17-18+ N '45

AMERICAN short line railroad association
Annual meeting, 33d, Chicago, Oct. 2-3. Ry Age 121:594-6 O 12 '46

AMERICAN society for engineering education (formerly Society for the promotion of engineering education)
Annual meeting, 54th, St Louis, June 20-23. Chem & Eng N 24:2036-7+ Ag 10 '46; Eng N 137:8-9 Jl 4 '46
Engineering educators include research functions. Product Eng 17:145 S '46
Officers, council members, and committees of the Society for 1944-46; with list of members. J Eng Educ 36:12-238 F '46
Outline of proposed constitutional structure of the Society. R. E. Doherty. J Eng Educ 36:401-3 Mr '46
Proposed revision of the constitution. H. O. Croft. J Eng Educ 36:469-95 Ap '46
Summary statement upon the proposed revisions of the constitution and by-laws. H. S. Rogers. J Eng Educ 36:599-600 Je '46

Humanistic-social division
English and the Humanistic-social division. K. O. Thompson. J Eng Educ 36:163-9 N '45

AMERICAN society for horticultural science
Meeting, St Louis; officers elected. Science 103:520-1 Ap 26 '46

AMERICAN society for testing materials
Annual meeting; abstracts of reports and papers on concrete and cement. Concrete 54:26-9+ Ag '46
Annual meeting, 49th, Buffalo, June 24-28. Chem & Eng N 24:1910-11 Jl 25 '46; Eng N 137:7-8 Jl 4 '46; Foundry 74:79+ Ag '46; Iron Age 158:72-6 Jl 4 '46; Ry Age 121:6-8 Jl 6 '46; Steel 119:72-3 Jl 1 '46
Committee meetings, Pittsburgh, Feb. 25-March 1. Foundry 74:197-8 Ap '46
Elects new officers. Ind Stand 17:209 Ag '46
Membership, organization, standards activities, etc. Refrig Eng 52:22+ Jl '46
New cement specifications approved at ASTM meeting. Eng N 137:17+ Jl 11 '46
Preparations for the future. P. H. Bates. Am Soc T M Proc 45:14-20 '45
Reports technical progress at recent committee meetings. il Ind Stand 17:123-6 My '46
Year book. 464p The Society, 260 S. Broad st, Philadelphia 2 '45

AMERICAN society of agricultural engineers
Organization, objectives, etc. Refrig Eng 52: 130+ Ag '46

AMERICAN society of brewing chemists
Annual meeting, 11th, Milwaukee, May 6-9. Chem & Eng N 24:1379-80 My 25 '46

AMERICAN society of chartered life underwriters
C. L. U. continues on the march. C. H. Orr. Weekly Underw 154:118-19+ Ja 5 '46

AMERICAN society of civil engineers
Annual meeting 93d, New York, Jan. 16-19. Eng N 136:85, 101-5+ Ja 17-24 '46; Civil Eng 16:79-80 F '46; Concrete 54:6-7 F '46
Convention, Spokane, July 17-19. Eng N 137:85+ Jl 25 '46; Civil Eng 16:360-5 Ag '46
Excerpts from annual report of Board of direction for 1945. Civil Eng 16:84-5 F '46
Fall meeting, Kansas City. Civil Eng 16:500-8 N '46
Local section vigor essential to engineer's status. W. W. Horner. Civil Eng 16:241-2 Je '46
Local sections have responsibility in solving professional problems. W. W. Horner. Civil Eng 16:481+ N '46
Society asks freedom for professional men in collective bargaining process; Congressional committee requested to change existing labor law. Civil Eng 16:339 Ag '46
Spring meeting, Philadelphia, April 17-19. Civil Eng 16:218-19 My '46; Eng N 136:679-80 Ap 25 '46

AMERICAN society of heating and ventilating engineers
Annual meeting, 52d, New York, Jan. 27-30. Dom Eng 167:143-5+ F '46; Heating-Piping 18:147-9 F; 113-42 Mr '46
New research laboratory building purchased in Cleveland. il Heating-Piping 18:119 Ap '46
Semi-annual meeting, Montreal, June 10-12. Heating-Piping 18:114-22 Ag '46

AMERICAN society of ichthyologists and herpetologists
Officers for 1946-47. Science 104:351 O 11 '46

AMERICAN society of mechanical engineers
Annual meeting, 66th, New York, Nov. 26-29. Mech Eng 68:56-70 Ja '46; Am Mach 89: 148h-148i D 20 '45; Power 89:909-18 Mid-D '45; Power Pl Eng 50:73-5 Ja '46
Aviation division, annual meeting, Los Angeles, June 3-6. Mech Eng 68:668-72 Jl '46
Awards. Science 102:609 D 14 '45
Council and finance committee reports. Mech Eng 68:44-55 Ja '46
Fall meeting, Boston, Sept. 30-Oct. 3. Mech Eng 68:1006-12 N '46
How to be a secretary and enjoy it! management of section meetings. D. Thompson. Mech Eng 68:555-6 Je '46
Membership list, 1946. A S M E Trans 68: 1-235 sec 2 Ag '46
Semi-annual meeting, Detroit, June 17-20. Mech Eng 68:747-56 Ag '46
Semi-annual meeting, Detroit, June 17-20; abstracts of power plant papers. il diags Power 90:528-31+ Ag '46
Spring meeting, Chattanooga, April 1-3. Mech Eng 68:481-4 My '46

Industrial instruments and regulators division
First national meeting, Pittsburgh, Sept. 16-18. Mech Eng 68:1013-15 N '46

Wood industries division
Record of the A.S.M.E. Wood industries division; a quarter century of achievement. Mech Eng 68:894-5 O '46

AMERICAN society of parasitologists
Annual meeting, 20th, St Louis. Science 103: 512 Ap 26 '46

AMERICAN society of refrigeration engineers
A.S.R.E. joins E.C.P.D.'s efforts in accrediting technical curricula. map Refrig Eng 51: 546 Je '46

AMERICAN society of sanitary engineering
Annual meeting, Boston, Aug. 20-23. Dom Eng 168:96-9+ S '46

AMERICAN society of tool engineers
Annual meeting, 14th, Cleveland, April 8-12. Steel 118:68-9+ Ap 15 '46; Iron Age 157:60-5 Ap 18 '46
Elects new officers. Mach 52:177 My '46
World's most modern tool room; ASTE exposition of 1946; national officers, technical program of annual meeting; exposition floor plan, list of exhibitors. il Steel 118:152-64 Ap 1 '46

AMERICAN society of zoologists
Annual meeting, 42d, St Louis, March 28-30. Science 103:512 Ap 26 '46

AMERICAN standards association
Annual meeting, New York, Dec. 7; officers, president's address. Ind Stand 17:1-3 Ja '46
Board elects four new members. pors Ind Stand 17:43 F '46
Board of directors enlarged; three new members named. Ind Stand 17:171 Jl '46
Clearing house for standardization activities. H. Coonley. Refrig Eng 52:232+ S '46
Compromise on standards; Commerce dept. revamps its setup. Bsns W p82+ Mr 30 '46
Coonley heads new committee to broaden ASA activities. Ind Stand 17:29 F '46
Co-operation ahead for ASA and Commerce department. Elec Eng 65:183 Ap '46
Honor War committee members; engineers who helped prepare American war standards given Victory awards. Ind Stand 17: 245-50 O '46
Interchange of standards promotes international trade; American standards association in continuous cooperative contact with Mexican standards department. G. S. Case. Ind Stand 16:243 N '45
New opportunity for free enterprise; exchange of letters between H. A. Wallace, C. E. Wilson and H. B. Bryans. Ind Stand 17:65-9 Ap '46
New year starts new epoch for ASA. H. S. Osborne. Ind Stand 17:6-7 Ja '46
Return of standards determination to private enterprise favored. Steel 118:84+ Mr 18 '46
Standards assn. will cover consumer goods; to set plan for approval ads. Ptr Ink 214: 115 Mr 15 '46

AMERICAN statistical association
Membership directory, 1945. Am Stat Assn J 40:553-662 pt 2 D '45
Membership of the American statistical association; an analysis. A. Hurwitz and F. C. Mann. Am Stat Assn J 41:155-70 Je '46
Proceedings, 105th annual meeting, Cleveland, Jan. 24-27. Am Stat Assn J 41:77-110 Mr '46

AMERICAN steel foundries
Plant sale balked; Justice department refuses to let WAA transfer foundry. Bsns W p17 Jl 20 '46

AMERICAN steel warehouse association
Annual meeting, 37th, New York. Steel 118: 63-4, 77 My 27 '46; Iron Age 157:93-6 My 30 '46

AMERICAN superpower corporation
High leverage on Superpower preferred. Barron's 26:7 N 11 '46

AMERICAN-SWISS foundation for scientific exchange
Closer ties between scientists here and abroad. Science 104:82 Jl 26 '46

AMERICAN telephone and telegraph company
Annual report. Comm & Fin Chr 163:1150-1 Mr 4 '46
Bell system; its still busy. map Bsns W p46+ O 26 '46
Biggest issue; stock and bond proposal. Bsns W p82 S 7 '46
Debentures offered. Comm & Fin Chr 164: 413-14 Jl 22 '46
Financial position. Mag of Wall St 77:696-7 Mr 16 '46
Rights having usual effect on ATT. Barron's 26:1+ Ag 26 '46
Securities disturbing investors. H. S. Coffin. Mag of Wall St 78:756 S 28 '46
Telephone demand and supply. Pub Util 38: 365-6 S 12 '46
Telephone financing tailored to fit unfavorable market. H. G. Guthmann. Barron's 26:9 S 30 '46
To-day's investment position. J. C. Clifford. il Mag of Wall St 79:22-4+ O 12 '46
What should a business do about public relations? it should tell its own story, not try to speak for economic system. A. W. Page and K. S. McHugh. Adv & Sell 39: 41-2+ O '46

AMERICAN tobacco company
Annual report. Comm & Fin Chr 163:1151 Mr 4 '46
Financial position. Mag of Wall St 77:696, 729 Mr 16 '46
George Washington Hill dead; great exponent of advertising. Ptr Ink 216:49+ S 20 '46
Stocks for defensive investment. Mag of Wall St 79:86-7 O 26 '46

AMERICAN trade association executives
Annual meeting, Chicago. Dom Comm 34:47-9 Ja '46
Officers. Oil Paint & Drug Rep 150:3 O 21 '46

AMERICAN transit association
Annual meeting, Chicago, Sept. 16-17. Bus Transportation 25:39-50 O '46
Annual meeting, Chicago, Nov. 1-2. Mass Transportation 41:267-74 O '45; Bus Transportation 24:37-55 D '45
Board of directors meeting, Atlanta, Ga. Jan. 30-31. pors Mass Transportation 42:20-4 Ja '46
Can the ATA research advisory group hit? Mass Transportation 42:377-9 S '46
Operations economy planned at Chicago meeting. Mass Transportation 42:256-8 Je '46
Proposed studies of operating problems. Bus Transportation 25:71 S '46
While auto folks build vast research labs, rich transit has only penurious program; report on research. Mass Transportation 42:371-2 S '46

AMERICAN viscose corporation
Rayon giant plans further growth. J. V. Sherman. Barron's 25:9 D 24 '45
Review of American Viscose's textile research department. G. G. Whytlaw. il Rayon 27:457-60 S '46

AMERICAN water works and electric company
Annual report. Comm & Fin Chr 163:1999 Ap 15 '46
Big savings possible. Barron's 26:6+ Ap 1 '46
Files plans with SEC. Comm & Fin Chr 163:1151-2 Mr 4 '46

AMERICAN water works association
Annual meeting, 66th, St Louis, May 6-10. Eng N 136:764+, 846-8 My 16, 30 '46; Water & Sewage 84:27-8+ My; 17-19+ Je '46; Water & Sewage Works 93:211-22, 267-71 Je-Jl '46
Board of directors' meeting, New York, Jan. 14-15. Water & Sewage Works 93:69-70 F '46
1945 report. Am Water Works Assn J 37: 1389-94 D '45
Papers scheduled at section meetings; titles and authors. Am Water Works Assn J 37: 1395-1405 D '45
Report of the audit of Association funds for the year ending Dec. 31, 1945. Am Water Works Assn J 38:386-90 Mr '46
Reports of the publication committee and committee on water works practice. Am Water Works Assn J 38:376-85 Mr '46

Canadian section
Annual meeting, 26th, Niagara Falls, Ontario, April 8-10. Water & Sewage 84:43-53+ Ap '46
Serves Canada's water interests. Water & Sewage 84:18+ Jl '46

AMERICAN weekly newspaper publishers council
Non-profit Council issues first rating report on weekly newspapers; Maryland. Ptr Ink 215:52+ Ap 5 '46

AMERICAN welding society
Annual report on activities. Welding J 24: 1112+ N '45
Canons of ethics for engineers; standard of professional conduct for members of the American welding society. Welding J 25: 684 Jl '46
Technical committee activities. H. O. Hill. Welding J 24:1232+ D '45

AMERICAN wood preservers' association
Annual meeting, Cincinnati, April 23-25. Ry Age 120:909-12 My 4 '46
Annual meeting, 42nd, Cincinnati. Manuf Rec 115:206+ Jl '46

AMERICAN woolen company
Fate of plan hinges on earnings. Barron's 26:1+ Je 3 '46
Securities disturbing investors. H. S. Coffin. Mag of Wall St 78:755 S 28 '46

AMERIPOL. See Rubber, Artificial

AMIDES
Melting points of *N*-substituted polyamides. B. S. Biggs, C. J. Frosch and R. H. Erickson. bibliog Ind & Eng Chem 38:1016-19 O '46

AMIDES—*Continued*
Phosphazo compounds and their use in preparing amides. H. W. Grimmel, A. Guenther and J. F. Morgan. il Am Chem Soc J 68:539-42 Ap '46
Rearrangements of aldoximes into amides with Raney nickel; stereoisomeric geranamides. A. G. Caldwell and E. R. H. Jones. Chem Soc J p599-601 Jl '46
Reduction of amide vinylogs. R. H. Baker and A. H. Schlesinger. bibliog Am Chem Soc J 68:2009-11 O '46
Thermal evidence of crystallinity in linear polymers. W. O. Baker and C. S. Fuller. bibliog Ind & Eng Chem 38:272-7 Mr '46
Willgerodt and Kindler reactions; amides from acetylenes and olefins; studies relating to the reaction mechanisms. M. Carmack and D. F. DeTar. bibliog Am Chem Soc J 68:2029-33 O '46
Willgerodt reaction; a study of reaction conditions with acetophenone and other ketones. D. F. DeTar and M. Carmack. bibliog Am Chem Soc J 68:2025-9 O '46
See also
Sulfonamides

AMIDINES
Amidines; preparation of amidines from cyanides. P. Oxley and W. F. Short. bibliog Chem Soc J p147-50 Mr '46
Attempts to find new chemotherapeutic amidines; nuclear substituted derivatives of 4 : 4′-and 3 : 3′-diamidinostilbene. J. N. Ashley and J. O. Harris. Chem Soc J p567-72 Jl '46
Some aryl di-β-amidinoethyl ethers. A. H. Cook and K. J. Reed. Chem Soc J p920-1 D '45

AMINES
Absorption of microwaves by gases. W. D. Hershberger. diag J Ap Phys 17:495-500 Je '46
Action of bases on organic halogen compounds; the action of the lithium salts of aliphatic amines on some organic halogen compounds. C. H. Horning and F. W. Bergstrom. bibliog Am Chem Soc J 67:2110-11 D '45
Addition of primary and secondary amines to ethylenimine in the presence of aluminum chloride. G. H. Coleman and J. E. Callen. bibliog Am Chem Soc J 68:2006-7 O '46
Addition of secondary amines to dibromopropanol. F. C. Whitmore and others. Am Chem Soc J 68:531 Mr '46
Alkylamines and nitriles. Chem & Ind p325 Ag 31 '46
Alkylation of amines; N,N-dialkylation of nuclear substituted anilines. D. G. Thomas, J. H. Billman and C. E. Davis. Am Chem Soc J 68:895 My '46
Amines related to 2,5-dimethoxyphenethylamine; 2-hydroxy and 2-methoxy-5-methylphenylalkanlamines. A. F. Ardis. R. Baltzly and W. Schoen. bibliog Am Chem Soc J 68:591-5 Ap '46
Biological actions and therapeutic applications of the β-chloroethyl amines and sulfides. A. Gilman and F. S. Philips. bibliog(68 references) Science 103:409-15+ Ap 5 '46
Complex formation with high molecular weight amines. F. K. Broome, A. W. Ralston and M. H. Thornton. bibliog Am Chem Soc J 68:67-9, 849-51 Ja, My '46
Conductometric investigation of electrolytic solutions in hydrocarbons. A. Gemant. bibliog J Chem Phys 14:424-34 Jl '46
Derivatives of the methylchlorosilanes; amines. R. O. Sauer and R. H. Hasek. Am Chem Soc J 68:241-4 F '46
Heterocyclic amines with antihistaminic activity. C. P. Huttrer and others. bibliog Am Chem Soc J 68:1999-2002 O '46
Identification of organic bases by means of the optical properties of diluturates (nitrobarbiturates); primary aromatic amines. B. T. Dewey and E. M. Plein. diags Ind & Eng Chem Anal ed 18:515-20 Ag '46
Mechanism of the sulfonation of aromatic amines; sulfonation with fuming sulfuric acid. E. R. Alexander. bibliog Am Chem Soc J 68:969-73 Je '46
2-Methoxy-6-chloro-9-(N-substituted-amino)-acridines; compounds derived from cyclic secondary amines. J. Corse, J. T. Bryant and H. A. Shonle. Am Chem Soc J 68:1911-13 O '46
N-Nitro-*N*′-2 : 4-dinitrophenylurea; a reagent for primary and secondary amines. J. L. McVeigh and J. D. Rose. Chem Soc J p621-2 S '45
N-substituted α-aminoisobutyronitriles from acetone cyanohydrin. R. A. Jacobson. bibliog Am Chem Soc J 67:1996-8 N '45
N-substituted 2-methoxy-6-chloro-9-aminoacridines derived from unsymmetrical aliphatic amines. J. Corse, J. T. Bryant and H. A. Shonle. bibliog Am Chem Soc J 68:1905-10 O '46
Novel reaction between amines and dibenzoylmethylethylene; evidence for a chelate structure for *cis*-dibenzoylmethylethylene. R. E. Lutz and P. S. Bailey. bibliog Am Chem Soc J 67:2229-32 D '45
Preparation and bacteriostatic properties of some amines derived from citral. A. G. Caldwell and E. R. H. Jones. Chem Soc J p597-9 Jl '46
Preparation and reduction of nitro amines obtained from aromatic amines, formaldehyde, and nitroparaffins. H. G. Johnson. bibliog Am Chem Soc J 68:14-18 Ja '46
Preparation of N-substituted 1-(*p*-hydroxyphenyl)-2-aminoethanols. J. R. Corrigan, M. Langerman and M. L. Moore. bibliog Am Chem Soc J 67:1894-6 N '45
Preparation of some hexahydropyrimidines from nitroparaffins. M. Senkus. bibliog Am Chem Soc J 68:1611-13 Ag '46
Pressor amines containing nuclear chlorine and fluorine. L. S. Fosdick, O. Fancher and K. F. Urbach. bibliog Am Chem Soc J 68:840-3 My '46
Pyridinium analogs of the pressor amines; benzene series. B. Riegel and H. Wittcoff. bibliog Am Chem Soc J 68:1805-6 S '46
Pyridinium analogs of the pressor amines; the guaiacol series. B. Riegel and H. Wittcoff. bibliog Am Chem Soc J 68:1913-17 O '46
Pyrolysis of some polyethylene amines. W. M. Hutchinson, A. R. Collett and C. L. Lazzell. diag Am Chem Soc J 67:1966-8 N '45
Quaternary ammonium salts as germicides; non-acylated quaternary ammonium salts derived from aliphatic amines. R. S. Shelton and others. bibliog Am Chem Soc J 68:753-5 My '46
Quaternary ammonium salts as germicides; quaternary ammonium salts derived from cyclic amines. R. S. Shelton and others. Am Chem Soc J 68:757-9 My '46
Reaction between amines and pentachloroethane. W. H. C. Rueggeberg and M. M. Falkof. Am Chem Soc J 67:2052 N '45
Reaction of aliphatic amines with formaldehyde and nitroparaffins; secondary amines. H. G. Johnson. Am Chem Soc J 68:12-14 Ja '46
Reaction of 2-methylfuran with formaldehyde and substituted ammonium chlorides. R. F. Holdren and R. M. Hixon. Am Chem Soc J 68:1198-1200 Jl '46
Reaction of primary aliphatic amines with formaldehyde and nitroparaffins. M. Senkus. bibliog Am Chem Soc J 68:10-12 Ja '46
Reactions of unsaturated ketones and derivatives with amino compounds; amino ketones. N. H. Cromwell. bibliog(124 references) Chem R 38:83-137 F '46
Researches on acetylenic compounds; the addition of amines to ethynyl ketones; auxochromic properties and conjugating power of the amino group. K. Bowden and others. Chem Soc J p45-52 Ja '46
Some amine derivatives of acrylonitrile. O. F. Wiedeman and W. H. Montgomery. Am Chem Soc J 67:1994-6 N '45
Stokes' law and the limiting conductance of organic ions. E. Gonick. diag J Phys Chem 50:291-300 Jl '46
Studies on phosphorylation; the reaction of dialkyl phosphites with polyhalogen compounds in presence of bases; a new method for the phosphorylation of amines. F. R. Atherton, H. T. Openshaw and A. R. Todd. Chem Soc J p660-3 O '45

AMINES—*Continued*
Substituted diethylaminoalkylthioalkylamines; 4-aminoquinoline derivatives. W. Huber and others. Am Chem Soc J 68:322-3 F '46
Sulphonamides; the action of amines on ethyl 4-sulphanilamidobenzoate; some alternative preparative methods for sulphanilamidobenzamides. J. H. Gorvin. Chem Soc J p736-8 N '45
Synthesis of alicyclic diamines. L. C. Behr and others. Am Chem Soc J 68:1296-7 Jl '46
Synthesis of 1-diethylamino-5-aminohexane. E. P. Anderson, J. V. Crawford and M. L. Sherrill. bibliog Am Chem Soc J 68:1294-6 Jl '46
Synthesis of 1-diethylamino-2,3-epoxypropane, 3-diethylamino-2-hydroxypropylamine, and 4-diethylamino-3-hydroxybutylamine. H. Gilman and others. bibliog Am Chem Soc J 68:1291-3 Jl '46
Synthesis of monoalkyl-substituted diamines and their condensation products with 4,7-dichloroquinoline. D. E. Pearson, W. H. Jones and A. C. Cope. Am Chem Soc J 68:1225-9 Jl '46
Synthetic antimalarials; the preparation of certain derivatives of sulfanilamide. N. L. Drake and others. bibliog Am Chem Soc J 68:1602-6 Ag '46
See also
Butylamine
Cyclohexylamine
Methylamine
Propylamine

AMINOACETOVERATRONE
6-Aminoacetoveratrone and 5 : 6-dimethoxy-3-methylanthranil. J. C. E. Simpson. Chem Soc J p94-7 F '46

AMINO acids
Amino acid and protein deficiencies as causes of corneal vascularization; a preliminary report. V. P. Sydenstricker and others. bibliog Science 103:194-6 F 15 '46
Amino acid conversion products; 3,5-diiodotyrosine derivatives. S. W. Fox. Am Chem Soc J 68:194-5 F '46
Amino acids addition makes foods special. Oil Paint & Drug Rep 148:5 N 19 '45
Amino acids and cell metabolism; abstract. E. C. Barton-Wright. Chem & Ind p 197 My 18 '46
Amino acids now produced in industrial quantities. H. C. E. Johnson. il Sci Am 174: 62-4 F '46
Common ailments of quality in processed foods. C. W. Kaufman. il Food Ind 18:12-15 Ja '46
Cooperative research in properties and therapeutic values of protein hydrolysates and amino acids. W. H. Cole. Science 103:205 F 15 '46
Differential entropy of dilution in aqueous solutions of amino acids. A. L. Robinson. bibliog J Chem Phys 14:588-90 O '46
Isolation and synthesis of the naturally occurring α-amino acids. R. J. Block. bibliog(343 titles) diag Chem R 38:501-71 Je '46
Micro-analysis of mixtures (amino acids) in the form of isotopic derivatives. A. S. Keston, S. Udenfriend and R. K. Cannan. bibliog Am Chem Soc J 68:1390 Jl '46
Mixtures of solid amino acids for microbiological amino acid assay. L. B. Rockland and M. S. Dunn. Science 104:9 Jl 5 '46
Nutritional role of amino-acids. A. Neuberger. bibliog Chem & Ind p338-42 S 14 '46
Protein hydrolysates; flavor ingredients for foods; acid digestion of casein, corn or wheat gluten. L. A. Hall. flow sheet il Food Ind 18:681-4+ My '46
Role of amino acids and amides in the metabolism of ammonium absorbed by zea mays L. F. G. Viets, jr. bibliog Science 102:587-9 D 7 '45
Role of amino acids in human nutrition; abstract. W. C. Rose. Chem & Eng N 24: 2470-1 S 25 '46
Synthesis of amino acids from ethyl acetamidomalonate and ethyl acetamidocyanoacetate; the use of primary halides. N. F. Albertson. bibliog Am Chem Soc J 68:450-3 Mr '46
Synthetic amino acid. Chem & Met Eng 53: 145 Je '46
Unfermentable reducing substances in molasses; anhydrides and amino acid condensation products of reducing sugars. L. Sattler and F. W. Zerban. bibliog Ind & Eng Chem 37:1133-42 N '45
See also
Cystine
Isoleucine
Tryptophan

Analysis
Amino acid composition of proteins. H. B. Vickery and H. T. Clarke. Science 102: 454-6 N 2 '45; Reply. R. J. Block and D. Bolling. 103:431-2 Ap 5 '46; Discussion (Amino acids in food materials. E. B. Hart). 103:432+ Ap 5 '46
Chromatography in the separation and determination of the basic amino acids. M. S. Bergdoll and D. M. Doty. bibliog Ind & Eng Chem Anal ed 18:600-3 O '46

AMINOACRIDINE
Absorption spectra of acridines; steric interference with ionisation. D. P. Craig. Chem Soc J p534-7 Je '46
Acetylation of some 5-aminoacridines. J. H. Wilkinson and I. L. Finar. Chem Soc J p115-17 F '46
Heterocyclic basic compounds; 3,6-dichloro-9-(1-methyl-4-diethylaminobutyl)-aminoacridine. D. P. Spalding and others. bibliog Am Chem Soc J 68:1596-8 Ag '46
N-substituted 5-aminoacridines. D. J. Dupré and F. A. Robinson. Chem Soc J p549-51 S '45
N-substituted 2-methoxy-6-chloro-9-aminoacridines. J. Corse, J. T. Bryant and H. A. Shonle. bibliog Am Chem Soc J 68:1905-13 O '46

AMINO alcohols. See Alcohols

AMINOANTIPYRINE
Quantitative determination of phenolic fungicides. S. Gottlieb and P. B. Marsh. bibliog Ind & Eng Chem Anal ed 18:16-19 Ja '46

AMINOBENZACRIDINE
Synthesis of substituted aminobenzacridines. G. B. Bachman and G. M. Picha. bibliog Am Chem Soc J 68:1599-1602 Ag '46

AMINOBENZENESULFONIC acid. See Sulfanilic acid

AMINOBENZOATES
p-Aminobenzoates of piperidino- and morpholinomethylnaphthols. R. L. Shriner, G. F. Grillot and W. O. Teeters. Am Chem Soc J 68:946-7 Je '46

AMINOBENZOCINNOLINE
New potential chemotherapeutic agents; derivatives of 2-aminobenzocinnoline. F. E. King and T. J. King. Chem Soc J p824-6 N '45

AMINOBENZOIC acid
Assay of *p*-aminobenzoic acid. D. Pennington. bibliog Science 103:397 Mr 29 '46
Colorimetric determination of local anesthetic compounds. F. J. Bandelin and C. R. Kemp. bibliog Ind & Eng Chem Anal ed 18:270 Ag '46
Esters of halogenated aminobenzoic acids. M. Rubin and others. bibliog Am Chem Soc J 68:623-4 Ap '46
See also
Anthranilic acid

AMINOBROMOPENTANE
Synthesis of 1-alkylamino-4-bromopentane derivatives and of other amino halides. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1579-84 Ag '46

AMINOCHLOROBENZOIC acid
Esters of halogenated aminobenzoic acids. M. Rubin and others. bibliog Am Chem Soc J 68:623-4 Ap '46

AMINOCHLOROQUINOLINE
Some 4-amino-7-chloroquinoline derivatives. C. C. Price and others. Am Chem Soc J 68:1807-8 S '46

AMINOCHOLESTEROL
Aminosteroids; α- and β-forms of 7-aminocholesterol. J. Barnett, B. E. Ryman and F. Smith. Chem Soc J p524-6 Je '46

AMINO compounds
Action of alkaline reagents on 2 : 3-1 : 6- and 3 : 4-1 : 6-dianhydro β-talose; constitutional synthesis of chondrosamine and other amine-sugar derivatives. S. P. James and others. Chem Soc J p625-8 Jl '46
Aminoalkyl esters of thiazolecarboxylic and thiazolyl-4-acetic acids. E. R. H. Jones, F. A. Robinson and M. N. Strachan. Chem Soc J p87-91 F '46
N^1-(Aminoalkyl)-sulfanilamides and N^1-(acetamidoalkyl)-sulfanilamides. L. H. Amundsen and L. A. Malentacchi. Am Chem Soc J 68:584-5 Ap '46
4-Amino-4′-hydroxylaminodiphenyl sulfone, its acetyl and D-glucosyl derivatives. E. L. Jackson. bibliog Am Chem Soc J 68:1438-42 Ag '46
o-Amino-ketones of the acetophenone and benzophenone types. J. C. E. Simpson and others. bibliog Chem Soc J p646-57 O '45
Amino products plant at San Jose, Calif. il Chem & Eng N 23:1966 N 10 '45
8-Amino-6-quinolyl methyl sulfone. H. Gilman and A. E. Lindblad. bibliog Am Chem Soc J 68:982-3 Je '46
Aminosteroids. J. Barnett, B. E. Ryman and F. Smith. Chem Soc J p524-30 Je '46
Chemical interactions of amino compounds and sugars. L. F. Cavalieri and M. L. Wolfrom. bibliog Am Chem Soc J 68:2022-5 O '46
Chemotherapeutic agents of the sulphone type; sulphones containing a *p*-aminophenyl group. J. Walker. Chem Soc J p630-3 O '45
Contributions to the chemistry of synthetic antimalarials; some 8-diethylamino-α-methylbutylamino-derivatives of pyridine and thiazole. J. N. Ashley and J. F. Grove. Chem Soc J p768-9 N '45
Dibenzofuran; some dialkylaminoalkylamino derivatives. H. Gilman and S. Avakian. bibliog Am Chem Soc J 68:580-3 Ap '46
Oxidation of compounds possessing the primary amino group; β,β,β-triphenylethylamine. L. Hellerman. bibliog Am Chem Soc J 68:825-8 My '46
Preparation of N-aryl-α-arylaminomaleimides. A. R. Surrey and R. A. Cutler. bibliog Am Chem Soc J 68:514-17 Mr '46
Reactions of unsaturated ketones and derivatives with amino compounds; amino ketones. N. H. Cromwell. bibliog(124 references) Chem R 38:83-137 F '46
Some derivatives of 3-amino-4-(1-diethylamino-4-pentylamino)-chlorobenzene. R. L. McKee, M. K. McKee and R. W. Bost. bibliog Am Chem Soc J 68:1904-5 O '46
Some dialkylaminoalkylamino derivatives of dibenzothiophene. H. Gilman and S. Avakian. bibliog Am Chem Soc J 68:1514-15 Ag '46
Synthesis of amino-sulphones. A. A. Goldberg and D. M. Besly. Chem Soc J p566-71 S '45
Synthesis of diamino sulphones. A. A. Goldberg. Chem Soc J p826-9 N '45

AMINOCRESOL
Aminoalkylphenols as antimalarials; simply substituted α-aminocresols. J. H. Burckhalter and others. bibliog Am Chem Soc J 68:1894-901 O '46

AMINODIMETHYLANILINE
p-Aminodimethylaniline; orientation of groups in the disubstituted molecule. E. E. Ayling, J. H. Gorvin and L. E. Hinkel. Chem Soc J p530-2 Je '46
Determination of free chlorine and chloramine in water by use of para-aminodimethylaniline. A. T. Palin. bibliog Water & Sewage 84:22+ F '46

AMINOFLUOROBENZOIC acid
Esters of halogenated aminobenzoic acids. M. Rubin and others. bibliog Am Chem Soc J 68:623-4 Ap '46

AMINO halides
Synthesis of 1-alkylamino-4-bromopentane derivatives and of other amino halides. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1579-84 Ag '46

AMINOISOBUTYRONITRILE
N-substituted α-aminoisobutyronitriles from acetone cyanohydrin. R. A. Jacobson. bibliog Am Chem Soc J 67:1996-8 N '45

AMINOKETONES. See Ketones

AMINOMETHOXYQUINOLINE
Synthetic antimalarials; 8-(5-isopropylaminoamylamino)-6-methoxyquinoline (SN-13,276) and some related compounds. N. L. Drake and others. Am Chem Soc J 68:1529-31 Ag '46

AMINOPHENOL
Aminoalkylphenols as antimalarials; simply substituted α-aminocresols. J. H. Burckhalter and others. bibliog Am Chem Soc J 68:1894-901 O '46
Migration of acyl groups in certain derivatives of *o*-aminophenol. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 67:2163-5 D '45

AMINOPHENYLMETHYLCARBINOL
Some derivatives of *m*-ethylaniline; a novel disproportionation of an aminophenylmethylcarbinol. C. S. Marvel and C. G. Overberger. bibliog Am Chem Soc J 68:185-7 F '46

AMINOPHENYLTHIAZOLE
Reaction of acetophenone with thiourea and oxidizing agents. R. M. Dodson and L. C. King. Am Chem Soc J 68:871 My '46

AMINOPROPIONIC acid
Preparation and properties of some β-aminopropionic acid derivatives. J. A. King and F. H. McMillan. bibliog Am Chem Soc J 68:1468-70 Ag '46

AMINOPROPYL ether
Di-(γ-aminopropyl) ether. P. F. Wiley. Am Chem Soc J 68:1867 S '46

AMINOPYRIDINE
α-Alkylaminopyridines and 1,5-di-(alkyl-α-pyridylamino)-pentanes. F. F. Blicke and M. U. Tsao. bibliog Am Chem Soc J 68: 905-6 My '46
Some pyridyl analogues of triphenylmethane. H. J. Kahn and V. A. Petrow. Chem Soc J p858-61 D '45

AMINOQUINAZOLINE
Quinazolines, syntheses of 4-alkylaminoquinazolines. B. E. Christensen, B. Graham and A. J. Tomisek. Am Chem Soc J 68:1306-8 Jl '46

AMINOQUINOLINE
Alkylaminoalkyl derivatives of 8-aminoquinoline. R. C. Elderfield and others. Am Chem Soc J 68:1524-9 Ag '46
Aminoalkylamino derivatives of 8-aminoquinoline. R. S. Elderfield and others. bibliog Am Chem Soc J 68:1568-9 Ag '46
8-[3-(3′-Aminopropylamino)-propylamino]-6-methoxyquinoline. L. W. Kissinger, I. Von and M. Carmack. bibliog Am Chem Soc J 68:1563-5 Ag '46
5- and 7-Chloro-8-aminoquinoline. C. C. Price and D. B. Guthrie. bibliog Am Chem Soc J 68:1592-3 Ag '46
Derivatives of 6-methoxy-8-aminoquinoline. G. B. Bachman and H. H. Szmant. Am Chem Soc J 68:31-4 Ja '46
α-Dialkylaminomethyl-4-quinolinemethanols substituted in the 2-position. S. Winstein and others. Am Chem Soc J 68:1831-7 S '46
8-(3-Diethylamino-2-hydroxypropylamino)-5,6-dimethoxyquinoline and some of its homologs. W. M. Lauer, R. T. Arnold and R. E. Buckles. Am Chem Soc J 68:1552-3 Ag '46
Heterocyclic basic compounds; 8-[3-(3′-aminopropylamino-propylamino] - 6 - methoxyquinoline. H. S. Mosher. Am Chem Soc J 68:1565-8 Ag '46
5-Methyl-6-methoxy-8-(2′-diethylaminoethylamino)-quinoline. M. Carmack, L. W. Kissinger and I. Von. bibliog Am Chem Soc J 68:1551-2 Ag '46
Preparation of bz-dichloro-4-aminoquinoline derivatives. A. R. Surrey and H. F. Hammer. Am Chem Soc J 68:1244-6 Jl '46
Preparation of some 4-aminoquinolines. B. Riegel and others. Am Chem Soc J 68: 1229-32 Jl '46
Quinolines; some bz-iodo-3-methyl-4-(1′-methyl-4′-diethylaminobutylamino)-quinolines. E. A. Steck, L. L. Hallock and A. J. Holland. Am Chem Soc J 68:1241-3 Jl '46

AMINOQUINOLINE—*Continued*
Quinolines; the synthesis of 5- and 7-chloro- and bromo-3-methyl-4-dialkylamino-alkylaminoquinolines. E. A. Steck, L. L. Hallock and A. J. Holland. bibliog Am Chem Soc J 68:380-3 Mr '46
Some derivatives of 3-aminoquinoline. G. R. Clemo and G. A. Swan. Chem Soc J p867-70 D '45
Some derivatives of 8-aminoquinoline. W. M. Lauer and others. Am Chem Soc J 68: 1546-8 Ag '46
Some N-substituted aminoquinolines. E. B. Hartshorn and S. L. Baird, jr. bibliog Am Chem Soc J 68:1562-3 Ag '46
Some 7-substituted 4-aminoquinoline derivatives. A. R. Surrey and H. F. Hammer. bibliog Am Chem Soc J 68:113-16 Ja '46
Studies in the quinoline series; some 6-β-hydroxyethoxy- 8 -(ω-monoalkylaminoalkylamino)-quinolines. M. S. Morgan and R. S. Tipson. Am Chem Soc J 68:1569-72 Ag '46
Studies in the quinoline series; the preparation of some 8-(ω-alkylamino-alkylamino)-quinolines. K. N. Campbell and others. Am Chem Soc J 68:1556-9 Ag '46
Studies in the quinoline series; the preparation of some 5-amino-8-(ω-dialkylaminoalkylamino)-quinolines. K. N. Campbell and others. bibliog Am Chem Soc J 68:1559-62 Ag '46
Studies in the quinoline series; the preparation of some dialkylaminomethyl-4-quinoline methanols. K. N. Campbell and J. F. Kerwin. Am Chem Soc J 68:1837-40 S '46
Studies in the quinoline series; the preparation of some α-dialkylaminomethyl-2-quinolinemethanols. K. N. Campbell, C. H. Helbing and J. F. Kerwin. bibliog Am Chem Soc J 68:1840-3 S '46
Studies in the quinoline series; the preparation of some α-dialkylaminomethyl-8-quinoline methanols. K. N. Campbell and others. Am Chem Soc J 68:1844-6 S '46
Studies in the quinoline series; the preparation of some substituted lepidylamines. K. N. Campbell and others. Am Chem Soc J 68:1851-2 S '46
Study of plasmochin and the occurrence of rearrangements in the preparation of certain plasmochin analogs. R. C. Elderfield and others. Am Chem Soc J 68:1516-23 Ag '46
Substituted diethylaminoalkylthioalkylamines; 4-aminoquinoline derivatives. W. Huber and others. Am Chem Soc J 68:322-3 F '46
Syntheses of certain 8-nitroquinolines. A. Tomisek and others. Am Chem Soc J 68: 1587-9 Ag '46
Synthesis of 4-(4'-amino-1'-methylbutylamino-7-chloroquinoline and some 4-(4'-monoalkylamino- 1' - methylbutylamino) -7-chloroquinolines. M. Carmack and others. bibliog Am Chem Soc J 68:1220-5 Jl '46
Synthesis of antimalarials; synthesis of certain 8-aminoquinolines. C. R. Hauser and others. bibliog Am Chem Soc J 68:1544-6 Ag '46
Synthesis of antimalarials; the synthesis of certain 4-aminoquinoline derivatives. D. S. Breslow and others. bibliog Am Chem Soc J 68:1232-8 Jl '46
Synthesis of certain simple 4-aminoquinoline derivatives. R. C. Elderfield and others. Am Chem Soc J 68:1250-1 Jl '46
Synthesis of 7-chloro-4-(1-ethyl-4-piperidylamino)-quinoline (SN-13,425). R. C. Fuson, W. E. Parham and L. J. Reed. Am Chem Soc J 68:1239-40 Jl '46
Synthesis of 6-phenoxy-8-(3'-diethylaminopropylamino)-quinoline. W. M. Lauer and others. Am Chem Soc J 68:1548 Ag '46
Synthesis of potential antimalarials; some 2-substituted 8-(3-diethylaminopropylamino)-quinolines. K. Mislow and J. B. Koepfli. bibliog Am Chem Soc J 68:1553-6 Ag '46
Synthesis of simple 2-phenyl-8-aminoquinoline derivatives. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1589-91 Ag '46
Synthesis of some 8-aminoquinolines. R. H. Baker and others. bibliog Am Chem Soc J 68:1532-6 Ag '46
Synthesis of some 7-chloro-4-(3-alkylaminopropylamino)-quinolines. D. S. Tarbell and others. bibliog Am Chem Soc J 68:1217-19 Jl '46
Synthesis of some substituted 8-aminoquinolines. T. R. Norton and others. bibliog Am Chem Soc J 68:1572-6 Ag '46
Synthesis of substituted 4-aminoquinolines. C. C. Price and V. Boekelheide. bibliog Am Chem Soc J 68:1246-50 Jl '46
Synthesis of 5-substituted derivatives of 6-methoxy-8-aminoquinoline and of 5-chloro-6-methoxyquinoline. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1584-7 Ag '46
Synthetic antimalarials; preparation and properties of 7-chloro-4-(4-diethylamino-1-methylbutylamino)-quinoline (SN-7618). N. L. Drake and others. Am Chem Soc J 68: 1214-16 Jl '46
Synthetic antimalarials: preparation of certain 4-aminoquinolines. N. L. Drake and others. bibliog Am Chem Soc J 68:1208-13 Jl '46
Synthetic antimalarials; some derivatives of 8-aminoquinoline. N. L. Drake and others. Am Chem Soc J 68:1536-43 Ag '46
Two 6-β-hydroxyethoxy-8-diethylaminoalkylaminoquinolines. M. S. Morgan and L. H. Cretcher. bibliog Am Chem Soc J 68:781-4 My '46

AMINOQUINOLYLMETHYLSULFONE
8-Amino-6-quinolyl methyl sulfone. H. Gilman and A. E. Lindblad. bibliog Am Chem Soc J 68:982-3 Je '46

AMINOQUINOXALINE
New potential chemotherapeutic agents; derivatives of aminoquinoxalines. F. E. King and R. J. S. Beer. Chem Soc J p791-4 N '45

AMINOTHIAZOLE
Controlling orange decay; thiourea, thioacetamide, 2-aminothiazole, and quinosol in aqueous solution. J. F. L. Childs and E. A. Siegler. bibliog Ind & Eng Chem 38:82-7 Ja '46

AMIOCA. See Cornstarch

AMMETERS
Determining the resistance of a sensitive d.c. meter. G. Dexter. diags Radio N 35:80 Mr '46
Frequency compensated a-c ammeters and voltmeters. J. M. Whittenton and C. A. Wilkinson. il diags Elec Eng 65:Trans 761-4 N '46
Measurement of electric currents by means of a mercury manometer. A. Kolin. diags R Sci Instr 16:378-9 D '45
Note on critical damping. N. Thompson. diags Inst Radio Eng Proc 34:660 S '46
Remote indicating antenna ammeter. C. R. Cox. il diag Electronics 19:210+ Ja '46
Silver simplifies shunt soldering. U. L. Smith and P. MacGahan. il diag Am Mach 90:95 F 28 '46

See also
Milliammeters

Testing
Max-I-Meters tested on zig-zag bus. E. J. Norton. il Elec World 124:137 N 10 '45

AMMONIA
Absorption of microwaves by gases. W. D. Hershberger. diag J Ap Phys 17:495-500 Je '46
Absorption spectrum of metal-ammonia solutions. R. A. Ogg, jr. bibliog J Chem Phys 14:114-15 F '46
Action of bases on organic halogen compounds; the reaction of potassium amide with the naphthyl halides. R. S. Urner and F. W. Bergstrom. Am Chem Soc J 67: 2108-9 D '45
Alkaline solutions; tabulated information. W. L. Nelson. Oil & Gas J 44:123 Mr 16 '46
Alkylation and arylation of aliphatic nitriles in liquid ammonia. F. W. Bergstrom and R. Agostinho. bibliog Am Chem Soc J 67:2152-4 D '45
Ammonia scrubbers controlled by simple flowmeter. F. Gibadlo. diag Chem Eng 53:127-8 Ag '46
Anomalous reaction between ammonia and 9-chlorofluorene; substitution of the labile hydrogen in fluorene derivatives. L. A. Pinck and G. E. Hilbert. bibliog Am Chem Soc J 68:377-80 Mr '46
Apparatus for trapping ammonia in the Kjeldahl method for nitrogen. T. J. Potts. diag Ind & Eng Chem Anal ed 18:78 Ja '46

AMMONIA—*Continued*
Bacterial oxidation of ammonia in circulating water. J. C. Hill. Am Water Works Assn J 38:980-2 Ag '46
Bose-Einstein condensation of trapped electron pairs; phase separation and superconductivity of metal-ammonia solutions. R. A. Ogg, jr. bibliog Phys R 69:243-4 Mr 1 '46; Discussion. H. A. Boorse and others. diag 70:92 Jl 1 '46; Reply. 70:93 Jl 1 '46
Conduction process in dilute metal-ammonia solutions. R. A. Ogg, jr. J Chem Phys 13:533 N '45
Conductivity of metal-amine solutions. S. I. Weissman. Phys R 70:571-2 O 1 '46
Conductivity of sodium-ammonia solutions. J. G. Daunt and others. Phys R 70:219 Ag 1 '46
Constitution of the product of the reaction of benzylethylene oxide with ammonia. A. J. Castro and C. R. Noller. bibliog Am Chem Soc J 68:203-4 F '46
Electrolyte catalysis in the ammonolysis of 9-phenyl-9-chlorofluorene by liquid ammonia, alkaline-earth nitrates. W. F. Roper, R. C. Anderson and G. W. Watt. Am Chem Soc J 67:2269-70 D '45
Electron affinity of amide radical and the chemical stability of metal-ammonia solutions. R. A. Ogg, jr. J Chem Phys 14:399-400 Je '46
Electronic processes in liquid dielectric media; the properties of metal-ammonia solutions. R. A. Ogg, jr. Am Chem Soc J 68: 155 Ja '46
Improved Kjeldahl trap and ammonia-distillation outfit. A. Lovecy. diags Soc Chem Ind J 65:224-6 Ag '46
Intensities of electronic transitions in ammonia. R. J. Thompson and A. B. F. Duncan. bibliog J Chem Phys 14:573-7 O '46
Inversion spectrum of ammonia. W. E. Good. il diag Phys R 70:213-18 Ag 1 '46
Persistent currents in frozen metal-ammonia solutions. J. W. Hodgins. bibliog diag Phys R 70:568 O 1 '46
Photoelectric effect in metal-ammonia solutions. R. A. Ogg, jr. bibliog J Chem Phys 14:295 Ap '46
Physical interaction of electrons with liquid dielectric media; properties of metal-ammonia solutions. R. A. Ogg, jr. Phys R 69: 668-9 Je 1 '46
Pyridines; aldehyde-collidine and 5-ethyl-2-vinylpyridine. R. L. Frank and others. bibliog Am Chem Soc J 68:1368-9 Jl '46
Reactions of phenanthraquinone with aromatic aldehydes and ammonia in alkaline media. E. A. Steck and A. R. Day. bibliog Am Chem Soc J 68:771-2 My '46
Recycling process uses cheap oxygen for ammonia oxidation. M. C. Sze and Chih Wu. bibliog flow sheet Chem Eng 53:113-15 Ag '46
Refrigeration notebook; adding ammonia to a refrigerating plant. T. Mitchell. diag Power 90:483 Jl '46
Refrigeration notebook; how to test for leaks in an ammonia system. T. Mitchell. il Power 90:263 Ap '46
Sulphonamides; the action of ammonia on sulphanilamidobenzoic esters in the light of the general theory of ester ammonolysis. J. H. Gorvin. Chem Soc J p732-5 N '45
System ammonia-phosphoric acid-water at 75°. J. C. Brosheer and J. F. Anderson, jr. bibliog diags Am Chem Soc J 68:902-4 My '46
System ammonium nitrate-ammonia-water; partial vapor pressures and solution densities. J. F. Shultz and G. V. Elmore. bibliog diags Ind & Eng Chem 38:296-8 Mr '46

Analysis

Determination of basic nitrogen in hydrocarbon feed stocks. L. Donn and H. Levin. diags Ind & Eng Chem Anal ed 18:593-5 O '46

Manufacture

American and German designs contrasted for catalytic converters employed in the production of synthetic ammonia. C. O. Brown. Ind & Eng Chem 38:sup69-70 Mr '46
Ammonia and hydrogen sulphide from gas; abstract. A. Samtleben. Chem & Met Eng 53:280 F '46
Ammonia, its production from natural gas. G. S. Mitchell. flow sheets il Pet Refiner 25:97-111 Je '46
Ammonia synthesis; abstract. R. M. Hunter. Chem & Met Eng 53:218+ F '46
Fertilizer from natural gas; Lion oil company manufactures ammonium nitrate and other ammonia products. D. P. Thornton, jr. flow diag il Nat Pet N 38 pt 2:R483-8 Jl 3 '46
Petrochemistry directs natural-gas conversion at Lion oil co. plant; to produce ammonia and its products. A. L. Foster. il diags Oil & Gas J 45:98-101 Je 22 '46
La production de l'ammoniaque synthétique aux États-Unis et au Canada pendant la guerre. P. Guillaumeron. il map Génie Civil 123:57-9 Mr 1 '46
Synthetic ammonia; pictured flow sheet. Chem & Met Eng 52:134-7 D '45
Synthetic ammonia produced from natural gas. J. A. Lee. il Chem & Met Eng 52:94-6 D '45

AMMONIA compressors
Application of ammonia compressors to low temperatures. W. W. Sandholt. il diag Refrig Eng 52:229-31 S '46
Refrigeration notebook; how the capacity of compressors is rated. T. Mitchell. Power 90:125 F '46

AMMONIUM carbamate
Dissociation pressure of ammonium carbamate. E. P. Egan, jr., J. E. Potts, jr. and G. D. Potts. bibliog diag Ind & Eng Chem 38:454-6 Ap '46

AMMONIUM chloride
Corrosive action of benzole absorption oils. C. M. Cawley and H. E. Newall. Soc Chem Ind J 64:285-90 O '45
Method for obtaining ammonium chloride from gas-liquor. C. H. Bone. diags Blast F & Steel Pl 33:1507-10 D '45
Reaction of 2-methylfuran with formaldehyde and substituted ammonium chlorides. R. F. Holdren and R. M. Hixon. Am Chem Soc J 68:1198-1200 Jl '46
Spectrographic analysis of zinc-base alloys. L. Larrieu. il diags Ind & Eng Chem Anal ed 18:403-7 Jl '46

AMMONIUM compounds
Comparative physiological actions of aliphatic secondary carbon-ammonium salts; α-methylalkyl-ammonium compounds. G. A. Alles. bibliog Univ of Calif Pub in Pharmacology v2, no 15:183-203 '46 (35c)
Death-rate study on a high molecular quaternary ammonium compound with bacillus metiens. A. S. DuBois and D. Dibblee. Science 103:734 Je 21 '46
Disinfectant testing. G. F. Reddish. bibliog Soap & San Chem 22:127-9+ Jl '46
Disinfectants test not suitable; abstract. E. G. Klarmann. Oil Paint & Drug Rep 149:44 Je 24 '46
Inquiry into the germicidal performance of quarternary ammonium disinfectants. E. G. Klarmann and E. S. Wright. il Soap & San Chem 22:125+ Ja; 139+ Ag '46
New odorless disinfectant developed; Hyamine 1622. il Safety Eng 92:59-61 Jl '46
Quaternary ammonium salts as germicides. R. S. Shelton and others. bibliog Am Chem Soc J 68:753-9 My '46
Reactions of antiserum homologous to the *p*-azophenyltrimethylammonium group. D. Pressman and others. Am Chem Soc J 68: 250-5 F '46
Some quaternary ammonium salts of heterocyclic bases. J. L. Hartwell and S. R. L. Kornberg. bibliog Am Chem Soc J 68:868-70, 1131-3 My-Je '46
Sources of error in germicidal activity tests with quaternary ammonium compounds. R. Pressman and J. C. Rhodes. bibliog Soap & San Chem 22:137+ Ap '46
Testing the germicidal activity of quaternary ammonium compounds. H. Bernstein and others. Soap & San Chem 22:131+ S '46

AMMONIUM dihydrogen phosphate. See Ammonium phosphates

AMMONIUM ethylenesulfonate
Preparation of ethylenesulfonic acid; salts and esters. W. F. Whitmore and E. F. Landau. bibliog Am Chem Soc J 68:1797-8 S '46

AMMONIUM fluoride
Experiences in handling of ammonium fluoride solutions. H. A. Depew. diag Am Inst Chem Eng Trans 41:711-15 D '45

AMMONIUM halides

Analysis

Argentimetric estimation of high-molecular quaternary ammonium halides. A. S. DuBois. bibliog Ind & Eng Chem Anal ed 17: 744-5 N '45

AMMONIUM hydroxide
Codeposition of tungsten and nickel from an aqueous ammoniacal citrate bath. L. E. Vaaler and M. L. Holt. bibliog Electrochem Soc Trans 90 (preprint 9):151-62 '46

Kinetics of the reaction between copper and aqueous ammonia. R. W. Lane and H. J. McDonald. bibliog Am Chem Soc J 68:1699-704 S '46

AMMONIUM nitrate
Ammonium nitrate from war to peace. C. K. Horner. J Chem Educ 22:611-12 D '45

Humidity measurements in presence of water-soluble salts. G. C. Williams and R. O. Schmitt. Ind & Eng Chem 38:967-74 S '46

Properties of granular and monocrystalline ammonium nitrate. W. H. Ross, J. Y. Yee and S. B. Hendricks. bibliog il Ind & Eng Chem 37:1079-83 N '45

Solubility and density isotherms; potassium and ammonium nitrates in isopropanol solutions. A. R. Thompson and M. C. Molstad. bibliog Ind & Eng Chem 37:1244-8 D '45

System ammonium nitrate-ammonia-water; partial vapor pressures and solution densities. J. F. Shultz and G. V. Elmore. bibliog diags Ind & Eng Chem 38:296-8 Mr '46

Manufacture

Compressing gases from earth and sky to grow more food; compressor plant at Alberta nitrogen products ltd. il Can Min J 66: 850-1 D '45

Fertilizer from natural gas; Lion oil company manufactures ammonium nitrate and other ammonia products. D. P. Thornton, jr. flow diag il Nat Pet N 38 pt 2:R483-8 Jl 3 '46

Production of grained ammonium nitrate fertilizer; conditioning treatments and moistureproof bags. P. Miller and others. bibliog il Ind & Eng Chem 38:709-18 Jl '46

Relationships between the chemical industry and the paper industry; Welland chemical works described; ammonium nitrate production. G. I. Hoover. il Pulp & Pa of Can (Convention no) 47:227-8 [F] '46

Storage

Production of grained ammonium nitrate fertilizer; conditioning treatments and moistureproof bags. P. Miller and others. bibliog il Ind & Eng Chem 38:709-18 Jl '46

AMMONIUM oxalate
Habit modification of ammonium oxalate monohydrate crystals during growth from solution. H. J. Kolb and J. J. Comer. Am Chem Soc J 68:719 Ap '46

Separation of calcium from magnesium by oxalate method in samples of high magnesium-calcium ratio. E. R. Wright and R. H. Delaune. bibliog Ind & Eng Chem Anal ed 18:426-9 Jl '46

AMMONIUM pentachlorophenate
Tropicalization; Hyamine 3258 for mildewproofing; abstract. Mech Eng 68:256-7 Mr '46

AMMONIUM phosphates
Elastic, piezoelectric, and dielectric constants of potassium dihydrogen phosphate and ammonium dihydrogen phosphate. W. P. Mason. bibliog diags Phys R 69:173-94 Mr 1 '46

AMMONIUM picrate
Studies of the effects of ammonium picrate on man and certain experimental animals. F. W. Sunderman and others. bibliog il J Ind Hygiene 27:241-8 N '45

Analysis

Estimation of ammonium picrate in wastes from bomb- and shell-loading plants; some reactions of ammonium picrate in water and sewage. C. C. Ruchhoft and F. I. Norris. bibliog Ind & Eng Chem Anal ed 18:480-3 Ag '46

AMMONIUM sulfate
Ammonium sulphate situation criticized. Oil Paint & Drug Rep 149:5+ Ap 1 '46
Recent developments in producing by-product ammonium sulphate. E. V. Schulte. bibliog flow diag il Blast F & Steel Pl 34:573-8+ My '46

AMMONIUM thiocyanate
Colorimetric determination of cobalt with ammonium thiocyanate. R. S. Young and A. J. Hall. bibliog Ind & Eng Chem Anal ed 18:264-6 Ap '46
Corrosive action of benzole absorption oils. C. M. Cawley and H. E. Newall. Soc Chem Ind J 64:285-90 O '45
Thiocyanate complex as a means of extracting cobalt before its microdetermination by other methods. N. S. Bayliss and R. W. Pickering. bibliog Ind & Eng Chem Anal ed 18:446-8 Jl '46

AMMONOLYSIS
Derivatives of the methylchlorosilanes; amines. R. O. Sauer and R. H. Hasek. Am Chem Soc J 68:241-4 F '46

Electrolyte catalysis in the ammonolysis of 9-phenyl-9-chlorofluorene by liquid ammonia, alkaline-earth nitrates. W. F. Roper, R. C. Anderson and G. W. Watt. Am Chem Soc J 67:2269-70 D '45

Sulphonamides; the action of ammonia on sulphanilamidobenzoic esters in the light of the general theory of ester ammonolysis. J. H. Gorvin. Chem Soc J p732-5 N '45

AMMUNITION
Ammunition research and development. I. A. Luke. il diag J Ap Phys 16:751-7 D '45

Jig facilitates handling on pallets. il Steel 118:122+ F 11 '46

See also
Projectiles

Transportation

Research speeds materials handling by Navy's Bureau of ordnance. il Nat Safety N 53:24-6+ Ap '46

AMMUNITION cases
Original resistance welder design for production of U.S. navy 40-mm ammunition boxes. F. M. Pence. il diag Welding J 25: 824-8 S '46

AMOEBA. See Ameba

AMORPHOUS state
Amorphous state. H. L. Riley. Chem & Ind p254 Jl 6 '46

AMORTIZATION
Amortization of costs of war facilities. T. W. Graske. il Dun's R 54:19-22+ Jl '46

Amortization of emergency facilities. H. B. Fernald. J Account 81:334-6 Ap '46

Ending of amortization period as provided in section 124 (d) (1) of the Internal revenue code. J. D. Nunan, jr. J Account 81:181-4 F '46

Fully amortized emergency facilities. W. Y. Armstrong. N A C A Bul 27:495-506 F 1 '46

AMPARO (writ)

Mexico

Writ of amparo; Mexican procedure to protect human rights. C. Sánchez Mejorada. Ann Am Acad 243:107-11 Ja '46

AMPERE meters. See Ammeters

AMPHETAMINE. See Benzedrine

AMPHIBIOUS airplanes. See Airplanes, Amphibious

AMPHIBIOUS motor trucks. See Motor trucks, Amphibious

AMPLIDYNE generator
Amplidyne; characteristics and operating principles. J. R. Williams. il diags Elec Eng 65:208-13 My '46

Amplidyne electrical control system. il diags Engineering 162:103-5 Ag 2 '46

AMPLIDYNE generator—*Continued*
Modern arc furnace; control and protective equipment. W. N. Gittings. Steel 118:188+ Mr 4 '46
Modern Diesel-electric drilling rig equipment. T. R. Rhea. bibliog il diags Elec Eng 65: Trans 447-53 Jl '46

AMPLIFIERS
See also
Telephone—Amplifying apparatus

AMPLIFIERS, Vacuum tube
Amplifier-gain formulas and measurements. S. J. Haefner. bibliog diags Inst Radio Eng Proc 34:500-5 Jl '46
Analysis of a resistance-capacitance parallel-T network and applications. A. E. Hastings. bibliog diags Inst Radio Eng Proc 34:126P-9P Mr '46
Analysis of the comparison of beam power and triode tubes used in power amplifiers for driving loudspeakers. J. K. Hilliard. diags Soc Motion Picture Eng J 46:30-6 Ja '46
Analysis of three self-balancing phase inverters. M. S. Wheeler. diags Inst Radio Eng Proc 34:67P-70P F '46
Audio chanalyst can be used as a servicing device for sound equipment; can also serve as amplifier. A. Liebscher. il diags Radio N 34:32-4+ D '45
Bridging amplifier for f-m monitoring. G. E. Beggs, jr. bibliog il diag Electronics 19:152-5 Ja '46
Calculation of amplifier valve characteristics. G. Liebmann. diag Inst E E J 93 pt 3: 138-52 bibliog(p 151) My '46
Carrier-frequency amplifiers. C. C. Eaglesfield. diags Wireless Eng 22:523-32; 23:67-74, 96-102 N '45, Mr-Ap '46
Cathode-coupled amplifier. K. A. Pullen, jr. diags Inst Radio Eng Proc 34:402-5 Je '46
Cathode-coupled isolating amplifier. E. Travis. diag Electronics 19:202+ Ja '46
Cathode-follower circuits. K. Schlesinger. bibliog diags Inst Radio Eng Proc 33:843-55 D '45
Cathode follower coupling in d-c amplifiers. Y. P. Yu. diags Electronics 19:98-103 Ag '46
Cathode follower for power amplifier. C. Stevens. il diag Radio N 36:52-4+ Ag '46
Characteristics of vacuum tubes for radar intermediate frequency amplifiers. G. T. Ford. il diags Bell System Tech J 25:385-407 Jl '46
Coil-neutralized vacuum-tube amplifier at very-high frequencies. R. J. Kircher. bibliog Inst Radio Eng Proc 33:838-43 D '45
Compensating amplifier. C. N. Gillespie. diag Electronics 19:232+ Mr '46
Constant time interval reference potential indicator for use with R-C coupled amplifiers. E. W. Kammer. R Sci Instr 17:102-6 Mr '46
Contact modulated amplifier to replace sensitive suspension galvanometers. M. D. Liston and others. il diags R Sci Instr 17: 194-8 My '46
Crystal-driven modulator for d-c amplifiers. J. A. Williams. diags Electronics 18:128-9 D '45
Design and operation of an improved counting rate meter. A. Kip and others. bibliog diags R Sci Instr 17:323-33 S '46
Design of broad band I.F. amplifiers. R. F. Baum. diags J Ap Phys 17:519-29, 721-30 Je, S '46
Effect of negative voltage feedback on power-supply hum in audio-frequency amplifiers. G. Builder. bibliog diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:140W-4W Mr '46
Gas-tube coupling for d-c amplifiers. F. Iannone and H. Baller. diags Electronics 19: 106-7 O '46
Grounded-grid power amplifiers. E. E. Spitzer. bibliog diags Electronics 19:138-41 Ap '46
High fidelity all purpose amplifier designed for public address work. R. T. Rogers and M. Putnam. il diag Radio N 35:32-4 Ap '46
Isolation amplifiers for aircraft. G. F. Rogers. il Electronics 19:122-3 Ag '46
Modulation by feedback. R. C. Shaw. diag Electronics 18:360+ D '45
Multiamp. C. E. Jackson. il diags Radio N 36:58-9+ S '46
New method of amplifying with high efficiency a carrier wave modulated in amplitude by a voice wave. S. T. Fisher. diags Inst Radio Eng Proc 34:3P-13P Ja '46
Noise factor of valve amplifiers. N. R. Campbell and others. diags Wireless Eng 23:74-83, 116-21 Mr-Ap '46
1000 watt r.f. amplifier for the ham. H. D. Hooton. il plans diags Radio N 35:28-30+ My '46
Oscillation conditions in single tuned amplifiers. W. R. Faust and H. M. Beck. diags J Ap Phys 17:749-56 S '46
Philips 1000 w amplifier. il Electrician 137: 249-50 Jl 26 '46
Philips thousand watt amplifier. Engineer 182:63 Jl 19 '46
Portable precision amplifier-detector. F. A. Peachey and others. il diags Wireless Eng 23:183-92 Jl '46
Power amplifiers with disk-seal tubes. H. W. Jamieson and J. R. Whinnery. bibliog il diags Inst Radio Eng Proc 34:483-9 Jl '46
Pulse transmission in amplifiers. A. E. Newlon. diag Electronics 19:116-21 O '46
Push-pull circuit analysis. S. W. Amos. diag Wireless Eng 23:43-6 F '46
Reduction in gain caused by feedback; chart. Elec World 125:122 My 25 '46
Reentrant pentode a-f amplifier. R. Adler. il diags Electronics 19:123-5 Je '46
Resnatron; high-power uhf oscillator-amplifier tetrode. W. W. Salisbury. il diags Electronics 19:92-7 F '46
Some considerations in the design of wide-band radio-frequency amplifiers for television, radar and similar applications. J. E. Cope. bibliog il diags Inst E E J 92 pt 3: 237-46 D '45
Stability of *LC* oscillators. N. Lea. diags Inst E E J 92 pt 3:261-3 D '45
Unique phono amplifier. C. E. Pett, jr. il diags Radio N 35:50-1+ My '46
Use of 6AK5 and 954 tubes in ionization chamber pulse amplifiers. V. L. Parsegian. R Sci Instr 17:39-40 Ja '46
Variation on the gain formula for feedback amplifiers for a certain driving-impedance configuration. T. W. Winternitz. diags Inst Radio Eng Proc 34:639-41 S '46
Volume expander compressor preamplifier; for application to phonograph play-back and recording amplifiers. R. C. Mosses. il diags Radio N 35:32-4+ Je '46
Volume expander design. R. W. Ehrlich. il diags Electronics 18:124-7 D '45
Wideband microwave amplifier tube. il diags Electronics 19:90-2 N '46
Wonder tube; Bell laboratories device. il Bsns W p46+ Jl 13 '46
See also
Multivibrators

Testing
Intermodulation testing. J. K. Hilliard. diag Electronics 19:123-7 Jl '46

AMPOULES
Machine for sealing ampoules; patent. diag Glass Ind 27:507 O '46

AMSTERDAM, Netherlands

Industries
Amsterdam diamond trade; some sparkle is recaptured. M. K. Tate. il For Comm W 23:10-11+ Je 22 '46
City of diamonds recovers. Fortune 33:232+ My '46

AMSTERDAM stock exchange
Prospective trading in U.S. securities in Amsterdam. J. van Galen. Comm & Fin Chr 164:1374+ S 12 '46
Trading revives slowly. Comm & Fin Chr 163:853 F 14 '46; Same. For Comm W 22:25 F 23 '46

AMUSEMENT centers. See Recreation centers

AMUSEMENT industries
See also
Moving picture industry
Skating rinks

AMYL alcohol
Active amyl-isoamyl alcohol system; vapor-liquid equilibrium at 760 mm. pressure. E. R. Hafslund and C. L. Lovell. bibliog il Ind & Eng Chem 38:556-9 My '46

AMYL hydroperoxide
Studies in organic peroxides; *t*-amyl hydroperoxide and di-*t*-amyl peroxide. N. A. Milas and D. M. Surgenor. Am Chem Soc J 68:643-4 Ap '46

AMYL nitrate
Catalytic hydrogenolysis of nitrate esters. L. P. Kuhn. Am Chem Soc J 68:1761-2 S '46

Therapeutic and prophylactic effect of methemoglobinemia in inhalation poisoning by hydrogen cyanide and cyanogen chloride. B. J. Jandorf and O. Bodansky. bibliog J Ind Hygiene 28:125-32 Jl '46

AMYL pyridine
Reactions of acetophenone and iodine with some nitrogenous bases. L. C. King and M. McWhirter. bibliog Am Chem Soc J 68: 717 Ap '46

AMYLASES
Bacterial amylases; production in thin stillage. L. D. Beckord, G. L. Peltier and E. Kneen. bibliog il diags Ind & Eng Chem 38:232-8 F '46

Enzymic synthesis and degradation of starch; the amylolytic function of the Q-enzyme of the potato. E. J. Bourne, A. Macey and S. Peat. Chem Soc J p882-8 D '45

Mold as an adjunct to malt in grain fermentation. N. M. Erb and F. M. Hildebrandt. bibliog Ind & Eng Chem 38:792-4 Ag '46

Saccharification of grain mashes for alcoholic fermentation; plant-scale use of mold amylase. L. A. Underkofler, G. M. Severson and K. J. Goering. bibliog il Ind & Eng Chem 38:980-5 O '46

AMYLOPECTINS
Enzymic synthesis and degradation of starch; the synthesis of amylopectin. E. J. Bourne and S. Peat. Chem Soc J p877-82 D '45

Analysis

Estimation of iodine color of starches and starch fractions. S. A. Watson and R. L. Whistler. bibliog Ind & Eng Chem Anal ed 18:75-6 Ja '46

AMYLOSE
Complexes of fatty acids with amylose. F. F. Mikus, R. M. Hixon and R. E. Rundle. bibliog Am Chem Soc J 68:1115-23 Je '46

Some crystalline forms of amylose. R. W. Kerr. bibliog Am Chem Soc J 67:2268-9 D '45

ANACARDOL
Relation of hypersensitiveness to poison ivy and to the pure ingredients in cashew nut shell liquid and related substances. H. Keil and others. bibliog Ind Med 14:825-30 N '45

ANACONDA copper company
Securities disturbing investors. H. S. Coffin. Mag of Wall St 78:756+ S 28 '46

ANALGESICS
1-Arylcyclohexanecarboxylic acids. M. Rubin and H. Wishinsky. Am Chem Soc J 68:828-32 My '46

Experiments in the piperidine series. R. M. Anker, A. H. Cook and I. M. Heilbron. Chem Soc J p917-20; p58-60 D '45-Ja '46

ANALYSIS, Chemical. See Chemistry, Analytic

ANALYSIS, Colorimetric. See Colorimetric analysis

ANALYTIC geometry. See Geometry, Analytic

ANATOMY, Comparative
Anatomy and the concept of analogy. E. Scharrer. bibliog Science 103:578-9 My 10 '46

ANCHOR bolts. See Bolts and nuts

ANCHOR chains. See Chains, Anchor

ANCHORAGE homes, Inc.
Stocks offered. Comm & Fin Chr 162:2385 N 19 '45

ANCHORS
Cables and their effect on anchor loads. R. S. Danforth. diags Marine Eng 50:180+ D '45

ANDALUSITE
Exploration of the Blue Metal corundum property, Douglas county, Nevada. E. O. Binyon. 3pls U S Bur Mines Rep of Invest 3895:1-7 '46

Kazakhstan andalusite. M. N. Koshurnikov and A. E. Zyryanov. Am Cer Soc J 29 (Cer A [25]):113-14 Je 1 '46

ANDERSON, Benjamin McAlester, 1886-
Connell professor of banking at California university. por Comm & Fin Chr 164:883 Ag 15 '46

ANDERSON, Clayton and company
Will Clayton's cotton. il Fortune 32:138-47+ N; 158-63+ D '45

ANDERSON, Donald Forsyth
Peninsular & Oriental steam navigation company. il maps Fortune 34:120-7+ S '46

ANDERSON, Frank Marion, 1863-1945
Memorial. C. M. Wagner. por Am Assn Pet Geologists Bul 30:636-9 Ap '46

ANDERSON-Prichard oil corporation
Stocks offered. Comm & Fin Chr 163:1417 Mr 18 '46

ANDRADE, Edward Neville da Costa, 1887-
Portrait. Chem Age (Lond) 53:543 D 8 '45

ANDROGENESIS. See Reproduction

ANDROSTANE
Reconversion of D-homoandrostane compounds into derivatives of androstane. D. A. Prins and C. W. Shoppee. Chem Soc J p494-9 Je '46

ANDROSTENOL
Studies in the synthesis of the antirachitic vitamins; Δ^5-androstenol-3 and its partial dehydrogenation with benzoquinone. N. A. Milas and C. R. Milone. bibliog Am Chem Soc J 68:738-40 My '46

ANEMIA
Anemia associated with chronic infection. G. E. Cartwright and others. Science 103:72-3 Ja 18 '46

Fatal case of aplastic anemia preceded by toxic hepatitis following exposure to TNT. R. L. Stump and others. (In U.S. Pub. health bul. 291, p85-94) U.S. Public health service, Washington; pa 25c Supt. of doc. '45

Folic acid takes its place in the vitamin B series. H. Gee. il Food Ind 18:1186-8+ Ag '46

Further studies on the monkey anti-anemia factor. J. M. Cooperman and others. Science 102:645 D 21 '45

Granulocytopenia and anemia in rats fed diets of low casein content. A. Kornberg and others. bibliog Science 103:646-8 My 24 '46

Mechanism of action of folic acid and liver extract in the treatment of anemia. J. E. Davis. Science 104:37 Jl 12 '46

Therapeutic effect of folic acid in tropical sprue. T. D. Spies and others. Science 104: 75-6 Jl 26 '46

ANEMOMETERS
Behavior of a hot-wire anemometer subjected to a periodic velocity. R. C. Martinelli and R. D. Randall. bibliog diag A S M E Trans 68:75-9 Ja '46

Differential wind speed analyzer. J. J. Riley and J. F. Riley. il diag Aero Digest 53:111 Jl '46

ANESTHESIA
Continuous anesthesia for insects. C. M. Williams. diag Science 103:57 Ja 11 '46

Influence of anesthesia on experimental western equine encephalomyelitis. S. E. Sulkin and others. bibliog Science 104:53-4 Jl 19 '46

ANESTHETICS
p-Aminobenzoates of piperidino- and morpholinomethylnaphthols. R. L. Shriner, G. F. Grillot and W. O. Teeters. Am Chem Soc J 68:946-7 Je '46

4-Thio and 2,4-dithio 5,5-dialkylthiobarbituric acids. J. H. Boothe and C. O. Wilson. bibliog Am Chem Soc J 68:448-50 Mr '46

Ventricular fibrillation induced by hydrocarbons and epinephrine. M. B. Chenoweth. bibliog il J Ind Hygiene 28:151-8 Jl '46

See also
Chloroform
Ethyl ether

ANESTHETICS, Local
N-alkamine substituted phthalimides. M. B. Moore and R. T. Rapala. bibliog Am Chem Soc J 68:1657-8 Ag '46
Theory of anesthetic action based upon acetylcholine competition. F. W. Schueler. J Chem Educ 22:585 D '45
See also
Butesin picrate

Analysis
Colorimetric determination of local anesthetic compounds. F. J. Bandelin and C. R. Kemp. bibliog Ind & Eng Chem Anal ed 18:270 Ag '46

ANEURIN. See Vitamins—Vitamin B_1

ANGELICA oil
Oil of angelica; production and characteristics. E. Guenther. il Food Ind 18:36-8+ Ja '46

ANGLE irons
Short cut formulas for designing structural steel frames; angles (angle iron) to support ducts, piping, heat exchangers and other equipment. S. Reibel. Heat & Ven 43:68+ Ag '46

ANGLE plates
Marley angle-setting plate and angle collet fixture. il Engineering 162:246 S 13 '46
Non-magnetic angle plate and V-block fixture. L. L. Dodds. diags Am Mach 90:136 Ap 25 '46
Worm operated angle plate. il Engineer 182: 17 Jl 5 '46; Automobile Eng 36:411-12 S '46

ANGLES
Formulæ for the calculation of pipe-bend angles. G. Hookham. diags Engineering 161: 507-8 My 31 '46
Method of checking compound angles. J. Ahearn. diags Mach 52:182-5 D '45
Precision angle checking without special equipment. D. Campbell. diags Am Mach 90:131 O 24 '46
Tangent-method leveling plate for compound angles. J. Barker. diags Am Mach 90:156-7 Je 20 '46
Triangular button gage checks many angles. O. Craft. diag Am Mach 90:140 O 10 '46
Universal surface-angle checker has two sine bars. A. Hendrickson. diags Am Mach 90: 140 Jl 18 '46
Water gage method of measuring angles of inclination. plan Marine Eng 51:164+ F '46

ANGLO-AMERICAN combined boards
U.S., Canada, Britain retain food board. Comm & Fin Chr 162:3053 D 20 '45

ANGLO-AMERICAN financial agreement. See Financial treaties and agreements

ANGLO-AMERICAN oil pact. See Petroleum industry and trade—International aspects

ANGLO-CZECH monetary agreement. See Financial treaties and agreements

ANGLO-EGYPTIAN Sudan. See Sudan

ANGLO-FRENCH financial agreement. See Financial treaties and agreements

ANGLO-NORWEGIAN monetary agreement. See Financial treaties and agreements

ANGLO-PORTUGUESE telephone company, limited
Statement by the chairman at annual general meeting. A. Roger. Economist 151: 150 Jl 27 '46

ANHYDRIDES
Anhydrides of polyhydric alcohols; derivatives of 5 : 6-anhydro mannitol and sorbitol. L. F. Wiggins. Chem Soc J p388-90 My '46
Anhydrides of polyhydric alcohols; derivatives of 1 : 2-5 : 6-dianhydro mannitol. L. F. Wiggins. Chem Soc J p384-8 My '46
Anhydrides of polyhydric alcohols; 2 : 5-diamino 1 : 4-3 : 6-dianhydro mannitol and sorbitol and their sulphanilamide derivatives. R. Montgomery and L. F. Wiggins. Chem Soc J p393-6 My '46
Anhydrides of polyhydric alcohols; the constitution of dianhydro sorbitol. R. Montgomery and L. F. Wiggins. Chem Soc J p390-3 My '46
Hexitol anhydrides. S. Soltzberg; R. C. Hockett and others. bibliog Am Chem Soc J 68:919-21, 927-41 Je '46
New anhydride of D-glucose; D-glucosan <1,4>β<1,6>. R. J. Dimler, H. A. Davis and G. E. Hilbert. Am Chem Soc J 68:1377-80 Jl '46
Reaction of some cyclic acetals with acid anhydrides. M. Senkus. bibliog Am Chem Soc J 68:734-6 My '46
Unfermentable reducing substances in molasses; anhydrides and amino acid condensation products of reducing sugars. L. Sattler and F. W. Zerban. bibliog Ind & Eng Chem 37:1133-42 N '45
Water resistance of proteins; improvement through chemical modification. H. S. Olcott and H. Fraenkel-Conrat. bibliog Ind & Eng Chem 38:104-6 Ja '46

ANHYDROCARBOXYGLYCINE
Use of polymers to make wool unshrinkable. A. W. Baldwin and others. bibliog Soc Dyers & Col J 62:4-9 Ja '46

ANHYDROMANNITOL
Hexitol anhydrides; the preparation and proof of structure of 1,5,3,6-dianhydromannitol (neomannide); the structure of isomannide. R. C. Hockett and E. L. Sheffield. bibliog Am Chem Soc J 68:937-9 Je '46
Hexitol anhydrides; the structure of the 2,5-anhydromannitol of Brigl and Grüner (2,5-anhydrosorbitol). R. C. Hockett, M. Zief and R. M. Goepp, jr. bibliog Am Chem Soc J 68:935-7 Je '46
Hexitol anhydrides; the structures of the anhydromannitols of Brigl and Grüner; the structure of isomannide. R. C. Hockett and others. bibliog Am Chem Soc J 68:930-5 Je '46

ANHYDRO-OSAZONES
Studies on sugar osazones; a comparison of the phenylosazones prepared from 3 : 6-anhydro-*d*-glucose and 3 : 6-anhydro-*d*-galactose with the anhydro-osazones prepared from *d*-galactosazone and *d*-glucosazone by the method of Diels and Meyer. E. G. V. Percival. Chem Soc J p783-6 N '45

ANHYDROSORBITOL
Hexitol anhydrides; the structure of the 2,5-anhydromannitol of Brigl and Grüner (2,5-anhydrosorbitol). R. C. Hockett, M. Zief and R. M. Goepp, jr. bibliog Am Chem Soc J 68:935-7 Je '46

ANILINE
Absorption spectra of some para substituted aniline derivatives; the presence of *x'* bands. W. D. Kumler. Am Chem Soc J 68:1184-92 Jl '46
Alkylation of amines; N,N-dialkylation of nuclear substituted anilines. D. G. Thomas, J. H. Billman and C. E. Davis. Am Chem Soc J 68:895 My '46
Influence of structure and strain in a metal cathode on the electrolytic reduction of nitrobenzene to aniline. D. N. Solanki. bibliog Electrochem Soc Trans 88 (preprint 18):197-202 '45
Molar polarisation of solutions of aniline in benzene. H. G. Emblem and C. A. McDowell. Chem Soc J p641-2 Jl '46
System cyclopentane—neohexane—aniline. K. T. Serijan, R. A. Spurr and L. C. Gibbons. bibliog Am Chem Soc J 68:1763-4 S '46
Weak associations in water and in aniline. R. Parshad. J Chem Phys 14:348 My '46

Analysis
Analysis of ternary mixtures of methylcyclohexane-toluene-aniline. C. S. Carlson, A. E. Schubert and M. R. Fenske. Ind & Eng Chem Anal ed 18:109-11 F '46

ANILINE point
Modified aniline-point apparatus for dark oils. N. Madsen. bibliog diag Pet Refiner 24:142 D '45

ANILINOACRYLATES
Synthesis of 4-hydroxyquinolines; direct synthesis from β-anilinoacrylates. C. C. Price, N. J. Leonard and R. H. Reitsema. Am Chem Soc J 68:1256-9 Jl '46

ANILINOPROPIONIC acid
Experiments on the synthesis of 4-hydroxy- and 4-chloroquinolines from β-anilinopropionic acids. R. C. Elderfield and others. Am Chem Soc J 68:1259-63 Jl '46

ANILINOPYRIMIDINE
Arylaminoheterocycles; arsenicals of anilinopyrimidines. C. K. Banks and J. Controulis. bibliog Am Chem Soc J 68:944-5 Je '46

ANILS
Anils as open models of a modified atebrin. H. Gilman and S. P. Massie, jr. Am Chem Soc J 68:908-9 My '46

ANIMAL diseases. See Veterinary medicine

ANIMAL experimentation
Possible explanation of freezing behavior in rats. B. F. Riess. Science 102:570 N 30 '45; Discussion. H. W. Nissen. 103:27 Ja 4 '46
Resolutions of the Southwestern section of the Society for experimental biology and medicine. Science 102:607 D 14 '45
Support for animal experimentation. Science 104:368 O 18 '46

ANIMAL products
See also
Dairy products
Hides and skins
Meat
Wool

ANIMALS
See also
Age (animals)
Live stock

ANIMALS, Sound production by. See Sound production by fishes

ANIONOTROPIC rearrangement. See Molecular rearrangements

ANISEIKONIA. See Eye—Accommodation and refraction

ANISOLE
Action of methanol on phenol in the presence of alumina; formation of anisole, methylated phenols, and hexamethylbenzene. N. M. Cullinane and S. J. Chard. diag Chem Soc J p821-3 N '45
Reduction by dissolving metals. A. J. Birch. Chem Soc J p593-7 Jl '46

ANISOTROPY
Elastic anisotropy in electrical strip steel. F. G. Benford. Metal Prog 49:94-5 Ja '46
Elastic constants of anisotropic materials. R. F. S. Hearmon. diag Rs Mod Phys 18:409-40 bibliog(125 titles, p436-40) Jl '46

ANN ARBOR, Michigan
Water supply
Cross-connection and plumbing hazard elimination in Ann Arbor. H. H. Caswell. plans diags Pub Works 77:24-6 Ag '46

ANNALES d'astrophysique (periodical)
Reorganized. Science 104:186 Ag 23 '46

ANNEALING
Annealing cycles; effect of cooling transformation upon subsequent isothermal reactions. C. A. Liedholm and W. C. Coons. bibliog il Metal Prog 49:104-7 Ja '46
Annealing of styrene and related resins. J. Bailey. il Mod Plastics 24:127-31 O '46
Annealing stainless steel. A. E. Carpenter. Materials & Methods 22:1789 D '45
Automatic work-handling equipment speeds up induction annealing of automobile pull-rods. il Mach 53:167 O '46
Bright annealing of nickel and high nickel alloys. E. M. Kline and R. K. Gensler. il Metal Prog 48:1283-6 D '45
Cycle annealing of hypo-eutectoid steels. G. R. Brophy. il Iron Age 156:69-71 D 13 '45
Gas annealing malleable iron; abstract. J. Jenkins and S. V. Williams. Materials & Methods 23:216+ Ja '46
Gaseous annealing whiteheart malleable; abstract. A. G. Robiette. Materials & Methods 22:1528 N '45
Study of work-hardening and reannealing of iron. M. Balicki. diags Iron & Steel Inst J 151:181-224, bibliog(71 titles, p221-3) no 1 '45

ANNEALING furnaces. See Furnaces, Annealing

ANNIVERSARIES, Company
Anniversary celebrations; good public relations, good business. S. March. il Ind Marketing 31:36-7 S '46
Governors' day at LeTourneau. R. Neff. il Ind Marketing 31:52-3+ Ja '46
Advertising
No looking backward at golden anniversary; Sachs quality stores. Ptr Ink 216:86 Ag 16 '46

ANNUAL reports. See Corporations—Reports and yearbooks

ANNUAL wage plans. See Wage payment plans—Guaranty of earnings

ANNUITIES
Annuity and contract terms; annuity versus endowment program. Mag of Wall St 78: 287+ Je 8 '46
Annuity problem. E. A. Muller. Mag of Wall St 77:593+ F 16 '46
Answers to insurance inquiries. E. A. Muller. Mag of Wall St 78:38+ Ap 13 '46
Business retirement opportunities. Life Ins Courant 51:380 Ag '46
Canada's high subsidy of government annuities. R. L. Foster. East Underw 47:3+ Je 7 '46
Continuing gains shown in payment of annuities; tabulation by company. Weekly Underw 154:68-71 sec 2 My 11 '46
Hot sales idea is deferred annuity for key men. Nat Underw (Life ed) 50:8+ N 8 '46
1945 individual and group results ranked according to business written, business in force and gain during year. Life Ins Courant 51:247 My '46
Ohio National adds retirement plan on CSO 2.5 per cent basis. Life Ins Courant 50:530 N '45
Pay days are play days, says holder of annuities. R. L. Sherwood. East Underw 46: 15 D 28 '45
Payments under annuity contracts as of Dec. 31, 1944; tabulation by company. Spectator (Life ed) 153:32 N '45
Payments under annuity contracts as of Dec. 31, 1945; tabulation by company. Spectator (Life ed) 154:54 S '46
Personal retirement opportunities. Life Ins Courant 51:417-18 S '46
Providing for heirs. E. A. Muller. Mag of Wall St 77:715 Mr 16 '46
Tap surplus $91 million in '45 for annuities; results for companies licensed in New York state; tabulations. Nat Underw (Life ed) 50:35-6 Mr 15 '46
See also
Old age pensions
Pensions, Industrial
Taxation
Annuity premiums held taxable to employes; case of Draper and co. Nat Underw (Life ed) 50:16A Mr 22 '46
Annuity premiums not deductible; case of Lincoln electric co. Nat Underw (Life ed) 50:3 Mr 1 '46
Fair tax treatment of annuitants urged. R. L. Van Name. Nat Underw (Life ed) 50: 17+ Mr 22 '46; Excerpts. East Underw 47:10 Mr 22 '46
Kentucky lawmakers set limit on annuity taxes. Weekly Underw 154:711 Mr 16 '46
Prescribe terms for tax treatment of employe annuity. Nat Underw (Life ed) 50:7 Je 7 '46
Taxation of annuities; Canadian proposal. Spectator (Life ed) 153:9+ D '45

ANODES. See Electrodes

ANODIC coating. See Metal protection

ANODIC coating of aluminum. See Aluminum—Protection

ANOXEMIA
Effect of altitude anoxia in provoking relapse in malaria. C. D. Howe and F. L. Duff. Science 103:223 F 22 '46
Effect of transfusions of red blood cells on the hypoxia tolerance of normal men. N. Pace and others. bibliog Science 102:589-91 D 7 '45
Limits of factors of safety in the human body. E. F. Du Bois. bibliog Mech Eng 68: 625-7 Jl '46
Use of cytochrome C in combating tissue anoxia. S. Proger and D. Dekaneas. bibliog Science 104:389-90 O 25 '46

ANOXIA. See Anoxemia

ANOXIATE (term)
Asphyxiate and anoxiate. E. J. Van Liere. Science 104:112 Ag 2 '46

ANSIAUX, Hubert Jacques Nicolas, 1908-
Belgian executive director of fund and bank. por Comm & Fin Chr 164:1267 S 5 '46

ANTACIDS
Blood levels of penicillin after oral administration with various antacids. L. D. Seager. bibliog Science 103:353-5 Mr 22 '46

ANTENNAS. See Radio antennas; Television antennas

ANTHONY, George A. 1875-
Top civilian award made to George A. Anthony, naval architect; Medal for merit awarded. por Marine Eng 51:94-5 O '46

ANTHRACENE
Adduct of anthracene with *cis*-aconitic anhydride. J. Werner and P. Nawiasky. Am Chem Soc J 68:151 Ja '46
Studies in the anthracene series; methyl ketones and carbinolamines derived from 1,2,3,4-tetrahydroanthracene. E. A. Garlock, jr. and E. Mosettig. bibliog Am Chem Soc J 67:2255-9 D '45

ANTHRANILIC acid
Saccharin from anthranilic acid. Chem Ind 58:787 My '46

ANTHRAQUINONE
Derivatives of 1-azanthraquinone. G. R. Clemo and G. W. Driver. Chem Soc J p829-33 N '45
Formation of hydrogen peroxide during the oxidation of reduced vat dyes. W. Atherton and H. A. Turner. bibliog diag Soc Dyers & Col J 62:108-14 Ap '46
Paper capacitors containing chlorinated impregnants; mechanism of stabilization. L. Egerton and D. A. McLean. bibliog il Ind & Eng Chem 38:512-17 My '46

ANTHRONE
Qualitative test for carbohydrate material. R. Dreywood. Ind & Eng Chem Anal ed 18:499 Ag '46

ANTHROPOLOGY
One hundred years of Smithsonian anthropology. F. H. H. Roberts, jr. Science 104:119-25 Ag 9 '46

ANTIBIOTIC substances
Antibacterial substances from asarum canadense; isolation, physical properties and antibacterial action. C. J. Cavallito and J. H. Bailey. bibliog Am Chem Soc J 68: 489-92 Mr '46
Antibiotic from a bee pathogen. E. C. Holst. Science 102:593-4 D 7 '45
Antibiotic study section; National institute of health. Science 104:186 Ag 23 '46
Antibiotic work progresses at regional lab. Chem & Met Eng 53:178+ Je '46
Colistatin; a new antibiotic substance with chemotherapeutic activity. G. F. Gause. bibliog Science 104:289-90 S 27 '46
Competition between two entomogenous bacteria. R. L. Beard. Science 103:371-2 Mr 22 '46
Convulsive effects of antibiotic agents on the cerebral cortex. A. E. Walker and others. Science 103:116 Ja 25 '46
Differentiation of antibiotics by resistant strains. P. C. Eisman and others. Science 103:673-4 My 31 '46
Disinfectants and antiseptics; a summary of scientific advances reported during 1944 and 1945. E. G. Klarmann. bibliog Soap & San Chem 22:133, 135 Mr '46
Early observations on antibiotic substances in penicillium glaucum and other organisms against a virus. J. S. Joffe. Science 102:623 D 14 '45
Inhibition of growth of mycobacterium tuberculosis by a mold product; the effect on pathogenic human tubercle bacilli; mycocidin. I. E. Gerber and M. Gross. Science 103:167-9 F 8 '46
Mechanism of action of antibiotics; the reaction of unsaturated lactones with cysteine and related compounds. C. J. Cavallito and T. H. Haskell. bibliog Am Chem Soc J 67:1991-4 N '45
Medicine from earth; penicillin, streptomycin, and other new antibiotics. il Fortune 34: 98-105+ Jl '46
Postdoctorate research fellowships for study of antibiotics. Science 104:206 Ag 30 '46
Present status of penicillin. W. S. Priest. Ind Med 15:434-6 Jl '46
Presumptive identification of antibiotics. P. G. Stansly. Science 103:402-3 Mr 29 '46
Progress in drugs, fine chemicals and biological products during 1945. G. C. Green. Chem Age (Lond) 54:157-61, 181-6, 205-6 F 9-23 '46
Some physical and biologic properties of subtilin and other antibiotics. H. H. Anderson and others. bibliog Science 103:419-20 Ap 5 '46
Streptomyces antibiotics; degradation of streptomycin to streptobiosamine derivatives. N. G. Brink and others. bibliog Science 102:506-7 N 16 '45
Streptomyces antibiotics; hydrolytic cleavage of streptomycin to streptidine. R. L. Peck and others. Am Chem Soc J 68:29-31 Ja '46
Streptomyces antibiotics; N-methyl-*l*-glucosamine from streptomycin. F. A. Kuehl, jr. and others. Am Chem Soc J 68:536 Mr '46

See also
Aspergillus
Penicillin
Streptidine
Streptomycin
Streptothricin
Tyrothricin

ANTIBODIES and antigens. See Antigens and antibodies

ANTICONVULSANTS
Quinaldil, quinaldoin and diquinolylhydantoin. F. Linsker and R. L. Evans. Am Chem Soc J 68:947-8 Je '46

ANTI-FOULING paint. See Paint, Anti-fouling

ANTI-FRICTION bearings. See Bearings, Anti-friction

ANTIGENS and antibodies
About the chemical nature of syphilis antigen. E. Fischer and F. Velasco. bibliog Science 103:455-6 Ap 12 '46
Analogies between antibodies and simpler chemical substances. L. Pauling. Chem & Eng N 24:1064-5 Ap 25 '46
Blocking antibody and the zone phenomenon in human anti-Rh sera. P. Levine and R. K. Waller. bibliog Science 103:389-91 Mr 29 '46
Complement-fixing and neutralizing antibodies against. Japanese B virus in the sera of Okinawan horses. H. L. Hodes and others. Science 103:357-9 Mr 22 '46
Detoxification by acetylation of soluble antigens from shigella dysenteriae (shiga) and E. typhosa. H. P. Treffers. bibliog Science 103:387-9 Mr 29 '46
Effect of choline chloride on the Kahn flocculation reaction. E. Volkin and others. bibliog Am Chem Soc J 67:2210-12 D '45
Effect of concentrated urea solution on the precipitating power of antiovalbumin; significance of formation of protein complexes. D. H. Campbell and J. E. Cushing. bibliog Science 102:564-6 N 30 '45
Heated, avirulent antigens for complement-fixation tests with certain encephalitis viruses. J. Casals. Science 102:618-19 D 14 '45
Hemolytic streptococcal sore throat; antibody response following treatment with penicillin, sulfadiazine, and salicylates. L. A. Rantz, P. J. Boisvert and W. W. Spink. bibliog Science 103:352-3 Mr 22 '46
Method for the preparation of tsutsugamushi (scrub typhus) antigen from infected yolk sacs. N. H. Topping and C. C. Shepard. Pub Health Rep 61:778-81 My 31 '46
Nature of the soluble antigen from typhus rickettsiae. C. C. Shepard and R. W. G. Wyckoff. Pub Health Rep 61:761-7, pl 1-4 My 31 '46
Preparation of antigens from yolk sacs infected with rickettsiae. N. H. Topping and C. C. Shepard. bibliog flow chart Pub Health Rep 61:701-7 My 17 '46
Prevalence of typhus complement-fixing antibodies in human serums in San Antonio, Tex. D. E. Davis and M. Pollard. Pub Health Rep 61:928-31 Je 21 '46
Prozones and blocking effect in normal iso- and hetero-agglutination with cord sera. H. H. Lubinski. Science 103:76-7 Ja 18 '46
Reactions of antiserum homologous to the *p*-azophenyltrimethylammonium group. D. Pressman and others. Am Chem Soc J 68: 250-5 F '46
Release of antigen from certain bacteria on treatment with ether. C. C. Shepard. bibliog Pub Health Rep 61:54-9 Ja 11 '46

ANTIGENS and antibodies—*Continued*
Separation of the complement-fixing agent from suspensions of yolk sac of chick embryo infected with the Karp strain of tsutsugamushi disease (scrub typhus). I. A. Bengtson. Pub Health Rep 61:1403-8 S 27 '46
Splitting of human gamma globulin antibodies by papain and bromelin. M. L. Petermann. bibliog Am Chem Soc J 68: 106-13 Ja '46

ANTIHISTAMINIC activity. See Histamine

ANTIMALARIALS. See Malaria

ANTIMONY
Antimony; annual review and forecast. W. Bradley. il Min Cong J 32:63-4 F '46
Antimony in 18-8 and plain-chromium stainless steels. il Iron Age 157:44-50 My 16 '46
Antimony, 1945. T. P. Wootton. Eng & Min J 147:87 F '46
Antimony shortage to continue in 1946. Oil Paint & Drug Rep 150:5+ Jl 22 '46
Evaporation of antimony. L. Harris. J Ap Phys 17:757 S '46
Metallurgy of antimony; beneficiation of low-grade ores. Chem Age (Lond) 54:375 Ap 6 '46
Photoelectric properties of metals in a finely divided state. L. J. Reimert. bibliog Opt Soc Am J 36:278-83 My '46
Radioactive Te from Sb bombardment. J. E. Edwards and M. L. Pool. bibliog il Phys R 69:140-4 Mr 1 '46
Slow neutron cross sections of indium, gold, silver, antimony, lithium, and mercury as measured with a neutron beam spectrometer. W. W. Havens, jr. and J. Rainwater. bibliog Phys R 70:154-73 Ag 1 '46

Analysis
Colorimetric micromethod for determination of antimony in biological materials, with concomitant determination of bismuth. E. W. McChesney. bibliog Ind & Eng Chem Anal ed 18:146-9 F '46
Microdetermination of antimony in biological material; spectrographic method. J. Cholak and D. M. Hubbard. bibliog J Ind Hygiene 28:121-4 Jl '46
Use of bromate in volumetric analysis; determination of arsenic and antimony by the Györy method. G. F. Smith. bibliog Am Cer Soc J 29:143-5 My 1 '46

ANTIMONY alloys
Antimonial 70 : 30 brass; abstracts and discussion. D. McLean and L. Northcott. Engineer 182:250 S 20 '46; Engineering 162:281 S 20 '46
Thermodynamic studies of dilute solutions in molten binary alloys. J. A. Yanko and others. bibliog diags Electrochem Soc Trans 89 (preprint 13):151-65 '46
Thermodynamic study of the tin-antimony system. R. O. Frantik and H. J. McDonald. bibliog Electrochem Soc Trans 88 (preprint 21):219-27 '45

ANTIMONY chlorides
Absorption spectrum of the antimony trichloride-ergosterol reaction product. A. Mueller. Ind & Eng Chem Anal ed 18:214-15 Mr '46
Chemical determination of vitamin A in mixed feeds and feedstuffs. W. Brew and M. B. Scott. bibliog Ind & Eng Chem Anal ed 18:46-8 Ja '46
Quantitative determination of ergosterol, cholesterol, and 7-dehydrocholesterol; antimony trichloride method. F. W. Lamb, A. and Mueller and G. W. Beach. bibliog Ind & Eng Chem Anal ed 18:187-90 Mr '46
Spectrophotometric procedure for quantitative estimation of vitamins D. J. B. De Witt and M. X. Sullivan. bibliog Ind & Eng Chem Anal ed 18:117-19 F '46

ANTIMONY mines and mining

Mexico
San José antimony mines near Wadley, state of San Luis Potosí, México. D. E. White and J. Gonzáles R. diags U S Geol S Bul 946-E:131-53, pl 45-50; pa 40c Supt. of doc. '46

ANTIMONY oxides
Animal studies on the toxicity of inhaled antimony trioxide. C. U. Dernehl and others. bibliog il J Ind Hygiene 27:256-62 N '45
Catalytic conversion of hydrocarbons; catalytic promoting effect of antimony tetroxide in the aromatization of hydrocarbons with a chromia-alumina catalyst. F. E. Fisher and others. bibliog diag Ind & Eng Chem 38: 61-4 Ja '46
Permanence of flame-proofed fabrics. S. A. Rulon and others. Am Dyestuff Rep 35:489-92+ O 21 '46

ANTIMONY poisoning
Animal studies on the toxicity of inhaled antimony trioxide. C. U. Dernehl and others. bibliog il J Ind Hygiene 27:256-62 N '45

ANTIOXIDANTS
Antioxidants for pyrethrum powders. R. C. Bushland and others. Soap & San Chem 21: 119+ N '45
Antiskinning agents derived from nitroparaffins. H. G. Johnson. bibliog Ind & Eng Chem 37:1176-8 D '45
Evaluating antioxidants; abstract. R. W. Riemenschneider and others. Soap & San Chem 21:70 N '45
Methods of applying certain antioxidants to guayule crude rubber for preservation during storage. H. Tint and J. M. Cumming. il India Rubber World 113:509-12+ Ja '46
Oxidation and anti-oxidation. E. A. Evans. bibliog Inst Pet J 32:392-9 Jl '46
Oxidation of lubricating oils; mechanism of sulfur inhibition. G. H. Denison, jr. and P. C. Condit. bibliog Ind & Eng Chem 37: 1102-8 N '45
Rancidity of bacon; effect of antioxidants. F. H. Smith, D. E. Brady and R. E. Comstock. bibliog Ind & Eng Chem 37:1206-9 D '45
Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in cyclohexene and gasoline. H. F. Lewis and others. bibliog il Ind & Eng Chem 37:1108-11 N '45
Study of anti-oxidants and anti-skinning agents, by Cleveland paint and varnish production club. bibliog il Paint Oil & Chem R 108:9-10+ N 15 '45

ANTIPERSPIRANT creams. See Perspiration

ANTIQUES
Market for antiques spirals. Bsns W p72+ Ag 10 '46

ANTIRACHITIC vitamins. See Vitamins—Vitamin D

ANTI-SEMITISM. See Jews

ANTISEPTICS
Butesin picrate, its use in antiseptic dressings. C. H. Butcher. Chem Age (Lond) 54:557-8 My 18 '46
Disinfectants and antiseptics; a summary of scientific advances reported during 1944 and 1945. E. G. Klarmann. bibliog(144 references) Soap & San Chem 22:125-7+ F; 133+ Mr '46
Food plant sanitation is not just a chore. M. E. Parker. il Food Ind 18:510-12+ Ap '46
Progress in drugs, fine chemicals and biological products during 1945. G. C. Green. Chem Age (Lond) 54:210 F 23 '46
See also
Disinfection and disinfectants

ANTI-SLIP surfaces. See Floors—Anti-slip surfaces

ANTISPASMODICS
Alkamine esters of substituted 1-naphthaleneglycolic acids. R. F. Feldkamp and M. L. Moore. Am Chem Soc J 67:1898-9 N '45
Alkamine esters of substituted *p*-xenylglycolic acids. J. A. Faust, R. F. Feldkamp and M. L. Moore. bibliog Am Chem Soc J 67:1897-8 N '45
Antispasmodics; β-diethylaminoethyl esters of substituted 2-thienylmethylacetic acids. F. F. Blicke and F. Leonard. bibliog Am Chem Soc J 68:1934-6 O '46
1-Arylcyclohexanecarboxylic acids. M. Rubin and H. Wishinsky. Am Chem Soc J 68: 828-32 My '46
See also
Chelidonine

ANTI-STRIKE law. See Strikes—Law

ANTI-TRUST laws. See Trusts, Industrial—Law

ANTIVENIN. See Venom

ANTOINE equation
Antoine equation for vapor-pressure data. G. W. Thomson. bibliog(59 references) Chem R 38:1-39 F '46

ANTU. See Naphthyl thiourea

APARTMENT houses
Apartments; types of investment building. il plans Arch Forum 84:7 My '46
Case for rental housing; symposium. il Arch Rec 99.67-76 My '46
Efficiency in structure; tall apartment buildings. F. N. Severud. il plans diags Arch Rec 99:81-8 Ja '46
Low-rent apartments; building types study, with time-saver standards. il plans diags Arch Rec 99:68-99 Ja '46
Low-rent apartments of minimum height; George Washington Carver apartments, Chicago. il plans diags Arch Rec 99:93-4 Ja '46
Rental project in concrete; Ithaca, N.Y. il plan Arch Forum 84:104-5 Je '46
Steel vs. wood joists for fire-resistive apartment buildings. plans Arch Forum 85:16+ Ag '46
Two apartment houses in Wellington, N.Z. il plans Arch Forum 85:69-72 Ag '46

Cost

Fire-safe apartment houses pay dividends. plans Arch Rec 100:122-3 Ag '46

Designs and plans

Apartment building in San Francisco takes full advantage of sun and air. il map plans Arch Forum 83:140-1 N '45
Efficiency units for Houston, Tex. il Arch Rec 99:86 My '46
High story-and-a-half living rooms, low cost; informal apartment group for Seaside, Oregon. Arch Rec 99:77-9 My '46
Lillian Wald houses, New York. il plans Arch Rec 99:70-1 Ja '46
New thoughts in apartment planning. il plans Am Bld 68:96-7 Mr '46
Parklabrea, Los Angeles; investment building by Metropolitan life insurance co. il Arch Rec 99:88-90 My '46
Portfolio of work by Berla & Abel in Washington, D. C. il plans Arch Forum 85:81-7, 91-3 Ag '46
Prescription for housing troubles; Forest Hill Terrace apartments, east Cleveland. il Arch Rec 99:80-1 My '46
Skip-stop elevators permit low rent; Michael Reese housing project, Chicago. plans Arch Forum 85:100-1 S '46

Equipment

High-density apartment design for elevator efficiency. il plans diags Arch Rec 99:72-80 Ja '46

Heating and ventilation

Efficiency in apartment house heating. plans Arch Rec 99:89-92 Ja '46
Maintenance methods at Parkchester. J. A. Dondero. il plan Heat & Ven 43:53-6 My '46
Trends in apartment house heating. N. N. Wolpert. Heat & Ven 43:78-9 My '46

Height

High-density apartment design for elevator efficiency. il plans diags Arch Rec 99:72-80 Ja '46

APARTMENT houses, Remodeled
Amster Yard; old city block in Manhattan converted into garden surrounded by apartments and professional offices. il plans diag Arch Forum 85:63-8 Ag '46
Converting barracks into livable homes for emergency housing. C. C. Roth. il Eng N 136:702-4 My 2 '46

APARTMENTS
Garages made into small apartments. il plans Am Bld 67:88+ D '45

APIGENIN
Flavanones and related compounds; the reduction of luteolin and apigenin trimethyl ether with sodium amalgam. T. A. Geissman and R. O. Clinton. Am Chem Soc J 68:706-8 Ap '46

APOFERRITIN
Protein apoferritin and ferritin in iron feeding and absorption. S. Granick. Science 103:107 Ja 25 '46

APPALACHIAN area
See also
Petroleum—Appalachian area

APPAREL shops, Women's. See Women's apparel shops

APPLE juice
Apple essence. Bsns W p60-1 F 2 '46
Apple juice process simplified and speeded by filtration; described step by step and illustrated by flowsheet. D. N. Ohlhues. flow sheet il Food Ind 17:1292-3 N '45

APPLES
Low ester pectin from apple pomace. H. H. Mottern and C. H. Hills. bibliog Ind & Eng Chem 38:1153-6 N '46
Le manganèse dans les moûts de pommes et dans les cidres. J. Tavernier. bibliog Chimie & Ind 55:174-9 Mr '46
Use of growth-promoting substances in the prevention of apple drop following frost; abstract. T. Swarbrick. Food Ind 18:444+ Mr '46

Diseases and pests

New chemical method for combating the apple weevil (anthonomus pomorum L.); abstract. R. Bouchet. Chem & Met Eng 53: 292 My '46
Relation of manganese to internal bark necrosis of apple. A. Berg and G. Clulo. Science 104:265-6 S 20 '46

Storage

Cold storage design for apples and pears. W. V. Hukill and E. Smith. plan diags Refrig Eng 51:419-22 My '46
Studies on odor elimination in apple storage. C. R. Gross and R. M. Smock. bibliog Refrig Eng 50:535-40 D '45; Discussion. 51: 46-7 Ja '46

APPLES, Dried
Dried-apple production down, Canada. For Comm W 21:33-4 D 22 '45

APPLESAUCE
Undercooling retards freezing of canned foods; data sheets. Food Ind 18:513-17 Ap '46

APPLICATIONS for positions
Applications for employment. D. Williams. Elec R (Lond) 138:929 Je 14 '46
How one veteran got his job. J. R. Hare. Adv & Sell 39:40+ Mr '46
How to get a job; seeking better-than-average employment in the food field. A. Stone. Food Ind 18:1515-17+ O '46
How to prepare a job résumé. L. Terzian. Ptr Ink 214:25 Mr 22 '46
Job front; 1946. M. Wiseman. Adv & Sell 39: 109-10+ Je '46
Letters applying for a job. E. D. Smith. Mech Eng 67:847-8 D '45
Veteran lands an agency job. H. V. Thomas. Ptr Ink 213:31-2+ D 21 '45
Your job letter. M. Rogers. Ptr Ink 216:64+ Jl 19 '46

APPORTIONMENT
Apportionment of representatives in Congress on the basis of special populations. M. B. Ullman. Am Stat Assn J 40:484-92 D '45

APPRAISAL. See Real property—Valuation; Valuation

APPRENTICES
Apprentice training; David Brown and sons (Huddersfield). il Automobile Eng 36:383 S '46
Apprentice training for garage mechanics open to servicemen. Nat Pet N 37:32 N 14 '45
Apprentices are earning while learning; Washburne trade school, Chicago. il Am Bld 68:68-9 My '46
Apprenticeship in New Zealand. Int Labour R 53:96-8 Ja-F '46
Apprenticeship practice in the United States as revealed by an analysis of workable apprenticeship programs in American industry. E. Danaher. (Business research ser no3) 60p pa 75c Stanford univ. Graduate school of business, Calif. '45

APPRENTICES—*Continued*
Do you need an apprentice program? il Dom Eng 167:100-1+ Je '46
Door shut to apprentices; permanent shortage of skilled tradesmen looms as building's next big block. Arch Forum 84:20+ Ja '46
Earn-as-you-learn idea sells technical apprenticeship; Shuron optical co. Sales Management 56:173 Ja 15 '46
How an apprentice training program operates. il Brick & Clay Rec 108:33-4 F '46
Knitting mill develops apprentice training program. R. Torgersen. il Textile World 95:141+ N '45
Management-labor cooperation in training apprentices. W. F. Patterson. il Arch Rec 100: 95-100 Ag '46
Ohio brick and tile institute unions train apprentices to solve bricklayer shortage. Brick & Clay Rec 107:30 O '45
Opportunity unlimited for apprentices in our industry. Dom Eng 167:132 Mr '46
Skilled help for construction; apprentice training program at Atlanta. C. Griffin and H. M. Crawford. il Eng N 137:426-8 O 3 '46
Veterans' training course turns out journeymen craftsmen. I. L. Bateman. il Elec World 126:60-1 Jl 20 '46
See also
Employees, Training of

APRICOTS, Dried
Storage of dried fruit; gas changes during storage of dried apricots and influence of oxygen on rate of deterioration. E. R. Stadtman and others. bibliog Ind & Eng Chem 38:324-9 Mr '46
Storage of dried fruit; influence of moisture and sulfur dioxide on deterioration of apricots. E. R. Stadtman and others. Ind & Eng Chem 38:99-104 Ja '46
Storage of dried fruit; influence of temperature on deterioration of apricots. E. R. Stadtman and others. Ind & Eng Chem 38: 541-3 My '46

APTITUDE tests. See Ability tests

AQUATIC plants
Rapid estimation of the phytocidal action of chemicals. H. R. Offord. bibliog Science 103:474-6 Ap 19 '46
See also
Water hyacinth

AQUATIC weeds. See Weeds

AQUEDUCTS
Aqueduct for Salt Lake City. L. R. Dunkley. il map Civil Eng 16:160-2 Ap '46
Concrete pipe on Salt Lake aqueduct. L. R. Dunkley. il Concrete 54:10-13+ Ja '46
Earth shock damages Los Angeles aqueduct. Eng N 136:400 Mr 21 '46
San Francisco, California, survival and retirement experience with water works facilities, as of December 31, 1940. Am Water Works Assn J 38:652-4 My '46
River crossing
Flume crosses canyon on a rigid frame; aqueduct crossing, Crooked river, Oregon. il diags Eng N 137:448-9 O 3 '46

AQUELLA
Aquella; criticism of Reader's Digest article; C.R.'s tests. il Consumers Res Bul 17:20-22 My '46

ARAB union
Arab boycott. Economist 150:86 Ja 19 '46

ARABIA
See also
Petroleum pipe lines—Arabia

ARABINOSE
Acetone derivatives of hexahydric alcohols; triacetone mannitol and its conversion into *d*-arabinose. L. F. Wiggins. Chem Soc J p13-14 Ja '46
Action of copper sulfate on the phenylosazones of the sugars; the D-,L- and D,L-arabinose phenylosotriazoles. W. T. Haskins, R. M. Hann and C. S. Hudson. Am Chem Soc J 68:1766-9 S '46

ARABOPYRANOSIDE
Chemistry of gum tragacanth; methylated polysaccharide. S. P. James and F. Smith. Chem Soc J p749-51 N '45

ARACHIDIN
X-ray investigation of glycerides; diffraction analysis of 1-monoarachidin (1-monoeicosanoate). S. S. Sidhu and B. F. Daubert. Am Chem Soc J 68:1975-6 O '46

ARALAC
New absorbable material for use in neurological and general surgery. E. B. Spitz and others. Science 102:621-2 D 14 '45

ARBITRATION
Arbitration as a business tool. R. E. Swart. il Dun's R 54:23-5+ Mr '46

ARBITRATION, Industrial
Arbitration gains ground; Duquesne Light settlement. Bsns W p98+ O 26 '46
Carriers and unions agree to arbitration. Ry Age 120:290-1 F 2 '46
Case for arbitration; abstract. Management R 35:417-19 O '46
Conciliation service of government of India. Mo Labor R 61:973-4 N '45
Davis, arbitrator to settle stevedores' dispute. Bsns W p110+ N 17 '45
Labor dispute arbitration, its strength and weakness. L. W. Beman. Eng & Min J 147:82-3 Mr '46
Labor laws must tend toward compulsory arbitration; unions' great power finds only government able to protect citizens. J. Rosenfarb. Barron's 26:3+ Jl 15 '46
More conciliation; training course and fuller flow of information for federal men who settle labor disputes. Bsns W p101-2 Ap 6 '46
Non-coercive government action in labor disputes. E. L. Warren. Comm & Fin Chr 163: 1784+ Ap 4 '46
Paid arbitration; free service discontinued by Conciliation office. Bsns W p90 Je 22 '46
Renovated capitalism; regulating labor monopoly. M. V. Jones. J Bsns 18 pt 2:37-57 O '45
Settlement of industrial disputes in seven foreign countries. J. A. Flexner and others. Mo Labor R 63:224-35 Ag '46
South Africa settles its industrial difficulties by conciliatory methods; National industrial council. O. H. Frewin. Inland Ptr 118: 43-4 O '46
Strikes against electric utilities; arbitration; customer opinion survey. Elec World 125: 81 My 25 '46
Union leader's arbitration pledge dims strike threat; Duquesne light co. and union in agreement. Elec World News ed 126:5 S 21 '46
Wage agreements and settlement of disputes in Norway, 1945. Mo Labor R 61:1173-5 D '45
See also
National labor relations board
National railroad adjustment board
National war labor board
United States—Conciliation service

ARBORETUMS
See also
Arnold arboretum

ARBORS and mandrels
Carbide mandrels; proper use and care; abstract. A. E. Glen. diags Mech Eng 68:831-3 S '46
Fifty-foot lightbeam controls rotating mandrel; making heavy hose at Hewitt rubber corporation. il Electronics 19:164 Ap '46
Lathe mandrel for concentric and eccentric turning. H. Moore. diag Am Mach 90:147 Ap 11 '46
Mandrel faces heavy springs in compressed position. J. A. Nodson. il Am Mach 89:133 D 6 '45
Mandrel limits ground-hole accuracy. F. C. Victory. diags Am Mach 90:93 Ja 3 '46
Rigid arbor converts drill press into boring mill. O. E. Hyler. diag Am Mach 90:142-3 Mr 14 '46
Use and servicing of carbide mandrels in tube mills. diags Steel 119:86+ O 28 '46

ARC suppression coils. See Petersen earth coil

ARC welding. See Electric welding, Arc

ARCHED bridges. See Bridges, Arched

ARCHEOLOGY
See also
Anthropology

ARCHES
Glued-laminated arches with sawed laminations; drill hall, Coast guard academy, New London, Conn. E. A. Dubin. bibliog il diags Mech Eng 67:813-19+ D '45; Discussion. 68:472-3 My '46
How to build arch centers. diags Brick & Clay Rec 109:32 S '46
Laminated arches for dignified economy; church in Santa Ana, Calif. il plan Arch Rec 100:108-9 O '46
See also
Bridges, Arched

ARCHES, Concrete
Wythenshawe bus garage. il Engineer 182:62 Jl 19 '46
See also
Bridges, Arched

ARCHIMEDEAN screw
Discharge tests on an Archimedean screw. A. C. Donaldson. diags Engineering 162:309-12 S 27 '46

ARCHITECTS
Architects and engineers; their relations on each new job constitute a serious problem; abstract. M. X. Wilberding. Mech Eng 68: 561 Je '46
Architects speed re-employment; radio message from the editors of Architectural record to American public. K. K. Stowell. Arch Rec 98:79 N '45
Master plans for master politicians. G. Howe. il Arch Rec 98:95-9 D '45
Who designs the hospitals? objections to American hospital association's listing of qualified hospital architects. Arch Rec 100: 140 Ag '46
See also
American institute of architects
Architectural education
Pereira, William Leonard

ARCHITECTS' homes. See Architecture, Domestic—Architects' homes

ARCHITECTS' offices
Pasadena architect cultivates theatre crowds; display-window office. il Am Bld 68:100 Ja '46

ARCHITECTURAL acoustics. See Acoustics, Architectural

ARCHITECTURAL education
Education for veterans; statements from leading architectural schools. Arch Forum 83:44+ N '45

ARCHITECTURAL libraries
Architectural clipping file. A. Sette. Special Lib 37:9-12 Ja '46

ARCHITECTURAL models
F. L. Wright's model of Loeb house, destined for Connecticut. il plans Arch Forum 84: 83-8 Je '46

ARCHITECTURE
See also
Acoustics, Architectural
Art galleries and museums
Auditoriums
Automobile sales buildings
Bank buildings
Basements
Building
Building materials
Chimneys
Church architecture
Clinics
College architecture
Community centers
Concrete construction
Cornices
Factories
Farm buildings
Fire houses
Floors
Foundations
Gasoline service stations—Construction and design
Hangars
Health centers
Heating
Hillside architecture
Hospitals
Hotels
Housing projects
Laboratories
Library buildings
Moving picture theaters
Naval architecture
Newspaper offices
Office buildings
Parapets
Public buildings
Railroads—Stations
Recreation buildings
Restaurants
School buildings
Shopping centers
Space (architecture)
Store buildings
Strains and stresses
Strength of materials
Theaters
Trusses
Ventilation
Walls
War memorials
Windows
Wood construction
Consult Art Index for additional references
also subdivision Architecture under names of cities e.g. Washington, D.C.—Architecture

Competitions
See also
Architecture, Domestic—Competitions

Designs and plans
Prototype design. il plans Arch Forum 84: 112-13 Ja '46
See also
Architecture, Domestic—Designs and plans
Hotels—Designs and plans
School buildings—Designs and plans

Details
See also
Architecture, Domestic—Details
Doors
Moldings (architecture)
Roofs
Stairways
Windows

Study and teaching
See also
Architectural education

Ecuador
Prize-winning design for proposed legislative palace, Ecuador. il Arch Rec 100:10 O '46

France
Le Corbusier plans for the reconstruction of France. Arch Rec 99:92-3 Mr '46

India
University building; modern dining hall-auditorium for Indian institute of science. il plan diag Arch Forum 84:89-90 Je '46

Mexico
Mexico's building boom. il Arch Forum 85: 10-13 Jl '46

Trinidad
Letter from Trinidad. A. Burnham. Arch Forum 84:56+ Ja '46

Venezuela
See also
Caracas, Venezuela—Architecture

ARCHITECTURE, Colonial
Pleasant living; keynote of traditional colonial house; with blueprints. il plan Am Bld 68:74-8 My '46

ARCHITECTURE, Domestic
Presenting brickwork by Harold Spitznagel; views and plans. Brick & Clay Rec 109:24-9 S '46
Six best sellers; features the buyers may be selling builders. il Fortune 33:164-5 Ap '46
Today's house. il map plans diags Arch Forum 85:97-144+ Jl '46
See also
Apartment houses, Remodeled
Bathrooms
Beach houses
Brick houses
Bungalows
Closets
Concrete houses
Cottages
Country houses
Doorways
Farmhouses
Heating
Hillside architecture
Houses
Housing
Housing projects
Laundries (rooms)
Mantels
Plumbing
Ranch houses
Suburban homes
Tourist camps, hostels, etc.
Week-end houses

Architects' homes
Wright's houses; two residences, built for himself. G. Nelson. il Fortune 34:116-25 Ag '46

Competitions
Four prize homes from Chicagoland competition. il plans diags Am Bld 68:79-81 My '46
House & Garden prizewinners. il Arch Forum 84:8 My '46
Ten prize-winning houses in Chicago Tribune contest. il plans Arch Forum 84:112-16 Ap '46

ARCHITECTURE, Domestic—*Continued*

Designs and plans

Accent on tradition; house with modern accent. il Am Bld 68:100-1 Je '46

Adaptation of the popular ranch house; with blueprints. il Am Bld 68:74-6 Jl '46

Architect pioneers new building ideas in this home. il plans Am Bld 68:72-3 My '46

Building types: houses; reference studies on design and planning. il plans Arch Rec 98: 107-22 D '45

Bungalow apartments; answer to the veterans' housing problem. il plans Am Bld 68: 82-3 Jl '46

Case study house solves living problems of a small family. il plans Arch Forum 85:107-8 O '46

Chicago builder completes prewar building program; Scarsdale estates. il plans Am Bld 68:64-7 Ag '46

Chicagoland ranch house. il plan Am Bld 68:78 S '46

Chinchilla farm; veteran sets up small estate for raising chinchilla rabbits in Glen Echo Heights, Md. map plans diags Arch Forum 84:94-5 My '46

Colonial influence provides background for good living; with blueprints. il diags Am Bld 68:70-2 Ag '46

Comfort and utility packed with appeal; with blueprints. il Am Bld 68:90-4 Je '46

Conservative Dutch colonial homes are in demand. il plans Am Bld 68:88-9 Ja '46

Co-op scheme cuts house costs; Sunlight Knolls project, Yonkers, N.Y. il plans Arch Rec 99:92-3 Je '46

Designed for a corner location; with blueprints. il Am Bld 68:82-6 S '46

Early Virginia farmhouse; replica of pre-revolutionary house. il Am Bld 68:96-7 Je '46

Emblematic of peace and security; with blueprints. il Am Bld 68:73-5 Ag '46

Emergency plans; how to build quick but permanent houses is problem tackled by many cities. plans Arch Forum 84:11 Mr '46

Every window frames a western landscape. il plans Am Bld 68:76-7 S '46

For more space build it round. il plan Am Bld 68:98-9 Mr '46

Fort Worth builders plan veterans' lowcost homes complete with electric kitchens. il plans Am Bld 68:84-7 My '46

Four houses in group effort at Winchester, Mass. il plans Arch Rec 99:94-8 Je '46

Four prize homes from Chicagoland competition. il plans diags Am Bld 68:79-81 My '46

Four small homes. il plans Am Bld 68:80-1 Ag '46

Four-star veteran plans to build; Puget Sound house for General and Mrs Mark W. Clark. il plan Am Bld 68:79 S '46

F. L. Wright's model of Loeb house, destined for Connecticut. il plans Arch Forum 84: 83-8 Je '46

Full freedom for the children and peace for parents; house in San Mateo, Calif. il plans Arch Rec 99:76-81 Mr '46

Functional planning assures more desirable homes. il Am Bld 68:84-5 O '46

G.I. house in Oregon; small house in Buffalo. il plans diag Arch Forum 83:126-7 N '45

Home building, 1926-1946; Gross-Morton, Long Island; Wm. Joern & Sons, Chicago; Stanley Long, Seattle. il Am Bld 68:86-91 O '46

Home building really under way in Belleville, N.J.; one-family, four-bedroom units in variations of one basic floor plan. Am Bld 68:114-17 F '46

Homes America wants; Good Housekeeping's department store exhibit of model homes. il plans diags Am Bld 67:76-81 D '45

Homes you can build for veterans. il plans Am Bld 68:82-3 My '46

House & Garden jury says this is best; modern house and furniture as unit. il plans Am Bld 68:100 Mr '46

House divided keeps the peace; residence, San Francisco. il plans Arch Rec 100:88-91 S '46

House equipment packaged; Borg-Warner's Ingersoll consolidates all utilities in a unit; tries it out in model houses in Kalamazoo, Mich. il plans diags Arch Forum 84:81-96 F '46

House in Seattle, Wash., designed for privacy from neighbors and separation of living-working quarters. il plans Arch Forum 85: 110-11 O '46

House in Texas provides maximum living in two major rooms. il plans Arch Forum 85: 109 O '46

House includes doctor's office and generous living space. il plans Arch Forum 84:112-13 Mr '46

Kesslerwood; 35-acre development in Indianapolis. A. V. Hansen. il plans Am Bld 67: 69-74 D '45; 68:66-9 Ja '46

Langley, Va.; eight-room house in rural setting. il plans Arch Forum 85:94-5 Ag '46

Long Island modern; operative builder introduces functional plan for 60-house development; three-level design. il plans Arch Forum 84:9 Mr '46

Low cost houses. il plans Arch Forum 85: 128-9 Jl '46

Low cost houses; portfolio of homes coming within the cost limitations of the Wyatt program. Arch Forum 84:117-28 Ap '46

Modern adaptation of a French farm house; with blueprints. Am Bld 68:90-4 Ap '46

Nationwide look at the under-$10,000 house; Forum survey. il plans Arch Forum 84:103-9 Ap '46

New type planning provides for clean coal heat; utility heating room, excavated only to frost line eliminates need for full basement. il plans Am Bld 68:70-1 Jl '46

Old cottage becomes veteran's castle. il plan Am Bld 68:99-101 Ap '46

Plan to build in four stages. il plan Arch Rec 99:98 F '46

Pleasant living; keynote of traditional colonial house; with blueprints. il plan Am Bld 68:74-8 My '46

Portfolio of work by Bertrand Goldberg. il plans Arch Forum 84:107-15 Mr '46

Portland, Ore., veteran's house has handy layout heated by electric coils. il plan diag Arch Forum 85:122-3 O '46

Prize competition introduces new bureau for small house plans; Washington State chapter of A.I.A. and Seattle Master builders assn. il plans Am Bld 68:95-8 Ap '46

Putting quality and individuality into a street of medium-priced homes; seven-house project in Ann Arbor, Mich. il plans Am Bld 68:94-7 S '46

Rental housing. il Arch Rec 99:77-90 My '46

Sale-rental units; built by simple carpenter-construction. il plans diag Arch Forum 85: 122-3 Jl '46

Six veterans adopt a basic plan for their homes in St Louis. il plan Arch Rec 99: 91 Je '46

Small home plans suggested for veterans' housing program. plans Am Bld 68:78-9 Ag '46

Spaciousness, keyword of tri-level house; with blueprints. il Am Bld 68:77-9 Jl '46

Stability of design assures years of value; with blueprint. il Am Bld 68:74-8 Ja '46

Stone is style in Vancouver, British Columbia. B. L. Johnson. il plans diags Am Bld 67:88-93 N '45

Suburban house, Santa Monica, Calif. to serve as office of composer-owner. il plans Arch Forum 84:85 My '46

Ten prize-winning houses in Chicago Tribune contest. Arch Forum 84:112-16 Ap '46

These small homes really are small. il Am Bld 68:62-4 Jl '46

Three California houses provide outdoor and indoor living quarters. il plans Arch Rec 99:56-61 Ja '46

Three modern houses designed for tomorrow; with blueprints. Am Bld 68:88-9 Ap '46

Three owner-built houses for the small family. il plans Arch Forum 85:134-6 Jl '46

Today's house; plan and design; bungalows, expansible houses, two-story units, rental housing. il plans diags Arch Forum 85:101-5 Jl '46

Tri-level house is first of a speculative group for Long Island. il plans Arch Forum 85: 116-18 O '46

Two-level scheme for a view; residence in Orinda, Calif. il plan diag Arch Rec 100: 88-9 O '46

Wedgwood; western homes planned for the new era in Seattle; designs, with blueprints. Am Bld 68:102-10 F; 82-5 Mr '46

ARCHITECTURE, Domestic—Designs and plans—*Continued*
World's fair of demonstration homes at Ingersoll village, Kalamazoo, Mich.; living showroom of the utility unit. il plans Am Bld 68:88-93 S '46
Young America's concept of home, sweet home; with blueprint. Am Bld 68:90-4 Mr '46

See also
Apartment houses—
—Designs and plans

Details

Better detail plate; attic alteration; design for boy's room. R. J. Alexander. plans diags Am Bld 68:96-7 Ja '46
Better detail plate; front entrance detail for small one-story house. R. J. Alexander. diags Am Bld 68:108-9 Mr '46
Better detail plates; stone and shingles produce interesting details. R. J. Alexander. diags Am Bld 67:100-1 N '45

See also
Doorways
Stairways
Windows

Four-family houses

Four-family unit for a hilly plot. il plans Arch Rec 99:84-5 My '46
Low cost apartments; small multi-family group in San Francisco Bay area. il plan Arch Forum 85:124 Jl '46
Milwaukee builder concentrates on 4-family apartments. il plans Am Bld 67:86-7 N '45
Separate heating units for four-family apartments. il plans Sheet Metal Worker 37:54+ Ag '46

Remodeling

See Houses, Remodeled

Two-family houses

These are duplex homes; three exteriors, one plan. il plans Am Bld 68:86-7 Ja '46
Twin houses in Washington, D.C. il plans Arch Forum 85:90 Ag '46

Arizona

Four houses to start Arizona's new boom. il plans Arch Rec 99:94-5 F '46

Australia

Prize Australian houses show design trend moving toward U.S. il Arch Forum 85:9 Ag '46

California

Country house in California. il plans diag Arch Forum 84:81-4 My '46
Designed for site and seasons. il plan Arch Rec 99:92-3 F '46
For a hill on San Francisco bay. il plans Arch Rec 100:84-7 O '46
Fritz B. Burns $75,000 postwar research house. il plan Am Bld 68:76-87 Ap '46
Full freedom for the children and peace for parents; house in San Mateo. il plans Arch Rec 99:76-81 Mr '46
House divided keeps the peace; Hilltop house. il plans Arch Rec 100:88-95 S '46
House for a warm climate, Palm Springs. il map plan diag Arch Forum 83:134-5 N '45
House in Pasadena. il plan Arch Forum 85: 124-5 O '46
House in Piedmont, Calif. fitted to steeply sloping site. il plans Arch Forum 84:117-23 Je '46
Houses; building types study. il plans Arch Rec 98:111-12 D '45
Low cost apartments; small multi-family group in San Francisco Bay area. il plan Arch Forum 85:124 Jl '46
Parklabrea, Los Angeles; investment building by Metropolitan life insurance co. il plans Arch Rec 99:88-90 My '46
$75,000 showcase on a glamorous Los Angeles lot features new equipment and 100 ideas for living. il plans diags Arch Forum 84: 98-104 Mr '46
Show place like home; exhibition house, Los Angeles. il plans diags Arch Rec 99:90-9 Ap '46
Steep site, small budget; A. J. Polito residence, Los Angeles. il plans Arch Rec 99: 96-7 F '46
35 rental units in distinctive motel in Santa Barbara, Calif. il plans Am Bld 68:60-1+ Ag '46
Three California houses provide outdoor and indoor living quarters. il plans Arch Rec 99:56-61 Ja '46
Two hillside houses for opposite lot conditions. il plans Arch Forum 84:88-90 My '46

Colorado

Designed for a mountain view; house in Denver. il plans diags Am Bld 68:56-9 Ag '46

Florida

Disporting in Florida sunshine; seaside house. il plan Arch Rec 99:82-5 Ap '46
Florida farmhouse designed for year round comfort in Everglades. il plan Arch Forum 85:114-15 O '46
House in Palm Beach. il plans Arch Forum 84:126-7 Je '46
Houses. il plans Arch Rec 98:115-17, 122 D '45

France

French prefabs. il plan diags Arch Forum 85: 137 Ag '46

Michigan

House equipment packaged; Borg-Warner's Ingersoll consolidates all utilities in a unit; tries it out in model houses in Kalamazoo. il plans diags Arch Forum 84:81-96 F '46

United States

Building types: houses; reference studies on design and planning. il plans Arch Rec 98: 107-22 D '45
Evolution of house design in America; based on book, How to plan a house. il plans Am Bld 67:90-1 Ag; 108-9 O; 96-7 N '45
Homes of Americans; portfolio of native designs in many manners and periods. il Fortune 33:148-57 Ap '46

Washington, D.C.

House in Washington, D.C.; features of modern living obtained without offending traditional Georgetown. il plans Arch Forum 83:89-91 D '45

ARCTIC exploration
Safety for adventurers; as told to B. Andrews by V. Stefansson. Nat Safety N 54: 88-9+ O '46

ARCTIC institute of North America
Organization; Board of governors. Science 103:452 Ap 12 '46

ARGENTINA
Business balks in Argentina; employers stage three-day lockout. Bsns W p105-6 Ja 19 '46

See also
Airlines—Argentina
Labor laws and legislation—Argentina
Petroleum—Argentina
Trade unions—Argentina

Commerce

Argentine trade shifts; graphs. Bsns W p109 Ap 13 '46

Commercial policy

Argentina will limit imports to requirements which cannot be produced by local industry. Chem & Met Eng 53:194+ Je '46
Argentine institute for the promotion of trade created. For Comm W 24:14 S 7 '46

Economic conditions

Argentina in 1945. Economist 150:sup8 Mr 23 '46
Argentina: the crucial phase. Bsns W p93-4 My 4 '46
Argentine economy. Economist 151:218 Ag 10 '46
Latin America's economy as world conflict ended. il For Comm W 24:7-8+ Jl 27 '46
News by countries. For Comm W 23:20-1 My 11; 18-20 Je 8; 24:12-13 Ag 10; 19-21 S 14; 25:12-13 O 12; 10 N 2 '46

Economic policy

Argentina's new deal means full state control. W. P. Schuck. Barron's 26:3 Je 17 '46
Argentina's new order. Bsns W p113-14 Ag 24 '46

ARGENTINA—*Continued*

Foreign relations

United States

Good fences make good neighbors; hemisphere army alone cannot counter Peronismo and communism. il map A. M. Schlesinger, jr. Fortune 34:130-5+ Ag '46

Industries and resources

Engineer looks at Argentina. R. Hammond. il maps Engineer 182:27-9, 48-9+, 71-3, 94-7, 116-18, 138-41, 161-2 Jl 12-Ag 23 '46

Politics and government

Economic repercussions of the Peron election. V. L. Horoth. il Mag of Wall St 78:82-3+ Ap 27 '46

New Argentine government. Economist 150: 756 My 11 '46

ARGININE

Arginine-free diets and intestinal synthesis of arginine. H. L. Williams and E. M. Watson. Science 103:654 My 24 '46

Identity of some electrodialyzable constitutents of cotton root bark. D. R. Ergle, L. E. Hessler and J. E. Adams. bibliog Am Chem Soc J 68:48-9 Ja '46

Analysis

Chromatography in the separation and determination of the basic amino acids. M. S. Bergdoll and D. M. Doty. bibliog Ind & Eng Chem Anal ed 18:600-3 O '46

ARGON

Ionization by fission fragments in nitrogen, argon, and xenon. N. O. Lassen. bibliog Phys R 68:230-1 N 1 '45

Production of photons in a Townsend gap in air, nitrogen, and argon. L. H. Fisher. Phys R 68:279 D 1 '45

Welding of magnesium; argon method. L. F. Pearsall. diag Welding J 25:549 Je '46

Isotopes

Performance of a hot wire Clusius and Dickel column. R. Simon. bibliog Phys R 69:596-603 Je 1 '46

ARGON, Liquid

Thermodynamic properties of liquid argon. O. K. Rice. J Chem Phys 14:324-38 My '46

ARGON, Solid

Thermodynamic properties and potential energy of solid argon. O. K. Rice. bibliog J Chem Phys 12:289-95; 14:321-4 Jl '44, My '46

ARGYLL, George John Douglas Campbell, 8th duke of, 1823-1900

Portrait. Roy Aeronautical Soc J 50:4 Ja '46

ARITHMETIC

Math tips; shortcuts in arithmetic. P. Swain. Power 90:124, 197 F-Mr '46

ARITHMETIC, Commercial

See also
Decimal system

ARIZONA

See also
Geology—Arizona
Irrigation—Arizona

ARKANSAS

See also
Petroleum industry and trade—Arkansas

Industries and resources

Arkansas, its future industrial development. F. W. Olmstead and O. B. Smart. Dom Comm 34:28-31 S '46

Arkansas seeks more payrolls. il Am Bsns 16:26+ Jl '46

ARKANSAS power and light company

Arkansas Power plans $20,000,000 expansion. Elec World 125:81 Ja 5 '46

ARKANSAS western gas company

Stock sold. Comm & Fin Chr 164:1583 S 30 '46

ARLITAN

Hexitol anhydrides; synthesis and structure of arlitan, the 1,4-monoanhydride of sorbitol. S. Soltzberg, R. M. Goepp, jr. and W. Freudenberg. bibliog Am Chem Soc J 68: 919-21 Je '46

Lead tetraacetate oxidations in the sugar group; the structure of arlitan, a monoanhydride of sorbitol. R. C. Hockett and others. bibliog Am Chem Soc J 68:922-6 Je '46

ARMAMENTS

Scientist in wartime; science of armaments. E. Appleton. Engineer 180:432-3 N 30 '45

See also
Ordnance
Tanks, Military

ARMAT, Thomas

Presentation of scroll to Thomas Armat. D. E. Hyndman. por Soc Motion Picture Eng J 47:124-6 Ag '46

ARMATURES

Copper strips on armature bands cause heating. R. O. Spencer. Power 90:116 F '46

End mill used to clean semi-closed slots. il Elec World 125:96+ Ap 27 '46

Faster varnishing; Zanderoll process for coating of armatures and stators. il Bsns W p58-9 D 8 '45

Lever device turns converter armature. il diags Elec World 125:111 My 11 '46

Phos-copper brazing of armature coils. C. Lynn. il diags Diesel Power 24:982-5 Ag '46

Special calipers gage armature and clearance in overhauling electric traction motors. M. Axler. diags Am Mach 90:129 Jl 4 '46

Tests for reverse-connected coils. H. Kleiber. diag Power 90:623 S '46

Weigh bar for armature banding; Union Pacific's shops. il Ry Mech Eng 119:612 D '45

Manufacture

Insulation varnish applied by rolling armatures through tank. il diags Product Eng 17:96-7 S '46

ARMIES

See also
Demobilization
Water supply for armies

also subdivision Army under names of countries, e.g. Germany—Army; United States—Army

ARMOR, Plastic

Doron armor; achievement and a promise in plastics. E. C. Fetter. il Chem & Met Eng 53:154-7 F '46

ARMOR plate

Navy exhibits new developments in ordnance equipment and armor plate. Iron Age 157: 168a Je 6 '46

Roller levelling machines for armour plate. il Engineering 162:56-8, 60 Jl 19 '46

Testing

Dollars for your thoughts; Ordnance department statistical methods of quality control to prevent destruction of tank armor during tests. L. E. Simon. Ind Stand 17:203-6 Ag '46

ARMOUR and company of Illinois

Dividend possible. Barron's 26:1+ Jl 22 '46

Plans to refund preferred stock. Comm & Fin Chr 164:2 Jl 1 '46

Report for 1945. Comm & Fin Chr 163:186 Ja 14 '46

ARMOUR research foundation

Armour Foundation starts eleventh year of research. il Product Eng 17:155 N '46

Industrial research progress at Armour research foundation, 1944-1945. J. E. Hobson. il Chem & Eng N 24:161-72 Ja 25 '46

ARMSBY, Henry H.

Specialist for engineering education appointed. J Eng Educ 36:587 My '46

ARMSTRONG, Donald, 1889-

Brigadier General Armstrong is new member of ASA staff. por Ind Stand 17:194 Ag '46

ARMSTRONG, Edward Frankland, 1878-1945

Sketch. por Chem. & Ind p22-3 Ja 12 '46

ARMSTRONG, Gayle

Portrait. Bsns W p88 F 2 '46

ARMSTRONG, Henry Edward, 1848-1937

H. E. Armstrong and the development of organic chemistry. H. Hartley. Chem & Ind p398-402, 406-10 D 22-29 '45

ARMSTRONG, Henry Edward—*Continued*

Memorials

H. E. Armstrong memorial trust. Chem & Ind p341 N 3 '45

ARMSTRONG, Horatio Hugh, 1880-
Sketch. East Underw 47:1+ My 31 '46

ARMSTRONG cork company
Annual report. Comm & Fin Chr 163:1558-9 Mr 25 '46
Armstrong ads by Hawley. il Ind Marketing 31:113-14+ Ja '46
Stabilized production despite fluctuating demand. R. L. Bowles. il Factory Management 104:106-12 Je '46
Thumbnail stock appraisal. Mag of Wall St 77:275 D 8 '45

ARMY and navy stores, Association of. See Association of army and navy stores

ARMY fabrics
Army textiles are unsuitable, say QM officers. G. Montgomery. diag Textile World 95:155+ N '45
Army's water repellent clothing. J. E. Simpson. il Am Dyestuff Rep 35:243-52, 272+ My 20-Je 3 '46
Quartermaster studies the wantability of textiles. I. Blunt. Textile Col 67:168-9+ D '45

See also
Tents
United States—Army—Textile requirements

ARMY general classification test. See United States—Army—Psychological examinations

ARMY hospitals. See Hospitals, Military

ARMY institute of pathology. See United States—Army institute of pathology

ARMY-Navy E award advertising. See Advertising, Institutional

ARMY-navy petroleum board
Military-industry cooperation stressed at meeting, June 13-14. Oil & Gas J 45:57-8 Je 22 '46
Task of recruiting an oil industry reserve corps falls on former Lt. Col. Leeper, Louisiana oil man. Nat Pet N 38:26-8 Ag 14 '46

ARNOLD arboretum
Recent gifts to the Arnold arboretum of Harvard university. Science 102:582 D 7 '45

AROMATIC compounds
Aromatic chemicals. A. L. van Ameringen; R. M. Stevenson. Soap & San Chem 22:50-1+ Je '46
Aromatic cyclodehydration. C. K. Bradsher. bibliog(154 references) Chem R 38:447-99 Je '46
Aromatic cyclodehydration; phenanthrene derivatives by the cyclization of ketones. C. K. Bradsher and L. J. Wissow. bibliog Am Chem Soc J 68:1094-6 Je '46
Molecular complexes with 2,4,7-trinitrofluorenone. M. Orchin and E. O. Woolfolk. bibliog Am Chem Soc J 68:1727-9 S '46
Synthesis of aromatic aldehydes. L. N. Ferguson. bibliog(302 references) Chem R 38:227-54 Ap '46
Ullmann synthesis of biaryls. P. E. Fanta. bibliog(271 references) Chem R 38:139-96 F '46
Vinyl aromatic compounds; *o*-,*m*- and *p*-vinylbiphenyls. W. F. Huber and others. Am Chem Soc J 68:1109-12 Je '46
Vinyl aromatic compounds; the vapor phase dehydration of arylmethylcarbinols. D. T. Mowry, M. Renoll and W. F. Huber. bibliog Am Chem Soc J 68:1105-9 Je '46

AROMATIC hydrocarbons. See Hydrocarbons, Aromatic

AROMATIZATION
Catalytic conversion of hydrocarbons; catalytic promoting effect of antimony tetroxide in the aromatization of hydrocarbons with a chromia-alumina catalyst. F. E. Fisher and others. bibliog diag Ind & Eng Chem 38:61-4 Ja '46
Catalytic cracking of pure hydrocarbons; secondary reactions of olefins; isomerization, hydrogen transfer, polymerization, and aromatization. H. H. Voge, G. M. Good and B. S. Greensfelder. Ind & Eng Chem 38: 1033-40 O '46
Catalytic dehydrocyclization of paraffins. H. Steiner. Am Chem Soc J 67:2052-4 N '45
Preparation and partial aromatization of 1,4-cholestadienone-3 by the dienone-phenol rearrangement. A. L. Wilds and C. Djerassi. bibliog Am Chem Soc J 68:1712-15 S '46
Role of surface area in dehydrocyclization catalysis. A. S. Russell and J. J. Stokes, jr. diag Ind & Eng Chem 38:1071-4 O '46

ARSANILIC acid
N-derivatives of *p*-arsanilic acid. C. K. Banks, J. Controulis and W. F. Holcomb. bibliog Am Chem Soc J 68:2102 O '46

ARSENALS
Foundry research at Watertown arsenal; adoption of centrifugal casting process in gun barrel production. W. G. Gude. il Foundry 73:104-6+ D '45
Measurement and appraisal of ordnance arsenal performance. J. A. Piacitelli. Mech Eng 68:333-8 Ap '46
Setting time standards without a stopwatch; Springfield armory. R. A. Olsen. il Factory Management 104:92-6 F '46

ARSENIC
Arsenic, 1945. C. E. Nighman. Eng & Min J 147:87 F '46

Analysis

Modification of the arsenic method of Magnuson and Watson. T. H. Maren. Ind & Eng Chem Anal ed 18:521 Ag '46
Radioactive studies; analytical procedure for measurement of radioactive arsenic of 90-day half-life. F. C. Henriques, jr. and C. Margnetti. diag Ind & Eng Chem Anal ed 18:415-17 Jl '46
Use of bromate in volumetric analysis; determination of arsenic and antimony by the Győry method. G. F. Smith. bibliog Am Cer Soc J 29:143-5 My 1 '46

Isotopes

Radioactive studies; analytical procedure for measurement of radioactive arsenic of 90-day half-life. F. C. Henriques, jr. and C. Margnetti. diag Ind & Eng Chem Anal ed 18:415-17 Jl '46

ARSENIC compounds
Arsenicals containing the 1,2,5-triazole nucleus. R. F. Coles and C. S. Hamilton. bibliog Am Chem Soc J 68:1799-801 S '46
Arsenicals in the isoquinoline series. B. Elpern and C. S. Hamilton. bibliog Am Chem Soc J 68:1436-8 Ag '46
Arylaminoheterocycles; arsenicals of anilinopyrimidines. C. K. Banks and J. Controulis. bibliog Am Chem Soc J 68:944-5 Je '46
La conservation des bois par imprégnation de composés arsénifères; le procédé suédois Boliden. Génie Civil 123:267-8 O 1 '46
Derivatives of 1,2,4-triazole and of pyrazole. D. B. Sharp and C. S. Hamilton. bibliog Am Chem Soc J 68:588-91 Ap '46
Some organic arsenicals containing the arsenic—sulfur linkage. W. H. C. Ruegeberg, A. Ginsburg and W. A. Cook. Am Chem Soc J 68:1860-2 S '46
Studies on the chemotherapy of experimental virus infections; the effect of certain organic arsenicals on the course of experimental murine poliomyelitis. D. W. McKinstry and E. H. Reading. bibliog Franklin Inst J 240:422-9 N '45

See also
Lewisite

ARSENIC poisoning
BAL (British anti-lewisite). L. L. Waters and C. Stock, comps. Science 102:601-6 D 14 '45
Canadian researches on BAL (British antilewisite). L. Young. bibliog Science 103:439-40 Ap 12 '46
Drug called BAL; treatment of arsenical and other heavy-metal poisoning. G. C. Green. Chem Age (Lond) 55:195-7 Ag 17 '46

ARSENOMETHANE
Arsenomethane. J. Waser and V. Schomaker. bibliog Am Chem Soc J 67:2014-18 N '45

ARSENOSOBENZAMIDE
Preparation of a filaricide; *p*-[bis-(carboxymethylmercapto)-arsino]-benzamide. T. H. Maren. Am Chem Soc J 68:1864-5 S '46

ARSENOPYRITE
Safe, effective roaster for sulphide ore tests. O. Wiser. diags Eng & Min J 147:65 Jl '46

ARSENOSOPHENYLBUTYRIC acid
Treatment of trypanosomiasis with p-arsenosophenylbutyric acid; results in 319 cases of early trypanosoma gambiense infections. H. Eagle. bibliog Pub Health Rep 61:1019-34 Jl 12 '46

ARSON
Average arson loss shows sharp increase; fire marshals section of N.F.P.A. R. C. Steinmetz and others. Nat Underw 49:3+ D 13 '45
Crime wave will soon be reflected in arson; committee report to International association of chiefs of police. Nat Underw 49:4 D 13 '45

ART
See also
Advertising art
Architecture
Ceramic art
Design
Glass sculpture
Jesus Christ—Art
Photography
Plastic sculpture
Consult Art Index for additional references

Dictionaries and encyclopedias
Encyclopedia of the arts. D. D. Runes and H. G. Schrickel, eds. 1064p $10 Philosophical library, 15 E. 40th st, New York '45

Yearbooks
American art annual. v 36 pt. 1, Organizations covering art activities July 1941-June 1945. 491p $12 American federation of arts, 910 Seventeenth st, NW, Washington 6, D.C. '45

ART, Commercial
Why commercial art needs a code of buying ethics. R. E. Washburn. Ptr Ink 216:49-50 S 6 '46

ART, Primitive
Art of the South Seas at the Museum of modern art. il maps plans Arch Forum 84:97-104 My '46

ART and industry
Not for art alone; Metropolitan museum services to industrial designers. il Bsns W p28+ Ag 17 '46

ART galleries and museums
Everyday art gallery opened by Minneapolis art center. il plan Arch Forum 84:11 F '46
Gallery; Associated American artists, Chicago. il plans Arch Forum 83:80-1 D '45
Modern gallery, Wright's model of proposed Guggenheim museum of non-objective art. il plans diags Arch Forum 84:81-8 Ja '46
See also
Metropolitan museum of art
Museum of modern art, New York

ART industry and trade
New York (city)
Fifty-seventh street octopus. T. H. Benton. Fortune 34:36 O '46
57th street; tight bottleneck for art in the United States. il Fortune 34:144-51+ S '46

ART insurance. See Insurance, Art

ART stores
57th street; tight bottleneck for art in the United States. il Fortune 34:144-51+ S '46

ARTERIAL needle. See Blood—Sampling

ARTESIAN wells
Artificial recharge of artesian limestone at Orlando, Florida. A. G. Unklesbay and H. H. Cooper, jr. bibliog maps Econ Geol 41: 293-307 Je '46
Baltimore's salty ground water blamed on faulty well structures. Eng N 137:313 S 5 '46
Effective radius of drawdown test to determine artesian well. C. E. Jacob. diags Am Soc C E Proc 72:629-46 My '46; Discussion. N. S. Boulton. 72:1319-20 N '46

ARTHRITIS
Blood sugar level following intravenous glucose in rheumatoid arthritis. J. E. Flynn and O. J. Irish. bibliog Science 104: 344-6 O 11 '46
Prolonged observation on a group of arthritic patients. H. Horwitz and N. R. Joseph. bibliog Ind Med 15:100-5 F '46

ARTHURDALE, West Virginia
Eden liquidated; Arthurdale plants sold; tenants buying homes. il Bsns W p22+ Jl 27 '46

ARTIFICIAL diamonds. See Diamonds, Artificial

ARTIFICIAL lightning. See Lightning, Artificial

ARTIFICIAL limbs
Artificial legs must be light, strong, well fitted. L. Daly. il Mod Plastics 23:112-14 Ag '46
Artificial limbs; challenge to ingenious inventors. P. E. Klopsteg. Sci Am 175:125 S '46
Engineers in a new role; committee on prosthetic devices. Comp Air Mag 51:192 Jl '46
Outstanding aspects of European developments in artificial limbs. Science 104:187 Ag 23 '46
Principles involved in prosthetic devices. F. P. Kreuz and H. H. Montgomery. Mech Eng 68:630-1+ Jl '46
Problems in design of prosthetic devices. E. F. Murphy. bibliog Mech Eng 68:632-6 Jl '46

ARTIFICIAL rubber. See Rubber, Artificial

ARTIFICIAL sapphires. See Sapphires, Artificial

ARTIFICIAL sunlight. See Sunlight, Artificial

ARTILLERY
Artillery materiel research and development. W. R. Gerhardt. il J Ap Phys 16:757-60 D '45
See also
Range finders

ARTKRAFT manufacturing company
Stocks offered. Comm & Fin Chr 162:2386 N 19 '45

ARTOGRAPH. See Collotype

ARTS and crafts
Indians' mark; code of standards for jewelry and curios. il Bsns W p31 Ag 24 '46
Stockholm exhibit: 100 years of industrial design progress. il Arch Forum 84:11 My '46
See also
Handicraft

ARVIDA, Quebec
Water supply
Arvida water-filtration plant. W. S. Lea. il plans diag Water & Sewage 84:15-20+ My '46

ARYL hydroxyquinoline
New synthesis of 2-aryl-4-hydroxyquinolines. R. C. Fuson and D. M. Burness. bibliog Am Chem Soc J 68:1270-2 Jl '46

ARYLATION
Alkylation and arylation of aliphatic nitriles in liquid ammonia. F. W. Bergstrom and R. Agostinho. bibliog Am Chem Soc J 67: 2152-4 D '45

ASARUM
Antibacterial substances from asarum canadense; isolation, physical properties and antibacterial action. C. J. Cavallito and J. H. Bailey. bibliog Am Chem Soc J 68:489-92 Mr '46

ASBESTOS
Air fills the bag; vacuum method of packaging powdered asbestos. W. B. Foxhall. il Heat & Ven 43:89 Ja '46
Asbestos as filter aid in sugar refining. T. Liu. Ind & Eng Chem 38:521-4 My '46
Canadian asbestos. il Comp Air Mag 51:189-90 Jl '46
Keeping the heat in; magnesia, mixed with asbestos fibers. il Sci Am 174:122+ Mr '46
See also
Transite

ASBESTOSIS
Health survey of pipe covering operations in constructing naval vessels. W. E. Fleischer and others. J Ind Hygiene 28:9-16 Ja '46

ASCORBIC acid. See Vitamins—Vitamin C

ASH handling
Air lift elevates ash in sluicing system. A. W. Groenewold and W. E. Kinnebrew. diag Elec World 124:61 D 22 '45
All welded ash disposal system for boiler plant. il diag Power Pl Eng 50:95 Ag '46

ASH handling—*Continued*
Bucket elevator for coal and ash handling. W. G. Hudson. il diags Power Pl Eng 50:68-71 F '46
Junk produces ash-disposal system. R. G. Swisher. il diag Power 90:402 Je '46
Lee of Conshohocken modernizes plant and power. il plan diag Power 90:750-3 N '46
What the power engineer needs to know about the hydraulic conveyor. W. G. Hudson. il Power Pl Eng 50:74-5 Mr '46
What the power engineer needs to know about the pneumatic conveyor. W. G. Hudson. il diags Power Pl Eng 50:70-2 Ja '46

ASHBY, George F. 1885-
G. F. Ashby to head Union Pacific. por Ry Age 119:1056-7 D 29 '45

ASIA
Issue in Asia. O. Lattimore. Ann Am Acad 246:49-54 Jl '46

ASIA, Southeastern

Bibliography

Selected list of books and articles in English on government, economy, sociology, education and political movements in Southeast Asia. (Selected bibliographies no. 3) 8p Southeast Asia institute, 15 W. 77th st, New York 24 '46

Commerce

Southeastern Asia and commodity trade. Nat City Bank p137-9 D '45

ASLIB. See Association of special libraries and information bureaux

ASPARAGINE
Identity of some electrodialyzable constituents of cotton root bark. D. R. Ergle, L. E. Hessler and J. E. Adams. bibliog Am Chem Soc J 68:48-9 Ja '46

ASPARAGUS
Undercooling retards freezing of canned foods; data sheets. Food Ind 18:513-17 Ap '46

ASPARAGUS waste
New culture medium for antibiotics developed. Chem & Met Eng 53:178 Mr '46

ASPEN
Aspen comeback; new peacetime uses. Bsns W p56+ D 15 '45
Bleaching aspen neutral sulphite semi-chemical pulp with sodium peroxide. R. M. Kingsbury and others. bibliog Paper Tr J 123:50-4 S 12 '46
Effect of continuous liquor flow in pulping by the sulphate process. S. L. Schwartz and M. W. Bray. bibliog diag Paper Tr J 123:42-8 O 24 '46

ASPERGILLIC acid
Potentiation of the antibiotic activity of aspergillic acid by bismuth. A. Goth. Science 104:330 O 4 '46

ASPERGILLUS
Genus aspergillus. G. W. Martin. Science 103: 116-17 Ja 25 '46
Metabolic products of aspergillus ustus. W. E. Doering and others. Am Chem Soc J 68: 725-6 Ap '46

ASPERGILLUS niger
Mould growth on leather. A. J. Musgrave. bibliog Chem & Ind p226-7 Je 15 '46
Vanillic acid esters as food preservatives. I. A. Pearl and J. F. McCoy. il Food Ind 17:1458-61+ D '45

ASPERGILLUS oryzae
Mold bran aids production of grain alcohol. J. W. Boyer and L. A. Underkofler. flow diag Chem & Met Eng 52:110-11 D '45

ASPHALT
Asphalt subsealing of concrete pavements on Mississippi highways. A. M. White. il Pub Works 77:24-6 Je '46
Asphalt underseal corrects pavement pumping through joints and cracks. il diag Eng N 137:370-2 S 19 '46
Asphalts and their evaluation for commercial use; abstract. J. G. Roediger. Oil & Gas J 45:89+ O 12 '46
Chemistry and constitution of asphalts. B. A. Murphy. bibliog Inst Pet J 31:475-85 D '45
New developments in use of asphalt in erosion control, on river banks, on highway embankments and slopes. il Roads & Sts 89:90-2 Ap '46
Raising sagging pavements and runways by subsealing with asphalt. H. A. Wallace. il Roads & Bridges 83:65-7+ N '45
Simplified flow diagrams; oxidation of asphalt with air. W. L. Nelson. Oil & Gas J 44:128 My 4 '46
Utilization, trends, and future prospects of petroleum asphalt; a statistical report. G. R. Christie. il Oil & Gas J 44:270+ Ja 26 '46
Virginia expands use of asphalt to end pumping at joints in rigid pavements; with cost data. il Eng N 137:584-6 O 31 '46

Analysis

New method to determine paraffin wax in asphalt. J. Muller and D. Wandycz. diag Pet Refiner 24:132-4 N '45

ASPHALT coated paper. See Paper, Asphalt coated

ASPHALT pavements. See Pavements, Asphalt

ASPHALT plants
Asphalt plant for an island airbase. A. Keirsey. il Eng N 135:669-71 N 15 '45

ASPHALTENES
Researches on asphaltenes; radical reactions. F. J. Nellensteyn and J. Dorleyn. pl diag Inst Pet J 32:582-6 S '46

ASPHYXIA (term)
Asphyxiate and anoxiate. E. J. Van Liere. Science 104:112 Ag 2 '46

ASPIRIN
Vitamin aspirin; reduces hemorrhage danger. Bsns W p56 F 16 '46

ASSAM, India
Malaria control in Assam. R. S. Wilmot. il Civil Eng 16:60-1 F '46

ASSEMBLING methods
Air-powered assembly tools; manufacture of washing machines; Apex electrical mfg. co. il Steel 119:100-2+ Jl 1 '46
Applying motion study to aircraft assemblies. F. C. Bailey. diags Iron Age 157:40-5 My 30 '46
Assembles washer to bolt; patent assigned to National lock washer co. diag Machine Design 17:174 D '45
Assembling small parts; illustrations with text; Mansfield works of the Westinghouse electric corp. Steel 118:86-9 Ja 14 '46
Assembly tools that speed straight-line production; Friez instrument division, Bendix aviation corporation. E. W. Zabriskie. il Factory Management 103:105-8 D '45
Blind riveting in assembly work. L. Virgile. il diags Aero Digest 52:66+ Ja '46
Combined handling and storage cuts assembly time; General motors corp., Dayton. C. H. Beare. il plan Factory Management 104: 113-15 S '46
Conveyor production at Aeronca. il Aero Digest 52:86+ Mr '46
Copper furnace brazed parts and principles of design. K. Schmidt. il diags Product Eng 17:103-7 O '46
Design for resistance welding. I. A. Crawford. Welding J 25:927-8 O '46
Design opportunities in fastener assemblies; use of screws and lock washers. W. M. Hanneman. il Machine Design 18:173-4 Ap '46
Doubled volume, lowered cost, by work simplification; Lionel toy trains. C. V. Giaimo. il Factory Management 104:146-9 Ag '46
Electric furnace copper-brazing of steel parts; bomb casing assembly. H. M. Webber. il diags Materials & Methods 23:725-8 Mr '46
Engine assembly operations; mechanical handling equipment installed by Rolls-Royce. il Mech Handling 33:297-9 My '46
Five-part scrap ticket insures quick replacement of parts; Lionel corporation. T. Pagano. il Factory Management 104:150-1 S '46
Major operations and scheduling of huge Dodge truck plant. J. Geschelin. il Automotive & Aviation Ind 95:24-7+ S 1 '46
Mass-production layout techniques in a job shop; Raytheon electrical equipment division. J. Gould. il plans Factory Management 104:97-9 F '46
Mechanical aids to Mosquito manufacture; Standard motor company. S. C. Johnson. il Mech Handling 32:608-14 N '45

ASSEMBLING methods—*Continued*
Mechanical aids to motor car production; Vauxhall motors, ltd. il Mech Handling 33:344-8 Je '46
Mechanized assembly cuts floor space by two-thirds; illustrations. Factory Management 104:88-9 F '46
Merry-go-round assembly raises output 10 to 100 percent; Mercury manufacturing company. J. J. Sichman, jr. il Factory Management 104:156-7 Je '46
Novel assembly fixture. R. Mawson. diags Steel 119:120+ S 16 '46
Pneumatic slide speeds press assembly operations. D. M. Grimm. il diags Am Mach 89:126-7 D 6 '45
Precision presswork in assembly; Ford-Ferguson tractor; abstract. P. D. Aird. Materials & Methods 23:532+ F '46
Production of ignition radio shields. F. T. Van Syckel. il Iron Age 158:56-8 Ag 29 '46
Screwsticks; assembling device used in camera and instrument manufacture; Eastman Kodak co. il Steel 119:103+ Jl 1 '46
Stainless steel trailer operation reorganized by Fruehauf. J. Geschelin. il Automotive & Aviation Ind 95:34-6+ O 1 '46
Standardized air frame assembly fixtures; German practices. L. Worley. diags Aviation 45:60-1 O '46
Tolerances on assemblies. B. Epstein. diags Am Mach 90:119-21 Ja 3 '46
What! assemble instruments on a conveyor? Kollsman instrument div., Square D co. F. Dupre. il plan Factory Management 104: 113-16 Mr '46

See also
Automobile assembly plants
Routing systems

ASSEMBLING plants
Small plant set-up for peacetime subcontracting; Lights, inc., Alhambra, Calif. R. A. Trumpis. il Factory Management 104: 104-5 Je '46

ASSEMBLY, Right of
Industrial relations charter for the Americas; third Regional labor conference of American countries. H. S. Roberts. Mo Labor R 62:907-8 Je '46

ASSETS, Fixed
Cost and asset construction; capitalizing overhead and general and administrative expenses attributable to construction. F. S. Kaulback, jr. bibliog J Account 82:398-400 N '46

ASSETS, Liquid
Estimated liquid asset holdings of individuals and businesses; with tabulation, 1939-1945. Fed Res Bul 32:122-3 F '46
Expanded money supply and economic activity. H. P. Wald. Survey of Cur Bsns 26:8-15 My '46; Abstract. Dom Comm 34: 4-6 Je '46
Financial resources of individuals and business near $250 billions. Trusts & Estates 81:400 N '45
Has war increased investment capital? A. M. Sakolski. Comm & Fin Chr 163:5+ Ja 3 '46
Individuals hold $181 billion of liquid assets. W. Lindow. Comm & Fin Chr 163:253+ Ja 17 '46
Liquid assets and expenditure plans of farm operators. Fed Res Bul 32:965-6 S '46
National survey of liquid assets; summary of survey by Bureau of agricultural economics. H. H. Villard; D. M. Holthausen. Fed Res Bul 32:574-80, 716-22, 844-55 Je-Ag '46. Excerpts, pt 3. Comm & Fin Chr 164: 1144+ Ag 29 '46; Summary, pt 1. Mo Labor R 63:256-8 Ag '46
Savings of individuals during the transition. Survey of Cur Bsns 26:9-11 Jl '46
Wartime monetary expansion and postwar needs. Fed Res Bul 31:1091-9 N '45

ASSIGNMENT of book accounts
Accounts receivable yardstick. W. H. Hurtzman. Banking 38:84 Ap '46
Assignment of accounts receivable; public notice vs. secrecy. H. Wells. Banking 38: 132-4 Ap '46
California court rules on case entailing sale of accounts; usurious rate of interest involved. W. R. Montgomery. Credit & Fin Management 48:32+ Mr '46

ASSIGNMENT of claims act. See Contracts, Government—Assignment of claims

ASSOCIATED broadcasting corporation
Angel for fifth net. Bsns W p86+ D 1 '45

ASSOCIATED electric company
Settlement of claims approved by SEC. Comm & Fin Chr 163:66 Ja 7 '46

ASSOCIATED equipment distributors
Annual meeting, Chicago, Jan. 27-31. Eng N 136:167 F 7 '46; Roads & Bridges 84:68-9+ F '46; Roads & Sts 89:79-81+ F '46

ASSOCIATED equipment distributors of Canada. See Canadian association of equipment distributors (formerly Associated equipment distributors of Canada)

ASSOCIATED gas and electric system
End to Hopson's labyrinth; debut of General Public Utilities as top company in what remains of Associated gas & electric system. Bsns W p68+ D 8 '45
Progress in reorganization. Barron's 25:6 N 26 '45
Through the wringer with A.G. & E. il Fortune 32:164-8+ D '45
Trustees' report. Comm & Fin Chr 162:2810-11 D 10 '45

ASSOCIATED general contractors of America
Annual meeting, 27th, Chicago, Feb. 18-21. Eng N 136:313+ F 28 '46; Concrete 54: 14-15+ Ap '46; Roads & Sts 89:96-8+ Mr '46
Board acts promptly on price and wage controls. Concrete 54:20+ Ag '46
Board meeting, Chicago, Oct. 29-31. Eng N 135:623 N 8 '45; Roads & Sts 88:74-7 N '45; Concrete 53:4-6 D '45
Joint cooperative committee, Associated general contractors of America and American association of state highway officials, meeting, Salt Lake City, June 10. Roads & Sts 89:97-8+ Jl '46

ASSOCIATED portland cement manufacturers
Ordinary general meeting, 46th. Economist 149:887 D 15 '45
Twenty-two years' progress; statement at annual general meeting. M. Stewart. Economist 151:192 Ag 3 '46

ASSOCIATED press
A.P. admits four. Bsns W p90+ D 8 '45

ASSOCIATED railway equipment owners
Tax law tested. Bsns W p70-1 Ag 10 '46

ASSOCIATED traffic clubs of America
Annual meeting, 23d, Columbus, Oct. 1-2. Ry Age 121:598-9 O 12 '46

ASSOCIATED universities, inc.

Scientific research
Associated universities, inc. will operate research center at Camp Upton under government contract. Science 104:205 Ag 30 '46

ASSOCIATION and associations
National organizations in the field of race relations. C. S. Johnson. bibliog Ann Am Acad 244:117-27 Mr '46

See also
Benefit societies
Building and loan associations
Cooperative associations
Corporations
Professional associations
Trade associations
Trade unions

Directories
Guide to public affairs organizations; with notes on public affairs informational materials. C. R. Read and S. Marble. 129p pa Am. Council on Public Affairs, 2153 Florida av, Washington 8, D.C.

ASSOCIATION of American fertilizer control officials
Association formed. Oil Paint & Drug Rep 150:3 O 21 '46

ASSOCIATION of American railroads
A.A.R. received O.K. from F. D. Roosevelt. J. J. Pelley. Ry Age 121:306-7 Ag 17 '46
C. & O. lines withdraw from A.A.R. Ry Age 121:649-50 O 19 '46
Young takes walk. Bsns W p18 O 19 '46

Accounting division
Annual meeting, Bretton Woods, June 18-21. Ry Age 120:1252-7 Je 29 '46

ASSOCIATION of American railroads—*Cont.*

Electrical sections

Annual meeting, Chicago. Ry Age 121:756-60 N 9 '46

Engineering division

Electrical section

1945 reports. il diags Ry Mech Eng 120:32-41 Ja '46; Excerpts. Ry Age 119:987-9 D 15 '45

Mechanical division

Annual meeting, first since 1941, Chicago, Aug. 8-9. Ry Mech Eng 120:444-6 S '46; Ry Age 121:257 Ag 17 '46

Protective section

Annual meeting, 26th, Asheville, Oct. 7-9. Ry Age 121:651 O 19 '46

Purchases and stores division

Annual meeting, Chicago, Aug. 8-9. Ry Age 121:285-6 Ag 17 '46

Signal section

Annual meeting, 48th, Swampscott, Oct. 14-16. Ry Age 121:680-3 O 26 '46

Treasury division

Annual meeting, Edgewater Park, Sept. 25-27. Ry Age 121:566-8 O 5 '46

ASSOCIATION of American soap and glycerine producers

Annual meeting, New York, Jan. 10-11. Soap & San Chem 22:33-5+ F '46

ASSOCIATION of army and navy stores

New life for co-op. Bsns W p80+ N 24 '45

ASSOCIATION of British chemical manufacturers

Annual meeting, 30th, London, Oct. 10. Chem Age (Lond) 55:463-7 O 19 '46

First post-war dinner. Chem Age (Lond) 55:468-70 O 19 '46

ASSOCIATION of casualty and surety executives

Annual meeting, New York, May 8. Nat Underw 50:32 My 16 '46; Weekly Underw 154:1173+ My 11 '46

Functions of organization; abstracts. J. D. Dorsett. Weekly Underw 154:1218+ My 11 '46; Nat Underw 50:19 My 9 '46

In the public service. J. D. Dorsett. East Underw 46:113 D 14 '45

1946-1947 committees. East Underw 47:29 Jl 26 '46

ASSOCIATION of Catholic trade unionists

Upright spirit. Fortune 34:188 N '46

ASSOCIATION of collegiate schools of business (proposed)

Case for active association of collegiate schools of business. O. W. Phelps. J Bsns 19:183-93 Jl '46

ASSOCIATION of consulting chemists and chemical engineers

Statement of research policy suggested for inclusion in research policies of educational institutions. Chem & Eng N 24:1535 Je 10 '46

ASSOCIATION of iron and steel engineers

Annual meeting, Cleveland, Oct. 1-4. Iron Age 158:71-6 O 10 '46

Annual meeting, Cleveland, Oct. 1-4; with abstracts of papers. Steel 119:82-3+ O 7; 130-2+ O 14 '46

Annual meeting, 42d; program, exhibitors' list, floor plan. Steel 119:118-23 S 23 '46

Spring meeting, Chicago, May 6-7. Iron Age 157:104-5 My 16 '46

Symposium on rolling practice at annual spring meeting, Chicago, May 6-7. Steel 118: 98+ My 13 '46

ASSOCIATION of life agency officers. See Life insurance agency management association

ASSOCIATION of life insurance counsel

Meeting, Atlantic City, Dec. 11-12. Nat Underw (Life ed) 49:3+ D 14 '45

ASSOCIATION of life insurance medical directors of America

Annual meeting, 55th, New York, Oct. 25. East Underw 47:10 N 1 '46; Nat Underw (Life ed) 50:1+ N 1 '46

ASSOCIATION of Los Alamos scientists

Organization to promote attainment and use of scientific and technological advances in best interests of humanity. Science 102:608 D 14 '45

ASSOCIATION of national advertisers

Advertisers set large goal; Atlantic City convention. Bsns W p66+ O 12 '46

Advertising plans of A.N.A. members. Adv & Sell 38:66+ N '45

Annual convention, New York. Ptr Ink 213: 56 N 30 '45

Annual convention, 37th. Ptr Ink 217:122-3 O 11 '46

ANA plans more research, self-regulation. Ptr Ink 213:60 N 23 '45

ANA to add radio council; will offer new type research survey. Ptr Ink 213:58 N 16 '45

Meeting, Atlantic City, Sept. 30. Sales Management 57.130+ O 15 '46

ASSOCIATION of special libraries and information bureaux

Aslib comes of age. I. B. N. Evans. Special Lib 36:483-5 D '45

Origin and history of ASLIB. R. S. Hutton. J Doc 1:6-20 Je '45

Year's work of Aslib, 1944-45. E. Carter and others. Assn of Sp Lib & Inf Bur Proc 1945:12-15

ASSOCIATION technique de fonderie de France

First convention in six years, Paris, Oct. 19-20. Foundry 74:130+ Ja '46

ASSOCIATION technique maritime et aéronautique

La 45e session (Paris, 25-28 juin 1946). Génie Civil 123:204-5, 218-19 Ag 1-15 '46

ASSOCIATIONS, Trade. See Trade associations

ASTHENOSPHERE. See Earth—Interior structure

ASTRONOMICAL instruments

See also

Sextant

Telescope

ASTRONOMICAL observatories

Science outpost; high altitude observatory to be established at Climax, Colo. Bsns W p36 Ap 20 '46

Solar astronomy at Climax; studies of synthetic eclipses of the sun used to foretell atmospheric conditions on earth. W. O. Roberts. il Min & Met 27:363 Je '46

See also

Greenwich royal observatory

ASTRONOMICAL photography

Photoelectric sight for solar telescope; control of drive mechanism of Harvard college observatory solar coronagraphic telescope. W. O. Roberts. il diags Electronics 19:100-3 Je '46

ASTRONOMY

Telescoptics. A. G. Ingalls. il Published in monthly numbers of Scientific American

See also

Azimuth

Meteors

Solar system

Stars

ASTROPHYSICS

Astrophysical contributions of the Smithsonian institution. C. G. Abbot. Science 104:116-19 Ag 9 '46

ASUNCIÓN, Paraguay

Sewerage

Paraguay sewer built of timber and floated into place. il Eng N 137:46-7 Jl 11 '46

ATABRIN. See Atebrin

ATCHISON, Topeka and Santa Fé railway

Annual report. Comm & Fin Chr 163:1855 Ap 8 '46

Railroad securities. Comm & Fin Chr 162:2334 N 15 '45

Santa Fe to St Louis? Bsns W p21 Je 29 '46

Seeks direct line into St Louis. Comm & Fin Chr 164:2 Jl 1 '46

ATEBRIN

Anils as open models of a modified atebrin. H. Gilman and S. P. Massie, jr. Am Chem Soc J 68:908-9 My '46

N-oxides of atabrine and plasmoquine. F. Linsker and M. T. Bogert. bibliog Am Chem Soc J 68:192-3 F '46

ATEBRIN—*Continued*
Progress in drugs, fine chemicals and biological products during 1945. G. C. Green. Chem Age (Lond) 54:209 F 23 '46
Some methylquinolines patterned as open models of atebrin. H. Gilman, J. L. Towle and S. M. Spatz. Am Chem Soc J 68:2017-19 O '46
Some quinolines patterned as open models of a modified atebrin. H. Gilman, R. V. Christian and S. M. Spatz. Am Chem Soc J 68:979-81 Je '46

ATHENS, Tennessee
Public reactions to veterans' seizure of control at Athens, Tenn. Iron Age 158:101+ S 19 '46

ATHLETE'S foot (disease)
Athlete's foot; abstract. Nat Safety N 52:124 N '45
Athletes' foot treatment; abstract. Soap & San Chem 22:159 Ap '46
Enemies of feet. Nat Safety N 54:42+ Ag '46
New fungicide; propionate-propionic acid product proves effective in control of athlete's foot and other fungus diseases. F. Owens. bibliog Soap & San Chem 22:126-9+ My '46

ATHLETIC fields
Lighting
Lighting for recreation; abstract. E. P. Mawson. Light & Lighting 38:142-3 O '45
New floodlight developed for Yankee stadium. il Elec World 125:138+ My 25 '46
Yankee stadium lighted at 200-foot-candle level; abstract. R. J. Swackhamer. Elec World News ed 125:7 Je 1 '46

ATLANTA
Economic conditions
Annual family and occupational earnings of residents of two Negro housing projects in Atlanta, 1937-44. A. L. Ritter. Mo Labor R 61:1061-73 D '45
Industries
Atlanta's peacetime future bright. J. Mebane. il Manuf Rec 115:32-3+ S '46
Rapid transit
Transit-theater tie tried in Atlanta. Mass Transportation 42:321 Ag '46
Streets
Plan $48 million expressway. il Eng N 136: 390 Mr 14 '46

ATLANTIC and Pacific tea company. See Great Atlantic and Pacific tea company

ATLANTIC CITY, New Jersey
Sands running out; losing its beach. Bsns W p44 Jl 20 '46

ATLANTIC coast line railroad
Annual report. Comm & Fin Chr 163:2574 My 13 '46
Atlantic Coast Line will soon be ready. il map Ry Age 120:461-6 Mr 2 '46
A.C.L.'s child; A.B.& C. railroad is now western division of Coast line. Bsns W p74-6 Ja 26 '46
Most modernized railroad in the country. A. Jansen. Barron's 26:9+ S 16 '46

ATLANTIC refining company
Securities offered. Comm & Fin Chr 163:187 Ja 14 '46

ATLAS corporation
Annual report. Comm & Fin Chr 163:1559 Mr 25 '46

ATLAS plywood corporation
Record output lifts Atlas Plywood net. Barron's 26:6 Ag 12 '46

ATLASES
See also
World war, 1939-1945
—Maps

ATMOSPHERE
Characteristics of the earth's atmosphere; chart. Heating-Piping 18:98-9 My '46
Energy distribution and number of cosmic-ray neutrons in the free atmosphere. S. A. Korff and B. Hamermesh. bibliog Phys R 69:155-9 Mr 1 '46
Reflection of sound signals in the troposphere. G. W. Gilman and others. bibliog il diags Acoustical Soc Am J 18:274-83 O '46
See also
Sea air

ATMOSPHERE, Upper
Conduction and dispersion of ionized gases at high frequencies. H. Margenau. bibliog Phys R 69:508-13 My 1 '46
Detection of rapidly moving ionospheric clouds. H. W. Wells and others. il Phys R 69:540 My 1 '46
Ionosphere measuring equipment. P. G. Sulzer. il diags Electronics 19:137-41 Jl '46
Ionosphere tells radio "weather". F. W. Connor. Dom Comm 34:11-12 F '46
2-Mc sky-wave transmission. J. A. Pierce. diags Electronics 19:146-53 My '46
Meteorology and high altitude aviation. G. M. B. Dobson and A. W. Brewer. diags Roy Aeronautical Soc J 50:787-806; Discussion. 806-10 O '46
Production of mesotrons in the stratosphere. I. Bloch. bibliog Phys R 69:575-85 Je 1 '46

ATMOSPHERIC electricity
High potential areas in North America. R. L. Ives. bibliog map diag Am J Sci 244:263-70 Ap '46
See also
Auroras
Lightning

ATMOSPHERIC pressure
Psychrometric determination of absolute humidity at elevated pressures. W. M. Rohsenow. bibliog Refrig Eng 51:423-4; Discussion. 424+ My '46

ATMOSPHERIC temperature
Is our climate getting cooler? J. B. Kincer. Heat & Ven 43:59-62 Jl '46
Sol-air thermometer. C. O. Mackey and L. T. Wright, jr. il diag Heating-Piping 18:107-11 My '46
Weather cycle; long term records show past winters more severe and may be so again. Heat & Ven 43:91 Je '46

ATOLLS. See Coral reefs and islands

ATOMIC bombs
Aircrew evaluation plan means more bomb hits; system of mathematical surety for judging A-bomb crews. W. H. Blanchard and S. Bangs. Aviation 45:44-6 O '46
Another chain reaction. K. Chamberlain. Science 103:158-60 F 8 '46
Atom bomb and German science; abstract. A. A. Bates. Chem & Met Eng 52:236+ D '45
Atom bomb plant designers advertise man's hope. il Ptr Ink 214:56 Ja 18 '46
Atom bomb's control. Economist 149:665-6 N 10 '45
Atom control; another try. Bsns W p17-18 N 10 '45
Atomic award; Congress debates problems. Bsns W p35-6+ Mr 2 '46
Atomic bomb and common sense. B. Dewey. Chem & Eng N 24:2478-80 S 25 '46
Atomic bomb and future peace. J. F. Byrnes. Comm & Fin Chr 162:2497+ N 22 '45
Atomic bomb and world government; abstract. S. Welles. Metal Prog 49:359 F '46
Atomic bomb blamed for film fogging. Bsns W p20 My 25 '46
Atomic bomb damage at Nagasaki. il Eng N 135:834-5 D 20 '45
A-bomb warning; army reasserts its authority. Bsns W p19-20 Mr 16 '46
Atomic bomb; work done by the Rockefeller foundation; abstract. R. B. Fosdick. Mech Eng 68:559 Je '46
Atomic energy. R. G. Gustavson. Mech Eng 68:733-4 Ag '46
Atomic energy and its implications; round table discussion. C. S. Smith and others. il Metal Prog 49:761-9+ Ap '46
Atomic energy control: a problem for engineers; opinions of the Nation's top nuclear experts. Materials & Methods 22:1719+ D '45
Atomic energy legislation. Chem & Eng N 23: 2086-92 N 25 '45
Atomic explosives. J. R. Oppenheimer. Chem & Eng N 24:1350-2 My 25 '46; Same. Elec West 97:54-6 Jl '46; Abstract. Metal Prog 49:1202-3 Je '46

ATOMIC bombs—*Continued*
Atomic plan. Economist 150:995-6 Je 22 '46; Same. Iron Age 158:117+ Jl 4 '46
Atomic power and atomic bombs. R. P. Johnson. il diags Metal Prog 48:1313-44 D '45
Atomic power; it must be controlled! B. McMahon. Comm & Fin Chr 164:890+ Ag 15 '46
Atomic progress report. Economist 150:697-8 My 4 '46; Iron Age 157:103+ My 16 '46
Atomic scientists of Chicago answer question on atomic bomb. R Sci Instr 16:388-9 D '45
Award for chemical engineering achievement to go to atomic bomb project. S. D. Kirkpatrick. il map diags Chem & Met Eng 53:111-12 Ja; 107-22 F '46
Behavior of concrete structures under atomic bombing; destruction in Hiroshima and Nagasaki. E. H. Praeger. il Am Concrete Inst J 17:709-20 Je '46
Best defense; work of social scientists. R. E. Bassett. Science 103:25-6 Ja 4 '46
Chemical engineering profession honors A-bomb project; award to Manhattan engineer district. Chem & Met Eng 53:100-5 Mr '46
Control of explosive atomic energy. C. S. Smith. Metal Prog 48:1102-3 N '45
Defends his atomic control plan. B. M. Baruch. Comm & Fin Chr 164:1785+ O 10 '46
Development of atomic energy. A. W. Kramer. il diags Power Pl Eng 49:95-100 O; 100-4 N; 99-100+ D '45; 50:87-92 Ja; 81-4+ F '46
Development of atomic energy. E. J. Murphy. diags Chem & Eng N 24:182-6 Ja 25 '46
Discounts effectiveness of atom bomb on U.S. cities of steel. P. de Seversky. Comm & Fin Chr 162:2371 N 15 '45
Effect of atomic bombs exaggerated; fire caused most damage; abstract. A. deSeversky. Steel 118:73 Mr 11 '46
Effect of the atomic bomb on our civilization. A. W. Kramer. il Power Pl Eng 50:85-8+ Mr '46
Einstein on the atomic bomb; abstract. A. Einstein. Metal Prog 49:358 F '46
Fortune survey; use of atomic bomb. Fortune 32:305-6+ D '45
From war to peace; advocates outlawing atomic bomb. H. E. Stassen. Comm & Fin Chr 162:2369+ N 15 '45
International control of atomic energy. diag Power Pl Eng 50:76-9 Je; 124+ O '46
International control of atomic energy; memorandum for submission to the Atomic energy commission of the United nations organisation. Engineer 181:526 Je 7 '46
Iowa state college engages in atomic bomb project. il Chem & Eng N 23:2076-7 N 25 '45
Leash for atoms. Bsns W p21-2 N 24 '45
Major problem, and a plan for action. M. Mooney. R Sci Instr 17:46-7 Ja '46
Man vs atom, year 1. il diags Elec World 126: 41-8 Jl 20 '46; [reprinted in Chem & Met Eng 53:93-100 Jl '46; Eng N 137:92a-92h Jl 25 '46; Factory Management 104:144a-144h Jl '46; Aviation N 6:19-26 Jl 22 '46 and other McGraw-Hill publications]
Menace of atomic war. Economist 151:571-2 O 12 '46; Same. Iron Age 158:103+ O 31 '46
Military future of mining; factories underground are safe from atomic bombs. B. W. Brown. Min & Met 27:551 N '46
Neutron, the intermediate or compound nucleus, and the atomic bomb. W. D. Harkins. il diag Science 103:289-302 Mr 8 '46
Nuclear fission bomb as initiator of earthquakes. A. J. Shneiderov. Science 103:674-5 My 31 '46
Oak Ridge electromagnets; uranium recovery; abstract. R. R. Wisner. Chem & Eng N 24:1382-3 My 25 '46
One world or none, a report to the public on the full meaning of the atomic bomb; ed. by D. Masters and K. Way; review by N. J. Padelford. Mech Eng 68:454-5 My '46
Philadelphia resolution. Science 102:608 D 14 '45
Physics of the bomb. A. K. Solomon. il Fortune 33:114-22+ My '46
Pilot lights of the apocalypse; a playlet in one act. L. N. Ridenour. Fortune 33:116-17+ Ja '46
Prevention of atomic warfare. J. H. Pannell. Science 103:177 F 8 '46
Progress in nuclear research; review of highlights in development of the atomic bomb. Elec Eng 65:108-16 Mr '46
Public relations of the atom. R Sci Instr 16: 330-2 N '45
Public relations of the atom: November 1945-April 1946. R Sci Instr 17:206-7 My '46
Recommendations on release of atom bomb information. R Sci Instr 17:165-6 Ap '46
Report on international control of energy. Power 90:391+ Je '46
Russian plan for atomic control; abstract. A. Gromyko. Metal Prog 50:83 Jl '46
Science and our future. E. U. Condon. Science 103:415-17 Ap 5 '46
Science and world order. R. G. Gustavson. Comm & Fin Chr 164:202+ Jl 11 '46
Science legislation and geology. C. Croneis. Am Assn Pet Geologists Bul 30:1104-14 Jl '46
Science teachers and the atomic bomb. R. M. Noyes. J Chem Educ 23:343-4 Jl '46
Scientist in wartime. E. Appleton. Engineer 180:417-19 N 23 '45
Senate group hears recommendations on atom bomb control. Comm & Fin Chr 162:2922 D 13 '45
State department report on international control of atomic energy. Science 103:451 Ap 12 '46
Statements relating to the atomic bomb. Rs Mod Phys 17.472-90 O '45
Student opinion and the atomic bomb. T. F. Lentz. J Retailing 21:154-6 D '45
Text of Truman-Attlee-King statement on atomic energy. Chem & Eng N 23:2197 D 10 '45
U.S. plan for sharing information and control on atomic energy with other nations; Gallup poll. Iron Age 158:101+ Ag 15 '46
Urges that atomic energy be made the regenerator, not the destroyer, of mankind. H. A. Wallace. For Comm W 24:19 S 7 '46
We must split the atom of peace. F. Eberstadt. Comm & Fin Chr 164:79+ Jl 4 '46
World-wide exchange of views among scientists on atomic energy control. Science 104:108 Ag 2 '46
You and the atom. J. M. Hancock. Comm & Fin Chr 164:1267+ S 5 '46

Bibliography

Bibliography on the atomic bomb, November 1945. 13p pa Northwestern univ. lib, Evanston, Ill. '45
Security in the atomic age: international control of the bomb; an annotated bibliography with supplementary list of documentary materials on national problems of control. H. L. Scanlon, comp. 20p Carnegie endowment for international peace, 700 Jackson pl, Washington 6, D.C. '46

Insurance aspects

Atom bomb situation brings about trying insurance angle. R. Churchill. Weekly Underw 155:887 O 12 '46
Atomic bomb and the war clause. A. Pedoe. Weekly Underw 155:916-17 O 12 '46; Excerpt. East Underw 47:11 S 27 '46
Denies Lloyds covers atomic bomb hazard. O. D. Duncan. Nat Underw 49:4 N 29 '45
Sun Life of England, not Canada, is the company with atom bomb rider. Nat Underw (Life ed) 50:9 Mr 8 '46

Manufacture

Atomic bomb. il Engineer 181:2-3, supp 6 Ja 4 '46
Atomic bomb development required solving pumping, piping problems; abstract. H. D. Smyth. Heating-Piping 17:529-30 O-N '45
Atomic bomb development was hastened by welding; manufacture of tanks. A. F. Davis. il diag Welding J 25:118-19 F '46; Same cond. Materials & Methods 23:193 Ja '46
Atomic-bomb engineering. A. C. Klein. Mech Eng 68:297-301 Ap '46
Atomic bomb grew within concrete walls; Hanford engineer works. il Concrete 54:10-11+ F '46
Atomic unions; organizers at Oak Ridge. Bsns W p95-6 Je 1 '46
Construction for atomic bomb production. il map plan diags Eng N 135:778-822 D 13 '45

ATOMIC bombs—Manufacture—*Continued*
Electrical and allied developments of 1945; atomic power. G. Bartlett. il Gen Elec R 49:8-9 Ja '46
Electromagnetic processes of the atomic bomb project. R. R. Wisner. il Power Pl Eng 50:32-5+ My '46
Oak Ridge gives industry a unit operation; gas diffusion. J. F. Hogerton. il Chem & Met Eng 52:98-101 D '45
Oak Ridge, reconverted. il Bsns W p19-21 Ag 3 '46
Public wants continued manufacture of atom bombs; Gallup poll. Iron Age 157:91 My 30 '46
Role of the process engineer in the atomic bomb project. P. C. Keith. il diags Chem & Met Eng 53:112-22 F '46
Some power supply problems at Clinton engineer works. J. O. Coleman. il diags Elec World 125:85-7 Mr 16 '46
Thermal diffusion as adjunct of electromagnetic process; developed by Dr P. H. Abelson of the Naval research laboratories. M. C. Fox. il Chem & Met Eng 52:102-3 D '45
Unions in dark; locals at two atomic bomb projects progress despite secrecy. Bsns W p80+ Je 15 '46
Uranium; source of atomic energy. G. E. Kidd. diags Pet Eng 17:240+ Mr '46
X-ray snapshots used in atomic bomb production; abstract. C. M. Slack. Electronics 19:164 Ja '46

Hygienic aspects
Atomic bomb health hazards. H. D. Smyth. Nat Safety N 52:56+ D '45
Health physics; new science, developed for protection of workers against penetrating radiations on atomic energy projects. K. Z. Morgan. Nat Safety N 53:25-6 My '46

Radiological effect
Destruction from atomic bomb continues after explosion in form of radioactivity. P. Swain. Elec World 126:80 Ag 17 '46
Evidence of increased radioactivity of the atmosphere after the atomic bomb test in New Mexico. A. W. Coven. Phys R 68:279 D 1 '45
Footnotes to the Bikini bombs. R. L. Taylor. il Chem Ind 59:476-8 S '46
Gamma-ray anomaly following the atomic bomb test of July 1, 1946. G. Herzog. Phys R 70:227 Ag 1 '46

Safety aspects
Nuclear physics safety; accident prevention at Clinton engineering works, Tennessee Eastman corporation. J. M. Brown. Safety Eng 90:36-41 N '45
Super secret and super safe; atomic bomb project. W. G. Johnson. il Nat Safety N 52: 74-5+ O '45; 53:32-3+ F '46; 20-1+ Je '46

Terminology
Mumpsimus! atomic energy is nuclear energy. J. Alexander. Science 103:147-8 F 1 '46

Testing
Aircraft behavior data gathered in bomb test. Aviation N 6:21 Jl 15 '46
Atom bomb pounded cruiser Pensacola into twisted wreck. S. Bangs. il Aviation N 6: 7 Jl 15 '46
A-bomb tests as viewed by the editor. S. D. Kirkpatrick. il map Chem Eng 53:94-6+ Ag '46
A-bomb vs. surface ships. P. Swain. Aviation 45:41+ Ag '46; Same abr. Mech Eng 68:896 O '46
Atomic bomb's naval power at Bikini. P. W. Swain. il Am Mach 90:146 Ag 1 '46
Bikini atom bomb test stresses science rather than spectacular effects. P. W. Swain. Eng N 137:21 Jl 11 '46
Bikini atomic bomb sinks 5 ships, wrecks 6, damages 25. A. W. Kramer. il plan Power Pl Eng 50:109-13 Ag '46
Bikini test holds no answer to future of U.S. warplanes. S. Bangs. Aviation N 6:12+ Jl 1 '46
Crossroads critique; test at Bikini; aviation's role. H. Powell. il diag Aviation 45:38-9+ Je '46
Damage toll mounts in atom bomb blast. Aviation N 6:11 Jl 8 '46
Data not sunken vessels goal of Bikini bombing. P. W. Swain. Elec World News ed 126:7 Jl 13 '46
Effort to observe anomalous gamma-rays connected with atomic bomb test of July 1, 1946. Phys R 70:565 O 1 '46
Electronics at Bikini; telemetering, radio and radar monitoring, television and stratovision measured effects of atomic bombs. D. G. Fink and C. L. Engleman. il Electronics 19:84-9 N '46
En route to operation crossroads. W. J. Murphy. il Chem & Eng N 24:1782-6 Jl 10 '46
Evaluating operation crossroads; radio controlled bombers. S. Bangs. il Aviation 45: 38-41 Ag '46
Les expériences atomiques de Bikini. E. Herrera. il diags Génie Civil 123:273-5 O 15 '46
Eyewitness account of Test Baker. J. M. Crowe. Chem & Eng N 24:2041-2 Ag 10 '46
Fission at Bikini. T. W. Lippert. il map diag Iron Age 157:42-7 Je 13; 158:50-5+ Jl 18 '46; Same. Spectator (Life ed) 153:6-11 Je; 154: 26-32+ Ag '46
Footnotes to the Bikini bombs. R. L. Taylor. il Chem Ind 59:476-8 S '46
For cosmic warfare, a microcosmic test. il Bsns W p22 My 4 '46
How able was Able? answers from Bikini. il Bsns W p20 Jl 13 '46
How fury of Bikini blasts will be measured. Machine Design 18:104 Jl '46
International observations on operation crossroads. S. D. Kirkpatrick. map Chem Eng 53: 106-8 S '46
Ionization of the atmosphere in the New York area before and after the Bikini atom bomb test. V. F. Hess and P. Luger. Phys R 70:564-5 O 1 '46
Measurement of ocean waves generated by atomic bombs; Bikini Atoll test plans. N. J. Holter. il diags Electronics 19:94-8 My '46
Narrow margin wants Bikini bomb tests held; Gallup poll. Iron Age 157:105 My 2 '46
On the way to Bikini; significance of tests. A. W. Kramer. il Power Pl Eng 50:115-19 Jl '46
Operation crossroads. il Electronics 19:286 Je '46
Operation crossroads. O. Read. il map Radio N 36:25-7 Ag; 32-5+ S; 25-9+ O '46
Power at Bikini. P. W. Swain. il map Power 90:600-3 S '46
Preliminary report on second Bikini test by evaluation board of the joint chiefs of staff. Metal Prog 50:482 S '46
Report from Bikini. H. H. Skilling and others. Elec Eng 65:463-5 O '46
Results of atmosphere analyses done at Tulsa, Oklahoma, during the period neighboring the time of the second Bikini atomic bomb test. R. E. Fearson and others. Phys R 70:564 O 1 '46
Scientific and technical preparations for the atom-bomb tests. map plan Chem & Met Eng 53:108-9 Je '46
Significance of operations crossroads explained. W. H. P. Blandy. Marine Eng 51: 72-6 O '46
Some observations on Able day. J. C. Ward, jr. Aero Digest 53:20-1 S '46
Test Baker. il Chem Eng 53:125-6 Ag '46
Underwater atomic bomb blows 1,000,000 tons of water a mile high. A. W. Kramer. il map Power Pl Eng 50:122+ S '46
Warfare of the gods. F. W. Preston. Glass Ind 27:444-5 S '46
What we saw at Bikini. B. Dewey. il Chem & Eng N 24:2030-4 Ag 10 '46

ATOMIC development authority (proposed)
How can atomic energy be controlled? D. E. Lilienthal. Chem & Eng N 24:2483-5 S 25 '46

ATOMIC energy act of 1946. See Atomic power —Legislation

ATOMIC energy commission (United nations)
Atom is splitting UN. A. W. May. Comm & Fin Chr 163:3470+ Je 27 '46
Baruch named to UNO Atomic commission. Comm & Fin Chr 163:1691 Mr 28 '46
UN attempting atom control; Baruch and Gromyko present plans. A. W. May. Comm & Fin Chr 163:3342+ Je 20 '46

ATOMIC energy commission (United States)
Atom guardians. Bsns W p21-2 Ag 3 '46
Atomic energy legislation; May-Johnson bill, H.R. 4566 and S. 1463. Chem & Eng N 23: 2086-90 N 25 '45
Engineering representation is an A-bomb must; defect in Bill S-1717. A. C. Klein. Chem & Met Eng 53:117+ Mr '46
Lilienthal selected to head Atomic energy commission; other appointments. Elec World News ed 126:3 N 2 '46
President names Atomic energy commission. Comm & Fin Chr 164:2386 N 7 '46
President names civilians to control atomic industry. Bsns W p20 N 2 '46

ATOMIC power
Atomic energy. A. L. Hughes. il Min Cong J 32:22-5 Je; 45-7 Jl '46
Atomic energy. H. Tsien. bibliog J Aeronautical Sci 13:171-80 Ap '46
Atomic energy; abstract. R. E. Fearon. Mech Eng 68.41-2 Ja '46
Atomic energy and free enterprise; condemns control of scientific materials or processes by private interests. H. J. Laski. Comm & Fin Chr 162:2699+ D 6 '45
Atomic energy and its implications; round table discussion. C. S. Smith and others. il Metal Prog 49:761-9+ Ap '46
Atomic energy and the gas industry. J. G. King. Gas J (Lond) 248:121 Jl 17 '46
Atomic energy and the utilities. J. J. O'Neill. Pub Util 37:734-42 Je 6 '46
Atomic energy; application to the generation of electric power. J. A. Hutcheson. Elec Eng 65:149-50 Ap '46; Excerpts. Mech Eng 68:558 Je '46
Atomic energy in industry; discussion in the House of commons. Chem Age (Lond) 54: 358 Ap 6 '46
Atomic energy, its future in power production; Chemical Engineering report. il diag Chem Eng 53:125-33 O '46
Atomic energy may become rival of coal; uranium at $7,000 a pound is probable cheap fuel of future. W. Wells. Barron's 26:3+ Je 24 '46
Atomic energy remote as a practical fuel; abstract. J. R. Dunning. il S A E J 54:100-1 O '46
Atomic energy use for industrial power essayed by Monsanto co. Oil Paint & Drug Rep 149:3 Ap 22 '46
Atomic-energy uses; abstract. J. R. Dunning and others. Mech Eng 68:351-2 Ap '46
Atomic energy was used to start radio station in 1940; reprint of article published in Power plant engineering, Oct. 1940. diag Power Pl Eng 50:92 Ja '46
Atomic engineering? T. von Kármán. Mech Eng 67:672+ O '45; Same. J Eng Educ 36: 247-9 D '45; Same. J Ap Phys 17:2-3 Ja '46
Atomic pilot power plant scheduled for 1948. Elec World 126:79 Jl 20 '46
Atomic possibilities for public services major topic at EEI convention. Pub Util 38:44-9 Jl 4 '46
Atomic power almost as cheap as coal; Baruch report; abstracts. Gas Age 98:122+ O 3 '46; Elec World 126:105 S 14 '46; Coal Age 51:128+ O '46
Atomic power applications envisaged. Gen Elec R 49:53 Jl '46
Atomic power deemed unsuitable for use in mobile unit. A. H. Compton. Oil & Gas J 44:61 Mr 23 '46
Atomic power development program announced by Manhattan district. Coal Age 51:166+ My '46
Atomic power plant. Sci Am 175:125 S '46
Atomic power plant seen as possibility within ten years; abstracts. A. H. Compton. Iron Age 156:171-4 O 18 '45; Mech Eng 67:850-2 D '45
Atomic power plants await political accord. Bsns W p18 S 14 '46
Atomic power production is economically promising; report of Carnegie endowment committee on atomic energy. diag Elec World 126:52-4 O 26; 90-2 N 9 '46
Atomic power search widens; Manhattan district to build uranium pile; new program of research. Bsns W p19-21 Ap 20 '46
Atomic power to drive gas turbines. Diesel Power 23:1365 N '45
Atomic power will fuel electric plant at Oak Ridge. Elec World News ed 125:3 Ap 20 '46
Atomic turbines. Bsns W p18-19 N 10 '45
Atoms are news. Bsns W p20-2 D 15 '45
Basic ideas underlying utilization of atomic energy for power production. K. H. Kingdon. diag Edison Elec Inst Bul 14:209-12+ Je '46; Excerpts. Elec World 125:76 Je 8 '46
Business and atomic energy. R. W. Babson. Comm & Fin Chr 162:2583 N 29 '45
Competitive atom; operating cost of plutonium power units. Bsns W p24+ O 26 '46
Defends his atomic control plan. B. M. Baruch. Comm & Fin Chr 164:1785+ O 10 '46
Diluted atomic power use; suggestion for generation. Elec World 125:67-8 Mr 30 '46
Economics of atomic energy. P. W. Swain. Elec Eng 65:147-9 Ap '46; Same. diags Power 90:368-70 Je '46; Excerpts. Mech Eng 68:557-8 Je '46
Education and atomic power; implications in student training of utilizing atomic energy. W. G. Pollard. Mech Eng 68:509-13 Je '46
Foresees many atomic power applications; abstract. C. G. Suits. Franklin Inst J 241: 458-9 Je '46
Future of atomic energy; address before American society of mechanical engineers. A. C. Klein. Comm & Fin Chr 164:1778+ O 10 '46
Future of atomic energy in power production; with cost data; digest of study prepared as project of the Carnegie endowment on atomic energy. il diag Power 90:742-6 N '46
Future of atomic energy; power phase. E. Fermi. Chem & Eng N 24:1357-9 My 25 '46; Abstract. Metal Prog 49:1203-4 Je '46
Future of nuclear power. J. A. Wheeler. il diags Mech Eng 68:401-5 My '46; Same. Engineer 181:568-9, 580-1 Je 21-28 '46; Same abr. Power Pl Eng 50:78-82 Ap '46; Same cond. Power 90:174-6 Mr '46; Excerpts. Am Gas Assn Mo 28:158+ Ap '46
G.E. moves into Hanford. il Bsns W p17-18 Ag 31 '46
How can atomic energy be controlled? D. E. Lilienthal. Chem & Eng N 24:2483-5 S 25 '46
How soon atomic energy? D. H. Killeffer. Sci Am 173:284-6 N '45
Industrial uses of atomic energy. L. I. Katzin. Sci Am 174:74-6+ F '46
Industrial uses of atomic power; abstract. W. Isard and V. Whitney. Management R 35: 16-17 Ja '46
International control of atomic energy. diag Power Pl Eng 50:76-9 Je; 124+ O '46
International use of atomic power. J. R. Oppenheimer. Comm & Fin Chr 162:3133+ D 27 '45
Joint allied declaration on atomic energy. Comm & Fin Chr 162:2621 N 29 '45
Man vs atom, year 1. il diags Elec World 126:51-8 Jl 20 '46 [reprinted in Chem & Met Eng 53:93-100 Jl '46; Eng N 137.92a-92h Jl 25 '46; Factory Management 104: 144a-144h Jl '46 and other McGraw-Hill publications]
Metallurgists and atomic energy; abstract. C. Darwin. Chem Age (Lond) 55:350-1 S 21 '46
Nature and portent of atomic power. W. F. G. Swann. il Aero Digest 51:33-7+ D 1 '45
Nature and uses of atomic energy; abstract. L. E. C. Hughes. Electrician 136:26 Ja 4 '46
Nonmilitary uses of atomic energy. C. A. Thomas. Chem & Eng N 24:2480-3 S 25 '46; Abstract. Iron Age 158:137-8+ S 26 '46
Nuclear energy. H. A. Winne. Mech Eng 68: 986 N '46
Nuclear energy and the polar icecap. R. T. Ellickson. Science 103:316 Mr 8 '46
Nuclear energy as a power source; United States Navy's interest. H. G. Bowen. Mech Eng 68:779-81 S '46; Abstract. Marine Eng 51:138+ Jl '46
Nuclear energy; problems of engineer and A.S.M.E. in its application for beneficent purposes. A. L. Baker. il Mech Eng 68: 775-8 S '46
Nuclear physics and the future. M. L. Oliphant. Engineer 181:410 My 3 '46; Abstracts. Elec R (Lond) 138:686-7 My 3 '46; Electrician 136:1155-7 My 3 '46

ATOMIC power—*Continued*
Nuclear power plants; Baruch report. Engineer 182:253-4 S 20 '46
Nuclear power plants; Baruch report. Eng N 137:352 S 19 '46
Peacetime use of atomic power. F. Daniels. Chem & Eng N 24:1514-17+ Je 10 '46
Peacetime uses of atomic energy. C. G. Suits. Elec Eng 65:145-7 Ap '46; Same abr. Machine Design 18:136+ Ap '46
Petroleum vs. plutonium. C. Goodman. diags Am Pet Inst Proc 25(1):71-83 '45; Same. Pet Refiner 24:101-9 N '45; Same. Oil & Gas J 44:227-8+ N 17 '45; Excerpts. Automotive & Aviation Ind 93:18-19+ D 1 '45; Mech Eng 68:559 Je '46; Abstract. Chem & Met Eng 53:260+ F '46
Pilot nuclear power plants are within 5 years. K. T. Compton. Steel 119:115 N 11 '46
Possibilities of atomic energy studied by power industry. Pub Util 37:576-7 Ap 25 '46
Possibilities of atomic power. L. W. Chubb. Edison Elec Inst Bul 14:23 Ja '46
Possibilities of nuclear power. E. V. Murphree. Min & Met 27:509-10 O '46; Abstract. Pet Processing 1:7 S '46
Production of atomic energy. J. T. Kendall. Engineering 161:75-6, 100 Ja 25-F 1 '46
Production of electrical power from nuclear energy; abstract. H. A. Winne. Science 104: 350 O 11 '46
Revolutionary changes with atomic energy. B. Pregel. Comm & Fin Chr 163:2973+ My 30 '46
Science in relation to reconstruction; abstract. J. Anderson. Electrician 135:656 D 14 '45
Scientific importance of the nuclear power projects. C. D. Coryell. J Chem Educ 23: 395-7 Ag '46
Scientists explore possibilities of atomic power for electrical production. Edison Elec Inst Bul 13:357-60+ D '45
Some chemical aspects of atomic energy; present position and possible applications. G. G. S. Dutton. Chem Age (Lond) 55: 311-15 S 14 '46
Some engineering and political aspects of atomic energy. H. A. Winne. diags Edison Elec Inst Bul 14:217-21 Je '46; Excerpts. Elec World 125:75-6 Je 8 '46
Text of Truman-Attlee-King statement on atomic energy. Chem & Eng N 23:2197 D 10 '45
This fateful atom can serve man. diags Bsns W p66-72 Jl 6 '46
U.N. report on atomic power. Chem Eng 53: 134 O '46
Uranium fission; discoveries leading to a chain reaction. M. L. Eidinoff. bibliog J Chem Educ 23:60-5 F '46
Utility industry statement on atomic energy as a source of electricity supply. Elec World 125:54-5 Mr 2 '46
Utility man looks at atomic energy. J. C. Parker. Edison Elec Inst Bul 14:205-8 Je '46; Excerpts. Elec World 125:74-5 Je 8 '46
What "atomic" gold might do; synthesis at low cost would rock world's business, government. F. Pick. Barron's 26:3+ Mr 11 '46
What's future of uranium and kin? W. Janssen. Dom Comm 34:19-21 F '46
What's in atoms? industrial claim-stakers; Atomic development authority proposed. Bsns W p16 Je 22 '46
Widespread utilization of nuclear energy seen; abstract. H. G. Bowen. Iron Age 157:74+ Je 27 '46
Will an atomic power plant pay? C. F. Wagner and J. A. Hutcheson. Power Pl Eng 50: 118+ O '46

See also
Atomic bombs

Legislation

Announces complete agreement with principles proclaimed in President's letter and embodied in McMahon bill. Science 103: 311 Mr 8 '46
Atomic control proposals; President postpones tests. Comm & Fin Chr 163:1842-3 Ap 4 '46
Atomic energy act of 1946. Metal Prog 49: 770-1 Ap '46
Atomic energy act of 1946 signed by President Truman. Mech Eng 68:919-20 O '46
Atomic energy act of 1946; text. R Sci Instr 17:458-69 O '46
Atomic energy; extracts from speeches on the Atomic energy bill, House of commons. C. R. Attlee; J. Wilmot. Engineer 182:331-2 O 11 '46
Atomic energy legislation. Chem & Eng N 23:2086-92; 24:363-70 N 25 '45, F 10 '46
Control of atomic energy for power purposes. R. N. Larkin. Elec World 125:92 Je 22 '46
Domestic atomic energy legislation. R Sci Instr 17:207-8 My '46
Domestic control of atomic energy. H. A. Meyerhoff. Science 103:133-6 F 1 '46
Effect of McMahon bill on nuclear-energy application. B. McMahon. Mech Eng 68: 782-4 S '46
Engineering representation is an A-bomb must; defect in bill S-1717. A. C. Klein. Chem & Met Eng 53:117+ Mr '46
McMahon bill; soviet for scientists. A. A. Potter. Comm & Fin Chr 164:805+ Ag 8 '46
Science speaking; national drive for McMahon measure. Bsns W p20-1 Ja 12 '46

ATOMIC research
Another chain reaction. K. Chamberlain. Science 103:158-60 F 8 '46
Atomic byproducts for medicinal research. Oil Paint & Drug Rep 149:5+ Je 17 '46
Atomic disintegration. N. Feather. Roy Aeronautical Soc J 50:553-64; Discussion. 564-7 Ag '46
Atomic energy act sought to spur research, establish U.S. policy. Steel 118:88+ My 20 '46
Atomic power search widens; Manhattan district to build uranium pile; new program of research. Bsns W p19-21 Ap 20 '46
Atomic research benefits; research and technological knowledge obtained as applied to industry. J. D. Tompkins. Am Gas Assn Mo 28:70 F '46
Atoms, electrons and engineers; abstracts. T. E. Allibone. Engineer 181:449 My 17 '46; Elec R (Lond) 138:762 My 17 '46; Electrician 136:1300-2 My 17 '46
Biological applications of nucleonics. H. J. Curtis. Chem & Eng N 24:897-9 Ap 10 '46
Impact of nuclear chemistry; the heavy elements. G. T. Seaborg. il diags Chem & Eng N 24:1192-8 My 10 '46
Laboratory for nuclear science and engineering at the Massachusetts institute of technology. J. R. Zacharias. R Sci Instr 17: 120-2 Mr '46
Laboratory of nuclear studies will be established at Cornell university. Science 103:310 Mr 8 '46
Nazis came close; but. S. A. Goudsmit. Chem & Eng N 24:2176+ Ag 25 '46
New developments in nuclear physics discussed at joint A.P.S. and A.S.M.E. meeting. Mech Eng 68:1017 N '46
New laboratory unit at the Hanford atomic energy plant. Science 104:420 N 1 '46
New research program in advanced nuclear physics inaugurated at Oak Ridge, Clinton laboratories. Iron Age 158:156+ O 17 '46
Nuclear reactions. R. R. Williams, jr. J Chem Educ 23:423-6 S '46
Nuclear research in General Electric. C. G. Suits. bibliog Edison Elec Inst Bul 14:213-16 Je '46; Excerpts. Elec World 125:77 Je 8 '46
Nuclear research institute at Oak Ridge. Science 103:705-6 Je 14 '46
Physics of the bomb. A. K. Solomon. il Fortune 33:114-22+ My '46
Plans and problems in nuclear research. F. Daniels. Science 104:91-6 Ag 2 '46
Progress in nuclear research; review of highlights in development of the atomic bomb. Elec Eng 65:108-16 Mr '46
Some chemical aspects of recent work on atomic fission; abstract. H. J. Emeléus. Chem & Ind p87-8 F 23 '46
Statement of Philadelphia branch of American association of scientific workers. Science 103:449 Ap 12 '46
US atomic research operations transferred. Oil Paint & Drug Rep 149:5 Je 10 '46

See also Associated universities, inc.—Scientific research

ATOMIC scientists, Federation of. See Federation of atomic scientists

ATOMIC scientists' association
First council. Chem Age (Lond) 54:726 Je 29 '46

ATOMIC weights
See also
Periodic system

ATOMIC workers organizing committee
Oak Ridge; union prize. Bsns W p92+ Jl 20 '46

ATOMS
Abundance of nuclei in the universe. C. Lattes and G. Wataghin. Phys R 69:237 Mr 1 '46
Abundance of nuclei in the universe. G. Wataghin. Phys R 70:430 S 1 '46
Atomic energy. H. Tsien. bibliog J Aeronautical Sci 13:171-80 Ap '46
Classical models and many-electron atoms. M. A. Cook. J Chem Phys 14:62-6 F '46
Development of atomic energy. E. J. Murphy. diags Chem & Eng N 24:182-6 Ja 25 '46
Experiments on the elastic single scattering of electrons by nuclei. R. J. Van de Graaff and others. bibliog diags Phys R 69:452-9 My 1 '46
Future of atomic energy; chemical phase. H. S. Taylor. Chem & Eng N 24:1360-2 My 25 '46
Historic researches. Engineer 182:92-4, 114-16, 136-8, 158-61 Ag 2-23 '46
Impact of nuclear chemistry; the heavy elements. G. T. Seaborg. il diags Chem & Eng N 24:1192-8 My 10 '46
Impact of nucleonics on medicine. R. S. Stone. Chem & Eng N 24:482-3+ F 25 '46
Nature of the atom. L. Meitner. il Fortune 33:136-44+ Mr '46
Neutron, the intermediate or compound nucleus, and the atomic bomb. W. D. Harkins. il diag Science 103:289-302 Mr 8 '46
New method of determining electronegativity from other atomic properties. W. Gordy. bibliog Phys R 69:604-7 Je 1 '46
Nuclear energetics. R. R. Williams, jr. J Chem Educ 23:508-11 O '46
Nuclear excitation of krypton and rhodium. M. L. Wiedenbeck. bibliog Phys R 68:237-9 D 1 '45
Nuclear physics and chemistry at Harvard university. Science 102:472-3 N 9 '45
Nuclear reactions. R. R. Williams, jr. J Chem Educ 23:423-6 S '46
Nuclear spectroscopy and energy distribution of charged particles inelastically scattered by nuclei. E. Guth. Phys R 68:280 D 1 '45
Nuclear spectroscopy and inelastic scattering of particles by nuclei. E. Guth. bibliog Phys R 68:279-80 D 1 '45
Nucleus of the atom. P. L. Robinson. Chem & Ind p52 F 2 '46
Percentage composition and the atomic theory. R. K. McAlpine. J Chem Educ 23: 227-9 My '46
Positronium. A. E. Ruark. Phys R 68:278 D 1 '45
Production of atomic energy. J. T. Kendall. Engineering 161:75-6, 100 Ja 25-F 1 '46
Relation between bond force constants, bond orders, bond lengths, and the electronegativities of the bonded atoms. W. Gordy. bibliog J Chem Phys 14:305-20 My '46
Relation between characteristic bond constants and electronegativities of the bonded atoms. W. Gordy. Phys R 69:130-1 F 1 '46
Relation between specific refractivity of polymers and atomic structure of polymer unit. R. H. Wiley. bibliog Ind & Eng Chem 38:959-60 S '46
Spherical shell nuclear model. H. A. Wilson. Phys R 69:538 My 1 '46
Wave function for the ground state of lithium. K. Huang. Phys R 70:197-202 Ag 1 '46
See also
Atomic research
Deuterons
Electrons
Molecules
Neutrons
Protons
Radiation
Spectrum
Stereochemistry

Disintegration
Atomic disintegration. N. Feather. Roy Aeronautical Soc J 50:553-64; Discussion. 564-7 Ag '46
Disintegration of I^{128}. K. Siegbahn and N. Hole. bibliog diag Phys R 70:133-5 Ag 1 '46
Disintegration of nitrogen by fast neutrons. H. H. Barschall and M. E. Battat. Phys R 70:245-8 S 1 '46
Disintegration of Na^{24} and P^{32}. K. Siegbahn. bibliog diags Phys R 70:127-32 Ag 1 '46
Disintegration schemes of radioactive substances; Mn^{52} and V^{48}. W. C. Peacock and M. Deutsch. bibliog Phys R 69:306-13 Ap 1 '46
Fast neutron resonance with nitrogen. F. A. Valente and H. I. Zagor. Phys R 69:55-9 F 1 '46
Liquid drop model for nuclear fission. R. D. Present and others. Phys R 70:557-8 O 1 '46
Multiple nuclear disintegrations induced by 100-mev X-rays. G. C. Baldwin and G. S. Klaiber. bibliog il Phys R 70:259-70 S 1 '46
Neutron yields from the photo- and electrodisintegration of beryllium. M. L. Wiedenbeck. Phys R 69:235 Mr 1 '46
Nuclear disintegration. A. Fermi. Republished from Electrical engineering, Feb. 1940. Elec Eng 65:108-10 Mr '46
Relativistic misconception. C. R. Eddy. Science 104:303-4 S 27 '46
Schematic treatment of nuclear resonances. G. Breit. bibliog Phys R 69:472-88 My 1 '46
Search for spontaneous fission in 94^{239}. J. W. Kennedy and A. C. Wahl. Phys R 69: 367-8 Ap 1 '46
Thresholds for slow neutron induced reactions. L. I. Schiff. bibliog Phys R 70:562 O 1 '46
Variation along range of the $H\rho$-distribution and the charge of the fission fragments of the light group. N. O. Lassen. Phys R 69: 137-9 Mr 1 '46
See also
Atomic bombs
Atomic power

ATOPHAN. See Cinchophen

ATTACHMENT and garnishment
Beneficiary's right to life policy proceeds; brief for New York state association of life underwriters in case of Genesee valley trust company vs. Hannah Glazer. A. Hirst. Weekly Underw 153:1371-4+ D 8 '45; Excerpts. East Underw 46:15 S 28 '45; Nat Underw (Life ed) 49:2+ S 28 '45
Is life insurance attachable by creditors? E. A. Muller. Mag of Wall St 77:343+ D 22 '45

ATTENUATION of wave guides. See Wave guides

ATTENUATORS, Radio. See Radio attenuators

ATTICS
Attic hobby room utilizes waste space. il plan Am Bld 68:84 Ag '46
Attics getting the heaters. il Sheet Metal Worker 37:80 O '46
Better detail plate; attic alteration; design for boy's room. R. J. Alexander. plans diags Am Bld 68:96-7 Ja '46
Ten considerations for attic ventilation. Dom Eng 168:162-3+ O '46

ATTITUDE (psychology)
How reasonable attitudes may be counteracted. R. R. Cohen. il Factory Management 104:117-20 Ja '46

AUDITING
Audit of insurance. S. Chan and J. S. Miller. J Account 80:444-8 D '45
Auditing practice forum. V. Z. Brink, ed. J Account 82:152-5 Ag '46 [cont monthly]
Checking endorsements. J Account 82:249 S '46
Predetermined or progressive audit programs. J. G. Hill. J Account 82:71-2 Jl '46
Preliminary work in the accountant's office; abstract. J. Lang. J Account 82:425-6 N '46
Review of Statements on auditing procedure; issued by American institute of accountants. R. C. Lytle. J Account 82:196-202 S '46
Types and scope of audits of public vouchers. E. E. Naylor. bibliog J Account 81:404-16 My '46
What is the accountant's proper responsibility? I. B. McGladrey. J Account 82:373-7 N '46
See also
Bank auditing

AUDITING—*Continued*

Examinations

American institute of accountants examination in auditing, Nov. 9, 1945. J Account 80:477-8 D '45
American institute of accountants examinations. J Account 81:428-433 My '46

Internal control

Internal auditing for disbursement control; Continental oil company, Ponca City, Okla. W. E. Sexton. il Am Bsns 16:12-13+ Jl '46
Internal control procedures for army exchanges. M. A. H. Wakely. J Account 80: 375-86 N '45

Standards

Auditing standards as measures of the auditor and his procedures. E. A. Kracke. J Account 82:203-10 S '46
Standards of auditing procedure and reports. P. Barnes. J Account 82:45-50 Jl '46

AUDITORIUMS

Acoustics of modern auditoriums. F. R. Watson. il diags Arch Rec 99:119-23 Je '46
Small acoustical tube for measuring absorption of acoustical materials in auditoriums. D. P. Loye and R. L. Morgan. il Acoustical Soc Am J 17:326-8 Ap '46
University building; modern dining hall-auditorium for Indian institute of science. il plan diag Arch Forum 84:89-90 Je '46

Lighting

Luminous ceilings for United nations auditoriums. il plan Elec World 126:60-1 O 26 '46

AUDITORS

Auditing standards as measures of the auditor and his procedures. E. A. Kracke. J Account 82:203-10 S '46
Competitive bidding for audit engagements. J Account 82:178-9 Ag '46

AUGER effect

Auger transitions. F. R. Hirsh, jr. bibliog Phys R 69:32 Ja 1 '46

AUGER machines

Clay flow and auger action. L. R. Whitaker. il diags Brick & Clay Rec 107:40-2 S; 40-2 O; 50+ N; 48+ D '45
Hard-facing pugmill augers. il Concrete (mill sec) 54:122 Je '46

AURAMINE

Syntheses of certain derivatives of phenylalanine and of auramine in studies of antimalarial action. L. Hellerman and others. bibliog Am Chem Soc J 68:1890-3 O '46

AURAND, Harry S. 1894-

Sketch. por Iron Age 158:95-6 O 3 '46

AURORAS

Aurora and geomagnetism; abstract. C. W. Gartlein. Electronics 19:242+ Ja '46

AUSTEMPERING. See Steel, Heat treatment of

AUSTENITE

Dimensional stability of steel; subatmospheric transformation of retained austenite. S. G. Fletcher and M. Cohen. diag Am Soc for Metals Trans 34:216-37 bibliog(p236-7); Discussion. 237-49 '45
Tensile properties of unstable austenite and its low-temperature decomposition products. A. H. Cottrell. bibliog diags Iron & Steel Inst J 151:93-104, pl 5-6 no 1 '45; Abstract. Metal Prog 48:1130+ N '45

AUSTIN motor company

Statement by the chairman. L. P. Lord. Economist 150:508 Mr 30 '46

AUSTRALIA

American merchandising methods for Australia. F. Goldberg. Ptr Ink 216:43 Ag 9 '46

See also

Airlines—Australia
Insurance, Social—Australia
Lakes—Australia
Public health—Australia
Shoe industry and trade—Australia
Steel industry and trade—Australia
Woman—Employment—Australia

Commerce

Australia's international trade position. H. V. Evatt. Comm & Fin Chr 162:2457+ N 22 '45
War has sold Australia on American workmanship and efficiency. F. Goldberg. il Ptr Ink 214:70+ Ja 11 '46

Economic conditions

Australia in 1945. Economist 150:sup6 Mr 23 '46
Reconversion in Australia. Economist 151:672 O 26 '46
Wage question in Australia. Economist 150: 459 Mr 23 '46

Economic policy

Australian social service. P. J. Clarey. Personnel J 24:221-7 D '45

Industries and resources

Natural products of the empire. E. J. Hartung. Chem Age (Lond) 54:727-9 Je 29 '46
U.S. firms expand down under; opening manufacturing branches in Australia. Bsns W p101-2 N 2 '46

National works council

Planning of public investment in Australia. R. I. Downing. bibliog Int Labour R 52:352-79 O '45

Politics and government

Constitutional difficulties in Australia. Economist 150:931 Je 8 '46
Elections in Australia. Economist 151:497-8 S 28 '46

AUSTRIA

See also

Banks and banking—Austria
Investments, Foreign—Austria
Paper industry and trade—Austria
Paper mills—Austria
Petroleum industry and trade—Austria

Allied military government

Austrian scene. Economist 150:702-3 My 4 '46

Commerce

Austrian specialties export prospects today. R. A. Heller. il For Comm W 25:5-6+ O 26 '46

Economic conditions

Austria in 1945. Economist 150:sup10 Mr 23 '46
Reconstruction in Austria. Economist 149:794 D 1 '45
Reconstruction in French-occupied Austria. Engineer 182:53-4 Jl 19 '46

AUTHORS

Advertising men can have literary careers. W. A. Lowen. pors Ptr Ink 213:22-3 N 23 '45

AUTHORSHIP

Apprenticeship in word artistry is made up of hard work, gifts notwithstanding. E. N. Teall. Inland Ptr 117:63-4 Je '46

See also

Radio authorship
Technical writing

Bibliography

Authorship without tears. J. M. Scherr. Bulletin of Bibliography [F. W. Faxon co, Boston] 18:225-7 My-Ag '46

AUTOBAHN. See Roads, Automobile

AUTOCLAVES

Autoclave for visual observation of high pressure reactions. W. F. Caldwell. il diags Ind & Eng Chem 38:572-5 Je '46

AUTOGIROS

Practical engineering of rotary wing aircraft. P. H. Stanley. bibliog il diags Aviation 45:55-65 Jl; 76-82 Ag; 67-70 S; 74-7 O '46
Simplified theoretical method of determining the characteristics of a lifting rotor in forward flight. F. J. Bailey, jr. bibliog diags U S Nat Advisory Com for Aeronautics 1941:209-26 '42

AUTOMATIC canteen company of America

Sales turn upward. Barron's 26:6 O 28 '46

AUTOMATIC machinery. See Machinery, Automatic

AUTOMATIC pilot. See Airplanes—Control

AUTOMATIC sales machines. See Vending machines

AUTOMATIC telephone. See Telephone, Automatic

AUTOMOBILE accessories industry
Abnormal pattern of replacement parts situation. L. Westrate. Automotive & Aviation Ind 95.39+ S 1 '46
Heavy production losses caused by parts shortages and the coal strike. L. Westrate. Automotive & Aviation Ind 94:17+ My 15 '46
See also
Western auto supply company

Advertising
Accident that didn't happen; Bear mfg. company's 1946 plans. il Ind Marketing 31:60+ My '46
Auto heater is oversold by direct mail debut; Motorola. V. A. Irvine. il Sales Management 57:92+ S 1 '46
Successful newspaper campaign of auto parts jobber. L. R. Jalenak. Ptr Ink 213: 126+ N 16 '45

Securities
Re-appraisal of motors and accessories; with position of leading automobile and auto parts companies. R. Carleson. Mag of Wall St 77:772-5+ Mr 30 '46
Up-to-the-minute evaluation of motors and motor accessories; financial survey of leading stocks. J. C. Clifford. il Mag of Wall St 78:690-3+ S 14 '46

Statistics
U.S. exports of automotive products, 1940-1945; tabulation. Automotive & Aviation Ind 94:91 Mr 15 '46

AUTOMOBILE accidents
Designing highways to meet pedestrian needs. C. B. McCullough. il Roads & Bridges 83: 60-1+ N '45
Drivers held chiefly at fault; survey of 3,500 accidents. Weekly Underw 154:1089 Ap 27 '46
Elimination of accident hazards. J. C. McMonagle. Roads & Bridges 84:54-6+ My '46
Indemnity of North America analyzes 3,500 car accidents. A. W. Meinke. East Underw 47:46 My 10 '46
Insurance well represented at Truman conference; fashion multi-barreled attack on highway accident problem. Nat Underw 50: 31+ My 16 '46
Left turn accidents on four-lane divided highways. R. H. Baldock. Roads & Sts 89:79+ Ag '46
Liquor and speed responsible for situation about which President Truman is showing concern. Weekly Underw 154:55 Ja 5 '46
Nation-wide drive on traffic toll; President's Conference seven-point program. Nat Safety N 53:34 Je '46
National traffic safety conference address. H. S. Truman. Comm & Fin Chr 163:2705 My 16 '46
New Jersey a leader in traffic safety; abstract. S. Miller, jr. Roads & Sts 89:84-5 Jl '46
Potent safety message; task is to make 90% willing to pay price. W. E. Hall. Nat Underw 50:44 S 26 '46
President's committee studies traffic safety. Nat Safety N 53:29 My '46
Protest public indifference to reckless driving. R. A. Duffus and H. W. Clune. East Underw 47:25 My 3 '46
Safety film "X marks the spot" released by N.J. motor bureau. L. S. Metcalfe. il East Underw 46:34 N 16 '45
States act to increase highway safety. B. Jones. East Underw 47:36 Ap 12 '46
Tire failure accidents for 1941-44 period analyzed in ICC report. Rubber Age 59:328 Je '46
Wasted; $1,150,000,000 yearly. T. D. LeMay. plans diag Roads & Bridges 84:92-3+ Ap '46

Statistics
Death on wheels; automobile death toll in 1945. T. J. V. Cullen. map Spectator (Property ed) 12:12-17 O 10 '46
Motor accidents at highest peak since 1941, A.P.I. report shows. Oil & Gas J 45:55 Ag 31 '46
Nation's 1945 auto toll 28,500. Rough Notes 89:26 Mr '46

AUTOMOBILE air cleaners. See Air cleaners, Automobile

AUTOMOBILE assembly plants
Control plan ends assembly delays; teletype system speeds production in General Motors truck and coach division at Pontiac. R. J. French. il Am Bsns 15:16-17+ N '45
Ford has big postwar expansion program; Atlanta assembly plant. il Heating-Piping 18:101 F '46
Highlights in design of three immense auto assembly plants. il Eng N 137:599-601 O 31 '46

Power
Power plant services for 3 new G-M assembly plants. F. L. Einberger. diags Power Pl Eng 50:76-8 O '46

AUTOMOBILE brakes. See Brakes, Automobile

AUTOMOBILE camps. See Tourist camps, hostels, etc.

AUTOMOBILE clubs. See Automobile service clubs

AUTOMOBILE drivers

Equipment
See Automobile driving—Equipment for disabled

AUTOMOBILE driving
Elimination of accident hazards. J. C. McMonagle. Roads & Bridges 84:54-6+ My '46
Prepare or repair; prevent or repent! hazards of winter driving. D. C. Draper and R. E. Raleigh. Safety Eng 90:59 D '45
Safe driving for disabled G.I.'s. Safety Eng 91:60 F '46
Street lighting from the motorists' point of view. E. Fryer. Electrician 137:731-2 S 13 '46
Winter drivers warned: prepare for snow, ice. il Safety Eng 90:46 N '45

Equipment for disabled
Amputee autoists. Bsns W p30+ Jl 27 '46

AUTOMOBILE engineering
Engineering features of Indianapolis race cars. R. T. Jackson. il Automotive & Aviation Ind 94:20-4+ Je 1 '46
Engineering of involute splines. G. L. McCain. diags S A E J 54:245-60 My '46; Discussion. C. H. Stanard, A. S. Beam and others. il 54:310-24 Je '46
Ford research and engineering center. A. H. Allen. il Steel 118:73-4 Je 10 '46
More power to engineering. J. C. Zeder. S A E J 53:sup17-22 N '45
Research and engineering center; Ford motor company. il Mech Eng 68:819 S '46
See also
Automobile engines
Automobile research
Automobiles

Tables, calculations, etc.
Steering phenomena; factors affecting stability on curves. G. V. Zimelev. diags Automobile Eng 36:341-4 Ag '46

AUTOMOBILE engines
Brazed engine will power light-weight postwar Crosley motor car. il Sci Am 174:126-7 Mr '46
Built-up engine; Crosley engine. il Automobile Eng 36:207-8 My '46
Changes in 1946 car engines continue normal yearly advance. J. Geschelin. Automotive & Aviation Ind 93:40+ D 15 '45
Crankcase ventilation; abstract. C. E. Smith. il diags S A E J 54:sup22-3 Ag '46
Crosley car has aluminum body and a brazed all-steel cylinder block. il diags Product Eng 17:188-90 Mr '46
Ford tests Jahco engine. Bsns W p18 Ag 31 '46
Full details of the Crosley-Taylor engine. il Automotive & Aviation Ind 94:18-21 Ja 15 '46
New engine uses stamped steel parts, brazed together; Crosley corp. il Steel 118:86-7+ Ja 21 '46

AUTOMOBILE engines—*Continued*
Packard adopts oil ring with oil expander spring and sintered type bearing for car engines. il Automotive & Aviation Ind 93: 24 N 15 '45
Powering future cars. A. T. Colwell. il diags S A E J 54:36-46 O '46; Same cond. Nat Pet N 38:38+ Je 12 '46

See also
Automobiles
Motor bus engines
Motor truck engines

Bearings

Aluminum alloys for bearings. H. Y. Hunsicker and L. W. Kempf. il S A E J 54:51-3 O '46
Characteristics of aluminum bearings. N. E. Woldman. bibliog il Iron Age 158:60-4 S 12 '46
Continuous casting of alloy bearing strip; Ford motor co. T. W. Lamb and E. C. Jeter. il Materials & Methods 23:1567-70 Je '46
Durex-100 engine bearings; material characteristics and design data. J. A. Lignian. il diags Product Eng 17:335-9 Ap '46
Important engineering data on aluminum alloy bearings for engines. D. B. Wood. il Automotive & Aviation Ind 94:26-30+ Je 1 '46
Load-carrying capacity of journal bearings. J. M. Stone and A. F. Underwood. S A E J 54:47 Je 12 '46
1946 passenger cars, connecting rod and crankshaft bearings; specifications tabulated. Automotive & Aviation Ind 94:102 Mr 15 '46

Cleaning

How chemistry simplifies automotive cleaning methods and procedures; abstract. R. Sanders. il S A E J 54:sup25-6 S '46

Cooling

Air, water and oil. Automobile Eng 36:93-4 Mr '46
Induced air flow for engine cooling; investigations of Henri Coanda. diags Automotive & Aviation Ind 94:30-1+ F 15 '46
Jack and Heintz air-cooled engine. il Mech Eng 68:654 Jl '46
1946 passenger cars, fuel and cooling systems; specifications tabulated. Automotive & Aviation Ind 94:105 Mr 15 '46

Design

Brazed stampings reduce engine weight; Crosley engine. P. Klotsch. il Machine Design 18:123-5 F '46
Correlation of stress concentration with fatigue strength of engine components. C. W. Gadd and others. diags S A E J 53: 640-7 N '45
Engine proportions; analysis with special reference to stroke/bore ratio. A. Mitchell. diags Automobile Eng 36:453-61 O '46
How stress measurements aid crankshaft design. S. Oldberg and C. Lipson. il diags Machine Design 17:127-32 N '45
Looking forward to future automobile engines. A. Taub. diags Automotive & Aviation Ind 95:36-8+ N 1 '46 (to be cont)
Novel design features of Jack & Heintz engines. il Automotive & Aviation Ind 95: 18-20+ Jl 1 '46
Potentialities of the new fuels in the design of passenger car engines. E. Bartholomew. S A E J 54:54-9 O '46; Same cond. Nat Pet N 38:19-20 Je 5 '46; Abstract. Automotive & Aviation Ind 94:38-9 Je 15 '46
Private cars; survey of components employed on current designs; engines. il diags Automobile Eng Extra no35:433-44 O 25 '45

Detonation

Detonation; standardized methods of assessment on the road. L. B. Sweetland and G. M. Barrett. Automobile Eng 36:255-60 Je '46
Knock and pre-ignition; abstract. A. Sokolik and S. Yantovskii. Automobile Eng 36:362 Ag '46
Water-injection for your car. diag Consumers Res Bul 18:16-17 Jl '46

Fuel

Fuels rated by performance; borderline knock tests in petroleum research use road-performance as criterion. E. F. Lindsley. il Sci Am 174.113-15 Mr '46
100-octane fuel and your car. Consumers Res Bul 16:31 D '45
Potentialities of the new fuels in the design of passenger car engines. E. Bartholomew. S A E J 54:54-9 O '46; Same cond. Nat Pet N 38:19-20 Je 5 '46; Abstract. Automotive & Aviation Ind 94:38-9 Je 15 '46
Reference fuel scales for knock rating; abstract. D. B. Brooks. Franklin Inst J 241: 137-8 F '46
Significance of octane number. H. W. Best. Automotive & Aviation Ind 94:32-4+ Mr 1 '46
Utilization of nonpetroleum fuels in automotive engines. J. T. Duck and C. S. Bruce. bibliog J Res Nat Bur Stand 35:439-65 D '45
Water and gasoline don't mix; dealing with water that has gotten into your gasoline. Consumers Res Bul 17:17-19 F '46
What kind of fuel will you make in 1947? asks motor industry. A. L. Foster. Oil & Gas J 45:52-3 O 5 '46
Winter problems with wartime fuels and lubricants; abstract. W. Goodale. S A E J 54:sup23 Mr '46

See also
Gasoline

Fuel consumption

Fuel economy; standard engine modified to operate on lean mixtures. R. J. Morton Automobile Eng 36:357-8 Ag '46

Fuel feeding

Alcohol as fuel; its utilization by direct injection. Automobile Eng 36:372 Ag '46
Alcohol; utilisation as motor fuel by direct injection; abstract. M. Retel. diags Automobile Eng 36:115-16 Mr '46
Analysis of the effects of fuel distribution on engine performance. D. B. Brooks. bibliog J Res Nat Bur Stand 36:425-39 My '46
Fuel injection; advantages claimed when using alcohol mixtures. Automobile Eng 36: 283 Jl '46
Making petrol injection pumps. il diags Automobile Eng 36:55-64 F '46
1946 passenger cars, fuel and cooling systems; specifications tabulated. Automotive & Aviation Ind 94:105 Mr 15 '46
Stewart Warner fuel pump independent of engine. il diags Product Eng 17:99 N '46

Gearing

Gear pump teeth; designing to avoid compression of fluid at base of tooth. H. Walker. il diags Automobile Eng 36:347-9 Ag '46
1946 passenger cars, timing gears, valve timing and lubrication; specifications tabulated. Automotive & Aviation Ind 94:104 Mr 15 '46

Ignition

Pressure combustion. diag Automobile Eng 36:349 Ag '46

Ignition devices

Hexagonal damping spring eliminates torsional fluctuations; automatic spark advance, Willys four-cylinder jeep engine. D. D. Stone. il diag Product Eng 16:824-5 D '45
Motor-car ignition interference. C. C. Eaglesfield. il diags Wireless Eng 23:265-72 O '46
Plastic rotors for Fords; abstract. Materials & Methods 23:1638 Je '46
Spark plugs; abstract. R. M. Ward. S A E J 54:sup57-8 Ag '46

Lubrication

Action of lube oil detergents on automotive engines. F. M. Watkins. il Pet Refiner 25: 89-93 patent list (p93) Ja '46
Additives impart necessary qualities to lubricating oils. Oil & Gas J 44:249 Mr 30 '46
Doped or premium motor oil; study of Triton oil. Consumers Res Bul 18:21-4 S '46

AUTOMOBILE engines—Lubrication—*Cont.*
Engine sludge deposits, causes and remedies; abstract (pt 2). C. W. Georgi. il diag S A E J 54:sup21 S '46
Low temperature sludge in automotive gasoline engines. il diag Roads & Sts 89:105-10+ F '46
Motor oil dope, Casite. Consumers Res Bul 17:14-17 Ap '46
Motor oils. Consumers Res Bul 18:13-14 Ag; 19-20 S '46
New motor oil definitions termed aids to oil companies and to the consumers; abstracts. H. R. Wolf. Nat Pet N 38:22+ Ja 16 '46; S A E J 54:sup31 My '46
New synthetic lubricants from natural or other hydrocarbon gases. J. C. Kratzer and others. il Nat Pet N 38 pt 2:R135-6+ F 6 '46; Same, with additional il. Pet Refiner 25:127-38 F '46; Same. S A E J 54:228-37 My '46; Abstract. Automotive & Aviation Ind 94:36 F 1 '46
1946 passenger cars, timing gears, valve timing and lubrication; specifications tabulated. Automotive & Aviation Ind 94:104 Mr 15 '46
Oil for the postwar car. H. L. Hemmingway. bibliog Pet Refiner 24:127-31 N '45; Abstract. S A E J 54:98-9 O '46
Oil maverick; west coast refiner deserts 1,000-mile policy. Bsns W p18 Ap 13 '46
Performance characteristics of detergent motor oils vs. non-detergent motor oils; abstracts. L. E. Calkins. Nat Pet N 37:48 N 14 '45; il S A E J 54:sup28-9 My '46; Discussion. 54:sup29 My '46
Piston lubrication phenomena in a motored glass cylinder engine. S. J. Beaubien and A. G. Cattaneo. il diags S A E J 54:60-7 O '46; Abstract. Automotive & Aviation Ind 94:36 Je 15 '46
Postwar crankcase oils; abstract. H. R. Wolf. Nat Pet N 38:46+ My 1 '46
Prestone motor oil. Bus Transportation 25: 199 Ap '46
Sludging; effect of oil-water mixtures and other factors. E. V. Paterson. Automobile Eng 36:131-2 Mr '46
Use and evaluation of heavy-duty engine oils. O. L. Brandes and H. H. Donaldson, jr. il S A E J 54:74-80 F '46
Value of heavy-duty motor oils for passenger cars studied. V. B. Guthrie. Nat Pet N 37:52+ D 19 '45
War-made oils make car engines weatherproof. P. V. Keyser, jr. Nat Pet N 37:34 N 21 '45
Winter problems with wartime fuels and lubricants; abstract. W. Goodale. S A E J 54:sup23 Mr '46

Maintenance and repair
Engine reconditioning; recent developments in American machine tools. il Automobile Eng 36:351-3 Ag '46
Engines rebuilt; Ford co. turns business over to dealers. Bsns W p55-6 Je 22 '46
Paddon-Thomsen cylinder boring machines. il Automobile Eng 36:36-8 Ja '46

Manufacture
Advanced tooling at piston and crankshaft departments reorganized by Ford. J. Geschelin. il layout plans diag Automotive & Aviation Ind 95:18-23+ O 1 '46
Blowing cylinder barrel cores; Buick motor division. A. H. Allen. il plan Foundry 74: 170-3+ My '46
Brazed sheet-metal automobile engine; Crosley motors. il Iron Age 157:61-3 Ja 24 '46
Brazed stampings basis of new auto engine; Crosley engine. H. A. Knight. il Materials & Methods 23:438-40 F '46
Buick's advanced practice in inspecting cylinders; use of Sheffield Precisionaire machines. il Mach 53:176-83 N '46
Ford's new method of balancing crankshafts. C. O. Herb. il diag Mach 52:156-60 Mr '46
Machining and finishing cylinder bores at Buick. K. Rose. il diags Materials & Methods 24:619-21 S '46
Modern production equipment conspicuous at Studebaker plant. J. Geschelin. il Automotive & Aviation Ind 95:30-5+ N 1 '46
Permanent-mold casting of pistons by Chrysler's high-production methods. C. H. Wick. il plan Mach 53:148-57 N '46
Profiting from war production experience at Ford of Canada. J. Geschelin. il diag Automotive & Aviation Ind 95:22-5+ Jl 1 '46

Mounting
Comparing the merits of front and rear engine autos. A. M. Wolf. diags Machine Design 18:103-8 My; 145-8+ Je '46
Engine mounting selection machine automatically determines load characteristics. il diags Product Eng 17:104-6 F '46
What motor cars should be; abstract. W. B. Stout. S A E J 54:sup21-2 S '46

Radiator cleaners
Automobile radiator cleaners. Consumers Res Bul 16:19-24 N '45

Specifications
1946 passenger cars; specifications tabulated. Automotive & Aviation Ind 94:100-6 Mr 15 '46

Testing
Analysis of the effects of fuel distribution on engine performance. D. B. Brooks. bibliog J Res Nat Bur Stand 36:425-39 My '46
Electronic robot tests Dodge engines. R. Le Grand. il Am Mach 90:106-7 O 24 '46
Engine tests with producer gas. F. A. Middleton and C. S. Bruce. bibliog diag J Res Nat Bur Stand 36:171-84 F '46
Gage checks cylinder blocks automatically at 32 points. il Iron Age 157:49 My 23 '46
Plant layout; engine assembly and testing; Douglas Motors. il plan Automobile Eng 36: 345-6 Ag '46
Testing automobile engines; electronically controlled dynamometer. il Electronics 19: 178 N '46

Power recovery
Dodge plant finds way to beat coal strike with auto engine. Iron Age 157:173 Je 6 '46

Valves
Automatic machining of automotive valves. il Steel 119:116+ O 14 '46
Freeze fitting of auto parts; refrigeration used to shrink cylinder block valve inserts. il Steel 119:96 Ag 12 '46
New rotary valve. F. E. Swain. diags Automobile Eng 35:493-4 N '45
1946 passenger cars, timing gears, valve timing and lubrication; specifications tabulated. Automotive & Aviation Ind 94:104 Mr 15 '46
1946 passenger cars, valves, intake and exhaust; specifications tabulated. Automotive & Aviation Ind 94:103 Mr 15 '46
Profiting from war production experience at Ford of Canada. J. Geschelin. il diag Automotive & Aviation Ind 95:22-5+ Jl 1 '46
Thompson RotoCap provides controlled valve rotation. diags Automotive & Aviation Ind 94:52 Mr 1 '46
Valve actuation; cams with flat-footed followers. O. H. Varga. Automobile Eng 36: 75-6 F '46
Valves and valve testing; abstract. V. Ayres. S A E J 54:sup36 Jl '46

Vibration
Analysis of a shock-excited transient vibration associated with combustion roughness; abstract. A. S. Fry and others. Automotive & Aviation Ind 94:36 Je 15 '46

AUTOMOBILE factories
Adventures of Henry and Joe in autoland. il plan Fortune 33:96-103+ Mr '46
How Ford selects plant sites. H. H. Ormond. il Am Bsns 16:12-13+ Je '46

Costs
Ford figures show manufacturing costs on two-door sedan up $450 since 1941. Steel 118:77-8 F 18 '46
Why it costs 87% more to build cars. H. Ford, 2d. Automotive & Aviation Ind 94:19 F 15 '46

Employees
Aptitude testing of Ford workers. F. A. Miller. Automotive & Aviation Ind 94:28-9+ My 1 '46
As the strike record unfolds; chronological record. Automotive & Aviation Ind 94:144-7+ Mr 15 '46

AUTOMOBILE factories—Employees—*Cont.*
Check on labor productivity in automotive plants reveals sharp reductions from prewar levels. Steel 119:59 Ag 12 '46
Detroit auto worker; fifty-nine dollars a week from G.M. supports the Nation family of seven. il Fortune 34:126-9+ Ag '46
Detroit pattern; auto suppliers signing wage contracts that are pegged closely to Ford and Chrysler. Bsns W p104+ F 16 '46
Effective program for disabled veterans; Fisher body division, General Motors. J. A. Goldberg. Safety Eng 92:48 S '46
Explains report on wages in auto industry. H. A. Wallace. Comm & Fin Chr 163:1839 Ap '46
Flexible wage; Kaiser-Frazer's contract with U.A.W. hitches pay rate to production. Bsns W p17 Ja 12 '46
Ford asks union for work guarantees. Factory Management 104:278+ Ja '46
G.M. powder keg. Bsns W p108 N 17 '45
Goal of steady employment; annual wage inapplicable to automobile industry. H. Ford, 2d. Comm & Fin Chr 164:1454+ S 19 '46; Abstract. Iron Age 158:84+ S 26 '46
How labor has fared; hourly and weekly earnings and hours worked per week, by years, 1899-1945, by months, 1941-1945; tabulations and charts. Automotive & Aviation Ind 94:68-70 Mr 15 '46
Reuther accuses; charges auto companies strangle production to discredit labor. Bsns W p92-3 Ag 10 '46
Reuther conference dud brings out more data on low production. L. Westrate. Automotive & Aviation Ind 95:17-19+ Ag 15 '46
Spotlights on the General Motors strike. L. Westrate; H. W. Anderson. Automotive & Aviation Ind 94:17-19+ Ap 1 '46
Sun peeps out; amicable Ford-U.A.W. talks. il Bsns W p102-4+ D 15 '45
Wage incentives, the way out. W. R. Donnell. Automotive & Aviation Ind 95:18-19+ Ag 1 '46
Wage patterns established by increases granted by Ford and Chrysler difficult to apply to all automotive companies. Steel 118:75-6 F 11 '46
Wallace answers Romney; upholds report of his department that wages in auto industry can be higher, without affecting prices. Comm & Fin Chr 162:2370+ N 15 '45
Why GM rejected claims of government agencies on 25 per cent wage increases. Automotive & Aviation Ind 93:36+ N 15 '45
Willow row ends; C.I.O. wins agreement. Bsns W p102+ N 10 '45

See also
United automobile workers of America

Equipment

Advanced tooling at piston and crankshaft departments reorganized by Ford. J. Geschelin. il layout plans diag Automotive & Aviation Ind 95:18-23+ O 1 '46
Automobile industry is set to go; annual automotive production number. il plan diags Mach 53:147-94 N '46
Chip conveyor; use of abrasive-resisting synthetic rubber; Packard motor car co. A. H. Allen. il Steel 118:123-4 Je 3 '46
Cold forming Oldsmobile three-piece bumpers. C. O. Herb. il Mach 52:141-9 Ag '46
Combined handling and storage cuts assembly time; General motors corp., Dayton. C. H. Beare. il plan Factory Management 104:113-15 S '46
Conveyors increase efficiency of Ford piston line. il diags Am Mach 90:106-9 S 12 '46
Dodge bodies baked by direct-fired ovens. R. LeGrand. il plan diags Am Mach 90:117-21 S 26 '46
Dodge sprays paint automatically on fenders and hoods. R. LeGrand. il diags Am Mach 90:133-5 O 10 '46
Expansion of manufacturing facilities continues at Nash chassis plant. J. Geschelin. il Automotive & Aviation Ind 94:26-30+ Mr 1 '46
Flexible compressed air system meets layout changes; Chevrolet-Indianapolis division, General Motors. M. R. Harris. il plan Factory Management 104:106-7 My '46
Ford cylinder sleeve production. C. O. Herb. il Mach 52:139-47+ Jl '46
Gear box manufacture; Guy Motors. il diags Automobile Eng 36:429-37 O '46
Making small parts at high speed; Ford motor co. il Steel 117:124-5+ N 12 '45
Mechanical aids to motor car production; Vauxhall motors, ltd. il Mech Handling 33: 344-8 Je '46
Modern production equipment conspicuous at Studebaker plant. J. Geschelin. il Automotive & Aviation Ind 95:30-5+ N 1 '46
Packard's new chip conveyor. il Automotive & Aviation Ind 94:39 Ap 15 '46
Press relocation simplified; Fisher Body plant suspension of stamping machines. il Bsns W p55-7 S 7 '46
Production equipment; possible trends. il Automobile Eng 36:187-90 My '46
Special purpose machines; recent Canadian productions. il Automobile Eng 36:216-18 My '46

Layout

Advanced tooling at piston and crankshaft departments reorganized by Ford. J. Geschelin. il layout plans diag Automotive & Aviation Ind 95:18-23+ O 1 '46
Car assembly; layout of Rover Meteor works. il plans Automobile Eng 36:334-95 S '46
Individual schedule issue; important aspect of material control. D. C. Ling. il diags Automobile Eng 36:285-91 Jl '46
Plant layout; engine assembly and testing; Douglas Motors. il plan Automobile Eng 36:345-6 Ag '46
Scale model speeds Kaiser-Frazer conversion; three-dimensional, seven-color plant layout. il Factory Management 104:116-17 My '46

Management

Area foremen simplify maintenance control; Buick motor division, General Motors. H. E. Hardenbrook. il Factory Management 104:137-42 F '46
Individual schedule issue; important aspect of material control. D. C. Ling. il diags Automobile Eng 36:285-91, 333-40 Jl-Ag '46
Inspection methods under Buick's new program. C. N. Ofield. il Mach 52:139-47 F '46
Major operations and scheduling of huge Dodge truck plant. J. Geschelin. il Automotive & Aviation Ind 95:24-7+ S 1 '46
Shaving costs by the mill. C. S. Ricker. Am Mach 90:105 Je 6 '46

AUTOMOBILE financial responsibility laws. See Automobile laws and regulations—Financial responsibility laws

AUTOMOBILE industry and trade
Ad seeking honesty challenges auto industry; honest car dealer wanted. M. Rapp. Ptr Ink 215:73 Je 28 '46
AMA offers 18 recommendations for increased exports based on the reciprocal trade program. Steel 118:123-4 Ap 1 '46
Auto handicaps; increasing shortages of parts, materials. Bsns W p21-2 Ag 31 '46
Auto manufacturers call for end to all bars to foreign trade. Iron Age 157:172+ Ap 4 '46
Auto market analyzed. Bsns W p32 My 4 '46
Automobile dealers organize purchasing group to buy supplies, including petroleum products. Nat Pet N 38:30-1 Jl 24 '46
Car dealers unite; Denver firms organize new group-buying plan for supplies, oil, gasoline, and tires. Bsns W p86+ Ja 5 '46
Chevrolet opens all throttles on training; girds for competition. D. G. Baird. Sales Management 57:37-8 Jl 1 '46
Dealer and his public. P. M. Millians. Comm & Fin Chr 164:1381+ S 12 '46
Dealers sensitive; auto sales agencies start public relations program. Bsns W p24 Ag 24 '46
How New Orleans dealer attracts higher-type auto salesmen. Ptr Ink 213:104 N 23 '45
Independent makers have larger than prewar share of mounting auto output. Barron's 26:1 S 9 '46
Knotty problem; seasonless auto industry; U.A.W. study marketing plan. Bsns W p76 Ap 27 '46
Labor, coal strike, price restrictions slow auto advertising and selling. H. E. Green. il Ptr Ink 215:41-3+ My 17 '46

AUTOMOBILE industry and trade—*Continued*
Materials and plant reconversion still major problems. L. Westrate. Automotive & Aviation Ind 94.17+ Ja 15 '46
More sales through fewer dealers keynotes Nash sales policy. H. C. Doss. il Sales Management 55:35-7 N 15 '45
New rear-engine car is promised next spring; Tucker corporation's Torpedo. Am Bsns 16: 42 S '46
Pontiac unwraps peace sales plan; re-trains all executive personnel. il Sales Management 55:97+ N 15 '45
Tucker moves in; officials take possession of Dodge-Chicago plant. Bsns W p21 Jl 13 '46
21 regions, 3,900 dealers in Kaiser-Frazer set-up. W. A. MacDonald. il Sales Management 57:105-6 Ag 1 '46
What about those new automobiles? C. B. Welch. il Dom Comm 34:20-1 Ja '46

See also
Automobile accessories industry
Automobile factories
Automobile parts
Ford motor company
General motors corporation
Kaiser-Frazer corporation
Motor bus industry
Motor truck industry
Taxicabs
Tractor industry and trade
Willys-Overland motors, inc.

Advertising

Are buyers just taking it away, or are they being sold? Nash advertising, demonstration at time of delivery; select dealer plan. D. G. Baird. il Sales Management 57:37-9 O 15 '46
Automotive advertisers plow new ground. il Ind Marketing 31:31+ F '46
Chevrolet's 35th anniversary spotlights three decades of consistent advertising. R. G. Silbar. Ptr Ink 217:132 N 8 '46
Dealer direct-mail campaign brings increased service business; Pontiac motor division of General Motors. il Ptr Ink 214.36+ Ja 25 '46
General Motors advertising creates goodwill among employes at Moraine Products. il Ind Marketing 31:26-7+ Ja '46
How a sailor sells cars. J. C. Wilcox. Adv & Sell 39:80 My '46
Labor, coal strike, price restrictions slow auto advertising and selling. H. E. Green. il Ptr Ink 215:41-3+ My 17 '46
Old advertising slogans dusted off for Detroit's automotive jubilee. Ptr Ink 215:88 My 31 '46
Period pieces from an ad man's album; advertisements in Saturday evening post of Jan. 9, 1926. J. J. McCarthy. il Adv & Sell 39:58+ F '46
Studebaker's advertising gets nationwide recognition. il Ind Marketing 31:54+ Mr '46

Finance

Auto credit test; Ford goes to court on consent decree. Bsns W p80+ My 11 '46
Autos done in red. Bsns W p96 Ag 24 '46
Bad bargain; Graham-Paige writes off Warren City mfg. investment. Bsns W p44+ My 25 '46
Banks vs. finance companies in auto financing. A. G. Rude. Comm & Fin Chr 164:490+ Jl 25 '46
Explains report on wages in auto industry. H. A. Wallace. Comm & Fin Chr 163:1839 Ap '46
Stubborn facts and foolish fancies about industry's profits. A. Court. Automotive & Aviation Ind 95:17+ N 1 '46
Wartime thrift makes reconversion credits unnecessary for two big auto firms. Barron's 25:1 D 24 '45
Willys-Overland; jeep-riding auto independent. il Fortune 34:80-7+ Ag '46

History

British motor industry's jubilee. C. Fothergill. Automotive & Aviation Ind 94:43+ Je 15 '46
50 years of motor cars. Comp Air Mag 51: 110 Ap '46
Golden jubilee Pioneers committee. Automotive & Aviation Ind 94:58 Je 1 '46
Industry's golden jubilee. L. Westrate. il Automotive & Aviation Ind 94:17-19+ Je 1 '46

Munitions manufacture

Automotive industry's war output near $29 billion; tabulation. Automotive & Aviation Ind 94:74 Mr 15 '46

New models

Drive is on for low-price car; Chevrolet and Ford plan new cheap models. Bsns W p15 Ap 20 '46
Going its way. Bsns W p20 Ap 6 '46
Judging the 1946 cars. il Consumers Res Bul 17.5-9 F; 10-14 Mr; 9-11 Ap; 12-13 My '46
No changeover; will retain its current models throughout year. Bsns W p20 Mr 23 '46

Securities

Re-appraisal of motors and accessories; with position of leading automobile and auto parts companies. R. Carleson. Mag of Wall St 77.772-5+ Mr 30 '46
Second issue, Kaiser-Frazer stock. Bsns W p79 Ja 12 '46
Up-to-the-minute evaluation of motors and motor accessories; financial survey of leading stocks. J. C. Clifford. il Mag of Wall St 78:690-3+ S 14 '46
Which auto stock to buy? Barron's 26:7 Je 3 '46

Service

See Automobile service stations

Statistics

Automotive wholesalers, dealers and repair shops by years, 1928-1946; by states as of January, 1946; tabulations. Automotive & Aviation Ind 94:87 Mr 15 '46
89 million motor vehicles produced in 46 years, 1900-1945; tabulation. Automotive & Aviation Ind 94:73 Mr 15 '46
Passenger car and truck production by months, 1933-1945; tabulations and chart. Automotive & Aviation Ind 94:76 Mr 15 '46
Prewar passenger car production; sales by body types, 1935-1940, sales by wholesale price classes, 1935-1941; tabulations and charts. Automotive & Aviation Ind 94:75 Mr 15 '46
12-year record of new car sales by makes, 1931-1942; by states, 1935-1945; tabulations. Automotive & Aviation Ind 94.88-9 Mr 15 '46
U.S. exports of new motor vehicles, 1903-1945; tabulation and chart. Automotive & Aviation Ind 94:90 Mr 15 '46
U.S. factory sales to domestic and foreign markets, 1921-1941; tabulation. Automotive & Aviation Ind 94:91 Mr 15 '46

Used cars

Used cars in Britain. Fortune 34:226 S '46

Australia

Australian car? Bsns W p98+ Je 22 '46

Austria

Market in Austria. For Comm W 25:20 N 2 '46

Belgium

Belgian auto output hampered by lack of items at big plants. Iron Age 158:140+ Jl 4 '46
Belgian automotive production. Automotive & Aviation Ind 95:38+ S 1 '46

Canada

Motor vehicle production in Canada, 1921-1945; tabulation. Automotive & Aviation Ind 94:74 Mr 15 '46

See also
Ford motor company of Canada

Detroit

Golden jubilee: auto industry celebrates purposefully. il Bsns W p18 Je 8 '46

France

Few model changes seen at first French auto show in eight years. Steel 119:57 O 28 '46
Five year plan ineffective with French automobile industry. W. F. Bradley. Automotive & Aviation Ind 94:17+ Ap 15 '46
Renault works' nationalization is compromise. J. R. Hight. Iron Age 156:94+ D 13 '45
Reports of exporting French cars to U.S. raise strong outcry. Iron Age 158:136+ S 12 '46

AUTOMOBILE industry and trade—France— *Continued*
Return of the Paris show. W. F. Bradley. il Automotive & Aviation Ind 95:22-6+ N 1 '46

Germany

German BMW experimental car. W. F. Bradley. il plan diags Automotive & Aviation Ind 94:44-6 My 1 '46
German production; charts and tables. Automotive & Aviation Ind 94:51 Je 1 '46
S. A. E. summer meeting; German automotive developments session. S A E J 54:sup60-2 Jl '46

Great Britain

Britain concentrates on exports. il Automotive & Aviation Ind 94:41 Je 1 '46
British motor industry's jubilee. C. Fothergill. Automotive & Aviation Ind 94:43+ Je 15 '46
British passenger car production and exports, 1944-1945; tabulation. Automotive & Aviation Ind 94.74 Mr 15 '46
Engineering outlook. Engineering 161:101-3 F 1 '46
Labor problems and purchase tax slow down Britain's automobile industry. J. W. Hendry. Automotive & Aviation Ind 94:17+ My 1 '46
Leyland motors, limited; statement by the chairman at annual general meeting. C. B. Nixon. Economist 150:774 My 11 '46
Morris motors ltd. il Fortune 34:88-93+ Jl '46
Motor car prospects in Britain. M. Thomas. Automotive & Aviation Ind 94:24-5+ Ja 1 '46
Trends and developments in British automobiles. il diags Automotive & Aviation Ind 94:22-7+ My 1 '46

See also
Austin motor company
Ford motor company, England

Italy

Present status of the automobile industry in Italy. R. Sansone. il Automotive & Aviation Ind 95:24-5+ O 15 '46

Japan

Factory output in Japan, March, April and May 1946. For Comm W 24:30 S 14 '46

Netherlands

What the war did to motor vehicle stocks in the Netherlands. J. P. Kastelein. Automotive & Aviation Ind 95:42-3+ N 1 '46

Sweden

Automotive manufacturing in Sweden. H. G. Tonndorf. il diag Automotive & Aviation Ind 95:20-3+ S 1 '46

United States

Adventures of Henry and Joe in autoland. il plan Fortune 33:96-103+ Mr '46
Appraising 1945 and looking to 1946. S. H. Brams. Iron Age 157:174+ Ja 3 '46
Auto handicap. Bsns W p26+ Je 1 '46
Auto makers plan for '47. il Bsns W p41-2+ S 21 '46
Auto plants try. Bsns W p20 Ja 26 '46
Auto prices, key to wage issue. Bsns W p15-16 N 10 '45
Automotive industry beset with difficulties. A. P. Sloan, jr. Comm & Fin Chr 164:1650+ O 3 '46
Automotive industry to spend $2 billion for reconversion. S. J. Keith. il Ind Marketing 30:40-2+ O '45
Automotive industry's 1945 record impressive. A. H. Allen. il Steel 118:237-8+ Ja 7 '46
Back to the top; Continental Motors. il Bsns W p48+ Je 1 '46
Battle of auto giants looms. H. F. Travis. il Mag of Wall St 78:142-3+ My 11 '46
Continuing export control on U.S. automotive vehicles. For Comm W 24:30 S 28 '46
Heavy production losses caused by parts shortages and the coal strike. L. Westrate. Automotive & Aviation Ind 94:17+ My 15 '46
Hoarding cars? Bsns W p29 Ag 10 '46
Industry opposes basing factory wage rates on company profits. L. Westrate. Automotive & Aviation Ind 93:17+ N 15 '45
Low priced car economics; charts show price and physical changes of big three and models available in various price groups. L. Westrate. Automotive & Aviation Ind 95:17-19+ Jl 15 '46
Makers strive for equitable distribution of new cars. L. Westrate. Automotive & Aviation Ind 95:17+ Jl 1 '46
Passenger car output may total 2,500,000 by end of year. A. H. Allen. Nat Pet N 38: 28 Mr 27 '46
Present production problems. H. Ford, 2d. Comm & Fin Chr 163:839+ F 14 '46
Seller's auto market will fade. D. U. Bathrick. Comm & Fin Chr 164:351 Jl 18 '46
Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. Iron Age 157:110-11 Ja 3 '46
Troubled year ahead for auto makers. W. P. Black. Barron's 26:7+ Ja 14 '46
Tucker advances; Ypsilanti engineer leases Dodge engine plant at Chicago for torpedo car production. Bsns W p24+ S 28 '46
Tucker solidifies auto venture. Bsns W p28 F 23 '46
Why car costs are higher. L. Westrate. Automotive & Aviation Ind 95:17+ Ag 1 '46
Why GM production is only half of '41 rate. C. E. Wilson. Automotive & Aviation Ind 95:17+ O 1 '46

See also
Willys-Overland motors, inc.

AUTOMOBILE insurance. See Insurance, Automobile

AUTOMOBILE jacks. See Jacks, Automobile

AUTOMOBILE laws and regulations
Auto certificate of title law urged in every state. W. J. Davis. Nat Underw 50:7 S 5 '46
Highway officials recommend standards for motor vehicles. Ind Stand 17:182-3 Jl '46
States act to increase highway safety. B. Jones. East Underw 47:36 Ap 12 '46

Financial responsibility laws

Auto responsibility bill approved in Missouri. East Underw 47:28 Ag 2 '46
Illinois set-up ready to handle motor law. Weekly Underw 154:5+ Ja 5 '46
New motor judgment bill passes in Missouri. Spectator (Property ed) 12:32 Ag 22 '46
Responsibility bill now before Governor Donnelly of Missouri. Weekly Underw 155:7 Jl 6 '46
Safety responsibility laws; review of recent developments; abstract. R. C. Wagner. East Underw 47:37 Je 7 '46
Wisconsin motorists ruling; drivers involved in accidents must be prepared to pay damages. East Underw 47:36 My 3 '46

See also
Insurance, Automobile—Financial responsibility laws

AUTOMOBILE mechanics
Employment outlook for automobile mechanics. H. L. Gottlieb. Mo Labor R 62:211-27 F '46

Training

Apprentice training for garage mechanics open to servicemen. Nat Pet N 37:32 N 14 '45
Keeping abreast of the mechanical times; auto clinics conducted by Louisiana State department of education. il Bus Transportation 25:58-60 Ag '46

AUTOMOBILE parking
Adopt new parking plan for Miami Beach, Fla. Eng N 136:363 Mr 7 '46
Baltimore Transit runs own lot. F. A. Nolan. Mass Transportation 42:320 Ag '46
British engineers develop novel auto-parking scheme; underground areas, with flooring of mechanized parts. il Eng N 136:153 Ja 31 '46
Cities tackle car parking problem. Eng N 136: 119 Ja 24 '46
Digging into the parking problem. il Bsns W p38 F 23 '46
Fact findings by Philadelphia committee for the relief of traffic congestion. Mass Transportation 41:367+ D '45
Factory design; access and parking. il Arch Rec 98:124 N '45

AUTOMOBILE parking—*Continued*
Four-point program for the automobile parking problem; Miami Beach, Florida. C. A. Renshaw. Pub Works 77:47 Ap '46
More cities establish parking lots to ease traffic congestion. Eng N 136:933 Je 13 '46
No scraped fenders; automatic parking device. Eng N 137:267 Ag 29 '46
Off-street parking drive. Bsns W p21-2 Ap 6 '46
Off-street parking; transit traffic must speed up to overcome high costs. Mass Transportation 41:368-9 D '45
Offers solution to downtown parking problem; booklet published by American retail federation. Ptr Ink 214:68 Mr 1 '46
Parking jam; U.S. cities build and dig garages. il plans Arch Forum 85:8-10 S '46
Parking lot and garage operators' liability for autos and contents; digest of cases. J. Simpson. East Underw 47:31 O 18 '46
Perimeter parking for cities; Baltimore bus company patrons offered parking service on outskirts and transportation to business district. L. D. Farrar. Pub Util 38:581-7 N 7 '46
Queen city needs a king of parking; Cincinnati's problem. plan Mass Transportation 42:75-6 F '46
Traffic congestion; symposium. Bus Transportation 25:81-3 My '46
Transit-theater tie tried in Atlanta. Mass Transportation 42:321 Ag '46
Transit's creeping paralysis; traffic congestion and automobile parking. Mass Transportation 41:364-7 D '45
Upstairs parking in Cincinnati. Bsns W p38+ Jl 6 '46
What can be done about traffic congestion? off-street parking facilities. F. W. Lovejoy. il Civil Eng 16:202-4 My '46
White line to indicate parallel parking; abstract. R. Lee. diags Roads & Sts 89:92 Ap '46

Meters

Meters help traffic conditions by reducing parking time. Eng N 136:791 My 16 '46

AUTOMOBILE parts
Change of plans; General Motors may enlarge facilities for parts manufacture. Bsns W p36+ Je 15 '46
Compressed air aids automotive parts production; Midland steel products co. il Steel 118:90-1+ F 25 '46
Copper and its alloys in automobiles. il Automotive & Aviation Ind 95:31+ O 1 '46
Designing powder metal parts; Moraine products division, General motors corp. diags Steel 118:108-10+ Je 3 '46
Die castings are back on most new automobiles. C. R. Maxon. il Steel 118:109+ Je 24 '46
High speed forging increases auto parts production; Oldsmobile forge plant. H. Chase. il diags Steel 119:98-9+ O 21 '46
Induction heat-treatment of internal surfaces as applied to automotive industries. H. E. Somes. il diags S A E J 54:45-54+ F '46
More auto parts; in 1946. Bsns W p34+ Je 8 '46
Plating auto hardware; Ternstedt plant of General motors corp. H. Chase. il Iron Age 158:59-61 S 19 '46
Polishing and buffing die cast auto hardware. H. Chase. il Iron Age 158:58-61 S 5 '46
Producing 70 tons of die castings daily; Electric auto-lite co. H. Chase. il plan Iron Age 157:76-89 My 9; 58-61 My 23; 34-8 My 30 '46
Schwitzer-Cummins plant organized for small lot and mass production of engine equipment. J. Geschelin. il Automotive & Aviation Ind 93:26-31, 114 D 1 '45
Scintilla's self-contained setup; producing ignition equipment and Diesel fuel injection systems. J. Geschelin. il Automotive & Aviation Ind 94:30-3+ My 1; 38-42+ My 15 '46
Shortage of parts taxes ingenuity of automakers. W. G. Patton. Iron Age 158:89-91 Ag 29 '46
Silver alloys braze auto parts. A. Bregman. il Am Mach 90:82-3 Ja 31 '46

AUTOMOBILE purchase financing. See Banks and banking—Automobile purchase financing

AUTOMOBILE racing
Engineering features of Indianapolis race cars. R. T. Jackson. il Automotive & Aviation Ind 94:20-4+ Je 1 '46

AUTOMOBILE radiator cleaners. See Automobile engines—Radiator cleaners

AUTOMOBILE research
'Automobile engineering research; 14th annual report of the Institution of automobile engineers. Engineering 161:5-6 Ja 4 '46
Motor industry research association; object and work. Engineer 181:586 Je 28 '46

AUTOMOBILE sales buildings
Auto sales and repair shop is glass-enclosed for attention. il plan Arch Forum 85:141 O '46
Garage and salesroom; careful analysis of dealer needs produces excellent plan for motor sales and service. il map plan Arch Forum 83:161 N '45

AUTOMOBILE service clubs
Clubs taxable? Internal revenue bureau eyes A.A.A., other auto groups. Bsns W p28+ Jl 20 '46

AUTOMOBILE service stations
Garage and salesroom; careful analysis of dealer needs produces excellent plan for motor sales and service. il map plan Arch Forum 83:161 N '45
Service shop expansion program of car and truck dealers expected to eventually double space in prewar agencies. J. Weed. il Nat Pet N 38:40+ Mr 20 '46
See also
Gasoline service stations

Equipment

Development of the motor vehicle hoist. W. J. Roberts. il diags Mech Handling 33:364-71+ Je '46

AUTOMOBILE steel. See Steel, Automobile

AUTOMOBILE strikes. See Automobile factories—Employees

AUTOMOBILE tires. See Tires, Automobile

AUTOMOBILE touring
Life in America depends on motorized transportation in peace and war. F. M. Reck. il Nat Pet N 37:27-8+ D 5 '45
Shell gives vacationists all but gas and '47 model. il Sales Management 57:122+ Ag 15 '46

AUTOMOBILE trailers
Aircraft construction principles used in aluminum and magnesium house trailer. il diags Product Eng 17:196-7 Mr '46
Dry trailer bodies in ten minutes with infrared radiation. P. R. Smith and A. L. Potter. il Elec World 126:130 O 12 '46
Kit Kamper smooths way to roughing it on innersprings. il Sales Magament 56:143 Je 1 '46
Trailer coach makers to revamp ads, sell product for permanent housing. Ptr Ink 217:134 O 18 '46
Trailers lagging; shortages of materials cut production. Bsns W p40+ Je 1 '46

AUTOMOBILE workers of America, United. See United automobile workers of America (International union, United automobile, aircraft, and agricultural implement workers of America)

AUTOMOBILES
Auto design for 1950 forecast. Bsns W p41-2+ Je 8 '46
Automobile; sacred cow of America. G. C. Hecker; J. L. Wilson. Mass Transportation 42:152-4 Ap '46
Birth of an auto; Kaiser-Frazer cars. il Bsns W p19-20 Ja 26 '46
Chrysler cars, 1946. Consumers Res Bul 17:9-10 Ap '46
Combining beauty and the jeep; Willys-Overland multiple-purpose station wagon. il Bsns W p29 Jl 27 '46
Completion of first Kaiser car indicates increased output. Iron Age 157:114 Je 6 '46
Crosley car for 1946. Consumers Res Bul 17:10-12 Mr '46
Crosley grows up; new version of low-priced car has unique Taylor engine, all-aluminum body. il Bsns W p21-2 Ja 19 '46

AUTOMOBILES—*Continued*

Darrin car. H. Darrin. il Automotive & Aviation Ind 95:32-4+ Ag 1 '46

Darrin on the way; new West Coast automobile of radical design. il Bsns W p40 Ag 3 '46

Descartes 52. W. F. Bradley. il Automotive & Aviation Ind 95:38-9+ Jl 1 '46

Dodge cars for 1946. il Consumers Res Bul 17:12-13 My '46

Electro-hydraulic control incorporated in Chrysler, DeSoto transmissions. il diags Automotive & Aviation Ind 94:22-5+ Mr 1 '46

Ford of Canada announces new car and truck models. il Automotive & Aviation Ind 94:30-1+ Ap 15 '46

In new car derby; Darrin of Hollywood. Bsns W p31 My 4 '46

Jeep station wagon has all-steel body. il Automotive & Aviation Ind 95:29 Ag 1; 38-9 O 1 '46

Kaiser and Frazer cars for 1946. Consumers Res Bul 17:13-14 Mr '46

Kaiser car details. S. H. Brams. il Iron Age 157:74+ Ja 17 '46

Mechanical details and styling highlight 1946 Buick. il diags Product Eng 16:826-8 D '45

New car makers? Tucker Torpedo and Darrin design. Bsns W p18 Ja 26 '46

New Daimler models. il Automotive & Aviation Ind 94:25+ Je 1 '46

New medium-priced, custom-type car built here by Howard A. Darrin. il Iron Age 158: 88 Ag 8 '46

Performance of European economy cars; abstracts. L. Pomeroy. Automotive & Aviation Ind 94:39+ Je 15 '46; Mech Eng 68: 644 Jl '46

Plymouth cars for 1946. il Consumers Res Bul 17:5 Je '46

Private cars; current design and a forecast; editorial. Automobile Eng Extra no35:429-32 O 25 '45

Private cars; survey of components employed on current designs. il diags Automobile Eng Extra no35:433-68 O 25 '45

Scarab II; Stout rear-engine automobile with plastic body. il Bsns W p28+ My 4 '46

S. A. E. annual meeting; passenger car sessions. S A E J 54:sup26+ F '46

S. A. E. summer meeting; German automotive developments session. S A E J 54: sup60-2 Jl '46

S. A. E. summer meeting; passenger car and body sessions. S A E J 54:sup53-7 Jl '46

Stout discloses his car of the future. Automotive & Aviation Ind 94:56 My 15 '46

Stout motor car uses fiber body and rear engine design. Iron Age 157:108 My 2 '46

Studebaker cars for 1947. il Consumers Res Bul 18:9 Jl; 12-13 O '46

Studebaker, 1947, mechanical details. il diags Automotive & Aviation Ind 94:28-9 Je 15 '46

Studebakers, 1947. il Automotive & Aviation Ind 94:18-21+ My 1 '46

Tucker corp. plans output of its new car in 8 to 10 months. il Iron Age 158:106-7 Jl 25 '46

Willys introduces its lightweight car, W. G. Patton. il Iron Age 158:32+ O 10 '46

Willys-Overland 1947 car and truck line. il Automotive & Aviation Ind 95:32-4 O 15 '46

Wimille, new high performance French V-6 car. W. F. Bradley. il Automotive & Aviation Ind 95:32-3+ S 15 '46

Your 1946 car. Consumers Res Bul 16:5-8 D '45; 17:5-15 Ja '46

See also

Airplanes, Light—Automobile combinations
Automobile engines
Automobile industry and trade
Electric vehicles
Motor buses
Motor trucks
Motor vehicles
Railroads—Motor vehicle competition
Tires, Automobile
Tractors

Axles

1946 passenger cars, rear axle, tires and frames; specifications tabulated. Automotive & Aviation Ind 94:110 Mr 15 '46

Overdrive again; Columbia axle's postwar model. Bsns W p43 Ag 3 '46

Private cars; survey of components employed on current designs; rear axles. il diags Automobile Eng Extra no 35:455-61 O 25 '45

Bearings

Chevrolet makes parts directly from steel chips; production of bearing lock sleeves. il diags Mach 53:184-7 N '46

Load-carrying capacity of journal bearings; abstract. J. M. Stone and A. F. Underwood. Automotive & Aviation Ind 94:34-5 Je 15 '46

1946 passenger cars, rear axle, king pin, wheel, electrical units, clutch, transmission; specifications tabulated. Automotive & Aviation Ind 94:113-14 Mr 15 '46

Plated bearings; discussion. H. H. Jackson and others. Automobile Eng 36:245 Je '46

Bodies

Aircraft approach to automobile body design. M. Short and W. E. Miller. il S A E J 54:325-9 Jl '46

Body corrosion; some alternative methods of rust prevention. J. R. Stanfield. Automobile Eng 36:260 Je '46

Dodge bodies baked by direct-fired ovens. R. LeGrand. il plan diags Am Mach 90:117-21 S 26 '46

How Ford automobile bodies are phosphate-coated. C. O. Herb. il Mach 53:150-4 S '46

S. A. E. annual meeting; passenger car body sessions. S A E J 54:sup48-50 F '46

Welding automobile bodies at Kaiser-Frazer's Willow Run plant. C. H. Wick. il diag Mach 53:170-5 N '46

Bumpers

Chevrolet's new setup for plating bumpers. J. Geschelin. il Automotive & Aviation Ind 95:18-21 N 1 '46

Cold forming Oldsmobile three-piece bumpers. C. O. Herb. il Mach 52:141-9 Ag '46

Polishing and plating Oldsmobile three-piece bumpers. C. O. Herb. il Mach 53:158-65 N '46

SAE committee promotes motoring safety; overcomes bumper lock and structural defects. S A E J 54:sup31-2 Jl '46

Chassis

Design thirty years ago; 1916 Chalmers chassis. diags Automobile Eng 36:292 Jl '46

Design thirty years ago; 1916 Marmon six-cylinder chassis. diags Automobile Eng 36:20 Ja '46

Design thirty years ago; the 1915 Fergus 14-20 h.p. chassis. diags Automobile Eng 35: 526 D '45

Cleaning

How chemistry simplifies automotive cleaning methods and procedures; abstract. R. Sanders. il S A E J 54:sup25-6 S '46

Clutches

Brakes and clutches; manufacturing methods employed by Automotive products co. il diags Automobile Eng 36:209-15, 247-52 My-Je '46

Electric clutch. D. S. deLavaud and C. Mildé. diag Automobile Eng 36:130 Mr '46

1946 passenger cars, clutches; specifications tabulated. Automotive & Aviation Ind 94: 108 Mr 15 '46

Private cars; survey of components employed on current designs. diags Automobile Eng Extra no 35:444-7 O 25 '45

Woven and molded friction materials for disk-type clutches. H. Nutt. il Product Eng 17:273-5 Ap '46

Cold weather operation

Winter problems with wartime fuels and lubricants; abstract. W. Goodale. S A E J 54:sup23 Mr '46

Control

See also

Brakes, Automobile

Design

Aircraft approach to automobile body design. M. Short and W. E. Miller. il S A E J 54: 325-9 Jl '46

AUTOMOBILES—Design—*Continued*

Automobile developments that came too soon. P. M. Heldt. il diags Automotive & Aviation Ind 94:18-22+ My 15 '46

Comparing the merits of front and rear engine autos. A. M. Wolf. diags Machine Design 18:103-8 My; 145-8+ Je '46

Design features of the British Armstrong Siddeley 16. il diags Automotive & Aviation Ind 94:25+ Ap 1 '46

Design features of the 1947 Studebakers. il diags Product Eng 17:[no7] 94-9 Jl '46

Does styling control the design of cars? abstract. H. A. Darrin. S A E J 54:sup37 Jl '46

Extensive design changes mark 1946 Nash 600. il diags Product Eng 17:12-14 Ja '46

Frameless car; abstract. T. Ulrich. S A E J 54:sup30 Ja '46

Frames; abstract. N. T. Dietrich. S A E J 54:sup31-2 Ja '46

German BMW experimental car. W. F. Bradley. il plan diags Automotive & Aviation Ind 94:44-6 My 1 '46

New rear-engine car is promised next spring; Tucker corporation's Torpedo. Am Bsns 16: 42 S '46

Novel design features of the Gregoire lightweight car. W. F. Bradley. il Automotive & Aviation Ind 94:26-7+ Ja 15 '46

Post-war motor cars. E. G. E. Beaumont. Automobile Eng 36:100 Mr '46

Public and the engineer. L. Peat. il Sci Am 174:71-3 F '46

Standard 8 h.p. chassis. il diags Automobile Eng 36:419-28 O '46

Trend in automotive design seen toward gradual simplification of lubrication. H. L. Hemingway. Nat Pet N 38:30+ Ja 16 '46

Trends and developments in British automobiles. il diags Automotive & Aviation Ind 94:22-7+ My 1 '46

What motor cars should be; abstract. W. B. Stout. S A E J 54:sup21-2 S '46

Electric equipment

Automotive and aircraft electrical equipment; abstract. S. F. Stewart. S A E J 54:sup24 Mr '46

Electric clutch. D. S. deLavaud and C. Mildé. diag Automobile Eng 36:130 Mr '46

Electro-hydraulic control incorporated in Chrysler, DeSoto transmissions. il diags Automotive & Aviation Ind 94:22-5 Mr 1 '46

High speed production of automobile generator frames by automatic metallic arc welding. W. B. Horton. il Automotive & Aviation Ind 94:27+ Je 15 '46

1946 passenger cars, ignition systems, batteries, starting motors, lamps, horns and generators; specifications tabulated. Automotive & Aviation Ind 94:106-8 Mr 15 '46

Proper service helps conserve batteries as well as bring in additional profits. Nat Pet N 38:20 My 22 '46

Equipment

See also

Automobile accessories industry
Automobile driving—Equipment for disabled
Brakes, Automobile
Tires, Automobile

Exhibitions

Return of the Paris show. W. F. Bradley. il Automotive & Aviation Ind 95:22-6+ N 1 '46

U.S. cars the big attraction at Paris auto show. il Bsns W p110 O 12 '46

Fires and fire protection

How to put out a motor vehicle fire; abstract. Safety Eng 91:39 F '46

Frames

Frames; abstract. N. T. Dietrich. S A E J 54:sup31-2 Ja '46

1946 passenger cars, rear axle, tires and frames; specifications tabulated. Automotive & Aviation Ind 94:110 Mr 15 '46

Parish again producing passenger car frames; process of heavy duty truck frames manufacture. J. Geschelin. il Automotive & Aviation Ind 95:26-8+ Jl 15 '46

Gearing

Automatic broaching speeds auto parts output. il Iron Age 158:66 O 10 '46

Automatic induction hardening of Ford starter ring gears. C. O. Herb. il Mach 53:166-9 N '46

Basic relationship of hypoid gears. E. Wildhaber. il diags Am Mach 90:108-11 F 14; 131-4 F 28; 132-5 Mr 14; 110-14 Je 6; 150-2 Je 20; 106-10 Jl 18; 104-6 Ag 1; 122-8 Ag 15 '46

Development and lubrication of the automotive hypoid gear. F. F. Musgrave. bibliog Inst Pet J 32:32-44 Ja '46

Evaluating surface durability of gears. T. H. Wickenden and others. il diags Machine Design 18:142-6 Jl '46; Same. Automotive & Aviation Ind 95:36-40 Ag 1 '46

Underpass shaving features Wisconsin Axle's production of gears and pinions. P. L. Adams. il Automotive & Aviation Ind 94: 24-6+ Je 15 '46

See also

Automobiles—Steering gear
Automobiles—Transmission

Heating and ventilation

Air conditioning; heating and ventilating the motor car body. K. B. Hopfinger. Automobile Eng 36:71-4 F '46

Auto heater is oversold by direct mail debut; Motorola. V. A. Irvine. il Sales Management 57:92+ S 1 '46

Stewart-Warner self-contained automotive heater. il diags Product Eng 17:98 Ag '46

History

Automobile developments that came too soon. P. M. Heldt. il diags Automotive & Aviation Ind 94:18-22+ Mr 15 '46

Cars and men of old and their challenge to you. F. E. Moskovics. il S A E J 53:sup17-18+ D '45

Design thirty years ago (cont). diags Automobile Eng 35:526; 36:20, 156, 218, 246, 292 D '45-Ja, Ap-Jl '46

Detroit celebrates golden jubilee of auto industry. Steel 118:89-90 Je 3 '46

50 years. J. Chase. il Automotive & Aviation Ind 94:18-19+ Ap 15 '46

Golden anniversary of automobile industry recalls the Times-Herald race of 1895. P. M. Heldt. il map diags Automotive & Aviation Ind 93:18-21+ N 15 '45

Institution of automobile engineers; précis of the speeches at the Quadragenary celebrations. il diags Automobile Eng 36:363-9 Ag '46

Public and the engineer. L. Peat. il Sci Am 174:71-3 F '46

Hydraulic equipment

Hydraulic operation of engine hood, window and other car facilities. S. B. McLeod. il diag Automotive & Aviation Ind 94:32-3 Ap 15 '46

Inspection

Inspection methods under Buick's new program. C. N. Ofield. il Mach 52:139-47 F '46

Insurance

See Insurance, Automobile

Length of service

Age of automobiles portends troubled period; car population and age forecast for 1949. Nat Pet N 38 pt 2:R326 My 1 '46

Case history; first 200,000 miles are hardest. il Bsns W p18 My 18 '46

Lubrication

Development and lubrication of the automotive hypoid gear. F. F. Musgrave. bibliog Inst Pet J 32:32-44 Ja '46

Mechanical testing of extreme pressure lubricants (with special reference to hypoid oils). H. L. West. bibliog 8pls Inst Pet J 32:206-29 Ap '46

Mechanism of action of organic chlorine and sulphur compounds in extreme-pressure lubrication. C. F. Prutton and others. bibliog 2pls Inst Pet J 32:90-118 F '46

Performance testing of wheel-bearing lubricants. E. W. Adams. il S A E J 54:133-7; Discussion. 137 Mr '46

AUTOMOBILES—Lubrication—*Continued*
S. A. E. summer meeting; fuels and lubricants sessions. S A E J 54:sup48-52 Jl '46
Trend in automotive design seen toward gradual simplification of lubrication. H. L. Hemingway. Nat Pet N 38:30+ Ja 16 '46
See also
Automobile engines—Lubrication

Manufacture

Adhesives; modern tool of fabrication. D. L. Swayze. il S A E J 54:412-17 Ag '46
Automobile industry is set to go; annual automotive production number. il plan diags Mach 53:147-94 N '46
Car assembly; layout of Rover Meteor works. il plans Automobile Eng 36:384-95 S '46
Expansion of manufacturing facilities continues at Nash chassis plant. J. Geschelin. il Automotive & Aviation Ind 94:26-30+ Mr 1 '46
Induction heat-treatment of internal surfaces as applied to automotive industries. H. E. Somes. il diags S A E J 54:45-54+ F '46
New applications of glue in the automotive field. H. B. Sweatt. Automotive & Aviation Ind 93:25+ D 1 '45
See also
Automobile assembly plants
Automobile engines—Manufacture
Automobile factories

Materials

Automotive glazing with plastics; abstract. G. B. Watkins and J. D. Ryan. Automotive & Aviation Ind 94:38 Je 15 '46
Automotive industry; what it needs from the plastics industry. W. B. Stout. Mod Plastics 23:107-9 Ja '46
Copper and its alloys in automobiles. il Automotive & Aviation Ind 95:31+ O 1 '46
Crack detection; utility and limitations of the magnetic method. D. Taylor. diags Automobile Eng 36:319-21 Jl '46
Crosley car has aluminum body and a brazed all-steel cylinder block. il diags Product Eng 17:188-90 Mr '46
Glass and plastic form body for rear-engined Stout '46 car. il diags Am Mach 90:166 My 23 '46
Methods of specifying materials. J. L. McCloud. Automotive & Aviation Ind 94:166+ Mr 15 '46
1946 Scarab, developed by W. B. Stout; new material, fiberglass-and-plastic. Steel 118: 121 My 6 '46
S.A.E. annual meeting; materials sessions. S A E J 54:sup52-4 F '46
S. A. E. summer meeting; materials sessions. S A E J 54:sup59-60 Jl '46
Substitutes for tin in the manufacture of automobiles. C. E. Heussner and E. T. Johnson. Automotive & Aviation Ind 94: 158+ Mr 15 '46; Abstract. S A E J 54:97 O '46
What the public thinks; preferences in use of aluminum and steel in automobiles; chart. Iron Age 157:97 Ja 3 '46
See also
Steel, Automobile

New models

See Automobile industry and trade—New models

Painting and finishing

Auto finishes turn to glitter; Metalli-chrome lacquer. il Bsns W p50+ My 18 '46
Dodge bodies baked by direct-fired ovens. R. LeGrand. il plan diags Am Mach 90:117-21 S 26 '46
Dodge sprays paint automatically on fenders and hoods. R. LeGrand. il diags Am Mach 90:133-5 O 10 '46
DuPont develops new lacquer coating for automotive industry; Metalli-chrome. Iron Age 157:122 My 30 '46
New automobile finish developed by Du Pont; Duco Metalli-chrome nitrocellulose lacquer. diags Product Eng 17:147 S '46

Bibliography

Spray painting; bibliography of articles appertaining to automobiles, 1938-1944. R. Steele, comp. Automobile Eng 35:536 D '45

Parking

See Automobile parking

Patents

Current patents. Published in monthly numbers of Automobile engineer

Prices

All new car prices increased by OPA. Automotive & Aviation Ind 95:70 Ag 15 '46
Auto dealers beard the OPA. Bsns W p17-18 N 17 '45
Auto price comparison: 1946 vs. 1942. Bsns W p26 Je 15 '46
Autos going up. Bsns W p20-1 Mr 16 '46
British car prices for 1939 and 1946; tabulated. M. Thomas. Automotive & Aviation Ind 94:24 Ja 1 '46
Increases in new car prices announced by OPA. Automotive & Aviation Ind 94:72+ Ap 15 '46
Low priced car economics; charts show price and physical changes of big three and models available in various price groups. L. Westrate. Automotive & Aviation Ind 95: 17-19+ Jl 15 '46
OPA advances retail ceiling prices 6 per cent on Ford automobiles. Iron Age 158:86 S 26 '46
OPA sets prices for most of GM's cars. Automotive & Aviation Ind 94:54 Ap 15 '46
Price-resistance key; autos. Bsns W p15-16 O 5 '46
Prices in high. Bsns W p16 Jl 27 '46
What price cars? Bsns W p26+ D 1 '45

Purchasing

See also
Banks and banking—Automobile purchase financing

Radio equipment

At home abroad; Bell system installs telephones in moving vehicles. Fortune 34:140+ Ag '46
Experience with emergency FM radio communication; Union electric company of Missouri. J. P. Woodward and W. R. McMillan. Edison Elec Inst Bul 14:83-4 Mr '46; Same. il Gas Age 97:22-4 My 16 '46
Mobile radio for the police force. il Engineer 181:174 F 22 '46
Mobile two-way F-M in cabs. il Electronics 19:182+ S '46
Radio in the public service; mobile equipment for police and fire use. il Electrican 137: 318 Ag 2 '46
Radiotelephone service will link cars in 35 cities. il Am Bsns 16:21 Je '46
St Louis is scene of commercial radio service to mobile 'phones. il Manuf Rec 115:46-7+ Je '46
Selective calling system; positive control of remote communications equipment in police, taxi or other mobile fleets. J. K. Kulansky. il diags Electronics 19:96-9 Je '46
Three more intercity highways added to routes of Bell system. Pub Util '38:163-4 Ag 1 '46
Two-way vehicular telephone service planned by A.T.&T. plan Product Eng 16:859 D '45

Registration

Registration as a source of essential motor vehicle facts. M. McEachin. Automotive & Aviation Ind 95:20-1+ Jl 15 '46

Safety measures

Safety and the direction of rotation of the automobile engine. H. Lamport. Science 104:353 O 11 '46

Small size

Assembly line skills in small packages; Motorette scooter-car combination. il Bsns W p18 F 16 '46
Bobbi-Kar. Consumers Res Bul 17:11 Ap '46
Bobbi-Kar. R. R. Kay. il Automotive & Aviation Ind 94:36-7+ Mr 1 '46
Extreme economy in small French car. W. F. Bradley. il Automotive & Aviation Ind 95:34-5+ Jl 15 '46

AUTOMOBILES—*Continued*

Social aspects

How the automobile has changed life of Americans. F. M. Reck. il Nat Pet N 37:37+ N 28; 27-8+ D 5 '45

Specifications

1946 passenger cars; specifications tabulated. Automotive & Aviation Ind 94:100-14 Mr 15 '46

Speed

See also
Automobile racing

Springs and suspension

Damping in suspensions. B. E. O'Connor. il diags S A E J 54:389-93 Ag '46; Excerpt. Automotive & Aviation Ind 94:246 Mr 15 '46; Discussion. S A E J 54:393+ Ag '46
Design of rubber torsion springs for passenger cars. A. S. Krotz. il diags Automotive & Aviation Ind 94:24-7+ Ap 15 '46; Abstract. Mech Eng 68:468-9 My '46
Effects of suspension on steering; abstract. C. F. Hammond. diags S A E J 54:sup27 Ap '46
Flexible or spring medium of suspensions. R. Schilling. diags S A E J 54:366-72 Jl '46; Same. Automobile Eng 36:396-400 S '46; Excerpt. Automotive & Aviation Ind 94:37-8 F 1 '46; Discussion. S A E J 54:372-4 Jl '46
Fundamentals of suspension; abstracts. H. E. Churchill and others. S A E J 54:sup74-5 Jl '46; Automotive & Aviation Ind 94:230 Mr 15 '46
Helical springs; buckling under static loads. J. Dick. Automobile Eng 36:284 Jl '46
Hot-coiling automotive suspension springs; Eaton manufacturing co. il Mach 53:190-4 N '46
How to design rubber torsion springs. A. S. Krotz. il Machine Design 18:147-9+ S '46
Laminated springs; private car systems. A. Blum. diags Automobile Eng 35:497-501 N '45
Liquid springing; Dowty aircraft suspension scheme applied to road vehicles. il diag Automobile Eng 36:79-80 F '46
1946 passenger cars, springs and shock absorbers; specifications tabulated. Automotive & Aviation Ind 94:111 Mr 15 '46
Private cars; survey of components employed on current designs; suspension. il diags Automobile Eng Extra no 35:461-5 O 25 '45
Rubber springs. J. E. Hale. il diags Automotive & Aviation Ind 95:18-23+ O 15 '46
Torsilastic rubber spring; abstract. A. S. Krotz. Mech Eng 68:468-9 My '46
Torsion rubber spring design with automotive applications. A. S. Krotz and W. B. Fageol, jr. il diags Product Eng 17:[no 7] 112-16 Jl '46

Standards

Standardization for passenger cars; abstract. A. W. Clarke. Iron Age 156:118 D 6 '45

Statistics

World motor census. Bsns W p116 Mr 30 '46

Steering

Effects of suspension on steering; abstract. C. F. Hammond. diags S A E J 54:sup27 Ap '46
Steering phenomena; factors affecting stability on curves. G. V. Zimelev. diags Automobile Eng 36:341-4 Ag '46

Steering gear

1946 passenger cars, steering and brakes; specifications tabulated. Automotive & Aviation Ind 94:112 Mr 15 '46
Private cars; survey of components employed on current designs; steering. diags Automobile Eng Extra no 35:465-7 O 25 '45

Testing

Mobile electronometer records stresses in vehicle road test by electric strain gage method. J. Geschelin. il Automotive & Aviation Ind 95:28-31+ O 15 '46

Theft

Auto thefts on increase; no early relief seen. Nat Underw 49:14 D 13 '45
Automobile protective and information bureau steps up its facilities. Nat Underw 50:8+ O 31 '46
Moderate rise in auto theft losses. H. M. Shedd. East Underw 46:1+ N 23 '45

Three wheel cars

Mathis three wheel French economy car. W. F. Bradley. il plan Automotive & Aviation Ind 94:30-2 Ap 1 '46
One-lunger on three wheels. Fortune 34:151 Jl '46

Transmission

Automatic and semiautomatic transmissions. H. R. Greenlee. diags S A E J 54:440-8 Ag '46
Automobile developments that came too soon; gear shift lever on steering column and automatic transmission in 1900's. P. M. Heldt. il diags Automotive & Aviation Ind 94:18-20 My 15 '46
Electro-hydraulic control incorporated in Chrysler, DeSoto transmissions. il diags Automotive & Aviation Ind 94:22-5 Mr 1 '46
Front-wheel drive vs. rear-wheel drive automobiles. diag Consumers Res Bul 17:19-21 Ap '46
Gear box manufacture; Guy Motors. il diags Automobile Eng 36:429-37 O '46
Gear shaving. il diags Automobile Eng 36:443-50 O '46 (to be cont)
Helical gears for automobile gear boxes. F. Shaw. diags Automobile Eng 36:221-9, 313-16 My, Jl '46
Hydraulic transmission performance; abstract. A. H. Deimel. S A E J 54:sup38 Jl '46
Ideal transmission; abstract. W. S. James. S A E J 54:sup50-2 Ag '46
Latest developments in bevel gears; Curvic clutches and couplings; abstract. E. B. Gleason il diag S A E J 54:sup20-2 Ag '46
1946 passenger cars, transmissions and universal joints; specifications tabulated. Automotive & Aviation Ind 94:109 Mr 15 '46
Private cars; survey of components employed on current designs; gear boxes. il diags Automobile Eng Extra no 35:447-55 O 25 '45
Torque converters for passenger cars; abstracts. R. J. Miller. Automotive & Aviation Ind 94:198 Mr 15 '46; S A E J 54:sup 54+ Ag '46
Trends in automotive transmissions. C. Carmichael. il diags Machine Design 18:127-32 Ap; 141-5 My '46

Transportation

Auto-loader for light cars designed. il Ry Age 121:373 Ag 31 '46
Haulaway revival. Bsns W p22+ Ap 27 '46
Poor cars for auto loading risk loss of business. E. T. Pate. Ry Age 120:676-7 Mr 30 '46

See also
Railroads—Rates—Automobiles

Vibration

Vibration investigation. L. E. Muller. il diags Mech Eng 67:723-8 N '45; Same cond. Machine Design 18:127-31 Ja '46

Wheels

Arc welded steel has double strength; Saginaw arc welded wheel. il Automotive & Aviation Ind 94:62 Je 1 '46

Windshields

Automotive glazing with plastics; abstract. G. B. Watkins and J. D. Ryan. Automotive & Aviation Ind 94:38 Je 15 '46

AUTOMOBILES, Salesmen's

Facts you will need for re-appraisal of your salesmen's auto setup. R. E. Runzheimer. Sales Management 57:72-4 Jl 1 '46
Flat allowances for salesmen's cars; why they're wasteful and unfair. R. E. Runzheimer. map Sales Management 57:74+ Jl 15 '46
Salesmen's auto expense allowances; abstract. Management R 35:282-4 Jl '46
Short cut to reasonable auto costs for firms with small fleets. R. E. Runzheimer. map Sales Management 57:89-90+ Ag 1 '46

AUTOMOBILES, Steam
Rise and decline of the American steam car industry. P. M. Heldt. il diags Automotive & Aviation Ind 95:20-2+ Ag 1; 30-3+ Ag 15; 34-8 S 1; 38-40+ S 15 '46

See also
Motor trucks, Steam

AUTOMOBILES and roads
Effect of roadway width on vehicle operation; study of speed and placement on two-lane concrete roads. A. Taragin. il diags Pub Roads 24:143-60 O '45; Abstract. Concrete 54:2-5+ F '46; Excerpts (diagrams and conclusions) with comments by A. C. Waller. Pub Works 77:25-6 Ja '46

See also
Motor trucks and roads

AUTOMOTIVE advertisers council
Automotive advertisers plow new ground. il Ind Marketing 31:31+ F '46

AUTOMOTIVE Diesel engines. See Diesel engines, Automotive

AUTOMOTIVE fuel
Blending octane numbers of 2:5-dimethylfuran. H. B. Nisbet. bibliog Inst Pet J 32: 162-6 Mr '46
Continuance of cooperative research advocated; abstract. R. E. Wilson. Oil & Gas J 45:66 S 28 '46
Engine tests with producer gas. F. A. Middleton and C. S. Bruce. bibliog diag J Res Nat Bur Stand 36:171-84 F '46
German military fuels and lubricants; abstract. N. L. Klein. S A E J 54:sup31 Je '46
Jet planes, Dieselization of trucks may check drive for higher octanes. B. K. Brown. Nat Pet N 38:44 S 11 '46
Knock ratings of gasoline substitutes. A. D. Puckett. diag J Res Nat Bur Stand 35:273-84 O '45
Sewage gas for motor vehicles. Pub Works 77:39 F '46
S.A.E. National fuels and lubricants meeting, Tulsa, Nov. 6-7. S A E J 53:sup24-5+ D '45; Nat Pet N 37:34+ N 7; 48 N 14 '45
Wartime refinery operations and their effect upon motor and aviation fuels. W. M. Holaday. diags S A E J 54:303-9 Je '46

See also
Airplane engines—Fuel
Automobile engines—Fuel
Gasoline

Testing

Analysis of the effects of fuel distribution on engine performance. D. B. Brooks. bibliog J Res Nat Bur Stand 36:425-39 My '46
Application of variance analysis to some problems of petrolem technology. H. M. Davies. Inst Pet J 32:465-81 bibliog(p481); Discussion. 481-91 Ag '46
Fuels rated by performance; borderline knock tests in petroleum research use road-performance as criterion. E. F. Lindsley. il Sci Am 174:113-15 Mr '46
Utilization of nonpetroleum fuels in automotive engines. J. T. Duck and C. S. Bruce. bibliog J Res Nat Bur Stand 35:439-65 D '45; Abstract. Automobile Eng 36:361-2 Ag '46

AUTOMOTIVE industries

See also
Airplane industry and trade
Automobile accessories industry
Automobile industry and trade
Borg-Warner corporation
Motor bus industry and trade
Motor truck industry and trade
Tractor industry and trade

Statistics

Automotive and aviation industries, 1946 statistical issue. Automotive & Aviation Ind 94:65-99, 120-1 Mr 15 '46

Far East

Automotive situation in the Far East from a correspondent in that area. Automotive & Aviation Ind 94:86 Ap 1 '46

AUTO-SOLER company, Atlanta
Auto-Soler steps-up success with strong sales tactics. G. E. Stedman. il Ind Marketing 31: 60+ Ja '46

AUXINS
Investigation of plant-growth substances (auxins) in sewage products. C. A. Chaplin and C. J. Regan. Soc Chem Ind J 64: 331-2 D '45

AVERY, Sewell Lee, 1877-
Stewardship of Sewell Avery for Montgomery Ward. pors Fortune 33:110-13+ My '46

AVIATION
Auditory signals for instrument flying. T. W. Forbes. il J Aeronautical Sci 13:255-8 My '46
Forced landings are obsolete; maintenance, simplification of light planes and changes in license rules. H. G. Moe. Aero Digest 53:38-9 Ag '46

See also
Aeronautics
Aeronautics, Commercial
Air navigation
Airlines
Airplane races
Airplanes
Airports
Airships
Airways
Aviators
Flying boats
Gliders
Insurance, Aviation
Meteorology, Aeronautic
Radio aids to aviation
Radio apparatus on aircraft
Television aids to aviation
United States—Air service
Wind tunnels

Accidents

Air accident rates increase in 1945. Aviation N 6:27 Ag 26 '46
Aircraft damage to suspension bridge; suspender ropes cut on San Francisco-Oakland Bay bridge. E. F. Levy. il diag Civil Eng 16:350-1 Ag '46
Army liaison flying accident rate; Office of flying safety study. East Underw 46:26+ D 14 '45; Abstract. Nat Underw 49:25 N 8 '45
CAB due to revamp method of investigating air accidents. Aviation N 5:14 Ap 22 '46
Crash research from the point of view of cabin design. H. DeHaven. il Aeronautical Eng R 5:11-17 Je '46; Abstract. Mech Eng 68:824-5 S '46
Fire in the air; Constellation grounding order. il Bsns W p17-18 Jl 20 '46
Grounding Constellations disrupts all international air services. W. Kroger. Aviation N 6:7-8 Jl 22 '46
High death rate in private flying. Nat Underw 50:20 Ja 10 '46
Manhattan Company building insured for plane crash. Nat Underw 50:1+ My 23 '46
Method of accident investigation and prevention adopted by Air transport auxiliary. P. A. Wills. Roy Aeronautical Soc J 50:450-79 Je '46
Overload indicated in Viking air crash. Aviation N 6:28 Jl 1 '46
Review of recent aviation accident decisions. C. S. Rhyne. Weekly Underw 155:560 S 7 '46
Search and rescue standards proposed. Aviation N 5:38 Ja 21 '46
Soldiers sue Consolidated Vultee aircraft corp.; action involving plane crash off Hawaii. Nat Underw 50:28 O 24 '46
Studies in air safety. I. F. Angstadt. Aero Digest 52:50-1+ My '46

See also
Airlines—Accidents
Empire State building—Airplane collision
Helicopters—Accidents
Survival (after airplane accidents, shipwrecks, etc)

Altitude flying

Analyzing the aspects of future flight. C. E. Pappas and M. G. Harrison. bibliog Aviation 44:131-4 N; 158-62 D '45
Communications system, effective at 40,000 feet, aided B-29s against Japs. T. C. Rives. Steel 117:88 N 26 '45
Effect of altitude on ventilation and rating of aircraft electric machines. C. G. Veinott. Elec Eng 65:Trans 84-90 F '46
Investigation of porcelain insulators at high altitudes. C. V. Fields and C. L. Cadwell. bibliog diags Elec Eng 65:Trans 656-60 O '46

AVIATION—Altitude flying—*Continued*
Meteorology and high altitude aviation. G. M. B. Dobson and A. W. Brewer. diags Roy Aeronautical Soc J 50:787-806; Discussion. 806-10 O '46

Preliminary calculation of the mass ratio, range, and average coefficients of efficiency of a long-distance stratospheric jet-plane. M. Z. Krzywoblocki. Franklin Inst J 241: 255-74 Ap '46

Clubs

Instructor's views on flying clubs. R. Brinkley. il Aero Digest 51:68+ N 15 '45

See also
National association of flying clubs

Ice problem

See also
Airplanes—Ice protection

Instrument flying

Aerodynamic aspects of blind flight; abstract. A. V. Stephens. Aeronautical Eng R 4:97 D '45

Medical aspects

Aero medical aspects of cabin pressurization for military and commercial aircraft. W. R. Lovelace, 2d and A. P. Gagge. J Aeronautical Sci 13:143-50 Mr '46

Aeromedical field extended to plane design, operations. W. R. Stovall. CAA J 7:57 My 15 '46

Limits of factors of safety in the human body. E. F. Du Bois. bibliog Mech Eng 68:625-7 Jl '46

Problem of pilot fatigue. F. K. Teichmann. Aviation N 4:29 D 10 '45

See also
Altitude, Influence of

Mountain flying

Mexicans produce mountain transport. il Aviation N 6:20 Ag 19 '46

Unique Wyoming aircraft plant builds planes for mountain work; Call aircraft co., Afton, Wyo. il Aviation N 5:19 F 4 '46

Navigation

See Air navigation

Safety measures

Airlines, CAA, AAF make joint attack on winter flying problem. Aviation N 6:7-8 S 23 '46

All-weather flying technique; abstract. J. F. Gill. S A E J 54:sup30+ Mr '46

CAB sets up safety rules for nonscheduled carriers. CAA J 7:69+ Je 15 '46

Fair to foul weather flying. E. E. Aldrin. il diags Aeronautical Eng R 5:26-9 Jl '46

Fourteenth annual meeting of the Institute of the aeronautical sciences; review of technical papers. Aeronautical Eng R 5: 21-3 Ap '46

Global air routes tested for safety by proving flights. CAA J 7:5 Ja 15 '46

How to operate industrial aid plane; Aero insurance underwriters manual for use of company-owned aircraft. Nat Underw 49:26 N 8 '45; Same. Weekly Underw 153:1154 N 17 '45

Lanac for aviation; Laminar air navigation and anti-collision system. Electronics 19: 326+ Ap '46

Military pilots versus light planes. CAA J 7:107 Ag 15 '46

Nobody loves a hot pilot; warning to former war fliers. C. A. Parker. il Aviation 45:109-11 Ja '46

Pilot, check that plane! H. A. Senior. il Aero Digest 52:89+ F '46

Placarding scored; listing of performance maximums is invitation to unsafe flying; abstract. J. S. Rowland. Aviation N 5:24 F 25 '46

Plane sense and safety. A. Klemin. il Sci Am 175:72-4 Ag '46

Simplifying the airplane for the private owner. J. M. Gwinn, jr. diags S A E J 54:491-502 S '46

We need an aviation blood bank; improved instruments and safety devices. W. S. Jack. Aero Digest 52:20-1 Je '46

Why not check lists for private pilots? W. L. Nye. Aviation 45:44-5 Jl '46

See also
Aeronautic instruments
Airplanes—Safety measures

Transatlantic flights

TWA Constellation flies Paris route. il Aviation N 4:46 D 10 '45

Transoceanic flights

Provisions for overwater operation; abstract. F. R. Canney. S A E J 54:sup25 Ap '46

See also
Airlines—Transoceanic lines
Airports, Floating

Transpolar flight

Dreamboat flight is prelude to B-50; transpolar flight. il Aviation N 6:9-10 O 14 '46

Weather aspects

See Meteorology, Aeronautic

Winter flying

Airlines, CAA, AAF make joint attack on winter flying problem. Aviation N 6:7-8 S 23 '46

AVIATION corporation
Directed to reduce its American Airlines holdings. Comm & Fin Chr 162:2635 D 3 '45
Preferred stock offered. Comm & Fin Chr 162: 2386-7 N 19 '45

AVIATION distributors and manufacturers association
Annual meeting, Cleveland. Aviation N 4:11-12 D 17 '45; Aero Digest 52:33+ F '46

AVIATION fuel. See Airplane engines—Fuel

AVIATION insurance. See Insurance, Aviation

AVIATION landing stations
Adequate airports essential to aviation growth; small airparks better for personal flyer than big landing fields. J. Randolph and others. Nat Underw 50:14+ F 28 '46

Airpark problems outlined by AIA. Aviation N 4:17 D 24 '45

Airpark programs boom in Missouri. Aviation N 4:20 D 3 '45

Airpark zoning plan set by Kansas City group; protects residential areas from low flying planes. Aviation N 6:15 Jl 8 '46

Diversification main ingredient of new West Coast airpark project, Escondido, Calif.; tie-in of housing and ranch projects, recreational features and fixed base operation. plan Aviation N 5:7 My 13 '46

Eldon, Mo. airpark lease contract seen as model for other cities. A. McSurely. Aviation N 5:13-14 Mr 11 '46

Eldon model airpark attracts 135 planes for dedication fete. il Aviation N 5:15 Je 24 '46

More than 200 attend Los Angeles airpark seminar. S. Bangs. Aviation N 5:15 Mr 25 '46

Nashville, Tenn. airpark busy as development plan is pushed. Aviation N 4:20 D 10 '45

New air country club for Rocky mountains. Aviation N 5:16 My 20 '46

Number of U.S. airports and landing fields, 1936-1945; tabulation. Automotive & Aviation Ind 94:98 Mr 15 '46

Park Service blocks St Louis landing strip. il Aviation N 5:17-18 Je 24 '46

See also
Airports

Portable landing mats

Simple device for removing sections of Marston mat. il Eng N 135:746 N 29 '45

AVIATION maintenance corporation
Offers complete air service. Comm & Fin Chr 164:3 Jl 1 '46

AVIATORS
Data for flyers; manual for commercial pilots and private expands. Bsns W p44+ Jl 27 '46

Flying the jungle runs via steeples and trees; bush pilots fly the TACA network. il Air Transport 4:56-7 N '46

Nobody loves a hot pilot; warning to former war fliers. C. A. Parker. il Aviation 45:109-11 Ja '46

Pilots: know the knack of survival after forcedown; account taken from official report. il Aviation 45:101-2+ Ja '46

Student pilot guide. il CAA J 7:44 Ap 15 '46

Target for today; war pilots organize new union. Bsns W p88 Ag 17 '46

Transoceanic pilot; what it takes to be captain of a super-airliner. R. H. Jackson. il Air Transport 4:22-5 Ap '46

Clothing

Les scaphandres aériens. M. J. Richou. il Génie Civil 123:109-10 My 1 '46

Licenses

Federal vs. state regulation of aircraft nearing showdown. W. Kroger. Aviation N 4: 13+ D 17 '45

Physical examinations

CAA medical quota short of pilots' needs. Aviation N 6:12 S 9 '46

Statistics

Number of certified civil aircraft and pilots by years, 1937-1945; tabulation. Automotive & Aviation Ind 94:98 Mr 15 '46

Training

Airport chain operation plan. J. F. Woerner. Aero Digest 52:46-7+ Je '46

Development of an airline training program for flight personnel involving 4-engine equipment; abstract. W. B. Lester, jr. S A E J 53:sup26 N '45

Electronic flight trainer; computing system. il Electronics 19:170+ S '46; Abstract. Aero Digest 53:47+ S '46

Instructor's views on flying clubs. R. Brinkley. il Aero Digest 51:68+ N 15 '45

Operators studying requirements for training under G.I. bill. Aviation N 5:10 F 25 '46

Pacific pilots, inc., has unique flying service. Aviation N 5:26 Je 17 '46

Rhode Island trains 300 veterans. Aviation N 6:17 S 23 '46

Selling student flying requires a resourceful approach. C. A. Parker. Aviation 45:88-9 S '46

Texas field offers low flight rates to students; Lon Foote airport. il Aviation N 4:17 N 26 '45

Ultrasonic trainer circuits for teaching use of airborne radar for bombing or navigation. F. J. Larsen. il diags Electronics 19: 126-9 Je '46

Vets administration lists costs for G.I. flight training courses. W. Kroger. Aviation N 5:7 My 27 '46

See also
Aviators, Military—Training

AVIATORS, Military
Military pilots versus light planes. CAA J 7: 107 Ag 15 '46

See also
Military pilots association

Training

Ground school and engineering school; some notes on training. G. D. Stout. J Eng Educ 36:612-17 Je '46

Trainer for fighter pilots; radar trainer. il Aero Digest 51:114 D 15 '45

AVIGATION. See Air navigation

AVIONIC, inc.
Avionic group will probe air frontier. Aviation N 6:22 S 2 '46

AVOCADOS
Cuba's avocado output; air shipments loom large. P. M. Davenport. il For Comm W 25: 5-6+ N 2 '46

AVOGADRO, Amadeo, 1776-1856
Sketch. Engineer 182:158 Ag 23 '46

AWARDS. See Rewards, prizes, etc.

AWARDS, Advertising. See Advertising awards

AXES
Report of meeting of the cutting tool committee of the Woodlands section; saws, axes, etc. Pulp & Pa of Can 47:59-60 Ja '46

AXLES
See also
Automobiles—Axles

Manufacture

Bethlehem axle plant modernized. R. E Penrod. il Iron Age 158:60-3 O 10 '46

Bethlehem Steel modernizes its axle manufacturing facilities. il Ry Age 121:406-7 S 7 '46

Testing

Inspecting forged axles at the Le Tourneau plant by means of supersonic waves; Reflectoscope. J. C. Smack. il diags Automotive & Aviation Ind 93:32-5+ N 15 '45

AYRES, Leonard Porter, 1879-1946
Sketch. por Comm & Fin Chr 164:2264 O 31 '46

AZAINDOLE
Contribution to the study of nicotine and the synthesis of 7-azaindole and derivatives. G. R. Clemo and G. A. Swan. Chem Soc J p603-7 S '45

AZAPHENOTHIAZINE
New syntheses of heterocyclic compounds; 3-azaphenthiazines. V. A. Petrow and E. L. Rewald. Chem Soc J p591-3 S '45

AZAPHENOXAZINE
New syntheses of heterocyclic compounds; 3-azaphenthiazines. V. A. Petrow and E. L. Rewald. Chem Soc J p591-3 S '45

AZEOTROPY
Azeotropic purification of styrene. L. Berg, J. M. Harrison and C. W. Montgomery. bibliog flow sheet Ind & Eng Chem 38:1149-52 N '46

Azeotropism; a useful tool clarified. K. B. Fleer. bibliog J Chem Educ 22:588-92 D '45

Hydrocarbon azeotropes of benzene. R. F. Marschner and W. P. Cropper. bibliog Ind & Eng Chem 38:262-8 Mr '46

Purification of commercial benzene by azeotropic distillation. J. Griswold and R. H. Bowden. bibliog Ind & Eng Chem 38:509-12 My '46

Rectification in ternary systems containing binary azeotropes. R. H. Ewell and L. M. Welch. bibliog Ind & Eng Chem 37:1224-31 D '45

Synthesis of toluene by hydroforming and recovery by azeotropic distillation. F. L. Hartley. flow diags Pet Eng 17:156+ D '45

AZIDODITHIOCARBONATES
Azidodithiocarbonic acid; electrode potential of the azidocarbondisulfide-azidodithiocarbonate couple. R. Ullman and G. B. L. Smith. Am Chem Soc J 68:1479-80 Ag '46

AZIMUTH
Use of haversines in azimuth calculations. W. H. Brady. Eng N 134:409-10 Mr 22 '45; Discussion. 135:682, 892 N 15, D 27 '45

AZINES
Absorption spectra; ketazines. E. R. Blout, V. W. Eager and R. M. Gofstein. Am Chem Soc J 68:1983-6 O '46

AZO compounds
Correlation of structure with fastness to light of monoazo dyes. R. H. Kienle and others. bibliog J Phys Chem 50:363-73 Jl '46

Derivatives of 1-azanthraquinone. G. R. Clemo and G. W. Driver. Chem Soc J p829-33 N '45

Reactions of antiserum homologous to the *p*-azophenyltrimethylammonium group. D. Pressman and others. bibliog Am Chem Soc J 68:250-5 F '46

AZORES
See also
Airports—Azores
AZOSULFONAMIDES. See Sulfonamides
AZOTOMETER. See Nitrogen—Analysis

B

BCG vaccine. See Tuberculosis
BABASSÚ
Brazilian babassú oil U.S. imports continue. Oil Paint & Drug Rep 150:3 S 23 '46
U.S.-Brazilian pact on babassú extended. Oil Paint & Drug Rep 150:5 Jl 8 '46
BABBITT metal
Lead base solders and babbitts; engineering file facts. R. S. Burpo, jr., comp. Materials & Methods 22:1781 D '45
BABBITTING
Babbitting bearings; hazards and precautions. Nat Safety N 53:36+ My '46
Babbitting large cast-iron bearing shells; John Bertram & sons co. L. F. Train. il Iron Age 157:84-5 Ap 4 '46
Babbitting without a mandrel. W. F. Schaphorst. Materials & Methods 23:1057 Ap '46
Improved babbitting methods; abstract. G. R. Park. Materials & Methods 22:1838+ D '45
New method of preparing bearing shells for babbitting. A. A. Goodman. Mach 52:226 Ag '46. Same. il Materials & Methods 24:680 S '46
BABY foods. See Infants' food
BACILLUS coli
Antagonism of salicylate by pantoyltaurine. P. G. Stansly and C. M. Alverson. bibliog Science 103:398-9 Mr 29 '46
BACILLUS mycoides
Vanillic acid esters as food preservatives. I. A. Pearl and J. F. McCoy. il Food Ind 17: 1458-61+ D '45
BACILLUS subtilis
Presence in normal serum of inhibiting substances against bacillus subtilis and staphylococcus aureus. C. W. Buggs and others. Science 103:363-4 Mr 22 '46
BACITRACIN
Medicine from earth. Fortune 34:104-5 Jl '46
BACK
Pre-placement X-ray examination of the lower back. P. N. Barton and J. H. Biram. il Ind Med 15:319-22 My '46
BACKACHE
Backache in industrial injuries; abstract. M. L. Jones. Ind Med 14:sup32+ N '45
BACON
Bacon spoilage; abstract. W. H. White and others. Food Ind 18:435 Mr '46
Quick wrap for bacon and sausage. G. Hightower. il Food Ind 17:1466-7 D '45
Rancidity of bacon; effect of antioxidants. F. H. Smith, D. E. Brady and R. E. Comstock. bibliog Ind & Eng Chem 37:1206-9 D '45
Wrap-carton; a new kind of package; Mullinix for butter, bacon and sausage. il Mod Packaging 19:138-43 Mr '46
BACTERIA
Competition between two entomogenous bacteria. R. L. Beard. Science 103:371-2 Mr 22 '46
Control of microorganisms in food storage rooms. W. L. Mallmann and E. S. Churchill. Refrig Eng 51:523-8+ Je '46; Discussion. 52:143+ Ag '46
Effect of hydrocarbon bacteria on racemic mixtures of hydrocarbons. J. Turkevich and L. A. Hiller, jr. Am Chem Soc J 68:530-1 Mr '46
Functions of bacteria in the formation and accumulation of petroleum; abstract. C. E. ZoBell. Inst Pet J 32:sup232-3 Ag '46
Inhibition of sulphate-reducing bacteria by dyestuffs; practical applications in cable storage tanks and gas holders. T. H. Rogers. Soc Chem Ind J 64:292-5 O '45
Production geology; role of bacteria. F. B. Plummer. Min & Met 27:116-17 F '46
Some observations on heat-resistance of micro-organisms and related phenomena; abstract. A. T. R. Mattick and E. R. Hiscox. Chem & Ind p64 F 9 '46
Treatment of sulphate-reducing bacteria in a flour mill. E. C. Barton-Wright. Soc Chem Ind J 64:295 O '45
See also
Acetobacter
Air—Bacteriology
Bacteriology
Bacteriostasis
Fermentation
Iron bacteria
Lactobacillus casei
Paper making—Bacteria control
Viruses
Water—Bacteriology
BACTERIA, Pathogenic
Influence of pH and temperature on the survival of coliforms and enteric pathogens when exposed to chloramine. C. T. Butterfield and E. Wattie. bibliog diags Pub Health Rep 61:157-92 F 8 '46; Abstract. Water & Sewage 84:30+ Je; 17-18+ Ag '46
Release of antigen from certain bacteria on treatment with ether. C. C. Shepard. bibliog Pub Health Rep 61:54-9 Ja 11 '46
Transmission of salmonella enteritidis by pulex irritans and ctenocephalus canis. G. Varela and J. Olarte. bibliog Science 104: 104-5 Ag 2 '46
See also
Bacillus coli
Staphylococci
Streptococci
Tubercle bacilli
BACTERIA, Pathogenic, in warfare
Peacetime implications of biological warfare; American-Canadian study of rinderpest in cattle. G. W. Merck. Chem & Eng N 24: 1346-9 My 25 '46
BACTERIOLOGICAL incubators. See Incubators, Bacteriological
BACTERIOLOGY
See also
Air—Bacteriology
Antigens and antibodies
Antiseptics
Bacteria
Disinfection and disinfectants
Fermentation
Iron bacteria
Viruses
Water—Bacteriology
Culture mediums
Bacterial amylases; production in thin stillage. L. D. Beckord, G. L. Peltier and E. Kneen. bibliog il diags Ind & Eng Chem 38:232-8 F '46
Procedure for the characterisation of the acetic acid bacteria. J. Tošić and T. K. Walker. bibliog Soc Chem Ind J 65:104-7, 180-4 Ap, Je '46
Technique
New sterile technic for preparing agar cupplates. J. E. Christian and M. L. Neuroth. il Science 103:172-3 F 8 '46
Terminology
Abbreviations of generic names. C. E. Skinner. Science 104:62 Jl 19 '46
BACTERIOSTASIS
Antagonism of salicylate by pantoyltaurine. P. G. Stansly and C. M. Alverson. bibliog Science 103:398-9 Mr 29 '46
Antibacterial action of an oxidation product of sulfanilamide. G. Barkan and L. Goldsmith. bibliog Am Chem Soc J 68:733-4 My '46
N-substituted 5-aminoacridines. D. J. Dupré and F. A. Robinson. Chem Soc J p549-51 S '45
Quinoid structure and bacteriostatic activity E. Fischer and others. bibliog Science 102: 507-8 N 16 '45
Synthesis of benzene derivatives structurally similar to penicillic acid. E. D. Amstutz, E. A. Fehnel and C. R. Neumoyer. bibliog Am Chem Soc J 68:349-54 Mr '46
See also
Colistatin
BAD debts. See Collecting of accounts
BADMINTON courts
Layouts of playgrounds and athletic fields; plan. Pub Works 77:22 F '46
BAG filling
Air fills the bag; vacuum method of packaging powdered asbestos. W. B. Foxhall. il Heat & Ven 43:89 Ja '46

BAG making machines
Flying machines; air delivery of bag-making equipment. il Mod Packaging 19:116-17+ Jl '46

BAGACILLO
Filtration of subsider muds and the effect of bagacillo as a filter aid. S. E. Coalstad. diags Soc Chem Ind J 65:175-80 Je '46

BAGHDAD
Baghdad plans striking new construction and broad modern betterments. For Comm W 23:38 Je 8 '46

BAGS
Action on certain insects of fabrics impregnated with D.D.T. H. Hayhurst. Soc Chem Ind J 64:296 O '45
Orange juice frozen in cellophane bags. il Mod Packaging 19:136-7 F '46
Transparent bag makes a package that sells; small radio hardware. W. L. Schott. il Ptr Ink 216:102+ S 20 '46
See also
Cotton bags
Paper bags
Tea bags

BAHAI temples
Installation at Bahai temple is considered among longest heating jobs ever recorded. il Dom Eng 167:133, 136-8 Ap '46

BAHAMA ISLANDS
Economic conditions
Situation in the Bahamas. For Comm W 22: 25 Ja 26 '46

BAHREIN ISLAND
See also
Petroleum industry and trade—Bahrein Island

BAILEES' customers insurance. See Insurance, Bailees' customers

BAILEY, Alexander Davison, 1882-
Portrait. Mech Eng 68:58 Ja '46

BAILEY, Charles William, 1884-
As he approaches the A. B. A. presidency. H. J. Boone. pors Burroughs Clearing House 30:15-17 S '46
Meet President Bailey. W. R. Kuhns. pors Banking 39:50-1+ O '46
New A.B.A. vice-president. pors Banking 38: 54-5 N '45

BAILEY, Thomas L.
Portrait. Bsns W p66 Ja 5 '46

BAILEY bridges. See Bridges, Prefabricated

BAILMENT
Parking lot and garage operators' liability for autos and contents; digest of cases. J. Simpson. East Underw 47:31 O 18 '46

BAILMENT lease. See Rental plans (merchandizing)

BAKELITE
Bakelite sales divisions. Sales Management 57:95 Jl 1 '46
Boring large holes in bakelite with a small Van Norman miller. N. Brackett. il Am Mach 90:137 Ag 15 '46
Forming of bakelite laminated sheet. il Engineering 161:248-9 Mr 15 '46
House organ sells full line in firm where salesmen are specialists; Bakelite Review. M. Zwilling. Sales Management 57:95-6+ Jl 1 '46
Mailings pull 45% from designers and engineers; Bakelite brochures. il Sales Management 57:108 S 15 '46
Measure of frequency. il Mod Plastics 23:118 F '46
Molded textile scroll condenser. il Mod Plastics 23:120 Mr '46
Phenolic base for home sterilizer. il Mod Plastics 23:105 Je '46
Testing
Correlation between strength properties in test specimens and molded phenolic parts. P. S. Turner and R. H. Thomason. il diags Mod Plastics 23:146-54+ My; 154-8+ Jl '46

BAKER, Geoffrey
Portrait. Ptr Ink 217:27 O 25 '46

BAKER, Melvin Houston, 1886-
National Gypsum reaches out. por Bsns W p60-2 Jl 27 '46

BAKERS and bakeries
After choice of a business, what next? picking out a site for a retail bakery. il Dom Comm 34:18+ My '46
Baking industry keeps ovens going in spite of shortages. E. Gordon. il Dom Comm 34:56-9 S '46
Baking industry open for new equipment types, new processes, improved distribution. A. T. Joyce. Ind Marketing 31:158+ Ja '46
Canned plum pudding process put on continuous basis. W. Reiman and N. H. Volle. flow sheet il Food Ind 17:1286-90 N '45
Conveyors in the food industries. il Mech Handling 33:236 Ap '46
Custom baking; Jane Parker shops in A.&P. stores. Bsns W p74+ Jl 27 '46
Elements of shop design for local-service bakeshops. D. J. Brogan. il plans diags Gas Age 96:35-8 D 13; 27-9 D 27 '45; 97:33-6 Ja 10 '46
High frequency heating produces mold-free bread; used also for refreshing stale bread. W. H. Cathcart. il Food Ind 18:864-5 Je '46
R-f heating in bakery industry. V. W. Sherman. Electronics 19:166+ Ap '46
Why not a technologist, Mr Baker? W. R. Van Meter. il Food Ind 18:1005-7+ Jl '46
See also
Biscuits
Bread
Cream puffs
Costs
Return to prewar bread distribution? bakers seek to retain low wartime costs by elimination of uneconomic practices. A. Morrow. Barron's 26:7 Mr 18 '46
Employees
Jobs for the wounded; Loose-Wiles employment of men incapacitated in war service. J. A. J. Jones. il Food Ind 17:1318-20 N '45
Union wages and hours in the baking industry, July 1, 1945. J. P. Corkery and A. V. Simi. Mo Labor R 62:451-7 Mr '46; Same, with additional data. U. S. Bur Labor Statistics Bul 871:1-64; pa 15c Supt. of doc. '46
Equipment
See also
Dough mixers

BAKHMETEFF, Boris Alexander, 1880-
Sketch. por Civil Eng 16:37-8 Ja '46

BAKING
Banish baking failures! results of different kinds of utensils and various oven materials. J. Huck. il Am Gas Assn Mo 28:113-14 Mr '46
New flour requires some baking adjustments. R. T. Bohn. il Food Ind 18:492-3+ Ap '46
See also
Bakers and bakeries
Biscuits
Bread

BAKING powder
Studies in baking powder; abstract. R. S. Potter. Chem & Ind p 189 My 11 '46
Storage
Effect of various acids on the stability of aerating powders. R. W. Morris and M. G. Read. bibliog Soc Chem Ind J 64:291-2 O '45

BAL
BAL (British anti-lewisite). L. L. Waters and C. Stock, comps. Science 102:601-6 D 14 '45
Canadian researches on BAL (British anti-lewisite). L. Young. bibliog Science 103: 439-40 Ap 12 '46
Drug called BAL; treatment of arsenical and other heavy-metal poisoning. G. C. Green. Chem Age (Lond) 55:195-7 Ag 17 '46
Effect of some sulfhydryl-containing substances on the toxicity of an organic mercurial compound. W. K. Long and A. Farah. bibliog Science 104:220-1 S 6 '46

BALANCE agriculture with industry act. See Cities and towns—Industries

BALANCE of payments
Appraisal of foreign purchasing power for U.S. goods. V. L. Horoth. Mag of Wall St 77:755-6+ Mr 30 '46

BALANCE of payments—*Continued*
Balance of payments, United States and India, 1942-1945. For Comm W 24:18 S 7 '46
Blocked sterling balances; origin and operation, relation to the U.S. Index 25 no 4:86-97 [D] '45
Britain's frozen sterling won't thaw for loan alone; liquidation steps will furnish headaches in plenty. C. H. Grattan. Barron's 26:3+ My 27 '46
British seek funding of sterling balances on interest free basis in Argentine negotiations. P. Einzig. Comm & Fin Chr 164:1262+ S 5 '46
Canada's exchange control. Economist 151:21-2 Jl 6 '46
Capital flow between U.S. and foreign countries; what is the outlook? For Comm W 24:19 Ag 10 '46
Chile's balance of payments, 1943 and 1944 compared. For Comm W 21:17 D 15 '45
Colombia; balance of payments position for first seven months of 1946. For Comm W 25:15-16 O 12 '46
Declining gold and foreign exchange reserves in Latin America, selected dates June 1945-July 1946. Mag of Wall St 79:80 O 26 '46
Egypt's sterling. Economist 150:66 Ja 12 '46
Future of the sterling area. D. F. Heatherington. Comm & Fin Chr 163:7+ Ja 3 '46
Greece's balance of payments. Economist 151:180 Ag 3 '46
International transactions of the United States during first quarter 1946. Survey of Cur Bsns 26:16-21 Jl '46
Next task; sterling settlements. Bsns W p113-14 F 23 '46
Repayment of blocked sterling. P. Einzig. Comm & Fin Chr 163:2911+ My 30 '46
Statistical background. Economist 149:874-5 D 15 '45
Turn in tide of repatriation of foreign money from United States? R. Carleson. il Mag of Wall St 78:619-21+ Ag 31 '46
U.S. foreign trade and international transactions since the end of the war. Nat City Bank p40-1 Ap '46
United States international transactions; second quarter of 1946. Survey of Cur Bsns 26:7-9 O '46
U.S. international transactions in 1945. For Comm W 22:3-5+ Ja 19 '46
War period foreign transactions of the United States government. G. L. Bach. Survey of Cur Bsns 26:7-15+ Mr '46
World prosperity and the British balance of payments. R. Hinshaw and L. A. Metzler. R Econ Stat 27:156-70 N '45

BALANCE sheets
Are you conserving your assets? G. M. Carson. Dom Eng 168:136-7+ O '46
Construction company accounts on balance-sheet. J Account 82:433-5 N '46
Contingent liability under option on leased machinery. J Account 80:487-8 D '45
Direct method for the preparation of fund statements. W. J. Vatter. J Account 81:479-89 Je '46; Discussion. 82:254-7 S '46
See also
Financial statements

BALANCES
Electrical sorption balance. S. J. Gregg. diag Chem Soc J p561-2 Jl '46
Electrical sorption balance and calorimeter. S. J. Gregg. diags Chem Soc J p563-7 Jl '46
New developments in the study of surface chemistry; vacuum microbalance. E. A. Gulbransen. il diags Metal Prog 49:558-9 Mr '46
New Towers equipment; two air-damped balances. il diags Chem Age (Lond) 54:465-7 Ap 27 '46
Ultra-micro balance for plutonium study. Chem Ind 57:1114 D '45

BALANCING machines
Design of supersensitive balancing equipment K. F. Frank. il diags Machine Design 18:109-14 F '46
Dynamic balancing of automotive crankshafts. il Machine Design 18:105-6 Ag '46
Gisholt two-element unbalance measuring and correcting equipment; transmits information to machine which drills holes in crankshafts to effect balance. il Mach 52:198-200 Jl '46; Same cond. Automotive & Aviation Ind 95:41-2 Jl 1 '46; Same cond. Iron Age 158:62 Jl 25 '46
Microbalancer; a supersensitive balancing machine. Mach 52:181 Ja '46
Snyder special-purpose machine for balancing connecting rods. il Automotive & Aviation Ind 94:41 My 1 '46

BALANCING of machinery
Electronic balancer. Sci Am 174:225 My '46
Ford's new method of balancing crankshafts. C. O. Herb. il diag Mach 52:156-60 Mr '46
How axial thrust is balanced in single-stage centrifugal pumps. A. Brkich. diags Power 90:16-18 Ja '46
How hydraulic axial thrust is balanced in multistage centrifugal pumps. A. Brkich. il diags Power 90:107-10 F '46
Precision dynamical balancing of rotors by mechanical resonance. R. N. Arnold. il diags Engineering 161:481-2, 529-32 My 24, Je 7 '46
Propeller balancing problems. S. G. Best. il diags S A E J 53:648-59 N '45
Stroboscope engineering gives answers. D. McConnell. il diag Textile World 96:135+ Mr '46
See also
Balancing machines

BALDWIN, Lewis Warrington, 1875-1946
Sketch. por Ry Age 120:1065-6 My 25 '46

BALDWIN locomotive works
American Locomotive vs. Baldwin; comparative investment audit. H. S. Coffin. Mag of Wall St 77:458-60+ Ja 19 '46
Annual report. Comm & Fin Chr 164:3 Jl 1 '46
Baldwin upswing. Bsns W p66-8 Je 8 '46

BALL bearings. See Bearings, Ball

BALL bill. See Atomic power—Legislation, Proposed

BALL mills
Ball mill loading skip. il Can Min J 67:768 Ag '46
Ball milling and mill additions. G. H. Spencer-Strong. Cer Ind 47:60+ Ag '46
Electric ear controls operation of ball mill; microphone regulates sand input. il Elec World 125:188+ Ja 19 '46
Fine-grinding and concentration at Climax. E. J. Duggan. flow sheets il Min & Met 27.323-9 Je '46
How the Kominuter got its name. il Rock Prod 49:103 Je '46
Pebbles and mill liners produced by Harris granite quarries co. H. E. Swanson. il Rock Prod 49:78+ F '46

BALLAST
Mechanics of ballast; abstract. G. M. Magee. Rock Prod 49:108-10 Mr '46
Roadway and ballast; A.R.E.A. committee report. Ry Age 120:555-7 Mr 16 '46
This new ballast cleaner is different. il Ry Age 121:432-4 S 14 '46

BALLET
Boom in ballet. il Fortune 32:180-8+ D '45

BALLISTICS
L'application du radar à la balistique; l'obus à fusée radar. diag Génie Civil 123:63 Mr 1 '46
Ballistic contributions to aerodynamics; abstract. A. C. Charters. il Aeronautical Eng R 5:5-6 Ap '46
Determination of the wave forms and laws of propagation and dissipation of ballistic shock waves. J. W. M. DuMond and others. diags Acoustical Soc Am J 18:97-118 Jl '46
Paper screen signaling missile passage in ballistics. H. Lamport and M. G. Schorr. R Sci Instr 17:280 Jl '46
Simplified equations of interior ballistics. J. E. Mayer and B. I. Hart. Franklin Inst J 240:401-11 N '45
Some recent advances in ballistics. il J Ap Phys 16:773-80 D '45
Supersonic wind tunnel laboratory; Aberdeen proving ground. G. M. Barnes. il Mech Eng 67:827-33+ D '45

BALLISTICS—*Continued*
Supersonic wind tunnels completed at Aberdeen. il Product Eng 16:856-8 D '45
See also
Photography of projectiles

BALLOON fabrics
Pneumatic dummies served as invasion foil; counterfeit ships, tanks and guns of air-filled balloon fabrics. il Comp Air Mag 51: 10-11 Ja '46

BALLOONS, Military
Balloon barrage purity meter. W. F. Gardner and R. E. Norris. il diags Gas J (Lond) 246:847-8 D 12 '45
High-voltage research at the National physical laboratory; protection of barrage balloons and personnel against lightning. R. Davis. diags Engineer 180:435-6 N 30 '45; Same. Inst E E J 93 pt 1:184-6 Ap '46
Japanese balloon attacks on the United States and Canada. R. W. McKay. Engineering 160:465-6 D 7 '45
Ottawa detective agency; Japanese balloon bombs; identification of ballast sand. W. M. Bonham. il diags Can Min J 67:769-73 Ag '46

BALLS, Steel
Accurate steel balls half the size of a pinhead being produced. Mach 53:158 O '46
Coal pulverizer balls sorted mechanically. il diag Elec World 125:116 My 11 '46
Jig for drilling steel balls. T. A. Dickinson. diag Materials & Methods 23:1625 Je '46; Same. Mech Eng 68:740 Ag '46

BALLS, Toy
Dielectric heating seals giant balls. il Electronics 19:158+ Jl '46

BALTIMORE
Rapid transit
Baltimore's greatest transit factor turned into political booby trap; municipal tax impedes conversion to buses. Mass Transportation 41:375-6 D '45

Sewerage
Building a one-mile sewer by tunneling. il Eng N 136:788-91 My 16 '46

Water supply
Baltimore's salty ground water blamed on faulty well structures. Eng N 137:313 S 5 '46
Manganese removal by break-point chlorination; experiences at Baltimore. S. E. Edwards and G. B. McCall. il Water & Sewage Works 93:303-5 Ag '46; Same cond. Eng N 137:167-8 Ag 8 '46

BALTIMORE and Ohio railroad
Annual report. Comm & Fin Chr 163:2287 Ap 29 '46
Debt adjustment plan approved by court; 1944 results reviewed. Comm & Fin Chr 162:2514 N 26 '45
Summary of 1945 annual report. Ry Age 120:939 My 4 '46

BAMBOO
Herty experiments with bamboo fiber pulp. Paper Tr J 122:36 Ap 25 '46

BANANAS
Mexican production, exports, and consumption of bananas, 1935-39 average; yearly figures, 1940-1945. For Comm W 23:40 My 25 '46
World demand for bananas likely to exceed supply for several years. For Comm W 23: 36 Je 8 '46

BANBURY mixers
Lancaster-Banbury method of devulcanizing scrap rubber. D. Comes and F. H. Banbury. il Rubber Age 59:563-6 Ag '46

BANDAGES and bandaging
Fracture cast knitted of glass and plastic; abstract. R. Anderson and H. R. Erickson. Franklin Inst J 241:312-13 Ap '46
Nylon dressing used to cover severe wounds and burns. Sci Am 174:57 F '46
Nylon surgical gauze. il Mod Plastics 23:111-12 D '45
Tubular bandages easy for the doctor to use. il Mod Packaging 19:185 Mr '46

BANDS, Steel. See Steel bands

BANGOR, Maine
Streets
Bangor renews its streets with hot asphalt paving. J. L. MacLeod. il Pub Works 77:29 Ap '46

BANK accounting
Aiding commercial account tellers; machine method of recording and receipting account deposits. H. J. Boone. il Burroughs Clearing House 30:22-4+ Ag '46
Amortization of bond premium in tax returns of banks. O. E. Fischer. J Account 81:476-8 Je '46
Bond records and audit procedure. Bankers Mo 63:452 S '46
Facts and fallacies about bank costs and service charges. R. E. Bauder. Banking Law J 63:623-34 S '46
More profits if you know costs; Country bank operations commission cost analysis program. W. C. Rempfer. Banking 39:70-2 Ag '46
Sight paying; yes or no? many banks leave it to the posters to discover items that must be returned. Bankers Mo 62:499-501 N '45
Tax funds provided by accrual systems. C. L. Tewksbury and others. Bankers Mo 62: 504-6 N '45
Tremendous responsibility rests upon bank bookkeepers. Bankers Mo 63:82+ F '46
Trust department audit objectives. R. C. Masters. Trusts & Estates 83:271-7 S '46
24 more clearing houses allow delayed returns. Bankers Mo 63:225-8 My '46
See also
Bank auditing

BANK advertising
Are you using your goodwill assets? value of human interest stories. D. Bartlett. Banking 38:122+ D '45
Bank advertising expenditures analyzed. G. M. Mack. Trusts & Estates 83:91 Jl '46
Bank uses small space effectively. il Ptr Ink 214:30 F 15 '46
Banks will increase promotion of services and consumer credit. Ptr Ink 213:55+ N 30 '45
Brief for professional bank promotion; Chittenden county trust company, Burlington, Vt. Burroughs Clearing House 30:10+ Ag '46
Cartoon touch in bank ads. il Banking 38:29 My '46
Education in bank methods via television; Land title bank and trust company of Philadelphia. il Burroughs Clearing House 30:8 S '46
Frontier of bank merchandising; television. il Banking 39:33 S '46
G.I. cartoonist helps banks tell home loan story to veterans. il Ptr Ink 215:99 Ap 12 '46
Hay while the sun shines; promotion at Union bank, Erie, Pa., aimed at increasing savings accounts. W. Rudolph. il Banking 39:76 Jl '46
Hometown credit-savings plan launched; Fireman's Fund to aid banks and insurance agents. Weekly Underw 154:616-17 Mr 9 '46; Same. East Underw 47:1+ Mr 8 '46; Same cond. Burroughs Clearing House 30:13-14 Ap '46
How they sell thrift in Sweden. il Banking 39:56-7 S '46
Live banks make communities live; experience of two Warren, Ohio, banks with small loan advertising. H. R. Farrall. Banking 39:39 Ag '46
Look at the radio record. J. B. Mack, jr. Banking 38:42-3+ My '46
Mutuals to promote home ownership. Banking 38:11 Mr '46
Package banks have to sell; F.A.A. notebook; special clinic sessions. Banking 38:41-2+ Ja '46
Planning and budgeting a bank's advertising program. R. Lindquist. 132p bibliog (p128-32) Financial advertisers assn, 231 South La Salle st, Chicago '45
Service designed for the rich now sold to the masses; trust service for small estates. I. I. Sperling. Ptr Ink 216:51 Ag 9 '46
Some clearings of bank advertising ideas. Burroughs Clearing House 30:14 Je '46

BANK advertising—*Continued*
Streamlined post-war version; bank merchandising; report on F.A.A. convention. Burroughs Clearing House 30:15-17+ Ja '46
Successful farm loan advertising techniques; Industrial trust company of Providence, R.I. Banking 38:59 D '45
Surveys uncover responsive sales themes for bank; Security-First national bank, Los Angeles, spots potent advertising appeals. Sales Management 57:67 S 15 '46
Trend toward external bank publications; house organs. Burroughs Clearing House 31:12 O '46
Two new bank films; Watson wakes up, New York savings banks' film and Colonial trust company's test ABC's of GI loans. il Banking 39:113 O '46
We try to help depositors realize; Citizens & southern national bank series of Man-on-the street advertisements. L. F. Gordon. Bankers Mo 62:502-3 N '45

BANK auditing
How a continuous audit helps operating efficiency, Baldwin national bank and trust company, N.Y. A. Breiner, jr. il Bankers Mo 63:374-6 Ag '46
How we audit individual and commercial deposits; Northwestern national bank, Minneapolis. S. G. Sinclair. Bankers Mo 63: 512-14 O '46

BANK books, Depositors'
By-law requiring indemnification bond in case of lost passbook. Banking Law J 63:549-53 Jl '46
Change in pass book to joint names. C. R. Rosenberg, jr. Burroughs Clearing House 30:53 F '46
Change of bank pass book to joint names held valid. Banking Law J 63:50-3 Ja '46
Depositor entitled to amount on deposit without furnishing indemnity bond for lost passbook. Banking Law J 62:906-8 N '45
Lost pass book. C. R. Rosenberg, jr. Burroughs Clearing House 30:53-4 Je '46

BANK buildings
Bank construction; Bank of Tupelo, Mississippi; Baltimore national bank branch zigzag teller counters. il Burroughs Clearing House 30:4 N '45
Bank office building, Mexico city. il plans Arch Forum 84:116 F '46
Banks build; a nationwide picture of programs of A.B.A. member banks; with charts and maps. Banking 39:33-5 Jl '46
Bank's building dollar. J. J. McCann. il Banking 39:78 O '46
Construction innovations; ultra-modern new branch, Bank of Virginia, Richmond. il Burroughs Clearing House 30:10 Ap '46
Latest in bank buildings; photographs. J. J. McCann. Banking 39:80-1 Ag '46
New developments in bank quarters. H. V. Odle. il Burroughs Clearing House 30:18-21+ S; 31:24-7+ O '46
Permit and priority; case of addition to banking quarters. Banking 38:109 Je '46
Serving the drive-in customer; National Shawmut bank of Boston, R. A. Ilg. il Banking 38:41 N '45
Trend in bank buildings. il Banking 38:40-1+ D '45; 66-8+ Ja; 42-4 F; 44-5 Mr; 62+ Ap; 57 My '46

Designs and plans
Bank move solves space problem; Ames trust and savings bank, Iowa. J. J. McCann. il plans Banking 38:57 My '46

Heating and ventilation
New Bank of England has panel heating. il Dom Eng 167:118-20 F '46

Layout
Four benefits of a saw-toothed arrangement of cages. D. H. Bailey. il Bankers Mo 62: 574 D '45
Well-planned working quarters. J. C. Wilkinson. il plans Banking 39:76-7 O; 73 N '46

Tellers' cages
Improving teller service by office layout. il Burroughs Clearing House 30:10 My '46
Modern quarters; more business. il Banking 38:66-8+ Ja '46

BANK checks. See Checks

BANK clearings
Bank clearings. Published in monthly numbers of Dun's statistical review; summary in Dun's review
Course of bank clearings. Published in weekly Monday numbers of Commercial & financial chronicle
Course of bank clearings; figures for 1945 by Federal reserve districts and comparison with other years. Comm & Fin Chr 163:350-2 Ja 21 '46

BANK consolidations
Tax effect of bank mergers. Banking 38:128-9 Ap '46

BANK credit. See Credit, Bank

BANK defalcations. See Embezzlement

BANK deposits
Bank accounts styled as trust accounts not sufficient to create valid trusts. Banking Law J 63:413-16 My '46
Bank deposit to credit of donee not subject of gift. Banking Law J 63:242-4 Mr '46
Bank depositor precluded from asserting right of set-off. Banking Law J 63:321-5 Ap '46
Bank liable to depositor for conversion of deposits in liquidation of loan. Banking Law J 63:591-4 Ag '46
Bank not liable to third party for overpayment to depositor. Banking Law J 63:120-22 F '46
British bank deposits. F. B. Makin. Banking 38:122+ N '45
Credit velocity slackens. Economist 150:66+ Ja 12 '46
Direction to bank to pay deposit on death held testamentary disposition. Banking Law J 63:388-9 My '46
Government securities and commercial banks. F. C. Broach. Comm & Fin Chr 163:2642+ My 16 '46
Ownership of demand deposits. Fed Res Bul 31:1100-1 N '45
Ownership of demand deposits as of January 31, 1946. R. Youngdahl. Fed Res Bul 32:469-72 My '46
Third party claim on deposit. C. R. Rosenberg, jr. Burroughs Clearing House 30:41-2 Mr '46

See also
Bank books, Depositors'
Banks and banking—Guaranty of deposits
Overdrafts
Savings deposits

Joint accounts
Alleged survivor not entitled to proceeds of bank deposit; survivorship statute inapplicable. Banking Law J 63:557-63 Jl '46
Intention of parties at time of transfer of account controlled in determining survivors right to joint account. Banking Law J 62:890-5 N '45
Joint bank account not created by transfer by withdrawal of depositor. Banking Law J 63:407-12 My '46
Joint savings account; exclusion of insane wife. C. R. Rosenberg, jr. Burroughs Clearing House 30:53 N '45
No interference of gift in joint bank account with no survivorship provision. Banking Law J 63:239-42 Mr '46
Presumption of joint tenancy of bank account rebuttable. Banking Law J 63:672-8 S '46
Trust company acting improperly as executor and guardian of joint owners of savings account; husband and wife. Banking Law J 62:763-5 O '45
Wife entitled to recover her share of joint accounts on ground of unjust enrichment where husband withdraws all funds. Banking Law J 63:498-501 Je '46

Statistics
Bank deposits dip; midyear statements. Bsns W p76 Jl 20 '46
Distribution of bank deposits. Economist 150: 652 Ap 20 '46
Rise in personal deposits; distribution of clearing bank deposits, June 30, 1941-June 30, 1946. Economist 151:558 O 5 '46
Wartime shift of bank deposits. Bsns W p76 S 7 '46

BANK deposits—Statistics—*Continued*
Year-end bank figures reach new highs; with comparative ranking of 100 largest commercial banks. Burroughs Clearing House 30:4+ Mr '46

BANK deposits, Government
Deposits in bank in violation of law where city councillor is officer of bank held illegal. Banking Law J 62:895-901 N '45
Reduction in banks' war loan accounts. F. C. Rathje. Comm & Fin Chr 163:1226+ Mr 7 '46; Same abr. Banking 38:82 Ap '46

BANK deposits, Municipal. See Bank deposits, Government

BANK deposits, Unclaimed
Bank depositor cannot bring tort action against comptroller for recovery of abandoned funds. Banking Law J 63:726-9 O '46
State statute providing for escheat of abandoned bank deposits held valid and constitutional and applicable to deposits in national bank. Banking Law J 62:862-77 N '45

BANK directors
Bank director cannot maintain suit for damages for refusal of bank to repurchase bank stock. Banking Law J 63:656-8 S '46
Court decisions; security underwriting O.K'd for directors. C. R. Rosenberg, jr. Burroughs Clearing House 30:45-6 Jl '46
National bank directors approving loan in violation of federal statute limit held liable for loss sustained by bank. Banking Law J 63:485-92 Je '46
Trustee, who is bank director and stockholder, and bank both held liable to beneficiaries of trust; case of Epworth orphanage v. Long, decided by Supreme court of South Carolina. Banking Law J 63:291-312 Ap '46
See also
Federal reserve banks—Directors

BANK employees
A.F.L. vs. A.P.; Giannini's California bank. Bsns W p73-4 O 26 '46
Bank employee's ideas for better living. il Bankers Mo 63:149 Mr '46
Bank management takes a look ahead; plans for personnel; Central national bank of Cleveland. C. C. Burchard. il Burroughs Clearing House 30:15-17+ D '45
Bank survey of music; Second national bank of Houston. Burroughs Clearing House 30:12 Ag '46
Central distribution clerk and public relations. R. G. Scott. Am Inst Banking Bul 28:13 Ja '46
Connecticut savings banks' pension plan written by Ætna. East Underw 47:1+ Mr 22 '46; Same. Nat Underw (Life ed) 50:4 Mr 22 '46
Employee-management participation; program of Community savings bank of Rochester. Trusts & Estates 83:333-4 O '46
Experiences in developing effective personnel programs. E. L. Stucker. il Bankers Mo 63:371-3 Ag '46
Experiences in developing effective personnel programs; job evaluation, salary standardization and merit rating. L. K. Curry. Bankers Mo 63:487-9+ O '46
Five requirements for success in personnel management. E. Mottershead. Bankers Mo 63:429-31 S '46
Future of bank women. M. B. Leach. Banking 38:46-7+ My '46
In the banks, too; United financial employees' petition for Empire Trust poll. Bsns W p79-80 S 7 '46
Is an officer who gets no pay an employee? Bankers Mo 63:148 Mr '46
Management-staff council; Wachovia bank and trust company, Winston-Salem, N.C. T. L. Carroll. il Banking 38:33-5+ Mr '46
Pension plan factors to consider; abstract. W. B. Dunckel. Burroughs Clearing House 30:11 Je '46
Pension plan for financial institutions; Penco plan. W. L. Case, jr. Trusts & Estates 83:367-70 O '46
Personnel played up in this bank statement; First national bank of Palm Beach, Fla. R. E. Conn. Bankers Mo 63:202-3+ Ap '46
Results of use of music in banks to increase accuracy and efficiency. il Burroughs Clearing House 30:8-10 N '45
Seattle bank women render outstanding service. M. Patton. Am Inst Banking Bul 28:19-20 Ap '46
Tremendous responsibility rests upon bank bookkeepers. Bankers Mo 63:82+ F '46
Veteran and the trust department; survey of attitudes reveals basis for approach. R. M. Alton. Trusts & Estates 82:185-8 F '46
Where job analysis begins; eliminating lost motions and simplifying manual operations. J. W. Miller. Banking 39:88 S '46
See also
Banks and banking—Tellers
Training
Bank training of veterans under G.I. bill. Burroughs Clearing House 30:12 D '45
Broad educational program; on-the-job training for veterans. W. Powers. Banking 38:36+ F '46
Candid comments on bank courtesy. M. A. Ralston. il Burroughs Clearing House 30:20-1+ Ag '46
Developing an all around credit man. Banking Law J 62:938-40 D '45
Getting set for the future; teller-training program of National bank of Detroit. T. R. Olin. il Banking 39:46-8 S '46
Helping correspondent banks; employee training program. H. L. Moore. Am Inst Banking Bul 27:10+ O '45
Illinois' on-the-job program; training veterans. S. P. Tomaso. il Burroughs Clearing House 30:15-17+ My '46
On the job training for veterans; bank within a bank, Sydney, Australia. A. James. il Banking 38:37-8 F '46
Training future executives; program of National city bank of New York. K. W. McLaren. Banking 38:73-4 Je '46

BANK equipment and supplies
How a continuous audit helps operating efficiency, Baldwin national bank and trust company, N.Y. A. Breiner, jr. il Bankers Mo 63:374-6 Ag '46
Improved control of bank supplies. H. V. Odle. il Burroughs Clearing House 30:20-3+ Je '46

BANK examination
New glasses for examiners. M. Nadler. Banking 38:40-1+ Ap '46
We try to make examinations helpful and constructive. F. A. Amundson. il Bankers Mo 63:16-17 Ja '46

BANK failures
Bank president's acts warranted appointment of receiver. Banking Law J 63:502-5 Je '46

BANK for international settlements
Ending the BIS? Economist 151:345 Ag 31 '46
Problem of its future. H. White. Comm & Fin Chr 163:1788+ Ap 4 '46
What future for Bank of international settlements? H. M. Bratter. Comm & Fin Chr 164:2209+ O 31 '46
Will bank for international settlements be ended? H. M. Bratter. Comm & Fin Chr 163:2789+ My 23 '46

BANK holidays
Banking holidays by states, July-December, 1946; tabulation. Bankers Mo 63:292 Je '46
New York bankers to seek Saturday summer closing. B. E. Finucane. Comm & Fin Chr 162:2619 N 29 '45
Saturday's banking; cross section of nationwide opinion. B. A. Frear. il Banking 38:36-8+ D '45

BANK liability
Assumption of unsecured deposit liabilities of state bank by national bank does not include assumption of all state bank's liabilities. Banking Law J 63:390-5 My '46
Bank entitled to maintain bill of discovery in support of its defense to suit for payment of forged checks charged against depositor's account. Banking Law J 63:41-9 Ja '46
Bank held liable for all estate funds misappropriated by the executor. Banking Law J 63:17-19 Ja '46

BANK liability—*Continued*
Bank held liable for misapplication of funds by president of Federal savings and loan association. Banking Law J 63:109-20 F '46
Bank held liable for negligence in loaning money to executor of estate where estate deposit made loan unnecessary. Banking Law J 62:772-8 O '45
Bank held not liable for misappropriation of corporate funds by corporate officer in absence of bad faith. Banking Law J 62:941-9 D '45
Bank liable to depositor for amount of check drawn by bank officer on personal account. Banking Law J 63:729-46 O '46
Bank liable to depositor for conversion of deposits in liquidation of loan. Banking Law J 63:591-4 Ag '46
Bank liable to depositor's assignee for payment of cash to fiduciary. Banking Law J 63:200-12 Mr '46
Bank not liable to depositor for overpayment to authorized agent of depositor; Cook's administrator v. Bank of Josephine, Prestonsburg, Ky. Banking Law J 63:196-200 Mr '46
Bank not liable to depositor for payment on forged withdrawal slip. Banking Law J 63: 723-6 O '46
Bank not liable to drawer on forged indorsement of check. Banking Law J 63:193-6 Mr '46
Bank not liable to third party for overpayment to depositor. Banking Law J 63:120-32 F '46
Bank's liability for payment of forged check. Banking 39:80-2 N '46
Collecting bank held liable for failure to notify forwarding bank promptly of status of drafts. Banking Law J 62:765-72 O '45
State statute of limitations inapplicable where enforcement of federal equitable rights involved. Banking Law J 63:469-74 Je '46
Third party claim on deposit. C. R. Rosenberg, jr. Burroughs Clearing House 30:41-2 Mr '46
Trustee, who is bank director and stockholder, and bank both held liable to beneficiaries of trust; case of Epworth orphanage v. Long, decided by Supreme court of South Carolina. Banking Law J 63:291-312 Ap '46
Uncollected drafts; failure to advise forwarding bank promptly. Burroughs Clearing House 30:54+ F '46
Watch payee endorsements; bank cashing a check or receiving it in a deposit is responsible for getting endorsement. Bankers Mo 63:94-6 F '46

BANK libraries
Library of the Savings banks trust company. M. H. Griswood. Special Lib 36:442-4 N '45
Organization of a bank branch library; Pittsburgh branch, Federal reserve bank of Cleveland. E. Howard. Special Lib 36:435-9 N '45

BANK loans. See Loans, Bank

BANK of America national trust and savings association
A.F.L. vs. A.P.; Giannini's California bank. Bsns W p73-4 O 26 '46
New world champ. Burroughs Clearing House 30:12 N '45

BANK of England
Country banker visits the Bank of England. F. Copeland. il Banking 38:47+ Ja '46
End of year position; bank rate since 1861; position, Sept. 13, 1944 to Sept. 5, 1945. Economist 149:sup5 O 27 '45
England buys a bank. H. Bratter. Banking 38:46-7+ N '45
New Bank of England has panel heating. il Dom Eng 167:118-20 F '46

Government ownership
Bank of England nationalized. P. Einzig. Comm & Fin Chr 163:1227 Mr 7 '46
Banking under control. Economist 150:259-60 F 16 '46
Nationalised bank. Economist 150:344 Mr 2 '46
Nationalization in England. Index 26 no 1: 17-18 [Mr] '46
Nationalization of the Bank of England; text of Bank of England act, 1946 and schedules. Fed Res Bul 32:479-82 My '46
Nationalization reactions. F. Plachy. Burroughs Clearing House 30:6-8 Je '46

BANK of Manhattan company
Report to stockholders. J. S. Baker. Comm & Fin Chr 162:2875+ D 13 '45

BANK officials
Bank liable to depositor for amount of check drawn by bank officer on personal account. Banking Law J 63:729-46 O '46
Bank prevails in action on note despite bank officers' knowledge of special agreements as to liabilities of makers thereof. Banking Law J 62:949-65 D '45
Personnel changes in trust institutions. Published in monthly numbers of Trusts and estates
Right of bank to recover profit made by bank official while in performance of bank duties. Banking Law J 62:778-84 O '45
See also
Bank directors

BANK protection. See Banks and banking—Protection

BANK protection (rivers). See Rivers—Bank protection

BANK reserves
Uniform Treasury certificate as bank reserve. L. H. Seltzer. Comm & Fin Chr 163:1087+ F 28 '46

BANK robberies
How it feels to be held up; reprinted from March, 1927. G. E. Broughton. Bankers Mo 63:75+ F '46
Illinois banker fears rise in robberies. H. J. Bacon. Nat Underw 50.40 My 2 '46
See also
Banks and banking—Protection

BANK stocks. See Banks and banking—Stock

BANK supplies. See Bank equipment and supplies

BANK tellers. See Banks and banking—Tellers

BANK vaults. See Vaults

BANKERS
See also
Women as bankers

BANKERS' associations
See also
American bankers association
Investment bankers association of America
National association of supervisors of state banks

BANKERS' blanket bond
Analysis of changes in bankers blanket bonds; standard forms nos. 2 and 24 revised. Spectator (Property ed) 12:28-9 O 24 '46
Bank not precluded from recovery on surety bond despite non-compliance with terms of bond. Banking Law J 63:776-9 O '46
Bankers bonds are broadened for no additional premium. Nat Underw 50:24 My 2 '46
Forged securities coverage broadened; Surety association form 14 revised; insuring clause (E) of this brokers blanket bond provides added insurance for stock brokers, etc. East Underw 47:26 My 31 '46
Forms 2 and 24 revised; Surety Association broadens coverage; unnecessary riders eliminated; ABA collaborated in revision. East Underw 47:43 My 17 '46

BANKERS trust company of New York
Report to stockholders. S. S. Colt. Comm & Fin Chr 163:295 Ja 17 '46

BANKING hours. See Banks and banking—Hours of business

BANKING law
Additional full assessment against bank stockholders held invalid. Banking Law J 63:325-31 Ap '46
Bank depositor precluded from asserting right of set-off. Banking Law J 63:321-5 Ap '46
Bank prevails in action on note despite bank officers' knowledge of special agreements as to liabilities of makers thereof. Banking Law J 62:949-65 D '45

BANKING law—*Continued*
Bank subject to disclosure of commercial and personal bank account records of depositors to O.P.A. Banking Law J 63:385-8 My '46
Banking decisions. Published in monthly numbers of Banking law journal
Bank's right to apply payment to accounts not covered by guaranty. Banking Law J 63:136-42 F '46
Law department. Published in monthly numbers of Federal reserve bulletin
Legal page; questions and answers. Banking 38:98+ Mr '46 [cont monthly]
Limitations on national bank real estate loans to veterans; instructions to national bank examiners with respect to effect of 1945 amendments to Title III of Servicemen's readjustment act of 1944; text. Fed Res Bul 32:474-7 My '46
National bank directors approving loan in violation of federal statute limit held liable for loss sustained by bank. Banking Law J 63:485-92 Je '46
New proposals of Federal reserve system for control of banking holding companies; Spence bill. Comm & Fin Chr 163:2561 My 9 '46
Prospective bank credit control legislation. H. M. Bratter. Comm & Fin Chr 163:1931+ Ap 11 '46
Right of bank to recover profit made by bank official while in performance of bank duties. Banking Law J 62:778-84 O '45
Toward uniformity in state laws. J. De Jong. Banking 39:82+ N '46

See also
Bank directors
Bank liability
Banks and banking—Guaranty of deposits
Banks and banking—Taxation
Checks—Law
Federal reserve act
Indorsement
Promissory notes
Safe deposits—Law
Savings banks—Investments
Trusts and trustees

Argentina
New laws affecting banking system. For Comm W 23:16 Je 22 '46

Arizona
Arizona's new bank tax law; abstract. J. B. Crowell. Banking 38:127 Ap '46

Australia
World trend toward tighter bank controls; Commonwealth bank act. Burroughs Clearing House 31:4+ O '46

France
French banking nationalization law regarding nationalization of the Bank of France and the large banks and regarding organization of credit; text. Fed Res Bul 32:483-8 My '46

Great Britain
Nationalization of the Bank of England; text of Bank of England act, 1946 and schedules. Fed Res Bul 32:479-82 My '46

Guatemala
Monetary and banking reform in Guatemala; with text of monetary and central banking laws. Fed Res Bul 32:257-88 Mr '46

Missouri
New tax on banks; Missouri to substitute excise on net income for antiquated property levy on their shares. Bsns W p66+ Mr 2 '46

Netherlands
Netherlands bank, decree of October 1, 1945, on the reinstatement of the Bank act of 1937. Fed Res Bul 32:489-90 My '46

New Jersey
Defends restriction on interest rates. L. B. Carey. Comm & Fin Chr 163:2652+ My 16 '46
Opposes proposed New Jersey curb on savings interest. T. P. Reitinger. Comm & Fin Chr 163:1541+ Mr 21 '46

New York (state)
Bank depositor cannot bring tort action against comptroller for recovery of abandoned funds. Banking Law J 63:726-9 O '46

Pennsylvania
Finance company precluded from conducting sale of money orders. Banking Law J 63: 584-7 Ag '46

BANKLESS towns. See Banks and banking—Bankless towns

BANKRUPTCY
Bankruptcy lull only temporary. E. L. Covey. charts Credit & Fin Management 48:24-6 Ap '46
Congress to be asked to amend Chandler act by New York credit men's association. Credit & Fin Management 48:17 Je '46
Stop, look, listen; concrete steps for successful prosecutions. W. Fraser. Credit & Fin Management 48:23+ Je '46
WARA has prior claim in event of bankruptcy. Credit & Fin Management 48:14 My '46

See also
Business failures
Railroads—Receiverships
Receivers

BANKS, Federal reserve. See Federal reserve banks

BANKS and banking
Annual report comments from metropolitan banks. Burroughs Clearing House 30:3-4+ F '46
Assembly line method of work flow saves expense for this bank. W. R. Harrison. il Bankers Mo 63:440+ S '46
Banker looks ahead; address before American bankers association. W. R. Burgess. Comm & Fin Chr 164:1796+ O 10 '46
Bankers Monthly quiz. Bankers Mo 62:512+ N '45 [cont monthly]
Banking at the crossroads. H. H. McGee. Comm & Fin Chr 163:1926+ Ap 11 '46
Banking is a business. M. Corns. Banking Law J 63:277-9 Ap '46
Banking leadership in a changing world; address at A.I.B. convention. F. C. Rathje. Am Inst Banking Bul 28:19-20 Jl '46
Banking's objective in 1946. F. C. Rathje. Comm & Fin Chr 163:723+ F 7 '46; Same cond. Trusts & Estates 82:165-7 F '46
Banking's plans for postwar. H. H. McGee. Banking Law J 63:11-12 Ja '46
Banks at new threshold. W. H. Hillyer. Comm & Fin Chr 164:1263+ S 5 '46
Banks look forward. F. C. Rathje. Comm & Fin Chr 164:1792-3 O 10 '46
British financial trends; review of recent banking and monetary developments. D. F. Heatherington. il For Comm W 25:5-7+ O 5 '46
Dollars and banks; urges commercial banks take action to stem increase in inflation deposits. T. I. Parkinson. Comm & Fin Chr 163:1837+ Ap 4 '46
Economist banking supplement. Economist 149:supl-24 O 27 '45
Federal debt management and bank earnings. F. L. Crawford. Comm & Fin Chr 163:3343+ Je 20 '46
Fiscal and housing policies affecting banking. F. C. Rathje. Comm & Fin Chr 163:2509+ My 9 '46
Improving small bank operations; Chesaning state bank, Mich. uses simplified operations manual. C. W. Schafer. il Burroughs Clearing House 30:16-17+ Mr '46
New quarters, new services, new policies; banking, post-war; Old national bank, Evansville, Ind. R. D. Mathias. il Burroughs Clearing House 30:13-15+ Mr '46
Once there was a small bank; Baltimore trust company, Selbyville, Del. H. M. Bratter. il Banking 38:17-18 F '46
Pitfalls and guideposts of commercial banking. E. A. Wayne. Comm & Fin Chr 164: 2083+ O 24 '46
Postwar banking problems. F. R. Peterson. Comm & Fin Chr 163:2637+ My 16 '46
Postwar transition in banking. Fed Res Bul 32:1097-1105 O '46
Problem children of technology and banking. R. P. Soule. Chem & Eng N 24:614-18 Mr 10 '46
Problems after victory. H. Stonier. Comm & Fin Chr 163:377+ Ja 24 '46
Recapitulation of 182 ideas published since January, 1946. Bankers Mo 63:344-6+ Jl '46

BANKS and banking—*Continued*

Recapitulation of 254 ideas published since July, 1945. Bankers Mo 63:28-30+ Ja '46
See here, 1946; role of banks in the transition from war to peace. J. S. Lawrence. il Banking 38:33-5+ Ja '46
Some brass tacks of banking. H. H. McGee. Comm & Fin Chr 163:957+ F 21 '46
Strengthening the banking system. M. T. Harl. Comm & Fin Chr 163:3109+ Je 6 '46
What should the banker's attitude be toward common stocks? L. O. Hooper. Comm & Fin Chr 163:3469+ Je 27 '46

See also

Advertising and bankers
Agricultural credit
Bank accounting
Bank advertising
Bank buildings
Bank deposits
Banking law
Checks
Clearing houses
Credit
Drafts
Federal reserve banks
Foreign exchange
Interest
Investment banking
Investment trusts
Loans, Bank
Overdrafts
Safe deposits
Savings banks
Savings deposits
Trust companies

also American bankers association; American institute of banking; National association of supervisors of state banks

Airplane purchase financing

Fly while you buy; experience of Wichita, Kan., banks. B. Isely. il map Banking 39:35-6 N '46
Pilots in blue denim; farmers take to flying. H. Severson. il Banking 38:50-1+ Mr '46
Plane future; personal airplane sporting goods or consumer goods? M. C. Faught. il Banking 38:36-8 My '46

Automobile purchase financing

Bank-agent auto plan film. Banking 38:79-80+ N '45
Bank and agent auto financing; Midland national bank and trust company of Minneapolis. A. Ueland. il Burroughs Clearing House 30:20-2+ D '45
Bankers split on bank-agent plan's value; argue merits of direct and indirect auto financing at Chicago. F. G. Anger; W. W. McCarthy. Nat Underw 50:1+ F 28 '46
Banks expanding instalment credit; Review of Chicago Federal reserve bank. Comm & Fin Chr 164:753+ Ag 8 '46
Banks vs. finance companies in auto financing. A. G. Rude. Comm & Fin Chr 164:490+ Jl 25 '46
Consumer credit ideas and developments. Burroughs Clearing House 30:4+ D '45
Dealer plan of auto financing; experience of Anglo California national bank of San Francisco. I. M. Barnett. il Burroughs Clearing House 30:18-20+ Mr '46
Errors, omissions auto coverage for banks authorized by NAUA. Nat Underw 49:5 N 8 '45
Letter of credit features car financing plan of First national bank of Boston. il Burroughs Clearing House 30:12+ Je '46
Morris plan bankers assn. debates rival plans; dealer vs. direct route aired at Chicago. Nat Underw 50:3 Ap 4 '46
Pros and cons of automobile financing as a bank activity. C. M. Flora; O. C. Coon. Nat Underw 50:1+ Ja 17 '46
700 banks in California ready to support bank-agent auto plan. W. D. Conel. East Underw 46:19 N 23 '45

Bankless towns

Bank that gets around; bank on wheels will serve bankless communities within 25-mile radius of Rumford, Maine. C. M. Cook. il Banking 38:40 F '46

Bibliography

Banking today. (Business literature v. 18, no. 4) p31-2 Business library, Newark public lib, Newark, N.J. D '45

Branch banking

Branch offices of bank restricted to city of principal office by New York statute. Banking Law J 62:986-9 D '45
Number of banks and branches in operation on December 31, 1945. Fed Res Bul 32:672-3 Je '46
Ratification of acts of branch manager by parent bank. Banking Law J 62:785-8 O '45

See also

Banks and banking—Traveling banks

Central banks

Central bank policy as an inflation curb. A. Sproul. Comm & Fin Chr 163:714+ F 7 '46
Changed patterns in banking and finance; breakdown of central banking. A. M. Sakolski. Comm & Fin Chr 164:1136+ Ag 29 '46
Implications of central bank nationalization in France. F. E. Lee. Comm & Fin Chr 163:713+ F 7 '46
Ventures in financial politics; nationalization of central and other banks abroad. H. Bratter. il Banking 38:36-7+ Ja '46

See also

Bank of England
Federal reserve banks

Checking accounts

Compensating balances are more profitable than charges. G. G. Ware. Bankers Mo 63:485-6 O '46
Richmond banks save time, improve public relations, simplify analysis work by classifying accounts. W. M. Goddard. Bankers Mo 63:377+ Ag '46

See also

Banks and banking—Service charge
Overdrafts

Collection charges

Exchange, a credit menace; non-par payment of checks, an unfair practice. E. S. Horwitz. Credit & Fin Management 48:4-6+ Mr '46
Southeastern par clearance organization formed. Bankers Mo 63:338+ Jl '46
22 former non-par bankers tell advantages of par payment. Bankers Mo 63:390+ Ag '46
Wisconsin bankers association urges par clearance. Bankers Mo 62:576-7; 63:125 D '45, Mr '46

Correspondent banks

Correspondent bank relationship study results; services now used and services banks would use if offered. Banking 38:64 N '45
Country bankers want 23 services and city banks are eager to supply them. Bankers Mo 63:319-21 Jl '46
Helping correspondent banks; employee training program. H. L. Moore. Am Inst Banking Bul 27:10+ O '45
My Boston correspondent. F. Copeland. il Banking 39:17 Ag '46
Our correspondent banks help us get out of a groove. J. H. Peters. Bankers Mo 62:507 N '45

Costs

Country bank operating costs. J. L. De Jong. Banking 38:60 Ja '46
Facts and fallacies about bank costs and service charges. R. E. Bauder. Banking Law J 63:623-34 S '46
More profits if you know costs; Country bank operations commission cost analysis program. W. C. Rempfer. Banking 39:70-2 Ag '46

Country banks

All business depends on topsoil; South Carolina bankers participate in teaching school children value of soil conservation. G. Webb. il Banking 39:50-1+ Ag '46
Bank-managed farming; State central savings bank in Keokuk forms Iowa-Missouri company. J. L. De Jong. Banking 38:47+ F '46
Bank that kudzu built; work of Farmers and merchants bank of Lineville, Alabama to stem the tide of soil wastage. H. Severson. il Banking 38:63+ N '45
Banker and a more abundant earth. L. Bromfield. il Banking 38:33-5+ Ap '46
Banking is this farmer's sideline; Bank of Prattville, Ala. H. Severson. il Banking 38:55+ Je '46
Banking tintype; Frontier county bank, Curtis, Neb. H. Kershner. il Banking 38:17-18 D '45

BANKS and banking—Country banks—*Cont.*
Banks of North Carolina help honor soil conservationist Hugh H. Bennett. G. Webb. il Banking 39:70+ N '46
Broader service for agriculture; Agricultural and live stock department, Valley national bank, Phoenix, Arizona. K. Taylor. il Burroughs Clearing House 30:20-2+ My '46
Careers of a country banker; Gordon Hunter, vice-president of Peoples bank, Roxboro, N.C. il H. Severson. Banking 39:60+ O '46
Case study of soil conservation; depleted Arkansas farm restored to productivity through cooperation of National bank of eastern Arkansas, Forrest City. D. R. Francis. Banking 39:57-8+ O '46
Community-minded banking in Iowa. J. L. DeJong. il Banking 39:69+ S '46
Community success story; banker Roy P. Otwell of Cumming, Ga. starts mass production of broilers in north Georgia. H. Severson. il Banking 38:45-6+ F '46
Country bank achievement record; A.B.A.'s national program. maps Banking 38:61-2+ N '45
Country bank operating costs. J. L. De Jong. Banking 38:60 Ja '46
Country bankers want 23 services and city banks are eager to supply them. il Bankers Mo 63:319-21 Jl '46
Country banks plan aid to farmers; A.B.A. Agricultural commission. Banking 38:56-7+ D '45
Eight-point program for country banks; Agricultural commission, A.B.A. Banking 38: 49 F '46
Electrical farm hand; opportunity for country banks in rural electrification. R. O'Neill. il Banking 39:47-9+ Jl '46
Eye-opener on country banks' U.S. bonds. C. F. Pack. Banking 39:58+ N '46
Farm loan volumes increased by local improvement programs. E. B. Carruth, jr. and others. il Bankers Mo 63:138-9 Mr '46
Find out what farmers are doing. V. B. Hart. Banking 38:49 Mr '46
Flying farmers study erosion; Indiana banker gives free rides to Hoosier farmers. C. W. Gee. Banking 39:17 O '46
Good old daze; reminiscences. F. O. Copeland. Banking 38:29 N '45
Helping farmers produce more profit; Gonzales state bank, Texas. Burroughs Clearing House 31:6-8 O '46
Helping the farmer keep books; program of Home state bank of Jefferson, Iowa. W. Garst. Banking 39:52+ Ag '46
How Johnson county, Tenn. grew more food; rural banker, Roby J. Howard, teams up with farmers. H. Severson. il Banking 38: 54-5, 113 Ap '46
How to make the service charge plan work. Banking 38:50-1 My '46
Improving small bank operations; Chesaning state bank, Mich. uses simplified operations manual. C. W. Schafer. il Burroughs Clearing House 30:16-17+ Mr '46
Let's bank on the soil. A. Banov. il Banking 38:53-4+ Je '46
Member bank earnings, 1945; country member banks, by Federal reserve districts; with ratios. Fed Res Bul 32:677, 684 Je '46
Missouri banker shows them balanced farming; Citizens bank, Amsterdam. E. J. Evens. il Burroughs Clearing House 30:17-19+ Ag '46
Monthly repayment note for farm loan; First national bank of Chestertown, Maryland. Banking 38:62 Ja '46
More banks can help farm youths. M. B. Leach. il Banking 39:64-5+ S '46
More profits if you know costs; Country bank operations commission cost analysis program. W. C. Rempfer. Banking 39:70-2 Ag '46
My Boston correspondent. F. Copeland. il Banking 39:17 Ag '46
Outstanding small bank; Security state bank of Pharr, Texas. il Burroughs Clearing House 30:14 Je '46
Pilots in blue denim; farmers take to flying. H. Severson. il Banking 38:50-1+ Mr '46
Selling crop insurance to farmers. H. Severson. Banking 39:59-60 S '46
Service charge plan for country banks. G. R. Amy. Banking 38:51-3+ Ap '46
Simplified account analysis recommended by ABA Country bank operations commission. Bankers Mo 63:219-20 My '46; Discussion. 63:298-300 Je '46
Simplified plan for country banks; service charges. R. A. Bezoier, Burroughs Clearing House 30:17-19+ Ap '46
These banks increased farm loans by knowing their farmers. W. F. Easter and others. il Bankers Mo 63:61-3 F '46

See also
Agricultural credit

Credit departments

ABA to study consumer credit collection system. Comm & Fin Chr 162:2797 D 6 '45
Developing an all around credit man. Banking Law J 62:938-40 D '45

See also
Credit, Bank

Records

Farm financial statements as used by Dyersville national bank, Iowa. A. W. Bird. Banking 38:72-3 F '46
How we get the facts for judging personal credits; Industrial bank and trust co., St Louis, Mo. J. Butler. Bankers Mo 62:508-10 N '45
New bank credit form assists in obtaining accurate appraisal of firm's future. Burroughs Clearing House 30:4+ Jl '46

Customer relations

Bank association humanizes public relations; New York state bankers assn. booklet. Ptr Ink 213:50 D 14 '45
Customer has many lives; simple methods to introduce your present customers to other services; text by J. W. Irwin; cartoons by B. Kirkpatrick. Banking 39:40-1 S '46
Customer is king. M. S. Davis. Banking 38: 108 Ja '46
Doctor banker has a job to do in keeping American business fit. J. L. Cooley. Banking 38:36-7 Je '46
Does the public know what the banks sell? bank-use survey. il Banking 38:33-5+ Je; 44-5+ Jl '46
How-do-you-do letters create goodwill. W. H. Butterfield. Banking 38:48-9 D '45
How public relations principles are applied to everyday banking. R. Stevenson. il Bankers Mo 63:279-81 Je '46
Ledger of customer goodwill. R. Lindquist. Am Inst Banking Bul 27:11-12+ O '45
Letters that make friends. W. H. Butterfield. Banking 38:74 My '46
Making friends via a bank ambassador; Bank of Rockville Centre, New York, utilizes woman to make personal contacts. W. H. Kniffin. il Burroughs Clearing House 30:22-4+ S '46
Prospecting for more bank business; bank-use survey covering Medina, Ohio. Banking 39:33-5+ O '46
Public relations check list for banks large and small. Banking 38:36-7+ Ap '46
Quick quiz on public relations; text by J. W. Irwin; cartoons by B. Kirkpatrick. Banking 39:38-9 O '46
School for trust customers; bank holds night classes; Simsbury bank and trust company. G. H. Stebbins. Trusts & Estates 82:173-5 F '46
We explained 20 banking subjects misunderstood by most customers. H. P. Brightwell, jr. Bankers Mo 63:448-51 S '46

Dual system

Dual system works. F. C. Rathje. Banking Law J 63:7-8 Ja '46
Government and the banking system. J. K. Vardaman, jr. Comm & Fin Chr 164:1537+ S 26 '46

Exchange charges

See Banks and banking—Collection charges

Exhibits

Exhibit idea for banks; Federal reserve branch at Helena displays Montana's growing industrial prowess. il Burroughs Clearing House 30:6 My '46
Save now and buy later; First national bank of Portland, Oregon, stages home appliance show. R. O'Neill; comp. il Banking 39:47+ N '46

BANKS and banking—Exhibits—*Continued*
Window displays sell travel services. E. A. Dench. Banking 38:76 My '46

Farm development service
See Banks and banking—Country banks

Fees
See also
Banks and banking—Collection charges
Banks and banking—Service charge

Finance
Assets of U.S. banks show 17% increase on Dec. 31, 1945. Comm & Fin Chr 163:3110 Je 6 '46
Bank deposits dip; midyear statements. Bsns W p76 Jl 20 '46
Bank earnings' fall worse than forecast; with table giving third-quarter earnings of 16 banks in New York city. H. T. Rohs. Barron's 26:18 O 14 '46
Bankers less optimistic on 1946 earnings; record of New York City banks. H. T. Rohs. Barron's 26:15+ Ja 28 '46
Banks' statements show divergence in quarter's results; with table giving earnings results of 16 banks in New York city. H. T. Rohs. Barrons 26:9 Ap 15 '46
Comparison of consolidated statements of American banks, December 30, 1925-December 30, 1945. Bankers Mo 63:229 My '46
Earnings for 1945 compared with 1944; leading banks in Boston, Chicago, Philadelphia, Cleveland, and California. E. A. Van Deusen. Comm & Fin Chr 163:726 F 7 '46
Federal reserve member bank profits in 1945. R. I. Robinson and C. Cagle. Fed Res Bul 32:376-83 Ap '46
First quarter earnings of seventeen leading New York city banks. E. A. Van Deusen. Comm & Fin Chr 163:2086 Ap 18 '46
Increases in capital of banks likely; managements must build up ratio of investment to deposits. W. W. Phillips. Barron's 26:6 Mr 11 '46
Items about banks, trust companies; excerpts from year end statements. Comm & Fin Chr 163:172-3+, 294-5 Ja 10, 17 '46
It's about time our banks are beginning to earn a little money; earnings situation in Illinois. A. C. Lueder. Bankers Mo 62:558 D '45
Member bank earnings, first half of 1945, with comparisons, 1940-1944. Fed Res Bul 31:1106-7, 1161 N '45
Net operating earnings and net security profits of seventeen New York City banks for 1945 compared with 1944. E. A. Van Deusen. Comm & Fin Chr 163:386 Ja 24 '46
Trends to higher earnings for banks. J. C. Clifford. il Mag of Wall St 78:270-2 Je 8 '46
See also
Bank accounting
Bank reserves
Banks and banking—Investments

Foreign banking service
South American trade hurdles. G. F. Berger. Banking 38:118 Ap '46

Forms, blanks, etc.
Monthly repayment note for farm loan; First national bank of Chestertown, Maryland. Banking 38:62 Ja '46

Government ownership
Bank nationalization in Czechoslovakia. A. Kral. Comm & Fin Chr 163:3345+ Je 20 '46
French banking nationalization law regarding nationalization of the Bank of France and the large banks and regarding organization of credit; text. Fed Res Bul 32:483-8 My '46
Implications of central bank nationalization in France. F. E. Lee. Comm & Fin Chr 163: 713+ F 7 '46
Nationalization of banks; an early phase of state socialism. Index 26 no 1:13-24 [Mr] '46; Excerpts. Comm & Fin Chr 163: 1805 Ap 4 '46; Pub Util 37:709-10 My 23 '46
Ventures in financial politics; nationalization of central and other banks abroad. H. Bratter. il Banking 38:36-7+ Ja '46
See also
Bank of England—Government ownership

Government service
See Banks and banking—Service to government

Guaranty of deposits
Deposits of FDIC insured banks over $151 billions on June 29, 1946. Comm & Fin Chr 164:1699 O 3 '46
Federal deposit insurance and recent banking developments. M. T. Harl. Comm & Fin Chr 163:2646+ My 16 '46
FDIC reports deposits of insured commercial banks on Dec. 31, 1945. Comm & Fin Chr 163:2272 Ap 25 '46
Larger proportion of deposits covered by insurance than in prewar, FDIC chairman reports. Comm & Fin Chr 163:1840 Ap 4 '46

History
Economic fumbling in tale of Jackson's attack on Bank of U.S.; review of Age of Jackson, by A. M. Schlesinger, jr. B. Hammond. Comm & Fin Chr 164:890+ Ag 15 '46

Holding companies
New proposals of Federal reserve system for control of banking holding companies; Spence bill. Comm & Fin Chr 163:2561 My 9 '46

Hours of business
Advocates five-day bank week. R. M. Catharine. Comm & Fin Chr 164:1992 O 17 '46
New York bankers to seek Saturday summer closing. B. E. Finucane. Comm & Fin Chr 162:2619 N 29 '45
Saturday's banking; cross section of nationwide opinion. B. A. Frear. il Banking 38:36-8+ D '45

Identification rules
Signature verification time-savers. J. E. Moore. Banking 38:78-9 Mr '46

Insurance requirements
Insurance should supplement protective measures in banks; A.B.A. committee report. Weekly Underw 155:872+ O 12 '46; Same cond. Nat Underw 50:28 O 10 '46; Same cond. Spectator (Property ed) 12:28-9 O 24 '46
Non-recorded chattel mortgage cover active line; protects banks that do not record evidence of debt. Nat Underw 50:21 S 19 '46
Proper amount and kind of insurance a bank should carry. W. J. LeMunyon. East Underw 47:40 My 3 '46
See also
Bankers' blanket bond

Investments
Bank holdings of restricted Treasury bonds; data regarding bonds ineligible for purchase by commercial banks. Comm & Fin Chr 164:665 Ag 1 '46
Bank investments, the postwar boom and the stock market. J. F. Hughes. Comm & Fin Chr 163:2503+ My 9 '46
Bank portfolio management under current conditions. R. C. Effinger. Comm & Fin Chr 163:372+ Ja 24 '46; Excerpt. Burroughs Clearing House 30:9 Mr '46
Banks and government bonds. R. T. Williams. Comm & Fin Chr 164:2206+ O 31 '46
Banks' investments in U.S. government bonds; charts, graph. Banking 38:37 N '45
Debt policy and banking policy. H. C. Simons. R Econ Stat 28:85-9 My '46
Eye-opener on country banks' U.S. bonds. C. F. Pack. Banking 39:58+ N '46
Freezing cure; managing the national debt by freezing bank portfolios. M. Palyi. Comm & Fin Chr 163:832+ F 14 '46
Government bond portfolio management. R. C. Effinger. Comm & Fin Chr 163:3475+ Je 27 '46
Government bonds and easy money. W. W. Craigie. Comm & Fin Chr 164:2338+ N 7 '46
Government security holdings of 15 leading New York City commercial banks since 1931. E. A. Van Deusen. Comm & Fin Chr 164: 758 Ag 8 '46
How to develop an investment policy. R. R. Fairchild. il Bankers Mo 63:506-9 O '46

BANKS and banking—Investments—*Continued*
Investment strait-jacket; recommendations of Board of governors of Federal reserve system. M. Nadler. Banking 39:37-8+ Ag '46
Investment suggestions formulated by University of Minnesota in cooperation with Division of banking. Burroughs Clearing House 30:7-8 F '46
Money management and bank investments. C. S. Bartlett. Comm & Fin Chr 163:1215+ Mr 7 '46
New portfolio problems face banks today. E. S. Adams. Barron's 26:12+ Ag 12 '46
Outlook for government bonds. R. Rodgers. Comm & Fin Chr 164:479+ Jl 25 '46
Reduction in banks' war loan accounts. F. C. Rathje. Comm & Fin Chr 163:1226+ Mr 7 '46; Same abr. Banking 38:82 Ap '46
Security diversification for bank portfolios. H. N. Stronck. il Bankers Mo 63:130 Mr '46
Treasury eases restrictions on United States bonds eligible for commercial banks. Comm & Fin Chr 163:2830 My 23 '46
We are nearing the end of the bull market in bonds. M. Shields. Comm & Fin Chr 163:958+ F 21 '46; Excerpts. Trusts & Estates 82:304 Mr '46; Banking Law J 63: 382-4 My '46

See also
Banks and banking—Real estate operations
Loans, Bank
Savings banks—Investments
Trusts and trustees—Investments

Joint accounts

See Bank deposits—Joint accounts

Law

See Banking law

New business

Bank tours for new business. Trusts & Estates 82:261 Mr '46
How to sell new customers. L. F. Gordon. Banking 38:42-3 D '45
Making friends via a bank ambassador; Bank of Rockville Centre, New York, utilizes woman to make personal contacts. W. H. Kniffin. il Burroughs Clearing House 30: 22-4+ S '46
Organizing a new business contest; First national bank, Madison, Wis. H. C. Nicholls. Burroughs Clearing House 31:28-9+ O '46
Public relations approach; new business; Lafayette national bank, Indiana. B. S. Swezey. il Burroughs Clearing House 30: 15-17+ Jl '46
Unique way of bidding for new accounts; Colonial trust company, New York, offers subscriptions to magazines. Burroughs Clearing House 30:7 Mr '46

Protection

Bank robberies and holdups increase. Banking 39:109 Ag '46
Holdup men must work fast; five minutes is usually enough. H. F. Luers. Bankers Mo 63:248+ My '46
How to avoid a holdup. J. R. Cudney. Bankers Mo 63:394+ Ag '46
How to defend a bank against the ambush holdup, the teller holdup. H. F. Luers. Bankers Mo 63:432+ S '46
How to hit the bull's-eye; how to hold the revolver and how to pull the trigger; training program for bank employees. D. Walker. il Bankers Mo 62:453-5, 562-3+; 63:19-20 O, D '45-Ja '46
Sound defense against holdups from the ground up. H. F. Luers. plan diag Bankers Mo 63:327-30 Jl '46
Three types of holdups and how banks can be protected. H. F. Luers. Bankers Mo 63: 194-7 Ap '46
Throw up your hands! bank holdups are on the way; reprinted from January, 1927. C. A. Miller. Bankers Mo 63:144-5 Mr '46
Town guard protection; reprinted from May, June, July 1927. R. C. Saunders. Bankers Mo 63:132+, 234-5, 282-3 Mr, My-Je '46

See also
Bank robberies

Public relations

A.I.B. chapter sells bank careers to Los Angeles schools. il Banking 39:40-1+ Ag '46
Are public relations worth the effort? D. Brown. Trusts & Estates 82:189-92 F '46
Are we trustees? or bookkeepers of economic decadence? A. Crawford. Trusts & Estates 83:23-6 Jl '46
Community financial leadership; how trustees and bankers can cooperate with local industry. C. C. Carr. Trusts & Estates 82: 276-8 Mr '46
Connecticut bank poll; public opinion survey. Trusts & Estates 83:351 O '46
Functions of corporate public relations in relations to bank-trust company welfare. E. B. Dooley. Trusts & Estates 81:447-9 D '45
Mail and telephone serve well in public relations. R. S. Stevenson. Bankers Mo 63: 331-2 Jl '46
More goods to more people; there's a banking job ahead. C. W. Green. Banking 39: 49-50+ S '46
Package banks have to sell; F.A.A. notebook; special clinic sessions. Banking 38: 41-2+ Ja '46
Public relations approach; new business; Lafayette national bank, Indiana. B. S. Swezey. il Burroughs Clearing House 30: 15-17+ Jl '46
Public relations check list for banks large and small. Banking 38:36-7+ Ap '46
Streamlined post-war version; bank merchandising; report on F.A.A. convention. H. V. Odle. Burroughs Clearing House 30:15-17+ Ja '46

See also
Banks and banking—Customer relations

Real estate operations

Banks in housing; Rochester group launches nonprofit corporation to build 152 rental units. Bsns W p70-1 Ap 27 '46
More than talk about GI housing; banks organize Rochester civic homes, inc. E. B. Milliman. il plan Banking 38:60-1 My '46
Providing rental housing for G.I.'s; project sponsored by banks in Rochester, N.Y. H. V. Odle. il plan Burroughs Clearing House 30:18-19+ Jl '46
$6,000 GI house; Cleveland trust company finances low cost veterans' houses in suburban Painesville. M. C. Faught. il plan Banking 39:33-5 Ag '46

Records

Aiding commercial account tellers; machine method of recording and receipting account deposits. H. J. Boone. il Burroughs Clearing House 30:22-4+ Ag '46
Sight paying; yes or no? many banks leave it to the posters to discover items that must be returned. Bankers Mo 62:499-501 N '45

See also
Banks and banking—Credit departments—Records

Regulation

New aspects of bank supervision. M. T. Harl. Comm & Fin Chr 164:1845+ O 10 '46

See also
Banking law
Banks and banking—Dual system

Reports

Bank statements can be interesting and understandable; here's a good example; use of illustrations and simple language; Bank of Warwick, Hilton Village, Va. il Bankers Mo 63:128-30 Mr '46
Improving annual reports; abstract. R. T. Perring. il Burroughs Clearing House 30:3-4 Mr '46
Packaging your bank statement; annual reports as public relations medium. J. F. Draper. Banking 39:37+ N '46
Personnel played up in this bank statement; First national bank of Palm Beach, Fla. R. E. Conn. Bankers Mo 63:202-3+ Ap '46
State of the Nation as noted by bank presidents in annual reports. Trusts & Estates 82:328-31 Mr '46

BANKS and banking—Reports—*Continued*
Suggestions for bank statements which bandits can understand. Bankers Mo 63: 67-8 F '46
This statement shows how this bank serves the community; Dorchester savings bank, Mass. Bankers Mo 63:404 Ag '46

Safe deposits

See Safe deposits

Savings departments

Get savings into the bank; interview with E. E. Brown. J. R. Dunkerley. Banking 39: 39+ S '46
Verification of savings accounts. S. K. Tuttle. il Burroughs Clearing House 30:18-19+ N '45

Savings deposits

See Savings deposits

Securities

See Banks and banking—Stock

Service

Banking as a business aid. F. Jerome. Credit & Fin Management 48:22 Ap '46
Banks and overseas trade. A. V. Barber. Elec R (Lond) 138:859-60 My 31 '46
Better homes clinic of Medina, Ohio, started by Savings deposit bank company. il Banking 38:76+ N '45
Blueprinting better communities; program for rehabilitating Putnam county, Tenn. H. Severson. il Banking 38:52-3+ D '45
Customer has many lives; simple methods to introduce your present customers to other services; text by J. W. Irwin; cartoons by B. Kirkpatrick. Banking 39:40-1 S '46
Doctor banker has a job to do in keeping American business fit. J. L. Cooley. Banking 38:36-7 Je '46
Does the public know what the banks sell? bank-use survey. il Banking 38:33-5+ Je; 44-5+ Jl '46
Financial counsel for veterans; Community advisory service center of Bridgeport, Conn. G. G. Griggs. Banking 38:36+ Mr '46
First aid for the housing problem; Bank of America's program for veterans. E. Burke. Burroughs Clearing House 30:24-6+ Ap '46
Having a grand time; banking's role in the coming travel boom. M. B. Leach. il Banking 38:44-5, 123-4 Ja '46
Home planning service for veterans; mutual savings banks in Worcester, Mass. il Burroughs Clearing House 30:6-7 F '46
How one bank helps veterans; Oneida county savings bank, Rome, New York. P. W. Albright. Banking 38:120 N '45
Job of a generation; ABA program to aid veterans. J. L. Cooley. Banking 38:38-9+ Ja '46
More goods to more people; there's a banking job ahead. C. W. Green. Banking 39: 49-50+ S '46
Prospecting for more bank business; bank-use survey covering Medina, Ohio. Banking 39:33-5+ O '46
17 months of GI loan experience; Veterans' financial service of Rochester, N.Y. R. R. McGuire. Banking 39:46+ Ag '46
U.N.'s big little bank; banking facilities provided by Chemical bank and trust company at Hunter college. R. O'Neill. il Banking 38:39-40 My '46
Value of banking counsel to business; case of wholesalers of wine and spirits. J. W. Minton. Banking 38:128-9 F '46

Service charge

Bank service charges. E. V. Bell. Comm & Fin Chr 163:3109+ Je 6 '46
Charge large depositors regardless of balance. E. W. Rossiter. Bankers Mo 63:454-6 S '46
Compensating balances are more profitable than charges. G. G. Ware. Bankers Mo 63:485-6 O '46
Experiments with average balances. Bankers Mo 62:517 N '45
Facts and fallacies about bank costs and service charges. R. E. Bauder. Banking Law J 63:623-34 S '46
How to make the service charge plan work. Banking 38:50-1 My '46
Public does not like service charges and it is doubtful that they add as much profit as we think. R. S. Stevenson. Bankers Mo 62:570+ D '45
Service charge plan for country banks. G. R. Amy. Banking 38:51-3+ Ap '46
Simplified account analysis recommended by ABA Country bank operations commission. Bankers Mo 63:219-20 My '46; Discussion. 63:298-300 Je '46
Simplified plan for country banks. R. A. Bezoier. Burroughs Clearing House 30:17-19+ Ap '46

Service to government

Ambassadors of thrift; banks' war bond selling record. il Banking 38:72+ Ja '46
A.B.A. savings bond program. Banking 38: 50 Je; 71 Jl '46
Cooperation of banks with government. J. W. Snyder. Comm & Fin Chr 163:2917+ My 30 '46
Men behind the savings bond program; A.B.A. committee. Banking 39:71 Jl '46

Statements of condition

See Banks and banking—Reports

Statistics

All member banks; assets and liabilities on December 31, 1945, by class of bank. Fed Res Bul 32:544 My '46
All member banks, assets and liabilities on June 29, 1946, by class of bank. Fed Res Bul 32:1198 O '46
Assets and liabilities of insured commercial banks in United States and possessions, December 31, 1945, June 30, 1945 and December 30, 1944. Fed Res Bul 32:545 My '46
Assets and liabilities of insured commercial banks in United States and possessions June 29, 1946, December 31, 1945, and June 30, 1945. Fed Res Bul 32:1199 O '46
Bank earnings; insured commercial banks in United States and possessions, 1942-1945. Fed Res Bul 32:685 Je '46
Changes in number of banking offices in the United States, 1945. Fed Res Bul 32:196 F '46
Chase no. 1 again. Bsns W p63-4+ Ja 19 '46
Comparison of consolidated statements of American banks, December 30, 1925-December 30, 1945. Bankers Mo 63:229 My '46
Member bank earnings, 1945. Fed Res Bul 32:674-84 Je '46
Number of banks and branches in operation on December 31, 1945. Fed Res Bul 32:672-3 Je '46
Weekly reporting member banks, by Federal reserve districts; loans and investments, reserves and liabilities. Published in monthly numbers of Federal reserve bulletin
Weekly reporting member banks. New York city and outside; loans and investments, reserves and liabilities. Published in monthly numbers of Federal reserve bulletin

See also
Bank clearings
Bank deposits—Statistics
Federal reserve banks—Statistics

Stock

Bank director cannot maintain suit for damages for refusal of bank to repurchase bank stock. Banking Law J 63:656-8 S '46
Bank stocks; Chase and National City compared. E. A. Van Deusen. Comm & Fin Chr 162:2336 N 15 '45
Bank stocks; Corn Exchange and Manufacturers Trust compared. Comm & Fin Chr 162:2588 N 29 '45
Bank stocks in 1946; with position of leading banks. H. S. Coffin. Mag of Wall St 77: 570-1+ F 16 '46
Book-values per share for 17 leading New York City banks. E. A. Van Deusen. Comm & Fin Chr 164:490 Jl 25 '46
Coming rise in bank stocks. L. Stone. Comm & Fin Chr 164:880+ Ag 15 '46
How would bank stocks meet inflation? J. W. Wooster, jr. Banking 38:47+ Ap '46
Range during the year of bid prices of stocks of 20 New York City commercial banks. E. A. Van Deusen. Comm & Fin Chr 163: 142 Ja 10 '46

BANKS and banking—Stock—*Continued*

Valuation

Tax imposed by statute on shares of banking institutions; city of Frankfort v. State national bank of Frankfort, Court of appeals of Kentucky. Banking Law J 63:53-61 Ja '46

Stockholders

At home for stockholders; Butler savings and trust company, Pa. J. B. Grieves. il Banking 39:40-1 N '46

Bank stockholder's right to inspect books and records of trust company. Banking Law J 63:650-6 S '46

Bank stockholder's rights against receiver. Banking Law J 63:142-5 F '46

Stores systems

Improved control of bank supplies. H. V. Odle. il Burroughs Clearing House 30:20-3+ Je '46

Study and teaching

Advanced school of banking; Central states school of banking. Burroughs Clearing House 30:10+ F '46

A.I.B. chapter sells bank careers to Los Angeles schools. il Banking 39:40-1+ Ag '46

Consumer education sponsored by New York state banks; instruction in banking and finance available in high schools. il Ptr Ink 25:42+ D 7 '45

Goal of the Graduate school. H. Stonier. Banking 38:50-1+ D '45

See also

American institute of banking — Bank employees—Training

Taxation

Arizona's new bank tax law; abstract. J. B. Crowell. Banking 38:127 Ap '46

New tax on banks; Missouri to substitute excise on net income for antiquated property levy on their shares. Bsns W p66+ Mr 2 '46

Tax effect of bank mergers. Banking 38:128-9 Ap '46

Tax funds provided by accrual systems. C. L. Tewksbury and others. Bankers Mo 62: 504-6 N '45

Tax imposed by statute on shares of banking institutions; city of Frankfort v. State national bank of Frankfort, Court of appeals of Kentucky. Banking Law J 63:53-61 Ja '46

Tax relief for banks. Burroughs Clearing House 30:26 N '45

Tellers

Aiding commercial account tellers; machine method of recording and receipting account deposits. H. J. Boone. il Burroughs Clearing House 30:22-4+ Ag '46

Getting set for the future; teller-training program of National bank of Detroit. T. R. Olin. il Banking 39:46-8 S '46

See also

Bank buildings—Tellers' cages

Transit operations

Banks comment on check routing symbol. Banking 39:74-6 Ag '46

Check routing symbol program. V. Willis. il Burroughs Clearing House 30:22-4+ F '46

Value of the check routing symbol. V. Willis. il Banking 38:73+ My '46

Traveling banks

Bank that gets around; bank on wheels will serve bankless communities within 25-mile radius of Rumford, Maine. C. M. Cook. il Banking 38:40 F '46

Trust departments

Bankers' role in trust development; how commercial staff can aid trust solicitors. Trusts & Estates 82:503-5 My '46

Better relations between trustmen and supervisors. R. Rapport. Trusts & Estates 82:600 Je '46

Big future for small estates; program of Security-first national bank of Los Angeles. G. M. Wallace. Banking 39:51 S '46

Essential factors in the trust department. H. O. Voget. Trusts & Estates 83:254-6 S '46

Fiduciary activities of national banks as of Dec. 31, 1944. Trusts & Estates 81:453-4 D '45

From customer's query to trust service. Trusts & Estates 83:129 Ag '46

Get trust business through bank staff. M. E. Feiwell. Trusts & Estates 83:267-70 S '46

Getting the trust message across. M. S. Davis. Banking 38:42 Mr '46

How the trust institution serves the public. R. E. MacDougall. il Am Inst Banking Bul 28:3-4+ Ja '46

How to get more trust business. A. Herrick. Trusts & Estates 83:166-8 Ag '46

Investment facilities of small trust departments. Trusts & Estates 81:385 N '45

Know trust costs. W. J. Weig. Trusts & Estates 83:87-9 Jl '46

Legal list as guide for trustees; study being made to determine need for prudent man rule. B. P. Leeb. Trusts & Estates 82:593-4 Je '46

Looking for the profit margin in trust operations. W. E. Bruns. Trusts & Estates 81: 477-80 D '45

Pennsylvania trust section holds annual meeting. Trusts & Estates 83:55-8 Jl '46

Rotate directors on trust committee. Trusts & Estates 83:352 O '46

School for trust customers; bank holds night classes; Simsbury bank and trust company. G. H. Stebbins. Trusts & Estates 82: 173-5 F '46

Seeking small estates and trusts. L. H. Roseberry. Trusts & Estates 81:481-6 D '45; Excerpts. Banking Law J 62:933-7 D '45

State supervision of trust business. G. T. Stephenson. Banking Law J 63:185-92 Mr '46; Same cond. Trusts & Estates 82:313-16 Mr '46

Suggestions for improving trust service; abstract. G. T. Stephenson. Trusts & Estates 82:202 F '46

Trust department audit objectives. R. C. Masters. Trusts & Estates 83:271-7 S '46

Trust progress in 1945; excerpts from annual reports. Trusts & Estates 82:318-27, 407-14 Mr-Ap '46

Trust tours for civic leaders; planned program based on composite estate dramatization. Trusts & Estates 82:474 My '46

Value of cost analysis in new business activities. J. J. Driscoll, jr. Trusts & Estates 83:237-8 S '46

See also

American bankers association—Trust division — Trust companies — Trusts and trustees

Africa

Dominion joint stock banks with London offices. Economist 149:sup20-1 O 27 '45

Australasia

Australasian banks with London offices. Economist 149:sup9, 20-1 O 27 '45

Bank of Australasia; annual general meeting. Economist 150:514 Mr 30 '46

Austria

Re-establishment of the Austrian national bank. Fed Res Bul 32:33-5 Ja '46

Brazil

First national bank of Boston authorized to operate as a bank of deposit. For Comm W 22:20 Mr 2 '46

California

See also

Bank of America national trust and savings association

Canada

Canadian banks with offices in London. Economist 149:sup9, 20-1 O 27 '45

Canadian government lowers interest rate on debt certificates; limits bank holdings of long-term securities. Comm & Fin Chr 163:1230 Mr 7 '46

Yankee on St James street. F. Copeland. il Banking 39:29 Jl '46

Chicago

Into La Salle street; Owen L. Coon's invasion of the Loop. Bsns W p70+ Mr 23 '46

BANKS and banking—*Continued*

China

China issues new regulations for banks. Comm & Fin Chr 163:2831 My 23 '46
Chinese money puzzle. R. Gould. il Banking 38:29 Je '46
Government-sponsored bank association in China formed to assist in administration of exchange controls. For Comm W 23:27 My 25 '46; Same. Comm & Fin Chr 163:3110 Je 6 '46

See also
Hongkong and Shanghai banking corporation

Cleveland

Lusty 8-year-old; Cleveland's Union bank of commerce. Bsns W p34+ Jl 13 '46

Czechoslovakia

Bank nationalization in Czechoslovakia. A. Kral. Comm & Fin Chr 163:3345+ Je 20 '46
Decree on nationalization of banks. For Comm W 21:18 D 8 '45
Nationalization of banks; plan in Czechoslovakia. Index 26 no 1:19-20 [Mr] '46
Reorganization of banking. For Comm W 23: 27 My 18 '46

Dallas, Texas

Southwest banking on its own; Republic National of Dallas. Bsns W p21 O 26 '46

Egypt

National bank of Egypt, forty-sixth ordinary general meeting. Economist 150:813 My 18 '46

Far East

Overseas banking in the Far East. H. J. Boone. il Burroughs Clearing House 30:20-3+ Ap '46

France

Assembly nationalizes French banks. Comm & Fin Chr 162:2931 D 13 '45
Central finance office of Overseas France. For Comm W 24:27-8 Jl 20 '46
French banking nationalization law regarding nationalization of the Bank of France and the large banks and regarding organization of credit; text. Fed Res Bul 32:483-8 My '46
Implications of central bank nationalization in France. F. E. Lee. Comm & Fin Chr 163:713+ F 7 '46
Nationalising the French banks. Economist 149:835-6 D 8 '45
Nationalization of banks; action in France. Index 26 no 1:18-19 [Mr] '46

Germany

Are German banks a threat to world peace? statement by Office of military government, U.S. zone. Comm & Fin Chr 163:1134+ F 28 '46
German banking; a first-hand view. F. Plachy. il Burroughs Clearing House 30:18-19+ D '45

Great Britain

Bank advances analysed. Economist 151:675-6 O 26 '46
Bank assets and earnings. Economist 151: 341-2 Ag 31 '46
Bank of London and South America, limited, 83d ordinary meeting. Economist 149: 886 D 15 '45
Bank profits in 1945. Economist 150:69-70 Ja 12 '46
Bank till money economies. Economist 150:469 Mr 23 '46
Banks in 1946. Economist 150:139-40 Ja 26 '46
Bank's Statistical summary to be displaced by new Digest of statistics. Economist 150: 310 F 23 '46
Britain's socialists rely on created credit; cheap money policy diverts banks from productive loans. F. B. Makin. Barron's 26:5 Ag 12 '46
British bank assets. F. B. Makin. Banking 38:119 Ap '46
British bank deposits. F. B. Makin. Banking 38:122+ N '45
British banking sums up economic position. N. Crump. Comm & Fin Chr 163:1090+ F 28 '46
Chartered bank of India, Australia and China; statement of the chairman. V. A. Grantham. Economist 150:943 Je 8 '46
Economist banking supplement. Economist 149:sup1-24 O 27 '45
London's war-time clearing house. F. Plachy. il Burroughs Clearing House 30:24-5+ Je '46

See also
Bank of England
Barclays bank (Dominion, colonial and overseas)
Barclays bank, limited
District bank, limited
Lloyds bank
Martins bank, limited
Midland bank, limited
National provincial bank
Westminster bank
Williams Deacon's bank, limited

Illinois

It's about time our banks are beginning to earn a little money; earnings situation. A. C. Lueder. Bankers Mo 62:558 D '45

India

Indian banks with offices in London. Economist 149:sup9, 20-1 O 27 '45
Mercantile bank of India; statement of chairman. C. A. Innes. Economist 150:653 Ap 20 '46
National bank of India, limited; ordinary general meeting. Economist 150:513 Mr 30 '46

Iowa

Community-minded banking in Iowa. J. L. DeJong. il Banking 39:69+ S '46

Ireland

Joint stock banks of Ireland. Economist 149: sup6-7, 8, 17-19 O 27 '45
Picture of a country without bank service; bank employees strike. Burroughs Clearing House 31:14 O '46

Japan

Japan has a bank problem; domination by combines, called Zaibatsu. S. E. Neel and R. Vernon. il Banking 39:45-6+ O '46

Latin America

Financial developments in Latin America, 1945. C. F. Carson. il For Comm W 23:12-15+ Ap 27 '46

London

Foreign banks with London offices and British banks trading abroad. Economist 149: sup22-4 O 27 '45

Netherlands

Netherlands bank; decree of October 1, 1945, on the reinstatement of the Bank act of 1937. Fed Res Bul 32:489-90 My '46
New Netherlands bank to aid recovery. For Comm W 21:27 N 17 '45

New York (city)

Bank earnings' fall worse than forecast; with table giving third-quarter earnings of 16 banks in New York city. H. T. Rohs. Barron's 26:18 O 14 '46
Bankers less optimistic on 1946 earnings; record of New York City banks. H. T. Rohs. Barron's 26:15+ Ja 28 '46
Banks' earnings for first half of 1946 below last year's level; record of sixteen New York City banks. H. T. Rohs. Barron's 26:15 Jl 15 '46
Banks' statements show divergence in quarter's results; with table giving earnings results of 16 banks in New York city. H. T. Rohs. Barron's 26:9 Ap 15 '46
Book-values per share for 17 leading banks. E. A. Van Deusen. Comm & Fin Chr 164: 490 Jl 25 '46
First quarter earnings of seventeen leading New York city banks. E. A. Van Deusen. Comm & Fin Chr 163:2086 Ap 18 '46
Net operating earnings and net security profits of seventeen New York City banks for 1945 compared with 1944. E. A. Van Deusen. Comm & Fin Chr 163:386 Ja 24 '46
Range during the year of bid prices of stocks of 20 commercial banks. E. A. Van Deusen. Comm & Fin Chr 163:142 Ja 10 '46

BANKS and banking—New York (city)—*Cont.*
Third quarter statements of New York city banks. E. A. Van Deusen. Comm & Fin Chr 164:1940 O 17 '46

See also
Bank of Manhattan company
Bankers trust company of New York
Chase national bank of New York
Chemical bank and trust company
Guaranty trust company of New York
Manufacturers trust company
National city bank of New York

New York (state)

N.Y. banks in favorable position to face post-war years. E. V. Bell. Comm & Fin Chr 163:644 Ja 31 '46
Resources of New York state banks increased in '45. E. V. Bell. Comm & Fin Chr 163:1707 Mr 23 '46

Persia

Imperial bank of Iran, ordinary general meeting, London. Lord Kennet. Economist 151:72 Jl 13 '46

Philippine Islands

Banks aided. For Comm W 23:33 My 25 '46
Philippine national bank ordered to pay depositor funds transferred to Bank of Taiwan. For Comm W 22:28-9 Mr 23 '46
Philippine national bank reinstates US deposits. Comm & Fin Chr 164:816 Ag 8 '46

Russia

Nationalization of banks; experience in Russia. Index 26 no 1:15-17 [Mr] '46

Scotland

Bank of Scotland; statement by the chairman at annual general meeting. Lord Elphinstone. Economist 150:611 Ap 13 '46
Commercial bank of Scotland, limited, annual meeting of shareholders. Economist 149:919 D 22 '45
Joint stock banks of Scotland. Economist 149:sup6-7, 8, 16-17 O 27 '45
National bank of Scotland, limited, 120th annual general meeting. Economist 149:885 D 15 '45
Royal bank of Scotland; annual general court of proprietors. Economist 149:809 D 1 '45
Union bank of Scotland limited, annual meeting of shareholders. Economist 150:775 My 11 '46

Shanghai

Banking on the Whangpoo. R. Gould. Banking 38:17 Mr '46
Twenty-seven Shanghai banks designated for foreign exchange dealings. For Comm W 23: 22 Ap 6 '46

South Africa

Standard bank of South Africa, limited, one hundred and thirty-third ordinary general meeting, London. Economist 151:191 Ag 3 '46

Sweden

Changes in the accounts of the Riksbank following appreciation of the crown. For Comm W 24:41 Ag 17 '46

Thailand

Banks in Siam reopen for foreign business. For Comm W 24:19 Jl 20 '46

Turkey

See also
Ottoman bank

United States

American banks and the transition. Economist 149:sup3-4 O 27 '45
Bankers count wartime gains; convention of American bankers assn. Bsns W p63-6 O 5 '46
National debt; a dual problem. Bsns W p19-20 F 9 '46
Treasury finance and banking developments. Fed Res Bul 32:461-8 My '46

See also
Banks and banking, National
Banks and banking, State
Federal reserve banks
Federal reserve board

BANKS and banking, Cooperative

See also
Credit unions

BANKS and banking, International

Financing the International bank. H. C. Wallich. Harvard Bsns R 24 no2:164-82 [Ja] '46

See also
Bank for international settlements
International bank for reconstruction and development

BANKS and banking, National

Assumption of unsecured deposit liabilities of state bank by national bank does not include assumption of all state bank's liabilities. Banking Law J 63:390-5 My '46
Condition of national banks in the United States on March 20, June 30 and Dec. 31, 1945; tabulation. Comm & Fin Chr 163:3538 Je 27 '46
Fiduciary activities of national banks as of Dec. 31, 1944. Trusts & Estates 81:453-4 D '45
Member bank earnings, 1945; national banks, by size of bank. Fed Res Bul 32:679 Je '46
National bank directors approving loan in violation of federal statute limit held liable for loss sustained by bank. Banking Law J 63:485-92 Je '46
Profits of national banks in 1945. Comm & Fin Chr 163:2971 My 30 '46

BANKS and banking, State

Condition and operation of state banks, State bank division of ABA; abstract. Comm & Fin Chr 163:2705 My 16 '46
Member bank earnings, 1945; state member banks, by size of bank. Fed Res Bul 32:680 Je '46
State chartered commercial banks strengthen capital structure, ABA reports. Comm & Fin Chr 163:2424 My 2 '46

BANNING, Paul D.

Named P. D. Banning as deputy director of Treasury Procurement division. Comm & Fin Chr 164:1146 Ag 29 '46

BANOX process. See Phosphate coating

BAR associations

See also
American bar association

BARANSKI, Leon Joseph, 1898-

Executive director of the International bank. por Comm & Fin Chr 164:756 Ag 8 '46

BARBADOS

Situation in Barbados. For Comm W 21:22 D 22 '45

BARBADOS cherries

High ascorbic acid content of the West Indian cherry, C. F. Asenjo and A. R. Freire de Guzmán. bibliog Science 103:219 F 22 '46; Reply. 104:230-1 S 6 '46

BARBER, John, 1734-1801

John Barber and the gas turbine. A. K. Bruce. Engineer 181:216-17 Mr 8 '46

BARBER asphalt corporation

Sale of Venezuelan oil interests and interest in Perth Amboy refinery and terminal approved. Comm & Fin Chr 164:1863 O 14 '46

BARBITAL

Thymol-barbitone test in clinical practice. C. P. McCord and others. bibliog Ind Med 14:835-9 N '45

BARBITONE. See Barbital

BARBITURATES

N.Y. barbiturates control tightening asked. Oil Paint & Drug Rep 150:45 O 21 '46
4-Thio- and 2,4-dithiobarbituric acid derivatives. C. O. Wilson and others. bibliog Science 104:100-1 Ag 2 '46

Analysis

Rapid qualitative and quantitative determination of barbiturates from postmortem specimens. P. Valov. Ind & Eng Chem Anal ed 18:456 Jl '46

BARBITURIC acid

Barbituric acid. J. Kendall. J Chem Educ 23: 2 Ja '46
Some basic barbituric acid derivatives. J. H. Gardner, F. H. Bopp and R. L. Prindle. Am Chem Soc J 68:585 Ap '46

BARBITURIC acid—*Continued*
4-Thio- and 2,4-dithiobarbituric acid derivatives. C. O. Wilson and others. bibliog Science 104:100-1 Ag 2 '46

4-Thio and 2,4-dithio 5,5-dialkylthiobarbituric acids. J. H. Boothe and C. O. Wilson. bibliog Am Chem Soc J 68:448-50 Mr '46

BARCLAYS bank (Dominion, colonial and overseas)
Ordinary general meeting, London. Economist 149:920 D 22 '45

BARCLAYS bank, limited
Statement by the chairman. E. Fisher. Economist 150:112 Ja 19 '46

BARGES
Bethlehem Staten Island yard starts barge-building program. A. Hiltebrandt. Marine Eng 51:114+ O '46

Mechanical unloading of barges. G. E. Allin. il Mech Handling 33:98-101 F '46

Sunken steel hopper barge cut to pieces on the bottom; use of combination of electric arc and oxygen jet. W. L. Dickey. diags Eng N 136:432-3 Mr 21 '46

See also
Inland waterways corporation

Employees

Earnings on tugboats and barges in New York harbor, January 1945. M. L. Plunkett. Mo Labor R 61:1192-1200 D '45

BARITE
Barytes operations in Arkansas. O. J. Benston. il Min Cong J 32:26-8 Je '46

Mining and marketing of barite. C. L. Harness and F. M. Barsigian. bibliog U S Bur Mines Information Circ 7345:1-78, pl 1-2 '46

Recovery of barite from rotary drilling mud by centrifugal separation; abstract. C. A. Lindsay. flow sheet Oil & Gas J 45:91 O 12 '46

BARIUM
Adsorption of strontium and barium ions and their exchange on hydrous ferric oxide. J. D. Kurbatov, J. L. Kulp and E. Mack, jr. Am Chem Soc J 67:1923-9 N '45

Barium and its alloys. Chem & Eng N 24:56 Ja 10 '46

Barium chemicals output at record high. Chem Ind 59:557 S '46

Mining and marketing of barite. C. L. Harness and F. M. Barsigian. bibliog U S Bur Mines Information Circ 7345:1-78, pl 1-2 '46

Processes for making barium and its alloys. W. J. Kroll. bibliog(88 titles) U S Bur Mines Information Circ 7327:1-16, pl 1-4 '45; Abstract. Metal Prog 50:138+ Jl '46

See also
Barite

BARIUM alloys
Processes for making barium and its alloys. W. J. Kroll. bibliog(88 titles) U S Bur Mines Information Circ 7327:1-16, pl 1-4 '45; Abstract. Metal Prog 50:138+ Jl '46

BARIUM carbonate
Catalytic properties of the products of the solid phase reaction between barium carbonate and ferric oxide. M. Erchak, jr. and R. Ward. Am Chem Soc J 68:2093-6 O '46

Reaction between ferric oxide and barium carbonate in the solid phase; identification of phases by X-ray diffraction. M. Erchak, jr., I. Fankuchen and R. Ward. bibliog pl Am Chem Soc J 68:2085-93 O '46

Studies of the interface of oxide coated cathodes. A. Fineman and A. Eisenstein. il diags J Ap Phys 17:663-8 Ag '46

BARIUM chloride
Electrical potential at the interface between vitreous silica and solutions of barium chloride. L. A. Wood and L. B. Robinson. bibliog J Chem Phys 14:251-7 Ap '46

Salt bath for heat treating 18-8; aircraft exhaust manifold; Ryan aeronautical co. K. Whitcomb. il Metal Prog 50:294-8 Ag '46; Same cond. Automotive & Aviation Ind 95:36-9+ Jl 15 '46

Test of Langmuir's interpretation of the Jones-Ray effect. L. A. Wood and L. B. Robinson. bibliog J Chem Phys 14:258-62 Ap '46

BARIUM compounds
Barium compounds in carburizing steel. C. L. Harness and F. M. Barsigian. bibliog U S Bur Mines Information Circ 7345:43-6 '46

Carbohydrate phosphoric esters; the alkaline hydrolysis of α-methylglucopyranoside-6-phosphate, methylglucofuranoside-3-phosphates and *iso*propylidene glucofuranose-3- and -6-phosphates. E. E. Percival and E. G. V. Percival. Chem Soc J p874-6 D '45

BARIUM hydroxide
Applications of the barium number determination. S. M. Edelstein. bibliog Rayon 27: 260-2 My '46

BARIUM oxide
Study of oxide cathodes by X-ray diffraction methods; methods, conversion studies, and thermal expansion coefficients. A. Eisenstein. bibliog il diags J Ap Phys 17:434-43 Je '46

Study of oxide cathodes by X-ray diffraction methods; oxide coating composition. A. Eisenstein. bibliog il J Ap Phys 17: 654-63 Ag '46

BARIUM sulfate
Contamination of precipitated barium sulfate by univalent cations. G. Walton and G. H. Walden, jr. bibliog Am Chem Soc J 68: 1742-50 S '46

Nature of the variable hydration of precipitated barium sulfate. G. Walton and G. H. Walden, jr. bibliog Am Chem Soc J 68: 1750-3 S '46

BARIUM titanate
Important new dielectrics; high permittivity of barium titanate. G. S. Smith. Chem Age (Lond) 53:429-31 N 10 '45

BARK
Chemical composition of wood barks. G. H. Segall and C. B. Purves. bibliog(64 references) 47:149-61 [F] '46

Recent developments in bark burning methods. R. A. Hanright. diags Pulp & Pa of Can (Convention no) 47:166-70 [F] '46

Waste wood bark provides powdered cork-type materials. il Chem Ind 59:486 S '46

BARK peeling
Hydraulic barker saves manpower and wood. H. E. Bukowsky. il diag Paper Tr J 121: 70+ N 22 '45

Hydraulic barking of small logs. E. C. Shaw. Paper Tr J 123:41-2 Ag 8 '46

Machine removes bark from logs; Stream-barker. il diag Product Eng 17:369 My '46

New Swedish barking machine. diags Pulp & Pa of Can 47:147 Jl '46

Ring type hydro barker. J. E. Holveck. diags Paper Tr J 123:37-9 Jl 11 '46; Same without diags. Paper Ind 28:1045-6 O '46

BARNES, Donald F.
Sketch. por East Underw 47:12+ Ap 12 '46

BARNES, William Harrison, 1892-
Chicago printer is nationally known as organist and pipe organ expert. por Inland Ptr 118:53 O '46

BARNS and stables
Animal shelter; research conference at Missouri. plan Heat & Ven 43:110+ S '46

Barns of steel; vast market. il Bsns W p38+ Ag 17 '46

Heat and ventilation in the design of dairy stables. J. L. Strahan. il diags Heat & Ven 43:81-8 Ja '46

Loafing barn with milking parlor. il plan diags Brick & Clay Rec 107:28 D '45

BARNSDALL oil company
Thumbnail stock appraisal. Mag of Wall St 78:21 Ap 31 '46

BAROGRAPHS
Electrical constants of the electromagnetic microbarograph. E. L. Sulkowski. diags Franklin Inst J 240:397-400 N '45

Kelvin Bottomley and Baird electric barograph. il Engineer 182:109 Ag 2 '46

BAROMETERS
See also
Barographs

BARRACKS
Converting barracks into livable homes for emergency housing. C. C. Roth. il Eng N 136:702-4 My 2 '46
Navy builds; housing. il Arch Forum 84:130-1 Mr '46
Old barracks moved 102 miles because of material scarcity. il Eng N 137:389 S 19 '46

Lighting
Lighting of the cadet barracks at the U.S. military academy, West Point, N.Y. W. G. Darley and G. J. Taylor. il plans Illum Eng 41:419-30 My '46

BARRAGE balloons. See Balloons, Military

BARRAGES. See Dams

BARREL handling
Hydraulic drum lifter is faster and safer. B. I. Bell. il Nat Pet N 38 pt 2:R497 Jl 3 '46
Ingenuity (and a welder) simplify drum handling; attachment on lift-plate of electric truck. il Safety Eng 92:24 S '46

BARRELS
Plywood cooperage; a British innovation; brewers' cask. il diag Mod Packaging 20: 114-15 O '46

BARRIE, Ontario

Sanitary affairs
Court reverses Barrie judgment on disposal of refuse in township of Vespra. il Water & Sewage 84:31+ S '46

BARRIER-layer cells. See Photoelectric cells

BARRIGER, John Walker, 3d, 1899-
Barriger heads reorganized Monon. por Ry Age 120:961 My 11 '46

BARTLETT, George S. 1858-1945
Sketch. por Concrete 53:11 N '45

BARTLETT bill. See Steamboat lines—Railroad operation

BARUCH, Bernard Mannes, 1870-
Named to UNO Atomic commission. Comm & Fin Chr 163:1691 Mr 28 '46

BARYTES. See Barite

BASALT
McCartys basalt flow, Valencia county, New Mexico. R. L. Nichols. bibliog maps diags Geol Soc Bul 57:1049-86, pl 1-8 N '46

BASCULE bridges. See Bridges, Bascule

BASE exchanging compounds
Covalent adsorption on base-exchange resins. J. A. Bishop. bibliog J Phys Chem 50:6-12 Ja '46 (to be cont)
Improved synthetic ion exchange resin. W. C. Bauman. bibliog il Ind & Eng Chem 38: 46-50 Ja '46
Use of an ion-exchange resin in determination of traces of copper with special reference to powdered and fluid milk. H. A. Cranston and J. B. Thompson. Ind & Eng Chem Anal ed 18:323-6 My '46
See also
Zeolites

BASEBALL
Baseball sings south-of-the-border blues. Bsns W p28 Ap 20 '46
Yankees. il Fortune 34:130-9+ Jl '46
See also
Softball

Advertising
Ball club's ads promote before-season sale of new package of games and seats. T. M. Jones. Ptr Ink 215:117+ Ap 12 '46
Copy clinic; Larry MacPhail of the New York Yankees. Adv & Sell 39:43 Je '46
Copy sells Indians to Cleveland rooters as advertising's top fan wins account. M. Reiners. Ptr Ink 216:118 Ag 16 '46

BASEBALL players
Strike one; American baseball guild, new independent union. Bsns W p92+ Ap 27 '46
Yankees. il Fortune 34:130-9+ Jl '46

BASEBOARDS
Baseboard radiant heat. F. R. Brophy. il Dom Eng 168:94-5 Jl; 150+ Ag '46
Promising results with radiant baseboard. il Elec West 96:68-9 My '46
Study of radiant baseboard heating in the I=B=R research home; a report of an investigation in cooperation with the Institute of boiler and radiator manufacturers. A. P. Kratz and W. S. Harris. il plans diags Ill U Eng Exp Sta Bul 358:1-30 '45 (pa 35c); Same cond. Heating-Piping 18: 138-42 Ja '46; Abstracts. Dom Eng 166:156-7 O '45; Heat & Ven 42:80-2 O '45

BASEMENT stores
Don't snub the downstairs stores; they're a billion dollar market. J. C. Cumming. il Sales Management 56:120+ Je 15 '46

BASEMENTLESS construction
Decay a hazard in basementless houses on wet sites; protection of substructure timbers by use of asphalt roll roofing as soil cover. J. D. Diller. il Am Bld 68:92+ Jl '46
Heat loss through floors of basementless buildings; reference data. diags Heat & Ven 43:88a-88b Ja '46
New heating room cuts building costs for basementless houses. il plan Sheet Metal Worker 37:94 S '46
New type planning provides for clean coal heat; utility heating room, excavated only to frost line eliminates need for full basement. il plans Am Bld 68:70-1 Jl '46
Pittsburgh builder develops basementless house project; will feature radiant heat. il plan Am Bld 68:90-1 Jl '46
Under floor condensation causes decay of wood. il Heat & Ven 43:91 F '46

BASEMENTS
How to plan basements for coal heating. il plans diags Am Bld 68:118-19 F '46
Mr District Attorney's aide remodels his cellar. Am Bld 68:120-1 F '46

BASES (chemistry)
Action of bases on organic halogen compounds; the action of the lithium salts of aliphatic amines on some organic halogen compounds. C. H. Horning and F. W. Bergstrom. bibliog Am Chem Soc J 67:2110-11 D '45
Action of bases on organic halogen compounds; the reaction of potassium amide with the naphthyl halides. R. S. Urner and F. W. Bergstrom. Am Chem Soc J 67: 2108-9 D '45

BASIC brick. See Refractory materials

BASING-point system. See Price policies

BAST fibers
See also
Flax — Jute
Hemp — Ramie

BATA shoe company
Bata resumes Czech ties. Bsns W p97-8 S 7 '46
Cobbler's woes; Czech government's seizure of Bata. il Bsns W p22+ Ja 26 '46

BATES manufacturing company
Common stock offered. Comm & Fin Chr 162:3066-8 D 24 '45

BATH, Maine

Water supply
Pneumatic surge tank solves water hammer problem. M. A. Libby. il diag Water & Sewage Works 93:98-9 Mr '46

BATH salts
Water softeners. M. Lesser. bibliog Soap & San Chem 21:34+ N '45

BATHHOUSES
Bathhouse, Margaret Lewis Norrie state park, New York. il Arch Rec 98:87 D '45

BATHING beaches
Large-scale sewage chlorination receives pilot plant test at Hyperion; southern California beach contamination problem. Eng N 136:802 My 16 '46

BATHRICK, Donald U.
Strategist of sales: Bathrick of Pontiac. por Fortune 32:267 D '45

BATHROOMS
How to adapt glass block for bathroom use. il plan diags Am Bld 68:123 F '46
How to use glass block in the bath. il plans diags Am Bld 67:96-7 D '45
Porcelain, a boon to the bathroom. L. E. Barringer. il diags Am Cer Soc Bul 25:78-82 Mr 15 '46

BATHROOMS—*Continued*
Progress, 1926-1946; bathrooms. il Am Bld 68: 128-9 O '46
Some unusual decorative opportunities offered in bathroom remodeling. il Dom Eng 167:110-11 Ap '46
What does the public want in the new bathrooms. il Dom Eng 168:92-3+ Ag '46

BATHS (chemical apparatus). See Chemical apparatus

BATHTUBS

Manufacture

Mechanize bathtub foundry; Richmond radiator co. P. Dwyer. il plan diag Foundry 74: 68-73+ N '46

BATHYSPHERE. See Diving, Submarine

BATON ROUGE, Louisiana

Harbor

Baton Rouge; deepest fresh water harbor. il map Manuf Rec 115:172-3+ Jl '46

BATTELLE memorial institute, Columbus, Ohio
Conducts extensive research related to steel plant operations. il Blast F & Steel Pl 34: 1271-6 O '46
Gradual resumption and expansion of fundamental research. Science 103:46 Ja 11 '46

BAUDELAIRE, Charles Pierre, 1821-1867

Bibliography

Outline of a Baudelaire bibliography. A. Craig. J Doc 1:109-15 S '45

BAUER, Catherine (Mrs William Wilson Wurster) 1905-
Housing's white knight. pors Arch Forum 84:116-19, 146+ Mr '46

BAUXITE
Bauxite and oil. Chem Age (Lond) 55:205 Ag 17 '46
Bauxite, dehydrogenation catalyst for styrene production. W. H. Wood and R. G. Capell. bibliog il diag Ind & Eng Chem 37:1148-52 D '45
Bauxite in Australia. Chem Age (Lond) 55: 326 S 14 '46
Concentration of bauxite for milling in the 50-ton Bureau of mines pilot plant, Bauxite, Ark. S. M. Runke and R. G. O'Meara. pl U S Bur Mines Rep of Invest 3909:1-25 '46
Extraction of alumina from clays and high-silica bauxites. E. P. Flint and others. bibliog flow sheets J Res Nat Bur Stand 36:63-106 Ja '46
Ferruginous bauxite deposits in northwestern Oregon. F. W. Libbey and others. bibliog il map Econ Geol 41:246-65 My '46
New idea in drill boosters in bauxite mine. J. A. Fuller. diags Min Cong J 32:30-1 Mr '46
Relations of bauxite and kaolin in the Arkansas bauxite deposits. M. I. Goldman and J. I. Tracey, jr. il Econ Geol 41:567-75 S '46
Some physical properties of activated bauxite. H. Heinemann, K. A. Krieger and W. S. W McCarter. bibliog Ind & Eng Chem 38:839-42 Ag '46
Status of basic metal reserves. il Chem Ind 58:806+ My '46

See also
Boehmite

Analysis

Portable differential thermal analysis unit for bauxite exploration. S. B. Hendricks and others. il diag Econ Geol 41:64-76 Ja '46

Statistics

Guiana bauxite exports. Chem Ind 59:159 Jl '46

BAYLOR, Charles E. 1888-
Main Street says; views of small-town Iowa banker. D. Kramer. Comm & Fin Chr 164:877+ Ag 15 '46

BEACH houses
Disporting in Florida sunshine; seaside house. il plan Arch Rec 99:82-5 Ap '46
House in Palm Beach. il plans Arch Forum 84:126-7 Je '46

BEACHES

See also
Bathing beaches

BEACHEY, Hillery
Hillery Beachey's bid for fame. J. Hettich. Aero Digest 53:28+ Ag '46

BEACONS
Electric lighting for marine buoys and beacons. Engineer 181:527 Je 7 '46

See also
Radio beacons

BEADING (sheet metal work)
Beading tool for tubes. il diags Engineering 160:455 N 30 '45
Thin-stock dies for secondary operations. W. C. Mills. diags Am Mach 90:101-5 O 24 '46
Tube-ends of ⅝ to 3-in diameter beaded in automatic-cycle machines; North American aviation, inc. E. W. Cooper. il diags Am Mach 90:126-8 Mr 14 '46

BEAMS
Analysis of unsymmetrical beams by the method of segments. S. Lifsitz. diags Am Soc C E Proc 72:323-35 Mr '46; Discussion. 72:1191-8 O '46
Design of plywood I-beams. H. J. Hansen. bibliog Am Soc C E Proc 72:749-58 Je '46
Investigation of the strength of welded stirrups in reinforced concrete beams. O. Moretto. il diags Am Concrete Inst J 17:141-62 N '45
Investigations on the incompletely developed plane diagonal-tension field. P. Kuhn. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:387-412 '41
Matrix analysis of continuous beams. S. U. Benscoter. diags Am Soc C E Proc 72:1091-122 O '46
Moments computed graphically by Australian method. A. J. Keeble. Eng N 136:294-6 F 21 '46
Moving loads on restrained beams and frames. R. C. Brumfield. Am Soc C E Proc 71:627-55 My '45; Discussion. 71:1251-8, 1425-30, 1576-96; 72:115-18, 269-77, 523-33, 675-81 O '45-F, Ap-My '46
Shrinkage stresses in concrete. G. Pickett. il diags Am Concrete Inst J 17:165-204, 361-98 bibliog(p 194-5) Ja-F '46
Simple tabular method of calculating deflections and influence coefficients of beams. N. O. Myklestad. J Aeronautical Sci 13:23-8 Ja '46
Strength of beams as determined by lateral buckling. K. de Vries. diags Am Soc C E Proc 72:985-1011 S '46

BEANS
Bad beans given the bounce; electronic sorting mechanism. il diags Food Ind 18:1031+ Jl '46; Product Eng 17:90-2 O '46
Production and exports of beans, Brazil. For Comm W 22:33 Mr 30 '46
Undercooling retards freezing of canned foods; data sheets. Food Ind 18:513-17 Ap '46

See also
Lima beans
Soybeans

BEANS, Frozen
Effect of freezing rate on vegetables; appearance, palatability, and vitamin content of peas and snap beans. F. A. Lee, W. A. Gortner and J. Whitcombe. bibliog il Ind & Eng Chem 38:341-6 Mr '46

BEARCE, Henry Walter
Retires as chief of the Division of weights and measures of the National bureau of standards. Ind Stand 16:259 N '45

BEARDMORE, Herbert F. 1904-
Sketch. por Min & Met 27:254 My '46

BEARING metals
Aluminum alloy bearings for heavy-duty applications. H. R. Clauser. il Materials & Methods 24:633-6 S '46
Aluminum alloy for bearings; abstract. Materials & Methods 23:1072 Ap '46
Aluminum bearings for Caterpillar engines. G. B. Grim. il Automotive & Aviation Ind 95:28-9+ N 1 '46
Bearing corrosion. H. H. Zuidema. il patent list Oil & Gas J 44:100-1+ F 16; 151+ F 23; 66+ Mr 2 '46
Characteristics of aluminum bearings. N. E. Woldman. bibliog il Iron Age 158:60-4 S 12 '46
Compound sleeve bearings. Materials & Methods 22:1812+ D '45

BEARING metals—*Continued*
Continuous casting of alloy bearing strip; Ford motor co. T. W. Lamb and E. C. Jeter. il Materials & Methods 23:1567-70 Je '46
Durex-100 engine bearings; material characteristics and design data. J. A. Lignian. il diags Product Eng 17:335-9 Ap '46
Foaming of bearing metal during casting. E. A. Wolfenden. Metal Prog 50:479-80 S '46
Frictional properties of some white metal bearing alloys; the role of the matrix and the hard particles. D. Tabor. bibliog il J Ap Phys 16:325-37 Je '45; Abstract. Metal Prog 49:604+ Mr '46
Important engineering data on aluminum alloy bearings for engines. D. B. Wood. il Automotive & Aviation Ind 94:26-30+ Je 1 '46
Indium bearings highly successful; silver-lead-indium combination. Aviation N 5:16 Ap 15 '46
New bearing alloy conserves tin; nickel-antimony-lead-copper alloys. J. T. Eash. Iron Age 156:64-5 N 29 '45
Nickel in bearing bronze. R Sci Instr 17:313 Ag '46
Plated bearings; discussion. H. H. Jackson and others. Automobile Eng 36:245 Je '46
Selecting nonferrous bearing material. N. E. Woldman. il diag Iron Age 158:54-7 S 5 '46
Silicide-hardened copper compacts for bearings; abstract. F. R. Hensel, E. I. Larsen and E. F. Swazy. Iron Age 157:65-7 Mr 7 '46
Silver bearings. E. B. Etchells and A. F. Underwood. il diags S A E J 53:497-503 S '45; Excerpts. Automotive & Aviation Ind 93:34 Ag 1 '45; Abstract. Metal Prog 50:524+ S '46
Silver-thallium bearing alloys; abstracts. F. R. Hensel. Materials & Methods 23:206 Ja '46; Metal Prog 49:390+ F '46
Tragfähigkeit von lagerschalen aus sintereisen. E. Heidebroek. diag V D I 88:205-7 Ap 15 '44; Abstracts (Sintered iron bearing liners). Materials & Methods 22:1164 O '45; Automobile Eng 35:400 O '45; Product Eng 17:52-3 Ja '46
Zinc-base bearing metals; abstract. M. von Schwarz. Materials & Methods 22:1802 D '45

See also
Babbitt metal

Testing
Aluminum alloys for high duty engine bearings. H. Y. Hunsicker and L. W. Kempf. il Diesel Power 24:856-63 Jl '46; Same abr. S A E J 54:51-3 O '46; Excerpt. Automotive & Aviation Ind 95:36-7; Discussion. E. L. Dahlund. 37+ Jl 1 '46

BEARING surfaces
Surface area of powders; heat of wetting of metal surfaces by oils. H. H. Herbst. bibliog diag Pet Refiner 25:121-5 Mr '46

BEARINGS
Aluminum bearings; abstract. A. Deck. il diags Product Eng 17:128-30 F '46
Bearing failures; causes and cures. R. W. Dayton and R. E. Adams. bibliog il Machine Design 18:113-16 My; 128-32 Je '46
Bearings; abstract. P. Martinet. Materials & Methods 24:970 O '46
Charts for fluid friction bearing design; reference book sheet. H. W. Hamm. diags Product Eng 17:351-2, 435-6 Ap-My '46
Compound sleeve bearings. Materials & Methods 22:1812+ D '45
Felt wick lubricating systems for bearings and machine parts. W. H. Lehmberg and E. L. Johnson. il Product Eng 17:509-12 Je '46
Mallory brings out line of grid bearings. diags Automotive & Aviation Ind 95:46 Ag 15 '46
Meehanite used for babbitted bearing shells. il Iron Age 157:48 My 23 '46
New method of preparing bearing shells for babbitting. Mach 52:226 Ag '46
Sleeve bearings as a substitute for ball and roller bearings; abstract. E. Fals. diags Product Eng 17:113-15 Ag '46

See also
Babbitt metal
Bearing metals
also subdivision Bearings under special subjects, e.g.
Cars—Bearings
Electric generators—Bearings
Electric motors—Bearings
Lubrication and lubricants
Internal combustion engines—Bearings
Superchargers—Bearings

Cleaning
Ball-bearing cleaning machine accommodates assorted sizes. A. P. Crawford. diag Am Mach 90:120 Ja 31 '46

Design
Design of fluid-film bearings for optimum loading; engineering data sheet. H. A. S. Howarth. diags Machine Design 18:101-3 O; 151-4 N '46
Plastic bearings aid in search for greater power; abstract. Boyd. Franklin Inst J 242:231-2 S '46

Manufacture
Continuous casting of alloy bearing strip; Ford motor co. T. W. Lamb and E. C. Jeter. il Materials & Methods 23:1567-70 Je '46
Miller for slotting marine bearings. il Steel 119:102-3+ Jl 15 '46
Powdered metal cold formed into bearings. diag Product Eng 17:98 O '46
Rapid milling of propeller-shaft bearings. il Mach 52:180 Ag '46
Slotting marine bearings on special planer type milling machine. il Mach 52:151 Ap '46
Tinning of cast iron. R. A. Cresswell. il Engineering 161:550-1 Je 7 '46

See also
Babbitting

Testing
Aluminum alloys for high duty engine bearings. H. Y. Hunsicker and L. W. Kempf. il Diesel Power 24:856-63 Jl '46; Same abr. S A E J 54:51-3 O '46; Excerpt. Automotive & Aviation Ind 95:36-7; Discussion. E. L. Dahlund. 37+ Jl 1 '46
Bond testing of silver-plated engine bearings. F. D. Hallworth. il diags Automotive & Aviation Ind 95:30-3+ Jl 15 '46
Dimethyl-silicone-polymer fluids and their performance characteristics in unilaterally loaded journal bearings. J. E. Brophy and others. il A S M E Trans 68:355-60 My '46
Load-carrying capacity of journal bearings; abstract. J. M. Stone and A. F. Underwood. Automotive & Aviation Ind 94:34-5 Je 15 '46
Testing of highly loaded sleeve bearings. J. Palsulich and R. W. Blair. il S A E J 54: 481-90 S '46; Excerpts. Materials & Methods 24:188 Jl '46
Tests of oil-film journal bearings for railroad cars. S. J. Needs. il diag A S M E Trans 68:337-48 bibliog(p348); Discussion. 349-53 My '46

BEARINGS, Anti-friction
Antifriction bearings change sliding friction to rolling. C. W. Pearsall. il diags Power 90:24-5+ Ja '46
Antifriction die sets and die aligners. il Iron Age 157:53 Mr 21 '46
Ball and taper roller bearings. M. S. Frenkel. diags Roy Aeronautical Soc J 50:199-236 Mr '46
Bearings coded; Navy's Bureau of Ships compiles guide. Bsns W p46+ Ap 20 '46
Boring machine tool castings for anti-friction bearings. il Mach 52:179-80 Ap '46
Demagnetizing parts of anti-friction bearings. W. F. Bower. il Elec World 125:86-7 F 2 '46
Developments in ball and roller bearing lubrication. Rayon 27:43-5 Ja '46
Evaluation and manufacturing methods of ball- and roller-bearing greases. A. E. Hickel. il Pet Refiner 25:109-12 F '46
How to get the most out of ball and roller bearings. A. Palmgren and G. Palmgren. il Factory Management 103:141-8 D '45

BEARINGS, Anti-friction—*Continued*
How to inspect a used anti-friction bearing. Paper Ind 28:419-20 Je '46
How to lubricate ball and roller bearings; abstract. il Food Ind 17:1453 D '45
Lubrication of antifriction bearings. D. T. Achorn. Paper Tr J 122:152-3 Je 20 '46
Packaging of bearings; tremendous trifles; model of care and cleanliness. il Mod Packaging 19:124-9+ My '46
Will your ball and roller bearing greases stand up? H. A. McConville. Power Pl Eng 50:89-90 Ag '46
See also
Bearings, Ball
Bearings, Roller

Advertising

SKF launches pioneering campaign. il Ind Marketing 31:36+ Ap '46

Testing

High-duty engines; problems involved in development. A. Towle. il diags Automobile Eng 36:191-203 My '46

BEARINGS, Ball
Baby bearings; precision steel balls 0.04 in. in diameter. Bsns W p61 Jl 20 '46
Design of groove-form screws with ball-bearing nuts. V. L. Maleev. diags Product Eng 17:471-3 Je '46
Effect of structural changes in steel on fatigue life of bearings. A. B. Jones. il diags Steel 119:68-70+ S 30 '46; Abstract. Iron Age 158:74-5 Jl 4 '46
Extra-thin large-diameter bearings. il Iron Age 157:61 F 21 '46
Grease lubrication of ball-bearing motors and generators. E. M. Higgins. il Mech Eng 67:639-44+ O '45; Discussion. 68: 163-5 F '46
Individual design features suit each ball bearing to its job. C. W. Pearsall. il diags Power 90:317+ My '46
Meter ball dropper prevents losses. diag Elec World 126:88 Ag 31 '46
Silicone greases for bearing lubrication at high or low temperatures. Power Pl Eng 50:86-7 Jl '46
Split ball bearings. il Steel 118:136-7+ Ap 1 '46
Unusual type of narrow large-diameter ball bearings. il Mach 52:194 Ap '46
World's smallest bearing. Mech Eng 68:734 Ag '46

Advertising

Nothing rolls like a ball! New Departure's famous cartoon campaign. il Ind Marketing 31:36-7+ Ja '46

Manufacture

Lathe tool turns ball races and spherical bearings. G. Pabst. diag Am Mach 90:136 F 28 '46
Top surface speeds on tough alloys with negative-rake carbide tools. W. L. Sandham. il diags Am Mach 90:87-9 Jl 4; 112-16 Jl 18 '46

Testing

Adjustable internal limit gage measures ball races. A. J. Wormwood. Am Mach 90:151 My 23 '46
Sensitive ball bearing test unit measures small changes in torque. J. L. Snead and H. Gisser. il diags Product Eng 17:129-31 O '46

BEARINGS, Jewel
Instrument bearing friction. A. L. Nylander. il diags Gen Elec R 49:12-17 Jl '46
Jewel bearing assembly announced by Marion electrical co. il R Sci Instr 17:115-16 Mr '46
Manufacture of synthetic sapphires for jewelled bearings; abstract. Can Min J 67:35 Ja '46
Meter and instrument jewels and pivots. G. F. Shotter. il diags Inst E E J 93 pt 2:15-32 F '46; Abstracts. Elec R (Lond) 136:691 My 11 '45; Electrician 134:445 My 18 '45; Discussion. Inst E E J 93 pt 2:32-6 F '46; Elec R (Lond) 136:691-3 My 11 '45; Electrician 134:445-6 My 18 '45
Meter jewel holder speeds inspection. W. H. Parmiter. il Elec World 125:88 Ja 5 '46
Synthetic spinel used for German bearings. Iron Age 158:64 Jl 18 '46

BEARINGS, Non-metallic
Design and performance of plastic rolling mill bearings. O. K. Graef. il Steel 118:116-18+ My 27 '46
Plastic bearings; transparent models and colored oils aid designers. il Mech Eng 68: 897-8 O '46
Rubber propeller shaft bearings. il Marine Eng 50:224 N '45
See also
Bearings, Jewel

BEARINGS, Roller
Roller-bearing locomotive repairs. il Ry Mech Eng 120:30-1 Ja '46
Three-story building on roller bearings; earthquake-resistant construction; addition to Sears, Roebuck building in Los Angeles. plan diags Eng N 136:925-7 Je 13 '46
Wide range of designs fit roller bearings to each application. C. W. Pearsall. il diags Power 90:514-16+ Ag '46

Manufacture

Flash welding alloy-steel rings. P. B. Scharf. il Iron Age 156:50-3 Ap 16 '45; Same. diags Welding J 25:313-17 Ap '46
Timken's proving ground for advanced manufacturing practices. J. Geschelin. il Automotive & Aviation Ind 95:24-8+ Ag 1 '46

Testing

Observations on the impact strength of alloy steels hardened from cyanide baths. S. M. Lenhoff and L. F. Roth. il Metal Prog 49:960-7 My '46

BEARINGS, Thrust
Centrifugal force spoils thrust-bearing lubrication. H. B. McDermid. diag Power 90: 621 S '46
New spherical roller thrust bearing carries heavy loads at high speeds. Mach 52:184 Je '46

BEARPAW mountains, Montana
Origin and mechanics of the thrust faults adjacent to the Bearpaw mountains, Montana. F. Reeves. bibliog map diags Geol Soc Bul 57:1033-47, pl 1 N '46

BEATTIE-BRIDGEMAN equation of state. See Equation of state

BEAUMONT iron works company
Beaumont Iron Works taken over by American Locomotive. il Manuf Rec 115:45+ Je '46

BEAUTY, Personal
Selling poise puts over home beauty course; an insight into modern theme for women. il Ptr Ink 214:70+ Mr 1 '46

BEAUTY shops
Back-siphon hazards; pollution to drinking water in beauty shops. il Dom Eng 167:116 Ap '46

BEAVERS
How beavers build. F. W. Nordsiek. il Tech R 48:35-6+ N '45

BECKMANN rearrangement. See Molecular rearrangements

BED rest. See Rest

BEDBUGS
DDT for bedbugs; abstract. A. H. Madden and others. Soap & San Chem 22:155 Ap '46
Insecticidal cords; generating smoke by burning cords impregnated with DDT or other toxic materials. D. E. Pearsall and P. P. Wallace. Soap & San Chem 22:143+ O '46

BEDDING
Application of dust-laying oil to fabrics; wool and cotton hospital bedding. C. H. Bayley and others. il Can Chem & Process Ind 30:43-7 S '46
Improved method for quantitative impregnation of textiles with germicidal emulsifiable oils. Science 104:60-1 Jl 19 '46
Simmons showrooms demonstrate today's techniques in retail display. il Sales Management 57:42-3 O 15 '46
Simmons three-dimensional models pre-test retail store layouts. il Sales Management 57: 89-90+ N 1 '46
See also
Electric blankets

BEDOUINS
Human rights in Islam. M. Khadduri. bibliog Ann Am Acad 243:77-81 Ja '46

BEDROOMS
Better detail plate; attic alteration; design for boy's room. R. J. Alexander. plans diags Am Bld 68:96-7 Ja '46

BEDS, Folding
Lounge beds for hotels provide more liveable rooms by day, comfortable beds at night. il Arch Forum 84:184 My '46

BEEF
Beef is a racket. Bsns W p17 Mr 30 '46
Effect of cooking on the creative-creatinine, phosphorus, nitrogen and pH values of raw lean beef. J. R. Bendall. Soc Chem Ind J 65:226-30 Ag '46
Excessively high riboflavin retention during braising of beef; comparison of methods of assay. W. F. Hinman and others. bibliog Ind & Eng Chem Anal ed 18:296-301 My '46
Heavy supply of beef seems in the making. Food Ind 17:1336+ N '45
Vanishing steaks. Bsns W p19 D 22 '45
See also
Cattle breeding

BEEF extract
Moisture control test; abstract. A. R. Riddle. Food Ind 18:132+ Ja '46

BEER
Beer industry and trade in Mexico. For Comm W 22:20 Mr 16 '46
Embattled beer. Bsns W p42+ N 24 '45
Mexican beer; Californians import. Bsns W p48+ Ag 31 '46
Prior beer; the case history of a gratifying brew. il Fortune 34:110-15+ Ag '46
Some aspects of brewing research; abstract. I. A. Preece. Chem & Ind p364 N 24 '45
See also
Breweries
Brewing industries

Advertising
Continental Can campaign resells brewers on beer in tins. il Sales Management 55:46+ D 1 '45
Readers write the ads in this cartoon contest. Ptr Ink 216:38-9 Jl 19 '46

BEER containers
Tinless beer can; Crown can co. Bsns W p42+ F 16 '46

BEETS, Dried
Storage
Food packaging studies; significance of WVTR of non-metal packages for dehydrated foods. R. F. Brooks and G. J. Hucker. Mod Packaging 19:144-5+ Ag '46
Food packaging studies; water-vapor protection by certain non-metal packages. R. E. Thomas and others. Mod Packaging 19: 143+ Jl '46

BEETS and beet sugar
Effect of DDT, sulphur and lethane dusts on germination of sugar-beet and onion pollens. E. Artschwager. Science 102:482 N 9 '45
Freezing point data sheets and cooling curves. Food Ind 18:866 Je '46
French beet-sugar production. For Comm W 23:31 Ap 13 '46
Revolution in sugar beets; mechanization of entire growing process. il Bsns W p50 D 8 '45
Sugar-beet production in Hungary, 1936-1945. For Comm W 22:36 Mr 2 '46

BEHA, James A. 1880-1945
Sketch. por East Underw 46:32+ N 16 '45

BEHAN, Joseph C. 1873-
Sketch. C. Axman. por East Underw 47:3+ Ja 11 '46

BEIRNE, Joseph A.
President, National federation of telephone workers, Independent. por Fortune 34:151 N '46

BEL, Absolute. See Absolute bel (term)

BELGIUM
Belgium in transition. S. Simpson, ed. Ann Am Acad 247:1-186 S '46
See also
Advertising—Belgium
Automobile industry and trade—Belgium
Gas supply—Belgium
Insurance, Unemployment—Belgium
Labor and laboring classes—Belgium
Labor laws and legislation—Belgium

Commerce
Battle of supplies. F. Osterrieth. Ann Am Acad 247:43-6 S '46
Belgium finds new buyers, restores exports. W. H. Millgate. Barron's 26:13 N 11 '46

Commercial policy
All imports and exports subject to license and exchange controls; procedure for obtaining licenses. For Comm W 23:21 My 18 '46
Import and export license requirements relaxed. For Comm W 24:13-14 Ag 10 '46
Import duties increased on a wide range of products. For Comm W 25:24-5 O 19 '46
Union in the Low Countries. Economist 151: 205-6, 244-5 Ag 10-17 '46

Economic conditions
Belgium emerging; an appraisal of progress and difficulties one year after liberation. il For Comm W 21:3-4+ N 17 '45
Belgium in 1945. Economist 150:sup9 Mr 23 '46
Economic problems of liberated Belgium. F. Baudhuin. Ann Am Acad 247:26-9 S '46

Foreign relations
United States
Belgian-American relations, 1944-45. G. Koulischer. Ann Am Acad 247:171-8 S '46

German occupation
Advertising in wartime Belgium. J. H. Gerny. il Ptr Ink 214:33-4 F 15 '46
Collaboration under enemy occupation. R. Marcq. Ann Am Acad 247:69-72 S '46
Medicine and medical research. J. La Barre and P. Bastenie. Ann Am Acad 247:98-102 S '46
Punishment of collaborators. P. Vermeylen. Ann Am Acad 247:73-7 S '46

Languages
Flemings and the Walloons. G. Van Geyt and others. Ann Am Acad 247:128-33 S '46

BELL, Alexander Graham, 1847-1922
Bell's experimenters in aeronautics. J. Hettich. Aero Digest 52:28+ My '46

BELL, Daniel Wafena, 1891-
Portrait. Bsns W p15 Ag 3 '46

BELL crank levers. See Levers

BELL telephone system
Bell system; it's still busy. map Bsns W p46+ O 26 '46

BELLEVUE hospital, New York. See New York (city)—Hospitals

BELLS
Effect of heating and cooling on the pitch of bells. J. Arts. Acoustical Soc Am J 18:503 O '46
Jottings from my experiences with the sound of bells. J. Arts. Acoustical Soc Am J 17:231 Ja '46.
See also
Carillons
Doorbells

BELT conveyors. See Conveying machinery—Belt conveyors

BELTING
Belt tensioning with steel cords; steel cable-embedded industrial drives and conveyor belting. P. D. Suloff. il diags Steel 119:72-5+ O 28 '46
Equipment reconversion inventory; centrifugal pumps, V-belt drives and electric motors. Diesel Power 23:1478+ D '45
Handy belt transmission chart. W. F. Schaphorst. Pet Eng 17:102 Mr '46
Leather belting, how to make it last longer. diags Roads & Sts 89:109-12 Ag '46
Leather belting on paper mill machinery. J. E. Rhoads. Paper Tr J 123:33-4 Ag 1 '46
Power transmission by V-belt drives in textile mills. T. Hall. Textile Inst J 37:P109-16 Je '46
Textiles and driving belts; historical review. D. G. Hinchcliffe. Textile Inst J 36:P217-20 D '45

Advertising
Graton & Knight advertising stresses a product it does not make! leather belting campaign partially devoted to pivot bases. il Ind Marketing 30:39+ N '45

BELTING, Conveyor
Belt tensioning with steel cords; steel cable-embedded industrial drives and conveyor belting. P. D. Suloff. il diags Steel 119:72-5+ O 28 '46
Conveyor belt installation. diags Mech Handling 33:24-7 Ja '46
Woven wire conveyor belts. il Mech Handling 33:338-9 Je '46

BELTS, Safety. See Safety belts

BENDIGO, C. W. 1911-
Appointed editor of Textile world. E. D. Fowle. por Textile World 96:93 Ja '46

BENDING
Chart on metal bending and straightening. Power Pl Eng 50:108 Ag '46
Contour forming solves bending problems. il Iron Age 157:70-1 Je 6 '46
Designing work for bending. E. J. DeWitt and H. S. Nachman. diags Mach 52:154-6 Jl '46
Effect of bend width upon minimum bend radii; properties of aluminum alloys; Republic aviation corporation. G. Gerard. bibliog il diags J Aeronautical Sci 13:161-70 Ap '46
Fatigue behavior in reverse bending of welded sheet steel. R. L'Hermite and D. Seferian. il diags Welding J 25:sup512-17 S '46
Hand-bending tool for aircraft tubing. il Aero Digest 52:56 Ap '46
Heating for bending and straightening; reference book sheet. diags Am Mach 90:141 Ag 15 '46
Raised yield strength in bend tests. G. Brewer. Metal Prog 48:1306-10 D '45
Rotary bender handles cold-rolled strip. W. C. Roemer. diags Am Mach 90:142-3 N 7 '46

BENDING machines
Attachment for plate roll makes heavy U-bends. A. Ott and C. Ott. il diags Am Mach 90:139-40 S 12 '46
Cold-bending of pipe and metal shapes. E. J. DeWitt and H. S. Nachman. il diags Mach 52:141-50 Ap '46
Cold metal contour forming; machinery developed by Cyril Bath co. R. A. Mackenzie. il Steel 117:112-13+ D 10 '45
Designing work for bending. E. J. DeWitt and H. S. Nachman. diags Mach 52:154-6 Jl '46
Difficulties encountered in hydraulic bending machines; data sheet. Mach 52:249 Ap '46
Economic aspects of tube bending. R. Shaw, jr. il Steel 119:94-5+ S 2 '46
How tangent bender tucks flange metal. L. B. Green. il diags Machine Design 17:101-6 D '45
Hydraulic circuit in bending machines. E. J. DeWitt and H. S. Nachman. diag Mach 52:149-51 Je '46
Large shipyard plate-bending rolls. il diags Engineer 182:9 Jl 5 '46
Pneumatic powered bender makes hooks and collars. D. E. Lame. diag Am Mach 89:140 D 20 '45
Production processes; section contour bending. R. W. Bolz. il Machine Design 18:129-34 Ag '46
Tools for use in bending machines. E. J. DeWitt and H. S. Nachman. diags Mach 52:188-91 My '46
Universal bender for pipes and shapes, made by Pedrick tool & machine co. il Iron Age 156:50 D 27 '45

BENDING moment
Moment ratios simplify continuity analysis. F. S. Merritt. il Eng N 135:604-7, 672-6 N 1, 15 '45; Discussion. 136:143 Ja 24 '46
Moments computed graphically by Australian method. A. J. Keeble. Eng N 136:294-6 F 21 '46
Moving loads on restrained beams and frames. R. C. Brumfield. Am Soc C E Proc 71:627-55 My '45; Discussion. 71:1251-8, 1425-30, 1576-96; 72:269-77, 523-33, 675-81 O-D '45, F, Ap-My '46

BENDIX home appliances, Inc.
Point-of-purchase promotion plus merchandising use of product and other high spots in 1946 campaign of Bendix home appliances. H. E. Green. Ptr Ink 213:29-30+ D 14 '45

BENDIX radio corporation
Bendix expanding in Maryland to produce home radios. il Manuf Rec 115:109 Ja '46

BENEFIT societies
Attacks use of inadequate mortality table by fraternal societies. J. M. McCormack. Nat Underw (Life ed) 49:7 D 7 '45
Benefit assn. of railway employes ready for ordinary life operations. Nat Underw (Life ed) 50:15 Jl 19 '46
Brotherhood of railway trainmen of Cleveland not subject to Ohio laws. Nat Underw 50:20 Ag 29 '46; Same. Nat Underw (Life ed) 50:3 Ag 30 '46
Criticises exemption of fraternals from supervision. G. L. Neel. Nat Underw (Life ed) 49:22 N 23 '45
Effect on fraternals of Guertin bills. E. D. Brown. Nat Underw (Life ed) 50:22 Mr 1 '46
Fraternal agents indicted by U. S. in alleged fraud; policies issued to army inductees. Nat Underw (Life ed) 49:26 D 21 '45
Fraternal orders; business of 1945 and condition December 31, 1945; tabulation. Weekly Underw 154:84 sec 2 My 11 '46
Fraternals viewed not immune from new law trends. I. W. Smith. Nat Underw (Life ed) 49:26+ D 21 '45
How commerce ruling affects fraternals. G. L. Neel. Nat Underw (Life ed) 50:38+ O 25 '46
Kavanaugh gives answer to Whitney in Brotherhood of railroad trainmen controversy. Nat Underw (Life ed) 50:1 S 20 '46
Kavanaugh takes head of railroad trainmen to task; Colorado commissioner acts on complaints of yardmen losing fraternal insurance for failure to strike. Weekly Underw 155:419 Ag 24 '46
Ponder amendment in N.Y. to boost fraternal reserves. Nat Underw (Life ed) 50:17 Ja 11 '46
Repeated acceptance of past due assessments by benefit association waiver of by-laws provision for suspension. Weekly Underw 154:1103 Ap 27 '46
Status of fraternal code still muddled. Nat Underw (Life ed) 50:18 S 13 '46
Union men lose cover on ouster; Colorado commissioner seeks to aid assured in Cleveland R.R. fraternal. Nat Underw 50:16 Ag 22 '46; Same. Nat Underw (Life ed) 50:2 Ag 23 '46

See also
National fraternal congress of America

Accounting
Michigan actuary calls for segregation of funds. A. Borchardt. Nat Underw (Life ed) 49:35 D 7 '45

Taxation
Oklahoma tax held applicable to fraternals. Nat Underw (Life ed) 49:27 D 7 '45
Tax matters occupy N.F.C. at Chicago meeting. Nat Underw (Life ed) 49:28+ D 7 '45

BENENSON, Fira
Fira Benenson runs the Salon de Couture in Bonwit Teller, specialty store. pors Fortune 34:130-5+ O '46

BENGOUGH, Guy Dunstan, 1876-1945
Sketch. W. H. J. Vernon. Chem Soc J p63-5 Ja '46

BENGUET consolidated mining company
Benguet setback. Bsns W p50+ Ap 13 '46
Ohio bars sale of Benguet mines shares. Comm & Fin Chr 163:1939 Ap 11 '46
Ohio is adamant; state commissions' growing tendency to show their teeth. Bsns W p65-7 Ap 20 '46
Withdraws application to sell stock in Ohio. Comm & Fin Chr 163:2086 Ap 18 '46

BENJAMIN electric manufacturing company
Benjamin's 3-year development program. J. Turner. il Am Bsns 16:16-18 O '46

BENNEYAN, George, 1894-
Gallery; less disrespect for promotion; George Benneyan. por Adv & Sell 38:168+ D '45

BENSON boiler. See Boilers—Benson boiler

BENTON, Illinois

Water supply

Collecting 100% of the water accounts in Benton, Illinois. H. Garner. il Pub Works 77:23+ Je '46

BENTONITE

Clay and clay minerals. Can Chem & Process Ind 30:80+ My '46

BENZACRIDINE

Synthesis of substituted aminobenzacridines. G. B. Bachman and G. M. Picha. bibliog Am Chem Soc J 68:1599-1602 Ag '46

BENZALDEHYDE

New aldehyde synthesis. M. L. Wolfrom and J. V. Karabinos. bibliog Am Chem Soc J 68:1455 Ag '46

Quantitative estimation of xylose. L. J. Breddy and J. K. N. Jones. Chem Soc J p738-9 N '45

BENZAMIDE

Preparation of a filaricide; *p*-[bis-(carboxymethylmercapto)-arsino]-benzamide. T. H. Maren. Am Chem Soc J 68:1864-5 S '46

BENZAMIDINE

Chemotherapeutic agents of the sulphone type; sulphones related to benzamidine and benzylamine. A. T. Fuller, I. M. Tonkin and J. Walker. Chem Soc J p633-40 O '45

BENZEDRINE

Unusual action of amphetamine. J. Seifter. Science 102:597 D 7 '45

BENZENE

Absorption of ultrasonic waves in benzene. J. Quinn. bibliog diags Acoustical Soc Am J 18:185-9 Jl '46

Benzoic acid from phosgene and benzene. W. H. C. Rueggeberg, R. K. Frantz and A. Ginsburg. Ind & Eng Chem 38:624-6 Je '46

Catalytic isopropylation of *o*-dichlorobenzene. G. Vermillion and M. A. Hill. Am Chem Soc J 67:2209 D '45

Dealkylation of dialkylbenzenes; use of superatmospheric pressure and alumina-silica catalyst in the presence of benzene. W. M. Kutz and B. B. Corson. bibliog flow sheet il Ind & Eng Chem 38:761-4 Jl '46

ortho- and *para*-Diethylbenzenes. J. V. Karabinos, K. T. Serijan and L. C. Gibbons. Am Chem Soc J 68:2107 O '46

Direct catalytic conversion of methylcyclopentane to benzene. B. S. Greensfelder and D. L. Fuller. bibliog Am Chem Soc J 67: 2171-3 D '45

Dow process for styrene; abstract. J. E. Mitchell, jr. diags Chem & Met Eng 53:280+ My '46

Effect of added components on the relative volatility of two binary mixtures. O. L. Updike, jr. and others. bibliog Am Inst Chem Eng Trans 41:717-36 D '45

Effect of soaps on mutual solubility of organic liquids. S. R. Palit and J. W. McBain. bibliog diags Ind & Eng Chem 38: 741-4 Jl '46

Ethylation of benzene in presence of solid phosphoric acid. V. N. Ipatieff and L. Schmerling. bibliog Ind & Eng Chem 38:400-2 Ap '46

Ethylbenzene; high yield and rate of production by liquid-phase ethylation. A. W. Francis and E. E. Reid. bibliog(104 references) diag Ind & Eng Chem 38:1194-203 N '46

Extractive distillation of hydrocarbon mixtures in a packed column. R. S. Dicks and C. S. Carlson. bibliog il diag Am Inst Chem Eng Trans 41:789-803 D '45

Freezing points and polymorphism of the eight C_9H_{12} alkylbenzenes. A. E. Hirschler and W. B. M. Faulconer. bibliog Am Chem Soc J 68:210-13 F '46

Heats, equilibrium constants and free energies of formation of the alkylbenzenes. W. J. Taylor and others. bibliog J Res Nat Bur Stand 37:95-122 Ag '46

Heats of combustion and formation at 25° C of the alkylbenzenes through C_6H_{14}, and of the higher normal monoalkylbenzenes. E. J. Prosen and others. bibliog J Res Nat Bur Stand 36:455-61 My '46

Hydrocarbon azeotropes of benzene. R. F. Marschner and W. P. Cropper. bibliog Ind & Eng Chem 38:262-8 Mr '46

Infra-red spectra of *p*-benzene-d_2 and *p*-benzene-d_4. F. A. Miller and B. L. Crawford, jr. J Chem Phys 14:292-3 Ap '46

Isomerization accompanying alkylation; reaction of cycloheptanol and cycloheptene with benzene; synthesis of cycloheptylbenzene. H. Pines, A. Edeleanu and V. N. Ipatieff. bibliog Am Chem Soc J 67:2193-6 D '45

Molar polarisation of solutions of aniline in benzene. H. G. Emblem and C. A. McDowell. Chem Soc J p641-2 Jl '46

Motions of molecules in condensed systems; the infra-red spectra for benzene solid, liquid, and vapor in the range from 3 to 16.7μ. R. S. Halford and O. A. Schaeffer. bibliog J Chem Phys 14:141-9 Mr '46

Non-planar vibrations of benzene. F. A. Miller and B. L. Crawford, jr. bibliog J Chem Phys 14:282-92 Ap '46

Polybromination of alkylbenzenes. G. F. Hennion and J. G. Anderson. bibliog Am Chem Soc J 68:424-6 Mr '46

Principles of reactor design; toluene from benzene plus xylenes. L. N. Johanson and K. M. Watson. bibliog flow diag Nat Pet N 38 pt 2:R629-30+ Ag 7 '46; [cont as] Pet Processing 1:67+ S '46

Production of benzyl chloride by chloromethylation of benzene; laboratory and pilot plant studies. A. Ginsburg and others. Ind & Eng Chem 38:478-85 My '46

Purification of commercial benzene by azeotropic distillation. J. Griswold and R. H. Bowden. bibliog Ind & Eng Chem 38:509-12 My '46

Pyridinium analogs of the pressor amines; benzene series. B. Riegel and H. Wittcoff. bibliog Am Chem Soc J 68:1805-6 S '46

Sorption of vapours by ferric oxide gel. D. W. Broad and A. G. Foster. Chem Soc J p446-50 Je '46

Structure of benzene C. R. Bailey, C. K. Ingold and others. diags Chem Soc J p222-333 Ap '46

Styrene production by catalytic dehydrogenation; operation at ordinary pressures with benzene as diluent. J. M. Mavity, E. E. Zetterholm and G. L. Hervert. bibliog Ind & Eng Chem 38:829-32 Ag '46

Synthesis and properties of some higher homologs of benzene; abstract. A. D. Petrov and others. Chem & Met Eng 53:294 My '46

Synthesis of benzene derivatives structurally similar to penicillic acid. E. D. Amstutz, E. A. Fehnel and C. R. Neumoyer. bibliog Am Chem Soc J 68:349-54 Mr '46

Ternary system: *t*-butyl alcohol, benzene and water at 25°. D. R. Simonsen and E. R. Washburn. bibliog Am Chem Soc J 68:235-7 F '46

Vapor-liquid equilibria of binary hydrocarbon systems. J. M. Harrison and L. Berg. Ind & Eng Chem 38:117-20 Ja '46

Vapor-liquid equilibrium; benzene-methanol mixtures. G. Scatchard, S. E. Wood and J. M. Mochel. bibliog Am Chem Soc J 68:1957-60 O '46

See also

Benzol (commercial benzene)

Analysis

Aids to computation in spectrophotometric analysis of binary mixtures; illustrative data for benzene-toluene mixtures. M. Fred and F. W. Porsche. diags Ind & Eng Chem Anal ed 18:603-4 O '46

Colorimetric determination of less than 0.001% S as thiophen in pure benzoles. K. H. V. French. Soc Chem J 65:15-23 Ja '46

Nonbenzenoid hydrocarbons in recycle benzene. J. R. Anderson, A. S. Jones and C. J. Engelder. Ind & Eng Chem 37:1052-3 N '45

BENZENE carboxylic acids

Rates of distillation of the benzene carboxylic acids and their methyl esters. G. Schulz and H. C. Howard. diag Am Chem Soc J 68:991-4 Je '46

BENZENE diazonium chloride

Effect of substituent groups upon the course of the condensation reaction between benzenediazonium salts and phenols. J. C. Colbert and R. M. Lacy. bibliog Am Chem Soc J 68:270-1 F '46

BENZENE hexachloride. See Hexachlorocyclohexane

BENZENE poisoning
Benzene poisoning; clinical considerations; abstract. C. O. Oldfelt. J Ind Hygiene 28: sup9-10 Ja '46

BENZENETHIOL
Precipitation of platinum metals by organic monosulfides; determination of platinum with thiophenol and rhodium with thiobarbituric acid. J. E. Currah and others. bibliog Ind & Eng Chem Anal ed 18:120-2 F '46
Thiophenol spruce lignin. F. E. Brauns and W. H. Lane. bibliog Paper Tr J 122:38-40 F 21 '46

BENZESTROL
Synthetic estrogenic compounds; trialkyl derivatives of 1,3-di-(*p*-hydroxyphenyl)-propane; benzestrol. A. H. Stuart and others. bibliog Am Chem Soc J 68:729-33 My '46

BENZIDINE
Mechanism of benzidine-type rearrangements, and the rôle of π-electrons in organic chemistry. M. J. S. Dewar. Chem Soc J p406-8 My '46
Stereochemistry of the benzidine transformation. D. L. Hammick and S. F. Mason. Chem Soc J p638-41 Jl '46

BENZIDINE hydrochloride
Determination of sulfur in sulfur compounds with benzidine hydrochloride. W. S. Platner. bibliog Ind & Eng Chem Anal ed 18:334-5 My '46

BENZIL
Photochemical reactions in sunlight; (a) reaction of ethylenes with phenanthraquinone and with benzil; (b) a new type of photochemical equilibrium. A. Schönberg and A. Mustafa. Chem Soc J p551-3 S '45

BENZIMIDAZOLE
New potential chemotherapeutic agents; derivatives of benziminazole. F. E. King, R. J. S. Beer and S. G. Waley. Chem Soc J p92-4 F '46

BENZIMINAZOLE. See Benzimidazole

BENZOATES
Studies in *p*-cymene; the saponification rate of isomeric benzoates derived from *p*-cymene. C. T. Lester and C. F. Bailey. bibliog Am Chem Soc J 68:375-6 Mr '46.

BENZOCINNOLINE
New potential chemotherapeutic agents; derivatives of 2-aminobenzocinnoline. F. E. King and T. J. King. Chem Soc J p324-6 N '45

BENZOFLUORENE
Some factors influencing the ultraviolet absorption spectra of polynuclear aromatic compounds; the spectra of aryl carbinols and polybenzfluorenes. R. N. Jones. Am Chem Soc J 67:2021-7 N '45

BENZOIC acid
Benzoic acid from phosgene and benzene. W. H. C. Rueggeberg, R. K. Frantz and A. Ginsburg. Ind & Eng Chem 38:624-6 Je '46
Liquid-liquid extraction in spray towers. H. F. Johnson, jr. and H. Bliss. bibliog flow sheet diags Am Inst Chem Eng Trans 42: 331-58 Ap '46
Note on the density and heat of combustion of benzoic acid. R. S. Jessup. bibliog J Res Nat Bur Stand 36:421-3 Ap '46
Preparation and polymerization of *p*-cyanostyrene, *p*-vinylbenzoic acid and its methyl ester. C. S. Marvel and C. G. Overberger. bibliog Am Chem Soc J 67:2250-2 D '45

BENZOL (commercial benzene)
Benzole recovery by active carbon; with cost data. G. W. Robson. Gas J (Lond) 246:687+ N 14 '45
Corrosive action of benzole absorption oils. C. M. Cawley and H. E. Newall. Soc Chem Ind J 64:285-90 O '45
Oxide purification and benzole extraction. C. Whitehead. Gas J (Lond) 247:274+ F 13 '46

BENZOPHENONE
o-Amino-ketones of the acetophenone and benzophenone types. J. C. E. Simpson and others. bibliog Chem Soc J p646-57 O '45
Benzophenone-ascorbic acid. P. E. Papadakis. Am Chem Soc J 67:2051 N '45

BENZOPINACOL
Rearrangement of substituted benzopinacols; application of electronic theories. G. H. Stempel, jr. bibliog J Chem Educ 23:434-8 S '46

BENZOQUINOLINE
Some γ-substituted benzoquinoline derivatives. R. E. Foster and others. bibliog Am Chem Soc J 68:1327-30 Jl '46

BENZOQUINONE. See Quinone

BENZOTHIAZOLE
4-(6'-Diethylaminohexylamino)-6-methoxybenzothiazole (SN 15,295). M. L. Mercury, S. M. Vincent and M. L. Sherrill. Am Chem Soc J 68:1594-5 Ag '46

BENZOTRIFLUORIDE. See Trifluorotoluene

BENZOYLACETONE. See Phenyl butanedione

BENZOYLAMINOCARBAMYLHEPTYLIC acid
Preparation of 7-benzoylamino-6-carbamylheptylic acid. J. P. English and R. C. Clapp. bibliog Am Chem Soc J 67:2262-3 D '45

BENZOYLCARBETHOXYPIPERIDONE
Piperidine derivatives; C-alkylation of 1-benzoyl-3-carbethoxy-4-piperidone; synthesis of ethyl 3-ethyl-4-piperidylacetate (*dl*-ethyl cincholoiponate). G. Stork and S. M. McElvain. Am Chem Soc J 68:1053-7 Je '46
Piperidine derivatives; the preparation of 1-benzoyl-3-carbethoxy-4-piperidone; a synthesis of guvacine. S. M. McElvain and G. Stork. bibliog Am Chem Soc J 68:1049-53 Je '46

BENZOYL chloride
Chemistry of xanthic acid derivatives; the interaction of carboxylic acid chlorides and potassium ethyl xanthate. G. Bulmer and F. G. Mann. Chem Soc J p677-80 O '45
Oxidative ring closure in the Friedel-Crafts reaction; condensation of aromatic acid chlorides with naphthalene derivatives. G. D. Buckley. Chem Soc J p564-6 S '45

BENZOYL peroxide
Kinetics of decomposition of benzoyl peroxide in solvents. K. Nozaki and P. D. Bartlett. bibliog Am Chem Soc J 68:1686-92 S '46
Kinetics of the decomposition of benzoyl peroxide in various solvents. W. E. Cass. bibliog Am Chem Soc J 68:1976-82 O '46
Polymerization of allyl compounds; the peroxide-induced copolymerization of allyl acetate with maleic anhydride. P. D. Bartlett and K. Nozaki. bibliog Am Chem Soc J 68:1495-1504 Ag '46

Analysis
Iodometric method of analysis for organic peroxides. K. Nozaki. Ind & Eng Chem Anal ed 18:583 S '46

BENZOYLATION
Migration of acyl groups in certain derivatives of *o*-aminophenol. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 67:2163-5 D '45

BENZOYLENE compounds
Attempts to prepare cyclopolybenzoylenes. C. F. Koelsch and C. E. Bryan. bibliog Am Chem Soc J 67:2041-3 N '45

BENZYLAMINE
Chemotherapeutic agents of the sulphone type; sulphones related to benzamidine and benzylamine. A. T. Fuller, I. M. Tonkin and J. Walker. Chem Soc J p633-40 O '45
Substances allied to benzylamine-*p*-sulphonamide. T. Dewing. Chem Soc J p466-7 Je '46

BENZYLAMINO hexanol
Reduction of ethyl α-benzylamino-β-methoxy-*n*-caproate with sodium and butyl alcohol. C. Niemann and C. T. Redemann. bibliog Am Chem Soc J 68:1932-4 O '46

BENZYL benzoate
Benzyl benzoate from benzyl chloride and sodium benzoate. W. H. C. Rueggeberg, A. Ginsburg and R. K. Frantz. bibliog Ind & Eng Chem 38:207-11 F '46
Some analogs of benzyl benzoate. W. H. C. Rueggeberg, A. Ginsburg and R. K. Frantz. Am Chem Soc J 67:2154-5 D '45

BENZYL cellulose
Benzylcellulose. J. F. H. van Eijnsbergen. Paint Oil & Chem R 109:20+ Ag 22 '46

BENZYL chloride. See Chlorotoluene

BENZYLETHYLENE oxide
Constitution of the product of the reaction of benzylethylene oxide with ammonia. A. J. Castro and C. R. Noller. bibliog Am Chem Soc J 68:203-4 F '46

BENZYL isothiourea hydrochloride
New standard for use in ultimate analysis of organic compounds especially suited for microprocedures. C. L. Ogg and C. O. Willits. Ind & Eng Chem Anal ed 18:334 My '46

BENZYL malonoanilic acid
Asymmetric transformations with benzylmalonoanilic acids. E. M. Davidson and E. E. Turner. Chem Soc J p843-8 D '45

BENZYL malonotoluidic acid
Asymmetric transformations with benzylmalonoanilic acids. E. M. Davidson and E. E. Turner. Chem Soc J p843-8 D '45

BENZYLPIPERIDINE
Experiments in the piperidine series. R. M. Anker, A. H. Cook and I. M. Heilbron. Chem Soc J p917-20 D '45

BENZYLTHIURONIUM chloride. See Benzyl isothiourea hydrochloride

BENZYLIDENE acetals. See Acetals

BENZYLIDENE glucose
Carbohydrate C-nitroalcohols; 1-nitro-1-desoxy-D-α-glucoheptitol and a 2,6-anhydro-1-nitro-1-desoxyheptitol. J. C. Sowden and H. O. L. Fischer. bibliog Am Chem Soc J 68: 1511-13 Ag '46

BERANEK, Leo L.
Beranek receives honorary degree of doctor of science. por Acoustical Soc Am J 18:219-20 Jl '46

BERGMANN, Max, 1886-1944
Sketch. C. R. Harington. Chem Soc J p716-18 O '45

BERIA, Lavrenti, 1899-
Politburo. V. Krachenko. Fortune 34:99 S '46

BERKNER, Lloyd V. 1905-
Sketch. por Inst Radio Eng Proc 34:706 S '46

BERL, Ernst, 1877-1946
Appreciation. Chem & Met Eng 53:124 Mr '46

BERLITZ school of languages
Story of Berlitz. F. Smith. Adv & Sell 39:50+ Ag '46

BERMUDA
See also
Geology—Bermuda

BERRIES
See also
Cranberries

BERRY, Edward Wilber, 1875-1945
Memorial. L. W. Stephenson. pors(pl 1, 3) Geol Soc Proc 1945:193-214 bibliog (p200-14) Je '46
Sketch. J. B. Reeside, jr. Science 102:498-9 N 16 '45

BERTHOLLET, Claude Louis, 1748-1822
Claude Louis Berthollet. P. Lemay and R. E. Oesper. por(pxxv) J Chem Educ 23:158-65, 230-6 Ap-My '46

BERYL
Beryl-tantalite pegmatites of northeastern Brazil. W. D. Johnston, jr. bibliog il maps diags Geol Soc Bul 56:1015-69, pl 1-5 N '45

BERYLLIUM
Beryllium, beryllium alloys and the theoretical principles affecting alloy formation with beryllium. G. V. Raynor. bibliog diags Roy Aeronautical Soc J 50:390-415 My '46
Beryllium; compounds, alloys, etc. Mech Eng 68:459 My '46
Beryllium, its sources and uses; abstract. D. Gardner. Chem & Met Eng 52:258 D '45
Beryllium, 1945. C. E. Nighman. Eng & Min J 147:85 F '46
Beryllium; workaday metal. F. P. Peters. il Sci Am 174:249-51 Je '46
Extraction and uses of beryllium in Germany. G. T. Motock. U S Bur Mines Information Circ 7357:1-12 '46; Excerpt. Iron Age 158: 66 Ag 1 '46
Lyndoch beryl deposit. D. C. McLaren. il diags Can Min J 67:857-62 S '46
Magnetic materials and beryllium; abstract. E. M. Foster. Chem & Met Eng 53:214+ Jl '46
Neutron yields from the photo- and electrodisintegration of beryllium. M. L. Wiedenbeck. Phys R 69:235 Mr 1 '46
Production of beryllium compounds, metal and alloys. H. C. Kawecki. bibliog il Electrochem Soc Trans 89 (preprint 11):133-40 '46
Values of the optical constants for beryllium, magnesium, and zinc. R. O. Bock. Phys R 68:210-13 N 1 '45

Analysis
Determination of beryllium in ores; fluorometric method. M. H. Fletcher, C. E. White and M. S. Sheftel. bibliog diags Ind & Eng Chem Anal ed 18:179-83 Mr '46

Isotopes
Radioactivity of Be^{10}. E. M. McMillan and S. Ruben. Phys R 70:123-6 Ag 1 '46

BERYLLIUM, Powdered
Preparation of beryllium powder. J. M. Tien. bibliog Electrochem Soc Trans 89 (preprint 19):223-31 '46
Preparation of beryllium powder; abstract. J. M. Tien. Chem & Met Eng 53:260 Jl '46

BERYLLIUM alloys
Beryllium, beryllium alloys and the theoretical principles affecting alloy formation with beryllium. G. V. Raynor. bibliog diags Roy Aeronautical Soc J 50:390-415 My '46
Beryllium; compounds, alloys, etc. Mech Eng 68:459 My '46
Beryllium copper as a mold material. L. F. Boland. il Mod Plastics 23:139-42 F '46
Beryllium copper, its uses and potentialities. H. G. Williams. il Steel 118:88-91+ My 13 '46
Berryllium-copper, the new alloy. L. Sanderson. Can Min J 67:862-4 S '46
Beryllium; workaday metal. F. P. Peters. il Sci Am 174:249-51 Je '46
Heat treating beryllium copper for peak performance. H. G. Williams. bibliog il Iron Age 156:58-64 D 6 '45
Italian firm offers patent rights on secret process. For Comm W 23:28 Je 15 '46
Precision casting heat-treatable copper-base alloys; microstructures. H. Rosenthal and others. il Iron Age 158:48-54 S 19 '46
Production of beryllium compounds, metal and alloys. H. C. Kawecki. bibliog il Electrochem Soc Trans 89 (preprint 11):133-40 '46
Production of beryllium oxide and beryllium copper. B. R. F. Kjellgren. flow sheet diag Electrochem Soc Trans 89 (preprint 5):83-94 '46
Surface finishing of beryllium copper. il Iron Age 156:60-3 N 15 '45
Turning a small rod from beryllium copper. D. T. Armstrong. diags Am Mach 90:143 Mr 28 '46

BERYLLIUM borohydride
Structure of the hydrides of boron; beryllium borohydride, BeB_2H_8. G. Silbiger and S. H. Bauer. bibliog Am Chem Soc J 68:312-15 F '46

BERYLLIUM metallurgy
Beryllium, beryllium alloys and the theoretical principles affecting alloy formation with beryllium. G. V. Raynor. bibliog diags Roy Aeronautical Soc J 50:390-415 My '46
Beryllium metal; German methods of manufacture. diag Chem Age (Lond) 55:97-100 Jl 27 '46
Beryllium processes used in Germany. W. B. C. Perrycoste. Iron Age 158:169-70 O 10 '46
Production of beryllium; German war-time practice. Chem Age (Lond) 54:403-4 Ap 13 '46

BERYLLIUM oxide
Production of beryllium oxide. H. Lundin. bibliog(58 references) flow sheets Am Inst Chem Eng Trans 41:671-91 D '45
Production of beryllium oxide and beryllium copper. B. R. F. Kjellgren. flow sheet diag Electrochem Soc Trans 89 (preprint 5):83-94 '46
Studies of binary and ternary combinations of magnesia, calcia, baria, beryllia, alumina, thoria and zirconia in relation to their use as porcelains. R. F. Geller and others. bibliog pls diags J Res Nat Bur Stand 36:277-312 Mr '46

BERYLLIUM poisoning
Beryllium poisoning. Nat Safety N 53:107 F '46
Beryllium poisoning; abstract. H. S. Van Ordstrand and others. J Ind Hygiene 28: sup31 Mr '46
Delayed chemical pneumonitis occurring in workers exposed to beryllium compounds. H. L. Hardy and I. R. Tabershaw. bibliog J Ind Hygiene 28:197-211 S '46

BESSEMER, Alabama
Industries
Little shop with big stuff; Bessemer, Ala. plant of Pullman-standard car manufacturing co. il Manuf Rec 115:42-3+ Ap '46

BESSEMER process
German process improves Bessemer steel. Iron Age 157:77 Je 20 '46
Manufacture of H.P.N. steel in Belgium, Luxembourg and Germany; Hamborn, low-phosphorus, low-nitrogen steel. Engineer 181:158 F 15 '46
Nitrogen in Bessemer steel. Iron Age 158:49 O 3 '46

BEST and company
Thumbnail stock appraisal. Mag of Wall St 78:22 Ap 13 '46

BETA rays
Absorption curve of 31-second $_{8}O^{19}$ beta-rays and cross section for production by thermal neutrons. L. Seren and others. Phys R 70: 561 O 1 '46
Arrangement with small solid angle for measurement of beta rays. L. F. Curtiss and B. W. Brown. diags J Res Nat Bur Stand 37:91-4 Ag '46
β-Radiations of uranium X_1. S. Jnanananda. bibliog diag Phys R 69:570-4 Je 1 '46
β-Ray spectrum of K^{40}. B. Dželepow and others. bibliog Phys R 69:538-9 My 1 '46
Calorimetric experiment on the radiation losses of 2-Mev electrons. W. W. Buechner and R. J. Van de Graaff. bibliog diag Phys R 70:174-7 Ag 1 '46
Characteristic X-rays excited by beta-particles. J. E. Edwards and M. L. Pool. il diags Phys R 69:549-55 Je 1 '46
Design of beta-ray and gamma-ray Geiger-Müller counters. W. Good and others. il diags R Sci Instr 17:262-5 Jl '46
Experimental test of beta-ray theory for the positron emitters Na^{22}, V^{48}, Mn^{52}, Co^{55}. W. M. Good and others. bibliog diag Phys R 69:313-20 Ap 1 '46
Influence of intercrystalline forces on beta-ray absorption. H. D. Rathgeber. Phys R 69:239-40 Mr 1 '46
Positive particles appearing near beta-ray emitters. L. Smith and G. Groetzinger. Phys R 70:96-7 Jl 1 '46
Radioactive studies; analytical procedure for measurement of long-lived radioactive sulfur, S^{35}, with a Lauritzen electroscope and comparison of electroscope with special Geiger counter. F. C. Henriques, jr. and others. bibliog diags Ind & Eng Chem Anal ed 18:349-53 Je '46
Theory of the electrostatic beta-particle energy-spectrograph. F. T. Rogers, jr. Phys R 69:537 My 1 '46

BETAINE
Identity of some electrodialyzable constituents of cotton root bark. D. R. Ergle, L. E. Hessler and J. E. Adams. bibliog Am Chem Soc J 68:48-9 Ja '46
Interrelations between choline, betaine, and methionine. H. J. Almquist. bibliog Science 103:722-3 Je 21 '46

BETATRON. See Electron accelerator

BETHLEHEM steel company
Bethlehem plans big expansion. B. K. Price. il Steel 119:98 Ag 5 '46
Bethlehem's war shipbuilding record. il Marine Eng 51:112-15 Je '46

BETHLEHEM steel corporation
Annual report. Comm & Fin Chr 163:1418-19 Mr 18 '46
Preliminary report for 1945. Comm & Fin Chr 163:647 F 4 '46

BETTER business bureaus
Advertising is already regulating itself on a big scale through the Better business bureaus; what more is needed? E. L. Greene. Ptr Ink 214:40+ F 8 '46
Business protects the public; fraud prevention at the consumer level. P. S. Williams. Credit & Fin Management 48:28-9 Ag '46

BETTER light-better sight bureau
Disney color movie is feature of better light-better sight 1946 program. il Edison Elec Inst Bul 14:36-7 F '46
Objectives of Better light-better sight bureau. H. Restofski. Edison Elec Inst Bul 14:240+ Jl '46

BEVEL gearing. See Gearing, Bevel

BEVERAGES
Potentials for soft drink companies; with statistical highlights of leading companies. F. R. Walters. il Mag of Wall St 78:32-3+ Ap 13 '46
See also
Beer
Carbonated waters
Cocoa
Coffee
Dr Pepper company
Tea
Whisky
Wine
Advertising
This plan avoids waste of point-of-sale materials; dealer helps tailored to communities of specific size; Vess beverage co. B. R. Merrill. il Ptr Ink 217:50-1 O 25 '46

BEYEN, J. W. 1897-
Executive director of the world bank. por Comm & Fin Chr 163:3236 Je 13 '46

BHATNAGAR, Shanti Swarupa, 1895-
India's scientist-builder. C. Kant. por Chem Age (Lond) 55:317-19 S 14 '46

BIACETYL
Free radical determination in biacetyl photolysis. R. G. Ascah and others. J Chem Phys 14:487-94 Ag '46

BIARRITZ American university
Science section of Biarritz American university. S. A. Cain. Science 103:129-32 F 1 '46

BIBLE
Chemical knowledge in the New Testament. H. Zahnd and D. Gillis. bibliog J Chem Educ 23:90-7, 128-34 F-Mr '46

BIBLIOGRAPHY
Choix de bibliographies publiées en France, 1939-44. J Doc 1:148-50 D '45
Preparation of extensive bibliographies. J. A. Shaw and E. Fisher. Science 104:180 Ag 23 '46
Proposal for the co-ordination of unpublished bibliographies. J. L. Thornton. J Doc 2:21-2 Je '46
Whitaker's five-year cumulative book list, 1939-1943. 621p 80s J. Whitaker & sons, 13 Bedford square, London, W.C.1 '45
See also
Indexing
Periodicals—Indexes
also subdivision Bibliography under special subjects, e.g.
Business—Bibliography
Chemistry—Bibliography
Reference books —Bibliography
Technology—Bibliography
also Philadelphia bibliographical center and Union library catalogue
Best books
Books published in the United States, 1944; a selection for reference libraries. 41p American library assn, 520 North Michigan av, Chicago 11 '46
Buying list of books for small libraries. M. Horton, comp. 7th ed 134p Am. lib. assn, 520 N. Michigan av, Chicago 11 '45
Good reading. 9th ed 108p pa 30c National council of teachers of English, 211 W. 68th st, Chicago 21 '46
Bibliography
Bibliographic index; a Cumulative bibliography of bibliographies, 1945. B. Joseph, ed. 252p H. W. Wilson co, New York '46
Some guides to U.S.A. publications. R. H. Heindel. Assn of Sp Lib & Inf Bur Proc 1945:28-30

BIBLIOTHÈQUE nationale
La Bibliothèque nationale, 1940-4. M. Chabrier. J Doc 1:136-47 D '45

BIBLIOTHERAPY
Bibliotherapy and the librarian. M. M. Kinney. bibliog Special Lib 37:175-80 Jl-Ag '46

BICYCLES
Bicycle production in Russia. Fortune 34: 212 Jl '46
Engineering outlook. Engineering 161:103 F 1 '46

BICYCLO(2,2,1)HEPTANE. See Norcamphane

BIDAULT, Georges
Portrait. Bsns W p15 Jl 27 '46
Portrait. Fortune 34:165 O '46

BIDDLE, Alexander, 1893-
Portrait. Bsns W p64 My 11 '46

BIG Inch pipe line. See Petroleum pipe lines

BIG SANDY river
Feeder value of tributary waterways; reasoning employed by army engineers to justify project for improvement of Big Sandy river and its tributaries. C. S. Duncan. map Ry Age 120:668-9+ Mr 30 '46

BIGELOW, Frederic Russell, 1870-1946
Sketch. por Nat Underw 50:12 S 12 '46

BILL, Raymond, 1896-
Portrait. Sales Management 57:58 S 1 '46

BILLBOARDS
Mammoth acrylic display dome; in downtown Detroit, carrying out Ford slogan. il Mod Plastics 24:106-7 O '46

BILLING
Billing plan aids all departments in wholesale grocer's warehouse; Tom Boy cooperative merchandising. A. T. Lawson. il Am Bsns 16:16-17 Ja '46
Customers' billing in an electric utility. J. D. Elliott. Edison Elec Inst Bul 13:354-6+ D '45
Meter reading, billing and commercial practices under wartime conditions. K. F. Hoefle. il Am Water Works Assn J 38:775-8 Je '46
One-writing plan ends back order delays; Chain belt company, Milwaukee, installs new system of order billing. G. E. Toles. il Am Bsns 16:12-13+ O '46
Possible mercantile clearing-house plan; simplification in billing and payment procedure. M. K. Gunz. J Retailing 21:113-16 O '45
See also
Waybills

BILLINGS, Asa White Kenney
Good neighbor. Fortune 34:248+ O '46

BILLOW, Clayton Oscar, 1860-1945
Memoir. E. Haupt. por Western Soc E J 50: 142-3 S '45

BILLS of lading
Court holds limiting bill of lading clause null and void; carrier's liability. Weekly Underw 154:58+ Ja 5 '46
Recommends uniform airway bills of lading; committee report, Bankers' association for foreign trade. Comm & Fin Chr 162:2499 N 22 '45

BINDING materials
Binding agents for flux coatings, their composition and production. W. Andrews. Welding J 24:1147-54 D '45
Bonding properties of mixtures of petroleum extracts and linseed oil and of the extracts themselves. W. Davies and W. J. Rees. diags Iron & Steel Inst J 150:49-68 no 2 '44
Effective use of cereal core binders. A. E. DeClercq and T. Barlow. Foundry 73:108-9+ D '45
Evaluation of some binders for use in pelletizing slimes; work on sponge iron. T. A. Klinefelter. U S Bur Mines Rep of Invest 3846:1-13 '46
Fullers earth as a binder for catalysts and adsorbents; Florigel. R. G. Capell and others. bibliog il Pet Refiner 25:117-19 F '46
Study of several groups of organic binders under low-pressure extrusion; flours, starches, gums, alcohols and cellulose derivatives, wood extracts and alginates. C. C. Treischel and E. W. Emrich. fold table Am Cer Soc J 29:129-32 My 1 '46
Using synthetic resin core binders. H. L. Gebhardt. il Foundry 74:110-12+ F '46

BINNS, Asa, 1873-1946
Sketch. por Engineer 182:36-7 Jl 12 '46; Engineering 162:40 Jl 12 '46

BINOCULARS. See Field glasses

BINOMIAL coefficients. See Statistical methods

BINS
Practical pointers in design of storage bins. A. H. Korn. diags Chem Eng 53:100-1 S '46
Storage bins for granular materials. F. Clayton. il Mech Handling 33:60-1 Ja '46
See also
Coal bins
Ore bins

BINS, Steel
Built-in pallets cut scrap-handling time; Allis-Chalmers supercharger plant. F. MacDonald. il diag Factory Management 103: 92-3 N '45

BIOCHEMICAL oxygen demand tests. See Sewage—Testing

BIOCHEMICAL research foundation. See Franklin institute—Biochemical research foundation

BIOGRAPH company
Law for the layman; indian giver. M. L. Hayward. Barron's 26:16 Ag 19 '46

BIOGRAPHY
Dictionaries
International who's who, 1945-46. 10th ed 960p Europa publications, ltd, 39 Bedford square, London, W.C. 1 '46
Who's who in labor. 480p Dryden press, 386 Fourth av, New York 16 '46
Who's who in Latin America; a biographical dictionary of notable living men and women of Latin America, pt. 1, Mexico. R. Hilton, ed. 3d ed rev & enl 130p $2.50; pa $1.75 Stanford university press, Stanford university, California '46

BIOLOGICAL abstracts (periodical)
Abstracting of biological films. W. M. Reid. Science 103:206 F 15 '46

BIOLOGICAL apparatus
Automatic sample changer to be used for measuring radioactive samples. W. C. Peacock and W. M. Good. diags R Sci Instr 17:255-61 Jl '46
Black fly incubator-aerator cabinet. L. J. Thomas. diag Science 103:21 Ja 4 '46
Continuous cultivation of micro-organisms. W. A. Moor. diags Science 102:594-5 D 7 '45
Improved electronic stimulator. R. K. McCombs and F. C. Walz. bibliog diags R Sci Instr 16:249-52 S '45; Abstract. Electronics 19:222+ Mr '46
Potometer for rapid measurements of ingestion by haustellate insects. M. R. Frings and H. Frings. il Science 103:22-3 Ja 4 '46
Production of penicillin X in submerged surface cultures; the fermenter. E. Stice and R. Pratt. bibliog diag Science 103:535-7 Ap 26 '46

BIOLOGICAL assay
Analysis of Latin squares when some observations are missing. D. B. De Lury. Am Stat Assn J 41:370-89 S '46
Use of charcoal treated peptone in microbiological assays. H. Isbell. Science 102:671 D 28 '45

BIOLOGICAL chemistry
Annual report of the Biochemical research foundation of the Franklin institute. E. McDonald. Franklin Inst J 241:23-9 Ja '46
Biochemical studies on influenza virus. W. M. Stanley. Chem & Eng N 24:755-8 Mr 25 '46
Biochemistry of muscle training. A. V. Palladin. bibliog Science 102:576-8 D 7 '45
Biological actions and therapeutic applications of the 6-chloroethyl amines and sulfides. A. Gilman and F. S. Philips. bibliog (68 references) Science 103:409-15+ Ap 5 '46
High frequency radiation and the gene. G. W. Beadle. Chem & Eng N 24:1366-71 My 25 '46
Midwest award to the Coris. Chem & Eng N 24:893-5 Ap 10 '46
Nichols medal awarded to Stanley; scientific contributions of the medalist. V. du Vigneaud. Chem & Eng N 24:752-5 Mr 25 '46
Recent work in the field of high pressures; biological effects. P. W. Bridgman. bibliog Rs Mod Phys 18:88-93 Ja '46

BIOLOGICAL chemistry—*Continued*
Surface chemistry in relation to biology. E. K. Rideal. Can Chem & Process Ind 29:861-2+ D '45

See also
Antigens and antibodies
Bacteria
Bacteriology
Biological materials—Analysis
Blood
Enzymes
Haptens
Hormones
Immunity
Metabolism
Nutrition
Plant growth
Plants—Chemical analysis
Proteins
Vitamins

BIOLOGICAL laboratories, Marine. See Marine biological laboratories

BIOLOGICAL libraries. See Scientific libraries

BIOLOGICAL materials

Analysis

Colorimetric micromethod for determination of antimony in biological materials, with concomitant determination of bismuth. E. W. McChesney. bibliog Ind & Eng Chem Anal ed 18:146-9 F '46

Method for immunological and chemical investigations of body fluids by means of purified gelatin. O. Kanner. Science 104: 253-4 S 13 '46

Microdetermination of antimony in biological material; spectrographic method. J. Cholak and D. M. Hubbard. bibliog J Ind Hygiene 28:121-4 Jl '46

Microdetermination of mercury in biological material. J. Cholak and D. M. Hubbard. bibliog diag Ind & Eng Chem Anal ed 18: 149-51 F '46

Modification of the arsenic method of Magnuson and Watson. T. H. Maren. Ind & Eng Chem Anal ed 18:521 Ag '46

Modified all-dithizone method for determination of traces of copper. S. L. Morrison and H. L. Paige. bibliog Ind & Eng Chem Anal ed 18:211-13 Mr '46

Rapid qualitative and quantitative determination of barbiturates from postmortem specimens. P. Valov. Ind & Eng Chem Anal ed 18:456 Jl '46

See also
Blood—Analysis
Urine—Analysis

BIOLOGICAL physics
Fast neutron energy absorption in gases, walls, and tissue. P. C. Aebersold and G. A. Anslow. bibliog Phys R 69:1-21 Ja 1 '46

See also
Biomechanics

BIOLOGICAL products

See also
Serum
Toxins and antitoxins
Vaccines
Viruses

Transportation

Frozen pack for serums in air cargo. il Mod Packaging 19:115 Jl '46

BIOLOGICAL research
Biological applications of nucleonics. H. J. Curtis. Chem & Eng N 24:897-9 Ap 10 '46

Double-beam C-R tube in biological research. T. H. Bullock. il diags Electronics 19:103-5 Jl '46

Nerve stimulator; thyratron-type relaxation oscillator for biological research and medical therapy. W. I. Weiss. diags Electronics 19:155 F '46

Research institutions of biology. Science 102: 524 N 23 '45

BIOLOGICAL societies
Society for all biologists. Science 104:325 O 4 '46

BIOLOGICAL warfare
Peacetime implications of biological warfare; American-Canadian study of rinderpest in cattle. G. W. Merck. Chem & Eng N 24: 1346-9 My 25 '46; Excerpts. Metal Prog 49: 1208-9 Je '46

See also
Bacteria, Pathogenic, in warfare

BIOLOGISTS
Organization of biologists. J. A. Behnke and F. A. Brown, jr. Science 102:569-70 N 30 '45

Russia

Freedom of science in Soviet Union. V. C. Asmous. Science 103:281-2 Mr 1 '46

Soviet biology. K. Sax. Science 102:649 D 21 '45

BIOLOGY
Century of progress in Smithsonian biology. R. Kellogg. Science 104:132-41 Ag 9 '46

See also
Bacteriology
Biological chemistry
Biological research
Botany
Electrophysiology
Fertilization (biology)
Fouling organisms
Growth
Microorganisms
Microscope and microscopy
Mutation (biology)
Plants
Reproduction

Study and teaching

Biology in the premedical curriculum. V. Hamburger. Science 102:511-13 N 16 '45; Reply. A. C. Giese. 103:543 Ap 26 '46

Japan

War and biological sciences in Japan. J. L. Gressitt. Science 103:755-8 Je 28 '46

BIOMECHANICS
Applying biomechanics to airplanes. F. K. Teichmann. Mech Eng 68:628-9 Jl '46

Approach to the study of the tensile properties of fibrous tissues; abstract. P. R. Marvin. Mech Eng 68:569 Je '46

Limits of factors of safety in the human body. E. F. Du Bois. bibliog Mech Eng 68:625-7 Jl '46

Mechanics of human muscles. H. W. Haggard. diags Mech Eng 68:321-4 Ap '46

BIOTIN
Biotin; a stereochemical correlation of *dl*-biotin, *dl*-allobiotin and *dl-epi*-allobiotin. S. A. Harris and others. bibliog Am Chem Soc J 67:2102-6 D '45

Biotin; resolution of *dl*-biotin. D. E. Wolf and others. Am Chem Soc J 67:2100-2 D '45

Biotin; synthesis of *dl*-biotin, *dl*-allobiotin and *dl-epi*-allobiotin. S. A. Harris and others. bibliog Am Chem Soc J 67:2096-100 D '45

Experiments on the synthesis of α-biotin. R. Ghosh, J. F. W. McOmie and J. P. Wilson. Chem Soc J p705-6 O '45

Hydrogenation of compounds containing divalent sulfur. R. Mozingo and others. bibliog Am Chem Soc J 67:2092-5 D '45

BIRCH
Phenolic resin glue line as found in yellow birch plywood. C. A. Farrow, D. H. Hamly and E. A. Smith. bibliog il Ind & Eng Chem Anal ed 18:307-10 My '46

Suitability of yellow birch for glassine paper manufacture. J. A. Feola and C. E. Libby. bibliog il diag Paper Tr J 123:64-72 S 26 '46

BIRD houses
Energetic builder lets birds feather his nest; Donald B. Hyde. il Bsns W p39 My 18 '46

BIRDS

See also
Electric lines—Bird problem

BIRDSEYE, Clarence, 1886-
Birdseye also means a man. por Adv & Sell 39:124+ Jl '46

BIRDSEYE drying process. See Drying (fruits and vegetables)

BIRDSEYE freezing process. See Food, Frozen; Freezing

BIRKHOFF, George David, 1884-1944
Sketch. E. B. Wilson. Science 102:578-80 D 7 '45

BIRMINGHAM, Alabama

Industries

Birmingham surges ahead. D. Meredith. il Manuf Rec 115:43-4+ Ag '46

BIRTH rate
Negro mortality; the birth rate and infant and maternal mortality. M. Gover. bibliog Pub Health Rep 61:1529-38 O 25 '46

BIRTH rate—*Continued*
Sources of our future scientists; educated groups have failed to bear enough children to replace themselves. C. J. Gamble. Science 103:457-8 Ap 12 '46; Reply. W. M. Venable. 103:599-600 My 10 '46

BISCUITS
Cracker operation; high-speed forming, filling and sealing. il Mod Packaging 19:104-6+ Ap '46

BISMUTH
Bismuth, 1945. T. P. Wootton. Eng & Min J 147:86 F '46
Forbidden lines of bismuth BII. S. Mrozowski. bibliog il Phys R 69:169-72 Mr 1 '46
Fractographic structures in bismuth. C. A. Zapffe. il Metal Prog 50:283-6 Ag '46
Potentiation of the antibiotic activity of aspergillic acid by bismuth. A. Goth. Science 104:330 O 4 '46
Rapid and direct measurement of vapor pressure of liquid metals. A. H. Weber and G. Plantenberg. diag Phys R 69:649-51 Je 1 '46
Relative probability of the *(d,p)* and the *(d,n)* reactions in bombarded bismuth. J. M. Cork. Phys R 70:563 O 1 '46

Analysis
Colorimetric micromethod for determination of antimony in biological materials, with concomitant determination of bismuth. E. W. McChesney. bibliog Ind & Eng Chem Anal ed 18:146-9 F '46
Coulometric analysis. J. J. Lingane. diags Am Chem Soc J 67:1916-22 N '45

BITS
Copper-cushioned toolbits processed for high metal removal. il diags Am Mach 90:130 Ja 31 '46; Abstract. Mach 52:200 D '45
Reconditioning drill bits by hot-milling at Parral. W. J. Upton. il plan Eng & Min J 147:96-9 Ag '46
Special machine utilizes combination drives; milling machine to produce cutter bits for the Reed roller bit co. F. J. Kampmeier. il diags Machine Design 18:101-6 Ap '46
Threadless detachable bits as used on Witwatersrand. P. A. Creewel. diags Eng & Min J 147:78-80 Jl '46
What goes on in the diamond-drill hole? P. Adamson. il Eng & Min J 147:70-3 S '46

BITUMINOUS coal research, inc.
Annual meeting, Cleveland, June 28-29. Coal Age 51:128+ Ag '46

BITUMINOUS concrete pavements. See Pavements, Bituminous concrete

BITUMINOUS materials
Asphaltic oil-latex joint-sealing compound. B. W. Pocock. bibliog il Am Concrete Inst J 17:565-80 Je '46
Asphaltic reservoir linings prove successful. A. H. Benedict. il Pub Works 76:15-17+ D '45
Bituminous protective paints and compounds; abstract and discussion. J. W. Craggs and R. Fraser. Chem & Ind p157 Ap 13 '46
Chemistry and constitution of asphalts. B. A. Murphy. bibliog Inst Pet J 31:475-85 D '45
Co-operative research in the road emulsion industry by the technical sub-committee of the Road emulsion and cold bituminous roads association. E. R. Hatt and W. R. Peard. il diags Soc Chem Ind J 64:243-53 S '45
Study of bituminous-coated corrugated sheet metal culverts. J. Y. Welborn and P. J. Serafin. il Pub Roads 24:227-38 Jl '46
See also
Oil shales
Road tar
Roads, Bituminous

Analysis
Rapid determination of tar and bitumen in road materials. E. H. Green and E. A. Cox. il diags Soc Chem Ind J 65:1-6 Ja '46
Rapid determination of the bitumen content in pavements; abstract. H. Arnfelt. Am Concrete Inst J 17:730-1 Je '46
Rapid field test of bituminous mixes. M. A. VerBrugge. il diag Eng N 136:843-4 My 30 '46; Same cond Civil Eng 16:314-15 Jl '46

Testing
Additives for asphaltic mixtures. P. F. Critz and J. F. Goode. il Roads & Bridges 84:50-6+ Ag '46
Anti-stripping asphalt additives. J. C. Sprague. il Roads & Bridges 84:63-71+ S '46
Behavior of asphalts in thin-film oven test. R. H. Lewis and W. J. Halstead. Pub Roads 24:220-6 Ap '46
Determination of plastic and brittle states of pool bitumens. W. Lethersich. bibliog diags Soc Chem Ind J 65:190-6 Jl '46
Flow test for asphaltic bitumens. diag Inst Pet J 31:450-1 N '45
Test for determining the effect of water on bituminous mixtures. J. T. Pauls and H. M. Rex. bibliog il Pub Roads 24:115-29 Jl '45; Excerpts. Pub Works 76:27-8 D '45

BITUMINOUS pavements. See Pavements, Bituminous

BITUMINOUS roads. See Roads, Bituminous

BITUMINOUS sand
Asphaltic sands found to occur in oil fields. D. B. Taliaferro and K. E. Stanfield. Am Assn Pet Geologists Bul 30:616-19 Ap '46

BIURET
New blowing agent for sponge rubber; mixture of biuret and urea. H. F. Schwarz. il India Rubber World 114:211-12+ My '46

BLACK, Joseph, 1728-1799
Sketch. Engineer 180:452 D 7 '45

BLACK body
Significance of emittance in radiation pyrometry. T. R. Harrison. Opt Soc Am J 35: 706-8 N '45
Spectral emissivities of oxidized and unoxidized surfaces. T. R. Harrison. Elec World 125:112 Je 22 '46

BLACK light. See Infrared rays; Ultraviolet rays

BLACK liquor. See Paper mills—Waste

BLACK markets. See Profiteering

BLACK sand
Beach and river sands of the coastal region of southwest Oregon with particular reference to black sands. W. H. Twenhofel. fold map Am J Sci 244:114-39, pl 1-4, 200-14 F-Mr '46

BLACKENING of non-ferrous metals. See Metals, Non-ferrous—Blackening

BLACKENING of steel. See Steel—Blackening

BLACKOUTS in war
Blackout in Hawaii. W. J. Holmes. il Illum Eng 41:312-24 Ap '46

BLADDER

Diseases
Prevention of lesions of the bladder in the dye industry; abstract. A. Müller. J Ind Hygiene 28:sup89 Jl '46

BLANCHING
Blanching vegetables for freezing; abstract. F. A. Lee and J. Whitmore. Food Ind 18:769 My '46
Electronics in processing foods; blanching of vegetables. S. R. Winters. il Radio N 35: 31+ Je '46
Enzyme activity; index of quality in frozen vegetables. M. A. Joslyn. bibliog(50 references) Food Ind 18:1204-10+ Ag '46
Vitamin retention in blanched carrots; alcohol-insoluble solids as a reference base. F. A. Lee. bibliog Ind & Eng Chem Anal ed 17: 719-20 N '45

BLANKETS
Improved method for quantitative impregnation of textiles with germicidal emulsifiable oils. Science 104:60-1 Jl 19 '46

Advertising
Booklet continues to pull after 20 years; Story of Bunny Esmond. Ptr Ink 214:76 F 22 '46
Buyers thought Chatham made only one product, so advertising points out equally good products in other lines. V. J. Dallaire. il Ptr Ink 216:32-3 Ag 2 '46

Rating
Blankets; wool, part-wool, and cotton. Consumers Res Bul 16:12-14+ D '45

BLANKETS—*Continued*

Testing

Effect of fiber content and care on resiliency, thickness, and thermal conductivity of blankets. P. A. Gilmore and K. P. Hess. Rayon 27:252-6 My '46

BLANKETS, Electric. See Electric blankets

BLAST cleaning. See Sand blast

BLAST furnace gas

Gaseous fuels in Britain. D. D. Howat. bibliog Chem Age (Lond) 54:107-11, 133-7 Ja 26-F 2 '46

Steam generation in steel mills; operating on coke oven gas, blast furnace gas, pulverized coal and coke breeze. F. X. Gilg. il diags Blast F & Steel Pl 34:138+ Ja '46

Suppressing gas leaks on blast furnace tops. E. A. Anderson. diags Steel 118:144+ My 20 '46

Cleaning

Dry-hot cleaning of blast furnace gas. F. E. Kling. flow diag il diags Blast F & Steel Pl 34:1257-64 O '46

Dual system for cleaning blast furnace gas; Dovel gas cleaner and washer. diags Steel 118:144+ Ja 28 '46

BLAST furnaces

Aluminum blast furnace tuyeres; studies conducted in Japan, Germany, England and France since 1920. R. Guillemot. il diags Iron Age 158:68-70 O 10 '46

Beneficiation of blast furnace coke at the Kaiser steel company, Fontana, Cal. J. H. Thompson. il Blast F & Steel Pl 34:225-30, 350-4, 475-9, 584-6+ F-My '46

Better blast furnace practice lowers coke consumption at Geneva. Iron Age 157:162 F 14 '46

Blast furnace operation; abstract. F. Janecek. Materials & Methods 23:1650 Je '46

Blast-furnace operation and problems; discussion. diags Iron & Steel Inst J 150.375-452, pl 28-9 no 2 '44

Blast furnace process and means of control. T. L. Joseph. bibliog il diags Blast F & Steel Pl 34:709-14, 855-60+ Je-Jl '46

Blast furnace theory. F. Mobey. bibliog il Blast F & Steel Pl 34:487-90+ Ap '46

Casting tuyeres in the Bethlehem foundry. P. Dwyer. il Foundry 73:110-13+ D '45; Same abr. Steel 118:138+ F 4 '46

Considerations on blast-furnace practice. T. P. Colclough. Iron & Steel Inst J 150:359-74 no 2 '44; Same cond. Blast F & Steel Pl 33:1101-5, 1253-7 S-O '45

Dead banking of blast furnaces; with cost data. L. E. Riddle. il Blast F & Steel Pl 34:733-40 Je '46

Designs steel lugs for blast furnace cooling plates. diags Steel 118:128 Mr 18 '46

Drains 640-ton salamander from stack in an hour. il Steel 118:114+ F 11 '46

Effect of sized and nodulized Mesabi iron ores on blast furnace performance H. F. Dobscha. Blast F & Steel Pl 34:979-85 Ag '46; Abstract. Steel 118:137 Je 3 '46

Improvement in blast furnaces in the past quarter century. L. E. Riddle. il Blast F & Steel Pl 34:87-92 Ja '46

Nickel blast-smelting still offers advantages. C. C. Downie. plan Eng & Min J 147:88-90 Ag '46

Open hearth steel and blast furnace and raw materials committee of American institute of mining and metallurgical engineers; conference, Chicago, April 24-26. Steel 118:140-1+ My 6 '46; Metal Prog 49:1182-92 Je '46

Operation of blast furnaces; joint meeting of the Blast furnace and coke association, Chicago district and Eastern states, Blast furnace and coke oven association, Cleveland, Nov. 9. Steel 117:135+ N 19 '45

Preparation of coal and coke for coke ovens and blast furnaces; abstract. C. L. Potter. Steel 118:137 Je 3 '46

Principles of iron ore beneficiation and their effects on blast furnace operation. C. E. Agnew. il diag Steel 117:124+ N 26; 134+ D 3; 122-4+ D 10; 125+ D 17 '45

Sinters and sintering. H. L. Saunders and H. J. Tress. il Blast F & Steel Pl 33:1385-90 N '45

Sinters economize blast furnace operation. il Iron Age 156:62-3 N 29 '45

Suppressing gas leaks on blast furnace tops. E. A. Anderson. diags Steel 118:144+ My 20 '46

Three blast furnace questions. O. R. Rice. Blast F & Steel Pl 33:1523-9 D '45

Transferring heat. S. R. Lewis. Heating-Piping 18:92-3 O '46

See also

Cupola furnaces

Air supply

Blast furnace practice, survey; blast conditioning, carbon linings. Steel 119:126-7 S 23 '46

Steam and blast-furnace air for Fontana. H. H. Hyde. il diags Power Pl Eng 49:74-80 D '45

Blowing out

Blowing out blast furnaces; full furnace blowdown method. O. Becker. Blast F & Steel Pl 33:1530-1 D '45; Same abr. Steel 118: 112+ Ja 14 '46

Blowing out blast furnaces; nut coke hydraulic washout method. J. R. Barnes. Steel 118: 110+ Ja 14 '46; Same. Blast F & Steel Pl 33:1535-6 D '45

Use of domestic coke in blowing a blast furnace. W. H. Burnett. Blast F & Steel Pl 33:1533 D '45; Same. Steel 118:109-10 Ja 14 '46

Charging

Distribution of materials in the blast-furnace; summaries and discussion. H. L. Saunders and R. Wild. Engineer 180:441-2 N 30 '45; Engineering 160:453 N 30 '45

Use of scrap in the blast furnace. K. Neustaetter. Blast F & Steel Pl 34:592-3+ My '46; Same. Steel 119:122+ Jl 1 '46

Fuel

Fuel cost economy at the blast furnace and its relation to coal selection and preparation. W. M. Bertholf. Blast F & Steel Pl 34:727-32+ Je '46; Same. Steel 119:122-4+ Jl 15 '46

Lining

Blast furnace practice, survey; blast conditioning, carbon linings. Steel 119:126-7 S 23 '46

Carbon lining for blast furnaces. F. J. Vosburgh. bibliog il diags Steel 117:86-8+ D 24; 62-3+ D 31 '45

Destruction of the refractory lining of blast furnaces and the lining with tamped carbon masses; abstract. R. Klesper. Am Cer Soc J 29 (Cer A[25]):86 My 1 '46

Moving

Moving the Pembroke blast furnace from Florida to Texas. R. H. Sweetser. il Iron Age 156:66-7 N 15 '45

BLASTING

Blast holes shot into volcanic slag; use of shells; seabee project, building road on New Britain. G. A. Cunney. il Civil Eng 16:71 F '46

Blasting a mountain top to build an airport. J. I. Horty. il Explosives Eng 23:241-3+ N '45

Blasting boat trails in Okefenokee swamp park. C. W. Dodson. il Explosives Eng 24: 140+ S '46

Blasting ditches in Florida coral rock; U.S. naval air station, Boca Chica, Florida; explosives eliminate mosquito menace. F. P. Bussells. il Explosives Eng 24:17-18 Ja '46

Ditching with dynamite in West Virginia. C. J. Burton. il Explosives Eng 24:124-5 Jl '46

Fifty years of progress; blasting developments. Rock Prod 49:105+ Je '46

Labors of a modern Hercules; drawings. A. B. Chapin. Explosives Eng 24:54, 84, 123, 149 Mr-S '46 (to be cont)

Mining and quarrying Greenbrier limestone; Acme limestone company. R. H. Counts. il Explosives Eng 24:9-12+ Ja '46

Mining at Climax. R. Henderson and W. K. McGlothlin. il Min & Met 27:311-13 Je '46

Shaped charge for cheaper mine blasting. J. B. Huttl. il diags Eng & Min J 147:58-63 My '46

BLASTING—*Continued*
Vibrations from blasting; their nature, measurement, and effect. L. D. Leet. il diags Explosives Eng 24:41-4+, 85-9 Mr-My '46
Zinc mining along the St Lawrence. T. Marvin. il plans diags Explosives Eng 24:50-2+ Mr '46
See also
Coal mines and mining—Blasting
Explosives

Safety measures
Blasting caps; never let up on safety vigilance. Roads & Sts 89:103+ My '46

BLASTING, Subaqueous
Blasting river ice prevents spring floods. C. Dintruff. il Explosives Eng 24:13-15 Ja '46
Blasting submarine coral in Samar, P. I. C. Phillips, jr. Eng N 136:779 My 16 '46
Removal of Ripple Rock in Seymour Narrows, off British Columbia coast. Engineer 181:219 Mr 8 '46

BLAW-KNOX company
New lines lift Blaw-Knox sales prospects. Barron's 26:8 F 18 '46
Thumbnail stock appraisal. Mag of Wall St 77:275 D 8 '45

BLEACHERIES

Equipment
Continuous bleaching to include electronic and other modern controls; abstract. K. Selden, jr. Rayon 27:380 Jl '46
Wartime advances in continuous bleaching. D. Butterworth. il Rayon 27:320 Je '46

BLEACHING
Bleaching textiles with peroxides. R. Mills. Am Dyestuff Rep 35:388-9+ Ag 12 '46
Wartime advances in continuous bleaching. D. Butterworth. il Rayon 27:320 Je '46
See also
Blanching
Decolorization
Dyes and dyeing
Paper making—Bleaching

Control
Continuous bleaching to include electronic and other modern controls; abstract. K. Selden, jr. Rayon 27:380 Jl '46

Cotton
Evaluation and comparison of two commercial bleaching processes. J. H. Kettering and R. M. Kraemer. bibliog Am Dyestuff Rep 35:285-7 Je 3 '46
Knit goods damaged by chlorine bleach. Textile World 95:176+ D '45

Fur
Principles of fur bleaching. W. E. Austin. patent list Rayon 27:33-40 Ja '46

Jute
New method of approach to the bleaching and subsequent dyeing of jute. G. Garrett. Soc Dyers & Col J 62:234-7 Ag '46

Rayon
Bleaching spun rayon fabrics; Ca-hypochlorite; patent. Am Dyestuff Rep 35:460 S 23 '46

BLEACHING materials
Bleaching in the soap plant; abstract. K. W. Richmond. Soap & San Chem 21:59+ N '45
Pulp bleaching. L. E. Russell. diags Paper Ind 28:528-32+ Jl '46
See also
Chlorine
Hydrogen peroxide
Sodium chlorite

BLEININGER, Albert Victor, 1873-1946
Sketch. por Am Cer Soc Bul 25:241 Je 15 '46

BLIGHTED areas. See Slums

BLIND
Utilizing the blind worker; abstract. M. Supa. Ind Med 15:25-6 Ja '46
Veteran overcomes blindness handicap; assembles switch boxes. Nat Safety N 54: 39 S '46

BLIND, Apparatus for
Blind inspectors gage by sound. il diag Am Mach 89:111 N 22 '45; Mach 52:174 Jl '46
Photoelectric aid for the blind; beam of light reflected by objects within 20-foot radius creates coded tone signals in earphone. il Electronics 19:204+ Ja '46
Reading aid for the blind; letters converted into distinctive sounds. V. K. Zworykin and L. E. Flory. il diag Electronics 19: 84-7 Ag '46
Sensory aid for the blind; photoelectric ranging device gives aural indication of distance of obstacle. L. Cranberg. il diags Electronics 19:116-19 Mr '46

BLIND, Printing for
Braille instruments aid blind inspectors. il Iron Age 157:56-7 My 23 '46; Same cond. Mech Eng 68:656-7 Jl '46
Safety for the sightless; Braille text-book based on the American Red cross accident prevention course. J. Lee. il Nat Safety N 54:42 S '46

BLISS, E. W., company
Newcomers on the Stock Exchange. W. A. Howell. Mag of Wall St 78:761+ S 28 '46
Preferred stock offered. Comm & Fin Chr 163:1856 Ap 8 '46
Thumbnail stock appraisal. Mag of Wall St 78:341 Je 22 '46

BLOCK and tackle. See Hoisting

BLOCK caving. See Mining methods

BLOKH, Max Abramovich, 1882-
Max Abramovich Blokh; his contributions to the history of chemistry. H. S. Klickstein and H. M. Leicester. bibliog J Chem Educ 23:451-3 S '46

BLOOD
Blood sugar level following intravenous glucose in rheumatoid arthritis. J. E. Flynn and O. J. Irish. bibliog Science 104:344-6 O 11 '46
Engineering technique commercializes human blood fractionation. J. R. Callaham. flow diag il Chem & Met Eng 53:101-3 Je '46
Iron-binding component in human blood plasma. A. L. Schade and L. Caroline. bibliog Science 104:340-1 O 11 '46
Milk factor in blood. S. Graff and others. Science 104:289 S 27 '46
Monochromatic light absorption by normal chicken erythrocytes. J. O. Ely and M. H. Ross. il Franklin Inst J 242:85-9 Jl '46
Observation on the red cell content of the blood of the thoroughbred horse. J. Macleod and E. Ponder. Science 103:73 Ja 18 '46
Target area of mammalian red cells. E. Ponder. Science 103:331 Mr 15 '46

Agglutination
Prozones and blocking effect in normal iso- and hetero-agglutination with cord sera. H. H. Lubinski. Science 103:76-7 Ja 18 '46

Analysis
Deproteinization by metaphosphoric acid; review of its value for the analyst. A. A. Horvath. Ind & Eng Chem Anal ed 18:230-1 Ap '46
Destruction of organic matter in blood fibrin and chromacized medical catgut by wet oxidation; determination of iron in blood and of chromium in sutures. G. F. Smith. bibliog Ind & Eng Chem Anal ed 18:257-9 Ap '46
Electrophoresis; technique for analysis of blood protein mixtures. il diag Electronics 19:196+ S '46
Impurity in some commercial penicillin preparations which interferes with the diazo reaction in determining blood phenols. J. C. Hartnett. Science 103:114-15 Ja 25 '46
Preparation and properties of serum and plasma proteins; a system for the separation into fractions of the protein and lipoprotein components of biological tissues and fluids. E. J. Cohn and others. bibliog Am Chem Soc J 68:459-75 Mr '46

Circulation
Occurrence, sites and modes of origin and destruction, of principles affecting the compensatory vascular mechanisms in experimental shock. E. Shorr and others. bibliog Science 102:489-98 N 16 '45

BLOOD—*Continued*

Coagulation

Thromboplastic studies on hemophilia; reply to Moldavsky, Hasselbrook and Cateno. D. I. Macht and M. Ostro. Science 103:402 Mr 29 '46

See also
Heparin

Diseases

See also
Granulocytopenia
Leucopenia

Parasites

Blood parasites of the blue grouse. C. D. Fowle. Science 103:708-9 Je 14 '46

Sampling

Indwelling arterial needle for use in the radial artery. J. P. Henry and others. diags Science 104:299-300 S 27 '46

Transfusion

Effect of transfusions of red blood cells on the hypoxia tolerance of normal men. N. Pace and others. bibliog Science 102:589-91 D 7 '45

Treatment of severe erythroblastosis by simultaneous removal and replacement of the blood of the newborn infant. H. Wallerstein. Science 103:583-4 My 10 '46

BLOOD, Dried

Plasma builds civilian market through surgical supply houses; Hyland laboratories of Los Angeles. il Sales Management 56:139-40 Ja 15 '46

Sterile dispenser for dried human blood cells. il Mod Packaging 19:159 Mr '46

BLOOD groups

Blocking antibody and the zone phenomenon in human anti-Rh sera. P. Levine and R. K. Waller. bibliog Science 103:389-91 Mr 29 '46

Blood group factors and ethnic relationships. M. F. A. Montagu. Science 103:284 Mr 1 '46

Theory and nomenclature of the Hr blood factors. A. S. Wiener. bibliog Science 102:479-82 N 9 '45

BLOOD pressure

Compound to reduce high blood pressure; 1-(*p*-hydroxyphenyl-1) - 2 - isopropylaminoethanol. Chem & Eng N 24:1428 My 25 '46

For blood vessels; rutin, from buckwheat valuable in hypertension cases. Bsns W p48+ F 23 '46

Preparation of N-substituted 1-(*p*-hydroxyphenyl)-2-aminoethanols. J. R. Corrigan, M. Langerman and M. L. Moore. bibliog Am Chem Soc J 67:1894-6 N '45

Survival time of hypertensive rats receiving fish-oil extracts. F. Reichsman. Science 104:64 Jl 19 '46

Synthesis of arylpropylamines. T. M. Patrick, jr., E. T. McBee and H. B. Hass. bibliog Am Chem Soc J 68:1009-11, 1135, 1153-5 Je-Jl '46

BLOOD vessels

Demonstration of the bronchial tree and pulmonary blood vessels in the fetal pig. A. C. Clement. Science 104:9-10 Jl 5 '46

BLOOMERS

Sales room for bloomer display; showroom and offices for Empire bloomer company, New York. il plan Arch Rec 99:100-1 Ap '46

BLOTTERS

Facts about blotters disclosed by survey. Inland Ptr 118:38 O '46

BLOWERS

Belted blower removes grinding dust. W. D. Waddington. diag Am Mach 90:143-4 S 26 '46

Centrifugal pumps and blowers. J. Jennings. Engineering 160:74 Jl 27 '45; Discussion. G. U. Reid. 162:16 Jl 5 '46

Curing faulty draft with blowers. il diags Sheet Metal Worker 37:80-2 F '46

Increasing water gas set capacity; generator air supply. B. J. Jenkins. Gas Age 98:21-6+ S 5 '46

Motors and drives for fans and blowers. G. H. Hall. il diags Heat & Ven 43:58-61 Je '46

Rochester plan of kitchen ventilation. diags Sheet Metal Worker 37:58+ O '46

See also
Soot blowers

BLOWFLIES

Potometer for rapid measurements of ingestion by haustellate insects. M. R. Frings and H. Frings. il Science 103:22-3 Ja 4 '46

BLOWING agents for rubber. See Rubber, Sponge

BLOWOUT of blast furnaces. See Blast furnaces—Blowing out

BLUE

That second color works wonders, but use it wisely! G. J. Church. il Inland Ptr 117:58 My '46

BLUE Cross hospitalization plan. See Insurance, Hospitalization

BLUEPRINTING machines

Halden continuous photo-printing machine. il diags Engineering 160:306-7 O 19 '45

BOARDWALKS

Factors in planning and constructing boardwalks. H. Garnjobst, jr. il diags Pub Works 77:24-5+ O '46

BOAT building

Boats, more boats. Bsns W p40+ Mr 30 '46

Electric steam box forms complex boat shapes. M. M. Clayton. il Elec World 126: 90 Ag 31 '46

See also
Shipbuilding

BOATMEN

See also
Barges—Employees

BOATS and boating

Post-war boating boom predicted by manufacturers at National boat show. Ptr Ink 215:120 Ap 12 '46

World's largest marketer of boats peacetime ambition of Higgins, inc. Ptr Ink 214:103+ Mr 1 '46

See also

Coast guard cutters	Ships
Freight ships	Steamboats
Motor boats	Submarine boats
Shipbuilding	Towboats

BOBBINS

Bobbin waste removed by compressed air. diag Comp Air Mag 51:280 O '46

Family of molded phenolic bobbins. il Mod Plastics 23:100 Jl '46

Full-bobbin holder speeds non-automatic spooling. P. Geiringer. il Textile World 96:164 S '46

Strong yarns require special filling bobbins. H. E. Wenrich. il Textile World 96:127+ Ja '46

BOBS. See Polishing wheels

BODY water. See Water in the body

BODY weight. See Weight (physiology)

BOEHMITE

Crystal structure of synthetic boehmite. P. P. Reichertz and W. J. Yost. bibliog il diag J Chem Phys 14:495-501 Ag '46

BOGERT, Marston Taylor, 1868-

President of IUC. por(cover) Chem & Eng N 24:2029 Ag 10 '46

BOGOMOLETZ, Alexander Alexandrovitch, 1881-1946

Portrait. Bsns W p55 Je 15 '46

BOHANNON, David Dewey

Big Dave Bohannon; operative builder by the California method. por Fortune 33:144-7+ Ap '46

BOILER cleaning

Acid cleaning of boilers. Locomotive 46:89-92 Jl '46

Boiler scale removal by chemical cleaning. B. J. Cotey. il diags Power Pl Eng 50:75-7+ Ag '46

Chemical cleaning process applied to marine equipment. J. H. Adkison and others. il diag Marine Eng 51:105-8 Ag '46

Chemical cleaning takes the bull work out of scale removal. E. W. Feller and G. F. Williams. bibliog il diags Power 90:586-90, 659-62 S-O '46

BOILER cleaning—*Continued*
Chemical removal of scale from fire tube boilers. C. H. Groom and E. C. Hardy. bibliog il Power Pl Eng 50:66-7 Ap '46
Cleaning and blowing down hrt type boiler. J. G. Cronin. Heating-Piping 18:88 Je '46
Draught maintenance in boiler plants. W. M. Gore. Blast F & Steel Pl 34:1012-15 Ag '46

See also
Soot blowers

BOILER explosions
Furnace explosion in water tube boiler causes $30,000 damage. il Locomotive 46:86-8 Jl '46
Hot water heating boiler explodes in dormitory basement. il Locomotive 46:23-4 Ja '46
How a ¼-inch pipe can explode a boiler. H. M. Spring. il diag Power 90:185 Mr '46
Some people say that low pressure boilers and tanks are harmless! il Locomotive 46:35-41 Ap '46
When power boilers overheat. il Locomotive 45:103-8 O '44; Same. Power Pl Eng 49:106-8 D '45

BOILER feed pumps. See Pumps, Feed water

BOILER feed water. See Feed water purification

BOILER furnaces. See Furnaces, Boiler

BOILER insurance. See Insurance, Boiler

BOILER plants
C. & O. replaces boiler plant at Huntington, W.Va., without operations stops. il Manuf Rec 115:42-3+ S '46
Operating history and performance of 2000-psi forced-circulation boiler at Somerset station of Montaup electric company. G. U. Parks and others. diags A S M E Trans 68:411-26 bibliog(p426) My '46; Same cond. Power Pl Eng 50:76-9+ Ja '46; Discussion. A S M E Trans 68:426-7 My '46
2000-psi forced-circulation boiler at the Somerset station of Montaup electric co. G. U. Parks and others. diag Power Pl Eng 50:76-84+ Ja '46

See also
Boilers
Steam plants

Equipment

Air-operated combustion controls. H. Stanley. il diag Comp Air Mag 51:42-5 F '46
All welded ash disposal system for boiler plant. il diag Power Pl Eng 50:95 Ag '46
Aluminum coal poker aids boilermen. diag Elec World 125:98 Ap 27 '46
Automatic coal handling plant. C. E. Allin. il diags Mech Handling 32:618-21 N '45
Boiler house at the Perry furnace plant of Interlake iron corporation. W. B. Clemmitt. il Blast F & Steel Pl 34:602+ My '46
Coal handling control gear. A. E. L. Jervis. il diags Electrician 136:405-6 F 15 '46
Experience with instruments and control equipment for 2000-psi boiler at Somerset station of Montaup electric company. W. D. Bissell and E. B. Powell. il diags A S M E Trans 68:453-66 My '46
Experiences with a spreader stoker installation; Rothschild plant of the Marathon corporation. A. Urban. Paper Tr J 123:167-71 O 10 '46
Five reasons for the employment of underbunker conveyors. A. V. Stock. il diags Power Pl Eng 50:80-2 Je '46
How shall I prepare load-distribution chart, central-heating plant? diags Power 90:259-60+ Ap '46
Modern boiler house coal storage and distributing plant. G. E. Allin. il diag Mech Handling 33:220-1 Ap '46
New boiler gives needed capacity and reduces steam costs 20%; E. B. Eddy co. il diags Power 90:286-9+ My '46
Saving fuel is good business; Bureau of mines quiz sheets. diags Heating-Piping 17:623-7 D '45
Three stoker-fired boilers replace nine hand-fired units in three plants; Consumers' gas co. of Toronto. il diags Power 90:432-6 Jl '46
What the power engineer needs to know about the flight conveyor. W. G. Hudson. diags Power Pl Eng 49:92-4 O '45

See also
Pumps, Feed water
Soot blowers
Steam accumulators
Stokers, Mechanical
Water gages

Maintenance and repair

Boiler maintenance in large boiler plants. E. W. Gardiner. il Power Pl Eng 50:58-62 Ja '46
Boiler room operating hints. C. L. Shobe. Power Pl Eng 50:97 Ja '46
Draught maintenance in boiler plants. W. M. Gore. Blast F & Steel Pl 34:1012-15 Ag '46
Engineering by trial and error. R. L. Brown. Power Pl Eng 50:90-2 F '46
Engineering the hard way. E. R. Webber. Power Pl Eng 50:92-3 Ag '46
Maintenance methods at Parkchester. J. A. Dondero. il plan Heat & Ven 43:53-6 My '46
Maintenance of industrial boiler plant. G. H. Pearson. Blast F & Steel Pl 34:386+ Mr '46

Management

How Hal got management to cooperate. H. Ettelt. Power Pl Eng 50:97 S '46

Safety measures

Safety in power. M. H. Kuhner. il Safety Eng 92:14-16+ Jl '46
Safety in the boilerhouse. M. H. Kuhner. il Power 90:596-8 S '46
Why not codes for control systems? C. W. Parks. Power Pl Eng 50:102-3 My '46

BOILER plants, Portable
Transportable boiler unit. il diags Engineer 182:29-30 Jl 12 '46

BOILER scale
Boiler scale removal by chemical cleaning. B. J. Cotey. il diags Power Pl Eng 50:75-7+ Ag '46
Chemical cleaning takes the bull work out of scale removal. E. W. Feller and G. F. Williams. bibliog il diags Power 90:586-90, 659-62 S-O '46
Chemical removal of scale from fire tube boilers. C. H. Groom and E. C. Hardy. bibliog il Power Pl Eng 50:66-7 Ap '46
Water-treatment question box; why scale on boiler surfaces? K. M. Herstein and J. S. G. Shotwell. il diags Power 90:334, 554 My, Ag '46

BOILER tubes
Chemical removal of scale from fire tube boilers. C. H. Groom and E. C. Hardy. bibliog il Power Pl Eng 50:66-7 Ap '46
Cleaning flues and tubes. S. F. Wentz. il diags Ry Mech Eng 119:594-6 D '45
Special length boiler tubing tailor-made by oxyacetylene pressure welding. il Welding J 24:1090 N '45
Tailor-made boiler tubing; use of oxyacetylene pressure-welding. il Steel 118:108+ Mr 18 '46
What causes these boiler tubes to erode? Power 90:476-7+ Jl '46

See also
Soot blowers

Expanded joints

Expanded tube joints in boiler drums with special reference to the Battersea high-pressure boilers. W. B. Shannon and others. diags Inst Mech Eng J & Proc 154:52-73, pl 1-3 bibliog(p73) Je '46; Same cond. Engineering 159:317-20, 337-9, 358-60, 379-80 Ap 20-My 11 '45; Same cond. Engineer 179:258-60, 270-1, 289-91 Mr 30-Ap 13 '45; Abstract. Inst E E J 93 pt 2:62-6 F '46; Discussion. Inst Mech Eng J & Proc 154:74-93 Je '46; Engineering 159:274-5, 295-6 Ap 6-13 '45; Engineer 179:273-5 Ap 6 '45

BOILERS
Boiler maintenance in large boiler plants. E. W. Gardiner. il Power Pl Eng 50:58-62 Ja '46
Care in operation of cast-iron steam boilers. H. M. Spring. Power 90:400 Je '46

BOILERS—*Continued*
Comparison of repeated reheat tests of various grades of firebrick with service results. W. T. Tredennick and others. il Am Cer Soc J 29:75-83 Mr 1 '46
How large a boiler for process steam and power. W. A. Shoudy. diags Power 90:314-16 My '46
How to calculate combustion space. Power Pl Eng 50:104 Ag '46
How to calculate the accumulator capacity of a boiler. M. H. Kuhner. Power Pl Eng 50:98-9 Ja '46
Inward boiler bulges merit practical attention. H. M. Spring. il diags Power 90:41-2 Ja '46
Making steam is a complex business. J. C. Gore. diags Power Pl Eng 50:92-4 Je '46
New boiler gives needed capacity and reduces steam costs 20%; E. B. Eddy co. il diags Power 90:286-9+ My '46
New light on steam-plant problems; abstracts of papers, ASME annual meeting. il diags Power 89:911-13 Mid-D '45
Review of steam generators. N. Artsay. il diags Blast F & Steel Pl 34:260-3 F '46
Simple design, reliability keynote Jennison station. W. W. Perry and W. Greacen. 3d. il diags Elec World 124:118-21 D 8 '45
Topping at Hell Gate. R. T. Roberts. il diags Power Pl Eng 49:70-5+ N '45
Weight of water in pounds per cubic foot for various temperatures. chart (p 108) Power Pl Eng 50:99 Jl '46

See also
Boiler explosions and other headings beginning Boiler
Feed water
Feed water purification
Flue gas
Grates
also Master boiler makers' association

Advertising

Numbers are good copy; B & W advertising shows figures need not be cold. C. M. Neighbors. il Ind Marketing 31:43+ Je '46

Air preheaters

See Air preheaters

Benson boiler

Proposed steam producer evaporates high-pressure steam outside furnace; modification of Benson boiler. diags Power 90:663-5 O '46

Blowdown

Continuous blowoff for boiler plants. H. G. Ebert and J. Thompson. flow diag il diags Power Pl Eng 50:85-8 F; 90-2 Mr '46
Have blowdown tanks properly installed. H. M. Spring. Power 90:620 S '46

Coke firing

Three stoker-fired boilers replace nine hand-fired units in three plants; Consumers' gas co. of Toronto. il diags Power 90:432-6 Jl '46

Control

Air-operated combustion controls. H. Stanley. il diag Comp Air Mag 51:42-5 F '46
Experience with instruments and control equipment for 2000-psi boiler at Somerset station of Montaup electric company. W. D. Bissell and E. B. Powell. il diags A S M E Trans 68:453-66 My '46; Excerpts. Power Pl Eng 50:83-4+ Ja '46
2000-psi forced-circulation boiler at the Somerset station of Montaup electric co.; experience with instruments and control equipment. W. D. Bissell and E. B. Powell. il diag Power Pl Eng 50:83-4+ Ja '46
Unified boiler control. W. Szwander. diag Elec R (Lond) 138:217-21, 253-7 F 8-15 '46
Why not codes for control systems? C. W. Parks. Power Pl Eng 50:102-3 My '46

Corrosion

Corrosion of plant equipment by steam and water. R. C. Ulmer. il Power Pl Eng 50: 72-5+ O '46

See also
Boilers—Failure

Design

Boiler design for wide load variations; abstract. M. H. Kuhner. diags Power 90:531 Ag '46
Malmö power station extension. O. G. Hammar. il diag Engineer 182:192-3 Ag 30 '46
What will the postwar European power plants be like? S. A. Tucker. il diags Power 90:604-8 S '46

Efficiency

Calorific values and boiler efficiencies. H. R. M. Thorp. Blast F & Steel Pl 33:1406+ N '45
Let's look at the heat balance. W. A. Shoudy. diags Power 90:101-3+ F '46
Rule for finding efficiency of gas fired boilers. W. F. Schaphorst. Pet Eng 17:149 F '46
Some rules for boiler efficiency. W. A. Shoudy. Power 90:176 Mr '46
What is the temperature of your chimney gas? W. F. Schaphorst. Am Gas J 164:38 Ap '46

Electric heating

Cooking beetroots; new application for electrode boiler. il Elec R (Lond) 139:136 Jl 26 '46
Electric boilers and steam accumulators. il diags Engineer 181:388-9 Ap 26 '46
Electric steam raising; Belsyre cleaners, ltd. il Elec R (Lond) 138:732 My 10 '46
High-pressure steam by electric heat; Paint research laboratory of Watson-Standard co. R. I. Lavelle. il Elec World 125:124+ Je 22 '46

Embrittlement

See Boilers—Failure

Equipment

See also
Air preheaters
Water gages

Failure

Fundamental causes of failures of boilers and pressure vessels. W. D. Halsey. il Locomotive 46:69-79 Jl '46
Intercrystalline cracking; significance of the silica-sodium hydroxide ratio in boiler failure. C. D. Weir. Mech Eng 67:834-5 D '45
Low water and soot fire. Marine Eng 51: 125-6 Jl '46
Negligence of operators responsible for 44% of larger accidents in two month period. Locomotive 45:235-9 O '45
Relation of strain aging to the stress-corrosion cracking of mild steel. J. T. Waber and H. J. McDonald. bibliog(90 titles) il Welding J 25:sup223-34 Ap '46
Tie rods on cast iron boilers of the push-nipple type. W. B. Parker. il Locomotive 46:54-9 Ap '46
Water-treatment question box; caustic embrittlement. K. M. Herstein and J. S. G. Shotwell. Power 90:54 Ja '46
When power boilers overheat. il Locomotive 45:103-8 O '44; Same. Power Pl Eng 49: 106-8 D '45

See also
Boiler explosions

Firing

Application of overfire jets to prevent smoke in stationary plants. R. B. Engdahl. (Technical report no.VII) rev bibliog diags 24p pa 25c Bituminous coal research, inc, 912 Oliver bldg, Pittsburgh 22 '46
Blending fuel improves combustion. J. F. Slavinsky. Power Pl Eng 50:94 S '46
Boiler fireman's handbook (cont). J. R. Darnell. il diags Power Pl Eng 49:111-13 N; 113-14 D '45; 50:100-2 Ja; 98-101 Mr; 92-5 Ap; 100-2 My; 100-2 Je; 97-9 Jl '46
Boiler plant operating errors; smoke abatement in small power plants. C. F. Hardy. Heating-Piping 18:99-100 Ap '46
Combustion control; Cities Service heat prover. il diag Steel 117:134+ D 10 '45
Fuel and the future. Engineer 182:342-3, 364-5+ O 18-25 '46 (to be cont)
Steam generation in steel mills; operating on coke oven gas, blast furnace gas, pulverized coal and coke breeze. F. X. Gilg. il diags Blast F & Steel Pl 34:138+ Ja '46

BOILERS—Firing—*Continued*
Steam jet ejector has many functions. G. Spangler. il diags Elec World 125:164+ Ap 13 '46
Study of stoker fuel beds. O. de Lorenzi. Pulp & Pa of Can 47:79-81 Ap '46
To improve combustion, let's improve the coal; development of activated coal. I. R. Hoffman. Power Pl Eng 50:71+ Ap '46
Unburned furfural residue creates disposal problem; fired along with powdered coal in boilers of Cedar Rapids power plant. Elec World 125:110+ Mr 2 '46

See also
Boilers—Coke firing
Boilers—Gas firing
Boilers—Oil firing
Boilers—Peat firing
Boilers—Pulverized coal firing
Boilers—Tar firing
Boilers—Wood firing
Locomotive boilers—Firing
Stokers, Mechanical

Foaming and priming
Treating to prevent scale introduces carry-over problem; Youngstown, Ohio, plant of the Republic steel corp. E. M. Griffiths. diags Power 90:26-9 Ja '46

Foundations
Rigid-frame structures subject to nonuniform thermal action; foundations for boilers and oil refinery furnaces. C. C. H. Tommerup. diags Am Soc C E Proc 72:759-80 Je '46

Furnaces
See Furnaces, Boiler

Gas firing
Boiler fireman's handbook; gas firing. J. R. Darnell. il diags Power Pl Eng 50:98-101 Mr '46
Gas supplies all of college fuel requirements; Texas A. and M. college. C. Thompson. il Gas Age 98:31-2+ S 5 '46
Heat storage losses in steam boilers, and savings attained by use of steam generators. J. G. Coutant. il diag Am Gas J 164: 18-19 Ap '46
Rule for finding efficiency of gas fired boilers. W. F. Schaphorst. Pet Eng 17:149 F '46

Manufacture
Automatic welding process; boiler and tank fabrication. R. H. Newton. il diag Steel 119:108+ S 16 '46

Oil firing
Boiler fireman's handbook; fuel oil firing, steam atomization. J. R. Darnell. il diags Power Pl Eng 49:113-14 D '45
Boiler fireman's handbook; oil firing methods, mechanical atomization. J. R. Darnell. il diags Power Pl Eng 50:100-2 Ja '46
Fisk and Northwest stations burn oil to meet emergency. il Power Pl Eng 50:86-7+ Je '46
Oil-firing temperature. W. L. Nelson. Oil & Gas J 45:92 Ag 24 '46
Pressure regulation holds constant fuel-oil temperature. C. J. Lloyd. il Power 90:545 Ag '46
To convert from stoker to oil firing. J. A. McMullin; C. Gerbig. diags Power Pl Eng 50:106-7 S '46

See also
Locomotive boilers—Oil firing

Patents
Oil heating furnace produces steam for processing also; patent. diag Pet Processing 1:122 O '46

Peat firing
Peat combustion for industrial steam heating. A. J. Woods. il Engineer 181:228-9 Mr 8 '46; Abstract. Engineering 161:223 Mr 8 '46

Pulverized coal firing
Boiler fireman's handbook; pulverized fuel firing. J. R. Darnell. il diags Power Pl Eng 50:92-5 Ap '46
Pulverised fuel boilers. V. Walker. diag Elec R (Lond) 138:143-5 Ja 25 '46
Unified boiler control. W. Szwander. diag Elec R (Lond) 138:217-21, 253-7 F 8-15 '46

Repair
Boiler patches; bolted, riveted or welded? H. M. Spring. il diags Power 90:469-71+, 541-2 Jl-Ag '46
Stopping boiler leaks. D. O. Lima. Power Pl Eng 50:94 Ja '46

Safety measures
Protecting two boilers with different pressures. H. M. Spring. diag Power 90:402-3 Je '46

Standards
Proposed revisions and addenda to boiler construction code (cont). Mech Eng 67: 863; 68:167-9, 268, 869-71, 834 D '45, F-Ap, S '46

Tar firing
Burning tar under power boilers. H. Laudani. il Power Pl Eng 49:106-8 N '45

Wood firing
Boiler fireman's handbook; waste fuels firing. J. R. Darnell. diags Power Pl Eng 50:100-2 My '46
Burning waste wood in suspension without grates or Dutch ovens. J. P. Badenhausen. plan diags Power Pl Eng 49:82-4 N '45
Pyramid grates for wood burning. H. J. Houser. diag Power 90:699 O '46
Recent developments in bark burning methods. R. A. Hanright. diags Pulp & Pa of Can (Convention no) 47:166-70 [F] '46

BOILERS, Heating
Care of cast-iron hot-water boilers. Power 90:534 Ag '46
Cleaning and blowing down hrt type boiler. J. G. Cronin. Heating-Piping 18:88 Je '46

Corrosion
Note on corrosion; effect on sectional hot-water boilers. W. Percival and J. J. Aggio. Chem Age (Lond) 53:564 D 15 '45

Electric heating
Cathedral heating; electrode boilers demonstrated at Blackburn. il Elec R (Lond) 137:943-5 D 28 '45
House heating by thermal storage. H. C. Bender and L. L. Wartes. il diags Elec West 95:73-5 N '45

Firing
Burning bituminous and subbituminous coals on an anthracite, ash-removal-type, domestic stoker. H. F. Yancey and K. A. Johnson. bibliog pl U S Bur Mines Rep of Invest 3849:1-14 '45; Abstract. Heat & Ven 43:73 Jl '46
Curing faulty draft with blowers. il diags Sheet Metal Worker 37:80-2 F '46
Hold-fire controls for bituminous coal stokers. C. C. Wright and others. diag Heating-Piping 18:101-7 Ag '46
Stoker industry aids smoke abatement work. L. L. Connell. il Heating-Piping 18:96-9 Jl '46; Same. Dom Eng 168:146-7+ S '46

Gas firing
Current central heating research; gas-fired summer-winter hook-up. R. C. Weast and J. A. Morse. diags Am Gas J 164:23-4+ Mr '46
Gas heated small homes using radiant heating. plan Am Gas J 164:46 Je '46
What's new in commercial heating? H. S. Birkett. il Gas Age 97:31-3+ Mr 7 '46

Oil firing
Reverting to oil fuel; Scotch marine boilers forced to burn coal on underfeed stokers during war now reconverted. W. A. Steinbach. il Power Pl Eng 50:84-5 Ag '46

BOILERS, Marine
Boilers damaged by low water. Marine Eng 51:127+ My '46
Feedwater treatment. E. Novak. Marine Eng 51:138-42 Ap '46
Low water and soot fire. Marine Eng 51: 125-6 Jl '46
Power plants for postwar vessels. A. C. Rohn and W. E. Hammond. Marine Eng 50:154-61 N '45

Control
Ten years of combustion control. il Marine Eng 51:139-40 Ja '46

BOILERS, Marine—*Continued*

Oil firing

Soot fires around air heaters. Marine Eng 51: 131-2 S '46

BOILERS, Waste heat

Waste heat boilers; abstract. W. Gregson. diag Gas J (Lond) 247:227-8 F 6 '46

BOILERS, Water tube

Comparison of operation of forced- and natural-circulation boilers; butadiene-styrene chemical plant at Kobuta, Pa. G. F. Ross and L. Wilkins. flow diag il diags A S M E Trans 68:399-407 My '46; Same cond. Power Pl Eng 50:85-6+ Ja '46; Discussion. A S M E Trans 68:407-10 My '46

Determining output of high pressure boiler. Dom Eng 168:155-6 O '46

Expanded tube joints in boiler drums with special reference to the Battersea high-pressure boilers. W. B. Shannon and others. diags Inst Mech Eng J & Proc 154: 52-73, pl 1-3 bibliog(p73) Je '46; Same cond. Engineering 159:317-20, 337-9, 358-60, 379-80 Ap 20-My 11 '45; Same cond. Engineer 179:258-60, 270-1, 289-91 Mr 30-Ap 13 '45; Abstract. Inst E E J 93 pt 2:62-6 F '46; Discussion. Inst Mech Eng J & Proc 154: 74-93 Je '46; Engineering 159:274-5, 295-6 Ap 6-13 '45; Engineer 179:273-5 Ap 6 '45

Experience with instruments and control equipment for 2000-psi boiler at Somerset station of Montaup electric company. W. D. Bissell and E. B. Powell. il diags A S M E Trans 68:453-66 My '46; Excerpts. Power Pl Eng 50:83-4+ Ja '46

Forced circulation boilers. W. S. Patterson. diags Paper Tr J 123:41-8 S 5 '46

McNeil all-welded boiler. diags Engineer 181: 139 F 8 '46

Modern British boiler practice for power plants; abstracts. Electrician 137:801 S 20 '46; Elec R (Lond) 139:465-6 S 20 '46

Operating history and performance of 2000-psi forced-circulation boiler at Somerset station of Montaup electric company. G. U. Parks and others. diags A S M E Trans 68:411-26 bibliog(p426) My '46; Same cond. Power Pl Eng 50:76-9+ Ja '46; Abstract. Elec World 124:131 D 8 '45; Discussion. A S M E Trans 68:426-7 My '46

Small, fast-steaming high pressure boilers. G. A. Aiken. diags Power Pl Eng 50:100-1 O '46

Special studies of the feedwater-steam system of the 2000-psi boiler at Somerset station at Montaup electric company. W. D. Bissell and others. diags A S M E Trans 68:429-39 My '46; Excerpts. Power Pl Eng 50:79-80 Ja '46; Discussion. A S M E Trans 68:439-42 My '46

Water conditioning for the 2000-psi boiler at the Somerset station of Montaup electric company. W. W. Cerna and R. K. Scott. bibliog il A S M E Trans 68:443-51 My '46; Excerpts. Power Pl Eng 50:81-3 Ja '46

Water-tube boiler for transportable power station. il Engineering 162:270 S 20 '46

What is the Cantieny principle? question and answer. il diag Power Pl Eng 50:104 S '46

Why is water level hard to control? W. Heidecker. diags Power Pl Eng 49:122 Mr '45; Discussion. 49:106 Ag '45; 50:108+ F '46

La Mont boiler

La Mont boiler in Great Britain. G. A. Plummer. il diags Engineer 181:83-5, 116-17 Ja 25-F 1 '46; Discussion. 181:88-9 Ja 25 '46

Operating experience with La Mont boilers. G. A. J. Begg and others. diags Engineer 181:129-31 F 8 '46

BOILING

Boiling and condensing film coefficients for water and normal hexane. D. L. Katz and others. flow sheet il Pet Refiner 25:93-6 S '46

Heat transfer to liquids boiling under pressure. M. T. Cichelli and C. F. Bonilla. bibliog Am Inst Chem Eng Trans 41:755-87 D '45

BOILING points

Application of platinum resistance thermometry to some industrial physicochemical problems. D. R. Stull. bibliog il diags Ind & Eng Chem Anal ed 18:2?4-42 Ap '46

Boiling point relations among mononuclear aromatics. N. Corbin, M. Alexander and G. Egloff. bibliog il Ind & Eng Chem 38: 156-9 F '46

Boiling points of three isomeric heptanes. F. S. Fawcett. diag Ind & Eng Chem 38: 338-40 Mr '46

Chart and tables for vapor pressures of organics above 1 atm. E. Berl. Chem & Met Eng 53:122-4 Mr '46

Composition of vapors from boiling binary solutions; apparatus for determinations under pressure. D. F. Othmer and F. R. Morley. bibliog diags Ind & Eng Chem 38: 751-7 Jl '46

Critical temperature from normal boiling point. I. J. Hooks and F. Kerze, jr. Chem & Met Eng 53:147 My '46

Determination of the boiling range of chlorinated hydrocarbons. D. Williams. Ind & Eng Chem Anal ed 18:157-60 Mr '46

Nomographs for correcting boiling points. D. S. Davis. Chem Eng 53:129 Ag '46

Purification and properties of 29 paraffin, 4 alkylcyclopentane, 10 alkylcyclohexane, and 8 alkylbenzene hydrocarbons. A. F. Forziati and others. bibliog J Res Nat Bur Stand 36: 129-36 F '46

Rapid estimation of effect of pressure upon boiling points of organic compounds. C. Bordenca. Ind & Eng Chem Anal ed 18:99-101 F '46

Semimicro boiling-point test tube. A. Furst and J. W. Bohner. diag J Chem Educ 22: 531-2 N '45

BOLIVIA

See also

Meat industry and trade—Bolivia

Petroleum pipe lines —Bolivia

Roads—Bolivia

Economic conditions

Latin America's economy as world conflict ended. il For Comm W 24:7-8 Ag 3 '46

News by countries. For Comm W 23:22 My 18; 22 Je 1; 24:18 Jl 6; 14 Jl 27; 16-17 S 21; 25:25 O 19 '46

BOLOMETERS

Alternating-current bolometer for infra-red spectroscopy. C. H. Schlesman and F. G. Brockman. bibliog diags Opt Soc Am J 35: 755-60 D '45

Detects by heat. il Bsns W p63-5 Je 29 '46

Fast superconducting bolometer. D. H. Andrews and others. il diags Opt Soc Am J 36:518-24 S '46

Proceedings of the O.S.A.; session on detection of infra-red radiation. Opt Soc Am J 36:353-6 Je '46

Production and properties of nickel bolometers. F. G. Brockman. Opt Soc Am J 36: 32-5 Ja '46

Production of film type bolometers with rapid response. C. B. Aiken and others. il R Sci Instr 17:377-85 O '46

Statistical fluctuations in the temperature of a bolometer. V. Myers. Opt Soc Am J 36: 428-9 Jl '46

Steady-state load curves for semi-conductor bolometers. R. C. Jones. bibliog Opt Soc Am J 36:448-54 Ag '46

Ultrathin nickel ribbons for bolometer filaments. F. G. Brockman. Metal Prog 49: 1172 Je '46

BOLTON, George Lewis French, 1901-

British executive director of the International monetary fund. Comm & Fin Chr 164:1031 Ag 22 '46

BOLTS and nuts

Anchor bolt calculations. S. M. Jorgensen. Pet Refiner 25:97-101 My '46

Automatic stud welding. il diags Steel 119: 158+ N 11 '46

Bolting for pipe flanges and pressure vessels. S. Crocker. il Power Pl Eng 50:75-8+ My '46

Design of groove-form screws with ball-bearing nuts. V. L. Maleev. diags Product Eng 17:471-3 Je '46

Draw up those flange bolts more uniformly. L. H. Carr. il diags Power 90:78-80 F '46

Evaluating self-locking nuts. W. E. Horenburger. diags Machine Design 18:135-9 Ag '46

BOLTS and nuts—*Continued*
How to avoid loosening of bolts and nuts. R. J. Sweeney. diags Machine Design 18: 139-44 Je '46
Introduction to the theory of lock nuts. H. S. Rowell. diags Engineering 160:464, 488-90 D 7-14 '45; Abstract. Mech Eng 68:356-7 Ap '46
Load in a bolt due to tightening the nut. J. L. M. Morrison. diags Engineering 161: 409-12 My 3 '46
Loosening by vibration of threaded fastenings. J. N. Goodier and R. J. Sweeney. diags Mech Eng 67:798-802 D '45
Making forms for concrete and setting anchor bolts. diags Oil & Gas J 44:113 D 8 '45
More effective use of rivets and bolts; new standards, revised specifications and construction techniques. F. H. Frankland. il diags Eng N 136:341-3 Mr 7 '46
Oversize T-bolt. J. Wilson. diags Am Mach 90:159 Je 20 '46
Self-locking nuts. W. E. Horenburger. Am Mach 90:196+ S 12 '46
Solved; mystery of the misplaced nut. diags Power Pl Eng 50:93-4 S '46
Special nut permits re-use of broken anchor and bearing-wedge locking bolts. diags Nat Pet N 38 pt 2:R580 Ag 7 '46
Strength of highly stressed, dynamically loaded bolts and studs. J. O. Almen. diags S A E J 52:151-8 Ap '44; Same. Diesel Power 24:961-5+ Ag '46; Discussion. S A E J 52:158 Ap '44
Structural repair techniques; use of Hi Shear rivets and close tolerance bolts. N. Harlan and J. J. Rodgers. il Aero Digest 52:54-5 My '46
Testing the effectiveness of self-locking nuts. J. A. Sauer. il diags Product Eng 17:97-100 F '46
Welding, joining, fastening, 1945. T. C. Du Mond. il Materials & Methods 23:137-9 Ja '46
Where to place jam nut. diags Paper Ind 28:689 Ag '46

See also
Staybolts

Manufacture

Making bolts and studs; electrical applications. A. P. Newall & co. il Elec R (Lond) 137:769-73, 887-92 N 30, D 21 '45
Metals testing; electrical equipment used in making bolts and studs; A. P. Newall & co. il Elec R (Lond) 139:361-4 S 6 '46
100 years of progress in making fasteners; Russell, Burdsall & Ward bolt & nut co. L. E. Browne. il Steel 117:82-5+ D 24 '45

Standards

Torque values for standard AN bolts and nuts used in airplane construction. Iron Age 158:59 O 10 '46

Testing

Leak detector used for testing gasketed studs on transformer cover; use of mass spectrometer and helium. il Elec World 126: 87 O 26 '46
Testing bolts for strength and ductility. D. E. Lehane. Steel 119:86-7+ Jl 22 '46

BOMBING. See Air raids

BOMBS

Manufacture

Quality control with 2,000,000-volt X-ray unit; manufacturing bombs and new type of shell. G. A. Van Brunt. il plans Factory Management 104:141-4 Ja '46

Testing

Production control with 2,000,000-volt X-rays; testing shells and bombs; plant of Sanderson & Porter. D. Goodman. il diags Electronics 19:146-9 F '46
Two million volt X-ray inspection equipment; inspecting loaded shells and bombs at Elwood ordnance plant. D. Goodman. il diag Metal Prog 49:327-32 F '46

BOMBS, Aerial

Army ordnance reveals development of semi-armor piercing bomb. il Iron Age 158:142+ Jl 25 '46
Shroud of secrecy removed from U.S. bomb with a brain; Razon bomb. Iron Age 157: 142+ My 2 '46

See also
Air raids
Bombs, Flying

BOMBS, Atomic. See Atomic bombs

BOMBS, Flying

Approximate calculation of the range of a winged jet projectile. M. Z. Krzywoblocki. J Ap Phys 17:515-19 Je '46
AAF and petroleum research; airplane engine fuel; rocket propellants. D. L. Putt. Am Pet Inst Proc 25(3):30-7 '45
AAF assuming control of vital guided missile development. il Aviation N 6:7-8 Ag 5 '46
Army and navy making progress in development of new weapons. il Steel 119:55 O 28 '46
Army moves to resolve conflicts in guided missile programs. Aviation N 6:8 Ag 19 '46
Army-navy-civilian group set to make V-2 rocket tests. Iron Age 157:136+ My 2 '46
Buzz bomb propulsion by boiler-developed power. Chem & Eng N 24:660 Mr 10 '46
Can we catch up in rocket research? E. J. Tangerman. il Aviation 45:40-1+ Je '46
Chemical propellants; system hydrogen peroxide-permanganate. F. Bellinger and others. il diags Ind & Eng Chem 38:160-9 F '46
Critical review of German long-range rocket development. W. G. A. Perring. il diags Roy Aeronautical Soc J 50:483-517; Discussion. 517-25 Jl '46
Flying torpedo with an electric eye; written in April, 1934. V. K. Zworykin. diags RCA R 7:293-302 S '46
Generator-powered proximity fuze. R. D. Huntoon and B. J. Miller. il diags Electronics 18:98-103 D '45
German developments in the field of guided missiles. D. L. Putt. il diags S A E J 54: 404-11 Ag '46
German flying bombs carried televisors and radio controls. Iron Age 157:162-3 My 9 '46
Guided missiles. il Electronics 19:268+ Ja '46
Guided missiles; brief descriptions and illustrations. Aviation 45:133 F '46
Guided missiles unit established by AAF. il Aviation N 50:20 F 18 '46
Improving the guided missile. il Aero Digest 52:60 Je '46
Industry has stake in fight for control of new weapons. Bsns W p7 O 19 '46
Liquid-propellant rocket motor. L. Lawrence, jr. il diag Mech Eng 68:615-16+ Jl '46
Mechanism of the German rocket bomb (V2). W. G. A. Perring. diags Inst Mech Eng J & Proc 154:93-8, pl 1-4 Je '46; Abstract. Mech Eng 68:825-8 S '46; Discussion. Inst Mech Eng J & Proc 154:98-100 Je '46
Miniature airborne television equipment; experimental results in guiding medium-angle bomb. R. D. Kell and G. C. Sziklai. il diags RCA R 7:338-57 S '46
Mobile buzz bombs built by Northrop. il Aviation N 4:10 D 3 '45
NACA guided missile research provides basic data for services. il Aviation N 6:8-9 S 16 '46
Navy Bat, homing guided missile, is potent anti-shipping weapon. W. Kroger. il Aviation N 6:9-10 O 21 '46
Navy Bumblebee project works to coordinate missile program. Aviation N 5:7 Je 24 '46
Navy's guided-missile program announced. Marine Eng 51:86 O '46
New rocket panel to smooth discords; joint army, navy, civilian group will co-ordinate V-2 firing tests. diag Aviation N 5:12 Je 17 '46
Now the V-2 flies for us. E. J. Tangerman. il Am Mach 90:154-8 Je 6 '46
Power beyond the stratosphere; power plant that propels V-2, Germany's rocket bomb. il diag Power 90:447-8+ Jl '46
Radar-guided bombs launched by navy planes. Electronics 19:268+ F '46
Rocket weapons. il Tech R 48:158+ Ja '46
Television equipment for guided missiles. C. J. Marshall and L. Katz. bibliog il diags Inst Radio Eng Proc 34:375-401 Je '46

BOMBS, Flying—*Continued*
V-2 range control technique. T. M. Moore. il diag Elec Eng 65:303-5 Jl '46
V-2's power plant provides key to future rocketry. R. Healy. il diags Aviation 45: 63-7 My '46

Testing

Army builds massive blockhouse for rocket testing. il Eng N 137:476 O 10 '46
Rockets; tests conducted at White Sands proving grounds. il diags Product Eng 17: [no 7] 130-4 Jl '46
V-2 rocket tests in New Mexico. il Engineering 162:193-6 Ag 30 '46
V-2 rocket tests; use of radar equipment. il Electronics 19:262+ Jl '46

BOMBS, Incendiary
Fabrication by electric-furnace brazing; incendiary bombs. H. M. Webber. il diags Gen Elec R 49:22-9 My '46; Excerpts. il diags Materials & Methods 23:725-8 Mr '46
Napalm. L. F. Fieser and others. il diag Ind & Eng Chem 38:768-73 Ag '46
Spectacular developments made in incendiaries. R. W. Hufferd. il Chem Eng 53: 110-13 O '46

BOND stores, Inc.
Bond's strategy; plans new stores, expansion of present ones. Bsns W p83-4 Jl 20 '46

BONDS
Amortization of premiums on investments; liability of trustee for loss of premium. L. Schaeffer. Trusts & Estates 81:455-8 D '45
Bond market outlook. H. Owen. Mag of Wall St 77:387-9+ Ja 5 '46
Should I buy bonds today? R. Pitman. Mag of Wall St 77:783+ Mr 30 '46
Supply of new bonds running short; war tax program has obviated conditions like those of a quarter-century ago. B. Ravits. Barron's 26:11+ Ja 28 '46
We are nearing the end of the bull market in bonds. M. Shields. Comm & Fin Chr 163:958+ F 21 '46; Excerpts. Trusts & Estates 82:304 Mr '46; Banking Law J 63: 382-4 My '46
Widow's advisers differ on investment policy. W. J. Galligan. Barron's 26:3+ S 23 '46
Year-end bond survey; Halsey, Stuart & co. Comm & Fin Chr 163:16+ Ja 3 '46

See also
Municipal bonds
New York stock exchange
Railroads—Securities
Securities
Stock exchange
Stocks

Accounting

Amortization of bond premium in tax returns of banks. O. E. Fischer. J Account 81:476-8 Je '46

Default

British defaulted foreign bond holdings. P. Einzig. Comm & Fin Chr 163:1352+ Mr 14 '46

Prices

Bond record; New York stock exchange. Published in weekly Monday numbers of Commercial and financial chronicle
Money at a low; government and corporate bond prices. Bsns W p75-6 F 16 '46
Monthly range of prices on the New York stock exchange. Comm & Fin Chr 163:631-40 Ja 31 '46
Treasuries depress municipals and corporates. Bsns W p20 My 4 '46

Refunding

Flood of bond refundings likely to continue with big savings on new coupons available. Barron's 26:1 Ap 15 '46

Yields

Current low bond yields a dangerous cause of bullishness. F. W. La Farge. Comm & Fin Chr 163:3+ Ja 3 '46
High grade utility bonds for yield; six bonds selling above call prices can recover premium in year or less. W. Andrews. Barron's 26:14+ F 25 '46
More productive loans may send bond yields up. B. Ravits. Barron's 26:11 Jl 29 '46

BONDS, Chemical. See Chemical bonds

BONDS, Convertible
Biggest issue; stock and bond proposal. Bsns W p82 S 7 '46
Railroad credit requires fair deal to stock; convertible bonds suggested as device to scale down debt. E. M. Friedman. Ry Age 119:980-3 D 15 '45

BONDS, Government
Foreign bonds. Fortune 34:224 S '46
Trends in interest rates of U.S. Treasury securities; cut in British interest rates. Nat City Bank p124-5 N '45

See also
Debts, Public
Municipal bonds

Marketing

A.B.A. savings bond program. Banking 38: 50 Je; 39:71 Jl '46
Inflationary danger in federal borrowing from reserve banks; direct sale of government securities. B. B. Hickenlooper. Comm & Fin Chr 162:3004+ D 20 '45
Savings bond plans. Burroughs Clearing House 30:31-2 F '46

Prices

Course of prices of government securities for the year 1945, monthly tabulation. Comm & Fin Chr 163:640 Ja 31 '46
Halt in decline in government bond prices may mean 2¼% coupon for new money. Barron's 26:1 Ap 29 '46
Record for 1945; comparison of prices at end of 1944 with close of 1945; tabulation. Comm & Fin Chr 163:36 Ja 3 '46

Redemption

Bonus bond to counteract E bond redemptions. P. Haensel. Comm & Fin Chr 163: 830+ F 14 '46
Sales and redemptions of savings bonds. Survey of Cur Bsns 25:5-7 N '45
Sales and redemptions of savings bonds, Jan. 1945-June 1946; table. Survey of Cur Bsns 26:10 Jl '46

Australia

$20,000,000 Australian bonds offered. Comm & Fin Chr 164:1163 Ag 29 '46

Canada

Canadian government lowers interest rate on debt certificates; limits bank holdings of long-term securities. Comm & Fin Chr 163: 1230 Mr 7 '46

Great Britain

Adjustments in gilt-edged. Economist 150:105 Ja 19 '46
Anatomy of gilt-edged. Economist 149:645-6 N 3 '45
Back-door tap in gilt-edged. Economist 150: 646-7 Ap 20 '46
Gilt-edged in this century. Economist 150: 675-6 Ap 27 '46
Mr Dalton's first conversion. Economist 149: 801-2 D 1 '45
New orthodoxy. Economist 150:804-5 My 18 '46
Short bond problems. Economist 149:756-7 N 24 '45

Salvador

El Salvador announces new debt plan. Comm & Fin Chr 163:3476+ Je 27 '46

United States

Bank holdings of restricted Treasury bonds; data regarding bonds ineligible for purchase by commercial banks. Comm & Fin Chr 164:665 Ag 1 '46
Banks and the post-war savings program. M. M. Townsend. Banking Law J 63:372-3 My '46
Banks' investments in U.S. government bonds; charts, graph. Banking 38:37 N '45
Billions of government bonds undigested; danger of commercial banks taking up floating supply. F. W. Gehle. Comm & Fin Chr 163:1794 Ap 4 '46
Bonus bond to counteract E bond redemptions. P. Haensel. Comm & Fin Chr 163: 830+ F 14 '46
Continued decline in interest rates, Nat City Bank p16-18 F '46

BONDS, Government—United States—*Cont.*
Dearer money; Federal reserve board moves to put a floor under interest rates. Bsns W p19 My 4 '46
Debt management and interest rates. J. H. Riddle. Comm & Fin Chr 163:517+ Ja 31 '46
Debt policy and banking policy. H. C. Simons. R Econ Stat 28:85-9 My '46
Eye-opener on country banks' U.S. bonds. C. F. Pack. Banking 39:58+ N '46
Find touch of blue sky in Federal reserve board's war bond-insurance idea. Nat Underw (Life ed) 50:1 Mr 1 '46
Government bond portfolio management. R. C. Effinger. Comm & Fin Chr 163:3475+ Je 27 '46
G-I terminal leave bonds. Comm & Fin Chr 164:1699 O 3 '46
Government securities and commercial banks. F. C. Broach. Comm & Fin Chr 163:2642+ My 16 '46
Government securities market. Fed Res Bul 32:467-8 My '46
Government security holdings of 15 leading New York City commercial banks since 1931. E. A. Van Deusen. Comm & Fin Chr 164:758 Ag 8 '46
Investment market; government securities. H. E. Dickhuth. Banking 38:39 D '45
National debt; a dual problem. Bsns W p19-20 F 9 '46
National debt and the individual investor. M. M. Townsend. Comm & Fin Chr 163:2362+ My 2 '46
Outlook for government bonds. R. Rodgers. Comm & Fin Chr 164:479+ Jl 25 '46
Prospective shifts in ownership of government securities; need for bank purchases. Fed Res Bul 31:1096-9 N '45
Reduction in banks' war loan accounts. F. C. Rathje. Comm & Fin Chr 163:1226+ Mr 7 '46
Savings bond reserves for farm stability. V. B. Hart. Banking 39:126 O '46
Savings bonds in war and peace. E. G. Draper. Comm & Fin Chr 163:126+ Ja 10 '46
Status of savings bond program. J. W. Snyder. Comm & Fin Chr 164:2215+ O 31 '46
U. S. government bond market. J. H. Clarke. Comm & Fin Chr 163:2916, 2932-3 My 30 '46
U.S. savings bonds issued and redeemed through Dec. 31, 1945. Comm & Fin Chr 163:1076 F 25 '46
U.S. savings bonds issued and redeemed through June 30, 1946; tabulation. Comm & Fin Chr 164:266 Jl 11 '46
Urges larger private holdings of governments; IBA committee report. Comm & Fin Chr 162:2728 D 6 '45
Victory loan; with tabulation giving comparison of sales of securities in the eight war loans, by classes of investors and by issues. Fed Res Bul 32:119-20 F '46
Warns banks against speculative loans on government bonds. A. Sproul. Comm & Fin Chr 164:129+ Jl 4 '46
See also
Bonds, Government—Marketing

BONDS, Municipal. See Municipal bonds

BONDS, Real estate
Chanin building first mortgage 5% leasehold bonds. Comm & Fin Chr 164:1788 O 10 '46
London Terrace first fee and general mortgage 3-4% bonds with equity stock outstanding, $5,083,600. Comm & Fin Chr 164:2212 O 31 '46
More life left in realty bond boom. S. G. Ebert. Barron's 26:9 Jl 15 '46
Partial listing of bonds selling at 85 or better; present market price and price as of Jan. 1, 1945. Comm & Fin Chr 163:1506 Mr 21 '46
Real estate securities. Published in weekly Thursday numbers of Commercial and financial chronicle
Visualizes stronger market. H. R. Amott. Comm & Fin Chr 163:535 Ja 31 '46

BONDS, Revenue
Revenue bond financing; abstract. S. B. Robinson. Elec World News ed 125:5 My 18 '46

BONE black
Hysteresis in the physical adsorption of nitrogen on bone char and other adsorbents. L. F. Gleysteen and V. R. Deitz. bibliog J Res Nat Bur Stand 35:285-307 O '45

BONE marrow. See Marrow

BONES
See also
Fracture (surgery)

BONNEVILLE dam. See Columbia river—Power utilization

BONNEVILLE power administration
BPA investment gilt edge; abstract. P. J. Raver. Elec World News ed 125:9 F 23 '46
Bonneville power revenues hit new peak. Eng N 136:330 Mr 7 '46
Data available from other Department of interior agencies. R. M. Lawrence and L. A. Monroe. il map Chem Ind 58:584-5 Ap '46
Electrification of railroads in the Pacific Northwest and surplus or idle power available from federal projects. E. R. Abrams. Pub Util 36:829-34 D 20 '45
Report on Bonneville. Pub Util 37:359 Mr 14 '46

BONUS system
Bonus plans for dictation machine operators; abstract. T. Harvey. Management R 35:268-70 Jl '46
Bonus town; 141 Cleveland firms announces year-end distribution of cash to workers. Bsns W p106+ D 22 '45
Bonuses for production, maintenance, supervision; Newport News shipbuilding & dry dock co. W. E. Blewett, jr. Factory Management 104:132-3 Jl '46
Caution against discontinuance of employee bonus plans. M. M. Shipman. Oil Paint & Drug Rep 150:3+ S 23 '46
Cost reducing program for a job shop; National supply co. P. C. Hamlin. il Iron Age 158:56-61 S 26 '46
Employee bonus plans and the wage and hour law; overtime requirements. M. M. Shipman. Oil Paint & Drug Rep 150:3+ O 14 '46
Novel incentive plan working out at Bundy's. Steel 119:45 O 28 '46
Payment of bonuses not requiring approval. B. Werne. Factory Management 104:236 F '46
Accounting
Bonus computations. J. F. Traver. J Account 81:206-13 Mr '46

BONUS system (for executives)
Incentive bonus for supervisors; abstract. Management R 35.275 Jl '46
Incentive plan for foremen; Aircraft screw products company; abstract. E. M. Lang. Management R 34:429-31 N '45
Incentive plans for top executives. C. Davidson. Chem Ind 59:656-7 O '46
Salary and bonus plans for key executives. Ptr Ink 213:122 D 7 '45
Supervisors are paid bonus for improved operation; Sonoco Products. W. H. Miller, jr. il Factory Management 104:92-6 Je '46
What's the right incentive for supervisors? W. J. Wemple. Factory Management 103:300+ D '45

BONWIT TELLER, inc.
Fira Benenson runs the Salon de Couture in Bonwit Teller, speciality store. il Fortune 34:130-5+ O '46

BOOK auction catalogs. See Catalogs, Booksellers'

BOOK industry and trade
Book outlook rosy. Bsns W p86 Ap 27 '46
Book venture; Bantam books, inc. Bsns W p98 Ja 12 '46
Boom in books. D. V. Knibb. Adv & Sell 39:94+ F '46
Difficulties of selling abroad by mail order. Ptr Ink 214:84 Ja 11 '46
Films to books; Britannica will convert movies to printed page, market titles through dealers. Bsns W p86 Mr 23 '46
Great book shortage. E. M. R. Ditmas. Assn of Sp Lib & Inf Bur Proc 1945:88-92; Discussion. 92-4

BOOK industry and trade—*Continued*
New twist in publishing turns original screen plays into books. Ptr Ink 217:89 N 1 '46

See also
Book prices
Booksellers and bookselling
Bookstores
Paper industry and trade
Printing trade
Publishing

Advertising

Advertising the competitor. Ptr Ink 215:116 Ap 12 '46
Copy that clicked; advertisement of book "Houses for homemakers." R. Manville. il Ptr Ink 214:29 F 8 '46

BOOK matches. See Match books

BOOK reviews
Book reviewing. J. E. Drewry. 231p $2.50 Writer, inc. 8 Arlington st, Boston, 16 '45
Book reviews. Published in Review of scientific instruments April and October
Book reviews in aviation periodicals as aids in book selection in the aeronautical reference library. W. K. Dennis. Special Lib 37:45-9 F '46

BOOK selection
Book reviews in aviation periodicals as aids in book selection in the aeronautical reference library. W. K. Dennis. Special Lib 37:45-9 F '46

BOOK stores. See Bookstores

BOOKBINDING
Simple bookbinding work: good sideline for small town printers. C. E. Baker. diags Inland Ptr 118:36 O '46

BOOKS
See also
Bibliography
Libraries
Printing
Publishing

Photographic reproduction and projection

Organization of microcard production; library catalog card with microprint text on its back. F. Rider. J Doc 1:93-108 S '45

Prices

American book-prices current index, 1941-1945. C. Storm, ed. 1126p $35 R. R. Bowker co, 62 W. 45th st, New York 19 '46

BOOKS across the sea
Books across the sea, two counterpart societies of booklovers in London and New York. B. Warde. Assn of Sp Lib & Inf Bur Proc 1945:44-6

BOOKS and reading
See also
Books across the sea

BOOKSELLERS and bookselling
Ward's book club lines. Bsns W p84 Ja 26 '46

BOOKSELLERS' catalogs. See Catalogs, Booksellers'

BOOKSTORES
Do manufacturer's retail stores pay? Doubleday, Doran's experience in operating 19 retail book stores. R. McDaniel. il Am Bsns 16:16-17+ F '46
Doubleday sees records and books as profitable retail teammates. Sales Management 56:78 F 1 '46
United office and professional workers add bookshop to headquarters; Warehouse workers union bookshop. il plans Arch Forum 84:127-8 My '46

BOONE, Iowa
Boone plans new Main street. il Am Bld 68: 108-9+ Ap '46
Boone, proposes a municipal face-lifting. il Bsns W p72 Mr 2 '46

BOOSTERS
How to connect transformers for use as voltage boosters. diags Elec World 125:156 Ap 13 '46

BOOSTERS, Gas. See Gas boosters

BOOTHBY, Everett J.
Portrait. Am Gas Assn Mo 27:front N '45

BORATES
New aliphatic borates. A. Scattergood, W. H. Miller and J. Gammon, jr. bibliog Am Chem Soc J 67:2150-2 D '45

BORAX
Effect of sodium chloride on the apparent ionization constant of boric acid and the pH values of borate solutions. G. G. Manov and others. bibliog J Res Nat Bur Stand 36:543-58 Je '46
Important problem of hard water; with discussion of borax as a water softener. Consumers Res Bul 17:30-3 Mr '46
Study of the action of borax in retarding the setting of plaster of Paris. A. S. Buchanan and H. K. Worner. il Soc Chem Ind J 65: 23-6 Ja '46

BORDEN company
Annual report, 1945. Comm & Fin Chr 163: 1415-17 Mr 18 '46
Stocks for defensive investment. Mag of Wall St 79:87 O 26 '46
Thumbnail stock appraisal. Mag of Wall St 78:21 Ap 13 '46

BOREHOLE surveying
Method of platting the projections of crooked bore holes. L. E. Shaffer. Mo U Sch Mines & Met Bul tech ser v 16 no4:1-14 '45

BOREHOLES
Shaft sinking by stripping churn-drill holes. W. A. Cole. 2pls U S Bur Mines Information Circ 7308:1-6 '45; Same. Min Cong J 31:35-7+ Ap '45

BORG-WARNER corporation
Borg-Warner; a company of parts. il Fortune 33:128-33+ Je '46
Expects big rise in sales. Barron's 26:6 F 4 '46
Preferred stock offered. Comm & Fin Chr 163: 2288 Ap 29 '46

BORIC acid
Effect of sodium chloride on the apparent ionization constant of boric acid and the pH values of borate solutions. G. G. Manov and others. bibliog J Res Nat Bur Stand 36:543-58 Je '46
High-speed hardening without atmospheres; use of molten boric acid bath. W. B. MacNerland. il Steel 118:107+ Je 3 '46

BORING bars
Adjustable inside micrometer fits around boring bar. H. W. Cutting. diag Am Mach 90:136 O 24 '46
All-carbide boring bar. H. E. York. diags Am Mach 90:115 My 23 '46
Boring bar cuts inaccessible oblique holes in angle iron. G. Holman. il Am Mach 90:136 Ag 1 '46
Boring cast iron valve guides with Carboloy boring bars. diags Steel 119:153 S 23 '46
Broaching holes through boring-bars and tool-holders. I. F. Yeoman. il diags Mach 52:191-3 F '46
Gairing boring bar. diags Steel 117:92 D 24 '45
Giant boring bar for Diesel engine frames; Cooper Bessemer corp. il Steel 117:139 N 12 '45
Modifying boring tools. il Steel 119:121 S 16 '46
Quick-change boring bar holder doubles for lathe turret. J. G. Hoffner. diag Am Mach 90:145 Jl 18 '46
Quick-opening boring mill toolholder. E. Kraus. diag Am Mach 90:147 Jl 18 '46
Transmission boring bar. il diag Bus Transportation 25:75 Ag '46

BORKUM island
Germany's island fortresses. map Engineer 180:433-5 N 30 '45

BORNEO
See also
Rubber industry and trade—Borneo

BORON
Effects of boron in steel. R. B. Corbett and A. J. Williams. bibliog U S Bur Mines Rep of Invest 3816:1-21 '45; Excerpts. Iron Age 156:54-7 O 11 '45; Abstract. Metal Prog 49: 804+ Ap '46
Experiments with a slow neutron velocity spectrometer. R. F. Bacher and others. plans diag Phys R 69:443-51 My 1 '46
Factors affecting the hardenability and related properties of boron treated steels. R. A. Grange and T. M. Garvey. Steel 118:98+ Je 10 '46

BORON—*Continued*
Neutron beam spectrometer studies of boron, cadmium, and the energy distribution from paraffin. J. Rainwater and W. W. Havens, jr. bibliog plan Phys R 70:136-53 Ag 1 '46

Scattering of fast neutrons by boron. H. H. Barschall and others. Phys R 70:458-9 O 1 '46

Secondary emission from germanium, boron, and silicon. L. R. Koller and J. S. Burgess. Phys R 70:571 O 1 '46

Velocity dependence of the absorption of boron for slow neutrons. J. H. Manley and others. bibliog diags Phys R 69:405-11 My 1 '46

Width of resonance process in boron. J. F. Marvin. bibliog Phys R 68:228-9 N 1 '45

Analysis

Spectrographic determination of boron in steel. C. H. Corliss and B. F. Scribner. bibliog J Res Nat Bur Stand 36:351-64 Ap '46

BORON carbide
Boron carbide; a challenge. F. P. Peters. il Sci Am 174:8-10 Ja '46

Boron carbide, hardest man-made material. E. L. Cady. il Materials & Methods 22:1058-63 O '45; Abstract. Mech Eng 68:248-9 Mr '46

BORON chlorides
Coördination compounds of boron trichloride; systems with methyl chloride and ethyl chloride. D. R. Martin and W. B. Hicks. bibliog J Phys Chem 50:422-7 S '46

BORON compounds
Borohydrates. R. C. Ray. bibliog Chem & Ind p322-4 Ag 31 '46

BORON fluoride
Raman and ultraviolet-absorption spectra of the dimethyl ether-boron trifluoride complex. F. V. Dunderman and S. H. Bauer. bibliog J Phys Chem 50:32-9 Ja '46

Reaction of chloromethyl ether with ethyl acetoacetate in the presence of boron trifluoride. R. Levine and C. R. Hauser. Am Chem Soc J 67:2050 N '45

Trimethylamine oxide boron fluoride. A. B. Burg and J. H. Bickerton. Am Chem Soc J 67:2261 D '45

Analysis

Analysis of boron trifluoride in organic liquids (ethers). S. L. Walters and R. R. Miller. Ind & Eng Chem Anal ed 18:658 O '46

BORON hydrides
Borohydrates. R. C. Ray. bibliog Chem & Ind p322-4 Ag 31 '46

Structure of some electron-deficient molecules. H. C. Longuet-Higgins. Chem Soc J p139-43 F '46

Structure of the boron hydrides and related compounds; abstract. R. P. Bell. Chem & Ind p 19 Ja 12 '46

Structure of the hydrides of boron; beryllium borohydride, BeB_2H_8. G. Silbiger and S. H. Bauer. bibliog Am Chem Soc J 68:312-15 F '46

BORON oxide
Heat of formation of boric oxide. B. J. Todd and R. R. Miller. Am Chem Soc J 68:530 Mr '46

BORON trichloride. See Boron chlorides

BOSE-EINSTEIN condensation
Bose-Einstein condensation of trapped electron pairs; phase separation and superconductivity of metal-ammonia solutions. R. A. Ogg, jr. bibliog Phys R 69:243-4 Mr 1 '46

Conductivity of metal-amine solutions. S. I. Weissman. Phys R 70:571-2 O 1 '46

Persistent currents in frozen metal-ammonia solutions. J. W. Hodgins. bibliog diag Phys R 70:568 O 1 '46

BOSE-EINSTEIN statistics
Phase changes of Bose-Einstein fluid models. L. Goldstein. bibliog J Chem Phys 14:276-82 Ap '46

BOSTON

Harbor

Boston revamps its port. il Bsns W p21-2 S 21 '46

Disposal plant to alleviate Boston harbor nuisance. K. R. Kennison. flow diag il map plan diag Civil Eng 16:254-7, 304-7 Je-Jl '46

Parks

Citizens defend the stately trees of Boston. Bsns W p26 My 25 '46

Rapid transit

Does Boston's annual report represent handwriting on wall? Mass Transportation 42: 212-13+ My '46

Sewerage

Disposal plant to alleviate Boston harbor nuisance. K. R. Kennison. flow diag il map plan diag Civil Eng 16:254-7, 304-7 Je-Jl '46

Water supply

Metropolitan water district financing and the cost of metropolitan water. K. R. Kennison. N E Water Works Assn J 60:162-80; Discussion. 180-1 Je '46

Water supply development in Boston, Mass.; with cost data. K. R. Kennison. il N E Water Works Assn J 60:294-325 S '46

BOSTON and Maine railroad
Bonds offered. Comm & Fin Chr 163:774 F 11 '46

BOSTON conference on distribution
Annual conference, 18th, Boston. Oil Paint & Drug Rep 150:5+ O 21 '46
1946 conference. Ptr Ink 217:122 O 18 '46

BOSTON society of civil engineers
Annual reports. Boston Soc C E J 33:142-62 Ap '46

Incorporation; constitution and by-laws; prizes and scholarships. Boston Soc C E J 33:102-27 Ap '46

BOTANICAL apparatus
Apparatus for the prolonged sterile culture in vitro of whole plants or excised plant tissues. R. S. de Ropp. diags Science 104: 371-3 O 18 '46

BOTANICAL chemistry
See also
Bacteria
Carotenoids
Cellulose
Gums and resins
Molds (botany)
Plants—Chemical analysis

BOTANICAL society of America
Annual meeting, St Louis, March 27-30. Science 103:514 Ap 26 '46

BOTANISTS
See also
Keller, Boris Aleksandrovich

BOTANY
See also
Bacteriology
Fungi
Plant growth
Rubber plants and planting

Nomenclature

Why is taxonomy ill-supported? C. R. Ball. Science 103:713-14 Je '46; Discussion. Z. P. Metcalf. 104:328-9 O 4 '46

Physiology

Plants hold the basic patents. E. W. Sinnott. J Chem Educ 23:35-6 Ja '46

BOTANY worsted mills
Botany picks its markets. il Bsns W p56-7 S 14 '46

BOTTLE making machinery
Corning chain bottle machine; patent. diags Glass Ind 27:78 F '46
Knox-W-D bottle machine. il Glass Ind 27:130 Mr '46

BOTTLE washing
Bottle-washing unit designed for laboratory sample bottles. il diag Oil & Gas J 44:145 N 24 '45
How scale prevention cuts bottle washing cost. P. E. Piper. il Food Ind 18:1024-5+, 1198-9+ Jl-Ag '46

BOTTLED goods
Thermoplastic labeler for bottled products. il Mod Packaging 20:128-9+ S '46
See also
Corkscrews
Wine

BOTTLED goods—*Continued*

Inspection

Automatic beverage inspection machine electronically guards quality; Coca-Cola company. il diags Product Eng 17:362-5 My '46

Transportation

Glued unit loads cut breakage of bottled goods. C. W. Braden. il Mod Packaging 19: 118-20+ Ja '46

BOTTLES

Lowering the alkali content in bottle glass; abstract. M. V. Okhotin. Am Cer Soc J 29 (Cer A [25]):81 My 1 '46

See also
Carboys

Protection

Let it break! plastic outer coating saves contents of shattered bottles. il Mod Packaging 19:107 Ap '46

BOTTLING plants

Equipment

Automatic beverage inspection machine electronically guards quality; Coca-Cola company. il diags Product Eng 17:362-5 My '46

Automatic inspection of bottled beverages; machine developed by RCA for Coca-Cola company. il diag Machine Design 18:107-8 Jl '46

BOULDER Dam project. See Colorado river—Boulder Dam project

BOULDERS

Penstocks and power house damaged as result of falling boulder. diag Eng N 136:934 Je 13 '46

BOUNDARY layer

Experimental determination of the boundary layer and wake characteristics of a simple Joukowski aerofoil, with particular reference to the trailing edge region; abstract. J. H. Preston and N. E. Sweeting. Aeronautical Eng R 5:37 S '46

BOUNDARY value problems

Impedance representation of tangential boundary conditions. G. D. Camp. Phys R 69: 501-2 My 1 '46

Variational method for linear dissipative anisotropic elastic systems. G. D. Camp. Phys R 69:502-7 My 1 '46

BOVINE tuberculosis. See Tuberculosis in cattle

BOWEN, Harold Gardiner, 1883-

Portrait. (cover) Bsns W S 14 '46

BOWLES, Chester, 1901-

Portrait; with dog. Bsns W p19 My 25 '46

Resignation as Stabilization director accepted by Truman. Comm & Fin Chr 164:129+ Jl 4 '46

BOWLING

Automatic pin boy to be unveiled at bowling congress. il Bsns W p51 F 23 '46

In a new aura of refinement. il Fortune 33: 134-9 F '46

New bowling pin setter ready for market; AMF automatic pinspotter. Barron's 26:6 Jl 1 '46

BOWLING alleys

Attics major bowling alley fire hazards. Nat Underw 50:8 Ja 17 '46

Automatic pin-spotter for bowling alleys. il Machine Design 18:109 My '46

Prototype designs. il plans diags Arch Forum 85:105-10 S '46

BOWMAN, Isaiah, 1878-

Portrait. Fortune 33:118 Je '46

BOWMAN, Robert Jay, 1891-

Portrait. Bsns W p58 Mr 2 '46

R. J. Bowman, new president of the C.&O. por Ry Age 120:444 Mr 2 '46

BOWSER, Weldon

Crew chief. B. Stubblefield. por Air Transport 4:39-40 Jl '46

BOX cars. See Freight cars

BOXES

See also
Hosiery boxes

BOXES, Paper. See Paper boxes

BOXES, Plastic

Correlation between strength properties in test specimens and molded phenolic parts. P. S. Turner and R. H. Thomason. Mod Plastics 23:154-8+ Jl '46

Rigid folded vinyl and acetate boxes. il Mod Plastics 23:112-13 Je '46

BOXES, Wood

Construction of nailed wooden boxes. Chem & Eng N 24:1270 My 10 '46

Wooden boxes without nails for pre-packaged fruit or vegetables. il Mod Packaging 19:188 Mr '46

Manufacture

New boxes from old. V. A. Dash. flow diag plan diags Food Ind 18:34-5 Ja '46; Abstract. Mech Eng 68:464-5 My '46

BOYCOTT

Effective words; boycott against the May co. of Cleveland. Bsns W p88+ Mr 2 '46

BOYCOTT, International

Arab boycott. Economist 150:86 Ja 19 '46

BOYKIN bill. See Patent laws and legislation—United States

BRACHIOPODA, Fossil

Brachiopoda of the Independence shale of Iowa. M. A. Stainbrook. (Memoir 14) 74p, 6 pls bibliog(p60-1) Geological soc. of America, 419 W. 117th st, New York '45

BRACONYL insecticides. See Insecticides

BRADLEY, James P.

Sketch. por East Underw 46:20+ D 14 '45

BRAID, Elastic. See Elastic braid

BRAILLE system. See Blind, Printing for

BRAIN

Attachment of electroencephalographic electrodes. C. W. Darrow and J. H. Pathman. Science 103:22 Ja 4 '46

Convulsive effects of antibiotic agents on the cerebral cortex. A. E. Walker and others. Science 103:116 Ja 25 '46

Diseases

Pathogenesis of kernicterus. A. S. Wiener and M. Brody. Science 103:570 My 3 '46

BRAKE linings

Brake linings; abstract. G. S. Gidvani. Product Eng 17:50 Ja '46

Friction brake linings; types, uses and design data. il diag Product Eng 17:39-43 Ja '46

How to make brake linings last longer. Roads & Sts 89:116 Mr '46

Advertising

Advertising broadens opportunity to sell new brake linings; negative fear appeal gives place to positive. Ptr Ink 215:123 My 3 '46

American Brakeblok series dramatizes brake history. il Ind Marketing 31:60 Mr '46

Manufacture

Air power in production of bimetal brake linings. il Comp Air Mag 51:244-5 S '46

Compressed air speeds powder metal forming; clutch facings and brake linings; S. K. Wellman co. il Materials & Methods 23: 729 Mr '46

Exhaust systems for brake lining plant; Raybestos co. il diag Sheet Metal Worker 37: 99-100 Ja '46

Testing

Brake linings; inertia machine for investigating properties of friction materials. il Automobile Eng 36:317-18 Jl '46

BRAKES

Accident near Oakland, Ky., attributed to defective brakes; Ry Age 120:835 Ap 20 '46

Friction brake classifications and analyses of their design. il diags Product Eng 17:132-7 Mr '46

Methods of actuating brakes; electric, magnetic and vacuum. diags Product Eng 17: 48-9 Ja '46

Methods of actuating brakes; pneumatic, magnetic and hydraulic. diags Product Eng 17:132-3 F '46

Tension brake uses factory air pressure. Sci Am 175:130-1 S '46

See also
Air brakes

BRAKES, Airplane
Bendix segmented-rotor aircraft brakes. il Aeronautical Eng R 5:95 F '46
Brake adjusting gage. il Aero Digest 53:63 Ag '46
Cooling provisions stressed in this novel brake unit. il Aviation 45:99 Jl '46
Firestone introduces new aircraft brake. il Automotive & Aviation Ind 94:46 My 15 '46
Future scope of propellers; braking propellers. L. G. Fairhurst. Roy Aeronautical Soc J 49:715-16 D '45
Goodyear single-disc aircraft brake. il Engineer 181:482 My 24 '46
New approach in designing high-capacity aircraft brakes; copper versus ferrous metals as friction surfaces. B. H. Shinn. il diags Product Eng 17:140-3 N '46
Power brake valves; abstract. E. F. Loweke. diags Automotive & Aviation Ind 94:33-4 Ja 15 '46
Radical dive brakes improve slow-down. il Aviation N 5:22 Je 17 '46
Single-disc brake for aircraft landing wheels. il diag. Engineering 161:608 Je 28 '46
Weight reduction of aircraft braking system through use of reverse-thrust propellers. W. E. Eldred and others. il S A E J 54: 107-18 Mr '46; Abstract. Automotive & Aviation Ind 94:36-7 Ja 15 '46; Discussion. S A E J 54:118-19 Mr '46

BRAKES, Automobile
Automobile developments that came too soon; early four wheel brakes. P. M. Heldt. diags Automotive & Aviation Ind 94:21-2 My 15 '46
New Girling brake. diags Automobile Eng 36:21-4 Ja '46
New Lockheed servo brake. il diags Automobile Eng 36:65-7 F '46
1946 passenger cars, steering and brakes; specifications tabulated. Automotive & Aviation Ind 94:112 Mr 15 '46
Private cars; survey of components employed on current designs; brakes. Automobile Eng Extra no35:467-8 O 25 '45
Requirements and design of automotive braking systems. E. Siroky. il diags Product Eng 17:384-8 My '46

Advertising

Little man in checked coat to sell driving safety; Raybestos has abandoned scare approach. il Sales Management 57:75-6+ Ag 1 '46

Manufacture

Brakes and clutches; manufacturing methods employed by Automotive products co. il diags Automobile Eng 36:209-15 My '46

Testing

Brake testing; use of pendulum meters for performance evaluation. il diags Automobile Eng 36:354-6 Ag '46
New heavy duty brake dynamometer. il Automotive & Aviation Ind 95:47 Ag 1 '46

BRAKES, Electric
Design features of the Warner electric brake. il plan diags Automotive & Aviation Ind 94:28-9 My 15 '46

BRAKES, Hydraulic
Foot-controlled hydraulic brake system cushions stop on power failure. il diag Product Eng 17:191 Mr '46; Steel 118:120 Je 3 '46
Hydraulic disk brake; patent assigned to Hayes industries, inc. diag Machine Design 18:166 Mr '46
New approach in designing high-capacity aircraft brakes; copper versus ferrous metals as friction surfaces. B. H. Shinn. il diags Product Eng 17:140-3 N '46
New Girling brake. diags Automobile Eng 36:21-4 Ja '46
New Lockheed servo brake. il diags Automobile Eng 36:65-7 F '46

Manufacture

Brakes and clutches; manufacturing methods employed by Automotive products co. il diags Automobile Eng 36:209-15 My '46

BRAKES, Motor bus
Brake designs and methods of rating brakes for commercial automotive vehicles. R. K. Super. il diags S A E J 54:205-13 My '46; Same. Automobile Eng 36:304-8 Jl '46; Excerpt. Automotive & Aviation Ind 94:35 F 1 '46; Discussion. S A E J 54:213-14 My '46
Design features of the Warner electric brake. il plan diags Automotive & Aviation Ind 94:28-9 My 15 '46
Duo-servo parking brake for trucks and buses. il Automotive & Aviation Ind 94:49 My 1 '46
Power brakes. il diags Sci Am 173:355-6+ D '45
Review of brake designs and methods of rating brakes for commercial automotive vehicles; abstract. R. K. Super. Automotive & Aviation Ind 94:35 F 1 '45
Substitute brake drum. A. G. Spear. il Bus Transportation 25:72 F '46
See also
Air brakes, Motor bus

BRAKES, Motor truck
Brake designs and methods of rating brakes for commercial automotive vehicles. R. K. Super. il diags S A E J 54:205-13 My '46; Excerpt. Automotive & Aviation Ind 94:35 F 1 '46; Discussion. S A E J 54:213-14 My '46
Brakes; fundamentals, design and performance; abstract. S. Johnson, jr. S A E J 54:49-50 Je '46
Design features of the Warner electric brake. il plan diags Automotive & Aviation Ind 94:28-9 My 15 '46
Duo-servo parking brake for trucks and buses. il Automotive & Aviation Ind 94:49 My 1 '46
Power brakes. il diags Sci Am 173:355-6+ D '45
Requirements and design of automotive braking systems. E. Siroky. il diags Product Eng 17:384-8 My '46
Review of brake designs and methods of rating brakes for commercial automotive vehicles; abstract. R. K. Super. Automotive & Aviation Ind 94:35 F 1 '46
See also
Air brakes, Motor truck

BRAKES, Trolley bus
Ingenious brake hook-up. il diags Bus Transportation 25:79 My '46

BRAKING, Dynamic
Dynamic braking control of d-c series motors; calculation of stability limit. G. W. Heumann and W. P. Smith. Elec Eng 65: Trans 454-7 Jl '46
Dynamic braking of a.c. electric mine hoist. G. Morrison. diag Can Min J 67:962-3 O '46
Large synchronous motor dynamic-brakes its load. il Power 90:163 Mr '46

BRANCH banking. See Banks and banking—Branch banking

BRANCH factories
Branch plant trend in industry; abstract. G. W. Parker. Management R 35:76-8 Mr '46

BRANCH factories, Foreign
U.S. firms expand down under; opening manufacturing branches in Australia. Bsns W p101-2 N 2 '46
U.S. firms expand in Britain. il Bsns W p97-8+ Ag 31 '46
U.S. firms expand in Canada. Bsns W p114+ O 5 '46

BRANCH management
How the wheels go around under decentralized management. J. A. Murphy. Sales Management 57:50+ O 15 '46

BRANCH managers
Care and feeding of branch managers. K. Cooper. Sales Management 57:126+ Ag 15 '46

Training

Ford college trains dealers in ABC's of profit-making; Business management school of modern merchandising; key men are trained first. D. G. Baird. Sales Management 57:56+ Jl 15 '46

BRANCH offices
See also
Insurance companies—Branch offices

Accounting

Branch-office accounting in colleges and universities. W. A. Stumpf. J Account 80:454-5 D '45

BRAND, Robert Henry, 1878-
United Kingdom's temporary executive director of the International monetary fund. por Comm & Fin Chr 163:2792 My 23 '46

BRAND names research foundation
Battle of the brands. A. O. Buckingham. Adv & Sell 39:96 Je '46
Value of brands to consumers gets new promotion for 1946. Sales Management 56:119 Mr 1 '46

BRANDS, Advertised. See Advertising, National

BRANIFF airways, inc.
Braniff means business. O. Leiding. il maps Air Transport 4:22-8 F '46
Braniff's break. il map Bsns W p40+ Je 15 '46

BRASS
Antimonial 70 : 30 brass; abstracts and discussion. D. McLean and L. Northcott. Engineer 182:250 S 20 '46; Engineering 162:281 S 20 '46
Bright annealing of brass. E. F. Elliott. il Metal Prog 49:346 F '46
Grain sizes produced by recrystallization and coalescence in cold-rolled cartridge brass. H. L. Walker. il Ill U Eng Exp Sta Bul 359:1-55 '45 (pa 70c)
Metal coloring. M. F. Maher and F. J. MacStoker. Metal Finishing 44:153-4+ Ap '46
Nonferrous forgings. C. H. Pihl. il diags Steel 118:130-2+ Je 17 '46
Porosity in navy G and M metals and red brasses. W. B. George. diags Iron Age 156:68-70 N 15 '45
Velocity of dilatation and Rayleigh waves in metal bars. J. H. McMillen. il diags Acoustical Soc Am J 18:190-9 Jl '46
See also
Brass founding

Analysis

Routine control of brass plating processes; polarographic, electrochemical, and chemical analysis of plating solutions and deposits. H. E. Z. Gordon and E. R. Roberts. bibliog diag Electrochem Soc Trans 90 (preprint 2):9-22 '46

Testing

Effect of inert atmospheres on fatigue tests. H. J. Gough and D. G. Sopwith. Engineering 162:197 Ag 30 '46

BRASS founding
Brass and bronze foundries make metallurgical advances. A. H. Hesse. il Foundry 74: 98-103+ Ja '46
Brass, bronze meetings; American foundrymens' association. Foundry 74:155+ Je '46
Brass die casting; Titan metal manufacturing co. H. Chase. il Steel 119:112-14+ O 7 '46
New brass foundry typifies modern design; H. B. Salter mfg. co. P. Dwyer. il diags Foundry 74:158-63+ My '46
Permanent-mold or die cast? H. Chase. il diags Machine Design 18:140-4 Ag '46
Porosity in navy G and M metals and red brasses. W. B. George. diags Iron Age 156:68-70 N 15 '45
Small brass foundry operated on third floor; Atlantic brass work inc. E. Bremer. il layout plan Foundry 74:102-3+ O '46

BRASS foundries

Equipment

Reclaiming brass scrap; B. & O. shop. il Steel 119:100 Ag 19 '46

BRASS industry and trade

Advertising

American Brass sells metalworking field in 2-way campaign. il Ind Marketing 31:54+ S '46
American Brass winning DMAA theme: make it right from the start. C. E. Woodward. il Ind Marketing 31:47-8+ F '46

BRASS pipes. See Water pipes, Brass

BRASS plating
Bonding of rubber to metal by the brass plating technique; some observations on the reactions of copper and sulphur. C. M. Blow and G. Hopkins. Soc Chem Ind J 64:316 N '45
Brass plating for rubber-to-metal adhesion. Steel 117:115+ D 24 '45
German synthetic mechanical goods; rubber to metal adhesion; electroplating of metal to be used for adhesion. India Rubber World 113:231-5 N '45
Routine control of brass plating processes; polarographic, electrochemical, and chemical analysis of plating solutions and deposits. H. E. Z. Gordon and E. R. Roberts. bibliog diag Electrochem Soc Trans 90 (preprint 2):9-22 '46

BRASS tubes. See Tubes, Brass

BRASS work
Brass press forgings or die castings, which? H. Chase. il diag Materials & Methods 23: 995-1001 Ap '46
Extruded shapes speed brass forging output; Titan metal manufacturing co. H. Chase. il Materials & Methods 24:103-8 Jl '46
Extrusion process; abstract. W. W. Cotter and W. R. Clark. Metal Prog 49:816+ Ap '46

BRASS works
Brass mill production establishing new peacetime record. J. Anthony. il Iron Age 158: 89-91 O 31 '46
Brass mills begin postwar expansion and dispersion. J. Anthony. il Iron Age 156: 120-1 N 15 '45

BRAUN, Wernher von
Portrait. Fortune 34:143 S '46

BRAUN and company
Braun for Adams; retains public relations firm. Bsns W p76+ F 23 '46

BRAZIL
See also
Aeronautics—Brazil
Geology—Brazil
Live stock—Brazil
Mines and mineral resources—Brazil
Oil industries—Brazil
Petroleum—Brazil
Silk trade—Brazil
Soap industry and trade—Brazil
Steel works—Brazil
Tea industry and trade—Brazil
Vocational education—Brazil

Commerce

Can we sell more pumps for Brazilian homes and farms? il For Comm W 22:12-13 Je 26 '46

Commercial policy

Another Latin problem child; Brazil may pursue anti-U.S. line. Bsns W p109-10 Ja 26 '46
Exchange control regulations. For Comm W 24:21 S 28 '46

Constitution

New constitution for Brazil. Economist 151: 493 S 28 '46

Economic conditions

Brazil in 1945. Economist 150:sup8 Mr 23 '46
Latin America's economy as world conflict ended. il(p7) For Comm W 24:41-3 Jl 27 '46
News by countries. For Comm W 22:20-4 F 16; 23:20-1 My 25; 24:19 Jl 6; 15 Jl 27; 10-11 Ag 31; 20-2 S 28; 25:14-15 O 26 '46

Economic policy

Brazil attacks price spiral. Bsns W p101-2 Ag 10 '46

Industries and resources

Brazilian industry data reveal significant facts. For Comm W 23:41 My 25 '46
New industrial survey of Brazil. For Comm W 21:25 D 22 '45

Politics and government

Brazilian election. Economist 149:562-3 O 20 '45

BRAZIL nuts
Exports of Brazil nuts, Peru, 1934-42. For Comm W 21:34 D 22 '45

BRAZING
Aluminum brazing development; abstract. L. P. Saunders and P. S. Rogers. Automotive & Aviation Ind 94:37 Je 15 '46
Aluminum dip brazing; abstract. C. L. Bensen and R. N. Weber. Materials & Methods 23:1380+ My '46
Automatic brazing unit for refrigerator and air conditioning coils. A. Behrend. il Materials & Methods 23:1623 Je '46
Automatic induction brazing speeds tool tipping; Willey's carbide tool co. il Iron Age 157:54-5 Ap 11 '46
Braze welding damper windings. G. Stangland. il Steel 119:104-5+ S 23 '46
Brazed sheet-metal automobile engine; Crosley motors. il Iron Age 157:61-3 Ja 24 '46
Brazing and soldering copper on spotwelding equipment. L. L. Dodds. diag Am Mach 90:144 Jl 18 '46
Brazing carbide tips; abstract. R. O. Catland. Materials & Methods 23:518+ F '46
Copper brazing assembly saves 13 cents per part. il Steel 117:132 N 19 '45
Copper brazing intricate parts; National cash register co. il Steel 119:108+ N 4 '46
Copper furnace brazed parts and principles of design. K. Schmidt. il diags Product Eng 17:103-7 O '46
Copper furnace brazing. G. A. Robinson. il diags Mach 52:139-46 D '45
Cyanide bath attack on copper brazing material. Iron Age 157:81 F 7 '46
Electric resistance brazing of structural aluminum alloys. W. F. Hess and E. F. Nippes. il Welding J 25:sup193-200 Ap '46
Fabrication by electric-furnace brazing; incendiary bombs. H. M. Webber. il diags Gen Elec R 49:22-9 My '46; Excerpts. il diags Materials & Methods 23:725-8 Mr '46
Factors controlling the strength of brazed joints; from final report N.R.C. 560. C. Rhyne, jr. il Welding J 25:599-611 Jl '46
Flux bath brazing of aluminum parts. M. Beam. il Steel 117:126-7+ N 12 '45
Fracture studies of soldered joints. F. Berman and R. H. Harrington. il Am Soc for Metals Trans 34:143-55 '45
Hartlöten von stahl im schutzgas-durchlaufofen. bibliog il diags V D I 87:661-2 O 16 '43; Abstract (Hard soldering of steel in protective gas atmosphere inside of endless conveyor furnace). Product Eng 17: 115-16 Ag '46
How to weld aluminum. il Iron Age 158:54-6 Jl 11 '46
Induction brazing. R. Baubie. il Materials & Methods 23:1007-10 Ap '46
Induction brazing of carbide tips to tools. il Mach 52:177-8 Ap '46; Elec World 125: 136+ My 11 '46; Electronics 19:152+ Jl '46; Steel 119:101+ Ag 19 '46
Induction heating used to braze tool tips; Reed roller bit co. T. A. Vernor and E. F. Adams. il Elec World 126:76 Ag 3 '46
Larger induction heating coils meet small-lot requirements; brazing and heat-treating. G. V. Bate. il diags Am Mach 89:91-4 D 6 '45
Manual oxyacetylene flame brazing of aluminum, aluminum alloy sheet and subassemblies. F. Clark. il diags Welding J 25:505-13 Je '46
Mechanical properties and some metallurgical features of copper brazed points. R. F. Tylecote. bibliog il diags Welding J 25:sup-242-9 Ap '46
Metal flow and fillet formation in brazing aluminum. M. A. Miller. bibliog il diags Welding J 25:sup102-14 F '46
Phos-copper brazing of armature coils. C. Lynn. il diags Diesel Power 24:982-5 Ag '46
Spraying filler metals on brazed joints. il diags Iron Age 157:52-4 Mr 28 '46
20-kva mobile brazer. il Machine Design 18: 157 S '46
See also
Silver solder

BRAZING, Silver. See Silver solder

BREAD
Bleeding of breadwrapper inks. E. F. Carman. bibliog Paper Ind 27:1367+ D '45
Bread baking; with data on relative fuel costs. A. E. Livett. Gas J (Lond) 247:144+ Ja 23 '46
Foil bread wrappers, trial runs and storage tests. il Mod Packaging 19:110-11 Ja '46
Food chemists helped Britain to weather the war. D. W. Kent-Jones. il Food Ind 17: 1313+ N '45
High frequency heating produces mold-free bread; used also for refreshing stale bread. W. H. Cathcart. il Food Ind 18:864-5 Je '46
Lecithin increases the effect of shortening in bread. D. B. Pratt, jr. il Food Ind 18: 16-19+ Ja '46
Mold conquered; electronic oven. il Bsns W p54 N 24 '45
New flour requires some baking adjustments. R. T. Bohn. il Food Ind 18:492-3+ Ap '46
Potato bread promoted by Michigan baker. Bsns W p56 Ja 26 '46
Soy flour in baking; abstract. K. F. Finney. Food Ind 18:972+ Je '46
Too little bread; government seeks to ease the pinch. Bsns W p21 Je 8 '46
Vanillic acid esters as food preservatives. I. A. Pearl and J. F. McCoy. il Food Ind 17: 1458-61+ D '45

BREAKFAST food. See Cereals, Prepared

BREAREY, Frederick William, 1816-1896
Late Mr F. W. Brearey. B. F. S. Baden-Powell. por Roy Aeronautical Soc J 50:119-22 F '46

BREATHERS. See Machinery—Cooling

BREATHING. See Respiration

BREECH, Ernest Robert, 1897-
Ford takes over a General Motors man. por Bsns W p36 My 25 '46

BREEDING
See also
Cattle breeding

BREON, George A.
Drugstore that climbed from the bottom. por Bsns W p56 Je 8 '46

BRETTON WOODS agreement
Bretton Woods and Soviet Russia. M. V. Condoide. Comm & Fin Chr 163:1495+ Mr 21 '46
Britain and Bretton Woods. P. Einzig. Comm & Fin Chr 164:1781+ O 10 '46
Chile and Mexico ratify Bretton Woods. Comm & Fin Chr 163:2919+ My 30 '46
Economic Magna charta; address at meeting of world Fund and Bank, Savannah. F. M. Vinson. Comm & Fin Chr 163:1343+ Mr 14 '46
Fund and the Bank as new institutions. A. Istel. Comm & Fin Chr 163:1495+ Mr 21 '46

BRETTON WOODS conference. See United nations monetary and financial conference

BREWERIES
Le froid artificiel en brasserie. A. Maringé. Chimie & Ind 55:16-22 Ja '46

Employees
Beer war looms; A.F.L. teamsters' ban on breweries operating under C.I.O. Bsns W p85-6 N 2 '46

Equipment
Piping, equipment maintenance simplified by welding process; brewery experience. F. A. Westbrook. il Heating-Piping 17:553-4 O-N '45
Tank trucks haul yeast and malt; glass-lined and stainless steel tanks used by Boston brewer; platform trucks for economy in beer and ale deliveries. il Food Ind 18:201-2 F '46

Safety measures
Accident prevention in the brewing industry. F. S. McElroy and G. R. McCormack. Mo Labor R 63:72-81 Jl '46

BREWERY GULCH gazette
Brewery Gulch gazette. M. I. Cox. il Inland Ptr 116:58 F '46

BREWING
Some aspects of brewing research; abstract I. A. Preece. Chem & Ind p364 N 24 '45

BREWING chemists, American society of. See American society of brewing chemists

BREWING industries
See also
Beer

Accounting

Accounting and liability for brewery containers. J Account 82:79-81 Jl '46

Advertising

From scratch to 950,000 barrels a year; the story of Red Cap ale. J. A. Bohannon. Sales Management 56:48+ Je 15 '46
Hand that never lost its skill; 104-year story of the Schaefers and their beer. F. Smith. Adv & Sell 39:53-4+ Mr '46
Merchandises aggressively in spite of grain shortage; F. & M. Schaefer brewing co. R. J. Schaefer. il Ptr Ink 215:76+ Je 7 '46

Egypt

Beer production in Egypt. For Comm W 21: 26 D 15 '45

Mexico

Production increases in brewing industry. For Comm W 21:26 N 24 '45

Norway

Conditions in brewing industry. For Comm W 21:24 D 8 '45

BREWSTER, William Edwards, 1889-
Sketch. por Min & Met 27:500 O '46

BREWSTER, William J. 1893-
Sketch. por Explosives Eng 23:234-5 N '45

BREWSTER aeronautical corporation
Brewster to quit. Bsns W p43+ Ap 13 '46

BRICK, Fire. See Fire brick

BRICK buildings
Low cost maintenance obtained with brick and clay masonry. il Brick & Clay Rec 107:29-30 N '45
See also
Brick houses

BRICK construction
Architects and contractors build with clay products; hospital and school; illustrations. Brick & Clay Rec 107:27 O '45
Brick and tile construction; views and plans. Brick & Clay Rec 107:25-8 N; 20-4 D '45; 108:29-33 Ja; 23-8 F; 26-31 Mr; 23-8 Ap '46
Brick decorates the garden; illustrations. Brick & Clay Rec 109:22 Ag '46
California motel builders beat materials shortages; use adobe brick, fashioned on the property. il plan Am Bld 68:90 Ag '46
Clay products questions and answers for architects, builders and dealers. Brick & Clay Rec 107:29 D '45
Clay products use in modern construction. E. P. Lewin. il Brick & Clay Rec 107:25-6+ D '45
Construction details for a light factory building; diagrams. Brick & Clay Rec 107:33 O '45
Economies in clay masonry construction. il plan diags Brick & Clay Rec 109:33-4 S '46
Estimating clay products masonry. diags Brick & Clay Rec 107:30-1 D '45
Eye appeal is built into modern brick factory; illustrations. Brick & Clay Rec 109: 22 O '46
For good food and fireside chats; brick and tile interiors; illustrations. Brick & Clay Rec 107:26 O '45
Four attractive entrances designed for brickbuilders; illustrations. Brick & Clay Rec 109:26-7 Jl '46
Four entrances decorated with brick; illustrations. Brick & Clay Rec 107:28 O '45
Grain storage bin construction details. plans diags Brick & Clay Rec 109:27-8 O '46
In any event, build with brick. il plans Brick & Clay Rec 108:22-6 My '46
Presenting brickwork by Harold Spitznagel; views and plans. Brick & Clay Rec 109:24-9 S '46
Protection of masonry in cold weather. C. H. Bach. il Brick & Clay Rec 109:30 O '46
Special types of brickwork need extra care in estimating. il Brick & Clay Rec 109:23 O '46
Stores combined with community center serves 700 housing units; Winfield Park, Linden, N.J.; illustrations. Brick & Clay Rec 109:18-19 O '46
Town points with pride to brick church and community center; First church of Christ, Columbus, Ind.; illustrations. Brick & Clay Rec 107:25 O '45
Where to use flashing and caulking. diags Brick & Clay Rec 109:31-2 Jl '46
Window details for the brickbuilder; illustrations. Brick & Clay Rec 109:23 Ag '46
See also
Brick buildings
Brick houses
Brick veneer
Masonry

Design

Brick design in cavity wall lab draws national attention; Benjamin Electric mfg. co. il plans Brick & Clay Rec 109:25-7 Ag '46

BRICK handling
Welding industries ltd. hoist for builders. il Mech Handling 32:651-3 N '45

BRICK houses
All ceramic home. il diag Brick & Clay Rec 108:35-6+ Ja '46
All ceramic house is built on an engineered, floating foundation. il diags Brick & Clay Rec 108:29-30 Ap '46
All-ceramic house is built with single wall unit. il plans diags Brick & Clay Rec 109: 28-9 Ag '46
Brick homes give extra value; views and plans. Brick & Clay Rec 108:22 Je '46
Details for the mason builder; illustrations. Brick & Clay Rec 108:18-19 Je '46
Digest of new program to build 2,700,000 houses in 1946-1947. Brick & Clay Rec 108: 28 Ja '46
Estimating a brick house from a frame plan. il plan diag Brick & Clay Rec 108:30+ F '46
Living is better in a brick built community; views and plans. Brick & Clay Rec 109:24 Ag '46
Modular coordination applied to masonry small homes. H. C. Plummer and E. F. Wanner. plans diags Brick & Clay Rec 108:31-3 Ap '46; 29-30 My '46
Some brickbuilt ranch type homes in a Colorado community; views and plans. Brick & Clay Rec 109:20-1 O '46
Two brick homes; views and plans. Brick & Clay Rec 107:28 N '45
Two colorful homes built of brick. il plans Brick & Clay Rec 108:26 Mr '46

BRICK industry and trade
Dealers round robin discusses clay products. Brick & Clay Rec 107:32 N '45
Industry replies to: Where are we going today and tomorow? Brick & Clay Rec 107: 34+ O '45
OBTI increases scope to promote wider use of brick and tile. Brick & Clay Rec 109:46-7 S '46
Platform for the clay products industry. il Brick & Clay Rec 109:39-43 O '46
Quincy (O.) lumber co. was pushed into selling brick because of wartime lumber shortages. il Brick & Clay Rec 107:29-30 O '45
Wyatt announces premium payments to brick manufacturers. Brick & Clay Rec 109: 41 Jl '46

Great Britain

Brick famine? Economist 150:463-4 Mr 23 '46
Improvement in bricks? Economist 150:938-9 Je 8 '46
See also
London brick company

BRICK veneer
Applying brick veneer on frame construction. diags Brick & Clay Rec 109:29 Jl '46

BRICK works
Gallup, N.Mex. stiff-mud plant operates at 7,000 ft. altitude. il Brick & Clay Rec 109: 46+ O '46
Modernizing a clay plant. A. R. Trace. il Brick & Clay Rec 108:50+ F '46
Portfolio of brickwork. W. J. Radotinsky. il Brick & Clay Rec 108:28-9 Mr '46

Electric equipment

Brick manufacture; Jacksons (Warwickshire) brickworks. il Elec R (Lond) 138:995-7 Je 28 '46

BRICK works—*Continued*

Equipment

Operating men discuss labor saving devices in brick and tile plants. F. R. Mahurin. Brick & Clay Rec 108:39-40+ Je '46

Setting a beehive kiln with a fork lift truck; Peoria (Ill.) Brick and tile co. il diag Brick & Clay Rec 108:38 Je '46

We save money with this equipment; Elgin-Butler brick co. il Brick & Clay Rec 108: 50+ Ap '46

See also
Brickmaking
Brickmaking machinery

Layout

Modern brick-plant layouts. J. T. Robson. plans Am Cer Soc Bul 25:94-9 Mr 15 '46; Abstract. Brick & Clay Rec 108:41 My '46

Management

Application of technical practices to a brick plant. C. F. Tefft. Am Cer Soc Bul 25:57-8 F 15 '46

Increasing plant efficiency. R. W. Pafford. Am Cer Soc Bul 25:191 My 15 '46; Same. Brick & Clay Rec 108:41 Je '46

BRICKER, Mead L. 1885-

Production man, Ford style. por Fortune 32: 270 D '45

BRICKLAYERS

Bricklayer apprentices earn while they learn trade fundamentals; Lincoln, Neb. E. Rosenblum. il Brick & Clay Rec 108:23 Je '46

Ohio brick and tile institute unions train apprentices to solve bricklayer shortage. Brick & Clay Rec 107:30 O '45

BRICKLAYING

Bricklaying machine is designed to lay up to 100,000 brick in 8 hours. il diags Brick & Clay Rec 108:38-9 Ap '46

Interlocking building block requires no mortar. il Brick & Clay Rec 109:34 S '46

Method of building semi-circular brick steps. R. C. McConkey. plan Brick & Clay Rec 109:27 Ag '46

Study and teaching

SCPI region 5 to speed-up mason training in 1947. Brick & Clay Rec 109:40 S '46

BRICKMAKING

Air atomization saves 30% fuel costs at Brisch brick co. il plan Brick & Clay Rec 109:48+ Jl '46

Arizona plant uses scove kiln for extra drying before burning. il diags Brick & Clay Rec 108:44+ My '46

Brick burning with faggots. Am Cer Soc Bul 25:342 S 15 '46

Brick laminations start at the pit. B. Goen. il Brick & Clay Rec 107:43-5; Discussion. F. Mahurin. 45 O '45

Design and correction of dies. L. R. Whitaker. flow charts il Brick & Clay Rec 106:41-5+ Mr; 42+ Ap; 48+ My; 107: 50+ Jl; 40-2 Ag; 40-2 S; 40-2 O; 50+ N; 48+ D '45; 108:62+ Ja '46

Increasing the life of brick and tile dies; hard-metal liners and a method for resurfacing them. P. W. Tefft. diag Am Cer Soc Bul 24:417-18 N 15 '45

Properties of brick and tile clays. R. H. Ellis-Anwyl. il Brick & Clay Rec 108:54+; Discussion. 58+ Ja '46

Schweer brick co. converting to gas at St Louis plant. il Brick & Clay Rec 109:58 S '46

Setting a kiln for common, flashed and unflashed face and enameled brick. diags Brick & Clay Rec 109:46-7 Ag; 52+ S '46

Straight line dryer-kiln makes 45 to 50 tons of brick and tile in 24 hours. C. W. Isenhour, jr. il Brick & Clay Rec 108:60+ Mr '46

BRICKMAKING machinery

Cole brick-cutting machine. il Engineer 181: 321 Ap 5 '46

Hard surfacing machine parts by welding increases their life 3 to 30 times. C. J. Long and T. C. Rich. Brick & Clay Rec 109:62+ S '46

BRICKS

Interlocking building block requires no mortar. il Brick & Clay Rec 109:34 S '46

Perfect brick; abstract. Am Cer Soc J 29 (Cer A [25]):84 My 1 '46

See also
Adobe
Brick construction
Brick industry and trade
Brickmaking
Concrete brick
Fire brick
Masonry
Silica brick

Drying

Arizona plant uses scove kiln for extra drying before burning. il diags Brick & Clay Rec 108:44+ My '46

Testing

Permeability of brick-mortar assemblages; abstract. J. W. McBurney. Franklin Inst J 242:146-7 Ag '46

Wick for testing efflorescence tendencies of materials. C. R. Amberg and L. Washburn. bibliog diags Am Cer Soc Bul 25: 7-9 Ja 15 '46

BRICKS, Insulating

Vermiculite added to fired clay products offers new uses. R. F. Rea. il Brick & Clay Rec 108:54+ Mr '46

Vermiculite insulating brick; abstract. R. F. Rea. Brick & Clay Rec 108:68 My '46

BRIDGE approaches

New Jersey adopts improved approach slab design. F. D. Woodruff. diags Roads & Sts 89:82-3 Ja '46

BRIDGE Canyon dam project. See Colorado river—Bridge Canyon dam project

BRIDGE design

Box members distinguish concrete bridge at Tacoma, Wash. il diag Eng N 136:996-7 Je 27 '46

Bridge over the strait of Canso. C. P. Disney. il plan diags Roads & Bridges 84:57-63+ O '46

Brooklyn bridge; design and stress condition. O. H. Ammann. il diags Am Soc C E Proc 72:25-41 Ja '46; Discussion. 72: 534-5 Ap '46

Cable-stiffened suspension bridge developed through Engineer Board research. W. G. Grove. il diags Eng N 136:347-50 Mr 7 '46

Construction bridge at Garrison dam designed for maximum salvage. plans diags Eng N 137:109-12 Jl 25 '46

Continuous steel girder bridge spans Santee-Cooper tailrace. W. J. Gooding. il Eng N 136:120-2 Ja 24 '46

Design of bridges against wind. D. B. Steinman. il diags Civil Eng 15:469-72, 501-4, 558-60; 16:20-3, 66-8 O '45-F '46

Design of one-span rigid-frame concrete highway bridges. L. Loch. diags Roads & Bridges 83:51-4+ D '45

Design of Wilbur Cross parkway bridges. J. F. Willis il map diags Eng N 136:792-7 My 16 '46

Lessons in bridge design taught by aerodynamic studies; Tacoma Bridge investigations indicate instability of stiffening girders for suspended spans. F. B. Farquharson. il Civil Eng 16:344-5 Ag '46; Discussion. D. B. Steinman. 16:462 O '46

Moving loads on restrained beams and frames. R. C. Brumfield. Am Soc C E Proc 71:627-55 My '45; Discussion. 71:1251-8, 1425-30, 1576-96; 72:115-18, 269-77, 523-33, 675-81 O '45-F, Ap-My '46

Multiple-span suspension bridge to replace Rhine arches at Düsseldorf. D. B. Steinman. il diag Eng N 136:982-5 Je 27 '46

Prestressed concrete bridges. V. S. Murray. il plan diags Roads & Bridges 84:41-6 Je '46

Redesign of Tacoma Narrows bridge. C. E. Andrew. il diag Eng N 135:716-21 N 29 '45; Discussion. 136:303-4 F 21 '46

Requirements of modern highway bridges; load and traffic studies aid engineers in designing new structures. P. L. Pratley. Roads & Bridges 84:110+ Ap '46

Safety of structures. A. M. Freudenthal. bibliog Am Soc C E Proc 71:1157-91 O '45; Discussion. 72:111-14, 251-5, 559-60, 885-8 Ja-F, Ap, Je '46

BRIDGE design—*Continued*
Ste Rose bridge, world's longest of continuous welded type. J. S. Walsh. il Roads & Bridges 84:49-50+ My '46; Same. Engineer 182:316-17 O 11 '46
Single-column viaduct eliminates need for skew spans; bridges at Union Gap and Spokane, Washington. R. W. Finke. il diags Civil Eng 16:172-4 Ap '46
Skew bascule bridge over the Gowanus canal, Brooklyn, N.Y. il diags Engineering 162: 25-7, 36 Jl 12 '46
Structural skew plates. F. L. Ehasz. bibliog diags Am Soc C E Proc 71:805-30 Je '45; Discussion. 71:1436-8; 72:405-8 N '45, Mr '46
Studies of slab and beam highway bridges; tests of simple-span right I-beam bridges. N. M. Newmark and others. il diags Ill U Eng Exp Sta Bul 363:1-132 '46 (pa $1)
Welded girder bridge is 1,500 ft. long; structure at St Rose, Quebec. D. B. Armstrong. il diag Eng N 136:698-701 My 2 '46

See also
Bridges, Arched

BRIDGE engineering
Bridge over the strait of Canso. C. P. Disney. il plan diags Roads & Bridges 84:57-63+ O '46

BRIDGE failures
Design of bridges against wind. D. B. Steinman. il diags Civil Eng 15:469-72, 501-4, 558-60; 16:20-3, 66-8 O '45-F '46
Investigation of failures in a welded bridge. H. Busch and W. Reuleke. il diags Welding J 25:sup463-6 Ag '46
Lessons in bridge design taught by aerodynamic studies; Tacoma bridge investigations indicate instability of stiffening girders for suspended spans. F. B. Farquharson. il Civil Eng 16:344-5 Ag '46

BRIDGE inspection
Bridge inspection procedures and bridge maintenance. diags Pub Works 77:22-4 Jl '46

BRIDGE railings
Design of better bridge railings. M. Deuterman. il diags Eng N 136:68-71 Ja 10 '46

BRIDGEPORT, Connecticut

Industries
Great industrial city optimistic over future prosperity. R. Rhodes. East Underw 46:100+ D 14 '45

BRIDGEPORT brass company
Shows earning power. Barron's 26:6 Ag 5 '46

BRIDGES, Harry R. 1900-
Bridges' strategy. Bsns W p94+ Ap 6 '46

BRIDGES
New Sweden-Norway bridge one of Europe's largest. For Comm W 24:17 Ag 3 '46
St Cloud bridge over the River Seine, France. il Engineer 182:150 Ag 16 '46
Single-column viaduct eliminates need for skew spans; bridges at Union Gap and Spokane, Washington. R. W. Finke. il diags Civil Eng 16:172-4 Ap '46
Status of major projects, 1946. il Eng N 136:228 F 7 '46
Survey and forecast, 1945-1946. il Eng N 136:180-2 F 7 '46
Two-bridge rotary for controlled access interchange; Shirley memorial highway in Arlington, Virginia. D. W. Loutzenheiser. il plan Roads & Sts 89:85-8 Ap '46

See also
Aqueducts—River crossing
Bridge approaches
Bridge design
Highway engineering
Trusses
also subdivision Bridges under names of cities, e.g. Los Angeles—Bridges; New York (city)—Bridges

Abutments
Emergency concrete block abutment. H. M. Mumaugh. il diag Eng N 135:744-5 N 29 '45

Cost
Bridge construction, Oregon; unit prices. Eng N 136:146 Ja 24 '46
Bridge over Spa creek, Annapolis, Maryland; unit prices. Eng N 136:376 Mr 7 '46
Contract unit bid prices. Eng N 136:634-5+ Ap 18 '46
Fixed costs chargeable to bridge construction. W. N Schroeder. Eng N 137:321-2 S 5 '46

Damage from floods, etc.
Railroads suffer bridge damage from New York and Pennsylvania floods. il Eng N 136:881 Je 6 '46
Repair of flood-damaged California bridges. il Pub Works 76:23+ D '45

Erection
Cologne road bridge. Engineer 181:565 Je 21 '46
Half-mile long bridge in California has hollow pier shafts. il diags Roads & Sts 89:61-5 S '46
How the famous Nijmegen arch was built. il Eng N 136:821 My 23 '46

Floors
Bridge deck modernized by adding median strip and resurfacing; bridge at Toledo. il Roads & Sts 89:94-6 Ap '46
Earth wearing surface does not impair durability of treated wood bridge floor. Pub Works 77:24 Ap '46
Railroad bridge redecked for vehicles. J. W. Green. diag Eng N 137:53 Jl 11 '46
Studies of slab and beam highway bridges; tests of simple-span right I-beam bridges. N. M Newmark and others. il diags Ill U Eng Exp Sta Bul 363:1-132 '46 (pa $1)
Tests on new type open bridge floor. H. C. Tammen and C. W. Muhlenbruck. il diag Eng N 135:890-1 D 27 '45

Foundations and piers
Bridge over the strait of Canso. C. P. Disney. il plan diags Roads & Bridges 84:57-63+ O '46
Carlisle-Kingsmoor widening on the L.M.S. railway. il diags Engineering 161:556-7 Je 14 '46
Deep foundation and welded truss feature unusual Australian bridge. il diag Eng N 135:866-7 D 27 '45
Deep water piers built open hole without seal; two Oklahoma bridges. H. J. McKeever. il Roads & Sts 89:67-71 Jl '46
Dry packing and grouting of substructure salvages 90-year-old Montreal bridge. il Eng N 136:32-4 Ja 10 '46
Excessive air pressure needed to sink piers. Comp Air Mag 51:23 Ja '46
Half-mile long bridge in California has hollow pier shafts. il diags Roads & Sts 89:61-5 S '46
New bridge at Newark. S. G. Roberts. il Comp Air Mag 51:6-9 Ja '46
Octave Chanute, versatile engineer and aviation pioneer; Kansas City bridge. T. L. Condron. diag Western Soc E J 50:160-4 D '45
Pecos gorge in Texas spanned by new railroad bridge. H. J. Engel. il diag Eng N 135: 656-8 N 15 '45
Restoring California highway bridges; concrete for repair and protection against scour. M. A. Ewing. il Concrete 53:2-5 N '45
Supplemental bents for highway bridges. diags Pub Works 77:39 Ag '46
Texas bridge footing shafts drilled and under-reamed. J. P. Exum. il diag Roads & Sts 89:90-1 Mr '46
Two special methods of restoring and strengthening masonry structures; intrusion mixture containing Alfesil, and Prepakt concrete. J. W. Kelly and B. D. Keatts. il diags Am Concrete Inst J 17: 289-304 F '46

Inspection
See Bridge inspection

Lighting
Hand-rail lights; bridge in Tacoma. il Elec West 96:65 Ja '46

Load
Heavy loads on bridges; abstract. Am Concrete Inst J 18:205-7 O '46
Moving loads on restrained beams and frames. R. C. Brumfield. Am Soc C E Proc 71:627-55 My '45; Discussion. 71:1251-8, 1425-30, 1576-96; 72:115-18, 269-77, 523-33, 675-81 O '45-F, Ap-My '46

BRIDGES—Load—*Continued*
Requirements of modern highway bridges; load and traffic studies aid engineers in designing new structures. P. L. Pratley. Roads & Bridges 84:110+ Ap '46

Maintenance and repair

Bailey span patches South Carolina bridge. il Eng N 136:517 Ap 11 '46
Bridge inspection procedures and bridge maintenance. diags Pub Works 77:22-4 Jl '46
Dry packing and grouting of substructure salvages 90-year-old Montreal bridge. il Eng N 136:32-4 Ja 10 '46
How California highway department salvages bridge piles. diags Pub Works 76:30+ N '45
How parts of large pin-connected truss were replaced without falsework. H. S. Rockoff and F. H. Stowell. il diags Roads & Sts 88:69-72+ N '45
Repair of bomb-damaged structures in France; use of non-contracting cement. diags Engineer 180:484-5 D 14 '45
Repair of flood-damaged California bridges. il Pub Works 76:23+ D '45
Welding repairs on 4,000-ft. viaduct; Cleveland, Ohio. J. M. Heffelfinger. il diags Eng N 136:912-13 Je 13 '46

See also
Bridges—Reconstruction
Bridges, Concrete—Maintenance and repair
Bridges, Railroad—Maintenance and repair

Model testing

Redesign of Tacoma Narrows bridge. C. E. Andrew. il diag Eng N 135:716-21 N 29 '45
Studies of slab and beam highway bridges; tests of simple-span right I-beam bridges. N. M. Newmark and others. il diags Ill U Eng Exp Sta Bul 363:1-132 '46 (pa $1)

Protection

Restoring California highway bridges; concrete for repair and protection against scour. M. A. Ewing. il Concrete 53:2-5 N '45

Reconstruction

Additional stiffening of Bronx-Whitestone bridge. O. H. Ammann. il diags Civil Eng 16:101-3 Mr '46; Discussion. L. Balog. 16: 358-9 Ag '46
Bridge rebuilding an old story to Belgian engineers. il Eng N 137:434-6 O 3 '46
Reconstruction of fire-damaged bridge over Ottawa river. il diags Roads & Bridges 84: 45-9+ Ag '46
Replacing an old covered bridge with steel truss; illustrations. Roads & Sts 89:70 Je '46

See also
Bridges, Railroad—Reconstruction

Standards

Standards for new bridges in the province of Quebec. I. E. Vallee. Roads & Bridges 84:108+ Ap '46

Stresses

Brooklyn bridge; design and stress condition. O. H. Ammann. il diags Am Soc C E Proc 72:25-41 Ja '46
Effects of radiant heat on reinforced-concrete rigid frames. M. A. Johnston. bibliog diags Am Soc C E Proc 71:793-804 Je '45; Discussion. 71:1295-1300, 1431-5 O-N '45
Studies of slab and beam highway bridges; tests of simple-span right I-beam bridges. N. M. Newmark and others. il diags Ill U Eng Exp Sta Bul 363:1-132 '46 (pa $1)
Testing Bailey bridges to failure. D. A. Firmage. il Civil Eng 16:154-6 Ap '46

See also
Bridges—Load

Testing

See also
Bridges, Prefabricated—Testing

Tolls

Bridge tolls drop. Bsns W p21-2 Jl 27 '46

Vibration

Additional stiffening of Bronx-Whitestone bridge. O. H. Ammann. il diags Civil Eng 16:101-3 Mr '46
Golden Gate bridge vibration studies. il diag Eng N 137:184-5 Ag 8 '46

Welding operations

Investigation of failures in a welded bridge. H. Busch and W. Reuleke. il diags Welding J 25:sup463-6 Ag '46
Structural shapes produced by welding; bridge repair job for city of Cleveland. il Iron Age 158:62 O 17 '46
Welded girder bridge is 1,500 ft. long; structure at St Rose, Quebec. D. B. Armstrong. il diag Eng N 136:698-701 My 2 '46
Welding repairs on 4,000-ft. viaduct; Cleveland, Ohio. J. M. Heffelfinger. il diags Eng N 136:912-13 Je 13 '46

Wrecking

Razing a construction bridge used in building Grand Coulee dam. R. G. Skerrett. il Comp Air Mag 51:181-3 Jl '46

Belgium

Bridge rebuilding an old story to Belgian engineers. il Eng N 137:434-6 O 3 '46

Canada

$78,000,000 for roads and bridges in 1945; $153,000,000 in 1946; Canadian statistics. Roads & Bridges 84:39-40 Je '46

France

France rebuilds its rail bridges. il maps Eng N 137:178-81 Ag 8 '46

Netherlands

Holland rebuilding its two longest bridges. il Eng N 136:208 F 7 '46
Rebuilding Moerdijk bridges, Holland. il Engineer 182:98 Ag 2 '46
La réparation des grands ponts-routes métalliques aux Pays-Bas. A. Bijls. il Génie Civil 123:137-8 Je 1 '46

Nova Scotia

Bridge over the strait of Canso. C. P. Disney. il plan diags Roads & Bridges 84: 57-63+ O '46

BRIDGES, Aluminum
Bridge experiment; Alcoa builds railroad span entirely of aluminum. il Bsns W p17 O 12 '46
Floating aluminum bridges welded by carbon arc process. W. J. Conley. il Civil Eng 15:561-2 D '45; Same. Materials & Methods 22:1423-5 N '45

BRIDGES, Arched
Furstenland bridge, Switzerland. il diag Engineer 181:227 Mr 8 '46
Neuilly bridge, Paris. il diags Engineer 181: 584 Je 28 '46
New bridge in Toronto suburb. il map Roads & Bridges 83:56-7+ N '45
Sandö bridge, Sweden. il Engineer 181:475 My 24 '46
World's longest concrete arch, 866 ft. completed in Sweden during the war. il Eng N 136:90 Ja 17 '46

BRIDGES, Bascule
Skew bascule bridge over the Gowanus canal, Brooklyn, N.Y. il diags Engineering 162:25-7, 36 Jl 12 '46

BRIDGES, Cantilever
Pecos gorge in Texas spanned by new railroad bridge. H. J. Engel. il diags Eng N 135:654-9 N 15 '45

BRIDGES, Concrete
Adoption of pre-stressed concrete for road bridges; abstract. L. E. Hunter. Am Concrete Inst J 18:95-6 S '46
Air-entraining concrete for pavements and bridges. il diags Roads & Bridges 84:72-3+ S '46
Box members distinguish concrete bridge at Tacoma, Wash. il diag Eng N 136:996-7 Je 27 '46
Carlisle-Kingsmoor widening on the L.M.S. railway. il maps diags Engineering 161: 555-7 Je 14 '46
Design of one-span rigid-frame concrete highway bridges. L. Loch. diags Roads & Bridges 83:51-4+ D '45

BRIDGES, Concrete—*Continued*
Durability of concrete in service. F. H. Jackson. il Am Concrete Inst J 18:165-80 O '46
Effects of radiant heat on reinforced-concrete rigid frames. M. A. Johnston. bibliog diags Am Soc C E Proc 71:793-804 Je '45; Discussion. 71:1295-1300, 1431-5; 72:124-5 O '45-Ja '46
Finish Pan-American road bridge to link Argentine, Brazilian highways. il map Eng N 135:692 N 22 '45
Furstenland bridge, Switzerland. il diag Engineer 181:227 Mr 8 '46
Half-mile long bridge in California has hollow pier shafts. il diags Roads & Sts 89:61-5 S '46
New bridge in Toronto suburb. il map Roads & Bridges 83:56-7+ N '45
New railway bridge in Australia. I. McGregor. il diag Comp Air Mag 50:288-90 N '45
Precast T-beams form 33-span bridge. il Concrete 54:2-3 Ja '46
Prestressed concrete bridges. V. S. Murray. il plan diags Roads & Bridges 84:41-6 Je '46
Repair of bomb-damaged structures in France; use of non-contracting cement. diags Engineer 180:484-5 D 14 '45
Sandö bridge, Sweden. il Engineer 181:475 My 24 '46
Southern Railway builds its first precast bridge. il Eng N 136:540-1 Ap 18 '46
Structural skew plates. F. L. Ehasz. bibliog diags Am Soc C E Proc 71:805-30 Je '45; Discussion. 71:1436-8 N '45
World's longest concrete arch, 866 ft. completed in Sweden during the war. il Eng N 136:90 Ja 17 '46

Cost

Bridge, near Wheaton, Minnesota; unit prices. Eng N 135:sup82 D 27 '45
Schooner Creek bridge, Lincoln county, Oregon; unit prices. Eng N 137:397 S 19 '46

Maintenance and repair

Maintenance and repair of concrete bridges on the Oregon highway system. G. S. Paxson. il Am Concrete Inst J 17:105-14 N '45

BRIDGES, Conveyor
Industrial bridge-type structure of unusual design; used to support conveyor belt; Kalamazoo vegetable parchment co. W. M. Laughlin. il diags Roads & Bridges 83:53-5+ N '45

BRIDGES, Floating
Floating block theory in structural analysis. S. U. Benscoter. diags Am Concrete Inst J 17:205-26 Ja '46
War's outstanding floating bridge; used to extend the Ledo road over the Irrawaddy river. il diags Eng N 137:226-9 Ag 22 '46

See also
Bridges, Pontoon

BRIDGES, Industrial
Construction bridge at Garrison dam designed for maximum salvage. plans diags Eng N 137:109-12 Jl 25 '46
High bridge promotes economical haulage; Blue diamond coal co. il map Coal Age 51: 120 Ap '46

BRIDGES, Inter-building
Copper on landmark to be re-used; Metropolitan Tower's connecting bridge. il Sheet Metal Worker 37:53+ S '46

BRIDGES, Iron and steel
Continuous steel girder bridge spans Santee-Cooper tailrace. W. J. Gooding. il Eng N 136:120-2 Ja 24 '46
Deep foundation and welded truss feature unusual Australian bridge. il diag Eng N 135:864-7 D 27 '45
Neuilly bridge, Paris. il diags Engineer 181: 584 Je 28 '46
Ste Rose bridge, world's longest of continuous welded type. J. S. Walsh. il Roads & Bridges 84:49-50+ My '46; Same. Engineer 182:316-17 O 11 '46

BRIDGES, Lift
Sky-hook bridge has narrow escape; failure of lifting mechanism; details of Duluth bridge. R. Day. il Steel 118:96+ Ap 22 '46

See also
Bridges, Bascule

BRIDGES, Military. See Military bridges

BRIDGES, Movable
Unusual type of Bailey bridge in the Duisburg area; centre section swings out. il Mech Handling 33:253 Ap '46

See also
Bridges, Bascule
Bridges, Lift
Bridges, Swing

BRIDGES, Pontoon
Floating aluminum bridges welded by carbon arc process. W. J. Conley. il Civil Eng 15: 561-2 D '45; Same. Materials & Methods 22: 1423-5 N '45

BRIDGES, Prefabricated
Callender-Hamilton bridging system. A. M. Hamilton. il Civil Eng 16:116-17 Mr '46
Evolution of the Bailey bridge. Engineering 162:245 S 13 '46
Famous military bridges; Bailey bridges built by the 1306 Engineer general service regiment. R. C. Horne. il Eng N 137:391-2 S 19 '46
Modified Bailey bridge trusses provide temporary river crossing. G. H. Allen. il Eng N 137:368-9 S 19 '46
Quick relief with a temporary filling; Bailey-type bridge. il Bsns W p22 Ap 13 '46

Testing

Testing Bailey bridges to failure. D. A. Firmage. il Civil Eng 16:154-6 Ap '46

BRIDGES, Railroad
Carlisle-Kingsmoor widening on the L.M.S. railway. il maps diags Engineering 161: 555-7 Je 14 '46
New railway bridge in Australia. I. McGregor. il diag Comp Air Mag 50:288-90 N '45
Pecos gorge in Texas spanned by new railroad bridge. H. J. Engel. il diags Eng N 135:654-9 N 15 '45
Solves problems on its Cairo bridge; Illinois Central lays continuous welded rails. il Ry Age 120:182-5 Ja 19 '46
Southern Railway builds its first precast bridge. il Eng N 136:540-1 Ap 18 '46
Tests on creosoted laminated stringers; Douglas fir beams for railroad bridge. O. H. Schrader, jr. il Eng N 135:650-3 N 15 '45

Maintenance and repair

Big logs, high bridge and deep canyon pose repair problem; Cowlitz River trestle. il diag Ry Age 121:86-9 Jl 20 '46

Reconstruction

Engineer looks at Argentina; train ferry dock. R. Hammond. il diags Engineer 182: 139-41 Ag 16 '46
France rebuilds its rail bridges. il maps Eng N 137:178-81 Ag 8 '46
Highway connection to Manitoulin island; railway swing bridge converted to highway use. il map Roads & Bridges 84:57-9+ F '46
Railroad bridge redecked for vehicles. J. W. Green. diag Eng N 137:53 Jl 11 '46
Reconstructing a bridge under wartime traffic. J. D. Jacobs. il map plans diags Comp Air Mag 51:153-9 Je '46
Reconstruction of French railway bridges. il Engineer 182:121 Ag 9 '46
La réparation du viaduc en fonte sur le Rhone, entre Tarascon et Beaucaire. R. Levi and E. Fougea. il diags Génie Civil 123:17-20 Ja 15 '46
Replaces bridge across Sandusky bay. il Ry Age 121:167-71 Ag 3 '46

BRIDGES, Steel. See Bridges, Iron and steel

BRIDGES, Stone
Bridge structure in Guam defies bombs. R. Cutter. Civil Eng 16:461 O '46

BRIDGES, Suspension
Additional stiffening of Bronx-Whitestone bridge. O. H. Ammann. il diags Civil Eng 16:101-3 Mr '46; Discussion. L. Balog. 16: 358-9 Ag '46
Aircraft damage to suspension bridge; suspender ropes cut on San Francisco-Oakland Bay bridge. E. F. Levy. il diag Civil Eng 16:350-1 Ag '46
Brooklyn bridge; design and stress condition. O. H. Ammann. il diags Am Soc C E Proc 72:25-41 Ja '46
Brooklyn bridge; historical features of construction and operation. H. R. Seely. bibliog il map diags Am Soc C E Proc 72: 5-24 Ja '46; Discussion. 72:864-6 Je '46

BRIDGES, Suspension—*Continued*
Brooklyn bridge; physical examination and field observations. N. Gray. il Am Soc C E Proc 72:42-56 Ja '46
Brooklyn bridge; tests of metals removed from cables and stiffening trusses. H. E. Wessman. bibliog Am Soc C E Proc 72: 57-68 Ja '46
Builders of the bridge, by D. B. Steinman; review. J. C. Riedel. J Eng Educ 36:657-70 Je '46
Cable-stiffened suspension bridge developed through Engineer Board research. W. G. Grove. il diags Eng N 136:347-50 Mr 7 '46; Discussion. 136:871 My 30 '46
Cables of 90-year-old bridge still in sound condition; Bidwell bar bridge. il Eng N 137:508 O 17 '46
Design of bridges against wind. D. B. Steinman. il diags Civil Eng 15:501-4, 558-60; 16:20-3, 66-8 N '45-F '46
Golden Gate bridge vibration studies. il diag Eng N 137:184-5 Ag 8 '46
High road to Brooklyn; history of Brooklyn bridge. E. H. Cameron. il diag Tech R 48: 419-22+, 487-90+ My-Je '46
Lessons in bridge design taught by aerodynamic studies; Tacoma Bridge investigations indicate instability of stiffening girders for suspended spans. F. B. Farquharson. il Civil Eng 16:344-5 Ag '46; Discussion. D. B. Steinman. 16:462 O '46
Multiple-span suspension bridge to replace Rhine arches at Düsseldorf. D. B. Steinman. il diag Eng N 136:982-5 Je 27 '46
Redesign of Tacoma Narrows bridge. C. E. Andrew. il diag Eng N 135:716-21 N 29 '45; Discussion. 136:303-4 F 21 '46

BRIDGES, Swing
Highway connection to Manitoulin island; railway swing bridge converted to highway use. il map Roads & Bridges 84:57-9+ F '46
New bridge at Newark. S. G. Roberts. il Comp Air Mag 51:6-9 Ja '46

BRIDGES, Temporary
Modified Bailey bridge trusses provide temporary river crossing. G. H. Allen. il Eng N 137:368-9 S 19 '46

BRIDGES, Wooden
Lumber shortage a critical problem on bridges. Roads & Sts 89:83+ Je '46
Tests on creosoted laminated stringers; Douglas fir beams for railroad bridge. O. H. Schrader, jr. il Eng N 135:650-3 N 15 '45

Maintenance and repair

Big logs, high bridge and deep canyon pose repair problem; Cowlitz River trestle. il diag Ry Age 121:86-9 Jl 20 '46

BRIEFCASES
Briefcase of nylon sheeting. il Mod Plastics 23:116 Je '46

BRIGGS, Lyman James, 1874-
Retires as director of National bureau of standards. P. G. Agnew. por Ind Stand 16: 244 N '45
Retires, succeeded by E. U. Condon as director of National bureau of standards. Franklin Inst J 241:59-62 Ja '46

BRIGGS, Thomas W., enterprises
Good neighbors unlimited; story of Welcome wagon. F. Smith. il Adv & Sell 38:35+ D '45

BRIGGS manufacturing company
Briggs waits on auto volume. Barron's 26: 6 S 2 '46

BRIGHT dipping (term)
Bright dipping. G. Soderberg. bibliog Electrochem Soc Trans 88 (preprint 10):115-20 '45; Same abr. Steel 118:109-10 My 13 '46
Pickling and bright dipping copper-zinc alloys. G. B. Hogaboom. diags Metal Finishing 44:198-201 My '46

BRIGHTNESS
Brightness control in a model schoolroom. W. Allphin. il plan Illum Eng 41:21-34 Ja '46
Brightness discrimination and visual acuity as functions of intensity. T. L. Jahn. bibliog Opt Soc Am J 36:83-6 F '46
Brightness limitations for luminaires. C. L. Crouch. bibliog diags Illum Eng 40:427-49 Jl '45: Discussion. 41:77-81 Ja '46
Decay in brightness of infra-red sensitive phosphors. R. T. Ellickson and W. L. Parker. diags Phys R 70:290-9 S 1 '46
Interreflection method of predetermining brightnesses and brightness-ratios; report no.3 of Committee on standards of quality and quantity for interior illumination, Illuminating engineering society. bibliog diags Illum Eng 41:361-85 My '46
Lighting and brightness for selling. K. C. Welch. diags Illum Eng 41:386-418 My '46
Measurement of helios with a barrier-layer cell. Y. G. Hurd. diags Illum Eng 41:306-11 Ap '46
Relation between illumination and vision. C. L. Crouch. bibliog il diags Illum Eng 40: 747-84 N '45
Visual thresholds of steady point sources of light in fields of brightness from dark to daylight. H. A. Knoll and others. diags Opt Soc Am J 36:480-2 Ag '46
See also
Paper—Brightness
Stiles-Crawford effect

BRINE
Brine corrosion in refrigerating systems. A. J. Phillips. Locomotive 46:4-7 Ja '46
Modern salt and brine usage in textile plants. N. M. Agnew. flow sheet il diags Am Dyestuff Rep 35:157-63 Mr 25 '46
Proposed A.S.R.E. standard methods of rating and testing water and brine coolers. Refrig Eng 51:1-5 sec 2 Ap '46
Refrigeration notebook; refrigerating brines and how to mix them. T. Mitchell. Power 89:856+ D '45
Some characteristics of brines; with a method for heat capacity determinations. W. A. Pennington. il Refrig Eng 51:135-9+ F '46

Analysis

Determination of nitrite in brines and cured meats. J. C. Morpeth. Chem & Ind p370-2 O 12 '46

BRINELL hardness test
Brinell hardness of gray cast iron; its relation to other properties. J. T. MacKenzie. Foundry 74:88-93 O '46
Brinell hardness testing machine. il Engineering 160:370 N 9 '45
Power-operated Brinell machines. S. R. Williams. il Metal Prog 49:102 Ja '46

BRINLEY, Charles Edward, 1878-
Portrait. Bsns W p67 Je 8 '46

BRIQUETS (fuel)
Charcoal briquettes as a coal substitute. H. Greene and T. N. Jewitt. Soc Chem Ind J 64:265-71 O '45

Testing

Physical and combustion characteristics of packaged fuel containing anthracite fines. L. D. Schmidt and others. U S Bur Mines Rep of Invest 3882:1-35, pl 1-25 '46

BRIQUETTING
Chevrolet makes parts directly from steel chips; production of bearing lock sleeves. il diags Mach 53:184-7 N '46
Designing powder metal parts; Moraine products division, General motors corp. diags Steel 118:108-10+ Je 3 '46
Gas-tight briquette handling plant; magnesium-rich dust. A. Huckett. il diags Mech Handling 33:66-71 F '46

BRIQUETTING (fuel)
Coke dust briquetting. Gas J (Lond) 246:678 N 14 '45
Mobile briquetting plant. il plan diags Gas J (Lond) 248:108-9 Jl 17 '46
Reading briquets use fine anthracite in two new plants. il Coal Age 51:76-80 O '46

BRISTLES
Hog bristles back. Bsns W p24-6 Ap 20 '46

BRISTLES, Artificial
Tooth brush makers may have to offer both hog and synthetic bristles. Ptr Ink 214: 52+ Ja 18 '46

BRISTOL, Connecticut

Water supply

Use of calgon at the Bristol filter plant. I. L. Newell. Water & Sewage Works 93:71-2 F '46

BRISTOL, England
Bombed Bristol plans a brighter future. H. M. Webb. il maps Eng N 136:217-20 F 7 '46

BRISTOL machine tool company
Production man's idea launches workers' company. il Bsns W p29 My 18 '46

BRITISH anti-lewisite. See BAL

BRITISH association for the advancement of science
Conference on scientific research and industrial planning. Chem Age (Lond) 53:587-8 D 22 '45

BRITISH association of chemists
Annual meeting. Chem Age (Lond) 54:85 Ja 19 '46
Chemistry brains trust; B.A.C. London section's meeting; question and answer program. Chem Age (Lond) 54:491-3 My 4 '46

BRITISH broadcasting corporation
British advertising men on commercial radio. Ptr Ink 216:91-2 Jl 12 '46
BBC; question of renewing charter. Economist 150:1035-6 Je 29 '46
British radio carries on. Bsns W p105 Jl 27 '46
Listening to the world; BBC's famous monitor service. C. Cross. il Radio N 35:64+ Ja '46

BRITISH chemical and dyestuffs traders' association
Annual meeting, 23d, London, May 21. Chem Age (Lond) 54:581-2 My 25 '46

BRITISH chemical plant manufacturers' association
Annual luncheon and meeting, London, May 29. Chem Age (Lond) 54:640-2 Je 8 '46

BRITISH COLUMBIA
See also
Copper mines and mining—British Columbia
Forests and forestry—British Columbia
Gold mines and mining—British Columbia
Lead mines and mining—British Columbia
Mines and mineral resources—British Columbia
Paper industry and trade—British Columbia
Paper mills—British Columbia
Railroads—British Columbia
Silver mines and mining—British Columbia

BRITISH commonwealth scientific office
British science in America; British mission in Washington. A. King. Chem Age (Lond) 54:92-3 Ja 19 '46

BRITISH council
New blood at the British council. Economist 150.958-9 Je 15 '46
Scientific work. Chem Age (Lond) 53:555-7 D 15 '45

BRITISH EAST AFRICA. See Africa, British East

BRITISH electrical and allied industries research association
Annual report. Engineer 181:155-6 F 15 '46; Elec R (Lond) 138:209-10 F 8 '46; Electrician 136:341-2 F 8 '46; Engineering 161:187-8 F 22 '46
Work of the E.R.A. C. Darwin. Electrician 136:410-11 F 15 '46

BRITISH electrical and allied manufacturers' association
Annual meeting, 35th, London, April 25. Electrician 136:1226 My 10 '46; Elec R (Lond) 138:740 My 10 '46

BRITISH electrical development association
Annual meeting, London. Elec R (Lond) 138: 439-43 Mr 22 '46; Electrician 136:724-6 Mr 22 '46
Progress report. Electrician 135:436 O 26 '45

BRITISH export trade research organization
Adds new foreign offices. For Comm W 24:11 Ag 31 '46

BRITISH GUIANA
Economic conditions
News by countries. For Comm W 22:24-5 F 16 '46

BRITISH industries corporation
Stock offered. Comm & Fin Chr 164:1078 Ag 26 '46

BRITISH information services
British information services. W. C. Dalgoutte. Assn of Sp Lib & Inf Bur Proc 1945:31-4

BRITISH institute of management
Britain's plans to create good managers. H. P. Whidden. Factory Management 104: 274 Je '46

BRITISH iron and steel research association
Organization proceeding. J. R. Hight. Iron Age 157:84+ Mr 21 '46

BRITISH MALAYA. See Malayan Union

BRITISH non-ferrous metals federation
Annual meeting, 1st, Birmingham, June 6. Engineering 162:7 Jl 5 '46

BRITISH plastics federation
Speeches at annual luncheon. Chem Age (Lond) 54:429-30 Ap 20 '46

BRITISH shipbuilding research association
First annual report. Engineering 162:185 Ag 23 '46

BRITISH Thomson-Houston company
Jubilee of the B.T-H. company. Electrician 136:1392 My 24 '46

BRITISH WEST AFRICA. See Africa, British West

BRITISH WEST INDIES. See West Indies, British

BRITTLE coating test. See Strains and stresses—Brittle coating test

BRITTLE point of rubber. See Rubber—Brittle point

BROACHES
Broaching blind holes with multiple short broaches. il Mach 52:173 My '46

BROACHING
Automatic set-up for broaching clutch disk teeth. il Mach 52:167 Mr '46
Broaching applied to new standards. H. H. Gotberg diags S A E J 54:318-21 Je '46
Broaching blind holes. il Steel 119:130 S 16 '46
Broaching fixture for vertical machines. T. A. Dickinson. diags Materials & Methods 24:425 Ag '46
Broaching holes through boring-bars and tool-holders. I. F. Yeoman. il diags Mach 52:191-3 F '46
Broaching in post-war production. O. W. Bonnafe. il Mach 53:155-7 S '46
Carbon tetrachloride; use in broaching operations; health hazard. R. H. Avery and L. Davis. Nat Safety N 52:89+ O '45
Machining stainless steels. E. Von Hambach. il diags Steel 119:112-13+ O 14 '46
Trends in broaching. il diags Steel 117:58-61+ D 31 '45
Two broaching fixtures for special work. T. A. Dickinson. diags Am Mach 90:149 My 23 '46
Use of single radius on broaches analyzed. S. O. Bjornberg. diags S A E J 54:321-2 Je '46

BROACHING machines
Automatic broaching speeds auto parts output. il Iron Age 158:66 O 10 '46
Broaching bores in bevel-gear blanks on a self-feeding machine. il diag Mach 53:168-70 O '46
Broaching thirty-three internal involute splines in one operation. il Mach 53:210 N '46
Colonial flat-top broaching machines. il Mach 52:203 F '46
Machine tool design responds to needs of industry; how machining operations will be affected. Am Mach 90:125-6 Mr 28 '46
Oilgear's XP vertical broaches. il Am Mach 90:168 O 10 '46
Vertical pull-down broaching machines. il Mach 53:204 O '46

BROADCAST measurement bureau. See Radio advertising—Coverage

BROADCASTING (term)
Comes the revolution, where's broadcasting going? J. Southwell. il Adv & Sell 38:45-6+ D '45

BROADCASTING, Radio. See Radio broadcasting

BROADCASTING stations, Radio. See Radio broadcasting stations

BROCHURES

See also
Advertising, Mail—Brochures

BROILERS, Electric. See Electric broilers

BROKAW, Charles E.
Incentive inspector. por Bsns W p108 Mr 16 '46

BROKERS
Big Lynch reports. Bsns W p70+ Mr 9 '46
Help wanted in Wall Street; expanding business offers opportunities for returning service men. J. P. Broderick. Barron's 26:19 Ja 7 '46
Security dealers' responsibilities. J. A. Treanor, jr. Comm & Fin Chr 162:2451+ N 22 '45

See also
Food brokers
Insurance brokers

Accounting

Some income tax problems of security traders. J. P. Allison. J Account 82:230-42 S '46

Directories

Traders' handbook, January 1946. 406p pa $1.75 Handbook corp, 67 Wall st, New York 5 '46

Employees

Employee loyalty blocks Wall Street union drive. R. M. Bleiberg. Barron's 26:11 O 28 '46
Union is closing in on Street; independent U.F.E. seeks to be exclusive bargainer for employees of major brokerage houses. Bsns W p65-6 Ag 3 '46

See also
United financial employees

Law

NASD issues instructions relating to Oxford case. Comm & Fin Chr 163:520+ Ja 31 '46
NSTA notes; Oxford case. Comm & Fin Chr 163:969 F 21 '46

BROKERS' blanket bond. See Bankers' blanket bond

BROKERS' loans
Margin requirements for purchasing securities; amendments to Regulations T and U. Fed Res Bul 32:126-7 F '46
Regulations T and U; withdrawal of stock upon deposit of cash; substitution on stock certificates; addition to outstanding loan. Fed Res Bul 31:1197-8 D '45

BROMELIN
Splitting of human gamma globulin antibodies by papain and bromelin. M. L. Petermann. bibliog Am Chem Soc J 68: 106-13 Ja '46

BROMIDES
Electrolytic dissociation processes; the ionisation of a carbon-halogen bond by inorganic halides. F. Fairbrother. diag Chem Soc J p503-9 Ag '45
Studies of 1,3-dienes; stereoisomerism of bromides and glycols derived from 2,3-dimethyl-1,3-butadiene. O. J. Sweeting and J. R. Johnson. bibliog Am Chem Soc J 68: 1057-61 Je '46

See also
Alkyl bromides

BROMINATION
Absorption spectra; cyclic β-diketones. E. R. Blout, V. W. Eager and D. C. Silverman. bibliog Am Chem Soc J 68:566-71 Ap '46
Bromination of 4 : 4′-diamidino-αγ-diphenoxypropane and of 4 : 4′-diamidino-stilbene. A. J. Henry. Chem Soc J p870-3 D '45
p-Bromobenzyl bromide. M. Weizmann and S. Patai. Am Chem Soc J 68:150-1 Ja '46
Determination of some aromatic amines and substituted ureas in smokeless powder; improved volumetric bromination procedure. T. D. Waugh, G. Harbottle and R. M. Noyes. Ind & Eng Chem Anal ed 18:636-7 O '46
Fluorocarbon bromides. T. J. Brice, W. H. Pearlson and J. H. Simons. bibliog Am Chem Soc J 68:968 Je '46
Glyoxalines; the bromination of 2-phenyl-4-benzal-5-glyoxalidone. D. L. Williams and A. R. Ronzio. Am Chem Soc J 68: 647-9 Ap '46
Kinetics of halogen addition to unsaturated compounds; bromine addition in carbon tetrachloride, chlorobenzene, and chloroform. P. B. D. de la Mare, R. A. Scott and P. W. Robertson. Chem Soc J p509-12 Ag '45
Note on the bromination of *p*-nitrotoluene. G. W. K. Cavill. bibliog Soc Chem Ind J 65:124 Ap '46
Polybromination of alkylbenzenes. G. F. Hennion and J. G. Anderson. bibliog Am Chem Soc J 68:424-6 Mr '46
Studies of 1,3-dienes; stereoisomerism of bromides and glycols derived from 2,3-dimethyl-1,3-butadiene. O. J. Sweeting and J. R. Johnson. bibliog Am Chem Soc J 68: 1057-61 Je '46
Theoretical discussion of further substitution in disubstituted naphthalenes; heteronuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. Soc Dyers & Col J 62:241-2 Ag '46
Theoretical discussion of further substitution in homonuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. bibliog Soc Dyers & Col J 61:283-5 N '45

BROMINE
Isotopic constitution of tellurium, silicon, tungsten, molybdenum, and bromine. D. Williams and P. Yuster. bibliog Phys R 69:556-67 Je 1 '46

BROMINE compounds
Bromine analogs of DDT. S. J. Cristol and H. L. Haller. Am Chem Soc J 68:140-1 Ja '46
Polymeric compounds formed by the decomposition of 2,4,6-tribromo-3-fluorophenol bromide and the sodium salt of 2,4,6-tribromo-3-fluorophenol. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 68:397-400 Mr '46

BROMOACETANILIDE
Action of acids on *N*-bromoacetanilides. G. C. Israel, A. W. N. Tuck and F. G. Soper. Chem Soc J p547-8 Ag '45

BROMOBENZALACETOPHENONE
Ethylene imine ketones. N. H. Cromwell and J. A. Caughlan. bibliog Am Chem Soc J 67:2235-8 D '45

BROMOBENZYL bromide
p-Bromobenzyl bromide. M. Weizmann and S. Patai. Am Chem Soc J 68:150-1 Ja '46

BROMODIMETHYL aniline
Rearrangement in the condensation of *o*-bromodimethylaniline with lithium diethylamide. H. Gilman, R. H. Kyle and R. A. Benkeser. Am Chem Soc J 68:143-4 Ja '46

BROMODIMETHYL propane
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance. I. Dostrovsky and E. D. Hughes. Chem Soc J p157-94 Mr '46

BROMOFORM
Addition of carbon tetrabromide and bromoform to olefins. M. S. Kharasch, E. V. Jensen and W. H. Urry. Am Chem Soc J 68:154-5 Ja '46

BROMOFURAN
2,4,5-Triphenyl-3-furyllithium and 3,4,6-triphenyl-2-pyridyllithium. H. Gilman and D. S. Melstrom. bibliog Am Chem Soc J 68: 103-4 Ja '46

BROMOMETHYLATION
Use of the bromo- and chloromethylation reactions in the synthesis of some dialkylaminomethyl-2,5-diphenylfurans. R. E. Lutz and P. S. Bailey. Am Chem Soc J 68:2002-5 O '46

BROMONAPHTHALENE
Rearrangement in the reaction of α-halogenonaphthalenes with lithium diethylamide. H. Gilman and others. bibliog Am Chem Soc J 67:2106-8 D '45

BROMONAPHTHYLAMINE
Preparation of some 2 : 3-naphthalene derivatives. H. H. Hodgson and D. E. Hathway. Chem Soc J p841-2 N '45

BROMOSILICANE
Methylbromosilanes. W. F. Gilliam, R. N. Meals and R. O. Sauer. bibliog Am Chem Soc J 68:1161-3 Jl '46

BROMOTRIMETHYLQUINONE
Reaction between quinones and metallic enolates; second paper on bromotrimethylquinone and sodio malonic esters. L. I. Smith and P. F. Wiley. il Am Chem Soc J 68:887-93 My '46

BROMOXYLOQUINONE
Reaction between quinones and metallic enolates; bromo-*m*-xyloquinone and sodio ethyl malonate. L. I. Smith and P. F. Wiley. Am Chem Soc J 68:894 My '46

BROMPTON pulp and paper company
Brompton's background; Woods division, pulp and paper mills. J. N. Stephenson and others. flow sheets il map Pulp & Pa of Can 47:61-85+ Jl '46

BRONCHIAL tubes
Demonstration of the bronchial tree and pulmonary blood vessels in the fetal pig. A. C. Clement. Science 104:9-10 Jl 5 '46

BRONZE
Engineering bronzes; compositions, characteristics, fabrication, etc. K. Rose. il diags Materials & Methods 23:1027-42 Ap '46
Mechanical properties of chill-cast phosphorus bronzes; abstract. K. Winterton. Engineering 161:153 F 15 '46
Metal coloring; bronze. M. F. Maher and F. J. MacStoker. Metal Finishing 44:331-3 Ag '46
New bearing alloy conserves tin; nickel-antimony-lead-copper alloys. J. T. Eash. Iron Age 156:64-5 N 29 '45
New copper-phosphorus-lead-nickel alloy. V. A. Grodsky. il Metal Prog 49:970-2 My '46
Nonferrous forgings. C. H. Pihl. il diags Steel 118.130-2+ Je 17 '46
Sealing bronze castings; abstract. F. L. Riddell. Materials & Methods 23:1084 Ap '46
Two historic letters about the copper-tin diagram from Roozeboom to Neville. D. Stockdale. Metal Prog 49:1183-7 Je '46

See also
Aluminum bronze
Bronze founding

Analysis

Colorimetric determination of nickel in bronzes. G. Haim and B. Tarrant. bibliog Ind & Eng Chem Anal ed 18:51-2 Ja '46
Fluorometric determination of aluminum in steels, bronzes, and minerals. A. Weissler and C. E. White. bibliog Ind & Eng Chem Anal ed 18:530-4 S '46

Testing

Single-exposure technic for radiographic inspection of bronze castings. S. A. Brosky. Materials & Methods 24:149 Jl '46
Test bars for 85-5-5-5 alloy. G. H. Clamer. il plans diags Foundry 74:84-9+ S; 104-7+ O '46

BRONZE, Powdered
Designing powder metal parts; Moraine products division, General motors corp. diags Steel 118:108-10+ Je 3 '46

BRONZE coating
German process applies coating to steel gears; abstract. S. Tour. Iron Age 157:71 My 2 '46

BRONZE founding
Brass and bronze foundries make metallurgical advances. A. H. Hesse. il Foundry 74:98-103+ Ja '46
Brass, bronze meetings; American foundrymen's association. Foundry 74:155+ Je '46
Continuous casting process; bronze rod and tubing produced; American smelting and refining co. diag Steel 118:140 Ap 1 '46
Engineering bronzes; compositions, characteristics, fabrication, etc. K. Rose. Materials & Methods 23:1041 Ap '46
Gases in bronze. R. A. Colton. bibliog(58 references) il Foundry 74:88-9+ Mr '46
Gassing of bronzes; abstract. W. T. Pell-Walpole. Materials & Methods 24:176+ Jl '46
Leaded gun-metal for pressure castings. F. Hudson. il diags Engineer 178:291-2, 311-12, 331-2 O 13-27 '44; Excerpts. Engineering 158:286 O 13 '44; Abstract. Metal Prog 50: 522+ S '46
Mechanical properties of chill-cast phosphorus bronzes; abstract. K. Winterton. Engineering 161:153 F 15 '46
Mechanised bronze foundry. J. A. Oates. il plan Mech Handling 33:12-20 Ja '46
Navy yard revamps foundry. P. Dwyer. il Foundry 74:112-15+ O '46
Nonferrous foundry research at the Naval research laboratory. B. M. Loring. il Foundry 74:98-101+ F '46
Permanent-mold or die cast? H. Chase. il diags Machine Design 18:140-4 Ag '46
Pressure-tight phosphor bronze castings. R. H. Lambert and V. DePierre. il diags Foundry 74:66-7+ N '46
Removing risers from manganese bronze castings; data sheet. W. B. George. diags Foundry 74:170 Jl '46
Test bars for 85-5-5-5 alloy. G. H. Clamer. il plans diags Foundry 74:84-9+ S; 104-7+ O '46

BRONZE welding
Metal and thermit corporation bronze electrodes. Welding J 25:274+ Mr '46
Salvaging a cracked crusher cone. il Roads & Bridges 84:90 My '46
Use of bronze welding in repairing a draw bench cylinder. il Steel 119:82+ S 30 '46

BROODERS, Poultry. See Poultry brooders

BROOKINGS institution
Brookings and Tucker estimates; further comments. E. E. Hagen. R Econ Stat 27: 196-201 N '45
Postwar national income; appraisal of criticisms of the Brookings Institution estimate. J. Mayer and others. R Econ Stat 27:189-91 N '45

BROOKLYN, New York

Bridges

Skew bascule bridge over the Gowanus canal, Brooklyn, N.Y. il diags Engineering 162: 25-7, 36 Jl 12 '46

BROOKLYN bridge. See New York (city)—Bridges

BROOKLYN-QUEENS connecting highway
Highway's homeless; oppose Brooklyn-Queens connecting highway. M. Schuyler and L. Dunne. Arch Forum 85:46+ S '46

BROOKLYN union gas company
Bonds offered. Comm & Fin Chr 164:272 Jl 15 '46
Cuts sinking-fund charge. Barron's 26:6 O 21 '46

BROOKS brothers, New York city
Garfinckel's buy. Fortune 34:136 Ag '46

BROTHERHOOD of carpenters and joiners of America, United. See United brotherhood of carpenters and joiners of America

BROWDER, Earl Russel, 1891-
Browders venture into capitalism. Bsns W p26 Ja 26 '46

BROWN, Edwy Rolfe, 1868-1942
Oil school is born. H. Ridder. il Nat Pet N 38:25+ Jl '46

BROWN, Hunter
Sketch. S. Welton. por East Underw 47:32 Ja 25 '46

BROWN, Lewis H. 1894-
Sketch. por Factory Management 104:105 S '46

BROWN, Samuel, 1776-1852
Samuel Brown and the gas engine. A. K. Bruce. Engineer 182:214-16 S 6 '46

BROWN and Bigelow
Expansion by the calendar; proposed stock offering by Brown & Bigelow. Bsns W p64+ Ag 10 '46

BROWNIAN movements
Possible use of Brownian motion for low temperature thermometry. A. W. Lawson and E. A. Long. Phys R 70:220-1 Ag 1 '46
Statistical mechanical theory of transport processes; general theory. J. G. Kirkwood. bibliog J Chem Phys 14:180-201 Mr '46; Correction. 14:347 My '46

BROWNING, Albert Jesse, 1899-
Appointed director, Office of domestic commerce. por Comm & Fin Chr 163:257 Ja 17 '46; Dom Comm 34:7 F '46
New spokesman for business in Commerce dept. por Bsns W p7 Ja 19 '46
Portrait. Bsns W p18 Ap 27 '46

BROWNING
Non-enzymatic browning; reaction in foods; symposium. Food Ind 18:1523+ O '46

BRUCINE
Discussion on strychnine and brucine. Chem & Ind p264-5 Jl 13 '46

BRUCITE
Brucite deposits in the Rutherglen district, Ontario. M. L. Keith. bibliog maps diags Geol Soc Bul 57:967-83, pl 1-2 O '46
Canadian brucite as a material for the production of basic refractories. M. F. Goudge and J. G. Phillips. Am Cer Soc Bul 25:87-92 Mr 15 '46

BRUGMA process. See Petroleum distillation

BRUINS, G. W. J. 1883-
Executive director of the Fund. por Comm & Fin Chr 164:344 Jl 18 '46

BRUNAUER-EMMETT-TELLER equation
Modification of the Brunauer-Emmett-Teller theory of multimolecular adsorption. G. Pickett. Am Chem Soc J 67:1958-62 N '45; Discussion. T. L. Hill. 68:535 Mr '46
Modifications of the Brunauer, Emmett and Teller equation. R. B. Anderson. Am Chem Soc J 68:686-91 Ap '46
Statistical mechanics of multimolecular adsorption. T. L. Hill. bibliog J Chem Phys 14:263-7, 441-53 Ap, Jl '46
Theory of multimolecular adsorption from a mixture of gases. T. L. Hill. bibliog J Chem Phys 14:268-75 Ap '46

BRUSHES
United States' wartime exports of brushes. E. R. Killam. il For Comm W 24:10-11+ S 7 '46

BRUSHES (electric machinery)
Commutator maintenance. C. B. Hathaway. il diags Water & Sewage Works 93:399-402 O '46
Factors influencing the wear of carbon brushes under high-altitude conditions; abstract. W. E. Campbell. Mech Eng 68: 162 F '46
Maintenance of good brush performance. W. C. Kalb. diags Elec Eng 64:Trans 819-25 D '45
Modern trends in brush operation; abstract. L. D. Cook. Steel 119:130 O 14 '46
Tool for gaging pressure exerted by brushes on commutators of motors. A. M. Thomas. il Mach 53:180 S '46

BRUSHES, Industrial
Low-cost cleaning tool has many useful applications in removal of scale and rust. diag Oil & Gas J 44:91 Ap 13 '46
Power brush adjustments. Steel 119:88 Ag 12 '46
Power brushing fixtures. G. O. Rowland. il diags Steel 118:120+ Ja 28 '46

BRYCE, Robert B. 1910-
Canadian executive director of the bank. por Comm & Fin Chr 164:1478 S 19 '46

BUBBLE-blowing sets
Sales of bubble-blowing sets keep toy industry busy. E. J. Dever, jr. il Ptr Ink 214:28+ Ja 4 '46

BUBBLE gum. See Chewing gum

BUBBLE plate fractionators. See Distillation apparatus

BUBBLE sextant. See Sextant

BUBBLES
Bubble formation from contact of surfaces. E. N. Harvey, K. W. Cooper and A. H. Whiteley. Am Chem Soc J 68:2119-20 O '46
Determination of surface tension by the sessile bubble method. O. L. Wheeler, H. V. Tartar and E. C. Lingafelter. bibliog diag Am Chem Soc J 67:2115-19 D '45
Discriminating particles and working bubbles; flotation process. A. M. Gaudin. il Tech R 48:491-4+ Je '46

See also
Boiling
Foam
Soap bubbles and films

BUCHERER reaction
Bucherer reaction on 5-hydroxybenzo(f)quinoline. R. F. Coles and C. S. Hamilton. Am Chem Soc J 68:1595-6 Ag '46

BUCKENDALE, L. Ray, 1892-
President of the SAE. por S A E J 54:sup23 Ja '46

BUCKET elevators. See Hoisting machinery

BUCKETS
Clamshell bucket unloading towers. H. Brask. il plan Boston Soc C E J 33:185-99 Jl '46

BUCKLING. See Strains and stresses

BUCKWHEAT
Buckwheat as a source of rutin. J. F. Couch and others. Science 103:197-8 F 15 '46
For blood vessels; rutin, from buckwheat valuable in hypertension cases. Bsns W p48+ F 23 '46
Rutin from buckwheat. Chem Age (Lond) 54:214 F 23 '46
Rutin from buckwheat; staff report. flow diag Chem Ind 59:74 Jl '46

BUCYRUS-ERIE company
Annual report. Comm & Fin Chr 164:4 Jl 1 '46

BUDD, Edward G., manufacturing company (now Budd company)
Annual report. Comm & Fin Chr 163:2152 Ap 22 '46
Budd companies' merger plan. Barron's 26: 6-7 My 20 '46
Budd plans a welding job; fusion of his two companies. por Bsns W p61-2+ Ap 20 '46

BUDD company
Common shares offered. Comm & Fin Chr 164:272 Jl 15 '46

BUDD wheel company (now Budd company)
Annual report. Comm & Fin Chr 163:2152 Ap 22 '46

BUDGET

See also
Finance
Government expenditures

Canada

Canada's post-war budget. Economist 149:635 N 3 '45
Canadian budget. Economist 150:640 Ap 20 '46
Canadian budget address. Economist 151:100 Jl 20 '46

Curaçao

1947 budget. For Comm W 25:18 O 12 '46

Czechoslovakia

Czechoslovak budget. Economist 150:672-4 Ap 27 '46

Dutch Guiana

Surinam budget for 1947. For Comm W 25: 21 O 12 '46

France

French budget. Economist 150:846 My 25 '46

Gold Coast, Africa

Record postwar budget. For Comm W 24:18 S 7 '46

Great Britain

British boom budget. P. Einzig. Comm & Fin Chr 163:2084 Ap 18 '46
Budget. Economist 150:595-7 Ap 13 '46
Budget takes shape. Economist 150:341-3 Mr 2 '46
Financial plan? Economist 149:545-6 O 20 '45
Fiscal prospect; budget arithmetic. Economist 150:569-70, 598-9 Ap 13 '46
Incentive budget. Economist 149:585-6 O 27 '45

India

First postwar budget. For Comm W 23:31-2 Ap 27 '46

Ireland

Irish budget. Economist 150:971 Je 15 '46

Morocco

French Moroccan budget for 1946 increased. For Comm W 23:20 Je 29 '46

Norway

Budget announced for fiscal year ending June 30, 1946. For Comm W 22:18 Mr 2 '46

BUDGET—*Continued*

Peru

Proposed budget for 1947. For Comm W 25: 36 O 19 '46

Philippine Islands

Budget for 1946-47. For Comm W 24:24 Jl 27 '46

Russia

Russian budget. Economist 151:670 O 26 '46

Spain

Budget for 1946 approved. For Comm W 23: 32 Je 1 '46

United States

Balance the budget or bust. M. Shields. Comm & Fin Chr 163:833+ F 14 '46

Balancing the federal budget; Gallup poll. Iron Age 158:115+ S 12 '46

Budget and fiscal policy. B. Ruml. Comm & Fin Chr 163:2504+ My 9 '46

Budget and money market. M. Palyi. Comm & Fin Chr 163:2639+ My 16 '46

Budget and subsidies. Fortune 33:82 Mr '46

Budget still eludes balancers. Bsns W p15 Ag 10 '46

Can we balance budget without substantial inflation or deflation? D. R. Young. Mag of Wall St 77:508-9+ F 2 '46

Constitutionally controlled budget. M. E. Tydings. Manuf Rec 115:186+ Jl '46

Federal budget in the transition economy. Fed Res Bul 32:109-18 F '46

Federal budget, 1946 and 1947. Nat City Bank p18-22 F '46

Federal spending and the glass industry. K. Kern. Glass Ind 27:346 Jl '46

41 billion peace-time budget. Nat City Bank p100-2 S '46

Government and Nation's budget. H. D. Smith. Comm & Fin Chr 162:3011+ D 20 '45

Governors urge balanced national budget. Comm & Fin Chr 163:2417 My 2 '46

How far can federal expenditures be trimmed? A. M. Sakolski. Comm & Fin Chr 164:2072+ O 24 '46

Illusory balance. Bsns W p17-18 Ja 26 '46

Impact of federal budget on our economy. H. D. Smith. Comm & Fin Chr 163:3199+ Je 13 '46

New federal budget contains $875 million for construction. Eng N 136:147+ Ja 31 '46

On way to balanced budget. H. S. Truman. Comm & Fin Chr 163:2133+ Ap 18 '46

Outlook for a balanced budget. H. E. Dickhuth. Banking 39:42-3 O '46

President revises 1947 fiscal budget. Comm & Fin Chr 164:755+ Ag 3 '46

President's budget misleading. S. Bridges. Comm & Fin Chr 163:613+ Ja 31 '46

Text of Truman's message to Congress on state of the union and 1947 fiscal year budget. Comm & Fin Chr 163:437+ Ja 24 '46

US Chamber questions budget methods. Comm & Fin Chr 163:1547 Mr 21 '46

What outlook for a balanced budget? A. F. Hussey. Management R 35:194-6 My '46

Venezuela

1946-47 budget. For Comm W 25:42 O 5 '46

BUDGET, Business

Blueprinting business planning; budgetary control as a guide to management. P. M. Millians. Credit & Fin Management 48:13-14 Ap '46

Budgeting is essential to maximum profits in printing business today. A. C. Kiechlin. Inland Ptr 117:66-7 Je '46

Budgets for cost control. D. B. Caminez. N A C A Bul 28:303-15 N 1 '46

Flexible budgets can assist chemical companies in attaining profit objectives. F. H. Rowland. Chem Ind 58:792-4 My '46

Process engineering controls costs. C. D. Townsend. il Am Mach 90:94-6 Jl 4 '46

Profit-action figures. T. R. Elsman. N A C A Bul 27:711-26 Ap 15 '46

Use of sales and production forecasts in the determination of variances. S. Z. Bronner. N A C A Bul 27:623-34 Mr 15 '46

Utility budgetary control. A. W. Hatch. Am Gas Assn Mo 28:77-8 F '46

BUDGET, Household

Expenditures and savings of city families in 1944. D. S. Brady. Mo Labor R 62:1-5 Ja '46

Family spending and saving in wartime. U S Bur Labor Statistics Bul 822:1-218; pa 35c Supt. of doc. '45

Food purchases by city families in February 1945. Mo Labor R 62:297-301 F '46

BUDGET, Municipal

Cost accounting control for municipal budgeting and financial administration. A. W. Sykes. N A C A Bul 27:635-51 Mr 15 '46

BUENOS AIRES

Harbor

Harbor trouble; Argentina's muddy ports. il map Bsns W p113-14 N 24 '45

BUFFALO, New York

See also

Unemployment—Buffalo, New York

Streets

One-day traffic survey in Buffalo. Roads & Sts 89:84 Ap '46

BUFFALO Niagara electric corporation

Bonds offered. Comm & Fin Chr 162:2938-9 D 17 '45

Merger approved. Comm & Fin Chr 162:2267 N 12 '45

Preferred stock offered. Comm & Fin Chr 163:188 Ja 14 '46

BUFFALOES

Virus encephalomyelitis in buffaloes. T. S. Sheng. Science 103:344+ Mr 15 '46

BUFFER mixtures

Measurement and calculation of hydrogen ion concentrations in saline acetate and phosphate buffers. D. I. Hitchcock and R. Peters. bibliog Am Chem Soc J 68:1753-5 S '46

National bureau of standards offers standard samples for buffer solutions. Ind Stand 17: 19 Ja '46

Sale effects of potassium nitrate, sodium sulfate and trisodium citrate on the activity coefficients of *p*-phenolsulfonate buffers. R. G. Bates and others. bibliog J Res Nat Bur Stand 37:251-61 O '46

BUFFET cars

Renovating rail cars with plastics. il Mod Plastics 23:100-1 Je '46

BUFFING. See Polishing

BUFOTENIDINE

Picrolonates of bufotenine, bufotenidine and dehydrobufotenine. V. Deulofeu and B. Berinzaghi. Am Chem Soc J 68:1665 Ag '46

BUFOTENINE

Picrolonates of bufotenine, bufotenidine and dehydrobufotenine. V. Deulofeu and B. Berinzaghi. Am Chem Soc J 68:1665 Ag '46

BUGAS, John S.

FBI's old grads. por Bsns W p19-20 Jl 20 '46

Ford employs new strategy; negotiations with C.I.O.'s U.A.W. por Bsns W p96+ D 8 '45

Henry Ford II's Mr Bugas. por Fortune 34: 146+ Jl '46

BUILDERS' equipment

Progress, 1926-1946; power equipment. il Am Bld 68:98-9 O '46

BUILDERS' hardware. See Hardware

BUILDERS' risk insurance. See Insurance, Builders' risk

BUILDING

Building products review and preview. il Am Bld 68:92-4+ F '46

Construction for atomic bomb production. il map diags Eng N 135:778-822 D 13 '45

Mr Blandings builds his castle; simple $15,000 house; or, Oil for the seven lamps of architecture in four acts. E. Hodgins. Fortune 33:138-43+ Ap '46; Same. Arch Forum 84: 118-21+ My '46

New building technique avoids rafters, trusses and load bearing walls. Iron Age 158:78 Ag 1 '46

Priorities; building materials earmarked to build 400,000 houses for veterans. Arch Forum 84:5-6 Ja '46

Shall we build now or wait? D. G. Carter. il Consumers Res Bul 17:5-7 My '46

BUILDING—*Continued*

Today's house. il map plans diags Arch Forum 85:97-144+ Jl '46

Toward better building; special section. il plans diags Eng N 137:509-36 O 17 '46

Unit construction of a filter plant. il diag Eng N 136:715-18 My 2 '46

See also

Acoustics, Architectural
Air conditioning
Air raids and building
Architecture
Basements
Bathrooms
Brick construction
Building contracts
Building laws and regulations
Building materials
Building trades
Chimneys
Cold storage lockers
Columns
Concrete, Reinforced
Concrete construction
Concrete houses
Construction equipment
Doorways
Factories
Farm buildings
Fireproof construction
Floors
Foundations
Girders
Hangars
Heating
Home ownership
Hot water supply
Hotels
Houses
Industrial buildings
Joints
Masonry
Mechanical equipment of buildings
Partitions
Piles and pile driving
Plumbing
Public works
Railroads—Buildings and structures
Roofs
School buildings
Sheet metal work, Architectural
Shipbuilding
Soundproofing
Steel construction
Steel houses
Strains and stresses
Strength of materials
Tile construction
Trusses
Ventilation
Walls
Warehouses
Wind pressure
Windowless construction
Windows
Wood construction

Bibliography

Manufacturers' literature. Arch Rec 98:24 S '45 [cont monthly]

Cost

Construction accounts for 69 percent of public housing cost in New York city; tabulation. Eng N 136:558-9 Ap 18 '46

Construction and building costs indexes, 1945. Eng N 136:201-2 F 7 '46

Construction cost indexes, labor and materials; for New York, Atlanta, St Louis and San Francisco; selected years, 1920-1945 and monthly, Jan. 1946-date. C. Shute, comp. Arch Rec 100:20 Jl '46

Construction costs, 1946. Eng N 136:565-7+ Ap 18 '46

Construction costs and water rates. L. R. Howson. Am Water Works Assn J 38:739-49 Je '46; Same. Water & Sewage Works 93:205-10 Je '46

Construction wage and price rises low in war distorted price structure. Eng N 137:sup83 O 17 '46

Contract unit bid prices. Eng N 136:619+ Ap 18 '46

Contractors see no drop in construction costs; abstract, O. Coblentz. Civil Eng 16:370 Ag '46

Cost study of one-story factory. plan diags Eng N 136:560-2 Ag 18 '46; Discussion. E. F. McKeon and M. Graham. 137:258 Ag 22 '46

Developer's houses; South Bend builder Place & co. combines many cost-cutting techniques. il plans Arch Forum 85:142-4+ Jl '46

Dilemma; builders' costs up 70 percent over prewar levels. Arch Forum 83:8-10 N '45

Drastic increase in cost of home building cited; study by Northwestern national life insurance company. Nat Underw 50:44 O 24 '46

Elapsed time in residential construction. J. Tourin. Mo Labor R 63:346-54 S '46

Future construction costs. H. P. Gillette. Roads & Sts 89:93 Mr '46

Future costs and their effects on engineering budgets. L. R. Howson. Am Soc C E Proc 72:337-46 Mr '46

Guide to cost trend of buildings, furnishings and equipment, 1936-1945; graph. Spectator (Property ed) 11:28 F 14 '46

Guinea pig house; Detroit builder keeps careful records to show rise in house costs over six years. il plan Arch Forum 84:12 Ap '46

Index of small house costs, revised; 1935-1945; cost index for standard house in 47 cities; 1939-1945. Eng N 136:615, 617 Ap 18 '46

Let's get down to cases on building costs! L. T. Avery. il Heating-Piping 18:92-5 My '46

My building costs are up 50.8% since 1940! why? G. W. Miller. il plan Brick & Clay Rec 108:40-1 Ja '46

Nationwide look at the under-$10,000 house; Forum survey. il plans Arch Forum 84:103-9 Ap '46

Paradoxes in the cost picture; contractors' bids bear no relation to theoretical indices. il Arch Rec 99:50 Ja '46

Selected indicators of construction and building costs; yearly, 1939-1944 and monthly, Jan.-Sept. 1945. Survey of Cur Bsns 25: 11 N '45

Warehouse building at Hungry Horse government camp, Kalispell, Mont.; unit prices. Eng N 137:394+ S 19 '46

What would it cost to rebuild your property today? Rough Notes 89:28 Ja; 30 Ap; 28 Jl; 30 O '46

You'd better add 50%; why the $8,000 house of 1939 costs $12,000 in 1946. diags Fortune 33:110-13 Ap '46

Economic aspects

Engineers, contractors urged to assume construction leadership; urges institute for study of construction economics. A. P. Greensfelder. il Civil Eng 16:429-30 O '46

Estimates

Estimating a brick house from a frame plan. il plan diag Brick & Clay Rec 108:30+ F '46

Estimating clay products masonry. diags Brick & Clay Rec 107:30-1 D '45

Special types of brickwork need extra care in estimating. il Brick & Clay Rec 109:23 O '46

Exhibitions

See also

Building trades—Exhibitions

Extensions

Three-story building on roller bearings; earthquake-resistant construction; addition to Sears, Roebuck building in Los Angeles. plan diags Eng N 136:925-7 Je 13 '46

Finance

Construction industry logs the war years and appraises its future. Eng N 136:191-202 F 7 '46

Cost of financing; bond yields, 1933-1945; interest rates, 1929-1945. Eng N 136:613 Ap 18 '46

See also

Building and loan associations
Building subsidies
Building trades—Securities
Home ownership—Finance
Housing finance
Mortgages

Heating aspects

Comfort bonus of insulation. il Heat & Ven 43:89-92 Ap '46

Economics of insulation. F. B. Rowley and R. C. Jordan. plan charts Dom Eng 167: 140-3 Ja '46

Heat loss through floors of basementless buildings; reference data. diags Heat & Ven 43:88a-88b Ja '46

Heat losses through wetted walls. E. C. Willey. plan diags Heating-Piping 18:103-6 Je '46

How to plan basements for coal heating. il plans diags Am Bld 68:118-19 F '46

Improved floor construction for radiant heating systems. J. E. Peterson. diag Heating-Piping 18:73-6 Jl '46; Discussion. 18:98 S '46

Periodic heat flow; composite walls or roofs. C. O. Mackey and L. T. Wright, jr. Heating-Piping 18:107-10 Je '46

Principles of house insulation. J. A. Hill. il Elec West 95:76-8 N '45

BUILDING—*Continued*

Insurance aspects

Insurance problems in new housing order. Nat Underw 50:21 Mr 28 '46

Rapid construction

Building a power plant in ten months; Clinton engineer works. J. D. Watson. il Eng N 135:807-10 D 13 '45

Milk plant designed for rapid erection. il diags Eng N 137:234-7 Ag 22 '46

Surveying for fast construction; Clinton engineer works. H. R. Kornberg. il plan Eng N 135:812-14 D 13 '45

Thermal diffusion plant built rapidly; Clinton engineer works. M. C. Fox. il Eng N 135: 798-9 D 13 '45

See also

Houses, Prefabricated

Repair and reconstruction

American Builder job helps; builders' short cuts, time savers and how-to-do-it ideas. D. Smith. diags Am Bld 67:98 N '45 [cont monthly]

Credit for modernization. Arch Forum 83:10 N '45

Housing; repairs, maintenance. F. J. Stephan. il Dom Comm 34:23-6 Je '46

Low cost maintenance obtained with brick and clay masonry. il Brick & Clay Rec 107: 29-30 N '45

Pattern of expenditures for nonfarm residential repair and maintenance. F. J. Stephan and J. J. W. Palmer. il map U S Bur For & Dom Com, Economic Ser 55:1-67; pa 20c Supt. of doc. '46

See also

Buildings, Remodeled
Houses, Remodeled

Safety aspects

Design of explosion pressure vents. H. R. Brown. il diag Eng N 137:445-7 O 3 '46

Safety measures

Construction safety on the A bomb project. il Nat Safety N 53:32-3+ F '46

Engineering approach to construction safety. R. L. Moore. il diags Nat Safety N 54:32-3+ Ag '46

Fire precautions during construction. il Safety Eng 91:25-6 Ap '46

Job-site; not paper safety; accident prevention should be part of contract. R. J. Behley. il Safety Eng 91:14-16+ My '46

New York organizes for post-war construction; New York state department of labor plans for safety inspection. Nat Safety N 53:38-9 F '46

Safeguard new construction against fire. il Safety Eng 91:51 F '46

Safety code for new construction. il Safety Eng 91:14-17+ Mr; 60-3 Ap; 58-61 My '46

Standards

American standard building code requirements for minimum design loads in buildings and other structures. maps U S Nat Bur Stand Misc Pub M179:1-32; pa 10c Supt. of doc. '45; Abstract. Nat Safety N 53:34-5 Ja '46

Basis for building coordination. M. W. Adams. il diags Ind Stand 16:239-42 N '45

Britain bids for better building; review of standards for postwar use. W. H. Deacy. il Ind Stand 17:188-93 Ag '46

Building code committee acts to advance standards. Ind Stand 17:100-2 My '46

England studies standardization to speed building of schools. il Ind Stand 17:47 F '46

Modular coordination applied to masonry small homes. H. C. Plummer and E. F. Wanner. plans diags Brick & Clay Rec 108: 31-3 Ap '46; 29-30 My '46

Modular coordination found impracticable in Britain. Eng N 137:240 Ag 22 '46

Performance standards building code under preparation in England. C. Lucas. Eng N 137:525 O 17 '46

What about international standards for building dimensions? Ind Stand 17:161-3 Jl '46

See also

Building laws and regulations
Concrete construction—Standards

Statistics

Building outlook, 1946; review and forecast. Am Bld 68:60-4 Ja '46

Building permit values by cities. Published in monthly numbers of Dun's statistical review; summary in Dun's review

Building volume in new stride; with tabulation showing construction contracts awarded, F. W. Dodge figures, for first six months 1945 and 1946. Arch Rec 100:20 S '46

Construction industry logs the war years and appraises its future. Eng N 136:191-202 F 7 '46

Economy in war and transition; construction activity. Survey of Cur Bsns 26:16-19 F '46

Elapsed time in residential construction. J. Tourin. Mo Labor R 63:346-54 S '46

Expects 50% gain in new construction dollar volume in 1946; F. W. Dodge corporation. Comm & Fin Chr 163:45 Ja 3 '46

Housebuilding percentage of total construction expenditures, 1920-Aug. 1946; graph. Arch Forum 85:6 O '46

In the outlook; building, construction, 1939-1946; graph. Bsns W p20 Ap 6 '46

Industrial construction hit record high in 1945. Eng N 136:1 Ja 3 '46

New construction activity, private and public; revised data; monthly average, 1939-1944, quarterly figures, 1939-1941 and monthly figures, 1942-1944. Survey of Cur Bsns 25:21 D '45

1945 totals by type of project; chart. Arch Forum 84:8 F '46

Plenty of plans; F. W. Dodge forecasts; with chart. Arch Forum 83:9 D '45

Prewar and prospective postwar construction; valuation of construction contracts and projected or estimated construction, 37 eastern states; tabulation. Arch Rec 99:28 Ja '46

Proposed engineering construction backlog and advance to active status. Eng N 136: sup51 Ja 24 '46

Study and teaching

Apprentices are earning while learning; Washburne trade school, Chicago. il Am Bld 68:68-9 My '46

How an apprentice training program operates. il Brick & Clay Rec 108:33-4 F '46

If I were a young man; career opportunities in the building industry. J. E. Merrion. il Am Bld 68:60-3+ My '46

University of Illinois launches building construction course. Am Bld 68:105+ Mr '46

Young America learns how; vocational building trades program at Highland Park high school, in suburban Chicago. il Am Bld 68:64-5+ My '46

Superintendence

Why we need better inspection on construction. W. D. Bigler. Eng N 136:127-9 Ja 24 '46

Brazil

Brazil needs construction equipment. il Eng N 136:209-11 F 7 '46

Canada

Canadian construction in 1945. Pulp & Pa of Can 47:96 Mr '46

See also

Building trades—Canada

Chicago

Better than a Quonset; Chicago home builder. Fortune 33:221-2 Ap '46

See also

Building laws and regulations—Chicago
Building trades—Chicago

Chile

Developments in Chile. For Comm W 23:34-6 Je 1 '46

BUILDING—*Continued*

Cleveland

What Clevelanders expect to buy with their home-building money; the Cleveland Press survey. J. H. Barr. Sales Management 56:102+ F 1 '46

Europe

Impoverished Europe faces slow comeback. P. B. Fleming. il Eng N 136:203-8 F 7 '46

Finland

Finland gears to meet construction needs. W. W. Hill. For Comm W 24:6+ Ag 3 '46

France

What about international standards for building dimensions? France requests an international module. Ind Stand 17:161-2 Jl '46

Great Britain

Bricks and timber. Economist 151:676-8 O 26 '46

Britain bids for better building; review of standards for postwar use. W. H. Deacy. il Ind Stand 17:188-93 Ag '46

Building logistics. Economist 151:510-12 S 28 '46

Engineering outlook; constructional and general engineering. Engineering 161:292-4 Mr 29 '46

England studies standardization to speed building of schools. il Ind Stand 17:47 F '46

Modular coordination found impracticable in Britain. Eng N 137:240 Ag 22 '46

Latin America

Latin America pushes construction jobs. il Eng N 136:209-16 F 7 '46

Mexico

Construction in Mexico; programs and prospects. F. M. Coston. il For Comm W 23: 14-15+ My 4 '46

Mexico's building boom. il Arch Forum 85: 10-13 Jl '46

Netherlands

Building plan for 1946 requires 234,000,000-guilder import. For Comm W 23:24 Ap 27 '46

Norway

Norse 4-year building plan under way. For Comm W 22:28 Mr 9 '46

Panama

Panamanian government spurs new construction. F. M. Coston. il For Comm W 21: 10-11+ N 17 '45

Peru

Peru aims for industrialization. il Eng N 136:212-13 F 7 '46

Philippine Islands

Combine gets army $30 million Philippine job. Eng N 137:275 Ag 29 '46

Russia

Soviet Union develops new building techniques. il diag Eng N 136:798-801 My 16 '46

Southern states

Southern construction totals $1,134,416,000 during 1945. S. A. Lauver. il Manuf Rec 115: 50-1+ F '46

Sweden

What about international standards for building dimensions? Sweden's building industry grows up. Ind Stand 17:162-3 Jl '46

United States

Administration's housing program; statement by the President; report of Federal housing expediter. Comm & Fin Chr 163:877+ F 14 '46

Billion dollar boost in nonresidential construction predicted; abstract. W. W. Wyatt. il Heating-Piping 18:81-2 My '46

Building outlook, 1946; review and forecast. Am Bld 68:60-4 Ja '46

Building prospects paced by large deferred demand. W. C. Bober. Barron's 25:3 N 26 '45

CPA sets up reconversion housing program to provide priorities for veterans' homes. Am Bld 68:128 F '46

Construction carries the ball of prosperity; trends shown by reports from business and government. il Dom Eng 166:132-4+ N '45

Construction progress; abstract. T. S. Holden. Concrete 54:22+ Mr '46

Construction prospects. Survey of Cur Bsns 25:7-11 N '45

Construction revival; preview of 1946. T. S. Holden and C. Shute. Arch Rec 98:80-2 D '45

$8 billion construction volume in 1946 needed by industry, says AIA; other estimates. Concrete 54:4-5+ Ja '46

Home-building priorities. H. B. Smith. Banking 38:59+ F '46

Housing order will shrink engineering construction. D. D. King. Civil Eng 16:239-40 Je '46

Housing outlook. Bsns W p55-6+ Ap 6 '46

Housing; prewar and war homebuilding; postwar problems and programs. Index 26 no 1:1-12 [Mr] '46

Non-federal urban building construction reaches highest level since Pearl Harbor. Comm & Fin Chr 162:2438 N 19 '45

Postwar construction outlook. H. E. Foreman. Concrete 54:5-6 Mr '46

Private building levels off at $80 million weekly rate. Eng N 136:813+ My 23 '46

Progress and planning under Housing act. W. W. Wyatt. Comm & Fin Chr 163:3211+ Je 13 '46

Prospects for construction. W. H. Shaw. il Dom Comm 34:9+ Ja '46

Revised federal estimate of 1947 construction now $19.3 billion; cement requirements; concrete products demand. Concrete 54:26-7+ O '46

State governors report on construction. Concrete 54:2-5+ Ap '46

Status of major projects, 1946. il Eng N 136:227-36 F 7 '46

Survey and forecast, 1945-1946. il Eng N 136:174-86 F 7 '46

Timing public works to stabilize the construction industry. Civil Eng 15:575-7 D '45

Total construction activity in continental United States, by function and ownership, 1929-44; tabulation. Survey of Cur Bsns 25:24 N '45

Veterans' housing program order 1; general restrictions on construction and repairs; text. Am Bld 68:110-11 Ap '46

Wyatt program; with organization chart. Arch Forum 84:94-7 Ap '46

See also Building trades—United States

Venezuela

Venezuela pushing many new construction plans. il For Comm W 22:9-10+ F 9 '46

BUILDING, Underground. See Underground construction

BUILDING accidents

See also
Building—Safety measures
Building failures

BUILDING and loan associations

Operations of savings and loan associations, 1944. Mo Labor R 62:77 Ja '46

See also United States savings and loan league

Accounting

Annual audit of building and loan associations; Illinois auditor of public accounts. J Account 81:175-6 F '46

Audits of savings and loan associations. V. C. Bonesteel. J Account 80:406-7 N '45

Great Britain

Abbey national building society, Co-operative permanent building society, Temperance permanent building society, annual meetings. Economist 150:558-9+ Ap 6 '46

Building societies' recovery. Economist 150: 466, 940 Mr 23, Je 8 '46

BUILDING contracts

Advantages of two types of contract for use in construction of new plants; turnkey contract; staff development contract. C. O. Brown. Ind & Eng Chem 38:sup71-2 F '46

BUILDING contracts—*Continued*
Architects and engineers; their relations on each new job constitute a serious problem; abstract. M. X. Wilberding. Mech Eng 68:561 Je '46
Avoiding trouble on government bidding. F. V. Bonzagni and J. Reich. Eng N 137:373-5 S 19 '46
Control of electrical installation work. W. R. Watson. Inst E E J 93 pt 2:249-59; Discussion. 259-62 Je '46
Fee competitions among contractors? J. P. H. Perry. Arch Rec 100:128 O '46
Men and materials for a $427,000,000 job; electromagnetic process plant at Clinton engineer works built by Stone & Webster engineering corp. il Eng N 135:791-4 D 13 '45
Organization set-up for $5,000,000 a month payroll; J. A. Jones construction co. E. L. Jones. il Eng N 135:804-7 D 13 '45

BUILDING failures
Geometrical aspect of failure theories. R. Jenney. diags Civil Eng 16:125-6 Mr '46
Shoddy work caused building failure; apartment building in Copacabana, Rio de Janeiro's seaside district. Eng N 136:675-6 Ap 25 '46

BUILDING fittings
Progress, 1926-1946; hardware. il Am Bld 68: 134-6 O '46
USS makes plans for wider use of steel in home construction. Iron Age 158:164-7 S 26 '46

BUILDING laws and regulations
American standard building code requirements for minimum design loads in buildings and other structures. maps U S Nat Bur Stand Misc Pub M179:1-32; pa 10c Supt. of doc. '45; Abstract. Nat Safety N 53:34-5 Ja '46
Apartment building ahead; life insurance money may move into Missouri, but is blocked in Michigan. Arch Forum 84:24+ Ap '46
Building code improvements. J. M. Mayes. il Dom Comm 34:52-5 Jl '46
Building codes and fire safety. B. L. Wood. Western Soc E J 51:89-98 Je '46
Building codes under fire. Bsns W p41-2+ Mr 23 '46
Building limitation order. Nat City Bank p38-9 Ap '46
CPA announces list of district offices handling non-housing. Iron Age 157:174-5 My 2 '46; Same. Eng N 136:513 Ap 11 '46
CPA defines exemption for building started before housing order. Nat Pet N 38:16 My 15 '46
CPA orders two-thirds cut in building authorizations. Eng N 136:879+ Je 6 '46
Effect of construction controls on industry. Factory Management 104:252+ My '46
Federal housing order explained. Iron Age 157:106 Ap 11 '46
Lack of realism in city building codes; abstract. B. L. Wood. Iron Age 157:112 Ap 25 '46
Minimum standards for veterans' homes. M. Kane. Banking 39:63 Jl '46
Modern building codes stimulate home construction. Am Bld 68:116 Ap '46
New housing regulations; with text. Sheet Metal Worker 37:49-53+ Ap '46; Excerpts. Concrete 54:28 Jl '46
New pattern for building legislation. H. Vermilya. il Arch Rec 99:68-75 Mr '46
Oil industry awaits CPA clarification of building order as confusion mounts; with text of Veterans housing program order 1. Nat Pet N 38:3-7, 32+ Ap 3 '46; Supplement. 38:40+ My 8 '46
Oil industry hit hard by CPA order putting cost limits on construction; with text explaining order. Nat Pet N 38:3-5 Mr 27 '46
Oil industry swamps CPA for interpretations of building order. Nat Pet N 38:8-9 Ap 10 '46
Order issued by CPA for building curbs. Comm & Fin Chr 163:1839 Ap 4 '46
Prescription for ailing building codes. il Eng N 136.542-5 Ap 18 '46
35 questions and answers on new building restrictions. Brick & Clay Rec 108:25+ Mr '46
Uniform building codes adopted to cut construction cost. Eng N 136:562 Ap 18 '46
Uniform code plan. Bsns W p51-2 O 12 '46
Veterans' housing priorities; outline of stop construction order. Banking 38:58+ My '46
What is effect of government housing order on nonresidential construction? Heating-Piping 18:63-4 Ap '46
Wyatt issues new housing order apportioning definite percentages of new housing construction into rental units and low-cost homes. Comm & Fin Chr 163:2414 My 2 '46

Chicago
Building blockade broken; Chicago modifies building code for first time in decades. il diag Arch Forum 84:12 My '46
Chicago building code. Fortune 33:262+ Ap '46
Chicago tackles its building code; Pierce foundation study recommendations. il Arch Rec 99:66-7 Mr '46
Code warning; Tribune attacks restrictive building code. Arch Forum 83:24+ D '45

Los Angeles
New zoning ordinance for Los Angeles. il Arch Forum 85:12 Ag '46

New York (city)
New York set-back; Moses zoning amendment meets final defeat in courts. Arch Forum 85: 14 S '46

Washington (state)
New way to enforce building codes used in several Washington cities. Eng N 137:104 Jl 25 '46

BUILDING loans
See also
Mortgages
Veterans—Loans

BUILDING lots. See Building sites

BUILDING materials
Better wall is coming. R. L. Davison. il diags Arch Rec 100:119-23 O '46
Brick famine? Economist 150:463-4 Mr 23 '46
Bricks and timber. Economist 151:676-8 O 26 '46
Bricks without straw? the essential stuff for houses is critically short. diags Fortune 33:114-17+ Ap '46
Building material subsidies approved; Congress finally okays Patman bill. Arch Forum 84:6 Je '46
Building materials requirements and production capacity, 1946; tabulation. Eng N 136: 521 Ap 11 '46
Construction material surveys. H. E. Swanson and N. C. Rockwood. il Rock Prod 48: 79+ O '45
Corrosion of constructional materials by sulphur and sulphides. J. R. West. Chem Eng 53:225 O '46
Finishes for exterior walls, roofs, floors, interior. il diags Arch Forum 85:125-7 Jl '46
High frequency cooking of farm wastes promises new building boards. Arch Forum 84:169 Ja '46
Housing prospects analyzed in light of material needs. Eng N 136:393+ Mr 21 '46
La maison économique construite en sandwich. diags Génie Civil 123:25-6 Ja 15 '46
Manufacturers expand research and production facilities. il Am Bld 68:70-1+ My '46
Material shortages. Arch Forum 84:98-101 Ap '46
Metal faced sandwich material, developed for aircraft construction, is strong, lightweight structural material. il diag Arch Forum 84:169 Je '46
New foamslag slab factory; Glasgow corporation's experiment. Chem Age (Lond) 55:229-30 Ag 24 '46
New ideas for building advanced to hasten end of housing crisis. il Eng N 137:534-6 O 17 '46
Order puts most materials under tight federal control. Eng N 137:281+ S 5 '46
Plastics in Britain's postwar homes; recently developed Plimber plastic timber. il Mod Plastics 23:108-10 Mr '46
Premium payment plan. Survey of Cur Bsns 26:2-3 Jl '46
Progress, 1926-1946. il Am Bld 68:100-9 O '46
Sandwich construction material is extremely strong and lightweight, developed by Glenn L. Martin co. and Plywood corp. Arch Forum 84:192+ Mr '46

BUILDING materials—*Continued*
Shortages of key building materials. Survey of Cur Bsns 25:9-11 N '45
Some physico-chemical problems in construction. E. K. Rideal. Chem & Ind p210-13 Je 1 '46
Structural plastics. Sci Am 175:216 N '46
Structural plastics in low-cost housing; panels of aluminum skinned expanded paper core plastic material. il Mod Plastics 23: 114-15 Jl '46
Subsidies test housing czar. Bsns W p15 My 18 '46
Supply slowly improving for bricks, gypsum products, soil pipe. Arch Forum 84:10 Ja '46
Vermiculite; a modern insulation and constructional material. N. C. Jones. Chem & Ind p 195-6 My 18 '46
Where to use clay products in new construction; drawings and tabulated data. Brick & Clay Rec 108:36-7 Ap '46

See also
Aluminum, Structural
Bricks
Cement
Clay products
Concrete
Concrete, Reinforced
Concrete blocks
Flooring
Gypsum
Lime
Lumber
Mineral wool
Paper, Building
Plywood
Roofing
Sheet metal work, Architectural
Shipbuilding—Materials
Siding (building)
Slate
Sound absorbent materials
Steel, Structural
Strength of materials
Tiles
Wall board
Wood

Prices

Messages in materials price trends; World war I and aftermath a guide for today. L. S. Kellogg. Arch Rec 99:51-5 Ja '46
OPA grants price increases for many building materials; tables. Eng N 136:247, 252, 262 F 14 '46
Prices of construction materials; price trends, basic building materials prices, 1874 to 1945 in New York city. Eng N 136:579+ Ap 18 '46

Standards

1945 supplement to A.S.T.M. standards including tentatives; pt 2, Nonmetallic materials—constructional. 231p Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '45

Testing

Building materials research laboratory features novel movable partitions; Johns-Manville corp. il diag Eng N 137:169-71 Ag 8 '46
Test criterion for an incombustible material. N. P. Setchkin and S. H. Ingberg. diag Am Soc T M Proc 45:866-75; Discussion. 876-7 '45

BUILDING paper. See Paper, Building

BUILDING research
Manufacturers expand research and production facilities. il Am Bld 68:70-1+ My '46
New home research center to help solve building problems; University of Illinois. il Am Bld 68:67 My '46

BUILDING service employees international union
A.F.L. triumph; successful invasion of Chicago's department stores. Bsns W p89 Je 22 '46

BUILDING sites
Purchasing a building lot. A. C. Blum. Mag of Wall St 77:468 Ja 19 '46

BUILDING stone
See also
Stonework

BUILDING subsidies
Subsidy and housing. C. Abrams. J Land & Pub Util Econ 22:131-9 My '46

BUILDING surveys
Builders survey. Arch Forum 84:192+ Ap '46

BUILDING trades
Architects speed re-employment; radio message from the editors of Architectural record to American public. K. K. Stowell. Arch Rec 98:79 N '45
Big Dave Bohannon; operative builder by the California method. il Fortune 33:144-7+ Ap '46
Building center of New England to open in Boston in June. il Sales Management 56: 142 Ap 1 '46
Construction; industry or racket? L. T. Avery. il Heating-Piping 18:69-72 Ap; 92-5 My '46
Huge increase in production of building supplies planned. Eng N 136:307+ F 28 '46
No. 1 need in pre-fab home business, good dealers in the right spots; Gunnison unity-of-action plan. il Sales Management 57: 122+ Jl 15 '46
Producers council to organize, promote 150,000 low-cost module type homes. H. L. Stephen. Ptr Ink 217:112 O 4 '46
Room for new and old alike in coming building boom. J. V. Sherman. Barron's 26:17 Ja 7 '46

See also
Brick industry and trade
Cement industry and trade
Houses, Prefabricated
Housing projects
Lumber trade
Plumbing trade
also Associated general contractors of America; National association of home builders

Accounting

Cost records for the home building industry. H. A. Moore. N A C A Bul 27:407-14 Ja 1 '46

Advertising

Better letters, how to write them; Barrett's basic manual helps dealers sell building materials. il Ind Marketing 31:40-2 Jl '46
Case histories of business-paper advertising campaigns; Johns-Manville 3-products-in-one-package promotion. il Ptr Ink 215:42+ My 10 '46
Portland builders' association radio program huge success. Am Bld 67:95 N '45
Wartime product gets all-round promotion to civilian market; asbestos-cement all-purpose building board, Stonewall. C. J. Dunham. il Ptr Ink 213:20-1 N 16 '45

Directories

Construction buyers' directory. Published bimonthly by Construction buyers' directory, 343 S. Dearborn st, room 306, Chicago 4
List of the country's manufacturers of prefabricated homes. Steel 118:61+ Ja 14 '46

Exhibitions

And so this great NAHB exhibit for builders opened. il Am Bld 68:39-42 Mr '46
California home builders conduct successful exhibit at Los Angeles. il plans Am Bld 68: 100-1 S '46

Labor conditions

Apprentices are earning while learning; Washburne trade school, Chicago. il Am Bld 68:68-9 My '46
Base rates on compensation insurance for construction, April 1, 1946. Eng N 136:607 Ap 18 '46
Building labor productivity. Eng N 136:557 Ap 18 '46
Building lid tilts. Bsns W p80+ Ag 31 '46
Collective bargaining at work; master agreement between Building trades employers' association and Building and construction trades council, New York. T. S. Holden. Arch Rec 99:91-6 My '46
Construction wage rates and trends, 1913-1945. Eng N 136:589+ Ap 18 '46
Construction workers given pay raises as contractors, unions reach accords. Eng N 136:149 Ja 31 '46
Construction workers; how many and at what wages? il Eng N 136:187-90 F 7 '46
Door shut to apprentices; permanent shortage of skilled tradesmen looms as building's next big block. Arch Forum 84:20+ Ja '46

BUILDING trades—Labor conditions—*Cont.*
Intensify NWSB drive on high building wages; WAB lists construction wage controls. Eng N 136:673 Ap 25 '46
Labour-management collaboration in the Canadian construction industry. Int Labour R 53:379-87 My-Je '46
Labor paradox; employment in building industry exceeds goal, but falls short of demand. Bsns W p73-4 My 25 '46
Management-labor cooperation in training apprentices. W. F. Patterson. il Arch Rec 100:95-100 Ag '46
My building costs are up 50.8% since 1940! why? G. W. Miller. il plan Brick & Clay Rec 108:40-1 Ja '46
N.Y. five-year wage stabilization plan; master agreement covering building construction. Sheet Metal Worker 37:84 Ap '46
Promise of peace; New York signs pact after two years of trying, but some unions stay out. Arch Forum 84:16+ Mr '46
Union wages and hours in the building trades, July 1, 1945. J. P. Corkery and H. M. Abowitz. Mo Labor R 62:276-89 F '46
Union wages and hours in the building trades, July 1, 1945. U S Bur Labor Statistics Bul 862:1-70; pa 15c Supt. of doc. '46
Wage lid tilted; builders push up pay. Bsns W p94-6 Jl 6 '46
Wage rates in the building trades in 46 cities; tabulation. Sheet Metal Worker 37: 92 Ja '46
See also United brotherhood of carpenters and joiners of America

Securities
Changing status of building stocks; with financial position. H. L. Blackburn. il Mag of Wall St 78:640-1+ Ag 31 '46
Realistic survey of building stocks; with position of leading stocks. J. C. Clifford. il Mag of Wall St 77:581-3+ F 16 '46

Canada
Labour-management collaboration in the Canadian construction industry. Int Labour R 53:379-87 My-Je '46
Report on the construction industry in Canada, 1944. 68p pa 25c Canada. Dominion bur. of statistics, Ottawa '45

Chicago
Chicago metropolitan home builders association code of ethics. Am Bld 67:104 D '45

Great Britain
Building efficiency. Economist 150:382-3 Mr 9 '46

Russia
Soviet Union develops new building techniques. il diag Eng N 136:789-801 My 16 '46

United States
Building industry's part in low cost housing. A. Schindler. Comm & Fin Chr 162:3005+ D 20 '45
Building program under private enterprise. J. W. Bricker. Comm & Fin Chr 163:521+ Ja 31 '46
Building start in major cities. il Arch Forum 83:5-7 N '45
Challenge to construction industry. L. C. Hart. Comm & Fin Chr 162:2570+ N 29 '45
Housing program ignores worst bottlenecks. H. S. Taylor and R. Masiello. Barron's 26: 3+ My 6 '46
Nationwide look at the under-$10,000 house; Forum survey. il plans Arch Forum 84:103-9 Ap '46
Needed; reform of construction industry. B. Ruml. Comm & Fin Chr 164:2082+ O 24 '46
Six and one-half billion of new construction during 1946. J. D. Small. Comm & Fin Chr 162:2329+ N 15 '45
What is wrong with the housing industry. J. V. Sherman. Barron's 26:3 Ap 29 '46
Will the American builder meet the 1946 housing goal? H. B. Byer. Am Bld 68:65-7 Jl '46
See also
Housing—United States

BUILDINGS
Status of major projects, 1946. il Eng N 136:229-30 F 7 '46
See also
Airport buildings
Architecture
Bank buildings
College buildings
Community centers
Concrete buildings
Factories
Farm buildings
Foundries
Gasoline service stations
High buildings
Hospitals
Hotels
Houses
Industrial buildings
Mechanical equipment of buildings
Military buildings
Mine buildings
Municipal buildings
Office buildings
Public buildings
Race track buildings
Railroads—Buildings and structures
Recreation buildings
School buildings
Sheet metal buildings
Shopping centers
Society buildings
Steel buildings
Store buildings
Telephone company buildings
Theaters
Warehouses

Exterior lighting
Public lighting for the victory celebrations in London as designed and executed by the Ministry of works. R. W. Ames. il diags Light & Lighting 39:117-30 Jl '46
Victory illuminations; floodlighting of London buildings. il Elec R (Lond) 138:887 Je 7 '46

Management
Management methods in building operation and maintenance; abstract. A. J. Lewis. Heating-Piping 17:518 O-N '45

Obsolescence
Depreciation schedule; U.S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment, bridges, waterworks, gas and electric plant. Eng N 136:601+ Ap 18 '46

BUILDINGS, Industrial. See Industrial buildings

BUILDINGS, Multiple use
Efficient automatic heating of multiple occupancy buildings. W. R. Miller. Sheet Metal Worker 37:56+ Mr '46

BUILDINGS, Portable
See also
Hangars, Portable
Houses, Demountable
Houses, Portable

BUILDINGS, Prefabricated
Aero Digest's 1946 sampler chart of standardized aircraft hangars. il Aero Digest 53:67-70+ Jl '46
Britain tries new type railway station. W. H. Hamlin. il diag Ry Age 120:1183-5 Je 15 '46
Pre-cut T-hangar put on market. Aviation N 4:16 N 19 '45
Prefabricated regulations to help speed building. Ind Stand 17:153 Je '46
See also
Houses, Prefabricated

BUILDINGS, Remodeled
Electrical union rearranges a mansion for national headquarters, New York. il plans Arch Forum 84:125 My '46
From sign shop to hobby shop; Peoria builder makes speedy conversion. il Am Bld 68:95 Mr '46
Maritime Union remodels group of buildings into efficient national and local headquarters in New York city. il plans Arch Forum 84:123-4 My '46
Portland, Ore. boilermakers build marble palace around structure of commercial eyesore. il plans Arch Forum 84:126 My '46
Scovill manufacturing company meets expanded need for administrative space by remodeling industrial buildings. il plans diag Arch Forum 83:101-3 D '45

BUILDINGS, Remodeled—*Continued*
Should we remodel or start from scratch? banking buildings. il Banking 38:42-4 F; 44-5 Mr '46

See also
Apartment houses, Remodeled
Houses, Remodeled

BUILDINGS, Temporary
Installations in temporary houses. P. Ridler. Elec R (Lond) 138:297-8 F 22 '46
Taxpayer; Seattle store building. il map plans Arch Forum 83:154-5 N '45

BUILT-IN furniture. See Furniture, Built-in

BULGANIN, Nikolai, 1895-
Politburo. V. Kravchenko. Fortune 34:236 S '46

BULKHEADS
Novel bulkhead pick-up device eliminates need for diver at Montgomery island and Emsworth dams. W. E. Sidney. il Eng N 136:117 Ja 24 '46

BULKHEADS (naval architecture)
Some methods of modern ship design applied to an Atlantic liner; with operating cost and income data. E. P. Trask. diags Marine Eng 50:186-7 N '45

BULLDOZERS. See Excavating machinery

BULLION. See Precious metals

BULOVA school of watchmaking, Woodside, New York
Special library for disabled veterans. M. E. Schaaf. Special Lib 37:12-14 Ja '46
Veterans learn watchmaking in an air conditioned school. il Heat & Ven 43:90 Ja '46

BULWINKLE bill. See Railroad law

BUMPERS, Automobile. See Automobiles—Bumpers

BUNGALOWS
Expansible bungalow. il plans Arch Forum 85:116-17 Jl '46
Six-room bungalow is built low on an H-shaped plan. il plan Arch Forum 85:119 O '46

BUNKERING stations. See Oil bunkering stations

BUNSEN burner
Flexibility and the Bunsen burner. diag Gas J (Lond) 247:812 My 15 '46
Gas industry; from light to heat. D. Chandler. il diags Gas J (Lond) 248:477-8+ S 18 '46

BUOYS
Electric lighting for marine buoys and beacons. Engineer 181:527 Je 7 '46
Radio marker buoy. il Electrician 136:108 Ja 11 '46

BUOYS (for seaplane landing). See Seaplane bases—Lighting

BUREAU of personal accident and health underwriters
Annual meeting, Atlantic City, Dec. 10-12. East Underw 46:81, 110 D 14; 40 D 21 '45; Nat Underw 49:19+ D 13 '45; Weekly Underw 153:1385+ D 15 '45
Annual meeting, Stockbridge, Mass. Sept. 30-Oct. 2. East Underw 47:32-6 O 4 '46; Nat Underw 50:23+ O 3 '46; Nat Underw (Life ed) 50:1+ O 4 '46; Weekly Underw 155: 793+, 810, 819 O 5 '46

BUREAU of safety. See Interstate commerce commission—Bureau of safety

BUREAUCRACY
Bureaucracy, a national menace. K. S. Wherry. Comm & Fin Chr 164:2213+ O 31 '46

BURETS
Inexpensive burette dispenses LPG odorant in measured amounts, prevents losses. diag Nat Pet N 38 pt 2:R498 Jl 3 '46

BURGLARY insurance. See Insurance, Burglary

BURIAL costs. See Funerals, Cost of

BURIAL vaults. See Tombs

BURIED pre-Cambrian hills. See Geology, Stratigraphic—Pre-Cambrian

BURLAP
See also
Jute

BURLINGAME, California
Burlingame points way to business remodeling. il diags Am Bld 68:108-9+ Je '46

BURLINGTON mills corporation
Offering of preferred stock. Comm & Fin Chr 163:2575 My 13 '46

BURMA
Reconstruction starts in Burma. Economist 149:682-3 N 10 '45

See also
Public health—Burma

Commercial policy
New system of import control inaugurated. For Comm W 24:20 Jl 6 '46

BURMAH oil company
Statement by the chairman. R. I. Watson. Economist 151:70 Jl 13 '46

BURNERS
See also
Bunsen burner
Gas burners
Oil burners

BURNETT, Hal
Hal Burnett named editor of Industrial Marketing. por Ind Marketing 31:56 Je '46

BURNETT, Theodore Crété, 1861-1945
Sketch. J. M. D. Olmsted. Science 103.384 Mr 29 '46

BURNING of steel. See Steel—Overheating and burning

BURNS and scalds
Acquisitions récentes dans le traitement des brûlés. F. Lagrot. Génie Civil 123:24-5 Ja 15 '46
New dressing for burns and extensive abrasions. G. S. King. Ind Med 14:796-7 O '45
Preliminary report on the use of tantalum oxide, type 400. C. T. Olson. Ind Med 14:949-52 D '45
Protein hydrolyzates and burns. Ind Med 14: 823-4 O '45
Treatment of hot resin burns and safe handling of thermoplastic materials. W. B. Warden and W. J. Sigmund. bibliog Pet Refiner 25:89-92 Mr '46

BURROUGHS adding machine company
Thumbnail stock appraisal. Mag of Wall St 78:750 S 28 '46

BURRY biscuit company
Preferred stock offered. Comm & Fin Chr 163: 1279 Mr 11 '46

BURTNESS, Harold William, 1897-
Joyce retires; Burtness heads Chicago Great Western. por Ry Age 120:1112-13 Je 1 '46

BUS terminals. See Motor bus lines—Terminals

BUSBARS
All power handled on aluminum buses; Jennison station of New York state electric & gas corp. D. L. Greene. il diag Elec World 125:57-9 Ap 27 '46
Busbar spacing creates unbalanced circulating current in 3-phase system. L. G. Levoy, jr. il diags Power 90:537-8+ Ag '46
Formulas for the inductance of coaxial busses comprised of square tubular conductors. H. P. Messinger and T. J. Higgins. bibliog diags Elec Eng 65:Trans 328-36 Je '46
How to determine current capacity for cables and buses in still air. J. P. C. McMath. Elec World 126:140 S 28 '46
Isolated-phase bus experience dominantly favorable. il Elec World 125:44-7 Mr 30 '46
Max-I-Meters tested on zig-zag bus. E. J. Norton. il Elec World 124:137 N 10 '45
Quick-trip bus ties reduce breaker duties. diag Elec World 125:95 My 11 '46
Ring bus facilitates service connections. R. W. Coursey. diags Elec World 126:78 Ag 3 '46
Simplicity of substations rests on voltage stratification. P. D. Tuttle. diags Elec World 125:87-9 My 11 '46
Strain insulator effect in substation span sags. J. R. Stover. Elec World 126:62-3 Jl 6 '46

Protection
Linear couplers, field tests and experience at York and Middletown, Pa. E. L. Harder and others. bibliog il diags Elec Eng 65: Trans 107-13 Mr '46

BUSBARS—Protection—*Continued*
Overload protection. E. V. C. Habgood. diags Elec R (Lond) 139:416-18 S 13 '46

Testing

Arcing ground tests on a normally ungrounded 13-kv 3-phase bus. J. E. Allen and S. K. Waldorf. bibliog il diags Elec Eng 65:Trans 298-306 My '46
4,370,000-kva short-circuit tests on Grand Coulee 230-kv bus. W. H. Clagett and W. M. Leeds. il diags Elec Eng 65:Trans 729-35 N '46

BUSES, Motor. See Motor buses

BUSES, Trolley. See Trolley buses

BUSH, Vannevar, 1890-
Great science debate; the atom touched off debate on national science policy. il por (p118) Fortune 33:116-21+ Je '46
Washington award for 1946 presented to Vannevar Bush. Western Soc E J 51:54-65 Je '46
Washington award will go to Dr V. Bush. por Elec World 125:108 F 16 '46

BUSHINGS
Anti-friction ball bushing development gives greater efficiency in linear motion. il Aviation 45:79 S '46
Anti-friction bushings. il Sci Am 175:17 Jl '46
Ball bushing for linear motion. il Diesel Power 24:990 Ag '46; Mech Eng 68:734 Ag '46
Barnaby tool-holder bushings. il Steel 115:110 Ap 15 '46
Carbon bushes on spraying plant conveyors. F. L. Gray. il Mech Handling 33:72-4 F '46
Removing blind bushings by hydraulics. J. Osborne. diags Am Mach 90:140 S 26 '46
Standard bushes. il Engineer 181:461 My 17 '46; Engineering 161:585 Je 21 '46
Standard bushes; development by Glacier metal co. il Automobile Eng 36:253-4 Je '46

BUSHINGS, Insulating
Bushing insulators; surface discharge phenomena. E. G. Wright. bibliog diags Elec R (Lond) 138:733-6 My 10 '46
Dielectric heating dries transformer bushings. H. L. Cole. il diag Elec World 125:102 Je 8 '46
Ferranti vacuum-tight bushing. diags Electrician 135:501 N 9 '45
Field test yields ratio of delta-connected bushing current transformers. C. E. Asbury. diags Elec World 124:72-5 N 24 '45
Hermetically sealed steatite. H. H. Hausner. bibliog diags Am Cer Soc J 29:123-8 My 1 '46
Sealed electrical bushings for climate-proofing equipment; metal-to-ceramics seals, their manufacture, properties and applications. H. H. Hausner. bibliog il diag Product Eng 16:849-53 D '45

Testing

How to test oil-filled bushings. T. C. Fronmuller. il diag Elec World 124:139 N 10 '45
Investigation of porcelain insulators at high altitudes. C. V. Fields and C. L. Cadwell. bibliog diags Elec Eng 65:Trans 656-60 O '46

BUSINESS
Blueprint for business stability. P. G. Hoffman. il Am Bsns 16:8-10+ Jl '46
Business speaks; strife between labor and management a national disgrace. D. M. Nelson. Comm & Fin Chr 164:2213+ O 31 '46
Job ahead of us; responsibility of business. I. Mosher. Comm & Fin Chr 164:1267+ S 5 '46
Leadership and American business. R. W. Gallagher. Am Gas Assn Mo 27:483-4+ N '45; Same. Am Gas J 163:21-2 N '45; Same. Gas Age 96:56-7+ N 15 '45; Same. Comm & Fin Chr 162:2211 N 8 '45
Let us restore American business as usual. C. E. Wilson. Comm & Fin Chr 164:1379+ S 12 '46
Professional behavior and industrial society. P. Meadows. J Bsns 19:145-50 Jl '46
Progress with the individual opportunity system. R. J. Cordiner. Elec West 97:51-3 Jl '46
Supreme court and business planning. A. A. Ballantine. Harvard Bsns R 24 no2:151-63 [Ja] '46
UN and big business. T. Lie. Comm & Fin Chr 163:2640+ My 16 '46
Vital issues facing American business today. L. Henderson. Comm & Fin Chr 164:606+ Ag 1 '46

See also
Accounting
Advertising
Applications for positions
Auditing
Banks and banking
Billing
Budget, Business
Business conditions and other headings beginning Business
Card system in business
Catalogs
Christmas business
Collecting of accounts
Commerce
Commercial correspondence
Competition
Cooperation
Corporations
Corporations—Finance
Cost accounting
Credit
Department stores
Economics
Efficiency, Industrial
Employment management
Executives
Exhibitions
Export trade
Finance
Good will (in business)
Government aid to business
Government regulation of industry
House organs
Income
Income tax
Industrial cooperation
Industry
Instalment plan
Insurance
Interest
Inventories
Jobbers
Location in industry
Mail order business
Mailing lists
Manufactures
Market surveys
Marketing
Money
Office management
Organization in industry
Partnership
Price policies
Profit
Prosperity
Public relations
Purchasing
Real estate business
Retail trade
Risk
Sales letters
Salesmanship
Salesmen
Securities
Taxation
Trade associations
Trade marks
Trust companies
Trusts, Industrial

Bibliography

Business education, 1945. M. H. Freeman, ed. 67p Business education world, 270 Madison av, New York 16 '46
Business reference publications; trade directories, catalogs, cyclopedias and buyers' guides. Ind Marketing 30:133-4 O 25 '45
Current list of selected information sources for businessmen. P. B. B. Andrews. Sales Management 57:140+ O 1; 138+ O 15 '46
New business books and reports. C. M. Monen. Dom Comm 34:50-1 Ja '46 [cont monthly]

Dictionaries

Dictionary of foreign trade. F. Henius. 745p $10 Prentice-Hall, 70 Fifth av, New York 11 '46

Mortality

Business ownership; 1940-45. A. Nielsen. Dom Comm 34:33-7 Jl '46
Business success; what are the odds? Q. Adams. il Dun's R 54:18-21+ Je '46
How long do retail and wholesale establishments tend to survive? statistics on age, size and survival power. U S Bur For & Dom Com, Economic (Small Bsns) Ser 54: 1-61 '46
Life span of discontinued businesses. D. W. Paden. Survey of Cur Bsns 25:18-21 D '45
Recent trends in the business population; with tables showing revised estimates of number of operating business firms, new businesses, discontinued businesses, and business transfers, by industries, 1939-45. D. W. Paden and A. Nielsen. Survey of Cur Bsns 26:16-23 My '46

See also
Business failures

New businesses

Business success; what are the odds? Q. Adams. il Dun's R 54:18-21+ Je '46
Firms multiply; total of businesses on way back to 1941 peak. Bsns W p41-2+ Je 29 '46

BUSINESS—New businesses—*Continued*

Little man, what is your big idea? imagination could save new businesses that fail. J. D. Woolf. Adv & Sell 39:60+ Mr '46

New business incorporations in the United States, July 1945-June 1946; tabulation by states. Dun's Stat R 10:6 S '46 [cont monthly]

New business opportunities. R. A. Foulke. Banking 38:33-5 F '46

Recent trends in the business population; with tables showing revised estimates of number of operating business firms, new businesses, discontinued businesses, and business transfers, by industries, 1939-45. D. W. Paden and A. Nielsen. Survey of Cur Bsns 26:16-23 My '46

Those most likely to succeed in peace-time business. J. E. Bullard. Credit & Fin Management 47:20+ N '45

Political aspects

Business and politics. J. W. Hanes. Comm & Fin Chr 163:835+ F 14 '46

Current problems in public relations. P. E. Orr, jr. Paper Ind 28:390-1 Je '46

Weighing political trends in the shaping of our business outlook. il Mag of Wall St 78:376-8 Jl 6 '46

Small business

Administration's policy for small business. H. A. Wallace. Comm & Fin Chr 163:758+ F 7 '46; Same cond. Dom Comm 34:3-4 Mr '46

All businesses need equipment. S. C. Saunders. Dom Comm 34:27-8 Je '46

Antitrust division fights for small business. T. C. Clark. il Dom Comm 34:3-5+ F '46

Antitrusters on the ropes; Small business committee considers new tactics. Bsns W p17 O 19 '46

Asks Labor department aid in halting union coercion. Nat Pet N 38:13-14 S 18 '46

Association highlights; small-business problem. C. J. Judkins. Dom Comm 34:87-93 Ag '46

Banking's own post-war product; New York conference of American bankers association Post-war small business credit commission. J. L. Cooley. Banking 38:38-40+ N '45

Banks and small business; activities of ABA Small business credit commission. R. M. Hanes. Comm & Fin Chr 164:1800+ O 10 '46; Same abr. Credit & Fin Management 48:13-15+ O '46

Banks as a term credit source; small business aid provided under new plans. R. G. Holste. Credit & Fin Management 48:15-16 My '46

Business success; what are the odds? Q. Adams. il Dun's R 54:18-21+ Je '46

Congressional action urged to help postwar small business; special report to Senate small business committee. J. E. Murray. Steel 117:56+ D 24 '45

Credit sources for small business. D. Wilhelm, jr. U S Bur For & Dom Com, Economic (Small Business) Ser 46:1-33; pa 15c Supt. of doc. '45

Department of commerce plans new services for small business. L. F. Arnold. Dom Comm 34:5+ Ap '46

Disposal of surplus property as an aid to small business. L. F. Arnold. Dom Comm 34:3-6 Ag '46

Do associations represent the small business firm? C. J. Judkins. Dom Comm 34:15-20 Jl '46

Economic concentration and World war II; remarks in presenting report of Senate Small business committee. J. E. Murray. Comm & Fin Chr 164:253+ Jl 11 '46

Field research project to learn problems of small business, suggested. H. L. Stephen. Ptr Ink 214:105 Mr 8 '46

Financing difficulties of small business; statement before Senate Banking and currency committee. T. N. Beckman. Comm & Fin Chr 164:617+ Ag 1 '46

Financing small business. J. F. Fennelly. Comm & Fin Chr 162:2459+ N 22 '45

Financing small business. R. F. Wille. Credit & Fin Management 48:17+ Jl '46

Forms of organization that can be used by small business. O. P. Glaser. Dom Comm 34:8-12 Jl '46

Government cooperation with small business. G. M. Reynolds. Comm & Fin Chr 163:1787+ Ap 4 '46

Helping small business; banks are increasing instalment loan facilities; address before A.B.A. Chicago convention. C. M. Flora. Credit & Fin Management 48:12+ O '46

Helping the small businessman. W. A. Howell. Mag of Wall St 78:161 My 11 '46

How about a small business in Hawaii? S. C. Saunders. il Dom Comm 34:15-16+ Ja '46

How social security can help the small businessman. A. J. Altmeyer. il Dom Comm 34:5-9 Mr '46

I am advocate of small business. H. S. Truman. Comm & Fin Chr 163:3053+ Je 6 '46

Importance of the small plant in industry; abstract. A. C. Shire. il Mech Eng 68:909-10 O '46

Need for liquid assets to pay estate taxes prompting small firms to favor merger offers. E. A. R. Germain. Comm & Fin Chr 164:200+ Jl 11 '46

New ideas; insignificant gadgets and inventions offer opportunities for GIs and others. Comm & Fin Chr 163:124+ Ja 10 '46

Old age insurance for small business man. H. A. Wallace. Comm & Fin Chr 163:1928+ Ap 11 '46

Once there was a small bank; Baltimore trust company, Selbyville, Del. finances small business. H. M. Bratter. il Banking 38:17-18 F '46

Once there was a small business; this company is sittin' pretty; American seating company. M. C. Faught. Banking 38:17-18+ N '45

187 bills; digest of proposals considered in Congress in behalf of small business 1943-1944. B. W. Roper. U S Bur For & Dom Com, Economic (Small Bsns) Ser 49:1-118; pa 25c Supt. of doc. '46

Opportunities for profit in installment loans to small business. C. A. Bimson, jr. il Bankers Mo 63:121-4 Mr '46

Progress report of Senate small business group. Comm & Fin Chr 162:2619 N 29 '45

RFC gets small business division. Comm & Fin Chr 163:3267 Je 13 '46

RFC help for small business. C. B. Henderson. Power Pl Eng 50:57 Ja '46

Research for small business. il Sci Am 173: 346-8 D '45

Salaried man or small agency owner? pro and con of being own boss in a small town. H. C. Jones. Ptr Ink 214:33-4 F 22 '46

Security plan for small business; Wallace plans. Bsns W p19-21 N 24 '45

Sees danger in business concentration; urges passage of bill to create Small business finance corporation. J. M. Mead. Comm & Fin Chr 164:617+ Ag 1 '46

Shortages cause run on commercial loans by small plants. D. I. Brown. Iron Age 158: 110-11 S 5 '46

Small business; a community problem. C. C. Abbott. Harvard Bsns R 24 no2:183-96 [Ja] '46

Small business and its relationship to research activity. A. B. Ward. Pulp & Pa of Can 46: 1007-8 D '45

Small business fights for life. R. E. Outman. Management R 35:156-8 My '46

Small business is aided by Congress. W. J. Cavers. Dom Comm 34:8-12 S '46

Small business loans; how one bank plans to set up such a division. A. L. Peters. Credit & Fin Management 48:16+ Jl '46

Small business looks to Washington. W. A. Howell. Mag of Wall St 77:717 Mr 16 '46

Small business must take large part in re-employment plan; abstract. L. Wilkie. Iron Age 156:148+ D 6 '45

Small business study group formed. Oil Paint & Drug Rep 149:3+ Je 17 '46

Small business uses private-label firms. L. A. Barber. il Dom Comm 34:28-9 Mr '46

Small producers fear discrimination in deliveries; hearing before Senate small business committee. Iron Age 157:114-15 F 14 '46

Small vs. big business; Truman's Washington college address. Nat City Bank p78-80 Jl '46

BUSINESS—Small business—*Continued*
So you want to go into your own business? W. A. Howell; H. M. Tremaine. Mag of Wall St 77:153+, 215+, 281, 407+, 469, 535, 595, 655; 78:227+, 347+, 407+, 527+ N 10-D 8 '45, Ja 5-Mr 2, My 25, Je 22-Jl 6, Ag 3 '46
Special engineering requirements of the small industry. G. L. Hartman. J Eng Educ 37: 174-8 O '46
Taxation of small business. H. R. Bowen. Comm & Fin Chr 164:341+ Jl 18 '46
This new credit philosophy brings advantages of term loan principles to small businessmen. C. M. Flora. Bankers Mo 63: 483-4 O '46
Trade regulation aids small business. B. W. Roper. Dom Comm 34:3-6 O '46
Utility industry's interest in the establishment and growth of small industries. T. N. McCarter, jr. Edison Elec Inst Bul 14:191-2+ Je '46
Wallace program for small business. Comm & Fin Chr 164:1314 S 5 '46

See also
American bankers association—Small business credit commission
Reconstruction finance corporation—Small business division

Bibliography
Helping the small businessman. W. A. Howell. il Mag of Wall St 78:227+ My 25 '46
Managing a small business. Akron Pub Lib Facts and Figures v 1, no 5:1-9 Jl '46
Operating a small business. Cleveland Pub Lib Business Information Bur v 16, no 4: 19-22 D '45
Small business. 13p Cleveland pub. lib, Business information bur. '46

Survival power
See Business—Mortality

Terminology
Wanted: five definitions; advertising, sales promotion, merchandising, marketing, distribution. D. de la Garza. Adv & Sell 39:94 Ja '46

BUSINESS budget. See Budget, Business

BUSINESS cards
Business card as business reply card. D. M. Cleary. il Ptr Ink 215:89 Je 21 '46

BUSINESS conditions
Advertising volume for 1946? L. D. H. Weld. Ptr Ink 213:21-3 D 14 '45
American productivity our protection and our danger. J. Hirsch. Comm & Fin Chr 163: 1214+ Mr 7 '46
American survey; is a slump coming? Economist 151:664-8 O 26 '46; Same cond. Iron Age 158:139+ N 16 '46
Bear market ahead? business and earnings outlook does not support expectations of a boom. A. A. Mol. Barron's 26:3+ F 25 '46; Excerpts. Management R 35:78-80 Mr '46
Better business ahead; report of National association of purchasing agents; abstract. Comm & Fin Chr 163:3481+ Je 27 '46
Boom is here, what's next? L. Schellbach. Comm & Fin Chr 164:2072+ O 24 '46
Bottlenecks in to-day's economic picture. W. Gates. il Mag of Wall St 79:8-10 O 12 '46
Bunk and billions. Fortune 33:86-7 My '46
Business and finance speaks after the turn of the year; symposium on 1946 prospects. Comm & Fin Chr 163:541-2+ Ja 31 '46
Business and prices: the next nine months. Bsns W p45-52 Ag 24 '46
Business outlook. H. R. Bowen. Comm & Fin Chr 163:2070+ Ap 18 '46
Business outlook and trends. B. H. Gordon. Comm & Fin Chr 163:1639+ Mr 28 '46
Business prospects in the post-reconversion period. M. Shields. Comm & Fin Chr 163: 1925+ Ap 11 '46
Business ready for a busy fall season; Business bulletin of LaSalle extension university. Comm & Fin Chr 164:1136+ Ag 29 '46
Changeover to peace. C. S. Young. Comm & Fin Chr 164:1378+ S 12 '46
Comments on economic outlook. M. S. Eccles. Comm & Fin Chr 164:1933+ O 17 '46
Economic outlook. M. Nadler. Comm & Fin Chr 163:2917+ My 30 '46
Economic prospects and problems for post-war reconversion period. M. Shields. Comm & Fin Chr 163:3397+ Je 20 '46
Economic situation. J. H. MacDonald. Comm & Fin Chr 165:1540+ S 26 '46
Economists see end of price inflation in 1947; F. W. Dodge survey. Comm & Fin Chr 164: 2081+ O 24 '46
Editor views business. C. F. Hughes. Credit & Fin Management 48:7-9 Jl '46
Editors forecast record year in '46. Ind Marketing 31·27-8+ F '46
End of the beginning. Fortune 34:2-4 O '46
Federal Reserve board reports expanded production. Comm & Fin Chr 164:662 Ag 1 '46
Flush on the face of business. J. S. Lawrence. Banking 39:34-6+ S '46
Forecasting economic weather. M. Nadler. Comm & Fin Chr 163:712+ F 7 '46; Same cond. Trusts & Estates 82:203-6 F '46
Fortune survey; chances for prosperity. Fortune 33:220-1 Ja '46
Global survey finds business conditions unsettled everywhere; annual Boston conference on distribution. Sales Management 57:83 N 1 '46
Government, business, and consumer spending levels explored. E. B. George. il Dun's R 54:15-19+ Ap '46
How soon must we go back to work? A. M. Zelomek. Comm & Fin Chr 164:1534+ S 26 '46
How's business? W. R. Kuhns. Banking 38: 33-4+ My; 39:36+ Ag; 33-4+ N '46
Industrial trends in 1946. C. C. Concannon and others. il Dom Comm 34:4-8+ Ja '46
Look into the future. R. Rodgers. Comm & Fin Chr 164:1455+ S 19 '46
Manufacturers reluctant to produce; Chicago Federal reserve bank. Comm & Fin Chr 163:1783+ Ap 4 '46
National reconversion policies and developments. A. E. Taylor. Comm & Fin Chr 163:3483+ Je 27 '46
New era for industry. C. Francis. Adv & Sell 39:46 Ag '46
1945 in review. Dun's Stat R 10:10 Mr '46
1945-1946. T. W. Lippert. Iron Age 157:70-5 Ja 3 '46
1946; a year of decision. H. A. Wallace. Dom Comm 34:3+ Ja '46
Outlook for business and the securities markets. R. D. Naess. Comm & Fin Chr 164: 2070+ O 24 '46
Outlook for production and prices. D. W. Michener. Comm & Fin Chr 163:834+ F 14 '46
Postwar business finance. Comm & Fin Chr 164:485+ Jl 25 '46; Fed Res Bul 32:707-15 Jl '46
Present buying splurge cannot last. R. C. Haberkern. Comm & Fin Chr 163:3349+ Je 20 '46
Preview of 1946 trends in the making. E. A. Krauss. il charts Mag of Wall St 77:376-9+, 438-9 Ja 5-19 '46
Price trouble ahead; everyday consumer needs are headed for period of price competition. J. H. Rehm. Adv & Sell 38:41+ D '45
Price uncertainties hamper business planning; Business bulletin, LaSalle extension university. Comm & Fin Chr 164:608+ Ag 1 '46
Problems facing businessmen. A. W. Barkley. Comm & Fin Chr 163:1217+ Mr 7 '46
Promise of American recovery. Fortune 33: 89-90 F '46
Purchasing agent's-eye view of business. Oil Paint & Drug Rep 149:7+ Ja 28 '46 [cont monthly]
Quality of business deteriorating. G. E. Price, jr. Comm & Fin Chr 164:1651+ O 3 '46
Recent economic developments. Fed Res Bul 32:219-26 Mr '46
Regional news; first-quarter 1946 reports and forecasts. maps Dom Comm 34.33-8 Je; 63-70 Jl '46
Regional review of 1945 business. maps Dom Comm 34.30-4 Mr; 31-6 Ap '46
Regional trade barometers. L. D. H. Weld. map Published in monthly numbers of Dun's statistical review; summary in Dun's review
Report deterioration in general business; National association of purchasing agents. Comm & Fin Chr 163:2919+ My 30 '46
Returning to buyers' market. A. W. Zelomek. Comm & Fin Chr 164:1928+ O 17 '46

BUSINESS conditions—*Continued*
Reviews present economic conditions. W. Smith. Comm & Fin Chr 163:3057+ Je 6 '46
Second year of peace? L. Cherne. Comm & Fin Chr 164:1646+ O 3 '46
Sees shift to more spending; review and forecast. H. A. Wallace. Comm & Fin Chr 163:127+ Ja 10 '46
Sees slow reconversion progress; Guaranty trust company. Comm & Fin Chr 163:11+ Ja 3 '46
Selected business indicators, 1940-45; summary table. Survey of Cur Bsns 26:32 F '46
Slump ahead! S. May. Comm & Fin Chr 164:2204+ O 31 '46
Stocks may keep rising despite economic difficulties. B. Ravits. Barron's 26:11 My 6 '46
Trend toward better business halted; survey by National association of purchasing agents. Comm & Fin Chr 164:2207+ O 31 '46
Unprecedented business ahead despite labor disputes. J. D. Small. Comm & Fin Chr 163:722+ F 7 '46
Wages, prices and securities. A. E. Van Court and A. Slater. Comm & Fin Chr 163:2916+ My 30 '46
Wallace and Small report on expanding trade. Comm & Fin Chr 164:610+ Ag 1 '46
Wallace reports business gain in second quarter. Comm & Fin Chr 164:485+ Jl 25 '46
What's ahead for the U.S? M. S. Rukeyser. Comm & Fin Chr 164:2074+ O 24 '46
Where do we stand now? W. C. Hanson. il Mag of Wall St 78:256-8+ Je 8 '46
Which industries offer best prospects for 1946. G. W. Mathis. il Mag of Wall St 77:440-3+ Ja 19 '46
Whose boom? whose bubble? what's ahead for manufacturers of consumer goods? H. Hartogensis. Adv & Sell 38:101+ N '45
Why production potentials preclude boom and bust. J. D. C. Weldon. il Mag of Wall St 77:752-4+ Mr 30 '46
Will higher prices bring a crash? comparisons with 1920. E. Whitmore. il Am Bsns 16:8-9+ Mr '46
Will industry set records in '46? H. J. Delaney. Credit & Fin Management 48:13-15+ Ja '46

See also
Business cycles
Business depression
Business failures
Business forecasting
Index numbers (economics)
Inflation (finance)
Market statistics
Prices
Production
Prosperity

BUSINESS conferences
Army sessions were something, but agency conferences, oh, brother! Ptr Ink 216:39-40 S 6 '46

BUSINESS consolidations
Budd plans a welding job; fusion of his two companies. Bsns W p61-2+ Ap 20 '46
Cotton and woolen mills in big merger; program of J. P. Stevens and company. J. A. Daly. il Manuf Rec 115:49+ O '46
Curb on mergers; Kefauver bill, H. R. 4810. Bsns W p18-19 Ja 5 '46
Food merger; seven wholesalers and processors combine as Airline foods corp. Bsns W p88 Mr 30 '46
Merger expected; twelve textile mills in South. Bsns W p64 Je 8 '46
Merger in rayon; absorption of Tubize corporation by Celanese under negotiation. Bsns W p72 N 17 '45
Need for liquid assets to pay estate taxes prompting small firms to favor merger offers. E. A. R. Germain. Comm & Fin Chr 164:200+ Jl 11 '46
New era of corporate mergers? H. S. Coffin. Mag of Wall St 78:559-60+ Ag 17 '46
New mergers, new motives; report to executives. Bsns W p68+ N 10 '45
Retail empire is consolidating; Gamble-Skogmo. Bsns W p68+ S 14 '46
Strength in union; Great American industries. Bsns W p63-4 Mr 30 '46
Wallace reports boom in corporate mergers. Comm & Fin Chr 164:131 Jl 4 '46
Watch for these merger pitfalls. E. Whitmore. Am Bsns 15:22+ N '45

See also
Air lines—Consolidation
Bank consolidations
Insurance companies—Consolidation
Railroads—Consolidation

BUSINESS consultants
Consultant as a business man; abstract. W. M. Grosvenor, jr. Chem & Met Eng 52:232+ D '45

BUSINESS cycles
Bogey of economic maturity, by G. Terborgh; review by D. S. Tucker. Mech Eng 67:836-8 D '45
Boom and bust; can the cycle be averted? B. F. Winkelman. Comm & Fin Chr 164:1928+ O 17 '46
History as a credit guide; economic cycles show warning signals. T. T. Harrison. Credit & Fin Management 48:14-15+ Jl '46
How can we avoid boom and bust economy in the United States. N. H. Jacoby. Comm & Fin Chr 163:2637+ My 16 '46
Inflation with jerks. M. Palyi. Comm & Fin Chr 164:1529+ S 26 '46
Innovations and the irregularity of economic cycles; impact on simple economic models of irregular income generating expenditures of firms. R. Goodwin. R Econ Stat 28:95-104 My '46
Measuring business cycles; abstract. W. C. Mitchell; A. F. Burns. Comm & Fin Chr 164:1147 Ag 29 '46
Must we have boom and bust? radio discussion. I. H. Lubin; H. Hazlitt. Comm & Fin Chr 164:1647+ O 3 '46
Sunspots and business activity. H. T. Stetson. il Dun's R 54:18-19, 62 O '46

BUSINESS depression
Depressions hit top and bottom incomes hardest; abstract. H. Mendershausen. Comm & Fin Chr 164:81+ Jl 4 '46
Great some day depression; capitalism blamed for both successes and failures. D. M. Wright. Barron's 26:5+ Ap 22 '46
International economic position of New Zealand. G. H. Brown. bibliog J Bsns 19 pt 2: 1-195 Ap '46
Is selling courage the bedrock of high income? J. J. Nance. Sales Management 56:45 My 20 '46
Must we have a postwar depression? I. Wright. Comm & Fin Chr 164:1135+ Ag 29 '46
Public presents pessimistic viewpoint on economic trends; Gallup poll. Iron Age 158: 115 S 12 '46
Renovated capitalism; deficit spending. M. V. Jones. J Bsns 18 pt 2:4-7 O '45

See also
Business failures

BUSINESS development office
Business development office is abandoned; activities merged with IEA. East Underw 46:28 D 21 '45; Same abr. Weekly Underw 153:1458 D 22 '45
Decade of service; Advisory council report. Weekly Underw 153:1071+ N 10 '45

BUSINESS districts
City plans its future growth; Rye will modernize shopping center. H. Barnard. il Dun's R 54:14-16+ S '46
New community development planned for Le Sueur, Minn. il plans Am Bld 68:72-3 Jl '46
Shopping center for Rye, N.Y. il plans Arch Forum 85:76-9 Ag '46
Westchester; planned business development in southwest section of Los Angeles. il plan Am Bld 68:76-9+ Mr '46

See also
Business streets
Shopping centers

BUSINESS education
Businessmen go back to school; University of Chicago's refresher courses. A. Tinney. il Am Bsns 16:28+ S '46
Condensation of a report on course XV, M.I.T. R. W. King. J Eng Educ 36:634-52 Je '46
England's business training scheme. Personnel J 25:121-6 O '46
Objectives of business education. R. D. Calkins. Harvard Bsns R 25 no 1:46-57 [O] '46

BUSINESS education—*Continued*
Organisation of commercial apprenticeship in Brazil. Int Labour R 53:410-11 My-Je '46
See also
Business schools and colleges
Junior achievement movement

Cooperative plan
Cooperative part-time business training. Management R 35:113 Ap '46

BUSINESS ethics
Confucius had a word for it. S. Hopper. Ind Marketing 31:43-4 Ag '46
Gimme is a false god. E. Whitmore. il Am Bsns 16:11 Jl '46
Professional behavior and industrial society. P. Meadows. J Bsns 19:145-50 Jl '46

BUSINESS expansion. See Business management—Expansion problems

BUSINESS failures
Business failures, 1942-Jan. 1946; graph. Bsns W p22 F 16 '46
Canadian failures by provinces, monthly record. Published in monthly numbers of Dun's statistical review
Marginal credit risks; causes of business failures as a warning for 1946. E. R. Markell. Credit & Fin Management 48:4-6+ F '46
Monthly failures by divisions of industry, city, state, size of liability and Federal reserve district. Published in monthly numbers of Dun's statistical review; summary in Dun's review
See also
Bankruptcy
Business—Mortality

BUSINESS forecasting
After reconversion, selling faces its biggest job; results of C.E.D. marketing committee and related facts summarized. A. Haring. il Dun's R 54:21-6+ Ja '46
Business and prices: the next nine months. Bsns W p45-52 Ag 24 '46
Business outlook for 1946. S. H. Slichter. Comm & Fin Chr 163:121+ Ja 10 '46
Business prospects for 1946. L. P. Ayres. Comm & Fin Chr 162:2873+ D 13 '45
Credit men's survey points to prosperity in 1946. H. H. Heimann. Comm & Fin Chr 163:7+ Ja 3 '46
Figures won't lie; must be properly selected and interpreted. H. S. Taylor. Barron's 25:11 D 24 '45
First constructive peacetime year begins; Business bulletin, La Salle extension university. Comm & Fin Chr 163:8+ Ja 3 '46
Forecasting economic weather. M. Nadler. Comm & Fin Chr 163:712+ F 7 '46; Same cond. Trusts & Estates 82:203-6 F '46
1947-1950 will be good business years; A.A.R. report. Ry Age 120:1114+ Je 1 '46
Outlook for business. R. Rodgers. Comm & Fin Chr 163:2+ Ja 3 '46
Outlook for 1946; confusion in a split society. G. G. Munn. Comm & Fin Chr 163:124+ Ja 10 '46
Peering into the crystal ball. M. Palyi. Comm & Fin Chr 162:2321+ N 15 '45
Postwar price structure. S. M. Livingston. Survey of Cur Bsns 25:12-22 N '45; Same. Comm & Fin Chr 162:3132+ D 27 '45
Preview of 1946 trends in the making. E. A. Krauss. il charts Mag of Wall St 77:376-9+, 438-9+ Ja 5-19 '46
Purchasing power and income in the postwar market. E. B. George. Comm & Fin Chr 163:374+ Ja 24 '46
See here, 1946. J. S. Lawrence. il Banking 38:33-5+ Ja '46
Trend prediction important in planning. H. P. Seelye. diags Elec World 125:79-81 Je 22 '46
Wage-price equation and future outlook. H. G. Moulton. Comm & Fin Chr 162:2700+ D 6 '45
What industry expects in 1946; prospects of metalworking and metalproducing industries as reported by more than 3600 plants. Steel 118:sup1-32 Ja 7 '46
What's ahead for business? L. H. Haney. Comm & Fin Chr 162:2569+ N 29 '45; Excerpts. Credit & Fin Management 47:24+ D '45
What's the outlook for advertising in 1946 and future years? L. M. Krautter. Ind Marketing 31:28+ Ja '46
Whither the economic trend? M. Shields. Comm & Fin Chr 162:3003+ D 20 '45
See also
Budget, Business
Prices—Forecasting
Production and sales, Coordination of

BUSINESS history
Experience as a corporate asset. C. W. Moore. Management R 35:146-52 My '46
Put your war record story in permanent form in detailed article, manual or bound book. R. Newcomb. il Ptr Ink 214:26-7 Mr 22 '46
Three varieties of industry war record; U.S. Steel, Shell Oil and Du Pont show high effectiveness. il Ptr Ink 215:69 Ap 5 '46

BUSINESS hours. See Banks and banking—Hours of business; Hours of labor; Retail trade—Hours of business

BUSINESS information
Case history in public financial relations; Economic and business foundation. Trusts & Estates 83:329-30 O '46
Current list of selected information sources for businessmen. P. B. B. Andrews. Sales Management 57:140+ O 1; 138+ O 15 '46
Governments are secretive. Fortune 34:248 O '46
Information sources for chemical market research. R. M. Lawrence. bibliog il Chem Ind 57:1058-61; 58:62-5+, 252-5+, 429-32+, 582-5+, 795-800+, 967-9+; 59:75-80+, 487-92+, 663-8 D '45-Jl, S-O '46
Newsletters of interest to the retailer. J Retailing 21:119-20 O '45
See also
Libraries—Business branches and departments

BUSINESS insurance. See Insurance, Business

BUSINESS interruption insurance. See Insurance, Use and occupancy

BUSINESS letters. See Commercial correspondence; Sales letters

BUSINESS libraries
Financial library of the Vick chemical company. M. P. Goslin. Special Lib 36:444-6 N '45
Library service to business; its place in the small city. M. C. Manley. 72p pa $1.25 American library assn, 520 N. Michigan av, Chicago 11 '46
Operating an abstracting and information service within an industrial organization; Arc manufacturing company, London. W. C. E. Barnes. J Chem Educ 23:152-3 Mr '46
See also
Libraries—Business branches and departments

BUSINESS liquidation agreements. See Partnership—Business liquidation agreements

BUSINESS literature
See also
Business—Bibliography
Business periodicals
Trade journals

BUSINESS machines. See Office appliances

BUSINESS management
Advertising plans of A.N.A. members. Adv & Sell 38:66+ N '45
Arbitration as a business tool. R. E. Swart. il Dun's R 54:23-5+ Mr '46
Business executive's responsibilities. H. A. Bullis. Comm & Fin Chr 162:2369+ N 15 '45
Collins company, Collinsville, Conn.; a phenomenon of Yankee shrewdness and conservatism. il Fortune 33:110-15+ Ja '46
Coordination of company financial planning with external economic conditions. H. G. Peterson, jr. N A C A Bul 27:575-87 Mr 1 '46
Economics of tomorrow's business. E. H. Schell. Comm & Fin Chr 164:1937 O 17 '46
Experience as a corporate asset. C. W. Moore. Management R 35:146-52 My '46
Forms of organization that can be used by small business. O. P. Glaser. Dom Comm 34:8-12 Jl '46
Freedom within management. W. B. Given, jr. Harvard Bsns R 24 no 4:427-37 [Jl] '46
General Mills' blue print for growth. J. Turner. il map Am Bsns 16:8-9+ S '46
How management uses graphic charts as a business barometer to control costs. J. L. Shafer. Am Bsns 16:14-15+ Ag '46

BUSINESS management—*Continued*
How the wheels go around under decentralized management. J. A. Murphy. Sales Management 57:50+ O 15 '46
How to improve teamwork by improved administration of company policies down the line. J. F. Blair. Am Bsns 16:10-11+ Mr '46
How to keep your product alive, your management alert? decentralization! J. A. Murphy. il Sales Management 57:50+ N 1 '46
Importance of systems in business; a scientific way to speed operations. E. N. Horr. Credit & Fin Management 47:18-20+, 32 D '45
Is your organization stagnating? Food Ind 17:1285+ N '45
Management research and the engineer. W. E. Hill. Mech Eng 68:802-3 S '46
Navigating your business is a streamlined specialty for your accountant. J. K. Lasser. Ind Marketing 31:41+ Mr '46
1946 will test leadership. W. M. Rooney. Steel 118:245+ Ja 7 '46
Plans that make a business grow; Ekco products company. E. Whitmore. il Am Bsns 16: 8-10+ F '46
Profit squeeze industry's big problem. G. S. Dively. il Inland Ptr 117:27-9 Ag '46
Risks of business; a check list. J. K. Lasser. il Dun's R 53:23-6 D '45
Scouting the economic front. A. A. Hood. Comm & Fin Chr 164:2083+ O 24 '46
These are the new advisers; advertising and public relations increasingly important. J. A. Ecclesine. Adv & Sell 39:110 Mr '46
Vick Chemical plan to keep business from growing old. J. A. Murphy. Am Bsns 16:8-10+ Je '46
What has happened to American horse sense? C. M. Joice. Adv & Sell 39:42 S '46
Why an inferiority complex in business leaders? W. Lippmann. Comm & Fin Chr 162: 2584+ N 29 '45
Your tax man should govern your 1946 business policies. J. K. Lasser. Adv & Sell 39: 62+ Jl '46

See also
Accounting
Advertising
Auditing
Budget, Business
Business consolidations
Collecting of accounts
Complaints
Corporations
Credit
Credit departments
Department stores—Management
Diversification in industry
Employment management
Executives
Factory management
Forms and blanks, Business
Home economics departments
Ideas in business
Industrial management
Instalment plan
Inventories
Jobbers
Location in industry
Mail order business
Marketing
Merchandizing
Office management
Orders
Organization in industry
Planning
Profit
Public relations
Purchasing
Purchasing departments
Retail trade—Store management
Sales management
Sales policies
Sales promotion
Trade marks
Turnover
Visitors

Bibliography

Operating a small business. Cleveland Pub Lib Business Information Bur v 16, no 4: 19-22 D '45

Expansion problems

Borg-Warner; a company of parts. il Fortune 33:128-33+ Je '46
Industry plans multi-million expansion despite high construction costs. Barron's 26: 1 Mr 18 '46
International Harvester expands industrial power program. il Ind Marketing 31:35+ F '46
Significant changes in plant expansion program. H. M. Tremaine. Mag of Wall St 79:11-12+ O 12 '46
Staff functions and finance in expanding manufacturing companies. J. O. Knowles. Inst E E J 93 pt 1:74-8 F '46
Stretch to make room for veterans. F. L. McKibben, jr. Ptr Ink 213:132 D 21 '45

BUSINESS men
Adventure in realism; business has its romantic side, too. W. C. North. Credit & Fin Management 48:20+ Ag '46
Bureaucrat meets payroll. Fortune 33:226 Ja '46
Individual achievement under free enterprise; biographical sketches. W. A. Howell. Mag of Wall St 78:526+, 585, 645, 703+, 765; 79:37 Ag 3-O 12 '46
Why an inferiority complex in business leaders? W. Lippmann. Comm & Fin Chr 162: 2584+ N 29 '45

See also
Executives

also New council of American business, inc.

BUSINESS mortality. See Business—Mortality

BUSINESS periodicals
Selected list of annual statistical or review issues of business periodicals, by D. T. Clark; Subject index, by M. Goldsby. Special Lib 36:447-50 N '45

See also
Insurance—Periodicals
Trade journals

BUSINESS reply card. See Postal cards—Reply cards

BUSINESS research
Don't use research if you won't do as the doc says. A. B. Blankenship. Ptr Ink 216: 36-7 S 20 '46
Management research and the engineer. W. E. Hill. Mech Eng 68:802-3 S '46
Six principles of commercial research. F. Juraschek. Ptr Ink 213:148+ D 7 '45

See also
Advertising research
Committee for economic development
Market research

BUSINESS risks. See Risk

BUSINESS schools and colleges
Case for active association of collegiate schools of business. O. W. Phelps. J Bsns 19:183-93 Jl '46
Management school to open on West Coast; Golden Gate college. Sales Management 57: 153 S 15 '46

BUSINESS statistics
Business analyst; statistics of money and credit; trade, industry, commodities. Published in bi-weekly numbers of Magazine of Wall street
Business ownership; 1940-45. A. Nielsen. Dom Comm 34:33-7 Jl '46
Financial developments among large manufacturing corporations, 1945; with tables. D. P. Warner and A. R. Koch. charts Fed Res Bul 32:1106-14 O '46
Financial developments in manufacturing and trade in 1944. D. P. Warner. Fed Res Bul 31:1191-6 D '45
Firms multiply; total of businesses on way back to 1941 peak. Bsns W p41-2+ Je 29 '46
Important monthly indicators. Published in monthly numbers of Dun's statistical review
Life span of discontinued businesses. D. W. Paden. Survey of Cur Bsns 25:18-21 D '45
Management statistics in war contract renegotiation. N. C. Parkin. bibliog Am Stat Assn J 40:504-19 D '45
New business incorporations in the United States, July 1945-June 1946; tabulation by states. Dun's Stat R 10:6 S '46 [cont monthly]
New business opportunities. R. A. Foulke. Banking 38:33-5 F '46
Recent trends in the business population; with tables showing revised estimates of number of operating business firms, new businesses, discontinued businesses, and business transfers, by industries, 1939-45. D. W. Paden and A. Nielsen. Survey of Cur Bsns 26:16-23 My '46
Trend of business; production, employment, cost of living, retail sales, commodity prices, stock prices. Dun's R 54:27-30 Ja '46 [cont monthly]

BUSINESS statistics—*Continued*
Trend of corporate profit, 1929-45; with tabulations by industries. G. F. Derrickson. Survey of Cur Bsns 26:9-19 Ap '46; Excerpt. Trusts & Estates 82:555-6 Je '46

See also
Advertising—Statistics
Business—Mortality
Business forecasting
Index numbers (economics)
Market statistics
Prices—Statistics
Retail trade—Statistics

Bibliography

Selected list of annual statistical or review issues of business periodicals, by D. T. Clark; Subject index, by M. Goldsby. Special Lib 36:447-50 N '45

BUSINESS streets
Boone, Iowa, plans new Main street. il Am Bld 68:108-9+ Ap '46
Boone, Iowa, proposes a municipal face-lifting. il Bsns W p72 Mr 2 '46
Burlingame, Calif. points way to business remodeling. il diags Am Bld 68:108-9+ Je '46
Main Street building; cross section of commercial building in Iowa, Minnesota, South Dakota and Arkansas. il Am Bld 67:84-7 D '45
Modernize your Main street; portfolio of store fronts; with blueprints. il Am Bld 67: 67-81 N '45
New face for Oglesby, Ill.; bank and Booster club promote plan for modernizing business section. R. O'Neill. il Banking 38:54-5 F '46

BUSINESS women
Distaff side of selling. Sales Management 56: 42-3 Ap 15 '46

See also
Woman—Employment
Women as executives
Women in advertising

BUTADIENE
Apparatus for flash-distillation of butadiene. A. P. Hobbs and M. R. Rector. diag Ind & Eng Chem Anal ed 18:140-1 F '46
Copolymers of dimethylstyrene vinyl fatty esters with butadiene. P. O. Powers. Ind & Eng Chem 38:837-9 Ag '46
Correlation of tensile strength with brittle points of vulcanized diene polymers. A. M. Borders and R. D. Juve. bibliog Ind & Eng Chem 38:1066-70 O '46
Fatty acid soaps in emulsion polymerization. L. W. Rainard. India Rubber World 114: 67-9 Ap '46
Further investigations of polarity in hydrocarbons possessing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:244-7 F '46
Hydrolysis rates of the three butadiene monochlorohydrins. R. G. Kadesch. bibliog Am Chem Soc J 68:46-8 Ja '46
Kinetics of anionotropic rearrangement; substituent effects in the oxotropic formation of the butadiene system; comparison of the electron-attracting properties of the ethylenic and acetylenic bonds. E. A. Braude and E. R. H. Jones. Chem Soc J p128-30 F '46
Mechanism of modifier action in the GR-S polymerization. H. R. Snyder and others. bibliog Am Chem Soc J 68:1422-8 Ag '46
Metastable ions formed by electron impact in hydrocarbon gases. J. A. Hipple and others. bibliog diag Phys R 69:347-56 Ap 1 '46
More butadiene. Bsns W p42 Mr 16 '46
Photochemical polymerization of butadiene. D. H. Volman. J Chem Phys 14:467-74 Ag '46
Polymerization of alpha-methylstyrene. A. B. Hersberger, J. C. Reid and R. G. Heiligmann. bibliog il diag Ind & Eng Chem 37:1073-8 N '45
Polymerization; the reaction of organosodium compounds with butadiene. A. A. Morton and others. Am Chem Soc J 68:93-6 Ja '46
Primary process in pyrolysis of pentenes. E. Gorin, A. G. Oblad and R. F. Schmuck. bibliog diag Ind & Eng Chem 38:1187-93 N '46
Reaction of methyl radicals with butadiene and isoprene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 14:534-5 S '46
Regulator theory in emulsion polymerization; control of reaction rate by diffusion for high molecular weight mercaptans. W. V. Smith. Am Chem Soc J 68:2064-9 O '46
Research leading to commercial butadiene synthetic rubber; abstract. W. L. Semon. India Rubber World 114:221 My '46
Styrene-diene resins in rubber compounding. A. M. Borders, R. D. Juve and L. D. Hess. bibliog il Ind & Eng Chem 38:955-8 S '46
Thermodynamic properties of gaseous 1,3-butadiene and the normal butenes above 25° C; equilibria in the system 1,3-butadiene, *n*-butenes, and *n*-butane. J. G. Aston and others. bibliog J Chem Phys 14:67-79 F '46

Analysis

Apparatus and procedure for technical butadiene analysis. C. L. Gregg. diags Ind & Eng Chem Anal ed 17:728-30 N '45
Improved gas absorber; application to determination of butadiene. P. J. Elving and T. L. Stein. bibliog diag Ind & Eng Chem Anal ed 17:722-3 N '45
Impurities in petroleum butadiene from copper salt process. C. E. Starr, jr. and W. F. Ratcliff. bibliog flow diag il diag Ind & Eng Chem 38:1020-5 O '46
Recording infra-red analyzers for butadiene and styrene plant streams. N. Wright and L. W. Herscher. il diags Opt Soc Am J 36: 195-202 Ap '46

Manufacture

Butadiene purification by solvent extraction. A. S. Smith and T. B. Braun. bibliog diag Ind & Eng Chem 37:1047-52 N '45
Extractive distillation; separation of C_4 hydrocarbons using furfural. J. Happel and others. bibliog diags Am Inst Chem Eng Trans 42:189-214 Ap '46
Impurities in petroleum butadiene from copper salt process. C. E. Starr, jr. and W. F. Ratcliff. bibliog flow diag il diag Ind & Eng Chem 38:1020-5 O '46
Petroleum to supply all butadiene next year. H. D. Ralph. map Oil & Gas J 44:70-2 D 15 '45
Production of butadiene by the dehydrogenation of normal butylenes. R. P. Russell and others. flow sheets Am Inst Chem Eng Trans 42:1-14 F '46
Purification of butadiene with cuprous salt solutions. C. E. Morrell and others. bibliog flow diag Am Inst Chem Eng Trans 42:473-91; Discussion. 491-4 Je '46
Rubber Reserve discontinues alcohol-butadiene process. G. H. Hadlock. Oil Paint & Drug Rep 148:3 D 10 '45
Synthetic rubber output boosted by new catalyst; abstract. W. M. Quattlebaum, W. J. Toussaint and J. T. Dunn. Can Chem & Process Ind 30:100+ O '46

BUTANE
Alkylation of paraffins in the presence of homogeneous catalysts; synthesis of neohexane and triptane. A. A. O'Kelly and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:462-7 My '46
Catalytic gasification of higher hydrocarbons. C. H. Riesz and others. bibliog diags Am Gas J Assn Mo 28:159-64+ Ap '46
Dehydroisomerization of *n*-butane. H. S. Bloch and R. E. Schaad. bibliog Ind & Eng Chem 38:144-7 F '46
Experimental comparison of the chemical effects of deuterons and of alpha particles on methane and *n*-butane. R. E. Honig and C. W. Sheppard. bibliog il diags J Phys Chem 50:119-43 Mr '46
Extinction of propane and butane flames by dichlorodifluoromethane. G. W. Jones and F. E. Scott. pl U S Bur Mines Rep of Invest 3908:1-8 '46
Extractive distillation; separation of C_4 hydrocarbons using furfural. J. Happel and others. bibliog diags Am Inst Chem Eng Trans 42:189-214 Ap '46
Isomerization of alkanes; effect of olefins upon the isomerization of *n*-butane in the presence of aluminum halide; hydrogen halide catalyst. H. Pines and R. C. Wackher. bibliog diags Am Chem Soc J 68:595-9 Ap '46

BUTANE—*Continued*

Isomerization of alkanes; effect of oxygen upon the isomerization of *n*-butane and *n*-pentane in the presence of aluminum bromide and aluminum chloride. H. Pines and R. C. Wackher. diag Am Chem Soc J 68: 599-605 Ap '46

Isomerization of alkanes; the water-aluminum halide reaction and isomerization of *n*-butane with the reaction product. R. C. Wackher and H. Pines. Am Chem Soc J 68:1642-6 Ag '46

Isomerization of *n*-butane catalyzed by aluminum bromide; effect of oxygen and other promoters on the reaction. A. G. Oblad and M. H. Gorin bibliog Ind & Eng Chem 38:822-8 Ag '46

Isomerization of light hydrocarbons. S. F. Perry. flow plans Am Inst Chem Eng Trans 42:639-46 Ag '46

LP gas-air and manufactured gas mixtures. W. E. Churchill. Am Gas J 164:11-13 F '46

Liquid-phase isomerization of normal paraffins using a fluid salt catalyst. S. H. McAllister and others. bibliog flow diag il Am Inst Chem Eng Trans 42:33-52; Discussion. 53 F '46

Metastable ions formed by electron impact in hydrocarbon gases. J. A. Hipple and others. bibliog diag Phys R 69:347-56 Ap 1 '46

Phase equilibria in hydrocarbon systems; *n*-butane—decane system in the condensed region. H. H. Reamer, B. H. Sage and W. N. Lacey. bibliog diag Ind & Eng Chem 38: 986-9 O '46

Plan operations to use natural gas products or suffer profit loss. E. O. Thompson. Nat Pet N 38:14+ Ap 3 '46

Plant additions increase butane recovery; Continental oil company's plants in K.M.A. field. F. H. Love. il Pet Eng 17:51-4 Ap '46

Process design of catalytic reactors; dehydrogenation of butane. R. H. Dodd and K. M. Watson. bibliog flow plans diag Am Inst Chem Eng Trans 42:263-91 Ap '46; Same. Nat Pet N 38 pt 2:R545-6+ Jl 3 '46

Reactions of aliphatic hydrocarbons with sulfur; production of olefins, diolefins, and thiophene. H. E. Rasmussen, R. C. Hansford and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:376-82 Ap '46

Recording gravitometers in accounting for propane-butane production. K. B. Barnes. il Oil & Gas J 44:103-4 Ja 12 '46

Separate processing for rich and lean gas. il Pet Refiner 25:106-8 My '46

Shell vapor-phase isomerization process for the production of isobutane. H. A. Cheney and C. L. Raymond. bibliog flow diag il Am Inst Chem Eng Trans 42:595-609 Ag '46

Thermodynamic properties of gaseous 1,3-butadiene and the normal butenes above 25° C; equilibria in the system 1,3-butadiene, *n*-butenes, and *n*-butane. J. G. Aston and others. bibliog J Chem Phys 14:67-79 F '46

Thermodynamic properties of propane and butane. Oil & Gas J 44:89-90 F 2 '46

BUTANE-propane association, National. See National butane-propane association

BUTANEDIOL. See Butylene glycol

BUTANEDIONE, Phenyl. See Phenyl butanedione

BUTANONE

Viscosities and densities of solvent-vegetable oil mixtures. F. C. Magne and E. L. Skau. bibliog diags Ind & Eng Chem 37:1097-1101 N '45

BUTAPRENE. See Rubber, Artificial

BUTCHER shops

Downtown butcher shop and delicatessen uses new display techniques on office trade; Dietz meats, San Francisco. il plans Arch Forum 85:145 O '46

BUTENE

Condensations by sodium; the metalation of olefins and the preparation of β,γ-unsaturated acids. A. A. Morton and others. bibliog Am Chem Soc J 67:2224-8 D '45

Extractive distillation; separation of C_4 hydrocarbons using furfural. J. Happel and others. bibliog diags Am Inst Chem Eng Trans 42:189-214 Ap '46

Heat capacity and entropy, heats of fusion and vaporization and the vapor pressure of butene-1; the zero point entropy of the glass; the entropy of the gas from molecular data. J. G. Aston and others. bibliog Am Chem Soc J 68:52-7 Ja '46

Heat content, free-energy function, entropy, and heat capacity of ethylene, propylene, and the four butenes to 1,500°K. J. E. Kilpatrick and K. S. Pitzer. bibliog J Res Nat Bur Stand 37:163-71 S '46

Isomerization equilibria among the *n*-butenes. H. H. Voge and N. C. May. bibliog Am Chem Soc J 68:550-3 Ap '46

Mechanism of the alkylation of paraffins; alkylation of isobutane with propene, 1-butene and 2-butene. L. Schmerling. bibliog Am Chem Soc J 68:275-81 F '46

Mercury photosensitized reactions of 1-butene and 2-butene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 14:581-5 O '46

Thermodynamic properties of gaseous 1,3-butadiene and the normal butenes above 25° C; equilibria in the system 1,3-butadiene, *n*-butenes, and *n*-butane. J. G. Aston and others. bibliog J Chem Phys 14:67-79 F '46

Volumetric behavior of 1-butene. R. H. Olds, B. H. Sage and W. N. Lacey. bibliog Ind & Eng Chem 38:301-3 Mr '46

BUTENYLMAGNESIUM bromide

Allylic rearrangements; further studies related to the nature of the butenyl Grignard reagent. W. G. Young and J. D. Roberts. bibliog Am Chem Soc J 68:1472-5 Ag '46

Allylic rearrangements; some addition reactions of butenylmagnesium bromide. W. G. Young and J. D. Roberts. bibliog Am Chem Soc J 68:649-52 Ap '46

BUTESIN picrate

Butesin picrate, its use in antiseptic dressings. C. H. Butcher. Chem Age (Lond) 54:557-8 My 18 '46

BUTLER, Nicholas Murray, 1862-

Training for peace viewed as important task of colleges. Comm & Fin Chr 163:441 Ja 24 '46

BUTLER brothers

Thumbnail stock appraisal. Mag of Wall St 77:454 Ja 19 '46

BUTOXYCHLOROSILANE

Derivatives of the methylchlorosilanes; *n*-butyl ethers. R. O. Sauer. Am Chem Soc J 68:138-9 Ja '46

BUTTER

Butter blowoff; impending price increase sets off fight over subsidy issue. Bsns W p40+ Ja 19 '46

Butter-margarine controversy. H. J. Deuel, jr. Science 103:183-7 F 15 '46

Churns run dry. il Bsns W p20 D 22 '45

Even less butter. Barron's 26:8 Ap 8 '46

Free market in dairy products lets consumer vote for more butter. Barron's 26:5 O 7 '46

Keeping quality of tinned butter; abstract. E. G. Pont. Food Ind 17:1565 D '45

Propionate treatment of parchment to inhibit mold. J. C. Olson, jr. and H. Macy. bibliog il Mod Packaging 19:166-9+ Ap '46

Wrap-carton, a new kind of package; Mullinix for butter, bacon and sausage. il Mod Packaging 19:138-43 Mr '46

Manufacture

Continuous butter making successful in wartime Germany. A. V. Gemmill. flow sheets il diag Food Ind 18:841-3+ Je '46

Quick cooling of cream improves butter. J. S. Erickson and H. F. Long. il Food Ind 17:1299-1301+ N '45

Prices

Artificial price mix-up causing butter shortage. Barron's 26:9 Ja 14 '46

Effectiveness of price control in the dairy industry. G. Hadary. J Bsns 19:76-81 Ap '46

Price controls seen cause of butter shortage. Comm & Fin Chr 163:171 Ja 10 '46

Statistics

Production of creamery butter, 1939-1945; chart. Survey of Cur Bsns 25:6 D '45

BUTTER fat
Note on the effect of tinplate and of lacquered surfaces on the oxidative deterioration of butterfat. C. H. Lea. Soc Chem Ind J 65:136-8 My '46

BUTTONS
Fancy button craze calls for fresh sales approach. il Sales Management 56:112 Mr 1 '46

Italy's button industry: postwar position and prospects. For Comm W 22:37 Ja 19 '46

BUTTONS (badges)
Wet belt finishing; naval discharge buttons; abstract. W. F. Schleicher. Materials & Methods 23:1658 Je '46

BUTYL acetate
Butyl alcohol, acetate inventory quotas cut. Oil Paint & Drug Rep 150:5+ Jl 22 '46

BUTYL acetoxypropanoate
Separation of diastereoisomers by adsorption from the vapor phase. D. L. Isom and H. Hunt. J Phys Chem 50:28-32 Ja '46

BUTYL alcohol
Butyl alcohol, acetate inventory quotas cut. Oil Paint & Drug Rep 150:5+ Jl 22 '46

Reduction of ethyl α-benzylamino-β-methoxy-*n*-caproate with sodium and butyl alcohol. C. Niemann and C. T. Redemann. bibliog Am Chem Soc J 68:1932-4 O '46

Ternary system: *t*-butyl alcohol, benzene and water at 25°. D. R. Simonsen and E. R. Washburn. bibliog Am Chem Soc J 68: 235-7 F '46

Utilization of nonpetroleum fuels in automotive engines. J. T. Duck and C. S. Bruce. bibliog J Res Nat Bur Stand 35:439-65 D '45

BUTYLAMINE
Preparation of *t*-butylamine by the low-pressure hydrogenation of 2,2-dimethylethylenimine. K. N. Campbell, A. H. Sommers and B. K. Campbell. Am Chem Soc J 68:140 Ja '46

BUTYLANILINE
α-Naphthyl isocyanate derivative of *n*-butylaniline. D. Craig. Am Chem Soc J 68:716 Ap '46

BUTYL bromide
Kinetics of exchange reactions; influence of solvent and molecular structure. L. J. le Roux and others. Chem Soc J p586-8 S '45

BUTYL chloride
Application of the principle of the concentration cell to kinetic studies; hydrolysis of *t*-butyl chloride in 95% water-5% acetone solution. C. G. Swain and S. D. Ross. diag Am Chem Soc J 68:658-61 Ap '46

Exchange of hydrogen and chlorine between bicyclo(2,2,1) heptane and *t*-butyl chloride. L. Schmerling. bibliog Am Chem Soc J 68: 195-6 F '46

BUTYL ether
Equilibrium composition of certain Grignard reagents in *n*-butyl ether. G. H. Coleman and J. W. Brooks. bibliog Am Chem Soc J 68:1620-1 Ag '46

BUTYL group
Steric strains in compounds with tertiary butyl groups; steric strain in polyisobutylene. H. C. Brown and G. K. Barbaras. J Chem Phys 14:114 F '46

BUTYL hydrogen peroxide
Studies in organic peroxides; *t*-butyl hydroperoxide and di-*t*-butyl peroxide. N. A. Milas and D. M. Surgenor. bibliog Am Chem Soc J 68:205-8 F '46

BUTYL lactate
Separation of diastereoisomers by adsorption from the vapor phase. D. L. Isom and H. Hunt. J Phys Chem 50:28-32 Ja '46

BUTYL perbenzoate
Studies in organic peroxides; *t*-butyl peresters. N. A. Milas and D. M. Surgenor. bibliog Am Chem Soc J 68:642-3 Ap '46

BUTYL rubber. See Rubber, Artificial

BUTYL styrene
Preparation and polymerization of some alkyl styrenes. C. S. Marvel, R. E. Allen and C. G. Overberger. bibliog Am Chem Soc J 68:1088-91 Je '46

BUTYL vinylbenzoate
Polymerization of *d-s*-butyl *p*-vinylbenzoate. C. S. Marvel and C. G. Overberger. Am Chem Soc J 68:2106-7 O '46

BUTYLATION
Analysis of mixtures of meta- and para-cresols and their butylated products. D. R. Stevens and J. E. Nickels. Ind & Eng Chem Anal ed 18:260-1 Ap '46

BUTYLENE
Production of butadiene by the dehydrogenation of normal butylenes. R. P. Russell and others. flow sheets Am Inst Chem Eng Trans 42:1-14 F '46

BUTYLENE glycol
Clarification of acid-hydrolyzed mash and beer for the production of 2,3-butanediol from corn. A. J. Strohmaier and C. L. Lovell. Ind & Eng Chem 38:721-4 Jl '46

Kinetics of the reaction of hydroxyl ion with the meso and racemic di-*p*-toluenesulfonates of butylene glycol-2,3. F. C. Foster and L. P. Hammett. bibliog Am Chem Soc J 68:1736-41 S '46

Liquid-vapor equilibria in the acetylmethylcarbinol-water system. R. H. Blom and A. Efron. bibliog il Ind & Eng Chem 37:1237-40 D '45

Physical chemical properties of the 2,3-butanediols. J. W. Knowlton, N. C. Schieltz and D. Macmillan. Am Chem Soc J 68:208-10 F '46

Production of 2,3-butanediol from acid-hydrolyzed starch. G. E. Ward, O. G. Pettijohn and R. D. Coghill. bibliog Ind & Eng Chem 37:1189-94 D '45

Recovery of 2,3-butanediol produced by fermentation. M. Senkus. flow sheet Ind & Eng Chem 38:913-16 S '46

BUTYNE
Heats, equilibrium constants, and free energies of formation of the acetylene hydrocarbons through the pentynes, to 1,500° K. D. D. Wagman and others. bibliog J Res Nat Bur Stand 35:467-96 D '45

BUTYRIC anhydride
Water absorption of plastics molded from acylated casein. W. G. Gordon, A. E. Brown and C. M. McGrory. bibliog Ind & Eng Chem 38:90-4 Ja '46

BUTYROLACTONE
Resolution of racemic α-hydroxy-β,β-dimethyl-γ-butyrolactone. R. Beutel and M. Tishler. Am Chem Soc J 68:1463-5 Ag '46

Synthesis of *dl*-methionine. J. E. Livak and others. bibliog Am Chem Soc J 67:2218-20 D '45

BUY American act, 1933
President signs stockpiling bill; objects to "buy American" provision. Comm & Fin Chr 164:662 Ag 1 '46

BUYING. See Purchasing

BUYING habits
Campaign stems flow of buyers to larger city; Berkeley, Calif. appeal to local residents. T. H. Moriarty. il Ptr Ink 217:52-3 N 8 '46

Home inventory survey gives advertised brands increased preference; tenth study by Cleveland press. Ptr Ink 215:102+ My 3 '46

How women of 18-30 look at merchandise. B. D. Beck. Adv & Sell 39:49+ S '46

It's the reasons for not buying we should worry about. H. G. Sawyer. Ptr Ink 213: 110+ D 28 '45

See also
Market research
Private brands

BUYING power. See Consumption (economics)

BUZZ bombs. See Bombs, Flying

BYFIELD, Ernest Lessing, 1889-
Chichi in Chicago; Ernie Byfield has scored at the Sherman and the Ambassadors east and west. il pors Fortune 33:146-9+ Je '46

BY-PRODUCT coke institute, American. See American by-product coke institute

BY-PRODUCTS. See Coke manufacture—By-products; Farm produce—By-products; Gas manufacture—By-products; Paper making—By-products; Waste products

BYRD-BUTLER bill. See Government corporations

C

C.I.O. See Congress of industrial organizations

CABBAGE
Dehydroascorbic acid in cabbage. T. J. McMillan and E. N. Todhunter. Science 103: 196 F 15 '46
Vitamin-*C* content of vegetables; effect of cooking on cabbage. L. H. Lampitt and others. Soc Chem Ind J 64:260-2 S '45

CABBAGE, Dried
Commercially dehydrated vegetables; oxidative enzymes, vitamin content, and other factors. M. F. Mallette and others. bibliog Ind & Eng Chem 38:437-41 Ap '46

CABINETS (furniture)
American Central produces sectional cabinet line; Crosley features illuminated, glass-fronted cabinets. il diags Arch Forum 84: 156 Ap '46
Better detail plate; built-in closets a necessity in good planning; linen closets and towel cabinets. R. J. Alexander. plans diags Am Bld 68:90-1 My '46
New look at the kitchen; problem of storage; Heiner-McCullough study. il Arch Forum 84:155-8 F; 187-90 Mr '46
New style features, new utility angles, enhance E-Z Do's post-war line; Decorative cabinet corp. H. Derman. il Sales Management 55:68-9+ D 1 '45
Storagewall prefabricated units. il Arch Forum 84:143-8 Ap '46
See also
Cupboards

CABINETS, Frozen food. See Food, Frozen—Cabinets

CABINETS, Radio. See Radio cabinets

CABINS
See also
Log cabins

CABLE and wireless, limited
Annual general meeting, London. Economist 150:1069 Je 29 '46
Empire communications. Electrician 135:517 N 9 '45
Nationalisation. Economist 149:686-7; 150:1018 N 10 '45, Je 22 '46

CABLE and wireless (holding) limited
Statement by the chairman. E. Wilshaw. Economist 150:1070 Je 29 '46

CABLE laying
Mechanical cable laying. P. F. Clark. il Electrician 136:1647-50 Je 21 '46

CABLE laying and supply ships
New cable ship Monarch. il Electrician 136: 1227-30 My 10 '46; Elec R (Lond) 138:715-18 My 10 '46

CABLES
Belt tensioning with steel cords; steel cable-embedded industrial drives and conveyor belting. P. D. Suloff. il diags Steel 119:72-5+ O 28 '46
Brooklyn bridge; tests of metals removed from cables and stiffening trusses. H. E. Wessman. bibliog Am Soc C E Proc 72: 57-68 Ja '46
Cable-stiffened suspension bridge developed through Engineer Board research. W. G. Grove. il diags Eng N 136:347-50 Mr 7 '46
Cables and their effect on anchor loads. R. S. Danforth. diags Marine Eng 50:180+ D '45
Cables of 90-year-old bridge still in sound condition; Bidwell bar bridge. il Eng N 137: 508 O 17 '46
Fittings are attached to cable by cable swaging machine. il Steel 117:148 N 19 '45
Méthode de calcul et propriétés principales des bicâbles. J. Ferrandon. Génie Civil 123: 158-9 Je 15 '46
See also
Cableways
Electric cables
Telephone cables

CABLES, Electric. See Electric cables

CABLES, Submarine. See Electric cables, Submarine

CABLEWAYS
Aerial ropeway at Bolsover colliery. il plan diag Mech Handling 33:498-502 Ag '46
Bi-cable aerial ropeway. A. E. Higgs. diag Inst Mech Eng J & Proc 154:15-17, pl 1-2 Je '46
Building Boliden's sixty-mile aerial tramway. il map Eng & Min J 147:66-9 Jl '46
Le comportement des câbles de téléfériques ancrés rigidement à leurs deux extrémités. J.-G. Krencker. Génie Civil 123:174-6 Jl 1 '46
Considérations sur les projets de téléfériques. M. Dewulf. Génie Civil 123:48-50 F 15 '46
Construction cableways on Norfork dam. H. V. Pittman. il diags Eng N 135:878-83 D 27 '45
Ropeways for refuse disposal. A. R. Bunce. il diags Mech Handling 33:7-11 Ja '46
Tri-state caved area mined with cableway. il Eng & Min J 147:83-4 Mr '46
Wire ropeways. R. Saxton. diags Mech Handling 33:402-4 Jl '46

CABOOSE cars. See Cars, Caboose

CACAO
Cacao crop and trade in production, Cuba. For Comm W 21:29 D 8 '45
Exports of cacao and chocolate from the Dominican Republic, 1944 and 1945. For Comm W 21:33 D 22 '45
Gold Coast cacao exports, 1940-41 to 1944-45. For Comm W 21:29 N 24 '45
Romance of cacao. For Comm W 25:28 O 12 '46

CACTUS
Diseases and pests
Cactus warfare; California imports Texas insect warriors. Bsns W p38 Ag 10 '46

CADDOCK, Earl
Former world wrestling champion comes out on top in petroleum business; president of United petroleum corp. E. Lamm. por Nat Pet N 38:34 Ja 9 '46

CADMAN, John, 1877-1941
First Cadman memorial lecture. W. Fraser. por(front) Inst Pet J 32:241-3 My '46

CADMIUM
Bright dipping. G. Soderberg. bibliog Electrochem Soc Trans 88(preprint 10):115-20 '45; Same abr. Steel 118:109-10 My 13 '46
Bunker Hill plant recovers metallic cadmium from fume. J. B. Huttl. il diags Eng & Min J 147:82-5 Ap '46
Cadmium, 1945. T. P. Wootton. Eng & Min J 147:84 F '46
Filter paper collection of cadmium and iron fumes in air. L. Silverman and C. Valenzuela. J Ind Hygiene 28:107-11 My '46
Light source for the primary standard of wave-length. C. Hsueh. il diags Opt Soc Am J 36:160-4 Mr '46
Neutron beam spectrometer studies of boron, cadmium, and the energy distribution from paraffin. J. Rainwater and W. W. Havens, jr. bibliog plan Phys R 70:136-53 Ag 1 '46
Photoelectric properties of metals in a finely divided state. L. J. Reimert. bibliog Opt Soc Am J 36:278-83 My '46
Polissage électrolytique du cadmium; abstracts. J. Liger. Chimie & Ind 55:121 F '46; (Electrolytic polishing of cadmium). Chem & Met Eng 53:268 Je '46

Analysis
Separation of cadmium from zinc by electrochemical means. W. H. Hammond. bibliog (204 references) diags Electrochem Soc Trans 88 (preprint 27):297-323 '45

Isotopes
Absorption of slow neutrons by Cd^{113}. B. J. Moyer and others. Phys R 69:666 Je 1 '46

CADMIUM borate
Fluorescence of phosphors in rare gases. N. C. Beese. Opt Soc Am J 36:493-8 S '46

CADMIUM compounds
Branched-chain fatty acids; a further study of the preparation of ketones and keto esters by means of organocadmium reagents. J. Cason. bibliog Am Chem Soc J 68: 2078-81 O '46
New method for the synthesis of α-chloroketones. J. F. Bunnett and D. S. Tarbell. bibliog Am Chem Soc J 67:1944-6 N '45

CADMIUM plating
Protective value of electro-tin as an undercoating. S. Wernick. Metal Finishing 44: 13-15 Ja '46

CADMIUM sulfate
Solubility of cadmium sulfate in H_2O-D_2O mixtures. L. H. Brickwedde. bibliog J Res Nat Bur Stand 36:377-83 Ap '46

CAFETERIAS. See Lunchrooms and cafeterias

CAFETERIAS, Employees'. See Lunchrooms and cafeterias, Employees'

CAFFEIN
Production of synthetic caffeine. Science 102: sup12 N 9 '45

CAGES, Insect. See Insect cages

CAGES, Mine. See Mine cages

CAHUILLA, Lake. See Lakes, Extinct

CAISSON disease
Extending compressed-air operations with helium-oxygen air; reduces physiological hazards. il Eng N 137:118-19 Jl 25 '46

CAISSONS
Captain Cook graving dock at Sydney. M. W. Mehaffey. il diag Eng N 136:130-7 Ja 24 '46
New bridge at Newark. S. G. Roberts. il Comp Air Mag 51:6-9 Ja '46
"Shark" sectional dock caissons. il Engineer 180.503-4 D 21 '45
Unique caissons make spillway repairs possible at Grand Coulee. R. Sailer and B. G. Davis. il diags Civil Eng 16:381-4 S '46

CAKE
Use of whole-egg powder in making sponge cake; abstract. R. Jordan and M. S. Pettijohn. Food Ind 18:1635 O '46

CALAMINE. See Zinc carbonate

CALCITE
How a sudden demand for optical calcite was met. C. R. King. Eng & Min J 147:80-1 My '46
Humic acids and true organic acids as solvents of minerals. W. G. Fetzer. bibliog Econ Geol 41:47-56 Ja '46

CALCIUM
Method for calcium-sequestering value of phosphate water conditioners. B. C. Hafford, F. Leonard and R. W. Cummins. Ind & Eng Chem Anal ed 18:411-15 Jl '46
Obscure alloying metals grew 50 years during the war. J. V. Sherman. Barron's 26: 13 Ja 14 '46
Production of metallic calcium by thermal reduction. C. C. Loomis. il Electrochem Soc Trans 89 (preprint 9):119-26 '46

Analysis

Determination of calcium content and total hardness of water; nephelometric-photometric procedure. A. Saifer and F. D. Clark. bibliog Ind & Eng Chem Anal ed 17:757-9 D '45
Determination of nitrogen, phosphorus, potassium, calcium, and magnesium in plant tissue; semimicro wet-digestion method for large numbers of samples. O. J. Kelley, A. S. Hunter and A. J. Sterges. bibliog diag Ind & Eng Chem Anal ed 18:319-22 My '46
Separation of calcium from magnesium by oxalate method in samples of high magnesium-calcium ratio. E. R. Wright and R. H. Delaune. bibliog Ind & Eng Chem Anal ed 18:426-9 Jl '46
Spectrographic determination of calcium in microbiological culture media. E. J. Eastmond. bibliog diag Opt Soc Am J 36:57-60 Ja '46

CALCIUM aconitate
Sugar byproduct. Bsns W p51 F 23 '46

CALCIUM alginate
Scaffolding threads in yarn and cloth structure; use of alginate rayon. A. Johnson. il Textile Inst J 36:P203-15; Discussion. p216 D '45
Some uses of calcium alginate rayon; simplified methods of making crêpes, astrakhans and pile fabrics. A. Johnson and J. B. Speakman. bibliog 4pl Soc Dyers & Col J 62:97-100 Ap '46

CALCIUM aluminate cement. See Cement—Alumina cement

CALCIUM arsenate
Production and exports of calcium arsenate, selected years, 1935-1945; graph. For Comm W 22:32 Ja 19 '46

CALCIUM carbide
Acetylene industry in wartime Germany. R. L. Hasche. il Chem & Met Eng 52: 116-19 O '45; Same cond. Chem Age (Lond) 53:623-5 D 29 '45
Use of calcium carbide in the synthesis of isopropylidene glycerol. M. M. Maglio and C. A. Burger. Am Chem Soc J 68:529 Mr '46

Manufacture

New industry; producing calcium carbide in south Wales. il diag Elec R (Lond) 138:875-80; 139:47-51, 401-7 Je 7, Jl 12, S 13 '46
Notes on the German carbide industry. L. W. Greene. flow diag Chem & Met Eng 53: 123 Jl '46

CALCIUM carbonate
Chemical equilibria in water treatment. W. F. Langelier. bibliog fold charts Am Water Works Assn J 38:169-78 F '46
Degradation of cellulose by certain metallic salts. F. L. Allen and E. A. Rudge. Soc Chem Ind J 64:332-4 D '45
Determinations and calculations of physical constants of water suspensions of pigments. W. V. Torrey. Paper Tr J 122:53-4 F 14 '46
Recent developments in corrosion control. S. T. Powell and others. il Am Water Works Assn J 38:808-13 Jl '46

CALCIUM chloride
Composition, optical and crystallographic properties of two calcium oxalate-chloride double salts. F. T. Jones and L. M. White. bibliog il diags Am Chem Soc J 68: 1339-42 Jl '46
Conductance of aqueous solutions of calcium chloride at temperatures from 15° to 45°C. G. C. Benson and A. R. Gordon. bibliog J Chem Phys 13:470-2 N '45
Damage on concrete pavements by wintertime salt treatment; abstract. H. Arnfelt. Am Concrete Inst J 17:731-2 Je '46
Equilibria in saturated solutions; the ternary systems $CaCl_2$-$MgCl_2$-H_2O, $CaCl_2$-KCl-H_2O, and $MgCl_2$-KCl-H_2O at 35°. W. J. Lightfoot and C. F. Prutton. diags Am Chem Soc J 68:1001-2 Je '46
Low temperature dry cells. E. Otto and others. diag Electrochem Soc Trans 90 (preprint 17):235-47 '46
Thermodynamics of aqueous solutions of calcium chloride at temperatures from 15-35° from e. m. f. measurements on cells with transference. H. G. McLeod and A. R. Gordon. bibliog Am Chem Soc J 68:58-60 Ja '46
Use and function of calcium chloride for roads. J. A. Knight. il Roads & Bridges 83: 58-9+ N '45
Variation of the transference numbers for calcium chloride in aqueous solution with temperature. A. G. Keenan and others. bibliog J Chem Phys 13:466-9 N '45

CALCIUM cyanamide
Chemical defoliation; new aid to agriculture. Chem Age (Lond) 54:496 My 4 '46

CALCIUM cyanide
Calcium cyanide solutions as constant sources of hydrogen cyanide gas for animal experiments. W. A. Robbie and P. J. Leinfelder. bibliog diags J Ind Hygiene 27:269-74 N '45

CALCIUM hydride
Canned hydrogen; cannisters of calcium hydride, which reacts with water to produce hydrogen gas. il Sci Am 174:64 F '46

CALCIUM hydroxide
Lime hydrolysis of soybean protein; foaming properties of the hydrolyzate. J. M. Perri, jr. and F. Hazel. bibliog diags Ind & Eng Chem 38:549-54 My '46
See also
Hydrators, Lime

CALCIUM hypochlorite
Chlorine as a possible ovicide for aedes aegypti eggs. S. P. Hatchett. Pub Health Rep 61: 683-5 My 10 '46

CALCIUM in the body
Deposition of calcium phosphates accompanying senile degeneration and disease. C. Frondel and E. L. Prien. bibliog Science 103:326 Mr 15 '46

CALCIUM oxalate
Composition, optical and crystallographic properties of two calcium oxalate-chloride double salts. F. T. Jones and L. M. White. bibliog il diags Am Chem Soc J 68:1339-42 Jl '46
Separation of calcium from magnesium by oxalate method in samples of high magnesium-calcium ratio. E. R. Wright and R. H. Delaune. bibliog Ind & Eng Chem Anal ed 18:426-9 Jl '46

CALCIUM pantothenate
Crystalline racemic calcium pantothenate. J. H. Ford. bibliog il Am Chem Soc J 68: 1666-8 Ag '46

CALCIUM permanganate
Chemical propellants; analytical studies and characteristics of the system hydrogen peroxide-permanganate. F. Bellinger and others. bibliog diag Ind & Eng Chem 38: 627-30 Je '46
Chemical propellants; corrosion and stability studies. F. Bellinger and others. bibliog il diags Ind & Eng Chem 38:310-20 Mr '46

CALCIUM phosphates
Deposition of calcium phosphates accompanying senile degeneration and disease. C. Frondel and E. L. Prien. bibliog Science 103:326 Mr 15 '46
Fused tricalcium phosphate fertilizer; possible animal feed supplement. D. E. Williams and others. bibliog Ind & Eng Chem 38:651-4 Je '46
Thermal defluorination of superphosphate. E. J. Fox and others. bibliog Ind & Eng Chem 38:329-34 Mr '46

CALCIUM propionate
Propionate treatment of parchment to inhibit mold. J. C. Olson, jr. and H. Macy. bibliog il Mod Packaging 19:166-9+ Ap '46

CALCIUM silicates
Effect of some added materials on dicalcium silicate. E. S. Newman and L. S. Wells. bibliog diags J Res Nat Bur Stand 36:137-58 F '46
High-temperature crystal chemistry A_mBX_n compounds with particular reference to calcium orthosilicate. M. A. Bredig. bibliog J Phys Chem 49:537-53 N '45
Influence of polar compounds on hydrated calcium silicate and GR-S vulcanizates. F. W. Gage. Rubber Age 58:343-6+ D '45
Property of certain calcium silicates to impart supersaturation of $CaCO_3$ to carbonated water extractions. W. H. MacIntire and W. M. Shaw. bibliog Science 104: 3-4 Jl 5 '46
Titrative determination of the neutralization value of calcium silicate slags; abstract. W. M. Shaw. Am Cer Soc Bul 24 (Cer A 24):211-12 N 15 '45
X-ray diffraction data for compounds in the system $CaO-MgO-SiO_2$. C. B. Clark. Am Cer Soc J 29:25-30 Ja 1 '46

CALCIUM sulfate
Chemical removal of calcium sulfate scale. J. L. Wasco and F. N. Alquist. il diag Ind & Eng Chem 38:394-7 Ap '46
Desiccant for drugs; guards the potency of oral penicillin. il Mod Packaging 19:121 Ja '46
Effect of water contents on the strength of calcium sulphate plaster products. H. Andrews. Soc Chem Ind J 65:125-8 My '46
Heats of solution and dilution of calcium sulfate dihydrate in aqueous sodium chloride solutions. W. E. Wallace. bibliog diag J Phys Chem 50:152-68 Mr '46
Solubility of calcium sulphate as a factor in the extraction of magnesia from sea water. F. C. Gilbert and W. C. Gilpin. Soc Chem Ind J 65:111-13 Ap '46

See also
Plaster of Paris

CALCIUM thiocyanate
Ternary systems $NaSCN-Ca(SCN)_2-H_2O$, $KSCN-Ca(SCN)_2-H_2O$, $NH_4SCN-Ca(SCN)_2-H_2O$ and $Ca(SCN)_2-AgSCN-H_2O$ at 25°. A. K. McKerrow, V. J. Occleshaw and F. Drabble. Chem Soc J p1-5 Ja '46

CALCIUM titanate
Heat capacities at low temperatures of the metatitanates of iron, calcium and magnesium. C. H. Shomate. bibliog Am Chem Soc J 68:964-6 Je '46
High-temperature heat contents of the metatitanates of calcium, iron and magnesium. B. F. Naylor and O. A. Cook. bibliog Am Chem Soc J 68:1003-5 Je '46

CALCIUM tungstate
Fluorescence of phosphors in rare gases. N. C. Beese. Opt Soc Am J 36:493-8 S '46

CALCULATING devices
Computing quantities of oil production and pipe line runs. W. F. Martin. il Pet Eng 17:113-14 F '46
Design planning and scheduling in complex computer development; gunfire control device for aircraft. A. F. Wild. il Product Eng 16:817-20 D '45
Electronic computer assures solution of scientific problems. Iron Age 157:132-4 F 28 '46
Homemade calculator gives power factor. J. H. Kerr, jr. il Power 90:689-90 O '46
Plastic calculators in war and peace. il Mod Plastics 23:130-1 Jl '46
Slide-disk calculator; device for making root-mean-square calculations; adapted to computation involving deviations from a mean. G. S. Merrill. il diag Gen Elec R 49:30-3 Je '46
Square (coordinate paper) as a computer. W. F. Martin. Pet Eng 17:258 S '46
Stability computing; calculating device indicates stability, mean draft, deadweight and displacement a ship will have under any amount and distribution of cargo and condition of tanks. il Marine Eng 50:207-8 N '45
Standard computers aid the avigator. L. LeKashman. il Aero Digest 51:56-7+ N 15 '45

CALCULATING machines
Application of machines to differencing of tables. J. Laderman and M. Abramowitz. Am Stat Assn J 41:233-7 Je '46
Automatic sequence controlled calculator. H. H. Aiken and G. M. Hopper. bibliog il diags Elec Eng 65:384-91, 449-54, 522-8 Ag, O-N '46
Computer for solving linear simultaneous equations. C. E. Berry and others. bibliog il diags J Ap Phys 17:262-72 Ap '46
Designing computing mechanisms. M. Fry. il diags Machine Design 17:103-8 Ag; 113-20 S; 123-8 O; 141-5 N; 123-6 D '45; 18: 115-18+ Ja; 137-40 F '46
Electronic calculator; ENIAC. il Sci Am 174: 248 Je '46
Electronic computer known as the ENIAC. il Mech Eng 68:560-1 Je '46
Electronic computers. W. Shannon. diags Electronics 19:110-13 Ag '46
Electronic numerical integrator and computer; ENIAC. il plan Product Eng 17:412-14 My '46
Robot calculator; ENIAC, Electronic numerical integrator and computer. il Bsns W p50+ F 16 '46
Simple potentiometer circuit for production of the tangent function. R. Hofstadter. diag R Sci Instr 17:298-300 Ag '46
12-equation electrical computer announced by Consolidated engineering corp. il R Sci Instr 17:161 Ap '46
War department unveils 18,000-tube robot calculator; Eniac. il Electronics 19:308+ Ap '46; Abstract. Machine Design 18:110-12 My '46

See also
Counting machines and devices — Differential analyzers — Integrators

CALCULUS
Calculus of finite precision. B. Liebowitz. Phys R 66:343-50 D 1 '44; Correction. 69: 131-2 F 1 '46
Differentiation/instantaneous speed. C. Turnbull. Electrician 135:625-6 D 7 '45
Steady-state operational calculus. D. L. Waidelich. bibliog diag Inst Radio Eng Proc 34:78P-83P F '46; Discussion. 34:579-80 Ag '46

CALCUTTA

See also
Electricity supply—Calcutta

Rapid transit
Calcutta tramways co., purchase by municipal corporation. il Mass Transportation 41:373-4 D '45

CALDER, Curtis Ernest, 1890-
Electric Bond & Share's chairman. por(cover) Bsns W p8 S 7 '46

CALENDAR
World calendar boost. Bsns W p80+ Jl 27 '46

CALENDARS
Annual calendar review. il Ind Marketing 31:38-9 Ja '46
Calendar advertising in South America. E. L. Tinker. il Adv & Sell 39:92 S '46
Calendar manufacturer adds advertising agency division to build new accounts. Ptr Ink 214:127+ Ja 18 '46
How Esso builds dealer interest in calendars. il Sales Management 56:93-4 Ap 1 '46
Make your dealer calendar work; Gartner & Bender, greeting cards. il Ptr Ink 216:45 S 13 '46
Must ad art be obviously relevant to product? no, says Minneapolis-Moline. H. E. Green. il Ptr Ink 213:22-3 D 7 '45
Variety is keynote in 1946 calendars. Ind Marketing 31:78 Mr '46
When's best time to mail calendars? Ptr Ink 214:32 Mr 1 '46

CALENDERS
Co-ordinated electric drive for a rubber calender train. K. W. John and others. il diags Elec Eng 65:Trans 128-34 Mr '46
Possible role of shear in calendering. J. A. Van den Akker. bibliog diags Paper Ind 28:57-9 Ap '46
Supercalendering of paper machine coated paper. E. E. Thomas. Paper Tr J 122:33-5 My 30 '46

CALGON. See Sodium hexametaphosphate

CALICHE
Sand and gravel from river deposits; Oklahoma. N. C. Rockwood and H. E. Swanson. il Rock Prod 49:95-7 F '46

CALIFORNIA
See also
Airplane industry and trade—California
Architecture, Domestic—California
Central Valley project
Petroleum—California
Pottery industry—California
Retail trade—California

Economic conditions
California's perplexing pregnancy. E. Brisacher. Adv & Sell 39:58 Jl '46

CALIFORNIA cooperative packaging association
Grower packaging of produce; California leads the way. il plan Mod Packaging 19:103-9+ My '46

CALIFORNIA electric power company
Public utility securities. Comm & Fin Chr 163:3348 Je 20 '46

CALIFORNIA fruit growers exchange
More fruit, lower prices, stiffer competition: Sunkist's problem. Sales Management 55: 69 N 15 '45

CALIFORNIA-PACIFIC utilities company
Bonds offered. Comm & Fin Chr 164:2404 N 11 '46

CALIFORNIA packing corporation
Selected companies, with an open road to higher earnings and dividends. Mag of Wall St 77:757-8 Mr 30 '46

CALIFORNIA processors and growers, inc.
Canners accused. Bsns W p106 Je 1 '46

CALIFORNIA university
Education of planners at the University of California, Berkeley. L. D. Tilton. J Land & Pub Util Econ 21:309-11 N '45
University of California. il Fortune 33:150-9+ Je '46; Discussion. 34:12 S '46

Division of medical physics
Establishment. Science 103:15 Ja 4 '46

CALIFORNIA water service company
Preferred stock offered; sale of common stock. Comm & Fin Chr 162:2388 N 19 '45

CALIPERS
Accurately setting trammel points. il Iron Age 158:49 Ag 1 '46
Calipers kept accurate by simple lapping fixtures. R. B. Taggart. il Am Mach 90:135-6 F 28 '46
Dial attachment for vernier calipers aids inspectors. E. C. Niedt. diag Am Mach 90:136 Ap 25 '46
Internal tubing caliper; problem of internal corrosion in tubing and fittings of condensate wells. P. E. Chaney. il Pet Eng 17: 122+ Ap '46; Same. diag Oil & Gas J 44: 115+ Ap 20 '46
Sensitive indicating calipers for plug gage work. D. R. Tryer. diag Am Mach 89:139 N 22 '45
Special calipers gage armature and clearance in overhauling electric traction motors. M. Axler. diags Am Mach 90:129 Jl 4 '46

CALKINS, Earnest Elmo, 1868-
Earnest Elmo Calkins' And hearing not: annals of an adman. R. Webster. Ptr Ink 217: 63-4 N 8 '46

CALL aircraft company
From barnyard to assembly line. il Bsns W p88 F 16 '46

CALMETTE and Guerin vaccine. See Tuberculosis

CALORIMETERS and calorimetry
Bellows type heat capacity calorimeter. V. C. Williams and M. Sivetz. R Sci Instr 17:71 F '46
Calorimetric experiment on the radiation losses of 2-Mev electrons. W. W. Buechner and R. J. Van de Graaff. bibliog diag Phys R 70:174-7 Ag 1 '46
Conference on low-temperature calorimetry. Chem & Eng N 24:2782 O 25 '46
Heat capacity of a two-phase system, with applications to vapor corrections in calorimetry. H. J. Hoge. bibliog J Res Nat Bur Stand 36:111-18 F '46
Relative spontaneous heating tendencies of coals. J. L. Elder and others. bibliog diags U S Bur Mines Tech Pa 681:1-24; pa 10c Supt. of doc. '45
Specific heats of Hevea, GR-S, and GR-I stocks. W. H. Hamill, B. A. Mrowca and R. L. Anthony. bibliog diags Ind & Eng Chem 38:106-10 Ja '46

CALOTRON
Calotron tube. diag R Sci Instr 17:310 Ag '46

CAMDEN forge company
Common stock offered. Comm & Fin Chr 162:3068-9 D 24 '45

CAMERA insurance. See Insurance, Camera

CAMERAS
Aerial cameras; their history and development. T. Abrams. Mech Eng 68:866-70 O '46
Army camera has self-contained light source. il Product Eng 17:100 F '46
Calculation of aspherical correcting surfaces. M. Herzberger and H. O. Hoadley. Opt Soc Am J 36:334-40 Je '46
Lifwynn eye-movement camera. H. Syz. il Science 103:628-9 My 17 '46
Parafocusing properties of microcrystalline powder layers in X-ray diffraction applied to the design of X-ray goniometers. J. C. M. Brentano. bibliog il diags J Ap Phys 17: 420-34 Je '46
Photography of the ocean bottom. M. Ewing and others. bibliog il diags Opt Soc Am J 36:307-21 Je '46
Radar camera for use in photographing radar images. Aeronautical Eng R 4:135+ N '45
Twin-eye cameras. Bsns W p56+ D 8 '45
See also
Lenses, Photographic

Manufacture
Screwsticks; assembling device used in camera and instrument manufacture; Eastman Kodak co. il Steel 119:103+ Jl 1 '46
Three precision molded parts for child's camera. il Mod Plastics 23:101-3 Jl '46

Rating
Post-war cameras. Consumers Res Bul 18: 16-17 Ag '46

Small size
Miniature camera for black-and-white and color photography. Consumers Res Bul 18: 8-9 S '46

CAMERAS—*Continued*

Testing

Electronic shutter-testers; photo-electric system produces recording on Teledeltos paper. R. F. Redemske. il diags Electronics 19:128-34 F '46; Same. Soc Motion Picture Eng J 46:409-23 My '46

CAMERAS, Electron diffraction

Electron diffraction camera for the study of high temperature surface reactions. E. G. Gulbransen. il diags J Ap Phys 16:718-24 N '45

High dispersion electron diffraction by primary magnification. G. L. Simard and others. il diag J Ap Phys 16:832-6 D '45

Improvement of resolution in electron diffraction cameras. J. Hillier and R. F. Baker. il diags J Ap Phys 17:12-22 Ja '46

New developments in the study of surface chemistry. E. A. Gulbransen. il diag Metal Prog 49:556-8 Mr '46

CAMERAS, Miniature. See Cameras—Small size

CAMERAS, Moving picture. See Moving picture cameras

CAMERAS, Television. See Television cameras

CAMOUFLAGE

Color stability of olive drab infrared-reflecting camouflage finishes. E. E. Jukkola and R. Cohen. bibliog il Ind & Eng Chem 38:927-30 S '46

Ghost army and navy revealed; balloon-fabric models of craft and equipment. il Product Eng 17:152 F '46

Pneumatic dummies served as invasion foil; counterfeit ships, tanks and guns of air-filled balloon fabrics. il Comp Air Mag 51: 10-11 Ja '46

Use of a constant-hue flickering filter to distinguish poor imitation from real green foliage W A. Shurcliff and E. I. Stearns. il Opt Soc Am J 36:478-80 Ag '46

War-time camouflaging of tents in the Sudan, A. J. Henry. Chem & Ind p290-1 Ag 3 '46

CAMP dormitories. See Dormitories

CAMP fees refund policies. See Insurance, Casualty—Camp fees refund policies

CAMPBELL, George John Douglas, 8th duke of Argyll. See Argyll, G. J. D. C.

CAMPHOR

Sir Martin Onslow Forster; contributions to chemistry of camphor. E. F. Armstrong and J. L. Simonsen. Chem Soc J p550-7 Je '46

CAMPS

See also
Lumber camps

CAMPS, Military

See also
Water supply for armies

CAMPS, Tourist. See Tourist camps, hostels, etc.

CAMPUS accidents. See Engineering colleges—Accidents

CAMS

Automatic variable-lift cam mechanism. L. Kasper. diag Mach 53:178 S '46

Cam grinding on a cylindrical grinder. F. Zagar. il Mach 52:180-1 F '46

Layout of cam locks; reference book sheet. N. B. Archer. Am Mach 90:139 Ap 25 '46

Precision cam design methods and analyses; computation of machine settings. diags Product Eng 16:845-8 D '45

Reversed grinders for master cams. C. A. Sheffield. il Materials & Methods 22:1468 N '45

Valve actuation; cams with flat-footed followers. O. H. Varga. Automobile Eng 36: 75-6 F '46

Velocity and acceleration in cam design. J. S. Kahr. diags Product Eng 17:246-9 Mr '46

Manufacture

Rotating disk-and-pin mechanism for controlling cutter-head slide of automatic cam-generating device. C. Golosman. diags Mach 52:189-93 Ag '46

Simple method of duplicating cam surfaces on a surface grinding machine. F. L. Keller. diags Mach 52:194 Jl '46

CAN filling

Pak-C-Lector packs rapidly; cuts, weighs and fills, continuously and automatically, tuna or other products. il Food Ind 18:527 Ap '46

Systematic sampling pays in controlling filling weights; use in can-filling weight control; Shewhart charts. H. P. Goode and G. I. Dundas. il Food Ind 17:1468-70 D '45

CANADA

Canada puts itself at disposal of United nations organization. Iron Age 157:112-13 Mr 7 '46

Study of Canada and the United States; address at ALC meeting. E. K. Williams. East Underw 46:19 N 9 '45

See also

Agricultural machinery industry—Canada
Airports—Canada
Finance—Canada
Fish trade—Canada
Housing—Canada
Labor laws and legislation—Canada
Libraries—Canada
Milk trade—Canada
Paper industry and trade—Canada
Phosphate rock—Canada
Population—Canada
Radio broadcasting—Canada
Railroads—Canada
Roads—Canada
Tariff—Canada
Tourist trade—Canada
Water power—Canada
World war, 1939-1945—Canada

Armed forces

Pay, allowances, etc.

Military family allowances in the United States, Canada, and Great Britain, 1945. M. T. Waggaman. Mo Labor R 63:94-7 Jl '46

Army

Bridge building by Canadian army engineers in Europe. C. A. Campbell. il Roads & Bridges 84:117-18+ Mr '46

Forestry corps

Forestry corps work outlined. C. A. Williams. Pulp & Pa of Can 47:60 Ja '46

Commerce

Canada and international cartels. 72p pa 25c Canada. Department of justice, Combines investigation commission, Ottawa '45

Canada faces heavy losses of exports to United Kingdom markets. Iron Age 156: 119 N 22 '45

Canada looks into cartel question. Paper Tr J 121:64+ N 22 '45

Canadian commercial office to be opened at Guatemala City. H. S. Fox. For Comm W 24:22 Ag 3 '46

Cartel foes, inc.; Canadian report asks joint action by big nations. Bsns W p22+ N 17 '45

Effect of foreign trade on Canadian and U.S. industry. G. E. Jackson. Comm & Fin Chr 163:961+ F 21 '46

Commercial policy

Canadian export policy. Economist 150:59 Ja 12 '46

Government's trade promotion program. For Comm W 22:18-20 Ja 12 '46

Economic conditions

Canada in 1945. Economist 150:sup6 Mr 23 '46

Canada's economy in 1945. H. S. Fox. il For Comm W 22:6-9+ Ja 19 '46

Canada's prospective trends. M. Palyi. Comm & Fin Chr 162:2701+ D 6 '45

Canadian failures by provinces, monthly record. Published in monthly numbers of Dun's statistical review

Economic conditions in Canada during first nine months of 1945. Can Chem & Process Ind 29:759 N '45

Economic conditions in Canada during the first half of 1946. Can Chem & Process Ind 30:64-5 O '46

Economic conditions in Canada during the first quarter of 1946 compared with the same period of the preceding year. Can Chem & Process Ind 30:81 My '46

Economic conditions in Canada, January, 1946. 5p pa 25c Canada. Dominion bur. of statistics, Ottawa '46

Impact of the war on civilian consumption. Economist 149:637-44 N 3 '45

CANADA—Economic conditions—*Continued*
National income and expenditure for 1945. For Comm W 23:22-3 Ap 27 '46
News by countries. Published in Foreign commerce weekly

Economic history

L'évolution économique du Canada pendant la guerre. Génie Civil 123:9-10 Ja 1 '46

Economic policy

Canada now to depend largely upon exports to hold income level. C. D. Howe. Iron Age 157:132+ Ja 10 '46
Canadian conference affecting social insurance and taxes. Mo Labor R 62:67-8 Ja '46
Stabilized income. Bsns W p 116 D 8 '45
See also
Money—Canada
Prices—Regulation—Canada

Economic relations

United States

Timely accord. Bsns W p101 Je 15 '46

Foreign relations

Russia

Canada suspends Soviet orders. Iron Age 157: 107 Mr 7 '46

Geological survey

Field program for 1946 announced. Can Min J 67:639-41 Je '46

Industries and resources

Canada's peat moss industry. W. M. Goodwin. il Can Min J 67:169-71 Mr '46
Canadian manpower reconversion satisfactory; abstract. C. D. Howe. Iron Age 157: 104 Mr 28 '46
Canadian survey shows industry reconversion nearly accomplished. Iron Age 158:147-50 S 12 '46
Modern electroalchemy; hydroelectric power for electrochemical industries of eastern Canada. W. M. Goodwin. il Comp Air Mag 51:130-3 My '46
Survey of production released, 1938 to 1943. For Comm W 23:23-4 Je 1 '46
Survey shows postwar Canadian industries exceed prewar level. Iron Age 157:282 Ja 3 '46

Mines and resources, Department of

Field program for 1946 announced. Can Min J 67:639-41 Je '46

Sanitary affairs

Refuse disposal, Canada; incinerators, sanitary fills, street cleaning; with cost data. il Water & Sewage 84:16+ Jl '46

Statistics

Canada. Ind Marketing 30:135 O 25 '45

CANADAY, Ward Murphey, 1885-
Portrait. Fortune 34:82 Ag '46

CANADIAN association of equipment distributors (formerly Associated equipment distributors of Canada)
Annual meeting, 3d, Winnipeg, May 13-15. Roads & Bridges 84:92-3+ My; 49-53 Je '46
List of active and associate members. Roads & Bridges 84:156 Je '46

CANADIAN council of professional engineers and scientists
December meeting. Can Chem & Process Ind 30:33 F '46
Meeting, 5th, Ottawa, Sept. 28. Can Chem & Process Ind 29:749+ N '45

CANADIAN gas association
Annual meeting, 39th, Murray Bay. Am Gas J 165:47-9 Jl '46

CANADIAN good roads association
Annual meeting, Quebec, April 2-4. Roads & Bridges 84:59-72+ Ap '46

CANADIAN institute of mining and metallurgy
Annual meeting, Montreal, April 9-11. Rock Prod 49:75+ My '46

CANADIAN institute on sewage and sanitation
Annual meeting, 12th, Windsor, Ont. Nov. 5-6. Water & Sewage 83:37-48+ N '45
Serves Canada's sewage interests. Water & Sewage 84:18+ Jl '46

CANADIAN life insurance officers association
Annual meeting, London, Ontario. East Underw 47:3-4 My 31; 3+ Je 7 '46

CANADIAN manufacturers' association
Annual general meeting, 75th. Can Chem & Process Ind 30.33-7+ Je '46

CANADIAN national railways
C.N. port one of war's secret cities; Prince Rupert, British Columbia, sub-port of embarkation. il Ry Age 120:823-4 Ap 20 '46
Canadian national railways builds large ore dock at Port Arthur, Ont. il diag Ry Age 120:235-8 Ja 26 '46
CNR prospects. Economist 149:795-6 D 1 '45
Rail comeback. Bsns W p114+ N 24 '45

CANADIAN Pacific railway
Annual report. Comm & Fin Chr 163:1950-2 Ap 11 '46
Diesels satisfy Canadian Pacific. il Diesel Power 24:187 F '46
Income account for calendar years, 1942-1945. Comm & Fin Chr 163:1950-2 Ap 11 '46; Same cond. Ry Age 120:842-6 Ap 20 '46
Who owns CPR? Bsns W p29-30+ F 9 '46

CANADIAN paint, varnish and lacquer association
Prospects for 1946. V. C. Wansbrough. Paint Oil & Chem R 108:118-19 N 1 '45

CANADIAN physiological society
Annual meeting, 9th, Kingston, Nov. 2-3. Can Chem & Process Ind 29:787-90+ N '45

CANADIAN pulp and paper association
Annual meeting, 33d, Montreal, Jan. 23-25. Paper Ind 27:1534+ Ja '46; Paper Tr J 122: 7-8+ Ja 31 '46; Pulp & Pa of Can (Convention no) 47:75-6 [F] '46
Approve C.P.P.A. organization changes. Paper Tr J 122:10+ F 7 '46
Forest policy. R. M. Fowler. Pulp & Pa of Can 47:85-6 Je '46
Sections review 1945. Pulp & Pa of Can (Convention no) 47:285+ [F] '46
State of the industry; president's report. R. M. Fowler. Pulp & Pa of Can (Convention no) 47:77-80 [F] '46

Technical section

Annual meeting, 32d, Montreal, Jan. 23-25. Can Chem & Process Ind 30:29-30 F '46; Pulp & Pa of Can (Convention no) 47:81-90 [F] '46; Can Chem & Process Ind 30:29-30 F '46
Committee personnel and council liaison officers. Pulp & Pa of Can 47:59-60 Ap '46
Summer meeting, Port Arthur, Ontario, June 6-8. Paper Ind 28:398+ Je '46; Pulp & Pa of Can 47:86-94+ Jl '46

Woodlands section

Annual meeting, 28th, Montreal, Jan. 23-25. Pulp & Pa of Can (Convention no) 47:229-30+ [F] '46
Summer meeting, Edmundston, N.B. July 9-11. Pulp & Pa of Can 47:93-7+ Ag '46
Woodlands section for 1945. B. F. Avery. Pulp & Pa of Can (Convention no). 47:243-4 [F] '46

CANADIAN sanitation equipment association
Annual meeting, 3d, Windsor, Ont. Water & Sewage 83:49-50+ N '45
Serves Canada's sewage interests. Water & Sewage 84.18+ Jl '46

CANADIAN transit association
Annual meeting, 41st, Winnipeg, June 11-13. Bus Transportation 25:69-73 Jl '46

CANADIAN warehousemen's association
Purpose, membership, etc. Refrig Eng 51:324 Ap '46

CANADIAN water works equipment association
Serves Canada's water interests. Water & Sewage 84:18+ Jl '46

CANAL lining
Canal lined with stabilized earth; Altus project in Oklahoma. W. S. Byrne. il Eng N 136:410-12 Mr 21 '46
Fighting wear on hydro works; Southern California Edison co. facilities in Sierra Nevada mountains. il Elec West 96:101-3 Je '46

CANAL lining—*Continued*
Improved trimming and paving equipment used on the Coachella canal. C. S. Hale. il Eng N 137:595-7 O 31 '46
Repair lining of Roza irrigation canal; illustrations with text. Eng N 137:24 Jl 11 '46

CANALS
See also
Akaba canal (proposed)
Panama canal

Florida
Calyx drill aids soft-ground examination; investigating foundation material for lock on Cross-Florida barge canal. H. A. Scott. il diag Eng N 137:102-4 Jl 25 '46

Switzerland
Le projet d'aménagement du Rhône entre Lyon et Genève et la liaison du Rhône au Rhin à travers la Suisse. map Génie Civil 123:195 Jl 15 '46

United States
Canal project charted; program to deepen, widen, and straighten canal between Chesapeake bay and Delaware river. Bsns W p47 Mr 16 '46

CANCELLATION of orders
They never thought of cancellations; customers are still placing multiple orders. H. Flarsheim. Adv & Sell 39:100 Mr '46

CANCER
Cancer research and benefit to patients. F. S. Hammett. Science 103:714 Je 14 '46; Discussion. K. S. Pilcher. 104:167-8 Ag 16 '46
Carcinogenic substances from pituitary glands of cattle. H. K. Wachtel. bibliog Science 103:556-7 My 3 '46
Committee on the growth of the National research council. P. S. Owen. Science 102: 499-500 N 16 '45
Cytoplasmic diseases and cancer. M. W. Woods and H. G. duBuy. bibliog Science 102:591-3 D 7 '45
Human breast cancer and the milk factor. M. T. Macklin. Science 104:168-9 Ag 16 '46
Inert spindle-oil; prevention of spinners' cancer. Chem Age (Lond) 55:112 Jl 27 '46
Nutritional concept of cancer. J. Lederberg. Science 104:428 N 1 '46
Some quaternary ammonium salts of heterocyclic bases. J. L. Hartwell and S. R. L. Kornberg. bibliog Am Chem Soc J 68:868-70, 1131-3 My-Je '46
Surface measurements of radioactive phosphorus in breast tumors as a possible diagnostic method. B. V. A. Low-Beer. Science 104:399 O 25 '46
Thiamine deficiency and high estrogen findings in uterine cancer and in menorrhagia. J. E. Ayre and W. A. G. Bauld. bibliog Science 103:441-5 Ap 12 '46
Trophoblast elements in cancer. E. T. Krebs, jr. and C. Gurchot. Science 104:302 S 27 '46

CANDLES
How to sell candle-light; Will & Baumer's 9-point sales promotional plan. L. Nerenberg. il Sales Management 57:114+ Jl 15 '46

CANDY
Manufacture
Cast resorcin used in candy replicas; new means of controlling the quality of candy il Mod Plastics 23:138-9 Ap '46
New agricultural products used in candy; oil-seed, cereal and legume products. H. H. Hall and others. il Food Ind 18:1008-10+ Jl '46
Plastics candies used as models for shape and color. il Sci Am 175:26 Jl '46

CANDY factories
Sanitary candy manufacture. W. H. Eddy. il Food Ind 17:1457 D '45; Discussion (Candy kettles, copper or stainless?) 18:627 Ap '46

Quality control
Cast resorcin used in candy replicas; new means of controlling the quality of candy. il Mod Plastics 23:138-9 Ap '46

CANDY stores
Barton's bonbonniere, New York city. il plan Arch Forum 84:119 F '46
Loft candy store, 42nd street, New York; Retail outlet for Garrott candy co., St. Paul. il plans Arch Rec 99:114-21 F '46

CANDY trade
Candy looks ahead to better packaging. il Mod Packaging 20:104-10+ S '46
Candy seeks wider markets. Bsns W p54+ Ag 24 '46
Candy takes it place at the dinner table. E. T. Bullock. il Dun's R 54:15-18+ Jl '46
From red ink to a million-dollar sales volume in six years; Joe Franklin Myers candy creations, Dallas. il Sales Management 56:44-6 Je 15 '46
Hard to get; Blum's San Francisco confectionery. Fortune 34:175 O '46
L is for Loft; it ties the package to the store. il plan Mod Packaging 19:92-5 N '45
Research reveals merchandising is keystone of profits for jobbers. P. P. Gott. il Sales Management 56:107-8+ Ap 15 '46
Seasonal trends in the candy business. S. Caldor. Dom Comm 34:21-2 Mr '46
Sweetness and light; outlook for the candy industry. F. Smith. il Adv & Sell 39:33-4+ F '46

Advertising
Candy makers, fettered by sugar ration, expand '46 advertising, merchandising. Ptr Ink 214:127+ Ja 18 '46
National campaigns for brand acceptance scheduled by bar candy newcomers. W. H. Davis. Ptr Ink 216:109+ S 27 '46

Statistics
1945 candy production shows slight decline. Food Ind 18:1238+ Ag '46

CANNABINOL
Marihuana activity of cannabinol. S. Loewe. bibliog Science 102:615 D 14 '45

CANNED fish
Demand for Canadian canned fish mounts. For Comm W 22:11+ F 9 '46
Fish for Gianninis; Transamerica corp.'s newest venture. il Bsns W p56+ Mr 30 '46
Salmon canning; Libby, McNeill and Libby's own story. il Food Ind 18:856-9 Je '46

CANNED food
Australian production of canned fruit. For Comm W 23:39 My 25 '46
Better base plate for better food cans. B. S. Clark and K. W. Brighton. il Mod Packaging 19:148-52+ Mr '46
Bright outlook seen for canned foods industry. N. Simon. Comm & Fin Chr 163:2651 My 16 '46
Canning industry prospects for 1946. E. P. Hawk. Dom Comm 34:28-9 F '46
Chile's production of canned fruits. For Comm W 23:43 My 18 '46
Frozen in cans. Bsns W p80+ O 19 '46
Grand Rapids test; dehydrated foods accepted by 2 out of 3. J. C. Moore. il Mod Packaging 19:138-40 F '46
How to make canned ham and sweet potatoes. W. W. Bailey. il Food Ind 18:678-80+ My '46
Nutritive value of canned foods; comparison of vitamin values obtained by different methods of assay. N. B. Guerrant, M. G. Vavich and O. B. Fardig. bibliog Ind & Eng Chem Anal ed 17:710-13 N '45
Nutritive value of canned foods; factors affecting ascorbic acid content of canned grapefruit and orange juices. F. C. Lamb. bibliog Ind & Eng Chem 38:860-4 Ag '46
Nutritive value of canned foods; influence of temperature and time of storage on vitamin contents. N. B. Guerrant, M. G. Vavich and R. A. Dutcher. bibliog Ind & Eng Chem 37:1240-3 D '45
Protective chemical treatment for tinplate. R. Kerr. Soc Chem Ind J 65:101-4 Ap '46
Rough handling affects spoilage of canned food. C. L. Smith. Food Ind 18:522-3 Ap '46
To a record pack. Bsns W p21-2 Jl 13 '46
Undercooling retards freezing of canned foods; data sheets. Food Ind 18:513-17, 866-9, 1034-7, 1370-7 Ap, Je-Jl, S '46

See also
Canned fish
Canned meal
Canneries
Canning and preserving
Tin cans

CANNED food—*Continued*

Advertising

What is the real cost of Spam advertising? H. H. Haupt. Adv & Sell 39:57-8+ Jl '46

Standards

Canners and distributors agree on voluntary standards for labels. il Sales Management 55:44 N 15 '45

Food marketing co-op sets policies for selling Your Certified brand. D. Paulhamus. il Sales Management 56:44+ Ja 15 '46

Grade labelers go national; canned fruits and vegetables, produced under continuous government inspection. Bsns W p86+ N 10 '45

New consistometer measures corn consistency; useful for pancake batter, apple sauce and preserves. M. C. Adams and E. L. Birdsall. il Food Ind 18:844-6+ Je '46

Pack-coding avoids grief; code mark should be changed to indicate every change in processing and in quality or origin of the raw materials. M. Mergentime. il Food Ind 18:1014-15+ Jl '46

Statistics

Canned fruit and vegetable juices; total annual supplies and shipments of packers, importers, wholesale distributors, and chain store warehouses; prewar average and 1945-46 forecast; chart. For Comm W 21:29 D 8 '45

Canned fruits; total annual supplies and shipments of packers, importers, wholesale distributors; and chain store warehouses; pre-war average and 1945-46 forecast; chart. For Comm W 21:29 D 29 '45

Canned nonseasonal vegetables; total annual supplies and shipments of packers, importers, wholesale distributors, and chain store warehouses; pre-war average and 1945-46 forecast; chart. For Comm W 21:26 D 1 '45

Canned seasonal vegetables; total annual supplies and shipments of packers, importers, wholesale distributors, and chain store warehouses, prewar average and 1945-1946 forecast; chart. For Comm W 21:29 D 15 '45

Storage

Nutritive value of canned foods; influence of temperature and time of storage on vitamin contents. N. B. Guerrant, M. G. Vavich and R. A. Dutcher. bibliog Ind & Eng Chem 37:1240-3 D '45

See also
Canned meat—Storage

CANNED goods

Advertising

Continental Can campaign resells brewers on beer in tins. il Sales Management 55:46+ D 1 '45

CANNED meat

Canned meat for baby. Bsns W p84 Je 8 '46

How to make canned hamburgers. W. W. Bailey. il plan Food Ind 17:1294-8+ N '45

Storage

Damage by freezing to canned meat products containing carbohydrates. B. W. Gardner, jr. diags Food Ind 18:192-5+ F '46

Vitamin retention in processed meat; effect of storage. J. F. Feaster and others. bibliog Ind & Eng Chem 38:87-90 Ja '46

CANNERIES

Custom canning idea proves popular; Merwyn H. Riggins. Bsns W p34 S 21 '46

Florida citrus canners cooperative expands. il Manuf Rec 115:114+ Ja '46

Salmon canning; Libby, McNeill and Libby's own story. il Food Ind 18:856-9 Je '46

Systematic sampling pays in controlling filling weights; use in can-filling weight control; Shewhart charts. H. P. Goode and G. I. Dundas. il Food Ind 17:1468-70 D '45

See also
Water supply for canneries

Cleaning

Cleaning problems. C. W. Bohrer. Food Ind 18:522 Ap '46

Electric equipment

Evaporated milk; new processing and canning factory. il Elec R (Lond) 139:207-10 Ag 9 '46

Employees

A.F.L. wins Coast victory in California cannery elections. Bsns W p84-6 S 7 '46

Canners rebel; California packers sign contract with teamsters. Bsns W p96-8 Ap 6 '46

Cannery strike; northern California packers. Bsns W p88+ Mr 9 '46

Canning to music. F. C. McPeak. Personnel J 25:145-7 O '46

West coast labor conflict may bring canners serious losses. Food Ind 18:541 Ap '46

Equipment

Conveyors in the food industries; can-handling conveyors. il plan Mech Handling 33: 282-7 My '46

Utilization of cooling towers in the food industries. E. Simons. bibliog il diags Food Ind 18:1360-4+ S '46

See also
Consistometers

Layout

How to make canned hamburgers. W. W. Bailey. il plan Food Ind 17:1294-8+ N '45

Lighting

Illumination studies. H. K. Wilder. Food Ind 18:521 Ap '46

Waste

Beet cannery wastes; abstract. E. A. Marshall. Water & Sewage Works 93:325-6 Ag '46

Disposal of canner wastes. N. H. Sanborn. Food Ind 18:521 Ap '46

Disposal of solid and liquid waste materials, by-product recovery in fruit and vegetable plants; abstract. N. H. Sanborn. Chem & Eng N 24:1060 Ap 25 '46

Drying citrus cannery wastes and disposing of effluents. J. L. Heid. bibliog flow chart il Food Ind 17:1479-83 D '45

Research in the design of lagoons has been stimulated by developments in the use of chemicals for processing waste. H. R. Murdock. Ind & Eng Chem 37:sup97-8 D '45

Use of sodium nitrate in treating cannery wastes; abstract. L. F. Warrick and T. T. Wisniewski. Pub Works 76:48+ D '45

CANNERS association, National. See National canners association

CANNING and preserving

Canning drinking water; container and processing problems. W. J. Mutschler. flow sheet il Food Ind 18:1351-3 S '46

Canning technological advances. Food Ind 18:520-4 Ap '46

How to make canned ham and sweet potatoes. W. W. Bailey. il Food Ind 18:678-80+ My '46

Stored frozen stock produces better preserves. H. H. Thompson and others. bibliog il Food Ind 18:1341-3+ S '46

Undercooling retards freezing of canned foods; data sheets. Food Ind 18:513-17, 866-9, 1034-7, 1370-1 Ap, Je-Jl, S '46

See also
Blanching
Canned food
Canneries
Tin cans

CANNING factories. See Canneries

CANNON, Walter Bradford, 1871-1945

Sketch. C. K. Drinker. Science 102:470-2 N 9 '45

CANOES, Plastic

Molded collapsible canoe; Linkanoe. il Mod Plastics 23:142-3 Ap '46

CANS

Corrosion performance of blackplate in cans. W. B. Adams and D. Dickenson. Iron Age 156:59 N 15 '45

Fibre can and its peacetime prospects. D. G. Magill. il Mod Packaging 19:122-5+ N '45

Middleton squares; distinctive tobacco tins. il Mod Packaging 20:96-8 O '46

Tinless beer can; Crown can co. Bsns W p42+ F 16 '46

See also
Paint cans
Tin cans

CANS—*Continued*

Manufacture

Continuously anodized aluminum strip for cans. Iron Age 157:55 Je 20 '46

Testing

Vacuveyor unit for detecting leaky cans; vacuum-testing machine. il Comp Air Mag 51:47 F '46

CANSO strait bridge. See Bridges—Nova Scotia

CANTEENS, Industrial. See Lunchrooms and cafeterias, Employees'

CANTIENY boiler. See Boilers, Water tube

CANTILEVER bridges. See Bridges, Cantilever

CANVAS. See Duck (textile)

CANVAS dams. See Dams, Temporary

CANVASSING

Abandons door-to-door selling in favor of dealers; Eureka vacuum cleaners. F. LaClave. il Ptr Ink 215:68+ My 10 '46

Eureka reinstates the dealers. Bsns W p42+ Ag 31 '46

See also

Fuller brush company

CAPACITORS. See Condensers (electricity)

CAPE BRETON island

Bridge over the strait of Canso. C. P. Disney. il plan diags Roads & Bridges 84:57-63+ O '46

CAPE COD, Massachusetts

Cape Cod cranberries. il Fortune 34:144-9 O '46

CAPETOWN, South Africa

Harbor

Drydock construction at Cape Town. C. M. J. W. Kohler. il diag Eng N 136:859-62 My 30 '46

Sturrock graving dock. D. E. Paterson. il Engineer 181:122-4, 144-5 F 8-15 '46

Water supply

Cleaning a large water main. G. H. Lunt. Pub Works 76:38+ N '45

CAPILLARIES

Capillary tube heat exchangers. R. H. Swart. diags Refrig Eng 52:221-4+ S '46

Laboratory preparation of thin-walled plastic capillaries. R. K. Ness. R Sci Instr 17:344 S '46

Rapid-filling capillary polarimeter tube. D. Smith and S. A. Ehrhardt. Ind & Eng Chem Anal ed 18:81 Ja '46

Two-phase, two component flow in the viscous region. R. C. Martinelli, J. A. Putnam and R. W. Lockhart. diag Am Inst Chem Eng Trans 42:681-702; Discussion. 702-5 Ag '46

CAPILLARITY

Data on rate of capillary rise. E. J. LeGrand and W. A. Rense. J Ap Phys 16:843-6 D '45

Liquid rise in a capillary tube. W. E. Brittin. bibliog J Ap Phys 17:37-44 Ja '46

CAPITAL

Banks as a term credit source; small business aid provided under new plans. R. G. Holste. Credit & Fin Management 48:15-16 My '46

Borrowing control and guarantees bill inquisition. Economist 150:465 Mr 23 '46

Bureaucratic investment control; Control of investment bill. A. M. Sakolski. Comm & Fin Chr 163:829+ F 14 '46

Capital building programs. J. Durand. il Mag of Wall St 78:587+, 647, 705, 767; 79:39 Ag 17-O 12 '46

Capital flotations in the United States during the month of Dec. and for the twelve months of the calendar year 1945. Comm & Fin Chr 163:504-5+ Ja 28 '46

Changed capital position of business. J. I. Bogen. Comm & Fin Chr 162:2881+ D 13 '45

Changing trends in investment returns; with ratios of earnings on invested capital by representative industries and companies. W. Gates. Mag of Wall St 77:316-18+ D 22 '45

Consolidated equity invested capital. J. R. Hellerstein. J Account 80:456-64 D '45

Controlled investment in Britain. F. B. Makin. Barron's 26:14 Mr 11 '46

Dutch continue investment control. P. Lieftinck. Comm & Fin Chr 164:212 Jl 11 '46

Eight ways to raise money. C. Davidson. Am Bsns 16:34+ Mr '46; Same cond. Management R 35:244-6 Je '46

Government-guaranteed loans to British industry; Control of investment bill. P. Einzig. Comm & Fin Chr 163:517+ Ja 31 '46

Great demand for investment and venture capital. W. Gates. Mag of Wall St 77:382-3+ Ja 5 '46

Has war increased investment capital? A. M. Sakolski. Comm & Fin Chr 163:5+ Ja 3 '46

How foreign investors should be treated; League of nations publication makes recommendations to countries that seek import of capital. Comm & Fin Chr 163:2787+ My 23 '46

Interest rates and capital formation. H. G. Moulton. Comm & Fin Chr 163:3212+ Je 13 '46

Nature of corporate capital. R. Wixon. bibliog J Account 82:214-20 S '46

New capital issues in Great Britain, 1937-1945. Comm & Fin Chr 163:702 F 4 '46

New capital issues in Great Britain, 1939-date. Comm & Fin Chr 163:2489 My 6 '46

Plant and equipment expenditures of United States business. I. Friend and L. J. Paradiso. Survey of Cur Bsns 26:17-19 Ja '46

Postwar demand for capital surprisingly large, New York Federal reserve bank states. Comm & Fin Chr 164:1273 S 5 '46

Post-war financing and national distribution of securities. F. J. Porter. Comm & Fin Chr 162:2451+ N 22 '45

Post-war securities and capital markets. G. Purcell. Comm & Fin Chr 162:2449+ N 22 '45

Problem of development capital. R. E. Flanders. Comm & Fin Chr 162:2576+ N 29 '45

Reputed shortage of credit found not to exist. J. Hirsch. Barron's 26:3 O 21 '46

Sources of business funds; selected statistics, 1930-44. C. C. Abbott. R Econ Stat 28:135-45 Ag '46

Status of the capital market. M. Nadler. Comm & Fin Chr 164:1928+ O 17 '46

Supplementary methods of financing to provide working capital; inventory financing and accounts-receivable financing. R. L. Gordon. J Account 81:471-5 Je '46

Terms and working capital; effect of turnover on operating funds. E. V. Kidd. Credit & Fin Management 48:11-12+ Mr '46

Unplanned investment; Investment control and guarantees bill. Economist 150:123-4, 221-2, 384 Ja 26, F 9, Mr 9 '46

Why rising corporate demand for working capital. J. D. C. Weldon. Mag of Wall St 78:561-3+ Ag 17 '46

Working capital for a small business. W. A. Howell. Mag of Wall St 77:595 F 16 '45

Year's capital issues, with comparisons for other years. Economist 150:74 Ja 12 '46

See also

Corporations—Finance
Dividends
Interest
Investments
Profit
Wealth

CAPITAL gains tax. See Income tax—Capital gains tax

CAPITAL goods industries. See Equipment industries

CAPITAL levy

Denmark and capital levy. J. Lyons. Mag of Wall St 78:25+ Ap 13 '46

CAPITALISM

American capitalism vs. Russian communism. C. A. Peters, comp. Ref Shelf v 18, no 7:1-305 bibliog(p289-305) H. W. Wilson co. '46 ($1.25)

Capitalism and 5th column menace. G. E. Jackson. Comm & Fin Chr 164:199+ Jl 11 '46

Capitalism in decade ahead. E. A. Johnston. Comm & Fin Chr 163:2504+ My 9 '46; Excerpts. Trusts & Estates 82:554 Je '46

Capitalism, its promise and problems. P. G. Hoffman. Comm & Fin Chr 164:1802-5 O 10 '46

CAPITALISM—*Continued*
Expert witnesses; employee can testify to benefits of corporate enterprise. Trusts & Estates 82:269-73 Mr '46
Free enterprise system. H. G. Moulton. Comm & Fin Chr 164:1930+ O 17 '46
How the enterprise system can be saved. S. O. Dunn. Ry Age 120:277-80 F 2 '46
Hundred and forty million partners; trend toward more central government and less individual freedom. W. E. Spahr. Comm & Fin Chr 163:830+ F 14 '46
If you want to keep free enterprise, advertise its benefits! il Trusts & Estates 82:365-71 Ap '46
Labor union status and capitalism's future. E. C. Griffith. Comm & Fin Chr 163:3473+ Je 27 '46
Labor's cause. Fortune 34:2-4 N '46
Nationalization vs free enterprise. F. I. Kent. Comm & Fin Chr 164:1798+ O 10 '46; Excerpts. Pub Util 38:671-3 N 21 '46
Our free capitalistic economy. P. G. Hoffman. Comm & Fin Chr 163:3057+ Je 6 '46
Private enterprise system threatened. O. Ely. Pub Util 37:299-300 F 28 '46
Renovated capitalism. M. V. Jones. J Bsns 18 pt2:1-60 O '45
Say it with advertising; why the story of American enterprise must be told; abstracts. D. Belding. Trusts & Estates 82: 469-71 My '46; Pub Util 37:787-91 Je 6 '46
Speak up, or be shut up; roll call of American leaders urges business to tell its story. Trusts & Estates 82:445-8 My '46
Survival of free enterprise. P. G. Hoffman. Harvard Bsns R 25 no 1:21-7 [O] '46
Three is a company; public benefits from corporate enterprise. il map Trusts & Estates 82:147-50 F '46
Wanted, pioneers in human relations; goals of American workman attainable only under continued capitalism. P. G. Hoffman. Comm & Fin Chr 164:1989+ O 17 '46

CAPITOLS
Prize-winning design for proposed legislative palace, Ecuador. il Arch Rec 100:10 O '46
See also
United States—Capitol

CAPRIC acid
Monomethyldecoic acids. C. V. Wilson. bibliog Am Chem Soc J 67:2161-2 D '45
Properties of freshly formed surfaces; influence of temperature and concentration on the dynamic and static surface tensions of aqueous decoic acid solutions. C. C. Addison. Chem Soc J p579-85 Jl '46

CAPRYLATES
See also
Hexanolamine caprylate

CAPRYLIC acid
Radiochemical changes in some fatty acids. R. E. Honig. Science 104:27-8 Jl 12 '46

CAR. See Cars

CAR cards. See Advertising cards

CAR cleaning
Motor-driven car washer cuts cost. il Elec World 126:132+ O 12 '46

CAR cooling
Passenger coaches featuring new details in air conditioning put in service by New York Central. Heat & Ven 43:114 O '46
Railroad air conditioning. J. A. Bucy. il Refrig Eng 50:525-7 D '45

CAR couplings
Report of the Committee on couplers and draft gears; A.A.R. Mechanical division. Ry Age 121:276-8 Ag 17 '46; Same, with diags. Ry Mech Eng 120:460-3 S '46

CAR curtains
Pratt window curtain. il Ry Age 119:900 D 1 '45

CAR department officers' association
Annual meeting, Chicago, Sept. 4-6. Ry Mech Eng 120.541-55 O '46

CAR doors
Door lock and hinge combination. il Ry Age 121:520 S 28 '46

CAR dumpers
Wagon tipplers. il diags Mech Handling 33: 102-6, 159-62, 334-7 F-Mr, Je '46

CAR floats. See Train ferries

CAR heating
Sleeping car heat regulators. il Ry Age 120: 1276 Je 29 '46

CAR inspection
Terminal conditioning of passenger cars; inspection and maintenance. Ry Mech Eng 120:260-3 My '46

CAR lavatories
One aspect of coach modernization; washrooms may be improved. R. D. Stott. il Ry Age 121:470-1+ S 21 '46

CAR lighting
A.c. power for passenger cars; Norfolk & Western. diag Ry Mech Eng 120:321 Je '46
Electrically lighted cabooses for the Alaska railroad. il diags Ry Mech Eng 120:517-18 O '46
Fluorescent lighting for cars. W. W. Garstang. il Ry Age 119:854-5 N 24 '45; Same. Ry Mech Eng 119:608-9 D '45
Fluorescent lighting in London underground. il Light & Lighting 39:51-2 Mr '46
Is 15 footcandles the upper limit for passenger cars? H. L. Logan. diag Ry Mech Eng 120:276-8 My '46
Light for passenger cars. il diag Ry Age 120:239-41 Ja 26 '46; Same. Ry Mech Eng 120:93-4 F '46
Lighting of passenger cars; relative merits of fluorescent and incandescent lighting. A. J. Manson. diags Ry Mech Eng 120: 370-2, 427-9 Jl-Ag '46
Plastics for railway car lighting. L. Schepmoes. il Ry Age 121:176-7 Ag 3 '46
Railroad car lighting. il Mod Plastics 23:97-8 Mr '46

CAR load. See Freight car service—Car load

CAR painting and finishing
Paint spraying car exteriors and interiors. il Ry Mech Eng 120:357 Jl '46
Painting freight cars; Car department officers' association report. Ry Mech Eng 120: 546-8 O '46
Portable exhaust unit for removing paint fumes from passenger cars. il Ry Mech Eng 120:131 Mr '46

CAR retarders
Concrete supports for car retarders. il Ry Age 120:569 Mr 16 '46

CAR sanitation
See also
Car lavatories

CAR seats
Heywood-Wakefield coach seats. il Ry Age 120:407 F 23 '46

CAR shops
Improving car shop facilities; Delaware & Hudson. il Ry Mech Eng 119:580-4 D '45
See also
Car wheels

Equipment

Car-side riveting position. il Ry Mech Eng 119:604-5 D '45
Device for reaming underframe. il Ry Mech Eng 119:600 D '45
Illinois Central car shop devices. il Ry Mech Eng 120:20-3 Ja '46
New jib crane helps in car shop. il diags Ry Mech Eng 120:314-15 Je '46

CAR springs
Air springs proposed for railroad cars. il Comp Air Mag 51:278 O '46
Long-travel springs on Great Northern box cars. il Ry Mech Eng 120:192 Ap '46
Passenger-car air springs tested. il Ry Age 121:183 Ag 3 '46

CAR trucks
American steel foundries color-sound moving picture; demonstrate type A-3 Ride control freight-car trucks. il Ry Age 121: 417 S 7 '46
Barber stabilized truck. il diag Ry Age 121: 59 Jl 13 '46; Ry Mech Eng 120:432 Ag '46
High-speed truck development. V. L. Green. Ry Mech Eng 120:122 Mr '46
Scullin freight car truck. il Ry Age 121:185 Ag 3 '46

CAR trucks—*Continued*
Snub-up snubber for freight car trucks. il Ry Mech Eng 120:280 My '46; Same. Ry Age 120:1143-4 Je 8 '46
Symington-Gould high speed freight car truck. il Ry Age 121:768 N 9 '46

CAR wheels
Baltimore & Ohio Glenwood wheel shop. il layout plans Ry Mech Eng 120:389-93+ Ag '46
Car wheel grinder has increased capacity. il Ry Mech Eng 119:614 D '45
Handling freight-car wheel changes. P. P. Barthelemy. il diag Ry Mech Eng 120:310-13, 354-5 Je-Jl '46
Markham wheel shop on the Illinois Central. F. J. Holsinger. Ry Mech Eng 119:601-2 D '45
Progress report on the effect of the ratio of wheel diameter to wheel load on extent of rail damage. N. J. Alleman. il Ill U Eng Exp Sta Reprint Ser 33:1-19 '45 (pa 15c)
Report of the Committee on wheels; A.A.R. Mechanical division. Ry Age 121:275-6 Ag 17 '46; Same. Ry Mech Eng 120:473-5 S '46
Wheel shop centralization; report of Car department officers' association. layout plan diag Ry Mech Eng 120:542-4 O '46
Wheel shop practices. F. J. Holsinger. il plan Ry Mech Eng 120:204-9 Ap '46

Failure

Thermal stresses in wrought-steel wheels. R. L. Kenyon. il diags Ry Mech Eng 120: 400-5 Ag '46

Manufacture

Automatic-cycle rough and finish boring of railroad car wheels; Snyder special-purpose machine. il Steel 118:100 Ap 22 '46
Boring is speeded; Pullman-Standard rotates tool instead of work. il Bsns W p57 Ag 31 '46
Railworthy wheel-making at Armco's Butler steel plant. il Steel 119:106-8+ Jl 15 '46
Transfer-table millpress bores car wheels ten times faster. il Am Mach 90:124 S 26 '46

Testing

Thermal stresses in wrought-steel wheels. R. L. Kenyon. il diags Ry Mech Eng 120:400-5 Ag '46

CARACAS, Venezuela

Architecture

Caracas, Venezuela: Avila hotel; views and floor plans. Arch Forum 84:113-16 Je '46

Water supply

South America's biggest water supply job. E. J. Cleary. il map Eng N 136:297-301 F 21 '46

CARAWAY seed
Netherlands now shipping caraway seed to this country. For Comm W 25:27 O 12 '46

CARBALKOXYTHIOPHANONE
Carbalkoxythiophanones. E. E. Moore and M. B. Moore. Am Chem Soc J 68:910 My '46

CARBAMYL fluoride
Preparation of carbamyl fluorides by the action of anhydrous hydrogen fluoride on *iso*cyanates. G. D. Buckley, H. A. Piggott and A. J. E. Welch. Chem Soc J p864-5 D '45

CARBAZOLE
Dehydrogenation of tetrahydrocarbazoles by chloranil. B. M. Barclay and N. Campbell. Chem Soc J p530-3 Ag '45

CARBETHOXY compounds
Quaternary ammonium salts as germicides; acetoxy and carbethoxy derivatives of aliphatic quaternary ammonium salts. R. S. Shelton and others. Am Chem Soc J 68:755-7 My '46

CARBETHOXYLATION
Acylation and carbethoxylation of nitriles in the presence of sodium amide. R. Levine and C. R. Hauser. bibliog Am Chem Soc J 68:760-1 My '46
Carbethoxylation of ethyl phenylacetate and ethyl α-phenyl-*n*-butyrate using sodium amide. H. G. Walker, jr. and others. bibliog Am Chem Soc J 68:672-3 Ap '46

CARBIDE cutting tools. See Cutting tools; Carbide

CARBIDES
Carbide dies receiving wider use. il diags Product Eng 17:138 O '46
Cemented carbides make die materials. B. C. Brosheer. diags Am Mach 90:101-5 S 12 '46
Cemented carbides used for other purposes than cutting tools. K. R. Beardslee. il diags Mach 52:150-6 Ag '46
Effect of undissolved carbides on hardenability. R. J. Hafsten. bibliog il Steel 119: 112+ Ag 19 '46
French processes for hard alloys and carbides. W. G. Cass. Chem & Eng N 24:2840-2 O 25 '46
German carbide-cored projectiles. il Iron Age 157:57 Ap 18 '46
Hard carbides find non-cutting uses. P. M. McKenna. diags Am Mach 90:117-20 Ag 15 '46
Metal forming with carbide dies. E. Glen. il Materials & Methods 24:423 Ag '46
What cemented carbides offer the designer. R. K. Lotz. il diags Machine Design 18: 135-8+ Je '46
Young's modulus for cemented carbides Min & Met 27:517 O '46

See also
Boron carbide
Calcium carbide
Cutting tools, Carbide
International carbide syndicate
Iron carbide
Kennametal
Tungsten carbide

Analysis

Determination of nitrogen in refractory metal carbides and their compositions; solution and distillation method. J. C. Redmond, L. Gerst and W. O. Touhey. diag Ind & Eng Chem Anal ed 18:24-6 Ja '46

CARBINOLS
Cyclization of di- and triaryl carbinols; contribution to the mechanism of cyclization reactions. F. Bergmann and S. Israelashwili. bibliog Am Chem Soc J 68:1-5 Ja '46
Formation of tetraarylethylenes from diarylcarbinols. F. Bergmann and S. Israelashvili. bibliog Am Chem Soc J 68:354-6 Mr '46
Kinetics of anionotropic rearrangement; substituent effects in the oxotropic formation of the vinylacetylene system. E. A. Braude and E. R. H. Jones. Chem Soc J p122-7 F '46
Researches on acetylenic compounds; the hydration of some acetylenylcarbinols derived from αβ-unsaturated aldehydes. I. M. Heilbron and others. Chem Soc J p54-8 Ja '46
Researches on acetylenic compounds; the preparation of acetylenic ketones by oxidation of acetylenic carbinols and glycols. K. Bowden and others. Chem Soc J p39-45 Ja '46
Some factors influencing the ultraviolet absorption spectra of polynuclear aromatic compounds; the spectra of aryl carbinols and polybenzfluorenes. R. N. Jones. Am Chem Soc J 67:2021-7 N '45
Vinyl aromatic compounds; the vapor phase dehydration of arylmethylcarbinols. D. T. Mowry, M. Renoll and W. F. Huber. bibliog Am Chem Soc J 68:1105-9 Je '46
Willgerodt reaction; acetylenes, olefins, and tertiary carbinols. D. B. Pattison and M. Carmack. bibliog Am Chem Soc J 68:2033-5 O '46

CARBITOL
Solid esters of cellosolves and carbitols. D. C. O'Donnell and R. J. Carey. Am Chem Soc J 68:1865 S '46

CARBOCYANINE
Color and constitution; absorption of unsymmetrical carbocyanines. L. G. S. Brooker, R. H. Sprague and H. W. J. Cressman. Am Chem Soc J 67:1889-93 N '45

CARBOHYDRATES
Allyl ethers of carbohydrates; ethers of glucose and galactose. E. A. Talley, M. D. Vale and E. Yanovsky. bibliog Am Chem Soc J 67:2037-9 N '45
Allyl ethers of carbohydrates; preparation and polymerization of β-methallyl ethers. P. L. Nichols, jr., A. N. Wrigley and E. Yanovsky. bibliog Am Chem Soc J 68: 2020-2 O '46

CARBOHYDRATES—*Continued*
Carbohydrate C-nitroalcohols; 1-nitro-l-desoxy-D-α-glucoheptitol and a 2,6-anhydro-1-nitro-l-desoxyheptitol. J. C. Sowden and H. O. L. Fischer. bibliog Am Chem Soc J 68:1511-13 Ag '46
Carbohydrate phosphoric esters; the alkaline hydrolysis of α-methylglucopyranoside-6-phosphate, methylglucofuranoside-3-phosphates and iso-propylidene glucofuranose-3- and -6-phosphates. E. E. Percival and E. G. V. Percival. Chem Soc J p874-6 D '45
Cyclic acetals and ethers of the carbohydrates; abstract. Can Chem & Process Ind 30:46 Je '46
Damage by freezing to canned meat products containing carbohydrates. B. W. Gardner, jr. diags Food Ind 18:192-5+ F '46
Lead tetraacetate in carbohydrate research; abstract. R. C. Hockett. Can Chem & Process Ind 29:870 D '45
Some derivatives of simple carbohydrates containing unsaturated substituents. W. N. Haworth, Mrs H. Gregory and L. F. Wiggins. Chem Soc J p488-91 Je '46

Analysis

Qualitative test for carbohydrate material. R. Dreywood. Ind & Eng Chem Anal ed 18:499 Ag '46

CARBOLOY. See Tungsten carbide

CARBON
Amorphous carbon. J. Gibson, M. Holohan and H. L. Riley. Chem Soc J p456-61, pl 1-2 Je '46
Bond hybridization in the non-tetrahedral carbon atom. J. E. Kilpatrick and R. Spitzer. bibliog J Chem Phys 14:463-4 Jl '46
Carbon absorption of 18-8 stainless steel used for aircraft exhaust manifolds. W. G. Hubbell. il Iron Age 157:56-9 Je 20 '46
Carbon-hydrogen ratio of catalytically cracked distillate fuel oils. S. P. Cauley and E. B. Delgass. bibliog Oil & Gas J 45:166-9 Jl 27 '46
Filmless sample mounting for the electron microscope. J. H. L. Watson. il J Ap Phys 17:121-7 F '46
High energy carbon nuclei. C. Tobias and E. Segrè. Phys R 70:89 Jl 1 '46
Hysteresis in the physical adsorption of nitrogen on bone char and other adsorbents. L. F. Gleysteen and V. R. Deitz. bibliog J Res Nat Bur Stand 35:285-307 O '45
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance. I. Dostrovsky and E. D. Hughes. Chem Soc J p157-94 Mr '46
Porous carbon electrodes; wicking electrodes for utilization of insoluble liquid depolarizers; reduction of nitrobenzene. N. M. Winslow. bibliog diags Electrochem Soc Trans 88 (preprint 16):175-88 '45
Reactivity with alkali of chlorine-carbon bonds alpha, beta and gamma to silicon. L. H. Sommer and others. Am Chem Soc J 68:488-9 Mr '46
Removal of carbon from hot caustic solution. A. J. Luettgen, K. S. Whisler and H. D. Bauman. il Ind & Eng Chem 38:832-4 Ag '46
Theory of the non-tetrahedral carbon atom. G. H. Duffey. J Chem Phys 14:342-3 My '46

See also
Bone black
Carbon black
Coal
Coke
Diamonds
Graphite
Petroleum coke

Analysis

Determination of free carbon in butyl reclaim by modified A.S.T.M. method. J. E. McCready and H. H. Thompson. Ind & Eng Chem Anal ed 18:522 Ag '46
Radioactive studies; analytical method for determination of long-life carbon C^{14}. F. C. Henriques, jr. and C. Margnetti. bibliog diag Ind & Eng Chem Anal ed 18:417-19 Jl '46
Rapid method of determining minute quantities of carbon in metals. J. K. Stanley and T. D. Yensen. bibliog il diag Ind & Eng Chem Anal ed 17:699-702 N '45
Study of Millin technique for determination of carbon and hydrogen in coal. R. J. Grace and A. W. Gauger. bibliog il diag Ind & Eng Chem Anal ed 18:563-5 S '46

Isotopes

Atmospheric helium three and radiocarbon from cosmic radiation. W. F. Libby. bibliog Phys R 69:671-2 Je 1 '46
Carbon 13 output multiplied. il diag Chem & Eng N 24:488-9 F 25 '46
Chemical forms assumed by C^{14} produced by neutron irradiation of nitrogenous substances. P. E. Yankwich and others. bibliog J Chem Phys 14:131-40 Mr '46
Half-life of C^{14}. A. F. Reid and others. Phys R 70:431 S 1 '46
Medical isotope; carbon 13 will be available to research organizations. Bsns W p26+ Ja 12 '46
Radioactive studies; analytical method for determination of long-life carbon C^{14}. F. C. Henriques, jr. and C. Margnetti. bibliog diag Ind & Eng Chem Anal ed 18:417-19 Jl '46
Sun Oil plans to produce carbon 13. Nat Pet N 38:6 Ja 2 '46; Oil & Gas J 44:46 Ja 5 '46
Use of fissionable materials studied by oil companies. Pet Processing 1:94-5 O '46

CARBON, Activated
Activated carbon. W. A. Helbig. J Chem Educ 23:98-102 F '46
Activated silica for winter use of activated carbon; abstract. H. R. Hay. Pub Works 76:53-4 D '45
Active carbon from chlorinated coal. S. Boyk and H. B. Hass. bibliog diags Ind & Eng Chem 38:745-8 Jl '46
Air purification in conditioned railway passenger cars. F. H. Munkelt. il diag Ry Age 121:97-8 Jl 20 '46; Same. Ry Mech Eng 120:345-6 Jl '46
Benzole recovery by active carbon; with cost data. G. W. Robson. Gas J (Lond) 246: 687+ N 14 '45
Binders and base materials for active carbon; functions of sugars, coal tar pitch, anthracite, and cellulose. J. J. Morgan and C. E. Fink. bibliog il diag Ind & Eng Chem 38: 219-28 F '46
Contribution to the study of carbon activated by zinc chloride; abstract. Kandilarow. Chem & Met Eng 52:258 D '45
Dry feeder developed for activated carbon. E. Engstrom. il Chem & Met Eng 52:118 N '45
German process for manufacturing activated charcoal. S. Hormats. Chem & Met Eng 53: 112-14 Je '46
How activated carbon is used by cities in water purification; replies to questionnaire. flow diag Pub Works 77:24-5 S '46
Practical carbon feeder. V. Opie. il diag Water Works & Sewerage 92:373-4 D '45
Recovery of return air with activated carbon. il plans Sheet Metal Worker 36:56+ D '45
Surface area measurements of activated carbons, silica gel and other adsorbents. L. G. Joyner, E. B. Weinberger and C. W. Montgomery. bibliog Am Chem Soc J 67:2182-8 D '45

CARBON, Structural
Carbon brick for digester linings in sulphate mills. E. F. Tucker and L. C. Werking. bibliog il diags Paper Ind 28:60-3 Ap '46
Carbon bushes on spraying plant conveyors. F. L. Gray. il Mech Handling 33:72-4 F '46
Carbon for switch gear; abstract. F. Hofmann and L. Weiler. Materials & Methods 22:1486 N '45
Carbon-graphite mechanical parts. F. F. Ruhl. il diag Steel 118:108-10+ My 20 '46
Carbon lining for blast furnaces. F. J. Vosburgh. bibliog il diags Steel 117:86-8+ D 24; 62-3+ D 31 '45
Carbon products in steel plants; abstract. F. Vosburgh. Materials & Methods 24:704 S '46
Development of Karbate materials and their applications. M. R. Hatfield and C. E. Ford. il diags Am Inst Chem Eng Trans 42:121-46 F '46; Abstract. Chem & Met Eng 53: 262+ Ap '46
Hard chromium plating directly on carbon and graphite. R. S. Herwig. il Materials & Methods 22:1751-3 D '45
Phosphoric acid vs. materials of chemical plant construction; carbon, graphite, karbate. L. C. Werking. Chem Eng 53:210+ S '46

CARBON, Structural—*Continued*
Protecting Karbate tubes in an HCl absorber. L. J. Governale. Chem & Met Eng 53:145 My '46
Role of refractories in peacetime production; carbon refractories. il Brick & Clay Rec 108:70 Ja '46

CARBON black
Acetylene black in butyl rubber. R. H. Hall. Can Chem & Process Ind 29:858-60 D '45
Acetylene black in rubber. G. Benson. bibliog il Rubber Age 58:461-5 Ja '46
Alkylphenol sulfides as vulcanizing agents. G. M. Wolf and others. bibliog Ind & Eng Chem 38:1157-66 N '46
Carbon black export trade seen declining. Oil Paint & Drug Rep 150:7+ Ag 26 '46
Carbon black in war and peace. L. H. Cohan. il diags Chem & Eng N 23:2078-85+ bibliog(111 references, p2084-5+) N 25 '45
Carbon-black industry strains to meet requirements for rubber. F. R. Staley. il diags Oil & Gas J 44:86-8+ Mr 9 '46
Colloidal carbon. W. H. Cadman. Engineering 162:54-5, 76-7 Jl 19-26 '46; Excerpts. Chem Age (Lond) 54:661-2 Je 15 '46
Columbian Carbon vs. United Carbon; a comparative audit. S. Devlin. il Mag of Wall St 78:29-31+ Ap 13 '46
Compounding charts for systems of natural rubber, GR-S, reclaim, Naftolen MV, and MPC black. F. Rostler and K. Rostler. India Rubber World 114:509-14+ Jl '46
Electrical conductivity measurements of carbon black. G. Benson and others. diag Electrochem Soc Trans 90 (preprint 22): 293-8 '46
For carbon black; widening market seen. Bsns W p32 Mr 16 '46
More about carbon black. Chem Age (Lond) 55:31-2 Jl 13 '46
Role of carbon in oxidation of GR-S vulcanizates. H. Winn, J. R. Shelton and D. Turnbull. bibliog Ind & Eng Chem 38:1052-6 O '46

See also
Bone black

Manufacture

Carbon black; history of art of manufacturing carbon pigments; and of the development of the channel, thermal, and furnace processes. W. L. Loving. Pet Eng 17:176+ N '45
Carbon blacks; their manufacture and use in industry. A. Speedy. bibliog Chem & Ind p354-8 S 28 '46
Germany made acetylene and carbon black by cracking natural gas in electric arc. E. S. Pettyjohn. il diags Nat Pet N 38 pt 2:R596+ Ag 7 '46
Mechanical processing of carbon blacks; resultant effects in GR-S compounds. R. E. Dobbin and R. P. Rossman. bibliog il diags Ind & Eng Chem 38:1145-8 N '46
Separation and chemical utilization of coal gas constituents. N. Booth. Gas J (Lond) 248:440 S 11 '46
Simplified flow diagrams; furnace black process. W. L. Nelson. Oil & Gas J 45:108 My 11 '46
Simplified flow diagrams; thermal black processes. W. L. Nelson. flow diag Oil & Gas J 45:95 Je 8 '46
Use of gas for carbon black. E. M. Eckhart and I. Williams. il India Rubber World 114:376-9 Je '46

Statistics

Carbon black output, 1944 and 1945. Oil Paint & Drug Rep 149:74 Je 24 '46
Carbon black production and sales, 1944-1945. Chem & Met Eng 53:294+ Jl '46

Transportation

Bulk handling of SRF pellets from car to Banbury accomplished. il Rubber Age 60: 83 O '46

CARBON black, Substitutes for
Carbon white; fumed silica made from sand, alcohol. Bsns W p41 My 11 '46
Silica soot unlikely to replace carbon black. Nat Pet N 38 pt 2:R569 Ag 7 '46
Silica white as rubber aid. Chem & Eng N 24:1570 Je 10 '46

CARBON compounds
Rearrangements in compounds of carbon, silicon, germanium and tin containing halogens, isocyanate and thiocyanate. G. S. Forbes and H. H. Anderson. bibliog Am Chem Soc J 67:1911-14 N '45

See also
Hydrocarbons

CARBON dioxide
Aqueous solutions of alcohols as confining liquids for gas analysis; solubility of carbon dioxide. K. A. Kobe and G. E. Mason. Ind & Eng Chem Anal ed 18:78-9 Ja '46
Carbon dioxide as an essential factor in the bacterial decomposition of cellulose. A. S. Perlin and M. Michaelis. Science 103:673 My 31 '46
Carbon dioxide in a natural gas-condensate system. F. H. Poettmann and D. L. Katz. diag Ind & Eng Chem 38:530-4 My '46
Equilibrium of iron-carbon alloys with mixtures of CO-CO_2 and CH_4-H_2. R. P. Smith. bibliog Am Chem Soc J 68:1163-75 Jl '46
Gas permeability; an isostatic test method. D. W. Davis. il diags Mod Packaging 19: 145-9+ My '46
Heat-capacity lag in gas dynamics. A. Kantrowitz. bibliog diags J Chem Phys 14:150-64 Mr '46
Isostatic method for determining the gas permeability of sheet materials. D. W. Davis. bibliog il diags Paper Tr J 123:33-40 Ag 29 '46; Same cond. Mod Packaging 19: 145-9+ My '46
Midget life saver; carbon-dioxide life belt. il Comp Air Mag 51:166 Je '46
Network analyzer tests of equivalent circuits of vibrating polyatomic molecules. G. K. Carter and G. Kron. diags J Chem Phys 14:32-4 Ja '46
Polarographic reduction of carbon dioxide; description and interpretation of the waves. P. Van Rysselberghe, G. J. Alkire and J. M. McGee. Am Chem Soc J 68:2050-5 O '46
Polarographic reduction of carbon dioxide; polymerization and adsorption at the dropping mercury cathode. P. Van Rysselberghe. bibliog Am Chem Soc J 68:2047-9 O '46
Simple carbon dioxide vapor pressure thermometer. H. C. Andersen. diag R Sci Instr 17:112-13 Mr '46
Synthesis of methanol from carbon dioxide and hydrogen over copper-alumina catalysts; mechanism of reaction. V. N. Ipatieff and G. S. Monroe. Am Chem Soc J 67: 2168-71 D '45
Tests to determine qualities of amine; investigation of cyclohexylamine for controlling CO_2 corrosion in condensate return lines. M. Gelfand. Power Pl Eng 49:82-3+ O '45
Thermodynamic properties of gases. R. L. Sweigert, P. Weber and R. L. Allen. bibliog Ind & Eng Chem 38:185-200 F '46; Excerpt. Refrig Eng 51:460+ My '46
Variable path ultrasonic interferometer for the four megacycle region with some measurements on air, CO_2, and H_2. J. L. Stewart. bibliog diags R Sci Instr 17:59-65 F '46

Analysis

Set for direct CO_2 and oxygen analysis. il Blast F & Steel Pl 34:407 Mr '46
Simultaneous determination of hydrogen sulfide and carbon dioxide in a continuous gas stream. C. L. Blohm and F. C. Riesenfeld. bibliog diag Ind & Eng Chem Anal ed 18: 373-6 Je '46

Industrial applications

Carbon dioxide is suitable agent to fight textile fires. F. B. Allen. il Textile World 95:104-5 D '45
Low-pressure fire-extinguishing system. il Engineer 180:413-15 N 23 '45

See also
Fire extinguishers,
Carbon dioxide

CARBON dioxide, Liquid
Piping carbon dioxide for fire protection. W. W. Voss. il diags Heating-Piping 18:73-9 Ap '46

Transportation

Pipe line for liquid carbon dioxide eliminates handling, shipping problems. il Heating-Piping 18:96 Ag '46

CARBON dioxide, Solid
Dry ice rifle to be offered. il Bsns W p55-6 Je 15 '46
Dry ice rifle; weapon uses carbon dioxide as propellant. Heat & Ven 43:92 Jl '46
Low temperatures at low cost; testing electronic parts. H. N. Brown. il diag Franklin Inst J 240:487-95 D '45
Mexico is developing dry ice industry. il Chem Eng 53:186+ S '46
Portable container used for shipment of frozen food. J. V. Ziemba. il Food Ind 18: 1358-9+ S '46

Manufacture
Solid CO_2 industry thrives on improved production methods. G. T. Reich. diags Chem & Met Eng 53:120-3 Ja '46

CARBON dioxide fire extinguishers. See Fire extinguishers, Carbon dioxide

CARBON disulfide
Oxidative ring closure in the Friedel-Crafts reaction; condensation of aromatic acid chlorides with naphthalene derivatives. G. D. Buckley. Chem Soc J p564-6 S '45
Oxidative ring closure in the Friedel-Crafts reaction; condensation of β-naphthoyl chloride with α-methylnaphthalene. G. D. Buckley. Chem Soc J p561-4 S '45
Studies in the detoxication of catalyst poisons; detoxication of carbon disulphide. E. B. Maxted and A. Marsden. Chem Soc J p23-5 Ja '46

CARBON monoxide
Digest of United States patents on hydrogenation of hydrocarbons and carbon monoxide. H. Heinemann, comp. Pet Refiner 25:168+ Ja '46
Dissociation energies of CO, N_2, NO, and CN. J. G. Valatin. J Chem Phys 14:568 S '46
Equilibrium of iron-carbon alloys with mixtures of CO-CO_2 and CH_4-H_2. R. P. Smith. bibliog Am Chem Soc J 68:1163-75 Jl '46
New band system in the green excited in a mixture of xenon and oxygen and the energy of dissociation of CO. C. Kenty and others. il Phys R 69:36 Ja 1 '46
Synthesis of free formic acid from carbon monoxide and water. H. Pichler and H. Buffleb. bibliog Chem Age (Lond) 53:463-8 N 17 '45

CARBON monoxide poisoning
Sneak killer. F. S. Rossiter. il Nat Safety N 52:22-3+ N '45

CARBON oxysulfide. See Carbonyl sulfide

CARBON paper
For her highness, the secretary; new convenience in carbon paper boxes. il Mod Packaging 19:166-7 Mr '46

Manufacture
Carbon paper; improved materials, better formulations. A. B. Olsen. il Chem Ind 59:70-1 Jl '46

CARBON tetrabromide
Addition of carbon tetrabromide and bromoform to olefins. M. S. Kharasch, E. V. Jensen and W. H. Urry. Am Chem Soc J 68: 154-5 Ja '46

CARBON tetrachloride
Carbon tetrachloride as a safety solvent. Safety Eng 92:63 Ag '46
Determination of the boiling range of chlorinated hydrocarbons. D. Williams. Ind & Eng Chem Anal ed 18:157-60 Mr '46
Fine structures in Raman spectra. D. H. Rank and J. A. Van Horn. bibliog diags Opt Soc Am J 36:454-9 Ag '46
Kinetics of halogen addition to unsaturated compounds; bromine addition in carbon tetrachloride, chlorobenzene, and chloroform. P. B. D. de la Mare, R. A. Scott and P. W. Robertson. Chem Soc J p509-12 Ag '45
Solvents in the paint industry; chlorinated hydrocarbons. R. B. Pollak. bibliog Paint Oil & Chem R 109:12+ Ap 4 '46
Studies on phosphorylation; the reaction of dialkyl phosphites with polyhalogen compounds in presence of bases; a new method for the phosphorylation of amines. F. R. Atherton, H. T. Openshaw and A. R. Todd. Chem Soc J p660-3 O '45
Vapor-liquid equilibrium; carbon tetrachloride-methanol mixtures. G. Scatchard, S. E. Wood and J. M. Mochel. bibliog Am Chem Soc J 68:1960-3 O '46

Analysis
Determination of chlorinated hydrocarbon vapors in air. R. W. Schayer and H. H. Ackerman. diag J Ind Hygiene 28:237-40 S '46
Observations on the Fujiwara reaction as a test for chlorinated hydrocarbons. F. J. Webb and others. bibliog J Ind Hygiene 27:249-55 N '45

CARBON tetrachloride poisoning
Carbon tetrachloride hazards. V. E. Ready. Safety Eng 91:75-7 Ja '46
Carbon tetrachloride hazards; abstract. Nat Safety N 52:106+ O '45
Carbon tetrachloride; use in broaching operations; health hazard. R. H. Avery and L. Davis. Nat Safety N 52:89+ O '45
Effect of methionine supplements on hepatic injury produced by carbon tetrachloride. V. A. Drill and T. A. Loomis. bibliog Science 103:199-201 F 15 '46
Experimental evaluation of methionine in the therapy of liver injury from carbon tetrachloride. C. B. Shaffer and others. bibliog J Ind Hygiene 28:87-93 My '46
Thymol-barbitone test in clinical practice. C. P. McCord and others. bibliog Ind Med 14:835-9 N '45

CARBON white. See Carbon black, Substitutes for

CARBONATED waters
Property of certain calcium silicates to impart supersaturation of $CaCO_3$ to carbonated water extractions. W. H. MacIntire and W. M. Shaw. bibliog Science 104: 3-4 Jl 5 '46

CARBONATES
Microscopic characters of vein carbonates. F. F. Grout. bibliog(142 references) 16pls Econ Geol 41:475-502 Ag '46
Pupil project with carbonates. C. H. Stone. J Chem Educ 22:596-7 D '45

CARBONATION
Proportion of ester anion and amide from esters and sodium amide; carbonation of esters; synthesis of malonic acid derivatives. C. R. Hauser, R. Levine and R. F. Kibler. bibliog Am Chem Soc J 68:26-9 Ja '46

CARBONIC anhydrase
Plant carbonic anhydrase. R. Day and J. Franklin bibliog Science 104:363-5 O 18 '46

CARBONYL chlorofluoride
Carbonyl chlorofluoride. J. H. Simons, D. F. Herman and W. H. Pearlson. Am Chem Soc J 68:1672-3 Ag '46

CARBONYL compounds
Absorption spectra of some 2,4-dinitrophenylhydrazones. J. D. Roberts and C. Green. bibliog Am Chem Soc J 68:214-16 F '46
Action of alkaline reagents upon carbonyl bridge compounds. C. F. H. Allen, J. E. Jones and J. A. VanAllan. bibliog Am Chem Soc J 68:708-10 Ap '46
Carbonyl bridge compounds and related substances. C. F. H. Allen. bibliog(97 references) Chem R 37:209-68 O '45
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of solvents and catalysts. C. E. Dalgliesh and F. G. Mann. Chem Soc J p910-13 D '45
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of substituent groups in the thionaphthenquinones. C. E. Dalgliesh and F. G. Mann. Chem Soc J p893-909 D '45
Studies in light absorption; 2 : 4-dinitrophenylhydrazones. E. A. Braude and E. R. H. Jones. Chem Soc J p498-503 Ag '45
Studies in the polyene series; condensations between methyl propargyl ether and αβ-unsaturated carbonyl compounds. I. M. Heilbron, E. R. H. Jones and R. N. Lacey. Chem Soc J p27-30 Ja '46

See also
Iron carbonyl
Nickel carbonyl

CARBONYL group
Comparative estimations of carbonyl and carboxyl groups in chromium trioxide and hypochlorous acid oxycelluloses and oxyxylans. B. Meesook and C. B. Purves. bibliog Paper Tr J 123:35-42 O 31 '46

CARBONYL sulfide
Resolution of a rotational line of the OCS molecule and its Stark effect. T. W. Dakin and others. il Phys R 70:560 O 1 '46

CARBORUNDUM company
Carborundum, one name for the family. il Mod Packaging 19:120-3 Je '46

CARBOSTYRIL
Antimalarials; 7-chloro-4-hydroxy- and 4,7-dichloro-1-methylcarbostyrils. R. E. Lutz and others. bibliog Am Chem Soc J 68:1810-12 S '46

CARBOWAX compounds
Dipole moment of carbowax 4000. W. J. Svirbely and J. J. Lander. bibliog Am Chem Soc J 67:2189-90 D '45

CARBOXY compounds
Carboxy derivatives of sulfonamidothiazoles. J. M. Sprague, R. M. Lincoln and C. Ziegler. bibliog Am Chem Soc J 68:266-9 F '46

CARBOXYL group
Comparative estimations of carbonyl and carboxyl groups in chromium trioxide and hypochlorous acid oxycelluloses and oxyxylans. B. Meesook and C. B. Purves. bibliog Paper Tr J 123:35-42 O 31 '46
Decarboxylation of nitro substituted 3-carboxy-4-quinolinols by pyrolysis of their silver salts. R. H. Baker and others. Am Chem Soc J 68:1267 Jl '46
Structure of benzene; limitations of the decarboxylation method for preparing partly deuterated benzenes. L. H. P. Weldon and C. L. Wilson. Chem Soc J p244-5 Ap '46

CARBOXYLATION
Researches on acetylenic compounds; αβ-acetylenic hydroxy-acids. L. J. Haynes and E. R. H. Jones. Chem Soc J p503-6 Je '46

CARBOXYLIC acids
Action of sulfuric acid on tertiary carboxylic acids. E. Campaigne and C. M. Suter. bibliog Am Chem Soc J 68:880-2 My '46
1-Arylcyclohexanecarboxylic acids. M. Rubin and H. Wishinsky. Am Chem Soc J 68:828-32 My '46
Preparation of 5-methoxybenzene-1,2,3-tricarboxylic acid. A. L. Wilds and C. Djerassi. Am Chem Soc J 68:1862-4 S '46
Reactions of alkyl*iso*formanilides; with carboxylic acids, sulphonic acids, and sulphonamides. E. B. Knott. Chem Soc J p686-9 O '45
Stokes' law and the limiting conductance of organic ions. E. Gonick. diag J Phys Chem 50:291-300 Jl '46

CARBOXYMETHYL cellulose
Carboxymethyl cellulose, a new use for chemical pulps. Pulp & Pa of Can 47:87-8 Ag '46
Improved drilling muds containing carboxymethylcellulose. H. H. Kaveler. Pet Eng (Ref annual) 17:93-4+ Jl 1 '46; Same abr. Oil & Gas J 45:81-2+ Jl 6 '46
Raw materials for the paint industry; abstract. W. S. Penn. Paint Oil & Chem R 109:32 Je 27 '46

CARBOYS
How a combined hoist, carriage and tipper was built for acid carboys. L. K. Arnold. il diags Chem & Met Eng 53:115 Ap '46

CARBURETERS
Construction and operation of new injection carburetor. il diags Aviation 44:153-7 D '45
How to service and maintain the Marvel-Schebler carburetor. il diags Aviation 45: 80-3 My '46
Injection carburetor for light aircraft. il diag Product Eng 17:368 My '46

Repair

Metering the mixture at Dinner Key: Pan American's accessory shop. W. Frey. il Air Transport 4:31-3 S '46

CARBURETERS (gas works)
O'Keeffe carbon burning lining for carbureters used in heavy oil process. W. E. Lebo. diags Am Gas Assn Mo 27:553-9 D '45
Results obtained with the tangential generator-carburetter connection. G. L. Bixby. Am Gas Assn Mo 27:511+ N '45

CARBURIZATION. See Case hardening

CARBURIZING furnaces. See Furnaces, Carburizing

CARD catalogs. See Catalogs, Card

CARD system in business
Adequate customer records an aid to sales management. F. M. Geddes. Elec World 124: 68-9 D 22 '45
Control system for drawings and specifications. J. T. Gleick. Western Soc E J 50: 177-8 D '45
Records put sales facts to work; visible-card sales record system, Solventol Chemical Products. R. G. French. il Am Bsns 16:16-17+ S '46
Sales and quotas at a glance; Maremont automotive products' new visible sales analysis system. P. Eastman. il Am Bsns 16:18-19 Ap '46
Test status of meters shown by simple coding of cards. R. J. McKnight. il Elec World 126:128 S 14 '46

See also
Punched card system

CARDIAZOLE. See Metrazole

CARDING
Carding of jute determines yarn quality. S. A. G. Caldwell. Textile World 96:133+ O '46

CARDING machines
Brown and sons synchronous drive for carding machines. il diags Engineering 161:368 Ap 19 '46
Can grinding be standardized? symposium. L. Fogel and others. il Textile World 96: 116-17+ Je '46
New drives to carding machines. il Mech Handling 33:237-8 Ap '46

CARDING of cotton. See Cotton carding

CARDING of wool. See Wool carding

CARDOL
Relation of hypersensitiveness of poison ivy and to the pure ingredients in cashew nut shell liquid and related substances. H. Keil and others. bibliog Ind Med 14:825-30 N '45

CARDS
Wear in cellulose nitrate playing cards. il Mod Plastics 23:99 Jl '46

Rating

Playing cards. Consumers Res Bul 17:23-5 Je '46

CARDS, Business. See Business cards

CAREY, William Francis, 1878-
From an editor's notebook. por Eng N 135: 839 D 20 '45

CARGILL, inc.
Cargill, inc., sues; charges Chicago board of trade with antitrust violation. Bsns W p57-8 Je 1 '46

CARGO handling
Cargo handling; relation to overseas commerce; with discussion of costs and economics. A. C. Rohn. il plans Marine Eng 50:149-58; Discussion. 174-6+ D '45

See also
Airplanes, Freight
Freight handling
Loading and unloading—Airplanes
Loading and unloading—Ships
Stowage
Winches, Electric

CARGO ships. See Freight ships

CARIBBEAN region
Plans for broad-gage, vital betterments in Caribbean economies. C. W. Taussig. For Comm W 24:21 S 21 '46

CARIBBEAN research council
Organization of the Caribbean research council. Science 103:452-3 Ap 12 '46

CARILLONS
Aluminum and music; aluminum chimes; abstract. F. Hone. Materials & Methods 24: 958 O '46
How electropneumatic chime ringing started. Comp Air Mag 51:57 Mr '46

CARLSBAD, New Mexico

Sewerage

Sewage treatment history and difficulties at Carlsbad. E. A. Roberts. flow diag il Pub Works 77:27-8 Ag '46

CARLSBAD caverns
Algae in the Carlsbad caverns, New Mexico. W. B. Lang. Science 103:175-6 F 8 '46

CARLYSLE, Mae W.
Personalities in industrial advertising. por Ind Marketing 31:78 Ag '46

CARMELL, Daniel D.
Labor power; appointment as a Keeshin trustee. por Bsns W p79 Ap 13 '46

CARNALLITE
Salts cored successfully with oil field equipment; carnallite, sylvite and halite deposit, Utah. C. L. Severy. il diag Eng & Min J 147:85-7 Ag '46

CARNAUBA wax
Carnauba substitute production to be promoted in Germany. Oil Paint & Drug Rep 148:3 D 31 '45
Synthetic carnauba. Bsns W p72 Ja 12 '46

CARNEGIE institute of technology

Printing endowment fund
Carnegie printing endowment. Inland Ptr 116:88 F '46

CARNIVALS, Traveling
How to meter carnivals. il diags Elec World 126:72 Ag 31 '46

CARNOT, Nicolas Léonard Sadi, 1796-1832
Commémoration du 150e anniversaire de la naissance de Sadi-Carnot (1796-1832), fondateur de la thermodynamique. M. C. Monteil. Génie Civil 123:210 Ag 1 '46
Nicolas-Léonard-Sadi Carnot. A. K. Bruce. Engineering 161:160 F 15 '46

CAROA
Development of paper from caroa fiber. R. C. Sproull. il Paper Tr J 120:127-8 Je 21 '45; 123:142+ O 10 '46

CAROB beans
Alkali resistant locust bean gum-thickener; patent. Am Dyestuff Rep 35:460 S 23 '46

CAROLINA bays
Age of Jerome bog, a Carolina bay. M. F. Buell. bibliog Science 103:14-15 Ja 4 '46

CAROLINE islands
Coral reefs in the Gilbert, Marshall, and Caroline islands. L. E. Nugent, jr. bibliog maps Geol Soc Bul 57:735-79, pl 1-2 Ag '46

CAROTENE
Carotene loss in stored leaf meals and extracts. M. E. Wall and E. G. Kelley. bibliog Ind & Eng Chem 38:215-18 F '46
Chemical conversion of β-carotene into vitamin-A. R. F. Hunter and N. E. Williams. Chem Soc J p554-6 S '45
Effect of storage on carotene of plant extracts. A. R. Kemmerer and G. S. Fraps. bibliog Ind & Eng Chem 38:457-8 Ap '46
Stability of carotene at elevated and room temperatures; abstract. E. Bickoff and K. T. Williams. Food Ind 18:776+ My '46
Vitamin retention in blanched carrots; alcohol-insoluble solids as a reference base. F. A. Lee. bibliog Ind & Eng Chem Anal ed 17:719-20 N '45

Analysis
Availability of carotene from kale. E. Orent-Keiles and others. Science 103:498-9 Ap 26 '46
Chromatographic estimation of vitamin A in mixed feeds. M. L. Cooley, J. B. Christiansen and C. H. Schroeder. bibliog Ind & Eng Chem Anal ed 17:689-92 N '45
Determination of total beta-carotene in sweet potatoes and sweet potato products; improved method; extraction, purification, and spectrophotometric measurement. R. T. O'Connor, D. C. Heinzelman and M. E. Jefferson. bibliog(30 references) Ind & Eng Chem Anal ed 18:557-62 S '46
Ratio of carotene to carotenoid pigments in sweet-potato varieties. B. D. Ezell and M. S. Wilcox. bibliog Science 103:193-4 F 15 '46

CAROTENOIDS
Apparent antagonism between vitamin A and carotenoids in the fowl. M. Rubin and H. R. Bird. bibliog Science 103:584-6 My 10 '46
Indispensable leaf yellow. H. H. Strain. bibliog diags J Chem Educ 23:262-7 Je '46
Phytofluene; isolation from canned tomato paste. I. Zechmeister and A. Sandoval. bibliog Am Chem Soc J 68:197-201 F '46
Twenty years and onwards. I. M. Heilbron. Chem & Eng N 24:1035-9 Ap 25 '46

Analysis
Determination of carotenoids and lipid amine-aldehyde products in dehydrated egg. H. J. Dutton and B. G. Edwards. bibliog Ind & Eng Chem Anal ed 18:38-41 Ja '46
Ratio of carotene to carotenoid pigments in sweet-potato varieties. B. D. Ezell and M. S. Wilcox. bibliog Science 103:193-4 F 15 '46

Nomenclature
Nomenclature of carotenoid pigments. Chem & Eng N 24:1235 My 10 '46

CAROTHERS, Wallace Hume, 1896-1937
Nylon research laboratory dedicated. Rayon 27:522 O '46

CAROTHERS research laboratory. See Du Pont de Nemours, E. I., and company

CARPATHIAN mountains
See also
Geology—Carpathian Mountain region

CARPENTERS and joiners of America, United brotherhood of. See United brotherhood of carpenters and joiners of America

CARPENTRY

Study and teaching
Skilled help for construction; apprentice training program at Atlanta. C. Griffin and H. M. Crawford. il Eng N 137:426-8 O 3 '46

CARPET factories

Employees
Mill prepared in advance for return of its handicapped veterans; Alexander Smith & sons carpet co. J. C. Samuel. il Textile World 96:133+ F '46

CARPET sweepers
Carpet sweepers. il Consumers Res Bul 17:20-3 Mr '46

CARPETS
Buying by color; manufacturers of carpets promote merchandising of nine basic color groups. Bsns W p79 Ja 19 '46
Hundreds of firms pool efforts to take confusion out of color. il Sales Management 56:51+ F 1 '46
Standardized color card of home furnishings branch; aid in sale of textiles for the home. il Textile World 95:121 D '45
See also
Rugs

Manufacture
Carpet manufacture; Brussels, Wilton and Axminster carpets. W. J. Hopkins. pl diags Textile Inst J 37:P61-71 Ap '46
Carpets can be knitted at high production rate. diags Textile World 96:150+ Ag '46

CARRIER corporation
Preferred stock sold. Comm & Fin Chr 163: 648 F 4 '46

CARRIER current control
Analysis and selection of supervisory control. R. B. Pollock and A. A. Straub. il diag Elec World 126:112-13 S 28 '46
Application of power-line carrier. R. C. Cheek. il diags Power Pl Eng 49:76-81 N '45
Automatic OS reporting of trains by electronics on the Rock Island. il Ry Age 120: 666-7 Mr 30 '46
Carrier supervisory control of pumping station over power cable; starch plant of United States sugar corporation. W. A. Derr and others. il diags Elec Eng 65:Trans 699-705 N '46
Control of street lighting; Rythmatic system. il Engineer 182:343-4 O 18 '46; Electrician 137:929-30 O 4 '46
Phase-comparison carrier-current relaying. A. J. McConnell and others. il diags Elec Eng 64:Trans 825-33 D '45
Plug-in fire call system for superimposed current control system. S. A. Daines. il diag Elec R (Lond) 139:585-6 O 11 '46
Radio and carrier controls for C.T.C. on Pennsylvania; use in emergencies. diags Ry Age 121:600-2 O 12 '46
Remote control by high-frequency currents. Engineering 162:163 Ag 16 '46; Abstract. Elec R (Lond) 139:211 Ag 9 '46

CARRIER current control—*Continued*
Remote record-selection system. F. M. Berry. il diags Electronics 19:104-6 Je '46
Remote switching by superimposed currents. J. L. Carr. bibliog diags Inst E E J 91 pt 2:535-42 D '44; Discussion. 91 pt 2:542-7; 92 pt 2:610-17 D '44, D '45
Ripple control; standardisation discussed at I.E.E. meeting. Electrician 135:633-4 D 7 '45; Inst E E J 93 pt 1:145 Mr '46
Sensitive ground relay protection for complex distribution circuits. L. F. Hunt. diags Elec Eng 65:Trans 765-8 N '46
Supervisory control of 30,000-kva hydroelectric plant. C. W. Bohner and A. P. Maness. il map plan diag Elec Eng 65:Trans 337-42 Je '46
Train position indicator. E. A. Dahl. il diags Electronics 19:122-4 O '46

CARRIER current telegraph. See Telegraph, Carrier current

CARRIER current telephone. See Telephone, Carrier current

CARRIERS
Wage rates and relative economy and fitness in the transportation industry. D. H. Mater. J Bsns 18:183-208 O '45
See also
Air carriers
Airlines
Demurrage
Electric railroads
Freight and freightage
Freight car service
Gas, Natural—Pipe lines
Motor bus lines
Motor trucks—Laws and regulations
Petroleum pipe lines
Pipe lines
Railroads
Shipping
Steamboat lines

CARROTS
Freezing point data sheets and cooling curves. Food Ind 18:866 Je '46

Analysis
Nutritive value of canned foods; comparison of vitamin values obtained by different methods of assay. N. B. Guerrant, M. G. Vavich and O. B. Fardig. bibliog Ind & Eng Chem Anal ed 17:710-13 N '45
Vitamin retention in blanched carrots; alcohol-insoluble solids as a reference base. F. A. Lee. bibliog Ind & Eng Chem Anal ed 17:719-20 N '45

CARROTS, Dried
Now, quick dehydration; Birdseye method. E. S. Stateler. flow diag il Food Ind 17:1450-2+ D '45
Radio-frequency dielectric properties of dehydrated carrots; application to moisture determination by electrical methods. W. C. Dunlap, jr. and B. Makower. bibliog diag J Phys Chem 49:601-22 N '45

CARRY, Champ, 1896-
New president of Pullman-Standard car mfg. co. por(cover) Bsns W p8 Je 15 '46

CARRY-BACKS. See Tax refunds

CARS
Can passenger traffic be held? Ry Age 120: 681 Mr 30 '46
Coaches for the L.M.S. railway royal train. il Engineering 162:204, 212-13 Ag 30 '46; Engineer 182:186 Ag 30 '46
German development of locomotives and cars. Ry Mech Eng 120:184-5+ Ap '46
L.M.S. corridor third-class coaches. il Engineer 182:308 O 4 '46
More passenger trains ahead. C. B. Peck. il Ry Age 120:17-18 Ja 5 '46
New passenger cars promised for railroads; abstract. A. M. Unger. Steel 117:69 D 24 '45
Old passenger cars; retire or rebuild? discussion by committee of engineers, maintenance men, car builders and manufacturers. Ry Age 121:723-6 N 2 '46
Over $100,000,000 being spent for cars. il Ry Age 119:824-30 N 17 '45
Passenger cars, 1946 models. A. W. Clarke. Ry Mech Eng 120:5-6+ Ja '46; Same cond. Ry Age 120:147-8 Ja 12 '46; Excerpts. Blast F & Steel Pl 33:1542-3 D '45; Discussion. Ry Mech Eng 120:65-7+ F '46
Progress in railway mechanical engineering, 1944-1945. il diag Mech Eng 68:119-22 F '46
Railroads of tomorrow; illustrations with text. Diesel Power 24:195-8 F '46
Reynolds directs newly designed freight and passenger car equipment. diags Iron Age 156:114 N 22 '45
Rolling through Michigan; Pere Marquettes attract much attention. il Ry Age 121:396-402 S 7 '46
Third-class coach, London Midland and Scottish railway. Engineering 160:544 D 28 '45
Wanted: rail cars. Bsns W p29-30+ Je 15 '46
Where do we go from here? accommodations for the post-war traveler. il Ry Age 119: 781-8 N 17 '45
See also
Air brakes
Car cooling and other headings beginning car
Dining cars
Freight cars
Kitchen cars
Mine cars
Motor cars (railroad)
Refrigerator cars
Sleeping cars
Tank cars
also Car department officers' association

Air conditioning
Air purification in conditioned railway passenger cars. F. H. Munkelt. il diag Ry Age 121:97-8 Jl 20 '46; Same. Ry Mech Eng 120:345-6 Jl '46
Centrifugal filters for passenger cars. Ry Mech Eng 120:95 F '46
Passenger car auxiliaries. H. H. Hanft. il diag Ry Mech Eng 120:90-2 F '46
Pure air in rail cars. Sci Am 175:224 N '46
See also
Car cooling
Car heating

Bearings
Future for the standard journal box? Ry Mech Eng 120:416-18 Ag '46
Improving railway-bar bearings; abstract. S. J. Needs. Machine Design 18:180 My '46
Journal alarm system designed to detect an overheated journal box. il Ry Age 121: 180 Ag 3 '46
Journal box to increase the life of spherical roller bearings on cars, locomotives, tenders or trailers. il Ry Age 121:186 Ag 3 '46
Magnus journal-box devices. il Ry Age 121: 690 O 26 '46
New York Central develops hot-box alarm. il Ry Age 120:504-6 Mr 9 '46; Same. diags Ry Mech Eng 120:186-8+ Ap '46
Report of the Journal-bearing development committee, A.A.R. Mechanical division. Ry Age 121:263-4 Ag 17 '46; Same. Ry Mech Eng 120:470-2 S '46
Robot packing retainer. il Ry Mech Eng 120:324 Je '46; Ry Age 120:1144 Je 8 '46
Tests of oil-film journal bearings for railroad cars. S. J. Needs. il A S M E Trans 68:337-48 bibliog(p348); Discussion. 349-53 My '46

Design
Design considerations for railway passenger cars. E. J. W. Ragsdale. Ry Mech Eng 120: 111-12+ Mr '46
Designing passenger cars and airplanes. E. J. W. Ragsdale. Ry Age 120:542-4 Mr 16 '46; Same. Ry Mech Eng 120:111-12+ Mr '46
Glamor for railways; glass-doomed, double-deck Pullmans. il Arch Forum 83:11 N '45
Many innovations expected in new passenger car designs. il plan diag Ry Age 119:795-801 N 17 '45
Symposium on passenger car design; A.S.M.E. forum. Ry Age 120:147-52 Ja 12 '46

Electric equipment
A.c. power for passenger cars; Norfolk & Western. diag Ry Mech Eng 120:321 Je '46

Equipment
Angle bracket for L-3 triple valve. T. Birch. il Ry Mech Eng 120:131 Mr '46
Passenger car auxiliaries. H. H. Hanft. il diag Ry Mech Eng 120:90-2 F '46
See also
Car curtains
Car wheels

Lavatories
See Car lavatories

Lighting
See Car lighting

CARS—*Continued*

Lubrication

Improving railway-bar bearings; abstract. S. J. Needs. Machine Design 18:180 My '46
Report of Lubrication committee; A.A.R. Mechanical division. Ry Age 121:265-6 Ag 17 '46; Same. Ry Mech Eng 120:472-3 S '46
Report on lubrication practices; Car department officers' association. Ry Mech Eng 120.554-5 O '46

Manufacture

Photoelectric controlled welding; Pullman-Standard car mfg. co. il Steel 119.72 S 30 '46
Quantity production of railroad passenger cars by resistance welding. A. M. Unger. il diags Welding J 25:911-14 O '46

Remodeling

Renovating rail cars with plastics. il Mod Plastics 23:100-1 Je '46

Repair

A.A.R. price clerks. T. E. Hughes. Ry Mech Eng 120:419 Ag '46
Hot journal costs; abstract. P. J. Hogan. Ry Mech Eng 119:602 D '45
Terminal conditioning of passenger cars; inspection and maintenance. Ry Mech Eng 120:260-3 My '46

See also
Car painting and finishing

Seats

See Car seats

Statistics

Railroads order 1,269 passenger cars. A. J. McGinnis. Ry Age 120:93-4+ Ja 5 '46

CARS (automobiles). See Automobiles

CARS, Aluminum

See also
Freight cars, Aluminum

CARS, Caboose

Construction of 100 all-welded cabooses signifies trend to shielded arc methods. A. T. Cox, jr. il Welding J 25:650-1 Jl '46
Electrically lighted cabooses for the Alaska railroad. il diags Ry Mech Eng 120:517-18 O '46

CARS, Electric railroad

Electrification of the Brünig railway. il Engineering 160:514-16, 518 D 21 '45
Experimental car for the Metropolitan line. Engineer 181:159 F 15 '46; diag Engineering 161:116 F 1 '46
Motor coaches for the New Zealand government railways. il Engineer 181:594 Je 28 '46
New French rapid transit car; equipped with rubber tires. M. Victor. Materials & Methods 24:970 O '46

CARS, Freight. See Freight cars

CARS, Inspection

Lightweight railroad inspection car. il diag Product Eng 17:16-17 Ja '46
Measuring efficiency in rail testing; charts show results with detector cars. C. K. Mentz. il Ry Age 121:646-9 O 19 '46

CARS, Instruction

Southern trains its Diesel forces; second instruction car for operating and mechanical personnel goes in service. il plan Ry Age 119:848-52 N 24 '45

CARS, Laboratory

Radio laboratory on the rails. il Diesel Power 24:185-6 F '46

CARS, Steel

Modern steels in railroad construction. H. M. Priest. Welding J 25:646-9 Jl '46

See also
Freight cars, Steel

CARS, Subway

Lighting

See Car lighting

CARTELS. See Trusts, Industrial—International trusts

CARTESIAN diver manostat. See Pressure regulators

CARTHAGE, Texas

Carthage is booming because of natural gas. il Gas Age 96:57 D 13 '45

CARTOONS

Sales training for retailers can be simple, and fun; three booklets of Crosley corp. F. Kammann. il Ptr Ink 215:54+ Je 7 '46

See also
Advertisements, Pictorial—Cartoons
Safety cartoons

CARTRIDGE brass. See Brass

CARVACRYLAMINE

Methylation of carvacrylamine. J. F. R. Kuck and J. V. Karabinos. Am Chem Soc J 68:909-10 My '46

CARVALHO, Bertram N. 1878-1946

Sketch. por Nat Underw 50:13 O 10 '46

CARVER, George Washington, 1864-1943

American scientist. C. W. Wright. bibliog por(pxxiii) J Chem Educ 23:268-70 Je '46

CASE, Francis Higbee, 1896-

Vetoed Case bill is still Case's high bid. por Bsns W p16 Je 15 '46

CASE anti-strike bill. See Strikes—Law

CASE hardening

Barium compounds in carburizing steel. C. L. Harness and F. M. Barsigian. bibliog U S Bur Mines Information Circ 7345:43-6 '46
Carburizing practice in Germany. Metal Prog 49:656+ Mr '46
Carbursintering of iron powders. A. S. Margolies. bibliog il Iron Age 157:60-3 F 28 '46
Characteristics and uses of salt baths. R. C. Stewart. il diag Iron Age 157:46-52 F 14 '46
Chromium-vanadium carburizing steel 6120. F. F. Franklin. il Materials & Methods 23: 1564-6 Je '46
Cold heading die steel; relationship between hardenability and austenitic grain size. A. S. Jameson. bibliog il Steel 118:82-5+ Ja 21 '46
Flame hardening cast iron. R. H. Olmsted. il Foundry 74:152-5+ My '46
Flame-hardening in the small shop. W. B. Sharav. il Welding J 25:19-24 Ja '46
Flame-hardening setup for small machined parts. W. B. Sharav. il Welding J 25:328 Ap '46
Flame-hardening small machined parts. il Iron Age 157:77 F 7 '46; Same. Mach 52: 172-3 F '46
Grinding hardened steel precision gears. E. A. Koether. il Materials & Methods 22:1754-8 D '45
Hardening of high speed tools. T. F. Burch. diag Metal Prog 49:1172 Je '46
Heat treating carburized sintered steel. G. Stern and J. Greenberg. il Iron Age 157: 56-61 Ap 25 '46
Heat treatment of steel gears; abstract. Materials & Methods 22:1846+ D '45
Machine work and flame hardening at Marshall shops. il Ry Mech Eng 120:266-8 My '46
Maximum carbon in carburized cases. J. F. Kahles. Metal Prog 48:1118 N '45
Observations on the impact strength of alloy steels hardened from cyanide baths. S. M. Lenhoff and L. F. Roth. il Metal Prog 49: 960-7 My '46
Rapid case hardening steel; Chapmanizing. il plan Steel 119:100+ N 4 '46
Selective carburizing by the mill scale method. R. B. Seger. il Steel 119:76 Ag 26 '46
Simple setup for small-lot flame-hardening of valve plugs; illustrations with text. R. H. Brooks. Welding J 25:245-6 Mr '46
Spotting soft spots; etching procedure. L. P. Begley. Metal Prog 49:349 F '46
Subzero treatment simplifies hardening of alloy carburizing steels. H. E. Boyer and H. C. Miller. il Materials & Methods 23: 730-4 Mr '46

Electric hardening

Automatic induction hardening of Ford starter ring gears. C. O. Herb. il Mach 53: 166-9 N '46
Dies harden in passing; progressive induction heating with electronic control. J. A. Schaefer. il diags Am Mach 90:101-3 O 10 '46
High intensity induction heating. W. M. Roberds. il diags Steel 118:104-7+ Mr 18 '46

CASE hardening—Electric hardening—*Cont.*
Induction hardening of plain carbon steels; a study of the effect of temperature, composition, and prior structure on the hardness and structure after hardening. D. L. Martin and F. E. Wiley. il Am Soc for Metals Trans 34:351-96 bibliog(p394-6); Discussion. 396-406 '45
Induction hardening of precision steel parts. W. Boyle. il Materials & Methods 23:425-8 F '46
Induction hardening ram tapers on steam hammers. J. C. Hartley. Metal Prog 49:753 Ap '46
Induction hardening speeds up lead-screw production. C. H. Parks and J. Libsch. il Mach 52:179-82 Jl '46
Induction hardening steam hammer piston rods. il Steel 118:121+ Mr 25 '46; Same. Materials & Methods 23:1350 My '46
Induction heat-treatment of internal surfaces as applied to automotive industries. H. E. Somes. il diags S A E J 54:45-54+ F '46
Induction heating applied to steel gears. T. H. Gray. il Materials & Methods 24:915-18 O '46
Induction heating can make money on a job-shop basis. C. Ricker. il diags Am Mach 89:130-3 D 20 '45
Induction heating, economics, applications, etc. E. L. Cady. il Materials & Methods 24: 405-8 Ag '46
Practical aspects of the selection of frequency and time cycles for the processing of metallic parts with induction heating. W. E. Benninghoff and H. B. Osborn, jr. il Am Soc for Metals Trans 34:310-34 bibliog(p334); Discussion. 335-50 '45
Quenching water requirements of induction heated parts; Caterpillar tractor co. B. R. Miller. il Metal Prog 49:750-2 Ap '46; Same. Mech Eng 68.617-18 Jl '46
Selective induction hardening of previously hardened parts. R. C. Gibbons. il Steel 118: 92-3+ My 27 '46
Split induction heating coil hardens shafts, throws and crankshafts. il Am Mach 90:149 Mr 14 '46
Surface hardening of steel by high-frequency current; abstract. R. Casti. Elec World 125: 75 Ja 5 '46
Warpage of mower blades reduced and production increased by induction hardening. il Mach 53:199 N '46

Gas carburizing

Gas carburising. il diags Engineer 181:382-3 Ap 26 '46; Engineering 161:488-9 My 24 '46
Gas carburising. I. Jenkins. il diags Engineering 162:260-4, 285-7 S 13-20 '46
Gas carburizing; developments by the Incandescent heat co. il Automobile Eng 36: 219-20 My '46
Preventing surface decarburization in large shaved transmission gears; controlled furnace atmosphere. E. G. de Coriolis. il diag Iron Age 156:56-61 N 29 '45
Some users' experience with lithium atmospheres for heat treating; with cost data. R. S. Burpo, jr. il diag Materials & Methods 24:622-5 S '46

Nitriding process

Copper plate as a stop-off when nitriding; tests to determine amount required for various finishes. W. V. Sternberger and E. R. Fahy. Metal Prog 48:1311-12 D '45
Electroplates for a stop-off when nitriding. C. J. Miller. Metal Prog 49:783-4 Ap '46
Nitriding engine parts. W. Roth. il Steel 117: 122-3+ N 19 '45
Nitriding of aircraft steels; depth hardness data covering several aircraft steels not commonly considered nitriding grades. P. A. Haythorne. bibliog il Iron Age 157:44-8 Ja 31 '46
Nitriding steel by glow-discharge; abstract. H. Bennek and O. Ruediger. Iron Age 157: 57 Mr 7 '46
Preventing tool galling by nitriding. Steel 117:142 D 10 '45
Relationship between preliminary heat treatment and response to nitriding of some nitriding steels. C. C. Hodgson and H. O. Waring. bibliog Iron & Steel Inst J 151: 55-70. pl 1 no 1 '45
Steels for nitriding. R. S. Burpo, jr. Materials & Methods 22:1461, 1463 N '45

CASE liners. See Containers (for shipping)

CASEIN
Casein industry faces knotty problems to meet paper needs. Paper Tr J 123:18-19 O 17 '46
Casein; its manufacture and applications. G. G. S. Dutton. Chem Age (Lond) 55:383-8 S 28 '46
German casein plastics; little progress in war-time. Chem Age (Lond) 55:376 S 28 '46
Granulocytopenia and anemia in rats fed diets of low casein content. A. Kornberg and others. bibliog Science 103:646-8 My 24 '46
Notes on plastic materials. J. Taylor. Electrician 136:33-4 Ja 4 '46
Proteins as industrial raw materials. A. K. Smith. bibliog il Chem Ind 58:974-7 Je '46
Recent work on casein; research in Switzerland. Chem Age (Lond) 54:521-3 My 11 '46
Vitamin content of casein. M. D. Cannon and others. bibliog Science 102:529-30 N 23 '45
Water absorption of plastics molded from acylated casein. W. G. Gordon, A. E. Brown and C. M. McGrory. bibliog Ind & Eng Chem 38:90-4 Ja '46

CASEY, Walter M.
Casey at the bat, in behalf of salesmanship; tells veterans opportunities in selling. por Sales Management 56:42-3 Mr 15 '46

CASH accounting
Examination of working cash funds. E. W. Carr. J Account 82:136-9 Ag '46
Proposal for simplification of cash accounting in the federal government. F. N. Fine. J Account 80:348-52 N '45
Recording cash receipts. G. M. Carson. Dom Eng 168:106-7+ Ag '46

CASH and carry plan (for dealers)
Aid to retailers; Smart & Final, Los Angeles wholesale food company, expands business. Bsns W p73 O 12 '46
Grocery jobber cuts competitive odds for papa and mama stores; Smart & Final co. J. H. Collins. il Sales Management 57:126+ Jl 1 '46

CASH discount. See Discount, Cash

CASH registers

Manufacture

Copper brazing intricate parts; National cash register co. il Steel 119:108+ N 4 '46

CASHEW nuts
Brazil develops cashew industry. For Comm W 24:27 Ag 10 '46
Cashew nut shell liquid; an application of the Prevost reagent to alkenyl phenols. M. Sletzinger and C. R. Dawson. Am Chem Soc J 68:345 F '46
Cashew shell oil; abstract. J. van Loon. Paint Oil & Chem R 109:40+ My 30 '46
Cashew shell oil for resins. India Rubber World 114:866+ S '46
New uses for cashew shell oil developed in India. Chem & Met Eng 53:196+ Mr '46
Relation of hypersensitiveness to poison ivy and to the pure ingredients in cashew nut shell liquid and related substances. H. Keil and others. bibliog Ind Med 14:825-30 N '45

CASINGHEAD gas. See Gas, Natural

CASINOS
Brazil's wonder hotel and casino. A. J. Boase. il diags Eng N 136:24-8 Ja 10 '46

CASITE
Motor oil dope. Consumers Res Bul 17:14-17 Ap '46

CASKS. See Barrels

CASSAVA
World manioc (cassava) situation. K. Wernimont. il For Comm W 25:8+ O 12 '46

CASSITERITE
Making tin flotation work; Bolivian ores. A. M. Gaudin and others. bibliog flow sheet il diag Eng & Min J 147:54-9 O '46

CAST iron
Abrasion-resistant alloy reduces milling costs; Ni-Hard. K. A. Delonge. il Eng & Min J 147:60-2 O '46
Acicular iron; castings used in Douglas stationary engines. il Automobile Eng 36:171-2 Ap '46

CAST iron—*Continued*
Army industrial college looks at gray iron. Foundry 74:103+ Je '46
Babbitting large cast-iron bearing shells; John Bertram & sons co. L. F. Train. il Iron Age 157:84-5 Ap 4 '46
Birmingham prominent as center for cast iron pipe production. il Manuf Rec 114: 38-9+ N '45
Blackheart iron, an American metal. D. B. Stough. il Dom Comm 34:16+ Mr '46
Castings and weldings. C. D. Gibb. il diags Engineer 181:591-4 Je 28 '46; Same. Engineering 162:84, 93-5 Jl 28 '46
Copper as an alloy in iron and steel. G. K. Manning and P. C. Rosenthal. il Min & Met 26:603-5 D '45
Cromol crankshafts. il diags Automobile Eng 35:537-41 D '45
Developments in gray iron and malleable. G. Vennerholm. il Metal Prog 49:1163-8 Je '46
Ductility and elasticity of white and gray irons; abstract. R. A. Flinn and H. J. Chapin. Iron Age 157:76 Je 6 '46
Economical method of flame-cutting cast iron. il diags Steel 119:115-16 S 16 '46
Flame hardening cast iron. R. H. Olmsted. il Foundry 74:152-5+ My '46
Foundry research at American cast iron pipe co. E. Bremer. il Foundry 74:96-9+ Jl '46
Gas annealing malleable iron; abstract. J. Jenkins and S. V. Williams. Materials & Methods 23:216+ Ja '46
Gaseous annealing whiteheart malleable; abstract. A. G. Robiette. Materials & Methods 22:1528 N '45
Gray iron acceptance broadens. T. Barlow. il Foundry 74:70-5+ Ja '46
Gray iron in war and other national emergencies. W. W. Rose. il Foundry 74:91+ N '46
Gray iron progress through research. H. F. Taylor. Foundry 74:106+ Ap '46
Gray iron sessions; American foundrymen's association. Foundry 74:148+ Jl '46
Gray iron wear resistance; abstract. F. G. Sefing. Materials & Methods 24:958+ O '46
Heat tinting cast iron for microscopic examination; engineering file facts. Materials & Methods 23:1053 Ap '46
Heat treatment and endurance limit of cast iron; abstract. T. E. Eagan. Materials & Methods 23:1358+ My '46
How to select and use cast iron shanks for cutting tools. il Steel 118:90-1+ Ja 14 '46
Malleable industry improves plant facilities. C. H. Lorig. il Foundry 74:92-7+ Ja '46
Microstructure of cast iron; abstract. W. E. Mahin and H. W. Lownie, jr. Materials & Methods 23:1356 My '46
New inoculant for cast iron marketed. il Iron Age 157:123 F 14 '46
Pearlitic malleable cast iron; abstract. R. W. Lindsay and J. E. Atherton, jr. Materials & Methods 22:1824+ D '45
Practical method of selecting the correct type of cast iron. K. R. Geist and W. A. Hambley. il Iron Age 158:64-70 O 17; 58-64 O 24 '46
Residual elements in cast iron; abstract. J. E. Hurst. Metal Prog 49:388+ F '46
Role of casting in engineering production. C. R. Austin. Mach 53:203-7 N '46
Some high nickel alloy irons; seven types of high nickel and nickel copper alloys, known as Ni-Resist. F. G. Sefing. il Product Eng 17:92-6 F '46
Speed and feed selection in carbide milling with respect to production, cost, and accuracy. H. Ernst and M. Field. il diags A S M E Trans 68:207-15 Ap '46
Stability of iron carbide. L. Crome. il Foundry 74:90-1+ S '46
Tinning of cast iron. R. A. Cresswell. il Engineering 161:526-8, 550-1 My 31-Je 7 '46
Tungsten in cast iron; abstract. S. W. Palmer. Engineering 160:340 O 26 '45
Utilize the new high-strength irons. W. L. Nelson. Oil & Gas J 44:105 N 10 '45
Vanadium in cast iron; abstracts. J. W. Grant. Iron Age 156:78 D 13 '45; Engineering 160:518 D 21 '45; Materials & Methods 23:218+ Ja '46
What technical men expect in 1946; casting. Steel 118:334-6+ Ja 7 '46

See also
Chilled iron
Foundry practice
Iron founding
Pig iron
Spiegeleisen

Analysis

Determination of copper in cast iron and steels with quinaldic acid. J. F. Flagg and D. W. Vanas. bibliog Ind & Eng Chem Anal ed 18:436-8 Jl '46

Graphitization

Opinions on graphitization. L. Crome. il Foundry 73:102-3+; 74:98-101+ D '45, Ap '46

Growth

Hotter steam causes turbine parts to grow. il Elec World 124:156 N 10 '45
Reducing cast iron grain growth; Metcolizing. H. J. Nichols. il Steel 119:101+ N 4 '46

History

Who discovered black heart malleable? H. A. Schwartz. Foundry 74:175+ My '46

Specifications

Practical method of specifying cast irons. K. R. Geist and W. A. Hambley. Iron Age 158:46-9 O 31 '46

Testing

Brinell hardness of gray cast iron; its relation to other properties. J. T. MacKenzie. Foundry 74:88-93 O '46
Hot strength of two cast irons. H. K. McGrath. Metal Prog 48:1311 D '45
Preventing gray iron surface roughness. E. V. Somers. il Foundry 74:84-7+ Mr '46
Single-blow impact test for cast iron. A. B. Everest and others. il diags Engineering 161:117-20 F 1 '46; Abstract. Metal Prog 48:1354+ D '45
Some stress-corrosion studies on austenitic cast irons. J. B. Urban and others. diags A S M E Trans 68:633-6 Ag '46; Same. Foundry 74:88-90+ N '46
Test bar data v. casting properties. C. R. Austin. Iron Age 158:70-3 S 26 '46

Welding

Arc welding practice for gray iron castings. il diags Foundry 74:140+ Ag '46
Cast-iron welding. il Elec R (Lond) 138:599-603 Ap 19 '46
Cast iron welding rod; Ni-Rod electrode. il Bus Transportation 25:187-8 Jl '46; Iron Age 157:68 Je 20 '46; Diesel Power 24: 970+ Ag '46; Steel 119:128 S 9 '46
New rod permits machinable cast iron welds. il Iron Age 156:122 N 15 '45
Observations on the appearance welding of malleable castings. H. A. Schwartz and others. il Am Soc T M Proc 45:618-25; Discussion. 625-8 '45
Tips for arc welding gray iron castings. C. E. Phillips. diags Materials & Methods 24: 150 Jl '46

CASTING, Centrifugal
Centrifugal casting aluminum wheels; abstracts. L. Northcott and O. R. J. Lee. Metals & Alloys 22:494 Ag '45; Metal Prog 48:1128 N '45
Centrifugal casting in Germany. J. T. MacKenzie. diags Steel 119:100-1+ O 21 '46; Same abr. Iron Age 158:46-8 Jl 25 '46; Same abr. Mech Eng 68:908-9 O '46
Centrifugal casting of gun tubes; effect on macrostructure. J. A. Clark. il Metal Prog 49:98 Ja '46
Centrifugal casting of steel in wartime Germany. G. W. Briggs. il diags Foundry 74: 96-7+ O '46
Eliminating defects in nonferrous centrifugal castings. N. Janco. diags Foundry 74:94-5+ Jl '46
Foundry research at Watertown arsenal; adoption of centrifugal casting process in gun barrel production. W. G. Gude. il Foundry 73:104-6+ D '45

CASTING, Centrifugal—*Continued*
Influence of centrifugal casting upon the structure and properties of steel. L. Northcott and D. McLean. Iron & Steel Inst J 151:303-16, pl 41-4 no 1 '45; Same. Engineering 159:197-200 Mr 9 '45; Same. Steel 118:94-8+ Ap 29 '46; Excerpt. Engineer 180:65 Jl 27 '45; Abstract. Metal Prog 47: 277+ F '45; Discussion. Iron & Steel Inst J 151:316-28 no 1 '45; Engineering 160:75-6 Jl 27 '45; Engineer 180:65 Jl 27 '45
New complete line of Logan Rotocast hydraulic cylinders. Mech Eng 67:sup41 D '45
Steel castings produced centrifugally; Youngstown alloy casting corp. E. Bremer. il Foundry 74:78-81+ N '46
Welding of propulsion shafting of centrifugally cast steel. H. W. Hiemke and J. C. Blake. il diags Welding J 24:1040-5 N '45; Discussion. J. T. Vann. 25:333-5 Ap '46

CASTING, Precision. See Lost wax process

CASTING machines
Centri-Meco casting machine. il Steel 117: 140+ N 26 '45
Hydraulically operated centrifugal casting machines. il Iron Age 158:48 Jl 25 '46
Permanent mold gray iron castings. E. C. Hoenicke. il Materials & Methods 24:901-4 O '46
See also
Die casting machines

CASTINGS
Casting design; abstract. R. S. Frank. S A E J 54:sup29-30 Ja '46
Castings and weldings. C. D. Gibb. il diags Engineer 181:591-4 Je 28 '46; Same. Engineering 162:84, 93-5 Jl 26 '46
Castings successful in aircraft use. E. K. Smith. Foundry 74:158 Ap '46
Classification and inspection of castings for airplanes. M. A. Melcon. Automotive & Aviation Ind 94:40+ Ap 1 '46
Engineering properties of sintered versus cast metals. P. Schwarzkopf. il Product Eng 17:122-6 F '46
Formulas for determining the weights of castings; data sheet. Foundry 74:135-6 S; 171-2 O; 137-8 N '46
High-rake flycutters mill precision surfaces on castings. G. C. Becker. il diag Am Mach 89:128-9 D 6 '45
Home foundry. Mech Eng 68:989 N '46
Liquid shrinkage of castings. Foundry 74:252 O '46
Magnesium-cerium alloy castings for high temperature use. R. F. Marande. bibliog il Materials & Methods 23:418-24 F '46
Materials and the postwar world. J. C. DeHaven. Foundry 74:97+ Ap '46
Permanent mold castings offer production economies. W. F. Schleicher. il Iron Age 158:42-5 O 3 '46
Porosity and shrinkage in nonferrous castings. W. A. Baker. Iron Age 156:36L-36N Ag 30 '45; Same cond. Metal Prog 49:138+ Ja '46
Precision investment castings. E. L. Cady. il diags Materials & Methods 23:742-60 Mr '46
Progress in castings. il Foundry 74:68-103+ Ja '46
Salvage of porous castings; Bakelite sealing solution. Electrician 136:1590 Je 14 '46
Sealing porous castings; thermosetting resin Laminac. P. S. Fuller. il Materials & Methods 22:1746-50 D '45
Standard alloy designations for heat and corrosion resistant castings; engineering file facts. Materials & Methods 23:765 Mr '46
Study of resinous sealants for porous metal castings. V. C. F. Holm. bibliog pl J Res Nat Bur Stand 37:177-82 S '46
See also
Steel castings

Cleaning
Clean 5600 lb. of castings in 15 min.; Wheelabrator tumblast. il Iron Age 158:72 Jl 18 '46
Cleaning costs in a small gray iron foundry. A. E. Grover. Foundry 74:83+ N '46
Cleaning large castings hydraulically. H. B. McDermid. Foundry 74:164 S '46
Redesigned air nozzles solve cleaning problems. R. A. Shaw. diags Am Mach 90:143-4 N 7 '46
Reducing cleaning shop costs; Meehanite metal corp. H. A. Reece. il diag Foundry 74:140+ O '46
Removing sand and scale from gray iron castings; sodium hydride descaling process. il Iron Age 157:51 My 16 '46; Steel 119:104+ Jl 15 '46
Sodium hydride bath used in cleaning castings. il Foundry 74:182 Je '46

Inspection
See Castings—Testing

Repair
Arc welding practice for gray iron castings. il diags Foundry 74:140+ Ag '46
Castings salvaged by dot-welding. il Iron Age 157:59 F 28 '46
Cement plant repairs heavy castings. il diag Rock Prod 48:69+ O '45
Observations on the appearance welding of malleable castings. H. A. Schwartz and others. il Am Soc T M Proc 45:618-25; Discussion. 625-8 '45

Specifications
A.S.T.M. reviews casting specifications; annual meeting. Foundry 74:79+ Ag '46
Why specifications? J. W. Bolton. Foundry 74:100-1 Jl '46

Testing
Acceptance standards; determination of casting quality by radiography and X-ray micrography. il Automobile Eng 36:101-4 Mr '46
Aircraft quality castings; use of radiography and fluoroscopy; Northrop aircraft inc. T. E. Piper. il diags Foundry 74:96-101+ Je '46; Same cond. Iron Age 157:46-9 My 2 '46
Application of radiography to the improvement of foundry technique. R. Jackson. diags Iron & Steel Inst J 151:225-59 bibliog(p258-9) pl 17-28 no 1 '45; Excerpts. Engineer 180:35-8 Jl 13 '45; Discussion. Iron & Steel Inst J 151:259-71 no 1 '45; Engineer 180:53-4 Jl 20 '45; Engineering 160:54 Jl 20 '45
Automaton bubble-tests light-metal castings. R. Cummings. diags Am Mach 90:116-17 Ja 3 '46
Fluoroscopy of light-alloy castings. B. Cassen and D. S. Clark. il diag Iron Age 156: 54-9 N 1 '45; 157:48-50 Ap 18 '46; Same cond (pt 1). Automotive & Aviation Ind 94:26-30+ Ja 1 '46
Inspection of castings discussed at two sessions; American foundrymen's association. Foundry 74:168 Je '46
Nondestructive inspection of castings; abstract. C. L. Frear and R. E. Lyons. Materials & Methods 24:720 S '46
Non-destructive testing for castings; abstract. J. W. Juppenlatz. Materials & Methods 23:1388+ My '46
Preparing tension test specimens for copper-base alloy castings; data sheet. diags Foundry 74:127-8 Ag '46
Radiographic inspection and foundry operations; abstract. T. E. Caldwell. Materials & Methods 23:1106 Ap '46
X ray standards for purchasing castings. L. W. Ball. il Iron Age 156:62-4 N 22 '45

CASTOR oil
Dehydrated castor oil. R. Mansell. Paint Oil & Chem R 109:9-10 My 16 '46
Specific heats of vegetable oils from 0° to 280° C. P. E. Clark, C. R. Waldeland and R. P. Cross. bibliog diag Ind & Eng Chem 38:350-3 Mr '46
What's ahead in raw materials; dehydrated castor oil. R. D. Eno. Paint Oil & Chem R 108:58 N 1 '45

CASTOR oil plants
Preparation of vegetable albumen from castor plant; abstract. M. C. Tartakovski and V. D. Matveev. Chem & Met Eng 53:278+ F '46

CASTS, Plaster. See Plaster casts

CASUALTY actuarial society
Annual meeting, New York, Nov. 16. East Underw 46:27 N 23 '45; Nat Underw 49:17+ N 22 '45

CASUALTY insurance. See Insurance, Casualty

CATALIN
Two-toned cast phenolic radio housing; Bendix radio. il Mod Plastics 24:96 O '46

CATALOGING
Is science's Waterloo at the library? C. R. Hammond. Power Pl Eng 50:69+ S '46
Library of Congress and the future of its catalogue. T. Besterman. J Doc 1:194-205 Mr '46
See also
Moving picture film collections—Cataloging

CATALOGS
Carrier corporation streamlines its catalogs. Ind Marketing 31:66 F '46
Carrier scraps old catalogs; builds 36 new ones. Ptr Ink 214:78 F 15 '46
Catalog files and directories preferred for reference. Ind Marketing 31:78 My '46
Catalog magazine; Alden's includes women's feature articles. Bsns W p68 Je 22 '46
Formula for sure-fire industrial copy: earthiness, authenticity; Yuba manufacturing co. dredges for mining. H. A. Sawin. il Sales Management 55:106+ N 15 '45
Getting the most out of your industrial catalog; summary of recent panel discussion and newly issued study. Ptr Ink 213:132+ D 14 '45
How Carrier licked the catalog problem for a multiple-market line; product catalogs and market catalogs. L. M. Beals. il Sales Management 56:129-30+ Ap 15 '46
How to organize the production of a catalog; methods used by Sears, Roebuck. J. A. Spillane. Ptr Ink 217:40-2 O 25 '46
How to plan a catalog. R. D. Wyly. Ptr Ink 217:42-3 N 8 '46
Industrial advertiser designs catalog so it can be used 6 ways; Joseph Dixon crucible company. il Ptr Ink 216:38-9 Jl 5 '46
Mail-order catalog making is a science. G. C. Cullinan. il Ptr Ink 216:38-40 S 27 '46
Mail-order catalog relieves salesmen of large-line selling; American Type Founders plan. J. A. Murphy. il Ptr Ink 217:46-7 O 4 '46
Method for cataloging construction materials. H. A. Frazier. il Elec World 125:168 Ja 19 '46
Pictorial treatment improves industrial catalog; Mack International. Ptr Ink 216:78 Ag 23 '46
Pratt & Whitney solves problem of cataloging broad product lines. E. C. Shultz. il Ind Marketing 30:78+ O '45
Shipshape industrial catalog; how Raybestos builds one. J. W. Brush, jr. il Sales Management 57:131-2+ Jl 15 '46
16-page ad and reprints solve catalog problem; Lionel ad in Liberty. E. M. Housman. il Ptr Ink 217:56+ N 8 '46
Uses retail techniques in building a catalog; 10 improvements by Yale & Towne. il Ptr Ink 216:84+ S 13 '46
Yale & Towne modernizes aged-in-wood catalog. il Sales Management 57:85 S 15 '46

CATALOGS, Booksellers'
American book auction catalogues; additions. G. L. McKay. N Y Pub Lib Bul 50:177-84 Mr '46

CATALOGS, Card
Punched card method for the bibliography, abstracting, and indexing of chemical literature. C. D. Gull. il J Chem Educ 23: 500-7 O '46

CATALOGS, Library
Library of Congress and the future of its catalogue. T. Besterman. J Doc 1:194-205 Mr '46
Organization of microcard production; library catalog card with microprint text on its back. F. Rider. J Doc 1:93-108 S '45

CATALOGS, Loose-leaf
Library of Congress and the future of its catalogue. T. Besterman. J Doc 1:194-205 Mr '46

CATALOGS, Union
Plea for a British union catalogue of old printed music. O. E. Deutsch. J Doc 1:41-4 Je '45
See also Philadelphia bibliographical center and Union library catalogue

CATALYSIS
Absolute decomposition velocity of vapors. G.-M. Schwab and N. Theophilides. diag J Phys Chem 50:427-40 S '46
Acid catalysis in the formation of chloroamides from hypochlorous acid; *N*-chlorination by hypochlorite ions and by acyl hypochlorites. R. P. Mauger and F. G. Soper. Chem Soc J p71-5 F '46
American and German designs contrasted for catalytic converters employed in the production of synthetic ammonia. C. O. Brown. Ind & Eng Chem 38:sup69-70 Mr '46
Calculation of temperature distribution in catalytic converters. L. M. Grossman. bibliog Am Inst Chem Eng Trans 42:535-51 Je '46
Catalytic cracking of pure hydrocarbons; aromatics and comparison of hydrocarbon classes. B. S. Greensfelder, H. H. Voge and G. M. Good. bibliog Ind & Eng Chem 37: 1168-76 D '45
Catalytic cracking of pure hydrocarbons; cracking of naphthenes. B. S. Greensfelder and H. H. Voge. bibliog Ind & Eng Chem 37:1038-43 N '45
Catalytic cracking of pure hydrocarbons; secondary reactions of olefins; isomerization, hydrogen transfer, polymerization, and aromatization. H. H. Voge, G. M. Good and B. S. Greensfelder. Ind & Eng Chem 38: 1033-40 O '46
Catalytic dehydrogenation of polycyclic naphthenes. A. V. Grosse, J. M. Mavity and W. J. Mattox. bibliog Ind & Eng Chem 38: 1041-5 O '46
Catalytic dehydrogenation of 1-substituted 1,2,3,4-tetrahydronaphthalene derivatives. M. S. Newman and T. J. O'Leary. bibliog Am Chem Soc J 68:258-61 F '46
Catalytic gasification of higher hydrocarbons. C. H. Riesz and others. bibliog diags Am Gas Assn Mo 28:159-64+ Ap '46
Catalytic hydrogenolysis of halogen compounds. R. Baltzly and A. P. Phillips. Am Chem Soc J 68:261-5 F '46
Catalytic properties of the products of the solid phase reaction between barium carbonate and ferric oxide. M. Erchak, jr. and R. Ward. Am Chem Soc J 68:2093-6 O '46
Catalytic refining, flow charts il Oil & Gas J 44:136-66 Mr 30 '46
Catalytic reforming process of Standard oil company of California. E. O. Saegebarth. il diag Pet Eng 17:95-6+ My '46
Catalytic removal of organic sulphur compounds from coal gas by metallic thiomolybdates. E. B. Maxted and A. Marsden. Soc Chem Ind J 65:51-2 F '46
Chain initiation in catalyzed polymerization. M. S. Matheson. bibliog J Chem Phys 13: 584-5 D '45
Isomerization of *n*-butane catalyzed by aluminum bromide; effect of oxygen and other promoters on the reaction. A. G. Oblad and M. H. Gorin. bibliog Ind & Eng Chem 38: 822-8 Ag '46
Kinetics of the pentavalent vanadium—iodide reaction; correlation with the induced catalysis of the oxygen—iodide reaction. J. B. Ramsey, E. L. Colichman and L. C. Pack. bibliog Am Chem Soc J 68:1695-8 S '46
Magnetism and catalysis. P. W. Selwood. bibliog(222 references) diags Chem R 38: 41-82 F '46
New magnetic effect applied to the structure of catalytically active solids. P. W. Selwood, F. N. Hill and H. Boardman. Am Chem Soc J 68:2055-9 O '46
Process design of catalytic reactors; dehydrogenation of butane. R. H. Dodd and K. M. Watson. bibliog flow plans diag Am Inst Chem Eng Trans 42:263-91 Ap '46; Same. Nat Pet N 38 pt 2:R545-6+ Jl 3 '46
Removal of sulphur compounds from town gas by catalytic hydrogenation. E. B. Maxted and J. J. Priestley. il diags Gas J (Lond) 247:471-2+, 515-16, 556-7, 593 Mr 20-Ap 10 '46
Thermal decomposition of ethylene iodide catalyzed by iodide ions. T. Iredale and T. R. Stephan. bibliog J Phys Chem 49:595-601 N '45

CATALYSTS

Adsorption of fatty acids on nickel and platinum catalysts. H. A. Smith and J. F. Fuzek. bibliog diag Am Chem Soc J 68: 229-31 F '46

Bauxite, dehydrogenation catalyst for styrene production. W. H. Wood and R. G. Capell. bibliog il diag Ind & Eng Chem 37:1148-52 D '45

Catalytic conversion of hydrocarbons; catalytic promoting effect of antimony tetroxide in the aromatization of hydrocarbons with a chromia-alumina catalyst. F. E. Fisher and others. bibliog diag Ind & Eng Chem 38:61-4 Ja '46

Catalytic hydrogenolysis of nitrate esters. L. P. Kuhn. Am Chem Soc J 68:1761-2 S '46

Catalytic isomerization of vegetable oils; nickel catalysts. S. B. Radlove and others. bibliog flow sheet diag Ind & Eng Chem 38:997-1002 O '46

Chemical reactions in continuous-flow systems; heterogeneous reactions. H. M. Hulburt. bibliog Ind & Eng Chem 37:1063-9 N '45

Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of solvents and catalysts. C. E. Dalgliesh and F. G. Mann. Chem Soc J p910-13 D '45

Comparison of bead and clay catalysts for T.C.C. process. L. P. Evans. il Oil & Gas J 44:167-8+ Mr 30 '46

Condensation of acetylene by molten salts. P. C. Johnson and S. Swann, jr. bibliog diags Ind & Eng Chem 38:990-6 O '46

Conversion of *n*-heptane to isobutane; metal-aluminum chloride catalysts. O. Grummitt, E. N. Case and C. V. Mitchell. bibliog Ind & Eng Chem 38:141-4 F '46

Cycle stocks from catalytic cracking; hydrogenation and desulfurization. C. L. Brown, A. Voorhies, jr. and W. M. Smith. bibliog il diag Ind & Eng Chem 38:136-40 F '46

Dehydroisomerization of *n*-butane. H. S. Bloch and R. E. Schaad. bibliog Ind & Eng Chem 38:144-7 F '46

Demonstration plant for atomic energy catalytic cracking process announced; said to use catalyst of a uranium ore. Nat Pet N 38:41 Jl 24 '46

Direct catalytic conversion of methylcyclopentane to benzene. B. S. Greensfelder and D. L. Fuller. bibliog Am Chem Soc J 67:2171-3 D '45

Earnings, a function of catalyst activity. R. E. Bland and E. A. Smith. il Pet Eng 17: 55-6+ Ag '46; Same. Pet Refiner 25:115-18 Ag '46

Ethylation of benzene in presence of solid phosphoric acid. V. N. Ipatieff and L. Schmerling. bibliog Ind & Eng Chem 38:400-2 Ap '46

Fluid-catalyst technique. L. S. Daniels. il diags Pet Refiner 25:109-16 S '46

Fullers earth as a binder for catalysts and adsorbents; Florigel. R. G. Capell and others. bibliog il Pet Refiner 25:117-19 F '46

Hydrogenolysis of steroid thioacetals with modified Raney nickel catalyst. S. Bernstein and L. Dorfman. Am Chem Soc J 68: 1152-3 Jl '46

Life of a cobalt catalyst for the synthesis of hydrocarbons at atmospheric pressure. C. C. Hall and S. L. Smith. bibliog il diag Soc Chem Ind J 65:128-36 My '46

Liquid-phase isomerization of normal paraffins using a fluid salt catalyst. S. H. McAllister and others. bibliog flow diag il Am Inst Chem Eng Trans 42:33-52; Discussion. 53 F '46

Manufacture and regeneration of catalysts at I.G. Farbenindustrie A.G. plants, Ludwigshafen/Oppau, Germany. W. F. Faragher and W. A. Horne. 4pls U S Bur Mines Information Circ 7368:1-6 '46

Mechanism of catalytic cracking; abstract. R. C. Hansford. Pet Processing 1:147 O '46

New catalysts for Friedel-Crafts type reactions. A. N. Sachanen and P. D. Caesar. bibliog Ind & Eng Chem 38:43-5 Ja '46

Nitrogen and stearic acid adsorption by supported and unsupported catalysts. H. E. Ries, jr and others. J Chem Phys 14:465-6 Jl '46

Preparation of a Raney nickel catalyst. A. A. Pavlic and H. Adkins. bibliog Am Chem Soc J 68:1471 Ag '46

Production of methyl vinyl ketone from methylvinylcarbinol; zinc oxide with cupric or cuprous oxide as catalyst. J. J. Kolfenbach and others. bibliog Ind & Eng Chem 37:1178-80 D '45

Regeneration of caustic solutions for gasoline treating by catalytic air oxidation. D. C. Bond. flow diag il Oil & Gas J 44:83-4+ D 8 '45

Role of surface area in dehydrocyclization catalysis. A. S. Russell and J. J. Stokes, jr. diag Ind & Eng Chem 38:1071-4 O '46

Some physical properties of activated bauxite. H. Heinemann, K. A. Krieger and W. S. W. McCarter. bibliog Ind & Eng Chem 38: 839-42 Ag '46

Studies in the detoxication of catalyst poisons; detoxication of carbon disulphite. E. B. Maxted and A. Marsden. Chem Soc J p23-5 Ja '46

Studies in the detoxication of catalyst poisons; the detoxication of cystein with metallic per-acids. E. B. Maxted and A. Marsden. Chem Soc J p766-8 N '45

Studies in the detoxication of catalyst poisons; the use of various oxidising agents for the detoxication of cystein. E. B. Maxted. Chem Soc J p763-6 N '45

Study of zinc-chromium catalysts for synthesis of methanol; abstract. V. M. Grinevich. Chem Eng 53:252+ S '46

Styrene production by catalytic dehydrogenation; low pressure operation. J. M. Mavity and others. bibliog Am Inst Chem Eng Trans 41:519-28 O '45

Synthesis of methanol from carbon dioxide and hydrogen over copper-alumina catalysts; mechanism of reaction. V. N. Ipatieff and G. S. Monroe. Am Chem Soc J 67:2168-71 D '45

Synthetic rubber output boosted by new catalyst; abstract. W. M. Quattlebaum, W. J. Toussaint and J. T. Dunn. Can Chem & Process Ind 30:100+ O '46

Synthine process. J. C. Lane and B. H. Weil. bibliog and patent list il Pet Refiner 25:97-108 S '46

Testing of cracking catalysts; abstract. M. E. Conn and G. C. Connolly. Pet Processing 1:148 O '46

Thoria-alumina catalyst best for isoparaffin synthesis, zinc oxide is less efficient, for use in the Fischer-Tropsch reaction. il Oil & Gas J 44:86+ Ja 19 '46

Unit built specially to use new catalyst; Shell oil company's plant at Houston. il Pet Eng 17:251 S '46

Use of tannins as oxidation catalysts in regenerating treating solutions; abstracts. J. Happel and S. P. Cauley. flow diag Pet Processing 1:146-7 O '46; Oil & Gas J 45:60 S 14 '46

X-ray diffraction and magnetic studies of unreduced ferric oxide Fischer-Tropsch catalysts. L. J. E. Hofer, W. C. Peebles and W. E. Dieter. bibliog Am Chem Soc J 68:1953-6 O '46

See also

Antioxidants
Catalysis
Enzymes
Growth promoting substances
Hormones
Tin chlorides
Vitamins

Manufacture

Materials of construction in bead catalyst plant; Socony vacuum plant, Paulsboro, N.J. flow sheet Chem & Met Eng 53:231-2+ My '46

New pellet dryer for TCC catalyst offers diverse postwar uses. J. W. Payne and C. H. Lechthaler. diags Chem & Met Eng 52:105-7 D '45

Unusual techniques feature the production of synthetic bead catalyst; Socony Vacuum's plant at Paulsboro, N.J. R. W. Porter. flow sheet(p138-41) il diags Chem & Met Eng 53:94-8 Ap '46

CATAPULTS, Airplane. See Airplanes—Take-off

CATAROLE process

Catarole process; aromatic hydrocarbons produced from petroleum. map Chem Age (Lond) 55:405-6, 433-5 O 5-12 '46; Same cond. bibliog Pet Eng 18:119+ O '46

CATCH basins
Step-by-step; raising a catch basin grating; illustrations with text. Roads & Sts 89:93 Ap '46

CATECHIN. See Catechol

CATECHOL
Dimorphic form of *d*-catechin. O. Keller and L. Berger. Am Chem Soc J 68:145-6 Ja '46

CATENARY
Tensions in hanging wires. G. Hookham. diags Engineering 161:460 My 17 '46

CATERPILLAR tractor company
Community relations; Caterpillar tractor co.'s program. L. J. Fletcher. il Foundry 74:156-7+ My '46
Debentures offered. Comm & Fin Chr 163: 2848 My 27 '46
Thumbnail stock appraisal. Mag of Wall St 78:213 My 25 '46

CATES, Louis Shattuck, 1881-
A.I.M.E. president 1946. por Min & Met 27: 4-5 Ja '46

CATGUT
Destruction of organic matter in blood fibrin and chromacized medical catgut by wet oxidation; determination of iron in blood and of chromium in sutures. G. F. Smith. bibliog Ind & Eng Chem Anal ed 18:257-9 Ap '46

CATHEPSIN
Estimation of cathepsin activity. A. D. McLaren. Science 102:510 N 16 '45

CATHODE followers
Aerial-to-line couplings; cathode-follower and constant-resistance network. R. E. Burgess. diags Wireless Eng 23:217-21 Ag '46
Betatron pulsing system has many industrial applications. I. Paul and T. J. Wang. il diags Electronics 19:156-60 Ja '46
Cathode follower; can be used to provide output power for small receivers. diag Electronics 19:204+ Ag '46
Cathode-follower circuits. K. Schlesinger. bibliog diags Inst Radio Eng Proc 33:843-55 D '45
Cathode follower coupling in d-c amplifiers. Y. P. Yu. diags Electronics 19:98-103 Ag '46
Cathode follower for power amplifier. C. Stevens. il diag Radio N 36:52-4+ Ag '46
Cathode follower of very low output resistance. C. M. Hammack. diags Electronics 19:206+ N '46
Gas-tube coupling for d-c amplifiers. F. Iannone and H. Baller. diags Electronics 19: 106-7 O '46
Power pulse generator. M. Levy. diags Wireless Eng 23:192-6 Jl '46
Some considerations concerning the internal impedance of the cathode follower. H. Goldberg. diags Inst Radio Eng Proc 33:778-82 N '45
Thermistor-regulated low-frequency oscillator. L. Fleming. il diags Electronics 19:97-9 O '46

CATHODE ray oscillographs. See Oscillographs, Cathode ray

CATHODE ray tubes
Another problem of two electrons. G. W. O. Howe. diags Wireless Eng 23:1-2 Ja '46
Beam production in radial beam tubes, beam power tubes, and other low voltage electronic devices. A. M. Skellett. bibliog il diags Rs Mod Phys 18:379-83 Jl '46
Cathode-ray screen characteristics defined for photographic work. Elec World 124:124 N 10 '45
Cathode-ray tubes for radar equipment; abstracts of papers at Radiolocation convention. Electrician 136:803-4 Mr 29 '46
Characteristics of luminescent materials for cathode-ray tubes; Radio section discussion meeting. Inst E E J 92 pt 3:299-300 D '45
Comparison of electrostatic and electromagnetic deflection in cathode-ray tubes; Radio section discussion meeting. Inst E E J 93 pt 3:364 S '46
Current oscillator for television sweep. G. C. Sziklai. patent list il diags Electronics 19: 120-3 S '46
Decade counting circuits. V. H. Regener. il diags R Sci Instr 17:185-9 My '46
Deflection sensitivity of cathode ray tube; electromagnetic deflection (with corrections for velocity of electrons); chart. N. Marchand. Elec World 125:90 Mr 30 '46
Deflection sensitivity of cathode ray tube; electrostatic deflection; chart. N. Marchand. Elec World 125:102 Mr 2 '46
Double-beam c-r tube in biological research. T. H. Bullock. il diags Electronics 19:103-5 Jl '46
Du Mont type 5 S P double-beam cathode-ray tube. il R Sci Instr 16:383 D '45
5RP multiband tube: an intensifier-type cathode-ray tube for high-voltage operation. I. E. Lempert and R. Feldt. bibliog il Inst Radio Eng Proc 34:432-40 Jl '46
High speed photography of the cathode-ray tube. H. Goldstein and P. D. Bales. bibliog il diag R Sci Instr 17:89-96 Mr '46
High-voltage rectified power supply using fractional-mu radio-frequency oscillator. R. L. Freeman and R. C. Hergenrother. diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:145W-7W Mr '46
Image formation in cathode-ray tubes and the relation of fluorescent spot size and final anode voltage. G. Liebmann. bibliog diags Inst Radio Eng Proc 33:381-9 Je '45; Correction. 33:485 Jl '45; Discussion. 34:580-6 Ag '46
Improved cathode-ray tubes with metal-backed luminescent screens. D. W. Epstein and L. Pensak. diags RCA R 7:5-10 Mr '46; Abstract. Product Eng 17:139 N '46
Infrared image tube and its military applications. G. A. Morton and L. E. Flory. il diags RCA R 7:385-413 S '46
Luminescence and tenebrescence as applied in radar. H. W. Leverenz. bibliog il diags fold chart RCA R 7:199-239 Je '46
Multi-band cathode-ray tube. il R Sci Instr 16:324 N '45
New film for photographing the television monitor tube. C. F. White and M. R. Boyer. il Soc Motion Picture Eng J 47:152-64 Ag '46
Physical limitations in electron ballistics. J. R. Pierce. bibliog diags Bell System Tech J 24:305-21 Jl '45
Skiatron; radar display tube; cathode-ray tube with microcrystalline potassium chloride screen. Electronics 19:216+ O '46
Tube-seasoning timer for controlling time schedule of cathode-ray tube seasoning racks. M. Silverman. il diag Electronics 19:145 F '46
Visible speech cathode-ray translator. R. R. Riesz and L. Schott. il diags Acoustical Soc Am J 18:50-61 Jl '46
War-time developments in cathode-ray tubes for radar; abstract. L. C. Jesty, H. Moss and R. Puleston. Engineering 161:367 Ap 19 '46

See also
Electron gun
Oscillographs, Cathode ray

Manufacture
Streamlining c-r tube production. M. Silverman. il Electronics 19:164+ Jl '46
Using statistics to control mass-production quality; North American Philips company. E. Goddess. il Factory Management 104: 110-12 F '46

CATHODE rays
Dangers inherent in scattered cathode rays. L. L. Robbins. Science 102:623 D 14 '45

CATHODES
Cathode dark space and negative glow of a mercury arc. C. G. Smith. bibliog il diags Phys R 69:96-100 F 1 '46
Dissociation energies of surface films of various oxides as determined by emission measurements of oxide coated cathodes. H. Jacobs. bibliog diags J Ap Phys 17:596-603 Jl '46
Oxide coated cathode literature, 1940-1945. J. P. Blewett. bibliog diag J Ap Phys 17: 643-7 Ag '46
Pulsed properties of oxide cathodes. E. A. Coomes. bibliog diag J Ap Phys 17:647-54 Ag '46
Secondary electron emission from oxide-coated cathodes. M. A. Pomerantz. bibliog diags Franklin Inst J 241:415-33; 242:41-61 Je-Jl '46; Same cond. Phys R 70:33-40 Jl 1 '46

CATHODES—*Continued*
Stability of the low pressure mercury arc as a function of area at the cathode pool. C. W. Lufcy and P. L. Copeland. diags J Ap Phys 16:740-4 N '45
Studies of the interface of oxide coated cathodes.. A. Fineman and A. Eisenstein. il diags J Ap Phys 17:663-8 Ag '46
Study of oxide cathodes by X-ray diffraction methods; methods, conversion studies, and thermal expansion coefficients. A. Eisenstein. bibliog il diags J Ap Phys 17:434-43 Je '46
Study of oxide cathodes by X-ray diffraction methods; oxide coating composition. A. Eisenstein. bibliog il J Ap Phys 17:654-63 Ag '46

CATHODIC protection. See Pipe lines—Protection; Steel—Cathodic protection; Water pipes—Protection; Water tanks, Steel—Cathodic protection

CATHOLIC trade unionists, Association of. See Association of Catholic trade unionists

CATTLE
See also
Cows

Diseases and pests

Cardiac failure in cattle on vitamin E-free rations as revealed by electrocardiograms. T. W. Gullickson and C. E. Calverley. bibliog Science 104:312-13 O 4 '46
Peacetime implications of biological warfare; American-Canadian study of rinderpest in cattle. G. W. Merck. Chem & Eng N 24: 1346-9 My 25 '46
See also
Tuberculosis in cattle

CATTLE breeding
Artificially sired. Bsns W p46+ N 24 '45
Breed improved; Nevada better beef. Bsns W p46 Ap 27 '46

CATTLE fly sprays
Livestock sprays. R. L. Cuff. il Soap & San Chem 22:135-7+ Ag '46
Tests conducted with DDT and benzene hexachloride against cattle flies in Kansas, Oklahoma, and Missouri; abstract. R. L. Cuff. Chem & Eng N 24:2622+ O 10 '46

CATTLE industry and trade
Told to cut herds. Bsns W p42+ Ja 19 '46

Ecuador

Ecuador cattle raiser suggests export-import project. B. Guevara. For Comm W 23:17 My 18 '46

CAUCASUS
See also
Transcaucasia

CAUSTIC embrittlement. See Boilers—Failure

CAUSTIC potash. See Potassium hydroxide

CAUSTIC soda. See Sodium hydroxide

CAVENDISH, Henry, 1731-1810
Sketch. Engineer 182:136-8 Ag 16 '46

CAVITATION
Cavitation in hydraulic structures; a symposium; discussion by J. W. Ball and others. bibliog il diags Am Soc C E Proc 72: 705-16, 867-80 My-Je '46
Experiences of the Bureau of reclamation. J. E. Warnock. il diags Am Soc C E Proc 71:1041-56 S '45; Discussion. D. A. Abrams. bibliog 72:1123-9 O '46
Modern metallurgical problem. Min & Met 27:402 Jl '46
Nature of cavitation. J. K. Vennard. il diags Am Soc C E Proc 71:1000-13 S '45; Discussion. bibliog il 71:1571-2; 72:278-82, 563-8 D '45, F, Ap '46
See also
Hydraulic machinery—Cavitation

CAVITRON
Proposed high energy particle accelerator; the cavitron. R. F. Post. bibliog Phys R 69:126-7 F 1 '46

CAVITY magnetron. See Magnetron

CAVITY resonators. See Radio resonators

CEDAR
Wood for storage battery separators. L. V. Peakes, jr. and others. il Ind & Eng Chem 38:780-8 Ag '46

CEDAR chests. See Chests

CEGLIN
Cellulose ethers and their application to cellulose fibers. R. T. K. Cornwell and others. Am Dyestuff Rep 35:304-5 Je 17 '46; Same abr. Rayon 27:318-19 Je '46
Many finishes possible with Ceglin. Rayon 26:656 D '45

CEILINGS
Egg-crate ceilings in U.N. assembly auditoriums provide high level illumination; eliminate uncomfortable variations in brightness. il diags Arch Forum 85:183 O '46
Grand Central sky rejuvenated; redecorating ceiling of concourse. il Ry Age 119:520-2 S 29 '45; Abstract. Mech Eng 58:156-7 F '46
Lighted ceilings; office of Spott electric co. il Elec West 95:92 D '45
Luminous ceilings for United nations auditoriums. il plan Elec World 126.60-1 O 26 '46
Natural light reflected from the ceiling. B. F. Greene. diag Illum Eng 41:474-84 Je '46

CELANESE corporation of America
Annual report. Comm & Fin Chr 163:1420 Mr 18 '46
Broader sales prospects for Celanese. Barron's 26:6 Ag 19 '46
Celanese and Tubize merge. Barron's 25:1+ D 3 '45
Celanese corporation; investment audit. H. Owen. il Mag of Wall St 77:206-8+ N 24 '45
Merger data. Comm & Fin Chr 163:897 F 18 '46
Merger in rayon; absorption of Tubize corporation by Celanese under negotiation. Bsns W p72 N 17 '45

CELESTIAL mechanics. See Mechanics, Celestial

CELL division (biology)
Nucleosis of skeletal muscle; its value as a biological test. R. Altschul. Science 103:566-7 My 3 '46
Spindle twisting in the giant amoeba. R. B. Short. diag Science 102:484 N 9 '45

CELLARS
See also
Basements

CELLO
Mechanical action of instruments of the violin family. F. A. Saunders. diags Acoustical Soc Am J 17:169-86 Ja '46

CELLOBIOSE
Constitutional synthesis of cellobiose and gentiobiose. V. E. Gilbert, F. Smith and M. Stacey. Chem Soc J p622-5 Jl '46

CELLOPHANE
Cellophanes; they look alike, but there are 57 varieties. W. G. Hunter. il Mod Packaging 19:110-11, insert Je '46
Red plaid cellophane. il Food Ind 18:534 Ap '46
Soda straws guard the navy's time; chain used for a marine chronometer packed in cellophane straw. il Mod Packaging 19:127 N '45
See also
Dyes and dyeing—Cellophane

CELLOSOLVE
Solid esters of cellosolves and carbitols. D. C. O'Donnell and R. J. Carey. Am Chem Soc J 68:1865 S '46

CELLS
See also
Phagocytosis

CELLULAR rubber. See Rubber, Sponge

CELLULOSE
Acetylation of cellulose in phosphoric acid solution; abstract. E. Heuser and others. Am Dyestuff Rep 35:461 S 23 '46
Action of ultraviolet light upon cellulose and cellulose triacetate. E. Heuser and G. N. Chamberlin. bibliog Am Chem Soc J 68: 79-83 Ja '46
Alcoholysis of cellulose. R. E. Reeves, W. M. Schwartz and J. E. Giddens. bibliog Am Chem Soc J 68:1383-5 Jl '46

CELLULOSE—*Continued*

American chemical society; 110th meeting; abstracts of papers in connection with the cellulose or paper industries. Paper Ind 28: 1024+ O '46

Atmospheric oxidation of cellulose in presence of reduced vat dyes. J. Brear and H. A. Turner. bibliog il Soc Dyers & Col J 61:273-8 N '45

Binders and base materials for active carbon; functions of sugars, coal tar pitch, anthracite, and celulose. J. J. Morgan and C. E. Fink. bibliog il diag Ind & Eng Chem 38:219-28 F '46

Carbon dioxide as an essential factor in the bacterial decomposition of cellulose. A. S. Perlin and M. Michaelis. Science 103:673 My 31 '46

Chain length measurements on nitrated cellulosic constituents of wood. R. L. Mitchell. bibliog il Ind & Eng Chem 38:843-50 Ag '46

Cross linkages in cellulose and their practical implications; with review of effects of formaldehyde treatment upon properties of cellulose; claims of patent to Kantorowicz. E. Heuser. bibliog Paper Tr J 122:43-8 Ja 17 '46; Same cond. Paper Ind 27:1902+ Mr '46

Degradation of cellulose by certain metallic salts. F. L. Allen and E. A. Rudge. Soc Chem Ind J 64:332-4 D '45

Dispersion of cellulose by cellulose xanthate solutions. P. C. Scherer. Rayon 27:22-6 Ja '46

Fractionation of cellulose. O. A. Battista and W. A. Sisson. Am Chem Soc J 68:915 My '46

Fractionation of high-polymeric substances. L. H. Cragg and H. Hammerschlag. bibliog(312 references) Chem R 39:79-135 Ag '46

Hydrolysis and catalytic oxidation of cellulosic materials; determination of structural components of cotton linters. R. F. Nickerson and J. A. Habrle. bibliog il Ind & Eng Chem 37:1115-18 N '45

Hydrolysis and catalytic oxidation of cellulosic materials; structural components of various cellulosic materials. R. F. Nickerson and J. A. Habrle. Ind & Eng Chem 38: 299-301 Mr '46

Oxidation of cellulose by sodium hypochlorite in presence of ferrous hydroxide. G. M. Nabar and H. A. Turner. diag Soc Dyers & Col J 61:258-63 O '45

Recent advances in the chemistry of wood. F. H. Yorston. bibliog Pulp & Pa of Can (Convention no) 47:131-2 [F] '46

Recrystallization of amorphous cellulose. P. H. Hermans and A. Weidinger. Am Chem Soc J 68:1138 Je '46

Review of the cellulose-water relationship and pulp beating theories. H. B. Marshall and A. M. Johnson. Pulp & Pa of Can 47: 65-6+ Mr '46

Separation of lignin and cellulose; recovery of methoxy lignin chloride. Chem Age (Lond) 53:481-2 N 24 '45

Shrinkage phenomena on cellulose films. R. Prince and J. Seiberlich. il J Phys Chem 50:222-35 My '46

Straw cellulose for feeding-stuffs; an aid in fighting the food shortage. Chem Age (Lond) 54:277-8 Mr 16 '46

Viscosity of cellulose derivatives and resins in mixed solvents. S. R. Palit. bibliog Paint Oil & Chem R 109:14+ Jl 11 '46

Water soluble cellulose derivatives; Ethulose. Chem Eng 53:141 S '46; Chem & Eng N 24:2534 S 25 '46

X-ray diffraction studies of orientations especially following high compression and impregnation of wood cellulose; abstract. G. L. Clark and J. A. Howsmon. Am Dyestuff Rep 34:539 D 17 '45

See also

Benzyl cellulose
Cotton
Ethyl cellulose
Hemicellulose
Holocellulose
Lignin
Oxycellulose
Rayon

Analysis

Qualitative test for carbohydrate material. R. Dreywood. Ind & Eng Chem Anal ed 18:499 Ag '46

Rapid method for the determination of beta- and gamma-cellulose. N. S. Lea. Paper Tr J 122:47-8 F 7 '46

CELLULOSE acetate

Acetate adhesion; welding with solvents. il Mod Packaging 19:120-1+ Jl '46

Action of ultraviolet light upon cellulose and cellulose triacetate. E. Heuser and G. N. Chamberlin. bibliog Am Chem Soc J 68: 79-83 Ja '46

Cellular cellulose acetate by Du Pont. Rayon 27:219 Ap '46

Composition of cellulose esters; use of equations and nomographs. C. R. Fordyce, L. B. Genung and M. A. Pile. bibliog Ind & Eng Chem Anal ed 18:547-50 S '46

Depolarization of light scattered from polymer solutions. P. Doty and H. S. Kaufman. bibliog diag J Phys Chem 49:583-95 N '45

Effect of temperature and humidity on mechanical properties of molded cellulose acetate. W. E. Welch and others. Mod Plastics 23:159-64+ Ag '46

Heterogeneous acid and acid-salt hydrolysis of secondary cellulose acetate. R. N. Haward and T. White. Soc Chem Ind J 65: 63-4 F '46

Light scattering investigation of cellulose acetate. R. S. Stein and P. Doty. bibliog diags Am Chem Soc J 68:159-67 F '46

Low-density structural core; cellular cellulose acetate. R. E. Maier. il Mod Plastics 23:96-7 My '46

Molded part helps control yarn windup. il diag Mod Plastics 24:148 S '46

Photographic-viscometric apparatus and technique. J. L. Riley and G. W. Seymour. bibliog il diags Ind & Eng Chem Anal ed 18:387-90 Je '46

Preparation of cellulose acetate; action of sulfuric acid. C. J. Malm, L. J. Tanghe and B. C. Laird. bibliog Ind & Eng Chem 38: 77-82 Ja '46

Seal cellulose acetate with high frequency. E. K. Cliver. Elec World 126:98+ O 26 '46

Seeing through a subject; printing pictures or drawings of different parts on separate transparent cellulose acetate sheets and superimposing. il Mod Plastics 23:132 F '46

Short cuts with cellulose acetate sheet. il Mod Plastics 23:119 Ja '46

Structure of cellulosic rayons; chainlength determinations in cuprammonium solution. F. Howlett and others. bibliog Textile Inst J 37:T77-88 Ap '46

Structure of cellulosic rayons; solubility and fractionation of secondary cellulose acetate. F. Howlett and A. R. Urquhart. bibliog Textile Inst J 37:T89-112 Ap '46

Swedish insulant offers useful properties; Isoflex, corrugated foils of cellulose acetate. T. M. Elfving. il diag Refrig Eng 52: 311-13 O '46

Symphonet in cellulose acetate. il Mod Plastics 23:252 Ap '46

Tensile strength in relation to molecular weight of high polymers. P. J. Flory. Am Chem Soc J 67:2048-50 N '45

Testing flame-resistant cellulose acetate. M. Bentivoglio and B. E. Cash. il Mod Plastics 23:119-21 F '46

Viscosity of cellulose derivatives and resins in mixed solvents. S. R. Palit. bibliog Paint Oil & Chem R 109:14+ Jl 11 '46

CELLULOSE acetate butyrate

Extruded hose and shelf edging; polyvinyl chloride garden hose and cellulose acetate butyrate shelf edging. il Mod Plastics 23: 89 My '46

Gel lacquer technique for protective coating. C. J. Malm and H. L. Smith, jr. bibliog il Ind & Eng Chem 38:937-41 S '46

Gel lacquers provide new coating method; abstracts. C. J. Malm and H. L. Smith, jr. il Chem Ind 58:776-7 My '46; diags Steel 119:76-7+ O 28 '46

Packaging metal parts; strip coatings. C. E. Waring. il Mod Packaging 19:204-7 Mr '46

Plastic coated metal tubing. il diags Product Eng 17:307-8 Ap '46

Plastic stop-off simplifies quantity chromeplating. H. Murray. il Am Mach 90:139-40 Ag 15 '46

Three precision molded parts for child's camera. il Mod Plastics 23:101-3 Jl '46

CELLULOSE compounds

Use of cellulose derivatives in water paints, by Philadelphia paint and varnish production club. Paint Oil & Chem R 108:122-3 N 1 '45

CELLULOSE esters
Cellulose ester plastic sheeting produced by nonsolvent continuous extrusion. il diag Mod Plastics 23:132-6 My '46
Densities of cellulose esters; abstract. C. J. Malm and others. Am Dyestuff Rep 35:461 S 23 '46
Thermal evidence of crystallinity in linear polymers. W. O. Baker and C. S. Fuller. bibliog Ind & Eng Chem 38:272-7 Mr '46

Analysis

Composition of cellulose esters; use of equations and nomographs. C. R. Fordyce, L. B. Genung and M. A. Pile. bibliog Ind & Eng Chem Anal ed 18:547-50 S '46

CELLULOSE ethers
Cellulose ethers and their application to cellulose fibers; Ceglin. R. T. K. Cornwell and others. Am Dyestuff Rep 35:304-5 Je 17 '46; Same abr. Rayon 27:318-19 Je '46

See also
Benzyl cellulose

CELLULOSE gum. See Sodium carboxymethyl cellulose

CELLULOSE phosphonamide
Cellulose-phosphonamide as a flameproof material; U.S. patent. Am Dyestuff Rep 35: 440 S 9 '46

CELLULOSE propionate
Cellulose propionate; newest cellulose plastic. W. W. Jackson. il Product Eng 17:302-3 Ap '46
Cellulose propionate plastic, Forticel. R. H. Ball. il Mod Plastics 23:118-19+ D '45
Field performance of Forticel. B. E. Cash. India Rubber World 114:534-5 Jl '46; Excerpt. Mod Plastics 23:112 My '46
New lustrous plastic; cellulose propionate, Forticel. Mod Packaging 19:140 N '45; Chem Ind 57:870 N '45
Plastic of all work. S. G. Ebert. Barron's 25:15 N 26 '45

CELLULOSE wadding. See Wadding

CELLULOSE xanthate
Dispersion of cellulose by cellulose xanthate solutions. P. C. Scherer. Rayon 27:22-6 Ja '46
Protective colloid action by cellulose xanthate. P. C. Scherer. Rayon 27:409-14 Ag '46

CELOTEX corporation
Annual report. Comm & Fin Chr 163:1023 F 25 '46

CEMENT
Air-entrained cement; abstract. G. A. Mansfield. Concrete 54:16+ My '46
Air-entraining portland cement. C. L. Davis. il Arch Rec 100:126-7 O '46
ASTM holds second largest annual meeting. Concrete 54:26-9+ Ag '46
A.S.T.M. meeting in Buffalo; cement, aggregates, concrete and lime developments and tests; reports and papers. Rock Prod 49: 166+ Ag '46
Cement joints minimize leakage in cast-iron water lines at Dallas. K. F. Hoefle. il Eng N 136:726-7 My 2 '46
Contribution to the study of the solution of the lime of portland cements and mixed cements with a portland base; abstract. R. Zollinger. diag Chem & Met Eng 52:258+ D '45
Effect of use of blended cements and vinsol resin-treated cements on durability of concrete. W. F. Kellermann. Am Concrete Inst J 17:681-7 Je '46
Experiences with air-entraining cement in central-mixed concrete. A. Foster, jr. Am Concrete Inst J 17:625-8 Je '46
Fifty years of progress; early experiences in crushed stone and cement business. R. C. Newhouse. Rock Prod 49:102-3 Je '46
Office of technical services reports on high early strength cement. Eng N 137:136 Ag 1 '46
Portland blast-furnace cement; abstract. H. Pooley. Am Cer Soc J 29 (Cer A [25]):30 F 1 '46
Portland-Rosendale cement blends give high frost resistance. B. H. Wait. Am Concrete Inst J 17:697-9 Je '46
Should portland cement be dispersed? T. C. Powers. bibliog diags Am Concrete Inst J 17:117-40 N '45
Some physico-chemical problems in construction. E. K. Rideal. Chem & Ind p210-13 Je 1 '46
Surface area calculation with special slide rules. C. J. Knickerbocker. il Rock Prod 48:108 O '45

See also
Concrete
Gunite

Alumina cement

Electric-furnace alumina cement for high-temperature concrete. G. R. Pole and D. G. Moore. bibliog il Am Cer Soc J 29:20-4 Ja 1 '46

Analysis

Controlling quality with X-ray spectrometer. J. S. Buhler. il diags Rock Prod 49:68-9+ My '46
Determination of Vinsol resin in portland cement. L. Bean and R. B. Peppler. bibliog Rock Prod 49:71-3+ Jl '46
Method of using turbidimeter as colorimeter. A. C. Fowler. Rock Prod 48:90 N '45
Spectrophotometric determination of titania in portland cement. J. J. Diamond. bibliog Rock Prod 49:103-4+ Ap '46

Fineness

Making cement finer may decrease durability; abstract. F. H. Jackson. Eng N 136:707 My 2 '46
Proposed method of test for fineness of portland cement by air permeability apparatus. diags Am Soc T M Proc 45:195-9 '45

Hydration

Studies of the physical properties of hardened portland cement paste. T. C. Powers and T. L. Brownyard. bibliog diags Am Concrete Inst J 18:101-32 O '46 (to be cont)

Manufacture

Calaveras cement company adds third kiln. flow chart il Concrete 54:12-13+ Ag '46; Same. Rock Prod 49:112-15 Ag '46
Calculating cement raw mix blending graphically. C. J. Knickerbocker. Rock Prod 49: 77 Mr '46
Controlling quality with X-ray spectrometer. J. S. Buhler. il diags Rock Prod 49:68-9+ My '46
Labor requirements in cement production. A. W. Collier and C. Stone. Mo Labor R 63: 355-63 S '46
Laboratory control of cement raw materials. R. W. Hubbs. Rock Prod 49:86-7 O '46
Lepol kilns cut fuel costs; Santa Cruz portland cement co. il Rock Prod 48:81-2+ D '45
Mysteries of rotary kiln performance. N. C. Rockwood. il Rock Prod 49:116-19 Ag '46
Les possibilités de fabriquer des ciments sans consommer de charbon. E. Lemaire. Génie Civil 123:107-9 My 1 '46
What cement executives are thinking. il Rock Prod 49:104-7+ Ag '46
What has happened to cement industry in Germany? il diags Rock Prod 49:74-9 Jl; 120-7 Ag '46

See also
Cement kilns

Prices

Ceiling prices on cement and concrete products. Concrete 54:18-20 Je '46

Setting

Chemical processes in the hardening of portland cement; abstract. R. Hedin. Am Concrete Inst J 17:561-2 Ap '46

Testing

Cement investigations for Boulder dam; results of tests on mortars up to age of 10 years. R. E. Davis and others. Am Concrete Inst J 18:21-48 S '46
Effect of heat on portland cements containing Vinsol resin. L. Bean and A. Litvin. Am Soc T M Proc 45:766-70 '45
Maximum stresses present at failure of brittle materials. J. Tucker, jr. Am Soc T M Proc 45:961-73 bibliog(p973); Discussion. 974-5 '45

CEMENT—Testing—*Continued*
Methods of mechanical analysis of portland cements. H. E. Rose. diags Engineering 161:457-9, 483-4 My 17-24 '46
Properties of highly hydrated dolomitic masonry limes and certain of their cement-lime mortars. G. J. Fink and E. Trattner. bibliog Am Soc T M Proc 45:723-31 '45
Proposed method of test for fineness of portland cement by air permeability apparatus. diags Am Soc T M Proc 45:195-9 '45
Report on comparative short-time tests for sulfate resistance of 121 commercial cements. D. G. Miller and C. G. Snyder. Am Soc T M Proc 45:165-94 '45
Testing of portland cements containing interground Vinsol resin. R. L. Blaine and others. Am Soc T M Proc 45:732-52 bibliog(p752); Discussion. 753-65 '45

Transportation
Palletizing of portland cement. R. L. Rhodes. il Comp Air Mag 50:286-7 N '45

CEMENT, Effect of sulfates on
Report on comparative short-time tests for sulfate resistance of 121 commercial cements. D. G. Miller and C. G. Snyder. Am Soc T M Proc 45:165-94 '45

CEMENT, Effect of temperature on
Effect of heat on portland cements containing Vinsol resin. L. Bean and A. Litvin. Am Soc T M Proc 45:766-70 '45

CEMENT, Refractory
Some special refractories and their industrial application; notes on special cements and the manufacture of special refractories. W. H. Henson and C. W. Henson. il Brick & Clay Rec 109:63-4+ Jl '46

CEMENT clinkers
Belgian experiments in clinker grinding. J. A. Slegten. Rock Prod 49:60-1 S '46
Remington develops new industrial gun; used to break up clinker rings in cement kilns; other uses. il Concrete (mill sec) 54:118 My '46

CEMENT dust
Testimony in cement dust suit against Washington-Idaho lime products co. Rock Prod 49:178-9+ Ag '46

CEMENT handling
How cement helped win Pacific war; portland cement industry on Pacific coast ships vast tonnage to island bases. il Rock Prod 49:78-80 Mr '46
Palletizing of portland cement. R. L. Rhodes. il Comp Air Mag 50:286-7 N '45
Three methods of handling bulk cement; Petaluma ready-mix concrete co. il diag Rock Prod 49:87+ Ja '46

CEMENT industry and trade
Basing-point price use upheld in FTC cement case. Oil Paint & Drug Rep 150:3+ S 30 '46
Basing points survive; Chicago federal court upholds portland makers' basing-point system. Bsns W p15-16 S 28 '46
Circuit court upholds basing point pricing in cement industry case. W. M. Rooney. Steel 119:33-4+ S 30 '46
Court vacates cease and desist order against cement companies. Concrete 54:16+ O '46
How cement helped win Pacific war; portland cement industry on Pacific coast ships vast tonnage to island bases. il Rock Prod 49:78-80 Mr '46
Labor requirements in cement production. A. W. Collier and C. Stone. Mo Labor R 63:355-63 S '46
Manufacturers are interrogated on question; is the cement supply short? J. W. Shaver. Concrete 54:3-5+ S '46
Outlook for cement use in 1946. Concrete (mill sec) 53:148 D '45
Revised federal estimate of 1947 construction now $19.3 billion; cement requirements; concrete products demand. Concrete 54:26-7+ O '46
What cement executives are thinking. il Rock Prod 49:104-7+ Ag '46

Statistics
Cement, December and 1945 summary. Concrete (mill sec) 54:110-12 Mr '46

Germany
What has happened to cement industry in Germany? il diags Rock Prod 49:74-9 Jl; 120-7 Ag '46

Great Britain
See also
Associated portland cement manufacturers

Latin America
Cement in Latin America. O. Bowles and A. Taeves. bibliog U S Bur Mines Information Circ 7360:1-51 '46

Spain
Using low grade coal without affecting clinker quality; experience of Spanish cement companies. J. F-V. Llaurado. diags Rock Prod 48:82-3 O '46

CEMENT kilns
Calaveras cement company adds third kiln. flow chart il Concrete 54:12-13+ Ag '46; Same. Rock Prod 49:112-15 Ag '46
Cement kiln trunnion roll repaired by arc welding; with cost data. il Concrete 54:36 Ag '46
Fifty years of progress; advances made in processing and machinery. il plan Rock Prod 49:90-3 Je '46
Insulation in the portland cement industry; rotary cement kilns. R. A. Witschey. diags Am Cer Soc Bul 25:49-51 F 15 '46
Lepol kilns cut fuel costs; Santa Cruz portland cement co. il Rock Prod 48:81-2+ D '45
Marquette's 475-ft. rotary kiln. B. Nordberg. il plan Rock Prod 49:98-103+ Ag '46
Mysteries of rotary kiln performance. N. C. Rockwood. il Rock Prod 49:116-19 Ag '46

Firing
Decreasing fuel costs in pulverized coal-fired cement kilns. J. D. Clendenin. bibliog Rock Prod 48:95-6 O '45
Using low grade coal without affecting clinker quality; experience of Spanish cement companies. J. F-V. Llaurado. diags Rock Prod 49:82-3 O '46

CEMENT lined pipe
Advantages of cement linings for cast-iron pipe; with cost data. T. F. Wolfe. Am Water Works Assn J 38:11-15 Ja '46; Same. Water & Sewage Works 93:23-5 Ja '46
Cement mortar linings and coatings for cast-iron, wrought-iron and steel pipe lines. M. W. Loving. il Concrete 53:18-20+ D '45
Mechanically applied cement mortar used to reline 31-in. water main. G. W. Jones. il Eng N 137:506-8 O 17 '46

CEMENT plants
Ideal to build two new cement plants. il Rock Prod 49:91 O '46
Marquette starts modernization of Hawkeye Des Moines plant. Concrete 54:7 S '46
Plant practices in Alabama. il diag Rock Prod 49:86+ My '46

Equipment
Cement plant repairs heavy castings. il diag Rock Prod 48:69+ O '45
Fifty years of progress; advances made in processing and machinery. il plan diags Rock Prod 49:90-5 Je '46
Hard surfacing; prolonging life of equipment; Petoskey portland cement co. il Rock Prod 49:66-7 My '46
Long kiln almost doubles capacity; Calaveras cement co. flow sheet il Rock Prod 49:112-15 Ag '46
Marquette's 475-ft. rotary kiln. B. Nordberg. il plan Rock Prod 49:98-103+ Ag '46
Modernize mill and quarry with plant in production; Giant portland cement company. D. E. Koch. il Rock Prod 49:108-11+ Ag '46
Sweden's modern cement plant; Skanska cement co. il diag Rock Prod 49:78-83 Ja '46
See also
Cement kilns

Power
Waste-heat power plant of the 1900's. J. Prince. Rock Prod 49:99 Je '46

CEMENT plants—Power—*Continued*
Waste heat powers cement plant; Universal atlas cement co. flow diag il Power 90:393-6 Je '46

Safety measures

Discussion of the commoner industrial dermatoses. S. M. Peck. bibliog Ind Med 14:960-4 D '45; Same cond. il Safety Eng 91:71-4 Ap; 70-2+ My '46

CEMENT research
Effect of some added materials on dicalcium silicate. E. S. Newman and L. S. Wells. bibliog diags J Res Nat Bur Stand 36:137-58 F '46
Phase equilibrium relations in a portion of the system Na_2O-CaO-Al_2O_3-SiO_2. K. T. Greene and R. H. Bogue. bibliog J Res Nat Bur Stand 36:185-207 F '46
Report on studies of ternary system CaO-C_3A_3-C_2F; quaternary system CaO-C_3A_3-C_2F-C_2S; quaternary system as modified by 5% magnesia. M. A. Swayze. bibliog pl Am J Sci 244:1-30, 65-94 Ja-F '46
Studies of the physical properties of hardened portland cement paste. T. C. Powers and T. L. Brownyard. bibliog diags Am Concrete Inst J 18:101-32 O '46 (to be cont)
Swedish cement institute active. Concrete (mill sec) 54:102-3 Ja '46

CEMENTED steel. See Steel

CEMENTS
Adhesives for rubber. J. A. Merrill. il Rubber Age 59:313-16 Je '46
How to bond sapphire to other materials. M. C. Cannon. diags Am Mach 90:129+ Ag 29 '46

See also
Adhesives

CEMETERIES, National
Reburial slated; bill to create more national cemeteries. Bsns W p26+ D 29 '45

CENSORSHIP
Free flow of world news vital to our economy. E. Lyons. Comm & Fin Chr 163:1+ Ja 3 '46

CENSUS

Germany

Bibliography

National censuses and vital statistics in Germany after the first World war, 1919-1944. 37p Information and publications office, Library of Congress, Washington 25 '46

Great Britain

New-style census; Britain preparing for annual collection of production data. Bsns W p114 D 15 '45

United States

Better and more frequent census reports planned; to start in 1946. Steel 117:94-5 D 3 '45
Census fund crusade lags. Bsns W p76+ D 29 '45
Plans for census of manufactures outlined. W. H. Mautz. Dom Comm 34:3+ Je '46

CENSUS bureau. See United States—Census, Bureau of

CENTENARIANS
Real pioneer; merchant prince of Chicago now 100. Bsns W p43-4+ Jl 6 '46

CENTERING (machine work)
Centering problems simplified by new optical locating device. il Sci Am 174:85 F '46
Jones and Shipman precision rotating centre. diag Engineering 160:382 N 9 '45
Precision centers aid surface grinding. R. H. Fay. diags Am Mach 90:125 Jl 4 '46

CENTERING machines
Pratt & Whitney automatic centering machine. il Steel 117:99 D 17 '45

CENTRAL AMERICA

See also
Airports—Central America

CENTRAL and south west utilities company
SEC approves merger plan. Comm & Fin Chr 163:2848 My 27 '46
Value of new common. Barron's 26:13 Mr 11 '46

CENTRAL Arizona light and power company
Common stock offered. Comm & Fin Chr 162: 2267 N 12 '45
Public utility securities. Comm & Fin Chr 162:2454+ N 22 '45

CENTRAL banks. See Banks and banking—Central banks

CENTRAL Eureka mining company
Stock forfeiture. Bsns W p71 Ja 5 '46

CENTRAL Illinois public service company
Preferred stock offered. Comm & Fin Chr 164:2404 N 11 '46

CENTRAL Louisiana electric company
Common stock offered. Comm & Fin Chr 162: 2637 D 3 '45

CENTRAL Maine power company
Securities offered. Comm & Fin Chr 163:2721 My 20 '46

CENTRAL New York power corporation
Preferred stock offered. Comm & Fin Chr 163:1561 Mr 25 '46

CENTRAL Ohio light and power company
Preferred stock offered. Comm & Fin Chr 163:2289 Ap 29 '46

CENTRAL power and light company (Texas)
Preferred stock offered. Comm & Fin Chr 162:3188 D 31 '45

CENTRAL Valley project, California
Irrigation warfare renewed; dispute over U.S. limitation on size of tracts eligible for water. Bsns W p19-20 N 17 '45
Senators debate need of California federal power line. Pub Util 37:239-46 F 14 '46
Story of the big Shasta dam; twenty-two surety companies played important role. G. L. Stevick. il East Underw 46:82+ D 14 '45
Who will pay for the Central Valley project of California? A. D. Angel. bibliog J Land & Pub Util Econ 22:266-72 Ag '46

CENTRALITE

Analysis

Determination of some aromatic amines and substituted ureas in smokeless powder; improved volumetric bromination procedure. T. D. Waugh, G. Harbottle and R. M. Noyes Ind & Eng Chem Anal ed 18:636-7 O '46

CENTRALIZED traffic control. See Railroads—Signals

CENTRIFUGAL casting. See Casting, Centrifugal

CENTRIFUGAL pumps. See Pumps, Centrifugal

CENTRIFUGES
Centrifugal purification; abstract. C. W. Bryden. Oil & Gas J 45:92 O 12 '46
Centrifugal sedimentation method for particle size distribution. A. E. Jacobsen and W. F. Sullivan. bibliog il Ind & Eng Chem Anal ed 18:360-4 Je '46
Centrifugation. J. O. Maloney. bibliog Ind & Eng Chem 38:24-5+ Ja '46
Centrifuges with redesigned rotors yield more complete separation of two liquids. A. U. Ayres. il diags Machine Design 18: 143-6 S '46
Clarification of acid-hydrolyzed mash and beer for the production of 2,3-butanediol from corn. A. J. Strohmaier and C. L Lovell. Ind & Eng Chem 38:721-4 Jl '46
Navy plans world's largest centrifuge for supersonic study. Iron Age 158:120 O 3 '46
Purification of insulating oils; Hopkinson centrifugal purifier. diag Electrician 136: 1095-6 Ap 26 '46
Recovery of barite from rotary drilling mud by centrifugal separation; abstract. C. A. Lindsay. flow sheet Oil & Gas J 45:91 O 12 '46
Ter Meer continuous centrifugal. H. F. Irving. il diag Mech Eng 68:330-2+ Ap '46
Turbine-oil purification. diag Elec R (Lond) 137:571-2 O 19 '45
Versator processing machine. Rubber Age 59:309 Je '46
War-born techniques in training manuals; methods used in 18 instruction books produced by the Sharples corporation for the navy. W. D. Lindsey. il Ptr Ink 214:24-5+ F 8 '46

CERAMIC art
Art potters need creative selling; work of Clem and Nixon Hall. Cer Ind 46:84-5 F '46
Ceramics dominate in American accessories promotion; Marshall Field & co. il Cer Ind 47:70-1 Ag '46
Cleveland ceramics stress quality. il Cer Ind 47:82+ Jl '46
Design, a challenge to the manufacturer. M. I. Deutsch. il Cer Ind 46:80+ Mr '46
Enameling for art's sake. K. F. Bates. il Cer Ind 47:94-5+ S '46
Get ready for a buyers' market! W. K. Perkins. il Cer Ind 47:92+ O '46
Individual pieces made for retail trade by Jack D. Wolfe. il Cer Ind 45:53 D '45
New York society of ceramic arts awards prizes. il Cer Ind 45:49 D '45
Trends to watch in tomorrow's design. il Cer Ind 46:114+ Ap '46

See also
Ceramic sculpture
Glassware
Photoceramics
Pottery—Decoration
also American ceramic society—Design division

CERAMIC association of New Jersey
Annual meeting, New Brunswick, Dec. 14. Am Cer Soc Bul 25:66-8 F 15 '46

CERAMIC associations
State ceramic associations. C. F. Tefft. Am Cer Soc Bul 24:423 N 15 '45

CERAMIC education

See also
Alfred university—New York state college of ceramics

CERAMIC engineers

See also
Greaves-Walker, Arthur Frederick

CERAMIC industries
Ceramic plants should look at packaging R. A. Schmidt. Cer Ind 47:54-5 Jl '46
Industrial films. Am Cer Soc Bul 25:13-16 Ja 15 '46

See also
Brick industry and trade
Cement industry and trade
Clay industries
Color in the ceramic industries
Enamel and enameling
Glass trade
Pottery industry
Refractory materials
Stupakoff ceramic and manufacturing company

Directories

American ceramic society corporation members. Am Cer Soc Bul 25:214-32 Je 15 '46
Membership roster of the American ceramic society. Am Cer Soc Bul 25:381-418 O 15 '46

Exhibitions

Buyers more optimistic than manufacturers at shows. il Cer Ind 46:50-1 F '46

Germany

Electrical and technical ceramic industry of Germany. R. Russell, jr. Cer Ind 46:106+ Ap '46
Electrical and technical ceramic industry of Germany; abstract. R. Russell, jr. Am Cer Soc J 29(Cer A [25]):188 O 1 '46
Status report on the German ceramic, glass and refractories industries in the U.S. zone of occupation. J. M. Warde. maps Am Cer Soc Bul 25:321-32 S 15 '46
Symposium on the ceramic industry in Germany; abstract. Cer Ind 46:55-6 Je '46

Russia

Russian research on refractories; abstract. J. H. Chesters. Chem & Ind p133 Mr 23 '46

CERAMIC materials
Abstracts of ACS convention papers. Cer Ind 46:92-6+ Je '46
Apparatus for measuring the green porosity of ceramic bodies. S. S. Kocatopcu. bibliog diag Am Cer Soc Bul 25:53-5 F 15 '46
Ceramic materials; complete directory with details of their properties and their functions in the various ceramic bodies. Cer Ind 46:78-9+ Ja '46
Ceramic materials; abstract. R. H. Ranger. Chem & Met Eng 53:207 Je '46
Development of ceramic materials for use in gas turbine engines. G. H. De Witt. diags Product Eng 17:135-7 N '46
Development of zircon as a versatile ceramic material. N. R. Thielke and H. W. Jamison. bibliog Am Cer Soc Bul 24:452-6 D 15 '45
High dielectric constant ceramics. A von Hippel and others. bibliog il Ind & Eng Chem 38:1097-109 N '46
High titania dielectrics. E. Wainer. diags Electrochem Soc Trans 89 (preprint 3):47-71 bibliog(71 references, p69-70) '46
New ceramic combines ceramic materials and powdered metals. H. H Hausner. il diags Cer Ind 47:87-8+ O; 90+ N '46
Silicones; new silica-based plastics of interest to the ceramic industry. S. L. Bass and others. Am Cer Soc J 29:66-70 Mr 1 '46; Abstract. Cer Ind 46:74+ Je '46
Studies of binary and ternary combinations of magnesia, calcia, baria, beryllia, alumina, thoria and zirconia in relation to their use as porcelains. R. F. Geller and others. bibliog pls diags J Res Nat Bur Stand 36: 277-312 Mr '46

See also
Clay
Cordierite
Enamel and enameling
Feldspar
Nepheline syenite
Opacifiers
Refractory materials
Silica
Silicates
Steatite
Talc

Analysis

Quantitative spectrographic analysis of ceramic materials. R. W. Smith and J. E. Hoagbin. bibliog il diags Am Cer Soc J 29: 222-8 Ag 1 '46

Bibliography

George Lindenberg Clark, Orton fellow lecturer for 1946. Am Cer Soc Bul 25:18-19 Ja 15 '46

Strength

Mechanical abnormalities of extruded steatite. J. J. Gingold. Am Cer Soc J 29:228-30 Ag 1 '46

Testing

Stress-strain relations in ceramic materials. M. Lassettre and J. O. Everhart. il Am Cer Soc J 29:261-6 S 1 '46

CERAMIC patents
Ceramic abstracts; compiled by the American ceramic society. Published in monthly numbers of American ceramic society journal

CERAMIC photography. See Photoceramics

CERAMIC research
Ceramic research and development program at Wright Field, Ohio. Am Cer Soc Bul 25:192 My 15 '46
Effect of temperature and length of firing on the properties of fine-ceramic bodies; abstract. G. N. Duderov. Am Cer Soc J 29 (Cer A [25]):109 Je 1 '46
Note on reactions of alkali with kāolin and metakaolin. S. Zerfoss and B. A. Utter. Am Cer Soc J 29:205-7 Ag 1 '46
Some resources of ceramic research. R. M. King. bibliog Am Cer Soc Bul 25:286-91, 337-42 Ag 15, S 15 '46
Studies of binary and ternary combinations of magnesia, calcia, baria, beryllia, alumina, thoria and zirconia in relation to their use as porcelains. R. F. Geller and others. bibliog pls diags J Res Nat Bur Stand 36: 277-312 Mr '46
Use of soda feldspar in whiteware bodies. G. A. Loomis and A. R. Blackburn. bibliog il Am Cer Soc J 29:48-57 F 1 '46
Wright field to spend half million on ceramic research. Cer Ind 46:49 My '46

CERAMIC schools

See also Alfred university—New York state college of ceramics

CERAMIC sculpture
Museum of modern art opens exhibition of first years work at War veterans' art center. il Cer Ind 45:53 N '45
To live with and enjoy; figurines of Thelma Frazier Winter. il Cer Ind 45:78+ N '45

CERAMICS
Abstracts of papers read at annual convention of the American ceramic society. Cer Ind 46:55-96+ Je '46
Ceramic society of the Southwest holds seventh annual meeting. Brick & Clay Rec 107:46 N '45
Ceramics play major role in showcase house. il Cer Ind 47:41 Jl '46
Röntgen ceramics; past, present, and future. G. L. Clark. bibliog Am Cer Soc J 29:177-86 Jl 1 '46; Abstract. Cer Ind 46:57-8 Je '46
Using wax emulsions to improve ceramic production. il Cer Ind 46:73-4 F '46
What, for better products, ceramics learned in the war. il Cer Ind 46:62-6+ Ja '46

See also
Brickmaking
Cement
Clay
Clay products
Enamel and enameling
Fire brick
Glass
Glass manufacture
Glazes
Kilns
Porcelain
Pottery
Refractory materials
Slips (ceramics)
Tiles

Bibliography
American ceramic society journal; Ceramic abstracts section. Am Cer Soc J 29(Cer A [25]):1-24 Ja 1 '46 [cont monthly]
Arthur Simeon Watts. bibliog(98 titles) Am Cer Soc Bul 25:243-7 Jl 15 '46
Ceramic abstracts; compiled by the American ceramic society; author and subject indexes to volume 24. Am Cer Soc Bul 24(Cer A 24): 215-81 D 15 '45
Report of committee to consider possibility of publishing bibliographies or a decennial index to ceramic abstracts. Am Cer Soc Bul 25:297-8 Ag 15 '46

Study and teaching
Ceramics at Rochester institute of technology. Am Cer Soc Bul 25:25-7 Ja 15 '46

Tables, calculations, etc.
Ceramic calculations table. W. C. Hansard. Am Cer Soc Bul 25:207-8 My 15 '46

CEREAL chemists, American association of. See American association of cereal chemists

CEREALS. See Grain trade

CEREALS, Prepared
About face! General Foods introduces the changeover package for Post cereal family. il Mod Packaging 19:96-9 F '46
Nutritive value of ready-to-eat breakfast cereals. R. G. Booth, T. Moran and W. J. S. Pringle. Soc Chem Ind J 64:302-4 N '45
Post re-styles cereal packages to gain family identity. il Sales Management 56:112+ Ap 1 '46
Quaker oats modernizes a 69-year-old character. il Mod Packaging 19:126-31 Mr '46

Advertising
Copy clinic. B. Tyler. il Adv & Sell 38:36-7+ N '45

CEREBROSPINAL meningitis. See Meningitis

CERIUM
Light storage in infra-red sensitive phosphors. R. T. Ellickson. Opt Soc Am J 36: 501-2 S '46
Magnesium-cerium alloy castings for high temperature use. R. F. Marande. bibliog il Materials & Methods 23:418-24 F '46

CERTIFIED foods, inc., San Francisco
Food marketing co-op sets policies for selling Your Certified brand. D. Paulhamus. il Sales Management 56:44+ Ja 15 '46

CESIUM
Cesium vapor lamps. N. C. Beese. diag Opt Soc Am J 36:555-60 O '46

CESIUM copper chloride
Crystal-chemical study of cesium trichlorocuprate. H. P. Klug and G. W. Sears, jr. Am Chem Soc J 68:1133-4 Je '46

CESIUM fluoride
New method of measuring the electric dipole moment and moment of inertia of diatomic polar molecules. H. K. Hughes. Phys R 70:570-1 O 1 '46

CESIUM vapor electric lamps. See Electric lamps, Cesium vapor

CETANE. See Hexadecane

CETANE number. See Diesel engines—Fuel

CETYL alcohol
Heats of solution of hexamethylbenzene, cetyl alcohol, and dicetyl in related liquids; heats of fusion by an extrapolation process. G. S. Parks and R. D. Rowe. bibliog J Chem Phys 14:507-10 S '46

CEYLON
Economic conditions
Prospects in Ceylon. Economist 150:1008-7 Je 22 '46

CHAETOMIUM globosum
Effect of nitrogen on the growth of chaetomium globosum on cotton canvas. F. R. Romano. il Am Dyestuff Rep 35:363-4+ Jl 29 '46

CHAGAS' disease. See Trypanosoma cruzi

CHAIN airports. See Airports—Chain airports

CHAIN conveyors. See Conveying machinery—Chain conveyors

CHAIN gear
Applying high-speed chains; abstract. A. W. Meyer. Machine Design 18:176 Ag '46
Energy losses in the chain-belt problem. F. R. Archibald. il diags Mech Eng 68: 139-42 F '46
High-speed chain drives for automatic screw machines. Mach 52:172 Ag '46
Horsepower ratings for silent chain drives. Mach 52:168-71 Mr '46
Roller chains provide unique propulsion drive. N. C. Bremer. il diags Machine Design 18:150-2+ S '46

Lubrication
Lubricating wire rope and chain. J. Roe. il Rock Prod 49:57 Mr '46

CHAIN stores
A. & P. aftermath. Bsns W p18 O 5 '46
Retail empire is consolidating; Gamble-Skogmo. Bsns W p68+ S 14 '46
Will chains stay in packing? Bsns W p75-7 N 24 '45

See also
Bond stores, inc.
Five- and ten-cent stores
Grant, W. T., company
Great Atlantic and Pacific tea company
Independent grocers alliance of America
May department stores company
Voluntary chain systems

Advertising
Gamble's American gazette circulation hits 3,500,000. il Sales Management 57:99+ O 1 '46
Going to stage a business show? here's how United-Whelan does it; banquet for suppliers, employes as actors. il Sales Management 56:58+ Ap 15 '46

Employees
Chains upset; unionization of local store managers threatens. Bsns W p91 Ag 3 '46

Finance
Expenses and profits of limited price variety stores in 1945; chains and independents. E. A. Burnham (Bur. of business research bul. no. 125) 42p pa $1.50 Harvard univ. Graduate school of business administration, Division of research, Soldiers Field, Boston 63 '46

Mail order stores
Expanding south; Sears, Roebuck's new ventures in Mexico, Brazil. Bsns W p75 O 12 '46

Purchasing
Going to stage a business show? here's how United-Whelan does it; banquet for suppliers, employes as actors. il Sales Management 56:58+ Ap 15 '46
Retailer turns tables and fetes suppliers; United cigar-Whelan stores corp. il Ptr Ink 214:34+ Mr 8 '46

Securities
Divergent trends in merchandise shares, department stores, with statistics on leading stocks. G. S. Kent. il Mag of Wall St 78: 696-9+ S 14 '46

CHAIN stores—Securities—*Continued*
New influences affecting food distributors; with reappraisal of leading stocks. P. Dobbs. Mag of Wall St 78:514-15 Ag 3 '46
Outlook for mechandise shares; with position of leading shares. P. Dobbs. Mag of Wall St 77:704-6+ Mr 16 '46

Statistics

Chain-store sales for December 1944 and 1945. Ptr Ink 214:154 Ja 25 '46 [cont monthly]
Chain stores statistics. Bsns W p82 My 18 '46
Retail chains in Canada, 1944. 11p pa 25c Canada. Dominion bur. of statistics, Ottawa 46

Taxation

Chain tax blow; Kentucky law unconstitutional. Bsns W p84 D 22 '45

CHAINS, Dan. See Folklore, Negro

CHAINS
Hoisting chains; safety aspects. Nat Safety N 53:110+ Mr '46
Keeping chains on the job. O. A. Bamberger. il Nat Safety N 52:34-6+ D '45

See also
Chain gear

CHAINS, Anchor
Di-Lok ground tackle. il Marine Eng 50:208 N '45

CHAIRS
Lawn chair. il Consumers Res Bul 18:8 Jl '46
Shock-proof furniture; Eames' molded plywood models are equipped with new rubber joints. il Arch Forum 84:10-12 Ap '46

Advertising

Uses national ads after 50 years; manufacturer of hospital and sick-room supplies develops Barca-Loafer chair. E. M. Housman. il Ptr Ink 216:55-6 S 13 '46

CHALCONES
Flavanones and related compounds; preparation of polyhydroxychalcones and -flavanones. T. A. Geissman and R. O. Clinton. bibliog Am Chem Soc J 68:697-700 Ap '46

CHALICOTHERES
Chalicotheres as a biological type. A. Borissiak. bibliog il Am J Sci 243:667-79 D '45

CHAMBER of commerce of the United States
Middle-roaders. Bsns W p16 My 4 '46
U.S. Chamber declares its policy on many insurance questions. East Underw 47:1+ 25 Je 21 '46
U.S. Chamber of commerce offers fiscal policy. Comm & Fin Chr 164:1149 Ag 29 '46
Votes on declarations of policy on insurance. Nat Underw (Life ed) 50:8 Je 21 '46

See also
United States junior chamber of commerce

Insurance department

Insurance committee personnel. Weekly Underw 155:130 Jl 20 '46; Nat Underw 50: 1 Jl 18 '46; Nat Underw (Life ed) 50:6 Jl 19 '46
U.S. Chamber backs insurance group's recommendations. Nat Underw (Life ed) 49:13 D 7 '45; Same abr. Nat Underw 49:28 D 6 '45

CHAMBERS of commerce
Empire state association of commerce proposed to coordinate views of business interests of state. L. A. Lincoln. Comm & Fin Chr 163:2491 My 6 '46
How St Louis pre-tests veterans for sales aptitude. Sales Management 56:118+ Ap 15 '46
How San Francisco got over that ghost town feeling; asks neighboring cities What can we do for you? Sales Management 56:112-13 Ap 15 '46
Little to sell, but Los Angeles resumes market trade trips. Sales Management 56:126 Ap 1 '46
Putting your community on the airmap; San Francisco Chamber of commerce coordinates aviation activities. G. Tenney. map Aviation 45:38-41 O '46

CHAMFERING
Eccentric rod adjusts chamfering tool. H. Moore. diags Am Mach 90:128 Ag 29 '46
Wood stave pipe chamfer tool. il Can Min J 67:776-7 Ag '46

CHAMFERING machines
Automatic nipple threading, reaming, and chamfering machine. il Mach 53:185 S '46

CHAMPION paper and fibre company
Potential earnings big. D. Kolb. Barron's 26:7 Ag 12 '46

CHANDLER act. See Bankruptcy

CHANNELS
Flow and depth in trapezoidal channels; with nomograph. P. M. Albert. Water Works & Sewerage 92:350-1 N '45
Flow in a channel of definite roughness. R. W. Powell. bibliog il diag Am Soc C E Proc 70:1521-44 D '44; Discussion. 71:948-53, 1259-62; 72:245-8 Je, O '45, F '46
River navigation extended by open-channel expedients, symposium. M. Elliott and others. il Civil Eng 16:489-95 N '46
Variable flow in level channels solved by simple chart. G. G. Commons and L. B. Griffith. bibliog diag Eng N 137:442-4 O 3 '46

CHANUTE, Octave, 1832-1910
Chanute calls a conference; early glider experiments. J. Hettich. por Aero Digest 52: 28+ Mr '46
Octave Chanute, versatile engineer and aviation pioneer. T. L. Condron. por Western Soc E J 50:153-66 D '45

CHAPELS
Navy builds chapels; illustrations. Arch Forum 84:135 Mr '46
Seabee chapel at Camp Parks, Calif. il plans diags Arch Forum 83:73-7 D '45

CHAPLAINS

Bibliography

Chaplaincy in the armed services; a preliminary bibliography. E. L. Frank, comp. 24p The library, Oberlin graduate school of theology, Oberlin, Ohio '45

CHAPLAINS, Industrial
Labor chaplains; role of ministers working with A.F.L., C.I.O. Bsns W p102+ Je 29 '46

CHAPMAN, Frank Michler, 1864-1945
Sketch. J. T. Zimmer. Science 104:152-3 Ag 16 '46

CHAPMANIZING. See Case hardening

CHARCOAL
Adsorption isotherms for hydrogen-bonded liquids on charcoal. D. H. Volman and I. M. Klotz. J Chem Phys 14:642 O '46
Charcoal briquettes as a coal substitute. H. Greene and T. N. Jewitt. Soc Chem Ind J 64:265-71 O '45
Engine tests with producer gas. F. A. Middleton and C. S. Bruce. bibliog diag J Res Nat Bur Stand 36:171-84 F '46

CHARCOAL, Activated. See Carbon, Activated

CHARGE accounts (retail trade)
Retail credit survey, 1945. Fed Res Bul 32: 581-7 Je '46
Retailers woo charge accounts, improve quality as hedge against buyers' strike. B. Tolk. Ptr Ink 215:103+ Je 21 '46
Supercharger; Filene's budget charge account. Bsns W p78 O 19 '46

CHARGING machines

See also
Cupola furnaces—Charging

CHARITABLE trusts. See Trusts and trustees—Charitable trusts

CHARITIES
Business conducted by charitable organizations; current tax abuses. J Account 81: 153 F '46

See also
Corporations—Charities

CHARLESTON, South Carolina

Industries

Charleston's new industry board. O. Hill. il Manuf Rec 115:37-8+ Ag '46

CHARLOTTE, Michigan

See also
Airports—Charlotte, Michigan

CHARPY, Georges, 1865-1945
La vie et l'oeuvre de Georges Charpy. L. Guillet and others. Génie Civil 123:165 Je 15 '46

CHARPY impact test. See Impact

CHARTERED airplanes. See Airplanes—Chartering

CHARTERED buses. See Motor buses—Chartering

CHARTERED life underwriters, American society of. See American society of chartered life underwriters

CHARTERED property and casualty underwriters. See American institute for property and liability underwriters

CHARTS (calculating)
Airspeed conversion chart. R. F. Boehme. il diag Aero Digest 53:85+ Ag '46
Allowable working stresses for steels. C. Lipson and G. Noll. Product Eng 17:205-8 Mr '46
Back pressure open flow computations simplified. W. F. Martin. Pet Eng 17:152+ N '45
Calculating torsional stiffness of shafts; engineering data sheet. C. Carmichael. Machine Design 18:153-4 Mr '46
Capacities of spherical tanks. L. T. Monson. Oil & Gas J 45:90-1 Ag 3 '46
Chart determines economic depth of plate girders. B. L. Parker. Eng N 137:186 Ag 8 '46
Chart for determination of equivalent pipes. J. R. Arbuthnot. Water & Sewage Works 93:306-7 Ag '46
Chart for determining per cent sludge digestion. F. H. Burley. Water & Sewage Works 93:88 F '46
Chart for the design of wooden spars. E. Etkin. J Aeronautical Sci 13:498-500 S '46
Chart guides pole class selection. H. E. Ostman. Elec World 126:94 Ag 17 '46
Charts aid in specifying gear-pin sizes. W. T. Taylor. Machine Design 17:151-4 D '45; 18:149-52 Ja '46
Charts for fluid friction bearing design; reference book sheet. H. W. Hamm. diags Product Eng 17:351-2, 435-6 Ap-My '46
Charts for solution of oblique-angle and right triangles; reference book sheets. L. Kasper. Product Eng 17:161, 163 N '46
Charts shorten time to calculate flue-gas moisture and volume. H. Richardson. Power 90:532-3 Ag '46
Cooling and heating rates of plates, cylinders and spheres. V. Paschkis. bibliog diag Welding J 25:sup497-502 S '46
Fluorescent lamp life calculated to determine replacements. R. R. Wylie. Textile World 95:122-3 N '45; Same. Am Mach 89:145, 147 D 20 '45
Friction charts for gases including correction for temperature, viscosity and pipe roughness. R. D. Madison and W. R. Elliot. Heating-Piping 18:107-12 O '46
Helical steel springs; design chart; reference book sheet. C. P. Nachod. Product Eng 16:892 D '45
Impedance-admittance conversion chart. R. C. Paine. Electronics 19:162 Ja '46
Internal pressure chart for round steel tubing; reference book sheet. B. Ostlind. Product Eng 16:891 D '45
Logarithmic mean temperature difference; chart. W. L. Nelson. Oil & Gas J 44:85 Ja 5 '46
Logographs; charts for graphic solution of equations in heat transmission. R. S. Tour. A S M E Trans 68:143-9 F '46
Mixer frequency charts. R. S. Badessa. Electronics 19:138 Ag '46
New friction chart for round ducts. D. K. Wright, jr. bibliog Heating-Piping 17:577-84; Discussion. 584 O-N '45
New methods for point by point calculations. I. Goodbar. diags Illum Eng 41:39-76 Ja '46
Resistance coefficients and flow of liquids in pipe systems. V. Tatarinov. diags Product Eng 17:406-11 My '46
Setup charts for Bullard Mult-au-matics. J. J. Meadows. Iron Age 156:54-8 D 13 '45
Streamlined orifice calculations. E. E. McReynolds. flow charts Pet Refiner 25:130-5 Ag '46
Three-wire thread gaging simplified; charts and tables; thread forms include National fine and National coarse series, Whitworth standard, British association, British standard fine, and French standard. J. J. Meadows. diag Iron Age 157:51-7 Ap 18 '46
Triangular charts perform logarithmic operations. M. M. Reynolds. Chem & Met Eng 53:164-5 F '46
Universal chart gives speedy answers to problems in fluid flow. W. C. Woodman. Power 90:297-9 My '46
Useful all purpose pipe chart. W. F. Schaphorst. Water & Sewage Works 93:160-1 Ap '46

See also
Nomography

CHASE national bank of New York
Report to stockholders. Comm & Fin Chr 163:289+ Ja 17 '46

CHASERS. See Thread cutting

CHATTANOOGA, Tennessee
Chattanooga equipment firm makes $1,000,000 expansion; Wheland company's new foundry. il Manuf Rec 115:49+ Je '46

Industries
Chattanooga views future with confidence. B. Leiper. il Manuf Rec 115:44-5+ F '46

CHATTANOOGA university

Industrial research institute
Industrial research institute, University of Chattanooga. il Manuf Rec 115:52-3+ Ap '46

CHATTEL mortgages
Bank officer must be authorized to discharge mortgage indebtedness. Banking Law J 62:981-6 D '45
Chattel mortgage contracts; with summary of state laws. C. B. Everberg. Credit & Fin Management 48:20+ F '46
New chattel mortgage law in Argentina. For Comm W 24:21 S 14 '46
Non-recorded chattel mortgage cover active line; protects banks that do not record evidence of debt. Nat Underw 50:21 S 19 '46

CHECKING accounts. See Banks and banking—Checking accounts

CHECKS
Check handling made easier; sorting checks for reconciling payroll accounts by use of punched checks. R. Conley. il Am Bsns 16:14-15 Ja '46
Personalized gift check. il Burroughs Clearing House 30:8 D '45

See also
Overdrafts

Certification
Certification of check withdraws sum thereof from control of drawer; service on holder of check necessary to validate attachment. Banking Law J 62:859-62 N '45

Collection
24 more clearing houses allow delayed returns. Bankers Mo 63:225-8 My '46

See also
Banks and banking—Collection charges
Banks and banking—Transit operations

Design
Banks comment on check routing symbol. Banking 39:74-6 Ag '46
Check routing symbol program. V. Willis. il Burroughs Clearing House 30:22-4+ F '46
Check sample binder aids check-style selection by customers. il Burroughs Clearing House 31:8 O '46
Dividend checks, the worst offenders. il Bankers Mo 63:86-7 F '46
How to save millions of dollars of extra work; standardization of check sizes. il Bankers Mo 63:64-6 F '46
Moraine Products improves payroll with new check. il Am Bsns 16:36 S '46
Quick, now! what's the total of these checks? errors in design. il Bankers Mo 62:513 N '45
Two suggestions for fostering uniformity in check design. L. K. Arthur. il Bankers Mo 63:382+ Ag '46

CHECKS—Design—*Continued*
Value of the check routing symbol. V. Willis. il Banking 38:73+ My '46

Indorsement

Cashing checks with restrictive endorsement. Burroughs Clearing House 30:47-8+ My '46
Watch payee endorsements; bank cashing a check or receiving it in a deposit is responsible for getting endorsement. Bankers Mo 63:94-6 F '46

Law

Bank cannot recover payment made by error on depositor's check where account has insufficient funds. Banking Law J 63:747-76 O '46
Bank held not liable for misappropriation of corporate funds by corporate officer in absence of bad faith; checks paid out on unauthorized endorsement. Banking Law J 62: 941-9 D '45
Bank liable to depositor's assignee for payment of cash to fiduciary. Banking Law J 63: 200-12 Mr '46
Bank officer's personal use of bad check. Banking 39:80 O '46
Banks not liable for payment of checks endorsed by husband of deceased wife payee. Banking Law J 63:581-3 Ag '46
Be cautious about paying altered checks. J. L. Griffiths and W. J. Papenbrock. Bankers Mo 63:23 Ja '46
Certification of check withdraws sum thereof from control of drawer; service on holder of check necessary to validate attachment. Banking Law J 62:859-62 N '45
Check not good tender of payment of debt until honored. Banking Law J 63:588-90 Ag '46
Deposit of bank officer's worthless check. C. R. Rosenberg, jr. Burroughs Clearing House 31:53-4 O '46
Diary of the customer's check. M. L. Hayward. Barron's 26:32 S 16 '46
Seventeen checks in clearings for amounts $5 to $75, total $664.45 balance $228.12; shall we pay any? L. Childs. Bankers Mo 62:520 N '45
Substitution of word on printed heading of check not material alteration rendering check void. Banking Law J 63:317-20 Ap '46
Sufficiency of check as tender where objection not expressly taken at time of tender. Banking Law J 63:553-7 Jl '46

See also
Checks—Indorsement
Checks—Protest
Checks—Stop payment
Checks, Fraudulent

Par payment

See Banks and banking—Collection charges

Printing

Check printing. E. St John. Inland Ptr 116:51 O '45
Let's protect bank customers against fraudulent check passers; educate printers to verify authenticity of checks to be printed for strangers. Bankers Mo 63:286+ Je '46
Prints ads on checks. Ptr Ink 216:68 Ag 23 '46

Protest

A.B.A. legal department answers questions on protest. Bankers Mo 63:69-71 F '46
Here's the law that makes extra work for banks; Negotiable instruments act. Bankers Mo 63:21-2 Ja '46
Progress is being made toward changes in protest requirements. Bankers Mo 63:277-8 Je '46

Stop payment

Bank cannot recover for payment after receipt of stop payment order. Banking Law J 63:542-3 Jl '46
Banks' liability; oral stop payment order. Banking 38:98+ Mr '46
Stop payment order statutes. Banking 38:128 My '46

CHECKS, Fraudulent

Bank entitled to maintain bill of discovery in support of its defense to suit for payment of forged checks charged against depositor's account. Banking Law J 63:41-9 Ja '46
Bank liable to depositor for amount of check drawn by bank officer on personal account. Banking Law J 63:729-46 O '46
Bank not liable to drawer on forged indorsement of check. Banking Law J 63:193-6 Mr '46
Bank officer's personal use of bad check. Banking 39:80 O '46
Bank's liability for payment of forged check. Banking 39:80-2 N '46
Deposit slip trick. M. Stearns. Banking 38: 43+ Mr '46
Drawee bank entitled to recover money from indorsers of forged check. Banking Law J 63:474-8 Je '46
It's the signature that counts. M. Stearns. Banking 39:46 Jl '46
Let's protect bank customers against fraudulent check passers; educate printers to verify authenticity of checks to be printed for strangers. Bankers Mo 63:286+ Je '46
Proof of loss not essential to recovery. C. R. Rosenberg, jr. Burroughs Clearing House 30:53 Je '46
Statutory limitation on bank's liability to depositors for payment of check bearing forged indorsement of payee. Banking Law J 62:877-80 N '45

CHECKS, Government

Checks, lost, stolen, etc.: replacement; act to amend section 3646 of the Revised statutes. Banking Law J 63:65-8 Ja '46
Limitation on claims connected with government checks. Fed Res Bul 32:384 Ap '46

CHECKS, Returned

Sight paying; yes or no? many banks leave it to the posters to discover items that must be returned. Bankers Mo 62:499-501 N '45

CHEESE

Alkmaar's picturesque cheese carriers active again. For Comm W 24:27 Ag 24 '46
Cheese for lease; Wisconsin's independents sign short-term contracts with big firms. Bsns W p76+ My 11 '46
Cheese in demand. Bsns W p32+ F 16 '46
Vanillic acid esters as food preservatives. I. A. Pearl and J. F. McCoy. il Food Ind 17: 1458-61+ D '45

See also
Cheese spreads

Manufacture

How to make grating cheese. C. D. Dahle and G. H. Watrous, jr. il Food Ind 18: 689+ My '46
Shelf curing of cheese; what are the facts? A. B. Erekson. bibliog il Food Ind 18:1177-9+ Ag '46

CHEESE spreads

Freezing point data sheets and cooling curves. Food Ind 18:867-9 Je '46

CHELATION

Inner complex ions, a chelate species. H. A. Liebhafsky. bibliog J Chem Educ 23:341-2 Jl '46
Metal chelates for oxygen production M. Calvin. Chem Ind 58:610 Ap '46
Novel reaction between amines and dibenzoylmethylethylene; evidence for a chelate structure for *cis*-dibenzoylmethylethylene. R. E. Lutz and P. S. Bailey. bibliog Am Chem Soc J 67:2229-32 D '45
Preparation of high specific induced radioactivity by neutron bombardment of metal chelate compounds. R. B. Duffield and M. Calvin. Am Chem Soc J 68:1129 Je '46
Stability of chelate compounds. M. Calvin and K. W. Wilson. Am Chem Soc J 67:2003-7 N '45
Stability of chelate compounds; exchange reactions of copper chelate compounds. R. B. Duffield and M. Calvin. bibliog Am Chem Soc J 68:557-61 Ap '46
Stability of chelate compounds; polarographic reduction of copper chelates. M. Calvin and R. H. Bailes. bibliog Am Chem Soc J 68:949-54 Je '46

CHELIDONINE

Synthesis of some tertiary amino alcohols related to chelidonine. C. R. Noller and P. D. Kneeland. bibliog Am Chem Soc J 68: 201-2 F '46

CHEMICAL abstracts (periodical)
Chemical abstracts expands services. E. J. Crane. Chem & Eng N 24:14 Ja 10 '46
Wartime scientific periodicals. E. J. Crane. J Chem Educ 23:482-4 O '46

CHEMICAL apparatus
Apparatus for the preparation of tellurium tetrachloride. J. F. Suttle and R. P. Geckler. diag J Chem Educ 23:135-6 Mr '46
Apparatus for trapping ammonia in the Kjeldahl method for nitrogen. T. J. Potts. diag Ind & Eng Chem Anal ed 18:78 Ja '46
Chaos? fight to preserve a vital industry. N. Sheldon. Chem Age (Lond) 54:450-2 Ap 27 '46
Condenser-receiver unit. S. J. Potempa and F. P. Cassaretto. diags J Chem Educ 23: 219 My '46
Constant-level feeder for thermostatic baths and continuous evaporators. M. S. Telang. bibliog diags Ind & Eng Chem Anal ed 18:453-4 Jl '46
Current developments in instrumentation in analysis. R. H. Müller. Ind & Eng Chem Anal ed 18:sup 21-2 Ja '46 [cont monthly]
Electrolyte solution heating element for steam microbath. A. P. Marion. diag Ind & Eng Chem Anal ed 18:82 Ja '46
Gage for preparation of laboratory solutions. O. R. Mitchell. diag Ind & Eng Chem Anal ed 18:80 Ja '46
Improved apparatus for measuring heats of reaction. S. G. Yorke. diag Chem & Ind p 17 Ja 12 '46
Improved device for decomposition of grease. R. W. Tarara. diag Ind & Eng Chem Anal ed 18:68 Ja '46
Instrumentation in analysis; extension of chromatographic technique. S. Claesson. Ind & Eng Chem Anal ed 18:sup23 Je '46
Manufacture and repair of glass laboratory apparatus. W. N. Epler. il Pet Refiner 25: 113-15 My '46
Mercury cleaning apparatus for continuous operation. F. E. Holmes. diag Ind & Eng Chem Anal ed 18:451-2 Jl '46
Nitrogen determination by the micro-Dumas method; improvements in apparatus. E. Stehr. bibliog il diags Ind & Eng Chem Anal ed 18:513-15 Ag '46
Preparation of synthetic samples of low-boiling hydrocarbons. R. H. Busey, G. L. Barthauer and A. V. Metler. diags Ind & Eng Chem Anal ed 18:407-11 Jl '46
Semimicro boiling-point test tube. A. Furst and J. W. Bohner. diag J Chem Educ 22: 531-2 N '45
Simple laboratory hot-air dryer. I. R. C. Bick. diag J Chem Educ 23:127 Mr '46
Sintered-glass valves; application to spectrometer calibration and to preparation of known mixtures. R. C. Taylor and W. S. Young. diags Ind & Eng Chem Anal ed 17: 811-14 D '45
Water-level regulator for a series of high-temperature water baths. I. I. Bezman and E. P. Barrett. diag Science 103:401 Mr 29 '46

See also
Agitators
Centrifuges
Chemical plants—Equipment
Distillation apparatus
Evaporators
Extraction apparatus
Filters and filtration (technical chemistry)
Gases—Apparatus
Glassware, Laboratory
Reductors
Scrubbers
Shaking apparatus
Turbidimeters
Vacuum pumps
Vaporizers
Viscosimeters

Cleaning

Cleaning laboratory glassware. D. L. Harris and H. K. Mitchell. diag Ind & Eng Chem Anal ed 18:586 S '46

CHEMICAL bank and trust company
New officers; annual report. Comm & Fin Chr 163:304 Ja 17 '46

CHEMICAL bonds
Associating effect of the hydrogen atom; the N-H-N bond; the structure and tautomerism of cyanamides. L. Hunter and H. A. Rees. Chem Soc J p617-21 S '45
Binding of organic ions by proteins. I. M. Klotz, F. M. Walker and R. B. Pivan. bibliog Am Chem Soc J 68:1486-90 Ag '46
Bond energy of diatomic molecules; abstract. M. A. Cook. Can Chem & Process Ind 30:98 O '46
Bond hybridization in the non-tetrahedral carbon atom. J. E. Kilpatrick and R. Spitzer. bibliog J Chem Phys 14:463-4 Jl '46
Cross linkages in cellulose and their practical implications; with review of effects of formaldehyde treatment upon properties of cellulose; claims of patent to Kantorowicz. E. Heuser. bibliog Paper Tr J 122:43-8 Ja 17 '46; Same cond. Paper Ind 27:1902+ Mr '46
Dipole moment of hydrogen fluoride and the ionic character of bonds. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:171-3 F '46
Force constant of the association bond in the formic and acetic acid dimers. J. O Halford. diags J Chem Phys 14:395-8 Je '46
Force constants of ozone. G. Glockler and G. Matlack. bibliog J Chem Phys 14:531-3 S '46
Heats of formation of liquid methyl sulfoxide and crystalline methyl sulfone at 18°. T. B. Douglas. Am Chem Soc J 68:1072-6 Je '46
Kinetics of anionotropic rearrangement; substituent effects in the oxotropic formation of the butadiene system; comparison of the electron-attracting properties of the ethylenic and acetylenic bonds. E. A. Braude and E. R. H. Jones. Chem Soc J p128-30 F '46
Molecular constants and chemical theories; some remarks on physical constants and theories of higher valence states. R. Samuel. bibliog J Chem Phys 13:572-84 D '45
Nature of the N-H bond in the porphyrins. J. G. Erdman and A. H. Corwin. bibliog Am Chem Soc J 68:1885-9 O '46
O—O bond energy in hydrogen peroxide. G. Glockler and G. Matlack. J Chem Phys 14:504-5 Ag '46
Relation between bond force constants, bond orders, bond lengths, and the electronegativities of the bonded atoms. W. Gordy. bibliog J Chem Phys 14:305-20 My '46
Tetrahedral P_4 molecule. J. R. Arnold. J Chem Phys 14:351 My '46
Theory of the non-tetrahedral carbon atom. G. H. Duffey. J Chem Phys 14:342-3 My '46
Weak associations in water and in aniline. R. Parshad. J Chem Phys 14:348 My '46

See also
Double bonds
Molecular association
Valence

CHEMICAL compounds
New classification system for chemical compounds. D. E. H. Frear and others. Science 104:177-8 Ag 23 '46

CHEMICAL education
ACS official reports; professional training of chemists. Chem & Eng N 24:1237-8 My 10 '46
ACS predoctoral fellowship awards. Chem & Eng N 24:1485-6 Je 10 '46
Availability of technically trained men. M. H. Trytten. Chem & Eng N 24:1656-9 Je 25 '46
Awards and educational activities of ACS local sections. R. F. Gould. Chem & Eng N 24:629-31+ Mr 10 '46
Chemical education plans for postwar. il Chem Ind 57:833-5 N '45
Education of chemists; opinions on curricula in chemistry. F. M. Stubblefield. Chem & Eng N 23:1950-1 N 10 '45
Education of graduate students. J. D. Loconti. Chem & Eng N 24:2620-1 O 10 '46
Progress report number 12 of the committee on the professional training of chemists. Chem & Eng N 23:2188-9 D 10 '45
Russian in the chemist's curriculum. J. G. Tolpin. bibliog J Chem Educ 23:123-6 Mr '46

CHEMICAL education—*Continued*
Wartime chemical education through E.S.-M.W.T. A. M. Patterson. J Chem Educ 23: 463-5 S '46

See also
Chemistry—Study and teaching

Chicago

Chemical education in Chicago. il Chem & Eng N 24:2038-41 Ag 10 '46

CHEMICAL elements
Chemical and radioactive properties of the heavy elements. G. T. Seaborg. Chem & Eng N 23:2190-3 D 10 '45
Discovery of elements 95 and 96 announced at Chicago ACS conference. Chem & Eng N 23:2085 N 25 '45
Expanding universe and the origin of elements. G. Gamow. bibliog Phys R 70:572-3 O 1 '46
Historic researches. Engineer 182:92-4, 114-16, 136-8, 158-61, 268-70, 292-3 Ag 2-23, S 27-O 4 '46
Impact of nuclear chemistry; the heavy elements. G. T. Seaborg. il diags Chem & Eng N 24:1192-8 My 10 '46
Production of elements 95 and 96. G. T. Seaborg and J. G. Hamilton. Science 102:556 N 30 '45
Radioactive element 94 from deuterons on uranium. G. T. Seaborg and others. Phys R 69:366-7 Ap 1 '46
Seaborg names new elements; americium and curium. Chem & Eng N 24:899 Ap 10 '46
Search for spontaneous fission in 94^{239}. J. W. Kennedy and A. C. Wahl. Phys R 69:367-8 Ap 1 '46

See also
Transuranium elements
Valence
also names of elements, e.g. Carbon; Oxygen; Sulfur

CHEMICAL engineering
Award for chemical engineering achievement to go to atomic bomb project. S. D. Kirkpatrick. il map diags Chem & Met Eng 53: 111-12 Ja; 107-22 F '46
Chemical engineering concept in steel industry. R. E. Zimmerman. il Chem & Met Eng 53:131-3 My '46
Chemical engineering in the laundry industry. F. C. Harwood. il diags Inst Chem Eng Trans 20:44-52; Discussion. 52-4 '42
Chemical engineering in the Middle West. Chem Eng 53:97-100 Ag '46
Chemical engineering profession honors A-bomb project; award to Manhattan engineer district. Chem & Met Eng 53:100-5 Mr '46
Chemical engineering progress for peace. il Chem & Met Eng 53:123-46 F '46 [reprints 25 cents]
Chemical engineering research; abstracts. C. J. T. Cronshaw. Chem & Ind p32 Ja 19 '46; Chem Age (Lond) 54:83-4 Ja 19 '46
Chemical engineers' approach to industrial waste problems. J. E. Tarman. Am Water Works Assn J 38:333-41 Mr '46
Chemical engineers survey war-developed industries. Oil Paint & Drug Rep 150:7+ S 2 '46
Chemist finds the answers; experience of Edwal laboratories, inc. il Am Bsns 16:18+ Ja '46
Development of new chemical processes; discussion. Inst Chem Eng Trans 20:38-43 '42
Engineering technique commercializes human blood fractionation. J. R. Callaham. flow diag il Chem & Met Eng 53:101-3 Je '46
How chemical engineers can use statistical methods. E. I. Stearns. bibliog diags Chem & Met Eng 53:119-21 My '46
Materials of construction in bead catalyst plant; Socony vacuum plant, Paulsboro, N.J. flow sheet Chem & Met Eng 53:231-2+ My '46
Modernization pays dividends in varnish industry; Vita-Var corp., Newark. R. W. Porter. il Chem & Met Eng 53:116-17 Ja '46
Process design and operation guided by the economic balance. C. G. Kirkbride. Chem Eng 53:118-24 S '46
Role of the process engineer in the atomic bomb project. P. C. Keith. il diags Chem & Met Eng 53:112-22 F '46
Some aspects of chemical engineering thermodynamics with particular reference to the development and use of the steady flow energy balance equations; abstract. E. Woollatt. Chem & Ind p101 Mr 2 '46
Some modern trends in the chemical and allied industries. H. W. Cremer. Chem & Ind p282-5 Jl 27 '46
Some problems of vacuum technique from a chemical engineering standpoint; abstract. H. Griffiths. Chem & Ind p342-3 N 3 '45; Same abr. Chem Age (Lond) 53:440 N 10 '45
Unusual techniques feature the production of synthetic bead catalyst; Socony Vacuum's plant at Paulsboro, N.J. R. W. Porter. flow sheet(p138-41) il diags Chem & Met Eng 53:94-8 Ap '46
Vapour phase adsorption. H. Griffiths. Chem Age (Lond) 54:423-6 Ap 20 '46

See also
Chemical plants
Chemistry, Technical
Cooling, Industrial
Distillation
Drying
Evaporation
Extraction processes
Feed water purification
Filters and filtration (technical chemistry)
Flotation process
Food factories
Metallurgy
Mixing
Petroleum refineries
Refrigeration and refrigerating machinery
Refuse disposal
Sewage disposal
Unit processes
Water purification

Apparatus and supplies

Advantages of high-speed electronic recording in industrial process measurements. D. M. Considine and D. P. Eckman. il diags Am Inst Chem Eng Trans 42:707-23 Ag '46
Calculation of temperature distribution in catalytic converters. L. M. Grossman. bibliog Am Inst Chem Eng Trans 42:535-51 Je '46
Electronics in automatic chemical feed systems. R. T. Sheen. flow sheet il diags Am Inst Chem Eng Trans 42:725-39 Ag '46
Fourth national chemical exposition; guide and directory. plans Chem Eng 53:307-9+ Ag '46
Interest turns to equipment at Chicago's fourth national chemical show. il Chem Eng 53:108-12 Ag '46
Optimum water requirements vs. mean temperature difference in single shell pass; multitube pass condensers and coolers. J. Meisler. bibliog diags Am Inst Chem Eng Trans 42:553-66 Je '46
Process design of catalytic reactors; dehydrogenation of butane. R. H. Dodd and K. M. Watson. bibliog flow plans diag Am Inst Chem Eng Trans 42:263-91 Ap '46; Same. Nat Pet N 38 pt 2:R545-6+ Jl 3 '46
Silicones as new engineering materials. W. R. Collings. il Am Inst Chem Eng Trans 42:455-71 Je '46
Tubular reactors; abstract. K. B. Wilson and G. J. H. Tasker. Chem Age (Lond) 55:477 O 19 '46

See also
Agitators
Centrifuges
Chemical plants—Equipment
Distillation apparatus
Drying apparatus
Evaporators
Extraction apparatus
Heat exchangers
Pressure vessels

Estimates

Estimating chemical engineering equipment costs. J. Happel, R. S. Aries and W. J. Borns. Chem Eng 53:99-102 O; 97-100 D '46
Needed; standard cost estimating data for the process industries. H. Eckhardt. Chem Eng 53:104-5 S '46

Study and teaching

Chemical engineering educational program faces difficulties. Chem Eng 53:97-8 S '46

Tables, calculations, etc.

Chemical reactions in continuous-flow systems; heterogeneous reactions. H. M. Hulburt. bibliog Ind & Eng Chem 37:1063-9 N '45

CHEMICAL engineering—Tables, calculations, etc.—*Continued*
Gauss's formula in chemical engineering calculations. A. E. Kroll. bibliog Chem Eng 53: 102-4 S '46
Material or heat transfer between a granular solid and flowing fluid; present status of the theory. E. W. Thiele. bibliog Ind & Eng Chem 38:646-50 Je '46
Methods of producing uniform velocity distribution. R. L. Stoker. diags Ind & Eng Chem 38:622-4 Je '46
Practical chemical engineering calculations. H. Griffiths. Chem & Ind 59:807-10 D 7 '40; 60:430-2 Je 7 '41; p338-40 N 3 '45
Projection of laboratory reaction velocity data into commercial design. J. H. Hirsch, C. L. Crawford and C. Holloway, jr. bibliog Ind & Eng Chem 38:885-90 S '46
Representation of the vapour-liquid equilibrium relation by means of a new graphical method. A. L. Bloomfield. Inst Chem Eng Trans 20:78-92 bibliog(p92); Discussion. 92-6 '42

CHEMICAL engineers
Chemical engineers as citizens; abstract. C. M. A. Stine. Chem & Met Eng 53:266+ Ap '46
Need for more men in the profession. Chem Age (Lond) 55:110-11 Jl 27 '46
Salvage those chemical engineers. B. H. Hopkins. Chem & Met Eng 52:97+ D '45
Statement of research policy suggested for inclusion in research policies of educational institutions. Chem & Eng N 24:1535 Je 10 '46
Timmie versus industrial psychology. B. H. Hopkins. Chem & Met Eng 53:147-9 F '46

Directories
Classified directory, 10th ed 88p Assn. of consulting chemists and chemical engineers, 50 E. 41st st, New York 17 '46

CHEMICAL equilibrium
Chemical equilibria in water treatment. W. F. Langelier. bibliog fold charts Am Water Works Assn J 38:169-78 F '46
Conditions of equilibrium for systems of many constituents. S. R. Brinkley, jr. J Chem Phys 14:563-4 S '46; Correction. 14:686 N '46
Correlating equilibrium constants; chemical reactions and heats of reaction. D. F. Othmer and A. H. Luley. bibliog Ind & Eng Chem 38:408-12 Ap '46
Effect of side reactions on experimental isomerization equilibria. J. R. Bates. Am Chem Soc J 68:511-13 Mr '46
Equilibria in ternary systems containing oxalates. L. M. Hill, T. P. Goulden and E. Hatton. Chem Soc J p78-81 F '46
Equilibrium of iron-carbon alloys with mixtures of CO-CO_2 and CH_4-H_2. R. P. Smith. bibliog Am Chem Soc J 68:1163-75 Jl '46
Equilibrium studies on the dehydrogenation of primary and secondary alcohols; 2-butanol, 2-octanol, cyclopentanol and benzyl alcohol. A. H. Cubberley and M. B. Mueller. bibliog diag Am Chem Soc J 68:1149-51 Jl '46
Isomerization equilibria among the *n*-butenes. H. H. Voge and N. C. May. bibliog Am Chem Soc J 68:550-3 Ap '46
Thermodynamic properties of gaseous 1,3-butadiene and the normal butenes above 25° C; equilibria in the system 1,3-butadiene, *n*-butenes, and *n*-butane. J. G. Aston and others. bibliog J Chem Phys 14:67-79 F '46

See also
Donnan equilibrium
Phase rule and equilibrium

CHEMICAL formulas
Structural formulæ. G. M. Dyson. Chem & Ind p392-3 D 15 '45

CHEMICAL industries
Advice to the chemist back from war who wants to set up a small business. C. O. Brown. Ind & Eng Chem 38:sup73-4 Ja '46
Chemical engineering progress for peace. il Chem & Met Eng 53:123-46 F '46 [reprints 25 cents]
Chemical executives meet at Skytop. Chem & Eng N 24:1666-7 Je 25 '46
Chemical exports in 1946. C. C. Concannon. Chem & Eng N 24:324-7 F 10 '46
Chemical industry charts gains. Bsns W p80-2+ S 21 '46
Chemical industry in 1945 and ahead. L. du Pont. Chem & Eng N 24:319-21 F 10 '46
Chemical industry trends discussed at Cleveland by market research group. Chem & Eng N 24:51-3 Ja 10 '46
Chemical raw materials shortage to extend into 1947. Oil Paint & Drug Rep 149:3+ Je 10 '46
Chemical specialties open new markets. Chem Ind 59:268-77+ Ag '46
Chemicals from war into peace. S. D. Kirkpatrick. Chem & Met Eng 53:95 Ja '46
Factors in building a new export business, abstract. E. M. Melton. Chem & Met Eng 53:276+ Ap '46
Five points to consider in setting up a chemical market research department. Chem Ind 58:969 Je '46
Foreign economic administration activities in the chemicals field. M. Williams. bibliog Chem & Eng N 23:2322-7 D 25 '45
Heavy chemical industry in 1945. P. Parrish. bibliog il diags Chem Age (Lond) 54:33-52 Ja 12 '46
Information sources for chemical market research. R. M. Lawrence; W. W. Chadbourne. bibliog il Chem Ind 57:1058-61; 58: 62-5+, 252-5+, 429-32+, 582-5+, 795-800+, 967-9; 59:75-80+, 663-8 D '45-Jl, O '46
Into the organics. Bsns W p70 Ag 17 '46
Investment and money market outlook as it affects the chemical industry. A. M. Pope. Chem & Eng N 24:618-20 Mr 10 '46
Market research; symposium for junior chemical engineers; Chem. & Met. report. bibliog Chem & Met Eng 53:153-60 My '46
Market trends in chemical trades. C. C. Concannon. il Dom Comm 34:48-51 Jl '46
Marketing chemical specialties. E. Despres. Chem Ind 57:1071-2 D '45
New threat of increased costs and what it means to producers of chemicals. R. P. Soule. Chem Ind 57:1049-52 D '45
Qualitative market research. L. C. Lockley. Chem & Eng N 24:2174-6 Ag 25 '46
Recent imports. Oil Paint & Drug Rep 149: 4+ Mr 11 '46
Reconversion problems in the chemical industry. G. F. DuBois. Chem & Eng N 24: 322-3 F 10 '46
Some modern trends in the chemical and allied industries. H. W. Cremer. Chem & Ind p282-5 Jl 27 '46
Technical manpower and reconversion discussed at MIT. Chem & Eng N 23:2194-7 D 10 '45
Various problems confront chemical manufacturers who wish to enter foreign trade. W. von Pechmann. Ind & Eng Chem 38:sup 87-8 Jl '46

See also
Alcohol industry
Brewing industries
Chemical workers
Chemicals
Chemistry, Technical
Dye industry
Electrochemistry
Fertilizer industry
Fertilizers
Glass
Leather industry and trade
Metallurgy
Oil industries
Paint industry and trade
Paper
Paper chemicals
Paper industry and trade
Plastic industries
Pottery
Rubber
Rubber industry and trade
Salt
Soap
Soap industry and trade
Solvents
Sugar industry and trade
Tanning
Tanning materials
Textile industry

Accounting
Flexible budgets can assist chemical companies in attaining profit objectives. F. H. Rowland. Chem Ind 58:792-4 My '46
How to determine economical batch sizes. S. E. Andersen. Chem & Met Eng 53:137 Jl '46
Needed; standard cost estimating date for the process industries. H. Eckhardt. bibliog Chem Eng 53:104-5 S '46

Directories
Buyers guidebook number, 20th annual revision. R. L. Taylor, ed. Chem Ind 55:1-905 pt 2 (Buyers guidebook no) N '44 (pa $2)

CHEMICAL industries—Directories—*Cont.*
Buyers guidebook number, 21st annual revision. R. L. Taylor, ed. Chem Ind 57:1-985 pt 2 (Buyers guidebook no) N '45 (pa $2)
New chemicals for industry; with list of manufacturers. Chem Ind 57:879-97; 58: 270+; 59:309-23+ N '45, F, Ag '46

Exhibitions

Chemical exposition draws record crowd. il Chem & Eng N 24:766-9 Mr 25 '46
Chemical industries exposition reveals array of science advances. il Manuf Rec 115:48+ Mr '46
Chemical industries on parade. Bsns W p56+ Mr 9 '46
Comprehensive exhibition. il Chem Age (Lond) 54:697 Je 22 '46
Equipment progress portrayed at 20th chemical exposition; Chem. & Met. report. il Chem & Met Eng 53:129-41 Mr '46
Exhibitors, 20th exposition of chemical industries. plans Chem & Eng N 24:187-98+ Ja 25 '46
First postwar chem show. il Chem Ind 58: 598-600 Ap '46
Fourth national chemical exposition, Chicago coliseum, 1513 South Wabash Ave. September 10 to 14. Chem & Eng N 24:2195-6+, 2490-3 Ag 25, S 25 '46
Fourth national chemical exposition; guide and directory. plans Chem Eng 53:307-9+ Ag '46
How to get the most out of trade expositions; who goes to industrial shows? why? how much time do they spend? what types of exhibits interest and help them most? J. T. Fosdick. il Ptr Ink 215:33-5 Je 21 '46
Preview of exhibit, 20th chemical show, New York, February 25-March 2. L. C. Mazzola. il diag Food Ind 18:166-73 F '46
20th chemical exposition. Can Chem & Process Ind 30:94+ Mr '46
200 industrial companies exhibit products at chemical exposition. A. Bernstein. il Ind Marketing 31:47-8 O '46

Finance

New frontiers for General Aniline. F. Adams. Barron's 25:11+ D 17 '45
Re-appraisal of chemicals; with statistics analyzing position of leading companies. J. C. Clifford. Mag of Wall St 77:689-91+ Mr 16 '46
Review of chemical finance. S. H. Withey. Chem Age (Lond) 55:9-15, 143-7 Jl 6, Ag 3 '46

History

Chemical review of 1945. il Chem & Eng N 24:319-38 F 10 '46

Securities

Chemical stocks resume progress interrupted by war. T. R. Price, jr. Barron's 26:19-20 S 16 '46
Divergent trends of the chemicals; with financial survey of leading producers. R. Carleson. il Mag of Wall St 78:574-5+ Ag 17 '46

Statistics

Chemical company operations in 1946; twenty-nine chemical companies; comparison 1945, 1944 and 1939; tabulation. M. Pescatello. Chem Ind 58:773-5+ My '46
Chemical industry stable. H. McLeod. Can Chem & Process Ind 30:42-54 My '46
Chemical production reached all-time high in 1943-45. C. C. Concannon and F. M. Hoffheins. il Dom Comm 34:52-6 Ag; 31-8 O '46
From 5 years of war a $3,000,000,000 chemical industry for peace. il Chem & Met Eng 53:96-7 Ja '46
New guide to Britain's economy; Monthly digest of statistics. Chem Age (Lond) 54: 253-4 Mr 9 '46
Production and sales of synthetic organic chemicals, 1944. Chem & Eng N 23:2106 N 25 '45
Production and stocks of selected chemicals, 1939-1943. Survey of Cur Bsns 25:23-4 D '45
Trona production figures shown to increase. Chem & Met Eng 53:206+ My '46
U.S. exports of chemicals and allied products, 1899-1944; graph. For Comm W 22:28 Ja 5 '46

Austria

Chemical industry in Austria. Chem Age (Lond) 55:504 O 26 '46
World wide chemistry. G. Abrahamson. Chem & Eng N 24:1441-2 My 25 '46

Belgium

Belgian chemical industry. Chem & Met Eng 52:190+ D '45
World wide chemistry. G. Abrahamson. Chem & Eng N 23:2385-7; 24:559-62 D 25 '45, F 25 '46

Brazil

Curtailment of imports stimulated development of chemical production in Brazil. Chem & Met Eng 53:198+ Ja '46
World wide chemistry. C. E. Nabuco de Araujo, jr. Chem & Eng N 23:2250-2; 24:260, 410+, 844-5, 976+, 1438, 1722, 2280 D 10 '45, Ja 25-F 10, Mr 25-Ap 10, My 25, Je 25, Ag 25 '46

Canada

Canada's chemists meet in Toronto. Can Chem & Process Ind 30.35-46, 51-8 Jl '46
Canadian chemistry (cont). S. J. Cook. Chem & Eng N 23:2378; 24:406, 840, 1120, 1582 D 25 '45, F 10, Mr 25, Ap 25, Je 10 '46
Chemical industry stable. H. McLeod. Can Chem & Process Ind 30:42-54 My '46

Chicago

Chicago; center of chemical industry. A. E. Schneider. il Chem & Eng N 24:2178-9 Ag 25 '46

Europe

Europe needs chemicals, but we must know how to serve her. W. F. Zimmerli. il Chem Ind 58:409-12+ Mr '46

France

French chemical notes. Chem Age (Lond) 53:573; 54:91 D 15 '45, Ja 19 '46
French chemical notes; fertilisers; pharmaceuticals. Chem Age (Lond) 55.377 S 28 '46
French chemical notes; maintenance of improvement in supply position. Chem Age (Lond) 54:262 Mr 9 '46
French chemical trade's position as victory came. L. B. Haley and C. H. Ducote. il For Comm W 24:10-11+ Jl 27 '46
Shortage of coal and other raw materials slows recovery of French manufacturing industries. Chem & Met Eng 52:174+ D '45
World wide chemistry. G. Abrahamson. Chem & Eng N 23:2140-1; 24:94-5, 260+, 842+, 1272+, 1585, 2122+ N 25 '45, Ja 10-25, Mr 25, My 10, Je 10, Ag 10 '46

Germany

Acetylene industry in wartime Germany. R. L. Hasche. il Chem & Met Eng 52:116-19 O '45; Same cond. Chem Age (Lond) 53:623-5 D 29 '45
Air attack on the chemical Reich. Chem Age (Lond) 54:399-401 Ap 13 '46
ACS hears evaluation of German developments. R. L. Murray. il Chem Ind 58:788-91 My '46
Boost for acetylene chemistry; war-born German developments. Bsns W p46+ N 2 '46
Chemical industry in eastern Germany. Chem Age (Lond) 54:318 Mr 23 '46
Chemical plant in Germany; corrosion problems in the oils and fats industry. Chem Age (Lond) 54:81-2 Ja 19 '46
Chemist in Berlin; abstract. R. Adams. Chem & Eng N 24:1511-12 Je 10 '46
German chemical industries. Chem & Met Eng 52:178+ D '45; 53:208+ Ja; 216+ F; 204+ Mr; 207-8+ Je '46; [cont as] Chem Eng 53:192+ Ag; 192+ S; 210+ O '46
German chemical industries; synthetic rubbers and ingredients. Chem & Met Eng 52: 188+ N '45
German chemical industry improvement retarded in U.S. zone. J. T. McNarney. Oil Paint & Drug Rep 150:64 O 7 '46
German chemical industry production ratio cut sharply. Oil Paint & Drug Rep 149:3 Ap 8 '46
German chemical research. Oil Paint & Drug Rep 150:7+ Jl 8 '46
German pilot plant production of synthetic mica. H. A. Curtis. Chem & Met Eng 53:109 Mr '46

CHEMICAL industries—Germany—*Continued*
Germany's prewar foreign trade in chemicals. Chem Ind 58:593-5 Ap '46
Germany's vertical rotating cathode mercury cell. il diag Chem & Met Eng 53:113-15 Ja '46
I.G., Allied bombing and raw materials. L. M. Lamm. Chem & Eng N 23:1932 N 10 '45
Manufacture and regeneration of catalysts at I.G. Farbenindustrie A.G. plants, Ludwigshafen/Oppau, Germany. W. F. Faragher and W. A. Horne. 4pls U S Bur Mines Information Circ 7368:1-6 '46
More Nazi data; processes, chemicals, and products used by Germans. Bsns W p68+ Mr 30 '46
New German insecticides. L. B. Kilgore. Soap & San Chem 21:138-9+ D '45; 22:122-4 F '46
Problem of German chemical industry. A. B. Newman. Chem Ind 58:57 Ja '46
Release data on German insecticides. bibliog Soap & San Chem 21:137+ D '45
Report on investigations by fuels and lubricants teams at the I. G. Farbenindustrie, A. G., works, Ludwigshafen and Oppau. R. Holroyd, ed. 33pls U S Bur Mines Information Circ 7375:1-75 '46
Reports on German chemical works. Chem Age (Lond) 53:392-3, 487-8, 537-9 O 27, N 24, D 8 '45
Reports on I.G. Farbenindustrie A.-G. Soc Dyers & Col J 62:152-4 My '46
Significance of German acetylene developments. C. C. Monrad. il chart Chem & Met Eng 53:120-3 Jl '46
Status of German chemical production, November 1945. Chem & Eng N 24:95-6 Ja 10 '46
World wide chemistry. G. Abrahamson. Chem & Eng N 24:697-8+, 2546 Mr 10, S 26 '46

Great Britain

B.C.D.T.A. meeting; annual report and luncheon. Chem Age (Lond) 54:581-2 My 25 '46
British government encourages industrial plants to switch from use of coal to oil; chemical shortages. Chem Eng 53:180+ S '46
Chemicals from coal in the North; coal-processing industries' report. Chem Age (Lond) 53:565-8 D 15 '45
Digest of statistics; chemical and allied figures. Chem Age (Lond) 54:529 My 11 '46
Digest of statistics; chemical and allied production and consumption. Chem Age (Lond) 55:438 O 12 '46
Exports and imports of chemicals. Chem & Ind p123 Mr 16 '46
Future German rivalry. S. Cripps. Chem Age (Lond) 55:468-70 O 19 '46
Huge Imperial Chemical Industries project starts British plant construction program. Chem & Met Eng 53:190+ Ja '46
Increased export trade influences Great Britain to make import concessions. Chem Eng 53:194+ O '46
Markets for chemicals in Great Britain. Chem & Met Eng 53:202+ F '46
Natural products of the empire; their utilisation as a basis for chemical industries. J. L. Simonsen and others. Chem Age (Lond) 54:727-9; 55:13 Je 29, Jl 13 '46
Near-capacity production of chemicals helps to offset cost increases. Chem & Met Eng 53:214+ My '46
Retrospection, introspection and prospection. Chem Age (Lond) 54:27-32 Ja 12 '46
Review of chemical finance. S. H. Withey. Chem Age (Lond) 55:9-15, 143-7 Jl 6, Ag 3 '46
Roebuck and Keir. M. Schofield. Chem & Ind p106-7 Mr 9 '46
Urgent home demands limit British exports but foreign trade in chemicals is rising. Chem & Met Eng 53:194+ Ap '46
World wide chemistry. G. Abrahamson; W. G. Cass. Chem & Eng N 23:2382+; 24:408+, 554+, 696-7, 974+, 1123-6, 1438-41, 1958+, 2280+, 2404-6, 2696, 2838+ D 25 '45, F 10-Mr 10, Ap 10-25, My 25, Jl 25, Ag 25-S 10, O 10-25 '46

India

Development of Orissa; abstract. H. B. Mohanty. Chem Age (Lond) 53:486 N 24 '45
India's heavy chemical industry; its development and future. L. Gupta. Chem Age (Lond) 53:483-5 N 24 '45
World wide chemistry. W. G. Cass. Chem & Eng N 24:2404, 2838 S 10, O 25 '46

Italy

Montecatini group. Abbiate. Chem Age (Lond) 55:388 S 28 '46
Montecatini report; concentration on war-damage repair. Chem Age (Lond) 54:526 My 11 '46

Japan

Chemicals in Japan. Chem Age (Lond) 54: 335-6 Mr 30 '46
Les futures possibilités de l'industrie chimique japonaise. Génie Civil 123:235-6 S 1 '46
Japan chemical output only 32% of needs. Oil Paint & Drug Rep 150:5+ Ag 19 '46
Japanese chemical industry's outlook; Chem. & Met. report. map Chem & Met Eng 53: 132-6 Jl '46
Japanese chemical plants curtailed operations prior to heavy American bombing raids. Chem & Met Eng 53:208+ F '46
Japan's chemical industries; significant production changes. Chem Age (Lond) 54:671-2 Je 15 '46

London

London's chemical industry; fertilisers in West Ham. W. A. Parks and E. A. Rudge. il Chem Age (Lond) 55:167-9 Ag 10 '46
London's chemical industry; sulphuric acid in East and West Ham. W. A. Parks and E. A. Rudge. il Chem Age (Lond) 54:359-62 Ap 6 '46

Mexico

Mexico is developing dry ice industry. il Chem Eng 53:186+ S '46
Mexico's chemical industry; Chem. & Met. report. J. A. Lee. il map Chem & Met Eng 53:120-31 Je '46

Middle western states

Chemical engineering in the Middle West. Chem Eng 53:97-100 Ag '46

Netherlands

Chemicals in Holland; development of a plastics industry. Chem Age (Lond) 55:542 N 2 '46

Northwestern states

Pacific Northwest chemical industries; abstract. I. Bloch. Chem & Met Eng 52: 246+ D '45

Oregon

Plants reprieved; alumina-from-clay and alcohol-from-sawdust projects in Oregon. Bsns W p61-2 Jl 20 '46

Palestine

World wide chemistry. W. Roth. Chem & Eng N 24:2120+, 2407-8 Ag 10, S 10 '46

Russia

Oxide coatings on metals; abstract. A. G. Samartsev. Chem & Eng N 24:1123 Ap 25 '46
Recent Russian work on corrosion; chemical apparatus and halogen compounds. T. A. Adjemyan. Chem Age (Lond) 54:5-8 Ja 5 '46
World wide chemistry. W. G. Cass. Chem & Eng N 24:2119 Ag 10 '46

South Africa

Chemicals in South Africa. Chem Age (Lond) 53:621-2 D 29 '45
Chemicals in South Africa; DDT against the tsetse; protein concentrates. Chem Age (Lond) 53:546-7 D 8 '45
Curtailment of imports favored development of chemical production in South Africa. Chem & Met Eng 52:182+ N '45
News from abroad. Chem & Met Eng 53: 188+ Je '46
South Africa plans expansion of wood preserving and other chemical process industries. Chem & Met Eng 53:190+ Mr '46

CHEMICAL industries—South Africa—*Cont.*
South African chemical industry. W. L. Speight. Chem & Eng N 23:2252+ D 10 '45
South African chemical notes; summary of latest developments. Chem Age (Lond) 54: 117-18, 255, 405, 639; 55:257-8, 321-2 Ja 26, Mr 9, Ap 13, Je 8, Ag 31, S 14 '46

Southwestern states

Petrochemical industry in the Southwest builds for growing peacetime markets. D. P. Thornton, jr. bibliog il map Nat Pet N 38 pt 2:R3-8 Ja 2 '46

Spain

Spain's chemical industry. Chem Age (Lond) 54:215 F 23 '46

Sweden

Chemical and allied industry in Sweden; importance of wood and water power. il Chem Age (Lond) 55:251-5 Ag 31 '46

Switzerland

Chemical industry in Switzerland. Chem & Eng N 23:2141-2 N 25 '45
Jubilee of Hoffman-La Roche. Chem Age (Lond) 55:174 Ag 10 '46
Swiss chemical industries. W. H. Sholes. For Comm W 22:12-13+ Mr 9 '46
Swiss chemical industry. Chem Age (Lond) 54:433 Ap 20 '46
Swiss chemical industry; analyses of companies' reports for 1945. Chem Age (Lond) 54:527-9 My 11 '46
Swiss chemical industry prospered in 1945; activities of Ciba limited. For Comm W 24: 36-8 S 21 '46
Switzerland plans to increase exports of chemicals. K. Falk. map Chem Eng 53:106-8 O '46

Texas

Two of country's four plants produce helium in Texas. il Manuf Rec 115:40-1+ Ap '46

United States

Chemical industry starts forward once more. S. B. Self. Barron's 26:17-18 S 16 '46
Chemicals; trends in 1946. C. C. Concannon. il Dom Comm 34:4-7 Ja '46
Chemists' goal: hold wartime, double prewar rate. S. B. Self. Barron's 26:9+ Ja 7 '46
Market research association discusses export outlook. Chem & Eng N 24:793 Mr 25 '46
United States production of chemicals. Chem & Eng N 24:496 F 25 '46

See also
General aniline and film corporation

Wales

South Wales and the future of the chemical industry. D. D. Howat. Chem Age (Lond) 53:381-4, 405-9 O 27-N 3 '45

Western states

American institute of chemical engineers at San Francisco. Chem & Eng N 24:2336-9 S 10 '46
Chemical engineers survey war-developed industries. Oil Paint & Drug Rep 150:7+ S 2 '46
New chemical industries help integrate western economy. J. R. Callaham. flow sheets Chem Eng 53:116-18 O '46

CHEMICAL industry medal

Chemical industry medal awarded to S. D. Kirkpatrick. Chem & Eng N 23:2334 D 25 '45

CHEMICAL institute of Canada

Annual conference, 29th, Toronto, June 24-26. Can Chem & Process Ind 30:35-46, 51-8 Jl '46; Chem & Eng N 24:1900-3 Jl 25 '46; Oil Paint & Drug Rep 150:7+ Jl 1 '46
Canadian rubber division holds first meeting in Toronto. Rubber Age 59:466-7 Jl '46
Progress. Can Chem & Process Ind 29:817-23 D '45

CHEMICAL laboratories

Allied Chemical research laboratory. il Chem & Eng N 24:654 Mr 10 '46
Chemistry goes to the battlefield; M.I.T.'s chemical engineering building used as laboratory for Chemical warfare service. F. W. Holt jr. il Tech R 48:103-6 D '45
Development and control laboratories; Naugatuck chemicals laboratories include pilot plant. il Can Chem & Process Ind 30:30-2 Je '46
Explosives research laboratory at U.S. naval powder factory, Indian Head, Md. il plans Chem & Eng N 24:1210 My 10 '46
Industrial chemicals research laboratory at Hopewell, Va. il Chem & Eng N 24:66 Ja 10 '46
Inventory form for a small laboratory. V. Wilson. J Chem Educ 23:165 Ap '46
National chemical laboratory for India. Chem Age (Lond) 53:485 N 24 '45
New chemical laboratories at the Royal aircraft establishment. R. J. W. Le Fèvre. il Chem & Ind p308-10 Ag 17 '46
Research laboratory for Air Reduction and U.S. Industrial Chemicals to be built in Stamford. Chem & Eng N 24:1680 Je 25 '46
System of laboratory evaluation; Aluminum research laboratories. H. V. Churchill. Ind & Eng Chem Anal ed 18:66 Ja '46
Use of control charts in the analytical laboratory. G. Wernimont. bibliog Ind & Eng Chem Anal ed 18:587-92 O '46
Value of the laboratory in industrial medicine; abstract. L. W. Spolyar. Ind Med 14:sup34+ N '45

See also
Dye laboratories
Petroleum refineries —Laboratories
Pharmaceutical laboratories
Rubber laboratories
also Monsanto chemical company—Clinton laboratories

Equipment

British laboratory and technical porcelain; a warning from history. il Chem Age (Lond) 54:458-60 Ap 27 '46
Instrumentation in analysis. R. H. Müller. Ind & Eng Chem Anal ed 18:sup29-30 Mr '46
Instruments in the analytical laboratory; past, present and future. C. L. Wilson. il diag Chem Age (Lond) 54:445-9 Ap 27 '46
New Towers equipment; two air-damped balances. il diags Chem Age (Lond) 54:465-7 Ap 27 '46

Safety measures

Safe practice in chemical laboratories. G. C. Toone and others. il Chem & Eng N 24:902-5 Ap 10 '46
Safety in chemical laboratories. J. B. Ficklen. Safety Eng 90:52+ N '45

See also
Rubber laboratories —Safety measures

CHEMICAL libraries

Finding facts for a chemical clientele. I. M. Strieby and B. J. Cole. bibliog il Chem Ind 57:1064-8 D '45
Gift of Browne collection to Smith memorial library. Chem & Eng N 23:2026 N 10 '45
Let your librarian look it up. R. R. Dickison. J Chem Educ 23:175 Ap '46
Punched cards on library symposium. N. C. Hill and J. W. Perry. Chem & Eng N 24: 2182 Ag 25 '46
Wanted: more library chemists. E. L. Schulze. bibliog J Chem Educ 23:176-8 Ap '46

CHEMICAL literature

Punched card method for the bibliography, abstracting, and indexing of chemical literature. C. D. Gull. il J Chem Educ 23:500-7 O '46

See also
Chemical abstracts (periodical)
Chemistry— Periodicals
Chemistry—Bibliography

CHEMICAL market research association

Market research association discusses export outlook. Chem & Eng N 24:793 Mr 25 '46
Meeting, Cleveland. Oil Paint & Drug Rep 148:3+ D 17 '45; Chem & Eng N 24:51-3 Ja 10 '46

CHEMICAL patents

Abstracts of Canadian patents; collected from original sources and edited. Chem Ind 58: 175 Ja '46 [cont monthly]

CHEMICAL patents—*Continued*
Abstracts of U.S. chemical patents; from Official gazette vol. 579, nos. 1,2,3,4 (Oct. 2-23). Chem Ind 58:161-74 Ja '46 [cont monthly]
American patent system; its relation to technical library techniques. C. W. Ooms. J Chem Educ 23:478-81 O '46
How now chemical patents? W. R. Day. bibliog Chem & Eng N 24:2617-19 O 10 '46
New patents. Soap & San Chem 22:69 Ja '46 [cont monthly]
Phosphating metallic surfaces; anti-trust and patent litigation in the U.S. W. G. Cass. Chem Age (Lond) 55:101-4 Jl 27 '46

See also
Glass manufacture—Patents
Paper making—Patents
Petroleum refining—Patents
Rubber, Artificial—Patents
Textile patents

CHEMICAL plant manufacturers' association, British. See British chemical plant manufacturers' association

CHEMICAL plants
Chemical plant disposal policy is recommended. Oil Paint & Drug Rep 148:3+ N 19 '45
Chemical plants built for war should be maintained for postwar usefulness. C. O. Brown. Ind & Eng Chem 37:sup85-6 N '45
Chemical surplus; SPA has 26 plants for disposal. Bsns W p42+ D 1 '45
Chemical works and the Factories act. B. S. Dyer. Chem Age (Lond) 54:283-5, 303-7, 331-4 Mr 16-30 '46
Compounding and fabrication of vinyl resin; Bound Brook, N.J., plant of Bakelite corp. J. A. Lee. il Chem Eng 53:120-4 Ag '46
Corrosion testing in a chemical plant. S. W. Shepard. il Chem & Met Eng 53:217-18+ Ap '46
Fuel economy in chemical works; its relation to other factors in design. B. E. A. Vigers. Chem Age (Lond) 55:497-504 O 26 '46
Hydrogen; Hygirtol plant for production of high-purity hydrogen from hydrocarbons and steam; pictured flow sheet. Chem & Met Eng 53:162-5 My '46
I.C.I.'s Tees-Side project; chemicals from coal or oil. map Chem Age (Lond) 53:563 D 15 '45; Same cond. Chem & Ind p391 D 15 '45
Manufacturing laboratory chemicals; new B.D.H. plant at Poole. il Chem Age (Lond) 54:377 Ap 6 '46
Oak Ridge gives industry a unit operation; gas diffusion. J. F. Hogerton. il Chem & Met Eng 52:98-101 D '45
Petrochemical industry in the Southwest builds for growing peacetime markets. D. P. Thornton, jr. bibliog il map Nat Pet N 38 pt 2:R3-8 Ja 2 '46
Petro-chemical plant making materials for synthetic fabric manufacture. il Pet Refiner 24:160 N '45
Relationships between the chemical industry and the paper industry; Welland chemical works described; ammonium nitrate production. G. I. Hoover. il Pulp & Pa of Can (Convention no) 47:226-8+ [F] '46
Reports on German chemical works. Chem Age (Lond) 53:392-3 O 27 '45
Surplus property administration reports on chemical plants. il Chem & Eng N 24:48-50 Ja 10 '46
WAA asks disposal of government's interest in production of butyl rubber, styrene, neoprene, furfural and carbon black. Oil Paint & Drug Rep 149:5+ Je 17 '46

See also
Adhesives—Manufacture
Alcohol—Manufacture
Canneries
Cement plants
Clay products plants
Drug factories
Explosives—Manufacture
Food factories
Glass factories
Paper mills
Petroleum refineries
Rubber, Artificial—Manufacture
Rubber factories
Soap factories

Accounting

See Chemical industries—Accounting

Construction

Advantages of two types of contract for use in construction of new plants; turnkey contract; staff development contract. C. O. Brown. Ind & Eng Chem 38:sup71-2 F '46

Costs

Estimating chemical engineering equipment costs. J. Happel, R. S. Aries and W. J. Borns. Chem Eng 53:99-102 O; 97-100 D '46
Needed; standard cost estimating data for the process industries. H. Eckhardt. bibliog Chem Eng 53:104-5 S '46

Design

Proper chemical plant design is aid to sanitation. M. H. Solworth. il diags Chem Ind 58:970-3 Je '46

Electric equipment

Distilling oil. il Elec R (Lond) 139:285-90 Ag 23 '46
New and rebuilt electrical equipment speeds power for urgent process needs; Dow magnesium corp. J. P. Warren and W. J. Coughlin. il diag Power 90:166-8 Mr '46
New industry; producing calcium carbide in south Wales. il diag Elec R (Lond) 138:375-80; 139:47-51, 401-7 Je 7, Jl 12, S 13 '46

Employees

See Chemical workers

Equipment

British chemical plant manufacturers association luncheon, May 29. Chem & Ind p230 Je 15 '46
Chromium and nickel contents of alloyed steels determine extent of resistance to corrosion, oxidation, and temperature. C. O. Brown. Ind & Eng Chem 38:sup71-2 Ag '46
Clad steel processing equipment for chemical and allied industries. E. C. Gosnell. Steel 119:156+ O 14 '46
Continuous measurement of specific gravity; apparatus for process control. L. B. Lambert. diags Chem Age (Lond) 54:461-3 Ap 27 '46
Copper sulphate; new plant uses vacuum evaporation and atmospheric coolers. L. W. Billingsley. flow sheet il Can Chem & Process Ind 30:26-9 Ap '46
Cottrell electrical precipitation equipment some technical and engineering features; recent developments and application in the chemical field. C. E. Beaver. Am Inst Chem Eng Trans 42:251-60; Discussion. 260-1 Ap '46
Development of Karbate materials and their application. M. R. Hatfield and C. E. Ford. il diags Am Inst Chem Eng Trans 42:121-46; Discussion. 146-7 F '46
Devices which can give a continuous analysis of a flowing process stream. R. H. Munch. Ind & Eng Chem 38:sup77 My '46
Electronics improves industrial process control. D. M. Considine and D. P. Eckman. il diags Chem Ind 58:785-7, 982-4 My-Je '46; Same. J Chem Educ 23:274-82 Je '46
Fourth National chemical exposition; guide and directory. plans Chem Eng 53:307-9+ Ag '46
Heavy chemical industry in 1945. P. Parrish. bibliog il diags Chem Age (Lond) 54:33-52 Ja 12 '46
How an eductor or aspirator can be made from rubber or other non-metallics. J. A. May. diags Chem & Met Eng 52:116 N '45
How inspection helps make better process equipment. W. A. Miller and G. E. Kopetz. flow sheets Chem Ind 59:652-5+ O '46
How to build an effective unplugger for bottom-outlet reactors. L. H. Peterson. diag Chem & Met Eng 53:164 F '46
How to choose, install and protect chlorination equipment. E. R. Woodward. diags Chem & Met Eng 52:103-4 D '45
Instrumentation in plant control; abstract. J. D. Pull. Chem & Ind p205 My 25 '46
Low temperature processing of light hydrocarbons. A. W. Pratt and N. L. Foskett. il diag Am Inst Chem Eng Trans 42:149-61; Discussion. 161-3 F '46

CHEMICAL plants—Equipment—*Continued*
Manifolding service lines to process vessels to prevent mixing of water and brine. J. J. Krauklis. diags Chem & Met Eng 53: 138 Jl '46
Materials of construction in a metabisulphite plant. G. S. Wheaton and R. S. Sunderlin. flow sheet il Chem & Met Eng 52:231-2+ N '45; Same cond. Chem Age (Lond) 54: 115-16 Ja 26 '46
Materials of construction in bead catalyst plant; Socony vacuum plant, Paulsboro, N.J. flow sheet Chem & Met Eng 53:231-2+ My '46
Miles of glass piping fabricated in field at Oak Ridge. B. W. Whitehurst. il Chem & Met Eng 53:112-15 Jl '46
Mixing liquids in shallow tanks aided by design analysis. E. S. Bissel and others. il Chem & Met Eng 53:118-19 Ja '46
Modern welding for maintenance. C. W. Brett. il Chem Age (Lond) 53:589-91 D 22 '45
New unit operations and equipment open new vistas for postwar chemical engineering. il Chem & Met Eng 53:135-46 F '46
Nickel and its alloys prevent equipment from wearing out under severe conditions. C. O. Brown. Ind & Eng Chem 38.sup69-70 Ap '46
Phosphoric acid vs. materials of chemical plant construction. W. E. Pratt and others. il Chem & Met Eng 53:221-2+ Jl '46; [cont as] Chem Eng 53:203-4+ Ag; 203-4+ S '46
Planned maintenance, means of increasing profits. V. W. Wilson. diag Chem Ind 59: 484-6 S '46
Preview of exhibit, 20th chemical show, New York, February 25-March 2. L. C. Mazzola. il diag Food Ind 18:166-73 F '46
Process equipment developments. il Chem Ind 57:846-50 N '45
Process equipment developments. il Chem Ind 59:278-91 Ag '46
Recent Russian work on corrosion; chemical apparatus and halogen compounds. T. A. Adjemyan. Chem Age (Lond) 54:5-8 Ja 5 '46
Synthetic rubber and plastics as materials of construction in the chemical industry. M. G. Fontana. bibliog il Am Inst Chem Eng Trans 42:359-77 Ap '46; Same. Chem & Met Eng 53:102-5+ Ap '46
Use of capacity ratings should prevent high costs and breakdowns. C. O. Brown. Ind & Eng Chem 38:sup69-70 Je '46
Valve characteristics in automatic control. S. D. Ross. bibliog il Ind & Eng Chem 38: 878-84 S '46
Weight control a valuable tool of process industries; Chem. & Met. report. D. M. Considine. bibliog il diags Chem & Met Eng 53:125-36 Ap '46 [reprint 25c]

See also
Agitators
Centrifuges
Concentrators
Distillation apparatus
Evaporators
Extraction apparatus
Heat exchangers
Mixers
Pressure vessels

Experimental plants
Chemical pilot plant; its design and operation; abstracts. C. Buck, T. Hayes and R. R. Williams. Chem Age (Lond) 54:341 Mr 30 '46; Chem & Ind p 190 My 11 '46
New mini-plant aids in continuous process development; Wyandotte chemicals corp. W. F. Waldeck. il Chem Ind 58:962-3 Je '46
Philosophy of the semiworks plant. F. K. Schoenfeld. Chem & Eng N 24:1674 Je 25 '46
Pilot plant equipment for submerged production of penicillin. J. J. Stefaniak and others. bibliog flow diag il diags Ind & Eng Chem 38:666-71 Jl '46
Pilot plant for study of unit operations; Allis-Chalmers mfg. co. il Chem & Met Eng 52:108-9 N '45
Production of benzyl chloride by chloromethylation of benzene; laboratory and pilot plant studies. A. Ginsburg and others. Ind & Eng Chem 38:478-85 My '46
Research center; new facilities of Allis-Chalmers mfg. co.; flexible pilot mill. il Steel 117:80+ D 24 '45

Fires and fire protection
Fire protection in the chemical plant. Chem Ind 58:470 Mr '46

Management
Costs of testing raw materials which used in manufacture of chemical products should be kept reasonable. W. von Pechmann. Ind & Eng Chem 37·sup103-4 D '45
Current developments in plant management. W. von Pechmann. Ind & Eng Chem 38: sup91-2 Ja '46 (cont monthly)
How statistical methods can improve chemical processes. W. R. Pabst. Chem Ind 59:479-83 S '46
How to determine economical batch sizes. S. E. Andersen. Chem & Met Eng 53:137 Jl '46
Knowledge of problems facing the engineer in the chemical industry is of great assistance to the production executive. W. von Pechmann. Ind & Eng Chem 38:sup89-90 Ag '46
Many special problems are involved in the establishment of operating standards in the chemical industry. W. von Pechmann. Ind & Eng Chem 38.sup89-90 My '46
Salvage those chemical engineers. B. H. Hopkins. Chem & Met Eng 52:97+ D '45
Standard methods of presenting facts aid chemical plant management and improve employer-employee relations. W. von Pechmann. Ind & Eng Chem 38:sup87-8 Je '46
Taking physical inventories in chemical industry entails special problems. W. von Pechmann. Ind & Eng Chem 38:sup89-90 F '46

Pilot plants
See Chemical plants—Experimental plants

Power
Power helps wrest magnesium from the sea. J. P. Warren and W. J. Coughlin. flow diag il diag Power 90:74-7, 166-8 F-Mr '46
Special safeguarding of electric power supply in the chemical industry. J. B. Lancaster. Inst E E J 93 pt 1:142-4 Mr '46

Safety measures
Amenity as a feature of chemical works. J. Creevey. Chem Age (Lond) 55:77-8, 201-2, 351-2 Jl 20, Ag 17, S 21 '46
Control occupational hazards through industrial hygiene. N. V. Hendricks. il Chem & Met Eng 53:124-5+ Ja '46
Danger in the air; germicidal lamp installation by E. W. Rose company. il Safety Eng 91:10-11 My '46
Dividends of industrial disease prevention. B. C. Hutchins. il Chem Ind 58:250-1 F '46
Equipment advances 1944-45. N. H. Dearborn. Chem Ind 57:858-9 N '45
Foundations for safe working. J. Creevey. Chem Age (Lond) 54:87-8 Ja 19 '46
Industrial plant safety. J. Creevey. Chem Age (Lond) 54:669-70 Je 15 '46
Safety considerations in plant design. J. Creevey. Chem Age (Lond) 54:187-8, 279-80, 427-9, 551-2 F 16, Mr 16, Ap 20, My 16 '46

See also
Solvents—Safety measures

Sanitation
Proper chemical plant design is aid to sanitation. M. H. Solworth. il diags Chem Ind 58:970-3 Je '46

CHEMICAL reaction
Action of alkaline reagents upon carbonyl bridge compounds. C. F. H. Allen, J. E. Jones and J. A. VanAllan. bibliog Am Chem Soc J 68:708-10 Ap '46
Chain mechanisms for the reaction of chlorine and oxalic acid. H. Taube. Am Chem Soc J 68:611-17 Ap '46
Chemical reactions in continuous-flow systems; heterogeneous reactions. H. M. Hulburt. bibliog Ind & Eng Chem 37:1063-9 N '45
Course of the reaction at 100° C in the systems xylene/oxygen and aromatic-free mineral oil/xylene/oxygen. D. J. W. Kreulen. bibliog Inst Pet J 32:525-8 Ag '46
Electron diffraction camera for the study of high temperature surface reactions. E. A. Gulbransen. il diags J Ap Phys 16:718-24 N '45
Influence of structure on the oxidation reactivity of hydrocarbons. P. George and A. Robertson. Inst Pet J 32:400-7 Jl '46

CHEMICAL reaction—*Continued*

Kinetics and mechanism of the isomerization of cyclopropane. E. S. Corner and R. N. Pease. bibliog Am Chem Soc J 67:2067-71 D '45

Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance. I. Dostrovsky and E. D. Hughes. Chem Soc J p157-94 Mr '46

Neighboring groups and reactivity. S. Winstein and E. Grunwald. Am Chem Soc J 68:536-7 Mr '46

Radical chain processes in vinyl and diene reactions. H. S. Taylor and A. V. Tobolsky. bibliog Am Chem Soc J 67:2063-7 D '45

Reaction of ketones with halogens and thiourea. R. M. Dodson and L. C. King. bibliog Am Chem Soc J 67:2242-3 D '45

Reactions of aliphatic hydrocarbons with sulfur; production of olefins, diolefins, and thiophene. H. E. Rasmussen, R. C. Hansford and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:376-82 Ap '46

Reactions of alkyl*iso*formanilides; reactions with pyridinium salts. E. B. Knott. Chem Soc J p120-2 F '46

Role of neighboring groups in replacement reactions; the reaction of stilbene dichlorides with silver acetate. S. Winstein and D. Seymour. bibliog Am Chem Soc J 68: 119-22 Ja '46

Some reactions of *cis*-dibenzoyl-(morpholinomethyl)-ethylene; reduction and cyclization. P. S. Bailey and R. E. Lutz. bibliog Am Chem Soc J 67:2232-5 D '45

Spot reaction experiments; water as a participant in reactions of sulfur dioxide. F. Feigl. J Chem Educ 22:558-60 N '45

Studies on the Willgerodt reaction; some extensions of the reaction. J. A. King and F. H. McMillan. bibliog Am Chem Soc J 68:525-6, 632-6 Mr-Ap '46

See also

Antigens and antibodies
Bromination
Catalysis
Catalysts
Chemical equilibrium
Chlorination
Condensation, Chemical
Dehydration
Dehydrogenation
Diels-Alder reaction
Electrolysis
Gomberg reaction
Grignard reagents
Hydrogenation
Hydrolysis
Knoevenagel reaction
Mannich reaction
Molecular rearrangements
Nitration
Oxidation
Photochemistry
Polymerization
Precipitation
Reduction, Chemical
Sandmeyer reaction
Substitution (chemistry)
Synthesis
Ullmann reaction
Unit processes
Willgerodt reaction
Wolff-Kishner reaction

Velocity

Acid catalyzed decomposition of diazoacetic ester in some aprotic solvents at 25°. R. J. Hartman, C. J. Hochanadel and E. G. Bobalek. bibliog Am Chem Soc J 68:2071-4 O '46

Application of the principle of the concentration cell to kinetic studies; hydrolysis of *t*-butyl chloride in 95% water-5% acetone solution. C. G. Swain and S. D. Ross. diag Am Chem Soc J 68:658-61 Ap '46

Chain initiation in catalyzed polymerization. M. S. Matheson. bibliog J Chem Phys 13: 584-5 D '45

Heterogeneous acid and acid-salt hydrolysis of secondary cellulose acetate. R. N. Haward and T. White. Soc Chem Ind J 65:63-4 F '46

Kinetics of anionotropic rearrangement. E. A. Braude and E. R. H. Jones. Chem Soc J p122-30 F '46

Kinetics of anionotropic rearrangement; oxotropic formation of the styrene system. E. A. Braude, E. R. H. Jones and E. S. Stern. diag Chem Soc J p396-404 My '46

Kinetics of exchange reactions; influence of solvent and molecular structure. L. J. le Roux and others. Chem Soc J p586-8 S '45

Kinetics of halogen addition to unsaturated compounds; αβ-unsaturated aldehydes. P. B. D. de la Mare and P. W. Robertson. Chem Soc J p888-91 D '45

Kinetics of the decomposition of benzoyl peroxide in various solvents. W. E. Cass. bibliog Am Chem Soc J 68:1976-82 O '46

Kinetics of the deësterification of pectin. R. C. Merrill and M. Weeks. bibliog J Phys Chem 50:75-87 Mr '46

Kinetics of the pentavalent vanadium—iodide reaction; correlation with the induced catalysis of the oxygen—iodide reaction. J. B. Ramsey, E. L. Colichman and L. C. Pack. bibliog Am Chem Soc J 68:1695-8 S '46

Kinetics of the reaction between copper and aqueous ammonia. R. W. Lane and H. J. McDonald. bibliog Am Chem Soc J 68:1699-704 S '46

Kinetics of the reaction of hydroxyl ion with the meso and racemic di-*p*-toluenesulfonates of butylene glycol-2,3. F. C. Foster and L. P. Hammett. bibliog Am Chem Soc J 68:1736-41 S '46

Kinetics of the reaction of sodium 2-haloethanesulfonates with aqueous alkali. E. F. Landau, W. F. Whitmore and P. Doty. bibliog Am Chem Soc J 68:816-19 My '46

Kinetics of the thermal polymerization of styrene. C. Walling, E. R. Briggs and F. R. Mayo. bibliog Am Chem Soc J 68:1145-9 Jl '46

Persulphate-iodide reaction; specific effects of univalent and bivalent cations; activation energy of the reaction. W. J. Howells. Chem Soc J 203-6 Mr '46

Projection of laboratory reaction velocity data into commercial design. J. H. Hirsch, C. L. Crawford and C. Holloway, jr. bibliog Ind & Eng Chem 38:885-90 S '46

Reaction of hydrogen atoms with acetone. G. M. Harris and E. W. R. Steacie. J Chem Phys 13:554-9 D '45

Reaction of hydrogen atoms with dimethyl mercury. G. M. Harris and E. W. R. Steacie. bibliog J Chem Phys 13:559-62 D '45

Reaction rate of hydrogen chloride and sulfide with steel. C. F. Prutton, D. Turnbull and G. Dlouhy. bibliog diag Ind & Eng Chem 37: 1092-7 N '45

Reaction velocity with large negative temperature coefficient; reaction between iodine and chlorine. J. H. Hildebrand. Am Chem Soc J 68:915 My '46

Regulator theory in emulsion polymerization; control of reaction rate by diffusion for high molecular weight mercaptans. W. V. Smith. Am Chem Soc J 68:2064-9 O '46

Regulator theory in emulsion polymerization; regulator reaction in copolymerizing systems. W. V. Smith. Am Chem Soc J 68: 2069-71 O '46

Stability of chelate compounds; exchange reactions of copper chelate compounds. R. B. Duffield and M. Calvin. bibliog Am Chem Soc J 68:557-61 Ap '46

Theory of diffusion controlled reactions with application to the quenching of fluorescence. E. W. Montroll. bibliog J Chem Phys 14:202-11 Mr '46

CHEMICAL reagents

Analysis of water gas; investigation of reagents; abstract. R. Zel'vyanskaya. Chem Age (Lond) 54:554 My 18 '46

Analytical reactions with organic reagents. A. Steigmann. Soc Chem Ind J 65:233-4 Ag '46

Conductometric titrations with organic reagents; determination of copper with cupferron, and iron with sulfosalicylic acid. J. F. Corwin and H. V. Moyer. bibliog Ind & Eng Chem Anal ed 18:302-4 My '46

Determination of ethylene; 22% mercuric sulfate in 22% sulfuric acid. A. W. Francis and S. J. Lukasiewicz. bibliog Ind & Eng Chem Anal ed 17:703-4 N '45

Reagent chemicals and standards, with methods of assaying and testing them; also the preparation and standardization of volumetric solutions and extensive tables of equivalents. J. Rosin. 2d ed 542p $7.50 D. Van Nostrand co, 250 Fourth av, New York '46

Selection and application of break-inducing reagents in doctor treating. C. M. Blair, jr. il Pet Refiner 25:111-13 Ag '46

Synthesis of several dinitrodiphenylthiocarbazides and a dinitrodiphenylthiocarbazone. A. W. Scott and C. R. Spell. Am Chem Soc J 68:328-30 F '46

See also

Fischer reagent
Grignard reagents
Nessler's reagent
Solvents

CHEMICAL research
British Thomson-Houston research; recent laboratory work. Chem Age (Lond) 54:191 F 16 '46
Canadian chemical research at Shawinigan. Engineer 182:254 S 20 '46
Chemical kinetics; some aspects of Russian physico-chemical science. B. Berkenheim. il Chem Age (Lond) 55:197-8 Ag 17 '46
Chemical research; academic and technological. E. K. Rideal. Chem & Ind p178-9 My 4 '46
Chemical research in the war and postwar periods. R. Adams. Chem & Eng N 24: 1643-7+ Je 25 '46
Chemist finds the answers; experience of Edwal laboratories, inc. il Am Bsns 16:18+ Ja '46
German research reports. Oil Paint & Drug Rep 150:7+ Jl 8; 7+ Jl 22; 7+ Ag 12; 7+ Ag 26; 56 S 16; 7+ S 30; 7 O 7; 7+ O 14; 7+ O 28 '46
Gustavus J. Esselen honored in Boston on 25th anniversary of founding of his chemical consulting practice. Chem & Eng N 24: 1066 Ap 25 '46
Industrial research progress at Armour research foundation, 1944-1945. J. E. Hobson. il Chem & Eng N 24:161-72 Ja 25 '46
Infra-red spectroscopy saves time in industrial analysis and research. N. D. Coggeshall. bibliog il diag Chem Ind 58:256-9 F '46
Mass spectrometer; a flexible tool for industrial analysis and research. N. D. Coggeshall. bibliog il diags Chem Ind 58:420-3 Mr '46
Modern structural chemistry. L. Pauling. Chem & Eng N 24:1788-9 Jl 10 '46
Nuclear reactions. R. R. Williams, jr. J Chem Educ 23:423-6 S '46
Operation Welfare; radioactive chemicals for research now available. il Chem Ind 59: 64-7 Jl '46
Postwar research forges ahead. il Chem Ind 59:258-67+ Ag '46
Present trends in chemical research; abstract. E. K. Rideal. Chem & Ind p222 Je 8 '46
Program, 9th, AAAS Gibson Island conference, June 17-Aug. 23, 1946. Science 103: 259-61 Mr 1 '46; Same. Chem & Eng N 24: 349-51 F 10 '46
Pure hydrocarbons; story of API project 46. R. L. Demmerle. il Chem & Eng N 24:2020-8 Ag 10 '46
Research activities at the Mellon institute. Can Chem & Process Ind 30:37-8 Ap '46
Research and development in the chemical industry. R. C. Swain. il Pulp & Pa of Can 47:44-7 Ja '46
Research progress at Midwest research institute; abstract of first annual report. H. Vagtborg. il Chem & Eng N 24:1183-91 My 10 '46
Researches of Mellon institute, 1945-1946. il Chem & Eng N 24.906-15 Ap 10 '46
Science vs. politics; challenge to chemical industry and profession; abstract. S. D. Kirkpatrick. Chem & Met Eng 52:101 N '45
Scientific importance of the nuclear power projects. C. D. Coryell. J Chem Educ 23: 395-7 Ag '46
Statistical design of experiments. J. W. Hopkins. Can Chem & Process Ind 30:113-16+ My '46
Trends disclosed by new chemicals. il Chem Ind 57:836-9 N '45
Uselessness of research; abstract. L. I. Smith. Chem & Met Eng 53:262+ F '46

See also
Gas research
Metallurgical research
Paint research
Paper research
Petroleum research
Pharmaceutical research
Rubber, Artificial—Research
Rubber research
Textile research
also Franklin institute—Biochemical research foundation

History
Historic researches; chemical elements and atoms. il Engineer 182:92-4, 114-16, 136-8, 158-61, 268-70, 292-3 Ag 2-23, S 27-O 4 '46

CHEMICAL Russian. See Russian language—Chemical Russian

CHEMICAL smoke. See Smoke, Chemical

CHEMICAL societies
Intersociety relationships of Charles L. Parsons. W. P. Cohoe. Chem & Eng N 24:1207-8 My 10 '46
Publications of the three chartered bodies; abstract. F. P. Dunn. Chem & Ind p359-60 N 17 '45
Stepping out in step. R. H. Twining. Chem & Eng N 24:1914-15 Jl 25 '46

See also
Alpha chi sigma
American chemical society
American institute of chemical engineers
Chemical institute of Canada
International union of chemistry
Royal institute of chemistry
Société de chimie industrielle

Great Britain
Professional chemical institutes in the British empire. Can Chem & Process Ind 30:58 S '46

CHEMICAL society, London
Centenary. Engineering 162:115 Ag 2 '46; Same cond. Engineer 182:62 Jl 19 '46
Forthcoming celebration of centenary. Chem Age (Lond) 55:81-2 Jl 20 '46

CHEMICAL stability
Chemical propellants; corrosion and stability studies. F. Bellinger and others. bibliog il diags Ind & Eng Chem 38:310-20 Mr '46

CHEMICAL warfare
Chemical warfare and water supplies. J. M. Sanchis. il Am Water Works Assn J 38: 1179-96 O '46
Chemistry in war; lecture before officers of Reichswehrministerium, Nov. 11, 1920. F. Haber. J Chem Educ 22:526-9+ N '45
Chemist's military horizon. R. P. Patterson. Chem & Eng N 24:1029-31 Ap 25 '46
Contributions of medical research in chemical warfare to medicine. O. Bodansky. Science 102:517-21 N 23 '45
Postwar education and training in military chemistry. L. F. Audrieth. J Chem Educ 22:583-5 D '45

See also
Mustard gas
Smoke screens

CHEMICAL warfare association
Annual meeting, 1st, Edgewood Arsenal, Md. May 24-25. Chem & Eng N 24:1534+ Je 10 '46
Annual meeting, 1st, Edgewood arsenal, Md., May 24-25. Oil Paint & Drug Rep 149:7 My 27 '46
Chemical warfare association formed. Chem & Eng N 24:530+ F 25 '46; Oil Paint & Drug Rep 149:3 F 11 '46

CHEMICAL warfare service. See United States—Chemical warfare service

CHEMICAL workers
Collective bargaining turns the corner in chemicals. M. M. Shipman and P. E. Anderson. Oil Paint & Drug Rep 149:3 Je 24 '46
Factors affecting earnings in chemistry and chemical engineering. C. E. Taylor. Mo Labor R 62:879-94 Je '46; Same, with additional data. U.S. Bur Labor Statistics Bul 881:1-22; pa 10c Supt. of doc. '46
Medical service plan suitable for chemical industry. W. von Pechmann. Ind & Eng Chem 38:sup87-8 Mr '46
Second-round solution; District 50 drops campaign at Dow Chemical for hourly increase in return for retroactive portal-to-portal pay. Bsns W p84 N 2 '46
Technical manpower falls short of industry requirements. Chem & Met Eng 53:109-11 Jl '46

CHEMICAL writing
Training for technical report writing. F. O. Slate. J Chem Educ 23:398+ Ag '46

CHEMICALS
Chemical requirements of the petroleum refining industry; Chem. & Met. report. il Chem & Met Eng 53:139-46 Ja '46 [reprint 25c]
Chemical specialties open new markets. Chem Ind 59:268-77+ Ag '46

CHEMICALS—*Continued*

Chemical utilization of natural gas limited only by commercial demand. A. L. Foster. Oil & Gas J 44:83-4+ My 4 '46

Chemicals buying section; an alphabetical list of chemicals with their formulas, physical and chemical properties, uses, containers, tariff, shipping regulations, with a buyer's guide of manufacturers and distributors. Chem Ind 55:145-532 pt 2 (Buyers guidebook no) N '44

Chemicals buying section; an alphabetical list of chemicals with their formulas, physical and chemical properties, uses, containers, tariff, shipping regulations, with a buyer's guide of manufacturers and distributors. Chem Ind 57:157-576 pt 2 (Buyers guidebook no) N '45

Chemicals from lighter hydrocarbons. J. E. Bludworth. Pet Refiner 25:102-5 My '46; Same abr. Nat Pet N 38 pt 2:R531+ Jl 3 '46

Chemicals from olefines. H. D. Axe. Soc Dyers & Col J 62:129-32 My '46

Chemicals from wood; abstract. L. P. Kyrides. Chem & Met Eng 53:258+ F '46

Chemicals grow on trees; wood-tar products. D. H. Killeffer. il Sci Am 175:18-20 Jl '46

Chemicals that crack oil; hazards and safety measures. R. G. Benson. bibliog il Nat Safety N 54:24-5+ Ag '46

Chemistry helps to build ships. Marine Eng 51:123-4 Jl '46

Discussion at Chicago production conference. Chem & Eng N 24:920-1 Ap 10 '46

Electro-organic chemical preparations. S. Swann, jr. bibliog tables Electrochem Soc Trans 88 (preprint 23):237-54 '45

Future chemical needs of the plastics industry; abstracts. S. L. Brous. Chem & Eng N 24:52-3 Ja 10 '46; India Rubber World 114: 85 Ap '46

Mass consuming markets forecast for new petrochemical products. H. P. Hohenadel. il Nat Pet N 38 pt 2:R8-9 Ja 2 '46

Natural gas role in chemicals; abstract. W. N. Watson. Oil Paint & Drug Rep 149:3+ Je 24 '46

New chemicals for industry; catalog. Chem Ind 59:309-23+ Ag '46

New chemicals for industry; with list of manufacturers. Chem Ind 57:879-97; 58:270+ N '45, F '46

New chemicals used in English tanneries. P. I. Smith. Chem Eng 53:98-9 S '46

New industrial chemicals for the West. Chem & Met Eng 53:209 My '46

Olefines for the chemical industry; abstract. H. Steiner. Chem & Ind p87 F 23 '46

Operation Welfare; radioactive chemicals for research now available. il Chem Ind 59:64-7 Jl '46

Petroleum byproducts, a big factor in organic chemical industry; Chem. & Met. report. bibliog il Chem & Met Eng 52:121-8 D '45 [reprints 25c]

Separation and chemical utilization of coal gas constituents. N. Booth. Gas J (Lond) 248:434-6+, 489+ S 11-18 '46

Trends disclosed by new chemicals. il Chem Ind 57:836-9 N '45

Versatile, modern labels for a varied line of chemical products; R. T. Vanderbilt co. il Mod Packaging 20:128-9 O '46

Warning of hazardous chemicals. J. Creevey. Chem Age (Lond) 53:569-70 D 15 '45

See also

Acids
Alcohols
Catalysts
Chemical industries
Chemical reagents
Chemistry, Medical and pharmaceutical
Chemistry, Technical
Cleaning compositions
Drugs
Drying agents
Dyes and dyeing—Chemistry
Glycerin
Hydrogen peroxide
Insecticides
Ion exchangers
Mercaptoacetic acid
Oils and fats
Paint materials
Paper chemicals
Plasticizers
Refrigerants
Rubber chemicals
Sanitary chemicals
Solvents
Surface active substances
Tanning materials
Textile chemicals

Prices

Chemical engineering weighted index of prices for chemicals. Published in monthly numbers of Chemical engineering

Chemical prices; range of quotations, 1944-1940. Chem Ind 55:682-4 pt 2 (Buyers guidebook no) N '44

Chemical prices; range of quotations 1945-1941. Chem Ind 57:747-50 pt 2 (Buyers guidebook no) N '45

Chemicals, oils and drugs price records for 1939-45; tabulation. Oil Paint & Drug Rep 149:7 Ja 14 '46

Current market quotations; chemicals and related materials. Published in weekly numbers of Oil, paint and drug reporter

Statistics

Chemical marketing statistics program of Bureau of census. J. A. Van Swearingen. Chem & Met Eng 53:132-3 Ja '46

Industrial consumption of chemicals in first quarter higher than a year ago. Chem & Met Eng 53:317 Ap '46

Synthetic organic chemicals. Chem & Met Eng 53:102-3 Ja '46

Transportation

Car bracing with steel bands; transportation of chemicals. T. P. Callahan. il diag Chem Ind 57:1062-3 D '45

Changes in ICC regulations. T. P. Callahan. Chem Ind 58:638+ Ap '46

Chemical packaging more efficient. il Chem Ind 59:292-6 Ag '46

Freight savings on containers. Chem Ind 59: 524+ S '46

ICC regulations amended. T. P. Callahan. Chem Ind 59:706+ O '46

Phenol handling and shipping. T. P. Callahan. il Chem Ind 58:310-11 F '46

Postwar packaging for chemicals. il Chem Ind 57:840-5 N '45

Tankcar cross-haul elimination being studied. Oil Paint & Drug Rep 150:5+ S 30 '46

Wartime chemical containers. A. W. Roberts. Chem & Eng N 23:2372-4 D 25 '45

See also

Explosives—Transportation

Uses

Industrial application of chemicals and related materials (cont). Oil Paint & Drug Rep 148:7 D 24; 7 D 31 '45; 149:7 Ja 7; 7 Ja 28; 7 F 4; 7 F 11; 7 F 18; 7 F 25; 7 Mr 11; 7 Mr 18; 7 Mr 25; 7 Ap 1; 7 Ap 8; 7 My 13; 7 Je 3; 7 Je 10; 7+ Je 17; 7 Je 24; 150:7+ Jl 8; 7 Jl 15; 7 Jl 22; 7 O 14; 7 O 21; 7 O 28 '46

CHEMICALS, Registry of. See National registry of rare chemicals

CHEMISTRY

Abstracts of papers to be presented at the C.I.C. annual meeting. Can Chem & Process Ind 30:69-72 My '46

See also

Acids
Atoms
Bases (chemistry)
Biological chemistry
Catalysis
Chemical reaction and other headings beginning Chemical
Chemicals
Chemists
Colloids
Color
Combustion
Condensation, Chemical
Crystallization
Crystallography
Dyes and dyeing—Chemistry
Electrochemistry
Electrolysis
Electrolytes
Electrons
Evaporation
Explosives
Fermentation
Gases
Geochemistry
Hydrolysis
Ions
Liquids
Metallurgy
Metals
Molecules
Oxidation
Pharmacology
Photochemistry
Poisons, Industrial
Radioactive substances
Reduction, Chemical
Rubber—Chemistry
Rubber, Artificial—Chemistry
Salt
Salts
Solids
Solution (chemistry)
Solvents
Spectrum
Stereochemistry
Synthesis
Textile chemicals
Textile chemistry
Thermochemistry
Waxes
Wood—Chemistry

CHEMISTRY—*Continued*

Bibliography

Chemical abstracts; subject index, formula index, numerical patent index, 1945. 6705p. American chemical society, 1155 16th St, N.W. Washington 6, D.C '46

Foreign technical publications; with selected publications of national governments of interest in chemical research. F. Harden. J Chem Educ 23:489-94 O '46

List of books on display at the Combined book exhibit, Municipal auditorium, Atlantic City, N.J. April 8-12, 1946. J Chem Educ 23:xxviii+ Ap '46

Reference books for elementary chemistry. E. C. Weaver. J Chem Educ 22:532-4 N '45

Dictionaries

Kingzett's chemical encyclopædia; a digest of chemistry and its industrial applications. R. K. Strong, ed. 7th ed rev 1092p $16 D. Van Nostrand co, 250 Fourth av, New York '46

History

Adolph Lieben. M. Kohn. bibliog J Chem Educ 22:562-4 N '45

Chemical knowledge in the New Testament. H. Zahnd and D. Gillis. bibliog J Chem Educ 23:90-7, 128-34 F-Mr '46

Claude Louis Berthollet (1748-1822). P. Lemay and R. E. Oesper. bibliog il J Chem Educ 23:158-65, 230-6 Ap-My '46

Invitation to chemistry; R.S.V.P. W. J. Wiswesser. bibliog J Chem Educ 23:271-3 Je '46

Max Abramovich Blokh; his contribution to the history of chemistry. H. S. Klickstein and H. M. Leicester. bibliog J Chem Educ 23:451-3 S '46

Nomenclature

Chemical Russian, self-taught; Russian inorganic chemical nomenclature. J. W. Perry. bibliog J Chem Educ 23:116-22 Mr '46

New system for the classification of compounds; contribution from Survey of antimalarial drugs. E. L. Buhle and others. J Chem Educ 23:375-91 Ag '46

Nomenclature of the sulfur compounds in petroleum; abstract. J. S. Ball and W. E. Haines. Oil & Gas J 45:150 O 19 '46

See also Chemistry, Organic—Nomenclature

Periodicals

Current serials in chemistry. J. G. Hodgson, comp. (Library bul. no. 17) 51p Colorado agricultural and mechanical college lib, Fort Collins, Colo. '45

Wartime scientific periodicals. E. J. Crane. J Chem Educ 23:482-4 O '46

Problems; exercises, etc.

How to solve problems and influence students. T. H. Hazlehurst. J Chem Educ 23: 445-7 S '46

Study and teaching

Can elementary chemistry teaching be logical? A. Standen. J Chem Educ 22:554-7 N '45

Chemistry in the premedical curriculum; the viewpoint of the medical college. D. Calvin and B. M. Hendrix. J Chem Educ 23: 326-30 Jl '46

Chemistry in the premedical curriculum; viewpoint of the college of liberal arts. W. T. Caldwell and W. Rogers, jr. J Chem Educ 23:334-6 Jl '46

Comparison of instruction in colleges and military service schools. D. C. Nicholson. J Chem Educ 23:78-81 F '46

Equilibrium concept in beginning college chemistry courses. N. Hackerman. bibliog J Chem Educ 23:45-6 Ja '46

Four-semester program in chemistry for home economics students. R. D. Cool. bibliog J Chem Educ 22:603-6 D '45

High-school chemistry; a plea for the plaintiff. C. H. Stone. J Chem Educ 22:530-1 N '45

Logical chemistry course? G. Wakeham. J Chem Educ 22:536 N '45

Postwar high-school chemistry. V. W. Fisher. J Chem Educ 22:594-5 D '45

Youthful Faradays. C. H. Stone. J Chem Educ 23:249-50 My '46

See also
Chemical education
Chemistry, Analytic—Study and teaching
Chemistry, Organic—Study and teaching

Terminology

See also
Chemistry—Nomenclature

Tests and scales

Paper-and-pencil tests for the laboratory. C. Hendricks. bibliog diags J Chem Educ 22: 543-6 N '45

China

Chemistry in China. W. H. Adolph. il Chem & Eng N 24:2494-8 S 25 '46

Germany

Civilian scientists sent to Germany; list of members of chemical unit. Chem & Eng N 24:2637 O 10 '46

Greece, Ancient

Ancient Greek pigments. E. R. Caley. J Chem Educ 23:314-16 Jl '46

India

National chemical laboratory for India. Chem Age (Lond) 53:485 N 24 '45

Russia

Chemical kinetics; some aspects of Russian physico-chemical science. B. Berkenheim. il Chem Age (Lond) 55:197-8 Ag 17 '46

General and inorganic chemistry in Soviet Russia. A. F. Kapustinsky. Chem & Ind p331 S 7 '46

Searching the Russian technical literature. J. G. Tolpin. bibliog J Chem Educ 23:485-9 O '46

CHEMISTRY, Analytic

A.S.T.M. methods of chemical analysis of metals. 402p Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '46

Analysis of binary mixtures of normal aliphatic dibasic acids and esters; use of composition; melting point relations of the acids. D. F. Houston and W. A. Van Sandt. bibliog Ind & Eng Chem Anal ed 18:538-40 S '46

Analytical reactions with organic reagents. A. Steigmann. Soc Chem Ind J 65:233-4 Ag '46

Current developments in instrumentation in analysis. R. H. Müller. Ind & Eng Chem Anal ed 18:sup21-2 Ja '46 [cont monthly]

Deterioration of analytical weights. A. F. H. Ward. Chem & Ind p393 D 15 '45

Devices which can give a continuous analysis of a flowing process stream. R. H. Munch. Ind & Eng Chem 38:sup77 My '46

Identification of small amounts of organic compounds by distribution studies; use of a solid phase. L. C. Craig and others. bibliog Science 103:587-9 My 10 '46

Instruments in the analytical laboratory; past, present and future. C. L. Wilson. il diag Chem Age (Lond) 54:445-9 Ap 27 '46

New standard for use in ultimate analysis of organic compounds especially suited for microprocedures. C. L. Ogg and C. O. Willits. Ind & Eng Chem Anal ed 18:334 My '46

Pittsburgh symposium on analytical chemistry. Chem & Eng N 24:781 Mr 25 '46

Recent developments in analytical chemistry (cont). bibliog Chem Age (Lond) 53:221-4, 507-11; 55:163-6 S 8, D 1 '45, Ag 10 '46

System of laboratory evaluation; Aluminum research laboratories. H. V. Churchill. Ind & Eng Chem Anal ed 18:66 Ja '46

Tabulated diffraction data for tetragonal isomorphs. L. K. Frevel, H. W. Rinn and H. C. Anderson. bibliog Ind & Eng Chem Anal ed 18:83-93 F '46

Use of control charts in the analytical laboratory. G. Wernimont. bibliog Ind & Eng Chem Anal ed 18:587-92 O '46

CHEMISTRY, Analytic—*Continued*

Use of refractive indices of dimethyl esters. D. F. Houston and J. S. Furlow. bibliog Ind & Eng Chem Anal ed 18:541-2 S '46

See also

Acidity
Chromatographic analysis
Colorimetric analysis
Combustion analysis
Filter paper
Gas analysis
Gravimetric analysis
Indicators and test papers
Iodometry
Metallurgical analysis
Microanalysis
Mineralogical analysis
Nephelometric analysis
Oil analysis
Plants—Chemical analysis
Polarographic analysis
Spectrum analysis
Sugar analysis
Textile analysis
Varnish analysis
Volumetric analysis

also subdivision Analysis under names of substances, e.g.

Chlorine—Analysis
Petroleum—Analysis
Steel—Analysis
Water—Analysis

Qualitative

Identification of organic bases by means of the optical properties of diluturates (nitrobarbiturates); primary aromatic amines. B. T. Dewey and E. M. Plein. diags Ind & Eng Chem Anal ed 18:515-20 Ag '46

Most economic sampling for chemical analysis. C. W. Churchman. bibliog Ind & Eng Chem Anal ed 18:267-8 Ap '46

Objectives of qualitative analysis. W. L. Wasley. J Chem Educ 23:357 Jl '46

Qualitative analysis of group III; a survey. M. M. Tenbusch and G. E. F. Brewer. bibliog(82 references) J Chem Educ 23:66-72 F '46

Qualitative identification of synthetic resins. J. H. Graff. Paper Tr J 122:41-3 Ja 31 '46

Simple monochromatic source. R. B. Barnes and others. diag Opt Soc Am J 36:52 Ja '46

Study and teaching

Separation and identification of cobalt, nickel, zinc, and manganese. R. K. McAlpine. J Chem Educ 23:298-300 Je '46

Quantitative

Analysis of oil-soluble petroleum sulfonates; extraction-adsorption method. F. Brooks, E. D. Peters and L. Lykken. diags Ind & Eng Chem Anal ed 18:544-7 S '46

Constancy of spectral line excitation in quantitative spectrographic analysis. F. L. Jones. bibliog Soc Chem Ind J 64:317-22 D '45

Determination of tetraethyllead in gasoline by X-ray absorption. M. V. Sullivan and H. Friedman. il diag Ind & Eng Chem Anal ed 18:304-6 My '46

Mass spectrometer; a flexible tool for industrial analysis and research. N. D. Coggeshall. bibliog il diags Chem Ind 58:420-3 Mr '46

Method of quantitative spectrochemical analysis based on line widths. P. Coheur. Opt Soc Am J 36:498-500 S '46

Practical conductivity measurements in plating applications. J. B. Mohler and J. Sternisha. il Metal Finishing 44:58-62+ F '46

Radioactive studies; utilization of the radioactive isotope dilution procedures for special types of chemical problems; quantitative determination of the three individual components of mixtures of dibenzyl sulfide, sulfoxide, and sulfone as an illustrative example. F. C. Henriques, jr. and C. Margnetti. bibliog Ind & Eng Chem Anal ed 18:476-8 Ag '46

Routine quantitative analysis by X-ray diffraction. J. W. Ballard and H. H. Schrenk. bibliog 5pls U S Bur Mines Rep of Invest 3888:1-10 '46

Solution intake unit for improved operation of the flame photometer. A. T. Myers. diags Ind & Eng Chem Anal ed 18:585 S '46

See also

Colorimetric analysis
Gravimetric analysis
Iodine number
Iodometry
Polarographic analysis
Turbidimetric analysis
Volumetric analysis

Study and teaching

Effective training in quantitative analysis. C. B. DeWitt and L. B. Rogers. J Chem Educ 23:169-73 Ap '46

Navy V-12 course in quantitative analysis. G. W. Bennett. J Chem Educ 23:247-8 My '46

Study and teaching

Academic training for analytical chemistry. L. T. Hallett. Ind & Eng Chem Anal ed 17: 747-8 D '45

Tables, calculations, etc.

Aids to computation in spectrophotometric analysis of binary mixtures; illustrative data for benzene-toluene mixtures. M. Fred and F. W. Porsche. diags Ind & Eng Chem Anal ed 18:603-4 O '46

Improvement of precision by repeated measurements; application to analytical control methods. J. Mandel. bibliog Ind & Eng Chem Anal ed 18:280-4 My '46

Method of eliminating calculations in routine quantitative spectrographic analysis by means of a curved galvanometer scale. J. C. Henderson-Hamilton and A. Lourie. Soc Chem Ind J 64:309-12 N '45

Most economic sampling for chemical analysis. C. W. Churchman. bibliog Ind & Eng Chem Anal ed 18:267-8 Ap '46

CHEMISTRY, Industrial. See Chemical industries; Chemistry, Technical

CHEMISTRY, Inorganic

Postwar research forges ahead; inorganics. R. K. Iler. bibliog(71 references) Chem Ind 59:259-60 Ag '46

CHEMISTRY, Medical and pharmaceutical

Postwar research forges ahead; pharmaceuticals. E. H. Volwiler. Chem Ind 59:263-4 Ag '46

Radioactive products of atomic fission may revolutionize medicine. R. S. Stone. Can Chem & Process Ind 30:86 Je '46

Some problems of clinical chemistry. V. C. Myers. Chem & Eng N 24:2615-17 O 10 '46

Survey of synthetic medicinals. C. P. Burt. J Chem Educ 23:358-61, 412-15 Jl-Ag '46

Synthesis of some tertiary amino alcohols related to chelidonine. C. R. Noller and P. D. Kneeland. bibliog Am Chem Soc J 68:201-2 F '46

See also

Alkaloids
Anesthetics
Anesthetics, Local
Antacids
Antiseptics
Antispasmodics
Chemotherapy
Disinfection and disinfectants
Drugs
Hormones
Immunity
Pharmacology
Vaccines
Vitamins

CHEMISTRY, Organic

Electro-organic chemical preparations. S. Swann, jr. bibliog tables Electrochem Soc Trans 88 (preprint 23):237-54 '45

Identification of small amounts of organic compounds by distribution studies; use of a solid phase. L. C. Craig and others. bibliog Science 103:587-9 My 10 '46

Infrared spectroscopy in organic chemistry. R. N. Jones. bibliog il Can Chem & Process Ind 30:85-8+ Mr '46

New steric effect in organic chemistry. H. C. Brown. bibliog Science 103:385-7 Mr 29 '46

See also

Acids, Fatty
Alcohols
Aldehydes
Alkaloids
Amines
Carbohydrates
Carbon
Cellulose
Condensation, Chemical
Cyclic compounds
Essential oils
Esterification
Esters
Ethers
Grignard reagents
Hydrocarbons
Ketones
Polymerization
Proteins
Radicals (chemistry)
Stereochemistry
Sugars

History

H. E. Armstrong and the development of organic chemistry. H. Hartley. Chem & Ind p398-402, 406-10 D 22-29 '45

CHEMISTRY, Organic—*Continued*

Nomenclature

ACS official reports; nomenclature, spelling, and pronunciation; nomenclature of silicon compounds. Chem & Eng N 24:1233-5 My 10 '46

See also
Enzymes—Nomenclature

Study and teaching

Simplified electronic interpretation of oxidation-reduction for use in teaching organic chemistry. D. C. Gregg. J Chem Educ 22: 548-53 N '45

Some small-scale organic preparations. L. O. Binder. diags J Chem Educ 23:285-7 Je '46

CHEMISTRY, Physical and theoretical

Conversion factors in physical chemistry. P. P. Sutton. J Chem Educ 23:126 Mr '46

Improved methods of preparation of permselective collodion membranes combining extreme ionic selectivity with high permeability. H. P. Gregor and K. Sollner. bibliog diag J Phys Chem 50:53-70 Ja '46

Recent work in the field of high pressures; chemical effects. P. W. Bridgman. bibliog(92 titles) Rs Mod Phys 18:79-88 Ja '46

See also
Absorption
Adsorption
Atoms
Azeotropy
Catalysis
Catalysts
Chemical bonds
Chemical equilibrium
Chemical reaction
Colloids
Compressibility
Condensation, Chemical
Conjugation (chemistry)
Crystallization
Crystallography
Electrochemistry
Electrolysis
Electrolytes
Electrons
Emulsions
Equation of state
Flocculation
Fluorescence
Freezing points
Gases
Ionization, Electrolytic
Ionization, Gaseous
Ions
Isomerism
Isotopes
Melting points
Mixtures
Molecular rearrangements
Molecular weights
Molecules
Phase rule and equilibrium
Photochemistry
Polymers
Precipitation
Quantum theory
Solids
Solubility
Solution (chemistry)
Stereochemistry
Surface tension
Thermodynamics
Thixotropy
Valence
Vapor pressure
Wave mechanics

CHEMISTRY, Technical

Application of platinum resistance thermometry to some industrial physicochemical problems. D. R. Stull. bibliog il diags Ind & Eng Chem Anal ed 18:234-42 Ap '46

Boost for acetylene chemistry; war-born German developments. Bsns W p46+ N 2 '46

Chemical engineering in the Middle West. Chem Eng 53:97-100 Ag '46

Chemical engineering progress for peace. il Chem & Met Eng 53:123-34 F '46

Heavy chemical industry in 1945. P. Parrish. bibliog il diags Chem Age (Lond) 54: 33-52 Ja 12 '46

Kingzett's chemical encyclopædia; a digest of chemistry and its industrial applications. R. K. Strong, ed. 7th ed rev 1092p $16 D. Van Nostrand co, 250 Fourth av, New York '46

Peacetime applications of war advances discussed at ACS convention. Chem Ind 58: 782-4 My '46

What industry expects of the chemist; abstract. C. J. T. Cronshaw. Chem & Ind p141 Mr 30 '46

See also
Acid resisting materials
Alcohol
Alloys
Ammonia
Bleaching
Brewing
Cellulose
Cement
Ceramics
Chemical engineering
Chemical industries
Chemical patents
Chemicals
Chemurgy
Clay
Coal distillation
Coal tar products
Corrosion and anticorrosives
Cosmetics
Dehydration
Distillation
Drying
Drying agents
Dyes and dyeing—Chemistry
Emulsions
Essential oils
Explosives
Extraction processes
Fertilizers
Filters and filtration (technical chemistry)
Flavoring materials
Fuel
Gas
Gas manufacture
Glass manufacture
Glue
Gums and resins
Hydrometallurgy
Ion exchangers
Lacquer and lacquering
Metallurgy
Oils and fats
Ore treatment
Paint
Paper
Paper making
Paper making materials
Petroleum—Chemistry
Petroleum distillation
Petroleum refining
Plastic materials
Pottery
Rayon
Refractory materials
Refrigerants
Resinous products
Rubber
Rubber—Chemistry
Soap
Soap, Metallic
Soap manufacture
Solvents
Soybeans
Sugar
Sulfuric acid
Synthesis
Tanning
Tanning materials
Textile chemistry
Unit processes
Varnish and varnishing
Vulcanization
Water purification
Wood—Chemistry
Wood distillation
Wood preservation

CHEMISTRY buildings

Housing for the small college chemistry department. H. F. Lewis. plan diags Chem & Eng N 24:2187-8 Ag 25 '46

CHEMISTS

Advice to the chemist back from war who wants to set up a small business. C. O. Brown. Ind & Eng Chem 38:sup 73-4 Ja '46

Availability of technically trained men. M. H. Trytten. Chem & Eng N 24:1656-9 Je 25 '46

Changing economic status of chemists, 1926-1943. R. W. French. bibliog Chem & Eng N 24:1649-55 Je 25 '46

Chemical education plans for postwar. il Chem Ind 57:833-5 N '45

Chemist as an expert witness. J. Alexander. Chem & Eng N 24:1198-9 My 10 '46

Chemist in the dairy industry; abstract. E. B. Anderson. Chem & Ind p48-9; Discussion. 49 F 2 '46

Chemistry as a profession; certification versus licensing. W. M. Sperry. bibliog Chem & Eng N 24:1660-4 Je 25 '46; Same. Can Chem & Process Ind 30:51-6 S '46

Civilian scientists sent to Germany; list of members of chemical unit. Chem & Eng N 24:2637-8 O 10 '46

Is unionization the answer? O. Eisenschiml. Chem & Eng N 24:1176-82 My 10 '46

One world through science; Anglo-American meeting of chemists, New York, April 4. C. J. Krister. Chem & Met Eng 53:194+ My '46; Same cond. Chem & Ind p173-4 Ap 27 '46

Professional activities of the ACS local sections. R. F. Gould. il plans Chem & Eng N 24:782-5 Mr 25 '46

Professional responsibilities of the chemist. W. C. Fernelius. Chem & Eng N 24:1664-5 Je 25 '46; Same. Can Chem & Process Ind 30:56-7 S '46

Research chemist takes his hair down. E. Sutermeister. Paper Ind 27:1515-18 Ja '46

Should chemists support ICCASP? (Independent citizens committee of the arts, sciences, and professions) yes! by M. Dole; no! by D. L. Tabern. Chem & Eng N 24:2770-1+ O 25 '46

Statement of research policy suggested for inclusion in research policies of educational institutions. Chem & Eng N 24:1535 Je 10 '46

What industry expects of the chemist; abstract. C. J. T. Cronshaw. Chem & Ind p141 Mr 30 '46

See also
Chemical education
Chemical engineers
Food technologists
Women as chemists
also names of chemists, e.g.
Adams, Roger
Esselen, G. J.
Fichter, Friedrich
Friedel, Charles
Karrer, Paul
Keir, James
Parsons, Charles Lathrop
Pauling, Linus
Schmidt, Carl Louis August

CHEMISTS—*Continued*

Licenses

Chemical consultants discuss licensing. A. P. Sachs and others. Oil Paint & Drug Rep 150:4+ O 28 '46

Chemistry as a profession; certification versus licensing. W. M. Sperry. bibliog Chem & Eng N 24:1660-4 Je 25 '46; Same. Can Chem & Process Ind 30:51-6 S '46

Licensing of chemists; case for licensing. H. R. Wyman. Can Chem & Process Ind 30: 53 O '46

Resolutions against licensing. Chem & Eng N 24:1734 Je 25 '46

Should chemists be licensed? yes! by G. Egloff; no! by C. L. Parsons. Chem & Eng N 24:310-18+, 2330-5 F 10, S 10 '46

Some arguments against the licensing of chemists. M. R. Foran. Can Chem & Process Ind 30:53-5 O '46

Some problems of clinical chemistry. V. C. Myers. Chem & Eng N 24:2615-17 O 10 '46

What licensing could do for the chemist; abstract. J. D. Coleman. Chem & Met Eng 52:260+ N '45

Which chemists should be licensed? A. J. Nydick. Chem & Eng N 24:2170-3 Ag 25 '46

Public relations

Chemist and the public. B. Dewey. Chem & Eng N 24:1032-3 Ap 25 '46

Stepping out in step. R. H. Twining. Chem & Eng N 24:1914-15 Jl 25 '46

Germany

German agricultural and biological chemists. Science 103:534 Ap 26 '46

Venezuela

Vicente Marcano (1848-1891); pioneer chemist of Venezuela. C. F. Asenjo. J Chem Educ 23:145-8 Mr '46

CHEMOTHERAPY

Antitubercular studies; 1,1,1-trichloro-2,2-bis-(*p*-aminophenyl)-ethane. A. Burger, E. Graef and M. S. Bailey. bibliog Am Chem Soc J 68:1725-6 S '46

Attempts to find new chemotherapeutic amidines; nuclear substituted derivatives of 4 : 4′-and 3 : 3′-diamidinostilbene. J. N. Ashley and J. O. Harris. Chem Soc J p567-72 Jl '46

Biological actions and therapeutic applications of the β-chloroethyl amines and sulfides. A. Gilman and F. S. Philips. bibliog(68 references) Science 103:409-15+ Ap 5 '46

Chemotherapeutic agents of the sulphone type; sulphones containing a *p*-aminophenyl group. J. Walker. Chem Soc J p630-3 O '45

Chemotherapeutic agents of the sulphone type; sulphones related to benzamidine and benzylamine. A. T. Fuller, I. M. Tonkin and J. Walker. Chem Soc J p633-40 O '45

Chemotherapy in tuberculosis. Pub Health Rep 61:825-6 Je 7 '46

Derivatives of 6-methoxy-8-aminoquinoline. G. B. Bachman and H. H. Szmant. Am Chem Soc J 68:31-4 Ja '46

Derivatives of 1,2,4-triazole and of pyrazole. D. B. Sharp and C. S. Hamilton. bibliog Am Chem Soc J 68:588-91 Ap '46

Discovery of paludrine. F. H. S. Curd and F. L. Rose. Chem & Ind p75-7 F 16 '46; Discussion. p88-9 F 23 '46

Metabolite antagonists. R. O. Roblin, jr. bibliog(484 references) diags Chem R 38:255-377 Ap '46

Microbe; friend and enemy of man. S. A. Waksman. Chem & Eng N 24:1372-4 My 25 '46

New antimalarial; important British discovery; Paludrine. Chem Age (Lond) 53:431 N 10 '45

New potential chemotherapeutic agents; derivatives of 2-aminobenzocinnoline. F. E. King and T. J. King. Chem Soc J p824-6 N '45

New potential chemotherapeutic agents; derivatives of aminoquinoxalines. F. E. King and R. J. S. Beer. Chem Soc J p791-4 N '45

New potential chemotherapeutic agents; derivatives of benziminazole. F. E. King, R. J. S. Beer and S. G. Waley. Chem Soc J p92-4 F '46

New potential chemotherapeutic agents; derivatives of diphenylamine and of αα-diphenylmethylamine. F. E. King, T. J. King and I. H. M. Muir. Chem Soc J p5-10 Ja '46

On reporting the comparative values and the biological activities of chemotherapeutic agents. L. Karel. bibliog Science 104:99-100 Ag 2 '46

Place of chemotherapy in the treatment of traumatic wounds. J. W. Hirshfeld. Ind Med 15:87-8 F '46

Present state of the chemotherapy of tuberculosis. A. Burger. bibliog J Chem Educ 22: 586-7+ D '45

Some derivatives of 3-aminoquinoline. G. R. Clemo and G. A. Swan. Chem Soc J p867-70 D '45

Studies in chemotherapy; antimalarials; halogenated sulfanilamidoheterocycles. J. P. English and others. bibliog Am Chem Soc J 68:453-8 Mr '46

Studies in chemotherapy; antimalarials; the synthesis of substituted metanilamides and related compounds. J. P. English and others. bibliog Am Chem Soc J 68:1039-49 Je '46

Studies in chemotherapy; antithyroid compounds; synthesis of 5- and 6-substituted 2-thiouracils from β-oxoesters and thiourea. G. W. Anderson and others. bibliog Am Chem Soc J 67:2197-200 D '45

Studies in chemotherapy; oxidation of 2-thiouracil and related compounds by iodine. W. H. Miller, R. O. Roblin, jr. and E. B. Astwood. bibliog Am Chem Soc J 67:2201-4 D '45

Studies in chemotherapy; some sulfanilamidoheterocycles. J. H. Clark and others. bibliog Am Chem Soc J 68:96-9 Ja '46

Studies in the anthracene series; methyl ketones and carbinolamines derived from 1,2,3,4-tetrahydroanthracene. E. A. Garlock, jr. and E. Mosettig. bibliog Am Chem Soc J 67:2255-9 D '45

Studies on the chemotherapy of experimental virus infections; the effect of certain organic arsenicals on the course of experimental murine poliomyelitis. D. W. McKinstry and E. H. Reading. bibliog Franklin Inst J 240:422-9 N '45

See also

Chemistry, Medical and pharmaceutical
Colistatin
Penicillin
Streptomycin
Sulfanilamide
Sulfonamides

CHEMURGIC council, National farm. See National farm chemurgic council

CHEMURGY

Chemurgic conference papers. India Rubber World 114:384 Je '46

Chemurgy and modern textiles. F. Bonnet. Rayon 27:236-7, 289-90 My-Je '46

National farm chemurgic conference in St Louis. R. F. Gould. Chem & Eng N 24:900-1+ Ap 10 '46

CHENEY brothers

Cheney brothers completely converted from wartime production. H. R. Mallory. il Rayon 27:233-5 My '46

CHERBOURG

Harbor

La destruction et la remise en service des installations du port de Cherbourg. A.-P. Pages. il map Génie Civil 123:38-9 F 1 '46

CHERRIES

Passage of the ring spot virus through Mazzard cherry seeds. L. C. Cochran. Science 104:269-70 S 20 '46

CHERRY-BURRELL corporation

Preferred stock offered. Comm & Fin Chr 163:1279 Mr 11 '46

CHESAPEAKE and Ohio railway

Annual report. Comm & Fin Chr 163:2153-4 Ap 22 '46

C. & O. lines withdraw from A.A.R. Ry Age 121:649-50 O 19 '46

Equipment trust certificates; merger plans. Comm & Fin Chr 163:1421, 1723 Mr 18, Ap 1 '46

Equipment trusts offered. Comm & Fin Chr 164:952 Ag 19 '46

R. J. Bowman, new president. Ry Age 120: 444 Mr 2 '46

CHESAPEAKE and Ohio railway—*Continued*
Thumbnail stock appraisal. Mag of Wall St 77:457 Ja 19 '46
Values in C.&O. merger. Barron's 26:6 N 4 '46

CHESGO mines limited
It's a gold mine; but SEC, eying prospectus and registration statement of Canadian concern, has doubts. Bsns W p66-8 F 16 '46

CHEST
Evaluation of a chest X-ray resurvey of an industrial plant. M. Kramer and others. Pub Health Rep 61:990-1001 Jl 5 '46
Light, compact X-ray generator of high efficiency for mass radiography of the chest. R. H. Morgan and E. G. Murphy. diags Pub Health Rep 61:982-9, pl 1-2 Jl 5 '46
Statistical analysis of 100,000 examinations of the chest by the photoroentgen method; abstract. P. Zanca and F. K. Herpel. J Ind Hygiene 28:sup3 Ja '46
X-ray at your door; chest examinations for employees. D. Goodman. il Safety Eng 91: 71 Ja '46

See also
Clavicle

Diseases

Chest conditions simulating silicosis. L. E. Hamlin. bibliog il Ind Med 15:376-81 Je '46

CHESTNUT
Serious drop in chestnut extract. J. G. Schnitzer. il Dom Comm 34:17-18 Ap '46

CHESTS
Canadian market for cedar chests. For Comm W 22:38 F 2 '46

CHEWING gum
American Chicle vs. Wrigley. R. Carleson. il Mag of Wall St 79:141-3+ N 9 '46
Bubble gum. P. K. James. il Adv & Sell 39: 60 S '46
Chewing gum manufacturers still lack raw materials. W. N. Small. Dom Comm 34:39-41 O '46
Chewing gum sellers' market balked by raw materials shortages. Barron's 26:1 Ag 5 '46

CHI square
Approximation of chi-square by probits and by logits. J. Berkson. Am Stat Assn J 41: 70-4 Mr '46

CHICAGO
Chicago announces 7-year construction program; with financial data. Eng N 136:532 Ap 18 '46
Chicago board develops public works program. P. Harrington. il Civil Eng 16:24-6 Ja '46
Chicago plans for its future. H. E. Kincaid. il map plan Western Soc E J 51:38-51 Mr '46
Chicago voters approve large bond issues. Eng N 136:902 Je 13 '46
Chicago's city planning competition; prize winning plane. Arch Forum 84:168-9 Mr '46
Chicago's public works to cost nearly 300 million in seven years. L. M. Johnson. Civil Eng 16:398-9 S '46
What can be done about traffic congestion? city planning, zoning, and housing; Chicago plan. H. E. Kincaid. il map Civil Eng 16: 262-4 Je '46

See also
Banks and banking—Chicago
Building laws and regulations—Chicago
Clothing trade—Chicago
Printing trade—Chicago

Hotels, restaurants, etc.

Chichi in Chicago; Ernie Byfield has scored at the Sherman and the Ambassadors east and west. il Fortune 33:146-9+ Je '46
That land again; sale of Morrison Hotel plot is less than final. Bsns W p30 Ja 19 '46

Industries

Chicago; center of chemical industry. A. E. Schneider. il Chem & Eng N 24:2178-9 Ag 25 '46

Merchandise mart

Marshall Field, the store. il Fortune 32:142-7+ D '45

Michael Reese hospital

Hospital plans; Chicago slums scheduled for redevelopment under program sponsored by Michael Reese hospital. il plans Arch Forum 85:87-101, 104 S '46

Parks

Park expansion program for Chicago. R. H. Burke. plans Western Soc E J 50:133-9 S '45

Railroads

One rail station? Bsns W p44 D 22 '45
Terminal authority, Chicago's postwar need. J. D'Esposito. Western Soc E J 50:123-32 S '45
Unusual methods for big trackwork job; important crossing at Chicago. T. H. Beebe. il diag Ry Age 121:684-6 O 26 '46

Rapid transit

Chicago invests $23 million in modernization. C. W. Stocks. il map Bus Transportation 25:54-60 S '46
Transit ruling; Chicago's 20-year dispute nearer an end. Bsns W p66 F 23 '46
Transit trouble. Bsns W p47 My 25 '46

Sanitary affairs

Provisions of Chicago's new refuse removal ordinance. Pub Works 77:48 Ap '46

Streets

Economics of toll superhighways; Illinois rural and Chicago survey; with cost data. il maps Roads & Bridges 84:71-6+ F '46
Franchise tangle; Chicago Motor Coach begins service between Loop and public parking lots. Bsns W p36+ Ag 31 '46
Tripartite pact signed for Chicago's $50 million Congress St. expressway. Eng N 135: 833 D 20 '45

Suburbs

See also
Housing—Glenview, Illinois

Subways

Chicago receives more subway bids. Eng N 137:339 S 12 '46
Dearborn Street subway, Chicago; unit prices. Eng N 137:607 O 31 '46

Water supply

Chicago water filtration plant designed to pump 700 million gallons a day. il Power Pl Eng 50:77 Jl '46
Chicago's sale of water to outside municipalities. W. A. Weigel. Am Water Works Assn J 38:531-6 Ap '46
Chicago's south district filtration plant placed in partial operation. W. W. DeBerard and J. R. Baylis. il map diags Civil Eng 16:197-200 My '46
Large water main construction by city of Chicago supplies western suburbs. W. W. De Berard. il Water & Sewage Works 93: 380-2 O '46
Tapping a wet well under pressure; using tremie-placed concrete seal; pumping station, Chicago. il diag Eng N 136:719-21 My 2 '46

CHICAGO and eastern Illinois railroad
C.& E.I. merger? Bsns W p77 Ja 26 '46

CHICAGO and north western railway
Equipment trusts offered. Comm & Fin Chr 163:462, 897 Ja 28, F 18 '46
Equipment trusts offered. Comm & Fin Chr 164:2405 N 11 '46

CHICAGO and southern air lines, inc.
Chicago & Southern comfort. G. Herrick. il map Air Transport 4:22-8 My '46
Stock offered. Comm & Fin Chr 164:679 Ag 5 '46

CHICAGO board of trade
Cargill, inc., sues; charges Chicago board of trade with antitrust violation. Bsns W p57-8 Je 1 '46
Tempest in a pit; Chicago board of trade furor over rules and grain ceilings. Bsns W p42+ Je 15 '46

CHICAGO, Burlington and Quincy railroad
Bonds offered. Comm & Fin Chr 162:3070 D 24 '45

CHICAGO corporation
Newcomers on the Stock Exchange. W. A. Howell. Mag of Wall St 78:760 S 28 '46

CHICAGO great western railway
Annual report. Comm & Fin Chr 163:2154 Ap 22 '46

Joyce retires; Burtness heads Chicago Great Western. Ry Age 120:1112-13 Je 1 '46

CHICAGO, Indianapolis and Louisville railway
Barriger heads reorganized Monon. Ry Age 120:961 My 11 '46

CHICAGO mail order company (now Alden's, inc.)
Annual report. Comm & Fin Chr 163:1280 Mr 11 '46

CHICAGO, Milwaukee, St Paul and Pacific railroad
Crowley and Scandrett head Milwaukee. Ry Age 119:979 D 15 '45

Exchange of securities under plan of reorganization. Comm & Fin Chr 162:2813-14 D 10 '45

Jolt for the rails; Reed proposal to return roads to old stockholders. Bsns W p52+ D 1 '45

New C.M.St.P.&P. takes over property. Ry Age 119:911-12 D 1 '45

Reorganization plan approved by court. Comm & Fin Chr 162:2638 D 3 '45

St Paul preferred to get payments. Barron's 26:6 My 20 '46

Securities listed and suspended. Comm & Fin Chr 162:2939 D 17 '45

Steam, Diesel and electric power combine to handle increased traffic; western lines of the Milwaukee Road. il Ry Age 120:1174-5 Je 15 '46

CHICAGO, north shore and Milwaukee railway
Exchange and distribution under plan of reorganization. Comm & Fin Chr 164:2405 N 11 '46

CHICAGO, Rock Island and Pacific railway
Chicago sun attacks Rock Island trustee. Ry Age 120:156-7 Ja 12 '46

Trustee files debt reduction, interest payment plan. Comm & Fin Chr 164:1716 O 7 '46

CHICAGO stock exchange
Stock exchange's place in finance. K. L. Smith. Comm & Fin Chr 162:2579+ N 29 '45

CHICAGO surface lines
Chicago invests $23 million in modernization. C. W. Stocks. il map Bus Transportation 25:54-60 S '46

Court approves transit plan. Comm & Fin Chr 163:1024 F 25 '46

CHICAGO technical societies council
Technical societies organize for greater service to Midwest. L. A. Bain. Chem Eng 53: 104-7 Ag '46

CHICAGO university

Institute for the study of metals

Institute for the study of metals. C. S. Smith. R Sci Instr 17:205-6 My '46

CHICKENS. See Poultry

CHICLE
Chicle industry in Guatemala. For Comm W 24:45 Jl 13 '46

CHICOPEE manufacturing corporation
Georgia plant makes screen, cloth from plastics. il Manuf Rec 115:54+ O '46

CHILD development, Society for research in. See Society for research in child development

CHILD labor

New York (state)

Earnings of women and male minors in New York retail stores, 1945. Mo Labor R 62: 230-2 F '46

CHILD labor laws
Revocation of wartime child-labor exemption. Mo Labor R 62:69 Ja '46

CHILD welfare
Care of children. Economist 151:654-5 O 26 '46

See also
Day nurseries, Factory

CHILDREN
Young market, how should you package for it? il Mod Packaging 19:87-92+ D '45

See also
Clothing and dress—Children

Care and hygiene

Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; extent of immunization against smallpox, diphtheria, and typhoid fever. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 61:97-109 Ja 25 '46

Study of child health services by the American academy of pediatrics. Pub Health Rep 61:607-8 Ap 26 '46

Time per service in a children's dental clinic. I. Altman. Pub Health Rep 61:1211-19 Ag 16 '46

CHILDREN'S apparel stores
Children's shop in Long Beach, Calif. il plan Arch Forum 84:118 F '46

Free-flow plan in tight areas; Rock-a-bye children's clothing store, Brooklyn. il plans Arch Rec 99:100-5 F '46

Symphonized children's store; Martin's children's store, Brooklyn. il plans Arch Rec 100:81-8 Ag '46

CHILDREN'S clubs
Children's clubs are potent sales makers; 11 fundamentals. il Ptr Ink 217.52-3 O 18 '46

CHILDREN'S dresses. See Children's apparel shops; Clothing and dress—Children

CHILDS company
Reorganization plan filed with court. Comm & Fin Chr 163:1421 Mr 18 '46

CHILE

See also
Civil service—Chile
Forests and forestry—Chile
Fruit trade—Chile
Hotels—Chile
Indians of South America—Chile
Labor and laboring classes—Chile

Economic conditions

Latin America's economy as world conflict ended. il For Comm W 24:8-10 Ag 3 '46

News by countries. Published in Foreign commerce weekly

Planning a trip to Chile to live or manage office? M. D. Keating. il For Comm W 23: 11+ Je 29 '46

Industries and resources

Chilean state electrification. D. Santa María. J Land & Pub Util Econ 21:365-70 N '45

CHILI sauce
Freezing point data sheets and cooling curves. Food Ind 18:1034 Jl '46

CHILLED iron
Influence of tellurium as a chill-inducing medium in cast iron; abstract. Materials & Methods 24:976 O '46

Weather affects chill depth. E. Wishbrun. chart Foundry 74:108-9+ F '46

CHIMES. See Carillons

CHIMNEYS
Chimney design and construction. M. J. Jubanyik. diags Brick & Clay Rec 107:32 D '45

Height finding. G. Holman. diag Power Pl Eng 50:101 S '46

Plastic chimney coating resists heat and acid; Heresite. il Iron Age 157:64 My 23 '46

Raising a smokestack with a makeshift winch. H. B. McDermid. Power Pl Eng 50:91 Ap '46

Underpinning a 175-ft operating smokestack. A. Di Giacinto. il diags Power 90:594-6 S '46

Wrecking

How do you tear down a brick chimney? diags Power 90:406-7 Je '46

CHIMNEYS, Concrete
Building a smokestack in reverse order. il Comp Air Mag 51:193-4 Jl '46

Cheminée d'usine construite sur un bâtiment à Bradford (Angleterre). diag Génie Civil 123:163 Je 15 '46

Chimney offices; Valley power station of Bradford corporation. il Elec R (Lond) 138: 134 Ja 25 '46

CHINA
China, the big question mark. Bsns W p105-6 Ja 5 '46

See also
Chemistry—China
Chungking
Corporation law—China
Cotton trade—China
Dairen, China
Foundries—China
Industrial education—China
Mines and mining resources—China
Standards—China
Steel industry and trade—China
Water supply—China
Wool trade—China

Commerce

China handbook lists U.S. services. Sales Management 57:84 N 1 '46
China's handicrafts may play important part in country's postwar exports. S. O. Wolcott. il For Comm W 22:5-8+ Ja 5 '46
Chinese market during industrialization. Y. L. Yu. Comm & Fin Chr 164:336+ Jl 18 '46
Hong Kong begins anew; rehabilitation of trade and commerce. J. Stenhouse and M. Wiener. il map For Comm W 22:3-5+ Mr 16 '46
U.S. trade opportunities in China. S. D. Ren. Comm & Fin Chr 163:2083+ Ap 18 '46

Commercial policy

China's trade-control and tariff regulations; changes effected since end of Japanese war. il For Comm W 21:5+ D 1; 13+ D 22 '45
China's trade-control changes since VJ-day. C. N. Henning. il For Comm W 23:8-9+ My 11 '46
Chinese import licenses. For Comm W 23:23 Ap 13 '46
Customs gold unit; foreign exchange not to be granted for import of certain items; foreign exchange to be sold only to established traders. For Comm W 23:16 Je 29 '46
Financing cargo imported into China under license. For Comm W 23:27 Je 1 '46
Licensing requirements and import prohibitions applicable to imports for personal use and to gifts, as well as to commercial shipments. For Comm W 23:24-5 Je 1 '46
New temporary exchange and trade-control regulations issued by Chinese government. For Comm W 22:9 Mr 16 '46
Registration of foreign companies in China. M. Wiener. il For Comm W 23:10-13+ Je 8 '46
Rules governing export consignments from China. For Comm W 23:27 My 18 '46

Constitution

Political structure in the Chinese draft constitution. Chun-Mai Carsun Chang. Ann Am Acad 243:67-76 Ja '46

Economic conditions

News by countries. Published in Foreign commerce weekly
Shanghai; reopened under new management; il. by B. Perlin. C. J. V. Murphy. Fortune 33:140-8+ F '46

Economic policy

China heads for trade crisis. Bsns W p113 D 8 '45
Establishment of the Supreme economic council. Int Labour R 52:669-71 D '45
Social policy in China. T. K. Djang. Int Labour R 53:465-78 N '45
Supreme economic council created to direct China's economic reconstruction and development. For Comm W 21:23 D 15 '45

Foreign relations

United States

Administration policy toward China; President Truman's statement. Comm & Fin Chr 162:3173 D 27 '45
America's dilemma in China. Economist 151: 125-6 Jl 27 '46
General Marshall's mission. Economist 150: 628 Ap 20 '46
Hurley resigns as ambassador to China; Marshall appointed to post. Comm & Fin Chr 162:2795 D 6 '45

Industries and resources

China's handicrafts may play important part in country's postwar exports. S. O. Wolcott. il For Comm W 22:5-8+ Ja 5 '46
Chinese industry at the crossroads. A. M. Creighton, jr. il Chem & Eng N 24:1531-3 Je 10 '46
Jap surrender's effect on North China industry. F. W. Hinke. For Comm W 22:13+ F 16 '46

Politics and government

America's dilemma in China. Economist 151: 125-6 Jl 27 '46
Chinese communism; a menace to world peace. Ta Kung Ming. Comm & Fin Chr 164:2074+ O 24 '46
Outlook for Chinese unity. Economist 149: 547-8 O 20 '45

CHINA closets. See Cupboards

CHINA wood oil. See Tung oil

CHINCHILLA rabbits
Chinchilla farm; veteran sets up small estate for raising chinchilla rabbits in Glen Echo Heights, Md. map plans diags Arch Forum 84:94-5 My '46

CHINESE students in the United States
Chinese completing government sponsored course in steelmaking. Steel 118:118 My 6 '46
Old China sends us young textile students. E. Mauldin. il Textile World 96:101-2 Ap '46
Over 1000 Chinese technical men visit U.S. for training. Iron Age 156:166 D 6 '45
Reclamation bureau trains young Chinese engineers. Civil Eng 16:414 S '46

CHIPPER knives. See Knives, Chipper

CHIRURG, James Thomas, 1906-
Gallery; high-pressure paradox. H. G Sawyer. por Adv & Sell 39:138+ Je '46

CHLORAL
Preparation of DDT using hydrogen fluoride as the condensing agent. J. H. Simons and others. Am Chem Soc J 68:1613-15 Ag '46
Production of DDT; condensing action of chlorosulfonic acid on chloral hydrate and chlorobenzene. W. H. C. Rueggeberg and D. J. Torrans. bibliog Ind & Eng Chem 38: 211-14 F '46

CHLORAMINE
Acid catalysis in the formation of chloroamides from hypochlorous acid; *N*-chlorination by hypochlorite ions and by acyl hypochlorites. R. P. Mauger and F. G. Soper. Chem Soc J p71-5 F '46
Influence of pH and temperature on the survival of coliforms and enteric pathogens when exposed to chloramine. C. T. Butterfield and E. Wattie. bibliog diags Pub Health Rep 61:157-92 F 8 '46; Abstract. Water & Sewage 84:30+ Je; 17-18+ Ag '46

Analysis

Determination of free chlorine and chloramine in water by use of para-aminodimethylaniline. A. T. Palin. bibliog Water & Sewage 84:22+ F '46

CHLORAMINE-T
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the action of chloramine-T on the thionaphthenquinones. C. E. Dalgliesh and F. G. Mann. Chem Soc J p913-17 D '45

CHLORANIL. See Tetrachloroquinone

CHLORATES
Chlorates; hazards and precautions. Nat Safety N 52:38+ N '45
Hazards from chlorates and perchlorates in mixtures with reducing materials. I. Kabik. bibliog U S Bur Mines Information Circ 7340:1-6 '45

CHLORIDES
Condensation of acetylene by molten salts. P. C. Johnson and S. Swann, jr. bibliog diags Ind & Eng Chem 38:990-6 O '46
Electrolysis in alcohol; results with metallic chloride. C. Charmetant and R. Paris. Chem Age (Lond) 54:336 Mr 30 '46
Friedel-Crafts reaction with *o*-nitrophenol and acyl halides. F. C. Brown. bibliog Am Chem Soc J 68:872-3 My '46

CHLORIDES—*Continued*

Interpretation of the Sandmeyer reaction; the influence of the chloride ion on the decompositions of neutral *p*-nitrobenzenediazonium chloride and of *p*-nitrobenzenediazonium cobaltinitrite. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p545-6 Ag '45

Oxidative ring closure in the Friedel-Crafts reaction; condensation of aromatic acid chlorides with naphthalene derivatives. G. D. Buckley. Chem Soc J p564-6 S '45

Removal of chlorine and gum formers from alkylates. R. G. Haldeman and W. A. Pardee. bibliog diag Ind & Eng Chem 38:242-6 Mr '46

Variation of the transference numbers for calcium chloride in aqueous solution with temperature. A. G. Keenan and others. bibliog J Chem Phys 13:466-9 N '45

See also

Alkyl chlorides
Ammonium chloride
Butyl chloride
Calcium chloride
Potassium chloride
Salt
Vinyl chloride

Analysis

Chloride content of conifers. B. C. Brunstetter and others. bibliog Science 104:415-16 N 1 '46

Higher aliphatic acid chlorides; estimation of yield in the preparation of lauroyl chloride. R. R. Ackley and G. C. Tesoro. bibliog Ind & Eng Chem Anal ed 18:444-5 Jl '46

Improvements in the potentiometric titration of chlorides. R. P. Yeck and G. H. Kissin. bibliog diags Ind & Eng Chem Anal ed 17: 692-3 N '45

CHLORINATION

Acid catalysis in the formation of chloroamides from hypochlorous acid; *N*-chlorination by hypochlorite ions and by acyl hypochlorites. R. P. Mauger and F. G. Soper. Chem Soc J p71-5 F '46

Active carbon from chlorinated coal. S. Boyk and H. B. Hass. bibliog diags Ind & Eng Chem 38:745-8 Jl '46

Chain mechanism for the reaction of chlorine and oxalic acid. H. Taube. Am Chem Soc J 68:611-17 Ap '46

Chlorination of magnesia. H. A. Doerner and W. F. Holbrook. bibliog and patent list U S Bur Mines Rep of Invest 3833:1-25, pl 1-6 '45

Chlorination of starch with phosphorus pentachloride. H. N. Barham, E. S. Stickley and M. J. Caldwell. Am Chem Soc J 68:1018-24 Je '46

Directed chlorination of aliphatic fluorides. A. L. Henne, J. B. Hinkamp and W. J. Zimmerschied. bibliog Am Chem Soc J 67: 1906-8 N '45

Esters containing phosphorus. H. G. Cook, H. McCombie and B. C. Saunders. Chem Soc J p873-4 D '45

How to choose, install and protect chlorination equipment. E. R. Woodward. diags Chem & Met Eng 52:103-4 D '45

Methods of chlorination of silicate-oxidized nickel ores; abstract. D. P. Bogatsky. Chem & Met Eng 53:294+ My '46

Organo-silicon compounds; α- and β-chloroalkyl silanes and the unusual reactivity of the latter. L. H. Sommer and F. C. Whitmore. bibliog Am Chem Soc J 68:485-7 Mr '46

Paper capacitors containing chlorinated impregnants; effects of sulfur. D. A. McLean, L. Egerton and C. C. Houtz. bibliog diag Ind & Eng Chem 38:1110-16 N '46

Paper capacitors containing chlorinated impregnants; mechanism of stabilization. L. Egerton and D. A. McLean. bibliog il Ind & Eng Chem 38:512-17 My '46

Reactivity with alkali of chlorine-carbon bonds alpha, beta and gamma to silicon. L. Sommer and others. Am Chem Soc J 68: 488-9 Mr '46

Recent advances in the chlorinated paraffins. R. Strauss. bibliog Pet Refiner 25:124-5 Ja '46

Some new cyclopropanes with a note on the exterior valence angles of cyclopropane. P. G. Stevens. bibliog Am Chem Soc J 68:620-2 Ap '46

See also

Rubber, Artificial—Chlorination
Sewage disposal—Chlorination
Water purification—Chlorination
Wood—Chlorination

CHLORINE

Action of chlorine on 2-mercaptobenzothiazole in aqueous acetic acid. S. P. Findlay and G. Dougherty. Am Chem Soc J 68:1666 Ag '46

Chlorine as a possible ovicide for aedes aegypti eggs. S. P. Hatchett. Pub Health Rep 61:683-5 My 10 '46

Corrosion of steel by gaseous chlorine; effect of time and temperature. G. Heinemann, F. G. Garrison and P. A. Haber. bibliog diag Ind & Eng Chem 38:497-9 My '46

Effect of chlorine retention on rayon fabrics. W. Stump. il Rayon 27:189-90 Ap '46; Same. Am Dyestuff Rep 35:177-8 Ap 8 '46; Abstract. Textile World 96:121+ Mr '46

Exchange of hydrogen and chlorine between bicyclo(2,2,1)heptane and *t*-butyl chloride. L. Schmerling. bibliog Am Chem Soc J 68: 195-6 F '46

Knit goods damaged by chlorine bleach. Textile World 95:176+ D '45

Mechanism of the hydrolysis of chlorine. J. C. Morris. Am Chem Soc J 68:1692-4 S '46

Reaction velocity with large negative temperature coefficient; reaction between iodine and chlorine J. H. Hildebrand. Am Chem Soc J 68:915 My '46

Recovering well capacity with chlorine. W. E. Huston. Am Water Works Assn J 38: 761-3; Discussion. 763-4 Je '46

Zeeman effect in the spectrum of chlorine I. J. B. Green and J. T. Lynn. Phys R 69:165-9 Mr 1 '46

See also

Sewage disposal—Chlorination
Water purification—Chlorination

Analysis

Determination of chlorine in 2,2′-dihydroxy-5, 5′-dichlorodiphenylmethane. D. M. Jenkins, K. L. Waters and G. D. Beal. bibliog Ind & Eng Chem Anal ed 18:609-10 O '46

Determination of free chlorine and chloramine in water by use of para-aminodimethylaniline. A. T. Palin. bibliog Water & Sewage 84:22+ F '46

Micro-titration of free chlorine with methyl orange. M. Taras. bibliog Am Water Works Assn J 38:1146-50 O '46

Isotopes

Efficiency of the electrolytic separation of chlorine isotopes. D. W. Hutchison. bibliog J Chem Phys 13:536-7 N '45 [reprinted by Georgia school of technology, State experiment station v7, no5]

Partial separation of the isotopes of chlorine by thermal diffusion. E. F. Shrader. bibliog diags Phys R 69:439-42 My 1 '46

Manufacture

Bleaching and chlorine production at KVP. W. J. White. il Pulp & Pa of Can 47:86-7 O '46

Corrosion reporter; American and German electrolytic chlorine. E. C. Fetter. flow sheet Chem & Met Eng 53:227-8 Ja '46

Economic factors in operation of cylindrical chlorine cells. L. P. Wenzell and others. diag Electrochem Soc Trans 89 (preprint 16):181-91 '46; Abstract. Chem & Met Eng 53:252 Je '46

Factors affecting anode consumption in chlorine cells. R. B. Hammond and N. J. Johnson. Chem Eng 53:94-6 S '46

German chlorine cells studied. il Chem Ind 58:78+ Ja '46

German research reports; vertical mercury-type chlorine cell. Oil Paint & Drug Rep 150:7+ S 9 '46

Germany's vertical rotating cathode mercury cell. il diag Chem & Met Eng 53:113-15 Ja '46

CHLORINE—Manufacture—*Continued*
Integrated alkali industry; Wyandotte chemicals corp. production of chlorine, caustic soda, calcium carbonate, calcium chloride, soda ash, sodium bicarbonate, and dry ice; pictured flow sheet. Chem & Met Eng 53: 172-5 F '46
Mercury chlorine cell data now available. Oil Paint & Drug Rep 149:3+ Je 24 '46
Mercury chlorine cell to be exploited. Oil Paint & Drug Rep 148:3 D 17 '45

Statistics

Soda ash, caustic soda and chlorine; basic materials for many industries. Chem & Met Eng 53:100-1 Ja '46

CHLORINE as disinfectant. See Water purification—Chlorination

CHLORINE compounds
Crystal-chemical study of cesium trichlorocuprate. H. P. Klug and G. W. Sears, jr. Am Chem Soc J 68:1133-4 Je '46
Mechanism of action of organic chlorine and sulphur compounds in extreme-pressure lubrication. C. F. Prutton and others. bibliog 2pls Inst Pet J 32:90-118 F '46
Observations on the development of extreme pressure (E.P.) properties by chlorine and sulphur additives in mineral oil, as assessed by the Four ball machine. W. Davey. diags Inst Pet J 32:575-81 S '46
Octane number and lead susceptibility of gasoline; effect of organic chlorine and sulfur. C. Holloway, jr. and W. S. Bonnell. Ind & Eng Chem 37:1089-91 N '45
Pressor amines containing nuclear chlorine and fluorine. L. S. Fosdick, O. Fancher and K. F. Urbach. bibliog Am Chem Soc J 68: 840-3 My '46

See also
Carbon tetrachloride

CHLORINE cyanide. See Cyanogen chloride

CHLORINE dioxide. See Chlorine oxides

CHLORINE fluoride
Chlorine trifluoride produced on pilot-plant scale in Germany during the war. Chem Ind 57:1084 D '45

CHLORINE institute
Annual meeting, New York. Chem & Eng N 24:472-3 F 25 '46
Officers and directors. Oil Paint & Drug Rep 149:3 F 4 '46

CHLORINE oxides
Chlorine dioxide for fat bleaching. E. R. Woodward and G. P. Vincent. il plan diags Soap & San Chem 22:40-3+ S '46
Taste and odor control with chlorine dioxide. R. J. Mounsey and C. Hagar. flow diag Am Water Works Assn J 38:1051-6 S '46
Treatment with chlorine dioxide; control of tastes and odors. W. D. MacLean. il Water & Sewage 84:21+ My '46

CHLOROACETIC acid
Effect of pH on hydrolysis rate of chloroacetic acid. L. F. Berhenke and E. C. Britton. bibliog Ind & Eng Chem 38:544-6 My '46
Monochloracetic acid warning issued by FDA. Oil Paint & Drug Rep 148:5 N 19 '45

CHLOROACETOMESITYLENE
Coupling of aryl methyl ketones by the action of sodium hypohalite solutions. R. C. Fuson and R. Johnson. Am Chem Soc J 68:1668-9 Ag '46

CHLOROACETONE
Aryloxyacetones. C. D. Hurd and P. Perletz. bibliog Am Chem Soc J 68:38-40 Ja '46
Synthesis of arylpropylamines, from chloroacetone. T. M. Patrick, jr., E. T. McBee and H. B. Hass. Am Chem Soc J 68:1135 Je '46

CHLOROACETYLATION
Chloroacetylation of guaiacol. A. A. Goldberg and H. S. Turner. Chem Soc J p 111-13 F '46

CHLOROACRIDINE
Improved synthesis of acridines; the dechlorination of 5-chloroacridines and a new synthesis of acridine. A. Albert and J. B. Willis. bibliog Soc Chem Ind J 65:26-8 Ja '46

CHLOROAMINE. See Chloramine

CHLOROAMINOACRIDINE
N-substituted 2-methoxy-6-chloro-9-aminoacridines. J. Corse, J. T. Bryant and H. A. Shonle. bibliog Am Chem Soc J 68:1905-13 O '46

CHLOROAMINOPYRIDINE
Failure of the Doebner reaction with 2-chloro-5-aminopyridine; synthesis of a pyrrolidine derivative. M. J. Weiss and C. R. Hauser. Am Chem Soc J 68:722-3 Ap '46

CHLOROAMINOQUINOLINE
5- and 7-Chloro-8-aminoquinoline. C. C. Price and D. B. Guthrie. bibliog Am Chem Soc J 68:1592-3 Ag '46

CHLOROBENZENE
Catalytic alkylation of chlorobenzenes. G. Vermillion and M. A. Hill. bibliog Am Chem Soc J 68:190-1 F '46
Dipole moments of chlorobenzene, monochlorocyclopropane, and 1,2-dichlorocyclopropane, with a calculation of the exterior valence angle of the cyclopropane ring. B. I. Spinrad. bibliog diag Am Chem Soc J 68: 617-20 Ap '46
Kinetics of halogen addition to unsaturated compounds; bromine addition in carbon tetrachloride, chlorobenzene, and chloroform. P. B. D. de la Mare, R. A. Scott and P. W. Robertson. Chem Soc J p509-12 Ag '45
Preparation of DDT using hydrogen fluoride as the condensing agent. J. H. Simons and others. Am Chem Soc J 68:1613-15 Ag '46
Production of DDT; condensing action of chlorosulfonic acid on chloral hydrate and chlorobenzene. W. H. C. Rueggeberg and D. J. Torrans. bibliog Ind & Eng Chem 38: 211-14 F '46
Some derivatives of 3-amino-4-(1-diethylamino-4-pentylamino)-chlorobenzene. R. L. McKee, M. K. McKee and R. W. Bost. bibliog Am Chem Soc J 68:1904-5 O '46

CHLOROBENZOQUINOLINE
Some γ-substituted benzoquinoline derivatives. R. E. Foster and others. Am Chem Soc J 68:1327-30 Jl '46

CHLOROBUTADIENE
Dipole moment and resonance in vinyl sulfide and six unsaturated chlorohydrocarbons. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:1005-8 Je '46

CHLOROBUTYRONITRILE
2-Tolylpyrrolines and the rearrangement and hydrolysis of aryl cyclopropyl ketimines. J. B. Cloke and others. bibliog Am Chem Soc J 67:2155-8 D '45

CHLOROCYCLOPROPANE
Dipole moments of chlorobenzene, monochlorocyclopropane, and 1,2-dichlorocyclopropane, with a calculation of the exterior valence angle of the cyclopropane ring. B. I. Spinrad. bibliog diag Am Chem Soc J 68: 617-20 Ap '46
Some new cyclopropanes with a note on the exterior valence angles of cyclopropane. P. G. Stevens. bibliog Am Chem Soc J 68:620-2 Ap '46

CHLORODIBENZOYLMETHANE
Preparation and alkaline cleavage of o-chlorodibenzoylmethane. C. L. Bickel. Am Chem Soc J 68:865-7 My '46

CHLORODIMETHYLPROPANE
Organo-silicon compounds; silicon analogs of neopentyl chloride and neopentyl iodide; the alpha silicon effect. F. C. Whitmore and L. H. Sommer. Am Chem Soc J 68:481-4 Mr '46

CHLORODINITROPYRIDINE
New syntheses of heterocyclic compounds; triazafluorenes of asaphenazines from 4-chloro-3 : 5-dinitropyridine. V. A. Petrow and J. Saper. Chem Soc J p588-91 Jl '46

CHLOROETHYLAMINE
Biological actions and therapeutic applications of the β-chloroethyl amines and sulfides. A. Gilman and F. S. Philips. bibliog(68 references) Science 103:409-15+ Ap 5 '46

CHLOROETHYLATION
Alkoxy- and aryloxystyrenes. R. L. Frank and others. bibliog Am Chem Soc J 68: 1365-8 Jl '46

CHLOROETHYLTRICHLOROSILICANE
Organo-silicon compounds; α- and β-chloroalkyl silanes and the unusual reactivity of the latter. L. H. Sommer and F. C. Whitmore. bibliog Am Chem Soc J 68:485-7 Mr '46

CHLOROFLUORENE
Anomalous reaction between ammonia and 9-chlorofluorene; substitution of the labile hydrogen in fluorene derivatives. L. A. Pinck and G. E. Hilbert. bibliog Am Chem Soc J 68:377-80 Mr '46

CHLOROFLUOROMETHANES
Comparative engineering data on refrigerants given in new tables. Heating-Piping 17: 616-18 D '45; 18:91-3 Mr; 83-5 My; 91-3 Ag '46
Evacuation and dehydration of field installations. H. A. Blair and J. N. Calhoun. il diags Refrig Eng 52:125-9+ Ag '46
Graphical determination of heat transfer film coefficient for Freon-113. B. F. Raber and F. W. Hutchinson. Heat & Ven 43:79-81 Je '46
Graphical determination of heat transfer film coefficient for liquid Freon-21. B. F. Raber and F. W. Hutchinson. Heat & Ven 43:62-4 Ap '46
Graphical determination of heat transfer film coefficient for liquid Freon-22. B. F. Raber and F. W. Hutchinson. Heat & Ven 43:80-3 My '46
Graphical determination of heat transfer film coefficient for liquid Freon-114. B. F. Raber and F. W. Hutchinson. Heat & Ven 43:74-6 Jl '46
New York city permits use of Freons 21, 22 and 113. Heating-Piping 18:96 S '46
Oil problems in Freon refrigerating systems. T. J. Ammel. il Refrig Eng 50:421-4+ N '45

CHLOROFORM
Chloroform hazards. H. N. Anderson. Safety Eng 91:63 Mr '46
Fine structures in Raman spectra. D. H. Rank and J. A. Van Horn. bibliog diags Opt Soc Am J 36:454-9 Ag '46
Kinetics of halogen addition to unsaturated compounds; bromine addition in carbon tetrachloride, chlorobenzene, and chloroform. P. B. D. de la Mare, R. A. Scott and P. W. Robertson. Chem Soc J p509-12 Ag '45
Rectification in ternary systems containing binary azeotropes. R. H. Ewell and L. M. Welch. bibliog Ind & Eng Chem 37:1224-31 D '45
Solvent action and co-solvency; lecture demonstration. S. R. Palit. J Chem Educ 23:182 Ap '46
Surface tension of chloroform: its variation with the composition of the gas phase. H. L. Cupples. bibliog J Phys Chem 50:412-17 S '46

Analysis
Observations on the Fujiwara reaction as a test for chlorinated hydrocarbons. F. J. Webb and others. bibliog J Ind Hygiene 27: 249-55 N '45

CHLOROHYDRINS
Hydrolysis rates of the three butadiene monochlorohydrins. R. G. Kadesch. bibliog Am Chem Soc J 68:46-8 Ja '46

CHLOROHYDROXYCARBOSTYRIL
Antimalarials; 7-chloro-4-hydroxy- and 4,7-dichloro-1-methylcarbostyrils. R. E. Lutz and others. bibliog Am Chem Soc J 68:1810-12 S '46

CHLOROHYDROXYDIETHYL sulfide
Synthetic preparation of 2-chloro-2'-hydroxydiethyl sulfide, reaction with cysteine and valine, and measurement of reaction rate in aqueous media. W. M. Grant and V. E. Kinsey. Am Chem Soc J 68:2075-6 O '46

CHLOROKETONES
New method for the synthesis of α-chloroketones. J. F. Bunnett and D. S. Tarbell. bibliog Am Chem Soc J 67:1944-6 N '45

CHLOROLEPIDINE
Studies in the quinoline series; the preparation of some substituted lepidylamines. K. N. Campbell and others. Am Chem Soc J 68:1851-2 S '46

CHLOROMALEIC anhydride
Determination of conjugated diolefins with chloromaleic anhydride. S. T. Putnam, M. L. Moss and R. T. Hall. bibliog diags Ind & Eng Chem Anal ed 18:628-30 O '46

CHLOROMETHOXYQUINOLINE
Synthesis of some chloromethoxyquinolines. W. M. Lauer and others. Am Chem Soc J 68:1268-9 Jl '46
Synthesis of 5-substituted derivatives of 6-methoxy-8-aminoquinoline and of 5-chloro-6-methoxyquinoline. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1584-7 Ag '46

CHLOROMETHYLATION
Chloromethylation of 1- and 2-chloronaphthalenes. D. H. S. Horn and F. L. Warren. Chem Soc J p144 F '46
Production of benzyl chloride by chloromethylation of benzene; laboratory and pilot plant studies. A. Ginsburg and others. Ind & Eng Chem 38:478-85 My '46
Reaction of chloromethyl ether with ethyl acetoacetate in the presence of boron trifluoride. R. Levine and C. R. Hauser. Am Chem Soc J 67:2050 N '45
Use of the bromo- and chloromethylation reactions in the synthesis of some dialkylaminomethyl-2,5-diphenylfurans. R. E. Lutz and P. S. Bailey. Am Chem Soc J 68:2002-5 O '46

CHLOROMETHYLBUTENONITRILE
4-Chloro-3-methyl-3-butenonitrile and related compounds. A. Mooradian and J. B. Cloke. bibliog Am Chem Soc J 68.785-9 My '46

CHLOROMETHYLSILICANE
Derivatives of the methylchlorosilanes; *n*-butyl ethers. R. O. Sauer. Am Chem Soc J 68:138-9 Ja '46

CHLORONAPHTHALENE
Chloromethylation of 1- and 2-chloronaphthalenes. D. H. S. Horn and F. L. Warren. Chem Soc J p144 F '46

CHLORONAPHTHALENEDIAMINE
Preparation and chromoisomerism of 4 : 5-dinitro-1-naphthylamine, and some perimidines and perinones from 4-chloro- and 4-bromo-1 : 8-naphthylenediamine. H. H. Hodgson and D. E. Hathway. Chem Soc J p543-5 Ag '45

CHLORONITROBENZENE
Interpretation of the Sandmeyer reaction; the influence of the chloride ion on the decompositions of neutral *p*-nitrobenzenediazonium chloride and of *p*-nitrobenzenediazonium cobaltinitrite. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p545-6 Ag '45

CHLOROPHENOL
Compound formation between the picolines and *o*-chlorophenol. L. V. Lemmerman, A. W. Davidson and C. A. VanderWerf. bibliog Am Chem Soc J 68:1361-4 Jl '46

CHLOROPHENYL carbamates
Chlorophenyl carbamates of methyl cellulose. E. Dyer and K. L. McCormick. Am Chem Soc J 68:986-7 Je '46

CHLOROPHOSPHONATES
Esters containing phosphorus. H. G. Cook, H. McCombie and B. C. Saunders. Chem Soc J p873-4 D '45

CHLOROPHTHALAZINE
Preparation of some phthalazines and related substances. W. R. Vaughan and S. L. Baird, jr. bibliog Am Chem Soc J 68:1314-16 Jl '46

CHLOROPHYL
Air quality control with chlorophyll. il diags Sheet Metal Worker 37:60+ F '46

See also
Chloroplasts

Analysis
Conditions affecting the sequence of organic compounds in Tswett adsorption columns. H. H. Strain. bibliog Ind & Eng Chem Anal ed 18:605-9 O '46
Indirect calibration of the filter photometer by means of the spectrophotometer; considerations on use of standards. C. L. Comar. bibliog Ind & Eng Chem Anal ed 18:626-8 O '46

CHLOROPLASTS
Evolution of oxygen from illuminated suspensions of frozen, dried, and homogenized chloroplasts. C. S. French and others. bibliog Science 103:505-6 Ap 26 '46

CHLOROPROPANE
Synthesis of arylpropylamines, from allyl chloride. T. M. Patrick, jr., E. T. McBee and H. B. Hass. bibliog Am Chem Soc J 68:1009-11 Je '46

CHLOROPROPENE
Condensation of saturated halides with unsaturated compounds; the condensation of alkyl halides with monohaloölefins. L. Schmerling. bibliog Am Chem Soc J 68:1650-4 Ag '46

CHLOROPROPYLENE
Dipole moment and resonance in vinyl sulfide and six unsaturated chlorohydrocarbons. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:1005-8 Je '46

CHLOROQUINAZOLINE
4-(4'-Diethylamino-1'-methylbutylamino) - 7 - chloroquinazoline. C.. C. Price, N. J. Leonard and D. Y. Curtin. Am Chem Soc J 68: 1305-6 Jl '46
Quinazoline derivatives; synthesis of 4-(3'-diethylaminopropoxy) - 6 - chloroquinazoline (SN 12,254). M. M. Endicott, B. W. Alden and M. L. Sherrill. Am Chem Soc J 68:1303-4 Jl '46
Quinazolines; properties of 4-substituted quinazolines. A. J. Tomisek and B. E. Christensen. bibliog Am Chem Soc J 67: 2112-15 D '45
Quinazolines; syntheses of 4-alkylaminoquinazolines. B. E. Christensen, B. Graham and A. J. Tomisek. Am Chem Soc J 68:1306-8 Jl '46

CHLOROQUINOLINE
Antimalarials. R. E. Lutz and others bibliog Am Chem Soc J 68:1285-8, 1288-91, 1322-4, 1324-5, 1325-6 Jl '46
Experiments on the synthesis of 4-hydroxy- and 4-chloroquinolines from β-anilinopropionic acids. R. C. Elderfield and others. Am Chem Soc J 68:1259-63 Jl '46
Preparation of bz-dichloro-4-aminoquinoline derivatives. A. R. Surrey and H. F. Hammer. Am Chem Soc J 68:1244-6 Jl '46
Preparation of 7-chloro-4-(2-piperidylmethylamino)-quinoline. T. R. Norton and others. Am Chem Soc J 68:1330-1 Jl '46
Some 4-amino-7-chloroquinoline derivatives. C. C. Price and others. Am Chem Soc J 68: 1807-8 S '46
Some 7-substituted 4-aminoquinoline derivatives. A. R. Surrey and H. F. Hammer. bibliog Am Chem Soc J 68:113-16 Ja '46
Synthesis of 4-(4'-amino-1'-methylbutylamino-7-chloroquinoline and some 4-(4'-monoalkylamino-1'-methylbutylamino) - 7-chloroquinolines. M. Carmack and others. bibliog Am Chem Soc J 68:1220-5 Jl '46
Synthesis of 7-chloro-4-(1-ethyl-4-piperidylamino)-quinoline (SN-13,425). R. C. Fuson, W. E. Parham and L. J. Reed. Am Chem Soc J 68:1239-40 Jl '46
Synthesis of monoalkyl-substituted diamines and their condensation products with 4,7-dichloroquinoline. D. E. Pearson, W. H. Jones and A. C. Cope. Am Chem Soc J 68:1225-9 Jl '46
Synthesis of 2-phenyl-4-chloroquinolines. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1272-6 Jl '46
Synthesis of some 7-chloro-4-(3-alkylaminopropylamino)-quinolines. D. S. Tarbell and others. bibliog Am Chem Soc J 68:1217-19 Jl '46
Synthesis of some 4-quinolinols and 4-chloroquinolines by the ethoxymethylenemalonic ester method. B. Riegel and others. bibliog Am Chem Soc J 68:1264-6 Jl '46
Synthesis of substituted 4-aminoquinolines. C. C. Price and V. Boekelheide. bibliog Am Chem Soc J 68:1246-50 Jl '46
Synthetic antimalarials; the preparation and properties of 7-chloro-4-(4-diethylamino-1-methylbutylamino-quinoline (SN-7618). N. L. Drake and others. Am Chem Soc J 68: 1214-16 Jl '46

CHLOROSILICANE
Derivatives of the methylchlorosilanes; amines. R. O. Sauer and R. H. Hasek. Am Chem Soc J 68:241-4 F '46
Derivatives of the methylchlorosilanes; *n*-butyl ethers. R. O. Sauer. Am Chem Soc J 68:138-9 Ja '46
Derivatives of the methylchlorosilanes; polysiloxanes from methyldichlorosilane. R. O. Sauer, W. J. Scheiber and S. D. Brewer. Am Chem Soc J 68:962-3 Je '46
Lower flammability limits of methylchlorosilanes. E. W. Balis and H. A. Liebhafsky. il diags Ind & Eng Chem 38:583-5 Je '46
New alpha and beta chloroalkyl silanes; further studies on the alpha silicon effect. L. H. Sommer and others. Am Chem Soc J 68:1881-3 O '46
Preparation of triethylchlorosilane from ethyl orthosilicate. P. A. Di Giorgio and others. Am Chem Soc J 68:1380 Jl '46

CHLOROSILICATES
Preparation and synthetic applications of alkyl chlorosilicates. D. F. Peppard, W. G. Brown and W. C. Johnson. bibliog Am Chem Soc J 68:70-2 Ja '46

CHLOROSTYRENE
Polymerization of *p*-chlorostyrene in the presence of polymethylacrylate. R. B. Carlin and N. E. Shakespeare. Am Chem Soc J 68:876-8 My '46

CHLOROSULFONIC acid
Action of sulfating agents on proteins and model substances; pyridine-chlorosulfonic acid. H. C. Reitz and others. bibliog Am Chem Soc J 68:1031-5 Je '46
Condensation of aliphatic alcohols with aryl hydrocarbons in the presence of chlorosulfonic acid. W. H. C. Rueggeberg, M. L. Cushing and W. A. Cook. bibliog Am Chem Soc J 68:191-2 F '46
Production of DDT; condensing action of chlorosulfonic acid on chloral hydrate and chlorobenzene. W. H. C. Rueggeberg and D. J. Torrans. bibliog Ind & Eng Chem 38: 211-14 F '46

CHLOROTOLUENE
Benzyl benzoate from benzyl chloride and sodium benzoate. W. H. C. Rueggeberg, A. Ginsburg and R. K. Frantz. bibliog Ind & Eng Chem 38:207-11 F '46
Hydrolysis and isomerization of chlorotoluenes to *m*-cresol. R. N. Shreve and C. J. Marsel. bibliog diags Ind & Eng Chem 38: 254-61 Mr '46
Preparation of *p*-alkylbenzyl chlorides. G. M. Kosolapoff. Am Chem Soc J 68:1670-1 Ag '46
Production of benzyl chloride by chloromethylation of benzene; laboratory and pilot plant studies. A. Ginsburg and others. Ind & Eng Chem 38:478-85 My '46
Some analogs of benzyl benzoate. W. H. C. Rueggeberg, A. Ginsburg and R. K. Frantz. Am Chem Soc J 67:2154-5 D '45

CHLOROVANILLIN
6-Chlorovanillin from the chlorite oxidation of lignin. I. A. Pearl. Am Chem Soc J 68: 916 My '46

CHLOROVINYLDICHLOROARSINE
New color reaction of β-chlorovinyldichloroarsine. H. S. Mason. Am Chem Soc J 67: 2267-8 D '45

CHOCOLATE
All that's left of German chocolate industry. W. T. Clarke. il diags Food Ind 18:1183-5+ Ag '46
Exports of cacao and chocolate from the Dominican Republic, 1944 and 1945. For Comm W 21:33 D 22 '45
Protection for chocolate. Mod Packaging 19: 152 F '46

CHOCOLATE milk. See Milk, Chocolate

CHOLANIC acid
3-Keto-6(β)-hydroxycholanic acid and 3(α)-hydroxy-6-ketocholanic acid. W. M. Hoehn, J. Linsk and R. B. Moffett. bibliog Am Chem Soc J 68:1855-7 S '46

CHOLENIC acid
Degradation of 6-methoxy-*bisnor-i*-cholenic acid. B. Riegel and E. W. Meyer. bibliog Am Chem Soc J 68:1097-9 Je '46

CHOLESTADIENONE
Preparation and partial aromatization of 1,4-cholestadienone-3 by the dienone-phenol rearrangement. A. L. Wilds and C. Djerassi, bibliog Am Chem Soc J 68:1712-15 S '46

CHOLESTENE
Aminosteroids; preparation of 3 : 7-diketocholestene. J. Barnett, B. E. Ryman and F. Smith. Chem Soc J p526-8 Je '46

CHOLESTEROL
Antibacterial action of phenanthrene-related substances. W. Raab. bibliog Science 103: 670-1 My 31 '46
Cholesterol from wool alcohols. C. W. Picard and D. E. Seymour. Soc Chem Ind J 64: 304-5 N '45

Analysis
Quantitative determination of ergosterol, cholesterol, and 7-dehydrocholesterol; antimony trichloride method. F. W. Lamb, A. Mueller and G. W. Beach. bibliog Ind & Eng Chem Anal ed 18:187-90 Mr '46

CHOLIC acid
Dehydration of cholic acid. A. W. Devor and H. W. Marlow. Am Chem Soc J 68:2101 O '46

CHOLINE
Biological incorporation of a choline homologue into liver phospholipids. C. S. McArthur. bibliog Science 104:222 S 6 '46
Interrelations between choline, betaine, and methionine. H. J. Almquist. bibliog Science 103:722-3 Je 21 '46
Lipotropic properties of inositol. C. H. Best and others. bibliog Science 103:12-13 Ja 4 '46

CHOLINE chloride
Effect of choline chloride on the Kahn flocculation reaction. E. Volkin and others. bibliog Am Chem Soc J 67:2210-12 D '45

CHOLINESTERASE
Effect of di-isopropyl fluoraphosphate (DFP) on the action potential of muscle. R. Couteaux and others. bibliog Science 104:317 O 4 '46
Iron concentrations in cholinesterase preparations. R. D. Barnard. Science 104:331 O 4 '46
Some effects of salts on true cholinesterase. B. Mendel and H. Rudney. bibliog Science 102:616-17 D 14 '45

CHONDODENDRON
Curare alkaloids from chondodendron tomentosum Ruiz and Pavon. J. D. Dutcher. bibliog Am Chem Soc J 68:419-24 Mr '46

CHONDROSAMINE
Action of alkaline reagents on 2 : 3-1 : 6- and 3 : 4-1 : 6-dianhydro β-talose; constitutional synthesis of chondrosamine and other amino-sugar derivatives. S. P. James and others. Chem Soc J p625-8 Jl '46

CHORIOALLANTOIC membranes
Tuberculostatic action of streptothricin and streptomycin with special reference to the action of streptomycin on the chorioallantoic membrane of the chick embryo. E. W. Emmart. bibliog Pub Health Rep 60:1415-21, pl 1-2 N 30 '45

CHORLTON, Alan Ernest Leofric, 1874-1946
Sketch. por Engineering 162:354 O 11 '46

CHRISTENSEN, Edward H.
Topflight craftsmen. por Inland Ptr 117:60 Ag '46

CHRISTIAN art
See also
Jesus Christ—Art

CHRISTIAN Science
Christian Science statement on health legislation. Weekly Underw 154:237 Ja 19 '46

CHRISTIAN Science churches
Christ Scientist plan with junior emphasis; church at Valparaiso, Ind. il plan Arch Rec 100:114 O '46
Town points with pride to brick church and community center; First church of Christ, Columbus, Ind.; illustrations. Brick & Clay Rec 107:25 O '45

CHRISTIAN sociology. See Sociology, Christian

CHRISTIAN trade unions, Belgian. See Trade unions—Belgium

CHRISTIANA securities company
Golden flows the Christiana. Fortune 33:212 My '46

CHRISTIE, Archibald Stanley, 1888-1946
Portrait. Can Min J 67:607 Je '46
Portrait, tribute. Pulp & Pa of Can 47:60-1 Je '46

CHRISTMAS
Christmas issue of your house organ. Ptr Ink 217:70+ O 11 '46

CHRISTMAS business
Christmas brings record sales. Bsns W p83-4 D 1 '45
Detroit spends. Bsns W p84 D 29 '45
Heavy Christmas sales in prospect as manufacturers move promotion ahead. N. Kelne. Ptr Ink 217:111+ O 4 '46
Santa delivered; department store sales up. Bsns W p80-1+ Ja 5 '46

CHRISTMAS cards
Do your Christmas shooting early; producing personalized Christmas card from an advertisement. C. Pierre. il Ptr Ink 215:43 Je 14 '46

CHRISTMAS cards, Business. See Advertisements—Christmas cards

CHRISTMAS clubs
Christmas club to make distributions of $550,000,000. Comm & Fin Chr 162:2611 N 29 '45

CHRISTMAS gifts
Get together, boys, on those Christmas presents; advertising manager appraises. A. Izzard. il Ptr Ink 214:36+ F 22 '46
Marketing by subscription; selling a parcel a month. J. A. Murphy. il Adv & Sell 39: 73+ Ja '46

CHRISTMAS letters
Holiday letters that build good-will. W. H. Butterfield. Ptr Ink 213:125-6 N 30 '45

CHRISTMAS printing
Printers' greetings. il Inland Ptr 116:50 Mr '46

CHRISTMAS tree decorations
Fluorescent lamp for Christmas trees. diag Elec World 125:110 Mr 2 '46

CHROMATES
Chromate corrosion inhibitors in chloride systems; rate of consumption of chromate. M. Darrin. il Ind & Eng Chem 38:368-75 Ap '46
Chromates in animal nutrition. W. G. Gross and V. G. Heller. bibliog J Ind Hygiene 28: 52-6 Mr '46
Treatment and disposal of waste waters containing chromate. J. Grindley. Soc Chem Ind J 64:339-44 D '45

CHROMATIC aberrations. See Achromatism; Lenses

CHROMATOGRAPHIC analysis
Chemical determination of vitamin A in dried whole eggs. C. R. Thompson and others. bibliog Ind & Eng Chem Anal ed 18:113-15 F '46
Chromatographic adsorption in undergraduate qualitative analysis. J. A. Bishop. bibliog J Chem Educ 22:524-5 N '45
Chromatographic estimation of vitamin A in mixed feeds. M. L. Cooley, J. B. Christiansen and C. H. Schroeder. bibliog Ind & Eng Chem Anal ed 17:689-92 N '45
Chromatographic isolation of cane juice constituents. W. W. Binkley and M. L. Wolfrom. bibliog Am Chem Soc J 68:1720-1 S '46
Chromatographic resolution of the quinone oximes. D. K. Gullstrom, H. P. Burchfield and J. N. Judy. bibliog diag Ind & Eng Chem Anal ed 18:613-16 O '46
Chromatography in the separation and determination of the basic amino acids. M. S. Bergdoll and D. M. Doty. bibliog Ind & Eng Chem Anal ed 18:600-3 O '46
Chromatography of sugars and related polyhydroxy compounds. B. W. Lew, M. L. Wolfrom and R. M. Goepp, jr. bibliog Am Chem Soc J 68:1449-53 Ag '46
Conditions affecting the sequence of organic compounds in Tswett adsorption columns. H. H. Strain. bibliog Ind & Eng Chem Anal ed 18:605-9 O '46
Determination of penicillin K by partition chromatography. H. Fischbach and others. bibliog Science 104:84-5 Jl 26 '46
High-speed filter aid for chromatographic analysis. J. B. Wilkes. bibliog Ind & Eng Chem Anal ed 18:329-30 My '46
Identification of small amounts of organic compounds by distribution studies; use of a solid phase. L. C. Craig and others. bibliog Science 103:587-9 My 10 '46

CHROMATOGRAPHIC analysis—*Continued*
Instrumentation in analysis; extension of chromatographic technique. S. Claesson. Ind & Eng Chem Anal ed 18:sup23 Je '46
Segregation of linseed oil glycerides by chromatography. F. T. Walker. Paint Oil & Chem R 108:9-10 N 29 '45
Separation of acids by chromatographic adsorption of their *p*-phenylphenacyl esters. J. G. Kirchner, A. N. Prater and A. J. Haagen-Smit. bibliog Ind & Eng Chem Anal ed 18:31-2 Ja '46
Separation of 2,4-dinitrophenylhydrazones by chromatographic adsorption. J. D. Roberts and C. Green. Ind & Eng Chem Anal ed 18: 335 My '46
Spectrophotometric procedure for quantitative estimation of vitamins D. J. B. De Witt and M. X. Sullivan. bibliog Ind & Eng Chem Anal ed 18:117-19 F '46

CHROMATOGRAPHY
Preparation of silica gel for chromatography. R. Harris and A. N. Wick. Ind & Eng Chem Anal ed 18:276 Ap '46
Streptomyces antibiotics; isolation of streptothricin. R. L. Peck and others. Am Chem Soc J 68:772-6 My '46

CHROMIC acid
Modified chromic acid anodizing process for aluminum. C. J. Slunder and H. A. Pray. bibliog Ind & Eng Chem 38:592-6 Je '46; Same. Metal Finishing 44:479-83 N '46

Analysis
Amperometric microtitration of very dilute chromate solutions using the rotating platinum electrode. I. M. Kolthoff and D. R. May. Ind & Eng Chem Anal ed 18:208-9 Mr '46

CHROMITE
Beneficiation of Montana chromite concentrates by roasting and leaching. R. R. Lloyd and others. bibliog 2pls U S Bur Mines Rep of Invest 3834:1-37 '46
Chromite deposits of the North Elder Creek area, Tehama county, California. G. A. Rynearson. map U S Geol S Bul 945-G:191-210, pl 65-70 '46
Chromite, 1945. E. K. Jenckes. Eng & Min J 147:88 F '46
Exploration of Red Mountain chromite deposits, Kenai peninsula, Alaska. F. A. Rutledge. bibliog U S Bur Mines Rep of Invest 3885:1-26, pl 1-24 '46
Geology and associated mineral deposits of some ultrabasic rock bodies in southeastern Alaska. G. C. Kennedy and M. S. Walton, jr. bibliog maps U S Geol S Bul 947-D: 65-84, pl 19-22; pa 10c Supt. of doc. '46
Preliminary chemical correlation of chromite with the containing rocks. T. P. Thayer. il Econ Geol 41:202-17 My '46
Selective reduction of iron in chromite by methane-hydrogen and similar gas mixtures. F. S. Boericke. U S Bur Mines Rep of Invest 3847:1-14 '46
Some observations on chromite. Y. O. Fortier. il map Am J Sci 244:649-57, pl 1-4 S '46

CHROMITE magnesite brick
Testing of chrome-magnesite brick for resistance to iron oxide bursting. S. Zerfoss and H. M. Davis. bibliog il Am Cer Soc J 29:15-20 Ja 1 '46

CHROMIUM
Aluminum and chromium as gelatin hardeners. H. L. Baumbach and H. E. Gausman. bibliog diag Soc Motion Picture Eng J 47: 22-54 Jl '46
Ar′ reaction in some iron-cobalt-tungsten alloys and the same modified with chromium. W. P. Sykes. il Am Soc for Metals Trans 34:415-24 '45
Comparative graphitization of some low-carbon steels with and without molybdenum and chromium. G. V. Smith and others. bibliog il A S M E Trans 68:589-95 Ag '46
Corrosion studies on electrolytic chromium N. Hackerman and D. I. Marshall. bibliog il Electrochem Soc Trans 89 (preprint 15):171-80 '46
Diffusion layers of chromium for protection of iron; abstract. N. C. Gorbunov. Chem & Met Eng 53:270 Mr '46
Electrowinning of chromium from trivalent salt solutions. R. R. Lloyd and others. flow sheets il Electrochem Soc Trans 89 (preprint 20):233-44 '46
Resistivity of chromium. D. L. Matson. Materials & Methods 23:443+ F '46

Analysis
Destruction of organic matter in blood fibrin and chromacized medical catgut by wet oxidation; determination of iron in blood and of chromium in sutures. G. F. Smith. bibliog Ind & Eng Chem Anal ed 18:257-9 Ap '46
Determination of manganese and chromium in high chromium steels. H. W. Tomb. Iron Age 157:64 Je 13 '46
Spectrographic analysis of austenitic nickel-chrome steel. S. D. Steele and J. M. Johnston. il Soc Chem Ind J 64:278-83 O '45

Testing
Corrosion studies on electrolytic chromium. N. Hackerman and D. I. Marshall. bibliog il Electrochem Soc Trans 89 (preprint 15):171-80 '46

CHROMIUM alloys
High temperature alloys; research on materials for gas turbines. N. J. Grant. Iron Age 157:42-8 My 23; 50-6 My 30; 77-80 Je 6; 60-3 Je 20 '46
New heat resisting metals for engines. R. K. Winkleblack. Automotive & Aviation Ind 95:40-4 O 15 '46
Oxide films formed on alloys at moderate temperatures; electron diffraction and electron microscope study. E. A. Gulbransen, R. T. Phelps and J. W. Hickman. bibliog il Ind & Eng Chem Anal ed 18:640-52 O '46
Superalloys for high temperature service in gas turbines and jet engines; round-table discussion at National metal congress. F. S. Badger and others. il diags Metal Prog 50:97-122 Jl '46

See also
Chromium steel
Ferrochromium
Iron alloys—Nickel chromium alloys
Stellite

CHROMIUM compounds
Dyeing of cotton with mineral khaki; fungicidal and bactericidal efficiencies of cotton yarn treated by various mineral khaki processes. E. Race, F. M. Rowe and J. B. Speakman. bibliog diag Soc Dyers & Col J 61:310-21, pl 1-2 D '45
Dyeing of cotton with mineral khaki; the effect of exposure to weathering agencies on yarns pigmented with copper, chromium and iron compounds. E. Race and F. M. Rowe. bibliog il diags Soc Dyers & Col J 62:19-29 Ja '46
Dyeing of cotton with mineral khaki; the incorporation of copper with chromium and iron in mineral khaki for the production of an effective fungicide and bactericide. E. Race, F. M. Rowe and J. B. Speakman. bibliog il Soc Dyers & Col J 62:9-19, pl 1-2 Ja '46

CHROMIUM copper silicon steel
Fabricating high-strength steel; U.S.S. Cor-Ten; abstract. C. E. Loos. Materials & Methods 23:808 Mr '46
Great Northern buys low-floor flat cars of Cor-Ten steel. il Ry Age 120:907-8 My 4 '46
USS builds all-welded Cor-Ten hopper. il Ry Age 120:722-3 Ap 6 '46; Same. Ry Mech Eng 120:254-6 My '46; Same. Welding J 25:458+ My '46

CHROMIUM metallurgy
Beneficiation of Montana chromite concentrates by roasting and leaching. R. R. Lloyd and others. bibliog 2pls U S Bur Mines Rep of Invest 3834:1-37 '46

CHROMIUM mines and mining
Le chrome dans le monde. N. Demassieux. bibliog Chimie & Ind 55:58-64 Ja '46

CHROMIUM molybdenum steel
Cast steels; chromium and molybdenum alloy types; specifications, characteristics, applications, etc. Machine Design 17:155-60 D '45

CHROMIUM molybdenum steel—*Continued*
Characteristics and properties of some cast chromium-molybdenum steels. N. A. Ziegler and W. L. Meinhart. il diag Am Soc for Metals Trans 34:589-627 bibliog(88 titles, p623-7); Discussion. 627-9 '45
Effect of variations in composition and heat treatment of chromium steel; abstract. G. F. Comstock. Steel 118:130-1 Ja 28 '46
Electrodes for welding chromium-molybdenum steel. D. L. Mathias and G. M. Leigh. bibliog il Welding J 25:399-405 My '46
Poisson's ratio of some structural alloys for large strains. A. H. Stang and others. bibliog pl J Res Nat Bur Stand 37:211-21 O '46
Welding alloy steel piping. E. R. Seabloom. il diags Heating-Piping 18:67-70 O '46

CHROMIUM nickel steel
Behavior of 18-8 Ti-stabilized stainless; detecting and combating intergranular corrosion; effects of titanium and columbium. E. H. Wyche. bibliog il Iron Age 158:61-5 Ag 8; 54-6 Ag 15 '46
Carbon absorption of 18-8 stainless steel used for aircraft exhaust manifolds. W. G. Hubbell. il Iron Age 157:56-9 Je 20 '46
Cooling tower of stainless. il Sheet Metal Worker 37:50+ Je '46
Deep drawing and bulging of stainless steel; manufacture of dairy equipment; International harvester co. J. E. Obernesser. il diags Steel 119:96-9+ Jl 1 '46
Functions of alloying elements in heat resisting steels. H. Dobkin. bibliog Steel 119: 78-9+ O 28 '46
Impact resistance of welded stainless. J. G. Henderson. bibliog Steel 118:94+ My 13 '46
Machining stainless-steel valves. A. P. Nelson. il Mach 52:148-53 Jl '46
Melting 18-8 stainless steel. V. T. Popp, jr. Materials & Methods 22:1465 N '45
Stop tube failure in superheater by adding corrosion inhibitors. E. Q. Camp and others. flow diag il diag Nat Pet N 38 pt 2:R192+ Mr 6 '46
Stress-corrosion cracking of 18-8. J. H. G. Monypenny. il Metal Prog 48:1119-20 N '45; Discussion. J. Winlock and P. Nelson. 49: 93-4 Ja '46; Discussion. R. Franks. 49:563-5 Mr '46
Study of austenitic welding for control of graphitization in steel. I. A. Rohrig. bibliog il Welding J 25:sup90-9; Discussion. 99-101 F '46
Study of the surface film on chromium-nickel (18/8) stainless steel. W. H. J. Vernon and others. bibliog diag Iron & Steel Inst J 150: 81-92 no 2 '44
Tailoring 18-8; properties investigated by Ryan Aeronautical to find best formula for exhaust manifold equipment. W. G. Hubbell. il Steel 118:112-13+ My 20 '46
Tensile elastic properties of typical stainless steels and nonferrous metals as affected by plastic deformation and by heat treatment. D. J. McAdam, jr. and R. W. Mebs. il diags U S Nat Advisory Com for Aeronautics 1940:309-86 bibliog(p356-7) '41
Weldability factors for 18-8 stainless. F. H. Page, jr. Iron Age 156:58-61 D 27 '45
Welding of hardenable steels with high-alloy (austenitic) electrodes. S. A. Herres and A. M. Turkalo. il diags Welding J 25: sup669-96 bibliog(sup686, 696) O '46
Welding stabilized 18-8 stainless. R. J. Hafsten. il Iron Age 158:60-4 Jl 11 '46

See also
Steel, Stainless

Analysis

Spectrographic analysis of austenitic nickel-chrome steel. S. D. Steele and J. M. Johnston. il Soc Chem Ind J 64:278-83 O '45

Testing

Antimony in 18-8 and plain-chromium stainless steels. il Iron Age 157:44-50 My 16 '46
Physical properties of an austenitic weld-metal and its structural transformation on straining. K. Winterton. Iron & Steel Inst J 151:87-91, pl 4 no 1 '45; Same. Welding J 24:sup308-10 My '45
Result of stabilizing heat treatment on welded 18-8 stainless. W. G. Hubbell. il Iron Age 155:56-60 Je 21 '45; Same. Aero Digest 50:98+ Jl 1 '45; Abstract. Metal Prog 49:1230+ Je '46

CHROMIUM ores

See also
Chromite

CHROMIUM oxides
Catalytic conversion of hydrocarbons; catalytic promoting effect of antimony tetroxide in the aromatization of hydrocarbons with a chromia-alumina catalyst. F. E. Fisher and others. bibliog diag Ind & Eng Chem 38:61-4 Ja '46
Comparative estimations of carbonyl and carboxyl groups in chromium trioxide and hypochlorous acid oxycelluloses and oxylxans. B. Meesook and C. B. Purves. bibliog Paper Tr J 123:35-42 O 31 '46
New magnetic effect applied to the structure of catalytically active solids. P. W. Selwood, F. N. Hill and H. Boardman. Am Chem Soc J 68:2055-9 O '46
Oxide films formed on alloys at moderate temperatures; electron diffraction and electron microscope study. E. A. Gulbransen, R. T. Phelps and J. W. Hickman. bibliog il Ind & Eng Chem Anal ed 18:640-52 O '46
Study of zinc-chromium catalysts for synthesis of methanol; abstract. V. M. Grinevich. Chem Eng 53:252+ S '46

See also
Chromite

CHROMIUM plating
Chevrolet's new setup for plating bumpers. J. Geschelin. il Automotive & Aviation Ind 95:18-21 N 1 '46
Chrome plated piston rings. L. Doty. il diag Bus Transportation 25:54-6 Jl '46
Chromium-plated tools have longer life. A. A. Spisak. il Am Mach 90:99-101 F 28 '46
Chromium plating developments; abstract. J. C. Poor. Chem & Met Eng 52:238+ D '45
Cylinder bores; direct deposition of chromium on aluminium blocks. il diag Automobile Eng 35:508 N '45
Effect of various surface treatments in cleaning and preparing copper, nickel and steel for chromium plating. W. M. Tucker and R. L. Flint. bibliog diag Electrochem Soc Trans 88 (preprint 28):325-45 '45; Same. Metal Finishing 44:340-3+, 389-93 Ag-S '46; Excerpt. Steel 118:123-4 Mr 18 '46
Hard chromium plate and its uses J. M. Hosdowich. il diags Materials & Methods 24:896-900 O '46
Hard chromium plating directly on carbon and graphite. R. S. Herwig. il Materials & Methods 22:1751-3 D '45
Hard chromium plating of cutting tools; abstract. H. Schallbroch and W. Hielscher. Materials & Methods 23:517-18 F '46
Improved chromium plate; abstract. A. L. Peach. Materials & Methods 24:688+ S '46
Ordinary chromium plating faults. Metal Finishing 44:485 N '46
Piston rings in the war. D. M. Smith. diags S A E J 53:522-3, 528 S '45; Same. Automobile Eng 36:29-30, 33 Ja '46
Plastic stop-off simplifies quantity chrome-plating. H. Murray. il Am Mach 90:139-40 Ag 15 '46
Porous chromium plating adds to piston ring life. T. C. Jarrett and R. D. Guerke. il Materials & Methods 23:1293-7 My '46
Pre-polishing cuts plating time 40%; main landing gear piston on P-38. G. R. Makepeace. il Am Mach 90:79 Ja 31 '46
Processing adds life to Diesel engines; Spar-Tan lubri-chrome plating process. il Diesel Power 24:326-7 Mr '46
Production plating of zinc die casting; Electric auto-lite co. H. Chase. il Iron Age 157: 34-8 My 30 '46

CHROMIUM steel
Cast steels; chromium and molybdenum alloy types; specifications, characteristics, applications, etc. Machine Design 17:155-60 D '45
Determination of manganese and chromium in high chromium steels. H. W. Tomb. Iron Age 157:64 Je 13 '46
Development of sigma phase in 27% Cr-Fe; photomicrographs. J. J. Heger. il Metal Prog 49:976B My '46

CHROMIUM steel—*Continued*
Production of nickel and chrome steels from laterite ores. T. F. Baily. il Electrochem Soc Trans 88 (preprint 29):347-55 '45
Properties and characteristics of 27% chromium-iron. H. D. Newell. bibliog(148 titles) il Metal Prog 49:977-91+ My '46

See also
Chromium copper silicon steel
Chromium nickel steel
Chromium molybdenum steel
Steel, Stainless

Bibliography
Properties and characteristics of 27% chromium-iron; with bibliography, 1890-1944 and complete list of reports made to Rubber reserve co. on metals research. il Metal Prog 49:977-91+ My '46

Testing
Antimony in 18-8 and plain-chromium stainless steels. il Iron Age 157:44-50 My 16 '46

CHROMIUM vanadium steel
Chromium-vanadium carburizing steel 6120. F. F. Franklin. il Materials & Methods 23:1564-6 Je '46

CHROMOISOMERISM. See Isomerism

CHROMOPHORES
Spectrophotometric studies of the oxidation of fats; oxygen absorption and chromophore production in fatty esters. R. T. Holman and G. O. Burr. bibliog Am Chem Soc J 68:562-6 Ap '46

CHROMOSOMES
Chiasmatypy or the doctrine of delayed action fertilization. E. C. Jeffrey. diags Science 102:653-6 D 28 '45
Haploidy as a factor in the polymorphic differentiation of the hymenoptera. S. E. Flanders. bibliog Science 103:555-6 My 3 '46
Linkage and crossing-over between black pigmentation and susceptibility to induced fibrosarcoma in mice. L. C. Strong. Science 103:554 My 3 '46
Occurrence of mitotic crossing-over without meiotic crossing-over. G. LeClerc. bibliog Science 103:553-4 My 3 '46

CHRONOGRAPH
Gate circuit for chronographs; device used in determining velocity of projectiles. L. B. Tooley. diags Electronics 19:144-5 My '46

CHRONOSCOPE
Electronic chronoscope for measuring velocities of detonation of explosives. C. R. Nisewanger and F. W. Brown. bibliog 9pls U S Bur Mines Rep of Invest 3879:1-18 '46

CHRYSENE
Dienone—phenol rearrangement applied to chrysene derivatives; the synthesis of 3-hydroxy-1-methylchrysene and related compounds. A. L. Wilds and C. Djerassi. bibliog Am Chem Soc J 68:1715-19 S '46

CHRYSLER corporation
Annual report. Comm & Fin Chr 163:1422 Mr 18 '46
Chrysler's start. il Bsns W p20-1 Mr 2 '46

CHRYSOPHENINE
Dyeing of cellulose with direct dyes; abstract. H. F. Willis and others. Soc Dyers & Col J 62:92-3 Mr '46

CHUBB, Hendon, 1874-
Leading authority on marine underwriting in America completes half century in insurance. E. N. Eager. por East Underw 46: 53-4+ D 14 '45

CHUCKING machines
Acme-Gridley single-spindle Chuck-Matic. il Mach 52:193 My '46; Am Mach 90:143 Ap 25 '46; Steel 118:111+ My 20 '46
Top surface speeds on tough alloys with negative-rake carbide tools. W. L. Sandham. il diags Am Mach 90:112-16 Jl 18 '46

CHUCKS
Marlco all-purpose collet chuck. il Automobile Eng 35:548 D '45
Neoprene improves action in Jacobs new-type drill chuck. il Aeronautical Eng R 4: 141 N '45; Product Eng 16:833 D '45
Skinner power chuck with center for taking heavy cuts at high speed. il Mach 53:228 N '46
Speed chuck. il Sci Am 175:179 O '46
Speetol chuck jaw truing fixture. il Automobile Eng 36:410 S '46
Using the chuck in layout work. E. Pagett. diags Power Pl Eng 50:101 S '46

CHUCKS, Magnetic
Magnetic chucking. il Steel 119:78-9 Ag 12 '46
Magnetic lathe chuck has great strength. R. Westcott. diags Am Mach 90:133-4 Ap 25 '46
Work-holding methods used in surface grinding. J. C. Arndt and W. S. Hallowell. il Mach 53:160-6 O '46

CHUNGKING, China
What lies ahead for China's wartime capital? D. V. Knibb. il map For Comm W 23:5-9+ Ap 6 '46

CHURCH advertising
Brethren's ads sell peace and relief. Ptr Ink 215:48 Je 28 '46

CHURCH and labor
See also
Chaplains, Industrial

CHURCH and social problems
Effort of organized religion. E. R. Clinchy. Ann Am Acad 244:128-36 Mr '46

CHURCH and state

Netherlands
Resistance of the Netherlands churches during German occupation. H. C. Touw. Ann Am Acad 245:149-61 My '46

CHURCH architecture
Brickbuilders erected these churches. il Brick & Clay Rec 108:24 My '46
Lutheran church; straightforward design creates an atmosphere of worship minus soaring spires and ornamental tracery. il plans Arch Forum 83:116-17 N '45

See also
Chapels
Christian Science churches
Synagogs

Designs and plans
We will build modern churches; building types study. il plans diags Arch Rec 100: 94-118 bibliog(p118) O '46

CHURCH building
Time-saver standards; check list on churches; building questionnaire used by Archdiocese of Los Angeles. Arch Rec 100: 133+ O '46

CHURCH lighting
Re-lighting of a church; St Alphonse church, Thetford Mines, P.Q. Canada. L. A. Duchastel. il Illum Eng 40:955-7 D '45
Trend in church lighting. E. Rambusch. Light & Lighting 39:sup13 S '46

CHURCH pension fund
Annual report. Nat Underw (Life ed) 50:3 Jl 26 '46

CHURCHES
See also
Church architecture
Church lighting

Heating and ventilation
Cathedral heating; electrode boilers demonstrated at Blackburn. il Elec R (Lond) 137:943-5 D 28 '45
Heating and cooling churches. S. R. Lewis. Heating-Piping 18:108 Ja '46; Discussion. E. K. Campbell. 18:116 F '46
Installation at Bahai temple is considered among longest heating jobs ever recorded. il Dom Eng 167:133, 136-8 Ap '46

CHUTES
Basic principles controlling chute design. diags Eng & Min J 146:102-3 D '45
Pattern for a grain chute. O. W. Kothe. diags Sheet Metal Worker 37:48+ Mr '46

CIDER
Le manganèse dans les moûts de pommes et dans les cidres. J. Tavernier. bibliog Chimie & Ind 55:174-9 Mr '46
Raw material for cider-making. E. Ball. Chem & Ind p38-9 Ja 26 '46

CIGAR industry and trade
Big cigar deal; manufacturers take back 40 million surplus. Bsns W p80+ Ap 27 '46

CIGAR industry and trade—*Continued*
Dutch cigar industry still faces obstacles. For Comm W 24:32 S 14 '46

Advertising

P.S. comes first, but naturally. il Ptr Ink 215: 56 My 10 '46

CIGARET industry and trade
Brand loyalty during the cigarette shortage. F. T. Schreier and A. J. Wood. Adv & Sell 38:113-14+ N '45
Cigarette makers' costs rise. Barron's 26:8 Jl 29 '46
Cigarette price hike big on earnings. Barron's 26:1+ Ag 5 '46
Cigarette price rise to boost earnings. Barron's 26:6 O 14 '46
Cigaret sales; big-name brands hold relative positions in 1945's sales figures. Bsns W p50 F 9 '46
Something new in Old Gold packaging. il Mod Packaging 20:138-40+ S '46
What happened to cigarettes in 1945. P. B. B. Andrews. Adv & Sell 39:36+ F '46

Advertising

Cigarette makers, hit by court ruling, fail to disclose change in ad plans. B. Tolk. Ptr Ink 215:83 Je 28 '46
Presenting Johnny; the life and times of Philip Morris' mighty midget. P. W. Kearney. il Adv & Sell 38:35+ N '45

Securities

Another look at cigarette companies. P. Dobbs. Mag of Wall St 78:210-11+ My 25 '46

Statistics

Lucky Strike gains 10.2%, keeps domestic sales leadership; P.I.'s annual feature shows 1945 trends and brand standings. H. M. Wootten. Ptr Ink 214:23-5 F 1 '46
Small cigarettes removed for consumption, 1939-1945; chart. Survey of Cur Bsns 25:6 D '45

Switzerland

Swiss production and imports of cigarettes, 1936-1946; table. For Comm W 25:31 O 26 '46

Venezuela

Production of cigarettes, 1940-1945. For Comm W 21:35 D 8 '45

CIGARET paper
American made paper for your cigarettes. J. A. Lee. flow sheet(p138-41) il Chem & Met Eng 53:94-7 Je '46
Cigarette paper industry. L. Roberts. Paper Ind 28:810-12 S '46
Cigarette paper; North Carolina exclusive. F. L. Waker. il Manuf Rec 115:46-7+ My '46
U.S. cigarette paper popular in Venezuela. For Comm W 21:40 N 17 '45

CILIATA
Growth response of tetrahymena geleii W to folic acid and to the streptococcus lactis R factor. G. W. Kidder and R. C. Fuller, 3d. bibliog Science 104:160 Ag 16 '46

CINCHONA
Cinchona project threatened by RFC stand on funds. Oil Paint & Drug Rep 149:3+ Ja 7 '46

CINCHONA alkaloids
Conversion of hydroquinidine into hydrocinchonine and of cupreine into cinchonidine. H. King. Chem Soc J p523-4 Je '46
Ion exchange process for extracting cinchona alkaloids. N. Applezweig and S. E. Ronzone. bibliog flow sheet il Ind & Eng Chem 38:576-9 Je '46
Quinamine. T. A. Henry, K. S. Kirby and G. E. Shaw. Chem Soc J p524-8 Ag '45
Quinamine; constitution. K. S. Kirby. Chem Soc J p528-30 Ag '45
See also
Quinidine

Analysis

Spectrophotometric estimation of methoxycinchona alkaloids. M. M. Stimson and M. A. Reuter. Am Chem Soc J 68:1192-6 Jl '46

CINCHONIDINE
Conversion of hydroquinidine into hydrocinchonine and of cupreine into cinchonidine. H. King. Chem Soc J p523-4 Je '46

CINCHOPHEN
Antimalarials; α-alkyl and dialkylaminomethyl-2-phenyl-4-quinolinemethanols. R. E. Lutz and others. bibliog Am Chem Soc J 68:1813-31 S '46

CINCINNATI
Cincinnati, the queen city. L. R. Sabo. il Am Inst Banking Bul 28:5+ Ap '46

Railroads

Aluminum roof replaces tile on large terminal. il Iron Age 157:111 Ap 11 '46; Same. Sheet Metal Worker 37:46-8+ Ap '46; Same cond. Steel 119:132+ Ag 5 '46; Abstract. Eng N 136:514-15 Ap 11 '46
Station dome gets new aluminum cover; Cincinnati union terminal. il diags Ry Age 120:1109-11 Je 1 '46

Rapid transit

See also
Motor bus lines—Cincinnati

Streets

Cincinnati protects its streets by extensive resurfacing and sealing; with cost data. il Eng N 137:302-6 S 5 '46
Cincinnati's cliff dwellers get stepped-up winter protection. C. E. Brokaw. il Pub Works 77:30+ Ag '46
Queen city needs a king of parking. plan Mass Transportation 42:75-6 F '46
Upstairs parking in Cincinnati. Bsns W p38+ Jl 6 '46

Subways

Resurrected tube; manufacturers propose to use Cincinnati's subway. Bsns W p22+ Jl 6 '46

CINCINNATI engineering society. See Engineering society of Cincinnati

CINCINNATI gas and electric company
Common stock offered. Comm & Fin Chr 164:1417-18 S 16 '46
United corp. hopeful on Cincinnati Gas. Barron's 26:6 S 16 '46

CINCINNATI milling machine company
Peacetime prospects. Barron's 26:7 S 9 '46
Stock offered. Comm & Fin Chr 163:1154 Mr 4 '46

CINCINNATI stock exchange
New type membership. Comm & Fin Chr 163:251 Ja 17 '46

CINCINNATI university
Origin and development of cooperative courses at the University of Cincinnati. C. W. Park. J Eng Educ 36:420-3 Mr '46

CINDER concrete. See Concrete—Cinder concrete

CINDERS
Factors affecting cinder cutting of boilers. il diags Ry Mech Eng 119:590-6 D '45

CINNAMALDEHYDE
Kinetics of halogen addition to unsaturated compounds; αβ-unsaturated aldehydes. P. B. D. de la Mare and P. W. Robertson. Chem Soc J p888-91 D '45

CINNAMIC acid
Effect of electrolytically released halogens on an absolute methyl alcohol solution of cinnamic acid. R. Leininger and L. A. Pasiut. bibliog Electrochem Soc Trans 88 (preprint 31):367-70 '45

CINNOLINE
Chemistry of cinnolines. N. J. Leonard. bibliog(56 references) Chem R 37:269-86 O '45
Cinnolines; derivatives of 4-hydroxy-6 : 7-dimethoxycinnoline-3-acetic acid. J. C. E. Simpson. Chem Soc J p480-1 Je '46
Cinnolines; preparation of 4-hydroxycinnolines, and the mechanism of cinnoline syntheses. K. Schofield and J. C. E. Simpson. Chem Soc J p520-4 Ag '45
Cinnolines; the reaction between pyridine, acetic anhydride, and 4-hydroxycinnoline-3-carboxylic acid. K. Schofield and J. C. E. Simpson. Chem Soc J p472-9 Je '46
Cinnolines; the Richter reaction. K. Schofield and J. C. E. Simpson. Chem Soc J p512-20 Ag '45
New potential chemotherapeutic agents; derivatives of 2-aminobenzocinnoline. F. E. King and T. J. King. Chem Soc J p824-6 N '45

CINNOLINE—*Continued*
4-Substituted cinnoline derivatives. T. L. Jacobs and others. bibliog Am Chem Soc J 68:1310-13 Jl '46

CIRCLES
Circles of stress and strain compared. J. C. Rathbun. Eng N 137:376-9 S 19 '46
Graphical division of the circle; reference book sheet. H. W. Stowell. diags Am Mach 90:147 Mr 14 '46
Guide for cutting small circles. H. P. Martin. il diags Welding J 25:339-40 Ap '46
Nomograms of chords of holes in bolt circles; circular spacing of holes; reference book sheet. L. Dodge. Product Eng 17:523-4 Je '46
Universal router turntable cuts circles in large work. F. Molle. diags Am Mach 89: 143 N 22 '45

CIRCUIT breakers, Electric. See Electric circuit breakers

CIRCUS
Dieselizing the big top. W. B. Tyrrell. il Diesel Power 24:838-41+ Jl '46
Rip in the big top; Robert Ringling shot out of circus presidency. Bsns W p18 Ap 20 '46

Fires and fire protection
For safe grandstands and tents; new American standard. il Ind Stand 17:219-21 S '46

CITIES and towns
Building the future city. R. B. Mitchell, ed. bibliog Ann Am Acad 242:1-162 N '45
Changing face of Main street. E. E. Calkins. il Adv & Sell 39:43+ My '46
How the automobile has changed life of Americans. F. M. Reck. Nat Pet N 37:46+ N 28 '45
See also
City planning
Market areas
Municipal bonds and other headings beginning Municipal

Growth
Graph estimates of future population; errors incident to use of extrapolated curves. H. W. Taylor. Pub Works 77:31-2+ Ja '46
Population trends and city growth. A. J. Jaffe. bibliog Ann Am Acad 242:18-24 N '45

Industries
Advertising helps to balance state's agriculture with its industry; Mississippi communities pay for plants with bond issues which are retired through earnings. D. Markstein. il Ptr Ink 214:75+ Mr 1 '46
Factory whistles blow in farm towns as industry booms in Mississippi valley. il Am Bsns 16:8-9+ My '46
Guide for local industrial promotion. U S Bur For & Dom Com, Economic (Small Bsns) Ser 47:1-26 '46
How promotion spared this boom town from industrial limbo; Richmond, Calif. Sales Management 57:128+ O 1 '46
Industrial expansion and location. G. E. McLaughlin. Ann Am Acad 242:25-9 N '45
Mississippi attracts industry and aids state by building plants, furnishing capital, labor and raw materials. D. Markstein. il Food Ind 18:1022-3 Jl '46
Wanted: industry; Mississippi plan, revived Balance agriculture with industry act. Bsns W p66+ Ja 5 '46
See also
Community salesmen
Louisville industrial foundation
also subdivision Industries under names of cities, e.g. Chicago—Industries

California
Sixty small towns in California study Main Street face-lifting; Business planning institute of California. il Sales Management 56:142+ Ja 15 '46

New York
New York state to build highways through cities as check on decentralization. L. A. Bergman. il Civil Eng 16:477 N '46

United States
Natural resources and urban development. O. W. Freeman. bibliog Ann Am Acad 242: 30-45 N '45
Population ranking of the 200 largest cities. Sales Management 56:118 My 10 '46

Wisconsin
Urban fringe studies of two Wisconsin cities, Janesville and Madison; a summary. R. B. Andrews. J Land & Pub Util Econ 21:375-82 N '45

CITIES and towns, Company. See Company towns

CITIES service company
Liquidation of Cities service power & light co. Comm & Fin Chr 164:1327 S 9 '46
Public utility securities. Comm & Fin Chr 164:348 Jl 18 '46
Slicing of Cities Service debt due. Barron's 26:6+ Ag 5 '46

CITIZENSHIP
Christianity and citizenship. J. W. Bricker. Comm & Fin Chr 163:1499+ Mr 21 '46
Meaning of citizenship. J. H. Ball. Comm & Fin Chr 163:2786+ My 23 '46
Transportation and finance as citizenship responsibilities. J. S. Smith. Comm & Fin Chr 164:661+ Ag 1 '46

CITRAL
Preparation and bacteriostatic properties of some amines derived from citral. A. G. Caldwell and E. R. H. Jones. Chem Soc J p597-9 Jl '46

CITRIC acid
Ascorbic-citric acids prevent browning of cut fruit. H. G. Luther and G. O. Cragwall. il Food Ind 18:690-2+ My '46
Codeposition of tungsten and nickel from an aqueous ammoniacal citrate bath. L. E. Vaaler and M. L. Holt. bibliog Electrochem Soc Trans 90 (preprint 9):151-62 '46
Organic acid content of raw cotton fiber; isolation of *l*-malic acid and citric acid from cotton fiber. E. R. McCall and J. D. Guthrie. bibliog Am Chem Soc J 67:2220-1 D '45
Review of information on mycological citric acid production. H. W. von Loesecke. bibliog(145 references) Chem & Eng N 23: 1952-9 N 10 '45

CITRONELLA oil
Citronella oil duty appeal to be argued. Oil Paint & Drug Rep 150:5+ S 2 '46
Citronella oil: output and quality. J. F. Van Oss. Oil Paint & Drug Rep 149:7+ Ap 22 '46
Citronella oil test. Oil Paint & Drug Rep 150:36 Ag 5 '46
Geraniol esters; abstract. U. N. Guha Roy and M. N. Goswami. Soap & San Chem 21: 69 D '45

Testing
Citronella oil test. Soap & San Chem 22:81 S '46

CITRUS fruit
Citrus-fruit production in Australia. For Comm W 21:28-9 D 15 '45
Electric citrus fruit counter design uses plastic and die-cast parts; Food machinery corporation. il diag Product Eng 17:366-7 My '46
Florida citrus canners cooperative expands. il Manuf Rec 115:114+ Ja '46
Production of citrus fruit in Egypt, 1939-40 to 1945-46. For Comm W 23:34 Je 29 '46
South Africa's citrus-fruit trade recovering. A. J. Mullen. il For Comm W 24:8-9+ S 7 '46
See also
Oranges
Railroads—Rates—
Citrus fruit
also California fruit growers exchange

By-products
Drying citrus cannery wastes and disposing of effluents. J. L. Heid. bibliog flow chart il Food Ind 17:1479-83 D '45

Storage
Storage of citrus fruits. J. R. MacRill and others. bibliog il plan Refrig Eng 51:325-30 Ap '46

CITRUS fruit juices
Palletized food shipments; shipment of canned citrus juices for the armed forces. B. W. Skinner. il Food Ind 18:1020-1+ Jl '46

CITY and country
End of Manhattan? plan for decentralization of cities. W. F. Ogburn. Arch Forum 83: 24+ N '45

CITY farmers club of Pittsburgh
Take a look at the city farmer. E. T. Parrack. il Adv & Sell 39:64+ F '46

CITY growth. See Cities and towns—Growth

CITY ice and fuel company
City Ice diversifies; big in everything that has to do with hot or cold. Bsns W p73-4+ My 18 '46

CITY improvement. See Municipal improvement

CITY planning
Balanced design in urban triangulation. C. D. Hopkins. map diags Am Soc C E Proc 71:1315-26 N '45; Discussion. 72:561-2, 1013-18 Ap, S '46
Bombed Bristol plans a brighter future. H. M. Webb. il maps Eng N 136:217-20 F 7 '46
Changing city patterns. M. D. Meyerson and R. B. Mitchell. bibliog il plans Ann Am Acad 242:149-62 N '45
Chicago plans for its future. H. E. Kincaid. il map plan Western Soc E J 51:38-51 Mr '46
Chicago's city planning competition; prize winning plans. Arch Forum 84:168-9 Mr '46
Citizen participation in city planning. T. B. Augur. Ann Am Acad 242:101-3 N '45
City plans its future growth; Rye will modernize shopping center. H. Barnard. il Dun's R 54:14-16+ S '46
Clearing of blighted areas aim of redevelopment legislation. Eng N 136:1003 Je 27 '46
Express highway planning in metropolitan areas. J. Barnett. il maps Am Soc C E Proc 72:287-305 Mr '46; Discussion. 72:1057-69 S '46
Garden cities and the metropolis. L. Rodwin. bibliog J Land & Pub Util Econ 21:268-81 Ag '45; Replies. C. Bauer; L. Mumford. 22: 65-9; Rejoinder. 69-77 F '46
Hospital plans; Chicago slums scheduled for redevelopment under program sponsored by Michael Reese hospital. il plans Arch Forum 85:87-101, 104 S '46
How municipal services fit into a community plan. F. W. Nicolls. Water & Sewage 83: 60+; Discussion (Sanitary regulations disregarded in housing program). R. W. Garrett. 82+ N '45
London traffic and the London plan; conference. Engineer 182:261-2 S 20 '46
Master plans for master politicians. G. Howe. il Arch Rec 98:95-9 D '45
More land for London; County of London plan. W. G. Holford. il map Arch Rec 99: 86-91 Mr '46
Municipal land policy and control. M. S. McDougal. Ann Am Acad 242:88-95 N '45
Nature of cities. C. D. Harris and E. L. Ullman. bibliog diags Ann Am Acad 242: 7-17 N '45
New towns. Economist 150:524-5 Ap 6 '46
New York state to build highways through cities as check on decentralization. L. A. Bergman. il Civil Eng 16:477 N '46
Ontario's new planning act. D. Porter. il Roads & Bridges 84:77-8+ S '46
Parking jam; U.S. cities build and dig garages. il plans Arch Forum 85:8-10 S '46
Plan for Rotterdam. E. Draper, jr. il plans Arch Rec 100:72-7 O '46
Plan for St Dié; with discussion by C. Petit. Le Corbusier. il map plans Arch Rec 100: 78-83 O '46
Plans for civic development in downtown area of Janesville, Wisconsin; program to rebuild business area along both sides of river bank. il plan Am Bld 67:84-5+ N '45
Proposed city redevelopment; plan for blighted industrial area; Long Island City. il plans Arch Forum 84:113-15 F '46
Proposed new town at Stevenage. plan Engineer 181:436 My 10 '46
Railways and the re-planning of London. V. A. M. Robertson. Engineering 162:294 S 27 '46
Several cities complete master plans for long-range development. Eng N 137:248 Ag 22 '46
Shopping center for Rye, N.Y. il plans Arch Forum 85:76-9 Ag '46
Sub-surface works and the London traffic plan. H. F. Cronin. Engineering 162:342 O 11 '46
Subways and traffic congestion, with particular reference to Toronto's problems; proposed subway. C. A. Meadows. map plans diag Roads & Bridges 84:51-3+ My '46
Traffic planning studies in American cities. J. T. Lynch. maps diags Pub Roads 24:161-78 O '45
Underground railways and London planning. J. C. Martin. Engineering 162:318 O 4 '46
Urban fringe studies of two Wisconsin cities, Janesville and Madison; a summary. R. B. Andrews. J Land & Pub Util Econ 21:375-82 N '45
Urban redevelopment laws enacted in 17 states. Eng N 135:885 D 27 '45
Warsaw's new plan. il maps plan Arch Forum 84:106-12+ Je '46
What can be done about traffic congestion? city planning, zoning, and housing; Chicago plan. H. E. Kincaid. il map Civil Eng 16:262-4 Je '46
Zeckendorf city; giant riverside project for New York. il plan Arch Forum 85:9 O '46

See also

Building laws and regulations	Shopping centers
Business districts	Slums
Housing	Street traffic
Neighborhood planning	Streets
Rapid transit	Suburban development
Regional planning	Traffic engineering
	Water fronts

Study and teaching

Education of planners; a commentary on some current projects. J. M. Gaus and others. J Land & Pub Util Econ 21:307-21 N '45

CIUDAD TRUJILLO, Dominican Republic

Architecture

Jaragua hotel. il plans Arch Forum 85:117-20 S '46

CIVIC centers. See Municipal centers

CIVIC improvement. See Municipal improvement

CIVIL aeronautics administration
Air traffic best measure of CAA service. W. A. M. Burden. CAA J 7:53+ My 15 '46
CAA holds 30-day school term for newly appointed inspectors; foreign office is opened in Paris. CAA J 7:102 Ag 15 '46
CAA marks 20th anniversary. Roads & Sts 89:77+ Je '46; CAA J 7:59 My 15 '46
CAA sets up engineering staff for new $500,000,000 airport program. Eng N 136:954 Je 20 '46
CAA's technical development laboratory. M. S. Gilbert. il Air Transport 4:51-2+ Mr '46
Close airline; CAA cooperation on readjustment problems seen. W. Kroger. Aviation N 4:38+ N 12 '45
Conference gives CAA $121,537,720 for year. Aviation N 6:10 Jl 8 '46
Cost to you for all CAA activities is 17 cents a year. W. A. B. Burden. CAA J 7:69+ Je 15 '46
Fighting days over, service men return to positions in CAA. CAA J 7:24 F 15 '46
Safe flight major consideration; Civil aeronautics administration's experimental station at Indianapolis. il CAA J 7:12 Ja 15 '46
Will Rogers airfield selected as training, maintenance center. CAA J 7:36 Mr 15 '46

CIVIL aeronautics board
CAB due to revamp method of investigating air accidents. Aviation N 5:14 Ap 22 '46
Young takes oath as member of CAB. Aviation N 5:38 Mr 4 '46

CIVIL air patrol
Board named to map CAP role as federal funds are withdrawn. A. McSurely. Aviation N 5:7-8 Ja 21 '46
Post-war plan outlines projects. Aviation N 5:14 Ap 8 '46

CIVIL engineering
Civil engineering in 1945. il diags Engineer 181:21-2, supp 7, 33-6, supp 2, 64-5 Ja 4-18 '46
Data book for civil engineers; v 1, Design. E. E. Seelye. $7.50 John Wiley & sons, 440 4th av, New York 16 '45
Data book for civil engineers; v2, Specifications and costs. E. E. Seelye. 325p $6.75 John Wiley, 440 4th av, New York 16 '46
Plant organisation and maintenance for civil engineering contractors. H. O. Parrack. Engineering 160:430, 456-7, 465 N 23-D 7 '45; Discussion. Engineer 180:395-7 N 16 '45
Survey and forecast, 1945-1946. il Eng N 136: 174-86 F 7 '46
Use of plastics in civil engineering. E. S. Childs. Boston Soc C E J 33:82-101 Ap '46

See also
Airports
Airways
Aqueducts
Blasting
Bridges
Building
Cofferdams
Dams
Docks
Drainage
Drilling and boring (earth and rocks)
Dry docks
Earthwork
Filling
Flood control
Foundations
Highway engineering
Hydraulic engineering
Irrigation
Landslides
Marine engineering
Mining engineering
Moving of structures
Municipal engineering
Piers
Piles and pile driving
Pipe laying
Public works
Railroads—Construction
Reclamation of land
Regional planning
Rivers
Roads
Sanitary engineering
Sewerage
Shore protection
Soil mechanics
Steel construction
Strains and stresses
Strength of materials
Structural engineering
Subways
Surveying
Tunnels and tunneling
Water supply engineering

Study and teaching

Aims of a curriculum for civil engineering graduates. W. S. Hamilton. Civil Eng 16: 163-4 Ap '46
Hydraulics courses important in the civil engineering curriculum. H. A. Thomas, jr. Civil Eng 16:111-12 Mr '46; Discussion. D. Johnstone. 16:267-9 Je '46
Hydrology in the Civil engineering curriculum. H. W. Wood, jr. J Eng Educ 36:519-21 Ap '46
Progress reports of the Society's professional committee on engineering education for 1944 and 1945. Am Soc C E Proc 72:375-96 Mr '46; Discussion. 72:913-16, 1023-8 Je-S '46

CIVIL engineers
Improving engineer-contractor relationships. H. K. Glidden. Roads & Sts 88:99+ N; 109+ D '45; 89:103-6 Ja; 101-3+ F '46
Local section vigor essential to engineer's status. W. W. Horner. Civil Eng 16:241-2 Je '46
Stewardship of professionalism given high priority. W. W. Horner. Civil Eng 16:333-5 Ag '46

CIVIL procedure

See also
Third parties (law)

CIVIL rights
Statement of essential human rights. Ann Am Acad 243:18-26 Ja '46

CIVIL servants association, Saskatchewan. See Saskatchewan civil servants association

CIVIL service
Top executives: serve your country! W. L. Batt. Sales Management 57:50 Jl 1 '46

See also
Government employees

Chile

Conditions of employment in government services in Chile. Int Labour 52:698-700 D '45

Great Britain

Matter of men. Economist 150:42-3 Ja 12 '46
Public or private service. Economist 151:572-3, 613-14 O 12-19 '46
Scientific civil service. Chem Age (Lond) 53: 489-90 N 24 '45

Los Angeles

Right job for the man; improved civil service procedure undertaken by Los Angeles Department of water and power. C. E. Hill. Pub Util 37:221-4 F 14 '46

United States

Old-timers out; civil service rules give superseniority to veterans. Bsns W p98 Ja 19 '46
Requirements for peacetime civil-service employment. Mo Labor R 62:588-91 Ap '46

CIVIL service commission

Advisory committee on scientific personnel

Advisory committee on scientific personnel. M. H. Trytten. Science 103:437 Ap 12 '46

CIVIL war. See United States—History—Civil war

CIVILIAN defense
Engineering defence work in London. T. P. Frank. il Engineering 160:381-2, 400, 408-12 N 9-16 '45; Same cond. Engineer 180: 372-3+, 385-6 N 9-16 '45

CIVILIAN production administration. See United States—Civilian production administration

CIVILIZATION
Effect of the atomic bomb on our civilization. A. W. Kramer. il Power Pl Eng 50:85-8+ Mr '46
Science and life in the world; George Westinghouse educational foundation forum, May 16-18. Science 103:662-6 My 31 '46
Scientific ethics. A. V. Hill. Chem & Eng N 24:1343-6 My 25 '46
Social composition of scientific power. I. Bowman. Chem & Eng N 24:1338-42 My 25 '46; Excerpts. Metal Prog 49:1210 Je '46

See also
Natural law
Progress

CLADOCERA
Toxicity of DDT to daphnia. B. G. Anderson. Science 102:539 N 23 '45

CLAGUE, Ewan, 1896-
For the ups and downs. por Bsns W p86 Ag 10 '46

CLAIMS
Government now may be sued as any private litigant; Federal tort claims act. Nat Underw 50:31 O 3 '46
Recovery in American claims abroad. W. B. Cowles. Harvard Bsns R 25 no 1:92-110 [O] '46

See also
Airlines—Claims
Damages
Insurance—Adjustment of claims
Railroads—Claims
Release (law)
Shipping—Claims
World war, 1939-1945—Claims

CLAIMS, Freight. See Freight and freightage—Claims

CLAISEN rearrangement. See Molecular rearrangements

CLAMPS
Clamping devices for accurately aligning adjustable parts. L. Kasper. diags Product Eng 17:216-17 Mr '46
Double toggle clamp holds light angles two ways. W. W. Bowlus. il Am Mach 90:141 Mr 14 '46
Long-extension adjustable toggle moves heavy slabs smoothly. J. Taylor. diag Am Mach 90:123 Ag 29 '46
Multiple clamps operate from punch press ram. F. Sutz. diag Am Mach 90:141 S 12 '46
New fixture aids assembly of clamps. diag Steel 117:110 D 24 '45
Scissors-type clamps test hose and fittings. il Am Mach 89:125 D 6 '45
Toggle principle twice used for wide range stand clamp. C. Best. diags Am Mach 90: 141 My 9 '46
Work-holding clamp saves setup time; Duo-Square clamps. il Iron Age 157:60 Mr 21 '46

CLAMS
Clams by plane; regular deliveries from east to west coasts started. Bsns W p32+ My 11 '46

CLAMSHELL buckets. See Buckets

CLAPP, Gordon Rufus, 1905-
New TVA chairman. por Bsns W p7 N 2 '46

CLARIFIERS
Equipment advances 1944-45; sedimentation and classification. R. P. Kite. diag Chem Ind 57:854-5 N '45

CLARK, Bruce Lawrence, 1880-1945
Sketch. C. L. Camp. Science 103:302 Mr 8 '46

CLARK, George Lindenberg, 1892-
G. L. Clark, Orton fellow lecturer for 1946. por Am Cer Soc Bul 25:18-19 Ja 15 '46

CLARK, Grenville, 1882-
Statesman incognito. pors Fortune 33:110-15+ F '46

CLARK, Victor Selden, 1868-1946
Sketch. E. D. Durand. Am Stat Assn J 41: 390-2 S '46

CLARKE, Dwight L.
New president of American life convention. por East Underw 47:3 O 11 '46

CLARKE CITY, Quebec
Clarke City proposed as winter seaport; reprinted from Canadian Century, 1910. W. Wallace. il Pulp & Pa of Can 47:68-70 Je '46

CLASSIFICATION
American patent system; its relation to technical library techniques. C. W. Ooms. J Chem Educ 23:478-81 O '46
Architectural clipping file. A. Sette. Special Lib 37:9-12 Ja '46
New classification system for chemical compounds. D. E. H. Frear and others. Science 104:177-8 Ag 23 '46
Patent office seeks new system for filing of technical material. Iron Age 158:128+ Jl 25 '46
Technical filing system for the pulp and paper industry. J. D. Clark. Paper Ind 27: 1359+ D '45

See also
Industry—Classification

CLASSIFICATION, Decimal
Revised classification of radio subjects used in National bureau of standards. U S Nat Bur Stand Circ C385:1-87 '46

CLASSIFIERS
Continuous hydraulic classification; constitution of the teeter column throughout its depth. G. D. Coe and others. U S Bur Mines Rep of Invest 3851:1-8, pl 1-5 '46
Equipment advances 1944-45; sedimentation and classification. R. P. Kite. diag Chem Ind 57:854-5 N '45
Moroccan mine develops unusual classifier design. E. J. Breton. flow sheet diag Eng & Min J 147:77-8 Ja '46
Performance of a hydraulic classifier designed to incorporate four hitherto neglected principles. W. H. Coghill and others. U S Bur Mines Rep of Invest 3844:1-13, pl 1-13 '45
Sedimentation and hydraulic classification. R. P. Kite and A. J. Fischer. Ind & Eng Chem 38:16-17+ Ja '46

CLASSROOMS
Audio-visual classroom planning. P. Will, jr. il plans diags Arch Rec 99:66-77 F '46
Eyes and ears in school; light on growing children. D. B. Harmon. il diag Arch Rec 99:78-83 F '46
How day-lighting was improved at W. M. White elementary school, Mexia, Texas. D. B. Harmon. il diags plan Arch Rec 99:84-90 F '46

CLAVICLE
Practical surgical approach to the subclavian structures. K. B. Hanson and W. Hoyt il diags Ind Med 15:426-7 Jl '46

CLAY
Alumina produced from Northwest clay; Chemico process tested in experimental plant at Salem, Ore. J. R. Callaham. flow sheet il Chem & Met Eng 52:103-9 D '45
Bonding action of clays; part 2, clays in dry molding sands. R. E. Grim and F. L. Cuthbert. bibliog Ill U Eng Exp Sta Bul 362:1-42 '46 (pa 55c)
Catalytic desulphurization of gasoline; abstract. I. M. G. Namedli. Chem & Met Eng 53:272 Je '46
Chemical treatment of drilling fluids. P. E. Chaney and W. F. Oxford, jr. bibliog Pet Eng 17:158+ Je '46
Chemistry of drilling fluids. H. T. Kennedy. Oil & Gas J 45:181-2+ Jl 27 '46
Clay research and oil development problems. J. C. Griffiths. bibliog Inst Pet J 32:18-31 Ja '46
Colloid chemistry of clays. E. A. Hauser. bibliog(103 references) il Chem R 37:287-321 O '45
Continuous process for GR-S master batches with nonblack pigments; Buca A clay incorporated. diag Ind & Eng Chem 38:1013-16 O '46
Deep cutoff trench of puddled clay for earth dam and levee protection. H. Kramer. il diag Eng N 136:986-90 Je 27 '46
Elastic-limit basis for designing highway substructures in clay soil. H. C. Porter. diag Eng N 136:1002-3 Je 27 '46
Extraction of alumina from clay; sulfite-sulfate process. O. Redlich and others. bibliog flow sheets diag Ind & Eng Chem 38: 1181-7 N '46
Extraction of alumina from clays and high-silica bauxites. E. P. Flint and others. bibliog flow sheets J Res Nat Bur Stand 36: 63-106 Ja '46
Fundamental study of clay; effect of particle size on properties of casting slips. S. S. Kocatopcu. bibliog Am Cer Soc J 29:99-107 Ap 1 '46
Investigation of soil clays by X-rays. D. M. C. MacEwan. Chem & Ind p333 S 7 '46
Lithification of pleistocene clay at Kahuku Point, Oahu. R. W. Chapman. bibliog map Geol Soc Bul 57:985-95, pl 1-2 N '46
Manufacturing control employing X-ray diffraction method. F. G. Firth. Am Cer Soc J 28:363 D 1 '45
Minerals of the montmorillonite group, their origin and relation to soils and clays. C. S. Ross and S. B. Hendricks. bibliog U S Geol S Professional Pa 205-B:23-79, pl 1-8; pa 35c Supt. of doc. '45
Structure of clay in relation to road construction. J. F. T. Blott. bibliog Soc Chem Ind J 65:113-18 Ap '46; Abstract and discussion. Chem & Ind p100 Mr 2 '46
Studying causes of failure of a leaking clay core wall. A. W. Bishop. bibliog diag Pub Works 77:19-20+ Jl '46
Tests of compacted clay soils provide highway design guides. H. C. Porter. diags Eng N 135:726-8 N 29 '45

See also
Bricks
Fire clay
Foundation soils
Marl
Soils

Analysis
Determining ferric oxide in clay and limestone. R. A. Loveland. Rock Prod 49:109 Ja '46

Moisture content
Drying of solids; prediction of critical moisture content. D. B. Broughton. bibliog Ind & Eng Chem 37:1184-5 D '45

Testing
Compression testing of clay. S. Serota. diag Engineer 182:35 Jl 12 '46
Hot-strength characteristics of moulding sands. W. Davies and W. J. Rees. diags Engineering 161:190-2 F 22 '46
Infrared looks at the ceramic industry; abstract. I. J. Barber. Cer Ind 46:96 Je '46
Properties of brick and tile clays. R. H. Ellis-Anwyl. il Brick & Clay Rec 108:54+; Discussion. 58+ Ja '46

Canada
Clay and clay minerals. Can Chem & Process Ind 30:79-80+ My '46

France
Les gisements de terres décolorantes du Périgord. Génie Civil 123:146 Je 1 '46
Gîtes de kaolin nouvellement exploités en France. V. Charrin. map Génie Civil 123: 177 Jl 1 '46

CLAY—*Continued*

Pacific coast

Sedimentary and volcanic processes in the formation of high alumina clay. V. T. Allen. bibliog il diag Econ Geol 41:124-38 Mr '46

Texas

Mineralogy and properties of typical Texas clays. M. A. Nobles. bibliog Am Cer Soc J 29.138-42 My 1 '46

United States

Report of committee on geological surveys for 1944-1945. Am Cer Soc Bul 25:10-13 Ja 15 '46

West Virginia

Clay resources of West Virginia. Am Cer Soc Bul 25:110 Mr 15 '46

CLAY drying

Drying clayware with infrared radiation. L. H. Hepner. il Am Cer Soc Bul 24:415-17 N 15 '45

Drying of solids; prediction of critical moisture content. D. B. Broughton. bibliog Ind & Eng Chem 37:1184-5 D '45

New gas-fired production line dryer. R. Martin. il plans diags Cer Ind 47:70+ Jl '46

CLAY handling

What is the best method for mixing two dissimilar clays? L. Smith. Brick & Clay Rec 107:54+ N '45

CLAY industries

Dealer! sell all these in one load; city and farm homes profitable clay products markets. diag Brick & Clay Rec 108:35-6 F '46

How to sell clay products when they are scarce. H. H. Roberts. il Brick & Clay Rec 109:33-4 Ag '46

Review of the Wyatt housing program for clay products manufacturers. Brick & Clay Rec 108:38 Ja '46

Wage structure of the structural clay products industry, October 1945. J. M. Sherman. Mo Labor R 63:210-16 Ag '46

See also

Brick industry and trade
Brickmaking
Ceramic industries
Clay products
Fire brick
Glazes
Pottery

CLAY mines and mining

Report of committee on geological surveys for 1944-1945. Am Cer Soc Bul 25:10-13 Ja 15 '46

Missouri

Prospecting for and testing of clay samples from Missouri fire-clay deposits. L. E. Puntney. Am Cer Soc Bul 24:448-50 D 15 '45

CLAY products

Structural clay products; American ceramic society papers. R. L. Ferguson and others. Brick & Clay Rec 108:38-41+ My '46

Where to use clay products in new construction; drawings and tabulated data. Brick & Clay Rec 108:36-7 Ap '46

See also

Brickmaking
Bricks
Ceramics
Enamel and enameling
Fire brick
Pottery
Stoneware
Tiles

Manufacture

Design and correction of dies. L. R. Whitaker. flow charts il Brick & Clay Rec 106: 41-5+ Mr; 42+ Ap; 48+ My; 107:50+ Jl; 40-2 Ag; 40-2 S; 40-2 O; 50+ N; 48+ D '45; 108:62+ Ja '46

Electronic heating and the ceramic industry. D. Harrell, jr. diags Brick & Clay Rec 108:46-7; Discussion. 47-8 F '46

Slip casting of clay pots for the manufacture of optical glass at the National bureau of standards. R. A. Heindl and others. bibliog il diag U S Nat Bur Stand Circ C452: 1-20; pa 10c Supt. of doc. '46

Vermiculite added to fired clay products offers new uses. R. F. Rea. il Brick & Clay Rec 108:54+ Mr '46

What is the best method for mixing two dissimilar clays? L. Smith. Brick & Clay Rec 107:54+ N '45

Prices

OPA grants a 10% price increase on all clay products. Brick & Clay Rec 107:23-4 O '45

CLAY products plants

Electric equipment

Electric battery trucks in the ceramics industry; Wheatly & co. il Mech Handling 33:143-4 Mr '46

Employees

Wage structure of the structural clay products industry, October 1945. J. M. Sherman. Mo Labor R 63:210-16 Ag '46

Equipment

Automatic clay tempering machine. il plan Brick & Clay Rec 107:62 D '45

Repairs of gears, pinions and augers by electric welding. J. B. Edwards. Brick & Clay Rec 107:54 N '45

Shop hints; methods and equipment adaptable to any clay plant; illustrations. Brick & Clay Rec 108:50-1 Ja '46

Shop hints; pictorial review of efficient operating methods and equipment adaptable to any clay plant. Brick & Clay Rec 107:38-9 O '45

CLAYTON, William Lockhart

Will Clayton's cotton. por Fortune 32:138-47+ N; 158-63+ D '45

CLAYTON formula. See Machine tool industry —Surplus tools

CLEANERS' shops

Equipment

Automatic dry cleaning machine. il Engineer 181:392-3 Ap 26 '46

Electric steam raising; Belsyre cleaners, ltd. il Elec R (Lond) 138:732 My 10 '46

CLEANING

Dry cleaning soaps. A. Fabry. Soap & San Chem 22:48-9 Jl '46

Electro-static clothes cleaning gadget. il Consumers Res Bul 18:24 Ag '46

Elimination of chaos from shrinkage testing. Am Dyestuff Rep 35:366-74 Jl 29 '46

Laboratory acid cleaning bath. G. E. Moos. J Chem Educ 23:465 S '46

See also

Bottle washing
Coal cleaning
Degreasing
Dishwashing
Dyes and dyeing
Laundry
Metal cleaning
Sand blast
Soap

also subdivision Cleaning under special subjects, e.g.

Airplane engines
Castings
Electric machinery
Factories
Felts (paper making)
Locomotives
Oil containers
Pipes
Sewage tanks
Silverware
Steel
Wallpaper
Water pipes

CLEANING compositions

Aluminum cleaners. M. A. Lesser. bibliog il Soap & San Chem 22:44-7+ S '46

Battle royal forming as soap slugs it out with new soapless detergents. E. M. Housman. Ptr Ink 215:30-2+ Je 28 '46

Bulk cleanser sold to institutions now branded and packaged for consumers; advertising helped win acceptance for Marvene. il Ptr Ink 215:105 Je 14 '46

Can a small specialty maker afford complete sales coverage? yes, says Perfex co. K. C. Titus. Sales Management 56:92+ F 1 '46

Chemical cleaning of power and process equipment; abstract. H. L. Gray. Chem & Met Eng 53:272+ F '46

Composition of some trade name solvents used for cleaning and degreasing, and for thinning paints; tabulation. A. D. Brandt and others. Pub Health Rep 61:132-43 F 1 '46

Detergency studied by photomicrographic movie technique. il Soap & San Chem 22: 52-3 Je '46

Detergent; multi-purpose car-wash and household cleaning agent; Ethyl cleaner. Sci Am 174:270 Je '46

Detergents at restaurant show. Soap & San Chem 22:51 My '46

CLEANING compositions—*Continued*
Diaperwite, a widely-sold washing powder. Consumers Res Bul 16:25 S '45; Correction. 17:18 Ja '46
Dry cleaning chemicals; Pennsylvania salt mfg. co. Chem Eng 53:141 S '46
Ethyl cleaner hits market after two-year test. E. J. Dever, jr. il Ptr Ink 214:73-4+ Mr 29 '46
Food plant sanitation is not just a chore. M. E. Parker. il Food Ind 18:510-12+ Ap '46
German research reports; Tylose HBR. Oil Paint & Drug Rep 150:47 Ag 12 '46
German soap substitutes; O.X.O. process for manufacture, from Fischer-Tropsch olefins, of fatty alcohols. Soap & San Chem 22:75+ O '46
Household cleaners. D. Neidig. Chem Ind 59:271 Ag '46
Household cleaners and detergents. Consumers Res Bul 18:21-2 Jl '46
Industrial cleaners. D. Price. Chem Ind 59: 275 Ag '46
Infant enterprise challenges big-timers in soap field; Rain Drops, blue powder soapless soap. il Sales Management 56:79+ Mr 1 '46
Is soap slipping? H. C. E. Johnson. il diag Sci Am 175:57-9 Ag '46
Liquid detergent; Dianol G. L. H. Flett. Soap & San Chem 22:81 Je '46
Method of evaluating metal cleaners. S. Spring, H. I. Forman and L. F. Peale. il Ind & Eng Chem Anal ed 18:201-4 Mr '46; Same. Metal Finishing 44:297-300 Jl '46
New Carbona cleaning fluid. il Consumers Res Bul 17:20-1 Ja '46
New German detergent; Tylose HBR. Soap & San Chem 22:83+ S '46
Paint and wallpaper cleaners. M. A. Lesser. bibliog Soap & San Chem 21:37-40 D '45
Potash soaps vs synthetic detergents. H. H. Kranich. Soap & San Chem 22:43-5+ My '46
Redesigned for use; Cameo cleanser. il diag Mod Plastics 23:122-3 F '46
Refractive indices of soaps and detergents. H. B. Klevens. bibliog J Chem Phys 14:567-8 S '46
Scientific evaluation of metal cleaners. il diag Steel 119:72-4+ Ag 12 '46
Seller's market. Bsns W p42+ Ap 27 '46
Sequestration of calcium and magnesium in the presence of alkaline detergents. E. H. Mann and C. C. Ruchhoft. Pub Health Rep 61:539-45 Ap 12 '46
Soap-containing synthetic detergent. L. McDonald. bibliog il Soap & San Chem 21:41-3+ D '45
Soap shortage; what's the housewife buying to take the place of soap? il Soap & San Chem 22:45-7 Jl '46
Soap versus synthetics; abstract. P. H. Wigner. Soap & San Chem 22:75 Ap '46
Solubilization of insoluble organic liquids by detergents. J. W. McBain and P. H. Richards. bibliog Ind & Eng Chem 38:642-6 Je '46
Synthetic detergent additions in cleaning baths; Nacconol NR. il Iron Age 157:55 Ja 31 '46
Synthetic detergents in the modern tannery. P. I. Smith. il Soap & San Chem 22:46-7 My '46
Synthetic detergents vs. soap. J. W. McCutcheon. diags Soap & San Chem 22:37-9+ S '46
Tish, water softener and cleanser. Consumers Res Bul 18:15 S '46
Use of sulfuric acid-dichromate mixture in cleaning glassware. R. J. Henry and E. C. Smith. Science 104:426-7 N 1 '46
What's ahead for synthetic detergents? il Chem Ind 58:964-6+ Je '46
Why not germicidal detergents? H. C. Borghetty. Rayon 27:369-71 Jl '46

See also
Shampoos
Silver polish
Stains—Removal

Advertising
Introduced door-to-door, now advertised coast-to-coast; Mrs Vera Nyman's Soil-off. L. F. Thomann. il Ptr Ink 217:54 N 8 '46

Analysis
Direct volumetric determination of the organic sulfonate content of synthetic detergents. T. U. Marron and J. Schifferli. bibliog Ind & Eng Chem Anal ed 18:49-50 Ja '46

Patents
Briquette detergent compound; patent. H. G. C. Fairweather. Soap & San Chem 22:69 Ja '46
Cleaning agents with borate; patent. Soap & San Chem 22:69 F '46
Detergent briquets; patent. Soap & San Chem 22:69 F '46

Rating
Automobile radiator cleaners. Consumers Res Bul 16:19-24 N '45
Household cleaning preparations. Consumers Res Bul 16:26 D '45

Testing
Low cost reflectometer and method for comparing detergency. M. L. Hurwitz. bibliog diags Am Dyestuff Rep 35:83-4 F 11 '46
Metal cleaning; indirect performance tests; soil removal methods. J. C. Harris. il diag Am Soc T M Proc 45:985-1014 bibliog(p995-6, 1014) '45
Performance test for rating dishwashing detergents. E. H. Mann and C. C. Ruchhoft. diags Pub Health Rep 61:877-87, pl 1-3 Je 14 '46

CLEANING machinery
Howard cleaning machine. il Metal Finishing 44:218 My '46
Self-contained steam cleaning unit. il diags Product Eng 17:284 Ap '46

See also
Dishwashing machines
Washing machines

CLEANLINESS
See also
Factories—Cleanliness
Gasoline service stations—Cleanliness

CLEARING house, Mercantile (proposed)
Possible mercantile clearing-house plan; simplification in billing and payment procedure. M. K. Gunz. J Retailing 21:113-16 O '45

CLEARING houses
London's war-time clearing house. F. Plachy. il Burroughs Clearing House 30:24-5+ Je '46
24 more clearing houses allow delayed returns. Bankers Mo 63:225-8 My '46

CLEARING of land
Burning in the Tennessee valley; debris from reservoir clearing. H. E. Davis. il Civil Eng 15:69-70 F '46
Reservoir clearing in the Tennessee valley; completely cleared drawdowns feature TVA reservoirs. H. E. Davis. il Civil Eng 16:27-30 Ja '46

CLERGY
See also
Chaplains, Industrial

CLERICAL workers. See Office workers

CLEVELAND
Cleveland market data handbook, 1945. H. W. Green. 69p Real property inventory of metropolitan Cleveland, 1001 Huron Road, Cleveland 15 '45
Home inventory survey gives advertised brands increased preference; tenth study by Cleveland press. Ptr Ink 215:102+ My 3 '46
What Clevelanders expect to buy with their home-building money; the Cleveland Press survey. J. H. Barr. Sales Management 56:102+ F 1 '46

See also
Banks and banking—Cleveland
Building—Cleveland

Bridges
Welding repairs on 4,000-ft. viaduct. J. M. Heffelfinger. il diags Eng N 136:912-13 Je 13 '46

CLEVELAND—*Continued*

Harbor

Cleveland to improve inland harbor at cost of $13,236,000. Iron Age 157:154+ Mr 7 '46

Industries

Bonus town; 141 Cleveland firms announce year-end distribution of cash to workers. Bsns W p106+ D 22 '45

Survey reveals first employment advance. Iron Age 156:181-2 N 15 '45

Rapid transit

Cleveland's blueprint for modern transit. il maps Bus Transportation 24:62-6 N '45

Marked savings in travel time featured in transit plan; proposed rail and bus modernization. C. E. DeLeuw. il map plan Civil Eng 16:308-11 Jl '46

Set-'em-up-in-other-alley-Zimring; negotiations in Cleveland. J. Griffin. Mass Transportation 42:112-14+ Mr '46

Steam railroad terms throttle Cleveland transit system plans to lease railroad right of way. Mass Transportation 42:36-7 Ja '46

Tenderfoot from Arizona answers Zimring. H. S. Simpson. Mass Transportation 42: 115+ Mr '46

What can be done about traffic congestion? new and modernized mass transit; Cleveland transit system. W. J. McCarter. il Civil Eng 16:204-6 My '46

Streets

Almost ready to start Cleveland freeway; with cost data. Eng N 136:153 Ja 31 '46

CLEVELAND aircraft engine laboratory. See Aeronautic laboratories

CLIMATE

Is our climate getting cooler? J. B. Kincer. Heat & Ven 43:59-62 Jl '46

CLIMATOLOGY

See also

Atmospheric pressure
Atmospheric temperature
Meteorology, Aeronautic
Paleoclimatology
Rain and rainfall
Weather

CLIMAX molybdenum company

Climax Molybdenum enterprise. flow sheets il maps plans diags Min & Met 27:297-365 Je '46

CLINICAL chemistry. See Chemistry, Medical and pharmaceutical

CLINICS

Small medical and dental clinic designed for efficient handling of a large volume of patients. il map plans Arch Forum 83:110 N '45

Thanks to parking troubles, gas wins new air conditioning market; establishment of medical clinics in residential sections, Dallas, Tex. il Gas Age 97:21+ My 16 '46

CLINICS, Psychiatric

Conclusions concerning psychiatric training and clinics; meeting of consultants in mental hygiene, United States public health service, September 6, 1945. Pub Health Rep 61:943-57 Je 28 '46

CLINTON engineer works

Construction for atomic bomb production. il map plan diags Eng N 135:778-83, 791-822 D 13 '45

CLINTON laboratories. See Monsanto chemical company—Clinton laboratories

CLIPPING bureaus

See also

Radio reports, inc.

CLIPPINGS

Architectural clipping file. A. Sette. Special Lib 37:9-12 Ja '46

CLIPS

Production costs clipped with clips; holder for emergency crank. il Aviation 44:199+ D '45

CLOCKS, Electric

Manufacture

Making electric clocks. il Elec R (Lond) 139: 315-16 Ag 23 '46

CLOSE corporations. See Corporations—Close corporations

CLOSETS

Better detail plate; built-in closets a necessity in good planning; linen closets and towel cabinets. R. J. Alexander. plans diags Am Bld 68:90-1 My '46

Better detail plate; closets, their importance and function. plans Am Bld 68:120-1 Ap '46

Expandor removable storage units attached to closet doors. il diags Arch Forum 83:190+ D '45

How to plan closets for efficient use of space. diags Am Bld 68:122 F '46

Storagewall prefabricated units. il Arch Forum 84:143-8 Ap '46

CLOSTRIDIUM

Isolation and crystallization of tetanal toxin from the filtrates of clostridium tetani. L. Pillemer and others. bibliog il Science 103: 615-16 My 17 '46

Lecithinase activity of clostridium perfringens toxin. E. J. Theriault. (Public health rep supp 188) bibliog U.S. Public health service, Washington; pa 10c Supt. of doc. '45

Microbiological synthesis of riboflavin; a theory concerning its inhibition. A. Leviton. diag Am Chem Soc J 68:835-40 My '46

Molecular size and shape of botulinus toxin. G. Kegeles. bibliog Am Chem Soc J 68:1670 Ag '46

Purification and crystallization of clostridium botulinum type A toxin. C. Lamanna and others. Science 103:613-14 My 17 '46

CLOSURES (containers)

New glass package for coffee; new jar, new resealing closure, new vacuumizing machine. il Mod Packaging 19:108-11 Ap '46

Solid geometry for McKelvy cosmetic packages; leakproof square closures. il Mod Packaging 20:100-1 O '46

Sterile dispenser for dried human blood cells. il Mod Packaging 19:159 Mr '46

CLOTHES closets. See Closets

CLOTHES dryers

Testing and design of flued gas fires and drying cabinets. L. W. Andrew. Gas J (Lond) 246:642+ N 7 '45

CLOTHESPINS

Wash day blues inspire birth of spring-built clothes pin. il Sales Management 56:109 Ja 15 '46

CLOTHING, Protective

Clothes make the man safe. R. W. Bonifield. il Safety Eng 91:14-15+ Je '46

Dressed for safety. il Nat Safety N 53:53-4 Mr '46

See also

Hats, Safety
Shoes, Safety

CLOTHING and dress

Science vs. tailor, Harvard laboratory reports on men's wear. Bsns W p41+ F 16 '46

See also

Bloomers
Clothing, Protective
Dress factories
Dresses
Fashion
Hosiery
Men's suits
Slips (underwear)
Sweaters
Textile fabrics
Underwear
United States—Army—Clothing
Work clothes

Children

Fitting the kiddies by W H W. il Bsns W p80 D 22 '45

Small fry are discriminating customers with ideas of their own. J. Borgenicht. Sales Management 57:53-4+ S 15 '46

See also

Pants, Infants'

History

Medieval love of color. B. Brown. Rayon 26: 655-6 D '45

Hygienic aspects

New test apparatus for measuring the coolness of textiles. R. H. Armitage. Rayon 26: 587-8 N '45

Scientific facts on room temperature and clothing. W. Schweisheimer. Rayon 27:367-8 Jl '46

CLOTHING stores

See also
Children's apparel stores
Men's stores
Tailor shops
Women's apparel shops

CLOTHING trade

Air freight bonanza is seen in New York garment trade. C. L. Adams. il Aviation N 6:33 O 7 '46

Flies salesmen and buyers free within 150-mile radius; CAVU Clothes builds goodwill. il Ptr Ink 215:105-6 My 17 '46

How you can pre-test the product and the market for soft goods items. P. White and M. White. Sales Management 57:108+ Jl 1 '46

Men's suits, soon. Bsns W p31 Mr 16 '46

See also
Bond stores, inc.
Dress industry
Fashion
Men's stores
Underwear
Work clothes

Advertising

Ad campaign to push California brand is set by apparel makers. il Sales Management 56:46+ F 1 '46

California apparel creators new retail store tie-in. Ptr Ink 216:90 Ag 9 '46

New package design can be used in other promotion; symbols and pattern for sportswear package appear in labels, price tags and stationery. C. J. Swan. il Ptr Ink 216: 36-7 Jl 19 '46

75% return from dealer mail questionnaire helps style item; paves way for buying guide covering nine questions about WPB-affected outercoats. C. A. Lipman. il Ptr Ink 214:64+ Ja 4 '46

See also
Hats—Advertising

Labor conditions

See also
International ladies' garment workers' union

Regulation

Cloth-conscious; OPA acts to ease flow of clothing to stores. Bsns W p16 Mr 2 '46

Clothes for U.S. Bsns W p17-18 F 2 '46

Shirts for sale, but they can't be sold. il Bsns W p82 F 2 '46

Six causes behind shirt shortage. R. M. Bleiberg. Barron's 26:11+ O 14 '46

Textile drive; CPA seeks limitations on clothing inventories. Bsns W p84+ F 16 '46

Securities

Transition pangs in the clothing industry, with statistical data on leading companies. H. S. Coffin. Mag of Wall St 77:273-4+ D 8 '45

Sizes

Standard apparel sizing new answer to old problem. M. E. Poole. il Dom Comm 34:26-30 O '46

U.S. and European apparel-sizing systems; to market our goods effectively, we must understand the divergencies. V. R. Collier. For Comm W 22:12-13+ Mr 30 '46

California

California for all; sportswear makers lose injunction suit to stop use of California label by eastern garment firms. Bsns W p82+ My 25 '46

Fashion feudists; Californians ask court to stop Easterners' use of state's name on labels. Bsns W 81-2+ Ap 20 '46

Chicago

Styled in Chicago; apparel manufacturers. Bsns W p83 D 22 '45

Great Britain

Clothing industry statistics, June 1942; tables based on statistical analysis made for use as basis for concentration. Economist 149: 582 O 20 '45

United States

Still buying, but. Bsns W p79+ Ag 10 '46

CLOTHING workers of America, Amalgamated. See Amalgamated clothing workers of America

CLOUD chambers

Cascade showers and mesotron-produced secondaries in lead. S. Nassar and W. E. Hazen. bibliog Phys R 69:298-306 Ap 1 '46

Cloud-chamber analysis of cosmic rays at 14,120 ft. W. M. Powell. bibliog il diag Phys R 69:385-405 My 1 '46

Cloud-chamber photographs of heavy particles at high altitudes. D. J. Hughes. il Phys R 69:371-81 My 1 '46

Report on the Wilson cloud chamber and its applications in physics. N. N. Das Gupta and S. K. Ghosh. il diags Rs Mod Phys 18: 225-90 bibliog(p285-90) Ap '46

CLOUD point

Analysis of mixtures of meta- and para- cresols and their butylated products. D. R. Stevens and J. E. Nickels. Ind & Eng Chem Anal ed 18:260-1 Ap '46

CLOUDS

Cloud range meter. F. J. Moles. il diag Gen Elec R 49:46-8 Ap '46; Same abr. Mech Eng 68:649 Jl '46

Detection of rapidly moving ionospheric clouds. H. W. Wells and others. il Phys R 69:540 My 1 '46

CLUBS

See also
Advertising clubs
Children's clubs
4-H clubs

CLUETT, Peabody and company

Financial position. Mag of Wall St 77:696, 729 Mr 16 '46

Thumbnail stock appraisal. Mag of Wall St 77:456; 78:761 Ja 19, S 28 '46

CLUSIUS and Dickel column

Performance of a hot wire Clusius and Dickel column. R. Simon. bibliog Phys R 69:596-603 Je 1 '46

CLUTCHES

Brad Foote hydrostatic clutch or speed control unit. il diag Automotive & Aviation Ind 94:52+ Ja 15 '46; Machine Design 17:109-10 D '45; Diesel Power 24:320-1+ Mr '46; Steel 119:130 Jl 15 '46

Clutch safety device eliminates possibility of overload damage to automatic machinery. il diags Steel 119:93 Ag 26 '46

Controlled clutching licks high breakaway torques; utilization of centrifugal force with mercury as hydraulic medium. H. J. Zimmermann. il diags Machine Design 18: 137-41 Jl '46

Evaluating motor losses through clutch analogy. L. W. Herchenroeder. diag Machine Design 18:125-7 Je '46

Friction clutch operated by centrifugal force; used on oil burner. il Mach 53:202 N '46

Kinney over-running clutch. diag Diesel Power 24:855+ Jl '46

Overrunning clutch design. diags Machine Design 18:109-10 Je '46

Salsbury automatic clutch. il Am Mach 89:141 D 6 '45

See also
Automobiles—Clutches

Manufacture

Automatic set-up for broaching clutch disk teeth. il Mach 52:167 Mr '46

Compressed air speeds powder metal forming; clutch facings and brake linings; S. K. Wellman co. il Materials & Methods 23: 729 Mr '46

CLUTCHES, Magnetic

Magnetic clutches. F. A. Annett. diags Power 90:89-90 F '46

CLYDE river, Scotland

Engineering work of the Clyde lighthouses trust. D. A. Stevenson. Engineer 180:425-6 N 23 '45; Same. Engineering 160:429, 443 N 23-30 '45

COAL

Active carbon from chlorinated coal. S. Boyk and H. B. Hass. bibliog diags Ind & Eng Chem 38:745-8 Jl '46

Automatic water heating, utilizing subbituminous coal. V. F. Parry and others. 6pls U S Bur Mines Rep of Invest 3890:1-11 '46

Burning coal in locomotives. A. A. Raymond. il diags Ry Age 119:941-3 D 8 '45

COAL—*Continued*
Conservation of coal for locomotives. J. F. Barkley. Ry Mech Eng 120:11-12 Ja '46
Foamed coal; abstract. D. S. Fraser and others. Chem & Met Eng 53:216+ F '46
Frozen coal thawed by radiant heat. il diags Comp Air Mag 50:323 D '45; Same abr. Power Pl Eng 50:69 Mr '46
Future use of coal in railway motive power. K. A. Browne. bibliog Mech Eng 68:547-9 Je '46; Discussion. 68:912-14 O '46
Physical and combustion characteristics of packaged fuel containing anthracite fines. L. D. Schmidt and others. U S Bur Mines Rep of Invest 3882:1-35, pl 1-25 '46
Preparation and utilisation of coal. J. Crossland. Engineer 180:506-7 D 21 '45
Recommendations issued for freezeproofing coal. Gas Age 97:34 Mr 21 '46
To improve combustion, let's improve the coal; development of activated coal. I. R. Hoffman. Power Pl Eng 50:71+ Ap '46

See also
Boilers—Firing
Coal ash and other headings beginning Coal

Analysis

Analyses of Alaska coals. G. O. Gates and others. fold map U S Bur Mines Tech Pa 682:1-114; pa 25c Supt. of doc. '46
Analyses of ash from coals of the United States. W. A. Selvig and F. H. Gibson. bibliog U S Bur Mines Tech Pa 679:1-20; pa 10c Supt. of doc. '45
Study of Millin technique for determination of carbon and hydrogen in coal. R. J. Grace and A. W. Gauger. bibliog il diag Ind & Eng Chem Anal ed 18:563-5 S '46

Ash content

Fuel cost economy at the blast furnace and its relation to coal selection and preparation. W. M. Bertholf. Blast F & Steel Pl 34:727-32+ Je '46; Same. Steel 119:122-4+ Jl 15 '46

See also
Coal ash

Blending

Blending properties of low- and medium-volatile coals as determined in the BM-AGA apparatus. D. A. Reynolds and J. D. Davis. U S Bur Mines Rep of Invest 3936:1-20, pl 1-8 '46

Calorific value

Calorific values and boiler efficiencies. H. R. M. Thorp. Blast F & Steel Pl 33:1406+ N '45

Chemistry

Molecular structure of coal: a record of experiments with coal and sulphur; abstract. A. McCulloch. Chem & Ind p374 D 1 '45
Oxidation products of certain petrographic constituents of bituminous coals. G. Schulz and H. C. Howard. bibliog Am Chem Soc J 68:994-6 Je '46
Rates of distillation of the benzene carboxylic acids and their methyl esters. G. Schulz and H. C. Howard. diag Am Chem Soc J 68:991-4 Je '46

Geology

Formation of anthracite. E. A. Rudge and S. E. A. Moon. bibliog Chem & Ind p40-1 Ja 26 '46
Pennsylvanian geology of a part of the southern Appalachian coal field. H. R. Wanless. (Memoir 13) 162p, 40 pls bibliog(p156-8) Geological soc. of America, 419 W. 117th st, New York '46

Prices

Coal price rise to lift utilities' costs. Barron's 26:6 Jl 1 '46
Energy from coal defended against possibility of industrial atomic energy. Sci Am 174: 220+ My '46
Retail prices of coal in 1945. Mo Labor R 63: 115-16 Jl '46

Resin content

Resins in coal. W. A. Selvig. bibliog il U S Bur Mines Tech Pa 680:1-24 '45

Sulfur content

Means of detecting sulfur in coal; use of near ultra-violet light. Blast F & Steel Pl 34:1145 S '46

Testing

Blending properties of low- and medium-volatile coals as determined in the BM-AGA apparatus. D. A. Reynolds and J. D. Davis. U S Bur Mines Rep of Invest 3936:1-20, pl 1-8 '46
Burning bituminous and subbituminous coals on an anthracite, ash-removal-type, domestic stoker. H. F. Yancey and K. A. Johnson. bibliog pl U S Bur Mines Rep of Invest 3849:1-14 '45; Abstract. Heat & Ven 43:73 Jl '46
Carbonizing, expanding, and oxidation properties of coal. J. D. Davis. Am Gas Assn Proc 1945:426-36
Carbonizing properties of Eagle-bed coal from prospect shaft, Carbon, Kanawha county, W.Va. D. A. Reynolds and others. bibliog il U S Bur Mines Tech Pa 691:1-43; pa 15c Supt. of doc. '46
Carbonizing properties of Powellton-bed coal from Coal Mountain mine, Guyan, Wyoming county, W.Va. D. A. Reynolds and others. bibliog il U S Bur Mines Tech Pa 683:1-44 '45
Exploration, composition and washing, burning and gas-producer tests of a coal occurring near Coaldale, Esmeralda county, Nev. A. L. Toenges and others. flow diag il 2pls diags U S Bur Mines Tech Pa 687:1-79; pa 30c Supt. of doc. '46
Gasification of lignite and subbituminous coal. V. F. Parry and others. 17pls U S Bur Mines Rep of Invest 3901:1-59 '46
Modern laboratory handles Indiana coal testing work. il Coal Age 51:110-12 F '46
Procedure and apparatus for determining carbonizing properties of American coals by the Bureau of mines-American gas association method. D. A. Reynolds and C. R. Holmes. bibliog il diags U S Bur Mines Tech Pa 685:1-35; pa 10c Supt. of doc. '46
Simple test for substandard coal. R. W. Gausmann. Elec World 125:164 Ja 19 '46; Same. Power 90:153 Mr '46

Transportation

Feeder value of tributary waterways; reasoning employed by army engineers to justify project for improvement of Big Sandy river and its tributaries. C. S. Duncan. map Ry Age 120:668-9+ Mr 30 '46

See also
Coal cars
Coal handling
Colliers

Alaska

Analyses of Alaska coals. G. O. Gates and others. fold map U S Bur Mines Tech Pa 682:1-115; pa 25c Supt of doc. '46
Washability characteristics and washing of coals from the Matanuska field of Alaska. M. R. Geer and H. F. Yancey. flow sheet U S Bur Mines Rep of Invest 3840:1-17 '46

Appalachian region

Pennsylvanian geology of a part of the southern Appalachian coal field. H. R. Wanless. (Memoir 13) 162p, 40 pls bibliog(p156-8) Geological soc. of America, 419 W. 117th st. New York '46

China

Mineral resources of China. V. C. Juan. bibliog map Econ Geol 41:408-19 pt2 Je '46

Germany

American investigators probe secrets of German fuel technology. H. J. Rose. il Min & Met 27:106-8 F '46
Solid fuels in Germany. Chem & Eng N 23: 2193 D 10 '45

Nevada

Exploration, composition and washing, burning and gas-producer tests of a coal occurring near Coaldale, Esmeralda county, Nev. A. L. Toenges and others. flow diag il 2pls diags U S Bur Mines Tech Pa 687:1-79; pa 30c Supt. of doc. '46

COAL—*Continued*

Pennsylvania

Recommends 3-part separation for Pittsburgh seam coking coals. J. Griffen. Steel 117:120 N 26 '45

Spain

Using low grade coal without affecting clinker quality; experience of Spanish cement companies. J. F-V. Llaurado. diags Rock Prod 49:82-3 O '46

Sweden

Sweden saves coal. Fortune 33:232+ Je '46

West Virginia

Carbonizing properties of Eagle-bed coal from prospect shaft, Carbon, Kanawha county, W.Va. D. A. Reynolds and others. bibliog il U S Bur Mines Tech Pa 691:1-43; pa 15c Supt. of doc. '46

Carbonizing properties of Powellton-bed coal from Coal Mountain mine, Guyan, Wyoming county, W.Va. D. A. Reynolds and others. bibliog il U S Bur Mines Tech Pa 683:1-44 '45

COAL, Pulverized

Clog-proof valve for coal sampler. diags Elec World 126;104 Jl 20 '46

Coal-burning gas turbine locomotives may supplant Diesel-electrics. il diags Nat Pet N 38 pt 2:R563-6 Ag 7 '46

Coal-fired gas-turbine locomotive. J. I. Yellott and C. F. Kottcamp. diags Ry Age 121:552-4 O 5 '46

Coal-fired gas-turbine prospects bright; abstracts. J. I. Yellott. diags Power 90:157+ Mr '46; Mech Eng 68:465-6 My '46

Decreasing fuel costs in pulverized coal-fired cement kilns. J. D. Clendenin. bibliog Rock Prod 48:95-6 O '45

Gas-turbine locomotive; new motive power for big coal customer. W. A. Stanbury, jr. diags Coal Age 51:82-7 O '46

Powdered coal feeds a turbine. H. Manchester. diags Sci Am 175:76-9 Ag '46

Preparation

Application of electric motors to power station auxiliaries. A. E. Beardmore. il Power Pl Eng 50:80+ Mr '46

Coal atomizer; new method of pulverizing and drying coal. J. I. Yellott and A. D. Singh. bibliog diags Power Pl Eng 49:82-6 D '45

Coal pulverized by steam expansion; abstracts. J. I. Yellott and A. D. Singh. diag Power 89:916 Mid-D '45; Elec World 125:85 F 16 '46

Powdered coal, made by puffing, meets turbine needs. Sci Am 174:82 F '46

COAL as filter medium

Removal of carbon from hot caustic solution. A. J. Luetigen, K. S. Whisler and H. D. Bauman. il Ind & Eng Chem 38:832-4 Ag '46

COAL ash

Analyses of ash from coals of the United States. W. A. Selvig and F. H. Gibson. bibliog U S Bur Mines Tech Pa 679:1-20; pa 10c Supt. of doc. '45

Production of alumina in war time; lessons from American and German practice. flow sheets Chem Age (Lond) 54:573-6 My 25 '46

Seailles-Dyckerhoff process for recovery of alumina from coal ashes; abstract. F. M. Lea. Chem & Met Eng 53:210 Je '46

COAL bins

What the power engineer needs to know about bins, bunkers, and silos for coal. W. G. Hudson. il diags Power Pl Eng 50:90-1 My '46

COAL burning equipment

Smokeless coal heaters. J. R. Fellows. bibliog il diags Mech Eng 68:519-25 Je '46

Study of several coal-fired magazine-feed space heaters. R. C. Cross and H. N. Ostborg. il diags Heating-Piping 18:130-7 Ja '46; Discussion. 18:123+ Mr '46

COAL cars

Saturday unloading of coal cars asked. J. M. Johnson. Ry Age 121:304+ Ag 17 '46

Thawing pits speed dumping of frozen cars at Hauto. R. R. Richart. il diags Coal Age 51:98-100 F '46

COAL cleaning

Cleaning anthracite small sizes. W. H. Lesser. il Min Cong J 32:36-7 Je '46

Heavy density processes for coal beneficiation. D. H. Davis. il Min Cong J 32:33-4 Je '46

Loaders and cleaners in 1945. W. H. Young and R. L. Anderson. Coal Age 51:97 F '46

New developments in coal cleaning. J. M. Gondar. il Min Cong J 32:89 F '46

See also

Coal washing

COAL cutters

Face preparation for better loading. plans diags Coal Age 51:111-14 My '46

Modern British coal face machinery. E. Ingham. il plan diags Mech Handling 33: 466-8 Ag '46

Top cutters in mechanized mines. P. R. Paulick. il Min Cong J 32:22-5+ Ja '46

COAL distillation

Carbonizing properties of Eagle-bed coal from prospect shaft, Carbon, Kanawha county, W.Va. D. A. Reynolds and others. bibliog il U S Bur Mines Tech Pa 691:1-43; pa 15c Supt. of doc. '46

Carbonizing properties of Powellton-bed coal from Coal Mountain mine, Guyan, Wyoming county, W.Va. D. A. Reynolds and others. bibliog il U S Bur Mines Tech Pa 683:1-44 '45

Chemicals from coal; abstract. W. A. Bristow. Chem Age (Lond) 55:355 S 21 '46

Procedure and apparatus for determining carbonizing properties of American coals by the Bureau of mines-American gas association method. D. A. Reynolds and C. R. Holmes. bibliog il diags U S Bur Mines Tech Pa 685:1-35; pa 10c Supt. of doc. '46

Use of selective solvents to extract fractions from synthetic oil from coal; tr. by J. P. Jones. E. Terres. flow sheets il Nat Pet N 38 pt 2:R84-8 F 6 '46

COAL dredging

Coal fines to offset cost of culm elimination; Schuylkill River desilting project to recover high Btu fuel. J. H. Allen. il Civil Eng 16:395-7 S '46

Pennsylvania pollution drive aids in coal recovery. il Eng N 136:886 Je 6 '46

COAL drying

Coal atomizer; new method of pulverizing and drying coal. J. I. Yellott and A. D. Singh. bibliog diags Power Pl Eng 49:82-6 D '45

Drying coal thermally and mechanically. L. Dress. il Min Cong J 32:34-5 Je '46

COAL dust

Dust abatement by sprinkling and spraying in coal mines. il diags Coal Age 51:90-6 Je '46

Dust abatement in pillar workings. R. P. Jack. il Min Cong J 32:61+ Mr '46

Dust abatement on longwall faces. Min Cong J 32:60-1 Mr '46

Dustproofing builds markets by satisfying coal users; survey of operators, dealers, and consumers. H. H. Morris. il Coal Age 51: 84-8 Ja '46

Improved system for wetting down coal. H. E. Macomber. Elec World 125:154 Ap 13 '46

Percentages of methane increase difficulty of controlling coal dust. Coal Age 50:120+ D '45

Suggested methods for installing dust-allaying equipment in bituminous-coal mines. C. W. Owings. U S Bur Mines Rep of Invest 3843:1-31, pl 1-27 '45

To suppress dust at face, coal is soaked with water through boreholes. diag Coal Age 51: 100+ S '46

See also

Coal mines and mining—Rock dusting

COAL exporters' association

Export association is organized. Coal Age 51:156 Ja '46

COAL handling

Air-operated steam coaling crane. il diags Engineer 180:421-2 N 23 '45

Automatic coal handling plant. G. E. Allin. il diags Mech Handling 32:618-21 N '45

Belt hoists handle coal smoothly and economically. il diags Coal Age 51:93-8 Mr '46

COAL handling—*Continued*
Bucket elevator for coal and ash handling. W. G. Hudson. il diags Power Pl Eng 50: 68-71 F '46
Bunker signal system aids coal handling. J. Q. Wendell. diags Elec World 125:110+ Mr 16 '46
Coal handling control gear. A. E. L. Jervis. il diags Electrician 136:405-6 F 15 '46
Coal-handling plant at Dalmarnock power station. il plan Engineering 160:420-2, 424 N 23 '45
Coal slicer, chops up coal so that it will flow through trapdoor into hopper of conveyor. il Mech Handling 33:306-7 My '46
Detect coal stoppage at three locations; Dubuque station of Interstate power co. C. Blazing. il Elec World 124:85 D 22 '45
Electric drives for coal handling plant. C. H. Pike. il Mech Handling 33:480-4 Ag '46
Five reasons for the employment of underbunker conveyors. A. V. Stock. il diags Power Pl Eng 50:80-2 Je '46
Handling of coal at Dalmarnock power station. F. H. Slade. il plan Mech Handling 33: 132-7 Mr '46
Mechanization in new Scottish mines. il diag Mech Handling 33:514-16 Ag '46
Modern boiler house coal storage and distributing plant. G. E. Allin. il diag Mech Handling 33:220-1 Ap '46
Modernizing the coal-handling control at Philo. A. H. Beiler. il diags Power Pl Eng 50:78-81+ Ag; 86-90 S '46
Power house installation; conveying and handling equipment, Bolton electricity generating station. J. A. Oates. il plan diag Mech Handling 33:408-18 Jl '46
Preventing freezing of coal chutes; Electrical section, Engineering division, A.A.R. report. diags Ry Mech Eng 120:36-7 Ja '46
Reading briquets use fine anthracite in two new plants. il Coal Age 51:76-80 O '46
Shuttle conveyor simplifies coal handling. il Elec World 125:85 F 2 '46
Thawing pits speed dumping of frozen cars at Hauto. R. R. Richart. il diags Coal Age 51:98-100 F '46
Transport of coal from face to screening plant. E. J. Daniell. il plan diag Mech Handling 33:485-90 Ag '46
What the power engineer needs to know about the continuous-flow conveyor for power plant coal handling. W. G. Hudson. il diags Power Pl Eng 49:95-9 N '45
What the power engineer needs to know about the flight conveyor. W. G. Hudson. diags Power Pl Eng 49:92-4 O '45
What the power engineer needs to know about the hydraulic conveyor. W. G. Hudson. il Power Pl Eng 50:74-5 Mr '46
What the power engineer needs to know about the screw conveyor. W. G. Hudson. il diag Power Pl Eng 50:84-6 Ap '46
Which conveyor is best for coal? steam jet conveyor. diags Power 90:193+ Mr '46

COAL laboratories
Modern laboratory handles Indiana coal testing work. il Coal Age 51:110-12 F '46

COAL lands
See also
Coal mines and mining

COAL liquefaction
Bureau of mines gets ammonia plant to make synthetic fuels survey. Nat Pet N 37:34 N 28 '45
Hydrogenation and liquefaction of coal; characterization of light oil. E. H. Kaplan and others. bibliog U S Bur Mines Tech Pa 690: 1-18; pa 10c Supt. of doc. '46
Investigation by the U.S. government technical oil mission. W. J. Schroeder. Am Pet Inst Proc 25(3):24-9 '45; Same cond. Oil & Gas J 44:112+ N 24 '45; Excerpts. Chem & Met Eng 53:220+ Ja '46
Missouri ordnance works becomes Bureau of mines demonstration plant. Chem & Eng N 24:39 Ja 10 '46
Nation's reserve of solid fuels and its relation to the future supply of gaseous and liquid fuels. A. C. Fieldner. Gas Age 98:37-40+ S 19 '46
Oil from coal. Bsns W p73 D 1 '45
Oil from coal nearer as development work gathers momentum. J. Randolph. il Coal Age 51:86-91 Ag '46
Replaceability of natural gas; processes for generating gas and oil from coal. W. K. Lewis. Gas Age 98:29-30+ S 5 '46
Synthetic liquid fuels and the manufactured gas industry. B. Miller. Gas Age 97:19-21+ F 21 '46

COAL loading machines
Face preparation for better loading. plans diags Coal Age 51:111-14 My '46
Loaders and cleaners in 1945. W. H. Young and R. L. Anderson. Coal Age 51:95-7 F '46
Machine methods for high productivity. plans diags Coal Age 51:101-10 My '46
Mechanical mining in thick seams. G. B. Higinbotham. il Min Cong J 32:39-40 Je '46
Mechanical mining in thin seams. J. J. Snure. il Min Cong J 32:38-9 Je '46
Pillar recovery with mechanical loading. il plans Min Cong J 32:43-5 S '46
Sales of mechanical loading and cleaning equipment; coal mines. W. H. Young and R. L. Anderson. il Min Cong J 32:106-9 F '46
Service haulage under various seam conditions; equipment used to serve mobile mechanical loaders. il diags Min Cong J 32: 44-6 Mr '46

COAL miners
Coal industry and its personnel relations. J. J. Foster. Min & Met 26:599-600 D '45
Coal valleys boom; miners are becoming home owners. il Arch Forum 84:16+ Je '46
First session of the I.L.O. Coal mines committee. Int Labour R 53:200-7 Mr-Ap '46
How to gain miner cooperation; key factor: how the miner looks at coal. W. Williams. il Coal Age 50:86-9 D '45
Increasing mine production; psychological factors affect efficiency of mechanized mining. J. Hyslop. Min & Met 27:548-50 N '46
Inherited rights; ex-servicemen claim jobs in mines as birthright. Bsns W p94 Ja 26 '46
Mine boss; what's on his mind re his job and future. W. H. Kushnick. Coal Age 51:83-5 S '46
Putting incentive to work for mining progress. il Coal Age 51:64-7 Ja '46
Welfare provisions for miners in six foreign countries. Mo Labor R 62:862-7 Je '46

Belgium
Miners; social aspects of a labor problem. G. Jacquemyns. Ann Am Acad 247:134-41 S '46

France
Conditions of employment in French coal mines. Int Labour R 53:419-20 My-Je '46
France discovers wage rises to coal miners help increase output; statistical data. Iron Age 157:106+ Ap 4 '46
Representation in management as decreed by the government of France. Personnel J 24: 262-4 Ja '46

Germany
Hunger strike of Ruhr coal miners will be felt outside Germany. Iron Age 157:84+ My 23 '46

Great Britain
Britain tackles coal problem. Bsns W p94+ N 17 '45
Britain's coal miseries and labor's cure; miners want to be paid now from future's benefits. C. H. Grattan. Barron's 26:9+ Ap 1 '46
Electrifying miners' homes; costs compared with low-priced fuel. C. R. Taylor. Elec R (Lond) 138:135-6 Ja 25 '46
Manpower dominates British coal industry. Coal Age 50:152+ D '45
Miner and the machine; Government mines mechanization training centre at Sheffield. C. B. Rees. il Can Min J 67:960-1 O '46
New training scheme for U. K. mines. Can Min J 67:264 Ap '46
Plans for the coal mining industry; report of Recruitment, education, and training committee. Engineer 181:57-9 Ja 18 '46
U.S. coal-mine mechanization contrasted with British practice; abstract. J. L. Lewis. Min & Met 27:237 Ap '46
Wage structure in bituminous-coal mining, fall of 1945. P. Brown and A. Kouzian. Mo Labor R 62:550-9 Ap '46

COAL miners—Great Britain—*Continued*
Work for disabled miners. Economist 150:49 Ja 12 '46

Kentucky

Miners may force Kentucky mines to carry compensation. Nat Underw 50:20 Ja 10 '46

United States

Changing status of bituminous-coal miners, 1937-46. W. Bowden. Mo Labor R 63:165-74 Ag '46
Coal crisis. il Coal Age 51:66-71 Je '46
Coal miners pay rise will force price boosts; railroads, utilities and home users will be hit hardest. E. R. Abrams. Barron's 26:3 Ap 22 '46
Coal parleys. Bsns W p94 S 14 '46
First the fireworks, then real work on mine contract. Bsns W p106 Mr 23 '46
Insurers see benefits in coal mine order. Nat Underw 50:18 Ag 29 '46
Lewis demands insurance changes for miners. Nat Underw 50:34 Mr 14; 40 Mr 28 '46
Mine hopes dim; court test of foreman issue scheduled. Bsns W p96 Jl 27 '46
More than 18 1/2¢ increase for coal miners. Bsns W p86 Je 15 '46
New contract requires comp coverage for miners. Nat Underw 50:28 Je 6 '46
Truce in coal. Bsns W p92 N 2 '46
Union relations; help or hindrance in future mining progress? Coal Age 51:80a-80d Mr '46
U.S. coal-mine mechanization contrasted with British practice; abstract. J. L. Lewis. Min & Met 27:237 Ap '46
U.S. orders mines to get comp and O. D. cover; operators may no longer treat any state law as elective. Nat Underw 50:15 Ag 22 '46

COAL mines and mining
American institute of mining and metallurgical engineers, Coal division, annual meeting, Chicago, Feb. 25-28. Coal Age 51:136+ Ap '46
American mining congress, Coal division, annual meeting, 23d, Cincinnati, April 29-30. Min Cong J 32:53-9 My '46; Coal Age 51:118+ Je '46
Annual report of research and technologic work on coal. A. C. Fieldner and R. E. Brewer. bibliog 9pls U S Bur Mines Information Circ 7352:21-53 '46
Coal mine modernization, 1946 year book. 288p American mining congress, 309 Munsey bldg, Washington 4, D.C. '46
Coal mining institute of America 59th annual meeting, Pittsburgh, Dec. 6-7. Coal Age 51:136+ Ja '46
Coal mining reference book. 283p il Kentucky mining institute, Pikeville, Ky. '45
Illinois mining institute, annual boat-trip meeting, June 21-22. Coal Age 51:118+ Ag '46
Kentucky mining institute annual meeting, Lexington, Dec. 7-8. Coal Age 51:122+ Ja '46
Markets, mines, machines and men, West Virginia Institute themes. Coal Age 50:149-50 D '45
Mining efficiency number. plans diags Coal Age 51:89-146 My '46
Mining methods, industry relations feature Bluefield A.I.M.E. meeting. Coal Age 51:130+ Jl '46
Rocky Mountain coal mining institute, 42d annual meeting, Denver, June 6-8. Coal Age 51:124+ Jl '46
Safety, lubrication and equipment feature record Illinois meeting. Coal Age 50:146+ D '45
West Virginia coal mining institute, mid-year meeting, Huntington, June 14. Coal Age 51:139-40 Jl '46

See also
Coal dredging
Coal miners
Coal mining machinery

Accidents and explosions

Can electro-static sparks endanger mines or ignite explosive charges? Coal Age 51:102+ O '46
Coal-mine explosions and coal- and metal-mine fires in the United States during the fiscal year ended June 30, 1945. D. Harrington and others. 1 pl U S Bur Mines Information Circ 7359:1-22 '46
Coal's safety record in 1945. F. T. Moyer. Coal Age 51:93-4 F '46
Explosion probably caused Kentucky mine disaster. Safety Eng 91:62 F '46
Explosions and fires in bituminous-coal mines; coal-mine accident-prevention course, section 4. bibliog(124 titles) il diags U S Bur Mines Miners' Circ 50:1-107; pa 25c Supt. of doc. '46
Health and safety in mining, 1945. C. M. Fellman. il Min & Met 27:128-9 F '46
Jap mine disaster sets new record; Honkeiko colliery in Manchuria. Coal Age 51:136+ Je '46
Kentucky mine disaster revives issue of compensation laws; mandatory act cannot be debated until 1949 under state rule. Nat Underw 50:20-1 Ja 3 '46
Lessons to be learned from explosions; abstract. G. W. Grove. Coal Age 51:118+ Jl '46
Mine foreman and accident prevention. J. J. Rutledge. il Explosives Eng 24:53+ Mr '46
95% preventable; abstract. E. McCormick. il Safety Eng 92:17 S '46
Percentages of methane increase difficulty of controlling coal dust. Coal Age 50:120+ D '45
Safety in mines research board; twenty-third report. Engineering 160:498 D 14 '45
Start probe of Kentucky mine blast; Straight Creek coal co. mine explosion. Coal Age 51:130-3 Mr '46
Two mine explosions in 1945; abstract. R. H. Dalrymple. Coal Age 51:116+ Jl '46
Winter air-conditioning of mines helps prevent coal-dust explosions. Coal Age 50:116+ N '45

See also
Coal mines and mining—Fires and fire protection
Coal mines and mining—Safety measures

Accounting

Machine methods promote efficiency in mine accounting. J. C. McNeil. il Coal Age 50:109-14 N '45

Blasting

All-around stemming subdues flame in creviced coal. diags Coal Age 51:110+ Ap '46
Big blast holes at Beechwood. il diags Min Cong J 31:32-9 D '45
Blasting vibration; facts refute property-damage claims. L. D. Leet. il Coal Age 51:91-3 S '46
Sinclair mines coal in Missouri. F. Castellani. il Explosives Eng 24:73-4+ My '46

Costs

Mine haulage with locomotives and track; with cost data. E. H. Jenks. il diag Min Cong J 31:47-9 D '45

Electric equipment

Aids to coal production; I.E.E. discussion. Electrician 136:417 F 15 '46; Inst E E J 93 pt 1:299 Jl '46
Cable protected by ground shield and circuit breaker. L. Wilson. diag Coal Age 51:81 O '46
Cables hung over spools on pipe standard; rectifier substation of the Glogora coal co. diags Coal Age 51:106 Ag '46
Coal Age quiz on electric equipment. diags Coal Age 51:104+ Ja '46
Colliery electrical engineers; education and training proposals. F. W. Maynard. Elec R (Lond) 139:105-7 Jl 19 '46
D.c. sectionalizing localizes interruptions at Kenilworth. il diags Coal Age 51:86-90 S '46
Electric drives for coal handling plant. C. H. Pike. il Mech Handling 33:480-4 Ag '46
Electric equipment for modern coal preparation plants. J. T. Bailey. il plan Min Cong J 32:57-60+ Ag '46
Electrical mining plant; experience with lease-lend equipment. Elec R (Lond) 138:260 F 15 '46
Electricity in German mines; Ruhr coal field. Electrician 137:115-17 Jl 12 '46
Flameproof enclosure; commentary on the revised B.S. 229. J. A. B. Horsley. Elec R (Lond) 139:31-2 Jl 5 '46
Flameproof switchgear for mines. il diag Engineering 161:317-18 Ap 5 '46

COAL mines and mining—Electric equipment—*Continued*
Larry train solves Oak Hill refuse-disposal problem. R. R. Richart. il diags Coal Age 50:103-8 N '45
Metal-clad switchgear handles interrupting needs at Coaldale. W. E. Connor and R. R. Richart. il diags Coal Age 51:72-9 Je '46
Mine haulage; haulage by storage-battery locomotive. F. H. Slade. plans Mech Handling 33:554-8 S '46
Ruhr coalfield; electrical features; British mission's report. Elec R (Lond) 138:974 Je 21 '46
Strip voltage improved by field-boosting generator. R. G. Gehlsen. diag Coal Age 51:86-7 Je '46
Trailing-cable development; abstract. F. E. Griffith. Coal Age 51:120+ Jl '46
West Virginia electrical institutes review coal-mining problems. Coal Age 51:134+ Jl '46

See also
Coal mines and mining—Power

Equipment

Clockface colliery. Engineer 180:500-1 D 21 '45
Coal washers at southern plant handle 17,000 tons per day; Tennessee coal, iron and railroad co. W. S. Springer and W. J. McRoy. il Steel 118:138-9+ Ap 1 '46
Developing for the future; Lake Creek mine of Consolidated coal company. C. C. Conway and F. A. Miller. il plan Min Cong J 32:40-3 Ja '46
Getting results in maintaining coal-preparation plants. F. W. Richart. il diags Coal Age 50:105-10 O; 90-6 N; 101-6 D '45
Handling of colliery tub traffic; pneumatic plant. il Mech Handling 33:473-5 Ag '46
High efficiency marks operation at new Sewell no. 1 mine. J. H. Edwards. il Coal Age 51:106-9 F '46
Level-deck cross-track hoisting car saves labor. il Coal Age 51:106+ Je '46
Low-cost mining over many years goal at Robin Hood mine. J. H. Edwards. il map diag Coal Age 51:68-74 Ja '46
Mechanization in new Scottish mines. il diag Mech Handling 33:514-16 Ag '46
Mechanized mining boosts Cutshin truck-mine output to 1,400. il map Coal Age 51:78-82 S '46
Modern facilities include underground toilets at Hayden. G. R. Harris and C. H. Lambur. il plan diag Coal Age 51:96-8 Ja '46
Modern shops meet maintenance need at Union Pacific. il plan diag Coal Age 50:97-102 N '45
Modern washeries culminate Tennessee coal, iron and railroad co. preparation evolution. W. S. Springer and W. J. McRoy. flow diags il Coal Age 51:99-104 Ap '46
Modernizing the mines of Ohio. L. J. Lorms. il Min Cong J 32:31-3 My '46
Reels Cove mine built for long life and low mining cost. J. H. Edwards. il diags plans Coal Age 51:81-9 Mr '46
Sales of mechanical loading and cleaning equipment; coal mines. W. H. Young and R. L. Anderson. il Min Cong J 32:106-9 F '46
Service haulage under various seam conditions; equipment used to serve mobile mechanical loaders. il diags Min Cong J 32:44-6 Mr '46
Skip winding of coal. il plan diags Mech Handling 33:476-9 Ag '46
Special equipment boosts efficiency at trackless operation; Moss hill no. 9 mine, Hart-Ross coal co. R. R. Richart. il diags Coal Age 51:83-7 Jl '46
Supply handling for efficiency in trackless coal mining. il plans Coal Age 51:80-5 Je '46
Ten jig-box improvements. il diags Coal Age 51:108+ Ja '46
Transport of coal from face to screening plant. E. J. Daniell. il plan diag Mech Handling 33:485-90 Ag '46
Transportation for low-cost operation. Coal Age 51:115-17 My '46
Welding, flame cutting for effiecient maintenance and low cost. A. D. Stout, jr. il Coal Age 51:94-8 S; 97-100 O '46
Williams River mine. il plans Min Cong J 32:34-5+ S '46

See also
Coal cars
Coal cutters
Coal loading machines
Coal mining machinery
Coal tipples
Mine cars

Explosives

Active list of permissible explosives and blasting devices approved previous to Dec. 31, 1945. J. E. Tiffany and Z. C. Gaugler. U S Bur Mines Rep of Invest 3910:1-20 '46

Fires and fire protection

All-around stemming subdues flame in crevjced coal. diags Coal Age 51:110+ Ap '46
Explosions and fires in bituminous-coal mines; coal-mine accident-prevention course, section 4. bibliog(124 titles) il diags U S Bur Mines Miners' Circ 50:1-107; pa 25c Supt. of doc. '46
One reason why pillars pass air into goafs and returns. diags Coal Age 51:98+ Je '46
Plan for training mine officials in rescue organization and disaster prevention. E. R. Maize and J. V. Berry. 7pls U S Bur Mines Information Circ 7353:1-13 '46
Would use explosion to control mine fire; abstract. H. Price. diag Coal Age 50:118 N '45

Gas generation

Quest for fuel; U.S.S.R. renews work in underground coal gasification. Bsns W p110 Ap 6 '46
Subterranean gasification of coal. G. O. Nusinov. diags Can Chem & Process Ind 30:29-32 Je '46
Synthine process; underground gasification of coal. J. C. Lane and B. H. Weil. bibliog and patent list (178 references) il Pet Refiner 25:91-4 Ag '46

Government operation

Mine hopes dim; early return of soft coal operations to private ownership seems unlikely. Bsns W p96 Jl 27 '46

Haulage

See Mine haulage

Lighting

See also
Mine lighting

Longwall system

Dust abatement on longwall faces. Min Cong J 32:60-1 Mr '46
Modified longwall cuts top trouble and boosts efficiency; Harlan central coal co. J. H. Edwards. il diag Coal Age 50.107-9 D '45
Simultaneous cutter and loader for longwall mining. T. E. B. Young and W. H. Sansom. il diag Min Cong J 31:48-9 N '45

Management

Clockface colliery. Engineer 180:521-3 D 28 '45
Conference method promotes efficiency in mine supervision. L. Harris. Coal Age 51:88:90 Jl '46
50 mines win 1945 coal-for-victory awards. Coal Age 50:92-5 D '45
How to gain miner cooperation. W. Williams and others. il Coal Age 50:86-91 D '45
Management; vital ingredient in efficiency. Coal Age 51:90-5 My '46
Mine foreman and his certificate of competency. J. J. Rutledge. Explosives Eng 23:250+ N '45
Mine foreman and mine maintenance. J. J. Rutledge. Explosives Eng 24:154-5 S '46
Modernizing the mine organization. R. E. Salvati. il Min Cong J 32:44-5 Je '46
Payroll work speeded by modern machine equipment. J. C. McNeil. il Coal Age 51:92-6 Ag '46

See also
Coal miners

Methods

Backfilling problem in the anthracite region as it relates to conservation of anthracite and prevention on subsidence. S. H. Ash and J. Westfield. U S Bur Mines Information Circ 7342:1-18 bibliog(p16-18) '46

COAL mines and mining—Methods—*Continued*
Coal; 10,000 tons a day; Alabama by-products corporation. F. J. Immler. il plan Explosives Eng 24:109-16 Jl '46
Combined strip-and-deep mining; abstract. C. R. Bourland. Coal Age 51:139 Jl '46
Conveyors and scrapers raise efficiency; Phoenix coal co. E. Read and R. R. Richart. il plan diags Coal Age 51:93-8 Ap '46
Dust abatement in pillar workings. R. P. Jack. il Min Cong J 32:61+ Mr '46
Handling methods for mine modernization plan. F. H. Slade. il plan Mech Handling 33:503-9+ Ag '46
High efficiency marks shaker-conveyor work at Imperial. il diags Coal Age 51:72-5 O '46
Loaders and duckbills meet varying conditions at Blue Pennant. J. H. Edwards. il map plans Coal Age 51:72-81 Ag '46
Machine methods for high productivity. plans diags Coal Age 51:101-10 My '46
Machine mucking speeds Hudson coal tunnel-driving work. R. R. Richart. il diags Coal Age 51:79-83 Ja '46
Mechanical mining in thick seams. G. B. Higinbotham. il Min Cong J 32:39-40 Je '46
Pillar recovery with mechanical loading. il plans Min Cong J 32:43-5 S '46
Planning for efficiency. diags Coal Age 51:96-100 My '46
Ruhr coalfield. Engineer 181:538-40 Je 14 '46
Special equipment boosts efficiency at trackless operation; Moss hill no. 9 mine, Hart-Ross coal co. R. R. Richart. il diags Coal Age 51:83-7 Jl '46
Standard plan evolved for loader and shuttle-car work. il diags Coal Age 51:94-5 Ja '46
Tonnage raised by adoption of shuttle-car gathering; Knox consolidated coal corp. plan Coal Age 50:88-9 N '45
Top cutters in mechanized mines. P. R. Paulick. il Min Cong J 32:22-5+ Ja '46
Wasting a valuable national resource; recovery of bituminous coal could be increased by government subsidy. H. N. Eavenson. Min & Met 27:260-1 My '46; Discussion. L. E. Young; E. McAuliffe. Min Cong J 32:56-61 Ap '46

See also
Coal mines and mining—Longwall system
Coal mines and mining—Stripping operations

Power
Alternating current for mine transmission and distribution. D. E. Renshaw. Min Cong J 32:41-5 My '46
Fan failure deenergizes underground power circuits. J. G. Pollock and R. R. Richart. il diags Coal Age 51:89-93 Ja '46
Load equalisation; colliery winding equipment; flywheel set with Ward-Leonard control. G. Barnard. diags Elec R (Lond) 137: 754-6 N 23 '45
Low-cost mining over many years goal at Robin Hood mine. J. H. Edwards. il map diag Coal Age 51:68-74 Ja '46
Power for efficient operation. diags Coal Age 51:118-20 My '46
Safety in power distribution for coal mines. R. G. Gehlsen. il Min Cong J 32:27-9 Mr '46
Transmission and distribution of electricity to mines; with cost data. B. L. Metcalf. diags map Inst E E J 91 pt 2:277-87 Ag '44; Discussion. 91 pt 2:287-96; 92 pt 2:550-3 Ag '44, D '45

Railroad property
Montour deal on. Bsns W p74 S 14 '46

Rock dusting
How much rock dust will assure immunity from coal-dust explosions. map Coal Age 51:148+ My '46

Safety measures
Accidents from falls of roof and coal in bituminous-coal mines; coal-mine accident-prevention course, section 2. bibliog il plans diags U S Bur Mines Miners Circ 48:1-114; pa 25c Supt. of doc. '45; Abstract. Nat Safety N 53:110 F '46
Accidents from hoisting and haulage in bituminous-coal mines; coal-mine accident-prevention course, section 3. bibliog il diags U S Bur Mines Miners Circ 49:1-59; pa 20c Supt. of doc. '46
Causes and prevention of mine roof falls. F. G. Smith. il Min Cong J 32:39-42 Ap '46
Dust abatement by sprinkling and spraying in coal mines. il diags Coal Age 51:90-6 Je '46
Education to reduce accidents in coal mining. il Min Cong J 31:28-30 N '45
Fan failure deenergizes underground power circuits. J. G. Pollock and R. R. Richart. il diags Coal Age 51:89-93 Ja '46
Federal coal mine inspection; accident rate cut under operation of new act. D. Harrington. il Min & Met 27:255-9 My '46
Flood prevention and control in the anthracite region. S. H. Ash. il Min Cong J 32: 32-4+ Mr '46
Flood-prevention projects at Pennsylvania anthracite mines. S. H. Ash and J. Westfield. fold maps U S Bur Mines Rep of Invest 3868:1-25, pl 1-16 bibliog(p25) '46
For safer mines. Bsns W p34+ Ag 3 '46
Haulage safety promoted by logic in eliminating hazards. il Coal Age 50:110-14 D '45
Makeshift mine ventilation. E. Smith. il Safety Eng 91:53-4 Mr '46
Miles Slope mine receives its anthracite trophy award. Explosives Eng 23:244-5 N '45
Our outlook has changed. P. A. Grady. Nat Safety N 54:24-5+ S '46
Preparing a timber program; preventing accidents from falls of roof and coal. diags Coal Age 51:104+ Mr '46
Safe support provided by hitching and steel timbers. J. V. McKenna. il diags Coal Age 51:78-82 Jl '46
Safety and mechanical coal mining in northern West Virginia. J. Redyard and A. Beeson. il Min Cong J 31:20-3 D '45
Safety code for coal mines put in effect by government. il Ind Stand 17:222-3 S '46
Safety dogs protect man-cars on slopes. J. V. Mather. il diags Coal Age 51:110+ Ag '46
Safety for better coal mining. Coal Age 51: 132-6 My '46
Safety in power distribution for coal mines. R. G. Gehlsen. il Min Cong J 32:27-9 Mr '46
Safety practices at Union Pacific. F. J. Peternell. Min Cong J 32:47 Je '46
Safety record of mine no. 7, Island Creek coal co., Holden, Logan county, W.Va. A. U. Miller and C. E. Linkous. U S Bur Mines Information Circ 7365:1-8 '46
Safety with auxiliary fans. diags Coal Age 51:104+ S; 106+ O '46
Shaft sinking by stripping churn-drill holes. W. A. Cole. 2pls U S Bur Mines Information Circ 7308:1-6 '45; Same. Min Cong J 31:35-7+ Ap '45
Suggested methods for installing dust-allaying equipment in bituminous-coal mines. C. W. Owings. U S Bur Mines Rep of Invest 3843:1-31, pl 1-27 '45
Superior D mine wins again. Explosives Eng 23:251-2 N '45
To suppress dust at face, coal is soaked with water through boreholes. diag Coal Age 51: 100+ S '46

See also
Coal mines and mining—Rock dusting
Safety lamps, Electric

Statistics
Tons per man raised by use of machines at bituminous mines. W. H. Young and R. L. Anderson. Coal Age 51:105-8 Ap '46

Steel company ownership
H. C. Frick opens Robena mine to supplement its coking coal reserves. Iron Age 158:98 S 19 '46

Stores systems
Supply service for efficient handling. plan Coal Age 51:130-1 My '46

Stripping operations
Big blast holes at Beechwood. il diags Min Cong J 31:32-9 D '45
Development of strip mining. R. H. Sherwood. il Min Cong J 31:31-4 N '45

COAL mines and mining—Stripping operations —*Continued*
Efficient stripping with modern equipment and methods. diags Coal Age 51:137-43 My '46
Four veins stripped in 25-ft. benches to get 2,200 tons daily; Philadelphia & Reading coal & iron co. R. R. Richart. il diags Coal Age 50:96-100 D '45
Georgetown stripping coordinates operations for efficiency. R. R. Richart. il diags Coal Age 51:88-96 O '46
Inspection standards for strip mines (coal and lignite); revised, October 1945. U S Bur Mines Information Circ 7350:1-32 '46
Large dragline in coal stripping. R. M. Dickey. il Min Cong J 32:49-50 Je '46
Mechanization in coal mining makes rapid progress. A. L. Toenges. il Min & Met 27: 393-5 Jl '46
Mountain outcrop strip mining; Leckie smokeless coal company's Anjean mine. E. W. Haessler. il Min Cong J 31:39+ N '45
Open pit mining in bituminous coal. R. H. Swallow. il Min Cong J 32:83-7 F '46
Planned stripping helps modern units produce efficiently; Pyramid coal corp. il Coal Age 51:81-5 Ap '46
Reclamation and conservation of stripped-over lands. L. E. Sawyer; J. W. Bristow; R. T. Laing. il Min Cong J 32:26-36 Jl '46
Rubber in open pit mining. J. G. Berry. il Min Cong J 32:51-2 Je '46
Semi-portable plant prepares coal from two strip operations. il diag Coal Age 51:82-5 Ag '46
Sinclair mines coal in Missouri. F. Castellani. il Explosives Eng 24:73-4+ My '46
Spoil reclamation assures good income without leveling. il maps Coal Age 51:91-4 Jl '46
Strip mining two seams. R. P. Mauger and C. Ball. il Min Cong J 32:48-9 Je '46
Strip voltage improved by field-boosting generator. R. G. Gehlsen. diag Coal Age 51:86-7 Je '46
Stripping efficiency raised by new methods and equipment. il Coal Age 51:71-5 Mr '46
25-cu. yd. dragline heads modern units at new Maumee pit. il diag Coal Age 51:101-5 F '46

Study and teaching

See Mining schools and education

Truck mines

Mechanized mining boosts Cutshin truck-mine output to 1,400. il map Coal Age 51: 78-82 S '46

Waste disposal

Aerial ropeway at Bolsover colliery. il plan diag Mech Handling 33:498-502 Ag '46
Larry train solves Oak Hill refuse-disposal problem. R. R. Richart. il diags Coal Age 50:103-8 N '45
Methods of disposal and handling refuse at anthracite mines in eastern Pennsylvania; abstract. G. J. Clark. Coal Age 51:130+ Je '46
Ropeways for refuse disposal. A. R. Bunce. il diags Mech Handling 33:7-11 Ja '46

Alabama

Coal; 10,000 tons a day; Alabama by-products corporation. F. J. Immler. il plan Explosives Eng 24:109-16 Jl '46

Europe

Coal crisis ends. Fortune 33:200+ Mr '46
Mining in Europe; wartime coal production and utilization. H. F. Yancey. il Coal Age 50:115-18 D '45

France

Le bassin houiller de la basse Loire (Maine-et-Loire). map Génie Civil 123:77 Mr 15 '46
France discovers wage rises to coal miners help increase output; statistical data. Iron Age 157:106+ Ap 4 '46
French take over coal mines, set up method of payment to owners. Iron Age 157:132+ Je 27 '46
L'îlot anthracifère de Château-sur-Cher (Puy-de-Dôme). map Génie Civil 123:235 S 1 '46
Nationalization of coal mines in France. For Comm W 23:18-19 Je 29 '46
Les petits bassins houillers de l'Ardèche et du Gard. V. Charrin. maps Génie Civil 123: 205-6 Ag 1 '46
Les petits bassins houillers du centre de la France. V. Charrin. maps Génie Civil 123: 190-2 Jl 15 '46

Germany

Electricity in German mines; Ruhr coal field. Electrician 137:115-17 Jl 12 '46
Germany, six months after VE day; increased production of coal from the Ruhr mines is vital. G. G. Smith. il Mech Handling 32:615-17 N '45
Mining in Europe; wartime coal production and utilization. H. F. Yancey. il Coal Age 50:115-17 D '45
Ruhr coal; how army engineers tackled the dictator of western Europe. P. Queneau and J. Peperakis. il Min & Met 27:175-7 Mr '46
Ruhr coalfield. Engineer 181:538-40 Je 14 '46
Ruhr coalfield; electrical features; British mission's report. Elec R (Lond) 138:974 Je 21 '46
Saar coal mines under French management average 24,000 tons daily; steel industry. Iron Age 158:146 S 5 '46

Great Britain

Britain's coal miseries and labor's cure; miners want to be paid now from future's benefits. C. H. Grattan. Barron's 26:9+ Ap 1 '46
Clockface colliery. Engineer 180:500-1, 521-3 D 21-28 '45
Coal bill. Economist 149:899-900 D 22 '45
Coal in 1945. R. Redmayne. Engineer 181:4-5, 29-30 Ja 4-11 '46
Coal industry nationalisation bill. Engineer 180:532-3 D 28 '45
Coal mines mechanisation. G. M. Gullick. Engineering 161:162, 175 F 15-22 '46; Summary. Engineer 181:152 F 15 '46
Coal mining royalties; with table showing amounts and distribution of compensation. Economist 149:653 N 3 '45
L'exploitation des mines de houille en Grande-Bretagne. Génie Civil 123:74-5 Mr 15 '46
Mines improved; progress in mechanization outlined by British Ministry of fuel & power. Bsns W p106+ Mr 2 '46
National coal policy. Economist 150:25 Ja 5 '46
Nationalization bill is rugged fare for British business in general. Coal Age 51:146+ F '46
Nationalization of British mines to be paid for in government stock issue. J. R. Hight. Iron Age 157:90+ Ja 10 '46
Opencast coal mining in Great Britain. M. McAlpine. Engineering 160:466 D 7 '45
Regional reports on the British coalfields. R. A. S. Redmayne. Engineer 181:447-9 My 17 '46
Shaping the coal bill. Economist 150:303-4 F 23 '46
U. K. mine mechanization; abstract. M. G. Gullick. Can Min J 67:264 Ap '46
Will nationalization solve Britain's coal problem? il Min Cong J 32:24-7 S '46

See also
Coal miners—Great Britain
Coal supply—Great Britain
Coal trade—Great Britain

Illinois

Developing for the future; Lake Creek mine of Consolidated coal company. C. C. Conway and F. A. Miller. il plan Min Cong J 32: 40-3 Ja '46

Japan

Japs mine coal in Kyushu. W. Bellano. il map Explosives Eng 23:237-40+ N '45

Kentucky

Leatherwood mine being developed into Kentucky's largest. il map Coal Age 51:113-16 F '46
Mechanization in western Kentucky. S. S. Lanier, jr. il plan Min Cong J 32:32-6 Ap '46
Start probe of Kentucky mine blast; Straight Creek coal co. mine explosion. Coal Age 51:130-3 Mr '46

COAL mines and mining—*Continued*

Manchuria

Jap mine disaster sets new record; Honkeiko colliery in Manchuria. Coal Age 51:136+ Je '46

Missouri

Sinclair mines coal in Missouri. F. Castellani. il Explosives Eng 24:73-4+ My '46

Netherlands

Mining in Europe; wartime coal production and utilization. H. F. Yancey. il Coal Age 50:117-18 D '45

Ohio

Modernizing the mines of Ohio. L. J. Lorms. il Min Cong J 32:31-3 My '46

Oregon

Oregon coal mine steps up production. R. S. Mason. il map diags Min Cong J 32:32-5+ Ja '46

Pennsylvania

Flood-prevention projects at Pennsylvania anthracite mines. S. H. Ash and J. Westfield. fold maps U S Bur Mines Rep of Invest 3868:1-25, pl 1-16 bibliog(p25) '46

Russia

Coalfield restoration problem; Donetz coal field (the Donbas). G. H. Hanna. Can Min J 66:784-5 N '45

New Russian coal field; Vorkuta; abstract. Mech Eng 68:357 Ap '46

Russia plans to make Donbas largest coal producer in Europe. map Coal Age 51:120+ Mr '46

Tennessee

Reels Cove mine built for long life and low mining cost. J. H. Edwards. il diags plans Coal Age 51:81-9 Mr '46

United States

Anthracite; war's end leaves industry with many problems. W. H. Lesser. il Min Cong J 32:32-6 F '46

Bituminous coal's wartime record and future prospects. R. E. Howe. il Min Cong J 32:28-31 F '46

Coal charter; industry's next job? I. A. Given. Coal Age 51:72-7 Jl '46

Coal industry; review of 1945. L. A. Shipman and others. il Min & Met 27:101-8 F '46

Coal mining plans for the future. il Coal Age 51:84-92 F '46

Meeting the future in coal mining; competitive problem. Coal Age 51:76-80 Ap '46

Mine operators fear permanent government occupation of coal mines. Iron Age 158:99-100 Jl 25 '46

Seizure; road to nationalization? I. A. Given and W. A. Stanbury, jr. il Coal Age 51:66-71 Ag '46

See also

Coal trade—United States

Washington (state)

Rock tunneling in the Roslyn-Cle Elum field in central Washington. T. Murphy. il plan diags Min Cong J 32:22-5 Jl '46

West Virginia

Mountain outcrop strip mining; Leckie smokeless coal company's Anjean mine. E. W. Haessler. il Min Cong J 31:39+ N '45

Safety and mechanical coal mining in northern West Virginia. J. Redyard and A. Beeson. il Min Cong J 31:20-3 D '45

Williams River mine. il plans Min Cong J 32:34-5+ S '46

COAL mining institute of America

Annual meeting, 59th, Pittsburgh, Dec. 6-7. Coal Age 51:136+ Ja '46

COAL mining machinery

Coal mines mechanisation. G. M. Gullick. Engineering 161:162, 175 F 15-22 '46; Summary. Engineer 181:152 F 15 '46

Developments in mechanization; with particular reference to Scotland. il Mech Handling 33:574-7 S '46

Handling methods for mine modernization plan. F. H. Slade. il plan Mech Handling 33:503-9+ Ag '46

Increasing mine producton; psychological factors affect efficiency of mechanized mining. J. Hyslop. Min & Met 27:548-50 N '46

Loaders and cleaners in 1945. W. H. Young and R. L. Anderson. Coal Age 51:95-7 F '46

Loaders and duckbills meet varying conditions at Blue Pennant. J. H. Edwards. il map plans Coal Age 51:72-81 Ag '46

Machine mucking speeds Hudson coal tunnel-driving work. R. R. Richart. il diags Coal Age 51:79-83 Ja '46

Mechanical developments in Scottish mines. Mech Handling 32:694 D '45

Mechanization in coal mining makes rapid progress. A. L. Toenges. il Min & Met 27:393-5 Jl '46

Mechanization in western Kentucky. S. S. Lanier, jr. il plan Min Cong J 32:32-6 Ap '46

Miner and the machine; Government mines mechanization training centre at Sheffield. C. B. Rees. il Can Min J 67:960-1 O '46

Modern British coal face machinery. E. Ingham. il plans diags Mech Handling 33:466-72 Ag '46

New coal planer upheld output of German mines. Power 89:862+ D '45

Safety and mechanical coal mining in northern West Virginia. J. Redyard and A. Beeson. il Min Cong J 31:20-3 D '45

Simultaneous cutter and loader for longwall mining. T. E. B. Young and W. H. Sansom. il diag Min Cong J 31:48-9 N '45

Suggested methods for installing dust-allaying equipment in bituminous-coal mines. C. W. Owings. U S Bur Mines Rep of Invest 3843:1-31, pl 1-27 '45

Tons per man raised by use of machines at bituminous mines. W. H. Young and R. L. Anderson. Coal Age 51:105-8 Ap '46

Trends in mechanical mining of bituminous coal. L. E. Young. il Min Cong J 32:77-83 F '46

See also

Coal cutters
Coal loading machines
Excavating machinery

Conveyors

Automatic controls essential for conveyor operation today; Bolair and Bergoo mines. C. W. Thompson. il diags Coal Age 51:86-92 Ap '46

Belt hoists handle coal smoothly and economically. il diags Coal Age 51:93-8 Mr '46

Conveyors and scrapers raise efficiency; Phoenix coal co. E. Read and R. R. Richart. il plan diags Coal Age 51:93-8 Ap '46

High efficiency marks operation at new Sewell no. 1 mine. J. H. Edwards. il Coal Age 51:106-9 F '46

High efficiency marks shaker-conveyor work at Imperial. il diags Coal Age 51:72-5 O '46

Mechanized intensive room-and-pillar mining. il diags Mech Handling 33:491-7 Ag '46

Modern British coal face machinery. E. Ingham. il diag Mech Handling 33:468-71 Ag '46

Ramps facilitate scraper-to-conveyor transfer; Phoenix coal co. diags Coal Age 51:122 Ap '46

Supply handling for efficiency in trackless coal mining. il plans Coal Age 51:80-5 Je '46

Top cutters in mechanized mines; time study, conveyor set-up. P. R. Paulick. Min Cong J 32:25+ Ja '46

Underground haulage with belt conveyors. R. Cobb. il Min Cong J 32:42-3 Je '46

Maintenance and repair

Equipment maintenance. W. Burnett. il Min Cong J 32:45-6 Je '46

Maintenance for more working time. Coal Age 51:127-9 My '46

Training supervisors in preventive maintenance. J. Harsany. il Min Cong J 32:74-7 Ag '46

COAL mixing

Blending fuel improves combustion. J. F. Slavinsky. Power Pl Eng 50:94 S '46

Tests of bituminous-anthracite mixtures on industrial stokers. J. F. Barkley and others. U S Bur Mines Rep of Invest 3916:1-16, pl 1-7 '46

COAL oiling

Dustproofing builds markets by satisfying coal users; survey of operators, dealers, and consumers. H. H. Morris. il Coal Age 51:84-8 Ja '46

COAL preparation

Anthracite enlarges preparation facilities. W. J. Parton. il Min Cong J 32:91-2 F '46

Coal mining plans for the future. Coal Age 51:91-2 F '46

Coal preparation; annual review. F. E. Snarr and others. il Min Cong J 32:88-92 F '46

Coal preparation begins to spurt, and shows great promise for several years. J. Griffen and others. Min & Met 27:103-4 F '46

Coal preparation; discussion at meeting called by Coal preparation division of British colliery owners research association. Engineer 181:193-5 Mr 1 '46

Continuous hydraulic classification; constitution of the teeter column throughout its depth. G. D. Coe and others. U S Bur Mines Rep of Invest 3851:1-8, pl 1-5 '46

Dustproofing builds markets by satisfying coal users; survey of operators, dealers, and consumers. H. H. Morris. il Coal Age 51:84-8 Ja '46

Electric equipment for modern coal preparation plants. J. T. Bailey. il plan Min Cong J 32:57-60+ Ag '46

Getting results in maintaining coal-preparation plants. F. W. Richart. il diags Coal Age 50:105-10 O; 90-6 N; 101-6 D '45

Locomotive fuel from the coal-man's viewpoint. C. F. Hardy. bibliog A S M E Trans 68:757-61; Discussion. 761-2 O '46

Magnetic separators solve tramp-iron problem in preparation. E. H. Neyman. il diags Coal Age 51:90-2 Mr '46

Preparation for consumer satisfaction. diags Coal Age 51:144-6 My '46

Preparation of coal and coke for coke ovens and blast furnaces; abstract. C. L. Potter. Steel 118:137 Je 3 '46

Recommends 3-part separation for Pittsburgh seam coking coals. J. Griffen. Steel 117:120 N 26 '45

Semi-portable plant prepares coal from two strip operations. il diag Coal Age 51:82-5 Ag '46

See also

Coal, Pulverized—Preparation
Coal cleaning
Coal screening
Coal tipples
Coal washing

COAL products

Butter from coal at Imhausen soap-manufacturing plant. il Chem Age (Lond) 54: 602-3 Je 1 '46

Fuel utilization. G. E. Foxwell. Engineering 160:502-3 D 14 '45

Liquid fuels only one of many potential new derivatives of coal. C. R. Kinney. Min & Met 27:105-6 F '46

New miracles from coal. il Manuf Rec 114:46-7 D '45

Organic acids by direct oxidation of coal. N. W. Franke and M. W. Kiebler. il diag Chem Ind 58:580-1 Ap '46

Separation and chemical utilization of coal gas constituents. N. Booth. Gas J (Lond) 248:434-6+, 489+ S 11-18 '46

See also

Coal distillation
Coal liquefaction
Coal tar products
Coke
Coke manufacture—By-products
Gas

COAL research

Annual report of research and technologic work on coal. A. C. Fieldner and R. E. Brewer. bibliog 19pls U S Bur Mines Information Circ 7352:1-103 '46

Bituminous coal research inc., annual meeting, Cleveland, June 28-29. Coal Age 51: 128+ Ag '46

Coal awakening; bituminous industry turns to research. Bsns W p36+ D 29 '45

Coal-research activities of the Bureau of mines. A. C. Fieldner. U S Bur Mines Information Circ 7367:1-14 '46

Modern laboratory handles Indiana coal testing work. il Coal Age 51:110-12 F '46

Trends in coal chemical research P. J. Wilson, jr. Steel 118:102+ Mr 25 '46; Excerpts. Chem & Met Eng 53:266+ Mr '46

What Bituminous coal research, inc., is doing for the coal industry. J. E. Tobey. Edison Elec Inst Bul 14:245-7 Jl '46

COAL screening

Double screening will provide outlet for slack. H. Zeller. il Min Cong J 32:90 F '46

Improved screening and recovery of fine coal. F. E. Snarr. il Min Cong J 32:88 F '46

COAL sizing

Graphical form for applying the Rosin and Rammler equation to the size distribution of broken coal. W. S. Landers and W. T. Reid. bibliog U S Bur Mines Information Circ 7346:1-5 '46

COAL storage

Accident and fire prevention in textile mills. Rayon 26:668-9 D '45

Cold facts on coal storage. il Safety Eng 91: 46+ My '46

How can I avoid spontaneous combustion? diags Power 90:703+ O '46

Problems of storing coal. M. O. Neilson. Pulp & Pa of Can (Convention no) 47:139-41 [F] '46; Same cond. Paper Ind 27:1718-21 F '46

Relative spontaneous heating tendencies of coals. J. L. Elder and others. bibliog diags U S Bur Mines Tech Pa 681:1-24; pa 10c Supt. of doc. '45

Roll coal pile to cut fire losses. il Elec World 125:116 F 16 '46

Storage of subbituminous slack coal in open pits. J. B. Goodman and others. bibliog 10pls U S Bur Mines Rep of Invest 3915: 1-37 '46

Taking coal pile temperatures. J. R. Darnell. diag Power Pl Eng 50:102 Je '46

Taking coal pile temperatures. C. W. Parks. diag Power Pl Eng 50:95 F '46

What the power engineer needs to know about bins, bunkers, and silos for coal. W. G. Hudson. il diags Power Pl Eng 50:90-1 My '46

COAL strikes

Chicago merchants place variety of ads to explain coal strikes effects. Ptr Ink 215: 113+ My 10 '46

Coal crisis. il Coal Age 51:66-71 Je '46

Coal mine labor agreement of United mine workers; text. Comm & Fin Chr 163:3111+ Je 6 '46

Coal strike. E. R. Burke. Comm & Fin Chr 163:2557+ My 9 '46

Coal strike hobbles industry. il Bsns W p15-16 My 11 '46

Coup by Lewis? il Bsns W p16 My 18 '46

Government signs bituminous contract; anthracite agreement ends strike. Coal Age 51:115-16 Je '46

Lewis closes bituminous mines April 1. Coal Age 51:127-8 Ap '46

Lewis still no. 1; victories in soft coal strike. Bsns W p97 Je 8 '46

Miners' strike truce lifts freight embargo. Ry Age 120:1028 My 18 '46

Rail and power service crippled as Lewis waits out welfare fund. Coal Age 51:163 My '46

Report on coal strike impact by Office of war mobilization and reconversion. Comm & Fin Chr 163:2557+ My 9 '46

Steel; key the coal strike. Bsns W p15 My 4 '46

COAL supply

Canada

Canada plans to ease coal supply by upping oil burner production. Iron Age 157:147 Je 27 '46

Europe

European coal control at S.H.A.E.F.; June 1944 to July 1945. W. R. Gordon. map Can Min J 67:779-87 Ag '46

Western European coal situation at turn of year. For Comm W 23:41 Ap 27 '46

Germany

Coal crisis in British zone. Economist 151: 406-8 S 14 '46

Great Britain

Atmospheric pollution and the fuel problem. W. B. Kennedy. Engineering 162:222 S 6 '46

British government encourages industrial plants to switch from use of coal to oil. Chem Eng 53:180+ S '46

COAL supply—Great Britain—*Continued*
Coal, brains, and ingenuity. E. V. Evans. Gas J (Lond) 247:633-4 Ap 17 '46
Coal economy and housing. P. Schiller. Elec R (Lond) 138.801-4 My 24 '46
Coal in 1945. R. Redmayne. Engineer 181:4-5, 29-30 Ja 4-11 '46
Coal situation. E. Shinwell. Engineer 182:105 Ag 2 '46
Electrification; suggested use of all available coal for production of electricity. V. Z. de Ferranti. Engineer 182:317-19 O 11 '46; Abstract. Electrician 137:985-7 O 11 '46
Fuel utilization. G. E. Foxwell. Engineering 160:502-3, 512-13 D 14-21 '45; Abstract. Gas J (Lond) 247:103 Ja 16 '46
Place of the gas industry in the national fuel economy. G. E. Foxwell. Gas J (Lond) 247:760-2+ My 8 '46; Discussion. 247:808-9 My 15 '46
South Wales coalfield. Economist 150:607-8 Ap 13 '46

Japan
Japanese coal output begins to recover. Coal Age 51:124 Mr '46

United States
Future supplies of ore and coal; annual joint meeting of Eastern states blast furnace and coke oven association and Blast furnace and coke association of Chicago district. Steel 119:90+ O 28 '46
Nation's reserve of solid fuels and its relation to the future supply of gaseous and liquid fuels A. C. Fieldner. Gas Age 98:37-40+ S 19 '46

COAL tar
Mold coatings. C. R. Funk. il Blast F & Steel Pl 34:1252-4 O '46
Studies in coal tar bases; separation of β- and γ-picolines and 2:6-lutidine. E. A. Coulson and J. I. Jones. Soc Chem Ind J 65:169-75 Je '46

COAL tar products
Average monthly quotations in 1945. Steel 118: 352 Ja 7 '46
Chemicals from coal in the North; coal-processing industries' report. Chem Age (Lond) 53:565-8 D 15 '45
German wartime aviation fuels largely made by hydrogenation of coal. il Oil & Gas J 44:92-3+ F 16 '46
Postwar research forges ahead; coal-tar products. G. D. Bieber. Chem Ind 59:262 Ag '46
Solvents in the paint industry; coal tar hydrocarbons. R. B. Pollak. bibliog Paint Oil & Chem R 109:10+ F 21 '46
Synthetic lubricants from ethylene condensations. H. Schildwachter. bibliog diag Pet Refiner 25:109-13 Mr '46
Technologie; un exemple de récupération et de traitement des phénols dans une importante distillerie de goudron. M. Suprin. diags Chimie & Ind 55:7-15 Ja '46
Trends in coal chemical research. P. J. Wilson, jr. Steel 118:102+ Mr 25 '46; Excerpts. Chem & Met Eng 53:266+ Mr '46

See also
Benzene
Benzol (commercial benzene)
Coal distillation
Creosote
Pitch

COAL tipples
Low-cost mining over many years goal at Robin Hood mine. J. H. Edwards. il map diag Coal Age 51:68-74 Ja '46

COAL trade
Chance for coal at an 80-million-ton market; search for cheap complete gasification process to supply heating gas. il Coal Age 50:82-7 N '45
Competition and the coal situation; meeting competition of Diesel locomotives. R. L. Ireland, jr. Ry Age 121:508-9 S 28 '46; Same. Ry Mech Eng 120:567-8 O '46
Dealers combine to stem loss of customers; permanent exhibit and advertising tell story of solid fuels in Twin Cities. V. J. Dallaire. il Ptr Ink 214:90+ Mr 8 '46
District heating; real answer to competition? il Coal Age 51:66-70 Mr '46
Economics of domestic heating; coal's superiority. B. R. Gebhart. il Min Cong J 32:32 Je '46
Natural gas, growing coal competitor. map Coal Age 51:72-7 S '46
Retailer; partner in coal prosperity. W. A. Stanbury, jr. il Coal Age 51:66-71 O '46

See also
National coal association

Service
National coal association flashes go-ahead for coal-heat service. Coal Age 51:126+ O '46

Australia
Australia's coal troubles. Economist 150:802-3 My 18 '46

Belgium
Battle of coal. J. Vercleyen. Ann Am Acad 247:37-42 S '46
Production of coal in Belgium, 1940-44. For Comm W 21:27 N 24 '45

France
Coal situation in France. For Comm W 21:31 D 22 '45
French seek to increase coal output. Steel 119:104 Ag 5 '46

Great Britain
British coal industry. il Fortune 34:118-21 O '46
Coal bill inquest. Economist 150:805-6 My 18 '46
Coal bill passes. Economist 151:89, 108 Jl 20 '46
Coal in the 1950s. Economist 151:609-10 O 19 '46
Crisis in coal. Economist 151:140-1 Jl 27 '46
Exporting coal and steel. Economist 150:461-2 Mr 23 '46
Nationalisation; views on coal. Electrician 136:722-4 Mr 22 '46
Preparation and utilisation of coal. J. Crossland. Engineer 180:506-7 D 21 '45

See also
Coal supply—Great Britain

Hungary
Recent legislation affecting the coal industry. For Comm W 23:31 My 18 '46

Spain
Efforts to increase production of coal. For Comm W 21:27-8 N 24 '45

United States
Bituminous crisis. Bsns W p32+ D 29 '45
Coal industry; review of 1945. L. A. Shipman and others. il Min & Met 27:101-8 F '46
Coal miners pay rise will force price boosts; railroads, utilities and home users will be hit hardest. E. R. Abrams. Barron's 26:3 Ap 22 '46
Economic problems of the coal industry. G. A. Lamb. il Min Cong J 32:36-40 My '46
Economics of coal. Economist 151:374 S 7 '46
Growth indicated as coal reverses declining trend. J. V. Sherman. Barron's 26:7 Mr 11 '46
Ore and coal; present and future prospects. W. A. Lloyd. Iron Age 157:288A-288B Ja 3 '46

See also
Coal strikes

COAL washing
Coal washers at southern plant handle 17,000 tons per day; Tennessee coal, iron and railroad co. W. S. Springer and W. J. McRoy. il Steel 118:138-9+ Ap 1 '46
Exploration, composition and washing, burning and gas-producer tests of a coal occurring near Coaldale, Esmeralda county, Nev. A. L. Toenges and others. flow diag il 2pls diags U S Bur Mines Tech Pa 687: 1-79; pa 30c Supt. of doc. '46
Fuel cost economy at the blast furnace and its relation to coal selection and preparation. W. M. Bertholf. Blast F & Steel Pl 34:727-32+ Je '46; Same. Steel 119:122-4+ Jl 15 '46
Modern washeries culminate Tennessee coal, iron and railroad co. preparation evolution. W. S. Springer and W. J. McRoy. flow diags il Coal Age 51:99-104 Ap '46

COAL washing—*Continued*
Ten jig-box improvements. il diags Coal Age 51:108+ Ja '46
Washability characteristics and washing of coals from the Matanuska field of Alaska. M. R. Geer and H. F. Yancey. flow sheet U S Bur Mines Rep of Invest 3840:1-17 '46

COAL waste
Coal fines to offset cost of culm elimination; Schuylkill River desilting project to recover high Btu fuel. J. H. Allen. il Civil Eng 16:395-7 S '46
Foamed coal made from waste. Chem & Eng N 24:394 F 10 '46

COAST and geodetic survey. See United States—Coast and geodetic survey

COAST changes
Eustatic shore lines in the Pacific. H. T. Stearns. bibliog Geol Soc Bul 56:1071-7, pl 1-2 N '45

COAST guard. See United States—Coast guard

COAST guard cutters
Turbine-electric Coast guard cutters. il Elec Eng 65:65 F '46
Turbine-electric Coast guard cutters. J. A. Wasmund. il Marine Eng 51:122-6 F '46

COASTAL plains
Balcones, Luling, and Mexia fault zones in Texas. A. W. Weeks. bibliog map Am Assn Pet Geologists Bul 29:1733-7 D '45
Genesis of ground waters in the coastal plain of Virginia. D. J. Cederstrom. bibliog maps Econ Geol 41:218-45 My '46
Oakville, Cuero, and Goliad formations of Texas coastal plain between Brazos river and Rio Grande. A. W. Weeks. bibliog il Am Assn Pet Geologists Bul 29:1721-33 D '45
Quaternary deposits of Texas coastal plain between Brazos river and Rio Grande. A. W. Weeks. bibliog il diags maps Am Assn Pet Geologists Bul 29:1693-1720 D '45
Small mounds of the Gulf coastal plain. R. S. Dietz. Science 102:596-7 D 7 '45
Vick formation of pre-Tuscaloosa age of Alabama coastal plain. L. C. Conant. bibliog map Am Assn Pet Geologists Bul 30:711-15 My '46

COATED paper. See Paper, Coated

COATSWORTH, James T. 1903-
James T. Coatsworth succeeds C. E. Greenwood as EEI commercial director. por Edison Elec Inst Bul 14:112+ Ap '46

COAXIAL cables. See Radio lines; Telephone cables—Coaxial cables

COBALT
Cobalt, 1945. H. W. Davis. Eng & Min J 147:86-7 F '46
Entrainment of cobalt and sulfur in iron separations. E. T. Pinkney, R. Dick and R. S. Young. bibliog Am Chem Soc J 68: 1126-8 Je '46
Life of a cobalt catalyst for the synthesis of hydrocarbons at atmospheric pressure. C. C. Hall and S. L. Smith. bibliog il diag Soc Chem Ind J 65:128-36 My '46

Analysis

Colorimetric determination of cobalt in metallurgical products with nitroso R salt. R. S. Young, E. T. Pinkney and R. Dick. Ind & Eng Chem Anal ed 18:474-6 Ag '46
Colorimetric determination of cobalt with ammonium thiocyanate. R. S. Young and A. J. Hall. bibliog Ind & Eng Chem Anal ed 18:264-6 Ap '46
Determination of cobalt in high-cobalt products; separation from iron by phosphate. R. S. Young and A. J. Hall. bibliog Ind & Eng Chem Anal ed 18:262-4 Ap '46
Determination of cobalt in the presence of iron and nickel, using a photoelectric colorimeter and nitroso-R-salt. A. N. Hixson and W. M. McNabb. Metal Finishing 44: 208-9 My '46
Rapid analysis of Fischer synthesis catalyst. C. H. Hale. diag Pet Refiner 25:117-20 Je '46
Separation and identification of cobalt, nickel, zinc, and manganese. R. K. McAlpine. J Chem Educ 23:298-300 Je '46
Thiocyanate complex as a means of extracting cobalt before its microdetermination by other methods. N. S. Bayliss and R. W. Pickering. bibliog Ind & Eng Chem Anal ed 18:446-8 Jl '46

Isotopes

Disintegration schemes of radioactive substances; Co^{60}. M. Deutsch and others. bibliog Phys R 68:193-7 N 1 '45
Experimental test of beta-ray theory for the positron emitters Na^{22}, V^{48}, Mn^{52}, Co^{58}. W. M. Good and others. bibliog diag Phys R 69: 313-20 Ap 1 '46

COBALT alloys
Alloys beat the heat; key materials of turbosuperchargers, gas turbines, and jet engines. F. P. Peters. il diag Sci Am 174: 152-4 Ap '46
Cobalt-base high temperature alloys for gas turbines and superchargers. L. E. Browne. Steel 118:88-91+ My 27 '46
Deposition of nickel-cobalt alloys from chloride solutions. C. B. F. Young and C. Struyk. bibliog il diags Electrochem Soc Trans 89 (preprint 1):1-31 '46
Electrodeposition of nickel-cobalt-tungsten alloys from an acid plating bath. P. F. Hoglund and M. L. Holt. bibliog Electrochem Soc Trans 88 (preprint 24):255-65 '45; Same. Metal Finishing 44:248-51+ Je '46
High temperature alloys; research on materials for gas turbines. N. J. Grant. Iron Age 157:42-8 My 23; 50-6 My 30; 77-80 Je 6; 60-3 Je 20 '46
New heat resisting metals for engines. R. K. Winkleblack. Automotive & Aviation Ind 95:40-4 O 15 '46
Oxide films formed on alloys at moderate temperatures; electron diffraction and electron microscope study. E. A. Gulbransen, R. T. Phelps and J. W. Hickman. bibliog il Ind & Eng Chem Anal ed 18:640-52 O '46
Scaling of cobalt-base hard-facing alloys; abstract. H. Cornelius. Materials & Methods 23:1066 Ap '46
Superalloys for high temperature service in gas turbines and jet engines; round-table discussion at National metal congress. F. S. Badger and others. il diags Metal Prog 50:97-122 Jl '46

See also
Iron alloys—Cobalt alloys
Iron alloys—Nickel cobalt alloys
Stellite

COBALT compounds
Interpretation of the Sandmeyer reaction; the influence of the chloride ion on the decompositions of neutral *p*-nitrobenzenediazonium chloride and of *p*-nitrobenzendiazonium cobaltinitrite. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p545-6 Ag '45
Some coördination compounds of cobalt containing trimethylenediamine and neopentanediamine. J. C. Bailar, jr. and J. B. Work. bibliog Am Chem Soc J 68:232-5 F '46

COBALT metallurgy
Metallurgical treatment of cobalt ores from the Goodsprings mining district, Nevada. F. K. Shelton. U S Bur Mines Rep of Invest 3836:1-34, pl 1-7 bibliog(p32-4) '46
Recovery of cobalt from manganese ores in the production of electrolytic manganese. D. Schlain and others. bibliog U S Bur Mines Rep of Invest 3866:1-18, pl 1 '46
Study of certain factors in the hydrometallurgy and electrodeposition of cobalt. F. K. Shelton and others. bibliog U S Bur Mines Rep of Invest 3832:1-43 '45

COBALT mines and mining

Nevada

Metallurgical treatment of cobalt ores from the Goodsprings mining district. F. K. Shelton. U S Bur Mines Rep of Invest 3836:1-34, pl 1-7 bibliog(p32-4) '46

Ontario

Cobalt district astir after long sleep. A. S. Park. il Comp Air Mag 51:186-8 Jl '46

COBALT molybdate
Catalytic desulfurization of high sulfur stocks by the cobalt molybdate process; abstract. C. Berg and others. flow sheet Pet Processing 1:89-90 O '46

COBALT oxides
Flow lines in a continuous melting glass furnace as determined by cobalt oxide and pictured on color photographs. V. W. Lenz. il diag Am Cer Soc J 29:8-15 Ja 1 '46

COBALT steel
Rates of tempering in cobalt steels. E. A. Loria. bibliog Am Soc for Metals Trans 34:407-14 '45

COBALT thiocyanate
Thiocyanate complex as a means of extracting cobalt before its microdetermination by other methods. N. S. Bayliss and R. W. Pickering. bibliog Ind & Eng Chem Anal ed 18:446-8 Jl '46

COBLENTZ, William Weber, 1873-
Ives medalist for 1945. bibliog(412 titles) por(front) Opt Soc Am J 36:61-71 F '46

COCA-COLA
Automatic beverage inspection machine electronically guards quality; Coca-Cola company. il diags Product Eng 17:362-5 My '46
Coca-cola; polar-cola. Adv & Sell 39:94 Jl '46

COCA-COLA company
Building a sound expansion policy. Am Bsns 15:24+ D '45

COCKPITS. See Airplanes—Cockpits

COCKROACHES
Modifications of the liquid roach method. F. O. Hazard. Soap & San Chem 21:159+ D '45
Roach control studies. G. E. Gould. Soap & San Chem 22:159 O '46
Roach powder; DDT formula improved by the addition of lethane A-70. R. B. Schwitzgebel. il Soap & San Chem 22:131-3 My '46
Roach powder tests; sodium fluoride, pyrethrum, DDT and the gamma isomer of benzene hexachloride. E. R. McGovran and P. G. Piquett. Soap & San Chem 22:157+ Ag '46
Roach rearing and testing. L. J. Bottimer. bibliog il Soap & San Chem 21:151+ D '45
Site of action of DDT in the cockroach. K. D. Roeder and E. A. Weiant. Science 103: 304-6 Mr 8 '46
Testing of roach sprays. Soap & San Chem 22:145+ Jl '46
Using DDT for fly control. L. A. Sandholzer and J. M. Lemon. il diags Food Ind 18: 860-3+ Je '46

COCKS
Improvements in plug cocks make them superior to valves for certain uses. C. O. Brown. diags Ind & Eng Chem 38:sup71-2 My '46

COCOA
Advances in price ceilings on coffee and cocoa probable as demand rises. Barron's 26:5 Je 3 '46
African cocoa plans. Fortune 33:204+ Mr '45
After the cocoa crisis. Economist 149:866; 150: 17-18 D 15 '45, Ja 5 '46
Cocoa anniversary. Economist 151:390 S 7 '46
Cocoa, for grown-ups or children? tests for tannin content. Consumers Res Bul 17:19-23 F '46
Facing facts on cocoa. Barron's 26:5 O 14 '46
Rivals for cocoa. Barron's 26:6 Ap 15 '46
Urges free trade in cocoa. F. Haussmann. Comm & Fin Chr 163:2364 My 2 '46

COCONUT, Dried
Common ailments of quality in processed foods. C. W. Kaufman. Food Ind 18:14 Ja '46
Desiccated coconut meat; tropics supply delicacy. C. Carlsen. il For Comm W 22: 8-9+ Mr 23 '46

COCONUT oil
Coconut oil market outlook. Soap & San Chem 22:39-40+ Ag '46
Coconut palms, 120,000,000 of them in the Philippines. H. Leopold. il Food Ind 18: 1535-7+ O '46
CCC gets Philippine copra, coconut oil. Oil Paint & Drug Rep 150:3 Ag 19 '46
Copra and coconut-oil agreement with Philippines. For Comm W 24:25 Ag 31 '46
Fractionation of coconut oil; abstract. W. R. Fish and others. Soap & San Chem 22:69 F '46

COCONUTS
Coconut palms, 120,000,000 of them in the Philippines. H. Leopold. il Food Ind 18: 1535-7+ O '46
Uses of cocoanut products; fillers for plastic: cocoanut flour, coir dust and fibers. G. B. E. Schueler. Mod Plastics 23:118-19 Je '46

CODES (symbols). See Symbols

COFFEE
Coffee packaging; Owens-Illinois improved glass jar. Bsns W p58+ Ag 31 '46
Coffees designed for modern living. il Mod Packaging 19:122-3+ D '45
New glass package for coffee; new jar, new resealing closure, new vacuumizing machine. il Mod Packaging 19:108-11 Ap '46
Phosphatides in coffee. Food Ind 18:769 My '46

COFFEE, Soluble
Overcoming resistance to new type of product. E. M. Housman. il Ptr Ink 214:24-6+ Mr 29 '46

Rating
Soluble coffee not the best breakfast beverage. J. Driver. Consumers Res Bul 16:18-21 D '45

COFFEE roasters
Coffee roasted electronically at retail market. il Sci Am 175:65 Ag '46
While-you wait roaster intrigues coffee trade; Torres electronic roaster. il Bsns W p68 Ap 20 '46

COFFEE trade
Advances in price ceilings on coffee and cocoa probable as demand rises. Barron's 26:5 Je 3 '46
Agreement on coffee. Barron's 26:8 Jl 1 '46
Coffee, import colossus; tops all U.S. purchases. D. R. Crone. il For Comm W 23: 8-9+ Je 29 '46
Coffee memo signed by U.S. and Brazil. Comm & Fin Chr 164:1188 Ag 29 '46
Coffee subsidy disliked. Barron's 25:6 D 3 '45
Coffee subsidy extended. Comm & Fin Chr 163:2137 Ap 18 '46
Doubt coffee subsidy as a price solution. Food Ind 17:1496+ D '45
End of coffee controls? Barron's 26:7 Ap 1 '46
Higher prices loom for coffee. Barron's 26:9 Ag 12 '46
Test in coffee; rise in price ceiling. Barron's 26:5 Ag 26 '46
See also New York coffee and sugar exchange

Advertising
Coordinates local with national ads; Pan-American coffee bureau's booklet. Ptr Ink 215:86 Je 14 '46
Make-your-own hat premium offer on coffee sales swamps I.G.A. H. R. Gerhard. il Sales Management 56:68+ Ap 15 '46
Morning coffee. J. A. Ecclesine. Ptr Ink 215: 154 Ap 5 '46

Finance
Financing the coffee market. J. J. Riley. Banking 38:115 Mr '46

Colombia
Estimated production and exports of Colombian coffee, 1940-1945. For Comm W 22:33 Mr 23 '46

Cuba
Developments in Cuban coffee industry. For Comm W 25:24 O 5 '46

Great Britain
Measures taken to reestablish international coffee market in United Kingdom. For Comm W 24:41-2 S 21 '46

Nicaragua
Nicaraguan coffee exports, 1935-1945. For Comm W 22:28 Mr 9 '46

COFFERDAMS
Captain Cook graving dock at Sydney. M. W. Mehaffey. il diag Eng N 136:130-7 Ja 24 '46
Sheetpile cofferdam for a 30-ft. head; Sault Ste. Marie, Mich. A. DiGiacinto. il plan diag Eng N 36:404-7 Mr 21 '46
Shipways with cellular walls on a marl foundation. M. M. Fitz Hugh and others. Am Soc C E Proc 71:1327-53 N '45

COHOE, Wallace Patten, 1875-
Wins Messel medal. por Oil Paint & Drug Rep 149:7 Mr 11 '46

COILS, Electric. See Electric coils

COILS, Inductance. See Inductance coils

COILS, Pipe
Calculating coil and burner requirements for gas-fired immersion heating. R. M. Buck. diags Iron Age 158:46-52 Jl 11 '46
Care of hot water tanks and heating coils. Power Pl Eng 50:97 Ap '46
Heat transmission in coils. J. A. Storrow. bibliog diags Soc Chem Ind J 64:322-6 D '45
Length of pipe for radiant heating coils. Heat & Ven 43:82 F '46
Method of analyzing finned coil heat transfer performance. C. M. Ashley. bibliog Refrig Eng 51:529-32+ Je '46
Testing gravity coils. G. B. Priester. plan Refrig Eng 51:227-9 Mr '46

COINAGE
Coinage in 1945. Economist 150:900 Je 1 '46
Token coinage. il Tech R 48:22 N '45

COINS
Bibliography
American numismatic association; library catalogue, July. 31p pa $2 Lewis M. Reagan, Box 577, Wichita 1, Kansas '46

COINSURANCE. See Insurance—Coinsurance

COKE
Beating the coke shortage. Foundry 74:77+ N '46
Blowing out a blast furnace utilizing the nut coke-hydraulic wash-out method. J. R. Barnes. Blast F & Steel Pl 33:1535-6 D '45; Same. Steel 118:110+ Ja 14 '46
Continuous vertical retort coke for C.W.G. production. Weston. Gas J (Lond) 248:25 Jl 3 '46
Fuel cost economy at the blast furnace and its relation to coal selection and preparation. W. M. Bertholf. Blast F & Steel Pl 34:727-32+ Je '46; Same. Steel 119:122-4+ Jl 15 '46
Preparation of coal and coke for coke ovens and blast furnaces; abstract. C. L. Potter. Steel 118:137 Je 3 '46
La récupération du coke des mâchefers de gazogène des usines à gaz. diag Genie Civil 123:64 Mr 1 '46
Substitution of coke for pig iron in open-hearth charge; abstract. O. P. Luetscher. Iron Age 157:69-70 My 2 '46
Two-fuel industry. A. Cole. Gas J (Lond) 247:25-6+; Discussion. 30 Ja 2 '46
Use of domestic coke in blowing a blast furnace. W. H. Burnett. Blast F & Steel Pl 33:1533 D '45; Same. Steel 118:109-10 Ja 14 '46
See also
Petroleum coke
Prices
Foundry and furnace coke, Connellsville, monthly, 1934-1945; tabulations. Iron Age 157:248 Ja 3 '46
Testing
Blending properties of low- and medium-volatile coals as determined in the BM-AGA apparatus. D. A. Reynolds and J. D. Davis. U S Bur Mines Rep of Invest 3936:1-20, pl 1-8 '46

COKE breeze
Preparation of coke. P. C. Gardiner. Gas J (Lond) 248:360+ Ag 28 '46
Three stoker-fired boilers replace nine hand-fired units in three plants; Consumers' gas co. of Toronto. il diags Power 90:432-6 Jl '46

COKE dust
Coke dust briquetting. Gas J (Lond) 246:678 N 14 '45

COKE industry
Statistics
Domestic coke use declines; exports stage sharp gain in 1945. Iron Age 158:120+ Ag 29 '46
Steel industry statistics; comp. by the American iron and steel institute. Steel 117:insert S4-5 D 17 '45
Great Britain
Coke oven managers' association; presidential address. W. N. Warwick. Gas J (Lond) 246:600-2 O 31 '45
London and counties coke association 12th annual meeting, London, Oct. 15. Gas J (Lond) 246:559-60 O 24 '45
Midland counties coke association; review of year's work; abstract. F. C. Briggs. Gas J (Lond) 247:970 Je 12 '46
National federation of gas coke associations; points from the annual report. Gas J (Lond) 247:226 F 6 '46

COKE manufacture
Beneficiation of blast furnace coke at the Kaiser steel company, Fontana, Cal. J. H. Thompson. il Blast F & Steel Pl 34:225-30, 350-4, 475-9, 584-6+ F-My '46
Carbonizing, expanding, and oxidation properties of coal. J. D. Davis. Am Gas Assn Proc 1945:426-36
Coke manufacture in Germany. Engineer 181:153 F 15 '46
Dry quenching of coke; discussion. Gas J (Lond) 247:931-2 Je 5 '46
Efforts made to secure quality coke from lower-grade or untested coals. J. D. Doherty. il Min & Met 27:104-5 F '46
Experiments in coking practice; abstract. Chem Age (Lond) 55:356 S 21 '46
Preparation of coke. P. C. Gardiner. Gas J (Lond) 248:312+, 360+ Ag 21-28 '46; Discussion. 248:397-9+, 433-4 S 4-11 '46
Radical coal carbonization process goes to plant; Coal logs co, Salt Lake City. Chem & Met Eng 53:186+ Mr '46
Two-fuel industry. A. Cole. Gas J (Lond) 247:25-6+; Discussion. 30 Ja 2 '46
Utilization of waste heat in the carbonizing industries. J. G. King and F. J. Dent. diags Gas J (Lond) 247:435-7+ Mr 13 '46
Wartime progress in coke production. W. Seymour. bibliog pl U S Bur Mines Rep of Invest 3907:1-13 '46
See also
Coke ovens
By-products
Byproducts obtained from coke-oven operations in the United States in 1944; tabulation. Chem Ind 57:1144 D '45
Coke oven managers' association; presidential address. W. N. Warwick. Gas J (Lond) 246:600-2 O 31 '45
Disposal of sludge from acid washing of coke-oven light oil. E. Preston. bibliog il Blast F & Steel Pl 34:121-5+ Ja '46
First by-product coke meeting stresses research. Chem & Eng N 24:1804+ Jl 10 '46
Method for obtaining ammonium chloride from gas-liquor. C. H. Bone. diags Blast F & Steel Pl 33:1507-10 D '45
Recent developments in producing by-product ammonium sulphate. E. V. Schulte. bibliog flow diag il Blast F & Steel Pl 34:573-8+ My '46
Trends in coal chemical research. P. J. Wilson, jr. Steel 118:102+ Mr 25 '46

COKE-oven gas
Chemicals from coal in the North; ethylene extraction from coke-oven gas. Chem Age (Lond) 53:565-8 D 15 '45
Gaseous fuels in Britain. D. D. Howat. bibliog Chem Age (Lond) 54:107-11, 133-7 Ja 26-F 2 '46
Improved coke-oven gas; abstract. T. P. Colclough. Chem & Met Eng 53:204+ Mr '46
LP gas-air and manufactured gas mixtures. W. E. Churchill. Am Gas J 164:11-13 F '46
Recent developments in producing by-product ammonium sulphate. E. V. Schulte. bibliog flow diag il Blast F & Steel Pl 34:573-8+ My '46

COKE-oven gas—*Continued*
Recent improvements in coke oven design and operation. L. N. Wilputte and F. Wethly. diags Blast F & Steel Pl 34:363-6 Mr '46
Steam generation in steel mills; operating on coke oven gas, blast furnace gas, pulverized coal and coke breeze. F. X. Gilg. il diags Blast F & Steel Pl 34:138+ Ja '46

COKE ovens
Control of bulk densities in coke ovens: studies on precision and application of various testing methods. H. S. Auvil and others. U S Bur Mines Rep of Invest 3935: 1-21, pl 1-8 '46
Experimental determination of the factors governing the design of regenerators, with special reference to coke ovens. T. C. Finlayson and A. Taylor. Gas J (Lond) 247:22+ Ja 2 '46
Light rays and coke ovens; device for correcting mis-alignment of ram and guide machines. C. R. Plant. il diags Electrician 136:1381-4 My 24 '46
Preparation of coal and coke for coke ovens and blast furnaces; abstract. C. L. Potter. Steel 118:137 Je 3 '46
Report of Koppers company, inc., Engineering and construction division, Pittsburgh, Pa. W. A. Leech, jr. il Am Gas Assn Proc 1945:421-4
Stability of heated structures. L. M. Wilson. il diags Gas J (Lond) 246:602-4+, 634-5 O 31-N 7 '45; Discussion. 246:680-1 N 14 '45
Wilputte coke oven corporation announces improvements in equipment. diag Blast F & Steel Pl 34:117+ Ja '46

Charging
Recent improvements in coke oven design and operation. L. N. Wilputte and F. Wethly. diags Blast F & Steel Pl 34:355-67 Mr '46

COKE plants
Waste
Disposal of sludge from acid washing of coke-oven light oil. E. Preston. bibliog il Blast F & Steel Pl 34:121-5+ Ja '46

COKE plants, By-product
Beneficiation of blast furnace coke at the Kaiser steel company, Fontana, Cal. J. H. Thompson. il Blast F & Steel Pl 34:225-30, 350-4, 475-9, 584-6+ F-My '46
Control of bulk densities in coke ovens: studies on precision and application of various testing methods. H. S. Auvil and others. U S Bur Mines Rep of Invest 3935: 1-21, pl 1-8 '46
Future supplies of ore and coal; annual joint meeting of Eastern states blast furnace and coke oven association and Blast furnace and coke association of Chicago district. Steel 119:90+ O 28 '46
Steel industry statistics; comp. by the American iron and steel institute. Steel 117:insert S4-5 D 17 '45
Wartime progress in coke production. W. Seymour. bibliog pl U S Bur Mines Rep of Invest 3907:1-13 '46
See also American by-product coke institute

COLCHICINE
Colchicine; its chemistry and some biological effects; abstract. J. W. Cook. Chem & Ind p403 D 22 '45
Similarity of the effect of podophyllin and colchicine and their use in the treatment of condylomata acuminata. L. S. King and M. Sullivan. Science 104:244 S 13 '46
Studies on the structure of colchicine. D. S. Tarbell, H. R. Frank and P. E. Fanta. bibliog Am Chem Soc J 68:502-6 Mr '46

COLD
See also
Cooling
Refrigeration and refrigerating machinery
Temperature, Low
Winter

Physiological effect
See also
Frostbite

Therapeutic use
Refrigeration has become an instrument for healing. R. H. Potter. il Refrig Eng 52: 306-9 O '46
Therapeutic uses of low temperature. F. M. Allen. Heating-Piping 17:633-6 D '45; Excerpts (Refrigeration and surgery). Heat & Ven 43:57 Mr '46

COLD (disease)
Analysis of colds in industry; abstract. J. H. Kler. J Ind Hygiene 27:sup180 N '45
Will h-f heat cure colds? Elec West 96:106 Je '46

COLD cathode lamps. See Electric lamps, Fluorescent—Cold cathode

COLD rooms. See Testing laboratories—Cold rooms

COLD storage
Control of microorganisms in food storage rooms. W. L. Mallmann and E. S. Churchill. Refrig Eng 51:523-8+ Je '46; Discussion. 52:143+ Ag '46
Dewpoint recorder. Gen Elec R 49:54 Je '46
Refrigerated storage and transport of meat in the tropics. E. Griffiths and M. J. Hickman. il Engineering 161:453-6 My 10 '46
Refrigeration limitations, and aids; with pointers on use of bacterial lamps. A. W. Ewell. Refrig Eng 50:523-4+ D '45
Storage of citrus fruits. J. R. MacRill and others. bibliog il plan Refrig Eng 51:325-30 Ap '46
See also
Apples—Storage
Refrigerating plants
Refrigeration and refrigerating machinery

COLD storage locker insurance. See Insurance, Cold storage locker

COLD storage locker plants
Freezer locker plant is going commercial; increased facilities for freezing fruits and vegetables. H. Carlton. il layout Food Ind 18:1542-4+ O '46

COLD storage lockers
Frozen foods filing cabinet eliminates need for zero room; Iceberg refrigerated locker systems. il Sales Management 55:139-40 D 15 '45
Locker plants become refrigeration stores; could offer variety of services. Elec World 124:170+ D 8 '45
1945 guide book of the frozen food locker industry. 216p bibliog(p192-6) Locker publications co, 1421 Walnut st, Des Moines, Iowa '46
Plans and calculations for three typical locker plants. J. A. Smith. plans Refrig Eng 51:215-19+ Mr '46
Problems of the locker industry; with cost data. K. F. Warner. Refrig Eng 50:411-12 N '45
See also
Food, Frozen—Cabinets

COLD storage warehouses
Canadian warehousemen's association; purpose, membership, etc. Refrig Eng 51:324 Ap '46
Cold storage design for apples and pears. W. V. Hukill and E. Smith. plan diags Refrig Eng 51:419-22 My '46
Keeping a forty-year-old cold storage plant modernized. R. Gubser. il Refrig Eng 50: 425-6 N '45

Power
Diesels provide low-cost power for cold storage. F. A. Westbrook. il Power Pl Eng 50: 97 My '46

COLD treatment of steel. See Steel, Cold treatment of

COLD working of metals. See Metals, Cold working of; Steel, Cold working of

COLE, Betty Joy
Our new president. Special Lib 37:188 Jl-Ag '46

COLE, E. K., limited
Statement by the chairman. A. G. Allen. Economist 150:271 F 16 '46

COLEMAN, John S. 1897-
Burroughs promotes. por Bsns W p70 O 26 '46

COLGATE-PALMOLIVE-PEET company
Procter and Gamble vs. Colgate-Palmolive. E. A. Barnes. Mag of Wall St 79:92-3+ O 26 '46

COLISTATIN
Colistatin; a new antibiotic substance with chemotherapeutic activity. G. F. Gause. bibliog Science 104:289-90 S 27 '46

COLLADO, Emilio Gabriel, 1910-
Portrait. Bsns W p101 F 2 '46

COLLAR bone. See Clavicle

COLLECTING of accounts
Collecting 100% of the water accounts in Benton, Illinois. H. Garner. il Pub Works 77:23+ Je '46
Credit and collection procedures and practices. Am Gas Assn Proc 1945:133-6
Credit history; recording past-due service accounts, notice of disconnection and all disconnections for non-payment of service. Am Gas Assn Proc 1945:136-40
Customer accounting. M. S. Dutton. il Am Water Works Assn J 37:1273-9 D '45
Interest on overdue accounts; plea for imposing this collection penalty. C. A. Colton. Credit & Fin Management 48:14-15 F '46
Reduce bad debt losses; adjustment bureaus produce sales and save outlets. F. J. Hogg. Credit & Fin Management 48:32 Je '46
Should agencies be used to collect delinquent accounts? J. A. Harold. Radio N 36:126-7 N '46
South Milwaukee, Wis. also collects 100% of its water bills. E. Welbes. Pub Works 77:29 Je '46
Statistical controls of credit and collection policies. W. J. Shultz. Credit & Fin Management 47:8-10+, 34 D '45
Survey of uncollectible bill results. Am Gas Assn Mo 27:130-3
Think twice before using agency to collect delinquent accounts. H. J. Ashe. Inland Ptr 118:47-8 O '46
See also
Billing
Credit

COLLECTIVE bargaining
AFL's four commandments of collective bargaining. Factory Management 104:264+ Ag '46
Atom plant poll inconclusive; Oak Ridge, Tenn. ballot. il Bsns W p77 Ag 31 '46
Bargaining plan for civil service proposed in New York transit report. Eng N 137:353 S 19 '46
Bargaining under existing laws advised; report of Society's committee on employment conditions. Civil Eng 16:133-4 Mr '46
Canadian council of professional engineers and scientists re collective bargaining. Can Chem & Process Ind 30:55-7 O '46
Collective bargaining at work; master agreement between Building trades employers' association and Building and construction trades council, New York. T. S. Holden. Arch Rec 99:91-6 My '46
Collective bargaining by engineers in Los Angeles, Calif. W. N. Carey. Civil Eng 16:130-2 Mr '46
Collective-bargaining developments during July 1946. Mo Labor R 63:219-21 Ag '46
Collective bargaining for professional employees. R. L. Forshay. Mech Eng 68:968-70+ N '46
Collective bargaining more likely to reduce industrial strife than legislation; abstract. W. M. Leiserson. Bus Transportation 24:47-9 D '45
Collective bargaining sidetracked. H. G. Heneman, jr. Advanced Management 11: 105-10 S '46
Collective bargaining trends patterned on public's political and economic thinking. C. L. Huston, jr. Steel 119:46-7 S 30 '46
Collective bargaining under price control. V. H. Rothschild, 2d. Comm & Fin Chr 163:1343+ Mr 14 '46
Collective bargaining vs. collective management. A. Crager. Bus Transportation 25: 48-51 My '46
Doubt Ontario engineers wage status. Eng N 136:531 Ap 18 '46
Economics of collective bargaining. E. P. Schmidt. Comm & Fin Chr 163:1496+ Mr 21 '46
Engineering employees meet to form national agency. Eng N 137:487 O 17 '46
Extent of collective bargaining and union recognition in 1945. Mo Labor R 62:567-72 Ap '46
G.M. case delayed; strike advertising is issue in Detroit NLRB hearings. Bsns W p72+ F 9 '46
Government employees' organizations appraised. Civil Eng 16:352 Ag '46
Grievance procedure under collective bargaining. A. Weiss and E. L. Hussey. Mo Labor R 63:175-85 Ag '46
How one group of engineers avoided a national union; Camden plant of the Radio corporation of America. M. S. Corrington. Min & Met 27:269-70 My '46; Same Civil Eng 16:282-3 Je '46
How the union disillusioned us; Sinclair company. D. T. Pierce. il Factory Management 104:94-7 Ja '46
How we know management is the foreman's business; Aluminum company of America. R. K. Heineman. Factory Management 104: 96-9 S '46
Human side of collective bargaining. J. I. Ellmann. Advanced Management 11:25-30 Mr '46
Impact of war on post-war labor relations; value of collective bargaining patterns established by the War labor board. J. Shister. il Dun's R 53:18-20+ O '45
Industrial relations charter for the Americas. right to organize and bargain collectively H. S. Roberts. Mo Labor R 62:908-10 Je '46
Labor relations; collective bargaining. M. M. Shipman and P. E. Anderson. Oil Paint & Drug Rep 150:3 Jl 15; 3 Jl 22; 3+ Jl 29 '46
Management strategy in labor contract negotiations. R. L. Greenman and E. B. Greenman. Advanced Management 11:111-19 S '46
Management's program for labor relations. Factory Management 104:250+ Ja '46
Managers must manage. R. M. C. Littler. bibliog Harvard Bsns R 24 no 3:366-76 [Ap] '46
National collective bargaining. S. Barkin. Personnel J 25:150-60 N '46
National collective bargaining policy. 102p pa $1.25 Industrial relations counselors, 1270 6th av, New York 20 '45
New labor relations factor in the textile engineering field. J. J. McElroy. Rayon 27:87-8, 141-3 F-Mr '46; Same. Mech Eng 68:344-6 Ap '46; Discussion. 68:914-15 O '46
Objective attitudes in collective bargaining; mutual benefit point of view needed. W. V. Owen. Personnel J 25:100 5 S '46
Operations and plants of International nickel company of Canada; collective bargaining. Can Min J 67:514-17 My '46
Optimum area of collective bargaining. L. H. Hill. Factory Management 104:290+ F '46
Our industrial relations problem. W. K. Jackson. Comm & Fin Chr 163:2915+ My 30 '46
Preparations for collective bargaining. M. M. Shipman. Oil Paint & Drug Rep 150:3+ O 21 '46
Professional bargaining units form national organiation; National professional association of engineers, architects, and scientists. Civil Eng 16:480 N '46
Professional engineers in southern California form bargaining units. S. S. Green. Civil Eng 16:213-15 My '46
Quest for industrial peace. G. W. Taylor. Comm & Fin Chr 163:1931+ Ap 11 '46
Society asks freedom for professional men in collective bargaining process; Congressional committee requested to change existing labor law. Civil Eng 16:339 Ag '46
Status of employed Canadian engineers clarified by National labor board. Eng N 137:217 Ag 22 '46
Strategies of union negotiations; abstract. S. Steinman. Management R 35:376-8 S '46
Swiss system of compulsory extension of collective agreements. A. Archinard. Int Labour R 53:155-69 Mr-Ap '46

COLLECTIVE bargaining—*Continued*
Trends in collective bargaining; a summary of recent experience, by S. T. Williamson and H. Harris; and Report and recommendations, by the Labor committee, the Twentieth century fund, New York 1945; Review, by C. A. Myers. Mech Eng 68: 245-6 Mr '46
Two-way bargaining demand by Ford. il Bsns W p93 N 24 '45
Unfair practice; Famous-Barr co. raises wages of 4,500 without consulting 30-member union. Bsns W p99 D 15 '45
Union relations with private ownership. V. H. Ely. Am Water Works Assn J 38:921-9 Ag '46
Wage agreements and settlement of disputes in Norway, 1945. Mo Labor R 61:1173-5 D '45
Wages, profits and prices; collective bargaining under compulsion and governmental directives destroys the managerial function. H. L. Lutz. Comm & Fin Chr 163:1+ Ja 3 '46
Western bargaining unit men form national group. Civil Eng 16:380 S '46
What management is asking unions for; abstract. J. O. Rice. Management R 35:37-9 F '46
What next in collective bargaining? T. R. Agg. Civil Eng 16:409-10 S '46

See also
Employees' representation in management
Trade agreements
Trade unions—Jurisdictional disputes
Wage scales

COLLECTIVISM
Collectivism on the American scene. J. W. Bricker. Comm & Fin Chr 162:2697+ D 6 '45
Collectivism versus individualism. L. H. Boren. Comm & Fin Chr 163:1217+ Mr 7 '46
Personal responsibility in an age of power and collectivism. H. W. Stoke. il Tech R 48:347-8+ Ap '46

COLLEGE accidents

See also
Engineering colleges—Accidents

COLLEGE architecture
Building types study; college dormitories; with time-saver standards. il plans Arch Rec 99:106-24+ Ap '46
University lab, Georgia school of technology. il plans Arch Rec 98:114-15 N '45

See also
Gymnasiums

COLLEGE buildings
American school and university; a yearbook devoted to the design, construction, equipment, utilization, and maintenance of educational buildings and grounds. 18th annual ed 662p Am. school pub. corp, 470 4th av, New York 16 '46
Brick buildings increase campus charm; illustrations. Brick & Clay Rec 108:33 Ja '46
Campus and student center for Wayne university. il map plans Arch Forum 83:122-4 N '45
New buildings, State teachers college, Fredonia, N.Y. il plans Arch Rec 98:90-1 D '45
University building; modern dining hall-auditorium for Indian institute of science. il plan diag Arch Forum 84:89-90 Je '46

See also
Chemistry buildings
College architecture
Dormitories
Housing projects, College
also Washington (state) university—Home economics building

Heating and ventilation

Well-planned pipe tunnels aid efficient central plant heating; ducts containing heating, water and electric services. S. R. Lewis. Heating-Piping 18:82-3 Jl '46

Power plants

College power station. il Elec R (Lond) 138: 535 Ap 5 '46; Electrician 136:831 Mr 29 '46
Gas supplies all of college fuel requirements; Texas A. and M. college. C. Thompson. il Gas Age 98:31-2+ S 5 '46

COLLEGE credits. See Credits, School and college

COLLEGE education
Water in your backlog; backlog of men; how can educators and industry cooperate. I. L. Hillman. Credit & Fin Management 48:6-7 Ag '46

See also
Acceleration (education)

COLLEGE graduates
College trained men, now or never; railways must act immediately to secure technically trained graduates. il Ry Age 120: 670-1 Mr 30 '46
Sources of our future scientists; educated groups have failed to bear enough children to replace themselves. C. J. Gamble. Science 103:457-8 Ap 12 '46

COLLEGE housing projects. See Housing projects, College

COLLEGE inn food products company
Chichi in Chicago; Ernie Byfield has scored at the Sherman and the Ambassadors east and west. il Fortune 33:146-9+ Je '46

COLLEGE libraries
College and university libraries and librarianship; an examination of their present status and some proposals for their future development. 152p bibliog(p146-52) pa $2.50 Am. lib. assn, 520 North Michigan av, Chicago '46
Essentials in the planning and equipment of a university library. W. Bonser. J Doc 2: 76-9 S '46
Planning of university and college libraries. K. Povey. J Doc 2:60-3 S '46
Preparation of specialists for university libraries. R. B. Downs. Special Lib 37:209-13 S '46
Science librarianship. J. W. Hunt. Science 104:171-3 Ag 23 '46

See also
Harvard university—Libraries
North Carolina university—Library
South Carolina university—Library

Architecture

See Library architecture

COLLEGE professors and instructors
Teaching personnel. M. H. Trytten. Science 104:284-5 S 27 '46

See also
Engineering colleges—Professors and instructors

Interchange

Exchanges of staff and students between British and American universities. R. A. Johnson. Assn of Sp Lib & Inf Bur Proc 1945:41-2

COLLEGE students
Students opinion and the atomic bomb. T. F. Lentz. J Retailing 21:154-6 D '45

Employment

Gas service co. enthusiastic about employing students for home service. C. D. Greason. il Gas Age 98:21-2+ O 17 '46

Housing

See Dormitories; Housing projects, College

COLLEGES and universities

See also
Acceleration (education)
Engineering colleges
also names of colleges and universities e.g. Cornell university; Syracuse university
Consult Education index for additional material

Accounting

Branch-office accounting in colleges and universities. W. A. Stumpf. J Account 80:454-5 D '45

Employees

Training of nonacademic employees; University of Illinois. D. E. Dickason. Personnel J 25:62-6 Je '46

COLLEGES and universities—*Continued*

Graduate assistants

Graduate assistants; their stipends. A. Silverman. J Chem Educ 23:351 Jl '46

Graduate work

See also
Graduate students

Professional service

See Professional service

Research

Little researcher. C. G. Hartman. Science 103:493-6 Ap 26 '46; Reply. A. C. Warrington. 103:62-3 Jl 19 '46
Patent policies for sponsored research. R. A. Morgen. J Eng Educ 36:618-20 Je '46
Research corporation announces recipients of grants-in-aid. Mech Eng 68:492 My '46
Southern California cross connection research laboratory seeks the solution to water pollution. il Dom Eng 168:98-101+ Ag '46
Statement of research policy suggested for inclusion in research policies of educational institutions. Chem & Eng N 24:1535 Je 10 '46

See also
Engineering colleges —Research
Research corporation

War service

Institute evaluates its war record; M.I.T.'s war research and educational activities. K. T. Compton. il map Tech R 48.39-41, 109+ N-D '45
Technology's radar school. W. H. Radford. il Tech R 48:227-31+ F '46

Australia

Australian national university. Chem & Eng N 24:2390 S 10 '46

Great Britain

University prospect. Economist 150:204-5, 246-7, 286-7 F 9-23 '46

Japan

Geography at Japanese imperial universities. R. C. Klove. Science 104.394-5 O 25 '46

Netherlands

Dutch universities under Nazi domination. R. D. Kollewijn. Ann Am Acad 245:118-28 My '46
Revival of university activities in Holland. H. S. van Klooster. il J Chem Educ 22: 541-2 N '45

United States

Support of education in a democracy. R. J. Munick. Science 102:567-9 N 30 '45

COLLEGES and universities, State

See also
California university

COLLETS

Angle collet fixture. il Engineer 182:150 Ag 16 '46
Marley angle-setting plate and angle collet fixture. il Engineering 162:246 S 13 '46
Spindle-control and collet-operating mechanism for screw machines. A. W. Jansson. diags Mach 52:189-91 Jl '46

COLLIDINE

Pyridines; aldehyde-collidine and 5-ethyl-2-vinylpyridine. R. L. Frank and others. bibliog Am Chem Soc J 68:1368-9 Jl '46

COLLIERS

Colliers based on Liberty ship design. E. B. Williams. il plans diags Marine Eng 51: 86-92 Mr '46

COLLIMATORS

High precision achromatic autocollimator. D. H. Rank. diag R Sci Instr 17:243 Je '46

COLLIN, Alexandre, 1808-1890

Pioneer in soil mechanics. A. W. Skempton. Engineer 181:381 Ap 26 '46

COLLINS company

Collins company, Collinsville, Conn.; a phenomenon of Yankee shrewdness and conservatism. il Fortune 33:110-15+ Ja '46

COLLISION phenomena

Collision cross sections for 25-Mev neutrons. R. Sherr. bibliog Phys R 68:240-5 D 1 '45

COLLISIONS at sea

American Farmer crew give views on collision. Weekly Underw 155:373 Ag 17 '46
Court rules on liability for collision in anchorage ground. East Underw 47:42 S 13 '46
Cronin found guilty; held for inattention to duty as skipper of American Farmer. Weekly Underw 155·607 S 14 '46
Federal court determines fault for collision between cargo vessels. East Underw 46:27 N 30 '45
Navy studies collision prevention. S. Peterson. il Marine Eng 51:115-16 Je '46
Salvage award, collision liability concerned in American Farmer case. East Underw 47: 29 Ag 9 '46
Tugs equally at fault in East River collision; damages divided. East Underw 47:27 Ag 2 '46
Vessel held liable for failure to use radar. East Underw 47:27 Ag 2 '46

COLLODION

Improved methods of preparation of electropositive permselective protamine collodion membranes. H. P. Gregor and K. Sollner. bibliog J Phys Chem 50:88-96 Mr '46
Improved methods of preparation of permselective collodion membranes combining extreme ionic selectivity with high permeability. H. P. Gregor and K. Sollner. bibliog diag J Phys Chem 50:53-70 Ja '46

COLLOIDS

Action des ultra-sons sur les colloïdes. N. Marinesco. il diag Chimie & Ind 55:87-95 F '46
Boiler water conditioning at West Point power plant; colloidal treatment. F. R. Meyers. il Power Pl Eng 50:116-18+ S '46
Chemical treatment of drilling fluids. P. E. Chaney and W. F. Oxford, jr. bibliog Pet Eng 17:158+ Je '46
Chemistry of drilling fluids. H. T. Kennedy. bibliog Oil & Gas J 45:181-2+ Jl 27 '46
Colloid chemistry and the paint industry. Paint Oil & Chem R 108:16+ D 13 '45
Colloid chemistry of clays E. A. Hauser. bibliog(103 references) il Chem R 37:287-321 O '45
Colloid science. E. K. Rideal. Chem & Ind p259-60 Jl 13 '46; Abstract. Chem Age (Lond) 55:72-4 Jl 20 '46
Colloidal metals in nonaqueous solvents by the Bredig method. R. C. Crosson, jr. and H. J. Abrahams. J Chem Educ 23:289 Je '46
Effect of molecular weight and method of deësterification on the gelling behavior of pectin. R. Speiser and C. R. Eddy. bibliog Am Chem Soc J 68:287-93 F '46
Effect of sodium silicates on iron oxide surfaces. F. Hazel. bibliog J Phys Chem 49: 520-37 N '45
Hexanolamine caprylate and diisopropylamine caprylate as colloidal electrolytes. E. Gonick. Am Chem Soc J 68:177-81 F '46
Isotropic and anisotropic liquid phases in the system hexanolamine oleate-water. E. Gonick and J. W. McBain. Am Chem Soc J 68:683-5 Ap '46
Journal of colloid science. Published bimonthly by Academic press, 125 E. 23d st, New York 10
Light-field ultramicrophotography of lyogels. E. A. Hauser and D. S. le Beau. il Am Chem Soc J 68:153-4 Ja '46
Microscopic studies of lyogels; preparation of samples for ultra-illumination by incident light. E. A. Hauser and D. S. le Beau. bibliog il Ind & Eng Chem 38:335-8 Mr '46
Microscopic studies of lyogels; vulcanization of rubber. E. A. Hauser and D. S. Le Beau. bibliog il J Phys Chem 50:171-6 My '46
Nitrogenous constituents of flaxseed; peptization. E. P. Painter and L. L. Nesbitt. bibliog Ind & Eng Chem 38:95-8 Ja '46
Peptization of peanut and cottonseed proteins; effect of dialysis and various acids. T. D. Fontaine, G. W. Irving, jr. and K. S. Markley. bibliog Ind & Eng Chem 38:658-62 Je '46
Protective colloid action by cellulose xanthate, P. C. Scherer. Rayon 27:409-14 Ag '46

COLLOIDS—*Continued*
Radioactivation of colloidal gamma ferric oxide. M. Blau and others. bibliog diag Science 103:744-8 Je 28 '46
Researches on asphaltenes; radical reactions. F. J. Nellensteyn and J. Dorleyn. pl diag Inst Pet J 32:582-6 S '46
Le rôle de la chimie colloidale dans la lubrification. J. Groff. il diags Génie Civil 123: 215-17, 232-4 Ag 15-S 1 '46
Some recent work in colloid science. W. H. Banks. Chem Age (Lond) 54:53-6 Ja 12 '46
Some remarks on macromolecules; native and synthetic. T. Svedberg. il diag Chem & Eng N 24:1672-3 Je 25 '46
Sorption of vapours by ferric oxide gel. D. W. Broad and A. G. Foster. Chem Soc J p446-50 Je '46
Swelling stresses in gels. Chem & Ind p323 O 26 '45
Temperatures of zero conductance and infinite viscosity of some negatively charged colloidal systems; ferric vanadate, molybdate, tungstate, borate, arsenate, and phosphate. S. P. Mushran and S. Prakash. J Phys Chem 50:251-6 My '46
Twentieth national colloid symposium at Wisconsin. Chem & Eng N 24:1671 Je 25 '46
Water-treatment question box; how colloids act inside a boiler. K. M. Herstein and J. S. G. Shotwell. diags Power 90:554 Ag '46

See also
Adsorption
Brownian movements
Catalysis
Dispersion
Electrophoresis
Emulsions
Flocculation
Gelation
Silica gel
Suspensions
Thixotropy

COLLOTYPE
Gelatin printing process (artograph) is becoming more commercially practicable. E. St John. Inland Ptr 118:65-6 O '46

COLOGNE
Bridges
Cologne road bridge. Engineer 181:565 Je 21 '46

COLOMBIA
See also
Gold mines and mining—Colombia
Paleontology—Colombia
Roads—Colombia

Commerce
Colombia; balance of payments position for first seven months of 1946. For Comm W 25:15-16 O 12 '46
Home water-supply systems in Colombia; what is the outlook for larger sales of pumps? G. W. Caldwell, jr. For Comm W 22:7+ Mr 16 '46

Economic conditions
Latin America's economy as world conflict ended. il For Comm W 24:5 Jl 27 '46
News by countries. For Comm W 22:22-4 Ja 19; 23-25-7 My 18; 23-4 Je 22; 24:16 Jl 27; 20-2 S 21 '46

COLONIAL architecture. See Architecture, Colonial

COLONIAL mills, inc.
Stock offered. Comm & Fin Chr 163:1422 Mr 18 '46

COLONIZATION, Agricultural. See Agricultural colonization

COLOR
Color and constitution; absorption of unsymmetrical carbocyanines. L. G. S. Brooker, R. H. Sprague and H. W. J. Cressman. Am Chem Soc J 67:1889-93 N '45
Color and constitution; interpretation of absorptions of dyes containing heterocyclic nuclei of different basicities. L. G. S. Brooker and others. Am Chem Soc J 67: 1875-89 N '45
Color and constitution; pyrrolocyanines. L. G. S. Brooker and R. H. Sprague. Am Chem Soc J 67:1869-74 N '45
Colour and constitution; some colour problems from the viewpoint of resonance theory. H. H. Hodgson. bibliog Soc Dyers & Col J 62:237-40 Ag '46
Color as a sales factor and what to do about it. C. Deutsch. Paint Oil & Chem R 108: 62+ N 1 '45
Color is a science. E. D. Peck. il Am Cer Soc Bul 25:55-6 F 15 '46
Color merchandising of metal products. E. Engel. Iron Age 156:77-9 D 6 '45
Color; of the heart and of the mind. E. B. Brown. Am Dyestuff Rep 35:300-3 Je 17 '46
Color reactions of some unsymmetrical diarylethylenes. D. S. Tarbell and E. G. Lindstrom. bibliog Am Chem Soc J 68: 1930-2 O '46
Colors for chemical compounds. H. F. Herrmann. Soap & San Chem 22:137+ F '46
Estimation of iodine color of starches and starch fractions. S. A. Watson and R. L. Whistler. bibliog Ind & Eng Chem Anal ed 18:75-6 Ja '46
Improvement in the color of peanut and cottonseed proteins. T. D. Fontaine, S. B. Detwiler, jr. and G. W. Irving, jr. bibliog Ind & Eng Chem 37:1232-6 D '45
Limitation of color. W. D. Wright. Rayon 27:313-16, 558-9, 612-13 Je, O-N '46
Martin-Senour color system takes heartaches out of paint-mixing. il Sales Management 57:78-9 Jl 1 '46
Medieval love of color. B. Brown. Rayon 26: 655-6 D '45
Modified chromatic value color space. J. L. Saunderson and B. I. Milner. Opt Soc Am J 36:36-42 Ja '46
Munsell color system. D. Nickerson. bibliog diags Illum Eng 41:549-60 Jl '46
New color reaction of β-chlorovinyl-dichloroarsine. H. S. Mason. Am Chem Soc J 67:2267-8 D '45
Some aspects of color. R. W. Jacoby. Am Dyestuff Rep 35:56-8 Ja 28 '46
Units in the trichromatic system. P. Moon and D. E. Spencer. Opt Soc Am J 36:120 F '46
Use of color and fluorescence indicators for determining the structure of glasses. W. A. Weyl. J Ap Phys 17:628-39 Jl '46

See also
Camouflage
Colorimeters and colorimetry
Colorimetric analysis
Colors
Discoloration
Dyes and dyeing
Glass, Colored
Light, Colored
Lubricating oils—Color
Metal coloring
Moving pictures, Colored
Package goods—Color
Paper—Color
Pigments
Television—Color
Thermochromism
Trade marks—Color
Water purification—Color removal

Bibliography
1945 bibliography of color. I. H. Godlove. Am Dyestuff Rep 35:408-12+ Ag 26 '46

Psychology
Color dynamics enters railroad field; being tried out in laboratories of Chesapeake & Ohio. il plans Ry Age 120:138-41+ Ja 12 '46
Color; of the heart and of the mind. E. B. Brown. Am Dyestuff Rep 35:300-3 Je 17 '46
Color schemes aid office workers. A. P. Schulze. il Am Bsns 16:20-1+ Mr '46
Color with a purpose. H. Quinn. il Heating-Piping 18:115-18 Ja '46

Standards
Benefit to industry of measured standards. J. F. Warner. Am Dyestuff Rep 35:332-3 Jl 1 '46; Same. Textile Col 68:22-3+ Je '46
Color standard for ruby mica. D. B. Judd. J Res Nat Bur Stand 35:245-56 O '45
General method of color grading. R. H. Osborn and W. C. Kenyon. bibliog Ind & Eng Chem Anal ed 18:523-30 S '46
Specification of railroad signal colors and glasses. K. S. Gibson and others. bibliog diags Opt Soc Am J 35:772-95 D '45; Same. J Res Nat Bur Stand 36:1-30 Ja '46
Spectrophotometric and colorimetric determination of the colors of the TCCA standard color cards. G. Reimann and others. bibliog(33 titles) il Opt Soc Am J 36:128-59 Mr '46; Same. J Res Nat Bur Stand 36:209-47 Mr '46; Same cond. Am Dyestuff Rep 35:323-9+ Jl 1 '46; Same cond. Textile Col 68:17-21+ Je '46
Standard angular conditions for the colorimetry of textiles. E. I. Stearns. Am Dyestuff Rep 35:330-1 Jl 1 '46; Same abr. Textile Col 68:24-5+ Je '46

COLOR—Standards—*Continued*
Standardization of color finishes for machinery and equipment. D. L. Hadley and C. B. Ryder. diag Steel 118:121-2+ Ja 28 '46

COLOR blindness
Color vision and color blindness: a mechanism in terms of modern evidence. T. L. Jahn. bibliog Opt Soc Am J 36:595-7 O '46
Effect of quality of illumination on the results of the Ishihara test. L. H. Hardy and others. bibliog Opt Soc Am J 36:86-94 F '46
See also
Color sense

COLOR fastness. See Dyes, Fastness of

COLOR in accounting
Use of color in accounting; abstracts. F. B. Hull. Management R 35:21-2 Ja '46; J Account 81:240 Mr '46

COLOR in advertising
ANPA studies ad colors in newspaper. Ptr Ink 216:124 Ag 16 '46
CFAC honors industrial campaigns. Ind Marketing 31:40-2+ Je '46
Color ads are logical for colorful product; Revlon nail polish. E. M. Housman. Ptr Ink 216:36-7 Ag 9 '46
Cutler-Hammer promotes industrial progress; full-color ad series. il Ind Marketing 30: 47+ O '45
Eight department stores bunch Wilkens fashion ads in one magazine. il Ptr Ink 215:99 Ap 5 '46
Newspapers expanding color facilities to satisfy advertisers, combat television. D. Bruner. Ptr Ink 216:109+ S 20 '46
Offset and combination plant owners should know how letterpress process color plates are converted to lithographic reproduction. G. C. Compton. il Inland Ptr 117:48-50 S '46
Standardization of colors in printed advertising is to be maintained with new chart. diags Inland Ptr 118:44 N '46
That second color works wonders, but use it wisely! G. J. Church. il Inland Ptr 117: 77 Ap; 58 My '46 (to be cont)

COLOR in house decoration
Buying by color; manufacturers of carpets promote merchandising of nine basic color groups. Bsns W p79 Ja 19 '46
Hundreds of firms pool efforts to take confusion out of color. il Sales Management 56:51+ F 1 '46
Standardized color card of home furnishings branch; aid in sale of textiles for the home. il Textile World 95:121 D '45

COLOR in industry
Army experiences with color offer new suggestions for industrial use. O. P. McCauley and C. B. Allen. Ind Stand 17:165+ Jl '46
Color, basic principles of application. F. O'Connor. il Product Eng 17:89-91 F '46
Color can help in safety. il Nat Safety N 53:23+ Mr '46
Color coding of external motor and starter terminals. diags Min Cong J 32:46-7 Ja '46
Color dynamics enters railroad field; being tried out in laboratories of Chesapeake & Ohio. il plans Ry Age 120:138-41+ Ja 12 '46
Colour in industry; abstract. S. A. Wood. Light & Lighting 39:104 Je '46
Colour in the factory; works of David Brown and sons. Engineer 182:355 O 18 '46
Color with a purpose. H. Quinn. il Heating-Piping 18:115-18 Ja '46
Engineered color for safety. E. D. Peck. il Safety Eng 90:14-16+ D '45
Historical growth of color safety standard reviewed on anniversary of approval. H. G. Lamb. il Ind Stand 17:164+ Jl '46
How to use color in the shop. H. J. Williams. il diags Am Mach 90:121-32 My 9 '46
Light and color boost turbine room efficieney. E. E. Schwalm. il Elec World 126:111 S 14 '46
Lighting and colour in industry; exhibition at Wolsey, ltd. il Electrician 136:1437-8 My 31 '46; Elec R (Lond) 138:853 My 31 '46
Lighting and decoration in an underground factory. P. W. L. Broke-Smith and F. A. Hulcoop. il Light & Lighting 38:144-6 O '45
Lighting and paint. M. Luckiesh. Paint Oil & Chem R 108:92-4 N 1 '45
Paint for production. J. A. Meacham. il Sci Am 175:123-5 S '46
Planned color means plant painting. A. R. Gardner. Paint Oil & Chem R 108:66+ N 1 '45
Railroad laboratory employs interior colors as safety devices; Rock Island's Chicago laboratory. il Arch Forum 85:101 O '46
Recommends changes in pattern color standards. F. C. Cech. Foundry 74:148 O '46
Safety color code proving effective. il Safety Eng 92:22+ Jl '46
Safety-with-paint scientifically planned; substation interiors of Portland general electric co. il Elec World 125:78 Ap 27 '46
Standard colors mean safety. J. E. Long. il Safety Eng 91:33-4 Ap '46
They did it with color; use of paints and tinted glass, machine shop at El Segundo refinery. B. Klein. il Nat Safety N 53:20-1 F '46
Users say color steps up production. W. A. Rossi. il Cer Ind 46:52-3 My '46
See also
Machinery—Painting
Package goods—Color

COLOR in plastic materials
Adding color to vacuum cleaners. il Mod Plastics 23:116-18 Mr '46
Color in cold moldings. J. E. Simonds. il Mod Plastics 23:83-4 My '46
Color in shock-resistant materials. il Mod Plastics 23:128-9 F '46
Colouring of plastics. C. R. M. Oehlcke. bibliog Soc Dyers & Col J 61:306-10 D '45; Abstract. Am Dyestuff Rep 35:179 Ap 8 '46
Experiments in coloring polyvinyl chloride masses. F. Gournay. India Rubber World 114:280-2 My '46

COLOR in the ceramic industries
Raw lead glazes; refractoriness of color oxides determines range of temperature. C. W. Parmelee. bibliog Cer Ind 46:76+ Mr '46
Surface decoration on terra sigillata and on Greek black-painted vases. E. F. Prins de Jong and A. J. Rijken. bibliog Am Cer Soc Bul 25:5-7 Ja 15 '46
Underglaze decal, paint and silk screen decorating. il Cer Ind 45:90+ N '45
See also
Glass, Colored
Glazes

COLOR in the textile industries
Benefit to industry of measured standards. J. F. Warner. Am Dyestuff Rep 35:332-3 Jl 1 '46; Same. Textile Col 68:22-3+ Je '46
Color story for fall. Textile Col 68:24-5+ Ap '46
Some observations upon the effect of colour on the absorption and emission of radiation by a textile fabric. W. H. Rees and L. W. Ogden. il Textile Inst J 37:T113-20 Ap '46
Spectrophotometric and colorimetric determination of the colors of the TCCA standard color cards. G. Reimann and others. bibliog(33 titles) il Opt Soc Am J 36:128-59 Mr '46; Same. J Res Nat Bur Stand 36: 209-47 Mr '46; Same cond. Am Dyestuff Rep 35:323-9+ Jl 1 '46; Same cond. Textile Col 68:17-21+ Je '46
Standard angular conditions for the colorimetry of textiles. E. I. Stearns. Am Dyestuff Rep 35:330-1 Jl 1 '46; Same abr. Textile Col 68:24-5+ Je '46
Use color as your sales agent. H. Ketcham. Textile Col 68:12-13 F '46
Wool color chart, spring 1947. Textile Col 68:24+ S '46
See also
Dyes and dyeing
Textile printing

COLOR lighting. See Light, Colored

COLOR matching
Color aptitude test, 1944 experimental edition; Inter-society color council. J. L. Parsons and A. H. Croup. Paper Tr J 123:25-7 O 17 '46
Color chip manual re-issued. il Sci Am 175: 174 O '46
Color to order; paint mixing and matching system. il Sci Am 174:219-20 My '46
Electronic spectroscopy. G. C. Sziklai and A. C. Schroeder. il diags J Ap Phys 17:763-7 O '46

COLOR matching—*Continued*
Idiosyncrasies in color matching; effect of age on color sense. D. P. Knowland. Rayon 27: 498-500 S '46
McAdam's determination of chromaticity sensibilities. R. H. Sinden. Opt Soc Am J 35: 737-42 N '45
Macular pigmentation and color discrimination; abstract. D. L. MacAdam. Opt Soc Am J 36:365 Je '46
Martin-Senour color system takes heartaches out of paint-mixing. il Sales Management 57:78-9 Jl 1 '46
Outline of stability of color matching lamps. H. Ellsworth. il Am Dyestuff Rep 35:165-6 Mr 25 '46; Abstract. Textile World 96:244 Mr '46
Plastics simplify color matching; acrylics, vinyl sheets and polyester resins. il Mod Plastics 23:133-6 Ap '46
Two accessories of three-dimensional colorimetry; probable error of colorimetric tensor components as derived from a number of color matchings; determination of principal colorimetric axes at any point of the color threefold. L. Silberstein. Opt Soc Am J 36:464-8 Ag '46
What the enamel superintendent should know about colors. A. Lindberg. bibliog Cer Ind 47:62+ O '46

COLOR measurement
Benefit to industry of measured standards. J. F. Warner. Am Dyestuff Rep 35:332-3 Jl 1 '46; Same. Textile Col 68:22-3+ Je '46
Colour and its measurement; abstract. W. Harrison. Light & Lighting 39:130 Jl '46
Color measurements. A. Kramer and H. R. Smith. Food Ind 18:524 Ap '46
Colorimetry of fluorescent samples. I. H. Godlove. Am Dyestuff Rep 35:390-3 Ag 12 '46
Evaluation of colorimetric tristimulus values by means of a new centroid method. H. A. Robinson. diag Opt Soc Am J 36:270-7 My '46
General method of color grading. R. H. Osborn and W. C. Kenyon. bibliog Ind & Eng Chem Anal ed 18:523-30 S '46
Measurement of color. W. D. Wright. Rayon 27:145-8 Mr '46
Metric of color space. A. W. Wundheiler. bibliog Opt Soc Am J 36:288-91 My '46
Scientific measurement of color. A. P. Sargent. il Glass Ind 26:561-2 D '45
Spectrophotometric and colorimetric determination of the colors of the TCCA standard color cards. G. Reimann and others. bibliog(33 titles) il Opt Soc Am J 36:128-59 Mr '46; Same. J Res Nat Bur Stand 36: 209-47 Mr '46; Same cond. Am Dyestuff Rep 35:323-9+ Jl 1 '46; Same cond. Textile Col 68:17-21+ Je '46
Standard angular conditions for the colorimetry of textiles. E. I. Stearns. Am Dyestuff Rep 35:330-1 Jl 1 '46; Same abr. Textile Col 68:24-5+ Je '46

See also
Color matching

COLOR of animals
Effect of thiouracil upon pigmentation in the tadpole. W. G. Lynn and Sister Alfred de Marie. Science 104:31 Jl 12 '46

COLOR photography
Dramatically lighted color photography features Canadian ad campaign; Gordon Mackay & co. G. D. Johnstone. Ptr Ink 215: 66+ Je 7 '46
Flow lines in a continuous melting glass furnace as determined by cobalt oxide and pictured on color photographs. V. W. Lenz. il diag Am Cer Soc J 29:8-15 Ja 1 '46
Improvement of photographic color rendering by correction filters. A. van Kreveld. Opt Soc Am J 36:412-15 Jl '46
Light-field ultramicrophotography of lyogels. E. A. Hauser and D. S. le Beau. il Am Chem Soc J 68:153-4 Ja '46
Mass, precision, symmetry; seven colored photographs by Ezra Stoller taken at Upjohn co., manufacturing pharmacists. Fortune 34:125-8 Jl '46
New process for color photos; enables amateur to develop own prints. Bsns W p49-50 N 17 '45
Photography in colour; Hurter memorial lecture. H. Baines. Chem & Ind p2-5 Ja 5 '46
Seeking secrets; to study I.G. Farben color-film developments. Bsns W p40+ F 9 '46

See also
Moving pictures, Colored

COLOR printing
Brilliant reproduction; new technique for fine printing on boxboard. W. B. Banks. il Mod Packaging 19:93-5 D '45
Conservative, dignified, formal gray. G. J. Church. il Inland Ptr 118:42 O '46
Cut two-color separation time and get better plate register. il Inland Ptr 117:57 Je '46
Electronic register control for multicolor printing. W. D. Cockrell. il diags Elec Eng 65 Trans 617-22 Ag-S '46
Full page of natural color photos printed simultaneously with news; Chicago tribune. Inland Ptr 117:68 Jl '46
How we printed 72 colors in a die-cut match book; Bigelow-Sanford carpet co. M. J. Sutter. il Ptr Ink 216:41 Ag 23 '46
New printing methods will mean better advertising. J. M. Secrest. Ptr Ink 216:112+ S 6 '46
Offset and combination plant owners should know how letterpress process color plates are converted to lithographic reproduction. G. C. Compton. il Inland Ptr 117:48-50 S '46
Over-packing the cylinder to compensate for paper stretch. D. McKinney. Inland Ptr 116: 47-8 N '45
Photoelectric controls for color printing. J. Robins and L. E. Varden. il diags Electronics 19:110-15 Je '46
Pre-registering color plates by optical means is now a reality with opti-check. il Inland Ptr 118:63 O '46
Red, another second color that works wonders. G. J. Church. il Inland Ptr 117:56 Ag '46
Salesman's corner. F. Rundell. Inland Ptr 117:50-1 My '46
Silk screen printing makes rapid strides; abstract. G. W. Reinke. Inland Ptr 117: 40 Ap '46
Standardizing color, inks, stocks, and sequences. J. T. Wrigley. il Inland Ptr 116: 37-8 N '45
Table of color combination legibility. Inland Ptr 118:33 N '46
That second color works wonders! G. J. Church. il Inland Ptr 117:48 Jl '46
That second color works wonders, but use it wisely! G. J. Church. il Inland Ptr 117:77 Ap; 58 My; 70 Je '46
Ultimate goal of research; automatic production of printing plates. G. C. Compton. il Inland Ptr 116:27-30 Mr '46

COLOR sense
Basic sensation curves of the three-color theory. H. de Vries. diag Opt Soc Am J 36: 121-7 Mr '46; Discussion. W. S. Stiles. 36: 491 Ag '46
Colour discrimination, the visibility curve, and the trichromatic theory; abstract. W. S. Stiles. Light & Lighting 39:36 F '46
Colour sensitivity of the retina within the central fovea of man. L. C. Thomson and W. D. Wright. Light & Lighting 39:105 Je '46
Color vision and color blindness: a mechanism in terms of modern evidence. T. L. Jahn. bibliog Opt Soc Am J 36:595-7 O '46
Color vision in industry. G. A. Strebel, jr. Ind Med 15:425-6 Jl '46
Colour vision in insects; abstract. D. R. Ilse. Light & Lighting 38:139 O '45
Idiosyncrasies in color matching; effect of age on color sense. D. P. Knowland. Rayon 27: 498-500 S '46
MacAdam ellipses. A. W. Wundheiler. Opt Soc Am J 35:767-71 D '45
McAdam's determination of chromaticity sensibilities. R. H. Sinden. Opt Soc Am J 35: 737-42 N '45

See also
Color blindness

Testing
Color aptitude test, 1944 experimental edition; Inter-society color council. J. L. Parsons and A. H. Croup. Paper Tr J 123:25-7 O 17 '46

COLOR sense—Testing—*Continued*
Improved screening test for red-green color deficiency composed of available pseudo-isochromatic plates. L. L. Sloan. bibliog Opt Soc Am J 35:761-6 D '45
Screening test for defective red-green vision. L. H. Hardy and others. bibliog Opt Soc Am J 36:610-14 O '46
Test of color aptitude. F. L. Dimmick. Textile Col 67:114-15+ N '45
Two criteria for the selection of color vision test plates. E. L. Green and L. L. Sloan. diags Opt Soc Am J 35:723-30 N '45
Vision tests predict worker capability; electric soldering, Bausch & Lomb optical company. N. F. Stump. il Factory Management 104:121-4 F '46

COLOR signals. See Light signals

COLOR television. See Television—Color

COLOR temperature
Color temperature testing in projector lamp production. S. Pakswer and J. Kirk. diag R Sci Instr 17:157-8 Ap '46

COLOR vision. See Color sense

COLORADO
See also
Geology—Colorado
Gold mines and mining—Colorado
Irrigation—Colorado

COLORADO-BIG THOMPSON project
Colorado and Big Thompson rivers scheme. il map plan diags Engineer 182:183-5, 203-5, 224-7, 246-8 Ag 30-S 20 '46
Lining the Continental Divide tunnel. il Concrete 53:10-13+ D '45

COLORADO central power company
Common stock offered. Comm & Fin Chr 163:1422, 1500 Mr 18-21 '46

COLORADO fuel and iron company
Colorado harvest. Bsns W p64+ Jl 27 '46
Wider markets. Barron's 26:13 Ja 7 '46

COLORADO river
California and Nevada withdraw from interstate Colorado River basin group. Eng N 137:285 S 5 '46
Colorado basin states will continue cooperative river development studies. Eng N 137: 335 S 12 '46
Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81, 1387-1414, 1573-5; 72: 83-97, 235-40, 409-12, 682-96 O '45-Mr, My '46
Wanted: water; 24-year fight over Colorado river. Bsns W p35-6+ Jl 20 '46

Boulder Dam project
Boulder Dam spillway tunnel; damage attributed to cavitation. D. A. Abrams. bibliog Am Soc C E Proc 72:1123-9 O '46
Cement investigations for Boulder dam; results of tests on mortars up to age of 10 years. R. E. Davis and others. Am Concrete Inst J 18:21-48 S '46
Translating electric power into oil for war; Southern California Edison saves fuel oil by bringing power from Boulder dam. J. H. Collins. Pub Util 37:827-34 Je 20 '46

Bridge Canyon Dam project
Bridge Canyon dam, bigger than Boulder; power plant to be enclosed in concrete dam. il map diag Power Pl Eng 49:80-1 O '45

Coulee Dam project
4,370,000-kva short-circuit tests on Grand Coulee 230-kv bus. W. H. Clagett and W. M. Leeds. il diags Elec Eng 65:Trans 729-35 N '46

COLORADO university
Division of industrial hygiene, School of medicine and hospitals; its functions and activities. F. R. Ingram. il Ind Med 14:932-5 N '45

COLORED glass. See Glass, Colored

COLORED light. See Light, Colored

COLORED moving pictures. See Moving pictures, Colored

COLORED varnish. See Varnish, Colored

COLORIMETERS and colorimetry
Approximations to Planckian distributions. P. Moon and D. E. Spencer. bibliog J Ap Phys 17:506-14 Je '46
Colorimetry in the glass industry; abstract. J. G. Holmes. Light & Lighting 38:178 D '45
Direct-reading photoelectric colorimeter. B. T. Barnes. diags R Sci Instr 16:337-9 D '45
Photometry and colorimetry of electric discharge lamps G. T. Winch. Light & Lighting 39:41-2; Discussion. 43 Mr '46
Two accessories of three-dimensional colorimetry; probable error of colorimetric tensor components as derived from a number of color matchings; determination of principal colorimetric axes at any point of the color threefold. L. Silberstein. Opt Soc Am J 36:464-8 Ag '46
See also
Colorimetric analysis

Terminology
International names in colorimetry. P. Moon and D. E. Spencer. Opt Soc Am J 36:427-8 Jl '46

COLORIMETRIC analysis
Activated glycerol dichlorohydrin; new colorimetric reagent for vitamin A. A. E. Sobel and H. Werbin. Ind & Eng Chem Anal ed 18:570-3 S '46
Application of colorimetry to the analysis of corrosion-resistant steels; photometric determination of copper. O. I. Milner. bibliog Ind & Eng Chem Anal ed 18:94-6 F '46
Chemical determination of vitamin A in mixed feeds and feedstuffs. W. Brew and M. B. Scott. bibliog Ind & Eng Chem Anal ed 18:46-8 Ja '46
Color determination of tungsten, titanium and columbium. C. M. Johnson. il diags Iron Age 157:66-9 Ap 4 '46
Colorimetric determination of cobalt in metallurgical products with nitroso R salt. R. S. Young, E. T. Pinkney and R. Dick. Ind & Eng Chem Anal ed 18:474-6 Ag '46
Colorimetric determination of cobalt with ammonium thiocyanate. R. S. Young and A. J. Hall. bibliog Ind & Eng Chem Anal ed 18: 264-6 Ap '46
Colorimetric determination of DDT; color test for related compounds. M. S. Schechter and others. bibliog Ind & Eng Chem Anal ed 17:704-9 N '45
Colorimetric determination of ethyl acetate. A. G. Keenan. bibliog Can Chem & Process Ind 29:857-8 D '45
Colorimetric determination of fatty acids and esters. U. T. Hill. Ind & Eng Chem Anal ed 18:317-19 My '46
Colorimetric determination of iron in the presence of large concentrations of copper and nickel. R. H. Greenburg. Ind & Eng Chem Anal ed 18:255-7 Ap '46
Colorimetric determination of iron in water with o-phenanthroline. D. H. Caldwell and R. B. Adams. bibliog Am Water Works Assn J 38:727-30 Je '46
Colorimetric determination of less than 0.001% S as thiophen in pure benzoles. K. H. V. French. Soc Chem Ind J 65:15-23 Ja '46
Colorimetric determination of local anesthetic compounds. F. J. Bandelin and C. R. Kemp. bibliog Ind & Eng Chem Anal ed 18:270 Ag '46
Colorimetric determination of molybdenum in zinc cyanide plating solutions. L. Silverman and others. Metal Finishing 44:426-8 O '46
Colorimetric determination of nickel in bronzes. G. Haim and B. Tarrant. bibliog Ind & Eng Chem Anal ed 18:51-2 Ja '46
Colorimetric determination of nitrites. B. F. Rider and M. G. Mellon. bibliog Ind & Eng Chem Anal ed 18:96-9 F '46
Colorimetric determination of *p,p'*-DDT in technical DDT. S. W. Chaikin. bibliog Ind & Eng Chem Anal ed 18:272-3 Ap '46
Colorimetric determination of phenols; application to petroleum and allied products. L. Lykken, R. S. Treseder and V. Zahn. Ind & Eng Chem Anal ed 18:103-9 F '46
Colorimetric micromethod for determination of antimony in biological materials, with concomitant determination of bismuth. E. W. McChesney. bibliog Ind & Eng Chem Anal ed 18:146-9 F '46

COLORIMETRIC analysis—*Continued*
Colorimetric vitamin A reagent. Chem Eng 53:141 S '46
Determination of ascorbic acid; application of the indophenol-xylene extraction method to determination in large numbers of tomato and tomato juice samples. W. L. Nelson and G. F. Somers. bibliog diag Ind & Eng Chem Anal ed 17:754-6 D '45
Determination of cobalt in the presence of iron and nickel, using a photoelectric colorimeter and nitroso-R-salt. A. N. Hixson and W. M. McNabb. Metal Finishing 44:208-9 My '46
Determination of cyclopentadiene and dicyclopentadiene. K. Uhrig, E. Lynch and H. C. Becker. bibliog diag Ind & Eng Chem Anal ed 18:550-3 S '46
Determination of free chlorine and chloramine in water by use of para-aminodimethylaniline. A. T. Palin. bibliog Water & Sewage 84:22+ F '46
Determination of hydroperoxides in rubber and synthetic polymers. H. A. Laitinen and J. S. Nelson. bibliog Ind & Eng Chem Anal ed 18:422-5 Jl '46
Determination of inorganic phosphorus in plant materials. W. A. Pons, jr. and J. D. Guthrie. bibliog Ind & Eng Chem Anal ed 18:184-6 Mr '46
Determination of nicotine in the air. W. E. McCormick and M. Smith. bibliog Ind & Eng Chem Anal ed 18:508-12 Ag '46
Determination of nitrogen in ferro-alloys by direct Nesslerisation. W. C. Newell. Engineering 160:505 D 14 '45
Determination of small amounts of aromatic hydrocarbons in aqueous solutions. H. E. Morris, R. B. Stiles and W. H. Lane. bibliog Ind & Eng Chem Anal ed 18:294 My '46
Determination of tungsten in silicate rocks. E. B. Sandell. bibliog Ind & Eng Chem Anal ed 18:163-7 Mr '46
Determination of vitamin A in liver. W. D. Gallup and J. A. Hoefer. bibliog Ind & Eng Chem Anal ed 18:288-90 My '46
Estimation of ammonium picrate in wastes from bomb- and shell-loading plants; some reactions of ammonium picrate in water and sewage. C. C. Ruchhoft and F. I. Norris. bibliog Ind & Eng Chem Anal ed 18: 480-3 Ag '46
Estimation of gossypol in cottonseed meal and cottonseed meats. F. H. Smith. bibliog Ind & Eng Chem Anal ed 18:43-5, 658 Ja, O '46
Field test for surface DDT. H. A. Stiff, jr. and J. C. Castillo. Ind & Eng Chem Anal ed 18:316-17 My '46
pH; a brief review. W. R. Kenny. il Rayon 27:201-3 Ap '46
Indirect calibration of the filter photometer by means of the spectrophotometer; considerations on use of standards. C. L. Comar. bibliog Ind & Eng Chem Anal ed 18:626-8 O '46
Method for determining small amounts of gold, and its use in ascertaining the thickness of electrodeposited gold coatings. W. S. Clabaugh. diag J Res Nat Bur Stand 36: 119-27 F '46
Method for hardness of water; abstract. S. M. Drachev. Soap & San Chem 21:70 N '45
Microdetermination of antimony in biological material; spectrographic method. J. Cholak and D. M. Hubbard. bibliog J Ind Hygiene 28:121-4 Jl '46
Microdetermination of mercury in biological material. J. Cholak and D. M. Hubbard. bibliog diag Ind & Eng Chem Anal ed 18: 149-51 F '46
Modification of the arsenic method of Magnuson and Watson. T. H. Maren. Ind & Eng Chem Anal ed 18:521 Ag '46
Nomographic procedure for a two-component colored system; copper in a nickel plating bath. E. A. Brown. Ind & Eng Chem Anal ed 18:493-5 Ag '46
Observations on the Fujiwara reaction as a test for chlorinated hydrocarbons. F. J. Webb and others. bibliog J Ind Hygiene 27: 249-55 N '45
Photelometric analysis; Cenco-Sheard-Sanford photelometer. J. Parina, jr. bibliog il Steel 118:110-11+ Je 17 '46
Photometric determination of silicon in steels. C. H. R. Gentry and L. G. Sherrington. Soc Chem Ind J 65:90-2 Mr '46
Quantitative determination of phenolic fungicides. S. Gottlieb and P. B. Marsh. bibliog Ind & Eng Chem Anal ed 18:16-19 Ja '46
Rapid photometric determination of iron and copper in red phosphorus. J. A. Brabson and others. bibliog Ind & Eng Chem Anal ed 18: 554-6 S '46
Rapid photometric determination of iron in aluminum alloys. M. S. Pepi. bibliog Ind & Eng Chem Anal ed 18.111-12 F '46
Recent developments in analytical chemistry; colorimetric methods for iron. Chem Age (Lond) 53:507-8 D 1 '45
Simple photo-electric absorptiometer. H. R. Clayson and B. A. Scott. bibliog il diags Soc Chem Ind J 65:97-101 Ap '46
Simplified determination of manganese in caustic soda. R. F. Moran and A. P. McCue. Ind & Eng Chem Anal ed 18:556-7 S '46
Simultaneous spectrophotometric determination of titanium, vanadium, and molybdenum. A. Weissler. bibliog Ind & Eng Chem Anal ed 17:695-8 N '45
Spectrophotometric determination of titania in portland cement. J. J. Diamond. bibliog Rock Prod 49:103-4+ Ap '46
Spectrophotometric determination of titanium in steels. A. Weissler. bibliog Ind & Eng Chem Anal ed 17:775-7 D '45
Spectrophotometric determination of traces of nickel. O. R. Alexander, E. M. Godar and N. J. Linde. Ind & Eng Chem Anal ed 18:206-8 Mr '46
Spectrophotometric method for estimating gossypol in crude cottonseed oil. F. H. Smith. bibliog Ind & Eng Chem Anal ed 18:41-3 Ja '46
Spectrophotometric method for the determination of p,p'-DDT. R. M. Herriott. bibliog Science 104:228-30 S 6 '46

See also
Indicators and test papers

COLORING matter

See also
Dyes and dyeing
Glass, Colored
Pigments
Stains and staining (microscopy)

COLORS
Are new colors limitless? D. Nickerson. il diags Rayon 26:595-600 N '45

See also
Color
Pigments

COLUMBIA broadcasting system, inc.
Thumbnail stock appraisal. Mag of Wall St 78:22 Ap 13 '46

COLUMBIA gas and electric corporation
Annual report. Comm & Fin Chr 163:1858-9 Ap 8 '46
Columbia divests. Bsns W p48+ Je 15 '46
Columbia Gas vs. Niagara Hudson. Comm & Fin Chr 164:1931+ O 17 '46
New step in Columbia Gas simplification. Barron's 26:1+ Ag 19 '46
$97,500,000 debentures offered. Comm & Fin Chr 164:1418+ S 16 '46

COLUMBIA pictures corporation
Preferred stock offered. Comm & Fin Chr 163:462 Ja 28 '46

COLUMBIA river
Columbia basin program started. il Comp Air Mag 51:246-7 S '46
Columbia River programs keynote ASCE convention. Eng N 137:85+ Jl 25 '46
Columbia River regulation to aid navigation. R. E. Hickson. il map Civil Eng 16:346-7 Ag '46
Missouri, Columbia River authorities opposed by legislators, business men. Eng N 135:837 D 20 '45

Bonneville dam
Vibration damage to spillway gates. il diags Eng N 136:420-1 Mr 21 '46

Grand Coulee dam
Big diggings; Grand Coulee's irrigation adjunct. il map Bsns W p21 My 18 '46
Bunyan shaded; mighty pumps and turbines for Coulee. Bsns W p48+ Jl 20 '46

COLUMBIA river—Grand Coulee dam—*Cont.*
Grand Coulee pumps, 1600 cfs each. diags Power Pl Eng 50:76-7 Mr '46
Pumps; big ones to lift Columbia River water from Roosevelt into Grand Coulee. Bsns W p57 N 10 '45
Unique caissons make spillway repairs possible at Grand Coulee. R. Sailer and B. G. Davis. il diags Civil Eng 16:381-4 S '46

Power utilization

Seven years' operating experience at Bonneville hydroelectric plant. il diags Power 90: 146-50 Mr '46

COLUMBIA Valley authority (proposed)
Columbia Valley authority gets endorsement of Krug. Elec World 126:75 O 26 '46
Jolt for Ickes. Bsns W p32 Ja 19 '46
Sponsors outline provisions of CVA bill. Pub Util 37:184 Ja 31 '46

COLUMBIAN carbon company
Columbian Carbon vs. United Carbon; a comparative audit. S. Devlin. il Mag of Wall St 78:29-31+ Ap 13 '46

COLUMBIUM
Behavior of 18-8 Ti-stabilized stainless; detecting and combating intergranular corrosion; effects of titanium and columbium. E. H. Wyche. bibliog il Iron Age 158:61-5 Ag 8; 54-6 Ag 15 '46
Powder metallurgy and the refractory metals. A. L. Percy. il Steel 118:106-8+ Je 17 '46

Analysis

Color determination of tungsten, titanium and columbium. C. M. Johnson. il diags Iron Age 157:66-9 Ap 4 '46
Determination of tungsten and columbium in stainless steels. C. M. Johnson. Iron Age 157:66-8 Ap 11 '46
Hexamethylenetetramine in separations of titanium and columbium. K. W. Traub. Ind & Eng Chem Anal ed 18:122-4 F '46

Isotopes

Radioactive isotopes in the columbium region. M. L. Wiedenbeck. Phys R 70:435 S 1 '46

COLUMBIUM nitride
Fast superconducting bolometer. D. H. Andrews and others. il diags Opt Soc Am J 36:518-24 S '46

COLUMBUS mutual life insurance company
Dividend scale for 1946 on 3 per cent policies; interest reduced. Life Ins Courant 50:527 N '45

COLUMNS
Column formulas. W. R. Osgood. Am Soc C E Proc 70:1565-71 D '44; Discussion. 71: 229-39, 349-50, 753-60, 921-5, 1359-69; 72: 103-10 F-Mr, My-Je, N '45, Ja '46
Column stress by successive deflections; graphic and analytical studies. L. T. Wyly. diags Eng N 135:660-3 N 15 '45; Correction. 135:857 D 27 '45
Four columns support large stadium roof. il plan diags Eng N 137:454-5 O 3 '46
Procedure for determining the critical load for a column of varying section. G. H. Martin. bibliog J Aeronautical Sci 13:135-40 Mr '46
Underpinning interior columns to permit tunnel construction; Asbury Park press building. A. G. DiGiacinto. il plan diag Civil Eng 16:215-16 My '46

COLUMNS, Concrete
Design of rectangular tied columns subject to bending. G. H. Dell. Am Concrete Inst J 18:89-91 S '46
Reinforced concrete columns under combined compression and bending. H. E. Wessman. diags Am Concrete Inst J 18:1-8 S '46

COLUMNS, Steel
Fluted central column new feature in tank design; elevated water supply tank for Washington, D.C. il Eng N 136:734-6 My 2 '46

COMBINATION packages. See Package goods—Combination packages

COMBINED production and resources board
Case study in international organization. M. Katz. Harvard Bsns R 25 no 1:1-20 [O] '46
Impact of the war on civilian consumption in the United Kingdom, the United States and Canada; summary of report to Combined production and resources board. Economist 149:637-44 N 3 '45

COMBINES. See Harvesting machinery

COMBUSTION
Bailey combustibles recorder-controller. diag Blast F & Steel Pl 33:1424+ N '45
Combustion control; Cities Service heat prover. il diag Steel 117:134+ D 10 '45
Fuel combustion characteristics. W. L. Nelson. Oil & Gas J 45:113 Ag 10 '46
Pipe-still combustion charts. W. L. Nelson. Oil & Gas J 45:127 Ag 24 '46
Present era in combustion. D. T. A. Townend. bibliog il Chem & Ind p346-51 N 10 '45
Steady flow of a gas through a tube with heat exchange or chemical reaction. P. Chambre and C. Lin. bibliog diags J Aeronautical Sci 13:537-42 O '46
To improve combustion, let's improve the coal; development of activated coal. I. R. Hoffman. Power Pl Eng 50:71+ Ap '46

See also
Boilers—Firing
Flame propagation
Flames
Fuel
Gas burners
Locomotive boilers—Firing
Oxidation
Spontaneous combustion

COMBUSTION, Heat of
Heats of combustion and air required to burn hydrocarbons; tabulation. Oil & Gas J 44:B104 sec 2 Mr 30 '46
Heats of combustion and formation at 25° C of the alkylbenzenes through $C_{10}H_{14}$, and of the higher normal monoalkylbenzenes. E. J. Prosen and others. bibliog J Res Nat Bur Stand 36:455-61 My '46
Heats of combustion of four cyclopentane and five cyclohexane hydrocarbons. W. H. Johnson and others. bibliog J Res Nat Bur Stand 36:463-8 My '46
Heats of formation and combustion of the normal alkylcyclopentanes and cyclohexanes and the increment per CH_2 group for several homologous series of hydrocarbons. E. J. Prosen and others. bibliog J Res Nat Bur Stand 37:51-6 Jl '46
Heats of formation, hydrogenation, and combustion of the monoolefin hydrocarbons through the hexenes, and of the higher 1-alkenes, in the gaseous state at 25° C. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 36:269-75 Mr '46
Note on the density and heat of combustion of benzoic acid. R. S. Jessup. bibliog J Res Nat Bur Stand 36:421-3 Ap '46

COMBUSTION, Submerged
Heating by immersion and submerged combustion. C. C. Eeles. chart Am Gas Assn Mo 28:179-81 Ap '46; Same. Am Gas J 165:14-16 S '46
Submerged combustion in industry; abstract. W. G. See. Steel 119:131 O 14 '46

COMBUSTION analysis
Analysis of organoselenium compounds. J. D. McCullough, T. W. Campbell and N. J. Krilanovich. bibliog diag Ind & Eng Chem Anal ed 18:638-9 O '46
Apparatus for the determination of organic sulphur compounds in manufactured gas. I. J. W. MacHattie and N. L. McNiven. bibliog il diags Can Chem & Process Ind 30:87-90+ Jl '46; Same. Am Gas J 165:47-51 O '46
Determination of chlorinated hydrocarbon vapors in air. R. W. Schayer and H. H. Ackerman. diag J Ind Hygiene 28:237-40 S '46
Determination of nitrogen by combustion; improved Dumas apparatus and recycle procedure. H. Gonick and others. il diags Ind & Eng Chem Anal ed 17:677-82 N '45
Lamp method for determination of hydrogen in liquid organic compounds. S. G. Hindin and A. V. Grosse. diag Ind & Eng Chem Anal ed 17:767-9 D '45
Study of Millin technique for determination of carbon and hydrogen in coal. R. J. Grace and A. W. Gauger. bibliog il diag Ind & Eng Chem Anal ed 18:563-5 S '46
Sulphur determination. Mech Eng 68:982 N '46

COMBUSTION research. See Internal combustion engines—Combustion research

COMICS (books, strips, etc.)
Comics are a serious business. N. R. Abelson. Adv & Sell 39:41-2+ Jl; 80+ Ag '46

COMMAS
Punctuation problems concern printing industry. E. N. Teall. Inland Ptr 116:46-7 Mr '46

COMMERCE
Broad factors affecting today's world trade; abstract. P. V. Horn. For Comm W 21:21 N 24 '45
International organizations fostering foreign trade. L. L. Lorwin. Comm & Fin Chr 164:2077+ O 24 '46; Same. il For Comm W 25.3-4+ O 26 '46
International trade conference making rapid progress. Comm & Fin Chr 164:2205+ O 31 '46
International trade: cooperative or competitive? C. A. Peters, comp. Ref Shelf v 19 no 1:1-306 bibliog(p292-306) '46 ($1.25)
Intra-Pacific trade. P. Wiers. il map(p8) For Comm W 24:9-12+ Ag 17 '46
Is foreign trade indispensable to the prosperity of American labor? P. V. Horn. For Comm W 21:15 D 1 '45
Japan's export vacuum; who can now fill it? F. F. Miller. For Comm W 22:7-12+ F 16 '46
Organization to liberate world trade. C. Wilcox. Ann Am Acad 246:95-100 Jl '46
Outlook for world trade. P. D. Reed. Comm & Fin Chr 164:2133+ O 24 '46
Reconstructing forces promoting international commerce; restoration of stable monies first. I. Wright. Comm & Fin Chr 164:205+ Jl 11 '46
Russia's stake in Danubian countries, its impact on foreign commerce. C. Prince. Comm & Fin Chr 164:1374+ S 12 '46
Standards and world trade. H. J. Wollner. il Ind Stand 17:147-9 Je '46
Struggle for world markets. V. L. Horoth. il Mag of Wall St 78:202-3+ My 25 '46
Trade prospects in war torn countries. W. M. Friedlaender. Comm & Fin Chr 164:749+ Ag 8 '46
Trade talks; the points at issue; Preparatory committee of the International conference on trade and employment. Economist 151:630-1 O 19 '46
U.S. loses export initiative; Europe gaining ground in world trade race. il Bsns W p15-16 O 12 '46
World inflation or deflation; implications for world trade. A. W. Zelomek. Comm & Fin Chr 164:1375+ S 12 '46
World looks at the United States; as others see us in international trade. W. L. Batt. Credit & Fin Management 47:15-17+ D '45
World-trade round-up; recent salient trends; with charts, graphs, tables. P. Wiers. For Comm W 23:10-13+ My 18 '46 [cont monthly]
Your stake in foreign trade. A. Paul. il Dom Comm 34:5-6+ My '46

See also
Aeronautics, Commercial
Balance of payments
Banks and banking
Business
Commercial policy
Commercial statistics
Competition
Corn laws
Credit
Exhibitions
Export trade
Foreign exchange
Free trade and protection
Imports
Insurance, Marine
International trade and services association
International trade organization (proposed)
Interstate commerce
Interstate commerce commission
Maritime law
Marketing
Merchandizing
Merchant marine
Money
Ports
Prices
Purchasing
Shipment of goods
Shipping
Stock exchange
Stocks
Tariff
Trade marks
Transportation
Trusts, Industrial—International trusts
Waterways

also subdivision Commerce under names of countries, regions, etc. e.g. Europe—Commerce; Great Britain—Commerce; United States—Commerce

Bibliography
Question of foreign trade. (Business literature v. 18, no. 5) p33-4 Business lib, Newark public lib, Newark, N.J. Ja '46

Dictionaries
Dictionary of foreign trade. F. Henius. 745p $10 Prentice-Hall, 70 Fifth av, New York 11 '46

COMMERCE and production, Inter-American council of. See Inter-American council of commerce and production

COMMERCIAL aeronautics. See Aeronautics, Commercial

COMMERCIAL buildings
Builder plans home merchandising service in Buffalo, N.Y.; converts residential structure into headquarters. il plans Am Bld 68:104-5 Je '46
International Harvester launches prototype designs for 8,000 retail dealers. il plans Arch Forum 84:114-17 Ja '46

See also
Store buildings
Warehouses
also New York (city)—Graphic arts center, proposed

COMMERCIAL correspondence
Business phrases in six languages; for writing letters in English, Spanish, French, Dutch, German, Russian. D. de Levie, comp. 135p $1.75 Pitman pub. corp, 2 W. 45th st, New York 19 '46
Get them to write you, but be sure you answer; many companies lose prospective customers. J. A. Murphy. Adv & Sell 39:49+ Mr '46
Have you said "thank you" by letter lately? W. H. Butterfield. Ptr Ink 214:25 F 15 '46
How about "Truly yours"? Ptr Ink 213:51 N 30 '45
How-do-you-do letters create goodwill. W. H. Butterfield. Banking 38:48-9 D '45
Jig-time routine for turning out pat replies to inquiries; Mutual life insurance company of New York receives over 12,000 letters every month; answers 92% within three days. C. B. Reeves. Sales Management 56:90+ Je 15 '46
Letters that make friends. W. H. Butterfield. Banking 38:74 My '46
Practical plan to improve letters. D. Ross. Ptr Ink 216:96-7 S 27 '46
Revere's letters build sales and good-will abroad for U.S. D. F. Haggerty. Sales Management 56:109+ F 15 '46
Signature on letterhead indicates company responsibility. Ptr Ink 215:121 Ap 19 '46

See also
Applications for positions
Dictation
Envelopes
Follow-up systems
Inquiries
Letterheads
Mail order business

COMMERCIAL credit company
Commercial Credit vs. C.I.T. Financial; comparative audit. F. R. Walters. Mag of Wall St 78:153-5+ My 11 '46
Summary of consolidated operations for calendar years 1942-1945. Comm & Fin Chr 163:1423 Mr 18 '46

COMMERCIAL investment trust corporation. See Commercial investment trust financial corporation

COMMERCIAL investment trust financial corporation (formerly Commercial investment trust corporation)
Annual report. Comm & Fin Chr 164:417 Jl 22 '46
Commercial Credit vs. C.I.T. Financial; comparative audit. F. R. Walters. Mag of Wall St 78:153-5+ My 11 '46
Financial position. Mag of Wall St 77:697, 729 Mr 16 '46

COMMERCIAL law

See also
Advertising—Laws and regulations
Attachment and garnishment
Banking law
Bankruptcy
Bills of lading
Carriers
Checks—Law
Contracts
Corporation law
Drafts
Foreign exchange
Fraud
Government regulation of industry

COMMERCIAL law—See also—*Continued*
Income tax
Indorsement
Insurance law
Maritime law
Mortgages
Negotiable instruments
Partnership
Patent laws and legislation
Prices—Regulation
Promissory notes
Public utilities—Law
Sales
Sales, Conditional
Trade marks
Trusts, Industrial
Trusts and trustees
Vendors and purchasers

Examinations

American institute of accountants examination in commercial law, Nov. 9, 1945. J Account 81:320-6 Ap '46

Study and teaching

Uniform certified public accountant examination in law. S. Gordon. J Account 82:414-20 N '46

South Africa

Amendment to Merchandise marks act. For Comm W 23:35+ Ap 27 '46

COMMERCIAL paper. See Drafts; Negotiable instruments; Promissory notes; Warehouse receipts

COMMERCIAL policy
Anglo-American loan agreement; trade proposals. Economist 149:853-4 D 15 '45
Barter and bulk buying. P. Einzig. Comm & Fin Chr 164:881+ Ag 15 '46
British credit: trade keystone. Bsns W p15-16 D 15 '45
Businessman's stake in British loan. W. L. Clayton. Dom Comm 34.3-4 Ap '46
Businessmen examine trade expansion proposals. H. M. Bratter. Comm & Fin Chr 164:334+ Jl 13 '46
Canada and U.S.; islands of private enterprise; address before National foreign trade conference, Hamilton, Ontario. W. Ward. Comm & Fin Chr 163:2701+ My 16 '46
Clearer, smoother paths for world trade sought; entree for American business group into UN provides new opportunity. S. G. Ebert. Barron's 26:12 N 11 '46
Cooperation for world's economic well-being; address at National foreign-trade convention. H. A. Wallace. For Comm W 21:3-4+ D 1 '45
Financial problems in future foreign trade. R. F. Loree. Comm & Fin Chr 162:2875+ D 13 '45
Future of international economic relationships; abstract. C. Wilcox. For Comm W 21:17 D 15 '45
International economic policy. W. W. Aldrich. Comm & Fin Chr 164:1989+ O 17 '46
International regulation of world trade; address before Preparatory committee of the International trade and employment conference, London. S. Cripps. Comm & Fin Chr 164:2208+ O 31 '46
International trade increasingly shackled; our loans will not prevent continued quota and exchange restrictions. J. Hirsch. Barron's 25:7+ D 17 '45
Major trade-policy trends during 1945. H. Chalmers. For Comm W 22:3-4+ F 9; 4-6+ F 16; 8-10+ F 23 '46
Observations; world trade charter. A. W. May. Comm & Fin Chr 164:1533+ S 26 '46
Organizing for peace and world trade; role of international agencies. Index 26 no 3:49-57 [S] '46
Peace and foreign trade. J. G. Winant. Comm & Fin Chr 163:2973+ My 30 '46
State trading in Europe; its status and prospects. H. Chalmers. For Comm W 21:3-4+ N 10 '45
Three barriers to world-wide economic teamwork. H. L. Jome. il Dun's R 54:10-14+ Ag '46
Trade and employment; the proposals submitted by United States for consideration by an international conference. Economist 149:869-73 D 15 '45
Trade reconstruction in the Americas. S. Braden. il For Comm W 21:3-4+ D 8 '45
Truman-Attlee views on U.S-U.K. economic and financial aims. Comm & Fin Chr 162:2921+ D 13 '45
United Kingdom and postwar international trade. Fed Res Bul 32:1-13 Ja '46

See also
Commercial treaties and agreements
Free trade and protection
Tariff

also subdivision Commercial policy under names of countries, e.g. Great Britain—Commercial policy; United States—Commercial policy

COMMERCIAL products

See also
Chemicals
Raw materials

COMMERCIAL statistics
Commercial history and review of 1945. Economist 150:supl-16 Mr 23 '46
Intra-Pacific trade. P. Wiers. il map(p8) For Comm W 24:8-12+ Ag 17 '46
Monthly statistics of world trade; 1936-38 monthly average, monthly figures 1945 and Jan. 1946-date. For Comm W 23:25-7 Je 15 '46 [cont monthly]
New foreign-trade transport statistics. J. E. Ely. For Comm W 21:8-9+ N 24 '45
Some measurements of elasticities of substitution. J. Tinbergen. R Econ Stat 28:109-16 Ag '46
United States foreign trade; total exports and total imports and distribution of trade by economic classes, leading commodities, and leading countries; 1936-38 monthly average, monthly figures 1945 and Jan. 1946-date. For Comm W 23:16-24 Je 15 '46 [cont monthly]
World trade; official statistics of various countries, 1945 and Jan. 1946-date; graphs. For Comm W 23:6 Je 15 '46 [cont monthly]
World-trade round-up; recent salient trends; with charts, graphs, tables. P. Wiers. For Comm W 23:10-13+ My 18 '46 [cont monthly]
World trade statistics released from censor; basic tables maintained by International trade unit, Bureau of foreign and domestic commerce; countries and years, and commodities for which statistics are available. P. Wiers. For Comm W 21:5+ D 8 '45

See also
Balance of payments
Export trade—Statistics
Imports—Statistics

COMMERCIAL treaties and agreements
American tariff league asks more time to consider proposed trade agreements. Textile Col 68:42+ Ja '46
Argentina concludes commercial agreement for reciprocal purchases and eventual tariff concessions with Ecuador. For Comm W 24: 16 S 21 '46
Argentina concludes commercial agreement with France; terminates United Kingdom trade agreement. For Comm W 21:24 N 10 '45
Argentina pact with Britain signed. Bsns W p117-18 S 28 '46
Argentina signs trade agreement with United Kingdom; covers payments; meat purchases; British railways. For Comm W 24: 18-19 S 28 '46
Belgium signs agreement for exchange of goods with France. For Comm W 21:24 N 10 '45
Britain, Argentina sign trade pact. Comm & Fin Chr 164:1701 O 3 '46
Britain's financial and trade pact with Argentina and Brazil. il Mag of Wall St 79: 80 O 26 '46
Chile concludes provisional most-favored-nation commercial agreement with France; Commercial treaty of 1941 with Peru extended. For Comm W 25:15 O 12 '46
Chile signs memorandum of agreement with Belgium recommending provisional commercial agreement, and protocol. For Comm W 24:29 Jl 13 '46
Chile signs new commercial treaty with Peru. For Comm W 23:15-16 Je 29 '46
Chilean-Cuban treaty of commerce and navigation of 1937 broadened. For Comm W 23: 21 Je 8 '46
Controlling world trade; cartels and commodity agreements. E. S. Mason. 289p $2.50 McGraw-Hill book co, New York '46

COMMERCIAL treaties and agreements—*Cont.*
Czechoslovakia; commercial agreements with enemy countries declared invalid; agreement with Switzerland extended. For Comm W 23:24 Je 22 '46
Danish-Norwegian commodity exchange agreement concluded. For Comm W 23:25 Je 8 '46
Denmark concludes goods-exchange agreements with Hungary and U.S.S.R.; trade and payments agreement with Portugal. For Comm W 25:29 O 19 '46
Denmark concludes trade agreement with Sweden. For Comm W 23:21 Ap 13 '46
Ecuador-Chile commercial agreement of 1936 granting reciprocal tariff and trade concessions broadened. For Comm W 22:20-1 Ja 5 '46
France and the United States; four agreements on economic and financial problems; text. For Comm W 23:51-3 Je 15 '46
France signs commercial agreements with Norway, Denmark and the Netherlands. For Comm W 24:27 Jl 6 '46
French-Swedish commercial agreement signed at Stockholm on June 28. For Comm W 24:21 Ag 3 '46
Italy signs commercial agreement for exchange of goods and payments agreement with Switzerland. For Comm W 21:28-9 N 17 '45
Meaning of Britain's trade agreements with Europe. V. L. Horoth. Mag of Wall St 77:199-200+ N 24 '45
Netherlands concludes trade agreement and monetary agreement with Belgium. For Comm W 24:34 Jl 13 '46
Netherlands concludes trade and payments agreement with Italy. For Comm W 25:18 O 5 '46
Norway concludes agreement governing trade during 1946 with Sweden. For Comm W 23:30 Ap 6 '46
Norway concludes payments and commercial agreement with Switzerland. For Comm W 23:29 Je 8 '46
Paraguay and United States sign new trade agreement; measures to liberalize trade established. For Comm W 24:33-9 S 28 '46
Poland signs goods exchange agreement with Norway; Polish-Soviet mutual cooperation and trade agreement and commodities exchange agreement. For Comm W 25:36 O 19 '46
Portugal concludes trade and payments agreements with the Netherlands. For Comm W 23:34 Je 22 '46
Russia and Uruguay sign accord. Comm & Fin Chr 164:1184 Ag 29 '46
Russian-Roumanian trade agreement. Economist 149:561-2 O 20 '45
Soviet agreements with neighboring nations. Bsns W p101-2 F 2 '46
Soviet-Hungarian trade agreement. Economist 149:938 D 29 '45
Soviet-Swedish agreement. Economist 151:597 O 12 '46
Spain concludes trade and payments agreement with the Netherlands. For Comm W 23:35 Je 22 '46
Sweden concludes agreement to increase exchange of goods with Poland; supplementary trade agreement concluded with Belgium. For Comm W 23:36 My 18 '46
Sweden negotiates commodity exchange arrangement with Switzerland; commercial and payments agreement concluded with Turkey. For Comm W 24:35-6 Jl 13 '46
Switzerland and U.S. conclude trade agreement; resumption of trade between U.S. zone of occupation and Switzerland; text. Comm & Fin Chr 164:2087+ O 24 '46
Switzerland concludes commercial and payments agreement with Poland. For Comm W 23:30 Je 29 '46
Trade pacts multiply in Europe. Bsns W p109-10 S 21 '46
Uruguay signs commercial agreement with Belgium-Luxemburg. For Comm W 24:26-7 S 28 '46

COMMISSION merchants
See also
Factors

COMMISSIONS, Federal. See United States—Executive departments

COMMITTEE for economic development
After reconversion, selling faces its biggest job; results of C.E.D. marketing committee and related facts summarized. A. Haring. il Dun's R 54:21-6+ Ja '46
Broadens activities; Information committee members. Comm & Fin Chr 164:354 Jl 18 '46
CED plans expansion of activity in field of economic research; abstract. P. G. Hoffman. Iron Age 157:144 Mr 7 '46
Fiscal policy to fight inflation; statement on national policy. Comm & Fin Chr 164:1540+ S 26 '46; Same. Credit & Fin Management 48:4+ O '46
Future of C.E.D. Bsns W p22+ Je 8 '46
New trustees elected to CED to facilitate reoriented program. Iron Age 157:123-4 Je 6 '46
Research staff of CED proposes extension of price controls to 1947. Iron Age 157:160+ Mr 7 '46
What of the farm? summary of research committee. Bsns W p31-2+ D 8 '45

COMMITTEE on the measurement of opinion, attitudes, and consumer wants
National research council and Social science research council joint committee. Science 103:79 Ja 18 '46

COMMITTEE supporting the Bush report
Pending legislation for federal aid to science. Science 102:547-8 N 30 '45

COMMITTEES (in management)
Committees ease new products headaches by coordinating departmental activities; Westinghouse electric corporation. R. F. Bisbee. Am Mach 90:113-15 S 12 '46
See also
Safety committees

COMMODITY control
Difficulties of regulation in international raw material trade. F. Haussmann. Comm & Fin Chr 163:3342+ Je 20 '46
New worldwide commodity controls likely. C. H. Grattan. Barron's 26:3+ Ja 28 '46
See also
Prices—Regulation
Rationing

COMMODITY exchanges. See Exchanges

COMMON disaster law. See Survivorship, Presumption of

COMMON trust funds. See Trusts and trustees—Common trust funds

COMMONWEALTH and southern corporation
Decides to modify plan. Comm & Fin Chr 162:2389 N 19 '45
Files new plan. Comm & Fin Chr 163:1724 Ap 1 '46
Financial news. Pub Util 37:234-5 F 14 '46
Values behind Commonwealth & Southern common substantial. E. Etherington. Barron's 26:9 Jl 1 '46

COMMONWEALTH fund
Grants. Science 102:661 D 28 '45

COMMONWEALTH title company of Philadelphia
Stock offered. Comm & Fin Chr 163:1155 Mr 4 '46

COMMUNICATION, Military
High-power military sound systems. il Electronics 19:216+ F '46
Infantry combat communications. R. E. Willey. il diag Elec Eng 65:1-7 Ja '46
See also
Military telegraph
Military telephone
Radio communication, Military

COMMUNICATION and traffic
See also
Airlines
Airways
Factory communication
Highway transportation
Motor vehicles
Pipe lines—Communication systems
Radio communication
Railroads
Rapid transit
Roads
Shipping
Street traffic
Telegraph
Telephone
Teletype
Television
Transportation
Waterways

Germany
German communications system. E. H. Merrill. Pub Util 38:539-43 O 24 '46

COMMUNICATION and traffic—*Continued*

Philippine Islands

Telecommunications in operation. For Comm W 22:29-30 Mr 2 '46

COMMUNISM

American capitalism vs. Russian communism. C. A. Peters, comp. Ref Shelf v 18, no 7:1-305 bibliog(p289-305) H.W. Wilson co. '46 ($1.25)

Fortune survey; where are U.S. Reds? Fortune 34:6 Jl '46

Revolutionary complexion of Europe. M. Palyi. Comm & Fin Chr 164:478+ Jl 25 '46

You can't laugh off the Reds. il Factory Management 104:82-6 Je '46

See also

Marx, Karl

Trade unions—Communist problem

COMMUNISM and the Roman Catholic church. See Roman Catholic church and communism

COMMUNIST party (Belgium)

Communist party. J. Terfve. Ann Am Acad 247:17-20 S '46

COMMUNIST party (Russia)

Politburo; who they are and how they work. V. Kravchenko. il Fortune 34:93-9+ S '46

COMMUNIST party (United States)

Communist influence in American labor movement. E. Lyons. Comm & Fin Chr 163: 3053+ Je 6 '46

Hammer and tongs: new C.P. line. Fortune 33:105-7 Je '46

Opinion on extent of communism in trade unions; Gallup poll. Iron Age 158:164-5 Jl 18 '46

Unions with communists; widening cleavage between non-communists and communists in CIO unions. Economist 150:884 Je 1 '46; Same. Iron Age 157:103+ Je 13 '46

COMMUNITY advertising

Advertising helps to balance state's agriculture with its industry; Mississippi communities pay for plants with bond issues which are retired through earnings. D. Markstein. il Ptr Ink 214:75+ Mr 1 '46

Campaign stems flow of buyers to larger city; Berkeley, Calif. appeal to local residents. T. H. Moriarty. il Ptr Ink 217:52-3 N 8 '46

Dallas Chamber promotes seven-state area. il Ptr Ink 215:82 My 17 '46

How promotion spared this boom town from industrial limbo; Richmond, Calif. Sales Management 57:128+ O 1 '46

Kentucky moves to attract new industries. P. Hughes. Manuf Rec 115:38+ Je '46

Peoria adopts tell all technique. Ptr Ink 216: 90 S 27 '46

COMMUNITY centers

Building types: community buildings; reference studies on design and planning; with directory of recent buildings. il map plans diags Arch Rec 99:97-112 My '46

Community theater; Q theater, Kew gardens. il plans diags Arch Forum 84:97-103 Je '46

Stores combined with community center serves 700 housing units; Winfield Park, Linden, N.J.; illustrations. Brick & Clay Rec 109:18-19 O '46

Two wartime community centers; Bagley Downs, Vancouver, Wash. and Pine Ford Acres, Harrisburg, Pa. il plans Arch Forum 84:107-11 Ja '46

COMMUNITY chests

How to put selling steam behind a fund raising drive; Cleveland's Community chest drive. A. H. Billingsley. il Sales Management 57:82+ Ag 1 '46

COMMUNITY life

Educational, cultural, and recreational services to increase participation in community life. R. R. Isaacs. Ann Am Acad 242:129-38 N '45

COMMUNITY property

Community property and credit. C. B. Everberg. Credit & Fin Management 48:4-6 S '46

Community property estate tax cases; Wiener and Rompel decisions analyzed. W. L. Nossaman. Trusts & Estates 82:221-4 F '46

New property law in Oklahoma; community statute interests credit men. H. W. Priest. Credit & Fin Management 48:8-10 Ag '46

Proceeds problem in community property; Hardin v. Volunteer Life. R. W. Malone. East Underw 47:8+ N 8 '46

Put end to 50-50 split of proceeds for estate tax. Nat Underw (Life ed) 49:1 D 14 '45

Tax saving due; Internal revenue bureau will accept Oklahoma community property law. Bsns W p27 Ja 5 '46

Taxation of community property. Spectator (Life ed) 153:32-3+ Ja '46

Taxation of community property; joint ownership and other problems. W. L. Nossaman. Trusts & Estates 83:161-5 Ag '46

COMMUNITY salesmen

Little to sell, but Los Angeles resumes market trade trips. Sales Management 56:126 Ap 1 '46

COMMUTATORS

Commutator maintenance. C. B. Hathaway. il diags Water & Sewage Works 93:399-402 O '46

Filters keep dust out of exciter commutators. A. W. Francis. il Elec World 124:144 D 8 '45

Polyphase commutator regulator for speed control. A. G. Conrad and others. diags Elec Eng 65:Trans 321-7 Je '46

See also

Brushes (electric machinery)

Manufacture

Automatic work-indexing device for milling machine; slotting commutators for small electric motors. E. Lay. diags Mach 53:215-16 N '46

Testing

Indicator speeds checking of motor commutators. il Power Pl Eng 50:99 Ag '46

COMMUTERS. See Airlines—Commuter service

COMOL. See Magnetic materials

COMPACTS (cosmetics)

Designing for a single material; Mavco compacts. il Mod Plastics 23:110-13 Ja '46

COMPANY anniversaries. See Anniversaries, Company

COMPANY names. See Corporate names

COMPANY parties. See Recreation

COMPANY towns

Bibb company builds 160-unit village for housing workers. il plan Textile World 95: 109 D '45

Espanola and its citizens. W. Elvish. il Pulp & Pa of Can 47:94-5 O '46

Marathon builds a mill and a town in a Canadian wilderness. il Paper Ind 28:930, 936-8 O '46

Mexican experiment in employee relations; Distribuidora Mexicana, fabricator of office and household metal furniture is complete industrial community il Factory Management 104:66-9 Ap '46

Personnel and townsite; Red Rock division of Brompton pulp and paper co. E. E. Barlow. il Pulp & Pa of Can 47:83-5 Jl '46

Story of a pulp and paper town; Ocean Falls. il Pulp & Pa of Can 47:63-6 Ag '46

See also

Housing projects, Company

Mining towns

COMPANY unions

Individualism pays; unorthodox steel company and equally unusual union keep mills running. Bsns W p37-8 Je 22 '46

COMPAR. See Vinyl compounds

COMPARATORS

Edgwick thread comparator. il Engineer 181: 208 Mr 1 '46; Engineering 161:222 Mr 8 '46

Internal-thread comparator. il diag Engineering 162:55 Jl 19 '46

Michigan sine-line lead comparator for helical gears. il Mach 52:202 Jl '46

Michigan tool lead comparators. il Am Mach 90:152 Ag 1 '46

New approach in evaluating surface roughness of gear teeth. L. D. Martin. il diags Product Eng 17:110-14 S '46

Optical comparator made in the shop. E. J. Heyman. diags Am Mach 89:112-13 N 22 '45

Sigma mechanical comparator. il Engineering 161:414 My 3 '46

COMPARATORS—*Continued*
Taylor-Betz comparator. il R Sci Instr 16: 383 D '45

COMPASS
Elimination of direct-reading compass errors by proper aircraft design. J. F. Manildi. diags Aeronautical Eng R 5:3-10 My '46
Plastics improve design of compass for land vehicles. D. J. Faustman. il diag Machine Design 18:133-4+ Ja '46
See also
Gyro compass

COMPENSATION (law)
See also
Damages
Workmen's compensation

COMPETITION
Brand names and free enterprise. H. E. Abt. Comm & Fin Chr 163:3477+ Je 27 '46
Can free competition prevent inflation? symposium. I. Mosher and others. Comm & Fin Chr 164:1138+ Ag 29 '46
Coming competitive clash; diversification plans. J. D. C. Weldon. Mag of Wall St 79: 127-8+ N 9 '46
Farmers' cooperatives as competitors. H. W. Selby. Harvard Bsns R 24 no2:215-27 [Ja] '46
Price trouble ahead; everyday consumer needs are headed for period of price competition. J. H. Rehm. Adv & Sell 38:41+ D '45
Renovated capitalism; revitalizing business competition. M. V. Jones. J Bsns 18 pt2: 24-36 O '45
See also
Price fixing
Trusts, Industrial

COMPETITION, International
Fight for Latin markets is on; Britain and United States are competitors. Bsns W p101 Mr 9 '46
Struggle for world markets. V. L. Horoth. il Mag of Wall St 78:202-3+ My 25 '46

COMPETITION, Unfair
Libel of product can be stopped. A. W. Gray. Inland Ptr 116:66-7 N '45

COMPETITIVE bidding. See Contracts, Letting of; Securities—Marketing

COMPLAINTS
Intelligent handling of complaints will sell more chemicals. L. A. Watt. Chem Ind 58:49-50+ Ja '46

COMPLEMENT fixation
Apparent serological heterogeneity among strains of tsutsugamushi disease (scrub typhus). I. A. Bengtson. Pub Health Rep 60:1483-8 D 14 '45
Complement fixation in tsutsugamushi disease (scrub typhus). I. A. Bengtson. bibliog Pub Health Rep 61:895-900 Je 14 '46
Heated, avirulent antigens for complement-fixation tests with certain encephalitis viruses. J. Casals. Science 102:618-19 D 14 '45
Method of conducting the 50 percent hemolysis end point complement-fixation test for parasitic diseases. J. Bozicevich and others. Pub Health Rep 61:529-34 Ap 12 '46
Prevalence of typhus complement-fixing antibodies in human serums in San Antonio, Tex. D. E. Davis and M. Pollard. Pub Health Rep 61:923-31 Je 21 '46
Separation of the complement-fixing agent from suspensions of yolk sac of chick embryo infected with the Karp strain of tsutsugamushi disease (scrub typhus). I. A. Bengtson. Pub Health Rep 61:1403-8 S 27 '46
Serological relationships in the epidemic-endemic typhus group as determined by complement fixation. I. A. Bengtson. Pub Health Rep 61:1379-85 S 20 '46
Serological study of 37 cases of tsutsugamushi disease (scrub typhus) occurring in Burma and the Philippine Islands. I. A. Bengtson. Pub Health Rep 61:887-94 Je 14 '46

COMPLETED operations coverage. See Insurance, Products liability—Completed operations coverage

COMPLEX salts. See Salts, Complex

COMPO shoe machinery corporation
Big increase likely in Compo shoe's net. Barron's 26:7 Je 3 '46

COMPOSTS. See Fertilizers

COMPREG. See Plywood

COMPREHENSIVE fabrics, inc.
Working with the manufacturer; Koroseal licensee and distributor gives advice and service, promoting various items made from its product and guarding quality standards. E. M. Housman. il Ptr Ink 214:62+ Ja 25 '46

COMPRESSED air
Air bubbles save ducks; compressed aid prevents ice formation on lagoon in Milwaukee's Juneau park. il Comp Air Mag 51:46 F '46
Air pressure for testing aircraft structures. C. R. Smith. il Automotive & Aviation Ind 95:18-19+ S 1 '46
Air springs proposed for railroad cars. il Comp Air Mag 51:278 O '46
Air under the sea. T. McConlogue. il Comp Air Mag 51:270-3 O '46
Case for the full-pneumatic system. J. L. Dooley. diags Aviation 45:68-72 My; 76-80 Je '46
Compressed air aids automotive parts production; Midland steel products co. il Steel 118:90-1+ F 25 '46
Compressed air at Winchester Arms. il Comp Air Mag 51:94-7 Ap '46
Compressed air at work; illustrations with text. Comp Air Mag 51:18-19, 104-5, 184-5 Ja, Ap, Jl '46
Compressed air speeds powder metal forming; clutch facings and brake linings; S. K. Wellman co. il Materials & Methods 23:729 Mr '46
Excessive air pressure needed to sink piers. Comp Air Mag 51:23 Ja '46
How air helped build a military base on Guam. R. P. Day. il Comp Air Mag 51: 15-17 Ja '46
Inflammable atmospheres; air-break switchgear for mines and other dangerous situations. F. Heaton and A. R. Heaton. diags Elec R (Lond) 138:405-7 Mr 15 '46
Masque à air comprimé pour la protection contre les fines poussières. Génie Civil 123: 53 F 15 '46
Roof floated on air during wrecking job. il Comp Air Mag 51:106 Ap '46; Same. Gas Age 98:20+ Jl 11 '46
See also
Air compressors
Air lifts
Pneumatic control
Pneumatic conveying
Pneumatic machinery
Pneumatic tools

Cost
Pneumatic power and control; where they fit; comparison with hydraulic; cost data. R. E. Becker. il diags Machine Design 18: 107-12 Ap '46

History
Compressed-air cavalcade. il Comp Air Mag 51:58-63 Mr '46
This and that; pneumatic oddities. il Comp Air Mag 51:86-9 Mr '46

Physiological effect
Extending compressed-air operations with helium-oxygen air; reduces physiological hazards. il Eng N 137:118-19 Jl 25 '46

COMPRESSED air guns
Compressed-air guns. il Comp Air Mag 51:84 Mr '46

COMPRESSED air lines
Flexible compressed air system meets layout changes; Chevrolet-Indianapolis division, General Motors. M. R. Harris. il plan Factory Management 104:106-7 My '46

COMPRESSED air magazine (periodical)
Our first fifty years. il Comp Air Mag 51: 56-7 Mr '46

COMPRESSED food. See Food, Compressed

COMPRESSED gas manufacturers' association
Elects officers. Oil Paint & Drug Rep 149:3 F 4 '46

COMPRESSED wood. See Wood, Compressed

COMPRESSIBILITY
Compressibilities of gas mixtures. G. Su, P. Huang and Y. Chang. bibliog Am Chem Soc J 68:1403-4 Ag '46
Compressibility of liquid hydrocarbons. E. W. Jacobson and others. bibliog Oil & Gas J 44:109-10 Mr 23 '46

COMPRESSIBILITY—*Continued*
Compression of sole leather. C. E. Weir. bibliog J Res Nat Bur Stand 35:257-71 O '45
Isothermal and adiabatic compressibilities of oil. A. Cameron. bibliog Inst Pet J 31:421-7 N '45; Correction. 31:494 D '45
Nature of the asthenosphere. R. A. Daly. bibliog Geol Soc Bul 57:707-26 Ag '46
Recent work in the field of high pressures; mechanical effects of high pressure. P. W. Bridgman. bibliog Rs Mod Phys 18:10-27 Ja '46
Volumetric behavior of 1-butene. R. H. Olds, B. H. Sage and W. N. Lacey. bibliog Ind & Eng Chem 38:301-3 Mr '46

See also
Elasticity

COMPRESSORS
Centrifugal compressors. E. P. Palmatier. Heating-Piping 18:103 Ap '46
Compression distillation shows promise for industrial use; abstract. A. Latham, jr. il Heating-Piping 17:632 D '45
Equipment advances 1944-45; pumps and compressors. Chem Ind 57:862-3 N '45
Hermetic compressor motors. F. L. Slade. Refrig Eng 50:528-9+ D '45
Higher compressor speed and larger pumps give more refrigeration; process for synthesis of neoprene. J. D. Constance. diag Power 90:325-6[issue p103-4] My '46
New developments in compressors for petroleum industry applications; abstract. J. N. MacKendrick. Oil & Gas J 45:95 O 12 '46
Oil-free reciprocating compressor; abstract. O. Waltu. diags Mech Eng 68:563-4 Je '46
Refrigeration notebook; cylinder losses in a refrigerant compressor. T. Mitchell. il Power 90:631 S '46
Simple device saves 51 hours in maintenance of compressors. diags Nat Pet N 38 pt 2: R10 Ja 2 '46
Single-stage vapor compressor adds engine to field service. il Pet Refiner 24:166+ N '45
Study of surging in fan or compressor systems. R. C. Binder. bibliog Franklin Inst J 241:125-36 F '46
Various types of compressors for supercharging. R. J. S. Pigott. diags S A E J 53:678-84 N '45; Same cond. Machine Design 17:119-22 Ag '45

See also
Air compressors
Ammonia compressors
Gas compressors
Steam compressors

Manufacture

Machining compressor crankshafts; Servel inc. G. E. Stedman. il Steel 119:94-5 S 16 '46
Special work-handling fixtures; production of compressor units for refrigerators; Crosley corp. C. C. Peck. il Materials & Methods 23:776 Mr '46
Transfer machine uses 152 tools; manufacture of refrigerator-compressor bodies. il diags Am Mach 90:116-18 Jl 4 '46
Welding machine speeds refrigerator manufacture. C. C. Peck. il diag Iron Age 157: 62-3 F 21 '46

Testing

Progress in refrigerant compressor testing as an aid to design. L. Hanson. il diags Refrig Eng 49:361-4+; 50:33-8+; 52:131-6+ My, Jl '45, Ag '46

COMPTON, Karl Taylor, 1887-
Dr. Compton's fifteen-year presidency celebrated. Tech R 48:171-2 Ja '46

COMPULSORY insurance. See Insurance, Compulsory

COMPUTATION laboratory. See Harvard university—Computation laboratory

COMPUTERS. See Calculating machines

COMSTOCK lode. See Gold mines and mining—Nevada

CONANT, James Bryant, 1893-
James Bryant Conant. K. T. Compton. Science 103:191-2 F 15 '46
Portrait. Fortune 33:118 Je '46

CONCENTRATION camps
Concentration camps in the Netherlands. A. Timmenga. Ann Am Acad 245:19-27 My '46

CONCENTRATION cells
Application of the principle of the concentration cell to kinetic studies; hydrolysis of *t*-butyl chloride in 95% water-5% acetone solution. C. G. Swain and S. D. Ross. diag Am Chem Soc J 68:658-61 Ap '46

CONCENTRATORS
Concentrator duplicates panning motion. il Eng & Min J 147:78 Ja '46
Modernized device makes tin plant possible; Buckman tilting concentrator. J. B. Huttl. flow sheet il Eng & Min J 147:84-7 My '46
Spiral concentrator recovers tantalum ores at the Harding mine. J. A. Wood. flow sheet il Min Cong J 32:44-5 Ja '46

CONCESSIONS

See also
Airports—Concessions
Petroleum—Concessions

CONCHILITES
Is this the missing link? Canadian geologist discovers shell like forms in Steep Rock area. W. M. Goodwin. il Can Min J 67:865-6 S '46

CONCILIATION service. See United States—Conciliation service

CONCRETE
American concrete institute discusses precasting, prestressing, entrained air at annual meeting. il Eng N 136:427-9 Mr 21 '46
ASTM holds second largest annual meeting. Concrete 54:26-9+ Ag '46
A.S.T.M. meeting in Buffalo; cement, aggregates, concrete and lime developments and tests; reports and papers. Rock Prod 49:166+ Ag '46
Concrete, miscellaneous details. diags Oil & Gas J 44:93 D 22 '45
Design of concrete piers for horizontal storage tanks. O. L. Garretson and H. R. Zeigler. il Pet Refiner 25:131-3 S '46
La granulométrie rationnelle du béton: le néobéton. R. Vallette. Génie Civil 123: 123-4 My 15 '46
La granulométrie rationnelle du béton: le néobéton. J. Villey. Génie Civil 123:71-4 Mr 15 '46
Recherches expérimentales relatives au néobéton; reply by R. Vallette. J. Valley. Génie Civil 123:259-62 O 1 '46
Restoring California highway bridges; concrete for repair and protection against scour. M. A. Ewing. il Concrete 53:2-5 N '45

See also
Bridges, Concrete
Cement
Concrete, Reinforced
Concrete construction
Concrete lining
Grouting
Pavements, Concrete
Roads, Concrete

Aggregate

Alabama state highway specifications. Rock Prod 49:83-4+ My '46
Concrete at advance bases; using coral for aggregate. I. S. Rasmusson. il Am Concrete Inst J 17:541-51 Ap '46
Concrete durability; need for improvement; abstract. F. H. Jackson. il Concrete 54:14-15+ Mr '46
Concrete-making qualities of grit gravel. F. F. Bartel. Concrete 54:20+ O '46
Deterioration of concrete dams due to alkali-aggregate reaction. R. F. Blanks and H. S. Meissner. bibliog il Am Soc C E Proc 71:3-18 Ja '45; Discussion. 71:1089-1110, 1556-8; 72:126-37 bibliog(p136-7), 655-67 S, D '45-Ja, My '46.
Effect of air entrainment on stone sand concrete. A. T. Goldbeck. Am Concrete Inst J 17:649-54 Je '46
Effect of moisture on thermal conductivity of limerock concrete. M. Tyner. bibliog il diags Am Concrete Inst J 18:9-18 S '46
Examination and testing of concrete materials. L. A. Thorssen. diags Roads & Bridges 84:67+ F '46
Expansion test as a measure of alkali-aggregate reaction. R. F. Blanks and H. S. Meissner. il Am Concrete Inst J 17:517-39 Ap '46
Highway specifications in Missouri. H. E. Swanson and N. C. Rockwood. Rock Prod 49:102 O '46

CONCRETE—Aggregate—*Continued*
Iowa highway specifications. H. E. Swanson and N. C. Rockwood. Rock Prod 49:84+ S '46
Laboratory as an aid to the production of aggregates; Consolidated rock products co. H. D. Jumper. il Rock Prod 48:104-5+ D '45
Louisiana; highway specifications. H. E. Swanson and N. C. Rockwood. map Rock Prod 49:86-8 Jl '46
Material specifications for highways; Wisconsin. il Rock Prod 48:113-14 D '45
Measure out aggregates with chute; Curtis block and supply co. H. E. Swanson. il Rock Prod 49:185+ Ag '46
Michigan state highway specifications. il Rock Prod 48:80-2 N '45
Mississippi; highway specifications. il maps Rock Prod 49:135-7 Ag '46
Moisture control in batching air-entrained concrete; Lake view sand & gravel co. il Rock Prod 49:90 O '46
New lightweight aggregate from fly ash and slag. R. F. Leftwich. plan Concrete 54:14-15+ Ja '46
Petrographic examination of concrete aggregates. R. C. Mielenz. bibliog Geol Soc Bul 57:309-18 Ap '46
Petrography of concrete aggregate. R. Rhoades and R. C. Mielenz. bibliog(65 titles) il Am Concrete Inst J 17:581-600 Je '46
Preparation of concrete aggregates for the Friant-Kern canal, Central Valley project; unit prices. Eng N 136:sup176 F 7 '46
Rubble yields materials for Europe's rebuilding; debris converted into aggregate for concrete blocks. il Eng N 136:455 Mr 28 '46
Tests of concrete containing Waylite. W. F. Kellermann. Pub Roads 24:244-7+ Jl '46
Typical aggregates operations, Oklahoma. N. C. Rockwood and H. E. Swanson. il Rock Prod 49:102-4+ F '46

See also
Concrete—Cinder concrete

Air entrainment
Addition of air-entraining agent at concrete mixer advocated. C. E. Wuerpel. bibliog il Civil Eng 16:496-8 N '46
Air-entrained cement; abstract. G. A. Mansfield. Concrete 54:16+ My '46
Air-entraining concrete; discussion at American concrete convention. Rock Prod 49:105+ Ap '46
Air-entraining concrete for pavements and bridges. il diags Roads & Bridges 84:72-3+ S '46
Air-entraining portland cement. C. L. Davis. il Arch Rec 100:126-7 O '46
Determination of Vinsol resin in portland cement. L. Bean and R. B. Peppler. bibliog Rock Prod 49:71-3+ Jl '46
Determining air content of cement mortars. C. J. Knickerbocker. Rock Prod 49:73 F '46
Dewey and Almy air-entraining agent meter. il Rock Prod 49:59 Jl '46
Effect of air entrainment on the durability of concrete pavement in Ohio; abstract. J. F. Barbee. Rock Prod 49:69-70 Mr '46
Entrained air in concrete; a symposium. W. A. Cordon and others. il diags Am Concrete Inst J 17:601-99 Je '46
Hoosier concrete job spotlights new air entrainment specifications. il diag Roads & Sts 88:57-62 D '45
Influence of mixing water hardness on air-entrainment. C. E. Wuerpel. Am Concrete Inst J 17:401-2 F '46
Interground air-entrained concrete for Sears, Roebuck store and U.S. naval ammunition depot. il Concrete 54:28-30 S '46
Laboratory studies of concrete containing air-entraining admixtures. C. E. Wuerpel. Am Concrete Inst J 17:305-59 bibliog(88 titles, p355-9) F '46
Less sand and water in air-entraining batches improves concrete. M. A. Swayze. il Civil Eng 16:301-3 Jl '46
New data on air-entraining agents; abstract. S. Walker. Concrete 53:18-19 N '45
Simple accurate method for determining entrained air in fresh concrete. S. W. Benham. Am Concrete Inst J 17:677-80 Je '46
Stewart field demonstrates value of air entrainment. il Concrete 54:8-9+ O '46
Testing of portland cements containing interground Vinsol resin. R. L. Blaine and others. Am Soc T M Proc 45:732-52 bibliog(p752); Discussion. 753-65 '45
What cement executives are thinking. il Rock Prod 49:105-7 Ag '46

Bibliography
Current reviews of significant contributions in foreign and domestic publications. Published in American concrete institute journal

Cinder concrete
Cinder block replaces title on hospital project. il Eng N 137:603 O 31 '46
Detecting substances in cinders which cause staining and popouts. diag Rock Prod 48:150-1 O '45
Processing cinders for concrete products; Concrete pipe & products co. il Rock Prod 48:148-9+ O '45

Curing
Automatic heat and humidity control for curing concrete masonry units; McCleery and Weston, ltd. Concrete 54:27 Mr '46
Curing concrete with sealing compounds. R. F. Blanks and others. Am Concrete Inst J 17:493-512 Ap '46
Hurlbut plant attains 24-hour cycle in high-temperature curing concrete masonry units. P. M. Woodworth. il plans Concrete 54:3-5 Ag '46

Cutting
Portable concrete core drills. M. N. Clair and H. G. Protze. il diags Concrete 54:16+ Ap '46
Rock drill does a construction chore; used to cut holes in concrete walls. il Comp Air Mag 51:48 F '46

Durability
American railway bridge and building association committee reports methods of improving strength, durability and wear resistance of concrete. Concrete 54:12-13+ O '46
Concrete durability; need for improvement; abstracts. F. H. Jackson. il Concrete 54:14-15+ Mr '46; Rock Prod 49:82 F '46; Eng N 136:707 My 2 '46
Durability of concrete at an airfield. il Eng N 136:292-3 F 21 '46
Durability of concrete in service. F. H. Jackson. il Am Concrete Inst J 18:165-80 O '46
Effect of use of blended cements and vinsol resin-treated cements on durability of concrete. W. F. Kellermann. Am Concrete Inst J 17:681-7 Je '46

Expansion and contraction
Concrete durability; need for improvement; abstract. F. H. Jackson. il Concrete 54:14-15+ Mr '46
Expansion test as a measure of alkali-aggregate reaction. R. F. Blanks and H. S. Meissner. il Am Concrete Inst J 17:517-39 Ap '46
Shrinkage and plastic flow of pre-stressed concrete. H. R. Staley and D. Peabody, jr. Am Concrete Inst J 17:229-43 Ja '46
Shrinkage stresses in concrete. G. Pickett. il diags Am Concrete Inst J 17:165-204, 361-98 bibliog(p 194-5) Ja-F '46

Failure
Durability of concrete in service. F. H. Jackson. il Am Concrete Inst J 18:165-80 O '46
Effect of type of test specimen on apparent compressive strength of concrete. B. Mather. bibliog Am Soc T M Proc 45:802-9; Discussion. diags 810-12 '45
Maximum stresses present at failure of brittle materials. J. Tucker, jr. Am Soc T M Proc 45:961-73 bibliog(p973); Discussion. 974-5 '45
Pre-setting cracks in concrete slabs; abstract. J. M. Antill. Am Concrete Inst J 18:97-9 S '46
Stress conditions for the failure of saturated concrete and rock. K. Terzaghi. diags Am Soc T M Proc 45:777-92 bibliog(p791-2); Discussion. 793-801 '45

CONCRETE—Failure—*Continued*
Study of electrolysis of steel in concrete; Electrical section, Engineering division, A.A.R. report. il Ry Mech Eng 120:32-6 Ja '46; Excerpts. Ry Age 119:987-8 D 15 '45

Finishing

Wear resistance tests on concrete floors and methods of dust prevention. G. Wästlund. and A. Eriksson. bibliog il diags Am Concrete Inst J 18:181-99 O '46

Freezing

Automatic accelerated freezing-and-thawing apparatus for concrete. C. E. Wuerpel and H. K. Cook. il diag Am Soc T M Proc 45: 813-23 '45
Effect of freezing and thawing on concrete pavements. il Roads & Bridges 84:65-8+ Ja '46
Portland-Rosendale cement blends give high frost resistance. B. H. Wait. Am Concrete Inst J 17:697-9 Je '46

Moisture content

Effect of moisture on thermal conductivity of limerock concrete. M. Tyner. bibliog il diags Am Concrete Inst J 18:9-18 S '46

Permeability

Notes on test of permeation of concretes by gasoline vapor. R. L. Blaine. diags Concrete 54:3-7 O '46

Prestressing

Adoption of pre-stressed concrete for road bridges; abstract. L. E. Hunter. Am Concrete Inst J 18:95-6 S '46
Analysis and design of elementary prestressed concrete members. H. Schorer. diags Am Concrete Inst J 18:49-87 bibliog(p86-7) S '46
Garage in India is built with prestressed concrete. R. E. Shama. diag Concrete 54: 22-3+ Jl '46
Prestressed concrete bridges. V. S. Murray. il plan diags Roads & Bridges 84:41-6 Je '46
Pre-stressed concrete units; abstract. R. S. V. Barber and D. R. Lester. Engineer 181: 503 My 31 '46
Prestressed reinforced concrete pipe. F. F. Longley. il diag N E Water Works Assn J 59:335-47 D '45; Same. Water Works & Sewerage 92:367-71 D '45
Shrinkage and plastic flow of pre-stressed concrete. H. R. Staley and D. Peabody, jr. Am Concrete Inst J 17:229-43 Ja '46
Two-way prestressed concrete water storage tank. J. R. Carr. il diag Eng N 135:434-9 O 4 '45; Discussions. 136:872, 1006 My 30, Je 27 '46

Protection

Organic coatings in water-works maintenance. D. R. Meserve. N E Water Works Assn J 60:227-35 S '46
Protection and decoration of concrete; abstract. H. C. Bryson. Am Water Works Assn J 38:686-7 My '46

Shrinkage

See Concrete—Expansion and contraction

Specifications

Specifications and test methods; abstract. S. Walker. Concrete 54:24 Mr '46

Strength

American railway bridge and building association committee reports methods of improving strength, durability and wear resistance of concrete. Concrete 54:12-13+ O '46
Effect of dimensions of specimens upon the precision of strength data. J. Tucker, jr. bibliog Am Soc T M Proc 45:952-60 '45
Effect of length on the strength of compression test specimens. J. Tucker, jr. bibliog Am Soc T M Proc 45:976-84 '45
Effect of repeated loading on the bond strength of concrete. C. W. Muhlenbruch. bibliog il diags Am Soc T M Proc 45:824-45 '45
Effect of type of test specimen on apparent compressive strength of concrete. B. Mather. bibliog Am Soc T M Proc 45:802-9; Discussion. diags 810-12 '45
High early strength concrete for utility openings and other repairs in cement concrete pavements. F. D. Woodruff. il diags Pub Works 77:19-21+ My '46
Tests of concrete containing Waylite. W. F. Kellermann. Pub Roads 24:244-7+ Jl '46

Temperature effects

Effects of radiant heat on reinforced-concrete rigid frames. M. A. Johnston. bibliog diags Am Soc C E Proc 71:793-804 Je '45; Discussion. 71:1295-1300, 1431-5; 72:124-5 O '45-Ja '46
Radiant heating by reinforced concrete; question examined whether embedment of warm water pipes in structural concrete would endanger integrity of concrete. J. R. Nichols. Am Concrete Inst J 17:513-16 Ap '46
Rigid-frame structures subject to nonuniform thermal action; foundations for boilers and oil refinery furnaces. C. C. H. Tommerup. diags Am Soc C E Proc 72:759-80 Je '46

Testing

Automatic accelerated freezing-and-thawing apparatus for concrete. C. E. Wuerpel and H. K. Cook. il diag Am Soc T M Proc 45: 813-23 '45
Concrete-making qualities of grit gravel. F. F. Bartel. Concrete 54:20+ O '46
Creep of concrete at high overload; abstract. J. R. Shank. Am Concrete Inst J 17:559 Ap '46
Critical stresses in a circular ring; testing of rocks and concrete. E. A. Ripperger and N. Davids. bibliog Am Soc C E Proc 72: 159-68 F '46
Effect of air entrainment on stone sand concrete. A. T. Goldbeck. Am Concrete Inst J 17:649-54 Je '46
Effect of dimensions of specimens upon the precision of strength data. J. Tucker, jr. bibliog Am Soc T M Proc 45:952-60 '45
Effect of freezing and thawing on concrete pavements. il Roads & Bridges 84:65-8+ Ja '46
Effect of length on the strength of compression test specimens. J. Tucker, jr. bibliog Am Soc T M Proc 45:976-84 '45
Effect of type of test specimen on apparent compressive strength of concrete. B. Mather. bibliog Am Soc T M Proc 45:802-9; Discussion. diags 810-12 '45
Equations for computing elastic constants from flexural and torsional resonant frequencies of vibration of prisms and cylinders. G. Pickett. Am Soc T M Proc 45:846-63 bibliog(p859-60); Discussion. 864-5 '45
Expansion test as a measure of alkali-aggregate reaction. R. F. Blanks and H. S. Meissner. il Am Concrete Inst J 17:517-39 Ap '46
Homogeneity of air-entraining concrete. H. L. Kennedy. il Am Concrete Inst J 17: 641-4 Je '46
Indiana air test for checking entrained air in freshly placed concrete. il diag Roads & Sts 83:60-2 D '45
Maximum stresses present at failure of brittle materials. J. Tucker, jr. Am Soc T M Proc 45:961-73 bibliog(p973); Discussion. 974-5 '45
Method for direct measurement of entrained air in concrete. W. H. Klein and S. Walker. diags Am Concrete Inst J 17:657-68 Je '46
Notes on test of permeation of concretes by gasoline vapor. R. L. Blaine. diags Concrete 54:3-7 O '46
Preparation and testing of concrete. F. B. Plummer. Oil & Gas J 44:149 N 24 '45
Shrinkage and plastic flow of pre-stressed concrete. H. R. Staley and D. Peabody, jr. Am Concrete Inst J 17:229-43 Ja '46
Simple accurate method for determining entrained air in fresh concrete. S. W. Benham. Am Concrete Inst J 17:677-80 Je '46
Specifications and test methods; abstract. S. Walker. Concrete 54:24 Mr '46
Tests of concrete containing Waylite. W. F. Kellermann. Pub Roads 24:244-7+ Jl '46

See also
Concrete laboratories

Vibration

Johnson self-propelling vibrating hand screed. il Mech Handling 33:310-11 My '46

CONCRETE—Vibration—*Continued*
Stothert and Pitt, vibratory concrete compacting machine. il diags Engineer 181:114-15 F 1 '46
Vibrator devised for use in making precast joists; illustrations with text. Concrete 54: 23 Ag '46

Waterproofing
See Waterproofing

Wrecking
La suppression des ouvrages en béton armé élevés pendant la guerre et devenus inutiles. L. Suguet. diags Génie Civil 123:159 Je 15 '46

X ray absorption
Absorption measurements for broad beams of 1- and 2-million-volt X-rays. G. Singer and others. bibliog J Res Nat Bur Stand 37: 147-50 Ag '46

CONCRETE, Bituminous
Anti-stripping asphalt additives. J. C. Sprague. il Roads & Bridges 84:63-71+ S '46

CONCRETE, Effect of alkalies on
Deterioration of concrete dams due to alkali-aggregate reaction. R. F. Blanks and H. S. Meissner. bibliog il Am Soc C E Proc 71:3-18 Ja '45; Discussion. 71:1089-1110, 1556-8; 72:126-37 bibliog(p136-7), 655-67 S, D '45-Ja, My '46
Expansion test as a measure of alkali-aggregate reaction. R. F. Blanks and H. S. Meissner. il Am Concrete Inst J 17:517-39 Ap '46

CONCRETE, Ready-mixed. See Concrete mixing—Ready-mixed concrete

CONCRETE, Refractory
Electric-furnace alumina cement for high-temperature concrete. G. R. Pole and D. G. Moore. bibliog il Am Cer Soc J 29:20-4 Ja 1 '46

CONCRETE, Reinforced
Effects of radiant heat on reinforced-concrete rigid frames. M. A. Johnston. bibliog diags Am Soc C E Proc 71:793-804 Je '45; Discussion. 71:1295-1300, 1431-5 O-N '45
Precast concrete roof slabs; Flexicore units for Dayton plant. il diags Concrete 54:8-10+ S '46
Reinforced concrete columns under combined compression and bending. H. E. Wessman. diags Am Concrete Inst J 18:1-8 S '46
Reinforced concrete crane girder supported on brick pedestal. D. R. Cervin. diags Am Concrete Inst J 18:91-2 S '46
Some essentials of turbine-generator foundation design. il plans diags Eng N 137:316-20 S 5 '46
See also
Steel, Reinforcing

Testing
Effect of repeated loading on the bond strength of concrete. C. W. Muhlenbruch. bibliog il diags Am Soc T M Proc 45:824-45 '45
Experiments on reinforced concrete beams to determine the limiting reinforcement; abstract. W. Gehler, H. Amos and E. Friedrich. Am Concrete Inst J 17:560 Ap '46
Investigation of the strength of welded stirrups in reinforced concrete beams. O. Moretto. il diags Am Concrete Inst J 17: 141-62 N '45
Making concrete masonry earthquake resistant. S. Hobbs. il Rock Prod 49:121-5 Jl '46
Prestretched reinforcing bars show high strength in University of Iowa tests. B. J. Lambert and N. L. Ashton. il Civil Eng 15:564 D '45
Rigid-frame structures subject to nonuniform thermal action; foundations for boilers and oil refinery furnaces. C. C. H. Tommerup. diags Am Soc C E Proc 72:759-80 Je '46
Study of electrolysis of steel in concrete; Electrical section, Engineering division, A.A.R. report. il Ry Mech Eng 120:32-6 Ja '46; Excerpts. Ry Age 119:987-8 D 15 '45

CONCRETE blocks
Builder's standby; wider use of concrete block. Bsns W p39 Je 1 '46
CPA issues priorities to builders using concrete block. Concrete 54:25+ Ag '46
Cinder block replaces tile on hospital project. il Eng N 137:603 O 31 '46
Computation table for standard 16 in. concrete block. Brick & Clay Rec 109:30 S '46
Emergency concrete block abutment. H. M. Mumaugh. il diag Eng N 135:744-5 N 29 '45

Manufacture
Automatic concrete block-making machine. il Engineer 182:166-7 Ag 23 '46
Automatic heat and humidity control for curing concrete masonry units; McCleery and Weston, ltd. Concrete 54:27 Mr '46
Block plant laid out for expansion; Stearns manufacturing co. plans Concrete 54:46+ Mr '46
Change curing room layout to speed up handling; Southern cast stone co. H. E. Swanson. il plan Rock Prod 49:128-9 My '46
Cleveland builders adds facilities. il plans Concrete 54:18-20+ Ja '46
Concrete masonry in California. B. Nordberg. il diag Rock Prod 48:149-51+ D '45
Continuous mixing in the concrete block industry. il diag Rock Prod 48:130-1 N '45
Double block capacity; Shute concrete products co. R. S. Torgerson. il Rock Prod 48:129, 134 N '45
Enid concrete stone co. advertising and manufacturing methods. H. E. Swanson. il Rock Prod 49:261+ Ja '46
Handling aids cut unit cost of blocks; plant of Concrete products co. il Concrete 54:12-15 F '46
High pressure steam curing for concrete block; Louisiana concrete products, inc. il Rock Prod 49:153 O '46
Hurlbut plant attains 24-hour cycle in high-temperature curing concrete masonry units. P. M. Woodworth. il plans Concrete 54:3-5 Ag '46
Largest producer of small size block; Concrete products co, Tucson, Ariz. il Rock Prod 49:122-4 Mr '46
New lightweight aggregate from fly ash and slag. R. F. Leftwich. plan Concrete 54:14-15+ Ja '46
Pipe plant adds blocks to balance production; Universal concrete pipe co. il Rock Prod 49:127+ My '46
Postwar concrete masonry plants. B. Nordberg. plan diags Rock Prod 49:125-9+ Mr '46
Precision control in concrete products manufacture; Hart concrete products co. il Rock Prod 49:119-20 Jl '46
Production line block manufacture; Gyro manufacturing co. il Rock Prod 49:157 O '46
Rubble yields materials for Europe's rebuilding; debris converted into aggregate for concrete blocks. il Eng N 136:455 Mr 28 '46
Stearns to manufacture Warren Yardhoist for mechanical handling of concrete block. il Concrete 53:16+ N '45

Prices
Concrete block prices on regional basis. Concrete 54:22 S '46

Testing
Making concrete masonry earthquake resistant. S. Hobbs. il Rock Prod 49:121-5 Jl '46

CONCRETE brick
Making concrete brick as quarry by-product; McCorkle stone co. il Rock Prod 49:154 O '46

CONCRETE bridges. See Bridges, Concrete

CONCRETE buildings
Behavior of concrete structures under atomic bombing; destruction in Hiroshima and Nagasaki. E. H. Praeger. il Am Concrete Inst J 17:709-20 Je '46
Selling all-concrete farm buildings; Buehner cinder block co. R. S. Torgerson. il plans Rock Prod 49:188-9 Ag '46
Wythenshawe bus garage. il Engineer 182:62 Jl 19 '46
See also
Concrete houses
Silos, Concrete

CONCRETE burial vault association, National. See National concrete burial vault association

CONCRETE chimneys. See Chimneys, Concrete

CONCRETE conduits. See Water conduits, Concrete

CONCRETE construction
Army builds massive blockhouse for rocket testing. il Eng N 137:476 O 10 '46
Atomic bomb grew within concrete walls; Hanford engineer works. il Concrete 54:10-11+ F '46
Building the Hanford plutonium plant. F. T. Matthias. il Eng N 135:786-7 D 13 '45
Concrete at advance bases; using coral for aggregate. I. S. Rasmusson. il Am Concrete Inst J 17:541-51 Ap '46
Concrete joists for commercial and residential construction. il Am Bld 68:82-5 Ja '46
Concrete walls and floors. il plans diags Arch Forum 85:111-13 Jl '46
Construction of concrete foundations for oil well derricks and pumping equipment. F. B. Plummer. Oil & Gas J 44:103 D 1 '45
Floodwaters in Santa Ana basin controlled by concrete channels. il Concrete 54:8-9+ Jl '46
Flume crosses canyon on a rigid frame; aqueduct crossing, Crooked river, Oregon. il diags Eng N 137:448-9 O 3 '46
Garage in India is built with prestressed concrete. R. E. Shama. diag Concrete 54: 22-3+ Jl '46
High concrete walls partition building into curing chambers for linoleum; Congoleum-Nairn, inc. il diags Eng N 136:978-80 Je 27 '46
Interground air-entrained concrete for Sears, Roebuck store and U.S. naval ammunition depot. il Concrete 54:28-30 S '46
Making concrete masonry earthquake resistant. S. Hobbs. il Rock Prod 49:121-5 Jl '46
Modern steam electric power station built on Riverside site; Tidd plant. H. A. Kammer. il diag Eng N 137:591-4 O 31 '46
Navy storehouse built of precast concrete parts. A. M. Amirikian. il Concrete 54:3-5+ Jl '46
Navy's Carderock model basin extended; David W. Taylor model basin. il Concrete 54:20+ F '46; Same, without il. Marine Eng 51:146 F '46
Progress, 1926-1946; concrete work. il diags Am Bld 68:96 O '46
Rental project in concrete; Ithaca, N.Y. il plan Arch Forum 84:104-5 Je '46
Rigid-frame structures subject to nonuniform thermal action; foundations for boilers and oil refinery furnaces. C. C. H. Tommerup. diags Am Soc C E Proc 72: 759-80 Je '46
Structurally advanced design, fabrication and assembly methods used in warehouse construction yield speed and cost reduction. il diags Arch Forum 85:197 Jl '46
Use of concrete in home building. W. T. Webb. il Dom Comm 34:9-11 Ap '46
Vacuum mats aid in speeding veterans' precast concrete houses; with cost data; Whitemarsh village. il diags Concrete 54: 31-4+ S '46
Wartime needs develop new techniques in building concrete marine structures; floating docks and forts. il Concrete 54:8-10 Ag '46

See also
Bridges, Concrete
Columns, Concrete
Concrete, Reinforced
Concrete blocks
Concrete houses
Concrete lining
Concrete mixing
Concrete piling
Concrete placing
Concrete plants
Concrete slabs
Dams, Concrete
Floors, Concrete
Railroads—Concrete construction
Reservoirs, Concrete
Sidewalks, Concrete
Silos, Concrete
Stairways, Concrete
Walls, Concrete
Water conduits, Concrete
Water pipes, Concrete
Wharves, Concrete

Design
Analysis and design of elementary prestressed concrete members. H. Schorer. diags Am Concrete Inst J 18:49-87 bibliog(p86-7) S '46
Cantilevered concrete trusses provide open working areas in hangar; Caquot hangar at the Santos Dumont airport in Rio de Janeiro. A. J. Boase. il plans diags Eng N 136: 850-5 My 30 '46
Design of Quitandinha elliptical dome; casino of hotel near Petropolis, Brazil. A. J. Boase. il diags Eng N 136:112-16 Ja 24 '46
Efficiency in structure; tall apartment buildings. F. N. Severud. il plans diags Arch Rec 99:81-8 Ja '46
Floating block theory in structural analysis. S. U. Benscoter. diags Am Concrete Inst J 17:205-26 Ja '46
Locating points along beam axis corresponding to known moments. W. C. Goodwin. diag Am Concrete Inst J 17:402-4 F '46
Soviet Union develops new building techniques. diag Eng N 136:799 My 16 '46
Structural skew plates. F. L. Ehasz. bibliog diags Am Soc C E Proc 71:805-30 Je '45; Discussion. 71:1436-8; 72:405-8 N '45, Mr '46

Expansion joints
Unusual expansion joints used in high concrete walls. A. Zweig. il diag Civil Eng 16:401-2 S '46

Forms
Careful maintenance and many reuses keep form costs down. il Concrete 54:6-7 S '46
Double wall units are built with patented sliding forms. il Concrete 54:6-7+ Ag '46
Making forms for concrete and setting anchor bolts. diags Oil & Gas J 44:113 D 8 '45
Precast forms used for underwater concrete; graving docks at San Francisco. il diag Eng N 135:868-72 D 27 '45

Pipe embedding
Radiant heating built into concrete hangar; General Electric flight test laboratory. F. R. MacLeay. il Civil Eng 16:444-5 O '46
Radiant heating by reinforced concrete; question examined whether embedment of warm water pipes in structural concrete would endanger integrity of concrete. J. R. Nichols. Am Concrete Inst J 17:513-16 Ap '46
Radiant heating for an aircraft hangar. J. L. Ottenheimer. il Eng N 137:254-5 Ag 22 '46
Radiant heating for modern construction. C. A. Hawk, jr. il Power 90:307-9+ My '46

Rapid construction
Precast structural members facilitate speedy erection of rigid-frame buildings; one-story warehouses at Mechanicsburg, Pa. W. M. Angas. il diags Eng N 136:546-8 Ap 18 '46

Repair
Reconditioning industrial structures. E. B. Spencer. il Concrete 54:12-13 Jl '46
Repair of concrete. R. B. Young. Am Concrete Inst J 17:701-8 Je '46
Two special methods of restoring and strengthening masonry structures; intrusion mixture containing Alfesil, and Prepakt concrete. J. W. Kelly and B. D. Keatts. il diags Am Concrete Inst J 17: 289-304 F '46

Standards
Minimum standard requirements for precast concrete floor units (ACI 711-46). diags Am Concrete Inst J 18:133-46 O '46
Proposed minimum standard requirements for precast concrete floor units; reported by ACI committee 711. diags Am Concrete Inst J 17:245-58 Ja '46
Proposed recommended practice for the construction of concrete farm silos; reported by ACI committee 714. Am Concrete Inst J 17:261-2 Ja '46
Recommended practice for the construction of concrete farm silos (ACI 714-46). diags Am Concrete Inst J 18:149-64 O '46

Tables, calculations, etc.
Shrinkage stresses in concrete. G. Pickett. diags Am Concrete Inst J 17:165-204 bibliog(p 194-5) Ja '46

CONCRETE construction, Subaqueous
Captain Cook graving dock at Sydney. M. W. Mehaffey. il diag Eng N 136:130-7 Ja 24 '46
Concrete for flood control; Cajon Creeks improvement project. il diag Rock Prod 48:88-9+ D '45
Drydock construction at Cape Town. C. M. J. W. Kohler. il diag Eng N 136:859-62 My 30 '46
Habbaniyah flood relief scheme. il map diags Engineer 181:378-81 Ap 26 '46

CONCRETE construction, Subaqueous—*Cont.*
Precast forms used for underwater concrete; graving docks at San Francisco. il diag Eng N 135:868-72 D 27 '45

See also
Concrete piling

CONCRETE construction, Underground
Constructing a pump sump in highly unstable soil. J. W. Bliss. il diag Pub Works 77:26-7 O '46
Construction of Japanese underground oil storage tanks. C. J. Scheve and G. J. Fox. il diags Eng N 137:206-7 Ag 15 '46
Huge underground vaults built oiltight for storage of navy Diesel and fuel oils; concrete-lined vertical cylinders. N. A. Bowers. il diags Eng N 135:873-7 D 27 '45
Underground gas purification. A. J. Smith. diags Am Gas J 164:42 F '46

See also
Concrete construction in mines

CONCRETE construction in mines
Portable concrete gun for underground construction. diags Eng & Min J 147:108 Ap '46

CONCRETE construction in winter
Concreting at very low temperatures; electric heating, with cost data; abstract. K. Billig. Am Concrete Inst J 17:728-9 Je '46

CONCRETE dams. See Dams, Concrete

CONCRETE domes. See Domes, Concrete

CONCRETE floors. See Floors, Concrete

CONCRETE footings. See Footings, Concrete

CONCRETE gasoline tanks. See Gasoline tanks, Concrete

CONCRETE handling
Construction cableways on Norfork dam. H. V. Pittman. il diags Eng N 135:878-83 D 27 '45

CONCRETE houses
British build poured-concrete homes to speed solution of housing shortage. il Eng N 136: 5 Ja 3 '46
British rationalize conventional methods. il Arch Forum 84:192 Mr '46
Briton constructs novel permanent dwellings. il Iron Age 156:121 D 6 '45
Colonial in concrete; steel forms contain slag concrete, create beveled appearance like clapboards. il Arch Forum 85:10 Ag '46
Concrete houses; current construction practice; with cost data. il diags Concrete 54: 10-12+ My; 10-13 Je; 8-9+ Jl; 6-7+ Ag; 31-4+ S '46
Conslab system of building construction. il Engineering 161:201 Mr 1 '46
Equipment developed for mass production of precast concrete houses; Tournalayer casts four-room concrete house, lifts, carries and lowers house onto its permanent site. il Eng N 136:711-14 My 2 '46
It makes, takes, lays houses; the Tournalayer. il Bsns W p46 F 2 '46; Steel 118:61 F 25 '46
Machine casts small homes; Tournalayer. il Am Bsns 16:26 My '46
Mammoth biddy ready for hatching mass concrete houses; Tournalayer. il Concrete 54: 22-3 O '46
New project to give Texas new steel consuming industry; Le Tourneau technical institute of Texas; industrial plant for concrete house building machinery. il Iron Age 157:95 F 28 '46
Plastic rock house developed by stone mason. il Am Bld 68:85+ Ag '46
Precast concrete house; Plastic rock industries co. il Rock Prod 49:135 S '46
Use of concrete in home building. W. T. Webb. il Dom Comm 34:9-11 Ap '46

CONCRETE joists. See Joists, Concrete

CONCRETE laboratories
Laboratory as an aid to the production of aggregates; Consolidated rock products co. H. D. Jumper. il Rock Prod 48:104-5+ D '45

CONCRETE lining
Boulder Dam spillway tunnel; damage attributed to cavitation. D. A. Abrams. bibliog Am Soc C E Proc 72:1123-9 O '46
Concrete lining prevents corrosion of pipe; Homer mine of the M. A. Hanna co. diags Eng & Min J 147:104+ Je '46
Dug wells lined with concrete and tile solve Amazon water supply problem. J. A. Logan and J. L. Hummel. il diags Eng N 136: 908-11 Je 13 '46
Graving dock lined with shotcrete at Brisbane, Australia. W. H. R. Nimmo. il diag Eng N 136:481-2 Ap 4 '46
Huge underground vaults built oiltight for storage of navy Diesel and fuel oils; concrete-lined vertical cylinders. N. A. Bowers. il diags Eng N 135:873-7 D 27 '45
Improved trimming and paving equipment used on the Coachella canal. C. S. Hale. il Eng N 137:595-7 O 31 '46
Lining the Continental Divide tunnel. il Concrete 53:10-13+ D '45
Practical repair methods for disintegrated concrete tunnel lining. W. W. Morrison and E. E. Seelye. il diags Eng N 136:998-1001 Je 27 '46
Repair of Mount Royal tunnel. C. P. Disney. il diags Roads & Bridges 84:33-8 Je '46
Seven-mile El Mirador tunnel in Mexico. il Eng N 137:158-60 Ag 8 '46

See also
Concrete construction in mines

CONCRETE masonry association, National. See National concrete masonry association

CONCRETE mixers
Continuous mixing in the concrete block industry. il diag Rock Prod 48:130-1 N '45

Standards
Benefits from concrete-mixer standardization. C. S. Embrey. Civil Eng 16:325 Jl '46

CONCRETE mixing
Addition of air-entraining agent at concrete mixer advocated. C. E. Wuerpel. bibliog il Civil Eng 16:496-8 N '46
Air-entraining concrete for pavements and bridges. il diags Roads & Bridges 84:72-3+ S '46
American railway bridge and building association committee reports methods of improving strength, durability and wear resistance of concrete. Concrete 54:12-13+ O '46
Automatic dispensing equipment for air-entraining agents. R. R. Kaufman. il diag Am Concrete Inst J 17:669-72 Je '46
Concrete batching and mixing plant. il diags Engineer 182:319-21 O 11 '46
Design of concrete mixes. L. A. Thorssen. Roads & Bridges 84:63-4+ Ja '46
Entrained air; a factor in the design of concrete mixes. W. A. Cordon. bibliog Am Concrete Inst J 17:605-20 Je '46
Laboratory studies of concrete containing air-entraining admixtures. C. E. Wuerpel. Am Concrete Inst J 17:305-59 bibliog(88 titles, p355-9) F '46
Less sand and water in air-entraining batches improves concrete. M. A. Swayze. il Civil Eng 16:301-3 Jl '46
Mechanical dispensing devices for air-entraining agents. E. M. Brickett. il Am Concrete Inst J 17:673-6 Je '46
Methods of entraining air in concrete. E. W. Scripture, jr. il Am Concrete Inst J 17: 645-8 Je '46
Mobile aggregate batching plant. il diags Engineer 182:84-6 Jl 26 '46
Proportioning of concrete. A. T. Goldbeck. diags Concrete 54:18-20+ My '46
Should portland cement be dispersed? T. C. Powers. bibliog diags Am Concrete Inst J 17:117-40 N '45
Time-saving concrete mix formulae. A. G. Larsson. Rock Prod 49:64-5+ S '46

See also
Concrete—Aggregate

Ready-mixed concrete
Accurate and rapid proportioning of ready mixed concrete; Crown concrete co. H. E. Swanson. il Rock Prod 49:62-4+ Jl '46
Belt carries both cement and aggregates; Ready mixed concrete co., Chattanooga. il Rock Prod 49:89+ Ag '46
Concrete for flood control; Cajon Creeks improvement project. il diag Rock Prod 48:88-9+ D '45
Experiences with air-entraining cement in central-mixed concrete. A. Foster, jr. Am Concrete Inst J 17:625-8 Je '46

CONCRETE mixing—Ready-mixed concrete—*Continued*
Maintain close control on moisture content; McCrady-Rodgers co. il Rock Prod 49: 80-1+ Ap '46
Make both ready mix and lime mortar; Fort Worth sand and gravel co. H. E. Swanson. il Rock Prod 48:68-70+ N '45
Market concrete in sacks for retail sale. il Rock Prod 49:70 My '46
Promote special qualities of ready mix; Frank J. Knight co. il Rock Prod 49:88-9 O '46
Three methods of handling bulk cement; Petaluma ready-mix concrete co. il diag Rock Prod 49:87+ Ja '46
Uniformity of ready mixed concrete; notes on its control. S. Walker. Concrete 53:36-9 N '45
Weighing out seven aggregate sizes and ready mixed concrete; W. G. Block co. material handling plant. O. H. Wustrack. il Rock Prod 48:74-5+ O '45

CONCRETE pavements. See Pavements, Concrete

CONCRETE piling
Carlisle-Kingsmoor widening on the L.M.S. railway. il diags Engineering 161:556-7 Je 14 '46
Concrete piles make economical tower footings. J. Lummis. il Elec World 126:57-9 O 26 '46
Design data on permeable concrete piers; protecting Lake Michigan shore. il Concrete 53:6-8 N '45
Piers and jetties of precast concrete. S. P. Lathrop. il diags Rock Prod 49:136-7 F '46
Special equipment developed to pull long concrete piles. il Eng N 137:500-1 O 17 '46

See also
Piles and pile driving—Concrete encased piles

CONCRETE placing
L'Aigle dam, France. il diags Engineer 181: 578-80 Je 28 '46
Pump concrete for 3-story department store; May company, Los Angeles. il Eng N 137: 475 O 10 '46
Simple hoist, made of parts on hand, cut cost of concrete job. H. B. McDermid. diag Factory Management 103:166 N '45
Tapping a wet well under pressure; using tremi-placed concrete seal; pumping station, Chicago. il diag Eng N 136:719-21 My 2 '46

See also
Concrete construction, Subaqueous
Concrete lining

CONCRETE plants

See also
Concrete construction
Concrete mixing—Ready-mixed concrete

Equipment

Accurate and rapid proportioning of ready mixed concrete; Crown concrete co. H. E. Swanson. il Rock Prod 49:62-4+ Jl '46
Belt carries both cement and aggregates; Ready mixed concrete co., Chattanooga. il Rock Prod 49:89+ Ag '46
Concrete batching and mixing plant. il diags Engineer 182:319-21 O 11 '46
Distribution plants cut handling costs; Metropolitan sand and gravel corp. B. Nordberg. il plan Rock Prod 49:84-5+ Je '46
Maintain close control on moisture content; McCrady-Rodgers co. il Rock Prod 49:80-1+ Ap '46
Moisture control in batching air-entrained concrete; Lake view sand & gravel co. il Rock Prod 49:90 O '46
Three methods of handling bulk cement; Petaluma ready-mix concrete co. il diag Rock Prod 49:87+ Ja '46
Three-stage system elevates material to bins; Keefner concrete and lumber company. H. E. Swanson. il Rock Prod 49:62-3 S '46
Weighing out seven aggregate sizes and ready mixed concrete; W. G. Block co. material handling plant. O. H. Wustrack. il Rock Prod 48:74-5+ O '45

CONCRETE plants, Portable
All-inclusive mobile concrete plant; Mixermobile. il Concrete 54:43 Mr '46
Mobile aggregate batching plant. il diags Engineer 182:84-6 Jl 26 '46

CONCRETE poles. See Poles, Concrete

CONCRETE products
Concrete burial vaults recommended standards. Rock Prod 49:189 Ag '46
Lightweight concrete opens up new markets; vermiculite concrete; Pacific building material co. il Rock Prod 49:265-7 Ja '46
Precast concrete treads and platforms simplify stair construction and repair. H. S. Ayres. diags Eng N 136:419 Mr 21 '46

See also
Concrete blocks
Concrete piling
Concrete slabs
Pipes, Concrete

Manufacture

Manufacture burial vaults in two plants; additions to block plant; Katterjohn concrete products. H. E. Swanson. il Rock Prod 49: 130-2 S '46
New plant making precast steps and other specialty items; Lister concrete products. H. E. Swanson. il Rock Prod 49:186-7+ Ag '46
Production line method of manufacturing joists, roof slabs and blocks; Precast industries, Kalamazoo, Mich. il diag Rock Prod 49:138-9 F '46
Vacuum concrete and vacuum lifts; manufacture of reinforced concrete pipe, bridge slabs and other structural units. M. W. Loving. il Rock Prod 49:168-70+ Je '46

See also
Concrete products plants

Prices

Ceiling prices on cement and concrete products. Concrete 54:18-20 Je '46

CONCRETE products industry
Demand outstrips production; concrete products manufacturers look for boom in 1946. B. Nordberg. il Rock Prod 49:262-4 Ja '46
Does your market warrant increased capacity? W. D. M. Allan. Rock Prod 48:145+ O '45

Advertising

Enid concrete stone co. advertising and manufacturing methods. H. E. Swanson. il Rock Prod 49:261+ Ja '46

History

Fifty years of concrete products. B. Nordberg. il diags Rock Prod 49:163-7+ Je '46

California

California producers organize; Northern California concrete masonry association. Rock Prod 49:130+ Mr '46
Concrete masonry in California. B. Nordberg. il diag Rock Prod 48:149-51+ D '45

Palestine

Concrete product developments in Palestine; some interesting floor, roof and wall construction designs. diags Rock Prod 48:132-3 N '45

CONCRETE products plants
Advertising keeps tile machines busy; Concrete products and roofing co. H. E. Swanson. il Rock Prod 48:127-8 N '45
Largest producer of small size block; Concrete products co, Tucson, Ariz. il Rock Prod 49:122-4 Mr '46
New plant making precast steps and other specialty items; Lister concrete products. H. E. Swanson. il Rock Prod 49:186-7+ Ag '46
Pipe plant adds blocks to balance production; Universal concrete pipe co. il Rock Prod 49:127+ My '46
Plant design session, annual meeting of National concrete masonry association. Rock Prod 49:154-6 Ap '46
Plant plans for concrete masonry; National concrete masonry association holds two-day meeting. Rock Prod 48:146-7 O '45
Postwar concrete masonry plants. B. Nordberg. plan diags Rock Prod 49:125-9+ Mr '46

Equipment

Automatic concrete block-making machine. il Engineer 182:166-7 Ag 23 '46

CONCRETE products plants—Equipment—*Cont.*
Change curing room layout to speed up handling; Southern cast stone co. H. E. Swanson. il plan Rock Prod 49:128-9 My '46
Combine ready-mix and concrete block operations; McDonald co. H. E. Swanson. il Rock Prod 49:151-2 O '46
Concrete tile-making plant. il diags Engineer 182:187-8 Ag 30 '46
Continuous mixing in the concrete block industry. il diag Rock Prod 48:130-1 N '45
Double block capacity; Shute concrete products co. R. S. Torgerson. il Rock Prod 48: 129, 134 N '45
Handling aids cut unit cost of blocks; plant of Concrete products co. il Concrete 54:12-15 F '46
High pressure steam curing for concrete block; Louisiana concrete products, inc. il Rock Prod 49:153 O '46
Hurlbut plant attains 24-hour cycle in high-temperature curing concrete masonry units. P. M. Woodworth. il plans Concrete 54:3-5 Ag '46
Lift trucks handle 350 tons of blocks daily. il Concrete 54:26-7 S '46
Material handling speeded up with conveyors; Lamar pipe and tile co. H. E. Swanson. il Rock Prod 49:134-5 F '46
Measure out aggregates with chute; Curtis block and supply co. H. E. Swanson. il Rock Prod 49:185+ Ag '46
New plant built to meet big demand for floor and roof slabs; Cities fuel & supply co. R. S. Torgerson. il diag Rock Prod 49: 129+ S '46
Precision control in concrete products manufacture; Hart concrete products co. il Rock Prod 49:119-20 Jl '46
Processing cinders for concrete products; Concrete pipe & products co. il Rock Prod 48:148-9+ O '45
Welding in a concrete products plant. il Concrete 54:14+ Je '46

Layout

Block plant laid out for expansion; Stearns manufacturing co. plans Concrete 54:46+ Mr '46
Efficient block plant layout; Dixie concrete products co. plan Rock Prod 49:82 Ag '46
Layout of Florida products plant; Pinellas lumber co. il Concrete 54:58+ Mr '46
Three-machine block plant layout. plans Concrete 54:65-6, 68 Mr '46

CONCRETE reinforcing steel institute
Annual meeting, Hot Springs, Va. Iron Age 157:100 My 2 '46

CONCRETE research
Laboratory studies of concrete containing air-entraining admixtures. C. E. Wuerpel. Am Concrete Inst J 17:305-59 bibliog(88 titles, p355-9) F '46
Studies of concrete containing entrained air. S. Walker and D. L. Bloem. Am Concrete Inst J 17:629-39 Je '46
Swedish cement institute active. Concrete (mill sec) 54:102-3 Ja '46

CONCRETE reservoirs. See Reservoirs, Concrete

CONCRETE retaining walls. See Retaining walls, Concrete

CONCRETE roads. See Roads, Concrete

CONCRETE roofs. See Roofs, Concrete

CONCRETE sidewalks. See Sidewalks, Concrete

CONCRETE silos. See Silos, Concrete

CONCRETE slabs
Bar and chair spacer. C. J. Seibert. diags Eng N 136:141 Ja 24 '46
Concrete pavement design. H. F. Clemmer. il diags Roads & Bridges 84:73-5+ Ap '46; Discussion. J. M. Breen. 84:57-8+ My '46
Concrete road slab recapped with 8-in. slab. il Concrete 53:14-15+ N '45
Concrete walls and floors in huge precast panels are dried and erected by a spectacular vacuum process. il plans diags Arch Forum 85:112-13 Jl '46
Conslab system of building construction. il Engineering 161:201 Mr 1 '46
Joints and cracks in concrete pavements. E. C. Sutherland. bibliog il maps Pub Roads 24:179-205 Ja '46
Manufacture of a nailable concrete slab; Precast slab and tile co. R. M. Schneider. il diags Rock Prod 49:149-50 Ap '46
New Jersey adopts improved approach slab design. F. D. Woodruff. diags Roads & Sts 89:82-3 Ja '46
New plant built to meet big demand for floor and roof slabs; Cities fuel & supply co. R. S. Torgerson. il diag Rock Prod 49:129+ S '46
Precast concrete panels show good performance under loading tests. il diags Arch Forum 85:196 Jl '46
Precast concrete roof slabs; Flexicore units for Dayton plant. il diags Concrete 54:8-10+ S '46
Precast sectional walls and roof allow for uneven reservoir settlement at New Orleans. il diags Eng N 137:244-8 Ag 22 '46
Pre-setting cracks in concrete slabs; abstract. J. M. Antill. Am Concrete Inst J 18:97-9 S '46
Shrinkage stresses in concrete. G. Pickett. il diags Am Concrete Inst J 17:165-204, 361-98 bibliog(p 194-5) Ja-F '46
Structural skew plates. F. L. Ehasz. bibliog diags Am Soc C E Proc 71:805-30 Je '45; Discussion. 71:1436-8; 72:405-8 N '45, Mr '46
Why slab-band floors are economical. F. N. Severud. il diags Eng N 137:526-8 O 17 '46

See also
Concrete-wood slabs

CONCRETE stairways. See Stairways, Concrete

CONCRETE walks. See Walks, Concrete

CONCRETE walls. See Walls, Concrete

CONCRETE water pipes. See Water pipes, Concrete

CONCRETE wharves. See Wharves, Concrete

CONCRETE-wood slabs
Pressure treated wood; a modern material for engineering structures. R. H. Mann. il Boston Soc C E J 32:189-91 O '45

CONDEMNATION of land. See Eminent domain

CONDENSATE wells. See Gas, Natural—Distillate wells

CONDENSATION
Boiling and condensing film coefficients for water and normal hexane. D. L. Katz and others. flow sheet il Pet Refiner 25:93-6 S '46
Phase changes of Bose-Einstein fluid models. L. Goldstein. bibliog J Chem Phys 14:276-82 Ap '46

See also
Condensers (steam)

CONDENSATION, Chemical
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the action of chloramine-T on the thionaphthenquinones. C. E. Dalgliesh and F. G. Mann. Chem Soc J p913-17 D '45
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of solvents and catalysts. C. E. Dalgliesh and F. G. Mann. Chem Soc J p910-13 D '45
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of substituent groups in the thionaphthenquinones. C. E. Dalgliesh and F. G. Mann. Chem Soc J p893-909 D '45
Condensation of acetylene by molten salts. P. C. Johnson and S. Swann, jr. bibliog diags Ind & Eng Chem 38:990-6 O '46
Condensation of aliphatic alcohols with aryl hydrocarbons in the presence of chlorosulfonic acid. W. H. C. Rueggeberg, M. L. Cushing and W. A. Cook. bibliog Am Chem Soc J 68:191-2 F '46
Condensation of diethylamine and formaldehyde with phenol, *o*, *m*- and *p*-cresols. G. F. Grillot and W. T. Gormley, jr. Am Chem Soc J 67:1968-9 N '45
Condensation of pyruvic acid and formamide. W. Shive and G. W. Shive. bibliog Am Chem Soc J 68:117-19 Ja '46
Condensation of saturated halides with unsaturated compounds; condensation of alkyl chlorides with polychloroölefins. L. Schmerling. Am Chem Soc J 68:1655-7 Ag '46

CONDENSATION, Chemical—*Continued*
Condensation of saturated halides with unsaturated compounds; the condensation of alkyl halides with monohaloölefins. L. Schmerling. bibliog Am Chem Soc J 68: 1650-4 Ag '46
Condensation reactions; a laboratory preparation of ethylidene glycerol. M. M. Maglio and C. A. Burger. bibliog J Chem Educ 23:174-5 Ap '46
Condensations by sodium; the metalation of olefins and the preparation of β,γ-unsaturated acids. A. A. Morton and others. bibliog Am Chem Soc J 67:2224-8 D '45
Effect of substituent groups upon the course of the condensation reaction between benzenediazonium salts and phenols. J. C. Colbert and R. M. Lacy. bibliog Am Chem Soc J 68:270-1 F '46
Fundamental principles of condensation polymerization. P. J. Flory. bibliog(92 references) Chem R 39:137-97 Ag '46
Glycol esters from aldehydes. F. J. Villani and F. F. Nord. bibliog Am Chem Soc J 68:1674-5 Ag '46
Mechanism of condensation of the anhydrides of mono- and di-substituted succinic acids with aromatic hydrocarbons under the conditions of the Friedel-Crafts reaction. M. A. Saboor. Chem Soc J p922-5 D '45
Michael condensation of fluorene with unsaturated compounds. L. A. Pinck and G. E. Hilbert. bibliog Am Chem Soc J 68:2014-17 O '46
Production of synthetic lubrication oil by condensation and polymerization. G. G. Pritzker. bibliog Nat Pet N 38 pt 2:R606+ Ag 7 '46; [cont as] Pet Processing 1:58-9+ S '46 (to be cont)
Studies in the polyene series; condensation of the C_{14}-aldehyde [3-(2′ : 6′ : 6′-trimethyl-*cyclo*hexenyl)-1-methylcrotonaldehyde] with 1-hexyne and 2-methoxyhex-3-en-5-yne. J. Cymerman and others. Chem Soc J p500-3 Je '46
Studies in the polyene series; condensations between methyl propargyl ether and αβ-unsaturated carbonyl compounds. I. M. Heilbron, E. R. H. Jones and R. N. Lacey. Chem Soc J p27-30 Ja '46

See also
Knoevenagel reaction

CONDENSERS
Backwashing shell-tube condensers increase cooling efficiency. il Pet Refiner 25:151-2 Je '46
Cooling towers and evaporative condensers. S. I. Rottmayer. il diag Refrig Eng 51:220-2+ Mr '46
Efficient operation of the refrigerant condenser. G. Holman. diags Power Pl Eng 50:96-7 Ap '46
German production of condensers. Chem & Eng N 24:1260 My 10 '46
Heat transfer in an evaporative condenser. E. G. Thomsen. Refrig Eng 51:425-31 bibliog (p430) My '46
How small refrigeration plants can operate with less water. W. E. Patten. diags Power Pl Eng 49:88-91 O '45
How to select economical condensing pressures for air conditioning; using Freon 12. A. P. Boehmer. il Heating-Piping 18:77-81 S; 94-8, data sheet(p99-100) O '46
Methods of condensing refrigerants. H. J. Kinkade. diags Power Pl Eng 49:78-9 O '45
New type of reflux condenser. W. T. Somerville. diag Ind & Eng Chem Anal ed 18: 278 Ap '46

Testing
Proposed A.S.R.E. standard methods of rating and testing water-cooled industrial refrigerant condensers. Refrig Eng 51:272a-272e Mr '46

CONDENSERS (electricity)
Application of capacitor discharge to welding. H. J. Bichsel and J. R. Parsons. il diags Welding J 24:1035-9+ N '45; Discussion. 25:144-5 F '46
Application of series capacitors to flash welders. J. F. Deffenbaugh. il diags Elec Eng 65:Trans 686-9 O '46
Le bicentenaire du condensateur électrique. C. Arpin. Génie Civil 123:143-5 Je 1 '46
Capacitor charging rectifier. H. J. Bichsel. diag Electronics 19:123-5 Ja '46
Capacitor discharge magnetizer for plant shops. W. L. Porta. il diags Electronics 19: 168+ Je '46
Capacitor stabilization of arc-welding transformers. J. H. Blankenbuehler and R. V. Lester. diags Elec Eng 65:Trans 54-5 F '46
Capacitors for high-frequency induction-heating circuits. F. M. Clark and M. E. Scoville. bibliog il Elec Eng 64:Trans 791-6 N '45
Capacitors; hazards and precautions. Nat Safety N 53:42+ F '46
Capacitors on 24 kv. an adjunct to condenser serving large furnace load. E. R. Smith and others. il diag Elec World 124:114-15 N 10 '45
Characteristics and errors of capacitors used for measurement purposes; summary and discussion. C. G. Garton. Electrician 136: 543-4 Mr 1 '46; Elec R (Lond) 138:333-4 Mr 1 '46
Condenser assembly without crane. A. J. Swank and P. S. Gehringer. il Elec West 95:84-5 D '45
Condenser-discharge magnetiser for permanent magnets. F. Brailsford. il diags Engineering 162:145-6 Ag 16 '46
Condenser pop locates aerial cable fault. F. W. Buck. diag Elec World 125:111 My 25 '46
Condenser production cost cut 20 percent; Robert Bosch co. Elec World 125:118 Mr 30 '46
Data for capacitor applications. Elec World 125:124 My 11 '46
Design and measurements of capacitor discharge welding transformers. T. W. Dietz and G. M. Stein. il Elec Eng 65:Trans 154-9 Mr '46
Distribution system economics; regulators and shunt capacitors used on lines in light load areas. O. B. Falls, jr. Elec West 95: 80-3 D '45
Electrical essays; paralleling of a capacitor. diags Elec Eng 65:159 Ap '46; Discussion. 65:299 Je '46
Field control for synchronous condenser. P. H. Adams. diag Elec World 125:110-11 My 25 '46
High titania dielectrics. E. Wainer. diags Electrochem Soc Trans 89 (preprint 3): 47-71 bibliog(71 references, p69-70) '46
How to connect and fuse capacitors; table and diagrams. Elec World 125:102 Ja 5 '46
How to mount line capacitors. diags Elec World 125:166 Ja 19 '46
Industrial power factor corrected by current control. G. Kohlweiler. diags Elec World 126:89 S 14 '46
Making static condensers; Static condenser co. il Elec R (Lond) 139:35 Jl 5 '46
Manufacture of metalized paper fixed capacitor units by the Robert Bosch co., Stuttgart, Germany; abstract. F. E. Henderson. Product Eng 17:117-18 S '46
Mica capacitors for carrier telephone systems; silvered capacitors. A. J. Christopher and J. A. Kater. il diags Elec Eng 65:Trans 670-4 O '46
New series capacitor protective device. R. E. Marbury and J. B. Owens. il diags Elec Eng 65:Trans 142-6 Mr '46; Same abr. Power Pl Eng 50:82-5 S '46
Operating 230-volt capacitors on 460 volts. R. E. Marbury. diags Elec World 126:118+ O 12 '46
Paper capacitors containing chlorinated impregnants; effects of sulfur. D. A. McLean, L. Egerton and C. C. Houtz. bibliog diag Ind & Eng Chem 38:1110-16 N '46
Paper capacitors containing chlorinated impregnants; mechanism of stabilization. L. Egerton and D. A. McLean. bibliog il Ind & Eng Chem 38:512-17 My '46
Power factor correction. H. Andrewes. il diag Electrician 137:375-80 Ag 9 '46
Progress in engineering knowledge during 1945; capacitors. P. L. Alger and others. il diags Gen Elec R 49:50-2 F '46
Safe discharge of a.c. power capacitors. R. L. Fancher. diags Elec World 125:105-7 Ap 13 '46

CONDENSERS (electricity)—*Continued*
Selection and application of automatic control for capacitors. T. W. Schroeder and W. C. Bloomquist. il diags Gen Elec R 48:7-11 O; 22-31 D '45; 49:37-41 Mr '46
Self-correction by industry; presenting power factor studies to customers. D. K. Grandey. Elec West 96:57-9 My '46
Series capacitor overcomes bad voltage fluctuation. C. F. Myers. diag Elec World 125: 82 Mr 30 '46
Series capacitors raise power factor of resistance welders. R. E. Marbury. il diags Factory Management 104:149-53 F '46
Shunt capacitors for reduced cost, increased capacity. W. H. Cuttino. il diag Blast F & Steel Pl 34:368-9+ Mr '46; Same. Eng & Min J 147:76-8 My '46; Same cond. Cer Ind 46:52-3 Mr '46
Switched capacitors retrieve line loading capacity. R. O. Loomis and E. J. Archbold. il diag Elec World 125:46-8 Ap 27 '46
Three-phase distribution and electric welding and furnace loads. A. L. Morris. diags Inst E E J 93 pt 2:341-8; Discussion. 348-52 Ag '46
What you should know about industrial electronics; capacitance. il Am Mach 90:116 Je 6 '46

See also
Radio condensers

Control
Automatic control of large synchronous condensers. M. J. Brown. il diags Elec Eng 65:Trans 609-16 Ag-S '46

Testing
Judging mica quality electrically. K. G. Coutlee. bibliog il diags Elec Eng 64:Trans 735-41 N '45

CONDENSERS (steam)
Air-cooled steam condensers. R. A. Bowman. diags A S M E Trans 67:661-3 N '45
Condenser and steam-jet air ejector; a team for maintaining exhaust vacuum. P. Freneau. il diag Power 90:85-8+ F '46
Condenser tube corrosion. R. May. Marine Eng 51:138 Ja '46
Economical condensing. W. M. Gore. Blast F & Steel Pl 33:1408-9 N '45
Exhaust steam condenser built from scrap is typical of home made refinery gadgets. R. W. Machen. il Nat Pet N 38 pt 2:R500 Jl 3 '46
Graham offers dual condenser. il Paper Tr J 121:106 N 22 '45
Heat transfer coefficients in surface condensers. R. S. Silver. Engineering 161:505-6 My 31 '46
How to seal holes in condenser tube sheets. diag Elec World 126:90+ Ag 3 '46
Hydrogen gas explosion damages condenser-turbine; believed caused by reaction between clean iron and hydrochloric acid. E. D. St John. il Elec World 125:98-9 F 16 '46
Old condenser tubes get new lease on life; expander helps to stop leakage. F. F. Fisher. diags Power 90:248a, 249+ Ap '46
Repairs to steam turbine unit following hydrogen explosion; caused by use of hydrochloric acid for scale removal. E. D. St. John. il diags Power Pl Eng 50:64-8 Mr '46
Sludging value of transformer oil; influence of condenser water temperature. P. W. L. Gossling and J. Romney. diag Inst Pet J 32:424-33 Jl '46
Why is barometric condenser water backing up? diag Power Pl Eng 49:116+ O '45

Cleaning
Chemical cleaning of power and process equipment; abstract. H. L. Gray. Chem & Met Eng 53:272+ F '46

Testing
How to compare steam surface condensers. C. L. Waddell. Power 90:363-5 Je '46

CONDITIONAL sales. See Sales, Conditional

CONDON, Edward Uhler, 1902-
Named director of National bureau of standards. por Ind Stand 16:245 N '45
Portrait. Fortune 33:121 Je '46

CONDUCTOMETRIC titration. See Volumetric analysis

CONDUITS
Critical flow in circular conduits analyzed by nomograph. F. T. Mavis. Eng N 136: 361-2 Mr 7 '46

CONDUITS, Concrete
See also
Water conduits, concrete

CONDYLOMA
Similarity of the effect of podophyllin and colchicine and their use in the treatment of condylomata acuminata. L. S. King and M. Sullivan. Science 104:244 S 13 '46

CONFECTIONERS association, National. See National confectioners association

CONFECTIONERY

Manufacture
National Confectioners discuss sanitation. Food Ind 18:1224+ Ag '46

CONFEDERATED unions of America
Unions' union? independent labor groups may join central organization. Bsns W p94 Mr 9 '46

CONFEDERATION of Latin American workers
Extraordinary congress, Paris, Oct. 10-12, 1945. Int Labour R 52:557-60 N '45

CONFERENCE of American states, Mexico (city) 1946. See International labor organization—Conference of American states, Mexico (city) 1946

CONFERENCES
See also
Employees' conferences
Foremen's conferences

CONFERENCES, International. See International conferences

CONGLOMERATE
Appalachian drainage and the highland border sediments of the Newark series. C. W. Carlston. bibliog map Geol Soc Bul 57: 997-1031, fold map(pl 1) pl 2-3 N '46
Miocene conglomerates of Puente and San Jose hills, California. A. O. Woodford and others. bibliog il maps diags Am Assn Pet Geologists Bul 30:514-60, pl 1-2 Ap '46

CONGO, Belgian
See also
Labor and laboring classes—Congo, Belgian
Oil industries—Congo, Belgian

CONGOLEUM-NAIRN, Inc.
To expand plants 50%. Barron's 26:11 Mr 25 '46

CONGRESS. See United States—Congress

CONGRESS of industrial organizations
A.F.L. attacks C.I.O. Bsns W p82+ Ag 31 '46
Bridgeheads for Operation Dixie. Bsns W p98 Jl 20 '46
C.I.O. adopts wage armistice. Bsns W p87 Jl 27 '46
C.I.O.; its fees, dues, salaries. Bsns W p106 F 16 '46
C.I.O. launches organizing drive, Operation Dixie. Bsns W p92 Ap 27 '46
CIO's international aims. J. B. Carey. Comm & Fin Chr 163:525+ Ja 31 '46
Criticism of A.F.L; Gallup poll. Iron Age 158:91+ O 3 '46
Labor problem as I see it. F. Rising. il Factory Management 104:90-4 Ja '46
Temporizing with CIO will not solve issues. F. Rising. Factory Management 104:256 F '46
Trophy for C.I.O.; public relations program. Bsns W p90 Ap 20 '46
Unions with communists; widening cleavage between non-communists and communists in CIO unions. Economist 150:884 Je 1 '46; Same. Iron Age 157:103+ Je 13 '46
U.S. gets C.I.O.'s demands. Bsns W p17 Ag 24 '46
Unrest in C.I.O. Bsns W p86+ Ag 3 '46

Political action committee
New defenses against PAC's methods needed. C. H. Grattan. Barron's 26:7 Ag 19 '46
P.A.C. blacklist; Amalgamated's convention turns into political rally. Bsns W p103 My 18 '46

CONGRESSMEN

Pensions

Businessmen speculate whether liberalized Congressional pensions may set new trend. Weekly Underw 155:567 S 7 '46

CONICK, Harold C.

Sketch. C. Axman. por East Underw 47:26 Ag 23 '46

CONIFERS

Chloride content of conifers. B. C. Brunstetter and others. bibliog Science 104:415-16 N 1 '46

See also

Douglas fir
Pine
Spruce

CONJUGATION (chemistry)

Apparent anomalous monoreduction of 2:4-dinitrotoluene explained on the theory of hyperconjugation (the Baker-Nathan effect). H. H. Hodgson. bibliog Soc Dyers & Col J 62:114-15 Ap '46

Further investigations of polarity in hydrocarbons possessing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:244-7 F '46

CONNALLY-SMITH act. See Strikes—Law

CONNECTICUT mutual life insurance company

Centennial convention. Nat Underw (Life ed) 50:2+ Jl 5 '46

First century of the Connecticut mutual life insurance co., by J. L. Loomis and P. M. Fraser; review. East Underw 47:3+ My 10 '46

100th anniversary celebration. East Underw 47:3-5+ Je 28 '46; Nat Underw (Life ed) 50:1+, 2+ Je 28 '46

100th annual report. East Underw 47:3+ F 1 '46

CONNECTING rods

High-duty engines; problems involved in development. A. Towle. il diags Automobile Eng 36:110-13 Mr '46

1946 passenger cars, pistons, rings and connecting rods; specifications tabulated. Automotive & Aviation Ind 94:101 Mr 15 '46

Manufacture

Cutter adjusts for slot width; redesign of milling cutter for rods. W. Radtke. il Am Mach 90:130 Mr 14 '46

CONODOGUINET Creek, Pennsylvania

Elongate intrenched meanders of Conodoguinet Creek. A. N. Strahler. bibliog pl diag maps Am J Sci 244:31-40 Ja '46

CONODONTS

Conodonts as paleozoic guide fossils. S. P. Ellison, jr. il Am Assn Pet Geologists Bul 30:93-110 Ja '46

Conodonts from the triassic of Sinai (Egypt). D. B. Eicher. Am Assn Pet Geologists Bul 30:613-16 Ap '46

CONSCRIPTION. See Military service, Compulsory

CONSERVATION of resources

Administrative coordination of conservation policy. S. V. Ciriacy-Wantrup. J Land & Pub Util Econ 22:48-58 F '46

Future of resource engineering. K. Markwell. il Civil Eng 16:53-6 F '46

National river basin policy needed to give all regions equal opportunity. W. C. McNown. Eng N 137:55-6 Jl 11 '46

Need for better approach to conserve mineral resources. W. E. Wrather. Iron Age 156:135-7 N 29 '45

Pan American union requests United States to convoke a conservation congress; abstract. W. Vogt. Science 103:204-5 F 15 '46

Principles of mineral conservation. W. M. Myers. Pennsylvania State College Mineral Industries Exp Sta Circ 25:1-19 '46 (pa 25c)

See also

Gas, Natural—Conservation
Minerals—Stockpiling
Petroleum—Conservation
Soil conservation
Water conservation

CONSERVATIVE party (Great Britain)

New conservatism. Economist 151:483-4 S 28 '46

CONSIGNMENT selling

Consignment contracts; legal aspects of this type of secured sales. C. B. Everberg. Credit & Fin Management 48:18+ Mr '46

CONSISTOMETERS

New consistometer measures corn consistency; useful for pancake batter, apple sauce and preserves. M. C. Adams and E. L. Birdsall. il Food Ind 18:844-6+ Je '46

CONSOLIDATED Edison company of New York

Consolidated Edison may adopt straightline depreciation. O. Ely. Pub Util 38:296-9 Ag 29 '46

Faced with heavy charge-off. Comm & Fin Chr 164:885+ Ag 15 '46

Refunding program. O. Ely. Pub Util 38: 36-7 Jl 4 '46

Stocks for 1946 re-investment. Mag of Wall St 77:329-30 D 22 '45

CONSOLIDATED gas electric light and power company of Baltimore

Bonds offered. Comm & Fin Chr 163:2434 My 6 '46

CONSOLIDATED grocers corporation

Grocery Midas; Cummings' success with unorthodox price policy. Bsns W p80+ F 23 '46

CONSOLIDATED schools

Building to provide rural Negro community with modern educational facilities; Sandy Forks, N.C. il map plans Arch Forum 83: 118-19 N '45

CONSOLIDATED statements

Consolidated equity invested capital. J. R. Hellerstein. J Account 80:456-64 D '45

CONSOLIDATED Vultee aircraft corporation

Lockheed-Consolidated merger would create new aircraft giant. W. Kroger. Aviation N 6:7 S 16 '46

CONSOLIDATIONS, Business. See Business consolidations

CONSTITUTIONAL law

See also

Amparo (writ)—Mexico

CONSTRUCTION battalions. See United States—Navy—Construction battalions

CONSTRUCTION equipment

Construction cableways on Norfork dam. H. V. Pittman. il diags Eng N 135:878-83 D 27 '45

Equipment developed for mass production of precast concrete houses; Tournalayer casts four-room concrete house, lifts, carries and lowers house onto its permanent site. il Eng N 136:711-14 My 2 '46

How to select the right bearing lubricant. Roads & Sts 89:111+ S '46

Le matériel de travaux publics à la Foire de Paris. Génie Civil 123:268 O 1 '46

Outlook for the construction machinery industry. E. R. Galvin. Diesel Power 23:1360+ N '45

Proposed trade practice rules for equipment distributors. Roads & Bridges 84:64+ Ag '46

War-developed equipment for peacetime use; construction equipment, surveying and mapping instruments and bridging developments. il Eng N 136:928-31 Je 13 '46

See also

Cranes, derricks, etc.
Excavating machinery
Hoisting machinery
Tractors

Length of service

Depreciation schedule; U. S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment, bridges, water works, gas and electric plant. Eng N 136:601+ Ap 18 '46

Maintenance and repair

Larger shop space, this contractor's answer; Geo. M. Brewster & son. il Roads & Sts 89:107-9 Ja '46

Plant organisation and maintenance for civil engineering contractors. H. O. Parrack. Engineering 160:430, 456-7, 465 N 23-D 7 '45

Repairing contractors' and steel mill equipment with manganese applicator bars. L. A. Davis. il diag Welding J 25:969-74 O '46

CONSTRUCTION equipment—*Continued*

Moving

Moving a 170-ton shovel from a mountaintop airport. il Roads & Sts 89:66-8 S '46

Prices

Prices of construction machinery, Aug. 1939 to Dec. 1945. Mo Labor R 62:491-3 Mr '46; Abstract. Eng N 136:611 Ap 18 '46

Rental prices

Construction equipment rental rates. Eng N 136:609 Ap 18 '46

Surplus equipment

Services' building machines being returned for home use. il Eng N 136:687 My 2 '46
Special aid offered contractors in obtaining war-surplus material. Concrete 54:21+ O '46

CONSTRUCTION industry advisory council

Construction advisory council formed. Concrete 53:28-9 D '45; 54:6-7 Ja '46

CONSULTING chemists and chemical engineers, Association of. See Association of consulting chemists and chemical engineers

CONSUMER education

How advertisers are helping consumers in their buying; report on the current status of the consumer movement. H. E. Green. Ptr Ink 214:21-2+ F 15 '46
School texts for tomorrow's buyers; business and education cooperate on new consumer study units. R. Amberson. Ptr Ink 214:46+ Ja 11 '46

CONSUMER loans. See Loans, Bank—Small loans

CONSUMERS

Advertisers have big good-will opportunity as consumers mobilize; product standards and labeling. H. E. Green. Ptr Ink 214: 49+ F 22 '46
Consumer has his say on advertising code. J. E. Rooney. Ptr Ink 214:50 Mr 15 '46
Consumer is a jerk! hence responsible for offensive advertising. H. G. Sawyer. Ptr Ink 214:23-5 Mr 1 '46; Reply (To believe that the consumer is a jerk is dangerous doctrine). R. L. Edsall. 214:44+ Mr 15 '46; Discussion. 214:73-6 Mr 22 '46
Report on the current status of the consumer movement. H. E. Green. Ptr Ink 214:21-2+ F 15 '46
Unorganized consumers hold key to buyers' strikes. il Bsns W p16 Jl 20 '46

See also
Buying habits

CONSUMERS' credit. See Credit; Instalment plan; Loans, Bank—Small loans; Loans, Small

CONSUMPTION (economics)

After reconversion, selling faces its biggest job; results of C.E.D. marketing committee and related facts summarized. A. Haring. il Dun's R 54:21-6+ Ja '46
Buyer's measure is taken; durable goods' sales prospects. Bsns W p19-20 Ag 24 '46
Consumers and distribution, not producers, originate jobs. Sales Management 57:88 S 1 '46
How much can be sold? D. W. Michener. Comm & Fin Chr 164:1456+ S 19 '46
Liquid assets and expenditure plans of farm operators. Fed Res Bul 32:965-6 S '46
Maintaining labor's purchasing power. Nat City Bank p 130-3 D '45; Excerpt. Comm & Fin Chr 162:3165+ D 27 '45
New pattern of living standards. J. D. C. Weldon. il Mag of Wall St 78:316-18+ Je 22 '46
Purchasing power fallacy. W. Chamberlain. Comm & Fin Chr 163:1927+, 2214+ Ap 11-25 '46
Reappraisal of today's buying power. W. C. Hanson. Mag of Wall St 78:438-40 Jl 20 '46
Relationship between consumers' expenditures, savings, and disposable income. W. S. Woytinsky. R Econ Stat 28:1-12 F '46
To what extent will deferred consumer buying hold up? W. Gates. Mag of Wall St 78: 737-9+ S 28 '46

See also
Buying habits
Consumers
Market research
Prices
Purchasing
Supply and demand

Statistics

Consumer expenditures since VJ-day. Survey of Cur Bsns 26:2-3 Ap '46
Consumers expenditures and retail trade. Survey of Cur Bsns 26:3-5 Ja '46
Consumers' expenditures in war and transition. V. L. Bassie. R Econ Stat 28:117-30 Ag '46
Impact of the war on civilian consumption in the United Kingdom, the United States and Canada; summary of report to Combined production and resources board. Economist 149:637-44 N 3 '45
Income, consumption, and savings; first quarter trends. Survey of Cur Bsns 26:5-7+ My '46
Measuring and forecasting consumption. F. R. Garfield. Am Stat Assn J 41:322-33 S '46
National survey of liquid assets; summary of survey by Bureau of agricultural economics. H. H. Villard; D. M. Holthausen. Fed Res Bul 32:574-80, 716-22, 844-55 Je-Ag '46; Excerpts, pt3. Comm & Fin Chr 164: 1144+ Ag 29 '46; Summary, pt 1. Mo Labor R 63:256-8 Ag '46
One-half of U.S. families can't buy durable goods and regulation W makes recourse to installment buying more difficult. C. M. Wright. Ptr Ink 217:92+ O 18 '46
Regional trade barometers, adjusted for seasonal variation; measures of consumer buying; annual figures, 1935-1945 and monthly figures, Jan. 1944-Dec. 1945. L. D. H. Weld, comp. Dun's Stat R 10:11 Mr '46
Retail sales and consumer income since VJ-day. L. J. Paradiso. Survey of Cur Bsns 26:10-17+ O '46
Selected components of the gross national product, 1941-1945; chart. Survey of Cur Bsns 25:2 D '45

CONTACT angle

Rust preventive oils; use of contact angles to study the action of mineral oil films. G. P. Pilz and F. F. Farley. bibliog il diag Ind & Eng Chem 38:601-9 Je '46

CONTACT lenses. See Lenses, Contact

CONTACTS, Electric. See Electric contacts

CONTAINER corporation of America

Design laboratory; Bartolucci-Waldheim coordinates drafting, testing and display facilities in remodeling these package design workrooms. il plan Arch Forum 84:102-3 F '46
Design laboratory visualizes the package at work. il Mod Packaging 19:95-100 Ap '46
Selected companies, with an open road to higher earnings and dividends. Mag of Wall St 77:758-9 Mr 30 '46
Thumbnail stock appraisal. Mag of Wall St 77:210 N 24 '45

CONTAINER industry

Container supply. T. P. Callahan. il Chem Ind 59:295-6 Ag '46
Continued shortage of containers, higher prices indicated in report. Nat Pet N 38:41 S 18 '46
Current market for containers. M. Moses. Dom Comm 34:26-7+ F '46
Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. Iron Age 157:118-19+ Ja 3 '46

See also
Fiber drum manufacturers' association
Glass container industry

Advertising

Animals invade container ads successfully; General box company of Chicago. il Ind Marketing 30:47+ D '45

Securities

Divergent profit trends in the container industry. S. Devlin. il Mag of Wall St 78: 215-17+ My 25 '46

Statistics

Packaging takes stock after war. Bsns W p86 Ap 13 '46

CONTAINER system (freight handling)

Design of a truck carrier; automotive truck trailer carried by ship. W. M. Rice. il plans diag Marine Eng 51:124-5 My '46

CONTAINER system (freight handling)—*Cont.*
New container system on Louisville and Nashville. D. Meredith. il Manuf Rec 115: 39+ Mr '46

CONTAINERS
Bin size for the jobber's convenience. il Mod Packaging 19:106-8 Jl '46
Canned for life; product works in its package; gas packing electrical devices in metal containers, Stratopax. il Mod Packaging 19: 151-3 D '45
Dispenser carton to measure elastic braid. il Mod Packaging 19:111 F '46
Freezer packages; a survey of commercial types. Mod Packaging 19:132+ Ja '46
Man's toiletry a man can use. il Mod Packaging 19:99+ Ag '46
Metal lithography; the case for decorated containers. W. P. Murray. il Mod Packaging 19:104-6+ N '45
Prospect for 1946. il Mod Packaging 19:87-93 Ja '46
Silver cleaner; foil packet acts as catalyst; Dippo. il Mod Packaging 19:153 Mr '46
Smartly styled parcels replace pallid mail order cartons. il Sales Management 57:117-18+ N 1 '46
Wrap-carton, a new kind of package; Mullinix for butter, bacon and sausage. il Mod Packaging 19:138-43 Mr '46

See also
Acid containers
Beer containers
Bottles
Cans
Closures (containers)
Container industry
Glass containers
Kegs
Labels
Package design
Package goods
Paper boxes
Paper containers
Pottery containers
Pressure vessels
Tanks
Tin cans
Trays (containers)
Tubes (containers)

Compartments

Compartments, and transparent. il diags Mod Packaging 19:110-11 N '45

Re-use

Doll box that becomes a bed; Betty Bedtime dolls for Butler bros., St Louis. il Mod Packaging 20:99 O '46
Folded plastic boxes; die-cut like cartons, set up without cement. il Mod Packaging 19:130-1 Je '46
National promotions fan women's zeal for reusable cotton bags. il Sales Management 57:126+ S 15 '46
Package as a sales hypo; entertainment or utility value sometimes added. il Ptr Ink 215:56+ My 17 '46
Re-use of package promoted by ads. il Ptr Ink 216:88+ Ag 16 '46

See also
Containers (for shipping)—Re-use
Cotton bags
Pottery containers

Specifications

Packaging of poisonous liquids. T. P. Callahan. il Chem Ind 58:826+ My '46
Packaging of poisonous solids. T. P. Callahan. Chem Ind 58:466+ Mr '46

CONTAINERS (for air transport)
Air cargo problems; the carriers' viewpoint. E. F. Johnson. il diag Mod Packaging 19: 120-4 Ap '46
Airborne packages; meeting of the Industrial packaging engineers association. Air Transport 3:119 D '45
Cargo bombs used in Pacific war theater; container with special steel strapping for cargo dropped without parachute. Iron Age 156:162 N 22 '45
External cargo container increases Constellation pay load. il Aeronautical Eng R 5:126 My '46
Free-fall container developed by Forest products laboratory. il Mod Packaging 19:128 D '45
Fresh shrimp by air in a protective package; heat-sealed pliofilm pouch. il Mod Packaging 20:121 O '46
Frozen pack for serums in air cargo. il Mod Packaging 19:115 Jl '46
Iceless pack for seafood, air-borne. S. A. Larsen. il Mod Packaging 19:104-7 D '45
Packaging for air cargo shipment; abstract. P. E. Burbank. Mod Packaging 19:144-5 Ap '46
Pennsylvania-central airlines' fish package with kraft-foil liner. il Mod Packaging 19: 107 D '45
Pre-packed containers for air cargo; monorail loading system. il diags Aero Digest 51: 77+ N 15 '45
Produce by air; pre-packaged and pre-cooled. il Mod Packaging 19:96-100+ N '45
Storpedo, a parachute delivery container. il Mod Packaging 19:126-8 D '45

CONTAINERS (for shipping)
Boxes needed. Bsns W p16 Ap 20 '46
Case liners, an outline of requirements. W. L. Hardy. il Mod Packaging 19:148-51 F '46
Chemical propellants; corrosion and stability studies. F. Bellinger and others. bibliog il diags Ind & Eng Chem 38:310-20 Mr '46
Compartments for peaches; cell-type box permits marketing of tree-ripened fruits. T. A. Merrill. il Mod Packaging 19:128-30 F '46
Compression test of fiberboard shipping containers; TAPPI tentative standard T 804 m-45. Paper Tr J 121:33-4 N 29 '45
Display cartons have advertising value. il Ptr Ink 216:38-9 S 20 '46
Do fibre box shipping practices need modification? abstract. O. B. King. Mod Packaging 19:146 Ap '46
Fiber shipping containers in war and peace. J. D. Malcolmson. Paper Ind 27:1412+ D '45
Freight savings on containers. Chem Ind 59: 524+ S '46
Improved paper container for bulk shortening. F. L. Toof. il Food Ind 18:1346-7 S '46
Lined drums for shipping soaps. L. H. Ott. Soap & San Chem 22:71+ My '46
New containers. T. P. Callahan. Chem Ind 59:293 Ag '46
Packages engineered by Forest products laboratory. il Mod Packaging 19:122-5 Ja '46
Packaging and shipping. T. P. Callahan. il Chem Ind 58:102+ Ja '46 [cont monthly]
Tight-wrapped shipping containers; Kraft paper wrapping for fiber containers. Food Ind 18:344 Mr '46
Wartime chemical containers. A. W. Roberts. Chem & Eng N 23:2372-4 D 25 '45
What size shippers? a distribution problem; National wholesale druggists' survey. il Mod Packaging 20:93-7+ S '46
Wooden boxes without nails for pre-packaged fruit or vegetables. il Mod Packaging 19:188 Mr '46
Yams in packages, air delivered; Dezauche & son, Opelousas, La. il Mod Packaging 20:106-7+ O '46

See also
Carboys
Containers (for air transport)
Containers, Returnable
Containers, Steel
Packing for shipment

Re-use

Steel packaging; reusable and resealable steel drums for export shipment and prolonged storage. W. L. Hardy. il Steel 117:96-8+ D 17 '45

Testing

Effect of mildew on caselining material. B. W. Scribner and E. Abrams. Paper Tr J 123:132+ O 10 '46
Puncture tester for shipping containers. R. L. Beach and C. J. Falk. il Gen Elec R 49: 36-9 Ag '46
Shipping container materials testing; panel session of A.M.A. packaging conference. Mod Packaging 19:147-50 Ap '46
Standards for case liners; materials tested and methods of testing. B. W. Scribner and others. bibliog il diags Mod Packaging 19:161-5 Ap; 150-4 My '46
Testing case liners. H. A. Wolsdorf and E. G. Mullen. il Mod Packaging 18:131-5 My; 19:154-5+ D '45
Water resistance of shipping containers; TAPPI suggested method T 805 sm-45. diag Paper Tr J 121:49-50 D 13 '45

CONTAINERS, Glass. See Glass containers

CONTAINERS, Plastic
Flip lid; plastic containers for pencil leads. il Mod Packaging 19:131 Jl '46

CONTAINERS, Plastic—*Continued*
Folded plastic boxes; die-cut like cartons, set up without cement. il Mod Packaging 19:130-1 Je '46
Low-cost plastic sheet by extrusion. il Mod Packaging 19:110-12 My '46
Pack it in plastics. C. A. Breskin. il Sci Am 175:60-2 Ag '46
See also
Containers, Transparent

CONTAINERS, Pottery. See Pottery containers

CONTAINERS, Returnable
Accounting for containers for tax purposes. W. C. Butscher. J Account 81:133-7 F '46

CONTAINERS, Steel
Lined drums for shipping soaps. L. H. Ott. Soap & San Chem 22:71+ My '46
Preserving artillery pieces; preparing gun parts for storage in welded steel containers. W. H. Walter. il Steel 119:100-2+ S 16 '46
Seek steel for containers. F. R. Briggs. Steel 119:48 Ag 12 '46
Steel packaging; reusable and resealable steel drums for export shipment and prolonged storage. W. L. Hardy. il Steel 117:96-8+ D 17 '45
See also
Tanks, Steel

Manufacture
Conveyorised paint drying; production of steel container known as the Jerrican. F. H. Slade. il plan Mech Handling 32:702-6 D '45
Die for making square-cornered, air-tight containers in one operation. C. W. Hinman. diags Mach 53:215-17 N '46
Organic coatings for steel containers. T. P. Callahan. Chem Ind 59:706 O '46
Original resistance welder design for production of U.S. navy 40-mm ammunition boxes. F. M. Pence. il diag Welding J 25: 824-8 S '46

CONTAINERS, Transparent
Designing with acrylics; some considerations. D. A. Rothrock. il diags Mod Packaging 19:112-15 F '46
Envelope for oleo; pliable container is made of thermoplastic film. Bsns W p64+ Ap 13 '46
Perfume packages go transparent. il Mod Plastics 23:103-4 Je '46
Self-coloring package for oleomargarine. il Mod Packaging 19:136-7 Je '46
Thermoplastic container for margarine; mixing of coloring matter with oleomargarine while still in its wrapping. il Mod Plastics 23:106-7 Je '46
Transparency returns to the cosmetic field. il Mod Packaging 19:154-5+ Mr '46
Transparent bag makes a package that sells; small radio hardware. W. L. Schott. il Ptr Ink 216:102+ S 20 '46
Transparent containers spotlighted at AMA's packaging exposition. Ptr Ink 215:118 Ap 12 '46
Viscose cellulose film for a sterilizable package; intravenous administration sets. il Mod Packaging 19:132 Ap '46

CONTAINERS, Waterproof
Improved tube-type dye package. Mod Packaging 19:170 Ap '46
Weatherproof fibreboard drum. il Mod Packaging 19:128 N '45

CONTESTS. See Advertising—Prize contests; Safety contests and awards; Sales contests

CONTINENTAL baking company
Earnings soar. Barron's 26:1+ Jl 15 '46

CONTINENTAL can company
Annual report. Comm & Fin Chr 163:1025 F 25 '46

CONTINENTAL motors corporation
Back to the top. il Bsns W p48+ Je 1 '46
Continental Motors has big backlog. Barron's 25:11 N 19 '45

CONTINENTAL oil company
Higher prices lift Continental Oil's net. Barron's 26:6 N 11 '46

CONTINENTAL shelf
Exploring the continental shelf; various types of diving bells. C. J. Deegan. il map diags Oil & Gas J 45:98-101 Je 15 '46
Origin of continental shelves. J. H. F. Umbgrove. bibliog Am Assn Pet Geologists Bul 30:249-53 F '46

CONTINGENT liability. See Liability, Contingent

CONTRACT bonds. See Insurance, Surety and fidelity—Contract bonds

CONTRACTORS
Engineers, contractors urged to assume construction leadership; urges institute for study of construction economics. A. P. Greensfelder. il Civil Eng 16:429-30 O '46
Improving engineer-contractor relationships. H. K. Glidden. Roads & Sts 88:99+ N; 109+ D '45; 89:103-6 Ja; 101-3+ F '46
It's the law; suits involving heating contractors in 1945. L. T. Parker. Heat & Ven 43:79-82 Ag '46
Organization set-up for $5,000,000 a month payroll; J. A. Jones construction co. E. L. Jones. il Eng N 135:804-7 D 13 '45
Plant organisation and maintenance for civil engineering contractors. H. O. Parrack. Engineering 160:430, 456-7, 465 N 23-D 7 '45; Discussion. Engineer 180:395-7 N 16 '45
Safety efforts bring reduced compensation rates; Constructors association of western Pennsylvania. Roads & Sts 89:90 Ag '46
Special aid offered contractors in obtaining war-surplus material. Concrete 54:21+ O '46
See also
Associated general contractors of America
Building contracts
Construction equipment
Electric contractors
Heating contracts

Accounting
Accounting and profit determination for construction contracts. R. M. Abagnale. N A C A Bul 27:1003-19 Je 15 '46
Construction company accounts on balance-sheet. J Account 82:433-5 N '46
Cost accounting in refinery construction. R. C. Lewis. il Pet Refiner 25:118-23 Ja '46

Directories
Contractors, Canada; roads, bridges, airports, earthmoving. Roads & Bridges 84:140-5 Je '46

CONTRACTORS' equipment floater insurance. See Insurance, Contractors' equipment floater

CONTRACTORS' public liability insurance. See Insurance, Contractors' public liability

CONTRACTS
Fraud and mistake in insurance contracts; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:30-1 N 22 '45
See also
Bills of lading
Building contracts
Engineering contracts
Gas, Natural—Contracts
Labor contracts
Mortgages
Negotiable instruments
Partnership
Roads—Contracts
Sales
Third parties (law)

CONTRACTS, Cost-plus
Competitive bids on a cost-plus-fixed-fee contract; repair of reinforced concrete sewer. A. H. Lewis, jr. Eng N 135:742-3 N 29 '45
Fee competitions among contractors? J. P. H. Perry. Arch Rec 100:128 O '46

CONTRACTS, Engineering. See Engineering contracts

CONTRACTS, Government
Avoiding trouble on government bidding. F. A. Bonzagni and J. Reich. Eng N 137:373-5 S 9 '46
Control system for drawings and specifications. J. T. Gleick. Western Soc E J 50: 177-8 D '45
In peacetime, too; negotiated contracts will be used if army and navy have their way. Bsns W p26+ Mr 2 '46
Notes on war contracts. G. D. McCarthy, ed. J Account 80:393-5, 484-6; 81:77-8 N '45-Ja '46
Parting shot; Smaller war plants corporation final report hits big business. Bsns W p26-7 Jl 20 '46

CONTRACTS, Government—*Continued*
Protection of the public interests in public contracts. H. G. James. 90p pa $2 Public administration service, 1313 E. 60th st, Chicago 37 '46
See also
Purchasing, Government

Accounting

Advances for traveling expenses; official text. W. T. Sherwood. J Account 81:87 Ja '46
Advertising cost allowances for terminated war contracts. A. M. Smythe. Ind Marketing 30:43+ O '45
Short-cut in treatment of small inventory items; army-navy joint termination regulation. J Account 81:87-8 Ja '46
Tax accounting in renegotiation and termination. J. H. Landman. Management R 35: 134-5 Ap '46

Assignment of claims

Massachusetts Bonding wins important precedent involving Assignment of claims act. Weekly Underw 154:1560 Je 15 '46; Nat Underw 50:24 Je 20 '46

Finance

Financing war production and contract terminations under Regulation V. Fed Res Bul 32:240-8 Mr '46

Insurance aspects

Alaska highway insurance cost near $2.5 million. Nat Underw 50:26 Je 13 '46
Major Stark chief of War department's contract insurance branch. East Underw 47: 32 Jl 5 '46; Nat Underw 50:16 Jl 4 '46

Patent provisions

War and navy departments to revise patent provisions in contracts. Steel 118:72-3 Ap 29 '46

Renegotiation

Denies a single penny from contract renegotiations was returned on contract terminations; letter to Senator Mead by members of War contracts price adjustment board. E. H. Barker and others. Comm & Fin Chr 164:1062 Ag 22 '46
First renegotiation case decided on its merits by the tax court. G. D. McCarthy. J Account 82:448 N '46
How well did business fare in renegotiation? with tables showing effects of renegotiation on corporations, 1943. Dun's R 54:12-13+ S '46
Management statistics in war contract renegotiation. N. C. Parkin. bibliog Am Stat Assn J 40:504-19 D '45
Problems of renegotiation in 1946. N. L. Burton. J Account 81:52-62 Ja '46
Renegotiation test. Bsns W p16 Mr 9 '46
Revision of renegotiation regulations; War contracts price adjustment board. J Account 80:495-8 D '45
Some economic concepts affecting the renegotiation of war contracts. N. C. Parkin. J Bsns 19:31-42 Ja '46

Termination

Advertising cost allowances for terminated war contracts. A. M. Smythe. Ind Marketing 30:43+ O '45
Contract termination nears completion. J Account 82:269 S '46
Deny charges of waste in contract settlements; Office of contract settlement letter to Mead committee. Comm & Fin Chr 164: 1310 S 5 '46
Fidelity & Deposit manual on procedure under government contracts; abstract. O. R. McGuire. East Underw 47:41 Mr 22 '46
Financing war production and contract terminations under Regulation V. Fed Res Bul 32:240-8 Mr '46
Most war profits unchallenged. Bsns W p17 Ag 17 '46
Studebaker; model termination. Bsns W p66+ D 29 '45
Termination O.K. Bsns W p22+ F 2 '46
War contracts settled. Bsns W p20 My 4 '46

Great Britain

Government contract policy. Economist 150: 972-3, 1054-6; 151:141-3 Je 15, 29, Jl 27 '46

CONTRACTS, Letting of
Competitive bids on a cost-plus-fixed-fee contract; repair of reinforced concrete sewer. A. H. Lewis, jr. Eng N 135:742-3 N 29 '45
Fee competitions among contractors? J. P. H. Perry. Arch Rec 100:128 O '46
New York's contracting policy. C. H. Sells. Roads & Sts 88:73 D '45
Sales engineers' viewpoint on tendering for water works equipment. W. Storrie. Am Water Works Assn J 37:1289-92 D '45

CONTRACTS, Municipal
Chicago's sale of water to outside municipalities. W. A. Weigel. Am Water Works Assn J 38:531-6 Ap '46

CONTRACTS, Sales. See Sales

CONTRAST mediums. See Radiography

CONTROL, Electric. See Electric control

CONTROL, Hydraulic. See Hydraulic control

CONTROL, Pneumatic. See Pneumatic control

CONTROL boards
Visual aid to staff administration. G. R. Millward. il Engineer 182:118-20 Ag 9 '46

CONTROL charts
Filling-weight control with X and R charts. H. P. Goode and F. B. MacKenzie. il Mod Packaging 20:118-22+ O '46
Industrial control chart applied to the study of epidemics. W. H. Rich and M. C. Terry. bibliog Pub Health Rep 61:1501-11 O 18 '46
P charts, what they are and what they do; Heintz & Kaufman radio tube manufacturers. il Factory Management 104:129-36 S '46
Statistical control of the production process. A. M. Mood. il Food Ind 18:1189-91, 1372-4+ Ag-S '46
Use of control charts in the analytical laboratory. G. Wernimont. bibliog Ind & Eng Chem Anal ed 18:587-92 O '46

CONTROL equipment
Automatic control for the glass industry. H. Ziebolz. diags Cer Ind 45:70+ D '45
Automatic control of a fluid catalytic cracking unit. M. MacDonald. flow diag diags Pet Refiner 25:87-90 O '46
Automatic controlling mechanisms for valve operation. diags Product Eng 17:482-3 Je; [no 7] 128-9 Jl '46
Automatic manufacturing plant; shell plant of W. F. & John Barnes co. suggests possibilities for peacetime manufacturing. E. Oberg. il Mach 52:148-55 F '46
Bailey combustibles recorder-controller. diag Blast F & Steel Pl 33:1424+ N '45
Continuous measurement of specific gravity; apparatus for process control. L. B. Lambert. diags Chem Age (Lond) 54:461-3 Ap 27 '46
Control instruments and their application to textile dyeing. W. H. Ridley. il Am Dyestuff Rep 35:226-9 My 6 '46
Control on small works; discussion. Gas J (Lond) 247:928+ Je 5 '46
Electronics improves industrial process control. D. M. Considine and D. P. Eckman. il diags Chem Ind 58:785-7, 982-4 My-Je '46
Equipment advances 1944-45; instrumentation and process control. O. E. Barstow. il diag Chem Ind 57:860-1 N '45
Experience with instruments and control equipment for 2000-psi boiler at Somerset station of Montaup electric company. W. D. Bissell and E. B. Powell. il diags A S M E Trans 68:453-66 My '46; Excerpts. Power Pl Eng 50:83-4+ Ja '46
Fundamentals of control equipment. C. Cortelyou. Pet Refiner 25:126-8 Ja '46
Germans behind U.S. in automatic controls. Heating-Piping 18:77 O '46
Instrumentation and process control, 1945. H. A. Knight. Materials & Methods 23:151-2 Ja '46
Instrumentation in plant control; abstract. J. D. Pull. Chem & Ind p205 My 25 '46
Instrumentation in pulp and paper mills. J. N. Franklin. il plan Paper Tr J 123:56-62 Jl 18 '46
Instrumentation in textile processing. il Rayon 27:209-12 Ap '46
Measuring and controlling temperature and pressure; control systems. E. W. Feller. diags Power 90:241-6 Ap '46
Pressure-controlled intermitters. G. Weber. il diag Oil & Gas J 45:94-5+ O 26 '46

CONTROL equipment—*Continued*
Purposes, characteristics and use of control valves. R. H. Munch. diag Ind & Eng Chem 38:95-6 S '46
Remote control engineering of stock preparation equipment. J. W. Couture. Paper Tr J 122:150-1 Je 20 '46
Review of power and mechanical equipment; meters, controls and instruments. il diags Power 89:836-92 Mid-D '45
Selection, installation and maintenance of refinery process control instruments. E. Bainbridge. il diags Pet Refiner 25:101-8 Mr; 155-60 Ap '46
Stock consistency regulation. J. C. W. Evans. il diags Pulp & Pa of Can 47:73-8 Ap '46
Taylor Instrument; eleven miles of instrument panels at Oak Ridge. il diags Fortune 34:88-95+ Ag '46
Time and temperature control for compression molding. A. Hermann. diags Mod Plastics 23:137-43+ D '45
2000-psi forced-circulation boiler at the Somerset station at Montaup electric co.; experience with instruments and control equipment. W. D. Bissell and E. B. Powell. il diag Power Pl Eng 50:83-4+ Ja '46
Valve characteristics in automatic control. S. D. Ross. bibliog il Ind & Eng Chem 38:878-84 S '46
Well-chosen alarm and shutdown instruments guard life and equipment. C. S. Beard. il diags Power 90:310-13, 366-7 My-Je '46 (to be cont)
What characteristic means in a diaphragm control valve. B. Irwin. il Power Pl Eng 50:84-7+ O '46

See also
Carrier current control
Electric control
Electric motors
Governors (machinery)
Hydraulic control
Magnetic control
also subdivision subjects, e.g.
Airplanes
Bleaching
Cranes
Pneumatic control
Pressure regulators
Servomechanisms
Temperature—Regulation
Vacuum tubes—Control uses
Control under special
Distillation apparatus
Machine tools
Steam turbines

Terminology
Automatic control terms. D. P. Eckman. diags Chem Ind 58:832, 1020; 59:120+, 528, 710 My-Jl, S-O '46
Automatic-control terms; compiled by committee on terminology of Industrial instruments and regulators division, A.S.M.E. Mech Eng 68:134-8 F '46

CONTROLLERS
Economic situation; problems and opportunities of the controller. J. H. MacDonald. Comm & Fin Chr 164:1540+ S 26 '46

CONTROLLERS, Electric. See Electric controllers

CONVECTRON
Convectron tube. il R Sci Instr 17:347 S '46

CONVENTIONS
Are conventions worth what they cost? Am Bsns 16:16-17+ Jl '46
So you're going to a convention; abstract. N. G. Shidle. Management R 35:407 O '46

See also
Advertising conventions
Sales conventions

CONVERSION tables
Conversion factors (general). Aviation 45:91 S; 97 O; 87 N '46
Conversion factors; European to U.S. engineering units; tabulation; engineering file facts. R. S. Burpo, jr, comp. Materials & Methods 24:421 Ag '46
Viscosity conversion tables. Oil & Gas J 44: B103 sec 2 Mr 30 '46

CONVERTERS
American and German designs contrasted for catalytic converters employed in the production of synthetic ammonia. C. O. Brown. Ind & Eng Chem 38:sup69-70 Mr '46
Converter process in steel foundries. J. H. Hall. il Foundry 74:83+ Mr; 107+ Ap; 174+ My '46
Developments in the design and use of side-blown converter plants. P. C. Fassotte. Iron & Steel Inst J 150:339-48, pl 27; Discussion. 349-58 no 2 '44; Same cond. Engineering 158:104-6 Ag 11 '44
Metallurgy of the side-blown converter; abstract. H. Wentrup and O. Reif. Materials & Methods 23:504+ F '46
Multiclone units recover converter dust successfully; McGill smelting plant. L. Larson. il diags Eng & Min J 147:71-4 Ja '46
Side-blow converter in the postwar period. A. W. Gregg. bibliog il Foundry 74:74-6+ N '46

CONVERTERS, Electric. See Electric converters

CONVERTIBLE bonds. See Bonds, Convertible

CONVEYING machinery
Aeronca plant conveyor line paces post-war lightplane field. il Aviation N 4:15 D 24 '45
Aluminium chip handling system; Pratt & Whitney aircraft corporation. Mech Handling 33:238-9+ Ap '46
Automatic coal handling plant. G. E. Allin. il diags Mech Handling 32:618-21 N '45
Blowing cylinder barrel cores; Buick motor division. A. H. Allen. il plan Foundry 74: 170-3+ My '46
Chassis overhaul; Chiswick depot of London passenger transport board. il layout plan Mech Handling 33:569-74 S '46
Chip and oil reclaiming conveyor. il diag Mech Handling 32:663-5 N '45
Chip conveyor; use of abrasive-resisting synthetic rubber; Packard motor car co. A. H. Allen. il Steel 118:123-4 Je 3 '46
Chip conveyor uses synthetic rubber disks; Packard motor car co. il Iron Age 157:50 Ap 18 '46; Automotive & Aviation Ind 94: 39 Ap 15 '46
Coal-handling plant at Dalmarnock power station. il plan Engineering 160:420-2, 424 N 23 '45
Combined handling and storage cuts assembly time; General motors corp. Dayton. C. H. Beare. il plan Factory Management 104:113-15 S '46
Comprehensive conveyor system at Rotol limited's aircraft propeller factory. B. S. Jelley. il diag Mech Handling 32:687-94 D '45
Conveyor bearing maintenance overcome. C. W. Hagues. il diags Mech Handling 32: 628-31 N '45
Conveyor line for engine maintenance. il Aero Digest 51:80 N 15 '45
Conveyor production at Aeronca. il Aero Digest 52:86+ Mr '46
Conveyorised paint drying; production of steel container known as the Jerrican. F. H. Slade. il plan Mech Handling 32:702-6 D '45
Conveyors aid the manufacture of accumulators. il diag Mech Handling 32:674-80 D '45
Conveyors in the food industries. il layout plan Mech Handling 33:236, 282-7 Ap-My '46
Conveyors in the food industry; plant for dehydrated vegetables. E. E. Wright. il Mech Handling 33:532-40 S '46
Conveyors increase efficiency of Ford piston line. il diags Am Mach 90:106-9 S 12 '46
Cube sugar storage conveyors; factory of Tate & Lyle. il Mech Handling 33:354-6 Je '46
Development of conveyor system for casting sanitary ware; abstract. H. Hoare. Cer Ind 46:94 Je '46
Engine assembly operations; mechanical handling equipment installed by Rolls-Royce. il Mech Handling 33:297-9 My '46
Export markets for U.S. conveying machinery. A. M. Ewing. il For Comm W 21:12-13+ N 10 '45
Five reasons for the employment of underbunker conveyors. A. V. Stock. il diags Power Pl Eng 50:80-2 Je '46
Foundries of the future. J. B. Lamenzo. il plans diags Foundry 73:84-7+ N; 88-93+ D '45
Free flow, high production with mechanized hauling; Ferro machine & foundry company, Cleveland. H. B. Myers. il plans Factory Management 104:106-12 Ja '46
Glass fibre matting conveyor. J. A. Oates. il plans Mech Handling 33:145-9 Mr '46

CONVEYING machinery—*Continued*
Hoists and rollers lighten the handling load; American propeller corporation; illustrations with text. Factory Management 103:94-6 D '45
Lyon packaged roller conveyors. il Concrete 54:33 Ap '46
Maintaining conveyors exposed to abrasive dust. C. W. Daniels. il diag Factory Management 103:134-5 D '45
Mechanical aids to motor car production; Vauxhall motors, ltd. il Mech Handling 33:344-8 Je '46
Mechanised bronze foundry. J. A. Oates. il plan Mech Handling 33:12-20 Ja '46
Mechanization of an iron foundry; sand treatment plant. il Mech Handling 33:405-7 Jl '46
Modern boiler house coal storage and distributing plant. G. E. Allin. il diag Mech Handling 33:220-1 Ap '46
Modern materials-handling methods; conveyors. H. S. Wharen. diags Am Mach 90:119-27 Je 20 '46
North American installs sheet metal conveyor system. il Automotive & Aviation Ind 94:34-5+ Ap 15 '46; Iron Age 157:55 Ap 25 '46
Oscillating-trough conveyor. il Steel 118:113-14 Ap 8 '46
Pak-C-Lector packs rapidly; cuts, weighs and fills, continuously and automatically, tuna or other products. il Food Ind 18:527 Ap '46
Plastics for conveyor systems. P. I. Smith. il Mech Handling 33:271-3 My '46
Roll conveyor for billet-heating furnace. diags Mech Handling 33:448 Jl '46
Self-feeding and self-discharging conveyor; Link-Belt Sidekar-Karrier. Blast F & Steel Pl 33:1426 N '45
Static saves sprayed paint; conveying parts through electrostatically charged field. E. P. Miller. il Am Mach 90:141-4 Je 20 '46
Streamline production with mechanical materials handling. il Rayon 26:607-9 N '45
Teleflex overhead conveyor. il Mech Handling 32:701 D '45
Three-stage system elevates material to bins; Keefner concrete and lumber company. H. E. Swanson. il Rock Prod 49:62-3 S '46
Transfer mechanism employs differential drive; film developing machine. R. Sardeson. il diags Machine Design 17:120-2 D '45
What! assemble instruments on a conveyor? Kollsman instrument div., Square D co. F. Dupre. il plan Factory Management 104:113-16 Mr '46
What the power engineer needs to know about the continuous-flow conveyor for power plant coal handling. W. G. Hudson. il diags Power Pl Eng 49:95-9 N '45
What the power engineer needs to know about the flight conveyor. W. G. Hudson. diags Power Pl Eng 49:92-4 O '45
Woolen mill saves labor with unique conveyor. il diags Textile World 96:120-1 Ap '46

See also
Cableways
Coal handling
Coal mining machinery—Conveyors
Cranes, derricks, etc.
Electric driving—Conveying machinery
Freight handling
Hoisting machinery
Loading and unloading
Mechanical handling
Monorail conveyors
Ore handling
Pneumatic conveying

Belt conveyors

Belt carries both cement and aggregates; Ready mixed concrete co., Chattanooga. il Rock Prod 49:89+ Ag '46
Belt conveyor for crushed stone. E. E. Wright. il plan diag Mech Handling 33:300-3 My '46
Combined lift and length feature Charleson conveyor. V. K. Taipale. il Eng & Min J 147:81-3 Jl '46
Dust removal at belt transfer points; foundry sand handling system. C. C. Hermann. diag Foundry 73:107+ D '45
Finished hose conveyor. E. Weller. il diags Mech Handling 33:273-6 My '46
Flowline unit construction conveyor. il Mech Handling 33:44-5 Ja '46
How can I prevent conveyor spilling salt? diags Power 90:260-2+ Ap '46
Industrial bridge-type structure of unusual design; used to support conveyor belt; Kalamazoo vegetable parchment co. W. M. Laughlin. il diags Roads & Bridges 83:53-5+ N '45
Material handling speeded up with conveyors; Lamar pipe and tile co. H. E. Swanson. il Rock Prod 49:134-5 F '46
Mavor and Coulson steering idlers. il Mech Handling 33:511-13 Ag '46
Metal detector for conveyor belts. il Electronics 19:160 My '46
New type driving gear. il Mech Handling 33:564-8 S '46
One ore conveying belt replaces three; Kevin iron ore pit of Butler brothers. Blast F & Steel Pl 34:748 Je '46
Pick-up for tiny parts; sponge rubber on conveyor belt. A. M. Fiala. Metal Prog 50:88 Jl '46
Power house installation; conveying and handling equipment, Bolton electricity generating station. J. A. Oates. il plan diag Mech Handling 33:408-18 Jl '46
Shuttle conveyor simplifies coal handling. il Elec World 125:85 F 2 '46
Telegram conveyors; Central telegraph office, London. il plan Mech Handling 33:2-6 Ja '46
Underground belt conveyor handles increased tonnage; Sullivan mine of the Consolidated mining & smelting company of Canada. J. B. Huttl. diags Eng & Min J 147:84-6 Je '46
What becomes of a ten-mile conveyor belt; disposition of Shasta Dam conveyor. il Rock Prod 49:80-1 O '46
What the power engineer needs to know about the belt conveyor. W. G. Hudson. il Power Pl Eng 49:92-3+ D '45

Chain conveyors

Automatic work-handling equipment speeds up induction annealing of automobile pull-rods. il Mach 53:167 O '46
Conveyorized enameling of castings; I-T-E circuit breaker co. H. Chase. il diag Iron Age 157:53-5 F 14 '46
Link-Belt unique conveyor trolley. il Mech Eng 68:sup42-4 Mr '46
Loading the conveyor right increases take-home pay; paint spraying operation, General Electric plant. H. C. Geppinger. il plan diag Factory Management 103:121-3 D '45

Control

Automatic controls essential for conveyor operation today; Bolair and Bergoo mines. C. W. Thompson. il diags Coal Age 51:86-92 Ap '46

Manufacture

New conveyor works; Mavor and Coulson. il Mech Handling 33:312-13 My '46

Screw conveyors

Evaluating screw conveyors for materials handling. D. O. Mocine. diags Food Ind 18:852-5+ Je '46
What the power engineer needs to know about the screw conveyor. W. G. Hudson. il diag Power Pl Eng 50:84-6 Ap '46

CONVEYING machinery, Portable

Accordion portable conveyor system. il Mech Handling 33:113 F '46
Marshall unit conveyors and elevators. il Mech Handling 33:308-9 My '46
Mitro portable and semi-portable conveyors. C. S. Lowe. il diag Mech Handling 33:167-72 Mr '46
Two types of American portable conveyors. il diags Mech Handling 33:222-8 Ap '46

CONVEYOR belting. See Belting, Conveyor

CONVEYOR bridges. See Bridges, Conveyor

COOKERY

See also
Bakers and bakeries
Bread
Electric cooking
Electronic cooking
Gas cooking

Meat

Effect of cooking on the creatine-creatinine, phosphorus, nitrogen and pH values of raw lean beef. J. R. Bendall. Soc Chem Ind J 65:226-30 Ag '46

COOKERY—Meat—*Continued*
Excessively high riboflavin retention during braising of beef; comparison of methods of assay. W. F. Hinman and others. bibliog Ind & Eng Chem Anal ed 18:296-301 My '46
Microscopic examination of meat; American gas association testing laboratories study effect of broiling. il Am Gas Assn Mo 28: 261 Je '46

Vegetables

Vitamin-*C* content of vegetables; effect of cooking on cabbage. L. H. Lampitt and others. Soc Chem Ind J 64:260-2 S '45

COOKING schools
School of American cookery at Portland gas & coke co. il Am Gas J 165:17-18 Ag '46
Stage that commands; theatre-type auditorium for gas equipment demonstration; East Ohio gas company. A. V. McManus. il plan diag Am Gas Assn Mo 28:382+ S '46

COOKING ware
What the public thinks; best materials for frying pans, baking utensils and pots; chart. Iron Age 157:100-1 Ja 3 '46

COOLANTS. See Lubrication and lubricants (cutting and grinding)

COOLEY bill. See Agricultural credit

COOLING
Comfort-cooling is big business. il diags Sheet Metal Worker 37:54+ Jl '46
Comfort problem in northern India. W. C. Thoburn. il map diags Heating-Piping 18: 120-5 S '46
Cooler air and longer sessions; air conditioning, Senate and House chambers. il Heating-Piping 18:76-7 O '46
Dust removal cuts merchandise losses; air conditioning system with electronic air cleaner; American sporting goods co. store. il Heat & Ven 43:51-2 Je '46
Effect of turbulence promoters on heat transfer coefficients for water flowing in horizontal tubes. L. G. Seigel. bibliog il diags Heating-Piping 18:111-14 Je '46
Evaporative cooling for textile mills; practice in the Argentine. G. T. Lang. il Heat & Ven 42:89-94 D '45
Evaporative cooling system installed at Utica. E. Mauldin. il Textile World 95:117+ D '45
Heating and cooling churches. S. R. Lewis. Heating-Piping 18:108 Ja '46
High speed airliners need refrigeration. J. T. Fisher. il diag Refrig Eng 52:303-5 O '46
Man-made weather for metalworking; with cost data. E. J. Tangerman. il diags Am Mach 90:130-1 O 10 '46
Single-equation design procedure for radiant panel systems. F. W. Hutchinson. Heating-Piping 17:637-42 D '45
Supplementary summer cooling in paper machine rooms. L. G. Janett. il Paper Ind 28: 986-8 O '46
Water cooled roofs. il diags Arch Forum 84: 165-9 Je '46
Water-vapor refrigeration cools Australia's largest store. il Comp Air Mag 51:276 O '46
What's ahead in house heating and cooling systems? R. K. Thulman. il diags Arch Rec 98:127-8 D '45

See also
Air conditioning
Cold storage
Cryostats
Factories—Air conditioning
Refrigeration and refrigerating machinery

Tables, calculations, etc.

Air conditioning and refrigerating machinery association publishers cooling load estimate forms. Heat & Ven 43:101-2 Ap '46
Coil shall be not less than six rows deep. W. D. Sampson. il charts Heating-Piping 18:105-7 F '46
Estimate sheet aids store cooler sizing. il Heating-Piping 18:98-100 Mr '46
Heat transfer and diffusion problems in cooling and dehumidifying air with extended surfaces. T. Hafsten. bibliog Refrig Eng 50:431-7 N '45
Selection of cooling coils. G. K. Marshall. il diags Heat & Ven 42:82-7 N '45
Sol-air thermometer. C. O. Mackey and L T. Wright, jr. il diag Heating-Piping 18: 107-11 My '46

COOLING, Industrial
Application of unit coolers in the meat packing industry. K. E. Wolcott. il Refrig Eng 50:530-2+ D '45
Excitation, control and cooling of ignitron tubes. C. C. Herskind and E. J. Remscheid. diag Elec Eng 65:Trans 634-5 O '46
How to determine power dissipated in water-cooled devices. H. W. Baker, jr. Elec World 126:124 S 14 '46
Ice bank reduces refrigeration peak load in milk plants. C. H. Minster. diag Food Ind 18:1016-17 Jl '46
Liquid coolers; units for controlling coolant temperature during high speed machining. il plan Steel 119:96-7+ N 4 '46
National radiator company cooler element. Blast F & Steel Pl 34:407 Mr '46
Open-type coolers and boxes. W. L. Nelson. Oil & Gas J 45:119 Jl 13 '46
Petroleum industry uses of air cooling. K. D. Demarest. il Pet Eng 17:145+ Ja '46
Quick cooling of cream improves butter. J. S. Erickson and H. F. Long. il Food Ind 17:1299-1301+ N '45

See also
Cold storage
Cooling of water
Cooling towers
Cooling water
Metals, Cold treatment of
Quenching
Steel, Quenching of
Testing laboratories—Cold rooms

also subdivision Cooling under various subjects, e.g. Airplane engines; Automobile engines; Electric machinery; Internal combustion engines; Machinery

COOLING equipment
Railroad air conditioning. J. A. Bucy. il Refrig Eng 50:525-7 D '45
Ross coolers for lubricating oil and jacket water. il diag Diesel Power 23:1458-60+ D '45
Tube spacing in finned-tube banks; gas coolers for industrial use. S. L. Jameson. diags A S M E Trans 67:633-42 N '45

Testing

Testing gravity coils. G. B. Priester. plan Refrig Eng 51:227-9 Mr '46
Testing unit coolers. G. B. Priester. plans Refrig Eng 51:127-9+ F '46

COOLING of fruits and vegetables
Analyzing the problems of prepackaging perishables. R. E. Bauer. il Food Ind 18:360-1+ Mr '46
Mobile precoolers protect perishables. R. A. Latimer. il Food Ind 18:9 Ja '46
Need of technological supervision in the food industry. H. C. Diehl. il Refrig Eng 51: 223-5 Mr '46
Produce by air; pre-packaged and precooled. il Mod Packaging 19:96-100+ N '45
Produce handling. C. O. Bratley. Refrig Eng 52:329+ O '46

COOLING of meat
Application of unit coolers in the meat packing industry. K. E. Wolcott. il Refrig Eng 50:530-2+ D '45

COOLING of water
Buffalo evaporative water coolers. il Diesel Power 23:1457+ D '45
Niagara industrial liquid cooler. il Diesel Power 23:1506 D '45
Proposed A.S.R.E. standard methods of rating and testing water and brine coolers. Refrig Eng 51:1-5 sec 2 Ap '46
Refrigeration for remote drinking water cooling systems. J. J. Corey. Refrig Eng 50:1-6 sec 2 D '45
Ross coolers for lubricating oil and jacket water. il diag Diesel Power 23:1458-60+ D '45
Young cooling equipment; evaporative coolers. il Diesel Power 23:1455-6+ D '45

See also
Cooling towers
Electric water coolers

COOLING towers
Coey cooling tower. il diag Heat & Ven 43: 94 Ja '46
Cooling tower chart. B. Maddock. Power Pl Eng 49:128 N '45

COOLING towers—*Continued*
Cooling-tower efficiency; method of measurement. G. Oldroyd. Elec R (Lond) 137:904-6 D 21 '45
Cooling tower equipment; instrument panels. C. H. Fielding. diags Elec R (Lond) 138: 567-8 Ap 12 '46
Cooling tower of stainless. il Sheet Metal Worker 37:50+ Je '46
Cooling tower screens protect circulating pumps from trash. il Pet Refiner 25:150 F '46
Cooling towers and evaporative condensers. S. I. Rottmayer. il diag Refrig Eng 51: 220-2+ Mr '46
Cooling towers of clay tile. il diags Brick & Clay Rec 107:31 N '45
Efficiency of cooling tower; chart. W. F. Schaphorst. Paper Ind 27:1564 Ja '46
Fluor aerator cooling towers. il Diesel Power 23:1464-5 D '45
How small refrigeration plants can operate with less water. W. E. Patten. diags Power Pl Eng 49:88-91 O '45
How the cooling tower does its job. J. Lichtenstein. il diags Power 90:691-2+ O '46; Same cond. Heating-Piping 18:101-2 Ap '46
Marley water cooling equipment. diags Diesel Power 23:1466-7+ D '45
Phillips atmospheric towers. il diag Diesel Power 23:1468+ D '45
Rogers develops new principle floating film cooling tower. il diag Diesel Power 23:1452-4 D '45
Utilization of cooling towers in the food industries. E. Simons. bibliog il diags Food Ind 18:1360-4+ S '46

Design

Design and performance of cooling towers. W. K. Hutchison and E. Spivey. plan diag Inst Chem Eng Trans 20:14-25; Discussion. 26-9 '42

COOLING water
Application of equilibrium pH to recirculating cooling water systems. A. G. D. Emerson. Soc Chem Ind J 64:335-9 D '45
Bacterial oxidation of ammonia in circulating water. J. C. Hill. Am Water Works Assn J 38:980-2 Ag '46
Can't neglect Diesel water facilities; cooling systems and steam heating equipment. G. E. Martin. il plan Ry Age 121:332-4 Ag 24 '46
Chromate corrosion inhibitors in chloride systems; rate of consumption of chromate. M. Darrin. il Ind & Eng Chem 38:368-75 Ap '46
Cooling-water benefits from increased river flows. M. LeBosquet, jr. N E Water Works Assn J 60:111-16 Je '46; Abstract. Water Works & Sewerage 92:326-7 N '45
Cooling water quenches exhaust gas. G. M. Wilson. diags Power 90:326 [issue p106] My '46
Cooling water treatment for internal combustion engines; use of chromate. il Diesel Power 24:578-82 My '46
Emulsions of oil in water as corrosion inhibitors. P. Hamer and others. diags Iron & Steel Inst J 151:109-26 bibliog(p126) pl 9-12; Discussion. 127-31 no 1 '45
How to control marine growths in circulating water systems. J. G. Dobson. il Power Pl Eng 50:70-5 Ag '46
Preventing the fouling of cooling waters reduces plant's waste disposal costs. W. B. Hart. diags Pet Processing 1:102-3+ O '46
Rectifier coolant refrigerated, recirculated. A. D. Therrien. il diags Elec World 125:54 Ap 27 '46
Sludging value of transformer oil; influence of condenser water temperature. P. W. L. Gossling and J. Romney. diag Inst Pet J 32:424-33 Jl '46
Wastes reclaimed; used as cooling water. C. G. Rook. il diag Pet Processing 1:92-3 O '46
Water treatment in refineries. R. W. Kelly. Pet Refiner 25:143-4 Ag '46

See also
Cooling towers

COON, Owen L. 1894-
Into La Salle street. por Bsns W p70+ Mr 23 '46

COONLEY, Howard, 1876-
Coonley heads new committee to broaden ASA activities. por Ind Stand 17:29 F '46

COOPERAGE

See also
Barrels

COOPERATION

See also
Advertising, Co-operative
Benefit societies
Building and loan associations
Cooperative associations
Credit unions
Electric plants, Co-operative
Electric service, Rural—Cooperative lines
Employees' ownership
Farmers' cooperative associations
Housing, Cooperative
Insurance, Mutual
Medical service—Group and prepayment plans
Petroleum cooperative associations
Profit sharing
Purchasing, Cooperative
Voluntary chain systems

Belgium

Co-operatives. E. Dutilleul. Ann Am Acad 247:62-8 S '46

Canada

Co-op proposal; Canadian government tries to satisfy taxpayers' demands. Bsns W p108 Jl 27 '46

Czechoslovakia

New cooperative for trade promotion of sales of handicraft and art goods. For Comm W 23:24 Je 8 '46

Great Britain

Britain's co-ops a bulwark of Labor government. W. H. Millgate. Barron's 26:15 My 6 '46

Iceland

Iceland's cooperatives. J. H. Rogatnick. il For Comm W 23:15+ My 11 '46

Indiana

Co-op politics; Indiana farmers and union members plan to expand their joint enterprises. Bsns W p78 F 23 '46

Poland

Co-operative movement and national reconstruction in Poland. Int Labour R 52:549-52 N '45

United States

House committee lauds co-ops. Bsns W p74+ Ap 27 '46
New national consumer co-op federation to intensify advertising and marketing. H. E. Green. Ptr Ink 216:110 S 20 '46
Return to co-ops. Bsns W p41 Ag 24 '46

COOPERATION, International. See International cooperation

COOPERATIVE analysis of broadcasting, Inc.
C.A.B. to expand service in 1946. Ptr Ink 214: 96 F 1 '46

COOPERATIVE associations
Developments in the Consumers' cooperative movement in 1945. Mo Labor R 62:403-10 Mr '46; Same with additional data. bibliog U S Bur Labor Statistics Bul 859:1-25 '46
National research program shaping up for co-ops. Ptr Ink 215:84 Je 28 '46
Three co-ops merged. Bsns W p75 Mr 2 '46
Vet co-op pays off on better service; Detroit's Servicemen's dairy co-operative association. K. Detzer. il Am Bsns 16:10-11+ Ag '46

See also
Association of army and navy stores
Credit unions
Electric service, Rural—Cooperative lines
Farmers' cooperative associations
Housing, Cooperative
National co-operatives, inc.
National rural electric cooperative association
Petroleum cooperative associations

Taxation

Co-op proposal: Canadian government tries to satisfy taxpayers' demands. Bsns W p108 Jl 27 '46

COOPERATIVE associations—Taxation—*Cont.*
Co-operative taxation is urged by speakers at Louisville, Ky. radio forum. Weekly Underw 153:1222 N 24 '45
Federal taxation of public business enterprises; Saratoga Springs case may lead to removal of discriminatory exemptions enjoyed by state, municipal, and coöperative commercial projects. L. Gates. Pub Util 38:14-24 Jl 4 '46
Patman's report on co-ops draws fire from minority; text of Rep. Ploeser's letter. Nat Pet N 38:11-12 O 16 '46
Progress toward income tax equality. B. C. McCabe. Edison Elec Inst Bul 14:241-3+ Jl '46

COOPERATIVE education. See Business education—Cooperative plan; Engineering education—Cooperative plan; Vocational education—Cooperative plan

COOPERATIVE housing. See Housing, Cooperative

COORDINATION (chemistry)
Some coördination compounds of cobalt containing trimethylenediamine and neopentanediamine. J. C. Bailar, jr. and J. B. Work. bibliog Am Chem Soc J 68:232-5 F '46

COPOLYMERIZATION. See Polymerization

COPPER
Belden salesmen act as materials sleuths; copper starvation threat is averted. il Sales Management 57:78 S 15 '46
Bright dipping. G. Soderberg. bibliog Electrochem Soc Trans 88 (preprint 10):115-20 '45; Same abr. Steel 118:109-10 My 13 '46
Copper and its alloys in automobiles. il Automotive & Aviation Ind 95:31 O 1 '46
Copper as an alloy in iron and steel. G. K. Manning and P. C. Rosenthal. il Min & Met 26:601-5 D '45
Effect of copper on the operation of the Kenosha plant; abstract. H. T. Rudgal. Water & Sewage Works 93:316 Ag '46
Effect of various surface treatments in cleaning and preparing copper, nickel and steel for chromium plating. W. M. Tucker and R. L. Flint. bibliog diag Electrochem Soc Trans 88 (preprint 28):325-45 '45; Same. Metal Finishing 44:340-3+, 389-93 Ag-S '46; Excerpt. Steel 118:123-4 Mr 18 '46
Effects of copper and lead bearing wastes on the purification of sewage; abstract. M. M. Kalabina. Water & Sewage Works 93: 30 Ja '46
Fungicidal action of copper. R. L. Wain. bibliog Chem & Ind p70-3 F 16 '46; Discussion. p410-11 D 29 '45
Humic acids and true organic acids as solvents of minerals. W. G. Fetzer. bibliog Econ Geol 41:47-56 Ja '46
Kinetics of the reaction between copper and aqueous ammonia. R. W. Lane and H. J. McDonald. bibliog Am Chem Soc J 68:1699-704 S '46
Low energy β-spectrum of Cu^{64}. H. Lewis and D. Bohm. Phys R 69:129 F 1 '46
Magnetron; part played by tellurium copper. Electrician 136:810 Mr 29 '46
Phosphoric acid vs. materials of chemical plant construction; copper, copper-alloys. C. L. Bulow. Chem Eng 53:210+ Ag '46
Report of Committee B-5 on copper and copper alloys, cast and wrought. Am Soc T M Proc 45:111-33 '45
Synthesis of methanol from carbon dioxide and hydrogen over copper-alumina catalysts; mechanism of reaction. V. N. Ipatieff and G. S. Monroe. Am Chem Soc J 67:2168-71 D '45

Analysis

Application of colorimetry to the analysis of corrosion-resistant steels; photometric determination of copper. O. I. Milner. bibliog Ind & Eng Chem Anal ed 18:94-6 F '46
Colorimetric determination of iron in the presence of large concentrations of copper and nickel. R. H. Greenburg. Ind & Eng Chem Anal ed 18:255-7 Ap '46
Conductometric titrations with organic reagents; determination of copper with cupferron, and iron with sulfosalicylic acid. J. F. Corwin and H. V. Moyer. bibliog Ind & Eng Chem Anal ed 18:302-4 My '46
Coulometric analysis. J. J. Lingane. diags Am Chem Soc J 67:1916-22 N '45
Determination of copper in cast iron and steels with quinaldic acid. J. F. Flagg and D. W. Vanas. bibliog Ind & Eng Chem Anal ed 18:436-8 Jl '46
Determination of metallic copper in cuprous oxide-cupric oxide mixtures. I. Baker and R. S. Gibbs. Ind & Eng Chem Anal ed 18: 124-7 F '46
Modified all-dithizone method for determination of traces of copper. S. L. Morrison and H. L. Paige. bibliog Ind & Eng Chem Anal ed 18:211-13 Mr '46
Nomographic procedure for a two-component colored system; copper in a nickel plating bath. E. A. Brown. Ind & Eng Chem Anal ed 18:493-5 Ag '46
Rapid method for determination of copper in steel; especially suitable for foundry control. F. B. Clardy, J. C. Edwards and J. L. Leavitt. bibliog Ind & Eng Chem Anal ed 17:791-2 D '45
Rapid photometric determination of iron and copper in red phosphorus. J. A. Brabson and others. bibliog Ind & Eng Chem Anal ed 18:554-6 S '46
Recent developments in analytical chemistry. bibliog Chem Age (Lond) 55:163-6 Ag 10 '46
Routine control of brass plating processes; polarographic, electrochemical, and chemical analysis of plating solutions and deposits. H. E. Z. Gordon and E. R. Roberts. bibliog diag Electrochem Soc Trans 90 (preprint 2):9-22 '46
Selective spot test for copper. P. W. West. bibliog Ind & Eng Chem Anal ed 17:740-1 N '45
Systematic polarographic metal analysis; determination of tin, lead, nickel, and zinc in copper-base alloys. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 18:429-32 Jl '46
Use of an ion-exchange resin in determination of traces of copper with special reference to powdered and fluid milk. H. A. Cranston and J. B. Thompson. Ind & Eng Chem Anal ed 18:323-6 My '46

See also
Copper alloys—Analysis

Metallography

X-ray microradiography of distorted crystals. R. Smoluchowski and others. il Phys R 70: 318-22 S 1 '46

Prices

Electrolytic copper, Connecticut valley, monthly, 1929-1945; tabulation. Iron Age 157:250 Ja 3 '46

Testing

Effect of inert atmospheres on fatigue tests. H. J. Gough and D. G. Sopwith. Engineering 162:197 Ag 30 '46

COPPER, Molten
Cemented steels are perfected. il Bsns W p50+ My 25 '46

COPPER, Powdered
Copper-base compacts and certain compositions susceptible to precipitation hardening; abstracts. F. R. Hensel, E. I. Larsen and E. F. Swazy. Iron Age 157:67 Mr 7 '46; Metal Prog 49:1236+ Je '46
Copper powder; commercial preparation by electrodeposition; abstract. A. W. Hothersall and G. E. Gardam. Metal Prog 48:1134+ N '45
Properties of sintered iron-copper powders. F. C. Kelley. diag Iron Age 158:57-60 Ag 15 '46
Silicide-hardened copper compacts for bearings; abstract. F. R. Hensel, E. I. Larsen and E. F. Swazy. Iron Age 157:65-7 Mr 7 '46
Use of ultra-fine particles in powder metallurgy. H. H. Hausner. Materials & Methods 24:98-102 Jl '46

COPPER acetate
Complex formation with high molecular weight amines; a spectrophotometric study of the dodecylamine-cupric acetate system. F. K. Broome, A. W. Ralston and M. H. Thornton. Am Chem Soc J 68:849-51 My '46

COPPER acetate—*Continued*
Ultrasonic adsorption in copper acetate and ethyl acetate. R. T. Beyer and M. C. Smith. bibliog diag Acoustical Soc Am J 18:424-8 O '46

COPPER alkyl phthalates
Copper alkyl phthalates for the estimation of mercaptans. E. Turk and E. E. Reid. bibliog Ind & Eng Chem Anal ed 17:713-14 N '45

COPPER alloys
Age hardening copper-manganese nickel alloys. R. S. Dean and others. il Am Soc for Metals Trans 34:481-502 bibliog(p502); Discussion. 502-4 '45
Beryllium copper as a mold material. L. F. Boland. il Mod Plastics 23:139-42 F '46
Beryllium copper, its uses and potentialities. H. G. Williams. il Steel 118:88-91+ My 13 '46
Beryllium-copper, the new alloy. L. Sanderson. Can Min J 67:862-4 S '46
Continuous casting of alloy bearing strip; Ford motor co. T. W. Lamb and E. C. Jeter. il Materials & Methods 23:1567-70 Je '46
Copper alloy provides unusual strength and hardness; Viculoy. Mach 52:201 Ap '46
Copper-manganese equilibrium system. R. S. Dean and others. il Am Soc for Metals Trans 34:443-63 bibliog(p462-3); Discussion. 463-4 '45
Effect of the iron content of cupro-nickel on its corrosion and resistance in sea water. A. W. Tracy and R. L. Hungerford. il Am Soc T M Proc 45:591-612; Discussion. 613-17 '45
Electrical equipment requires special analysis castings. R. A. Collacott. Foundry 74:156 O '46
Electrical resistance alloy; Kumanal. Engineering 162:211 Ag 30 '46
Heat contents above 25°C. of seven manganese-copper alloys. B. F. Naylor. bibliog U S Bur Mines Rep of Invest 3835:1-13 '46
Heat treating beryllium copper for peak performance. H. G. Williams. bibliog il Iron Age 156:58-64 D 6 '45
High temperature furnace for distilling and refining metals; developed to recover cupronickel from nickel silver. F. F. Poland. il Materials & Methods 23:710-12 Mr '46
New approach in designing high-capacity aircraft brakes; copper versus ferrous metals as friction surfaces. B. H. Shinn. il diags Product Eng 17:140-3 N '46
Phosphoric acid vs. materials of chemical plant construction; copper, copper-alloys. C. L. Bulow. Chem Eng 53:210+ Ag '46
Physical properties and temper-hardening characteristics of copper-nickel-manganese alloys; abstracts and discussion. M. Cook and W. O. Alexander. Engineer 182:296-7 O 4 '46; Engineering 162:330 O 4 '46
Pickling and bright dipping copper-zinc alloys. G. B. Hogaboom. diags Metal Finishing 44:198-201 My '46
Precipitation hardening range of new alloy No. 720. Steel 117:182 N 19 '45
Precision casting heat-treatable copper-base alloys; microstructures. H. Rosenthal and others. il Iron Age 158:48-54 S 19 '46
Preparing tension test specimens for copper-base alloy castings; data sheet. diags Foundry 74:127-8 Ag '46
Production of beryllium oxide and beryllium copper. B. R. F. Kjellgren. flow sheet diag Electrochem Soc Trans 89 (preprint 5):83-94 '46
Properties of transitional structures in copper-manganese alloys. R. S. Dean and others. bibliog Am Soc for Metals Trans 34:465-80 '45
Report of Committee B-5 on copper and copper alloys, cast and wrought. Am Soc T M Proc 45:111-33 '45
Surface finishing of beryllium copper. il Iron Age 156:60-3 N 15 '45
Turning a small rod from beryllium copper. D. T. Armstrong. diags Am Mach 90:143 Mr 28 '46

See also
Aluminum bronze
Brass
Brazing
Bronze
Manganin
Monel metal
Nickel silver
Speculum metal

Analysis
Differential reduction of iron and tin. A. C. Simon and others. Ind & Eng Chem Anal ed 18:496-7 Ag '46
Some applications of vacuum distillation technique in the analysis of alloys. J. W. Price. bibliog Soc Chem Ind J 64:283-5 O '45
Systematic polarographic metal analysis; determination of tin, lead, nickel, and zinc in copper-base alloys. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 18:429-32 Jl '46

Testing
Attack of various atmospheres on copper and some copper alloys at elevated temperatures. A. P. C. Hallowes and E. Voce. Product Eng 17:134-5 N '46

COPPER brazing. See Brazing

COPPER chlorides

Analysis
Determination of cuprous chloride. L. F. Hatch and R. R. Estes. bibliog Ind & Eng Chem Anal ed 18:136-7 F '46

COPPER compounds
Action of antifouling paints; solubilities of antifouling toxics in sea water. J. D. Ferry and G. A. Riley. bibliog Ind & Eng Chem 38:699-701 Jl '46
Diazonium borofluorides; a study of arylcopper complexes. W. M. Whaley and E. B. Starkey. bibliog Am Chem Soc J 68:793-5 My '46
Dyeing of cotton with mineral khaki; the effect of exposure to weathering agencies on yarns pigmented with copper, chromium and iron compounds. E. Race and F. M. Rowe. bibliog il diags Soc Dyers & Col J 62:19-29 Ja '46
Dyeing of cotton with mineral khaki; the incorporation of copper with chromium and iron in mineral khaki for the production of an effective fungicide and bactericide. E. Race, F. M. Rowe and J. B. Speakman. bibliog il Soc Dyers & Col J 62:9-19, pl 1-2 Ja '46
Fungicidal action of copper. R. L. Wain. bibliog Chem & Ind p70-3 F 16 '46
Purification of butadiene with cuprous salt solutions. C. E. Morrell and others. bibliog flow diag Am Inst Chem Eng Trans 42:473-91; Discussion. 491-4 Je '46
Service test of copper-treated cotton sandbags. J. D. Dean and others. il Am Dyestuff Rep 35:346-8 Jl 15 '46
Stability of chelate compounds. M. Calvin and K. W. Wilson. Am Chem Soc J 67:2003-7 N '45
Stability of chelate compounds; exchange reactions of copper chelate compounds. R. B. Duffield and M. Calvin. bibliog Am Chem Soc J 68:557-61 Ap '46
Stability of chelate compounds; polarographic reduction of copper chelates. M. Calvin and R. H. Bailes. bibliog Am Chem Soc J 68:949-54 Je '46

COPPER cyanide
4-Chloro-3-methyl-3-butenonitrile and related compounds. A. Mooradian and J. B. Cloke. bibliog Am Chem Soc J 68:785-9 My '46
Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45; Same. Metal Finishing 43:497-9+ D '45; Abstract. Steel 119:124-5+ Ag 5 '46

COPPER industry and trade
Copper to ease. Bsns W p21 Je 29 '46
Industry faces competition in hunt for metals; proposed military caches of copper, lead and zinc may force further government buying. T. J. Keller. Barron's 26:5 Ja 14 '46
Operations and plants of International nickel company of Canada; marketing and research activities. Can Min J 67:545-51 My '46

Statistics
Copper, 1945. H. H. Wanders. Eng & Min J 147:77-8 F '46

Canada
Operations and plants of International nickel company of Canada; INCO's part in the war. Can Min J 67:319-21 My '46

COPPER industry and trade—*Continued*

Mexico

Copper production, Agua Prieta district, January-June 1945. For Comm W 21:40 N 17 '45

Rhodesia

Rhodesian copper outlook. Economist 150:645-6 Ap 20 '46

Rhodesian copper refineries. Economist 151: 386-7 S 7 '46

United States

Copper imports and domestic mine output drop sharply in 1945. Iron Age 158:145 Ag 8 '46

Copper in 1945. F. H. Hayes and D. L. Forrester. Min Cong J 32:41-3 F '46

Copper shortage growing more acute. Steel 118:75-6 Je 3 '46

Copper situation serious; manufacturers face shutdowns. Elec World 125:107 My 11 '46

Copper supply far behind demand. Barron's 26:5 My 27 '46

No postwar slump in copper demand. Barron's 26:8 Ap 8 '46

COPPER kettles. See Kettles, Copper

COPPER metallurgy

Diamond drilling features Mountain Copper's mining. J. B. Huttl. flow sheet diags Eng & Min J 147:66-8 S '46

Few changes mark year in non-ferrous metallurgy. C. R. Hayward. Eng & Min J 147:95-6 F '46

Metallurgy of copper; review of 1945. M. G. Fowler. Min & Met 27:83 F '45

Multiclone units recover converter dust successfully; McGill smelting plant. L. Larson. il diags Eng & Min J 147:71-4 Ja '46

New flotation technique in copper-lead separation; San Francisco mines of Mexico, ltd. G. O. Deshler and T. R. Herndon. il diag Eng & Min J 147:67-9 My '46

Operations and plants of International nickel company of Canada; milling, smelting, nickel and copper refining. flow sheets il plan diags Can Min J 67:423-62 My '46

Refining of copper residues. O. P. Einerl and F. Neurath. bibliog il plan diags Chem Age (Lond) 54:139-43, 235-9, 369-72 F 2, Mr 2, Ap 6 '46

Ten months milling at Moulton Hill. A. C. King and T. V. Lord. flow sheets il diags Can Min J 67:841-56 S '46

See also

Copper, Powdered

Electrometallurgy

Operations and plants of International nickel company of Canada; copper refining. il Can Min J 67:446-56 My '46

COPPER mines and mining

Alaska

Copper bullion claims, Rua Cove, Knight Island, Alaska. K. Stefansson and R. M. Moxham. bibliog map U S Geol S Bul 947-E:85-92, pl 23-5; pa. 10c Supt. of doc. '46

Copper deposits of the Kotsina-Kuskulana district, Alaska. R. E. Van Alstine and R. F. Black. map U S Geol S Bul 947-G: 121-41, pl 30-2; pa 15c Supt. of doc. '46

Copper deposits of the Nizina district, Alaska. D. J. Miller and F. H. Moffit. bibliog map U S Geol S Bul 947-F:93-120, pl 26-9; pa 15c Supt. of doc. '46

Magnetic exploration of the nickel-copper deposits of Bohemia basin, southeastern Alaska. M. S. Walton, jr. and G. C. Kennedy. maps Econ Geol 40:496-502 N '45

Arizona

Exploration of the Copper Butte mine, Mineral Creek mining district, Pinal county, Ariz. H. D. Phelps. 6pls U S Bur Mines Rep of Invest 3914:1-34 '46

British Columbia

New Horadiam method of mining at Copper mountain. R. S. Douglas and others. il plans diags Can Min J 66:773-80, 859-67 N-D '45

California

Diamond drilling features Mountain Copper's mining. J. B. Huttl. flow sheet il diags Eng & Min J 147:64-8 S '46

Exploration of the El Dorado copper mine, El Dorado county, Calif. R. H. Bedford. 5pls U S Bur Mines Rep of Invest 3896:1-5 '46

China

Wartime effort to boost China's metal output. L. E. Booth. il Eng & Min J 147:84-9 Jl '46

Cuba

Core drilling important in Matahambre operation. P. R. Hill. Eng & Min J 147:86-7 Je '46

Mexico

Copper from Mexico. R. V. Pierce. il diag Comp Air Mag 51:127-9 My '46

Michigan

Recent contributions to the geology of the Michigan copper district. T. M. Broderick and others. bibliog maps diags Econ Geol 41:675-725 N '46

Montana

Explosives-handling practices at the mines of the Anaconda copper mining co. at Butte, Mont. E. F. Courtney and J. A. Johnson. 6pls U S Bur Mines Information Circ 7356:1-13 '46

Ontario

Operations and plants of International nickel company of Canada. flow sheets il maps plans diags Can Min J 67:309-522 My '46

COPPER naphthenate

Effect of weathering on rotproofed cordage. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 35:218+ My 6 '46

Study of the effect of leaching on the rotproofing efficacy of copper naphthenate. C. H. Bayley and M. W. Weatherburn. bibliog il Am Dyestuff Rep 34:457-60+ N 19 '45

COPPER nitrites

Cupric complex ions; absorption spectra and equilibria in the cupric-nitrite system. A. Kossiakoff and D. V. Sickman. Am Chem Soc J 68:442-4 Mr '46

COPPER oleate

Effect of weathering on rotproofed cordage. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 35:218+ My 6 '46

COPPER ores

Operations and plants of International nickel company of Canada; geology. il map Can Min J 67:322-31 My '46

Recent contributions to the geology of the Michigan copper district. T. M. Broderick and others. bibliog maps diags Econ Geol 41:675-725 N '46

Role of sulphur bacteria in the formation of the so-called sedimentary copper ores and pyritic ore bodies. C. Schouten. il Econ Geol 41:517-38 Ag '46

COPPER oxides

Action of antifouling paints; maintenance of leaching rate of antifouling paints formulated with insoluble, impermeable matrices. J. D. Ferry and B. H. Ketchum. diag Ind & Eng Chem 38:806-10 Ag '46

Action of antifouling paints; solubility and rate of solution of cuprous oxide in sea water. J. D. Ferry and D. E. Carritt. bibliog Ind & Eng Chem 38:612-17 Je '46

Atmospheric oxidation of cellulose in presence of reduced vat dyes; preparation of cuprammonium solution for fluidity determination using cuprous oxide. J. Brear and H. A. Turner. Soc Dyers & Col J 61:277-8 N '45

Copper oxide and silicon carbide varistors. E. J. Iversen. il diags Product Eng 17: 121-3 N '46

Production of methyl vinyl ketone from methylvinylcarbinol; zinc oxide with cupric or cuprous oxide as catalyst. J. J. Kolfenbach and others. bibliog Ind & Eng Chem 37:1178-80 D '45

Analysis

Determination of metallic copper in cuprous oxide-cupric oxide mixtures. I. Baker and R. S. Gibbs. Ind & Eng Chem Anal ed 18:124-7 F '46

COPPER pipes. See Pipes, Copper

COPPER plating
Common plating bath troubles. H. J. Sedusky and J. B. Mohler. Metal Finishing 44:246-7, 293 Je-Jl '46
Copper plate as a stop-off when nitriding; tests to determine amount required for various finishes. W. V. Sternberger and E. R. Fahy. Metal Prog 48:1311-12 D '45
Copper stripping methods. F. C. Matners and E. L. Martin. Iron Age 158:65 S 19 '46
Electrodeposition of copper; a review of recent literature. H. Bandes. bibliog(76 references) Electrochem Soc Trans 88 (preprint 26):282-96 '45; Same. Metal Finishing 44:110-16 Mr '46
Plating with bivalent copper bath; abstract. G. Schore. Metal Finishing 44:287 Jl '46
Wax masking for selective copper plating. C. E. Ernst. il Metal Prog 48:1099-1101 N '45; Same. Metal Finishing 44:155-6 Ap '46

COPPER salicylaldehyde
Preparation of high specific induced radioactivity by neutron bombardment of metal chelate compounds. R. B. Duffield and M. Calvin. Am Chem Soc J 68:1129 Je '46

COPPER sulfate
Action of copper sulfate on the phenylosazones of the sugars; the D-,L- and D,L-arabinose phenylosotriazoles. W. T. Haskins, R. M. Hann and C. S. Hudson. Am Chem Soc J 68:1766-9 S '46
Combination of wool protein with heavy metal salts as a function of pH. K. S. LaFleur. bibliog il Am Dyestuff Rep 35: 383-6+ Ag 12 '46
Copper sulphate; new plant uses vacuum evaporation and atmospheric coolers. L. W. Billingsley. flow sheet il Can Chem & Process Ind 30:26-9 Ap '46
Effect of ultrasonic waves on the conductivity of salt solutions. F. E. Fox and others. il diag Phys R 70:329-39 S 1 '46
New ideas in applying copper sulphate to reservoirs. E. P. Stewart and others. il Pub Works 77:18-19 Ag '46
Pre-determining effective dosage of copper sulphate in algae control. W. D. Monie. il diag Water & Sewage Works 93:173-6 My '46

Statistics
Copper sulphate; U.S. production, U.S. exports; monthly average for 1939-1944, actual monthly for 1945; graph. For Comm W 22: 33 Ja 19 '46

COPPER tubes. See Tubes, Copper

COPPER wire. See Wire, Copper

COPPERWORK
Brazing and soldering copper on spotwelding equipment. L. L. Dodds. diag Am Mach 90: 144 Jl 18 '46
Extrusion process; abstract. W. W. Cotter and W. R. Clark. Metal Prog 49:816+ Ap '46
Investigation of the strength of riveted joints in copper sheets. W. M. Wilson and A. M. Ozelsel. il diags Ill U Eng Exp Sta Bul 360:1-81 '46 (pa $1)

COPPERWORK, Architectural
Copper on landmark to be re-used; Metropolitan Tower's connecting bridge. il Sheet Metal Worker 37:53+ S '46

COPRA
Coconut palms, 120,000,000 of them in the Philippines. H. Leopold. il Food Ind 18: 1535-7+ O '46
CCC gets Philippine copra, coconut oil. Oil Paint & Drug Rep 150:3 Ag 19 '46
Copra and coconut-oil agreement with Philippines. For Comm W 24:25 Ag 31 '46
Copra export management company's operations to end. For Comm W 23:43 Je 15 '46

COPROLITE
Coprolites from the Bridger formation of Wyoming; their composition and microörganisms. W. H. Bradley. bibliog Am J Sci 244:215-39, pl 1-4 Mr '46

COPROPORPHYRIN
Quantitative differentiation of minute amounts of the coproporphyrin isomers (I and III) based on fluorescence behavior. S. Schwartz and others. Science 103:338-40 Mr 15 '46

COPYING processes
Better way to process employment records; Hudson motor car company's use of stencil duplicating equipment. R. G. French. Am Bsns 16:11+ Je '46
Central duplicating cuts office costs for General Foods. G. L. Harris. il Am Bsns 16:18-19+ Jl '46
Lithoprinting for reproducing research materials in limited-copy editions. J. W. Edwards J Doc 2:32-4 Je '46
One-writing plan ends back-order delays; Chain belt company, Milwaukee, installs new system of order billing. G. E. Toles. il Am Bsns 16:12-13+ O '46
Please make a copy of this; photocopy cost. J Account 82:156 Ag '46
Print machine uses dry developing method. il Sci Am 173:307 N '45
Simplified plan aids installment buying; Sun electric corporation uses master Ditto copy. J. Turner. il Am Bsns 16:18-19+ Ag '46
See also
Microfilms
Photomechanical processes

COPYRIGHT
Facts about copyrighting labels; misconceptions regarding registration of trade marks. A. W. Gray. Adv & Sell 38:44 D '45
Inter-American conference of experts on copyright, Pan American Union, June 1-22, 1946 proceedings. (Congress and conference ser. no. 51) 180p Pan American union, Washington, D.C. '46

Designs
Design protection can be a stimulus to advertising. B. Breen. Adv & Sell 38:56+ N '45

Titles
Copyright guard on titles is denied by high courts. A. W. Gray. Inland Ptr 117:47-8 Ag '46

CORAL reefs and islands
Blasting submarine coral in Samar, P.I. C. Phillips, jr. Eng N 136:779 My 16 '46
Coral reefs in the Gilbert, Marshall, and Caroline islands. L. E. Nugent, jr. bibliog Geol Soc Bul 57:735-79, pl 1-2 Ag '46
Evolution of reef corals in East Indies since miocene time. J. H. F. Umbgrove. bibliog Am Assn Pet Geologists Bul 30:23-31 Ja '46
Integration of coral-reef hypotheses. H. T. Stearns. bibliog map diags Am J Sci 244: 245-62, pl 1-2 Ap '46
Skimming trench solves a coral island water supply problem; installation on Tinian island. J. P. Lawlor. il diags Eng N 136:993-5 Je 27 '46

CORALS
Concrete at advance bases; using coral for aggregate. I. S. Rasmusson. il Am Concrete Inst J 17:541-51 Ap '46

CORCORAN-FARBSTEIN bill. See Insurance, Health—New York (state)

CORD fabric. See Tire fabrics

CORDAGE

Advertising
Contest takes customers' minds off shortages; New Bedford Cordage fish story contest. il Ptr Ink 215:42 Je 14 '46

Testing
Effect of weathering on rotproofed cordage. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 35:218+ My 6 '46

CORDIERITE
Development of cordierite in ceramic bodies. H. H. Hausner. bibliog Cer Ind 46:80+ My '46

CORDS, Cotton. See Cotton cords

CORDS, Rayon. See Rayon cords

CORE making machinery. See Foundry machinery

CORE sampling. See Petroleum—Well drilling—Sampling

CORES
Baking cores dielectrically. J. McElgin. il Foundry 74:114-16+ Je '46

CORES—*Continued*
Bonding properties of mixtures of petroleum extracts and linseed oil and of the extracts themselves. W. Davies and W. J. Rees. diags Iron & Steel Inst J 150:49-68 no 2 '44
Core blowing practice. L. D. Pridmore. il Foundry 74:94-5+ Mr '46
Coremaking practice is chief malleable topic; American foundrymen's association. Foundry 74:152+ Jl '46
Cores for sale; Coremakers co. believed to be only jobbing coremaking shop in the country. E. F. Ross. Foundry 74:87+ Ap '46
Determination of the gas content of sand cores. Engineering 162:29-30 Jl 12 '46
Effect of grain shape on the moulding properties of synthetic moulding sands. W. Davies. diags Iron & Steel Inst J 150:19-47, pl 5-9 no 2 '44
Effective use of cereal core binders. A. E. DeClercq and T. Barlow. Foundry 73:108-9+ D '45
Magnesium foundry core practice; binders and inhibitors. G. W. Kurachek. bibliog Foundry 74:76-7+ S '46
Making cored aluminum castings. E. Bremer. il Foundry 74:97-8+ Mr '46
New feeding technique for castings; use of Thermotomic, exothermically reacting compound. T. E. Lloyd. il Iron Age 157:62-4 Ap 25 '46
Rapid baking of foundry cores by dielectric heating. R. T. Wise and J. P. Moran. il plan Materials & Methods 23:1307-12 My '46
Tellurium corewashes; abstract. J. O. Vadeboncoeur. Iron Age 157:73 F 14 '46
Using synthetic resin core binders. H. L. Gebhardt. il Foundry 74:110-12+ F '46

See also
Molds (for casting)

CORI, Carl Ferdinand, 1896-
Midwest award to the Coris. por Chem & Eng N 24:893-5 Ap 10 '46

CORI, Gerty T., 1896-
Midwest award to the Coris. por Chem & Eng N 24:893-5 Ap 10 '46

CORING tube
Free-fall coring tube; a new type of gravity bottom sampler. M. J. Hvorslev and H. C. Stetson. bibliog diags Geol Soc Bul 57:935-49, pl 1-4 O '46

CORK
Cork slab foundation for heavy machine tools on poor grade filled land. il Iron Age 158: 64-5 S 19 '46
Corkboard insulation. diag Marine Eng 51:134 My '46
Elastic properties of cork; stress relaxation of compressed cork. S. L. Dart and E. Guth. il diag J Ap Phys 17:314-18 My '46

CORK, Substitutes for
Urea resin insulator; German cork substitute, Iporka. Oil Paint & Drug Rep 150:62 S 9 '46

CORK institute of America
Cork institute of America functions; affiliated group, Cork insulation manufacturers assn. Refrig Eng 51:30 Ja '46

CORKSCREWS
Corkscrews that work; Wine institute research. P. Fredericksen. il diags Mod Packaging 19:130-3 My '46
How to pull a cork; vintners get physicists' verdict on corkscrews. il Sales Management 56:130 Je 15 '46

CORN
Amioca, the starch from waxy corn. H. H. Schopmeyer. bibliog il Food Ind 17:1476-8 D '45
Clarification of acid-hydrolyzed mash and beer for the production of 2,3-butanediol from corn. A. J. Strohmaier and C. L. Lovell. Ind & Eng Chem 38:721-4 Jl '46
Corn refiners face summer shut-down. Baron's 26:1+ Ap 29 '46
Cuban corn situation. For Comm W 23:40 Je 1 '46
Drying seed corn ears with forced heated air; abstract. H. J. Barre. diag Elec World 125: 103-4 Ap 27 '46
Freezing point data sheets and cooling curves. Food Ind 18:1034-5 Jl '46
Hybrid seed corn. G. H. Shull. il Science 103: 547-50 My 3 '46
New consistometer measures corn consistency; useful for pancake batter, apple sauce and preserves. M. C. Adams and E. L. Birdsall. il Food Ind 18:844-6+ Je '46
New machine indicates stage of corn maturity; abstract. A. Kramer and H. R. Smith. il Food Ind 18:1283 Ag '46
Nutritive value of canned foods; influence of temperature and time of storage on vitamin contents. N. B. Guerrant, M. G. Vavich and R. A. Dutcher. bibliog Ind & Eng Chem 37:1240-3 D '45
Record corn crop promises more meat next year. Barron's 26·5 S 23 '46
Role of amino acids and amides in the metabolism of ammonium absorbed by zea mays L. F. G. Viets, jr. bibliog Science 102:587-9 D 7 '45

Analysis
Nutritive value of canned foods; comparison of vitamin values obtained by different methods of assay. N. B. Guerrant, M. G. Vavich and O. B. Fardig. bibliog Ind & Eng Chem Anal ed 17:710-13 N '45

Diseases and pests
Corn earworm stopped by mechanical injection of oil mixture. Sci Am 174:169 Ap '46

CORN flour
Effective use of cereal core binders. A. E. DeClercq and T. Barlow. Foundry 73:108-9+ D '45

CORN insurance. See Insurance, Corn

CORN laws
Corn laws. Economist 149:902-4 D 22 '45

CORN oil
Fatty acids of corn oil. F. J. Baur, jr. and J. B. Brown. bibliog Am Chem Soc J 67: 1899-1900 N '45

CORN products
See also
Corn flour
Cornstarch
Zein

CORN steep liquor
Effect of corn steep liquor ash on penicillin production. S. G. Knight and W. C. Frazier. Science 102:617-18 D 14 '45

CORNCOBS
Experiment to manufacture liquid fuel from farm wastes under way; converting corncobs into alcohol and by-products. Steel 117:101 N 12 '45
Soft-grit blasting; using ground corncobs and rice hulls. E. C. Lathrop and S. I. Aronovsky. il Steel 119:102+ Jl 22 '46
Unburned furfural residue creates disposal problem; fired along with powdered coal in boilers of Cedar Rapids power plant. Elec World 125:110+ Mr 2 '46

CORNELL, Paul Lincoln, 1895-
Cornell, wandering agencyman, returns to the fold. por Ptr Ink 217:125 N 8 '46

CORNELL university
Cornell aeronautical laboratory. Mech Eng 68: 354 Ap '46
Laboratory of nuclear studies. Science 103: 310 Mr 8 '46

New York state school of industrial and labor relations
New York state school of industrial and labor relations. Mo Labor R 62:423 Mr '46

CORNICES
Better detail plate; exterior mouldings and cornices. R. J. Alexander. diags Am Bld 68:106-7 S '46

CORNING, New York

Railroads
Railroad moves out of town; double-track line cutting through business district of Corning, N.Y., will be relocated in city's outskirts. map Eng N 136:827 My 23 '46

CORNSTARCH
Amioca, the starch from waxy corn. H. H. Schopmeyer. bibliog il Food Ind 17:1476-8 D '45
Corn starch; a versatile commodity. N. F. Kennedy. flow chart il diag Food Ind 18: 685-8+ My '46

CORNSTARCH—*Continued*
Cornstarch situation acute. Paper Ind 28:329-30 Je '46
Isolation of levoglucosan from the enzymic hydrolysates of waxy corn starch. E. M. Montgomery and G. E. Hilbert. bibliog Am Chem Soc J 68:916 My '46
Production of 2,3-butanediol from acid-hydrolyzed starch. G. E. Ward, O. G. Pettijohn and R. D. Coghill. bibliog Ind & Eng Chem 37:1189-94 D '45

CORONA. See Sun—Corona

CORONA (electricity)
Corona discharge of Okoprene sheath; factors which influence aerial cable design and operation. R. J. Wiseman. Elec World 124: 88 D 22 '45

CORONAGRAPH
Photoelectric sight for solar telescope; control of drive mechanism of Harvard college observatory solar coronagraphic telescope. W. O. Roberts. il diags Electronics 19:100-3 Je '46

CORONENE
Crystal structure of coronene; a quantitative X-ray investigation. J. M. Robertson and J. G. White. il Chem Soc J p607-17 S '45

CORPOLIN. See Glycerin, Substitutes for

CORPORATE names
Pointers on promotion when changing name of subsidiaries; General Mills identification program. il Ptr Ink 216:40-1 Ag 23 '46

CORPORATION farms. See Farms—Corporation farms

CORPORATION law
N.Y. Chamber opposes O'Mahoney bill for federal licensing of corporations and trade associations. Comm & Fin Chr 163:175 Ja 10 '46
Nonprofit subterfuge for acquiring public utilities; legal existence of nonprofit corporations. D. B. Van Dusen. Pub Util 37: 201-12 F 14 '46
Powers and responsibilities of corporate directors. R. C. Hardy and R. D. Youle. bibliog J Account 82:280-96 O '46

See also
Banking law
Corporations, Foreign
Holding companies—Laws and regulations
Insurance law
Public utilities—Law
Railroad law
Securities—Law
Trusts, Industrial

China
Registration of foreign companies in China. M. Wiener. il For Comm W 23:10-13+ Je 8 '46
Time for the registration of foreign companies doing business within China. For Comm W 24:23 Jl 20 '46

Great Britain
British company law reform; implications for accounting practice. M. E. Murphy. J Bsns 19:151-60 Jl '46
Cohen report adopted. Economist 149:571 O 20 '45
State ownership and liquidation. Economist 150:1013-14 Je 22 '46

Malayan Union
Uniform company law established. For Comm W 25:33 O 19 '46

New York (state)
New York proposals for preferred stock protection. P. E. Jackson. Comm & Fin Chr 163:1499+ Mr 21 '46

CORPORATION schools
Only apprentice school with junior college rating; Newport News shipbuilding & dry dock company. G. G. Via. il Factory Management 104:113-17 Je '46

CORPORATIONS

See also
Banks and banking
Building and loan associations
Corporation law
Electric utilities
Gas companies
Government corporations
Insurance companies
Investment trusts
Oil companies
Public utilities
Railroads
Stockholders
Stocks
Street railroads
Trust companies
Trusts, Industrial

Accounting
Accounting for expenses and losses allocable to income of the war period. C. G. Blough. J Account 80:338-41 N '45; Same cond. Management R 35:64-6 F '46
Accounting for fully amortized emergency facilities having substantial continuing usefulness. C. G. Blough. J Account 80:428-32 D '45
Amortization of costs of war facilities. T. W. Graske. il Dun's R 54:19-22+ Jl '46
Authoritative financial accounting. G. O. May. J Account 82:102-19 Ag '46
British company law reform; implications for accounting practice. M. E. Murphy. J Bsns 19:151-60 Jl '46
Comments on accounting for war costs and losses. W. W. Nissley. J Account 81:107-14 F '46
Corporate accountability for assets: cost and value; report of committee on accounting procedure. J Account 81:439-42 My '46
Fully amortized emergency facilities. W. Y. Armstrong. N A C A Bul 27:495-506 F 1 '46
Hidden assets and distortions as disclosed by corporate post-war adjustments. H. S. Coffin. Mag of Wall St 77:763-4+ Mr 30 '46
Nature of corporate capital. R. Wixon. bibliog J Account 82:214-20 S '46
Net income for the year. G. O. May and H. T. Chamberlain. J Account 81:363-71 My '46
Review of reviews of accounting progress; accounting and financial reporting in England and the United States. T. H. Sanders. J Account 81:9-26 Ja '46
Selling utility companies to their stockholders; stockholders' report and what it should contain. H. H. Young. Pub Util 36:679-87 N 22 '45
Special war reserves in corporate reports. P. J. Graber. J Account 82:392-7 N '46
Statements of recast war-period income and related problems. W. H. Whitney. J Account 81:377-83 My '46
Tax credits in interim reports. E. S. Reno. J Account 82:28-31 Jl '46
Treatment of Sansome earnings and profits for equity invested capital purposes. J. D. Bierman. J Account 82:317-23 O '46

See also
Bank accounting
Cost accounting
Excess profits tax—Accounting
Financial statements
Inventories—Accounting
Public utilities—Accounting

Charities
Corporate donations. J Account 82:148-9 Ag '46
Corporation contributions to charity in relation to net profits after taxes, and net sales 1944. J Account 81:237 Mr '46

Close corporations
Closely held corporation looks ahead. C. Davidson. Comm & Fin Chr 164:67+ Jl 4 '46
Economic position of business owner. H. S. Koster. Trusts & Estates 82:395-7 Ap '46

Directors
Board of directors duties and responsibilities. J. C. Baker. Dun's R 54:11-15+ F '46; Excerpts. Management R 35:265-7 Jl '46
Powers and responsibilities of corporate directors. R. C. Hardy and R. D. Youle. bibliog J Account 82:280-96 O '46
Standing target. Bsns W p19-20 My 25 '46
Urges corporate directors based on ability. H. H. Heimann. Comm & Fin Chr 164:397+ Jl 13 '46

Finance
American industry under accelerating competition. W. Gates. il Mag of Wall St 77: 564-7 F 16 '46
Another look at General Motors, Western Union, Bendix Aviation, Columbia Broadcasting, Pillsbury Mills, Purity Bakeries, Transcontinental & Western Air. S. Devlin. il Mag of Wall St 78:280-1+ Je 8 '46
Are reserves adequate for today's contingencies? H. M. Tremaine. Mag of Wall St 79:71-2+ O 26 '46

CORPORATIONS—Finance—*Continued*
Assaying profit margins for individual companies. W. C. Hanson. Mag of Wall St 79:68-70+ O 26 '46
Capital goods shares vs. consumer goods shares. R. Colston. Mag of Wall St 77:250-2+ D 8 '45
Changed capital position of business. J. I. Bogen. Comm & Fin Chr 162:2881+ D 13 '45
Changing trends in investment returns; with ratios of earnings on invested capital by representative industries and companies. W. Gates. Mag of Wall St 77:316-18+ D 22 '45
Character and grouping of new corporate issues in the United States for the 12 months ended Dec. 31 for five years; tabulation. Comm & Fin Chr 163:507 Ja 28 '46
Companies showing changed earnings trends. G. W. Mathis. Mag of Wall St 78:218-19+ My 25 '46
Companies with 16-year growth trends; stocks surpassing highs of 1929 and late thirties all in industrial category. B. Ravits. Barron's 25:6 N 19 '45
Corporate earnings in 1945; with table giving net income of leading corporations by industrial groups for the years 1944 and 1945. Nat City Bank p45-7 Ap '46; Excerpt (tabulation by years). Trusts & Estates 82: 512 My '46
Corporate income after taxes fell 4 per cent in 1945; summary by the National city bank of New York. Steel 118:53 Ap 22 '46
Corporate profits for the first half of 1946; with chart showing percentage change in reported profits after taxes for 1,114 corporations, by selected industry groups, first half 1946 from first half 1945. Survey of Cur Bsns 26:8-9+ S '46
Corporate profits, 1929-1946; table and chart. Automotive & Aviation Ind 94:71 Mr 15 '46
Earnings picture is still ragged; January-June earnings. Bsns W p70 Ag 3 '46
Earnings picture still confused; first-quarter earnings reports. Bsns W p48 My 4 '46
Earnings snapshot; last war year. Bsns W p62 Mr 2 '46
Effect of price-cost squeeze on earnings. Barron's 26:1+ F 11 '46
Effect of price freeze and rising costs showing up in 1945 earnings reports; experience of Veeder-Root, inc. and Cherry-Burrell corp. Barron's 26:1 Ja 7 '46
Eight selected companies with an open road to higher earnings and dividends. Mag of Wall St 77:757-9+ Mr 30 '46
Eight special situations for profit, for income; companies in a position to forge ahead; thumbnail stock appraisals. Mag of Wall St 78:19-23 Ap 13 '46
Evaluating financial positions, profit margins and prospects based on latest balance sheets and indicated earnings. H. S. Coffin. Mag of Wall St 77:629-31+, 695-7+ Mr 2-16 '46
Expansion from retained earnings; study of tangible net worth and net working capital totals for 1,785 medium and smaller manufacturers. 1940-1944. R. A. Foulke. Dun's R 53:15-16+ N; 14-22+ D '45
Family rule ebbs; trend toward diversified ownership. Bsns W p57-8+ Ag 17 '46
Financial developments among large manufacturing corporations, 1945; with tables. D. P. Warner and A. R. Koch. charts Fed Res Bul 32:1106-14 O '46
Financial developments in manufacturing and trade in 1944. D. P. Warner. Fed Res Bul 31:1191-6 D '45
First quarter earnings of leading corporations. Nat City Bank p51-2 My '46
Fourth quarter profits helped by end of abnormal wartime charges. Barron's 26:1 F 4 '46
Growth vs. apathy; prospects of various industries. H. M. Tremaine. il Mag of Wall St 78:207-9+ My 25 '46
Half year's earnings. Nat City Bank p91-3 Ag '46; Excerpt. Trusts & Estates 83:174 Ag '46
Hidden assets and distortions as disclosed by corporate post-war adjustments. H. S. Coffin. Mag of Wall St 77:763-4+ Mr 30 '46
How to get a firm for free; American engineering co. Fortune 34:152+ S '46
Industrial corporation earnings; with table giving preliminary summary of manufacturing earnings in 1944 and 1945. Nat City Bank p31-5 Mr '46
Industrial profits, 1945 and comparisons 1935-1944. Economist 150:sup3-4 Mr 23 '46
Industry's billion-dollar club shrinks. Bsns W p85 Jl 6 '46
Investment appraisals of newcomers on the stock exchange. W. A. Howell. il Mag of Wall St 78.760-1+ S 28 '46
IBA industrial securities committee report. Comm & Fin Chr 162:2726+ D 6 '45
Labor's increasing share of industry's income; payrolls, dividends and savings of manufacturing corporations; chart. Automotive & Aviation Ind 94:65 Mr 15 '46
1946 special re-appraisals of values, earnings and dividend forecasts. il Mag of Wall St 77:517-29+, 580-9+, 637-49+, 703-11+, 765-77+; 78:509-21+, 570, 629, 689 F 2-Mr 30, Ag 3-S 14 '46
1942 corporate profits by size of firm. J. L. McConnell. Survey of Cur Bsns 26:10-16+ Ja '46
Outstanding stock gains reflect both war and peace; textiles and chain stores preponderant among issues which in 1945 surpassed 1929 highs. B. Ravits. Barron's 26:9+ Ja 21 '46
Plant and equipment expenditures of United States business. I. Friend and L. J. Paradiso. Survey of Cur Bsns 26:17-19 Ja '46
Postwar business finance. Comm & Fin Chr 164:485+ Jl 25 '46; Same. Fed Res Bul 32: 707-15 Jl '46
Postwar demand for capital surprisingly large, New York Federal reserve bank states. Comm & Fin Chr 164:1273 S 5 '46
Projecting full year's earnings for individual companies. W. Gates. Mag of Wall St 77: 196-8+ N 24 '45
Realistic approach to second-half corporate earnings. H. S. Coffin. Mag of Wall St 78: 379-80+ Jl 6 '46
Repeat performance? common stock is in favor with the investing public. Fortune 32: 274+ D '45
Reported corporate profits, first quarter 1946. Survey of Cur Bsns 26:9-11 Je '46
Shadow of second-quarter strikes, shortages to darken earnings reports this summer. Barron's 26:1 Je 24 '46
Six heavy goods companies in favored position. Mag of Wall St 78:212-14+ My 25 '46
Sources of business funds; selected statistics, 1930-44. C. C. Abbott. R Econ Stat 28:135-45 Ag '46
Supplementary methods of financing to provide working capital; inventory financing and accounts-receivable financing. R. L. Gordon. J Account 81:471-5 Je '46
Third quarter corporate earnings; with table showing net income of leading corporations for first nine months, 1945-1946. Nat City Bank p123-4 N '46
Third quarter earnings; with table showing net income of leading corporations for first nine months, 1944-1945. Nat City Bank p121-3 N '45
Trend of corporate profit, 1929-45; with tabulations by industries. G. F. Derrickson. Survey of Cur Bsns 26:9-19 Ap '46; Excerpt. Trusts & Estates 82:555-6 Je '46
War end confusing earnings picture; third-quarter operating statements. Bsns W p78 N 10 '45
What first quarter reports reveal for coming months. H. S. Coffin. Mag of Wall St 78: 133-5+ My 11 '46
What third-quarter earnings reveal. H. F. Travis. Mag of Wall St 79:138-40+ N 9 '46
Where diversification will spur corporate earnings; with statistical data on representative companies entering new fields. H. S. Coffin. il Mag of Wall St 78:259-60+ Je 8 '46
Why rising corporate demand for working capital. J. D. C. Weldon. Mag of Wall St 78:561-3+ Ag 17 '46
Wide variations between gains and losses shown in first quarter earnings reports. Barron's 26:1 Ap 22 '46

CORPORATIONS—Finance—*Continued*
Widening distribution of corporate ownership. Nat City Bank p65-7 Je '46

See also
Contracts, Government—Finance
Contracts, Government—Termination
Dividends
Profit
Public utilities—Finance
Railroads—Finance
Reserves
Securities
Stockholders
Stocks

Records

Components of a model permanent file. C. S. Brison. J Account 82:425 N '46

Reorganization

Formalities in reorganizations. R. S. Holzman. J Account 82:37-44 Jl '46

See also
Associated gas and electric system
Railroads— Receiverships

Reports and yearbooks

Animated annual statement; United States steel corporation's new sound motion picture, Behind the annual report. L. S. Metcalfe. il Banking 38:114 N '45
Annual reports go 4-color; prove effective public relations. Ptr Ink 216:52 Ag 9 '46
Best annual report for our company; abstract. L. H. Haney. Trusts & Estates 82: 159-60 F '46
Company reports should be merchandised; U.S. steel corporation's moving picture; idea adaptable to gas companies. L. S. Metcalfe. il Gas Age 96:52+ D 13 '45
Corporate reports inadequate; abstract. R. I. Carlson. Trusts & Estates 83:219-20 S '46
Cuts and color; presentation of advertising and annual reports by Worcester street railway. J. C. MacMurray. il Bus Transportation 25:33-5 F '46
Dividends and reserves; end functions and benefits of profits as told in corporation reports. il Trusts & Estates 82:549-53 Je '46
Does your annual report belong to the gaslight era? J. Silbermann. il Sales Management 56:35-7 Ja 1 '46
Dramatizing corporate statistics; uses and advantages of graphics. J. Silbermann. Trusts & Estates 81:443-6 D '45
Expert witnesses; employee can testify to benefits of corporate enterprise. Trusts & Estates 82:269-73 Mr '46
How business aids the community; as told in annual reports. il Trusts & Estates 83: 323-7 O '46
Industrial companies dress up their annual financial statements. Ind Marketing 31:66 Je '46
Making friends with the annual report. J. Silbermann. il Ry Age 119:1020-3 D 22 '45
Management speaks in annual reports to stockholders and employes. il Sales Management 57:104 N 1 '46
Modern corporation reports. L. L. Waters. Comm & Fin Chr 164:1927+ O 17 '46
Opportunities in stockholder relations. W. Smith. Comm & Fin Chr 163:3057+ Je 6 '46
Prize-winning annual reports. il Inland Ptr 116:73 O '45
Products of private enterprise; reporting the work of the corporation. il Trusts & Estates 82:15-18 Ja '46
Profits from public service; how corporations can report financial results. Trusts & Estates 81:353-9 N '45
Public economic illiteracy; corporate management's problem. F. G. Clark. Pub Util 37: 706-9 My 23 '46
Reports: stockholders' protection. Trusts & Estates 82:536 Je '46
Reports to stockholders. A. J. O'Hara. J Account 81:115-19 F '46
SEC order for quarterly corporate reports provides new tools for security analysis. Barron's 26:1 Ap 1 '46
Selling utility companies to their stockholders; stockholders' report and what it should contain. H. H. Young. Pub Util 36:679-87 N 22 '45
Semantics of financial reports; public misunderstanding fed by technical wording. D. Knowlton. Trusts & Estates 82:543-6 Je '46; Abstract. Management R 35:298-300 Jl '46
Special war reserves in corporate reports. P. J. Graber. J Account 82:392-7 N '46
Stockholders tell what they want in annual reports. Ptr Ink 214:24 Ja 25 '46
Study of stockholders' reports of unlisted companies. J Account 82:167-78 Ag '46
Three is a company; public benefits from corporate enterprise. il map Trusts & Estates 82:147-50 F '46
Tools, the capital of capitalism; their role and values in corporate productivity. il Trusts & Estates 81:435-40 D '45
What investors want in annual reports; abstract. L. H. Haney. Management R 34:491-4 D '45
Who owns the corporations? facts vs. popular illusions on the modern stockholder. Trusts & Estates 82:459-64 My '46
Winners of annual report awards selected. il Ind Marketing 30:120 O '45

Size

Small vs. big business; Truman's Washington college address. Nat City Bank p78-80 Jl '46

Taxation

Bonus computations. J. F. Traver. J Account 81:206-13 Mr '46
Business' next tax headache; penalties on retained profits. J. H. Landman. il Dun's R 54:18-20+ Ag '46
Corporation in the tax system. E. G. Keith. Comm & Fin Chr 163:3205+ Je 13 '46
Effect of federal taxes on growing enterprises. J. K. Butters and J. Lintner. Trusts & Estates 81:493-4 D '45
Effect of taxation on business. R. Browne. Credit & Fin Management 48:7-9+ Ja '46
Employees' salary compensation; tax judges show greater leniency in recent years. V. R. Wolder. Credit & Fin Management 48: 24+ Je '46
Ending of amortization period as provided in section 124 (d) (1) of the Internal revenue code. J. D. Nunan, jr. J Account 81:181-4 F '46
Federal and state corporate income and excess profits taxes, by industries, 1929-45; tabulation. Survey of Cur Bsns 26:14 Ap '46
Federal taxation in the United States; history of existing tax system and Proposals for revision. Index 26 no 2:25-39 [Je] '46; Same (pt 2, Proposals for revision). Comm & Fin Chr 164:209+ Jl 11 '46
Five financial aids in restoring peacetime business. S. H. Apfel. Dun's R 54:16-20+ My '46
How new tax law affects company operations. J. K. Lasser. il Dun's R 54:15-22 Mr '46
Long-range federal tax program; Committee on taxation and public revenue, Commerce and industry association of New York. Comm & Fin Chr 163:1261+ Mr 7 '46
Organization and procedure in corporation tax departments; abstract. M. E. McDowell. J Account 81:419 My '46
Section 102; a postwar tax problem. M. Goodman. J Account 81:200-5 Mr '46
Tax benefits for foreign trade; abstract. Management R 35:246-8 Je '46
Tax effects on business. J. J. Klein. Comm & Fin Chr 163:1213+ Mr 7 '46; Same. Credit & Fin Management 48:7-9 Ap '46
Tax reduction by carry-backs and carry-overs; summary of present legislation. J. H. Landman. J Account 81:282-5 Ap '46
Taxation of small business. H. R. Bowen. Comm & Fin Chr 164:341+ Jl 18 '46
Taxing business profits. Economist 150:140-3 Ja 26 '46
Taxing for better living. R. Paul. Comm & Fin Chr 163:2641+ My 16 '46
Treatment of Sansome earnings and profits for equity invested capital purposes. J. D. Bierman. J Account 82:317-23 O '46
Where tax enforcement means higher dividends, affects corporate reserves. H. S. Coffin. Mag of Wall St 78:319-20+ Je 22 '46

CORPORATIONS—Taxation—*Continued*
Your tax man should govern your 1946 business policies. J. K. Lasser. Adv & Sell 39: 62+ Jl '46

See also
Corporations, Foreign—Taxation
Excess profits tax
Insurance companies—Taxation
Mine taxation
Public utilities—Taxation

CORPORATIONS, Foreign

Taxation

Income taxation of foreign corporations. A. R. Cowan. Comm & Fin Chr 164:483+ Jl 25 '46

CORPORATIONS, Government. See Government corporations

CORPULENCE

See also
Weight (physiology)

CORRELATION (geology)
Correlation of paleozoic rocks across Las Animas arch in Baca, Las Animas, and Otero counties, Colorado. J. C. Maher. map diag Am Assn Pet Geologists Bul 30:1756-63 O '46

CORRELATION (statistics)
Punch cards in correlation studies. D. E. H. Frear. il Chem & Eng N 23:2077 N 25 '45
Relationship between price change and price level for common stocks. Z. Szatrowski. Am Stat Assn J 40:467-83 D '45
Square root method and its use in correlation and regression. P. S. Dwyer. bibliog Am Stat Assn J 40:493-503 D '45

CORRESPONDENCE schools and courses
Natural gas home study course at University of Kansas. C. M. Young. Am Gas Assn Mo 28:377-8+ S '46
Open home sales school for dealers-distributors; correspondence course in airplane selling. K. H. Holmgren. il Aviation 44:176-7 D '45

Advertising

Test of 5 appeals shows how logic pulls in headlines; National radio institute. W. Weintz. il Ptr Ink 216:36-7 Jl 5 '46

CORRESPONDENT banks. See Banks and banking—Correspondent banks

CORRESPONDING states, Law of
Corresponding states in the frozen rare gases. G. W. Murphy and O. K. Rice. bibliog J Chem Phys 14:518-25 S '46
Modified law of corresponding states for real gases. G. Su. bibliog Ind & Eng Chem 38: 803-6 Ag '46

CORRONIZING
Diffused nickel-zinc coatings; Corronizing process. G. Black. il Metal Finishing 44: 207+ My '46
Nickel zinc and nickel tin corrosion resistant metal coatings; with cost data. L. C. Conradi. il Product Eng 17:127-9 S '46

CORROSION, Electrolytic. See Electrolytic corrosion

CORROSION and anti-corrosives
Agents, basic causes, control and prevention of corrosion. F. A. Prange. diags Oil & Gas J 45:88+ S 7; 88-90+ S 14 '46
Aspects of grease corrosion. H. A. McConville. il Gen Elec R 49:30-1 O '46
Bearing corrosion. H. H. Zuidema. bibliog il patent list Oil & Gas J 44:100-1+ F 16; 151+ F 23; 66+ Mr 2 '46
Body corrosion; some alternative methods of rust prevention. J. R. Stanfield. Automobile Eng 36:260 Je '46
Chemical plant in Germany; corrosion problems in the oils and fats industry. Chem Age (Lond) 54:81-2 Ja 19 '46
Chromate corrosion inhibitors in chloride systems; rate of consumption of chromate. M. Darrin. il Ind & Eng Chem 38:368-75 Ap '46
Condenser tube corrosion. R. May. Marine Eng 51:138 Ja '46
Cooling water treatment for internal combustion engines; use of chromate. il Diesel Power 24:578-82 My '46
Corrosion cracking in mild steel; abstract. J. T. Waber and H. J. McDonald. Materials & Methods 23:488 F '46
Corrosion developments; abstract. H. M. Olson. Materials & Methods 23:1632 Je '46
Corrosion forum. Published in monthly numbers of Chemical and metallurgical engineering
Corrosion in Briner economizers. J. T. MacDonald. Pulp & Pa of Can 47:60-1 Mr '46
Corrosion in crevices. E. H. Wyche and others. bibliog il diag Electrochem Soc Trans 89(preprint 23):265-78 Ap '46
Corrosion in the refrigerating industry and its control; abstract. A. Steinbach. Am Water Works Assn J 38:163-4 Ja '46
Corrosion in vertical turbine pumps. T. E. Larson. Power Pl Eng 50:80-1+ S '46
Corrosion of constructional materials by sulphur and sulphides. J. R. West. Chem Eng 53:225 O '46
Corrosion of galvanized coatings and zinc by waters containing free carbon dioxide; abstract. L. Kenworthy and M. D. Smith. Am Water Works Assn J 38:157-8 Ja '46
Corrosion of galvanized hot water storage tanks. J. M. Bialosky. bibliog Am Water Works Assn J 38:1012-17; Discussion. O. Rice. 1017-20 S '46
Corrosion of plant equipment by steam and water. R. C. Ulmer. il Power Pl Eng 50: 72-5+ O; 90-2 N '46; 51:108-9+ Ja '47
Corrosion of steel by gaseous chlorine; effect of time and temperature. G. Heinemann, F. G. Garrison and P. A. Haber. bibliog diag Ind & Eng Chem 38:497-9 My '46
Corrosion of yellow brass pipes in domestic hot water systems; a metallographic study; abstract. E. P. Polushkin and H. L. Shuldener. Am Water Works Assn J 38:152 Ja '46
Corrosion performance of blackplate in cans. W. B. Adams and D. Dickenson. Iron Age 156:59 N 15 '45
Corrosion plays havoc with coastal meters il Elec West 96:62-3 Mr '46
Corrosion problems in the cracking of shale oil. G. E. Mapstone and C. B. McLaren. bibliog Pet Refiner 25:97-100 F '46
Corrosion stability of magnesium alloys; abstract. J. D. Hanawalt and C. E. Nelson. Mech Eng 68:156 F '46
Corrosion symposium held in Cleveland. Chem & Eng N 24:2777 O 25 '46
Corrosive action of benzole absorption oils. C. M. Cawley and H. E. Newall. Soc Chem Ind J 64:285-90 O '45
Corrosiveness of water to metals; study of electrochemical equilibria; practical application. T. R. Camp. N E Water Works Assn J 60:188-216, 282-93 Je, S '46
Designing to prevent corrosion; abstract. R. H. Brown and R. B. Mears. Nat Pet N 38 pt 2:R454 Je 5 '46
Development of plastic coatings for corrosion protection in the water-works industry. A. B. Smith. N E Water Works Assn J 60: 117-27; Discussion. 127-31 Je '46
Electrolytic control of corrosion. R. B. Spacht. diags J Chem Educ 23:195 Ap '46
Factors in corrosion control. H. H. Yhlig. il diags Steel 119:109+ O 14 '46
Failures of domestic hot water storage tanks. C. P. Hoover. bibliog il Am Water Works Assn J 38:1005-11 S '46
Inhibition of corrosion; measures for indirect fuel saving. W. F. Gerrard. bibliog Chem Age (Lond) 55:525-30 N 2 '46
Inhibition of sulphate-reducing bacteria by dyestuffs; practical applications in cable storage tanks and gas holders. T. H. Rogers. Soc Chem Ind J 64:292-5 O '45
Inhibitors in turbine oils reduce oxidation and prevent rust. E. W. Gardiner. il diags Power 90:169-71+ Mr '46
Inhibitors of corrosion of aluminum. G. G. Eldredge and R. B. Mears. bibliog Ind & Eng Chem 37:736-41 Ag '45; Abstract. Metal Prog 50:520+ S '46
Materials of construction in a metabisulphite plant. G. S. Wheaton and R. S. Sunderlin. flow sheet il Chem & Met Eng 52:231-2+ N '45; Same cond. Chem Age (Lond) 54:115-16 Ja 26 '46
National association of corrosion engineers convention and exhibition, Kansas City, Mo., May 7-9. Power 90:465 Jl '46
Observations on alkaline electrotinning; improving corrosion resistance. T. C. Timby. Iron Age 158:58-9 Jl 25 '46

CORROSION and anti-corrosives—*Continued*
Packaging metal parts; corrosion prevention starts on the production line. C. E. Waring. il Mod Packaging 19:135-9 Ja; 143-7 F, 204-7 Mr '46
Permian basin fights corrosion. G. Weber. il diags Oil & Gas J 45:76-7+ S 14 '46
Plastic coatings to control metal corrosion. S. P. Wilson. Steel 119:150+ O 14 '46
Protective chemical treatment for tinplate. R. Kerr. Soc Chem Ind J 65:101-4 Ap '46
Purchase and maintenance of deep-well pumps. L. J. Alexander. Am Water Works Assn J 38:1197-207; Discussion. T. E. Larson. 1207-9 O '46
Recent work on corrosion and oxidation. U. R. Evans. diags Chem Soc J p207-14 Mr '46
Rust not, want not. D. H. Killeffer. il Sci Am 174:161-3 Ap '46
Rust preventive oils; use of contact angles to study the action of mineral oil films. G. P. Pilz and F. F. Farley. bibliog il diag Ind & Eng Chem 38:601-9 Je '46
Self-cleaning laminated zinc electrode prevents corrosion; patent. Pet Processing 1:122+ O '46
Some cases of corrosion in engineering practice; abstract. G. H. Stanley. Am Water Works Assn J 38:154-5 Ja '46
Stress corrosion cracking of mild steel; abstract. F. H. Smith. Materials & Methods 24:156 Jl '46
Summary of the investigation of drill-pipe failures in the Permian basin. L. R. Jackson and others. Oil & Gas J 45:75 Ag 31 '46
Tricks of corrosion. Can Min J 67:795 Ag '46
Tubing corrosion in the Erath field; abstract. W. D. Yale. Oil & Gas J 45:92 My 18 '46
Use of paperboard as a sorptive material in protective packaging. R. C. Rietz and L. O. Anderson. Paper Tr J 122:47-50 Mr 14 '46; Same abr. Mod Packaging 19:200-3+ Mr '46
Whipping corrosion before it starts; seaplane maintenance. P. Battilana. il diag Aviation 44:134-6+ D '45

See also
Acid resisting materials
Aluminum—Corrosion
Aluminum—Protection
Boilers—Corrosion
Corrosion resisting materials
Electrolytic corrosion
Gas, Natural—Distillate wells—Corrosion problem
Metal protection
Paint, Protective
Petroleum refineries—Corrosion
Pipe coating
Pipe lines—Protection
Refrigerating plants—Corrosion
Steam pipes—Corrosion
Steel—Protection
Water pipes—Corrosion
Water purification—Corrosion control
Water supply—Corrosiveness

Patents

Summary of compounds claimed in U.S. patents as bearing corrosion inhibitors. H. H. Zuidema. Oil & Gas J 44:103+ F 16; 155-6 F 23; 69-70+ Mr 2 '46

Terminology

Glossary of terms used in corrosion. Electrochem Soc Trans 90 (preprint 12):1-8 '46

Testing

Accelerated corrosion testing of protective and decorative coatings. R. R. Rogers. il Can Chem & Process Ind 30:91-4 O '46
Acidic atmosphere evaluation of cleaning on the corrosion of steel. C. W. Smith. il Electrochem Soc Trans 89 (preprint 25):289-306 '46
Attack of various atmospheres on copper and some copper alloys at elevated temperatures. A. P. C. Hallowes and E. Voce. Product Eng 17:134-5 N '46
Corrosion-fatigue properties of some hard lead alloys in sulfuric acid. D. J. Mack. bibliog il diag Am Soc T M Proc 45:629-50 '45; Abstract. Metal Prog 49:176+ Ja '46
Corrosion in hydrofluoric acid alkylation. M. E. Holmberg and F. A. Prange. il diag Ind & Eng Chem 37:1030-3 N '45
Corrosion of ferrous materials; ASM tests. C. P. Larrabee. Steel 119:134 S 9 '46; Abstract. Materials & Methods 23:1632 Je '46
Corrosion of steel salt-bath pots by molten alkali nitrates, used for heat treatment of duralumin. R. J. Box and B. A. Middleton. Engineering 160:523-4, 543 D 21-28 '45; Same. Iron & Steel Inst J 151:71-8 no 1 '45
Corrosion of watthour meters in ocean beach areas. A. D. Irion and R. M. Stevens. il Elec World 125:63-5 Ap 27 '46
Corrosion resistance of magnesium and certain of its alloys under various accelerated atmospheric conditions. R. R. Rogers and others. il diag Electrochem Soc Trans 90 (preprint 25):315-22 '46
Corrosion resistance of stainless steels; results of decarburization tests. J. M. Margolin and others. il diags Iron Age 157:50-55 My 23 '46
Corrosion-resisting properties of electrodeposited tin-zinc alloys. R. M. Angles and R. Kerr. il Engineering 161:289-92, 300 Mr 29 '46
Corrosion testing in a chemical plant. S. W. Shepard. il Chem & Met Eng 53:217-18+ Ap '46
Corrosion tests of multi-arc welded high-strength aluminum alloys. L. W. Smith. bibliog il diag Electrochem Soc Trans 89 (preprint 28):343-63 '46
Effect of the iron content of cupro-nickel on its corrosion resistance in sea water. A. W. Tracy and R. L. Hungerford. il Am Soc T M Proc 45:591-612; Discussion. 613-17 '45
Effects of corrosion on spot welded 75ST Alclad alloy. M. L. Ochieano. il Product Eng 17:126-8 O '46
Emulsions of oil in water as corrosion inhibitors. P. Hamer and others. diags Iron & Steel Inst J 151:109-26 bibliog(p126) pl 9-12; Discussion. 127-31 no 1 '45
Influence of some different surface preparations on the corrosion of magnesium-base alloys of low and normal iron content; summary. F. A. Fox and C. J. Bushrod. Engineering 161:305 Mr 29 '46; Discussion. 161: 305 Mr 29 '46; Engineer 181:309 Ap 5 '46
Insulation of dissimilar metal faying surfaces; tests of Ryan aeronautical co. B. W. Floersch. il Automotive & Aviation Ind 95: 37+ O 1 '46
Laboratory corrosion tests of rotary lime-kiln refractories. G. R. Pole and A. W. Beinlich, jr. il Am Cer Soc J 28:357-60 D 1 '45
Report of Wire inspection committee on field tests of wire and wire products. Am Soc T M Proc 45:70-86, fold pl 1-3 '45
Resistance to corrosion by sea water of some α-tin and α-tin-aluminium bronzes; abstracts. J. W. Cuthbertson. Engineer 182: 295-6 O 4 '46; Engineering 162:270 S 20 '46; Discussion. 162:329 O 4 '46
Rust determination in presence of steel; preferential solvent and its application. F. Gibadlo. bibliog Iron Age 157:58-9 Ap 18 '46
Rusting characteristics of turbine lubricating oils. W. P. Kuebler. il Mech Eng 68: 889-93 O '46
Some stress-corrosion studies on austenitic cast irons. J. B. Urban and others. diags A S M E Trans 68:633-6 Ag '46; Same. Foundry 74:88-90+ N '46
Stainless steels for turbine blading. J. H. G. Monypenny. il Engineering 160:458-9 N 30 '45
Study of corrosion; abstract. C. P. Larrabee. Materials & Methods 23:1632 Je '46
Sulfur print method for the study of crack growth in the corrosion-fatigue of metals. R. C. Brumfield. il diag Am Soc T M Proc 45:544-53 '45
Theory of the mechanism of rusting of low alloy steels in the atmosphere. H. R. Copson. il Am Soc T M Proc 45:554-80 bibliog(p579-80); Abstract. Metal Prog 49:164+ Ja '46; Discussion. Am Soc T M Proc 45: 581-90 '45
Throwing power of anodizing baths; device for visually determining corrosion protection; can be applied to measure throwing power of plating baths. R. S. Herwig and A. Leigh. il diags Iron Age 156:51-3 D 20 '45
Total-immersion apparatus for corrosion tests; abstract. M. Cohen. diags Steel 118:106 Ja 14 '46

CORROSION and anti-corrosives—Testing— *Continued*
Variable cycle alternate immersion corrosion testing machine. C. H. Mahoney and others. il Am Soc T M Proc 45:719-21 '45

Underground corrosion

Anaerobic corrosion of iron in soil; with particular consideration of soil redox potential as indicator of corrosiveness. R. L. Starkey and K. M. Wight. bibliog (203 titles) il diags Am Gas Assn Proc 1945:307-412; Abstract. Am Water Works Assn J 38:1210-12 O '46
Soil corrosion and pipe protection. T. H. Gilbert. bibliog diags Pet Eng 17:82+ N '45
Underground corrosion. il 106 tabs diags U S Nat Bur Stand Circ C450:1-312 bibliog(206 titles, p271-8); pa $1.25 Supt. of doc. '45

CORROSION engineers, National association of. See National association of corrosion engineers

CORROSION research
Anti-corrosion work aided by mistakes in industrial experience. W. Z. Friend and F. L. LaQue. Iron Age 158:152 S 26 '46
Chemical propellants; corrosion and stability studies. F. Bellinger and others. bibliog il diags Ind & Eng Chem 38:310-20 Mr '46
Corrosion studies on electrolytic chromium. N. Hackerman and D. I. Marshall. bibliog il Electrochem Soc Trans 89 (preprint 15): 171-80 '46
Development work to prevent corrosion. B. B. Morton. il Pet Eng 17:134+ N '45
Dow to study corrosion. Chem & Eng N 24: 1681 Je 25 '46
Effect of composition and environment on corrosion of iron and steel. C. P. Larrabee. Marine Eng 51:134-5 F '46
Electron microscope probes atomic nature of rust. il Steel 118:78-9 Ja 21 '46
Extensive water analysis in cycling fields yields useful information on corrosion. Oil & Gas J 44:270 Mr 30 '46
German corrosion research. Metal Prog 49: 594+ Mr '46
Internal corrosion on high pressure condensate wells baffles engineers. Am Gas Assn Mo 27:563 D '45
Measuring distribution of liquids in flowstring of a gas-condensate well; mobile laboratory measures water in condensate as part of corrosion study. C. K. Eilerts and others. il diag Oil & Gas J 44:91-4+ D 15 '45
Protective action of lead compounds. J. E. O. Mayne. bibliog Soc Chem Ind J 65:196-204 Jl '46
Reaction rate of hydrogen chloride and sulfide with steel. C. F. Prutton, D. Turnbull and G. Dlouhy. bibliog diag Ind & Eng Chem 37:1092-7 N '45
Recent Russian work on corrosion; chemical apparatus and halogen compounds. T. A. Adjemyan. Chem Age (Lond) 54:5-8 Ja 5 '46
Relation of strain aging to the stress-corrosion cracking of mild steel. J. T. Waber and H. J. McDonald. bibliog (90 titles) il Welding J 25:sup223-34 Ap '46; Discussion. G. F. Comstock. 25:sup699+ O '46
Study of corrosion pattern in still tubes results in reduction of metal losses. W. F. Kramer. diags Nat Pet N 38 pt 2:R17-18+ Ja 2 '46

CORROSION resisting materials
Bimetallic double-wall tubing for combating corrosion. diags Product Eng 17:102-3 F '46
Chemical propellants; corrosion and stability studies. F. Bellinger and others. bibliog il diags Ind & Eng Chem 38:310-20 Mr '46
Corrosion resistance of glass; abstract. M. S. Tarnopol and A. E. Junge. Chem Ind 57:1112 D '45
Corrosion-resistant alloys; Hastelloy alloys A, B, C and D; mechanical properties, acid penetration tests, machinery speeds, etc. il Steel 119:70-5+ Jl 29 '46
Corrosion resistant metal covered rolls. H. R. Strohecker. Paper Tr J 123:54 S 12 '46
Corrosion-resistant plastic coating applied to plating room equipment. il Steel 118:114+ Mr 11 '46
Corrosion-resisting plastic material applied to oil-field equipment in place. E. H. Short, jr. il Oil & Gas J 44:59-60 D 22 '45
Development of Karbate materials and their applications. M. R. Hatfield and C. E. Ford. il diags Am Inst Chem Eng Trans 42:121-46; Discussion. 146-7 F '46
Heat and corrosion resistant high temperature alloys; reference book sheet. Product Eng 17:151+ S '46
Impervious graphite exchangers and coolers. W. L. Nelson. il Oil & Gas J 45:89 S 28 '46
Laboratory evaluation of corrosion resistant pigments and vehicles. H. Zahn. diag Paint Oil & Chem R 109:6-9 S 5 '46
Lead's reaction to corrosive chemicals. Steel 119:165-6+ Ag 5 '46
Materials of construction in bead catalyst plant; Socony vacuum plant, Paulsboro, N.J. flow sheet Chem & Met Eng 53:231-2+ My '46
New alloys for severe corrosion services; Chlorimet 2 and Chlorimet 3. M. G. Fontana. il Chem Eng 53:114-15 O '46
New coatings and applications expand use of porcelain enamel. il Steel 119:154+ N 11 '46
Physical and corrosion-resistant properties of Hastelloy alloys. Oil & Gas J 44:156 Ap 20 '46
Plastic tank coatings resist sour west Texas crude corrosion; Resoweld. G. Weber. il Oil & Gas J 45:89-90 Je 29 '46
Resin baking coatings by induction heating; abstract. R. J. Moore. diag Nat Pet N 37 pt 2:R992+ D 5 '45
Resistance of nickel-containing alloys to corrosives encountered in the petroleum refineries. B. B. Morton. il diag A S M E Trans 68:229-35 Ap '46; Excerpt. Oil & Gas J 44:73+ D 8 '45
Standard alloy designations for heat and corrosion resistant castings; engineering file facts. Materials & Methods 23:765 Mr '46
Trend for alloy-lined equipment in the paper industry. H. A. Schmitz, jr. il Paper Ind 28:230-1 My '46
Valve facing alloy resists corrosion at high temperatures; Eatonite developed for facing internal combustion engine valves. V. C. Young. il Materials & Methods 22:1744-5 D '45
Wrought aluminum alloys; corrosion and chemical resistance. O. L. Mitchell. il Materials & Methods 23:457-60 F '46

See also
Acid resisting materials
Bakelite
Chemical plants—Equipment
Chromium nickel steel
Chromium steel
Corrosion and anti-corrosives
Haveg
Monel metal
Paint, Protective
Steel, Corrosion resisting
Steel, Stainless
Teflon

CORRUGATED paper board. See Paper board, Corrugated

CORRUGATED pipes. See Pipes, Corrugated

CORRUGATED sheet metal. See Sheet metal, Corrugated

CORSETS
Formfit helps corset retailers find way to greater profits; fact-finding research project. il Sales Management 56:56+ Ja 1 '46

COR-TEN steel. See Chromium copper silicon steel

CORTICOSTERONE
Synthetic analogues of corticosterone. W. C. J. Ross. Chem Soc J p538-40 Ag '45

CORUNDUM
Exploration of the Blue Metal corundum property, Douglas county, Nevada. E. O. Binyon. 3pls U S Bur Mines Rep of Invest 3895:1-7 '46
Exploration of the Hog Creek corundum mine, Towns county, Ga. T. J. Ballard. pl U S Bur Mines Rep of Invest 3855:1-3 '46

See also
Rubies

COSMETICS
Another example of trend toward diversification; dress manufacturers enter perfume and cosmetic field. E. M. Housman. il Ptr Ink 214:81-2+ F 8 '46

COSMETICS—*Continued*
Beauty unmasked; Arden case imperils two trade practices: demonstrators and push money. Bsns W p77-9 Ja 5 '46
Chosen outlets; Coty begins selective distribution. Bsns W p85 Ap 27 '46
Competitive discrimination; Elizabeth Arden decision. Adv & Sell 39:104 F '46
Cosmetics, a Christmas season of splendor. il Mod Packaging 20:98-103+ S '46
Cosmetics eyed; Louisiana bans hormone preparations. Bsns W p85 Ja 26 '46
Cosmetics for all ages. il Bsns W p76 Mr 16 '46
Cosmetics output spirals. Bsns W p68+ Ag 24 '46
Entering the cosmetic industry. L. A. Barber. il Dom Comm 34:16-18+ F '46
F.T.C. cosmetic order. Adv & Sell 38:62 D '45
Hitched to a starlet; Margaret O'Brien cosmetic line for little girls. il Mod Packaging 19:122-3 Jl '46
How Milkmaid puts a double edge on its sales promotion program. T. Armstrong. il Sales Management 56:84+ F 15 '46
Milkmaid makes cosmetic news with color-constant lipstick. T. Armstrong. il Sales Management 55:43-4 D 1 '45
Redolent of Scots Dragoons. Fortune 33:225-6 Ja '46
Showroom for cosmetics; offices and showrooms for Mem company, New York. il plan Arch Rec 99:102-3 Ap '46
Solid geometry for McKelvy cosmetic packages. il Mod Packaging 20:100-1 O '46
Sweet-scented success; 20th anniversary. Prince Matchabelli, inc. il Bsns W p78+ N 2 '46
Teen-age jury to steer sales policy of Seventeen cosmetics. E. M. Kelley. il Sales Management 55:40-2 N 15 '45
Toiletries for men. M. G. Rollins. il Adv & Sell 39:35+ Mr '46
Transparency returns to the cosmetic field. il Mod Packaging 19:154-5+ Mr '46
Young market, how should you package for it? il Mod Packaging 19:87-92+ D '45

See also
Lipsticks
Lotions
Nail polishes

Advertising

Dorothy Gray Flamingo campaign links cosmetics and fashion. B. Carpenter. il Sales Management 56:140+ Ap 15 '46
Drug, cosmetic and tobacco ads are greatest offenders. Ptr Ink 214:23-4 F 22 '46
Fez woos skittish male market with he-man sales promotion. il Sales Management 56:170 F 15 '46
Rise of Revlon. Bsns W p80+ Je 29 '46

See also
Nail polishes

COSMIC rays
Absorption of slow mesotrons in lead, iron, aluminum, and water. H. P. Koenig. diags Phys R 69:590-6 Je 1 '46
Analysis of cosmic-ray fine structure; earlier Missouri observations. D. T. Warren. bibliog Phys R 69:78-87 F 1 '46
Analysis of cosmic-ray fine structure; Mexico City observations. D. T. Warren. bibliog Phys R 69:382-4 My 1 '46
Atmospheric helium three and radiocarbon from cosmic radiation. W. F. Libby. bibliog Phys R 69:671-2 Je 1 '46
Cloud-chamber analysis of cosmic rays at 14,120 ft. W. M. Powell. bibliog il diag Phys R 69:385-405 My 1 '46
Cloud-chamber photographs of heavy particles at high altitudes. D. J. Hughes. il Phys R 69:371-81 My 1 '46
Comparison of the stopping power of lead and aluminum for cosmic-ray mesotrons. E. Fein. diags Phys R 70:567 O 1 '46
Cosmic radiation above 40 miles. S. E. Golian and others. diag Phys R 70:223-4 Ag 1 '46
Cosmic ray probe will attack mesons; study to be made by Massachusetts institute of technology and AAF. il Aviation N 6:8 S 2 '46
East-west asymmetry of cosmic radiation at a geomagnetic latitude of 28°31′ and an estimation of the difference of the exponents of the absorption law for the polar and the equatorial regions. F. Oster and others. Phys R 69:531 My 1 '46
Energy distribution and number of cosmic-ray neutrons in the free atmosphere. S. A. Korff and B. Hamermesh. bibliog Phys R 69:155-9 Mr 1 '46
Field work in a comprehensive study of cosmic rays at various altitudes. Science 104:322 O 4 '46
Multiple production of neutrons by cosmic radiation. S. A. Korff and B. Hamermesh. Phys R 70:429 S 1 '46
New cosmic ray radiosonde techniques. S. A. Korff and B. Hamermesh. il diags Franklin Inst J 241:355-68 My '46
Particular type of cosmic-ray stars observed with photographic plate. S. Tamburino. Phys R 69:35-6 Ja 1 '46
Power spectrum of the cosmic-ray cascade component. E. P. Ney. Phys R 70:221-2 Ag 1 '46
Solar and lunar effects on cosmic rays. M. Kidnapillai and A. W. Mailvaganam. bibliog Phys R 70:94-5 Jl 1 '46

See also
Mesotrons

Ionization effects

Production of penetrating ionizing particles by the non-ionizing component of cosmic radiation. P. J. G. de Vos and S. J. du Toit. bibliog Phys R 70:229-30 Ag 1 '46

Showers

Atmospheric showers and bursts. D. Skobeltzyn. bibliog Phys R 70:441-2 S 1 '46
Cascade showers and mesotron-produced secondaries in lead. S. Nassar and W. E. Hazen. bibliog Phys R 69:298-306 Ap 1 '46
Investigation of auger showers by the proportional counter method. L. Lazareva. bibliog Phys R 70:439-40 S 1 '46
Origin of large cosmic-ray bursts. R. E. Lapp. bibliog diags Phys R 69:321-37 Ap 1 '46
Penetrating (atmospheric) showers in cosmic rays. V. Veksler and others. diag Phys R 70:440-1 S 1 '46
Recurrence phenomena in small cosmic-ray bursts. J. W. Broxon. bibliog Phys R 70: 494-8 O 1 '46
Showers of penetrating particles at altitude of 22,000 feet. O. Sala and G. Wataghin. Phys R 70:430 S 1 '46
Some experimental results concerning mesotrons. R. P. Shutt. bibliog il Phys R 69: 261-74 Ap 1 '46
Structure of cosmic-ray air showers. K. L. Kingshill and L. G. Lewis. bibliog Phys R 69:159-64 Mr 1 '46
Successive multiple production of penetrating particles. W. B. Fretter and W. E. Hazen. il Phys R 70:230-1 Ag 1 '46

COSMOLOGY
Equations of state for radially symmetric distributions of matter. M. Wyman. Phys R 70: 396-400 S 1 '46
New approach to kinematic cosmology. L. Infeld and A. E. Schild. bibliog Phys R 68: 250-72; 70:410-25 D 1 '45; S 1 '46

COST
Cost-price-profit relationships. Survey of Cur Bsns 26:5+ Ja '46
Disharmonies between costs and prices. W. E. Spahr. Comm & Fin Chr 163:1225+ Mr 7 '46
Manufacturers seek protection against cost uncertainties; survey by National industrial conference board; abstract. Comm & Fin Chr 163:3398 Je 20 '46
Production costs per unit expected to rise 25.7%; selling costs 13.7% over 1939; with graphs. Steel 118:sup8-9 Ja 7 '46
Profit margin in cost-price squeeze. B. Ravits. Mag of Wall St 78:740-1+ S 28 '46
Reduction of costs. C. C. Balderston. Advanced Management 11:13-16 Mr '46

COST—*Continued*
Where to trim those war-swollen costs; abstract. Management R 34:420-1 N '45

See also
Cost accounting
Cost of living
Factory costs
Labor cost
Mining costs
Power cost
Sales costs

also subdivision Cost, Cost of operation, and Costs under special subjects, e.g. Building—Cost; Locomotives—Cost of operation; Marketing—Cost; Railroads—Costs

COST accounting
Accounting by causes vs. accounting by accounts. J. B. Copper. N A C A Bul 27:315-34 D 15 '45
Accounting service to management. G. W. Rooney. N A C A Bul 27:177-88 N 1 '45
Are service department costs taken for granted? A. T. Caruso. N A C A Bul 28: 164-72 S 15 '46
Budgets for cost control. D. B. Caminez. N A C A Bul 28:303-15 N 1 '46
Can engineering survive being classed as overhead? F. N. Hveem. Civil Eng 16:327 Jl '46
Case against administrative expenses in inventory. J. N. Harris. J Account 82:32-6 Jl '46
Charting relation of volume and costs. C. C. Balderston. Factory Management 104:322+ F '46
Comments on accounting for war costs and losses. W. W. Nissley. J Account 81:107-14 F '46
Control of cost in a small manufacturing business. R. E. Staunton. N A C A Bul 28:255-70 O 15 '46
Control of research and development costs. R. H. Robnett. N A C A Bul 27:1095-1109 Jl 15 '46
Coordination of company financial planning with external economic conditions. H. G. Peterson, jr. N A C A Bul 27:575-87 Mr 1 '46
Cost accounting control for municipal budgeting and financial administration. A. W. Sykes. N A C A Bul 27:635-51 Mr 15 '46
Cost accounting for beef and hog operations. A. J. E. Child. J Account 82:51-9 Jl '46
Cost accounting in price determination. M. L. Black, jr. and H. B. Eversole. J Account 82: 367-72 N '46
Cost accounting in refinery construction. R. C. Lewis. il Pet Refiner 25:118-23 Ja '46
Cost accounting in the education of management. J. H. Jackson. N A C A Bul 27: 1183-93 Ag 15 '46
Cost accounting in the laundry industry. J. Carruthers. N A C A Bul 27:588-97 Mr 1 '46
Cost accounting in the telephone business. T. S. Vanneman. N A C A Bul 27:1035-45 Jl 1 '46
Cost and asset construction; capitalizing overhead and general and administrative expenses attributable to construction. F. S. Kaulback, jr. bibliog J Account 82:398-400 N '46
Cost and value in accounting. W. A. Paton. J Account 81:192-9 Mr '46
Cost figuring for producing and selling specialized production finishes. W. R. Sieplein. Paint Oil & Chem R 108:138-9 N 1 '45
Cost records for the home building industry. H. A. Moore. N A C A Bul 27:407-14 Ja 1 '46
Distribution cost analysis; a management tool for cost reduction. C. H. Sevin. U S Bur For & Dom Com, Economic Ser 50:1-56; pa 15c Supt. of doc. '46
Do we mistreat administrative expenses in inventory? J. S. Seidman. J Account 81: 286-8 Ap '46; Discussion. H. E. Howell. 82:77-8 Jl '46
Do you know your costs? good bookkeeping makes good credit risks. J. E. Bullard. Credit & Fin Management 48:26+ My '46
Functional and cost accounting. O. Gressens. Am Gas Assn Mo 28:275-7 Je '46
How and why of job cost records. G. M. Carson. Dom Eng 168:108-10+ Jl '46
How distribution costs can be reduced. C. H. Sevin. Ptr Ink 214:21-2 Mr 8 '46
How not to go broke on setup costs. G. J. Oberst. Am Mach 90:99-103 F 14 '46
How sales managers can increase company profits; conversion cost as a yardstick. F. L. Heath. Ind Marketing 30:52+ D '45
Industrial cost-accounting practices; Office of price administration; statement of Paul M. Green. J Account 81:519-21 Je '46
Interest on investment as a cost factor. A. E. Grover. N A C A Bul 27:783-6 My 1 '46
Internal check in relation to cost. J. Pelej. N A C A Bul 28:20-39 S 1 '46
Limitations of cost comparisons; joint A.G.A.-E.E.I. report. Am Gas Assn Mo 28: 393-5+ S '46
Marketing for profit by controlling production and selective selling. F. L. Heath. Ind Marketing 31:49-50+ Je '46
National association of cost accountants year book, 1945; conference-by-mail, replacing the twenty-sixth International cost conference. 182p Nat. assn. of cost accountants, 385 Madison av, New York 17 '45
Personnel work on the grill. D. A. Stewart and D. J. Bolanovich. Personnel J 24:282-8 F '46; Discussion (Statistics on the grill). H. G. Heneman, jr. 25:171-7 N '46
Postwar pricing and cost accounting. H. E. Howell. N A C A Bul 27:215-32 N 15 '45
Problems involved in pricing postwar products A. E. Grover. N A C A Bul 27:483-94 F 1 '46
Profit-action figures. T. R. Elsman. N A C A Bul 27:711-26 Ap 15 '46
Report on cost accounting in industry; Office of price administration. P. M. Green. J Account 82:443-4 N '46

See also
Budget, Business
Contracts, Government—Accounting
Depreciation
Factories—Accounting
Foundry accounting
Inventories—Accounting
Labor cost—Accounting
Machinery, Replacement of
Material control
Overhead expense
Payrolls—Accountng

Bibliography
Complete topical index, N.A.C.A. publications, April, 1920, to April 15, 1946. N A C A Bul 27:801-88 sec 2 My 1 '46

Standard costs
Administrative expense standards. I. W. Keller. N A C A Bul 27:1079-94 Jl 15 '46
Development and maintenance of standards. M. W. White. N A C A Bul 27:679-87 Ap 1 '46
Needed; standard cost estimating data for the process industries. H. Eckhardt. Chem Eng 53:104-5 S '46
Relationship between standard and actual costs. C. F. Gamber. N A C A Bul 27:674-8 Ap 1 '46
Standard cost application in the textile industry. G. C. Lyon. N A C A Bul 27:1131-47 Ag 1 '46
Standard costs and their relation to cost control. W. W. Miller. N A C A Bul 27: 663-73 Ap 1 '46
Standards as a management tool; Dobeckmun co. R. L. Brittain. N A C A Bul 28: 144-53 S 15 '46
Standards, can they be swallowed whole? W. I. McNeill. N A C A Bul 27:294-8 D 1 '45
Standards to control indirect costs. D. B. Caminez. Factory Management 104:276+ Je '46
Useful by-products of a standard cost routine. M. A. Smith. N A C A Bul 27:688-92 Ap 1 '46

COST of distribution. See Marketing—Cost

COST of living
Will pattern of 27 years ago repeat? W. J. Campbell. Steel 119:79-80 O 7 '46
Your cost of living; what is it doing to your life insurance? Life Ins Courant 51:270-1 Je '46

See also
Budget, Household
Domestic finance
Prices
Rent
Standard of living

Statistics
Cost of living and food prices in various countries, yearly 1929-1944; monthly Nov. 1944-Nov. 1945. Int Labour R 53:128-33 Ja-F '46 [cont quarterly]

COST of living—Statistics—*Continued*
Cost of living; revised 1943 data. Survey of Cur Bsns 26:20 Ap '46
History of living costs. Life Ins Courant 51: 272+ Je '46
Index of consumers' prices in large cities, October 1945. Mo Labor R 61:1222-5 D '45 [cont monthly]
Index protest; British ponder modernization of basis for figuring living costs. Bsns W p114+ O 26 '46
Percentage change in consumers' price index, June 1939 to June 1945; chart. Survey of Cur Bsns 25:13 N '45
Prices in the first quarter of 1946. Mo Labor R 62:947-62 Je '46
Weekly earnings and the cost of living; United States, 1914-1920 and 1939-1945; chart. Factory Management 103:97 D '45
What's happened to living costs; graphs. Factory Management 104:123 Je '46
What's happening to the cost of living. Published in Business week

Brazil
Living costs in Brazil. G. E. Heare. il For Comm W 24:11+ Ag 3 '46

Chile
Planning a trip to Chile to live or manage office? M. D. Keating. il For Comm W 23: 11+ Je 29 '46

Great Britain
Cost of living index. Economist 151:51 Jl 13 '46

Greece
Inflation of the cost of living and wages in Greece during the German occupation. S. Agapitides. Int Labour R 52:643-51 D '45

Latin America
Latin-American price trends. S. P. Bernstein. For Comm W 24:9 Jl 27 '46 [cont monthly]

United States
What's happening to the cost of living. Published in Business week

COST-plus contracts. See Contracts, Cost-plus

COSTA RICA

Commercial policy
Import categories established; foreign exchange rationed. For Comm W 23:18 Je 29 '46

Economic conditions
Latin America's economy as world conflict ended. For Comm W 24:55 Jl 13 '46
News by countries. For Comm W 23:23-4 My 4; 25-6 Je 1; 24:23-4 Jl 6; 17-18 Ag 3; 16 S 7; 25:28-9 O 19 '46

COSTUME jewelry. See Jewelry

CO-TRUSTEESHIPS. See Trusts and trustees

COTTAGES
Cape Cod simplicity needed for postwar. il plan Am Bld 67:96-7 N '45

COTTON
Acetylated cotton highly resistant to rotting. C. F. Goldthwait and others. bibliog il Textile World 96:115-17+ F '46
Billion for cotton. Bsns W p46-7 Ja 19 '46
Chemical defoliation; new aid to agriculture. Chem Age (Lond) 54:496 My 4 '46
Production and characteristics of the world's cotton crops. E. Lord. map Textile Inst J 37:T151-79 Ag '46 (to be cont)
When to use rayon; a difficult cotton-mill decision. M. R. Cooper and others. il Textile World 96:117-19+ Mr '46

See also
Bleaching—Cotton
Cellulose
Cotton carding and other headings beginning Cotton
Cottonseed oil
Dyes and dyeing—Cotton

Analysis
Application of the Herzberg stain to nitrated cotton and nitrated paper fibres. A. Mackie. Chem & Ind p373-4 O 12 '46
Determination of small amounts of soaps or fatty acids on cotton materials. C. L. Hoffpauir and J. H. Kettering. bibliog Am Dyestuff Rep 35:265-6 My 20 '46
Idenity of some electrodialyzable constituents of cotton root bark. D. R. Ergle, L. E. Hessler and J. E. Adams. bibliog Am Chem Soc J 68:48-9 Ja '46
Organic acid content of raw cotton fiber; isolation of *l*-malic acid and citric acid from cotton fiber. E. R. McCall and J. D. Guthrie. bibliog Am Chem Soc J 67:2220-1 D '45

Bibliography
Cotton bibliography. F. G. Hickman, comp. 60p pa 50c Cotton trade journal, 214 Cotton exchange bldg, Memphis 3, Tenn. '44

Chemistry
Degradation of cellulose by certain metallic salts. F. L. Allen and E. A. Rudge. Soc Chem Ind J 64:332-4 D '45
Hydrolysis and catalytic oxidation of cellulosic materials; structural components of various cellulosic materials. R. F. Nickerson and J. A. Habrle. Ind & Eng Chem 38:299-301 Mr '46
Oxidation of cellulose by sodium hypochlorite in presence of ferrous hydroxide. G. M. Nabar and H. A. Turner. diag Soc Dyers & Col J 61:258-63 O '45

Moisture content
Fine points of regain. L. L. Lewis. bibliog diag Rayon 27:305-7 Je '46
Moisture adsorption of textile yarns at low temperatures. R. C. Darling and H. S. Belding. bibliog Ind & Eng Chem 38:524-9 My '46
Yarn shortages may be caused by moisture. Textile World 96:192+ F '46

Prices
Can cottons sustain new high price level? S. Parker. il Textile World 96:101-3+ O '46
Cotton price rise adds to OPA's woes. Bsns W p30 Mr 9 '46
OPA makes a gesture toward cotton goods. G. Montgomery. Textile World 96:155+ Ap '46

Strength
Molecular orientation and the tensile properties of cotton fibres. R. Meredith. bibliog diag Textile Inst J 37:T205-18 S '46

Testing
Effect of weathering on rotproofed cordage. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 35:218+ My 6 '46
Fiber-array technique; simplify it for mill use. S. Carter. il Textile World 96:153+ Jl '46
Tests show best cotton for a specific purpose. W. O. Jelleme. il Textile World 95:99 D '45

Uses

See also
Cotton, Insulating
Cotton fabrics—Uses

Egypt
Measures to check deterioration in Egyptian cotton varieties. H. A. Hancock. bibliog(T227, T292,) diags Textile Inst J 36:T267-310 N '45

Russia
No Russian cotton surplus. Fortune 33:230+ Je '46

Southeastern states
Farm land values in the Southeast. D. Young. J Land & Pub Util Econ 22:213-22 Ag '46
Postwar adjustments in cotton production in the southeastern United States. P. E. Jones. map J Land & Pub Util Econ 21: 339-51 N '45

West Indies
Production and characteristics of the world's cotton crops. E. Lord. map Textile Inst J 37.T151-79 Ag '46

COTTON, Insulating
Unspun cotton. E. Stewart. il Manuf Rec 115: 44-5+ My '46

COTTON bags
Bag boomerang; dress-print merchandising idea. Bsns W p47-8+ S 7 '46

COTTON bags—*Continued*
Non-woven textiles; their packaging applications; Webril, Bonnlinn and Masslinn for silica gel bags, tea bags and closures for multi-wall paper bags. il diag Mod Packaging 19:100-5+ F '46
Service test of copper-treated cotton sandbags. J. D. Dean and others. il Am Dyestuff Rep 35:346-8 Jl 15 '46

Advertising

National promotions fan women's zeal for re-usable cotton bags. il Sales Management 57:126+ S 15 '46
Re-use of package promoted by ads. il Ptr Ink 216:88+ Ag 16 '46

COTTON batting
How Lockport lifts cotton batting above the level of a staple. il Sales Management 56: 123-4 Mr 15 '46
Service test of cotton-insulated car. il Ry Mech Eng 120:420-1 Ag '46

COTTON Belt railway. See St Louis southwestern railway

COTTON carding
Can grinding be standardized? symposium. L. Fogel and others. il Textile World 96: 116-17+ Je '46
Card-fly separator developed by mill man; recovers spinnable fiber from lickerin motes. C. M. Bowden. il diag Textile World 96: 135+ Ap '46
Georgians advance data on carding and spinning. Textile World 96:151+ Ap '46
Shirley analyzer aids card-waste studies. G. W. Pfeiffenberger. diag Textile World 95: 127+ N '45
Training film dramatizes reasons for card room waste. Textile World 96:129 Ag '46

COTTON cleaning
Shirley institute measures cotton-cleaning methods. F. T. Peirce. diags Textile World 96:149+ Jl '46

COTTON cords
Better tires from cotton. F. L. Teuton. il Manuf Rec 115:48-9+ F '46
Cotton's tire bid; Wilds 13. Bsns W p30+ Mr 30 '46
Explanation of fiber bonding. H. Y. Jennings. Textile Col 68:31+ Jl '46
General relations for flow in solids and their application to the plastic behavior of tire cords. W. J. Lyons. bibliog J Ap Phys 17:472-82 Je '46
Moisture relations of tire cords in tires. H. Wakeham and others. il India Rubber World 113:659-62+ F '46
Report of the Bureau of agricultural and industrial chemistry; cotton tire cords; abstract. O. E. May. Rubber Age 59:198 My '46

Testing

Hysteresis and related elastic properties of tire cords. H. Wakeham and E. Honold. bibliog il J Ap Phys 17:698-711 Ag '46
Study of the H test for evaluating the adhesive properties of tire cord in natural and GR-S rubbers. W. J. Lyons and others. India Rubber World 114:213-17+ My '46

COTTON fabrics
Coated fabrics charge abandonment. J. D. Lippmann. Textile Col 67:174-5+ D '45
Napping needs a measure of performance. L. C. Tolleson. il diags Textile World 95:127+ D '45
No rubber required in elastic cotton fabric; Strex. il Textile World 96:129 O '46
Non-woven textiles; their packaging applications; Webril, Bonnlinn and Masslinn for silica gel bags, tea bags and closures for multi-wall paper bags. il diag Mod Packaging 19:100-5+ F '46
Rubber manufacturing industry's report to the cotton industry; abstract. W. S. Lockwood. India Rubber World 113:681-2 F '46
Some observations upon the effect of colour on the absorption and emission of radiation by a textile fabric. W. H. Rees and L. W. Ogden. il Textile Inst J 37:T113-20 Ap '46
Unspun cotton. E. Stewart. il Manuf Rec 115: 44-5+ My '46
When to use rayon; a difficult cotton-mill decision. M. R. Cooper and others. Textile World 96:119+ Mr '46

See also
Cotton, Insulating
Cotton bags
Cotton finishing
Cotton webbing
Duck (textile)
Dyes and dyeing—Cotton
Mercerizing
Terry fabrics
Tire fabrics

Nylon mixtures

Shrinkage of fabrics during raising. C. P. Atkinson and C. S. Whewell. Textile Inst J 36:P156-7 O '45

Protection

Acetylated cotton highly resistant to rotting. C. F. Goldthwait and others. bibliog il Textile World 96:115-17+ F '46
Cotton fabric resists mildew and rot. Chem & Eng N 23:2008 N 10 '45
Durable flameproofing suitable for cotton outer garments. K. S. Campbell and J. E. Sands. bibliog il Textile World 96:118-19+ Ap '46
Dyeing of cotton with mineral khaki; fungicidal and bactericidal efficiencies of cotton yarn treated by various mineral khaki processes. E. Race, F. M. Rowe and J. B. Speakman. bibliog diag Soc Dyers & Col J 61:310-21, pl 1-2 D '45
Dyeing of cotton with mineral khaki; the effect of exposure to weathering agencies on yarns pigmented with copper, chromium and iron compounds. E. Race and F. M. Speakman. bibliog diag Soc Dyers & Col J 62:19-29 Ja '46
Dyeing of cotton with mineral khaki; the incorporation of copper with chromium and iron in mineral khaki for the production of an effective fungicide and bactericide. E. Race, F. M. Rowe and J. B. Speakman. bibliog il Soc Dyers & Col J 62:9-19, pl 1-2 Ja '46
Fungicidal activity of bisphenols as mildew preventives on cotton fabric. P. B. Marsh and M. L. Butler. bibliog il Ind & Eng Chem 38:701-5 Jl '46
Resistance of treated cotton fabrics to attack by termites and micro-organisms. R. A. St George and M. S. Furry. il Am Dyestuff Rep 35:207-10 Ap 22 '46
Service test of copper-treated cotton sandbags. J. D. Dean and others. il Am Dyestuff Rep 35:346-8 Jl 15 '46
Some natural dyes give long life to cotton fabric. M. S. Furry. Rayon 26:603-5 N '45
Study of the effect of leaching on the rotproofing efficacy of copper naphthenate. C. H. Bayley and M. W. Weatherburn. bibliog il Am Dyestuff Rep 34:457-60+ N 19 '45

Shrinkage

Dye staining technique for studying shrinkage control imparted to cotton by melamine resins. J. K. Dixon and others. bibliog Am Dyestuff Rep 35:215-17+ My 6 '46

Strength

Comparison of strip and grab breaking strength of two classes of upholstery fabrics. B. V. Morrison and J. C. Wilbur. bibliog Rayon 27:361-3 Jl '46
Permanence of flame-proofed fabrics. S. A. Rulon and others. Am Dyestuff Rep 35:489-92+ O 21 '46

Testing

American association of textile chemists and colorists flammability of textiles. H. E. Hager. Am Dyestuff Rep 35:145 Mr 25 '46
Applications of the barium number determination. S. M. Edelstein. bibliog Rayon 27:260-2 My '46
Drop-penetration apparatus for evaluating water repellent fabrics. A. M. Sookne and others. bibliog diags Am Dyestuff Rep 35: 295-8+ Je 17 '46
Effect of nitrogen on the growth of chaetomium globosum on cotton canvas. F. R. Romano. il Am Dyestuff Rep 35:363-4+ Jl 29 '46
How different types of dyestuffs affect the rate of deterioration of cloth exposed to weathering; presented by Southeastern section. Am Dyestuff Rep 35:29-37 Ja 14 '46

COTTON fabrics—Testing—*Continued*
Study of the effect of leaching on the rot-proofing efficacy of copper naphthenate. C. H. Bayley and M. W. Weatherburn. bibliog il Am Dyestuff Rep 34:457-60+ N 19 '45
Study of the water resistance of fire, water, and weather resistant cotton canvas. H. B. Kime. il Am Dyestuff Rep 35:261-4 My 20 '46

See also
Cotton fabrics—
Strength

Uses
Engineered cotton fabrics urged; abstract. W. S. Lockwood. Rubber Age 58:358 D '45
Fabric base plastics; abstract. F. T. Barwell. Chem & Ind p411-12 D 29 '45
Fabric base plastics; reconnaissance. K. W. Pepper and others. il diag Soc Chem Ind J 65:153-64 Je '46
Honeycomb core structures; improvement in adhesives and core materials. O. S. Tuttle and W. B. Kennedy. il diags Mod Plastics 24:129-35+ S '46

Water resistance
Reviews progress in watertight cottons. F. T. Peirce. Textile Col 68:18-19 Ja '46; Same abr. Rayon 27:26-7 Ja '46
Study of the water resistance of fire, water, and weather resistant cotton canvas. H. B. Kime. il Am Dyestuff Rep 35:261-4 My 20 '46
Water-repellent cottons. J. J. Crowley. il Textile Col 68:22-3 My '46; Discussion. 68: 15+ Jl '46

COTTON fibers
Alcoholysis of cellulose. R. E. Reeves, W. M. Schwartz and J. E. Giddens. bibliog Am Chem Soc J 68:1383-5 Jl '46
Cotton wax; properties and constituents. W. H. Tonn, jr. and E. P. Schoch. bibliog Ind & Eng Chem 38:413-15 Ap '46
Fiber-array technique; simplify it for mill use. S. Carter. il Textile World 96:153+ Jl '46
Molecular orientation and the tensile properties of cotton fibres. R. Meredith. bibliog diag Textile Inst J 37:T205-18 S '46
Relationships between properties of cotton fibers and appearance of carded yarns. R. W. Webb and H. B. Richardson. il Textile World 96:127+ My '46
Relationships of cotton fiber properties to strength and elongation of tire cord. R. W. Webb and H. B. Richardson. Rubber Age 58:347-8 D '45
Section cutting by a modified plate method. J. M Preston. Textile Inst J 36:T324 D '45
Structure and plasticity of undried cotton fibers. E. E. Berkley and T. Kerr. bibliog il Ind & Eng Chem 38:304-9 Mr '46

COTTON finishing
Cellulose ethers and their application to cellulose fibers; Ceglin. R. T. K. Cornwell and others. Am Dyestuff Rep 35:304-5 Je 17 '46
Durable flameproofing suitable for cotton outer garments. K. S. Campbell and J. E. Sands. bibliog il Textile World 96:118-19+ Ap '46
Estimates finishers group represents 90% of cotton finishing. A. C. Moore. Textile Col 68:19+ F '46
Improved coating techniques produce better art leather; vinyl resins. S. Wineman and H. F. Reves. il Textile World 96:114-15 Jl '46
Many finishes possible with Ceglin. Rayon 26:656 D '45
New yarn-impregnating process; Fiber-bonding. il Mod Plastics 23:196 Je '46
Resistance of treated cotton fabrics to attack by termites and micro-organisms. R. A. St George and M. S. Furry. il Am Dyestuff Rep 35:207-10 Ap 22 '46
Textile treating resin; Kandar. Textile Col 68:42 Je '46

See also
Mercerizing

COTTON ginning
Southern gins handle most of country's cotton crop. il Manuf Rec 115:50-1 Ap '46

COTTON growing
Flame cultivator cuts cotton hoeing costs. il Manuf Rec 115:38+ Mr '46
Measures to check deterioration in Egyptian cotton varieties. H. A. Hancock. bibliog(T227, T292, T309) diags Textile Inst J 36:T267-310 N '45

COTTON insurance. See Insurance, Cotton

COTTON linters
First cut linter cotton for papermaking. W. H. Jones. bibliog Paper Tr J 123:29-32 Ag 29 '46
Hydrolysis and catalytic oxidation of cellulosic materials; determination of structural components of cotton linters. R. F. Nickerson and J. A. Habrle. bibliog il Ind & Eng Chem 37:1115-18 N '45

COTTON machinery
Correct roll settings improve yarn quality. S. Carter. il diags Textile World 96:121+ S '46
Flax can be run on cotton and worsted machinery. S. A. G. Caldwell. il Textile World 96:106-7+ Ja '46
For yarn makers; Kidde will build machines for bonding process. il Bsns W p54 Ja 12 '46
German cotton-spinning machines have new devices. J. L. Truslow and R. M. Jones. Textile World 96:110-11 My '46
Mill technology advanced by Southern textile assn. meetings. il diags Textile World 95: 131+ D '45
Processing rayon and wool fibers on cotton system. E. C. Gwaltney. Rayon 26:644-6 D '45; Same cond. Textile World 95:240+ N '45
STA members favor machine modifications. Textile World 96:111 Ja '46
Spun nylon-rayon challenges cotton mills. P. M. Thomas. il Textile World 96:141+ My '46
Synthetic blends; running synthetic fibers on cotton-system machinery; abstract. L. L. Cobb il Textile World 96:143+ My '46
Use of viscose rayon staple on the cotton system. F. S. Culpepper. Rayon 27:129-32 Mr '46
Worsted yarns effectively spun on cotton frames. F. A. Cleyn. il Textile World 96: 123+ Mr '46

COTTON manufacture
Different-grade cottons blended in opener room. Textile World 95:172+ D '45
Japanese mills are well equipped and well run. F. E. Rowe, jr. il Textile World 96: 129+ Jl '46; Same. Rayon 27:485-7 S '46
Making cotton cloth; Sladen Wood mill co. il Elec R (Lond) 138:239-44 F 15 '46

See also
Cotton carding
Cotton finishing
Cotton machinery
Cotton mills
Cotton spinning
Cotton weaving
Cotton yarn

Bibliography
Cotton bibliography. F. G. Hickman, comp. 60p pa 50c Cotton trade journal, 214 Cotton exchange bldg, Memphis 3, Tenn. '44

COTTON mills
Causes and consequences of mill converting. W. Greene. Textile Col 68:18-19+ Ap '46
Demand for mills affects quarter of industry; with list of mill mergers and acquisitions Jan. 1944-June 1946. W. B. Dall. plan Textile World 96:101-6+ Jl '46
Mill technology advanced by Southern textile assn. meetings. il diags Textile World 95: 131+ D '45
Scheduling production saves overseer's time. F. H. Gunther and M. Gross. il Textile World 96:137+ F '46
Textile industry knits itself; trend toward vertical integration of rayon and cotton mills emphasized of Textron's latest acquisition. Bsns W p68+ My 18 '46
Ware Shoals completes new weave room. C. M. Bowden. il Textile World 96:129+ Mr '46

Air conditioning
Cotton mills need controls for dust and heat. Textile World 96:113+ Ja '46
Evaporative cooling system installed at Utica. E. Mauldin. il Textile World 95:117+ D '45

COTTON mills—*Continued*

Electric equipment

Making cotton cloth; Sladen Wood mill co. il Elec R (Lond) 138:239-44, 359-62 F 15, Mr 8 '46

Mill modernization; Rock nook mill. il Elec R (Lond) 138:519-22 Ap 5 '46

Motor checks warn of impending failures; Lindale, Ga. plant of Pepperell mfg. co. C. Turley. il Textile World 96:123+ F '46

Employees

Cotton wage charter. Economist 149:758-9 N 24 '45

Union agreements in the cotton-textile industry. R. Theodore. Mo Labor R 62:413-23 Mr '46

Wage incentives aid spinning production. C. M. Bowden. il Textile World 96:96-8 Ag '46

Wage recommendations for British cotton-spinning industry. Mo Labor R 62:476 Mr '46

Work and wage experience of skilled cotton-textile workers. C. Glasser and B. N. Freedman. Mo Labor R 63:8-15 Jl '46

Equipment

Japanese mills are well equipped and well run. F. E. Rowe, jr. il Textile World 96: 129+ Jl '46; Same. Rayon 27:485-7 S '46

Three-phase modernizing at plants of American yarn & processing co. C. M. Bowden. il plan diags Textile World 95:106-8+ D '45

See also

Cotton machinery

Fires and fire protection

Better maintenance reduces mill fires. W. E. Peterson. diags Textile World 96:145+ Mr '46

Dry chemicals extinguish textile lint fires; powder propelled by carbon dioxide. R. G. Shepherd. il Textile World 96.114-15 O '46

Flash fires from textile waste. il Safety Eng 91:18 My '46

Handling methods affect picker-room fires. W. E. Peterson. il diag Textile World 96: 129+ F '46

Insurance companies analyze mill fire expectancy. W. E. Peterson. il plan diags Textile World 96:94-6 Ja '46

Lighting

Application of the I.E.S. code to cotton spinning and weaving; abstract. N. C. Hodson. Light & Lighting 39:136 Jl '46

Fluorescent lighting welcomed in a cotton mill. il Light & Lighting 39:54 Mr '46

Maintenance and repair

Maintenance control can be tailored to fit average textile mill. C. M. Bowden. Textile World 96:102-4 Ja '46

STA men compare maintenance methods. diags Textile World 96:133+ Je '46

Power

Cotton mill conversion; with cost data. il Elec R (Lond) 137:579-83 O 26 '45

Steam-plant design promotes good housekeeping; Graniteville co. il diags Power 90: 767-9 N '46

Records

Mill overseers use unique spinning-room reports. C. M. Bowden. Textile World 96: 151+ F '46

Payroll constants save overseer's time; calculation of spinners' wages. F. H. Gunther and M. Gross. Textile World 96:116 Jl '46

COTTON oiling

Application of dust-laying oil to fabrics; wool and cotton hospital bedding. C. H. Bayley and others. il Can Chem & Process Ind 30:46-7 S '46

COTTON printing

Cotton printing. L. C. Reynolds. il Textile Col 68:20-1+ My '46

Emphasis is on quality in print preparation. T. N. Patrick. il Textile World 96:127+ O '46

COTTON research

Behavior of bleached fabrics toward acid and alkali; abstract. E. Pacsu. Am Dyestuff Rep 34:525 D 17 '45; Same. Rayon 26:637 D '45

Measures to check deterioration in Egyptian cotton varieties. H. A. Hancock. bibliog(T227, T292, T309) diags Textile Inst J 36:T267-310 N '45

Seventh annual cotton research congress. H. S. Busby. il Textile Col 68:14-15+ Ag '46

Structure and plasticity of undried cotton fibers. E. E. Berkley and T. Kerr. bibliog il Ind & Eng Chem 38:304-9 Mr '46

COTTON scouring

Practical laboratory test for evaluating scouring agents for cotton. O. C. Bacon. Am Dyestuff Rep 34:556-61 D 31 '45

COTTON spinners

Inert spindle-oil; prevention of spinners' cancer. Chem Age (Lond) 55:112 Jl 27 '46

COTTON spinning

Automatic sliver and roving regularity tester and an automatic yarn regularity tester. S. L. Anderson and others. Textile Inst J 36:T253-66 O '45

Card-fly separator developed by mill man; recovers spinnable fiber from lickerin motes. C. M. Bowden. il diag Textile World 96: 135+ Ap '46

Form and length of the drafting wave in cotton rovings. G. A. R. Foster and J. G. Martindale. Textile Inst J 37:T1-12 Ja '46

Georgians advance data on carding and spinning. Textile World 96:151+ Ap '46

German cotton-spinning machines have new devices. J. L. Truslow and R. M. Jones. Textile World 96:110-11 My '46

Molded textile scroll condenser. il Mod Plastics 23:120 Mr '46

Old-model frames can be modernized. J. M. Hardy. il Textile World 96:104-5 O '46

Payroll constants save overseer's time; calculation of spinners' wages. F. H. Gunther and M. Gross. Textile World 96:116 Jl '46

Shaw long-draft spinning provides success at China Grove. il diag Textile World 96:131+ O '46

Socialistic program in British textiles; Evershed report. Factory Management 104: 298+ Mr '46

Views on cotton spinning. F. P. Slater. Textile Inst J 37:P1-8 Ja '46

Wage incentives aid spinning production. C. M. Bowden. il Textile World 96:96-8 Ag '46

Tables, calculations, etc.

Some calculations relating to the arrangement of fibres in slivers and rovings. G. A. R. Foster and others. bibliog il Textile Inst J 36:T311-23 D '45

COTTON stalks

Stalk-harvester wanted; paper and container board from cotton stalks. Bsns W p58 My 4 '46

COTTON textile institute

Annual meeting, New York, Nov. 28. Textile World 95:115+ D '45

COTTON trade

Bull is thrown. il Bsns W p22+ N 2 '46

Can cottons sustain new high price level? S. Parker. il Textile World 96:101-3+ O '46

Cotton; a supply puzzle. Bsns W p22+ O 19 '46

Cotton above politics; priced by supply-demand factors. Barron's 26:5+ Jl 15 '46

Cotton and rayon supply picture for 1946. D. F. Tansill. Textile Col 67:118-19+ N '45

Cotton drop aids industry. Bsns W p22 O 26 '46

Cotton enterprise; new uses and markets. Bsns W p28+ S 28 '46

Cotton export plan aims at rehabilitation and trade. G. T. Montgomery. Textile World 96:143+ Je '46

Increased cotton prices helps rayon staple fiber. Rayon 27:466 S '46

Will Clayton's cotton. il Fortune 32:138-47+ N; 158-63+ D '45

See also

Cotton—Prices

Insurance, Cotton

Advertising

Cotton is back theme of million dollar campaign promoting '46 cotton week. Ptr Ink 215:111+ Ap 26 '46

COTTON trade—*Continued*

Exhibitions

England shows its cottons; Colour, design and style centre's collection of cotton clothes for women and children. R. Streat. Textile Col 68:24+ My '46

Finance

Cotton and postwar world trade. A. E. Taylor. Comm & Fin Chr 164:203+ Jl 11 '46
Cotton and rayon textile companies: an analysis of comparative investment values and opportunities. 92p pa $1 E. W. Axe & co, inc, 730 5th av, New York 19 '46
Export-import bank gives credit to Czechoslovakia. Comm & Fin Chr 163:3060 Je 6 '46

Statistics

Census bureau report on cotton ginning; crops of 1945, 1944 and 1943. Comm & Fin Chr 163:1916 Ap 8 '46
Cotton prices and supplies. Economist 151: 110 Jl 20 '46
Increase in world cotton stocks. For Comm W 21:31 D 29 '45
Supply and distribution of domestic and foreign cotton in the United States, season of 1945-46; tabulation. Comm & Fin Chr 164:1194 Ag 29 '46
Ten years of cotton textiles, 1936-1946. W. R. Bell. Textile Col 68:20-1+ Jl '46
Ten years of cotton textiles; with statistics of equipment, operation and market. R. Bell. Rayon 27:342-3 Jl '46

Argentina

Argentine cotton crop, 1939-1944. For Comm W 21:39 N 24 '45

Brazil

Supply and distribution of cotton, Sao Paulo, 1937-1945. For Comm W 22:36 Ja 5 '46

China

China is serious about developing its textile industry. H. Leopold. il Textile World 96:133+ Ap '46
Far-East textile mills aim at quick revival; abstract. R. E. Loper. Textile World 95:147 N '45
Report on Chinese cotton industry. R. E. Loper. Rayon 26:564 N '45
Sudden end to war saved cotton spindles in China. Textile Col 67:144+ N '45

Cuba

Activity of Cuban cotton-weaving industry. For Comm W 21:34 D 1 '45

Great Britain

Britain views her cotton industry. A. M. Sakolski. Comm & Fin Chr 164:744+ Ag 8 '46
British cotton and Sir Stafford Cripps's first Working party. Fortune 34:202 Ag '46
British government moves to control textile industry. A. W. Williams. Textile World 95:149+ N '45
British problem; future of cotton textile industry. Bsns W p114 Mr 16 '46
Can British cotton mills live? Bsns W p109-10+ Je 29 '46
Cotton report of the Working party; with summary and statistical tables. Economist 150:890-4, 951 Je 1-8 '46
Cotton textiles in 1945. Economist 150:sup14 Mr 23 '46
Cotton wage character. Economist 149:758-9 N 24 '45
England shows its cotton; Colour, design and style centre's collection of cotton clothes for women and children. R. Streat. Textile Col 68:24+ My '46
England's cotton industry outmoded; reequipment essential. A. W. Williams. il Textile World 96:139+ Jl '46
Exports of cotton yarns and cotton piece goods, first 6 months 1938, 1944, and 1945. For Comm W 21:38 D 15 '45
Flourishing cotton industry? Economist 148: 943-4 D 29 '45
Industry nationalization in Britain. O. R. Hobson. Comm & Fin Chr 164:210 Jl 11 '46
Policy for cotton. Economist 150:23-4 Ja 5 '46
Socialistic program in British textiles; Evershed report. Factory Management 104: 298+ Mr '46

Japan

Japanese cotton industry. Textile Inst J 37: P419-21 Ag '46

Peru

Exports of cotton from Peru, 1944-1945. For Comm W 23:43 Je 8 '46

Rumania

Cotton production and trade. For Comm W 21:34 D 1 '45

Southern states

Absentee management looms as cotton mills change owners. J. A. Daly. Manuf Rec 115: 39+ Ap '46
Southern gins handle most of country's cotton crop. il Manuf Rec 115:50-1 Ap '46
Will cotton remain king? some factors in the textile outlook for the South. E. N. Rauber. Credit & Fin Management 47:11-14 D '45

Switzerland

Supply and distribution of cotton in Switzerland, August 1, 1944, to July 31, 1945. For Comm W 21:37 D 15 '45

United States

Adverse effects of price controls on cotton; First national bank of Boston. Comm & Fin Chr 163:1983 Ap 11 '46
Are reputed shortages a mirage? C. T. Murchison. Comm & Fin Chr 163:3059+ Je 6 '46
Cloth-conscious; OPA acts to ease flow of clothing to stores. Bsns W p16 Mr 2 '46
Future of textile decontrol. J. D. Small. Comm & Fin Chr 164:2215+ O 31 '46
Government to export cotton to Japan. For Comm W 22:35 Mr 23 '46
Integration: cotton textiles' hope; postwar competition will test big vertical combinations' bases. G. H. Arris. Barron's 26:11 Mr 18 '46
More shirts and shorts in sight as cotton mill consumption rises. Barron's 26:7 Ap 29 '46
Rising cotton prices may lessen gains from new textile ceilings. Barron's 26:9 Mr 18 '46
Small stocks and crops, with huge demand, boom cotton prices. Barron's 26:5+ Je 24 '46
Ten years of cotton textiles, 1936-1946. W. R. Bell. Textile Col 68:20-1+ Jl '46
Ten years of cotton textiles; with statistics of equipment, operation and market. R. Bell. Rayon 27:342-3 Jl '46
Will farm bloc upset national economy? N. T. Carruthers. Mag of Wall St 77:700-2+ Mr 16 '46

National cotton week

Cotton prepares for competition. C. K. Everett. il Texile Col 68:18-19 My '46

COTTON waste

Card-fly separator developed by mill man; recovers spinnable fiber from lickerin motes. C. M. Bowden. il diag Textile World 96: 135+ Ap '46
Flash fires from textile waste. il Safety Eng 91:18 My '46

COTTON wax

Cotton wax; properties and constituents. W. H. Tonn, jr. and E. P. Schoch. bibliog Ind & Eng Chem 38:413-15 Ap '46

Analysis

Isopropyl alcohol in cotton wax determination. J. H. Kettering. Ind & Eng Chem Anal ed 18:275 Ap '46

COTTON weaving

Loom checks determine optimum relative humidity. Textile World 96:191 F '46
Ware Shoals completes new weave room. C. M. Bowden. il Textile World 96:129+ Mr '46

COTTON webbing

Dynamic tensile tests of parachute webbing. A. H. Stang and others. 3pl J Res Nat Bur Stand 36:411-19 Ap '46
Non-woven cotton webs in laminates. S. Williams and others. il Mod Plastics 24: 153-9 S '46

COTTON week, National. See Cotton trade—United States—National cotton week

COTTON yarn
Correct roll settings improve yarn quality. S. Carter. il diags Textile World 96:121+ S '46
Dyeing of cotton with mineral khaki; fungicidal and bactericidal efficiencies of cotton yarn treated by various mineral khaki processes. E. Race, F. M. Rowe and J. B. Speakman. bibliog diag Soc Dyers & Col J 61:310-21, pl 1-2 D '45
Dyeing of cotton with mineral khaki; the incorporation of copper with chromium and iron in mineral khaki for the production of an effective fungicide and bactericide. E. Race, F. M. Rowe and J. B. Speakman. bibliog il Soc Dyers & Col J 62:9-19, pl 1-2 Ja '46
Explanation of fiber bonding. H. Y. Jennings. Textile Col 68:31+ Jl '46
Fiber-bonding for improving textiles. il Manuf Rec 115:46+ F '46; Same cond. Rayon 27:98 F '46
For yarn makers; Kidde will build machines for bonding process. il Bsns W p54 Ja 12 '46
New yarn-impregnating process; Fiber-bonding. il Mod Plastics 23:196 Je '46
Relationships between properties of cotton fibers and appearance of carded yarns. R. W. Webb and H. B. Richardson. il Textile World 96:127+ My '46
Spinning overseers should review twist fundamentals; use of twist gear conversion chart. F. H. Gunther and M. Gross. il diag Textile World 96:98-9+ Ja '46
Yarn finishing aided by photography. C. M Bowden. il Textile World 96:137+ Mr '46
Yarn shortages may be caused by moisture. Textile World 96:192+ F '46

See also
Woolen and worsted yarn—Cotton mixtures

Testing
Automatic sliver and roving regularity tester and an automatic yarn regularity tester. S. L. Anderson and others. diags Textile Inst J 36:T253-66 O '45
Coil tester accurately gages yarn diameters. A. E. McKenna. il diag Textile World 96: 120-1+ Je '46

COTTONSEED
Cottonseed depigmented. Bsns W p52 Ap 27 '46
Improvement in the color of peanut and cottonseed proteins. T. D. Fontaine, S. B. Detwiler, jr. and G. W. Irving, jr. bibliog Ind & Eng Chem 37:1232-6 D '45
New agricultural products used in candy; oilseed, cereal and legume products. H. H. Hall and others. il Food Ind 18:1008-10+ Jl '46
Peptization of peanut and cottonseed proteins; effect of dialysis and various acids. T. D. Fontaine, G. W. Irving, jr. and K. S. Markley. bibliog Ind & Eng Chem 38: 658-62 Je '46

Statistics
Cottonseed receipts to Dec. 31. Comm & Fin Chr 163:1332 Mr 11 '46

COTTONSEED meal

Analysis
Estimation of gossypol in cottonseed meal and cottonseed meats. F. H. Smith. bibliog Ind & Eng Chem Anal ed 18:43-5 Ja '46

COTTONSEED oil
Maintenance of penicillin blood levels after a single intramuscular injection of penicillin in various oils. A. B. Cannon, K. Lindstrom and A. G. Ospeck. Science 104: 414 N 1 '46
Solvent extraction of cottonseed and peanut oil; effect of heat on cottonseed oil miscellas. H. L. E. Vix and others. bibliog il diag Ind & Eng Chem 38:635-42 Je '46
Specific heats of vegetable oils from 0° to 280° C. P. E. Clark, C. R. Waldeland and R. P. Cross. bibliog diag Ind & Eng Chem 38:350-3 Mr '46
Viscosities and densities of solvent-vegetable oil mixtures. F. C. Magne and E. L. Skau. bibliog diags Ind & Eng Chem 37:1097-1101 N '45

Analysis
Spectrophotometric method for estimating gossypol in crude cottonseed oil. F. H. Smith. bibliog Ind & Eng Chem Anal ed 18:41-3 Ja '46

COTTONSEED products association, National. See National cottonseed products association

COTTRELL precipitator. See Electric precipitation

COULOMETERS. See Voltameters

COUNCIL of commerce and production, Inter-American. See Inter-American council of commerce and production

COUNTERBORES
Counterbore in portable drill trims tube ends. E. J. Breeding. diag Am Mach 90:142 S 26 '46

COUNTERS (electrons, ions, etc.)
Counters for use in nuclear spectroscopy. M. L. Wiedenbeck. bibliog diags R Sci Instr 17:35-7 Ja '46
Counting rate and frequency meter. E. Lorenz and others. diags R Sci Instr 17: 276-9 Jl '46
Decade counting circuits. V. H. Regener. il diags R Sci Instr 17:185-9 My '46
Design and operation of an improved counting rate meter. A. Kip and others. bibliog diags R Sci Instr 17:323-33 S '46
Design and use of directly coupled pentode trigger pairs; sample diagrams for pulse generator, electronic switch, and scaling circuit. V. H. Regener. R Sci Instr 17:180-4 My '46
Electronic counter. il R Sci Instr 17:311 Ag '46
Reversible decade counting circuit. V. H. Regener. diags R Sci Instr 17:375-6 O '46

COUNTIES
Intercounty migration of the civilian population; number 4, third series. W. P. Burn. map Ptr Ink 213:25-30+ D 7 '45

COUNTING machines and devices
Electric citrus fruit counter design uses plastic and die-cast parts; Food machinery corporation. il diag Product Eng 17:366-7 My '46
Electronic counters. I. E Grosdoff. il diags RCA R 7:438-47 S '46
Electronic counting and size determination of particles in aerosols. A. C. Guyton. diags J Ind Hygiene 28:133-41 Jl '46
High-speed counter developed by RCA. il Electronics 19:190+ N '46
How to apply counters in machines. il Machine Design 18:143-6 Mr '46
Machine gun rate-of-fire indicator; non-military uses indicated. A. D. Peterson. il diags Electronics 18:134-8 D '45
New electronic device checks production; Lectro-count. il Steel 118:128 F 11 '46
Photoelectric fish counter. L. V. Whitney and A. D. Hasler. diags Electronics 19:178+ Mr '46

COUNTRY. See City and country

COUNTRY bank operations commission. See American bankers association—Country bank operations commission

COUNTRY banks. See Banks and banking—Country banks

COUNTRY clubs
New air country club for Rocky mountains. Aviation N 5:16 My 20 '46

COUNTRY houses
Country house in California. il plans diag Arch Forum 84:81-4 My '46
House for a woodland setting. il plans Am Bld 68:106-7+ Ap '46
In-line plan for rural living gives all living and sleeping rooms an easterly orientation and ideal outlook. il plans diags Arch Forum 84.100-1 Ja '46
Wood, brick and glass give unique character to country home near Vancouver, Wash. il plans Am Bld 68:74-5 S '46

See also
Log cabins
Vacation houses
Week-end houses

COUNTY airports. See Airports, County

COUNTY colleges. See Education—Great Britain

COUNTY planning

See also
Zoning

COUNTY roads. See Roads, County

COUPLINGS
Can exhaust turbines rejuvenate Liberty ships for postwar trade? coupling engine and turbine to common propeller shaft. S. A. Tucker. il plan diags Power 90:158-60 Mr '46
Eliminates pulsations; patent assigned to Briggs mfg. co. diag Machine Design 18: 168 F '46
Flexible fluid coupling uses O-ring packings. il diag Product Eng 17:19 Ja '46
Hydraulic torque converters and couplings. N. A. D'Arcy, jr. il Pet Eng 17:68+ N '45
Magnetic drives. F. A. Annett. diags Power 90:89-96 F '46
Mechanical torque-limiting devices. N. C. Weyth and A. F. Gagne. diags Machine Design 18:127-30 My '46
Torsion bar provides coupling flexibility. J. H. Potter. il diags Machine Design 18:122-4 Je '46
Typical methods of coupling rotating shafts. diags Product Eng 17:124-5 N '46 (to be cont)

See also
Car coupling
Hose couplings

COURTAULDS, limited
Story of Courtaulds, limited. C. H. Ward-Jackson. Rayon 27:349-50 Jl '46

COURTESY
Candid comments on bank courtesy. M. A. Ralston. il Burroughs Clearing House 30: 20-1+ Ag '46
There's a welcome on the door-mat for men who mind their manners. J. F. Bender. Sales Management 56:101-2 Mr 1 '46

COURTS, Motor. See Tourist camps, hostels, etc.

COVERLETS, Electric. See Electric blankets

COWLINGS. See Airplane engines—Cowlings

COWS
Application of chemistry to animal husbandry. J. G. Archibald. J Chem Educ 23:49-51 Ja '46
Effect of the prepartum diet of the cow on the vitamin A reserves of her newborn offspring. G. H. Wise and others. bibliog Science 103:616-18 My 17 '46
Heat and ventilation in the design of dairy stables. J. L. Strahan. il diags Heat & Ven 43:81-8 Ja '46

COX, Charles R. 1891-
Elected president of Carnegie-Illinois steel corporation. por Blast F & Steel Pl 34:1019 Ag '46
Triple play; from Perry to Cox to Goble. por Bsns W p30 Ag 10 '46

CRABS
Portuguese man-of-war as a food source for the sand crab (emerita pacifica) D. D. Bonnet. Science 103:148 F 1 '46

CRAFTSMANSHIP
This little business grew on craftsmanship, design and sales sense; costume jewelry of Charles Buick and Alice Johnson. il Sales Management 56:60+ Ja 1 '46

See also
Paper, Hand-made

CRAIN, Rolla Law, 1865-
Life begins at 80 for this ambitious Canadian printer. por Inland Ptr 117:52 My '46

CRANBERRIES
Cape Cod cranberries. il Fortune 34:144-9 O '46
Cranberries and; new co-op plan for promotion. Bsns W p85-6 Jl 20 '46

CRANBERRY sauce
Freezing point data sheets and cooling curves. Food Ind 18:1034 Jl '46

CRANE museum, Dalton, Massachusetts
Crane museum has been re-opened. il Paper Ind 28:758 S '46

CRANES, Floating
60-ton floating cranes built for army. H. J. King. il Marine Eng 51:137-9 F '46

CRANES, derricks, etc.
Adaptable light crane. il Engineer 182:380 O 25 '46
Air-operated steam coaling crane. il diags Engineer 180:421-2 N 23 '45
Clyde crane and engineering company's heavy-duty level luffing grab cranes. il diags Engineer 180:525-7 D 28 '45
Conversion of a portable crane to welded design. F. W. Kessler. il diags Welding J 25:242-5 Mr '46
Crane on truck eases transformer handling. E. J. Miller. il diag Elec World 125:124 My 25 '46
Diesel cranes at Pearl Harbor. G. W. Grupp. il Diesel Power 24:848-52 Jl '46
Diesel engine driven crane. il Engineer 180: 493-4 D 14 '45
Gantry aids welded tank production. il diags Iron Age 158:70-1 S 12 '46
Grabbing cranes. il Mech Handling 33:541-5 S '46
Hyster tractor-mounted convertible crane. il Engineering 160:535-6 D 28 '45
Mobile crane eases non-routine material movements. il Steel 119:98+ Jl 29 '46
Mobile crane for the Royal air force. il diags Engineering 160:444-6, 448 N 30 '45
Mobile excavator crane. il diag Engineer 181: 471-2 My 24 '46
Modern materials-handling methods; cranes. H. S. Wharen. diags Am Mach 90:113-18 Je 20 '46
New design level-luffing crane. il Mech Handling 33:93-7 F '46
New jib crane helps in car shop. il diags Ry Mech Eng 120:314-15 Je '46
New Thew-Lorain shovel and crane. il Roads & Bridges 84:76+ Ag '46
⅛ labor saving with two-boom derrick; building wood pole line for Bonneville power administration. il Elec World 125:84 F 2 '46
Portable crane aids transformer handling. diag Elec World 126:132 S 28 '46
Post-war developments in mobile cranes. il Mech Handling 33:229-30 Ap '46
Post-war developments in mobile cranes. il Mech Handling 33:350-3 Je '46
Selecting traveling-crane equipment. R. J. Wadd and F. M. Blum. Steel 119:172+ N 11 '46
Some further notes on shipyard cranes. D. Rebbeck. il layout plan Mech Handling 33: 262-7, 328-33, 396-402 My-Jl '46
Stanhay mobile crane. il Mech Handling 33: 175-6 Mr '46
Taylor & sons hydraulic cranes. il Mech Handling 33:374-5 Je '46
Transfer crane system; mechanical handling aids correlated with plant layout; Ceco steel products corp. G. W. Birdsall. il plan Steel 117:124-6+ N 19 '45
Vaughan overhead hand-power travelling cranes. il Mech Handling 33:241-3 Ap '46
Walker mobile cranes. il Mech Handling 33: 441-2 Jl '46
Wrecking cranes have new features. il Ry Age 119:904 D 1 '45

See also
Hoisting machinery

Control

Air controls provide feel in operation. W. M. Huston. il diag Machine Design 18:111-14 Ja '46
Electro-hydraulic brake control. il diag Steel 118:120 Je 3 '46
Load handling technique; Velac control system for hoisting motion of cranes on alternating current supplies. il Mech Handling 33:443-6 Jl '46

Electric equipment

Conversion of travelling hand crane to all-electric overhead. E. E. Wright. il Mech Handling 33:196-8 Ap '46
Electric crane equipment. diags Mech Handling 33:545-9 S '46 (to be cont)
Electric motors for overhead traveller cranes. diags Mech Handling 33:431-5 Jl '46
Electrical load-lifting. Electrician 136:527-8 Mr 1 '46

CRANES, derricks, etc.—Electric equipment—*Continued*
Guarded trolleys required; safety device for traveling cranes and monorail hoists. il Elec West 95:94-5 D '45

Manufacture

Construction of a welded crane. il Mech Handling 33:389 Je '46

Safety measures

Crane trolley collecting device eliminates industrial accidents. il Elec World 126:100 Ag 17 '46
Guarded trolleys required; safety device for traveling cranes and monorail hoists. il Elec West 95:94-5 D '45
Making utility derrick use safer. Elec World 124:158+ N 10 '45
Safety a serious business for Albina shipyard crane operator; hand signals. il diags Steel 119:88 Jl 29 '46

CRANKCASES
Crankcase ventilation. H. L. Hemmingway. il diags Bus Transportation 25:68-71 Mr '46
Crankcase ventilation; abstract. C. E. Smith. il diags S A E J 54:sup22-3 Ag '46

CRANKPINS
Design of locomotive crankpins; abstract. O. J. Horger and W. I. Cantley. Materials & Methods 23:1644+ Je '46
Locomotive crank pins are step-fitted for accuracy. H. W. Shepherd. diag Am Mach 89: 144 D 20 '45

CRANKSHAFTS
Cromol crankshafts. il diags Automobile Eng 35:537-41 D '45
Electrical model for the investigation of crankshaft torsional vibrations in in-line engines. H. B. Stewart. il diags S A E J 54:238-44 My '46; Excerpts. Automotive & Aviation Ind 94:35-6 Ja 15 '46
Landis Diesel engine crankshaft grinder uses two motors to drive crankshaft. il diags Product Eng 17:456-7 Je '46

Manufacture

Advanced tooling at piston and crankshaft departments reorganized by Ford. J. Geschelin. il layout plans diag Automotive & Aviation Ind 95:18-23+ O 1 '46
LeBlond automatic crankshaft lathes. il Mach 52:202-3 Ap '46; Steel 118:97+ Ap 15 '46
Machining compressor crankshafts; Servel inc. G. E. Stedman. il Steel 119:94-5 S 16 '46

Testing

Dynamic balancing of automotive crankshafts. il Machine Design 18:105-6 Ag '46
Ford's new method of balancing crankshafts. C. O. Herb. il diag Mach 52:156-60 Mr '46
Gisholt two-element unbalance measuring and correcting equipment; transmits information to machine which drills holes in crankshafts to effect balance. il Mach 52:198-200 Jl '46; Same cond. Automotive & Aviation Ind 95:41-2 Jl 1 '46; Same cond. Iron Age 158:62 Jl 25 '46
How stress measurements aid crankshaft design. S. Oldberg and C. Lipson. il diags Machine Design 17:127-32 N '45

CRATES
Crating made faster and safer by work simplification. il Factory Management 104:125 S '46

CRAVER, Harrison Warwick, 1875-
Dr Craver retires as active library head of Engineering societies library. Civil Eng 16: 181 Ap '46
Dr Harrison W. Craver appointed consulting librarian of the Engineering societies library. Mech Eng 68:380 Ap '46
Engineers honor H. W. Craver, director, Engineering societies library since 1917. Mech Eng 68:674 Jl '46

CRAZING. See Glazes

CREAM
Sterile air was an absolute necessity; Avoset processed cream; California milk products co. il Elec West 95:91 N '45

CREAM puffs
Cream puff troubles are overcome by test studies. F. G. Wheeler. il Food Ind 18:20-2 Ja '46

CREAM shampoos. See Shampoos

CREAMS, Protective. See Ointments

CREASING of paper. See Paper—Creasing

CREASING of textiles
Crease resistant finishes. A. R. Wachter. Am Dyestuff Rep 34:464-5 N 19 '45
Crease resistant finishes. C. C. Wilcock. Am Dyestuff Rep 34:465-6 N 19 '45
Creases due to stickers. H. E. Wenrich. Rayon 27:190-1 Ap '46
Creases formed at the loom. H. E. Wenrich. il diags Rayon 27:359-60, 420-2 Jl-Ag '46

CREATININE
Effect of cooking on the creatine-creatinine, phosphorus, nitrogen and pH values of raw lean beef. J. R. Bendall. Soc Chem Ind J 65:226-30 Ag '46
Improved preparation of creatinine zinc chloride. W. A. Peabody. Am Chem Soc J 68:1131 Je '46

CREATIVE ability
Creative thinking and how to develop it. W. H. Easton. Mech Eng 68:697-704 Ag '46
Developing creative engineers. J. F. Young. Mech Eng 67:843-6 D '45

CREDIT
Analyzing 1946 statements; survey provides measuring stick for credit men. W. D. Eck. Credit & Fin Management 48:9-10+ O '46
Are annual statements outmoded? credit men require more up-to-date information. E. Heath. Credit & Fin Management 47:4-5+ N '45
Banks as credit sources. T. O. Malley. Credit & Fin Management 48:4-6+ Ap '46; Discussion. 48:36+ Jl '46
Community property and credit. C. B. Everberg. Credit & Fin Management 48:4-6 S '46
Confidential nature of credit. S. B. Trott. Credit & Fin Management 47:10-11 N '45
Consumer credit trends. A. A. Friedrich. Banking 38:45+ Ap; 49+ My; 49+ Je; 39: 43+ Jl; 43+ Ag; 53+ O; 46+ N '46
Cost as a credit factor. E. I. Kilcup. Credit & Fin Management 48:6-9 Je '46
Credit for millions. T. C. Boushall. il Am Inst Banking Bul 27:4-6 O '45
Credit men's survey points to prosperity in 1946. H. H. Heimann. Comm & Fin Chr 163:7+ Ja 3 '46
Credit sources for small business. D. Wilhelm, jr. U S Bur For & Dom Com, Economic (Small Business) Ser 46:1-34; pa 15c Supt. of doc. '45
Do you know your costs? good bookkeeping makes good credit risks. J. E. Bullard. Credit & Fin Management 48:26+ My '46
Editor views business; credit and market research may go together. C. F. Hughes. Credit & Fin Management 48:7-9 Jl '46
Exchange, a credit menace; non-par payment of checks, an unfair practice. E. S. Horwitz. Credit & Fin Management 48:4-6+ Mr '46
Faith and prayer make risky loans good; unusual approach pays off for Memphis woman lender. R. L. Holman. Barron's 26:15 Ag 12 '46
History as a credit guide; economic cycles show warning signals. T. T. Harrison. Credit & Fin Management 48:14-15+ Jl '46
How Chicago credit men are helping veterans in their business plans. J. W. Heylmun. Credit & Fin Management 48:28-30 Mr '46
How taxes affect partnerships; withdrawals change capital status; credit aspects. L. F. Hufnagel. Credit & Fin Management 48:7-9+ F '46
Instalment plan. Life Ins Courant 51:276-8+ Je '46
Is credit unnecessary? C. Forward. Credit & Fin Management 48:18 Jl '46
Know your consumer credit costs; find out how your outlets handle credit. O. C. Lorenz. Credit & Fin Management 48:11-13 Ag '46
Legal phases of guarantees; possible safeguards in opening new accounts. C. B. Everberg. Credit & Fin Management 47: 4-7+ D '45

CREDIT—*Continued*
Looking beyond the balance sheet; factors that help in valuating credits. B. Hirshfield. Credit & Fin Management 48:13-14 Mr '46
Marginal credit risks; causes of business failures as a warning for 1946. E. R. Markell. Credit & Fin Management 48:4-6+ F '46
New property law in Oklahoma; community statute interests credit men. H. W. Priest. Credit & Fin Management 48:8-10 Ag '46
Realistic examination of credit under today's conditions. W. Gates il Mag of Wall St 79:73-5+ O 26 '46
Reason, best tool in credit; analysis of risks must follow proper pattern. J. S. Thomas. Credit & Fin Management 47:17-18 N '45
Recent changes in consumer credit. Fed Res Bul 32:567-72 Je '46
Reputed shortage of credit found not to exist. J. Hirsch. Barron's 26:3 O 21 '46
Revision of consumer credit statistics. Fed Res Bul 32:383, 432-4 Ap '46
Security aids in selling; subordination agreements; credit insurance. C. B. Everberg. Credit & Fin Management 48:11-14+ My '46; Discussion. J. E. Beahn. 48:12-13+ Jl '46
Terms and working capital; effect of turnover on operating funds. E. V. Kidd. Credit & Fin Management 48:11-12+ Mr '46
Tested basis for credit evaluation. H. N. Stronck. Bankers Mo 63:275 Je '46
Trade acceptances in credit; possible solution to distribution problems. J. H. Peto. Credit & Fin Management 48:4-5 My '46
Trends affecting credits; situation in retail outlets. R. L. Seaman. Credit & Fin Management 48:16-18 Ja '46
What credit policy? W. C. North. Credit & Fin Management 48:14 Mr '46

See also
Accounts receivable
Agricultural credit
Assignment of book accounts
Bankruptcy
Banks and banking
Billing
Charge accounts (retail trade)
Collecting of accounts
Credit, Bank
Credit unions
Factors
Finance companies
Instalment plan
Insurance—Credit aspects
Insurance, Credit
Inventories—Credit aspects
Loans
Loans, Small
Louisville industrial foundation
Promissory notes
Salesmen and credit
Warehouse receipts
also National association of credit men

Bibliography

Consumer credit. (Business literature v. 18, no. 8) p41-2 Business library, Newark public lib, Newark, N.J. Ap '46

Latin America

Latin-American credit still tops; 35th semi-annual survey. P. J. Gray. Credit & Fin Management 48:40-2 F '46
Latin-American credit still good; 36th semi-annual survey. P. J. Gray. Credit & Fin Management 48:16+ S '46

CREDIT (economics)
See also
Credit, Social

CREDIT, Agricultural. See Agricultural credit

CREDIT, Bank
Alternatives to no when veterans apply for loans; text by J. W. Irwin; cartoons by B. Kirkpatrick. Banking 38:44-5 My '46
Bank credit yardsticks. H. Spero. Credit & Fin Management 48:11-12+ S '46
Banker tells how industrial advertising affects soundness of investment. G. E. Wiedenmayer. Ptr Ink 216:36-7 Jl 26 '46
Banks and reconversion; experience has evolved new credit methods. V. B. Pitts. Credit & Fin Management 48:21-2 Je '46
Banks as a term credit source; small business aid provided under new plans. R. G. Holste. Credit & Fin Management 48:15-16 My '46
Borrowing for a small business. W. A. Howell. Mag of Wall St 77:655 Mr 2 '46
Chase bank offers appliance financing plan. Gas Age 96:31-2 N 1 '45; Same. Pub Util 36:790-2 D 6 '45; Same cond. Am Gas J 163:54 N '45
Chase bank's sales finance plan for utilities for household electric and gas appliances. Burroughs Clearing House 30:6-7 N '45
Commercial bank installment credit plans. C. W. Phelps. Comm & Fin Chr 162:2704+ D 6 '45; Abstract. Banking Law J 63:1-5 Ja '46
Commercial banks enter instalment finance field; National sales finance plan. Comm & Fin Chr 162:2463 N 22 '45
Consumer instalment credit for banks limited. C. W. Phelps. Barron's 25:13+ N 12 '45
Home equipment credit plans. L. J. Asterita. Banking 38:44-5+ D '45
Hometown credit-savings plan launched; Fireman's Fund to aid banks and insurance agents. Weekly Underw 154:616-17 Mr 9 '46; Same. East Underw 47:1+ Mr 8 '46
National sales finance plan operative. Comm & Fin Chr 162:2618 N 29 '45
Working capital for a small business. W. A. Howell. Mag of Wall St 77:595 F 16 '46

See also
Agricultural credit
Loans, Bank

CREDIT, Foreign
See also
Credit—Latin America

CREDIT, International
See also
Finance, International

CREDIT, Social
Income floor; bill proposed by Alberta's Social credit administration. Bsns W p116-17 Mr 30 '46
Social credit in Alberta. J. E. LeRossignol. il Credit & Fin Management 47:6-9+ N '45

CREDIT and insurance. See Insurance—Credit aspects

CREDIT and salesmen. See Salesmen and credit

CREDIT associations
See also
National association of credit men

CREDIT departments
Credit facts from salesmen; valuable data can be obtained from their reports. W. J. Shultz. Credit & Fin Management 48:34-6 Je '46
Credit men are human but do their customers know it? K. B. Horning. Credit & Fin Management 48:32-4 My '46
Credit's place in management. E. Below. Credit & Fin Management 48:15-17 Mr '46
Other fellow's shoes; subordinates must have proper training. A. R. Sherwood. Credit & Fin Management 48:30-1 Je '46
Scientific credit control. F. D. Paterson. Credit & Fin Management 48:7-8+ O '46
Statistical controls of credit and collection policies. W. J. Shultz. Credit & Fin Management 47:8-10+, 34 D '45
What management expects. L. E. Croy. Credit & Fin Management 48:10-11 Jl '46

See also
Credit managers

CREDIT education
Education and advancement; expanded program of National institute of credit. C. D. Smith. Credit & Fin Management 48:37-8 S '46

CREDIT insurance. See Insurance, Credit; Insurance, Export credit

CREDIT managers
Credit man and salesman. M. T. Lauer. Credit & Fin Management 48:19+ Jl '46
Credit problems return. H. W. Minchin. Credit & Fin Management 48:23-4 My '46
Credit's place in marketing. W. J. Shultz. Credit & Fin Management 48:10-12 F '46
New credit horizons for '46; future of our profession. H. C. Perry. Credit & Fin Management 48:4-6+ Ja '46

CREDIT managers—*Continued*
Other fellow's shoes; subordinates must have proper training. A. R. Sherwood. Credit & Fin Management 48:30-1 Je '46
To whom does the credit executive owe allegiance? problem of starting new comers in business to detriment of old customers. H. E. Rhell. Credit & Fin Management 48: 10 S '46
Was it a cow; how credit department employee won promotion. C. Forward. Credit & Fin Management 48:38-40 S '46
Your ally, the salesman; credit and sales cannot do without each other. T. H. Smith. Credit & Fin Management 48:9-10+ My '46

CREDIT men, National association of. See National association of credit men

CREDIT unions
Liquidation record of Wisconsin credit unions. E. Shapiro. J Bsns 19:82-98 Ap '46

CREDITS, School and college
United States armed forces institute examinations in mathematics as a means of determining credit in engineering mathematics. J. H. Zant. J Eng Educ 36:170-4 N '45

CREELS
Molded part helps control yarn windup. il diag Mod Plastics 24:148 S '46

CREEP of materials
Creep of neoprene in sheer under static conditions. W. N. Keen. bibliog il diag A S M E Trans 68:237-40 Ap '46
Creep under constant load in tension. P. J. Blatz and A. V. Tobolsky. J Chem Phys 14:113-14 F '46
General relations for flow in solids and their application to the plastic behavior of tire cords. W. J. Lyons. bibliog J Ap Phys 17: 472-82 Je '46

Testing

Fatigue failure of rayon tire cord. R. C. Waller and W. E. Roseveare. bibliog il J Ap Phys 17:482-91 Je '46

CREEP of metals
Creep strength of steels; table and chart. W. L. Nelson. Oil & Gas J 45:147 O 19 '46
Creep test data obtained from O.S.R.D. investigations on chromium-cobalt alloys cast by Haynes stellite co.; tabulation. Metal Prog 50:115 Jl '46
Experimental studies of creep. H. J. Tapsell. Engineering 161:233-5 Mr 8 '46
Metallic creep; conference. Engineer 181:148-9, 170-1 F 15-22 '46; Engineering 161:233-5, 258 Mr 8-15 '46
Metals at high temperatures; conference at Royal society. Chem & Ind p109 Mr 9 '46; Same. Chem Age (Lond) 54:239-40 Mr 2 '46
New theory of creep. A. McCance. Engineering 161:258 Mr 15 '46
Stainless steels for turbine blading. J. H. G. Monypenny. Engineering 160:478-9 D 7 '45

CREOLE petroleum corporation
Creole Petroleum add to reserves. Barron's 25:11 N 19 '45

CREOSOTE
Acute creosote shortage hampers wood preserving. Ry Age 120:969 My 11 '46
Corrosive action of benzole absorption oils. C. M. Cawley and H. E. Newall. Soc Chem Ind J 64:285-90 O '45
Pyrocatechin from wood creosote; abstract. B. P. Sumarokov, C. C. Ryilkin and E. E. Kurmileva. Chem & Met Eng 53:286+ Ap '46

CREOSOTE as fuel
Foundry firing: electrical heating of high-viscosity creosote-pitch fuel. il Elec R (Lond) 137:615-19 N 2 '45

CREOSOTED wood. See Wood preservation

CRESCENT public service company
Amended plan. Comm & Fin Chr 163:777 F 11 '46

CRESOL
Condensation of diethylamine and formaldehyde with phenol, *o*-, *m*- and *p*-cresols. G. F. Grillot and W. T. Gormley, jr. Am Chem Soc J 67:1968-9 N '45
Distribution of U.S. imports for consumption of cresols and cresylic acid, 1937 and 1941-1944; chart. For Comm W 22:22 F 9 '46
Hydrolysis and isomerization of chlorotoluenes to *m*-cresol. R. N. Shreve and C. J. Marsel. bibliog diags Ind & Eng Chem 38:254-61 Mr '46

Analysis

Analysis of mixtures of meta- and para-cresols and their butylated products. D. R. Stevens and J. E. Nickels. Ind & Eng Chem Anal ed 18:260-1 Ap '46

CRESOLS
Distribution of U.S. imports for consumption of cresols and cresylic acid, 1937 and 1941-1944; chart. For Comm W 22:22 F 9 '46

CRESYLIC acid. See Cresol

CRETACEOUS period. See Geology, Stratigraphic—Cretaceous

CREVICE corrosion. See Corrosion and anti-corrosives

CRIB sheets. See Sheets, Waterproof

CRIDER, Albert Foster, 1873-1945
Memorial. C. L. Moody. bibliog por Am Assn Pet Geologists Bul 30:633-6 Ap '46

CRIME and criminals
Unite against crime. J. E. Hoover. Dom Comm 34:3-8 S '46
See also
Embezzlement
Fraud
Prisoners

CRIMES, War. See War crimes

CRIMINAL law
See also
Amparo (writ)—Mexico
Habeas corpus

CRIMINAL statistics
Crime rate jumps. Bsns W p42 O 12 '46
69th annual report of statistics of criminal and other offences for the year ended Sept. 30, 1944. 203p pa 50c Canada. Dominion bur. of statistics, Ottawa '46
Statistical study of 500 psychopathic prisoners; Medical center for federal prisoners, Springfield, Mo. H Cason and M. J. Pescor. bibliog Pub Health Rep 61:557-74 Ap 19 '46

CRIPPLES
See also
Artificial limbs

CRITICAL constants
Critical temperature from normal boiling point. I. J. Hooks and F. Kerze, jr. Chem & Met Eng 53:147 My '46
Liquid association and the critical temperature. F. Brescia. bibliog J Chem Phys 14: 501-2 Ag '46

CRITICAL solution temperature
Analysis of mixtures of meta- and para-cresols and their butylated products. D. R. Stevens and J. E. Nickels. Ind & Eng Chem Anal ed 18:260-1 Ap '46

CRITICAL temperature. See Critical constants

CRITTALL, Richard, and company, limited
Statement by the chairman at annual meeting; abstract. R. G. Crittall. Economist 150: 860 My 25 '46

CRITTENDEN, Eugene Casson, 1880-
Illuminating engineering society awards medal to Crittenden. por Ind Stand 17:195 Ag '46

CROCUS
Preparation of crocus; abstract. I. F. Karpov. Am Cer Soc J 29 (Cer A [25]):82 My 1 '46

CROFT, Huber Ogilvie, 1896-
President of American society for engineering education, 1946-47. por(front) J Eng Educ 37:1 S '46

CROP insurance. See Insurance, Agricultural

CROP insurance corporation, Federal. See Federal crop insurance corporation

CROPS
1946 food goals. Barron's 25:9 D 10 '45
Weather, not increased plantings, must produce bigger 1946 crops. Barron's 26:7 Mr 25 '46
See also
Vegetables

CROPS—*Continued*

Statistics

Agricultural department report on crops as of Nov. 1. Comm & Fin Chr 162:2864-5 D 10 '45

Agricultural department general crop report as of April 1. Comm & Fin Chr 163:2138 Ap 18 '46

Agricultural department general crop report as of May 1. Comm & Fin Chr 163:2706 My 16 '46

Agricultural department general crop report as of June 1. Comm & Fin Chr 164:250-1 Jl 11 '46

Agricultural department general crop report as of July 1. Comm & Fin Chr 164:309+ Ag 8 '46

Agricultural department general crop report as of August 1. Comm & Fin Chr 164:940-1 Ag 15 '46

Agricultural department general crop report as of September 1. Comm & Fin Chr 164: 2270-1 O 31 '46

General crop report of the U.S. Department of agriculture for 1945. Comm & Fin Chr 163:699-701 F 4 '46

1946 crop goals with comparisons. Bsns W p22 D 15 '45

Prospective plantings as of March 1, 1946. Comm & Fin Chr 163:1986-7 Ap 11 '46

CROSBY, Bing (Harry Lillis Crosby) 1904-

Bing Crosby, inc. Bsns W p22 Je 15 '46

Crosby's contract. Bsns W p87 Ja 26 '46

Philco signs Bing. por Bsns W p40-1 Ag 31 '46

Sponsor vs. star; radio talent contract, Kraft Foods and Bing Crosby. Adv & Sell 39:104+ F '46

CROSS company

Preferred stock offered. Comm & Fin Chr 162: 2389 N 19 '45

CROSS connections. See Water distribution—Cross connections

CROSSARMS. See Electric lines—Crossarms

CROSSER bill. See Railroads—Pensions

CROTONALDEHYDE

Kinetics of halogen addition to unsaturated compounds; αβ-unsaturated aldehydes. P. B. D. de la Mare and P. W. Robertson. Chem Soc J p888-91 D '45

Studies in the polyene series; condensation of the C_{14}-aldehyde [3-(2′ : 6′ : 6′-trimethyl-*cyclo*hexenyl)-1-methylcrotonaldehyde] with 1-hexyne and 2-methoxyhex-3-en-5-yne. J. Cymerman and others. Chem Soc J p500-3 Je '46

CROTONIC acid

Made commercially available by the Shawinigan chemicals co; abstract. P. W. Blaylock. Paint Oil & Chem R 109:24 My 2 '46

CROWDS

Make way for the crowd; safety in places of public assembly. J. McElraevy, jr. il Safety Eng 91:38+ Ap '46

CROWLEY, Leo T.

Elected chairman of board of directors, Chicago, Milwaukee, St Paul & Pacific railroad. por Ry Age 119:979 D 15 '45

FPC bars L. Crowley from three utility directorates. Elec World News ed 125:9 Je 29 '46

CROWN cork and seal company

Material shortages cut Crown Cork's net. Barron's 26:6 Ag 19 '46

CRUCIBLES

Crucible failure in the induction melting process. A. Gemant and J. Sticher. diag J Ap Phys 16:661-7 N '45

Effect of molybdenum and other oxides on surface tension of silicate melts and on properties of refractories and abrasives. C. R. Amberg. bibliog diag Am Cer Soc J 29:87-93 Ap 1 '46

CRUSHED stone. See Stone, Crushed

CRUSHING

Belgian experiments in clinker grinding. J. A. Slegten. Rock Prod 49:60-1 S '46

Screening efficiency of a dry-pan grinding system. D. P. Brown and R. Hess, jr. bibliog Am Cer Soc J 29:147-51 Je 1 '46

CRUSHING machinery

Abrasion-resistant alloy reduces milling costs; Ni-Hard. K. A. Delonge. il Eng & Min J 147:60-2 O '46

Agstone production; J. Jeffery, uses both hammermill and rolls. il Rock Prod 49:76-7 O '46

Climax crushing plants. F. Coolbaugh. flow sheets il Min & Met 27:320-2 Je '46

Diesel-electric units operate crushing plant; Sours quarries. il Rock Prod 49:60-1 Jl '46

Fifty years of progress; how big crushers were developed. R. Bernhard. Rock Prod 49:104+ Je '46

Improved jaw crusher uses little power. il diag Eng & Min J 147:102 My '46

Mobility is the word with Maudlin construction company. il Roads & Sts 89:74-6 Je '46

Primary crusher in quarry cuts haulage costs; Avondale stone co. H. E. Swanson. flow sheet il Rock Prod 48:76-7 O '45

Salvaging a cracked crusher cone. il Roads & Bridges 84:90 My '46

See also

Ball mills

Pulverizers

CRUSTACEA

See also

Cladocera

CRYOGENIC laboratories

New cryogenic laboratory; Ohio state university. il Chem Ind 59:494 S '46

CRYOPEDOLOGY (term)

Cryopedology; study of frozen ground and intensive frost-action with suggestions on nomenclature. K. Bryan. bibliog map diags Am J Sci 244:622-42 S '46

CRYOSTATS

Helium cryostat. S. C. Collins. flow diag Phys R 70:98 Jl 1 '46

New device aids low-temperature research; helium cryostat. Materials & Methods 24: 952 O '46

CRYPTOSTEGIA grandiflora

Latex and rubber characteristics of cryptostegia. R. Blondeau and J. T. Curtis. bibliog Rubber Age 59:57-63 Ap '46

Recovery, distribution and nature of rubber from cryptostegia grandiflora leaves. C. E. Linscott and J. McGavack. Rubber Age 59: 441-4 Jl '46

CRYSTAL CITY, Missouri

Water supply

High iron content in the water; Ranney well system for Pittsburgh plate glass co. W. Wheatly. il diags Pub Works 77:36+ Ja '46

CRYSTAL oscillators. See Oscillators, Crystal

CRYSTAL palace, London

Will the new Crystal palace turn its back on a century of architectural progress? il Arch Forum 85:9 Jl '46

CRYSTALLIZATION

Crystallization. W. L. McCabe. bibliog Ind & Eng Chem 38:18-19 Ja '46

Crystallization; experiments. C. H. Stone. J Chem Educ 23:404 Ag '46

Crystallization of unvulcanized rubber at different temperatures. L. A. Wood and N. Bekkedahl. bibliog(78 titles) J Ap Phys 17: 362-75 My '46; Same. J Res Nat Bur Stand 36:489-510 Je '46; Excerpts. Rubber Age 59: 444 Jl '46

Determination of 2,2-bis-*p*-chlorophenyl-1,1,1-trichloroethane in technical DDT; microscopical method. W. McCrone, A. Smedal and V. Gilpin. il diags Ind & Eng Chem Anal ed 18:578-82 S '46

Effect of pressure on the melting of crystalline rubber. L. A. Wood and others. bibliog J Chem Phys 13:475-7 N '45; Same. J Res Nat Bur Stand 35:375-80 N '45

Grain sizes produced by recrystallization and coalescence in cold-rolled cartridge brass. H. L. Walker. il Ill U Eng Exp Sta Bul 359:1-55 '45 (pa 70c)

Habit modification of ammonium oxalate monohydrate crystals during growth from solution. H. J. Kolb and J. J. Comer. Am Chem Soc J 68:719 Ap '46

CRYSTALLIZATION—*Continued*
Heat capacity and entropy, heats of fusion and vaporization and the vapor pressure of butene-1; the zero point entropy of the glass; the entropy of the gas from molecular data. J. G. Aston and others. bibliog Am Chem Soc J 68:52-7 Ja '46
Influence of adsorption on the crystallisation of sucrose from impure solutions. S. E. Coalstad. Soc Chem Ind J 65:206-8 Jl '46
Interpretation of phase diagrams of ternary systems. L. A. Dahl. diags J Phys Chem 50:96-119 Mr '46
Isolation and crystallization of tetanal toxin from the filtrates of clostridium tetani. L. Pillemer and others. bibliog il Science 103: 615-16 My 17 '46
Kinetics of sucrose crystallization; sucrose-nonsucrose solutions. A. Van Hook. bibliog Ind & Eng Chem 38:50-3 Ja '46
Methods of separation and tests for purity. H. G. Cassidy. bibliog diags J Chem Educ 23:427-33 S '46
Nomograph predicts crystal sizes. I. J. Hooks and F. Kerze, jr. Chem & Met Eng 53: 140 Jl '46
Purification and crystallization of clostridium botulinum type A toxin. C. Lamanna and others. Science 103:613-14 My 17 '46
Recrystallization of amorphous cellulose. P. H. Hermans and A. Weidinger. Am Chem Soc J 68:1138 Je '46
Solubility and density isotherms; potassium and ammonium nitrates in isopropanol solutions. A. R. Thompson and M. C. Molstad. bibliog Ind & Eng Chem 37:1244-8 D '45
Some crystalline forms of amylose. R. W. Kerr. bibliog Am Chem Soc J 67:2268-9 D '45
Structure and plasticity of undried cotton fibers. E. E. Berkley and T. Kerr. bibliog il Ind & Eng Chem 38:304-9 Mr '46
System sodium acetate-sodium hydroxide-water. R. A. Morgen and R. D. Walker, jr. il diag Ind & Eng Chem 37:1186-8 D '45
Thermal recrystallization of quartz. D. D'Eustachio and S. Greenwald. il Phys R 69:532-3 My 1 '46
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain elaeostearic as well as linoleic and oleic acids. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 65:74-81 Mr '46
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain linolenic as well as linoleic and oleic acids. F. D. Gunstone and T. P. Hilditch. Soc Chem Ind J 65:8-13 Ja '46

CRYSTALLIZERS
Equipment advances 1944-45; crystallization. H. B. Caldwell. Chem Ind 57:852 N '45

CRYSTALLOGRAPHIC society
1946 spring meeting, Northampton, Mass. March 21-23. Science 103:313-14, 691 Mr 8, Je 7 '46
Planning to resume its activities. Science 103: 18 Ja 4 '46

CRYSTALLOGRAPHY
Application of crystallographic techniques to titanium pigments. C. H. Moore, jr. bibliog diags Can Chem & Process Ind 30:40-4 O '46
Composition, optical and crystallographic properties of two calcium oxalate-chloride double salts. F. T. Jones and L. M. White. bibliog il diags Am Chem Soc J 68:1339-42 Jl '46
Crystal behavior of paraffin wax. S. W. Ferris and H. C. Cowles. bibliog il Ind & Eng Chem 37:1054-62 N '45
Crystal-chemical study of cesium trichlorocuprate. H. P. Klug and G. W. Sears, jr. Am Chem Soc J 68:1133-4 Je '46
Crystal structure of methylammonium chloride. E. W. Hughes and W. N. Lipscomb. diags Am Chem Soc J 68:1970-5 O '46
Crystal structure of polonium. W. H. Beamer and C. R. Maxwell. J Chem Phys 14:569 S '46
Crystal structure of synthetic boehmite. P. P. Reichertz and W. J. Yost. bibliog il diag J Chem Phys 14:495-501 Ag '46
Crystal structure of tribromo(trimethylphosphine)gold. M. F. Perutz and O. Weisz. Chem Soc J p438-42 Je '46
High-temperature crystal chemistry of A_mBX_n compounds with particular reference to calcium orthosilicate. M. A. Bredig. bibliog J Phys Chem 49:537-53 N '45
Identification of organic bases by means of the optical properties of diliturates (nitrobarbiturates); primary aromatic amines. B. T. Dewey and E. M. Plein. diags Ind & Eng Chem Anal ed 18:515-20 Ag '46
Improving flotation of non-sulphide minerals; study of relationship of crystal structure. A. M. Gaudin. diags Eng & Min J 146:91-5+ D '45
Interpretation of Harker syntheses. M. J. Buerger. J Ap Phys 17:579-95 Jl '46
Mercurial fungicide wax problems. W. F. Horner, F. R. Koppa and H. W. Herbst. il Ind & Eng Chem 37:1069-73 N '45
Navigation in crystallography. H. Winchell. bibliog diags Geol Soc Bul 57:295-308 Ap '46
Optical and crystallographic properties of lysozyme chloride. F. T. Jones. bibliog il diags Am Chem Soc J 68:854-7 My '46
Redetermination of the lattice constant of lead. H. P. Klug. Am Chem Soc J 68:1493-4 Ag '46
Some physical properties of DDT and certain derivatives. H. L. Andrews and others. pl Pub Health Rep 61:450-6 Mr 29 '46
Some problems of the metallic state. L. Bragg. diags Engineering 160:433-5 N 23 '45
Structure of compounds of ferrocyanide type; crystal structure of hexamethyl*iso*cyanidoferrous chloride. H. M. Powell and G. W. R. Bartindale. il Chem Soc J p799-803 N '45
Synthetic Patterson maps. A. D. Booth and D. Wrinch. bibliog J Chem Phys 14:503-4 Ag '46
Tabulated diffraction data for tetragonal isomorphs. L. K. Frevel, H. W. Rinn and H. C. Anderson. bibliog Ind & Eng Chem Anal ed 18:83-93 F '46
Thermal evidence of crystallinity in linear polymers. W. O. Baker and C. S. Fuller. bibliog Ind & Eng Chem 38:272-7 Mr '46
X-ray identification and crystallography of aldehydes and ketones as the 2,4-dinitrophenylhydrazones. G. L. Clark, W. I. Kaye and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:310-13 My '46

See also
Crystallization
Polymorphism
Pseudomorps
Solutions, Solid

X ray studies
Atomic structure of steels; method of X-ray analysis. A. M. B. Parker. bibliog diags Steel 118:89+ F 25 '46
Correction of diffraction amplitudes for Lorentz and polarization factors. M. J. Buerger and G. E. Klein. bibliog J Ap Phys 17:285-306 Ap '46; Correction. 17:743 S '46
Crystal analysis; application of X-rays to diffraction studies; abstract. H. P. Rooksby. Electrician 135:530 N 16 '45
Crystal structure of coronene; a quantitative X-ray investigation. J. M. Robertson and J. G. White. il Chem Soc J p607-17 S '45
Oscillating crystal X-ray method applied to orientation relationships. A. G. Guy. il diags Gen Elec R 49:28-32 Ag '46
Past and future of X-ray crystallography. J. D. Bernal. Chem Soc J p643-6 Jl '46
X-ray crystallographic studies of organic sulfonates; the hemihydrates of certain sodium 1-alkane-sulfonates. L. H. Jensen and E. C. Lingafelter. Am Chem Soc J 68:1729-30 S '46
An X-ray diffraction investigation of the thermal decomposition of silver oxalate. R. L. Griffith. il J Chem Phys 14:408-15 Jl '46
X-ray microradiography of distorted crystals. R. Smoluchowski and others. il diags Phys R 70:318-22 S 1 '46
X-ray studies of surface layers of crystals. E. J. Armstrong. bibliog il diags Bell System Tech J 25:136-55 Ja '46

CRYSTALS
Acoustic intensity distribution from a piston source. A. O. Williams, jr. Acoustical Soc Am J 17:219-27 Ja '46

CRYSTALS—*Continued*
Atomic physics and the strength of metals. N. F. Mott. Engineering 161:558-60 Je 14 '46; Excerpt. Engineer 181:469-70 My 24 '46
Color centers in alkali halide crystals. F. Seitz bibliog diags Rs Mod Phys 18:384-408 Jl '46
Crystal rectifiers. W. E. Stephens. diags Electronics 19:112-19 Jl '46
Crystal strength. R. D. Conrad. Welding J 25:sup450 Ag '46
Elastic constants of anisotropic materials. R. F. S. Hearmon. diag Rs Mod Phys 18:409-40 bibliog(125 titles, p436-40) Jl '46
Energy additivity in oxygen-containing crystals and glasses. M. L. Huggins and K. Sun. bibliog J Phys Chem 50:319-28 Jl '46
Fractography; a new tool for metallurgical research. C. A. Zapffe and M. Clogg, jr. il Am Soc for Metals Trans 34:71-98 bibliog(p97-8) '45; Same cond. Steel 116:106-9+ My 28 '45; Discussion. diags Am Soc for Metals Trans 34 98-107 '45
Free volume and entropy in condensed systems; entropy of vaporization in liquids and the pictorial theory of the liquid state. H. S. Frank. bibliog diags J Chem Phys 13:493-507 N '45
Free volume and entropy in condensed systems; fluctuation entropy and free volume in some monatomic crystals. H. S. Frank. J Chem Phys 13:478-92 N '45
Germanium crystal diodes. E. C. Cornelius. bibliog il diags Electronics 19:118-23 F '46
Grain shape and grain growth. D. Harker and E. R. Parker. il diags Am Soc for Metals Trans 34:156-95; Discussion. 195-201 '45
Internal friction and plastic extension of zinc single crystals. T. A. Read and E. P. T. Tyndall. J Ap Phys 17:713-20 S '46
Magnetisation of polycrystalline iron and iron-silicon alloys. G. C. Richer. bibliog Iron & Steel Inst J 150:93-142 no 2 '44
Motions of molecules in condensed systems: selection rules, relative intensities, and orientation effects for Raman and infra-red spectra. R. S. Halford. J Chem Phys 14:8-15 Ja '46
Note on communal entropy; remarks on a paper by Henry S. Frank; discussion by O. K. Rice. J Chem Phys 14:348-50 My '46
Parafocusing properties of microcrystalline powder layers in X-ray diffraction applied to the design of X-ray goniometers. J. C. M. Brentano. bibliog il diags J Ap Phys 17:420-34 Je '46
Physics of the solid state. G. Busch. Engineering 160:490-1 D 14 '45
Quartz crystal deposits of western Arkansas. A. E J. Engel. bibliog il maps diags Econ Geol 41:598-618 S '46
Quartz crystal in Brazil. W. D. Johnston, jr. and R. D. Butler. bibliog maps diags Geol Soc Bul 57:601-49, pl 1-11 Jl '46
Silver crystal; new optical material to find applications in infrared production devices. il Bsns W p56+ Ap 13 '46
Some resources of ceramic research. R. M. King. bibliog Am Cer Soc Bul 25:286-91, 337-42 Ag 15-S 15 '46
Structure and chemistry of metallic crystals; abstract. G. D. Preston. Chem & Ind p402-3 D 22 '45
Surface layers on quartz and topaz. D. D'Eustachio. bibliog il diags Phys R 70:522-8 O 1 '46
Synthetic optical crystals are essential to modern infrared instruments. R. H. Munch. il Ind & Eng Chem 38:sup75-6 Mr '46
Tessellated stresses. F. László. Iron & Steel Inst J 150:183-207; Discussion. 207-9 no 2 '44
Thermodynamic properties and potential energy of solid argon. O. K. Rice. bibliog J Chem Phys 12:289-95; 14:321-4 Jl '44, My '46
X-ray studies of surface layers of crystals. E. J. Armstrong. bibliog il diags Bell System Tech J 25:136-55 Ja '46

See also
Polymorphism

CRYSTALS, Piezoelectric
Crystals may be used in push-button receivers. Sci Am 174:106 Mr '46
Deka-Xtal holder. P. M. Ohlinger. il Radio N 36:76+ Ag '46
Elastic deficiency and color of natural smoky quartz. C. Frondel. bibliog Phys R 69:543-4 My 1 '46
Elastic, piezoelectric, and dielectric constants of potassium dihydrogen phosphate and ammonium dihydrogen phosphate. W. P. Mason. bibliog diags Phys R 69:173-94 Mr 1 '46
Elastic piezoelectric, and dielectric properties of sodium chlorate and sodium bromate. W. P. Mason. il diags Phys R 70:529-37 O 1 '46
Forced vibrations of piezoelectric crystals. H. Ekstein. bibliog diags Phys R 70:76-84 Jl 1 '46
General dynamical considerations applied to piezoelectric oscillations of a crystal in an electrical circuit. W. F. G. Swann. diags Franklin Inst J 242:167-95 S '46
Measurement of the activity of quartz oscillator crystals. A. J. Biggs and G. M. Wells. bibliog diags Inst E E J 93 pt 3:29-36 Ja '46
Quartz crystals; abstracts of I.R.E. papers. diags Electronics 19:108 Mr '46
Quartz crystals in war and peace. F. Connor. J Chem Educ 22:546-7 N '45
Radio progress during 1945; piezoelectric crystals. bibliog Inst Radio Eng Proc 34 [Waves & Electrons 1]:179-81 Ap '46
Simple refractoscope for liquids. G. W. Willard. diags R Sci Instr 16:340-2 D '45
Symposium on quartz oscillator plates. C. Frondel and others. Am Cer Soc Bul 24 (Cer A 24):205-6, 210-11 N 15 '45
Ultrasonic generator. F. W. Smith, jr. and P. F. Stumpf. bibliog il diags Electronics 19:116-19 Ap '46

See also
Radio frequency—Crystal control

CUBA

See also
Coffee trade—Cuba
Copper mines and mining—Cuba
Food industry and trade—Cuba
Soup industry and trade—Cuba
Sugar industry and trade—Cuba

Economic conditions
Latin America's economy as world conflict ended. For Comm W 24:56-7 Jl 13 '46
News by countries. For Comm W 21:26-9 D 22 '45; 23:25 My 11; 24:30-1 Jl 13; 37-8 Ag 17; 22-3 S 21; 25:17-18 O 12 '46

Industries and resources
Cuba's position in the sponge trade. G. A. Villoldo. il For Comm W 24:6-7+ Ag 24 '46
Frog-leg industry hops ahead in Cuba. J. L Martinez. For Comm W 24:8+ Ag 24 '46

CUBAN Atlantic sugar company
Stocks offered. Comm & Fin Chr 163:2003 Ap 15 '46

CUDAHY packing company
Annual report. Comm & Fin Chr 163:69 Ja 7 '46

CUDMORE, Sedley Anthony, 1878-1945
Sketch. H. Marshall. Am Stat Assn J 41:75-6 Mr '46

CUDWORTH, James Rowland, 1897-
Sketch. por Min & Met 27:540 N '46

CULLEN, Thomas J. 1901-1946
Sketch. Nat Underw (Life ed) 50:13 Mr 29 '46

CULTIVATORS
Flame cultivator cuts cotton hoeing costs. il Manuf Rec 115:38+ Mr '46

CULTURAL relations. See Books across the sea; *also* subdivision Cultural relations under names of countries and regions, e.g. Great Britain—Cultural relations—United States; Latin America—Cultural relations—United States

CULTURE mediums
Commercial fertilizer in the culture of freshwater algae. N. E. Rice. Science 104:16 Jl 5 '46
Culture method for certain marine algae. J. C. Strickland. Science 103:112-13 Ja 25 '46

CULTURE mediums—*Continued*
Spectrographic determination of calcium in microbiological culture media. E. J. Eastmond. bibliog diag Opt Soc Am J 36:57-60 Ja '46

See also
Bacteriology—Culture mediums
Viruses—Culture mediums

CULVERTS
Cutoff walls and riprap reduce culvert maintenance. plan diag Eng N 137:58 Jl 11 '46
Reducing unknowns in small culvert design. F. T. Mavis. diags Eng N 137:51-2 Jl 11 '46
Study of bituminous-coated corrugated sheet metal culverts. J. Y. Welborn and P. J. Serafin. il Pub Roads 24:227-38 Jl '46

CULVERTS, Concrete
Laying three 1,000-ft. steel pipe lines in a submerged culvert. il diags Eng N 136: 538-9 Ap 18 '46

CUMENE
Catalytic alkylation of chlorobenzenes. G. Vermillion and M. A. Hill. bibliog Am Chem Soc J 68:190-1 F '46
Metalation of cumene by ethylpotassium. H. Gilman and L. Tolman. Am Chem Soc J 68:522 Mr '46

CUMMINGS, Carl E.
Ex-army oil man looks to the future. por Nat Pet N 38:29-30 Ag 7 '46

CUNEO, John F., 1885-
Amazing Mr Cuneo. A. G. Fegert. pors Inland Ptr 117:43-7 My '46

CUNICO. See Magnetic materials

CUNIFE. See Magnetic materials

CUNNINGHAM, John Philip, 1897-
Gallery; white-space salesman. J. G. Schneider. por Adv & Sell 38:150+ N '45

CUPBOARDS
China closet becomes built-in furniture for any living area. il Am Bld 68:62-3 Ag '46
Storagewall prefabricated units. il Arch Forum 84:143-8 Ap '46

CUPFERRON
Conductometric titrations with organic reagents; determination of copper with cupferron, and iron with sulfosalicylic acid. J. F. Corwin and H. V. Moyer. bibliog Ind & Eng Chem Anal ed 18:302-4 My '46

CUPOLA furnaces
Basic principles of cupola operation. R. A. Clark. diags Foundry 74:102+ Je '46
Beating the coke shortage. Foundry 74:77+ N '46
Cupola melting of cast iron. D. J. Reese. il Foundry 74:92-3+ Jl '46
Cupola operation; abstract. W. W. Levi. Materials & Methods 23:1374 My '46
Cupola practice at Sheffield. W. H. Steinheider. Blast F & Steel Pl 33:1380-1 N '45
Desulphurizing cupola iron with soda ash. C. G. Hummon. Blast F & Steel Pl 33:1381-4 N '45
Use of cupola iron in the open hearth. W. H. Steinheider. Blast F & Steel Pl 33:1384+ N '45

Air supply
Hot-blast cupola design. E. Longden. diags Iron Age 158:44-50 Ag 29 '46

Charging
Behavior of charge material in the cupola; abstract. N. E. Rambush and G. B. Taylor. Iron Age 156:65 N 15 '45
Investigation of cupola charge material; abstract. N. E. Rambush and G. B. Taylor. Materials & Methods 23:804+ Mr '46
What type charger and charging bucket? A. W. Gregg. il diags Foundry 73:84-7+ D '45

Lining
Basic-lined cupola; report presented at annual meeting of Institute of British foundrymen. Engineering 162:19-20 Jl 5 '46
Condition of iron foundry cupola lining; abstract. N. E. Rambush and G. A. Taylor. Am Cer Soc J 29 (Cer A [25]):35 F 1 '46

CUPRAMMONIUM solution
Structure of cellulosic rayons; chain-length determination in cuprammonium solution. F. Howlett and others. bibliog Textile Inst J 37:T77-88 Ap '46

CUPREINE
Conversion of hydroquinidine into hydrocinchonine and of cupreine into cinchonidine. H. King. Chem Soc J p523-4 Je '46

CUPRENE
Acetylene polymer from silent discharge; reactions with hydrogen halides. G. Glockler and A. E. Walz. diag Electrochem Soc Trans 88 (preprint 14):151-60 '45

CURARE
Curare alkaloids from chondodendron tomentosum Ruiz and Pavon. J. D. Dutcher. bibliog Am Chem Soc J 68:419-24 Mr '46
Published misconceptions regarding the new clinically adequate curare. R. C. Gill. Science 103:147 F 1 '46

CURBS
Curbs sandblasted before repainting yellow no-parking zones. il Roads & Sts 89:71 Ag '46

CURRENCY. See Money

CURRENCY paper. See Paper money

CURRENT events
It happened in 1945. C. Kinnaird, ed. 464p $3.50 Duell, Sloan & Pearce, 270 Madison av, New York 16 '46

CURRENT meters
Recording ocean currents by radio; current meter records radio-transmitted dots and dashes on a chronographic tape. il Eng N 136:118-19 Ja 24 '46

CURRIE, William Crawford, 1884-
Peninsular & Oriental steam navigation company. il por maps Fortune 34:120-7+ S '46

CURTIS publishing company
Curtis counts its chips; analyzes success of its consumer magazines. Bsns W p47-8+ S 28 '46

CURTISS, Glenn Hammond, 1878-1930
Curtiss gets an order; early aeronautical history. J. Hettich. por Aero Digest 52:24+ Je '46

CURVE plotting
Application of laboratory data on phase behavior to evaluation of condensate reserves. E. W. McAllister. Pet Eng 17:90+ D '45; Same. Oil & Gas J 44:92+ F 9 '46
Effect of alloying elements on mechanical properties. M. Gensamer. Iron Age 157: 66-71 F 14 '46; Abstracts. Metal Prog 49: 731-4 Ap '46
Graph estimates of future population; errors incident to use of extrapolated curves. H. W. Taylor. Pub Works 77:31-2+ Ja '46
Method of plotting isolux curves. J. G. Holmes. Light & Lighting 39:158-60 S '46
Utility of log-log vs arithmetic co-ordinate grids. A. A. Merrill. Gen Elec R 49:20-2 Jl '46

CURVES, Plane
Drawing tangents and normals to plane curves. G. F. H. Harker. diags Engineering 161:209-11 Mr 1 '46

See also
Catenary

CURVES in engineering

See also
Railroads—Curves and turnouts
Roads—Curves

CUSTOMER relations
Coming revolt of customers. J. Turner. Am Bsns 16:12-13 F '46
Customer relations checklist. Am Bsns 16: 34+ O '46
Customers don't know the facts about shortages. H. Slator. Ptr Ink 215:33-4 Ap 26 '46
Fifteen ways to build better customers. J. Garth. Am Bsns 16:10-11+ Ap '46
Have you said "thank you" by letter lately? W. H. Butterfield. Ptr Ink 214:25 F 15 '46
Holiday letters that build good-will. W. H. Butterfield. Ptr Ink 213:125-6 N 30 '45
How and why many a company can use a home economist. K. Fisher. Ptr Ink 215: 62+ Ap 26 '46
Mailings as a supplement to salesmen's calls; Spartan saw works. F. Emerson. il Ptr Ink 213:132+ N 30 '45
Store questions customers about gripes, media, brands. Ptr Ink 215:84 Ap 12 '46

CUSTOMER relations—*Continued*
These are the new advisers; advertising and public relations increasingly important. J. A. Ecclesine. Adv & Sell 39:110 Mr '46
Three neglected paths to customer opinion. C. S. Wilkinson. Adv & Sell 39:60 Ap '46
What's happened to all the little black books? H. Bird. Ptr Ink 213:21 D 7 '45

See also
Banks and banking—Customer relations
Electric utilities—Customer relations
Gas companies—Customer relations
Public relations

CUSTOMS bonds. See Insurance, Surety and fidelity—Customs bonds

CUTLERY
Cutlery showroom provides background for wholesale selling; Englishtown cutlery, New York city. il plan Arch Forum 85:135 O '46

CUTTER laboratories, inc.
Cutter's first; California biological and pharmaceutical house turns to outside financing. Bsns W p61 O 12 '46

CUTTING
High velocity band sawing; plywood, metals and plastics. H. J. Chamberland. il Automotive & Aviation Ind 94:18-21+ F 1 '46

See also
Electric cutting
Gear cutting
Metal cutting
Milling
Oxyacetylene cutting
Pipe cutting
Plastic materials—Cutting
Steel cutting
Thread cutting

CUTTING, Oxyacetylene. See Oxyacetylene cutting

CUTTING machines
Abrasaw machine for cutting non metallic materials. il Automobile Eng 35:495 N '45; Electrician 135:469 N 2 '45
Fabricating with metal working machines. G. Becker. diags Mod Plastics 23:146-7 Ag '46

See also
Cutting tools
Gear cutting machines
Metal cutting
Milling cutters
Oxyacetylene cutting
Paper cutting machines
Reamers
Saws
Screw machines
Shears (machines)
Wire cutting machines

CUTTING machines, Meat. See Meat cutting machines

CUTTING off machines
Brookes parting-off machines. il Engineer 181:162 F 15 '46

CUTTING tools
Art of cutting metals; work of F. W. Taylor. O. W. Boston. Mech Eng 68:302-4+ Ap '46
Automatic tool undercuts threaded-hole bottoms. H. E. Atzrott. diag Am Mach 90:144 Jl 18 '46
Brazing tool tips to shanks by induction heating. T. A. Vernor and E. P. Adams. il Mach 52:178 D '45; Same. Welding J 25:26 Ja '46; Same cond. Elec World 126:76 Ag 3 '46
Chromium-plated tools have longer life. A. A. Spisak. il Am Mach 90:99-101 F 28 '46
Combined operations demonstrated with three different built-up tools. diags Am Mach 90:123 Ja 3 '46
Cushioned high-cobalt shaper tools. Iron Age 156:61 N 29 '45
Diamonds as cutting tools and some of their possibilities. J. R. Roubik and J. P. Bunce. diags Steel 118:111+ Je 3 '46
Equipment designed to facilitate the use of diamond tools. G. Schlesinger and D. F. Galloway. diags Mach 52:179-81 Je '46
Forty years' progress in cutting tools. J. H. Barber. Inst Mech Eng J & Proc 154:18-21 Je '46
Grinding lathe tools to eliminate chatter. C. W. Christiansen. diags Mach 52:174-6 My '46
Hard chromium plating of cutting tools; abstract. H. Schallbroch and W. Hielscher. Materials & Methods 23:517-18 F '46
Helical cutter with adjustable blades. C. F. Smith. diags Mach 52:193-4 Jl '46
Machining with diamond tools. A. Maxfield. il Mod Plastics 23:131-5 Mr '46
New uses for Hardsteel. F. G. Gepfert. il Iron Age 156:68 D 13 '45
One-piece straight-shank adapter improves flycutter. il Am Mach 90:139 My 9 '46
Parallel bar radius tool has wide cutting range. A. Jeschke. il diags Am Mach 90:135 Ap 25 '46
Serve and sell; Barber-Colman's new packaging for cutting tools, utilizing plastic strip-coating; Protecto-coat. il Mod Packaging 20.102-4+ O '46
Shearcutter tool. il R Sci Instr 17:346 S '46
Tool and die welding. A. R. Butler and F. E. Kessler. il Welding J 25:953-61 O '46
Tool maintenance and die repair. P. D. Scott. Welding J 25:442 My '46
Tool materials. J. E. Attwood. Engineering 161:596 Je 21 '46

See also
Forming tools
Milling cutters

Manufacture

Bright-hardening of tools and machine parts in controlled atmospheres. C. E. Peck. flow diag il diag Mach 52:158-63 F '46
How to select and use cast iron shanks for cutting tools. il Steel 118:90-1+ Ja 14 '46
Preventing tool galling by nitriding. Steel 117:142 D 10 '45
What future for contract tool shops? B. Finney. Am Mach 90:108-11 Jl 4 '46

Standards

Standardisation of tools for machinability tests. C. H. Booth. Engineering 161:595-6 Je 21 '46

CUTTING tools, Carbide
Adjustable-wedge toolholder for high-load carbide turning. C. Bily. il diags Am Mach 90:138 Ag 15 '46
All-carbide boring bar. H. E. York. diags Am Mach 90:115 My 23 '46
Analysis of initial contact of milling cutter and work in relation to tool life. M. Kronenberg. il diags A S M E Trans 68:217-28 Ap '46
Automatic machining of valve guides and similar parts done on lathe with carbide tools. il diag Steel 118:124 My 20 '46
Carbide die applications, present and future. E. Glen. il diag Iron Age 157:51-4 Ap 25 '46
Carbide drawing dies. D. Mapes. il Steel 119:84+ Jl 29 '46
Carbide milling cutter data calculating chart. Mach 52:173-5 Ap '46
Carbide milling cutters; production tests on modified forms of negative rake. Automobile Eng 36:309-10 Jl '46
Carbide mills aluminum alloys. G. R. Gwynne. il Am Mach 90:106-7 Je 6 '46
Carbide tooling at the New York naval shipyard. C. A. Palmer and J. G. Kenney. il plan diags Mech Eng 68:879-84 O '46
Carbides require more powerful machines. E. Hirschfeld. il diags Am Mach 90:108-12 S 26 '46
Comparison of the various grades of cemented carbide tool materials; tabulation; engineering file facts. R. S. Burpo, jr. comp. Materials & Methods 24:419 Ag '46
Cushioned tips extend life of negative-rake turning tools. W. C. Holloway. il diags Am Mach 90:108-9 Ja 31 '46
Cutter life as affected by the mounting of cemented carbide blanks. F. W. Lucht. il diags Steel 119:80-3+ Jl 22 '46
Data on production runs with carbide milling cutters. A. O. Schmidt. bibliog il diags Mech Eng 68:427-31 My '46; Same cond. Iron Age 156:54-7 N 22 '45
Developments in modern tooling; Locomotive maintenance officers' association report. Ry Mech Eng 120:532-3 O '46
Diamond lapping wheel test; abrasive action of tungsten carbide. Engineering 161:271 Mr 22 '46
Effect of work position in face milling of steel with carbide cutters. F. W. Lucht. il diags Iron Age 156:72-6 D 6; 64-8 D 13 '45; pt 1 rev 157:64-8 Ja 24 '46; Same. A S M E Trans 68:151-60 F '46
Experiences with carbide-tipped tools. M. E. Feldstein. il diags Mech Eng 68:307-13 Ap '46
German cemented carbide industry in 1945. G. Comstock. Metal Prog 49:117-21 Ja '46

CUTTING tools, Carbide—*Continued*
German cutting-tool steel substitutes revealed inferior; abstract. H. Crump. Iron Age 156: 155-7 N 22 '45
German vs. American cemented carbides. P. M. McKenna. il Iron Age 157:64-8 F 7 '46
Handling single-point tools at Watervliet arsenal. E. G. Moffat. il Mech Eng 68:415-18 My '46; Same cond. Mach 52:161-2 Mr '46
High-rake flycutters mill precision surfaces on castings. G. C. Becker. il diag Am Mach 89:128-9 D 6 '45
How the Russians lap carbides. Z. E. Scheelvoog. diag Am Mach 90:138 Mr 28 '46
How to select carbide milling cutters. D. V. Stevens and A. O. Schmidt. il diags Am Mach 90:112-16 O 24 '46
Increasing production with carbide tool inserts; Westinghouse electric corp. R. J. Rousseau. il Steel 118:92-3+ Je 10 '46
Mechanism of tool vibration in the cutting of steel. R. N. Arnold. il diags Engineer 180:355-6, 379-80 N 2-9 '45; Discussion. 180: 350-2 N 2 '45
Milling large spar caps with positive rake cutters; Northrop aircraft, inc. F. M. Gibian. il diags Automotive & Aviation Ind 94:32-4+ F 15 '46
Milling T-slots with carbide-tipped cutters. diags Mach 52:187 Ja '46
Milling with carbide tools; abstract. F. M. Burt. Materials & Methods 22:1510+ N '45
Negative rake; recommendations for the use of Ardoloy tipped tools. il Automobile Eng 35:543-6 D '45
Negative rake turning with carbide tools; machining of steel forgings. C. Edgar. diags Steel 117:132+ D 3 '45
One billion hits predicted for carbide dies; making razor blades. G. A. Barth. il diags Am Mach 90:142-3 Jl 18 '46
Plant committee coordinates application of carbides to milling; Kearney & Trecker corporation. A. O. Schmidt and D. V. Stevens. il diags Am Mach 90:95-9 Ap 25 '46
Removing carbide tips from tool shanks. R. G. Maurer. Metal Prog 49:537 Mr '46
Selecting a machine tool for carbide tooling. T. C. Du Mond. il Materials & Methods 24: 374-8 Ag '46
Single-point turning research. J. F. Allen. il diag Iron Age 157:66-70 Ja 10; 69-72 Ja 17 '46
Speed and feed selection in carbide milling with respect to production, cost, and accuracy. H. Ernst and M. Field. il diags A S M E Trans 68:207-15 Ap '46
Structure of hard metals; abstract. W. Dawiml and J. Hinuber. Materials & Methods 22:1530 N '45
Tool wear as a measure of machinability. C. Eatough. il diag Engineering 161:622-3 Je 28 '46
Top surface speeds on tough alloys with negative-rake carbide tools. W. L. Sandham. il diags Am Mach 90:87-9 Jl 4 '46; 112-16 Jl 18 '46
Tungsten carbide tools. diags Steel 118:106+ Mr 25 '46

Care

Shop poster cartoons aid in conservation of carbide tools; Firth-Sterling steel company. il Ind Marketing 31:70 My '46

Manufacture

Automatic induction brazing speeds tool tipping; Willey's carbide tool co. il Iron Age 157:54-5 Ap 11 '46
Brazing carbide tips; abstract. R. O. Catland. Materials & Methods 23:518+ F '46
Brazing tool tips by induction heating; Willey's carbide tool co. il Steel 119:101+ Ag 19 '46
Fixture for milling tool shanks. diags Mach 52:181-2 Mr '46
Induction brazing of carbide tips to tools. il Mach 52:177-8 Ap '46; Elec World 125: , 136+ My 11 '46; Electronics 19:152+ Jl '46
Multiple milling of tool shanks increases production. E. Weaver. il Mach 52:183 Je '46

CYANAMIDE
Associating effect of the hydrogen atom; the N-H-N bond; the structure and tautomerism of cyanamides. L. Hunter and H. A. Rees. Chem Soc J p617-21 S '45

CYANIDE poisoning
Fear of cyanide gas; demonstration by F. D. Snell quashes theory that heated melamine gives off cyanide in dangerous quantities. Mod Plastics 23:103 Mr '46
Therapeutic and prophylactic effect of methemoglobinemia in inhalation poisoning by hydrogen cyanide and cyanogen chloride. B. J. Jandorf and O. Bodansky. bibliog J Ind Hygiene 28:125-32 Jl '46

CYANIDES
Amidines; preparation of amidines from cyanides. P. Oxley and W. F. Short. bibliog Chem Soc J p147-50 Mr '46
Cyanide bath attack on copper brazing material. Iron Age 157:81 F 7 '46
Explosions in cyanide furnaces. Safety Eng 91:34 Ja '46
Some sulphanilamidophenyl cyanides and related compounds. A. H. Cook and others. Chem Soc J p861-4 D '45

CYANINES
Color and constitution; absorption of unsymmetrical carbocyanines. L. G. S. Brooker, R. H. Sprague and H. W. J. Cressman. Am Chem Soc J 67:1889-93 N '45
Color and constitution; pyrrolocyanines. L. G. S. Brooker and R. H. Sprague. Am Chem Soc J 67:1869-74 N '45
Critical concentration for the formation of micelles as indicated by the absorption spectrum of a cyanine dye. M. L. Corrin and others. J Chem Phys 14:216-17 Mr '46
Symmetrical dicarbocyanines having a methyl group as substituent on the chain. F. M. Hamer and R. J. Rathbone. Chem Soc J p595-600 S '45

CYANOBUTADIENE
Dipole moments and structures of ketene and of several polar molecules containing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:1357-60 Jl '46

CYANOETHYL ether
Some aryl di-β-amidinoethyl ethers. A. H. Cook and K. J. Reed. Chem Soc J p920-1 D '45

CYANOGEN
Dissociation energies of CO, N_2, NO, and CN. J. G. Valatin. J Chem Phys 14:568 S '46

CYANOGEN bromide
Determination of nocotine in the air. W. E. McCormick and M. Smith. bibliog Ind & Eng Chem Anal ed 18:508-12 Ag '46

CYANOGEN chloride
Therapeutic and prophylactic effect of methemoglobinemia in inhalation poisoning by hydrogen cyanide and cyanogen chloride. B. J. Jandorf and O. Bodansky. bibliog J Ind Hygiene 28:125-32 Jl '46

CYANOSTYRENE
p-Cyanostyrene. C. G. Overberger and R. E. Allen. Am Chem Soc J 68:722 Ap '46
Preparation and polymerization of *p*-cyanostyrene, *p*-vinylbenzoic acid and its methyl ester. C. S. Marvel and C. G. Overberger. bibliog Am Chem Soc J 67:2250-2 D '45

CYCADACEAE, Fossil
Yale cycadeoids. G. R. Wieland. Science 102: 513-14 N 16 '45

CYCLIC compounds
Absorption spectra; cyclic β-diketones. E. R. Blout, V. W. Eager and D. C. Silverman. bibliog Am Chem Soc J 68:566-71 Ap '46
Attempts to prepare cyclopolybenzoylenes. C. F. Koelsch and C. E. Bryan. bibliog Am Chem Soc J 67:2041-3 N '45
Carbonyl bridge compounds and related substances. C. F. H. Allen. bibliog(97 references) Chem R 37:209-68 O '45
Cleavage of cyclic beta diketones; tetramethyl-1,3-cyclobutanedione. J. L. E. Erickson and G. C. Kitchens. bibliog Am Chem Soc J 68:492-6 Mr '46
Cyclization of di- and triaryl carbinols; contribution to the mechanism of cyclization reactions. F. Bergmann and S. Israelashwili. bibliog Am Chem Soc J 68:1-5 Ja '46

CYCLIC compounds—*Continued*
Cyclization of pseudoionone by acidic reagents. E. E. Royals. bibliog Ind & Eng Chem 38:546-8 My '46
Cyclopropane derivatives; the electric moments of some alicyclic compounds. M. T. Rogers and J. D. Roberts. bibliog Am Chem Soc J 68:843-6 My '46
Organo-silicon polymers; the cyclic dimethyl siloxanes. M. J. Hunter and others. bibliog Am Chem Soc J 68:667-72 Ap '46
Oxidative ring closure in the Friedel-Crafts reaction. G. D. Buckley. Chem Soc J p561-6 S '45
Quaternary ammonium salts as germicides; quaternary ammonium salts derived from cyclic amines. R. S. Shelton and others. Am Chem Soc J 68:757-9 My '46
Reaction of some cyclic acetals with acid anhydrides. M. Senkus. bibliog Am Chem Soc J 68:734-6 My '46
Some reactions of *cis*-dibenzoyl-(morpholinomethyl)-ethylene; reduction and cyclization. P. S. Bailey and R. E. Lutz. bibliog Am Chem Soc J 67:2232-5 D '45
Studies in the terpene series; method for the determination of rings in bicyclic dihydroterpenes; isomerization of pinane in the presence of dilute aqueous salt solutions. V. N. Ipatieff and H. Pines. Am Chem Soc J 67:1931-4 N '45

CYCLOBUTANE
Theory of the non-tetrahedral carbon atom. G. H. Duffey. J Chem Phys 14:342-3 My '46

CYCLODEHYDRATION. See Dehydration

CYCLODEHYDROGENATION. See Dehydrogenation

CYCLOHEPTANOL
Isomerization accompanying alkylation; reaction of cycloheptanol and cycloheptene with benzene; synthesis of cycloheptylbenzene. H. Pines, A. Edeleanu and V. N. Ipatieff. bibliog Am Chem Soc J 67:2193-6 D '45

CYCLOHEPTENE
Isomerization accompanying alkylation; reaction of cycloheptanol and cycloheptene with benzene; synthesis of cycloheptylbenzene. H. Pines, A. Edeleanu and V. N. Ipatieff. bibliog Am Chem Soc J 67:2193-6 D '45

CYCLOHEPTYLBENZENE
Isomerization accompanying alkylation; reaction of cycloheptanol and cycloheptene with benzene; synthesis of cycloheptylbenzene. H. Pines, A. Edeleanu and V. N. Ipatieff. bibliog Am Chem Soc J 67:2193-6 D '45

CYCLOHEXANE
Effect of added components on the relative volatility of two binary mixtures. O. L. Updike, jr. and others. bibliog Am Inst Chem Eng Trans 41:717-36 D '45
Epimeric alcohols of the *cyclo*hexane series; the optically inactive 3-methyl*cyclo*hexanols. A. K. Macbeth and J. A. Mills. Chem Soc J p709-12 O '45
Extractive distillation of hydrocarbon mixtures in a packed column. R. S. Dicks and C. S. Carlson. bibliog il diag Am Inst Chem Eng Trans 41:789-803 D '45
Heats of combustion of four cyclopentane and five cyclohexane hydrocarbons. W. H. Johnson and others. bibliog J Res Nat Bur Stand 36:463-8 My '46
Heats of formation and combustion of the normal alkylcyclopentanes and cyclohexanes and the increment per CH_2 group for several homologous series of hydrocarbons. E. J. Prosen and others. bibliog J Res Nat Bur Stand 37:51-6 Jl '46
Petroleum provides new hydrocarbons for the chemical industry. C. C. Crawford. il Chem Ind 59:469-73 S '46
Thermodynamic functions of cyclohexane-methanol mixtures. S. E. Wood. bibliog Am Chem Soc J 68:1963-6 O '46
Vapor-liquid equilibria of binary hydrocarbon systems. J. M. Harrison and L. Berg. Ind & Eng Chem 38:117-20 Ja '46

CYCLOHEXANECARBOXYLIC acid
4-(*p*-Hydroxyphenyl)-cyclohexanecarboxylic acid and derivatives. W. S. Johnson, C. D. Gutsche and R. D. Offenhauer. Am Chem Soc J 68:1648-50 Ag '46

CYCLOHEXANEDIAMINE
Synthesis of alicyclic diamines. L. C. Behr and others. Am Chem Soc J 68:1296-7 Jl '46

CYCLOHEXENE
Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in cyclohexene and gasoline. H. F. Lewis and others. bibliog il Ind & Eng Chem 37:1108-11 N '45
Vapor-liquid equilibria of binary hydrocarbon systems. J. M. Harrison and L. Berg. Ind & Eng Chem 38:117-20 Ja '46

CYCLOHEXENONE
Preparation of 3-methyl-5-aryl-2-cyclohexen-1-ones. E. C. Horning and R. E. Field. bibliog Am Chem Soc J 68:384-7 Mr '46
Synthesis of cardiazole (pentamethylenetetrazole) by the action of hydrazoic acid on *cyclo*hexanone. N. B. Chapman, H. McCombie and B. C. Saunders. Chem Soc J p929 D '45
Synthesis of 3-methyl-5-(*p*-methoxyphenyl)-4-carbethoxy-2-cyclohexen-1-one. E. C. Horning and R. E. Field. bibliog Am Chem Soc J 68:387-9 Mr '46

CYCLOHEXYLAMINE
Tests to determine qualities of amine; investigation of cyclohexylamine for controlling CO_2 corrosion in condensate return lines. M. Gelfand. Power Pl Eng 49:82-3+ O '45

CYCLOHEXYL methacrylate
Cast plastics for precision optics. il Mod Plastics 23:116-18 Ja '46

CYCLOHEXYLSTYRENE
Preparation and polymerization of some alkyl styrenes. C. S. Marvel, R. E. Allen and C. G. Overberger. bibliog Am Chem Soc J 68:1088-91 Je '46

CYCLONE separators. See Dust collectors

CYCLOPENTADIENE
Further investigations of polarity in hydrocarbons possessing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:244-7 F '46

Analysis
Determination of cyclopentadiene and dicyclopentadiene. K. Uhrig, E. Lynch and H. C. Becker. bibliog diag Ind & Eng Chem Anal ed 18:550-3 S '46

CYCLOPENTANE
Direct catalytic conversion of methylcyclopentane to benzene. B. S. Greensfelder and D. L. Fuller. bibliog Am Chem Soc J 67:2171-3 D '45
Heat capacities, heats of transition, heats of fusion and entropies of cyclopentane, methylcyclopentane and methylcyclohexane. D. R. Douslin and H. M. Huffman. Am Chem Soc J 68:173-6 F '46
Heats of combustion of four cyclopentane and five cyclohexane hydrocarbons. W. H. Johnson and others. bibliog J Res Nat Bur Stand 36:463-8 My '46
Heats of formation and combustion of the normal alkylcyclopentanes and cyclohexanes and the increment per CH_2 group for several homologous series of hydrocarbons. E. J. Prosen and others. bibliog J Res Nat Bur Stand 37:51-6 Jl '46
System cyclopentane—neohexane—aniline. K. T. Serijan, R. A. Spurr and L. C. Gibbons. bibliog Am Chem Soc J 68:1763-4 S '46
Theory of the non-tetrahedral carbon atom. G. H. Duffey. J Chem Phys 14:342-3 My '46

CYCLOPENTENONAPHTHALENE
2'-Ketodihydro-1,2 - cyclopentenonaphthalene and derivatives of naphtho[1.2-*b*]furan. A. L. Wilds and J. A. Johnson, jr. bibliog Am Chem Soc J 68:86-9 Ja '46

CYCLOPENTENOPHENANTHRENE
2'-Ketodihydro-3,4 - cyclopentenophenanthrene and derivatives of phenanthro[4.3-*b*]-furan. A. L. Wilds and W. J. Close. bibliog Am Chem Soc J 68:83-6 Ja '46

CYCLOPENTYL valeric acid
Syntheses of δ-cyclopentyl-*n*-valeric acid. G. H Coleman, J. E. Callen and C. A. Dornfeld. bibliog Am Chem Soc J 68:1101-2 Je '46

CYCLOPROPANE
Cyclopropane derivatives; the electric moments of some alicyclic compounds. M. T. Rogers and J. D. Roberts. bibliog Am Chem Soc J 68:843-6 My '46
Dipole moments of chlorobenzene, monochlorocyclopropane, and 1,2-dichlorocyclopropane, with a calculation of the exterior valence angle of the cyclopropane ring. B. I. Spinrad. bibliog diag Am Chem Soc J 68:617-20 Ap '46
Heat capacity, vapor pressure, heats of fusion and vaporization of cyclopropane; entropy and density of the gas. R. A. Ruehrwein and T. M. Powell. bibliog Am Chem Soc J 68:1063-6 Je '46
Kinetics and mechanism of the isomerization of cyclopropane. E. S. Corner and R. N. Pease. bibliog Am Chem Soc J 67:2067-71 D '45
Some new cyclopropanes with a note on the exterior valence angles of cyclopropane. P. G. Stevens. bibliog Am Chem Soc J 68:620-2 Ap '46
Structure of chlorinated cyclopropanes. J. M. O'Gorman and V. Schomaker. Am Chem Soc J 68:1138-9 Je '46
Theory of the non-tetrahedral carbon atom. G. H. Duffey. J Chem Phys 14:342-3 My '46
2-Tolylpyrrolines and the rearrangement and hydrolysis of aryl cyclopropyl ketimines. J. B. Cloke and others. bibliog Am Chem Soc J 67:2155-8 D '45

CYCLOTRON
Cyclotron beam current integrator and recorder. E. A. Hamacher. diags R Sci Instr 17.364-8 O '46
Frequency modulated cyclotron. J. R. Richardson and others. Phys R 69:669-70 Je 1 '46
Graphical method for determining particle trajectories. W. E. Parkins and E. C. Crittenden, jr. J Ap Phys 17:447-9 Je '46
Ion sources for cyclotrons. M. S. Livingston. diags Rs Mod Phys 18:293-9 Jl '46
Mechanical frequency modulation system as applied to the cyclotron. F. H. Schmidt. bibliog il diags R Sci Instr 17:301-6 Ag '46
Mono-energetic protons from a cyclotron. E. C. Creutz and R. R. Wilson. diags R Sci Instr 17:385-8 O '46
R-f heating cyclotron filaments. A. E. Hayes, jr. Phys R 70:220 Ag 1 '46
Trace tagged atoms. Franklin Inst J 241:186 Mr '46

See also
Synchrotron

CYCLOVERSION process. See Gasoline—Manufacture

CYLINDERS
Accuracy of lumping in an electric circuit representing heat flow in cylindrical and spherical bodies. V. Paschkis and M. P. Heisler. bibliog diag J Ap Phys 17:246-54 Ap '46
Drawing stainless cylinders; Lalance & Grosjean co. L. E. Browne. il Steel 117:116-17+ D 10 '45
Heat transfer from a cylindrical surface to air in parallel flow with and without unheated starting sections. M. Jakob and W. M. Dow. bibliog diags A S M E Trans 68: 123-34 F '46
Induction heating of hollow metallic cylinders. A. Gemant. J Ap Phys 17:195-200 Mr '46
Instrument for checking bore diameters in long cylinders. D. E. McDonald. Mach 52: 192 D '45

CYLINDERS (engines, etc.)
Analysis of the lubrication between the piston rings and cylinder wall of a running engine. J. S. Courtney-Pratt and G. K. Tudor. Engineering 161:69-71 Ja 18 '46; Same cond. Engineer 180:469-71 D 7 '45; Discussion. 180:459-60, 480 D 7-14 '45
Cooling characteristics of steel- and aluminum-finned cylinder barrels for in-line aircooled engines. M. Piry. il diags S A E J 53:630-9 N '45
Correlation of cooling data from an air-cooled cylinder and several multicylinder engines. B. Pinkel and H. H. Ellerbrock, jr. bibliog il U S Nat Advisory Com for Aeronautics 1940:59-83 '41
Heat transfer from a baffled-finned cylinder to air. A. W. Lemmon, jr. and others. bibliog il diags A S M E Trans 67:601-10; Discussion. 610-12 N '45
High-conductivity cooling fins for aircraft engines. J. W Cunningham. il diags S A E J 53:742-8 D '45
Local coefficients of heat transfer for air flowing around a finned cylinder. W. H. McAdams and others. bibliog il diags A S M E Trans 67:613-20 N '45
Problem of cooling an air-cooled cylinder on an aircraft engine. M. J. Brevoort and U. T. Joyner. bibliog diags U S Nat Advisory Com for Aeronautics 1941:267-81 '42
Soft-grit blasting of cylinders. J. Albin. il Iron Age 156:65-7 N 22 '45

Lining
Cylinder liners; manufacturing methods of Harold Andrews grinding co. il diags Automobile Eng 36:149-55 Ap '46
Ford cylinder sleeve production. C. O. Herb. il Mach 52:139-47+ Jl '46

Manufacture
Abrasive sticks in plastic wedges facilitate automatic bore sizing. il diag Product Eng 17:100-1 S '46
Blowing cylinder barrel cores; Buick motor division. A. H. Allen. il plan Foundry 74: 170-3+ My '46
Cylinder bores; direct deposition of chromium on aluminium blocks. il diag Automobile Eng 35:508 N '45
Machining and finishing cylinder bores at Buick. K. Rose. il diags Materials & Methods 24:619-21 S '46
Special presses expedite assembly work. il Comp Air Mag 50:329 D '45
Upsetting aluminum heads. H. G. Howell. il Steel 119:108-11+ S 23 '46
Upsetting cylinder barrels; Tube turns. G. W. Birdsall. il diag Steel 117:52-6 D 31 '45
Vacuum permanent mold casting. J. W. Wheeler. il Foundry 74:90-3+ Je '46

Testing
Buick's advanced practice in inspecting cylinders; use of Sheffield Precisionaire machines. il Mach 53:176-83 N '46
Cylinder bores; new equipment for rapid and automatic multiple gauging. il Automobile Eng 36:356 Ag '46
Gage checks cylinder blocks automatically at 32 points. il Iron Age 157:49 My 23 '46

CYLINDRICAL lenses. See Lenses

CYMENE
Monomercuration of aromatic hydrocarbons; paracymene. T. F. Doumani and K. A. Kobe. bibliog il Ind & Eng Chem 38:248-50 Mr '46
Studies in *p*-cymene; the saponification rate of isomeric benzoates derived from *p*-cymene. C. T. Lester and C. F. Bailey. bibliog Am Chem Soc J 68:375-6 Mr '46

CYPRUS
Outlook for Cyprus. Economist 151:655-6 O 26 '46

Politics and government
Enosis in Cyprus. Economist 150:930 Je 8 '46

CYSTEINE
Effect of some sulfhydryl-containing substances on the toxicity of an organic mercurial compound. W. K. Long and A. Farah. bibliog Science 104:220-1 S 6 '46
Mechanism of action of antibiotics; the reaction of unsaturated lactones with cysteine and related compounds. C. J. Cavallito and T. H. Haskell. bibliog Am Chem Soc J 67:1991-4 N '45
Studies in the detoxication of catalyst poisons; the detoxication of cystein with metallic per-acids. E. B. Maxted and A. Marsden. Chem Soc J p766-8 N '45
Studies in the detoxication of catalyst poisons; the use of various oxidising agents for the detoxication of cystein. E. B. Maxted. Chem Soc J p763-6 N '45
Synthetic preparation of 2-chloro-2'-hydroxydiethyl sulfide, reaction with cysteine and valine, and measurement of reaction rate in aqueous media. W. M. Grant and V. E. Kinsey. Am Chem Soc J 68:2075-6 O '46

CYSTINE
Division of the combined cystine of wool into four sub-fractions differing in chemical reactivity; abstract. H. Phillips. Am Dyestuff Rep 35:453 S 23 '46
Reactions for highly diluted cystine solutions. A. Steigmann. Soc Chem Ind J 64:309 N '45

CYTOCHROMES
Use of cytochrome C in combating tissue anoxia. S. Proger and D. Dekaneas. bibliog Science 104:389-90 O 25 '46

CYTOSINE
Ultraviolet absorption spectra of cytosine and isocytosine. M. M. Stimson and M. A. Reuter. bibliog Am Chem Soc J 67:2191-3 D '45

CZECHOSLOVAKIA
Hesitation in Czechoslovakia. Economist 150: 216-7 F 9 '46

See also
Bata shoe company
Glass trade—Czechoslovakia
Railroads—Czechoslovakia

Commerce

Credit for Czech industry. Economist 150: 503 Mr 30 '46

Economic conditions

Czechoslovakia a good risk for trade. F. Pick. Barron's 26:11 Ag 26 '46
Czechoslovakia rebuilds its economy and trade. K. H. Koranyi. il For Comm W 23: 6-9+ My 18 '46
Czechoslovakia's economic recovery. Economist 150:586+ Ap 13 '46

Economic policy

Communist regime has new 2-year plan for Czechoslovakia. Iron Age 158:129 N 7 '46
Czech restitution; U.S. firms affected by its nationalization decrees. il Bsns W p102+ F 2 '46
Czechoslovak two-year plan. Economist 151: 626-7 O 19 '46
National concern; a new commercial entity. For Comm W 25:13-15 O 5 '46
Nationalisation and the role of labour in the Czechoslovak economy. Int Labour R 53:75-8 Ja-F '46
Nationalization decrees. For Comm W 21:24 N 17 '45
Nationalization progress in Czechoslovakia. Lord Strabolgi. Iron Age 157:78+ My 16 '46
Two-year economic plan proposed. For Comm W 24:18 Ag 3 '46

Industries and resources

Czechoslovakia's Gablonz-ware industry is active again. For Comm W 22:23 F 9 '46
New cooperative for trade promotion of sales of handicraft and art goods. For Comm W 23:24 Je 8 '46

Politics and government

New Czech constitution. Economist 150:1049-50 Je 29 '46

D

DDD. See Tetrachlorodiphenylethane

DDM. See Dihydroxydichlorodiphenyl methane

DDT (dichlorodiphenyltrichloroethane)
Action on certain insects of fabrics impregnated with D.D.T. H. Hayhurst. Soc Chem Ind J 64:296 O '45
Aerosol toxicity; effect of the nonvolatile content of a DDT aerosol on mortality of houseflies. J. H. Fales and others. Soap & San Chem 22:157-8 Je '46
Analysis of the design and performance of airplane exhaust generators for the production of DDT aerosols for the control of anopheles quadrimaculatus. C. W. Krusé and R. L. Metcalf. diags Pub Health Rep 61:1171-84 Ag 9 '46
Ask laws on DDT use in Texas. J. E. McDonald. Soap & San Chem 21:131 N '45
Bromine analogs of DDT. S. J. Cristol and H. L. Haller. Am Chem Soc J 68:140-1 Ja '46
Chemical investigation of the insecticide DDT and its analogues. J. Forrest, O. Stephenson and W. A. Waters. Chem Soc J p333-43 My '46
Chemicals in South Africa; DDT against the tsetse. Chem Age (Lond) 53:546 D 8 '45
Chemistry of DDT; a review. S. J. Cristol and H. L. Haller. bibliog(49 references) il Chem & Eng N 23:2070-5 N 25 '45
Cites DDT labeling muddle; abstract. H. W. Baldwin. Soap & San Chem 21:131 N '45
Crystal structure of DDT [2,2-bis (p-chlorophenyl) 1,1,1-trichloroethane]. G. L. Clark and F. W. Cagle, jr. Science 101:465 My 4 '45; Discussion. I. Fankuchen and others. 103:25 Ja 4 '46
DDT against house flies; the comparative toxicity to houseflies of *p,p'* DDT, *o,p'* DDT, and pyrethrum extract. W. A. Gersdorff. Soap & San Chem 22:126-7 Mr '46
DDT aids protective strategy; abstract. Franklin Inst J 241:452 Je '46
DDT and Gix; abstract. Chem & Met Eng 53: 216 F '46
DDT and its textile applications. F. L. Goodall and others. bibliog Soc Dyers & Col J 62:189-98 Jl '46
DDT and the black widow spider. W. Van Riper. Science 104:111 Ag 2 '46
DDT and the public interest. J. A. Jenemann. Soap & San Chem 22:121+ Ja '46
DDT as a marine antifouling agent. J. F. Marchand. Science 104:74 Jl 26 '46
DDT as budworm cure doubted; abstract. J. C. W. Irwin. Paper Tr J 123:30 Jl 11 '46
DDT comparative toxicity. J. M. Tobia. Soap & San Chem 22:161 O '46
DDT concentrate; Pestroy. il Sci Am 175: 127 S '46
DDT; development, war use, peace applications. Soc Dyers & Col J 61:335-6 D '45
DDT for bedbugs; abstract. A. H. Madden and others. Soap & San Chem 22:155 Ap '46
DDT formulas. Sci Am 175:79 Ag '46
DDT hailed as best insect weapon. F. C. Bishopp. Eng N 136:868 My 30 '46
DDT in animal soap; abstract. G. A. Campbell and others. Soap & San Chem 22:159 Ap '46
DDT in flour mills; abstract. Soap & San Chem 22:157 Ap '46
DDT in paradichlorobenzene as a larvcide. H. A. Johnson and J. L. Eason, jr. Pub Health Rep 61:1185-8 Ag 9 '46
DDT in resin coating. il Chem & Eng N 24: 1708 Je 25 '46
DDT; just begun to fight. il Fortune 33:148-9+ Ja '46
DDT possibilities for oil industry explained; interview with M. J. Rentschler. H. Ridder. Nat Pet N 38:22+ F 13 '46
DDT powder for lice; abstract. R. C. Bushland and others. Soap & San Chem 22: 159 Ap '46
DDT residual vs. space sprays. Soap & San Chem 21:129+ N '45
DDT steam sprayer. R. B. Formeister. il Food Ind 18:505 Ap '46
Dehydrochlorination of 1-trichloro-2-*o*-chlorophenyl-2-*p*-chlorophenylethane (*o,p'*-DDT isomer). S. J. Cristol and H. L. Haller. bibliog Am Chem Soc J 67:2222-3 D '45
Developments and uses. Textile Inst J 36: P193-6 N '45
Effect of DDT on honeybees; abstract. J. E. Eckert. Soap & San Chem 22:149 Mr '46
Effect of DDT, sulphur and lethane dusts on germination of sugar-beet and onion pollens. E. Artschwager. Science 102:482 N 9 '45
Effect of fly food on resistance to insecticides containing DDT or pyrethrum. E. R. McGowan and W. A. Gersdorff. Soap & San Chem 21:165+ D '45
Fog or aerosol applicator for DDT. C. T. Vorhies and L. P. Wehrle. Science 102:648 D 21 '45
Government approved DDT uses. Chem Ind 58:866 My '46
How to use DDT for insect control; including a recommendation for filter fly control. L. F. Warrick and G. F. Bernauer. Water & Sewage Works 93:329-32 Ag '46
Inhibition of the catalyzed thermal decomposition of DDT. F. A. Gunther and L. R. Tow. bibliog Science 104:203-4 Ag 30 '46

DDT (dichlorodiphenyltrichloroethane)—*Cont.*

Insecticidal cords; generating smoke by burning cords impregnated with DDT or other toxic materials. D. E. Pearsall and P. P Wallace. Soap & San Chem 22:139+ O '46

Insecticide toxicity studies; experimental results on the comparative toxicity of benzene hexachloride, DDT and pyrethrum. W. A. Gersdorff and E. R. McGovran. Soap & San Chem 21:117+ N '45

Insecticides. F. N. Pickett. Chem Age (Lond) 54:281-2 Mr 16 '46; Discussion. G. C. Green. 54:378-9 Ap 6 '46

Issue pest control DDT report. Soap & San Chem 21:131B N '45

Livestock sprays. R. L. Cuff. il Soap & San Chem 22:135-7+ Ag '46

Mass murder introduces Sherwin-Williams' Pestroy, DDT product. E. C. Helfrick. il Sales Management 57:60+ O 15 '46

More reports on DDT. Bsns W p58+ Mr 16 '46

New use for DDT. E. T. Krebs, jr. Science 103:459 Ap 12 '46

Novel DDT formulation. il Chem Ind 58:987 Je '46

Okinawa; DDT and water treatment. A. E. Stilson. map Am Water Works Assn J 38: 625-36 My '46

Preparation of DDT using hydrogen fluoride as the condensing agent. J. H. Simons and others. Am Chem Soc J 68:1613-15 Ag '46

Removal of DDT from water supplies. J. A. Carollo. Am Water Works Assn J 37:1310-17; Discussion. H. E. Jordan. 1317 D '45

Residual toxicity of DDT; influence of moisture and temperature on the residual kill of DDT. H. L. Sweetman. Soap & San Chem 21:141+ D '45

Roach powder; DDT formula improved by the addition of Lethane A-70. R. B. Schwitzgebel. il Soap & San Chem 22:131-3 My '46

Roach powder tests; sodium fluoride, pyrethrum, DDT and the gamma isomer of benzene hexachloride. E. R. McGovran and P. G. Piquett. Soap & San Chem 22:157+ Ag '46

Simple purification procedure for DDT. K. H. Cook and W. A. Cook. Am Chem Soc J 68:1663-4 Ag '46

Site of action of DDT in the cockroach. K. D. Roeder and E. A. Weiant. Science 103: 304-6 Mr 8 '46

Solubility of DDT in kerosenes; effect of auxiliary solvents at subzero temperatures. E. E. Fleck and H. L. Haller. Ind & Eng Chem 38:177-8 F '46

Solvents for DDT. H. A. Jones, H. J. Fluno and G. T. McCollough. Soap & San Chem 21:110-13+ N '45

Some derivatives of 1 : 1 : 1-trichloro-2 : 2-di-(4-chlorophenyl)ethane (DDT). O. G. Backeberg and J. L. C. Marais. Chem Soc J p803-5 N '45

Stability of DDT and related compounds. E. E. Fleck and H. L. Haller. Am Chem Soc J 68:142-3 Ja '46

TDE, 1,1-dichloro-2,2-bis (*p*-chlorohenyl)-ethane, as an anopheline larvicide; comparison with DDT. C. C. Deonier and H. A. Jones. Science 103:13-14 Ja 4 '46

Toxicity of DDT isomers to some insects affecting man. S. J. Cristol and others. Science 104:343 O 11 '46

Toxicity of DDT to daphnia. B. G. Anderson. Science 102:539 N 23 '45

Toxicity of distempers containing DDT; abstract. S. Barnes. Paint Oil & Chem R 109: 20-1 Ja 10 '46

Use of DDT in mosquito control. il diags (Public health rep supp 186) 96p U.S. Public health service, Washington; pa 20c Supt. of doc. '45

Use of DDT in paint. L. L. Carrick. Paint Oil & Chem R 108:104-5 N 1 '45; Excerpt. Oil Paint & Drug Rep 148:44-5 N 5 '45

Using DDT for fly control. L. A. Sandholzer and J. M. Lemon. il diags Food Ind 18:860-3+ Je '46; Discussion. 18:1301 Ag '46

Using DDT in food factories for long insecticidal effect. J. Feiner. il Food Ind 17: 1446-9 D '45

Advertising

Better business bureau issues guide on DDT advertising. Ptr Ink 214:86 Ja 4 '46

Analysis

Applications of infrared spectroscopy to DDT. J. R. Downing and others. bibliog Ind & Eng Chem Anal ed 18:461-7 Ag '46

Colorimetric determination of DDT; color test for related compounds. M. S. Schechter and others. bibliog Ind & Eng Chem Anal ed 17:704-9 N '45

Colorimetric determination of *p,p'*-DDT in technical DDT. S. W. Chaikin. bibliog Ind & Eng Chem Anal ed 18:272-3 Ap '46

Determination of 2,2-bis-*p*-chlorophenyl-1,1,1-trichloroethane in technical DDT; microscopical method. W. McCrone, A. Smedal and V. Gilpin. il diags Ind & Eng Chem Anal ed 18:578-82 S '46

Determination of DDT; a review of analytical methods for the determination of DDT in the technical and pure compounds and in various insecticides, by total chlorine procedures. C. G. Donovan. Soap & San Chem 22:165+ Je '46

Determination of *p,p'* content of technical DDT. Ind & Eng Chem Anal ed 18:339 My '46

Field test for surface DDT. H. A. Stiff, jr. and J. C. Castillo. Ind & Eng Chem Anal ed 18:316-17 My '46

Method for the quantitative estimation of DDT in plant and/or sulfur-containing materials. W. E. Baier and others. Science 104:376 O 18 '46

Some physical properties of DDT and certain derivatives. H. L. Andrews and others. pl Pub Health Rep 61:450-6 Mr 29 '46

Spectrophotometric method for the determination of p,p'-DDT. R. M. Herriott. bibliog Science 104:228-30 S 6 '46

Manufacture

Chemicals in South Africa; government manufacture of DDT. Chem Age (Lond) 53: 621 D 29 '45

Manufacture of D.D.T. first made in ton lots at the Chemical warfare laboratories in Ottawa. J. Neil and others. il Can Chem & Process Ind 30:77-80 Ag '46

News from abroad. Chem & Met Eng 53:188+ Je '46

Preparation of technical DDT. H. S. Mosher and others. Ind & Eng Chem 38:916-23 S '46

Production of DDT; condensing action of chlorosulfonic acid on chloral hydrate and chlorobenzene. W. H. C. Rueggeberg and D. J. Torrans. bibliog Ind & Eng Chem 38:211-14 F '46

Physiological effect

Advise on DDT toxicity hazard. Soap & San Chem 21:129 N '45

DDT toxicity. H. S. Telford. Soap & San Chem 21:161+ D '45

Effect of DDT on cutaneous sensations in man. Y. Chin and C. T'ant. Science 103:654 My 24 '46

Excretion of DDT (2,2-bis-(p-chlorophenyl)-1,1,1-trichloroethane) in man, together with clinical observations. P. A. Neal and others. bibliog Pub Health Rep 61:403-9 Mr 22 '46

Is DDT poisonous? D. H. Killeffer. il Sci Am 174:5-7 Ja '46

Toxicity of DDT. F. C. Bishopp. Nat Safety N 54:46 S '46

Toxicity of DDT; a report on experimental studies. P. A. Neal and W. V. von Oettingen. bibliog Soap & San Chem 22:135+ Jl '46; Abstract. Oil Paint & Drug Rep 149: 45 Je 24 '46

Toxicity of DDT sprays to livestock; tests on cows and goats. H. S. Telford and J. E. Guthrie. Soap & San Chem 22:124-5+ S '46; Abstract. Oil Paint & Drug Rep 149:45 Je 24 '46

Transmission of the toxicity of DDT through the milk of white rats and goats. H. S. Telford and J. E. Guthrie. Science 102:647 D 21 '45

Testing

Accelerated aging test for insecticidal aerosols containing DDT. L. D. Goodhue and W. R. Ballinger. diag Ind & Eng Chem Anal ed 18:131-2 F '46

DDT (dichlorodiphenyltrichloroethane)—Testing—*Continued*
Aerosol formulation; laboratory tests with pyrethrum and DDT aerosols against the common malaria mosquito and the housefly. A. W. Lindquist and others. il Soap & San Chem 12:135+ My '46
Concentrated sprays tested for utility in control of flies and mosquitoes. H. O. Schraeder and others. Soap & San Chem 22: 145+ Ap '46
Test proves DDT value. Soap & San Chem 21:131B N '45
Testing DDT with infrared technique. Chem & Eng N 24:1430 My 25 '46
Tests conducted with DDT and benzene hexachloride against cattle flies in Kansas, Oklahoma, and Missouri; abstract. R. L. Cuff. Chem & Eng N 24.2622+ O 10 '46

DADE county, Florida, port authority
Dade county; landlord for airlines. Bsns W p24 Mr 2 '46

DAIREN, China
Report from Dairen, south Manchuria now. A. G. Hope. il For Comm W 24:3-4+ S 14 '46

DAIRIES
Heat and ventilation in the design of dairy stables. J. L. Strahan. il diags Heat & Ven 43:81-8 Ja '46

Equipment
Nettoyage et stérilisation des récipients et ustensiles utilisés en laiterie. G. Ray. bibliog Chimie & Ind 55:23-30 Ja '46
See also
Dairy machinery

DAIRY farms
All-electric dairy farming. il Elec R (Lond) 139:345-6 Ag 30 '46

DAIRY machinery
Deep drawing and bulging of stainless steel; manufacture of dairy equipment; International harvester co. J. E. Obernesser. il diags Steel 119:96-9+ Jl 1 '46

DAIRY products
Our future world-role in dairy-products trade. T. S. Hutchins il For Comm W 25: 3-4+ O 5 '46
See also
Butter
Casein
Cheese
Milk

Advertising
California dairy industry enters ranks of cooperative advertisers. Sales Management 55:122+ D 1 '45

Prices
Effectiveness of price control in the dairy industry. G. Hadary. J Bsns 19:76-81 Ap '46

DAIRYING
See also
Milk
Milk trade

Argentina
Dairy products, 1945. For Comm W 21:29 N 24 '45

Australia
Australian dairy industry. For Comm W 22:27 Ja 5 '46
Australian exports of butter and cheese, 1944-45 and July 1945. For Comm W 21:26 D 1 '45

Canada
Canada's dairy industry. Can Chem & Process Ind 30:55-6+ Ag '46
Canadian production and exports. For Comm W 23:38 Je 1 '46

Denmark
Danish milk and butter production, 1939-45. For Comm W 21:28 D 15 '45

Florida
Dairying in Florida. P. E. Reinhold. il Comm & Fin Chr 163:400+ Ja 24 '46

Germany
Continuous butter making successful in wartime Germany. A. V. Gemmill. flow sheets il diag Food Ind 18:841-3+ Je '46

Ireland
Eire's dairy industry. Economist 150:220 F 9 '46

United States
Dairy industry to hold wartime growth. Barron's 26:7 Jl 1 '46
Our future world-role in dairy-products trade. T. S. Hutchins. il For Comm W 25: 3-4+ O 5 '46

DALL, William Healey, 1845-1927
Bibliography and short biographical sketch of William Healey Dall. P. Bartsch, H. A. Rehder and B. E. Shields. por Smithsonian Misc Coll v 104, no 15:1-96 '46

DALLAS, Texas
See also Banks and banking—Dallas, Texas

Industries
Dallas industry turns to peacetime production. C. Blackman. il Manuf Rec 115:32-4+ Mr '46

Sewerage
Master plan for water and sanitary sewer utilities; with cost data; abstract. H. A. Hunter. Am Water Works Assn J 38:165-7 Ja '46

Water supply
Cement joints minimize leakage in cast-iron water lines. K. F. Hoefle. il Eng N 136:726-7 My 2 '46
Master plan for water and sanitary sewer utilities; with cost data; abstract. H. A. Hunter. Am Water Works Assn J 38:165-7 Ja '46
Meter reading, billing and commercial practices under wartime conditions. K. F. Hoefle. il Am Water Works Assn J 38: 775-8 Je '46

DALLAS railway and terminal company
Common stock offered. Comm & Fin Chr 163:463 Ja 28 '46

DALTON, Hugh, 1887-
Portrait. Bsns W p15 S 28 '46

DALTON, John, 1766-1844
Sketch. Engineer 182:158 Ag 23 '46

DALTON'S law
Some considerations of Dalton's law for gaseous mixtures. A. Foá. Chem & Ind p97-9 Mr 2 '46

DAMAGES
Amount of insurance on goods in storage doesn't limit negligence claim. Nat Underw 50:2 Jl 18 '46
Don't get stuck for damages. R. F. Carroll. Aviation 45:45+ Mr '46
Liability for fire loss to barge being towed to place of work. East Underw 46:31 N 16 '45
See also
Employers' liability
Manufacturers' liability
Municipal liability
Negligence
Personal injuries
Workmen's compensation

DAMODAR river, India
River valley planning in India; the Damodar. M. R. Goodall. diag J Land & Pub Util Econ 21:371-5 N '45

DAMPERS
Gas leakage is cut by slide-type damper. diags Eng & Min J 147:98 Jl '46

DAMPING. See Vibration

DAMPNESS in buildings
Decay a hazard in basementless houses on wet sites; protection of substructure timbers by use of asphalt roll roofing as soil cover. J. D. Diller. il Am Bld 68:92+ Jl '46
Moisture problem in housing; A.G.A. research projects on humidity control and venting of gas heaters. E. C. Adams. Am Gas Assn Mo 28:321-2+ Jl-Ag '46
Under floor condensation causes decay of wood. il Heat & Ven 43:91 F '46
Ventilating a motor room; prevention of condensation. P. R. Jordan. plan diags Sheet Metal Worker 37:74+ S '46

DAMS
Anderson Ranch dam. il map Engineer 180: 408-9, 430-2 N 23-30 '45
Application of principles of soil mechanics to rolled-fill earth dams; abstract. D. F. Glynn. Am Water Works Assn J 38:449-50 Mr '46

DAMS—*Continued*

Bolivia's Angostura dam should spur farm yields. C. B. Welch. For Comm W 25:9+ O 12 '46

Colorado and Big Thompson rivers scheme. il plan diags Engineer 182:224-7, 246-8 S 13-20 '46

Columbia River regulation to aid navigation. R. E. Hickson. il map Civil Eng 16:346-7 Ag '46

Construction bridge at Garrison dam designed for maximum salvage. plans diags Eng N 137:109-12 Jl 25 '46

Correction of tailwater erosion at Prairie du Sac dam. C. N. Ward and H. J. Hunt. il Am Soc C E Proc 72:1077-89 O '46

Davis dam scheduled for 1949 completion. il map diag Eng N 137:230-3 Ag 22 '46

Design and construction of Geist reservoir. C. Allen. il map plan diags Am Water Works Assn J 37:1318-40 D '45

Garrison dam on the Missouri river to make rolled fill history. maps diags Eng N 136: 920-2 Je 13 '46

Hollowell reservoir scheme for Northampton, with special reference to movement of the earth dam; abstract. A. G. McLellan. Am Water Works Assn J 38:688; Discussion. 689-90 My '46

Hydraulic design of conduit intakes in dams. B. O. McCoy. diags Boston Soc C E J 33: 174-84 Jl '46

More research on earth dams urged by members of the ASCE Soil mechanics and foundations division. Eng N 136:102 Ja 24 '46

Novel bulkhead pick-up device eliminates need for diver at Montgomery island and Emsworth dams. W. E. Sidney. il Eng N 136:117 Ja 24 '46

Plans for transforming San Francisco bay studied by War and Navy departments. map Eng N 137:56-7 Jl 11 '46

Power plant for Esna barrage. il Electrician 136:1173-4 My 3 '46

Rivers of wealth; great U.S. waterways being brought under control. il maps Esns W p21-2+ Je 1 '46

Tennessee Valley authority and the war. il diags map Engineer 181:190-1, 214-16, 236-9, 260-, 282-4 Mr 1-29 '46

$2 billion program begun on Missouri River basin. Eng N 136:527+ Ap 18 '46

Utilities have slim chance for plants at army dams. Elec World 126:63 Ag 31 '46

Utilities may be seeking control of army dam power. Elec World 126:79-80 Ag 17 '46

See also

Columbia river—
Grand Coulee dam
Hydroelectric plants
Irrigation
Reservoirs
Spillways

Cost

Davis dam and power plant, Arizona-Nevada; unit prices. Eng N 136:sup174+ F 7 '46

Merriman dam, New York; unit prices; comparison of 1939, 1945, 1946 bids. Eng N 136: 1009+ Je 27 '46

N.Y. shares builder's saving on contract to S. A. Healy co. for completion of Merriman dam. Eng N 136:393 Mr 21 '46

Wolf Creek dam and powerhouse substructure, Cumberland river, Kentucky; unit prices. Eng N 136:504 Ap 4 '46

Design

Effect of blankets on seepage through pervious foundations; application of formulas to the design of earth dams. P. T. Bennett. Am Soc C E Proc 71:19-32 Ja '45; Discussion. bibliog 71:407-10, 897-901, 1233-44; 72: 98-102 Mr, Je, O '45, Ja '46

Experiments on effective uplift area in gravity dams. S. Leliavsky. bibliog il diags Am Soc C E Proc 71:1474-1517 D '45; Discussion. 72:889-900 Je '46

General dam design problems. E. J. Wanless. Western Soc E J 51:66-70 Je '46

L'Aigle dam, France. il map plan diags Engineer 181:556-9 Je 21 '46

Plan for a movable dam. I. DeYoung. diags Am Soc C E Proc 71:167-75 F '45; Discussion. 71:778-80, 931, 1245-50; 72:138-42 My-Je, O '45, Ja '46

Prototype verifies hydraulic model tests; stilling basins of the Miami conservancy district. E. W. Lane and J. D. Lee. il diags Civil Eng 15:556-7 D '45

Structural features of hydraulic structures; Tennessee Valley project. R. M. Riegel. map diags Am Soc C E Proc 71:1194-1208 O '45; Discussion. 72:119-21 Ja '46

Thrust exerted by expanding ice sheet. E. Rose. bibliog Am Soc C E Proc 72:571-85 My '46

Fish problem

Seven years' operating experience at Bonneville hydroelectric plant; how salmon runs are handled in the fishways. il diags Power 90:146-50 Mr '46

Foundations

Critical stresses in a circular ring. R. H. Philippe and F. M. Mellinger. il diag Am Soc C E Proc 72:1185-7 O '46

Dams on porous media; experimental data on uplift forces; electric-analogy method. M. A. Selim. bibliog diags Am Soc C E Proc 71:1518-35 D '45

Effect of blankets on seepage through pervious foundations; application of formulas to the design of earth dams. P. T. Bennett. Am Soc C E Proc 71:19-32 Ja '45; Discussion. bibliog 71:407-10, 597-8, 897-901, 1233-44; 72:98-102 Mr-Ap, Je, O '45, Ja '46

Foundation of Hales Bar dam. J. W. Frink. bibliog il map diags Econ Geol 41:576-97 S '46

Foundation treatment. L. A. Schmidt, jr. il diags Am Water Works Assn J 38:1170-8 O '46

Kentucky dam on the Tennessee river. H. Wiersema. il maps diags Engineering 161: 338-9 Ap 12 '46

Soil studies for San Jacinto dam. J. N. Thompson. il map Civil Eng 16:57-9 F '46

Wellpoints dewater Denison Dam closure area. T. C. Gill. il diag Civil Eng 16:108-10 Mr '46

Protection

Deep cutoff trench of puddled clay for earth dam and levee protection. H. Kramer. il diag Eng N 136:986-90 Je 27 '46

Kingsley dam gets a new stone facing. il diag Eng N 136:29-31 Ja 10 '46

Relief wells for dams and levees. T. A. Middlebrooks and W. H. Jervis. diags Am Soc C E Proc 72:781-98 Je '46; Discussion. 72:1165-72 O '46

Reconstruction

Altus dam rebuilt as gravity structure with masonry facing used as forms. W. S. Byrne. il Eng N 135:860-3 D 27 '45

Saluda dam reinforced. A. W. Reid. il map diags Eng N 136:470-4 Ap 4 '46

Testing

Studying causes of failure of a leaking clay core wall. A. W. Bishop. bibliog diag Pub Works 77:19-20+ Jl '46

Uplift pressure

Dams on porous media; experimental data on uplift forces; electric-analogy method. M. A. Selim. bibliog diags Am Soc C E Proc 71:1518-35 D '45; Discussion. G. V. Richards. 72:1019 S '46

Experiments on effective uplift area in gravity dams. S. Leliavsky. bibliog il diags Am Soc C E Proc 71:1474-1517 D '45; Discussion. 72:889-900 Je '46

Relief wells for dams and levees. T. A. Middlebrooks and W. H. Jervis. diags Am Soc C E Proc 72:781-98 Je '46

DAMS, Concrete

Altus dam rebuilt as gravity structure with masonry facing used as forms. W. S. Byrne. il Eng N 135:860-3 D 27 '45

China plans an unprecedented dam for power, irrigation and navigation on the Yangtze river. il map Eng N 136:310-11 F 28 '46

China plans huge hydroelectric plant. il Concrete 54:6-8 Je '46

China to build biggest dam; irrigation and hydroelectric power development; Yangtze Valley. il map Comp Air Mag 51:107-9 Ap '46

Coaster gate and handling equipment for river outlet conduits in Shasta dam. J. E. Warnock and H. J. Pound. il diags A S M E Trans 68:199-206 Ap '46

Comments on the construction of the Saugatuck. S. P. Senior. N E Water Works Assn J 60:266-8 S '46

DAMS, Concrete—*Continued*
Construction cableways on Norfork dam. H. V. Pittman. il diags Eng N 135:878-83 D 27 '45
Construction of Norwalk Lake dam. J. E. Riordan. il map diag N E Water Works Assn J 60:255-65 S '46
Construction procedures at Fontana. O. Reed. il diag Civil Eng 16:210-12 My '46
Deterioration of concrete dams due to alkali-aggregate reaction. R. F. Blanks and H. S. Meissner. bibliog il Am Soc C E Proc 71:3-18 Ja '45; Discussion. 71:1089-1110, 1556-8; 72:126-37 bibliog(p136-7), 655-67 S, D '45-Ja, My '46
Energy dissipation at Fontana spillway. A. A. Meyer. il plan diag Eng N 135:738-41 N 29 '45
Experiments on effective uplift area in gravity dams. S. Lelıavsky. bibliog il diags Am Soc C E Proc 71:1474-1517 D '45; Discussion. 72.889-900 Je '46
Floating block theory in structural analysis. S. U. Benscoter. diags Am Concrete Inst J 17:205-26 Ja '46
French engineers build dam with spillway over the powerhouse. il plan diag Eng N 137:182-3 Ag 8 '46
Heavy deposit leached from concrete found in gallery of dam. il Eng N 137:503 O 17 '46
Kentucky dam on the Tennessee river. H. Wiersema. il maps plan diags Engineering 161:337-9, 348, 385-8, 396, 433-6, 444 Ap 12, 26, My 10 '46
L'Aigle dam, France. il map plan diags Engineer 181:556-9, 578-80 Je 21-28 '46
Model and prototype studies on unique spillway; Fontana dam. A. J. Peterka. il diags Civil Eng 16:249-51 Je '46; Discussion. 16:359, 461-2 Ag, O '46
Spillway designed for long-range savings; Fontana Dam spillway. A. A. Meyer. il plan diags Civil Eng 16:165-7 Ap '46
Stress conditions for the failure of saturated concrete and rock. K. Terzaghi. diags Am Soc T M Proc 45:777-92 bibliog(p791-2); Discussion. 793-801 '45
Structural features of hydraulic structures; Tennessee Valley project. R. M. Riegel. map diags Am Soc C E Proc 71:1194-1205 O '45; Discussion. 72:119-21 Ja '46
Use of native materials features construction of Puerto Rico water system. E. W. Whitlock. il map Civil Eng 16:434-7 O '46
Yangtze River dam project. il Engineer 182: 294-5 O 4 '46

See also
Colorado river—
Bridge Canyon
dam project

Cost

Allatoona dam and powerhouse, Georgia; unit prices. Eng N 137:126+ Jl 25 '46
Core drilling at Hogan dam, near Valley Springs, California; unit prices. Eng N 137:263 Ag 22 '46
Spillway and embankment, Blue Mountain dam, Arkansas, unit prices. Eng N 137: 263 Ag 22 '46

Repair

Maintenance of heavy concrete structures; Minnesota power & light company practice. C. C. Boswell and A. C. Giesecke. il diags Am Concrete Inst J 17:277-85 F '46
Safe amid hazards; repairing dam at Baltimore. R. M. Baker. il Nat Safety N 52: 87 O '45
Unique caissons make spillway repairs possible at Grand Coulee. R. Sailer and B. G. Davis. il diags Civil Eng 16:381-4 S '46

Testing

Structural behavior of Fontana dam revealed by dual-purpose instruments. W. R. Waugh. il diags Eng N 135:664-8 N 15 '45

DAMS, Movable
Plan for a movable dam. I. DeYoung. diags Am Soc C E Proc 71:167-75 F '45; Discussion. 71:778-80, 931, 1245-50; 72:138-42 My-Je, O '45, Ja '46

DAMS, Temporary
Canvas dams for river drive. A. Koroleff. diags Pulp & Pa of Can 47:95 My '46

DAMSON gum
Constitution of damson gum; hydrolysis products from methylated damson gum. E. L. Hirst and J. K. N. Jones. Chem Soc J p506-12 Je '46

DANCING

See also
Ballet

DANDELIONS

See also
Kok-sagyz

DANIELS, Arthur Cogswell, 1908-
Sketch. por East Underw 47:11 S 27 '46

DANIELS, Farrington, 1889-
Sketch. Chem & Eng N 24:1514 Je 10 '46

DANUBIAN countries
Russia's stake in Danubian countries, its impact on foreign commerce. C. Prince. Comm & Fin Chr 164:1374+ S 12 '46

DAPHNIA. See Cladocera

DARK adaptation. See Eye—Accommodation and refraction

DARNABY, Robert E. 1860-
Craftsman Robert E. Darnaby, senior, 86, is dean of Indianapolis printers. por Inland Ptr 118:40 N '46

DART, Justin Whitlock, 1907-
Portrait. Sales Management 57:40 Jl 1 '46
United-Rexall president. por(cover) Bsns W p8 Jl 13 '46

DAVID, Kentucky

Water supply

Ion-exchange process permits use of water with 2500 ppm total solids. il diag Pub Works 77:21+ Jl '46

DAVID W. Taylor model basin. See Ship model tanks

DAVIES, Ralph Kenneth, 1897-
Washington puzzle; why didn't Davies go back? Bsns W p7 My 11 '46

DAVIS, Arthur Vining, 1867-
Men who make aluminum. por Fortune 33:106 My '46

DAVIS, Charles S. 1877-
Borg-Warner; a company of parts. il por Fortune 33:128-33+ Je '46

DAVIS, Ewin Lamar, 1876-
Portrait. Dom Comm 34:3 Jl '46

DAVIS, Hallowell, 1896-
Dr Hallowell Davis joins staff of the Central institute for the deaf. por Acoustical Soc Am J 17:358-9 Ap '46

DAVISON chemical corporation
Annual report. Comm & Fin Chr 162:2269 N 12 '45

DAX, France

Water supply

La distribution d'eau thermominérale de Dax (Landes). plan Génie Civil 123:50-1 F 15 '46

DAY nurseries, Factory
Child service centers; experiment in services to employees. Ind Med 15:239-40 Mr '46

DAYLIGHT
How day-lighting was improved at W. M. White elementary school, Mexia, Texas. D. B. Harmon. il plan diags Arch Rec 99: 84-90 F '46
Light distribution from rectangular sources. P. Moon and D. E. Spencer. bibliog diags Franklin Inst J 241:195-227 Mr '46
Natural light reflected from the ceiling. B. F. Greene. diag Illum Eng 41:474-84 Je '46
Radical departure in daylighting; Saugus Union school, Calif. il plans diags Arch Rec 99:120-1 Mr '46

DAYLIGHT, Artificial

See also
Sunlight, Artificial

DAYLIGHT saving
Abandonment of daylight saving resulted in use of 800,000,000 kwhr more by residential electric consumers last winter. Edison Elec Inst Bul 14:279 Ag '46
Daylight saving in U.S. and foreign countries. Comm & Fin Chr 163:2490 My 6 '46
Daylight saving; up to states and cities. Bsns W p21 My 25 '46

DAYTON power and light company
Public utility securities. Comm & Fin Chr 163:3060, 3282 Je 6, 17 '46

DEAF
These deaf-mutes are good factory workers; Akron experience. B. M. Schowe. il Factory Management 104:123-5 Ag '46
Visible patterns of sound. R. K. Potter. il Science 102:463-70 N 9 '45
Visible speech patterns transmit intelligence; can be read by totally deaf person. il Electronics 19:200+ Ja '46
Visual language; sound analytical devices portray patterns of sound; developed by Bell telephone laboratories. Pub Util 36: 777-8 D 6 '45

See also
Speech, Visible

DEAF, Instruments for. See Hearing aids, Mechanical

DEAF mutes. See Deaf

DEAFNESS

See also
Noise

DEALER conventions
How to run a successful dealer convention. il Ptr Ink 216:32-3+ Ag 9 '46

DEALER helps
Advertising helps prospective customers solve reconversion problems; Allis Chalmers' inventory kit exposes manufacturers' warbeaten facilities. N. H. Jacobsen. Ind Marketing 30:33-4 D '45
Before you order your salesmen to merchandise get yourself a merchandising policy. F. L. McKibbin, jr. il Ptr Ink 216: 33-5 Jl 26 '46
Bright promotions by Bucilla lure mobs of women to needlework; Bernhard Ulmann co. W. C. MacCausland. il Sales Management 56:71-2+ Ja 15 '46
Build sales by building confidence in dealers; seven advertising devices. E. M. Houseman. il Ptr Ink 217:38-9 N 1 '46
California apparel creators new retail store tie-in. Ptr Ink 216:90 Ag 9 '46
Ford college trains dealers in ABC's of profit-making; Business management school of modern merchandising; key men are trained first. D. G. Baird. Sales Management 57: 56+ Jl 15 '46
Formfit helps corset retailers find way to greater profits; fact-finding research project. il Sales Management 56:56+ Ja 1 '46
GE offers dealers package-plan to hire and train good salesmen at low cost. il Sales Management 56:42-5 My 1 '46
Give the dealer a break! Edison Elec Inst Bul 14:273 Ag '46
Help! for the clerk at the point of sale; Dow display pieces. il Mod Packaging 19:105 Jl '46
How Goodyear aids dealer planning. Adv & Sell 38:69+ D '45
How Rexall will gird independent retailers for chain competition; reconverting outdated retail establishments into superstores. il Sales Management 56:37-9 Je 15 '46
Jiffy reminder of when to re-order; Norcross greeting cards. il Sales Management 57:118 O 1 '46
Nine-point service program helps Goodyear build independent dealers. il Sales Management 55:88-90 D 1 '45
Open home sales school for dealers-distributors; correspondence course in airplane selling. K. H. Holmgren. il Aviation 44:176-7 D '45
Patterned sales strategy: story behind Socony's new Mobil tire; effort to provide Mobilgas dealers with complete servicing program for motorists. E. Kinney. il Sales Management 56:56+ F 15 '46
Piper's sales training course. Aero Digest 52: 88+ Ja '46
Post-war re-education of retail sales people; specifically how to combine information for salesmen and for consumers; Coleman lamp and stove co. A. W. Boyer. il Ptr Ink 214: 25-7 Ja 4 '46
Public utility analyzes market for retailers; Virginia electric & power co. Ptr Ink 216: 112+ S 13 '46
Schumacher demonstrates last word in display with new Avenue of ideas; making showrooms selling laboratories. il Sales Management 56:39-41 My 20 '46
Simmons three-dimensional models pre-test retail store layouts. il Sales Management 57:89-90+ N 1 '46
Socony's blueprint for municipal airport development. E. Kinney. Sales Management 57:60-1+ Ag 1 '46
Sterling tool products company supplies dealers with unique selling aids. Ind Marketing 31:74+ Ag '46
Tomlinson employs fashion's force in its 1946 sales plan; trains furniture salesmen in wood-lore; promotional program. W. A. Tomlinson. il Sales Management 56:56+ Ap 1 '46
Turns skills of mountain folk into branded hooked rug business. il Sales Management 55:156+ N 15 '45
U.S. Rubber's dealers council: what it is, how it works. W. D. Baldwin. Sales Management 55:99+ D 1 '45
Washington newsletter changed to selling aid. Ptr Ink 216:83 Ag 16 '46
We try to help our customers sell; Frederick Stearns & co. division Sterling drug, inc. R. C. Brewster. Am Bsns 15:18-20 D '45
Why Columbia record dealers never starve for promotion ideas. il Sales Management 57:44-6+ S 1 '46

See also
Advertising—Dealer helps
Advertising, Point-of-sale
Tags

DEALER relations
Allotment record ends complaints; E. H. Schaefer company, Milwaukee, electrical appliance wholesaler. il Am Bsns 16:13+ Ja '46
Chatty letters from the boss help Thor strengthen dealer ties; Electric household utilities corp. E. N. Hurley. Sales Management 55:59-60 D 15 '45
Dealer participation in premium offers. il Ptr Ink 215:36-7+ Je 28 '46
Dealer survey sets radio sales strategy for Stromberg-Carlson. C. J. Hunt. Sales Management 56:85-6+ Mr 15 '46
Free deals cost money but they can buy service at the point of sale. Ptr Ink 217: 77-8+ N 8 '46
G.I. Joe: are you thinking about him as a potential dealer? W. H. Knowlton. Sales Management 55:149-50+ N 15 '45
How dealers react when promised brand merchandise is not forthcoming; sample study in Lancaster. R. H. Ganly. Ptr Ink 214: 21-2+ F 22 '46
How to handle dealer franchise inquiries when you have to say no; Bell & Howell letters. Sales Management 57:88+ Ag 15 '46
More sales through fewer dealers keynotes Nash sales policy. H. C. Doss. il Sales Management 55:35-7 N 15 '45
Retailer turns tables and fetes suppliers; United cigar-Whelan stores corp. il Ptr Ink 214:34+ Mr 8 '46
Why Esso advertising men spend half their time in the field. R. M. Gray. Sales Management 57:48+ Jl 15 '46

See also
Advertising—Dealer cooperation
Dealer helps
Electric utilities—Dealer relations
Gas companies—Dealer relations
Sales policies
Voluntary chain systems

DEALER schools
Automatic heating installation techniques; course given by Gas heating institute of southern California. il Dom Eng 168:144-5+ S '46
Helping the merchant to help himself; Michigan consolidated gas co. training school for dealers. D. D. Sheldon. il Gas Age 97:51-2 My 2 '46
Sales training is better without hoopla; training course to teach dealers and their salesmen to sell Youngstown kitchens. M. Adams. Ptr Ink 216:36-7 S 27 '46
Why does one dealer succeed where another fails? answer: training; American central manufacturing co. creates kitchen specialists. C. F. Hastings. il Sales Management 57:44-6+ O 15 '46

DEALER selection
Are buyers just taking it away, or are they being sold? Nash advertising, demonstration at time of delivery; select dealer plan. D. G. Baird. il Sales Management 57:37-9 O 15 '46
Carefully selects dealers for line in new field; Mark Cross company's men's toiletries. il Ptr Ink 216:104+ S 6 '46
No. 1 need in pre-fab home business, good dealers in the right spots; Gunnison unity-of-action plan. il Sales Management 57: 122+ Jl 15 '46
Northeastern halves number of dealers in search for lower sales costs. A. Ullman. il Sales Management 57:50+ O 1 '46
Selecting franchised dealers and locations; Shell Oil county-to-county survey. P. K. Lakin. il Ptr Ink 216:66+ S 13 '46
21 regions, 3,900 dealers in Kaiser-Frazer setup. W. A. MacDonald. il Sales Management 57:105-6 Ag 1 '46

DEALKYLATION. See Alkyl group

DEATH, Presumption of
Death of insured while riding in airplane held admitted by insurer's tender of policy reserve. Weekly Underw 153:1375 D 8 '45

DEATH benefits
Deferred compensation under executive employment contracts. H. S. Koster. Trusts & Estates 83:149-50 Ag '46
How an employee and his beneficiary are taxed on death benefits. S. Prerau. J Account 82:424 N '46

DEATH duties. See Inheritance tax

DEATH rates. See Mortality—Statistics

DEATH sentence clause. See Holding companies—Laws and regulations

DEBT
Bad debts and your income tax. H. J. Ashe. Inland Ptr 116:42-3 N '45
Commerce department reports indebtedness still rising. Comm & Fin Chr 164:1536+ S 26 '46
Limits of debt; use of debt as instrument of economic and political policy. R. M. Fischer. Trusts & Estates 82:153-7 F '46
Public and private debt in the United States. E. T. Bonnell. Survey of Cur Bsns 26: 10-17+ S '46

See also
Bankruptcy
Credit

DEBTOR and creditor
Bank's right to apply payment to accounts not covered by guaranty. Banking Law J 63:136-42 F '46
Judgment creditor must show that funds of judgment debtor in name of third party is debtor's property. Banking Law J 63:683-8 S '46
Sales under trust receipts. C. B. Everberg. Credit & Fin Management 48:14-17 Je '46

DEBTS, Public
Foreign countries still owe on World war I debts. Comm & Fin Chr 163:178 Ja 10 '46
Growth of governmental debts; Census bureau statement on federal, state and local government debt since 1902. Comm & Fin Chr 162:3178 D 27 '45
Limits of debt; use of debt as instrument of economic and political policy. R. M. Fischer. Trusts & Estates 82:153-7 F '46
National debts vs. monetary inflation. W. Chamberlain. Comm & Fin Chr 164:1926+ O 17 '46

See also
Bonds, Government
Municipal bonds
Municipal finance

Great Britain

Cheap money and unfunding. Economist 151: 382-4 S 7 '46
National debt at March 31, 1923 and 1942-1945. Economist 150:597 Ap 13 '46
Requests British loan liquidation; Senator Moore lists insurance holdings pledged back in 1941. Weekly Underw 153:1404 D 15 '45

Italy

Government receipts and expenditures and the public debt. For Comm W 25:16 O 26 '46

United States

Barometric chart of United States economy, 1900-1945; ratios of national income to government debt. Automotive & Aviation Ind 94:72 Mr 15 '46
Bill signed by President decreasing debt limit of U.S. from $300 billions to $275 billions. Comm & Fin Chr 164:1996 O 17 '46
Can and shall we reduce the national debt now? J. Hirsch. Barron's 26:3 Ap 1 '46
Committee formed to study public debt policy; to be financed by grant from Falk foundation. Comm & Fin Chr 163:1509 Mr 21 '46; Same. Banking 38:50+ Ap '46; Same cond. East Underw 47:3 Mr 22 '46
Crucial problem of the federal debt. A. G. Lanston. Harvard Bsns R 24 no2:133-50 [Ja] '46
Debt management and the controlled interest rate. A. G. Lanston. Comm & Fin Chr 163:1925+ Ap 11 '46; Correction. 163:2074 Ap 18 '46
Debt policy and banking policy. H. C. Simons. R Econ Stat 28:85-9 My '46
Debt reduction and money. T. I. Parkinson. Comm & Fin Chr 163:3475+ Je 27 '46
Debt reduction program; Northern trust company of Chicago. Comm & Fin Chr 163: 3069+ Je 6 '46
Debt retirement and money market. Nat City Bank p53-4 My '46
Federal debt management and bank earnings. F. L. Crawford. Comm & Fin Chr 163:3343+ Je 20 '46
Federal debt, 1900-Jan. 31, 1946; tabulation. Automotive & Aviation Ind 94:71 Mr 15 '46
Freezing cure; managing the national debt by freezing bank portfolios. M. Palyi. Comm & Fin Chr 163:832+ F 14 '46
Government, the banks and the national debt. S. E. Leland. bibliog Comm & Fin Chr 163: 242+ Ja 17 '46
Handling debt and inflation problems. A. G. Lanston. Comm & Fin Chr 163:2506+ My 9 '46
How sound is the national debt? A. A. Friedrich. Am Inst Banking Bul 28:10-11 Ja '46
How to put federal finances on sounder basis. W. I. King. Comm & Fin Chr 163:2503+ My 9 '46
Managing the debt. E. V. Bell. Comm & Fin Chr 163:2501+ My 9 '46
Monetary aspects of national debt policy. R. I. Robinson. Comm & Fin Chr 163:1687+ Mr 28 '46
NAM formula for debt retirement. N. W. Wilson. Comm & Fin Chr 164:1847 O 10 '46
National debt; a dual problem. Bsns W p19-20 F 9 '46
National debt and budget outlook. F. M. Vinson. Comm & Fin Chr 163:2215+ Ap 25 '46
National debt retirement and the budget. Nat City Bank p39-40 Ap '46
National debt retirement urged. J. T. Madden. Comm & Fin Chr 163:960+ F 21 '46
Outlook for interest rates; management of public debt calls for no reduction in taxes. J. W. Snyder. Trusts & Estates 83:362-4 O '46
Public and private debt in the United States. E. T. Bonnell. Survey of Cur Bsns 26:10-17+ S '46
Public debt. D. B. Woodward. Spectator (Life ed) 153:22-6+ Ap '46
Public debt; address before Illinois bankers association. D. W. Bell. Comm & Fin Chr 163:2503+ My 9 '46
Public debt controls prices; radio interview. N. Leonard, jr. Comm & Fin Chr 164:1265+ S 5 '46
Statutory debt limitation as of June 30, 1946. Comm & Fin Chr 164:1193 Ag 29 '46
Treasury debt retirement and its effects on bank reserves and portfolios. Fed Res Bul 32:1098-101 O '46
U.S. debt; 1946. Fortune 34:96-7+ Jl '46
U.S. debt policy. Bsns W p68-70 O 5 '46
War financing; some implications for the future. D. W. Bell. Comm & Fin Chr 162: 2462+ N 22 '45

DEBTS, Public—United States—*Continued*
You and your nation's debt; condensation of report by the Government spending committee of the NAM. Comm & Fin Chr 163: 1346+ Mr 14 '46

See also
Bonds, Government—United States

DEBYE-HÜCKEL equation
Solutions of electrolytes; a simplified presentation of contemporary theory. W. F. Luder. diag J Chem Educ 22:575-82 D '45

DECADE counting circuit. See Counters (electrons, ions, etc.)

DECALCOMANIA
Underglaze decal, paint and silk screen decorating. il Cer Ind 45:90+ N '45

DECANE
Phase equilibria in hydrocarbon systems; *n*-butane—decane system in the condensed region. H. H. Reamer, B. H. Sage and W. N. Lacey. bibliog diag Ind & Eng Chem 38:986-9 O '46

DECARBOXYLATION. See Carboxyl group

DECARBURIZATION of steel. See Steel—Decarburization

DECATUR, Georgia

Rapid transit
May swap 5c ride for better one; Decatur, Ga. trolley to Atlanta. Bsns W p38 Ap 20 '46

DE CAUX, Len
Trophy for C.I.O.; public relations program. por Bsns W p90 Ap 20 '46

DECCA navigation system
Decca navigation system for ships and planes. il Electronics 19:174+ S '46

DECCA records, inc.
Diversified issues. Mag of Wall St 78:461 Jl 20 '46

DECEDENTS' estates. See Estates, Decedents'

DECENTRALIZATION. See City and country; Industry—Decentralization

DECHLORINATION
Improved syntheses of acridines; the dechlorination of 5-chloroacridines and a new synthesis of acridine. A. Albert and J. B. Willis. bibliog Soc Chem Ind J 65:26-8 Ja '46

DECIBEL (transmission unit)
Decibel conversion chart. R. C. Miedke. Inst Radio Eng Proc 34 [Waves & Electrons 1]: 76W-7W F '46

DECIMAL system
Conversion of British currency, measures, and weights to a decimal system. W. H. Gibson. Textile Inst J 36:P177-81 N '45

Extent of decimal dimensioning probed by aero drafting group. diags S A E J 54:81-3 O '46

DECLARATORY judgments
Declaratory judgments; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:32-3 Ap 25 '46

Declaratory judgments in liability insurance cases. D. J. Kadyk. Weekly Underw 155: 578 S 7 '46

DECOIC acid. See Capric acid

DECOLORIZATION
Chlorine dioxide for fat bleaching. E. R. Woodward and G. P. Vincent. il plan diags Soap & San Chem 22:40-3+ S '46

Sodium chlorite is successfully used for bleaching tallow. J. B. Tuttle and E. R. Woodward. bibliog il Chem & Met Eng 53:114-15 My '46

See also
Bleaching
Water purification—Color removal

DECOMPOSITION
Absolute decomposition velocity of vapors. G.-M. Schwab and N. Theophilides. diag J Phys Chem 50:427-40 S '46

Acid catalyzed decomposition of diazoacetic ester in some aprotic solvents at 25°. R. J. Hartman, C. J. Hochanadel and E. G. Bobalek. bibliog Am Chem Soc J 68:2071-4 O '46

Chemistry of xanthic acid derivatives; the thermal decomposition of disulphurdicarbothionic esters. G. Bulmer and F. G. Mann. Chem Soc J p674-7 O '45

Decomposition of phenyliodoso acetate. R. B. Sandin and W. B. McCormack. Am Chem Soc J 67:2051-2 N '45

Interpretation of the Sandmeyer reaction; the influence of the chloride ion on the decompositions of neutral *p*-nitrobenzenediazonium chloride and of *p*-nitrobenzenediazonium cobaltinitrite. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p545-6 Ag '46

Kinetics of decomposition of benzoyl peroxide in solvents. K. Nozaki and P. D. Bartlett. bibliog Am Chem Soc J 68:1686-92 S '46

Kinetics of the decomposition of benzoyl peroxide in various solvents. W. E. Cass. bibliog Am Chem Soc J 68:1976-82 O '46

Polymeric compounds formed by the decomposition of 2,4,6-tribromo-3-fluorophenol bromide and the sodium salt of 2,4,6-tribromo-3-fluorophenol. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 68:397-400 Mr '46

Synthesis and thermal decomposition of di-triethylmethyl *t*-butyl pentamethylethyl and *t*-butyl 1-methylcyclohexyl-1 peroxides. N. A. Milas and L. H. Perry. bibliog Am Chem Soc J 68:1938-40 O '46

Temperature and dielectric constant effects in the decomposition of nitrosotriacetoneamine. C. V. King and F. Lionetti. bibliog Am Chem Soc J 67:2248-50 D '45

Thermal and photochemical decomposition of gaseous aluminum trimethyl. L. M. Yeddanapalli and C. C. Schubert. bibliog diag J Chem Phys 14:1-7 Ja '46

Thermal decomposition of ethylene iodide catalyzed by iodide ions. T. Iredale and T. R. Stephan. bibliog J Phys Chem 49:595-601 N '45

Thermal decomposition of tetrahydrofuran. C. H. Klute and W. D. Walters. bibliog Am Chem Soc J 68:506-11 Mr '46

An X-ray diffraction investigation of the thermal decomposition of silver oxalate. R. L. Griffith. il J Chem Phys 14:408-15 Jl '46

See also
Electrolysis
Hydrolysis

DECONTROL board. See Prices—Regulation

DECORATION and ornament

See also
Decalcomania
House decoration
Pottery—Decoration
Ship decoration
Wrapping paper, Decorative

DECORATION and ornament, Architectural

See also
Glass sculpture
Moldings (architecture)

DECORATIVE lighting. See Lighting, Decorative

DECYLHENEICOSANE
Heat capacity, heat of fusion and entropy of 11-*n*-decylheneicosane. F. B. Fischl and others. Am Chem Soc J 67:2075-9 D '45

DEE, Arthur, 1579-1651
Doctor and alchemist. D. I. Duveen. Chem & Ind p 16 Ja 12 '46

DEEP sea deposits
Rate and mass of deep-sea sedimentation. P. H. Kuenen. bibliog Am J Sci 244:563-72 Ag '46

DEERSKINS
Deerskin exports from New Zealand, 1936-1145. For Comm W 24:42 Jl 13 '46

DEËSTERIFICATION
Effect of molecular weight and method of deësterification on the gelling behavior of pectin. R. Speiser and C. R. Eddy. bibliog Am Chem Soc J 68:287-93 F '46

Influence of method of deësterification on the viscosity and acid behavior of pectinic acid solutions. T. H. Schultz and others. bibliog J Phys Chem 49:554-63 N '45

Kinetics of deësterification of pectin. P. Speiser and others. bibliog J Phys Chem 49:563-79 N '45

DEËSTERIFICATION—*Continued*
Kinetics of the deësterification of pectin. R. C. Merrill and M. Weeks. bibliog J Phys Chem 50:75-87 Mr '46
Low ester pectin from apple pomace. H. H. Mottern and C. H. Hills. bibliog Ind & Eng Chem 38:1153-6 N '46

DEFALCATION. See Embezzlement

DEFECATION of refinery sirups. See Sugar—Manufacture and refining

DEFENSE loans. See Loans, Bank—Defense loans

DEFENSE plant corporation
Defense Plant deal may stir things up; problem of discrimination in fire rates. Spectator (Property ed) 11:8 N 8 '45

DE FERRANTI, Vincent Ziani, 1893-
Sketch. por Electrician 137:848 S 27 '46

DEFERRED payment. See Instalment plan

DEFERRED payment insurance. See Insurance, Deferred payment

DEFICIT spending. See Government expenditures

DEFLATION (finance)
Can America avoid deflation? S. A. Marsh. Credit & Fin Management 48:16-19 F '46
Price rises or deflation? E. Gould. Comm & Fin Chr 163:1091 F 28 '46

DE FLOREZ, Luis, 1889-
Rear admiral de Florez to help spark navy plan for fundamental fuels, lubrications research. por Nat Pet N 38:26 F 27 '46

DEFLUORINATION
Thermal defluorination of superphosphate. E. J. Fox and others. bibliog Ind & Eng Chem 38:329-34 Mr '46

DEFOLIATION
Chemical defoliation; new aid to agriculture. Chem Age (Lond) 54:496 My 4 '46

DE FOREST, Alfred Victor, 1888-
Propeller thrust, 1912; work of A. V. de Forest and L. de Florez; first measurement of thrust of airplane propeller in flight. J. D. Hunsaker. il Tech R 48:96-7 D '45

DE FOREST, Cornelius W.
De Forest replaces Cisler as German utilities head. por(front cover) Elec World News ed 124:5 D 15 '45

DEFORMATION (mechanics)
Distortion due to contour-forming of extrusions and preformed sheet-metal sections. W. Schroeder. il diags A S M E Trans 68: 287-92 My '46
Effect of polymolecularity on deformation of butyl polymers. R. L. Zapp and F. P. Baldwin. bibliog Ind & Eng Chem 38:948-55 S '46
Méthode de calcul et propriétés principales des bicâbles. J. Ferrandon. Génie Civil 123:158-9 Je 15 '46
New approach to the theory of relaxing polymeric media. M. S. Green and A. V. Tobolsky. bibliog J Chem Phys 14:80-92 F '46
Operation of large turbo-alternators to reduce rotor winding deformation. R. H. Coates and B. C. Pyle. il diags Inst E E J 93 pt 2: 192-204 bibliog(p204) Ap '46; Discussion. 93 pt 2:204-12; 94 pt 2:92-8 Ap '46, F '47
Pre-stressing rotating disks used in turbines and compressors. H. Dobkin. diags Steel 118:104-6+ Je 3 '46
Problems in non-elastic deformation of metals. C. Zener and J. H. Hollomon. bibliog diags J Ap Phys 17:69-82 F '46
Rubber in compression; notes on its elastic deformation. diags Automobile Eng 36:264 Je '46
Shrinkage stresses in concrete. G. Pickett. il diags Am Concrete Inst J 17:165-204, 361-98 bibliog(p 194-5) Ja-F '46
Tensile elastic properties of typical stainless steels and nonferrous metals as affected by plastic deformation and by heat treatment. D. J. McAdam, jr. and R. W. Mebs. il diags U S Nat Advisory Com for Aeronautics 1940:309-86 bibliog(p356-7) '41
Theoretical criterion for the initiation of slip bands. C. Zener. bibliog Phys R 69:128-9 F 1 '46
See also
Creep of materials
Elasticity
Plasticity
Rocks—Deformation
Strains and stresses

DEFORMATION of rocks. See Rocks—Deformation

DEGAUSSING. See Demagnetization

DEGREASING
Combination glass Soxhlet extractor and vapor degreaser for general laboratory use. H. A. Sauer. diag Ind & Eng Chem Anal ed 18:73 Ja '46
Detrex 500-C-1 immersion vapor degreaser. il Automotive & Aviation Ind 94:42 Ap 1 '46
Panel degreasing apparatus. F. B. Parker and T. H. G. Michael. diag Can Chem & Process Ind 30:82 Ag '46
Solvents used as degreasers. Safety Eng 91: 74 Je '46
Vapor degreasing. G. Black. il Materials & Methods 24:95-7 Jl '46
Vapor degreasing; efficiency of electric and gas-heated degreasers. J. C. Joyce. il diags Steel 117:110+ N 26 '45
Ventilation of solvent degreasers. J. B. Skinner and W. M. Pierce. il diags Heat & Ven 43:72-5 F '46

DEGREES, Academic
Need for a meaningful B.S. degree; Advisory committee on scientific personnel. Science 103:438-9 Ap 12 '46

DEHUMIDIFIERS
Dehumidification protects U. S. navy's inactive fleet. T. H. Urdahl and E. R. Queer. il diags Heating-Piping 18:71-5 Mr '46; Same cond. Marine Eng 51:123-4 Je '46; Abstract. Mech Eng 68:562 Je '46
Dehumidifying and air sterilization with triethylene glycol. diags Heat & Ven 43:78-80 Ja '46
Dry air preserves fleet. il Heat & Ven 42: 96+ N '45
Heat transfer and diffusion problems in cooling and dehumidifying air with extended surfaces. T. Hafsten. bibliog Refrig Eng 50: 431-7 N '45
Navy develops a new corrosion-protection technique. J. Anthony. il diag Iron Age 157:104-5 Ap 18 '46
Packaging the United States reserve fleets; sprayed plastics and dehumidifiers for protection. il Engineering 162:132, 138-40 Ag 9 '46
Preventing damage to ship cargoes by ventilation and dehumidification. J. Leeming. il diags Heat & Ven 43:53-7 Je '46
See also
Air conditioning
Humidity

DEHYDRATED food. See Food, Dried; Vegetables, Dried

DEHYDRATION
Aromatic cyclodehydration. C. K. Bradsher. bibliog(154 references) Chem R 38:447-99 Je '46
Aromatic cyclodehydration; phenanthrene derivatives by the cyclization of ketones. C. K. Bradsher and L. J. Wissow. bibliog Am Chem Soc J 68:1094-6 Je '46
Dehydration of cholic acid. A. W. Devor and H. W. Marlow. Am Chem Soc J 68:2101 O '46
Dehydration of magnesium chloride. J. G. N. Gaskin. diag Soc Chem Ind J 65:215-16 Jl '46
Drying of liquids with adsorbents. W. L. Nelson. flow diag Oil & Gas J 45:72 Je 1 '46
Evacuation and dehydration of field installations. H. A. Blair and J. N. Calhoun. il diags Refrig Eng 52:125-9+ Ag '46
Some derivatives of *m*-ethylaniline; a novel disproportionation of an aminophenylmethylcarbinol. C. S. Marvel and C. G. Overberger. bibliog Am Chem Soc J 68: 185-7 F '46
Studies in the terpene series; the action of dilute aqueous salt solutions on 3,3,5-trimethylcyclohexanol and 1,1,3-trimethyl-X-cyclohexene. V. N. Ipatieff, H. Pines and R. C. Olberg. Am Chem Soc J 68:1709-10 S '46
Vinyl aromatic compounds; *o*-,*m*- and *p*-vinylbiphenyls. W. F. Huber and others. Am Chem Soc J 68:1109-12 Je '46

DEHYDRATION—*Continued*
Vinyl aromatic compounds; the vapor phase dehydration of arylmethylcarbinols. D. T. Mowry, M. Renoll and W. F. Huber. bibliog Am Chem Soc J 68:1105-9 Je '46
See also
Drying
Drying (fruits and vegetables)
Evaporation
Gas, Natural—Dehydration

DEHYDROASCORBIC acid
Dehydroascorbic acid in cabbage. T. J. McMillan and E. N. Todhunter. Science 103: 196 F 15 '46
Use of 2,4-dinitrophenylhydrazine for the determination of ascorbic acid. M. Pijoan and H. J. Gerjovich. Science 103:202-3 F 15 '46

DEHYDROBUFOTENINE
Picrolonates of bufotenine, bufotenidine and dehydrobufotenine. V. Deulofeu and B. Berinzaghi. Am Chem Soc J 68:1665 Ag '46

DEHYDROCHLORINATION
Dehydrochlorination of 1-trichloro-2-*o*-chlorophenyl-2-*p*-chlorophenylethane (*o,p'*-DDT isomer). S. J. Cristol and H. L. Haller. bibliog Am Chem Soc J 67:2222-3 D '45
Removal of chlorine and gum formers from alkylates. R. G. Haldeman and W. A. Pardee. bibliog diag Ind & Eng Chem 38:242-6 Mr '46

DEHYDROCHOLESTEROL
Analysis
Quantitative determination of ergosterol, cholesterol, and 7-dehydrocholesterol; antimony trichloride method. F. W. Lamb, A. Mueller and G. W. Beach. bibliog Ind & Eng Chem Anal ed 18:187-90 Mr '46

DEHYDROCYCLIZATION. See Aromatization

DEHYDROFREEZING. See Food, Frozen

DEHYDROGENATION
Aromatic cyclodehydrogenation; experiments in the dinaphthyl series. M. Orchin and R. A. Friedel. bibliog Am Chem Soc J 68:573-4 Ap '46
Aromatic cyclodehydrogenation; experiments with 2-ethylbiphenyl. M. Orchin. bibliog Am Chem Soc J 68:571-2 Ap '46
Bauxite, dehydrogenation catalyst for styrene production. W. H. Wood and R. G. Capell. bibliog il diag Ind & Eng Chem 37:1148-52 D '45
Catalytic dehydrogenation of polycyclic naphthenes. A. V. Grosse, J. M. Mavity and W. J. Mattox. bibliog Ind & Eng Chem 38:1041-5 O '46
Catalytic dehydrogenation of 1-substituted 1, 2,3,4-tetrahydronaphthalene derivatives. M. S. Newman and T. J. O'Leary. bibliog Am Chem Soc J 68:258-61 F '46
Dehydrogenation of 1,4-pentanediol. L. P. Kyrides and F. B. Zienty. bibliog Am Chem Soc J 68:1385 Jl '46
Dehydrogenation of tetrahydrocarbazoles by chloranil. B. M. Barclay and N. Campbell. Chem Soc J p530-3 Ag '45
Dehydroisomerization of *n*-butane. H. S. Bloch and R. E. Schaad. bibliog Ind & Eng Chem 38:144-7 F '46
Digest of United States patents on dehydrogenation of hydrocarbons. H. Heinemann, comp. Pet Refiner 25:210+ S '46
Dow process for styrene; abstract. J. E. Mitchell, jr. diags Chem & Met Eng 53:280+ My '46
Equilibrium studies on the dehydrogenation of primary and secondary alcohols; 2-butanol, 2-octanol, cyclopentanol and benzyl alcohol. A. H. Cubberley and M. B. Mueller. bibliog diag Am Chem Soc J 68:1149-51 Jl '46
Mechanism of contact conversions of hydrocarbons on a vanadium catalyst; dehydrogenation of 6-membered rings; abstract. A. F. Plate and G. A. Tarasov. Chem & Met Eng 53:268 Jl '46
Modern refining processes; hydroforming process. G. Armistead, jr. bibliog flow diag il Oil & Gas J 45:85-7+ Ag 31 '46
Photochemical reactions in sunlight; (a) formation of triarylmethyl peroxides by the action of oxygen on triarylmethanes; (b) dehydrogenation effected by oxygen; (c) dehydrogenation effected by *p*-benzoquinone and phenanthraquinone. A. Schönberg and A. Mustafa. Chem Soc J p657-60 O '45
Process design of catalytic reactors; dehydrogenation of butane. R. H. Dodd and K. M. Watson. bibliog flow plans diag Am Inst Chem Eng Trans 42:263-91 Ap '46, Same. Nat Pet N 38 pt 2:R545-6+ Jl 3 '46
Production of butadiene by the dehydrogenation of normal butylenes. R. P. Russell and others. flow sheets Am Inst Chem Eng Trans 42:1-14 F '46
Studies in the synthesis of the antirachitic vitamins; Δ^5-androstenol-3 and its partial dehydrogenation with benzoquinone. N. A. Milas and C. R. Milone. bibliog Am Chem Soc J 68:738-40 My '46
Styrene production by catalytic dehydrogenation; low pressure operation. J. M. Mavity and others. bibliog Am Inst Chem Eng Trans 41:519-28 O '45
Styrene production by catalytic dehydrogenation; operation at ordinary pressures with benzene as diluent. J. M. Mavity, E. E. Zetterholm and G. L. Hervert. bibliog Ind & Eng Chem 38:829-32 Ag '46
Thermodynamic properties of gaseous 1,3-butadiene and the normal butenes above 25°C; equilibria in the system 1,3-butadiene, *n*-butenes, and *n*-butane. J. G. Aston and others. bibliog J Chem Phys 14:67-79 F '46

DEHYDROISOMERIZATION
Dehydroisomerization of *n*-butane. H. S. Bloch and R. E. Schaad. bibliog Ind & Eng Chem 38:144-7 F '46

DE-ICERS. See Airplanes—Ice protection

DEINKING of paper. See Waste paper

DEISOBUTANIZING tower. See Petroleum refineries—Equipment

DELAWARE river
Plan $195 million private water project. Eng N 137:201 Ag 15 '46

DELICATESSEN stores
Downtown butcher shop and delicatessen uses new display techniques on office trade; Dietz meats, San Francisco. il plans Arch Forum 85:145 O '46
Advertising
Nates loves Leon; or, Fun with a salami. P. James. Adv & Sell 38:39+ N '45

DELIVERY of goods
Delivering laundry in economical, multiple-trip cartons; Mayfair laundry, Providence, R.I. il Mod Packaging 20:112-13 O '46
Milwaukee store uses air delivery service. Aviation N 5:17 Ap 29 '46
Parcel coup; United Service gets Macy account. Bsns W p41-2 Jl 6 '46
Send it, please; prewar standards of delivery service. Bsns W p86 Ja 26 '46
Trucks at your service; leasing company provides trucks, painted and lettered as you specify. il Food Ind 17:1308-9 N '45
Delivery to dealers
Card system controls fleet inspections; National tea co. Food Ind 18:1032-3 Jl '46

DEMAGNETIZATION
Countering the magnetic mine; degaussing secrets revealed at I.E.E. symposium. Electrician 136:953-7 Ap 12 '46; Elec R (Lond) 138:565-6 Ap 12 '46; Engineering 161:343 Ap 12 '46
Degaussing; abstract. C. S. Daniel. Inst E E J 93 pt 1:247-8 Je '46
Demagnetizing parts of anti-friction bearings. W. F. Bower. il Elec World 125:86-7 F 2 '46
Electrical engineering aspect of degaussing. I. S. Fraser and others. il diag Engineer 181:563-5 Je 21 '46
Temperatures near the absolute zero; adiabatic demagnetization of paramagnetic salts. C. W. Hewlett. diag Gen Elec R 49: 7-10 My '46

DEMAND curve
Some measurements of elasticities of substitution. J. Tinbergen. R Econ Stat 28: 109-16 Ag '46

DEMAND meters
Adjust demand contacts under shop conditions. A. E. Owens. diags Elec World 124: 140 N 10 '45
General Electric's thermal watt-demand meter. il Blast F & Steel Pl 34:620 My '46

DEMAND meters—*Continued*
Indicators show supply line demand; unique relay arrangement. J. L. Haley. il Elec World 126:88-9 Ag 17 '46
Relays maintain service to demand meter circuit. V. W. Nass. diag Elec World 125: 91 Mr 2 '46

Testing

Four-place checker for demand registers. B. J. Bortell. il Elec World 125:103 Je 8 '46
Thermal demand meter test controls phase of load current; adjustable ratio transformers. E. J. Norton and E. D. Kane. il diags Elec World 125:66-9 Mr 2 '46
Thermal-demand-meter testing techniques. E. E. Lynch and M. E. Douglass. il Elec Eng 65:Trans 124-8 Mr '46
Torque tester usage expanded by adapter. diags Elec World 125:178+ Ja 19 '46

DEMETHYLATION
Selective demethylation of paraffin hydrocarbons. V. Haensel and V. N. Ipatieff. Am Chem Soc J 68:345-6 F '46

DEMOBILIZATION
Releases and manpower. Economist 150:288-9 F 23 '46
Speed, more speed. Economist 149:587-8 O 27 '45

DEMOBILIZATION, Industrial. See Industrial demobilization

DEMOCRACY
Expressive, vibrant democracy. F. M. Vinson. Comm & Fin Chr 163:3214-15 Je 13 '46
Freedom is unsafe without self-government. K. Loewenstein. Ann Am Acad 248:47-9 Ja '46
Time and today's need for self-discipline; problems of the democratic system. D. Acheson. il Dun's R 54:11-12+ O '46
We must make democracy work. H. S. Truman. Comm & Fin Chr 163:3261 Je 13 '46
What is the government doing to our political system? H. W. Dodds. Comm & Fin Chr 164:77+ Jl 4 '46

DEMOCRATIC party
Administration's economic cannibalism; Democratic party's Red-Fascist trend; two addresses. C. Reece. Comm & Fin Chr 164: 333+, 351+ Jl 18 '46
Democratic party bungling. R. A. Taft. Comm & Fin Chr 164:1458+ S 19 '46
Democratic party family fight; Truman's radio address to people an attack on Party. R. A. Taft. Comm & Fin Chr 163:122+ Ja 10 '46
Democrats lose support of independent voters; Gallup poll. Iron Age 158:107+ Ag 8 '46
GOP normalcy means chaos; Jackson day address. H. A. Wallace. Comm & Fin Chr 163:1685+ Mr 23 '46
Implications of party loyalty. H. A. Wallace. Comm & Fin Chr 163:2269+ Ap 25 '46
No need for a third party. H. A. Wallace. Comm & Fin Chr 163:3397+ Je 20 '46
Party has slight upward turn popularity; Gallup poll. Iron Age 158:91 O 3 '46
Public looks to Democrats to keep wages up; Gallup poll. Iron Age 158:101 Jl 11 '46
Public opinion on purge; Gallup poll. Iron Age 157:121+ My 9 '46
Union labor vote still strongly Democratic. Iron Age 157:113+ Ja 31 '46

DEMONSTRATION houses. See Houses, Model

DEMONSTRATIONS. See Salesmanship—Demonstrations

DEMOUNTABLE houses. See Houses, Demountable

DEMOUNTABLE rooms. See Rooms, Demountable

DEMURRAGE
Boxcar demurrage orders are issued. Oil Paint & Drug Rep 148:7+ N 19 '45
Demurrage charges on strike-bound cars. G. L. Wilson. bibliog Ry Age 120:194-7 Ja 19 '46
Rules tightened on use of reefers, super-demurrage is reinstated. Ry Age 119:1000 D 15 '45

DENITRATION
Computations on the denitration of aqueous mixtures of sulphuric and nitric acids with steam. G. E. Stephenson. Inst Chem Eng Trans 20:103-5 '42; Same. Soc Chem Ind J 62:17-20 F '43; Discussion. Inst Chem Eng Trans 20:105-6 '42

DENMARK
See also
Engineers—Denmark
Standards—Denmark

Economic conditions

Danish recovery. Economist 150:970-1 Je 15 '46
News by countries. For Comm W 23:25-6 My 4 '46

Economic policy

Economic post-war problems in Denmark; employment, wage and financial policies. Int Labour R 53:186-94 Mr-Ap '46

DENSITOMETERS
Automatic recording of photographic densities. J. G. Frayne and G. R. Crane. il diags Soc Motion Picture Eng J 45:370-9 N '45
Densities of GR-S latices. C. C. Winding. diags Ind & Eng Chem 37:1203-6 D '45
Design of a microdensitometer. J. C. M. Brentano. bibliog il R Sci Instr 16:309-15 N '45
Microdensitometer for quantitative determination of relative densities of photographic negatives of tissue cells. T. Enns. il diag Franklin Inst J 242:151-3 Ag '46
New transmission density standard basis for photography measurements. C. N. Nelson and M. H. Sweet. il diags Ind Stand 17: 138-41 Je '46

DENTAL clinics
Small medical and dental clinic designed for efficient handling of a large volume of patients. il map plans Arch Forum 83: 110 N '45
Time per service in a children's dental clinic. I. Altman. Pub Health Rep 61:1211-19 Ag 16 '46

DENTAL hygiene
Etiology of dental sequelae. C. O. Sappington. Ind Med 15:339-41 My '46
Organization and operation of the industrial diagnostic service of the Chicago dental society. G. E. Cartwright. Ind Med 14: 978-80 D '45
See also
Teeth—Diseases and defects

DENTAL instruments and apparatus

Advertising

Keeping customers sold when you can't deliver; Ritter company, Rochester, N.Y. A. G. Scheible. il Ptr Ink 214:25-6+ Ja 25 '46

DENTAL libraries

Bibliography

Bibliography on standards, 1925-1945. A. M. Purington. Special Lib 37:74 Mr '46

DENTAL research
Dental teaching and research in Great Britain aided by Nuffield foundation. Science 103:20 Ja 4 '46
Shadowed replicas of tooth surfaces. D. B. Scott and R. W. G. Wyckoff. bibliog Pub Health Rep 61:697-700, pl 1-6 My 17 '46
Typical structures on replicas of apparently intact tooth surfaces. D. B. Scott and R. W. G. Wyckoff. Pub Health Rep 61:1397-1400, pl 1-6 S 27 '46

DENTAL service
Influences on dental defects in naval personnel. C. A. Schlack and J. E. Birren. bibliog map Science 104:259-63 S 20 '46
Regular corps appointments for dental officers in the United States Public health service. Pub Health Rep 61:356-8 Mr 8 '46
See also
Dental clinics
United States—Navy—Dental service

DENTAL service, Industrial
Dental survey; abstract. Ind Med 15:483-4 Ag '46
Industrial dentistry. R. I. Humphrey. Ind Med 14:976-8 D '45
Organization and operation of the industrial diagnostic service of the Chicago dental society. G. E. Cartwright. Ind Med 14: 978-80 D '45
Practical application of an industrial dental program. K. W. Misher. Ind Med 15:113-14 F '46
Prevention of oral diseases of occupational origin. L. D. Heacock. bibliog Ind Med 15:184-7 Mr '46
Progress of a dental program. H. H. Leedke. diags Ind Med 14:981-3 D '45
X-ray aids industrial health; dental surveys. il Safety Eng 92:68-9 Ag '46

DENTAL service, Navy. See United States—Navy—Dental service

DENTAL societies

Service

Organization and operation of the industrial diagnostic service of the Chicago dental society. G. E. Cartwright. Ind Med 14:978-80 D '45

DENTIFRICES
Dental merchandising; new product, new package, new sales aids for Dr West. il Mod Packaging 19:144 Je '46
Face-lifting for the Whitehall family. il Mod Packaging 19:106-10 F '46

DENTISTRY

Study and teaching

Dental teaching and research in Great Britain aided by Nuffield foundation. Science 103:20 Ja 4 '46

DENTISTS
Dentist and the law. H. D. Combs. Rough Notes 89:26+ Jl '46
Malpractice of dentist; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12: 34-5 S 26 '46
Regular corps appointments for dental officers in the United States Public health service. Pub Health Rep 61:356-8 Mr 8 '46
Supply of dentists. Economist 150:293 F 23 '46

See also
Women as dentists

DENTISTS' assistants
Physicians' and dentists' assistants. M. W. Zapoleon and E. Katcher. il U S Women's Bur Bul 203, no 11:1-15 bibliog(p14-15); pa 10c Supt. of doc. '45

DENVER

Sewerage

Inadequate Denver sewage treatment charged by state; action threatened. Eng N 135:690 N 22 '45

DENVER and Rio Grande western railroad
Court backs ICC. Bsns W p50-1 Je 22 '46
Revision possible in Denver reorganization plan. A. Jansen. Barron's 26:11+ Ja 14 '46

DENVER post
Post-Bonfils. Bsns W p26+ F 16 '46

DEODORIZATION
Air de-odorant dispensed through air-conditioner, portable unit, or wick-bottle. diag Sci Am 174:273 Je '46
Air deodorants. E. C. Crocker. Chem Ind 59:272 Ag '46
Air purification in conditioned railway passenger cars. F. H. Munkelt. il diag Ry Age 121:97-8 Jl 20 '46; Same. Ry Mech Eng 120:345-6 Jl '46
Air quality control; activated carbon air purification equipment. il diag Bus Transportation 25:191-2 Jl '46
Air quality control with chlorophyll. il diags Sheet Metal Worker 37:60+ F '46
Deodorized petroleum base oils. B. I. Scoggin and others. diags Soap & San Chem 22:149+ Ap '46
Deodorizing edible oils; pictured flow sheet. Chem Eng 53:134-7 S '46
Oil deodorization; abstract. A. P. Lee and W. G. King. Soap & San Chem 22:77 Ap '46
Studies on odor elimination in apple storage. C. R. Gross and R. M. Smock. bibliog Refrig Eng 50:535-40 D '45; Discussion. 51:46-7 Ja '46

DEPARTMENT stores
Denver store sells 8 Ercoupes in week. il Aviation N 4:20 N 19 '45
Department store for a highway location; designed for the Kawneer company. il plan diags Arch Rec 99:112-13 F '46
Department store in Waltham, Mass. il plan Arch Forum 84:120 F '46
Department stores; effects of war. Index 26 no 2:40-8 [Je] '46
Eyes on Seattle; large retailers will tap promising market. Bsns W p88 N 10 '45
Five-day weeks in retail stores. G. H. Arris. Am Bsns 16:19+ My '46
How to get merchandising help from teenagers; Eaton's of Canada meets with Junior fashion council. il Ptr Ink 214:61-3 Mr 8 '46
Retail rush; department stores expand and build as business booms. il plan Arch Forum 85:10-11 O '46
Retailers ponder 5-day week. Bsns W p77-8 Ja 19 '46
Store leaders change; percentage of total store sales, by department. Bsns W p66 Jl 13 '46
Store sales soar. Bsns W p16 S 14 '46
Stores to expand. Bsns W p80+ Mr 23 '46

See also
Charge accounts (retail trade)
Federated department stores, inc.
Macy, R. H., and company
Marketing—Department store outlets
Marshall Field and company
May department stores company

Accounting

American institute of accountants examination in accounting practice, Nov. 7, 1945. J Account 81:79-84 Ja '46
Merchandise planning and control. L. C. Hobert. N A C A Bul 27:1109-19 Jl 15 '46

Advertising

Department store describes Dayton's prospects in booklets for suppliers. Ptr Ink 214: 36 F 8 '46
Department store's television show tries out new merchandising stunts. Ptr Ink 214: 116 F 8 '46
Direct-wire television as merchandising medium for department stores. H. E. Taylor, jr. il Radio N 35:38-40+ Ap '46
Eight department stores bunch Wilkens fashion ads in one magazine. il Ptr Ink 215:99 Ap 5 '46
Fashion is theme of advertising for sun glasses; textiles, sport clothes, compacts, build department-store promotion around sun glasses. il Ptr Ink 215:44-5 Ap 26 '46
Gimbel bros. Philadelphia, test in-store television advertising. il Sales Management 55:163 N 15 '45
Intra-store television and the national advertiser; Gimbels of Philadelphia experiments with 20 units in store. V. J. Dallaire. il Ptr Ink 213:45-6 D 14 '45
Television used as sales aid in store. Elec World 124:124+ N 24 '45

Air conditioning

Water-vapor refrigeration cools Australia's largest store. il Comp Air Mag 51:276 O '46

Basements

See also
Basement stores

Costs

Variations in department store sales-expense ratios. R. H. Johnson. Survey of Cur Bsns 26:18-24 S '46

Employees

A.F.L. moves on Chicago department stores. Bsns W p98 My 25 '46
Effective words; boycott against the May co. of Cleveland. Bsns W p88+ Mr 2 '46
Forgotten section manager. N. Hubbell. J Retailing 21:103-4+ O '45
On-the-job training; what four department stores in Buffalo are doing. A. W. Woodard. J Retailing 22:5-6+ F '46
Stores still short of help; Macy's uses complete promotion. il Ptr Ink 213:29 N 30 '45
Stores turn to incentive plans. Bsns W p76+ Je 29 '46

DEPARTMENT stores—Employees—*Cont.*
Stores vie for help, stress selling's attractions. Bsns W p36 Ag 31 '46
Training for better service; JIT and JRT government programs applied to large-scale retailing. A. Hulsebach. J Retailing 22:7-10 F '46

See also
United retail, wholesale and department store employees

Finance

Operating results of department and specialty stores in 1945. M. P. Brown. (Bur. of business research bul. no. 124) 53p pa $2.50 Harvard univ. Graduate school of business administration, Division of research, Soldiers Field, Boston 63 '46
Retail profit margins, now at record high, likely to shrink when goods are plentiful. Barron's 26:1 Je 10 '46
Variations in department store sales-expense ratios. R. H. Johnson. Survey of Cur Bsns 26:18-24 S '46

Gift wrapping

Store gift wraps in 1946. il Mod Packaging 19:96-7 My '46

Insurance requirements

Refutes errors in bulletin of National retail dry goods association criticising U. & O. W. F. Kimball. Nat Underw 49:4+ N 15 '45
Warns of values beyond those of inventory; alteration or repair items, returns and exchanges are sources of unreported values. A. M. Wiley. Nat Underw 49:15 N 29 '45

Layout

Manufacturer analyzes retail sales, helps department stores sell more shoes; I. Miller & sons. I. E. Grossmann. il Ptr Ink 215: 36-8 My 24 '46
Remodeled sales floor, Davison-Paxon co, Atlanta, Ga. il plans Arch Forum 83:85-8 D '45

Management

Job evaluation. N. B. Brisco. J Retailing 21: 97-8 O '45
Profit engineers; department stores turn to industrial technician for greater sales efficiency. Bsns W p78 F 16 '46

Manufacturers' demonstrations

About retail demonstrators; case histories, retailer's viewpoint, check list for sellers. C. J. Swan. il Ptr Ink 216:36-8 Ag 16 '46
Beauty unmasked; Arden case imperils two trade practices: demonstrators and push money. Bsns W p77-9 Ja 5 '46
Competitive discrimination; Elizabeth Arden decision. Adv & Sell 39:104 F '46
Store sales zoom when Trimz tries out new demonstration plan. J. H. Rasmussen. il Sales Management 55:46+ D 15 '45

Purchasing

N.Y. buying groups increase department store memberships in 1946. Sales Management 56:68+ My 1 '46

Securities

Divergent trends in merchandise shares, department stores, with statistics on leading stocks. G. S. Kent. il Mag of Wall St 78:696-9+ S 14 '46
Goose hangs high. Bsns W p115 Ap 6 '46
Outlook for merchandise shares; with position of leading shares. P. Dobbs. Mag of Wall St 77:704-6+ Mr 16 '46

Statistics

Department- and speciality-store operating results for 1944. J Retailing 21:117-18 O '45
Department store sales likely to keep increasing. A. Morrow. Barron's 26:11 Ap 29 '46
Departmental merchandising results in small department stores, 1944 and 1945, by months and for the years. E. H. Gault. (Bur. of business research report no. 11) 51p Univ. of Mich. School of business administration, Ann Arbor, Mich. '46
Index of department store sales and stocks, by major departments, 1940-May 1946. Fed Res Bul 32:856-8 Ag '46; Correction. 32:973 S '46
Regional patterns of department store sales. C. Winston and M. L. Puglisi. map Survey of Cur Bsns 26:18-24 O '46
Who said ghost towns? closing of war plants affects department store sales in some defense cities, but losses generally are small; graphs. Bsns W p83 Mr 16 '46

Stock

Customer polls as a buying guide; research plan, Lord's department store, Evanston, Ill. F. J. Cummings. il Am Bsns 16:20-1+ O '46
Department store inventories remain low in relation to current sales volume. Barron's 26:1 Jl 22 '46
Department store stocks, United States; monthly figures, 1919-1945; revised series. Survey of Cur Bsns 26:24 Ag '46
Index of department store sales and stocks, by major departments, 1940-May 1946. Fed Res Bul 32:856-8 Ag '46; Correction. 32:973 S '46
Just one question: will it sell? Gimbels finds answer usually yes. il Bsns W p68-70 My 11 '46
Revised index of department store stocks; with monthly figures for the United States and for the twelve federal reserve districts, 1919-April 1946. R. Youngdahl and J. O. Bergelin. Fed Res Bul 32:588-612 Je '46

DEPILATORIES. See Hair, Removal of

DEPOLARIZATION (light)
Depolarization of light scattered from polymer solutions. P. Doty and H. S. Kaufman. bibliog diag J Phys Chem 49:583-95 N '45

DEPOLARIZERS
Porous carbon electrodes; wicking electrodes for utilization of insoluble liquid depolarizers; reduction of nitrobenzene. N. M. Winslow. bibliog diags Electrochem Soc Trans 88 (preprint 16):175-88 '45

DEPOLYMERIZATION
Depolymerization of 3,4,5,5-tetramethyl-2-hexene and 3,5,5-trimethyl-2-heptene in relation to the dimerization of isoamylenes. F. C. Whitmore and W. A. Mosher. bibliog Am Chem Soc J 68:281-4 F '46
Polymerization of olefins; the depolymerization of olefins in relation to intramolecular rearrangements. F. C. Whitmore and E. E. Stahly. bibliog Am Chem Soc J 67:2158-60 D '45
Radical chain processes in vinyl and diene reactions. H. S. Taylor and A. V. Tobolsky. bibliog Am Chem Soc J 67:2063-7 D '45

DEPOSIT insurance. See Banks and banking—Guaranty of deposits

DEPOSITARIES
Depositary liable to bondholder for wrongful delivery of stock on forged certificate. Banking Law J 63:645-50 S '46

DEPRECIATION
Consolidated Edison may adopt straight-line depreciation. O. Ely. Pub Util 38:296-9 Ag 29 '46
Depreciation and utility security analysis; abstract. A. W. Hastings. Pub Util 36:715-16 N 22 '45
Depreciation, graveyard of dividends. J. L. Trecker. Diesel Power 23:1354+ N '45
Depreciation policy and postwar expansion; by L. H. Kimmel; review. J Account 82:4-6 Jl '46
Depreciation problem. H. E. Riggs. Pub Util 38:333-44, 410-20, 528-38 S 12-26, O 24 '46
Depreciation; report of the tax committee of the American mining congress. Min Cong J 32:48-51 Ja '46
Depreciation schedule; U.S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment, bridges, waterworks, gas and electric plant. Eng N 136:601+ Ap 18 '46
Engineering viewpoint on depreciation accounting. P. T. Norton, jr. N A C A Bul 27:267-77 D 1 '45

DEPRECIATION—*Continued*
For hire carrier looks at depreciation; abstract. H. L. Willett, jr. S A E J 54:sup50-1 Ap '46
Forgotten incentive; German government's policy with respect to taxation and depreciation schedules. Bsns W p119 D 8 '45
How to figure depreciation. A. E. Grover. Foundry 74:160 Ap '46
Need the straight-line reserve be excessive? H. M. Long. Pub Util 37:399-411 Mr 28 '46
Needed: a sensible depreciation policy for machine tools and other production equipment. B. Finney. Am Mach 90:11-18 Ap 25 '46; Abstract. Management R 35:347-9 Ag '46
Retirement forecast method of gauging depreciation. M. C. Mason. Pub Util 37:69-79 Ja 17 '46

DEPRECIATION insurance. See Insurance, Depreciation

DEPTH sounding. See Sounding

DEPUY, Milton W. 1877-
Retiring University of Minnesota printer says: "Greatest game in the world." por Inland Ptr 117:36 Ag '46

DERBY, Harry Leigh, 1882-
Resigns as president of American Cyanamid. por Chem & Eng N 24:1924 Jl 25 '46; Oil Paint & Drug Rep 150:3+ Jl 15 '46

DERBY gas and electric corporation
SEC approves plan. Comm & Fin Chr 164: 825 Ag 12 '46

DERMATITIS. See Skin—Diseases

DERRICKS. See Cranes, derricks, etc.

DERRICKS, Oil well
Portable mast takes to water. P. C. Courtney. il Oil & Gas J 44:141-2 Ap 20 '46
World's largest derrick walked across west Texas sand dunes. E. H. Short, jr. il Oil & Gas J 44:60-2 Mr 9 '46

DERRIS
Derris in Malaya; Jap neglect wrought damage. For Comm W 22:36 Mr 30 '46

DESALTING of petroleum. See Petroleum refining—Salt removal

DESALTING of sea water. See Sea water—Desalting

DESERT roads
Nevada grade compaction speeded by improved storage tank set-up; watering trucks used on desert project. il Roads & Sts 89: 76-7 Mr '46

DESERTS
Desert ripples. R. L. Ives. pl diag Am J Sci 244:492-501 Jl '46

DESICCATORS. See Drying apparatus

DESIGN
Claytoons reach out for new markets in merchandise lines; Mother Goose Claytoon-illustrated; next step may be Claytoon-character dolls, etc. il Sales Management 55:79 N 15 '45
Defined: design, style, fashion and fad. M. Marsh. il Ptr Ink 214:30-2+ Ja 18 '46
Design, a challenge to the manufacturer. M. I. Deutsch. il Cer Ind 46:80+ Mr '46
Design considerations. E. T. Norris. Electrician 137:931 O 4 '46
Design planning and scheduling in complex computer development; gunfire control device for aircraft. A. F. Wild. il Product Eng 16:817-20 D '45
Design standards for inserts; their application in plastics parts. diags Mod Plastics 23:142-54+ Ja '46; Same. Product Eng 17: 29-38 Ja '46
Design tolerances for transparent acrylic plastics. il diags Product Eng 17:[no 7] 110-11 Jl '46
Designing around established plastic parts; rotary desk trays. il Mod Plastics 23:133 Je '46
Designing for a single material; Mavco compacts. il Mod Plastics 23:110-13 Ja '46
Designing to sell. Published in semi-monthly numbers of Sales management
Ductile permanent magnets offer new design possibilities. J. H. Goss. il diags Product Eng 17:44-7 Ja '46
Entfeinung, vorher und nachher. P. Leinweber. il V D I 88:121-4 Mr 4 '44; Same cond. (De-refining, before and after). Product Eng 17:240-1 Mr '46
Human factor in product design. J. W. Dunlap. Management R 35:367-71 S '46
Improving industrial design through the advertising department. J. G. Jondeleit. Ind Marketing 31:33 Mr '46
Industrial design. Economist 151:445-6 S 21 '46
Industrial design and the public; abstract. R. E. Bingman. Machine Design 18:174+ Ag '46
Industrial design; what is it? G. Stahl. il diags Mod Plastics 23:108-10 Jl '46
Modern design = appearance, production, profit. il Ind Marketing 31:34-5+ Mr '46
New style features, new utility angles, enhance E-Z Do's post-war line; Decorative cabinet corp. H. Derman. il Sales Management 55:68-9+ D 1 '45
Not for art alone; Metropolitan museum services to industrial designers. il Bsns W p28+ Ag 17 '46
Product design for customer acceptance. R. W. J. Cockram. Product Eng 17:137-8 N '46
Product development and design without guess work. W. C. Nichols. il Ind Marketing 31:59+ My '46
Putting sell into design of industrial products. W. A. Bowe. il Ind Marketing 31:47-8+ Je '46
Quick change of package proves beneficial, provides copy theme; Chicago & Southern air lines restyled everything the public sees. V. J Dallaire. il Ptr Ink 216:44-6 Jl 12 '46
This little business grew on craftsmanship, design and sales sense; costume jewelry of Charles Buick and Alice Johnson. il Sales Management 56:60+ Ja 1 '46

See also
Architecture, Domestic—Designs and plans
Bridge design
Fashion
Textile design
also subdivision Design under special subjects, e.g.
Airplanes—Design
Cars—Design
Concrete construction—Design
Machinery—Design
Structural engineering—Design

Protection
Design protection can be a stimulus to advertising. B. Breen. Adv & Sell 38:56+ N '45

DESIGNERS' offices
Design laboratory; Bartolucci-Waldheim coordinates drafting, testing and display facilities in remodeling these package design workrooms for Container corporation of America. il plan Arch Forum 84:102-3 F '46
Design office. il plan Arch Forum 84:101 F '46

DESK furnishings
Designing around established plastic parts; rotary desk trays. il Mod Plastics 23:133 Je '46

DESK pen sets
Desk pen sets discussed. il Consumers Res Bul 17:33-4 Mr '46

DESKS
Three-sided desks from California. il Am Bsns 16:32 My '46

DESKS, Laboratory. See Laboratory desks

DES MOINES, Iowa

Rapid transit
Des Moines railway fights to hold increased business. C. W. Gifford. Mass Transportation 42:158+ Ap '46

DESOXYMANNITOL
Sugar interconversion under reducing conditions. M. L. Wolfrom and others. bibliog Am Chem Soc J 68:578-80 Ap '46

DESOXYRIBONUCLEIC acid
Enzymes hydrolyzing ribo- and desoxyribonucleic acids. C. A. Zittle. bibliog Franklin Inst J 241:379-81 My '46

DESOXYSORBITOL
Sugar interconversion under reducing conditions. M. L. Wolfrom and others. bibliog Am Chem Soc J 68:122-6, 1443-8 Ja, Ag '46

DESTHIOBIOTIN
α-Isopropyl-5-methyl-2-oxo- 4 -imidazolidine-propionic acid, a structural isomer of desthiobiotin. G. B. Brown and M. F. Ferger. bibliog Am Chem Soc J 68:1507-8 Ag '46
Preparation of 7-benzoylamino-6-carbamylheptylic acid. J. P. English and R. C. Clapp. bibliog Am Chem Soc J 67:2262-3 D '45
Simple synthesis of *dl*-desthiobiotin and related substances. R. Duschinsky and L. A. Dolan. bibliog Am Chem Soc J 67:2079-84 D '45
Synthesis of homodesthiobiotin and related compounds. H. McKennis, jr. and V. du Vigneaud. bibliog Am Chem Soc J 68:832-5 My '46

DETECTION of metals. See Metals—Detection

DETECTORS
Detecting the invisible; non-destructive inspection with supersonic frequencies; electronic mine-detectors. J. Markus. il Sci Am 174:104-6 Mr '46
Vehicular-mounted mine detector. H. G. Doll. il diags Electronics 19:105-9 Ja '46

DETECTORS, Radio. See Radio detectors

DETERGENTS. See Cleaning compositions

DETONATION of engines. See Airplane engines—Detonation; Automobile engines—Detonation; Internal combustion engines—Detonation

DETONATION of explosives. See Explosives—Testing

DETONATORS, Electric
Increasing capacity of blasting machine. P. C. Ziemke. diag Rock Prod 49:75 F '46

DETROIT
Detroit celebrates golden jubilee of auto industry. Steel 118:89-90 Je 3 '46
Salt mine under Detroit. il Heat & Ven 43: 104 Ja '46

See also
Airports—Detroit
Labor and laboring classes—Detroit

Railroads

Begin remodeling of Detroit station. il Ry Age 120:290 F 2 '46

Rapid transit

Expressways and buses to relieve Detroit's traffic congestion; with cost data. il plans Roads & Bridges 84:49-58 Ja '46
OPA fare report stirs Detroit. Bus Transportation 25:43-5 Mr '46
OPA's Detroit report on 10-cent fare. H. Booth. Mass Transportation 42:122-4 Mr '46
Ten-cent fare announcement by Department of street railways; with comments by W. A. Jackson. Mass Transportation 41:330-1+ N '45
What political appeasement is doing to Detroit's transit system; new contract proposal submitted by the AFL. Mass Transportation 42:82-3 F '46

Sewerage

Incineration of sludge meets Detroit conditions. L. V. Garrity. Water & Sewage 83: 53+ N '45
Sludge disposal at Detroit. C. W. Hubbell. Water & Sewage 83:51-2+ N '45

Streets

Expressways and buses to relieve Detroit's traffic congestion; with cost data. il plans Roads & Bridges 84:49-58 Ja '46
How importance of Lodge project is explained to Detroit public; statement, prepared by the Wayne County board of road commissioners. il Roads & Sts 88:71-2 D '45
Plans are progressing on Detroit's John C. Lodge expressway. L. C. Smith. il maps Roads & Sts 88:68-71 D '45

DETROIT Edison company
Retirements on our 60th anniversary; abstract. Pub Util 38:377-80 S 12 '46

DETROIT harvester company
Common stock sold. Comm & Fin Chr 163: 650 F 4 '46

DETROIT, Toledo and Ironton railroad
Bonds offered. Comm & Fin Chr 163:1563 Mr 25 '46

DETROIT university
Humanistic-social overhauling. C. J. Freund. J Eng Educ 36:284-91 bibliog(p289-91) D '45

DEUTERIUM
Determination of total body water and solids with isotopes. F. D. Moore. bibliog Science 104:157-60 Ag 16 '46
Scattering of slow neutrons by ortho- and paradeuterium. M. Hamermesh and J. Schwinger. Phys R 69:145-54 Mr 1 '46
Yield function and angular distribution of the D+D neutrons. W. E. Bennett and others. bibliog diag Phys R 69:418-22 My 1 '46

DEUTERIUM compounds
Infra-red spectra of *p*-benzene-d_2 and *p*-benzene-d_4. F. A. Miller and B. L. Crawford, jr. J Chem Phys 14:292-3 Ap '46
Isotope effect and the ratio rule. W. F. Edgell. bibliog J Chem Phys 13:539-46 D '45
Non-planar vibrations of benzene. F. A. Miller and B. L. Crawford, jr. bibliog J Chem Phys 14:282-92 Ap '46

DEUTERONS
Experimental comparison of the chemical effects of deuterons and of alpha particles on methane and *n*-butane. R. E. Honig and C. W. Sheppard. bibliog il diags J Phys Chem 50:119-43 Mr '46
Inelastic photo-dissociation of the deuteron. J. M. Jauch. bibliog Phys R 69:275-85 Ap 1 '46
Partial separation of the oxygen isotopes by thermal diffusion and the deuteron bombardment of O^{17}. S. B. Welles. bibliog Phys R 69:586-9 Je 1 '46
Radioactive element 94 from deuterons on uranium. G. T. Seaborg and others. Phys R 69:366-7 Ap 1 '46
Relativistic correction in calculating the magnetic moment of the deuteron. P. Caldirola. Phys R 69:608-10 Je 1 '46
Theoretical analysis of the relative chemical effects of alpha particles and deuterons. C. W. Sheppard and R. E. Honig. bibliog J Phys Chem 50:144-52 Mr '46
Yield function and angular distribution of the D+D neutrons. W. E. Bennett and others. bibliog diag Phys R 69:418-22 My 1 '46

Scattering

Nuclear spectroscopy and energy distribution of charged particles inelastically scattered by nuclei. E. Guth. Phys R 68:280 D 1 '45

DEUTSCHE chemische gesellschaft
German chemical society; destruction of Hofmannhaus. A. E. Cummins. il Chem & Ind p245 Je 29 '46

DEUTSCHMANN, Tobe
Housing starts at home; Deutschmann's plan for Canton veterans. por Bsns W p50 O 19 '46

DEVIATION (statistics). See Variation (statistics)

DEVOE and Raynolds company
Financial position. H. S. Coffin. Mag of Wall St 77:630-1 Mr 2 '46
Sales gains continue. Barron's 26:7 O 7 '46

DEW points
Atmosphere dew-point recorder uses refrigerated reflector. il Am Mach 89:150 D 6 '45; Sci Am 174:84 F '46
Dewpoint recorder. Gen Elec R 49:54 Je '46
General Electric gas analyzer and dew point recorder. Materials & Methods 24:483 Ag '46
Methods for measuring humidity and an automatic dew point recorder are considered. R. H. Munch. il Ind & Eng Chem 38:sup79-80 O '46
Sulfur in manufactured gas; its effect upon dew point of flue products. W. Buckley. bibliog Am Gas Assn Mo 28:403-6 S '46

DEWEY, Bradley, 1887-
Meet your new president. pors Chem & Eng N 24:308-9+ F 10 '46

DEXTROSE. See Glucose

DIABASE
Derivatives of the triassic diabases of Pennsylvania. W. H. Tomlinson. il Econ Geol 40: 526-36 D '45

DIABETES
Diabetes produced by feeding alloxan to cats. J. A. Ruben and K. Yardumian. Science 103:220-1 F 22 '46

DIAGNOSIS
See also
Complement fixation

DIAGNOSIS, Radioscopic
Evaluation of a chest X-ray resurvey of an industrial plant. M. Kramer and others. Pub Health Rep 61:990-1001 Jl 5 '46
Miniature photofluorography of the clothed subject. I. Lewis. Pub Health Rep 61:1002-4 Jl 5 '46
Photofluorographic roll-film viewers; comparison of direct viewers and projectors. I. Lewis. Pub Health Rep 61:294-7, pl 1-2 Mr 1 '46
Scientific importance of X rays. L. H. Garland. il Elec Eng 64:440-3 D '45
X-ray at your door; chest examinations for employees. D. Goodman. il Safety Eng 91: 71 Ja '46

DIAL telephone. See Telephone, Automatic

DIALKYLETHYLENEDIAMINE. See Ethylenediamine

DIALS, Instrument
Clean air reduces product rejects; dial painting, Weston electrical instrument corp. C. D. Goodsell. diag Factory Management 104: 143-4 F '46

DIALYSIS
Peptization of peanut and cottonseed proteins; effect of dialysis and various acids. T. D. Fontaine, G. W. Irving, jr. and K. S. Markley. bibliog Ind & Eng Chem 38: 658-62 Je '46
Studies on silicic acid gels; dialysis of silica hydrosol and hydrogel. C. B. Hurd and P. L. Merz. bibliog Am Chem Soc J 68:61-4 Ja '46

DIALYZERS
Recovery and utilization of process chemicals in the viscose rayon industry. P. W. Frisk. il diag Rayon 27:461-3 S '46

DIAMAGNETISM
Diamagnetism and superconductivity. W. Band. Phys R 69:241 Mr 1 '46

DIAMIDINODIPHENOXYPROPANE. See Propamidine

DIAMIDINOSTILBENE
Attempts to find new chemotherapeutic amidines; nuclear substituted derivatives of 4 : 4'-and 3 : 3'-diamidinostilbene. J. N. Ashley and J. O. Harris. Chem Soc J p567-72 Jl '46
Bromination of 4:4'-diamino-$\alpha\gamma$-diphenoxypropane and of 4:4' diaminostilbene. A. J. Henry. Chem Soc J p870-3 D '45

DIAMINES. See Amines

DIAMINOACRIDINE
Synthesis of diaminoacridines. A. A. Goldberg and W. Kelly. Chem Soc J p102-11 F '46

DIAMINODIPHENYL sulfone
Derivatives of *p,p'*-diaminodiphenyl sulfone. H. Heymann and L. F. Fieser. bibliog Am Chem Soc J 67:1979-86 N '45
Derivatives of *p,p'*-diaminodiphenyl sulfone. H. Heymann and C. Heidelberger. bibliog Am Chem Soc J 67:1968-90 N '45

DIAMINOQUINOLINE
New synthesis of 7,8-diaminoquinoline. F. Linsker and R. L. Evans. bibliog Am Chem Soc J 68:149-50 Ja '46

DIAMOND cutting
City of diamonds recovers. Fortune 33:232+ My '46

DIAMOND drilling. See Drilling and boring (earth and rocks)

DIAMOND match company
Consent decree signed. Comm & Fin Chr 163:2004 Ap 15 '46
Diversified issues. Mag of Wall St 78:460 Jl 20 '46

DIAMONDS
Amsterdam diamond trade; some sparkle is recaptured. M. K. Tate. il For Comm W 23:10-11+ Je 22 '46
British Guiana diamond exports in the years 1926-45. For Comm W 23:37 Ap 6 '46
New diamond deposits add to Brazil's wealth. For Comm W 24:35 Ag 3 '46
New Golconda? diamond find in Tanganyika. Bsns W p21 O 5 '46
Palestine's activity in diamond cutting. M. P. Hooper. il For Comm W 21:6-7+ D 8 '45

DIAMONDS, Artificial
Synthetic diamonds; abstract. P. L. Guenther, P. Geselle and W. Rebentisch. Materials & Methods 23:1638 Je '46

DIAMONDS, Industrial
Diamond dies for wire drawing; illustrations with text. C. K. Wall. Materials & Methods 23:717-19 Mr '46
Diamonds as cutting tools and some of their possibilities. J. R. Roubik and J. P. Bunce. diags Steel 118:111+ Je 3 '46
Equipment designed to facilitate the use of diamond tools. G. Schlesinger and D. F. Galloway. diags Mach 52:179-81 Je '46
Improved method for making fine diamond dies. Materials & Methods 24:679 S '46
Industrial jewels. Chem Age (Lond) 55:219-21 Ag 24 '46
Machining glass; use of diamond tools; abstract. P. Grodzinski. Materials & Methods 24:460+ Ag '46
Machining with diamond tools. R. Maxfield. il Mod Plastics 23:131-5 Mr '46
Selection of industrial diamonds, particularly for the dressing of grinding wheels. S. Booth. il Aero Digest 52:96+ Ja '46
Size grading of diamond powder. B. L. Steierman and others. 5pl diag J Res Nat Bur Stand 36:469-78 My '46
Substitution of lower-quality industrial diamonds in diamond dresser tools. H. Whittaker. il A S M E Trans 68:35-45 Ja '46
Using diamonds for the crush-forming of grinding wheels. H. L. Strauss, jr. diags Mach 52:179 Ja '46
Vitrified-bonded diamond grinding wheels. il Am Cer Soc Bul 25:92-3 Mr 15 '46

DIAMYL peroxide
Studies in organic peroxides; *t*-amyl hydroperoxide and di-*t*-amyl peroxide. N. A. Milas and D. M. Surgenor. Am Chem Soc J 68:643-4 Ap '46

DIAPERS
Rating
Babies' diapers. Consumers Res Bul 17:14-17 Mr '46
Disposable diapers. Consumers Res Bul 17: 6-7 Je '46

DIAPHRAGMS
Industrial diaphragms take advantage of properties of synthetic rubber. Sci Am 174: 257 Je '46
Regenerative plating and other applications of porous diaphragms and cells. M. B. Diggin. il diags Metal Finishing 44:8-12 Ja '46

DIARRHEA
Studies of the acute diarrheal diseases; further studies on the relative efficacy of sulfonamides in shigellosis. J. Watt and S. D. Cummins. bibliog Pub Health Rep 60: 1355-61 N 16 '45
Studies of the acute diarrheal diseases; the sulfonamides in shigellosis. A. V. Hardy. Pub Health Rep 61:857-66 Je 14 '46

DIASONE
Present status of diasone in the treatment of leprosy. G. H. Faget and others. pls Pub Health Rep 61:960-3 Je 28 '46

DIASTEREOISOMERS. See Isomerism

DIATHERMY
Crystal-controlled diathermy. R. L. Norton. il diag Electronics 19:113-15 O '46

DIATOMACEOUS earth
Le désherbage des champs de céréales par poudrage de colorants nitrés dispersés dans la terre d'infusoires. I.-A. Pastac. bibliog Génie Civil 123:7-9 Ja 1 '46
Filtration of water through diatomaceous earth. S. B. Applebaum. flow diags il Water & Sewage Works 93:208-10 Ag '46
Les kieselguhrs du Puy-de-Dôme; la randannite et la ceyssatite. map Génie Civil 123: 222 Ag 15 '46
Removal of the cercariae of schistosoma mansoni from water by filtration through diatomaceous silica in a small model filter. M. F. Jones and F. J. Brady. Pub Health Rep 61:1538-43, pl 1 O 25 '46

DIAZOACETIC acid
Acid catalyzed decomposition of diazoacetic ester in some aprotic solvents at 25°. R. J. Hartman, C. J. Hochanadel and E. G. Bobalek. bibliog Am Chem Soc J 68:2071-4 O '46

DIAZO compounds
Aliphatic diazo compounds; investigation of α-diazo-γ,γ,γ-triphenylpropane, in relation to molecular rearrangements and stability. L. Hellerman and R. L. Garner. Am Chem Soc J 68:819-23 My '46

Mechanism of the Gomberg reaction. H. H. Hodgson. bibliog Soc Dyers & Col J 62: 199-202 Jl '46

DIAZOFLUORENE
Reaction of diazofluorene with 9-substituted fluorene derivatives. L. A. Pinck and G. E. Hilbert. Am Chem Soc J 68:867-8 My '46

DIAZONIUM compounds
Diazonium borofluorides; a study of arylcopper complexes. W. M. Whaley and E. B. Starkey. bibliog Am Chem Soc J 68 793-5 My '46

Effect of substituent groups upon the course of the condensation reaction between benzenediazonium salts and phenols. J. C. Colbert and R. M. Lacy. bibliog Am Chem Soc J 68:270-1 F '46

Explosive reaction of diazonium compounds with sulphides of sodium. H. H. Hodgson. bibliog Chem & Ind p362 N 24 '45

Interpretation of the Sandmeyer reaction; the formation of complex salts between aryl diazonium chlorides and ferric chloride of general formula, $R\cdot\overset{+}{N}_2\}\overset{-}{FeCl_4}$, and the decomposition of *p*-nitrobenzenediazonium chloride by ferrous salts. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p819-21 N '45

Interpretation of the Sandmeyer reaction; the influence of the chloride ion on the decompositions of neutral *p*-nitrobenzenediazonium chloride and of *p*-nitrobenzenediazonium cobaltinitrite. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p545-6 Ag '45

Mechanism of the Gomberg reaction. H. H. Hodgson. bibliog Soc Dyers & Col J 62: 199-202 Jl '46

DIAZOTIZATION
Syntheses in the pyrazine series; the preparation and properties of the pyrazyl halides. A. E. Erickson and P. E. Spoerri. bibliog Am Chem Soc J 68:400-2 Mr '46

DIAZOTRIPHENYLPROPANE
Aliphatic diazo compounds; investigation of α-diazo-γ,γ,γ-triphenylpropane, in relation to molecular rearrangements and stability. L. Hellerman and R. L. Garner. Am Chem Soc J 68:819-23 My '46

DIBENZOFURAN
Dibenzofuran; some dialkylaminoalkylamino derivatives. H. Gilman and S. Avakian. bibliog Am Chem Soc J 68:580-3 Ap '46

DIBENZOTHIOPHENE
Some dialkylaminoalkylamino derivatives of dibenzothiophene. H. Gilman and S. Avakian. bibliog Am Chem Soc J 68:1514-15 Ag '46

DIBENZOYLETHYLENE
Novel reaction between amines and dibenzoylmethylethylene; evidence for a chelate structure for *cis*-dibenzoylmethylethylene. R. E. Lutz and P. S. Bailey. bibliog Am Chem Soc J 67:2229-32 D '45

DIBENZOYLMETHYLETHYLENE
Novel reaction between amines and dibenzoylmethylethylene; evidence for a chelate structure for *cis*-dibenzoylmethylethylene. R. E. Lutz and P. S. Bailey. bibliog Am Chem Soc J 67:2229-32 D '45

DIBENZOYLMORPHOLINOMETHYL ethylene
Some reactions of *cis*-dibenzoyl-(morpholinomethyl)-ethylene; reduction and cyclization. P. S. Bailey and R. E. Lutz. bibliog Am Chem Soc J 67:2232-5 D '45

DIBENZYL
Synthetic analogues of progesterone. W. C. J. Ross. Chem Soc J p536-8 Ag '45

DIBENZYL phosphite
Studies on phosphorylation; the reaction of dialkyl phosphites with polyhalogen compounds in presence of bases; a new method for the phosphorylation of amines. F. R. Atherton, H. T. Openshaw and A. R. Todd. Chem Soc J p660-3 O '45

DIBENZYL sulfide
Analysis
Radioactive studies, utilization of the radioactive isotope dilution procedures for special types of chemical problems; quantitative determination of the three individual components of mixtures of dibenzyl sulfide, sulfoxide, and sulfone as an illustrative example. F. C. Henriques, jr. and C. Margnetti. bibliog Ind & Eng Chem Anal ed 18:476-8 Ag '46

DIBENZYL sulfone
Analysis
Radioactive studies; utilization of the radioactive isotope dilution procedures for special types of chemical problems; quantitative determination of the three individual components of mixtures of dibenzyl sulfide, sulfoxide, and sulfone as an illustrative example. F C. Henriques, jr. and C. Margnetti. bibliog Ind & Eng Chem Anal ed 18:476-8 Ag '46

DIBENZYL sulfoxide
Analysis
Radioactive studies; utilization of the radioactive isotope dilution procedures for special types of chemical problems; quantitative determination of the three individual components of mixtures of dibenzyl sulfide, sulfoxide, and sulfone as an illustrative example. F. C. Henriques, jr. and C. Margnetti. bibliog Ind & Eng Chem Anal ed 18:476-8 Ag '46

DIBROMOBENZYLACETOPHENONE
Ethylene imine ketones. N. H. Cromwell and J. A. Caughlan. bibliog Am Chem Soc J 67:2235-8 D '45

DIBROMOPROPANOL
Addition of secondary amines to dibromopropanol. F. C. Whitmore and others. Am Chem Soc J 68:531 Mr '46

DIBUTYL acetylene
Di-*t*-butylacetylene. G. F. Hennion and T. F. Banigan, jr. bibliog Am Chem Soc J 68:1202-4 Jl '46

DIBUTYL aminomethylaminoethane
Preparation of some α-dialkylamino-ω-methylaminoalkanes. R. Munch, G. T. Thannhauser and D. L. Cottle. bibliog Am Chem Soc J 68:1297-9 Jl '46

DIBUTYL peroxide
Studies in organic peroxides; *t*-butyl hydroperoxide and di-*t*-butyl peroxide. N. A. Milas and D. M. Surgenor. bibliog Am Chem Soc J 68:205-8 F '46

DIBUTYL phthalite
Behaviour of plasticizers in nitrocellulose films. H. L. Tuthill. Paint Oil & Chem R 108:7-10+ D 13 '45

DICARBAZYL dye
Absorption spectra of the negative ions of two diaminotriphenylmethane dyes. B. M. Tolbert and G. E. K. Branch. Am Chem Soc J 68:315-19 F '46

DICARBOCYANINES
Symmetrical dicarbocyanines having a methyl group as substituent on the chain. F. M. Hamer and R. J. Rathbone. Chem Soc J p595-600 S '45

DICETYL
Heats of solution of hexamethylbenzene, cetyl alcohol, and dicetyl in related liquids; heats of fusion by an extrapolation process. G. S. Parks and R. D. Rowe. bibliog J Chem Phys 14:507-10 S '46

DICHLOROBENZENE
Catalytic isopropylation of *o*-dichlorobenzene. G. Vermillion and M. A. Hill. Am Chem Soc J 67:2209 D '45

DDT in paradichlorobenzene as a larvicide. H. A. Johnson and J. L. Eason, jr. Pub Health Rep 61:1185-8 Ag 9 '46

DICHLOROCYCLOPROPANE
Dipole moments of chlorobenzene, monochlorocyclopropane, and 1,2-dichlorocyclopropane, with a calculation of the exterior valence angle of the cyclopropane ring. B. I. Spinrad. bibliog diag Am Chem Soc J 68:617-20 Ap '46

DICHLORODIETHYL sulfide. See Mustard gas

DICHLORODIFLUOROMETHANE
Comparative engineering data on refrigerants given in new tables. Heating-Piping 18: 91-3 Ag '46
Determination of pyrethrins deterioration; solubility in dichlorodifluoromethane. W. A. Gersdorff and W. F. Berthel. Soap & San Chem 22:155+ O '46
Extinction of propane and butane flames by dichlorodifluoromethane. G. W. Jones and F. E. Scott. pl U S Bur Mines Rep of Invest 3908:1-8 '46
How to select economical condensing pressures for air conditioning; using Freon 12. A. P. Boehmer. il Heating-Piping 18:77-81 S; 94-8, data sheet(p99-100) O '46

DICHLOROETHANE. See Ethylene chloride

DICHLOROETHYLENE
Bending force constants for halogenated ethylenes. K. S. Pitzer and N. K. Freeman. bibliog J Chem Phys 14:586-8 O '46
Condensation of saturated halides with unsaturated compounds; condensation of alkyl chlorides with polychloroolefins. L. Schmerling. Am Chem Soc J 68:1655-7 Ag '46

DICHLOROMETHYL carbostyril
Antimalarials; 7-chloro-4-hydroxy- and 4,7-dichloro-1-methylcarbostyrils. R. E. Lutz and others. bibliog Am Chem Soc J 68: 1810-12 S '46

DICHLOROPHENOXYACETIC acid
Control of ragweed pollen production with 2,4-dichlorophenoxyacetic acid. F. G. Smith and others. bibliog Science 103:473-4 Ap 19 '46
Effect of 2,4-dichlorophenoxyacetic acid on the development of Anjou pear scald. E. Hansen. Science 104:399-400 O 25 '46
Flower formation in the pineapple plant as controlled by 2,4-D and naphthaleneacetic acid. J. van Overbeek. Science 102:621 D 14 '45
Herbicidal action of 2,4-dichlorophenoxyacetic acid on the water hyacinth, eichornia crassipes. E. M. Hildebrand. bibliog Science 103:477-9 Ap 19 '46
Period of effective weed control by the use of 2,4-dichlorophenoxyacetic acid. P. C. Marth and J. W. Mitchell. Science 104:77-9 Jl 26 '46
Plant growth regulators. Science 103:469 Ap 19 '46
Treatment of muck and manure with 2,4-dichlorophenoxyacetic acid to inhibit germination of weed seeds. C. L. Hamner and others. Science 103:476-7 Ap 19 '46
Tributyl phosphate as a solvent for preparing concentrated and oil-miscible solutions of 2,4-dichlorophenoxyacetic acid and similar substances. W. B. Ennis, jr. and others. Science 103:476 Ap 19 '46
2,4-D and weed control. il Consumers Res Bul 18:22-4 Ag '46
Use of 2,4-dichlorophenoxyacetic acid as a selective herbicide in the tropics. J. van Overbeek and I. Vélez. Science 103:472 Ap 19 '46
Weeds doomed; quantity production and decreasing cost of 2,4-D. Bsns W p62+ F 2 '46

DICHLOROPHENYLETHANE
1,1-Di-(*p*-chlorophenyl)-ethane. O. Grummitt, A. C. Buck and E. I. Becker. bibliog Am Chem Soc J 67:2265-6 D '45

DICHLOROPROPANE
Toxicology of 1,2-dichloropropane (propylene dichloride); studies on effects of daily inhalations. L. A. Heppel and others. bibliog J Ind Hygiene 28:1-8 Ja '46

DICHLOROPROPENE
Allylic chlorides; catalytic hydrolysis and characterization of 1,3-dichloropropene. L. F. Hatch and G. B. Roberts. bibliog Am Chem Soc J 68:1196-8 Jl '46

DICHLOROPROPIOPHENONE
Synthesis of 2,4-dichloropropiophenone. J. T. Sheehan. Am Chem Soc J 68:1672 Ag '46

DICHLOROQUINOLINE
Synthesis of 4,6- and 4,8-dichloroquinoline. D. S. Tarbell. Am Chem Soc J 68:1277-8 Jl '46

DICHLOROSALICYLIC acid
Synthesis of 9-phenanthrylmethyldichlorophenol and related compounds. D. S. Tarbell and Y. Sato. bibliog Am Chem Soc J 68: 1091-4 Je '46

DICHLOROSTYRENE
Preparation and polymerization of the six nuclear isomeric dichlorostyrenes. C. S. Marvel and others. bibliog Am Chem Soc J 68:861-4 My '46

DICHROA febrifuga
Ch'ang Shan, a Chinese antimalarial herb. C. S. Jang and others. Science 103:59 Ja 11 '46

DICHROISM
Dichroic behaviour of substantive dyes; molecular theory of the dyeing of cellulose. T. H. Morton. Soc Dyers & Col J 62:272-80 S '46; Abstract. Chem Age (Lond) 54:312 Mr 23 '46

DICKASON, Gladys
Vice president, Amalgamated clothing workers, C.I.O. por Fortune 34:149 N '46

DICKERMAN, William Carter, 1874-1946
Gentleman of high courage. W. Weir. Ptr Ink 215:158 My 10 '46
Sketch. por Ry Age 120:906 My 4 '46

DICTATING machine operators
Bonus plans for dictation machine operators; abstract. T. Harvey. Management R 35: 268-70 Jl '46

DICTATING machines
Business recording equipment. R. Stone. il diags Radio N 34:32-4+ N '45
Electronic dictating machines. il Ry Age 121:414 S 7 '46
Endless belt recorder. F. W. Roberts and A. W. Skoog. il diags Machine Design 18:99-104 Jl '46
Necksavers; by the SoundScriber corp. of New Haven. Fortune 34:143 Ag '46
Roller drive at stylus head provides constant recording speed; Gray Audograph. il diags Product Eng 17:90-2 N '46

DICTATION
Dictation is a two-way affair; abstract. J. Callahan. Management R 35:221-3 Je '46
Steno's view of dictators; six types. Ptr Ink 217:47-8 O 25 '46

DICTIONARIES. See subdivision Dictionaries under special languages and subjects, e.g. Chemistry—Dictionaries; English language —Dictionaries

DICYCLOPENTADIENE
Chemistry of dicyclopentadiene; addition of alcohols and phenols. H. A. Bruson and T. W. Riener. Am Chem Soc J 68:8-10 Ja '46
Endo-exo-rearrangement in the addition of acids to dicyclopentadiene. P. D. Bartlett and A. Schneider. bibliog Am Chem Soc J 68:6-8 Ja '46

Analysis
Determination of cyclopentadiene and dicyclopentadiene. K. Uhrig, E. Lynch and H. C. Becker. bibliog diag Ind & Eng Chem Anal ed 18:550-3 S '46

DIE casting
Aluminum alloy die casting; A.F.A. report. Iron Age 157:60 My 16 '46
Aluminum die castings; abstract. E. Carrington. Materials & Methods 23:1656 Je '46
Applied finishes for zinc alloy die castings. il Product Eng 17:389-91 My '46
Brass die casting; Titan metal manufacturing co. H. Chase. il Steel 119:112-14+ O 7 '46
Brass press forgings or die castings; which? H. Chase. il diag Materials & Methods 23: 995-1001 Ap '46
Die cast or built up? abstract. Materials & Methods 23:814 Mr '46
Die cast rotor testing by test stator method. P. H. Trickey. bibliog il diags Elec Eng 65: Trans 139-41 Mr '46
Die casting magnesium alloys. A. G Gray. il diags Steel 119:150-2+ N 11 '46

DIE casting—*Continued*
Die casting outboard motor parts; Johnson motors. H. Chase. il Iron Age 158:50-3 Ag 15 '46
Die casting; production methods, alloys used, advantages and limitations, design principles, applications. H. Chase. il diags Materials & Methods 22:1441-52 N '45
Die castings are back on most new automobiles. C. R. Maxon. il Steel 118:109+ Je 24 '46
Expansion in die casting; Cleveland hardware and forging co. J. Parina, jr. il Steel 118:96-7+ F 11 '46
Flash remover for moldings and die castings. diags Am Mach 90:140 Mr 28 '46
German die castings made by hot shot gooseneck method. J. R. Townsend. il diags Product Eng 17:[no 7] 81-3 Jl '46
Gravity die casting from the engineer's viewpoint. M. R. Hinchcliffe. il Engineering 161:45-8 Ja 11 '46
How to effect economy with die castings. S. E. Maxon. il diags Machine Design 17:143-6 D '45
Jack and Heintz lightweight motors built of large aluminum die castings. K. Rose. il Materials & Methods 24:83-6 Jl '46
Job-rotation plan that works. A. Wood and M. L. Okun. Am Mach 90:114-15 My 9 '46
Machine die castings producers; directory. Machine Design 18:240-1 O '46
Magnesium die castings. R. M. Heintz. il Machine Design 18:101-4+ F; 111-15 Mr '46
New magnesium die casting alloy; Eclipsaloy 130; abstract. R. F. Hauser. Materials & Methods 23:1634 Je '46
Permanent-mold or die cast? H. Chase. il diags Machine Design 18:140-4 Ag '46
Polishing and buffing die cast auto hardware. H. Chase. il Iron Age 158:58-61 S 5 '46
Producing 70 tons of die castings daily; Electric auto-lite co. H. Chase. il plan Iron Age 157:76-80 My 9; 58-61 My 23; 34-8 My 30 '46
Steels for die casting die blocks. J. L. Erickson. Materials & Methods 24:389-96 Ag '46
Testing die casting; abstract. Materials & Methods 22:1530+ N '45
Zinc alloy die castings simplify wallpaper trimmer. il Product Eng 17:458 Je '46

DIE casting machines
Die casting; methods of production. H. Chase. il diags Materials & Methods 22: 1442-3 N '45
Harvill automatic hydraulic die-casting machine. il Mach 52:199 D '45; Am Mach 89: 142 D 6 '45
Harvill model HD-IAMI die casting machine. il Steel 117:130 D 17 '45
High-speed die casting machine for small runs. il Materials & Methods 23:1410-11 My '46
Hy-Mac die-casting machine. il Mach 53:198-9 O '46
Hydraulic high pressure die casting machines. il Materials & Methods 24:216 Jl '46
Hydraulic press manufacturing co. die casting machines. il Automotive & Aviation Ind 94:44+ My 15 '46; Mach 52:203 Je '46

DIEBOLD, Inc.
Diebold annexes York's line. Bsns W p76+ Ja 12 '46

DIELECTRIC constants
Dielectric constants of dimethyl siloxane polymers. E. B. Baker, A. J. Barry and M. J. Hunter. bibliog il Ind & Eng Chem 38:1117-20 N '46
Dielectric constants of eight gases. L. G. Hector and D. L. Woernley. bibliog il Phys R 69:101-5 F 1 '46
Dielectric constants of the methanol-water system of 5 to 55°. P. S. Albright and L. J. Gosting. bibliog Am Chem Soc J 68:1061-3 Je '46
Dielectric properties of liquid mixtures. G. Oster. bibliog Am Chem Soc J 68:2036-41 O '46
Dielectric properties of materials. Aviation 45:103 Jl '46
Dielectric properties of phenolic resins and molded compositions; Novolaks. L. M. Debing. Electrochem Soc Trans 90 (preprint 3):23-46 '46
Dipole moment and resonance in vinyl sulfide and six unsaturated chlorohydrocarbons. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:1005-8 Je '46
Elastic, piezoelectric, and dielectric constants of potassium dihydrogen phosphate and ammonium dihydrogen phosphate. W. P. Mason. bibliog diags Phys R 69:173-94 Mr 1 '46
Elastic, piezoelectric and dielectric properties of sodium chlorate and sodium bromate. W. P. Mason. il diags Phys R 70: 529-37 O 1 '46
Electrical insulating materials; power factor-temperature characteristics and dielectric constant (S.I.C.); tabulation. Elec World 125.126 F 16 '46
Further investigations of polarity in hydrocarbons possessing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:244-7 F '46
High titania dielectrics. E. Wainer. diags Electrochem Soc Trans 89 (preprint 3):47-71 bibliog(71 references, p69-70) '46
New method for measuring dielectric constant and loss in the range of centimeter waves. S. Roberts and A. von Hippel. bibliog diags J Ap Phys 17:610-16 Jl '46
Q-meter for dielectric measurements on polyethylene and other plastics at frequencies up to 50 megacycles. A. P. Wangsgard and T. Hazen. il diags Electrochem Soc Trans 90 (preprint 11):177-91 '46
Radio-frequency dielectric properties of dehydrated carrots; application to moisture determination by electrical methods. W. C. Dunlap, jr. and B. Makower. bibliog diag J Phys Chem 49:601-22 N '45
Temperature and dielectric constant effects in the decomposition of nitrosotriacetoneamine. C. V. King and F. Lionetti. bibliog Am Chem Soc J 67:2248-50 D '45

DIELECTRIC losses
Influence of the concentration and mobility of ions on dielectric loss of insulating oils. Bun Po Kang. bibliog Elec Eng 65:Trans 403-7 Jl '46
Microwave dielectric loss measuring technique. W. R. MacLean. il J Ap Phys 17: 558-66 Jl '46
Polystyrene plastics as high frequency dielectrics. A. von Hippel and L. G. Wesson bibliog il diags Ind & Eng Chem 38: 1121-9 N '46

DIELECTRIC power factor. See Power factor, Dielectric

DIELECTRICS
Behavior of dielectrics over wide ranges of frequency, temperature, and humidity; abstract. R. F. Field. il Electronics 18:370+ D '45
Dielectric properties of some homogeneous materials at high electric stress. A. E. W. Austen. bibliog diags Inst E E J 92 pt 1: 373-7 O '45
Dielectric recovery by an a-c arc in an air blast. T. E. Browne, jr. bibliog il diags Elec Eng 65:Trans 169-76 Mr '46
Dielectric strength and protection of modern dry-type air-cooled transformers. P. L. Bellaschi and E. Beck. il diags Elec Eng 64:Trans759-63 N '45
Dielectrics and insulation. J. C. Swallow and G. P. Britton. Electrician 136:1519-20 Je 7 '46
Electronic processes in liquid dielectric media; the properties of metal-ammonia solutions. R. A. Ogg, jr. Am Chem Soc J 68:155 Ja '46
Formation of ionized water films on dielectrics under conditions of high humidity. R. F. Field. J Ap Phys 17:318-25 My '46
Important new dielectrics; high permittivity of barium titanate. G. S. Smith. Chem Age (Lond) 53:429-31 N 10 '45
New plastic composition for dielectric applications; abstract. W. C. Goggin and R. F. Boyer. Product Eng 17:[no 7] 120 Jl '46
Paper capacitors containing chlorinated impregnants; effects of sulfur. D. A. McLean, L. Egerton and C. C. Houtz. bibliog diag Ind & Eng Chem 38:1110-16 N '46
Paper capacitors containing chlorinated impregnants; mechanism of stabilization. L. Egerton and D. A. McLean. bibliog il Ind & Eng Chem 38:512-17 My '46

DIELECTRICS—*Continued*
Physical interaction of electrons with liquid dielectric media; properties of metal- ammonia solutions. R. A. Ogg, jr. Phys R 69:668-9 Je 1 '46
Plastics and the electrical industry; polythene as a high frequency dielectric. il Electrician 137:649-52 S 6 '46
Resonance methods of dielectric measurement at centimetre wavelengths F. Horner and others. diags Inst E E J 93 pt 3:53-68 Ja '46
Studies of dielectric properties of chemical pulps. C. Delevanti, jr., P. B. Hansen and D. O. Adams. bibliog diags Paper Tr J 121: 35-43 D 27 '45; 122:43-52 F 14 '46; Excerpts, pt 1. Paper Ind 28:288-90 My '46; Same cond, pt 2. Paper Ind 27:1894-8 Mr '46

See also
Insulating materials
Insulation (electric)
Mica
Power factor, Dielectric

DIELS-ALDER reaction
Researches on acetylenic compounds; diene additions to ethynyl ketones. K. Bowden and E. R. H. Jones. Chem Soc J p52-4 Ja '46

DIENES. See Olefins

DIENONE—phenol rearrangement. See Molecular rearrangements

DIES
Antifriction die sets and die aligners. il Iron Age 157:53 Mr 21 '46
Basic dies for deep drawing. C. A. Gray. il diags Am Mach 90:90-2 Jl 4 '46
Carbide die applications, present and future. E. Glen. il diag Iron Age 157:51-4 Ap 25 '46
Carbide dies receiving wider use. il diags Product Eng 17:138 O '46
Carbide drawing dies. D. Mapes. il Steel 119:84+ Jl 29 '46
Cast-to-shape tool steels. il Steel 119:84+ Jl 22 '46
Cemented carbide dies for cold nosing artillery shells. il Steel 117:72 D 31 '45
Cemented carbides make die materials. B. C. Brosheer. diags Am Mach 90:101-5 S 12 '46
Cemented carbides used for other purposes than cutting tools. K. R. Beardslee. il diags Mach 52:150-2 Ag '46
Cold-die quenching. A. F. Gallistel. il diag Steel 118:128-9+ Mr 4 '46
Cold treatment of die steel. W. J. Jabsen and P. J. Krebs. il Metal Prog 50:299 Ag '46
Combination die for blanking and drawing a beaded cup. E. Barron. diags Mach 52:183-4 My '46
Compound die forms dynamotor coils to fit restricted space. R. E. Henson. diags Am Mach 90:139 My 9 '46
Diamond dies for wire drawing; illustrations with text. C. K. Wall. Materials & Methods 23:717-19 Mr '46
Die designed to produce curled eye at one end of steel strip. diag Mach 53:181 S '46
Die for forming extruded rivet in sheet-metal plate. W. C. Mills. diags Mach 52:191-2 D '45
Die for forming irregular-shaped spring. L. Kasper. diags Mach 52:185-6 Ja '46
Die for making square-cornered, air-tight containers in one operation. C. W. Hinman. diags Mach 53:216-17 N '46
Die steels for cold-working dies; tabulations; data sheet. G. M. Butler, comp. Mach 53:221 S '46
Flexible tools for stamping light metals. Mech Eng 68:157 F '46
Forming heavy plate with Kirksite dies; Curtiss-Wright corp. L. R. Pistoles. il Iron Age 157:74-5 Mr 14 '46
Increasing production with carbide tool inserts; Westinghouse electric corp. R. J. Rousseau. Steel 118:140+ Je 10 '46
Increasing the life of brick and tile dies; hard-metal liners and a method for resurfacing them. P. W. Tefft. diag Am Cer Soc Bul 24:417-18 N 15 '45
Keys replace pockets in die shoes. W. J. Kamp. il Am Mach 90:85-6 Ag 29 '46
Lempco anti-friction die sets. il Steel 118:111 Ap 22 '46
Machine built with manifold dies points steel tubes. il Steel 118:141+ Ap 1 '46
Metal forming with carbide dies. E. Glen. il Materials & Methods 24:423 Ag '46
Mill practice, care of dies; abstract. R. R. Preston. Steel 119:180 N 11 '46
One billion hits predicted for carbide dies; making razor blades. G. A. Barth. il diags Am Mach 90:142-3 Jl 18 '46
Rockered forming die makes variety of straps and hooks. W. T. Glud. il Am Mach 89:133 D 6 '45
Selection of die steels for cold work. W. H. Wills. il Iron Age 156:58-61 N 22 '45
Selection of die steels for cold working metals. G. M. Butler. Steel 119:124+ Ag 19 '46
Shimmy dies; straight edge trimming, with or without notches and projections done in one operation on Brehm dies. J. Parina, jr. il diags Steel 117:76-7+ D 24 '45
Sintered carbide forming dies. Materials & Methods 22:1522+ N '45
Spring-actuated receding guides for locating work in coining die. L. Kasper. diags Mach 52:192-3 D '45
Thin stock demands special die design; with drawings. W. C. Mills. Am Mach 90:112-15 Ag 15 '46
Thin-stock dies for secondary operations. W. C. Mills. diags Am Mach 90:101-5 O 24 '46
Tool and die welding. A. R. Butler and F. E. Kessler. il Welding J 25:953-61 O '46
Tool maintenance and die repair. P. D. Scott. Welding J 25:442 My '46
Tools for use in bending machines. E. J. DeWitt and H. S. Nachman. diags Mach 52: 188-91 My '46
Tough stainless demands rugged tooling. P. Hallin. diags Am Mach 90:101-3 N 7 '46
Wood-base tooling material; Masonite. H. A. Knight. il Materials & Methods 22:1403-6 N '45
Zinc-base die material; Kirksite A; abstract. W. W. Richmond. Materials & Methods 24: 686+ S '46

Manufacture
Casts threading dies in new gray iron foundry; Reed manufacturing co. il Foundry 74:166+ N '46
Dies for cold headers. H. H. Palmer. il Materials & Methods 24:646-50 S '46
Dies harden in passing; progressive induction heating with electronic control. J. A. Schaefer. il diags Am Mach 90:101-3 O 10 '46
Heat treatment of stainless steel. H. Solakian. il diag Iron Age 157:46-9 My 30 '46
Low cost patterns for multi-stage dies; Sol-A-Die process. R. R. Kay. il diags Iron Age 158:56-8 Ag 22 '46
Procedure for making a welded die. J. Mikulak. il Materials & Methods 22:1466 N '45
Steels for die casting die blocks. J. L. Erickson. Materials & Methods 24:389-96 Ag '46
What future for contract tool shops? B. Finney. Am Mach 90:108-11 Jl 4 '46

DIES, Forging
Conditions affecting the quality of steel for cold-heading dies. A. S. Jameson. bibliog il diags Steel 117:98-101+ O 29; 100-4+ N 26 '45; 118:82-5+ Ja 21 '46
Estimating die costs. R. Howell. il Iron Age 156:44-8 N 29 '45
Forging costs cut by improved die lubricant. L. R. Pistoles. il Iron Age 158:55-6 O 17 '46
Forging high-alloy rounds with V-type dies. E. Ghrist. il diags Iron Age 158:44-9 Ag 1 '46
Forging with closed dies in hydraulic presses. C. W. Hinman. il Mach 52:176-8 F '46

DIES, Plastic
Physical properties of resin-impregnated plaster. J. Delmonte. il A S M E Trans 68:241-6 Ap '46; Same cond. Materials & Methods 23:1011-15 Ap '46
Tooling possibilities of plaster of Paris impregnated with synthetic resins. J. Delmonte. il Automotive & Aviation Ind 93: 32-3+ D 1 '45; Excerpts. Iron Age 156:72-4 N 22 '45

DIESEL-electric locomotives. See Locomotives, Diesel-electric

DIESEL engine plants. See Power plants—Diesel engine plants

DIESEL engine stations. See Electric plants (central stations)—Diesel engine stations

DIESEL engines

American society of mechanical engineers, 18th National oil and gas power conference, Milwaukee, June 12-14. Power 90:437-9 Jl '46

Bardco export generator sets. il Diesel Power 24:1087 S '46

Buda offers new Diesel line. il Automotive & Aviation Ind 95:45+ N 1 '46

Continental's new Diesel line. il Automotive & Aviation Ind 94:36-9 Ap 1 '46

Cooper-Bessemer FV engine. diag Diesel Power 24:606 My '46

Cub two cylinder Diesel engine. Engineer 181:474 My 24 '46

Diesel cranes at Pearl Harbor. G. W. Grupp. il Diesel Power 24:848-52 Jl '46

Diesel engine driven crane. il Engineer 180: 493-4 D 14 '45

Diesel engine in the commercial power field. W. C. Burgy. Diesel Power 24:1096-9 S '46

Diesel engines, their present applications and future markets. H. T. Hill. Diesel Power 24:612-13+ My '46; Abstract Mech Eng 68: 570-1 Je '46

Diesel industry hits stride. Bsns W p52-4 Je 22 '46

Diesels and the oil industry. A. W. McKinney. Diesel Power 24:853+ Jl '46; Same. Pet Eng 17:221 Je '46

Diesels to the rescue; railcar mounted substation and auxiliary generating equipment ordered by Russian government. il Diesel Power 24:601 My '46

Electrohydraulic control of Diesel-electric drives C. B. Lewis and M. A. Edwards. il diags Mech Eng 68:953-5 N '46

English Electric pressure charged oil engine. il Engineer 182:130 Ag 9 '46

German Diesel engine study discloses superior type of equipment; abstracts. H. J. Kirschner. Iron Age 157:122-3 F 14 '46; diags Automotive & Aviation Ind 94:36-8+ F 15 '46

Light Diesel passes sky test; powers a Stinson. il Bsns W p50 Mr 16 '46

Lincoln shield-arc generator driven by 2-cycle Diesel engine. il Am Mach 90:158 F 14 '46

Modern applications of Diesel engines and equipment. T. M. Robie. il Western Soc E J 50:147-53 D '45

Modern deep well drilling rigs Dieselized. M. D. Pugh. il Diesel Power 24:584-7 My '46

New Continental Diesel engine. il Diesel Power 24:444-7 Ap '46; Excerpts. Steel 118:124 Ap 1 '46

Observations on the small Diesel engines. R. D. Watson. Diesel Power 24:56-7+ Ja '46

Oil and gas power conference; with list of papers. Power Pl Eng 50:132 Ag '46

Oil rush on in N.W. Colorado. il Diesel Power 24:864+ Jl '46

Piston ring in Diesel engines. Diesel Power 24:334-5+ Mr '46

Review of power and mechanical equipment; Diesel engines, gas engines and accessories. il diag Power 89:879-80 Mid-D '45

Sheppard announces 3¾ hp. air-cooled Diesel. il diags Diesel Power 24:60-2 Ja '46

S.A.E. summer meeting; Diesel engine sessions. S A E J 54:sup18-21 Jl '46

Survey of German Diesel engine development; abstract. C. G. A. Rosen. Automotive & Aviation Ind 95:36 Jl 1 '46

Turner single cylinder Diesel engines. il Mech Handling 33:446-7 Jl '46

See also

Electric plants (central stations)—Diesel engine stations

Power plants—Diesel engine plants

Steam plants—Diesel engine auxiliaries

Bearings

Diesel-engine bearings; discussion of failures and progressive inspection methods. L. M. Tichvinsky. il diags Mech Eng 67:297-308 My '45; Discussion. 68:71-3 Ja '46

Important engineering data on aluminum alloy bearings for engines. D. B. Wood. il Automotive & Aviation Ind 94:26-30+ Je 1 '46

Control

Control system for Diesel engines. diags Diesel Power 23:1338+ N '45

Simple engine barring tool. il Diesel Power 24:1092 S '46

Cooling

Alco air-cooled heat exchanger. il diag Diesel Power 23:1474 D '45

Buffalo evaporative water coolers. il Diesel Power 23:1457+ D '45

Fluor aerator cooling towers. il Diesel Power 23:1464-5 D '45

Marley water cooling equipment. diags Diesel Power 23:1466-7+ D '45

Phillips atmospheric towers. il diag Diesel Power 23:1468+ D '45

Recovering waste heat from Diesels; abstract. W. C. Burgy. Machine Design 18: 174 Ag '46

Rogers develops new principle floating film cooling tower. il diag Diesel Power 23:1452-4 D '45

Ross coolers for lubricating oil and jacket water. il diag Diesel Power 23:1458-60+ D '45

Young cooling equipment; evaporative coolers. il Diesel Power 23:1455-6+ D '45

Cost of operation

Diesel engine requirements for farm tractors; comparison with gasoline engines; abstract. L. A. Gilmer. il Nat Pet N 38:31+ S 25 '46

Economics of the application of Diesel power to farm tractor operation; comparison with gasoline engines; abstract. H. F. Bryan. Nat Pet N 38:34 S 25 '46

Design

Development of the Chicago pneumatic dual-fuel engine; abstract. C. E. Cox. diags Diesel Power 24:955-7 Ag '46

Gas-Diesel principle applied to supercharged and 2-cycle engines. R. Boyer. il diags Power 90:9-13 Ja '46; Same. Pet Eng 17: 150+ Ap '46

Improvements in Diesel design to meet threat of gas turbine; abstract. W. C. Burgy. Iron Age 158:144+ Jl 4 '46

Large or small cylinder diameter; dual-pressure, intercooled, turbocharged, four-cycle engine. R. B. Miller. diags Ry Mech Eng 120:344+ Jl '46; Same. Diesel Power 24:954-5 Ag '46

New Mirrlees oil engine. il diags Diesel Power 24:702-4+ Je '46; Engineering 161:560-1, 564 Je 14 '46

Nordberg four-cycle dual-fuel engine; abstract. R. Miller. Diesel Power 24:959+ Ag '46

Directories

Diesel engine directory; manufacturers of engines and plant accessories. Diesel Power 24:64-81+ Ja '46

Diesel engine directory; manufacturers of engines and plant accessories. Diesel Power 24:736-54+ Je '46

Efficiency

Conversion of measurements of power output of Diesel engines to standard atmospheric conditions. M. A. Elliott. bibliog diags A S M E Trans 68:525-39 Jl '46

Effect of fuel properties on Diesel-engine performance. F. G. Shoemaker and H. M. Gadebusch. S A E J 54:339-46 Jl '46; Same cond. bibliog Oil & Gas J 44:74-7+ Ja 12 '46; Discussion. H. H. Foster. S A E J 54: 346 Jl '46

Heat recovery improves Diesel engine operation. W. C. Burgy. Heating-Piping 18:95 S '46

Research solves problems of highly supercharged Diesels. J. Calderwood. il diags Power 90:360-2 Je '46

Exhaust

Diesel engine exhaust; measurement and analysis of smoke and its causes. C. J. Goode. diags Automobile Eng 36:293-6 Jl '46

DIESEL engines—Exhaust—*Continued*
Observations on the use of a Diesel freight locomotive through a railway tunnel. L. B. Berger and H. L. McGuire. 5pls U S Bur Mines Rep of Invest 3887:1-20 '46
Polar diagram for tuning of exhaust pipes. T. Warming. diags A S M E Trans 68:31-3; Discussion. 34 Ja '46

Fuel

Application of natural gas fuel to a Diesel cycle engine. L. W. Crump and M. E. Orelup. il Gas Age 97:19-20+ Mr 21 '46
Cetane number of Diesel fuel from average boiling point and density by nomograph. W. C. Frishe. Pet Refiner 25:133 O '46
Combustion studies of the Diesel engine. E. W. Landen. bibliog il diags S A E J 54: 270-82; Discussion. 282-8+ Je '46
Development and application of the gas-Diesel; abstract. I. Nash. S A E J 54:sup20 Ag '46
Diesel fuel additives create new concepts; abstract. C. M. Larson. Automotive & Aviation Ind 93:26+ D 15 '45
Diesel-fuel performance. W. L. Nelson. Oil & Gas J 44:109 Ja 12 '46
Diesel fuels. B. Hunter. Marine Eng 51:119-21 Ag '46
Diesel fuels; abstract. T. M. Melkumov. Automobile Eng 35:525 D '45
Effect of fuel properties on Diesel-engine performance. F. G. Shoemaker and H. M. Gadebusch. S A E J 54:339-46 Jl '46; Same cond. bibliog Oil & Gas J 44:74-7+ Ja 12 '46; Abstract. Automotive & Aviation Ind 94:34 F 1 '46; Discussion. H. H. Foster. S A E J 54:346 Jl '46
Evaluation of Diesel fuels; chart. W. L. Nelson. Oil & Gas J 44:127 D 15 '45
Fuel requirements of present-day high-speed Diesel engines; abstract. E. J. McLaughlin. S A E J 54:sup26 Ap '46
Gas-Diesel principle applied to supercharged and 2-cycle engines. R. Boyer. il diags Power 90:9-13 Ja '46; Same. Pet Eng 17: 150+ Ap '46
Gas-Diesel progress; abstract. R. L. Boyer. Diesel Power 24:958 Ag '46
German wartime Diesel fuels were blends of natural and synthetic products. R. J. Bender. Nat Pet N 38 pt 2:R104+ F 6 '46
High-speed Diesel-engine fuel requirements. F. G. Shoemaker. Am Pet Inst Proc 25(2): 17-21; Discussion. 21-2 '45
New gas-Diesel; abstract. R. Miller. diag Power 90:437 Jl '46
Significance of cetane number in fuels. E. F. Griep and C. S. Goddin. bibliog S A E J 54:436-9+ Ag '46; Abstract. Automotive & Aviation Ind 93:28+ D 15 '45

Fuel consumption

Effect of Diesel fuel economy on highspeed transportation. F. G. Shoemaker and H. M. Gadebusch. il S A E J 54:153-7+ Ap '46; Same abr. Bus Transportation 24:65-6 Jl '45

Fuel feeding

Apparatus for measuring rates of discharge of a fuel-injection system. F. J. Dutee. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:193-200 '42
Check fuel-injection equipment to insure peak Diesel efficiency. il Power 90:304-6 My '46
Fuel-injection processes with pintle-valve nozzles. N. Kendall. diags Engineering 160: 389-92, 417-19 N 16-23 '45
Servicing Diesel injector. il diags Bus Transportation 25:68-71 F '46
Slow-motion study of injection and combustion of fuel in a Diesel engine. C. D. Miller. bibliog il diags S A E J 53:719-33; Discussion. 733-5 D '45

Ignition

Combustion in a precombustion-type Diesel engine. H. F. Byran. il diags S A E J 54:449-57 S '46; Abstract. Automotive & Aviation Ind 94:37 F 1 '46; Discussion. S A E J 54:457 S '46
Combustion studies of the Diesel engine. E. W. Landen. bibliog il diags S A E J 54:270-82; Discussion. 282-8+ Je '46
Diesel fuels. B. Hunter. Marine Eng 51:119-21 Ag '46
Ignition delay in Diesel engines. E. Starkman. bibliog diags Am Inst Chem Eng Trans 42:107-20 F '46
Slow-motion study of injection and combustion of fuel in a Diesel engine. C. D. Miller. bibliog il diags S A E J 53:719-33; Discussion. 733-5 D '45

Lubrication

Diesel engine lubricating oils; abstract. F. W. Kavanagh. S A E J 54:103 O '46
Observations on oil control rings. F. Black. diags Diesel Power 24:708-9+ Je '46
Oil control rings and their effects on lubricating oil consumption in Diesel engines. J. A. Worthington. diags Diesel Power 24: 474-5 Ap '46

Maintenance and repair

Certified Diesel mechanic; training program, Central Greyhound. il Bus Transportation 25:50-2 Ag '46
Processing adds life to Diesel engines; Spar-Tan lubri-chrome plating process. il Diesel Power 24:326-7 Mr '46
Servicing Diesel injector. il diags Bus Transportation 25:68-71 F '46
Speeding up with Diesels; Werner transportation co. M. Greenberg. il Diesel Power 24: 1222-3+ O '46
Unusual repair made on crankshaft. S. Cameron. diags Power 90:696 O '46
West's most modern Diesel engine rebuilding shop; Cummins service and sales. il plan Diesel Power 24:1200-2 O '46

Manufacture

Giant boring bar for Diesel engine frames; Cooper Bessemer corp. il Steel 117:139 N 12 '45
International harvester company enlarges Diesel production facilities. il Diesel Power 24:328-9 Mr '46
Theory of probabilities applied to the manufacture of Diesel engines; abstract. W. S. Everett. S A E J 54:sup28+ Ap '46
Try welding in manufacture of machinery diags Diesel Power 24:330-1 Mr '46

Noise

Polar diagram for tuning of exhaust pipes. T. Warming. diags A S M E Trans 68:31-3; Discussion. 34 Ja '46

Rating

Rating of four-cycle oil engines. A. C. Yeates. diag Engineer 181:126-8 F 8 '46

Scavenging

Loop scavenge Diesel engine. H. D. Carter. diag Engineer 181:297-9, 322 Mr 29-Ap 5 '46; Discussion. 181:289-90, 317 Mr 29-Ap 5 '46
Taking the mystery out of the Kadenacy system of scavenging Diesel engines. P. H. Schweitzer and others. patent list and bibliog diag A S M E Trans 68:729-34; Discussion. 734 O '46

Specifications

Continental Diesel industrial and transportation engine details; tabulations. Automotive & Aviation Ind 94:142-3 Mr 15 '46
Diesel engine specifications; data on engines manufactured by American builders; tables. il Diesel Power 24:480-96+ Ap '46

Starting

Cold starting of Diesel engines; use of ethyl ether. P. H. Schweitzer. il diags Diesel Power 24:1190-3+ O '46
Diesel cold-starting problems; abstract. E. J. H. Bentz. S A E J 54:sup29 F '46
Large Diesels in Panama Canal plants unique for automatic-starting scheme. J. L. King. il plan diag Power 90:613-16 S '46
New aid for Diesel engine cold starting; oil burning air intake heater. diag Automotive & Aviation Ind 94:64 Ap 1 '46

Study and teaching

Is the Diesel industry training its men? Diesel Power 24:1075-8+ S '46
North Carolina state offers Diesel training. Diesel Power 24:447+ Ap '46

DIESEL engines—*Continued*

Superchargers

Analysis of intercooled supercharging. R. H. Miller. A S M E Trans 68:735-9; Discussion. 739-41 O '46
First supercharged Diesel REA plant in Michigan. il Diesel Power 23:1330-2 N '45
How does supercharging affect Diesel-engine performance? R. Miller. Power 90:736-8 N '46
Menasha municipal plant installs first supercharged intercooled Diesel. il Power 90:449 Jl '46
New supercharging system; abstract. R. Miller. diag Power 90:438 Jl '46
Research solves problems of highly supercharged Diesels. J. Calderwood. il diags Power 90:360-2 Je '46
Turbocharger design and application; abstract. C. F. Harms. S A E J 54:sup38 Jl '46

Temperature

Flame-temperature measurements in internal-combustion engines; theory, development, and calibration of an electro-optical pyrometer. O. A. Uyehara and others. bibliog il diags A S M E Trans 68:17-28; Discussion. 28-30 Ja '46

Testing

Conversion of measurements of power output of Diesel engines to standard atmospheric conditions. M. A. Elliott. bibliog diags A S M E Trans 68:525-39 Jl '46

Valves

Fuel-injection processes with pintle-valve nozzles. N. Kendall. diags Engineering 160: 389-92, 417-19 N 16-23 '45
How to install and maintain Diesel valves, seats and guides. J. D. Creek. il diags Power 90:97-100+, 164-5 F-Mr '46

Vibration

Introductory discussion of torsional vibration. R. D. Watson. diags Diesel Power 24:602-4+, 705-7+ My-Je '46
Viscous torsional vibration damper; Houdaille-Hershey corp. diag Diesel Power 24: 453-4+ Ap '46

DIESEL engines, Automotive

Albion tractor. il diags Automobile Eng 36: 3-6 Ja '46
Application and use of high speed Diesel engines in trucks; abstract. J. D. Watts. S A E J 54:sup28+ S '46
Diesels are rolling; Diesel trucks and buses in the United States. il maps plans diags Diesel Power 24:1183-1220+ O '46
Effect of Diesel fuel economy on high-speed transportation. F. G. Shoemaker and H. M. Gadebusch. il S A E J 54:153-7+ Ap '46; Same abr. Bus Transportation 24:65-6 Jl '45
Gardner 8-cylinder engine. il diags Automobile Eng 36:311-12 Jl '46
Leyland commercial vehicle 9·8 litre oil engine. il diag Engineer 181:479-81 My 24 '46
Leyland 130-B.H.P. goods vehicles. il diags Engineering 162·272-4, 276 S 20 '46
Leyland Titan PD.1; a double-decker bus chassis with 7.4-litre oil engine. il diags Automobile Eng 36:47-50 F '46
Review of the German army Diesel development program; abstracts. M. A. Thorne. Diesel Power 24:460+ Ap '46; S A E J 54: sup20 Je '46
S.A.E. annual meeting; Diesel engine sessions. S A E J 54:sup63-4 F '46
Sulzer oil engine; two-stroke opposed-piston model employed in commercial vehicles. il diags Automobile Eng 35:527-8 D '45

See also
Locomotives, Diesel

Specifications

Automotive Diesel and other heavy oil engines; tabulations. Automotive & Aviation Ind 94:140-3 Mr 15 '46

DIESEL engines, Marine

Carrier saved from disaster by interchangeable Diesel engine parts. Marine Eng 51: 131 Ap '46
Clark two-cycle marine Diesel engine. il Marine Eng 50:207 N '45
Cooper-Bessemer four-cycle direct-reversing Diesel engine. il Marine Eng 51:133 My '46
Developments in Diesel propulsion. S. Bellove. Marine Eng 51:100-3+ O; 114+ N '46
Developments in marine Diesel engines. R. E. Friend. Marine Eng 51:121-2 Jl '46
Diesel-electric synchronous motor ship drives; propulsion control problems. E. Frisch. il diags Elec Eng 65:Trans 660-6 O '46
Diesel power of M.S. Henry Ford II. M. McLaren. il Mech Eng 68:792-3+ S '46
Engines and engineers. C. C. Pounder. Engineering 161:356-7 Ap 12 '46
Nordberg Diesel engines. il Marine Eng 50: 204 N '45
Perkins high-speed 850 B.H.P. marine oil engine. il Engineer 181:314-15 Ap 5 '46
Propelling machinery for H.M. coastal minesweepers. il diags Engineering 161:369-70, 372 Ap 19 '46
Towboat engine installation establishes a precedent. il Marine Eng 51:146 Mr '46

See also
Motor ships

Fuel

Navy experience with Diesel fuels and lubricants. H. F. Galindo. il S A E J 53:670-7 N '45

Lubrication

Navy experience with Diesel fuels and lubricants. H. F. Galindo. il S A E J 53:670-7 N '45

Manufacture

Welding a 500 hp. Diesel engine. L. Berner. il diags Welding J 25:319-27 Ap '46

DIESEL fuel. See Diesel engines—Fuel; Diesel engines, Marine—Fuel

DIESEL locomotives. See Locomotives, Diesel

DIET

Amino acid and protein deficiencies as causes of corneal vascularization; a preliminary report. V. P. Sydenstricker and others. bibliog Science 103:194-6 F 15 '46
Effect of the prepartum diet of the cow on the vitamin A reserves of her newborn offspring. G. H. Wise and others. bibliog Science 103:616-18 My 17 '46
Granulocytopenia and anemia in rats fed diets of low casein content. A. Kornberg and others. bibliog Science 103:646-8 My 24 '46
Is it good for you? studies of human diet and health. Bsns W p39 F 9 '46
Studies of vitamin deficiency; effects of diets restricted in thiamine and riboflavin. M. K. Horwitt and others. Science 104:407-8 N 1 '46
Thiamine depletion of human subjects on a diet rich in thiamine. H. T. Ness and others. Science 103:198-9 F 15 '46

See also
Nutrition
Proteins

DIETHYLAMINE

Condensation of diethylamine and formaldehyde with phenol, *o*-, *m*- and *p*-cresols. G. F. Grillot and W. T. Gormley, jr. Am Chem Soc J 67:1968-9 N '45

DIETHYLAMINO antimalarials. See Malaria

DIETHYLBENZENE

Dealkylation of dialkylbenzenes; use of superatmospheric pressure and alumina-silica catalyst in the presence of benzene. W. M. Kutz and B. B. Corson. bibliog flow sheet il Ind & Eng Chem 38:761-4 Jl '46

DIETHYL ether. See Ethyl ether

DIETHYL phenylmalonate

Carbethoxylation of ethyl phenylacetate and ethyl α-phenyl-*n*-butyrate using sodium amide. H. G. Walker, jr. and others. bibliog Am Chem Soc J 68:672-3 Ap '46

DIETHYLSTILBESTROL

Preparation of new derivatives of diethylstilbestrol and hexestrol by the Claisen rearrangement. E. Kaiser and J. J. Svarz. Am Chem Soc J 68:636-8 Ap '46
Ultraviolet absorption spectra of allyl and propenyl substituted derivatives of diethylstilbestrol and hexestrol. E. Kaiser and V. L. Koenig. bibliog Am Chem Soc J 68:740-2 My '46

DIETHYLENE glycol
Comparison of the chronic toxicity of triethylene glycol with that of diethylene glycol. O. G. Fitzhugh and A. A. Nelson. bibliog J Ind Hygiene 28:40-3 Mr '46
Di- and triethylene glycols as manostat fluids. W. J. Runckel and D. M. Oldroyd. Ind & Eng Chem Anal ed 18:80-1 Ja '46
Diethylene glycol plan dehydrates gas to exact specification. flow diag il Pet Refiner 25:115-16 F '46

DIFFERENTIAL analyzers
Educated machinery. S. H. Caldwell. il Tech R 48:31-4+ N '45
New electronic differential analyzer. Science 102:sup 12 N 9 '45

DIFFERENTIAL equations
Designing computing mechanisms. M. Fry. il diags Machine Design 17:123-6 D '45
Method of van der Pol and its application to non-linear control problems. B. V. Bulgakov. bibliog Franklin Inst J 241:31-54 Ja '46
Progress in engineering knowledge during 1945; circuit analysis; methods for solution of differential equations. P. L. Alger and others. diags Gen Elec R 49:23-5 F '46
See also
Laplace's equation

DIFFRACTION gratings
Energy distribution of diffraction gratings as a function of groove form; calculations by an equation of Henry A. Rowland. R. F. Stamm and J. J. Whalen. bibliog diags Opt Soc Am J 36:2-12 Ja '46

DIFFUSERS, Air. See Air diffusers

DIFFUSION
Demonstration of thermal diffusion. W. M. Spicer. bibliog diag J Chem Educ 22:593 D '45
Diffusion of vapors through polymers. P. Doty. bibliog J Chem Phys 14:244-51 Ap '46
Isotope separation by thermal diffusion: the cylindrical case. W. H. Furry and R. C. Jones. bibliog Phys R 69:459-71 My 1 '46
Loci of emulsion polymerization; diffusion of organic molecules from emulsion droplets through an aqueous phase into polymer latex particles. W. D. Harkins and R. S. Stearns. J Chem Phys 14:215-16 Mr '46
Loci of emulsion polymerization; diffusion of organic molecules from emulsion droplets through an aqueous phase into soap micelles. R. S. Stearns and W. D. Harkins. J Chem Phys 14:214-15 Mr '46
Mutual diffusion of pairs of gases. F. T. Wall and G. A. Kidder. bibliog diag J Phys Chem 50:235-42 My '46
Oak Ridge gives industry a unit operation; gas diffusion. J. F. Hogerton. il Chem & Met Eng 52:98-101 D '45
Partial separation of the isotopes of chlorine by thermal diffusion. E. F. Shrader. bibliog diags Phys R 69:439-42 My 1 '46
Partial separation of the oxygen isotopes by thermal diffusion and the deuteron bombardment of O^{17}. S. B. Welles. bibliog Phys R 69:586-9 Je 1 '46
Performance of a hot wire Clusius and Dickel column. R. Simon. bibliog Phys R 69:596-603 Je 1 '46
Self-diffusion of lead in lead sulphide. J. S. Anderson and J. R. Richards. Chem Soc J p537-41 Je '46
Separation of isotopes by thermal diffusion. R. C. Jones and W. H. Furry. bibliog Rs Mod Phys 18:151-224 Ap '46
Theory of diffusion controlled reactions with application to the quenching of fluorescence. E. W. Montroll. bibliog J Chem Phys 14: 202-11 Mr '46
Thermal diffusion as adjunct of electromagnetic process; developed by Dr P. H. Abelson of the Naval research laboratories. M. C. Fox. il Chem & Met Eng 52:102-3 D '45
Thermal diffusion-convection as a cause of magmatic differentiation. W. Wahl. Am J Sci 244:417-41 Je '46
Time-dependence of boundary tensions of solutions; role of diffusion in time-effects. A. F. H. Ward and L. Tordai. bibliog J Chem Phys 14:453-61 Jl '46
Unequal distribution of diffusible nonelectrolytes across a membrane. C. L. Deasy. Science 104:388 O 25 '46
Unit operations and equipment; gaseous diffusion. il(p136) Chem & Met Eng 53:137-9 F '46

DIFRUCTOSE anhydride
Reaction of periodic acid on the difructose anhydrides. E. J. McDonald and R. F. Jackson. bibliog J Res Nat Bur Stand 35:497-500 D '45

DIGESTERS (paper making)
Carbon brick for digester linings in sulphate mills. E. F. Tucker and L. C. Werking. bibliog il diags Paper Ind 28:60-3 Ap '46
Kraft digester circulating and indirect heating systems. J. M. Wilcox. Paper Tr J 122:53-4 My 23 '46; Same cond. Paper Ind 28:434+ Je '46
Removal of malodorous substances from digester condensates; abstract. H. Bergström and K. G. Trobeck. Paper Ind 27:1428 D '45

DIGESTIVE organs
Diseases
Water-borne disease outbreaks during 1944. Pub Works 77:27-8 F '46

DI GIORGIO, Joseph, 1874-
Joseph Di Giorgio. il pors Fortune 34:96-103+ Ag '46

DIGLYCERIN
Diglycerol by a new ether synthesis. H. J. Wright and R. N. Du Puis. Am Chem Soc J 68:446-8 Mr '46

DIHYDROPYRAN
Preparation of dihydropyran, 8-hydroxyvaleraldehyde and 1,5-pentanediol from tetrahydrofurfuryl alcohol. L. E. Schniepp and H. H. Geller. bibliog Am Chem Soc J 68:1646-8 Ag '46

DIHYDROSTREPTOMYCIN. See Streptomycin

DIHYDROXYDICHLORODIPHENYL methane
Mildewproofing of paper mill felts; use of Preventol GD. F. A. Soderberg. Paper Tr J 122:153-4 Je 20 '46
Analysis
Determination of chlorine in 2,2′-dihydroxy-5,5′-dichlorodiphenylmethane. D. M. Jenkins, K. L. Waters and G. D. Beal. bibliog Ind & Eng Chem Anal ed 18:609-10 O '46

DIHYDROXYQUINOLYL methyl ketones
2,4-Dihydroxy-3-quinolyl methyl ketones. W. R. Vaughan. bibliog Am Chem Soc J 68: 324-5 F '46

DIHYDROXYSTEARIC acid
Unsaturated alcohol esters of the 9,10-dihydroxystearic acids; preparation of elaidyl alcohol. D. Swern, E. F. Jordan, jr. and H. B. Knight. bibliog Am Chem Soc J 68:1673-4 Ag '46

DIIODOTYROSINE
Amino acid conversion products; 3,5-diiodotyrosine derivatives. S. W. Fox. Am Chem Soc J 68:194-5 F '46

DIISOPROPYL. See Dimethylbutane

DIISOPROPYLAMINE caprylate
Hexanolamine caprylate and diisopropylamine caprylate as colloidal electrolytes. E. Gonick. Am Chem Soc J 68:177-81 F '46

DIISOPROPYL fluorophosphate
Effect of di-isopropyl fluorophosphate (DFP) on the action potential of muscle. R. Couteaux and others. bibliog Science 104: 317 O 4 '46

DIKES (engineering)
Closing the breaches in Walcheren dykes. P. Jansen. il maps plan Engineer 181:249-50, 265-6, 286-8 Mr 15-29 '46
Engineers winning battle to close dikes on Yellow river in China. il map Eng N 137: 268-9 Ag 29 '46
Lake drained to build cut-off; dike roadway eliminates kink in Southern state parkway on Long Island. il map diag Roads & Sts 89:68-9 Je '46
Navigation channels developed by contraction works. D. B. Freeman. il Civil Eng 16:493-4 N '46
La submersion de l'île de Walcheren (Pays-Bas); sa reconquête sur la mer. A. Bijls. il map plan diags Génie Civil 123:257-9 O 1 '46
Turning back the Yellow river to its prewar channel. O. J. Todd. il map Eng N 137: 572-6 O 31 '46

DIKETONES. See Ketones

DILATOMETERS
Capacitive micrometer; principle also used for dilatometer, manometer, roughness-gage and hardness testing apparatus. R. W. Dayton and G. M. Foley. il diags Electronics 19:107-8 S '46
Recording dilatometer operates on 12-hour cycle. il Sci Am 175:177 O '46

DILITURATES. See Nitrobarbiturates

DILLON, W. C.
Portrait. Sales Management 56:38 Ja 15 '46

DILUTION
Rectangle method for calculating liquid dilutions. Paper Ind 28.260 My '46

DILUTION, Heat of
Differential entropy of dilution in aqueous solutions of amino acids. A. L. Robinson. bibliog J Chem Phys 14:588-90 O '46
Heats of dilution of aqueous solutions of α- and β-alanine at 25°. H. A. Benesi, L. S. Mason and A. L. Robinson. bibliog Am Chem Soc J 68:1755-9 S '46
Heats of solution and dilution of calcium sulfate dihydrate in aqueous sodium chloride solutions. W. E. Wallace. bibliog diag J Phys Chem 50:152-68 Mr '46

DIMERCAPTOPROPANOL
BAL (British anti-lewisite). L. L. Waters and C. Stock, comps. Science 102:601-6 D 14 '45
Effect of some sulfhydryl-containing substances on the toxicity of an organic mercurial compound. W. K. Long and A. Farah. bibliog Science 104:220-1 S 6 '46

DIMETHOXYAMINOQUINOLINE
Synthesis of 5-substituted derivatives of 6-methoxy-8-aminoquinoline and of 5-chloro-6-methoxyquinoline. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1584-7 Ag '46

DIMETHOXYPHENETHYLAMINE
Amines related to 2,5-dimethoxyphenethylamine; 2-hydroxy and 2-methoxy-5-methylphenylalkanolamines. A. E. Ardis, R. Baltzly and W. Schoen. bibliog Am Chem Soc J 68:591-5 Ap '46

DIMETHYLAMINOACETONITRILE
β-Dimethylaminoethylamine and dimethylaminoacetonitrile. R. A. Turner. bibliog Am Chem Soc J 68:1607-8 Ag '46

DIMETHYLAMINOETHYLAMINE
β-Dimethylaminoethylamine and dimethylaminoacetonitrile. R. A. Turner. bibliog Am Chem Soc J 68:1607-8 Ag '46

DIMETHYLAZAFLUORENONE
New syntheses of heterocyclic compounds; Schmidt rearrangement of 1 : 3-dimethyl-2-azafluorenone. V. A. Petrow. Chem Soc J p200-3, 888-91 Mr, O '46

DIMETHYL butadiene
Studies of 1,3-dienes; stereoisomerism of bromides and glycols derived from 2,3-dimethyl-1,3-butadiene. O. J. Sweeting and J. R. Johnson. bibliog Am Chem Soc J 68:1057-61 Je '46

DIMETHYL butane
Alkylation of paraffins in the presence of homogeneous catalysts; synthesis of neohexane and triptane. A. A. O'Kelly and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:462-7 My '46
Low-temperature thermal data on the five isomeric hexanes. D. R. Douslin and H. M. Huffman. bibliog Am Chem Soc J 68: 1704-8 S '46
Mannich reaction: β-aminoketones from diisopropyl ketone. R. A. Jacobson. Am Chem Soc J 67:1999-2000 N '45
Story of diisopropyl. R. C. Alden and others. bibliog flow diag il Oil & Gas J 44:70-3+ F 9 '46
System cyclopentane—neohexane—aniline. K. T. Serijan, R. A. Spurr and L. C. Gibbons. bibliog Am Chem Soc J 68:1763-4 S '46
Thermodynamics of 2,2-dimethylbutane, including the heat capacity, heats of transitions, fusion and vaporization and the entropy. J. E. Kilpatrick and K. S. Pitzer. bibliog Am Chem Soc J 68:1066-72 Je '46
Vapor-phase nitration of neopentane and neohexane. A. P. Howe and H. B. Hass. bibliog Ind & Eng Chem 38:251-3 Mr '46
Vapor pressures and saturated liquid and vapor densities of the isomeric hexanes. W. S. Kay. bibliog diag Am Chem Soc J 68:1336-9 Jl '46

DIMETHYLCARBOSTYRIL
N-substituted 4-methylcarbostyrils. C. E. Kaslow and D. J. Cook. bibliog Am Chem Soc J 67:1969-72 N '45

DIMETHYLCYCLOHEXENE
Course of autoxidation reactions in polyisoprenes and allied compounds; double bond movement during the autoxidation of a mono-olefin. E. H. Farmer and D. A. Sutton. Chem Soc J p10-13 Ja '46

DIMETHYL ether
Absorption of microwaves by gases. W. D. Hershberger. diag J Ap Phys 17:495-500 Je '46

DIMETHYLETHYLENIMINE
Preparation of *t*-butylamine by the low-pressure hydrogenation of 2,2-dimethylethylenimine. K. N. Campbell, A. H. Sommers and B. K. Campbell. Am Chem Soc J 68:140 Ja '46

DIMETHYLFURAN
Blending octane numbers of 2:5-dimethylfuran. H. B. Nisbet. bibliog Inst Pet J 32: 162-6 Mr '46

DIMETHYL galactose
Characterisation of 2 : 6-dimethyl *d*-galactose. D. J. Bell. Chem Soc J p692-4 O '45

DIMETHYLGLYOXIME
Colorimetric determination of nickel in bronzes. G. Ham and B. Tarrant. bibliog Ind & Eng Chem Anal ed 18:51-2 Ja '46

DIMETHYLHYDRAZINE
Photochemical investigations; the photolysis of unsymmetrical dimethylhydrazine. J. D. Overman and E. O. Wiig. Am Chem Soc J 68:320-1 F '46

DIMETHYLKETENE
Electron diffraction investigation of dimethylketene dimer. W. N. Lipscomb and V. Schomaker. bibliog J Chem Phys 14:475-9 Ag '46

DIMETHYL mercury. See Mercury dimethyl

DIMETHYL naphthols
Constitution of ψ santonin; the preparation of certain dimethyl naphthols. W. Cocker. Chem Soc J p36-9 Ja '46

DIMETHYL pentane
Boiling points of three isomeric heptanes. F. S. Fawcett. diag Ind & Eng Chem 38:338-40 Mr '46

DIMETHYL propane
Vapor-phase nitration of neopentane and neohexane. A. P. Howe and H. B. Hass. bibliog Ind & Eng Chem 38:251-3 Mr '46

DIMETHYLPYRROLE
New 2,5-dimethylpyrrole derivatives. W. S. Bishop. bibliog Am Chem Soc J 67:2261-2 D '45

DIMETHYL siloxane
Organo-silicon polymers; the cyclic dimethyl siloxanes. M. J. Hunter and others. bibliog Am Chem Soc J 68:667-72 Ap '46

DIMETHYL styrene
Copolymers of dimethylstyrene vinyl fatty esters with butadiene. P. O. Powers. Ind & Eng Chem 38:837-9 Ag '46
Preparation and polymerization of four isomeric dimethylstyrenes. C. S. Marvel, J. H. Saunders and C. G. Overberger. bibliog Am Chem Soc J 68:1085-8 Je '46

DIMETHYLSULFOLANE
Dimethylsulfolane; abstract. H. G. Staaterman and others. flow diag Pet Processing 1:85-6 O '46

DIMETHYLTHIAZOLE carboxylic acid
Action of thionyl chloride on 2 : 4-dimethylthiazole-5-carboxylic acid. W. R. Boon. Chem Soc J p601-3 S '45

DIMETHYLOL urea
Processes must mature; DMU treated wood. E. L. Cady. il Sci Am 175:6-8 Jl '46
Wood treatment with urea resin-forming systems (dimensional stability). M. A. Millett and A. J. Stamm. bibliog Mod Plastics 24:150-3+ O '46

DIMOUTS. See Lighting—War measures

DINAPHTHYL
Aromatic cyclodehydrogenation; experiments in the dinaphthyl series. M. Orchin and R. A. Friedel. bibliog Am Chem Soc J 68:573-4 Ap '46

DINEEN, Robert E. 1903-
New president of state supervisors. por Weekly Underw 154:1549 Je 15 '46

DINING cars
Illinois Central starts school for dining-car employees. il Ry Age 121:90-1 Jl 20 '46

Illinois Central's training plans; school for dining car personnel. il Am Bsns 16:34 My '46

Many innovations expected in new passenger car designs. il Ry Age 119:799-801 N 17 '45

See also
Buffet cars

DINING rooms
For bounteous living. il Am Bld 68:103 Je '46

DINITRILES. See Nitriles

DINITROBENZENE
Non-sulphur vulcanization; experimental study. T. Alfrey and others. bibliog. India Rubber World 113:653-8 F '46

DINITROBENZOIC acid
Identification of the alcohol components of simple esters. W. B. Renfrow and A. Chaney. Am Chem Soc J 68:150 Ja '46

DINITROCRESOL
Le désherbage des champs de céréales par poudrage de colorants nitrés dispersés dans la terre d'infusoires. I.-A. Pastac. bibliog Génie Civil 123:7-9 Ja 1 '46

Effect of pH on fungistatic activity of dinitro-o-cresol. P. W. Brian. bibliog Soc Chem Ind J 64:315 N '45

Preferential reduction of nitro-groups in polynitro-compounds; picric acid and 3 : 5-dinitro-o-cresol; an almost quantitative preparation of picramic acid. H. H. Hodgson and E. R. Ward. Chem Soc J p663-5 O '45

DINITRODIPHENYLTHIOCARBAZIDE
Synthesis of several dinitrodiphenylthiocarbazides and a dinitrodiphenylthiocarbazone. A. W. Scott and C. R. Spell. Am Chem Soc J 68:328-30 F '46

DINITRODIPHENYLTHIOCARBAZONE
Synthesis of several dinitrodiphenylthiocarbazides and a dinitrodiphenylthiocarbazone. A. W. Scott and C. R. Spell. Am Chem Soc J 68:328-30 F '46

DINITROMETHYLANILINE
Dinitromethylaniline as an intermediate in the manufacture of tetryl. A. G. Hill and K. H. Klipstein. flow diag Am Inst Chem Eng Trans 42:527-34 Je '46

DINITRONAPHTHALENE
Further nitration of 1 : 3-, 1 : 6-, 2 : 6-, and 2 : 7-dinitronaphthalenes, and the preparation of 1 : 3 : 6-trinitronaphthalene. H. H. Hodgson and E. R. Ward. Chem Soc J p533-4 Je '46

Preferential reduction of nitro groups in polynitro-compounds; the preparation of 4 : 5-dinitro-2-naphthylamine from 1 : 8-trinitronaphthalene and a comparison of sodium sulphide reductions of available dinitronaphthalenes. H. H. Hodgson and E. R. Ward. Chem Soc J p794-6 N '45

DINITRONAPHTHALIC anhydride
Preparation of 7-nitro-2-naphthylamine and of 3 : 6-dinitronaphthalic anhydride. H. H. Hodgson and E. R. Ward. Chem Soc J p590-1 S '45

DINITRONAPHTHYLAMINE
Preferential reduction of nitro groups in polynitro-compounds; the preparation of 4 : 5-dinitro-2-naphthylamine from 1 : 3 : 8-trinitronaphthalene and a comparison of sodium sulphide reductions of available dinitronaphthalenes. H. H. Hodgson and E. R. Ward. Chem Soc J p794-6 N '45

Preparation and chromoisomerism of 4 : 5-dinitro-1-naphthylamine, and some perimidines and perinones from 4-chloro- and 4-bromo-1 : 8-naphthylenediamine. H. H. Hodgson and D. E. Hathway. Chem Soc J p543-5 Ag '45

DINITROPHENOL
Le désherbage des champs de céréales par poudrage de colorants nitrés dispersés dans la terre d'infusoires. I.-A. Pastac. bibliog Génie Civil 123:7-9 Ja 1 '46

2,4 Dinitrophenol poisoning; a case report. J. B. Gisclard and M. M. Woodward. J Ind Hygiene 28:47-51 Mr '46

DINITROPHENYLHYDRAZINE
Separation of 2,4-dinitrophenylhydrazones by chromatographic adsorption. J. D. Roberts and C. Green. Ind & Eng Chem Anal ed 18:335 My '46

Use of 2,4-dinitrophenylhydrazine for the determination of ascorbic acid. M. Pijoan and H. J. Gerjovich. Science 103:202-3 F 15 '46

DINITROPHENYLHYDRAZONE
Absorption spectra of some 2,4-dinitrophenylhydrazones. J. D. Roberts and C. Green. bibliog Am Chem Soc J 68:214-16 F '46

Separation of 2,4-dinitrophenylhydrazones by chromatographic adsorption. J. D. Roberts and C. Green. Ind & Eng Chem Anal ed 18:335 My '46

Studies in light absorption; 2 : 4-dinitrophenylhydrazones. E. A. Braude and E. R. H. Jones. Chem Soc J p498-503 Ag '45

X-ray identification and crystallography of aldehydes and ketones as the 2,4-dinitrophenylhydrazones. G. L. Clark, W. I. Kaye and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:310-13 My '46

DINITROPHENYL semicarbazide
2 : 4-Dinitrophenylsemicarbazide; a reagent for aldehydes and ketones. J. L. McVeigh and J. D. Rose. Chem Soc J p713-14 O '45

DINITROPHENYLUREA
N-nitro-*N'*-2 : 4-dinitrophenylurea; a reagent for primary and secondary amines. J. L. McVeigh and J. D. Rose. Chem Soc J p621-2 S '45

DINITROTOLUENE
Apparent anomalous monoreduction of 2:4-dinitrotoluene explained on the theory of hyperconjugation (the Baker-Nathan effect). H. H. Hodgson. bibliog Soc Dyers & Col J 62:114-15 Ap '46

DINITROSO benzene
Vulcanization reactions in butyl rubber; action of dinitroso, dioxime, and related compounds. J. Rehner, jr. and P. J. Flory. bibliog Ind & Eng Chem 38:500-6 My '46

DINNERWARE. See Tableware

DINOSAURIA
Relative growth in a phylogenetic series and in an ontogenetic series of one of its members. S. W. Gray. bibliog Am J Sci 244: 792-807 N '46

DIODONE
Improved methods for the preparation of the X-ray contrast media iodoxyl and diodone for visualisation of urinary tract. R. H. Hackman and R. Lemberg. bibliog Soc Chem Ind J 65:204-5 Jl '46

DIODRAST. See Diodone

DIOXADIENE
Ultraviolet absorption spectra of dioxadiene and dioxene. L. W. Pickett and E. Sheffield. bibliog Am Chem Soc J 68:216-20 F '46

DIOXANE
Removal of peroxides from organic solvents. W. Dasler and C. D. Bauer. bibliog Ind & Eng Chem Anal ed 18:52-4 Ja '46

DIOXENE
Ultraviolet absorption spectra of dioxadiene and dioxene. L. W. Pickett and E. Sheffield. bibliog Am Chem Soc J 68:216-20 F '46

DIOXIMES. See Oximes

DIOXYTHIOPHENE
Some derivatives of 3,4-dioxythiophene. E. W. Fager. Am Chem Soc J 67:2217-18 D '45

DIPHENANTHRYLETHYLENE
9-Vinylphenanthrenes; di- and tetraphenanthrylethylenes. F. Bergmann and S. Israelashwili. bibliog Am Chem Soc J 67:1951-6 N '45

DIPHENYL
Aromatic cyclodehydrogenation; experiments with 2-ethylbiphenyl. M. Orchin. bibliog Am Chem Soc J 68:571-2 Ap '46

DIPHENYL—*Continued*
Chemistry of the diaryl ethers. H. E. Ungnade. bibliog(305 references) Chem R 38: 405-46 Je '46
2-Iodo-4'-chlorobiphenyl. C. K. Bradsher and L. J. Wissow. bibliog Am Chem Soc J 68: 404-5 Mr '46
Ultraviolet absorption spectra of organic molecules; mechanical interference of substituent groups with resonance configurations. W. H. Rodebush and I. Feldman. bibliog Am Chem Soc J 68:896-9 My '46
Vinyl aromatic compounds; *o*-,*m*- and *p*-vinylbiphenyls. W. F. Huber and others. Am Chem Soc J 68:1109-12 Je '46
What the ventilating engineer should know about chlorinated naphthalene and diphenyl. E. C. Riley. Heat & Ven 42:77-8 N '45

DIPHENYLAMINE
New potential chemotherapeutic agents; derivatives of diphenylamine and of $\alpha\alpha$-diphenylmethylamine. F. E. King, T. J. King and I. H. M. Muir. Chem Soc J p5-10 Ja '46
Oxidation of diphenylamine and of its *N*-derivatives; oxidation of >N·CH$_2$R to >N·CO·R. J. Forrest, D. A. Liddell and S. H. Tucker. Chem Soc J p454-6 Je '46

Analysis
Determination of some aromatic amines and substituted ureas in smokeless powder; improved volumetric bromination procedure. T. D Waugh, G. Harbottle and R. M. Noyes. Ind & Eng Chem Anal ed 18:636-7 O '46

DIPHENYLBUTYRIC acid
Preparation of α-phenyl-β-benzoylpropionic and α,γ-diphenylbutyric acids. R. H. Baker and W. W. Jenkins Am Chem Soc J 68: 2102 O '46

DIPHENYLDICHLOROSILICANE
Hydrolysis of diphenyldichlorosilane. C. A. Burkhard. Am Chem Soc J 67:2173-4 D '45

DIPHENYLETHANOLAMINE
Preparation of substituted diphenylethylamines and diphenylethanolamines. W. D. McPhee and E. S. Erickson, jr. bibliog Am Chem Soc J 68:624-7 Ap '46

DIPHENYLETHYLAMINE
Catalytic reduction of α-nitrostilbenes to α, β-diphenylethylamines. W. D. McPhee, E. S. Erickson, jr. and U. J. Salvador. Am Chem Soc J 68:1866 S '46
Preparation of substituted diphenylethylamines and diphenylethanolamines. W. D. McPhee and E. S. Erickson, jr. bibliog Am Chem Soc J 68:624-7 Ap '46

DIPHENYLFORMAMIDINE
Reactions of alkyl*iso*formanilides; with carboxylic acids, sulphonic acids, and sulphonamides. E. B. Knott. Chem Soc J p686-9 O '45

DIPHENYLFURAN
Use of the bromo- and chloromethylation reactions in the synthesis of some dialkylaminomethyl-2,5-diphenylfurans. R. E. Lutz and P. S. Bailey. Am Chem Soc J 68: 2002-5 O '46

DIPHENYLMETHANE
Synthetic estrogens and the relation between their structure and their activity. U. V. Solmssen. Chem R 37:551-8 D '45

DIPHENYLMETHYLAMINE
New potential chemotherapeutic agents; derivatives of diphenylamine and of $\alpha\alpha$-diphenylmethylamine. F. E. King, T. J. King and I. H. M. Muir. Chem Soc J p5-10 Ja '46

DIPHENYLNAPHTHOQUINONE
2,3-Diphenyl-1,4-naphthoquinone. H. M. Crawford and H. B. Nelson. bibliog Am Chem Soc J 68:134-5 Ja '46
Simple route to 2,3-diphenyl-1,4-naphthoquinone. F. Bergmann and J. Szmuszkovic. bibliog Am Chem Soc J 68:1662 Ag '46

DIPHENYLPROPANE
Synthetic estrogens and the relation between their structure and their activity. U. V. Solmssen. Chem R 37:558-64 D '45

DIPHENYLTHIOCARBAZIDE
Synthesis of several dinitrodiphenyl-thiocarbazides and a dinitrodiphenylthiocarbazone. A. W. Scott and C. R. Spell. Am Chem Soc J 68:328-30 F '46

DIPHENYLTHIOCARBAZONE
Synthesis of several dinitrodiphenylthiocarbazides and a dinitrodiphenylthiocarbazone. A. W. Scott and C. R. Spell. Am Chem Soc J 68:328-30 F '46

DIPHTHERIA
Diphtheria incidence and trends in relation to artificial immunization, with some comparative data for scarlet fever. S. D. Collins. bibliog(35 titles) Pub Health Rep 61: 203-40 F 15 '46
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; extent of immunization against smallpox, diphtheria, and typhoid fever. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 61:97-109 Ja 25 '46
Saccharose-fermenting diphtheria bacilli. E. A. Mauss and M. J. Keown. Science 104: 252 S 13 '46

DIPLOMATS
U.S. foreign service. il Fortune 34:81-7+ Jl '46

DIPOLE antenna. See Radio antennas

DIPOLE moment. See Electric moment

DIPROPYLADIPIC acid
Synthesis of β,β'-dipropyladipic acid. C. F. Koelsch. Am Chem Soc J 68:148-9 Ja '46

DIPYRIDYL ketone
β,β'-Dipyridyl detone. F. Linsker and R. L. Evans. Am Chem Soc J 68:907 My '46

DIQUINOLYLHYDANTOIN
Quinaldil, quinaldoin and diquinolylhydantoin. F. Linsker and R. L. Evans. Am Chem Soc J 68:947-8 Je '46

DIRAC'S equation
New approach to kinematic cosmology. L. Infeld and A. E. Schild. bibliog Phys R 70: 419-25 S 1 '46

DIRECT mail advertising association
29th annual convention. Ptr Ink 217:118 O 25 '46

DIRECT selling. See Canvassing; Insurance—Direct selling

DIRECTION finding apparatus
Aid to navigation; radio development of new positioning equipment. il Electrician 135: 592-3 N 30 '45
H-f direction finder used in U-boat warfare. Electronics 19:304+ Mr '46
Huff duff. J. Markus. il Sci Am 174:155-6 Ap '46
Huff-duff; high-frequency radio direction finder. il diag Product Eng 17:328 Ap '46
It put the finger on the wolf pack. il Bsns W p32 Ja 19 '46
New four-band automatic direction finder. A. Scott. il Air Transport 4:67-8+ Ap '46
New type of automatic radio direction finder. C. C. Pine. diags Inst Radio Eng Proc 33: 522-7 Ag '45; Discussion. 34:457 Jl '46
Omnidirectional radio-range system. D. G. C. Luck. il maps diag RCA R 7:94-117 Mr '46
Spot location by hf/df data. il Aero Digest 52:63 Mr '46
Storm finder; static direction device enabled planes to avoid bad weather. Bsns W p31 Ja 5 '46
See also
Compass
Hydrophone
Radio beacons
Range finders

DIRECTIONAL antennas. See Radio antennas—Directional antennas

DIRECTORIES
American society for testing materials year book. 464p The Society, 260 Broad st, Philadelphia 2 '45
Directories help buyers and sellers. C. Carlsen. Dom Comm 34:29+ Je '46
Directory of geological material in North America. J. V. Howell and A. I. Levorsen. Am Assn Pet Geologists Bul 30:1321-1432 pt 2 Ag '46
See also
Engineers—Directories
Highway officials—Directories
Lawyers—Directories
Public health officers—Directories
Social work—Directories
Speech association of America—Directory
Trade directories
Consult Public affairs information service for list of directories

DIRECTORS. See Bank directors; Corporations—Directors

DISABILITY insurance. See Insurance, Disability

DISABLED
Architectural program to make public buildings accessible to physically handicapped. il Arch Forum 83:240 N '45
Planning industrial safety for the handicapped. M. E. Johnson. Ind Med 14:799 O '45

See also
Automobile driving—Equipment for disabled
Handicapped

Rehabilitation

Congressmen impressed by insurer's work; contribution on physically handicapped problem. C. D. Bridges. Nat Underw 49:25+ D 27 '45
Disabled workers in industry. Economist 149: 906-7 D 22 '45
Employment of disabled persons in Great Britain. Int Labour R 53:236-8 Mr-Ap '46
Fitting injured men to regular jobs. J. V. Grimaldi. Factory Management 104:288+ F '46
Health program for the merchant marine. F. Powdermaker and D. Blain. Ind Med 15: 316-19 My '46
Hostile dependent behavior in rehabilitation. A. P. Solomon. Ind Med 15:307-11 My '46
Industrial rehabilitation; abstract. A. J. Jackson. Ind Med 14:813-15 O '45
Physical capacity for work: principles of industrial physiology and psychology related to the evaluation of the working capacity of the physically impaired; abstract. V. K. Harvey and E. P. Luongo. J Ind Hygiene 28:53 My '46
Physical rehabilitation of the worker. H. H. Kessler. Ind Med 15:516-17 S '46
Physically impaired worker in industry. R. L. Brown and R. L. C. Butsch. Ind Med 15:188-92 Mr '46
Placement and performance of disabled workers; abstract. Management R 35:380-1 S '46
Rehabilitation essential part of treatment of tuberculosis. P. Fraser. Pub Health Rep 61: 1005-8 Jl 5 '46
Work for disabled miners. Economist 150:49 Ja 12 '46
Zurich companies publish declaration of attitude with respect to employment of disabled. East Underw 47:30 Ja 4 '46

See also
Veterans, Disabled—Rehabilitation

DISABLED veterans. See Veterans, Disabled

DISACCHARIDES
Isolation and structure of an enzymatically synthesized crystalline disaccharide D-glucosido-D-ketoxyloside. W. Z. Hassid and others. bibliog Am Chem Soc J 68:1465-7 Ag '46

DISASTERS
Disaster; relief work of the American national Red cross. C. F. Rupprecht. il map Spectator (Life ed) 153:56-63+ N '45; Same. Spectator (Property ed) 11:10-15+ D 20 '45

DISCHARGE of electricity. See Electric discharges

DISCHARGED soldiers. See Veterans

DISCOLORATION
Changes in stored dried eggs; role of phospholipides and aldehydes in discoloration. B. G. Edwards and H. J. Dutton. bibliog Ind & Eng Chem 37:1121-2 N '45
Color centers in alkali halide crystals. F. Seitz. bibliog diags Rs Mod Phys 18:384-408 Jl '46

DISCOUNT

Rates

Interest rate dilemma; need for raising rediscount rates as inflation check. L. A. Hahn. Comm & Fin Chr 163:2074+ Ap 18 '46
Preferential discount rate discontinued by New York and other reserve banks. Comm & Fin Chr 163:2417 My 2 '46; Nat City Bank p54 My '46

DISCOUNT, Cash
Are cash discounts obsolete? Am Bsns 16:16-17+ Ap '46

DISCOUNT, Trade
Trade discounts face revision. Bsns W p76+ My 25 '46

DISCOUNT companies
Bill market expansion. Economist 150:145-6 Ja 26 '46
London discount companies. Economist 149: sup15-16 O 27 '45

DISCOVERIES in science. See Inventions; Scientific research

DISCOVERY, Bill of
Bank entitled to maintain bill of discovery in support of its defense to suit for payment of forged checks charged against depositor's account. Banking Law J 63:41-9 Ja '46

DISCRIMINATION in employment. See Race discrimination

DISEASES
Diseases of adaptation; abstract. H. Selye. Can Chem & Process Ind 30:98 O '46
Trauma and disease. R. M. Brown. Ind Med 15:575-9 O '46
Water-borne disease outbreaks during 1944. Pub Works 77:27-8 F '46

See also
Dysentery
Epidemics
Hay fever
Heart—Diseases
Infectious diseases
Lungs—Diseases
Mortality
Mouth—Diseases
Pneumonia
Public health
Rheumatism
Schistosomiasis
Sickness
Skin—Diseases
Sprue
Tsutsugamushi disease
Tuberculosis
Tularemia
Typhoid fever
Typhus fever
Venereal diseases

Statistics

Malaria; numbers of cases reported by state health officers, January-June, 1945, as compared with data for the same period 1939-44. Pub Health Rep 60:1467-70 D 7 '45

See also
Infantile paralysis—Statistics
Infectious diseases—Statistics
Mortality—Statistics
Tuberculosis—Statistics

DISEASES, Industrial
Occupational diseases small employe factor. A. J. Lanza. East Underw 47:10 N 1 '46

See also
Asbestosis
Caisson disease
Hygiene, Industrial
Lead poisoning
Miners—Diseases and hygiene
Poisons, Industrial
Sickness
Silicosis
Skin—Diseases
Workmen's compensation

DISEASES, Infectious. See Infectious diseases

DISHONESTY insurance. See Insurance, Surety and fidelity

DISHWASHING
Detergents at restaurant show. Soap & San Chem 22:51 My '46
Performance test for rating dishwashing detergents. E. H. Mann and C. C. Ruchhoft. diags Pub Health Rep 61:877-87, pl 1-3 Je 14 '46
Sanitizing dishes. W. L. Mallman and others. bibliog il Soap & San Chem 22:130-3+ Ag '46
Sequestration of calcium and magnesium in the presence of alkaline detergents. E. H. Mann and C. C. Ruchhoft. Pub Health Rep 61:539-45 Ap 12 '46

DISHWASHING machines
Kaiser dishwasher. Bsns W p64 F 2 '46
Large volume water heating; mass feeding hot water demand. M. B. Mackay. Am Gas J 165:39-41+ Jl; 31 Ag '46
Soap dispenser for dish-washing. Electronics 19:182+ O '46

DISINFECTION and disinfectants
Adulteration and misbranding. C. C. McDonnell. Soap & San Chem 21:123+ N '45
p-Aminobenzenesulphonamide derivatives of pyrimidine as antibacterial agents. F. L. Rose and G. A. P. Tuey. Chem Soc J p81-5 F '46

DISINFECTION and disinfectants—*Continued*
Antibacterial activity of protamine zinc insulin. C. H. Bollenback and S. W. Fox. Science 103:445-6 Ap 12 '46
Circulation in sanitary ventilation by bactericidal irradiation of air. W. F. Wells. bibliog diags Franklin Inst J 240:379-95 N '45
Considerations in evaluating germicides. P. A. Wolf. bibliog diag Soap & San Chem 22:145+ O '46; Abstract. Oil Paint & Drug Rep 149:44 Je 24 '46
Control of microorganisms in food storage rooms. W. L. Mallman and E. S. Churchill. Refrig Eng 51:523-8+ Je '46; Discussion. 52:143+ Ag '46
Death-rate study on a high molecular quaternary ammonium compound with bacillus metiens. A. S. DuBois and D. Dibblee. Science 103:734 Je 21 '46
Disinfectant testing. G. F. Reddish. bibliog Soap & San Chem 22:127-9+ Jl '46
Disinfectants and antiseptics; a summary of scientific advances reported during 1944 and 1945. E. G. Klarmann. bibliog(144 references) Soap & San Chem 22:125-7+ F; 133+ Mr '46
Disinfecting with aerosols; abstract. B. I. Gandel'sman and others. Soap & San Chem 22:149 F '46
Influence of pH and temperature on the survival of coliforms and enteric pathogens when exposed to chloramine. C. T. Butterfield and E. Wattie. bibliog diags Pub Health Rep 61:157-92 F 8 '46; Abstract. Water & Sewage 84:30+ Je; 17-18+ Ag '46
New odorless disinfectant developed; Hyamine 1622. il Safety Eng 92:59-61 Jl '46
Place of chemotherapy in the treatment of traumatic wounds. J. W. Hirshfeld. Ind Med 15:87-8 F '46
Preparation and bacteriostatic properties of some amines derived from citral. A. G. Caldwell and E. R. H. Jones. Chem Soc J p597-9 Jl '46
Quaternary ammonium salts as germicides. R. S. Shelton and others. bibliog Am Chem Soc J 68:753-9 My '46
Sanitizing agent; Timsol. Chem & Eng N 24:395 F 10 '46
Sanitizing dishes. W. L. Mallman and others. bibliog il Soap & San Chem 22:130-3+ Ag '46
Simple vaporizing device for the attainment of bactericidal concentrations of glycol vapors in air. T. N. Harris and J. Stokes, jr. bibliog diag Science 104:423-5 N 1 '46
Some aspects of disinfection; abstract and discussion. S. E. Jacobs. Chem & Ind p140-1 Mr 30 '46
Sulphur derivatives of thiazoles. E. M. Gibbs and F. A. Robinson. Chem Soc J p925-7 D '45
Surgical drainage in infected wounds. F. T. McCormick. bibliog Ind Med 15:88-9 F '46
Synthesis of amino-sulphones. A. A. Goldberg and D. M. Besly. Chem Soc J p566-71 S '45
Synthesis of diamino sulphones. A. A. Goldberg. Chem Soc J p826-9 N '45
Testing the germicidal activity of quaternary ammonium compounds. H. Bernstein and others. Soap & San Chem 22:131+ S '46
Transmittance and reflectance of germicidal (λ2537) energy. M. Luckiesh and A. H. Taylor. bibliog diags Opt Soc Am J 36:227-34 Ap '46
Use of pine oil in disinfectant manufacture increasing. Chem & Eng N 24:993 Ap 10 '46
Useful selective bactericidal property of Tergitol-7. A. L. Pollard. Science 103:758-9 Je 28 '46
Why not germicidal detergents? H. C. Borghetty. Rayon 27:369-71 Jl '46

Testing

Disinfectants test not suitable; abstract. E. G. Klarmann. Oil Paint & Drug Rep 149: 44 Je 24 '46
Inquiry into the germicidal performance of quarternary ammonium disinfectants. E. G. Klarmann and E. S. Wright. il Soap & San Chem 22:125+ Ja; 139+ Ag '46
New disinfectants; critique of testing methods. P. W. Brian. Chem Age (Lond) 53:460 N 17 '45
Relative toxicity of disinfectants recommended for use in the paper industry; inhibiting concentrations for bacillus mycoides and aspergillus niger. J. W. Appling and J. F. McCoy. bibliog Paper Tr J 121: 37-40 Jl 19; 29-32 N 8 '45; Same cond. (pt 1) Paper Ind 27:290+ My '45; Excerpts. (pt 2) Paper Ind 28:294-5 My '46
Sources of error in germicidal activity tests with quaternary ammonium compounds. R. Pressman and J. C. Rhodes. bibliog Soap & San Chem 22:137+ Ap '46

DISINTEGRATORS
Elox disintegrators. il Automobile Eng 35: 549-50 D '45

DISKS, Glass
Sintered glass disks. A. D. Mack. diags Science 103:21-2 Ja 4 '46

DISKS, Rotating
Behavior of a freely pivoted disk. A. B. Field. diags Elec Eng 65:142-4 Mr '46
Pre-stressing rotating disks used in turbines and compressors. H. Dobkin. diags Steel 118:104-6+ Je 3 '46
Sum and difference method for calculating stresses in disks. A. M. G. Moody and M. L. Land. diag Product Eng 17:147-52 O '46

DISLOCATIONS
Habitual dislocation of shoulder; study on nature and treatment of the disease, including remarks on traumatic dislocation; abstract. E. Thomasen. J Ind Hygiene 28: sup39 Mr '46

DISMISSAL of employees. See Employees, Dismissal of

DISMISSAL wage. See Wages—Dismissal wage

DISODIUM dihydroxybenzenedisulfonate
Colorimetric determination of iron in the presence of large concentrations of copper and nickel. R. H. Greenburg. Ind & Eng Chem Anal ed 18:255-7 Ap '46

DISPENSARIES, Industrial
General Electric dispensary; design separates pre-employment examination from employe treatment. il plan Arch Forum 83:106 D '45

DISPENSERS, Soap. See Soap dispensers

DISPERSING agents
Evaluation of dispersions by a novel rheological method. F. K. Daniel and P. Goldman. bibliog il Ind & Eng Chem Anal ed 18:26-31 Ja '46

DISPERSION
Dispersion of cellulose by cellulose xanthate solutions. P. C. Scherer. Rayon 27:22-6 Ja '46
Evaluation of dispersions by a novel rheological method. F. K. Daniel and P. Goldman. bibliog il Ind & Eng Chem Anal ed 18:26-31 Ja '46
Should portland cement be dispersed? T. C. Powers. bibliog diags Am Concrete Inst J 17:117-40 N '45

DISPERSION of rays
Calculation of specific dispersion of pure hydrocarbons and petroleum fractions. M. R. Lipkin and C. C. Martin. bibliog Ind & Eng Chem Anal ed 18:433-6 Jl '46

DISPLAY of merchandize
Bauer & Black campaign rides tide of wartime interest in first aid. C. K. Perkins. il Sales Management 56:41-4 Mr 15 '46
Colorful cart merchandises children's records. il Ptr Ink 215:112 Ap 12 '46
Display cartons have advertising value. il Ptr Ink 216:38-9 S 20 '46
Displays and packaging features that do some silent selling. il Ptr Ink 215:36-7 My 31 '46
It talks when you reach for a loaf of bread. il Mod Packaging 19:103 Ap '46
Light-directing acetate sheet displays. il Mod Plastics 23:144-5 Ap '46
Magazine distribution system used for other products; daily calls on dealers make constant checking of stock and displays. E. M. Housman. il Ptr Ink 217:46-7 O 11 '46
Million annual gross for sales stands offering low-price brand name products. L. F. Thomann. Ptr Ink 217:118 O 4 '46
Presenting your package at the point of purchase; abstract. W. H. Carmichael. Mod Packaging 19:152 Ap '46

DISPLAY of merchandize—*Continued*

Tailoring the product to the material; men's accessories and display fixtures, using Lucite or Plexiglas. il Mod Plastics 23:116 Jl '46

Trade show demonstrates display; Men's fashion guild. il Ptr Ink 214:40 F 15 '46

What a good package should do; check list based on requirements for new Yale hardware packages. C. J. Swan. il Ptr Ink 215: 37-9 Je 21 '46

When is a family-style package a sales handicap? Nyal re-designing all packages. D. G. Baird. il Sales Management 56:64+ Ap 1 '46

See also

Exhibits
Exhibits, Traveling
Show windows
Showrooms

DISSERTATIONS, Academic

Bibliography

Doctoral dissertations accepted by American universities, 1944-1945. A. H. Trotier, ed. 68p $1.50 Wilson, H.W. '45

Microfilm abstracts; a collection of abstracts of doctoral dissertations and monographs available in complete form on microfilm. 137p University microfilms, 313 North First st, Ann Arbor, Mich. '45

DISSOCIATION

Dissociation energies of CO, N_2, NO, and CN. J. G. Valatin. J Chem Phys 14:568 S '46

Dissociation energies of surface films of various oxides as determined by emission measurements of oxide coated cathodes. H. Jacobs. bibliog diags J Ap Phys 17:596-603 Jl '46

Dissociation pressure of ammonium carbamate. E. P. Egan, jr. J. E. Potts, jr. and G. D. Potts. bibliog diag Ind & Eng Chem 38: 454-6 Ap '46

Dissociation pressures of metal oxides. B. Lustman. Iron Age 158:61 S 26 '46

Dissociation spectra of covalent polyatomic molecules. R. Samuel. bibliog(66 references) il diag Rs Mod Phys 18:103-47 Ja '46

Inelastic photo-dissociation of the deuteron. J. M. Jauch. bibliog Phys R 69:275-85 Ap 1 '46

Metastable ions formed by electron impact in hydrocarbon gases. J. A. Hipple and others. bibliog diag Phys R 69:347-56 Ap 1 '46

New band system in the green excited in a mixture of xenon and oxygen and the energy of dissociation of CO. C. Kenty and others. il Phys R 69:36 Ja 1 '46

See also

Predissociation

DISSOCIATION, Electrolytic. See Ionization, Electrolytic

DISTEMPER, Canine. See Dogs—Diseases

DISTEX process. See Petroleum distillation

DISTILLATE wells. See Gas, Natural—Distillate wells

DISTILLATION

Azeotropism; a useful tool clarified. K. B. Fleer. bibliog J Chem Educ 22:588-92 D '45

Catalytic cracking of pure hydrocarbons; secondary reactions of olefins; isomerization, hydrogen transfer, polymerization, and aromatization. H. H. Voge, G. M. Good and B. S. Greensfelder. Ind & Eng Chem 38: 1033-40 O '46

Compression distillation. A. Latham, jr. il diag Pet Refiner 24:127-30 D '45; Same. Mech Eng 68:221-4 Mr '46; Same cond. Marine Eng 51:99-101 Ag '46; Discussion. Mech Eng 68:743-6 Ag '46

Condensation of acetylene by molten salts. P. C. Johnson and S. Swann, jr. bibliog diags Ind & Eng Chem 38:990-6 O '46

Cooperative distillation tests; aromatic hydrocarbons. Am Soc T M Proc 45:340-7 '45

Determination of the boiling range of chlorinated hydrocarbons. D. Williams. Ind & Eng Chem Anal ed 18:157-60 Mr '46

Effect of added components on the relative volatility of two binary mixtures. O. L. Updike, jr. and others. bibliog Am Inst Chem Eng Trans 41:717-36 D '45

Extractive distillation of hydrocarbon mixtures in a packed column. R. S. Dicks and C. S. Carlson. bibliog il diag Am Inst Chem Eng Trans 41:789-803 D '45

Extractive distillation; separation of C_4 hydrocarbons using furfural. J. Happel and others. bibliog diags Am Inst Chem Eng Trans 42:189-214 Ap '46

Film resistances in rectification. R. E. Peck and E. F. Wagner. bibliog diag Am Inst Chem Eng Trans 41:737-53 D '45

High temperature distillation. T. J. Walsh. bibliog Ind & Eng Chem 38:8-9+ Ja '46.

Industrial applications of the heat pump. P. Sporn and others. diags Chem & Met Eng 53:98-100+ Je '46

Making heat work overtime. D. H. Killeffer. il diag Sci Am 175:153-6 O '46

Methods of separation and tests for purity. H. G. Cassidy. bibliog diags J Chem Educ 23:427-33 S '46

Molecular distillation. K. C. D. Hickman and G. C. Mees. il Ind & Eng Chem 38:28-9 Ja '46

Purification of commercial benzene by azeotropic distillation. J. Griswold and R. H. Bowden. bibliog Ind & Eng Chem 38:509-12 My '46

Rates of distillation of the benzene carboxylic acids and their methyl esters. G. Schulz and H. C. Howard. diag Am Chem Soc J 68: 991-4 Je '46

Recent advances in alcohol distillation methods. E. D. Unger. il Chem Ind 58:778-80 My '46

Some applications of vacuum distillation technique in the analysis of alloys. J. W. Price. bibliog Soc Chem Ind J 64:283-5 O '45

Synthesis of toluene by hydroforming and recovery by azeotropic distillation. F. L. Hartley. flow diags Pet Eng 17:156+ D '45

Temperature efficiency in distillation. M. Nord. bibliog Ind & Eng Chem 38:657-8 Je '46

Thermodynamic evaluation of binary and ternary liquid systems. K. Wohl. bibliog Am Inst Chem Eng Trans 42:215-49 Ap '46

Unit operations and equipment; molecular distillation. il Chem & Met Eng 53:139-40 F '46

See also

Alcohol—Manufacture
Coal distillation
Oil shales—Distillation
Petroleum distillation
Rectification
Water, Distilled
Wood distillation

Bibliography

Distillation bibliography. F. C. Vilbrandt and others. (Eng. exp. sta. ser. 62) 50p pa 50c Virginia polytechnic institute, Blacksburg, Va. '46

Tables, calculations, etc.

Application of experimental vapor-liquid equilibria to an analysis of the operation of a commercial unit for the purification of toluene from petroleum. H. G. Drickamer and H. H. Hummel. diags Am Inst Chem Eng Trans 41:607-29 O '45

Empirical equation for theoretical minimum reflux. E. G. Scheibel and C. F. Montross. bibliog Ind & Eng Chem 38:268-72 Mr '46

Local efficiencies of bubble plate fractionators. R. L. Geddes. bibliog Am Inst Chem Eng Trans 42:79-103; Discussion. 103-5 F '46

Multicomponent tray calculations based on equilibrium curve of key components. E. G. Scheibel. bibliog Ind & Eng Chem 38:397-9 Ap '46

Simplified method for solving multicomponent distillation problems. R. J. Hengstebeck. bibliog Am Inst Chem Eng Trans 42:309-28; Discussion. 328-9 Ap '46

System of distillation equations. W. D. Harbert. bibliog Ind & Eng Chem 37:1162-7 D '45

Toluene recovery by extractive distillation; erection of a commercial plant on the foundation of laboratory data. C. L. Dunn and others. diags Am Inst Chem Eng Trans 41: 631-44 O '45

Vapor-liquid equilibria in non-ideal solutions. R. R. White. bibliog Am Inst Chem Eng Trans 41:539-54 O '45

Vapor-liquid equilibria in phenol-hydrocarbon systems. H. G. Drickamer and others. bibliog(p603) diags Am Inst Chem Eng Trans 41:555-605 O '45

DISTILLATION apparatus
Apparatus for flash-distillation of butadiene. A. P. Hobbs and M. R. Rector. diag Ind & Eng Chem Anal ed 18:140-1 F '46
Apparatus for vacuum distillation of volatile high-melting solids. H. A. Goldsmith. bibliog diag Ind & Eng Chem Anal ed 18:77 Ja '46
Aqua destillata, its cost and convenience. H. Gee. il Food Ind 18:180-2+ F '46
Assembly, testing, and operation of laboratory distilling columns of high efficiency. C. B. Willingham and F. D. Rossini. bibliog 2 pls plans diags J Res Nat Bur Stand 37:15-29 Jl '46
Check your tube-still refractory-lining maintenance program. H. O. Johanson. diags Oil & Gas J 45:69+ Je 1 '46
Composition of vapors from boiling binary solutions; apparatus for determinations under pressure. D. F. Othmer and F. R. Morley bibliog diags Ind & Eng Chem 38: 751-7 Jl '46
Constant reflux ratio distilling head. L. Berg. bibliog diag Ind & Eng Chem Anal ed 18: 54-5 Ja '46
Construction of a fractionating column. R. Taft, jr. and C. A. VanderWerf. il J Chem Educ 23:82-4 F '46
Design and operation of a light hydrocarbon distillation drier; abstract. G. C. Gester, jr. flow diag Pet Processing 1:90 O '46
Determination of traces of acetylene in liquid oxygen in rectifying columns. H. P. McKoon and H. D. Eddy. bibliog diags Ind & Eng Chem Anal ed 18:133-6 F '46
Distillation trap for determining moisture in relatively dry materials. W. N. Lindsay. bibliog diag Ind & Eng Chem Anal ed 18:69 Ja '46
Distilling apparatus for production of pure water. F. E. Holmes. diags Ind & Eng Chem Anal ed 18:277 Ap '46
Distilling efficiency improved; Fiberglas tower packing. Franklin Inst J 240:396 N '45
Equipment advances 1944-45; distillation and absorption. A. E. Chute. Chem Ind 57:859 N '45
Evaluation of laboratory distillation apparatus; abstract. F. C. Collins and V. Lantz. diag Pet Processing 1:150 O '46
Glass perforated plate distillation column. W. M. Langdon and D. J. Tobin. il diags Ind & Eng Chem Anal ed 17:801-5 D '45
High recovery, superfractionation mark Superior's Lake Creek operations. A. L. Foster. flow diag il Oil & Gas J 44:50-1+ F 2 '46
How to produce pure water by compression distillation. A. Latham, jr. il diag Power Pl Eng 50:78-80 F '46; Abstract. Heating-Piping 17:632 D '45
Improved distilling head for laboratory fractionating columns. B. G. Zimmerman. bibliog diags Ind & Eng Chem Anal ed 17:815 D '45
Improved Kjeldahl trap and ammonia-distillation outfit. A. Lovecy. diags Soc Chem Ind J 65:224-6 Ag '46
Kettle for measuring small residues in low-temperature fractional distillation. G. T. Hamblen and J. C. Thorstenberg. diag Ind & Eng Chem Anal ed 18:153 F '46
Local efficiencies of bubble plate fractionators. R. L. Geddes. bibliog Am Inst Chem Eng Trans 42:79-103; Discussion. 103-5 F '46
Multiple still for use in the Willard-Winter separation of fluorine. H. V. Churchill. il Ind & Eng Chem Anal ed 17:720-1 N '45
Pipe still arrangements. W. L. Nelson. diags Oil & Gas J 45:128 Ag 24 '46
Pipe-still combustion charts. W. L. Nelson. Oil & Gas J 45:127 Ag 24 '46
Pipe-still duty. W. L. Nelson. Oil & Gas J 45:117 Ag 17 '46
Return bends; pipe stills. W. L. Nelson. Oil & Gas J 45:107 S 7 '46
Shell-still heaters. diag Oil & Gas J 45:213 Jl 27 '46
Simple cyclic falling-film molecular still. J. K. Taylor. bibliog diag J Res Nat Bur Stand 37:173-6 S '46
Simple laboratory falling-film molecular still. E. H. Farmer and D. A. Sutton. bibliog diags Soc Chem Ind J 65:164-6 Je '46
Small glass center-tube fractionating column. E. A. Naragon and C. J. Lewis. diags Ind & Eng Chem Anal ed 18:448-50 Jl '46
Study of corrosion pattern in still tubes results in reduction of metal losses. W. F. Kramer. diags Nat Pet N 38 pt 2:R17-18+ Ja 2 '46
Vapor-liquid equilibrium still for miscible liquids. D. T. C. Gillespie. bibliog diags Ind & Eng Chem Anal ed 18:574-7 S '46
Water distillation makes successful use of vapor recompression. il Chem & Met Eng 53:129 Ja '46

Control

Control of fractionation columns. D. M. Boyd, jr. diags Pet Refiner 25:147-51 Ap '46

Design

Allowable radiant absorption rates. W. L. Nelson. Oil & Gas J 45:305 S 21 '46
Design of structural details for high towers. J. Yeakel. diags Pet Refiner 24:125-6 D '45
Extractive distillation; separation of C_4 hydrocarbons using furfural. J. Happel and others. bibliog diags Am Inst Chem Eng Trans 42:189-214 Ap '46
Heat absorption and radiant section. W. L. Nelson. Oil & Gas J 45:111 S 28 '46
Heat balance of pipe stills. W. L. Nelson. Oil & Gas J 45:111 O 5 '46
Multicomponent fractionation design method. W. C. Edmister. bibliog il diag Am Inst Chem Eng Trans 42:15-32 F '46; Correction. 42:403-6 Ap '46
Multicomponent tray calculations based on equilibrium curve of key components. E. G. Scheibel. bibliog Ind & Eng Chem 38:397-9 Ap '46
New design of downspout for bubble trays separates liquid from foam and vapors. diags Nat Pet N 37 pt 2:R990 D 5 '45
No peace for fractionators. P. J. Harrington and others. diag Am Pet Inst Proc 25(3):9-14 '45; Same. Oil & Gas J 44:135-7+ N 24 '45; Same. Nat Pet N 37 pt 2: R965-6+ D 5 '45; Same. Pet Refiner 24: 114-18 D '45
Pipe-still dimensions. W. L. Nelson. Oil & Gas J 45:91 N 2 '46
Plate efficiency of fractionating columns and absorbers. H. E. O'Connell. bibliog Am Inst Chem Eng Trans 42:741-55 Ag '46
Projection of laboratory reaction velocity data into commercial design. J. H. Hirsch, C. L. Crawford and C. Holloway, jr. bibliog Ind & Eng Chem 38:885-90 S '46
Simplified method for solving multicomponent distillation problems. R. J. Hengstebeck. bibliog Am Inst Chem Eng Trans 42: 309-28; Discussion. 328-9 Ap '46
Study of tower plate hydraulics made with air and water tests. il Nat Pet N 38 pt 2: R43-4 Ja 2 '46
System of distillation equations. W. D. Harbert. bibliog Ind & Eng Chem 37:1162-7 D '45
Tube diameter and thickness. W. L. Nelson. Oil & Gas J 45:127 O 26 '46

DISTILLED water. See Water, Distilled

DISTILLERIES

Power

How Seagram integrates two new power plants with spray driers; flue gas supplies heat. il plans diags Power Pl Eng 50:58-63+ Mr '46

DISTILLERS company, limited
Annual general meeting, 69th, Edinburgh, July 19. Chem Age (Lond) 55:113-14 Jl 27 '46
Statement by the chairman. Lord Forteviot. Economist 151:152 Jl 27 '46

DISTILLERS corporation-Seagrams, ltd.
Annual report. Comm & Fin Chr 162:2390 N 19 '45

DISTILLING industries
Distillers plead; new basis for grain allocation asked. Bsns W p26 Je 22 '46
Distillers prepare for bigger sales. B. W. Corrado. Barron's 25:13 N 26 '45
Distillers reunite. Bsns W p86-7 Ap 6 '46
Distillers to release profitable bonds. Barron's 26:7 O 28 '46
Distillers vs. drys; united industry maps drive for modernizing of stores and taverns. Bsns W p66+ Je 1 '46
Liquor profits rising despite output cut. Barron's 26:8 Mr 11 '46

DISTILLING industries—*Continued*
Spuds to whisky. Bsns W p22+ Jl 20 '46
Unhappy distillers. Bsns W p47 F 23 '46
See also
Publicker industries, inc.
Whisky

Advertising

Public's interest in sports reflected in ad campaign. A. P. Bondurant. il Ptr Ink 217: 40 O 11 '46

Securities

Another look at the liquors; with earnings analysis of distilling companies. H. F. Travis. il Mag of Wall St 78:576-7+ Ag 17 '46
Liquor shares lure investors. Bsns W p47-8+ D 1 '45
What of the liquors now? with position of leading stocks. S. Devlin. Mag of Wall St 77:529+ F 2 '46

Scotland

Scotch whiskey; report from Scotland. il map Fortune 33:134-45+ Je '46

DISTRIBUTION (economics)
Brand names and free enterprise. H. E. Abt. Comm & Fin Chr 163:3477+ Je 27 '46
Can our present distributive system insure prosperity? yes and no say six sales executives. Sales Management 56:72+ Mr 1 '46
Distribution, a key to full employment. A. E. Taylor. Comm & Fin Chr 164:2219+ O 31 '46
Marketing and full employment in war and peace. E. B. George. il Dun's R 54:11-14+ Jl '46
There's a break somewhere in the distribution line. H. C. Wilson. Ptr Ink 215:140 Je 7 '46; Reply (Eli Terry wouldn't know what time it is today). C. G. Pyle. 216: 106+ S 13 '46
See also
Chain stores
Cooperation
Department stores
Jobbers
Marketing
Retail trade
also Boston conference on distribution

Cost

Advertising can and must do a public relations job for distribution; distribution doesn't cost enough. D. Belding. Ptr Ink 213:36+ N 30 '45
Reduction of distribution costs; program for action and a check list of opportunities. L. O. Brown. Ind Marketing 31:44+ Ap '46
See also
Marketing—Cost

DISTRIBUTION, (term)
Any more definitions of distribution? Ptr Ink 214:41+ Ja 18 '46
By way of definition. Aesop Glim. Ptr Ink 217:66 O 11; 107+ N 8 '46
Still another definition of distribution. H. L. Winn. Ptr Ink 214:43 F 15 '46
These are the five definitions: advertising, sales promotion, merchandising, marketing and distribution. Adv & Sell 39:52+ Ap '46

DISTRIBUTION council, National. See National distribution council

DISTRIBUTION of gas. See Gas distribution

DISTRIBUTION of water. See Water distribution

DISTRICT bank, limited
Statement by the chairman. R. N. Barclay. Economist 150:113 Ja 19 '46

DISTRICT 50 of United mine workers of America. See United mine workers of America

DISTRICT heating. See Heating from central stations

DISULFIDES
Infra-red spectra of thiols, sulphides, and disulphides. I. F. Trotter and H. W. Thompson. Chem Soc J p481-8 Je '46
Rubber, polyisoprenes and allied compounds; the formation of dialkyl sulphide dihalides and its bearing on the problem of determining the unsaturation of vulcanised rubber. G. F. Bloomfield. Soc Chem Ind J 64:274-8 O '45

Analysis

Determination of alkyl disulfides in the absence and presence of mercaptans. I. M. Kolthoff and others. bibliog diag Ind & Eng Chem Anal ed 18:442-4 Jl '46

DITCHES
Blasting ditches in Florida coral rock; U.S. naval air station, Boca Chica, Florida; explosives eliminate mosquito menace. F. P. Bussells. il Explosives Eng 24:17-18 Ja '46
Ditching with dynamite in West Virginia. C. J. Burton. il Explosives Eng 24:124-5 Jl '46

DITHIOCARBONATES. See Thiocarbonates

DITHIZONE
Modified all-dithizone method for determination of traces of copper. S. L. Morrison and H. L. Paige. bibliog Ind & Eng Chem Anal ed 18:211-13 Mr '46
Nomographic procedure for a two-component colored system; copper in a nickel plating bath. E. A. Brown. Ind & Eng Chem Anal ed 18:493-5 Ag '46

DITIPYLVINYL alcohol. See Vinyl alcohol

DITRIETHYLMETHYL peroxide
Synthesis and thermal decomposition of ditriethylmethyl, *t*-butyl pentamethylethyl and *t*-butyl 1-methylcyclohexyl-1 peroxides. N. A. Milas and L. H. Perry. bibliog Am Chem Soc J 68:1938-40 O '46

DIVERSIFICATION in industry
Aircraft companies turn talents to non-aviation manufacturing. B. Stubblefield. Aviation N 6:21-2 S 23 '46
Aircraft firms diversify products. R. McLaren. Automotive & Aviation Ind 94:17-18+ F 15 '46
Another example of trend toward diversification; dress manufacturers enter perfume and cosmetic field. E. M. Housman. il Ptr Ink 214:81-2+ F 8 '46
Borg-Warner; a company of parts. il Fortune 33:128-33+ Je '46
City Ice diversifies; big in everything that has to do with hot or cold. Bsns W p73-4+ My 18 '46
Coming competitive clash; diversification plans. J. D. C. Weldon. Mag of Wall St 79: 127-8+ N 9 '46
General Mills' blue print for growth. J. Turner. il map Am Bsns 16:8-9+ S '46
General Mills; study in far-sighted management. C. F. Morgan. il Mag of Wall St 79:30-1+ O 12 '46
General Tire on the loose; growth and diversification. il Fortune 34:112-19+ Jl '46
How to keep your product alive, your management alert? decentralization! J. A. Murphy. il Sales Management 57:50+ N 1 '46
Lewyt venture; offers line of consumer goods. Bsns W p56-8 O 5 '46
Lion oil company expands into chemical field. il Manuf Rec 115:44-5+ O '46
New irons in fire; General Mills diversifies. Bsns W p76+ Ag 10 '46
Northeastern halves number of dealers in search for lower sales costs. A. Ullman. il Sales Management 57:50+ O 1 '46
Rubber companies diversify; turn to plastics. Bsns W p56-8 Mr 23 '46
Where diversification will spur corporate earnings; with statistical data on representative companies entering new fields. H. S. Coffin. il Mag of Wall St 78:259-60+ Je 8 '46
See also
Products, Diversified

DIVIDEND checks. See Checks

DIVIDENDS
Companies likely to pay year-end extras. J. C. Clifford. Mag of Wall St 77:265-7+ D 8 '45
Dividend credit. E. Everett and O. H. Schmillon. J Account 82:244-5 S '46
Dividend increases outnumber reductions or omissions by four-to-one in past month. Barron's 26:1 Mr 4 '46
Dividend payments of common stocks listed on the New York stock exchange, 1945; tabulation. Trusts & Estates 82:235 F '46
Dividend payments of preferred stocks listed on New York stock exchange, 1945 compared with 1944. Trusts & Estates 82:406 Ap '46

DIVIDENDS—*Continued*
Dividends. Published in weekly Monday numbers of Commercial & financial chronicle
Dividends and reserves; end functions and benefits of profits as told in corporation reports. il Trusts & Estates 82:549-53 Je '46
Higher profit margins forecast larger dividends. E. B. Gould. Comm & Fin Chr 164: 884+ Ag 15 '46
Increased dividends reflect rise in income and fear of added tax on retained profit. Barron's 26:1 Jl 29 '46
Law for the layman; indian giver; Staats vs. Biograph co. M. L. Hayward. Barron's 26:16 Ag 19 '46
Limitation of dividends? Economist 150:385 Mr 9 '46
More liberal dividends likely this year if surtax on surpluses is pushed. Barron's 26:1 Je 17 '46
Net dividend payments and dividends received by corporations, by industries, 1929-45; tabulation. Survey of Cur Bsns 26:16, 18 Ap '46
1946 special re-appraisals of values, earning and dividend forecasts. il Mag of Wall St 77:517-29+, 580-9+, 637-49+, 703-11+, 765-77+; 78:509-21+, 570, 629, 689 F 2-Mr 30, Ag 3-S 14 '46
Refinancing preferred stock; reduction in the dividend rate of Rochester gas and electric corporation. E. J. Howe. Pub Util 37: 603-13 My 9 '46
Six issues with continuous dividend records; thumbnail stock appraisal. Mag of Wall St 78:273-5 Je 8 '46
Weighing current and potential dividend casualties; with 10-year record for selected companies. W. Gates. Mag of Wall St 78: 8-10+ Ap 13 '46
When does a dividend become income? G. G. Tyler. bibliog J Account 80:353-7 N '45
Where tax enforcement means higher dividends, affects corporate reserves; with table showing companies where dividend disbursements have been less than 70% of earnings. H. S. Coffin. Mag of Wall St 78: 319-20+ Je 22 '46

See also
Corporations—Finance
Profit
Securities
Stocks

DIVIDING (machine work)
Precision dividing can be done on a standard engine lathe. W. Wheatly. diag Am Mach 90:131 Ag 1 '46

DIVIDING machines
Microscope guard and graduated minute scale for Vinco head. L. D. Berg. diag Am Mach 90:139 Je 6 '46

DIVING, Submarine
Air under the sea. T. McConlogue. il Comp Air Mag 51:270-3 O '46
Exploring the continental shelf; various types of diving bells. C. J. Deegan. il map diags Oil & Gas J 45:98-101 Je 15 '46
Fortunes, twenty fathoms down; retrieving treasures buried in ocean. W. Ley. il Tech R 48:165-6+ Ja '46
Steel diving chamber for use by Union oil company for gravity-meter surveys off the Louisiana coast; abstract. G. M. Wilson. il Mech Eng 68:648 Jl '46
Submarine prospecting; using bathysphere. R. Sneddon. il Pet Eng 17:222+ My '46

DIVISION of labor
Doubled volume, lowered cost, by work simplification; Lionel toy trains. C. V. Glaimo. il Factory Management 104:146-9 Ag '46

DIXIE fire insurance company
History is one man success story. Spectator (Property ed) 12:28 Ag 22 '46

DIXYLYLACETIC acid
Synthesis of di-(2,4-xylyl)-acetic acid. R. C. Fuson and M. L. Ward. bibliog Am Chem Soc J 68:521-2 Mr '46

DOAN, Richard L. 1898-
Sketch. Chem & Eng N 24:1907 Jl 25 '46

DOBSON rule
Dobson rule and tax administration. N. D. Cann. bibliog J Account 82:401-13 N '46

DOCK labor. See Longshoremen

DOCKS
Engineer looks at Argentina; train ferry dock. R. Hammond. il diags Engineer 182: 138-41 Ag 16 '46
"Shark" sectional dock caissons. il Engineer 180.503-4 D 21 '45

See also
Dry docks
Harbors
Ore docks
Piers

Electric equipment
Electric power for Sturrock dock, Cape Town. Engineer 181:267 Mr 22 '46

DR PEPPER company
Big Board's Doc; listing of Dr Pepper co. on New York stock exchange. Bsns W p54+ Je 1 '46

DOCUMENTATION
Study and teaching
Les cours techniques de documentation. J Doc 1:89-92 S '45

France
Documentation en France, 1940-5. S. Briet. J Doc 1:125-35 D '45

DODECANESE islands
Prospects in the Dodecanese. Economist 150: 801-2 My 18 '46

DODECANESULFONIC acid
Activity of 1-*n*-dodecanesulfonic acid in aqueous solutions. H. F. Walton. bibliog Am Chem Soc J 1180-2 Jl '46
Activity of hydrochloric acid in solutions of 1-*n*-dodecanesulfonic acid. H. F. Walton. Am Chem Soc J 68:1182-4 Jl '46

DODECYLAMINE
Complex formation with high molecular weight amines; a spectrophotometric study of the dodecylamine-cupric acetate system. F. K. Broome, A. W. Ralston and M. H. Thornton. Am Chem Soc J 68:849-51 My '46

DODECYLAMINE hydrochloride
Solubilization of insoluble organic liquids by detergents. J. W. McBain and P. H. Richards. bibliog Ind & Eng Chem 38:642-6 Je '46

DODECYLAMMONIUM chloride
Solubilities of hexyl- and dodecylammonium chloride in various dilutions of aqueous ethanol. A. W. Ralston and C. W. Hoerr. bibliog Am Chem Soc J 68:851-4 My '46

DODGE, Joseph Morrell, 1890-
Vice-president of American bankers association. pors Banking 39:49 N '46

DODGE, Martin
Man on the cover. por(cover) Sales Management 57:39 S 1 '46

DOEBNER reaction
Failure of the Doebner reaction with 2-chloro-5-aminopyridine; synthesis of a pyrrolidine derivative. M. J. Weiss and C. R. Hauser. Am Chem Soc J 68:722-3 Ap '46

DOG food
Dog food market is rapidly increasing. A. J. Mullen. il Dom Comm 34:47-50 O '46

DOGS
Bow-wow, Mister Meterman! how to handle dogs. B. McAlister. Pub Util 37:213-20 F 14 '46; Same. Edison Elec Inst Bul 14:53-5+ F '46
Spinal conditioning in dogs. W. N. Kellogg and others. Science 103:49-50 Ja 11 '46
They call me vicious; why dogs bite and how to avoid being bitten. il Nat Safety N 53: 42 Ja '46

Diseases
Distemperoid virus interference in canine distemper. R. G. Green and C. S. Stulberg. bibliog Science 103:497-8 Ap 26 '46

DOHERTY, Robert Ernest, 1885-
Lamme award. por J Eng Educ 37:2-4 S '46

DOLANTIN
Experiments in the piperidine series. R. M. Anker, A. H. Cook and I. M. Heilbron. Chem Soc J p917-20 D '45

D'OLIER, Franklin, 1877-
Receives Medal for merit. East Underw 47:11 S 27 '46

DOLLS
Doll box that becomes a bed; Betty Bedtime dolls for Butler bros., St Louis. il Mod Packaging 20:99 O '46

DOLLS—*Continued*
Story book dolls are smash hit with little Miss America; Nancy Ann Abbott's dolls first a promotion stunt for circulating library. il Sales Management 56:94+ My 1 '46

DOLOMITE
Basic-lined cupola; report presented at annual meeting of Institute of British foundrymen. Engineering 162:19-20 Jl 5 '46
Calcined dolomite; convert from magnesium to refractory manufacture. il Rock Prod 48:84-7 D '45
Dolomite linings for basic electric arc furnaces; abstracts. E. C. Brampton, H. Parnham and J. White. Engineer 180:442 N 30 '45; Engineering 160:453-4 N 30 '45; Iron Age 157:74 Ja 31 '46; Blast F & Steel Pl 34:412+ Mr '46; Metal Prog 50:146+ Jl '46; Discussion. Engineer 180:442-3 N 30 '45; Engineering 160:454 N 30 '45
Kinderhook dolomite of Sedgwick county, Kansas. W. A. Ver Wiebe. diags Am Assn Pet Geologists Bul 30:1747-55 O '46
Porosity through dolomitization. K. K. Landes. bibliog map Am Assn Pet Geologists Bul 30:305-18 Mr '46

DOME mines, ltd.
Foresees larger output. Barron's 26:7 S 16 '46

DOMES, Concrete
Design of Quitandinha elliptical dome; casino of hotel near Petropolis, Brazil. A. J. Boase. il diags Eng N 136:112-16 Ja 24 '46

DOMESTIC appliances
Appliances are not really available. Consumers Res Bul 17:15-16 My '46
Dazey sells the entire line; kitchen helps. Ptr Ink 216:35 Ag 30 '46
Post-war appliances; why they are delayed in production and hard to find. Consumers Res Bul 18:15 Jl '46
Post-war re-education of retail sales people; specifically how to combine information for salesmen and for consumers; Coleman lamp and stove co. A. W. Boyer. il Ptr Ink 214: 25-7 Ja 4 '46

See also
Carpet sweepers
Dishwashing machines
Electric apparatus and appliances, Domestic
Gas appliances, Domestic
Household products industries
Refrigerators
Washing machines

Merchandizing
Home equipment credit plans. L. J. Asterita. Banking 38:44-5+ D '45

DOMESTIC architecture. See Architecture, Domestic

DOMESTIC economy. See Home economics

DOMESTIC finance
Expenditures and savings of city families in 1944. D. S. Brady. Mo Labor R 62:1-5 Ja '46

See also
Budget, Household

DOMESTIC service. See Servants

DOMINICAN REPUBLIC
Economic conditions
Latin America's economy as world conflict ended. For Comm W 24:57-8 Jl 13 '46
News by countries. For Comm W 21:42-3 D 22 '45; 22:22-4 Mr 23; 23:25-6 My 11; 26-7 Je 1; 24:17 Ag 10; 24 S 14; 25:18 O 12 '46

DONNAN equilibrium
Unequal distribution of diffusible nonelectrolytes across a membrane. C. L. Deasy. Science 104:388 O 25 '46

DONNELLEY, R. R. and company
Donnelley truce. Bsns W p100 Ap 20 '46

DONNELLEY, Thomas Elliott, 1867-
Mr Donnelley at 79. A. G. Fegert. por Inland Ptr 117:30-6 Ag '46

DONUTRON. See Magnetron

DOOR fittings
See also
Doorbells
Latches

DOOR-to-door selling. See Canvassing

DOORBELLS
Polystyrene and ethyl cellulose chime housings. il diag Mod Plastics 23:136-7 Ag '46

DOORS
Progress, 1926-1946; doors, windows. il diags Am Bld 68:110-13 O '46
Today's house; door and window openings. il diags Arch Forum 85:121 Jl '46

See also
Car doors

Standard
Old growth Douglas fir standard stock doors. 3d ed diags U S Nat Bur Stand Commercial Standard CS73-45:1-37; pa 10c Supt. of doc. '45

DOORS, Furnace. See Furnace doors

DOORS, Garage. See Garage doors

DOORS, Mechanically operated
Push-pull mechanism simplifies design; airplane door mechanism. J. S. Baker. il Machine Design 18:114-15 Ap '46

DOORS, Rolling
Pier doors; principles and types. il Arch Rec 100:123 S '46

DOORS, Sliding
Operators for sliding doors. il Ry Age 120: 1067 My 25 '46

DOORWAYS
Better detail plate; front entrance detail for small one-story house. R. J. Alexander. diags Am Bld 68:108-9 Mr '46
Four entrances decorated with brick; illustrations. Brick & Clay Rec 107:28 O '45
Woodwork company redesigns complete line; Curtis companies. il Am Bld 68:86-9 Je '46

DOPPLER effect
Possibility of observing a transverse Doppler effect. P. H. Abelson and others. Phys R 70:227 Ag 1 '46
Sonar uses Doppler effect. Electronics 19: 142 O '46

DORMITORIES
Building types study; college dormitories; with time-saver standards. il plans Arch Rec 99:106-24+ Ap '46
Dormitory houses fifty school employes in homelike surroundings; Maine state school for feeble minded. il plans Arch Forum 85: 128 O '46
Garment workers' summer dormitory; International ladies garment workers union, Forest Park, Pa. il plan Arch Rec 100:96-7 S '46

Food service
Planning for dormitory food service. M. D. Bryan. il plan Arch Rec 99:118-21 Ap '46

Maintenance and repair
Dormitory maintenance by style and by common sense. L. S. Beach. Arch Rec 99:122-4 Ap '46

DORMITORY kitchens. See Dormitories—Food service

DORON
Doron armor; achievement and a promise in plastics. E. C. Fetter. il Chem & Met Eng 53:154-7 F '46

DOUBLE bonds
Course of autoxidation reactions in polyisoprenes and allied compounds; double bond movement during the autoxidation of a mono-olefin. E. H. Farmer and D. A. Sutton. Chem Soc J p10-13 Ja '46
Ultraviolet absorption spectra of allyl and propenyl substituted derivatives of diethylstilbestrol and hexestrol. E. Kaiser and V. L. Koenig. bibliog Am Chem Soc J 68:740-2 My '46

DOUBLE taxation. See Taxation, Double

DOUGH mixers
Cruickshank four-speed dough-mixing machine. il diag Engineering 161:225, 228 Mr 8 '46

DOUGLAS, George, 1881-
Oil industry's champion in Colorado retiring. P. Wollstadt. por Nat Pet N 38:31-2 Jl 24 '46

DOUGLAS fir
Effect of continuous liquor flow in pulping by the sulphate process. S. L. Schwartz and M. W. Bray. bibliog diag Paper Tr J 123:42-8 O 24 '46

DOUGLAS fir—*Continued*
Fermentation of Douglas fir hydrolyzate by S. cerevisiae. E. E. Harris and others. Ind & Eng Chem 38:896-904 S '46
Old growth Douglas fir standard stock doors. 3d ed diags U S Nat Bur Stand Commercial Standard CS73-45:1-37; pa 10c Supt. of doc. '45
Production of bleachable sulphate pulps from rapid-growth Douglas fir. J. S. Martin. Paper Tr J 122:37-44 My 30 '46
Refined neutral sulphite semichemical pulps from Douglas fir. H. E. Peterson and others. il Paper Tr J 121:37-42 Jl 12 '45; Same cond. Paper Ind 27:1418-20 D '45
Tests on creosoted laminated stringers; Douglas fir beams for railroad bridge. O. H. Schrader, jr. il Eng N 135:650-3 N 15 '45
Wood for storage battery separators. L. V. Peakes, jr. and others. il Ind & Eng Chem 38:780-8 Ag '46

DOW, Willard Henry, 1897-
Chairman of the Dow chemical co. por(cover) Bsns W p8 O 26 '46
For conspicuous service. por Bsns W p42 Ag 10 '46

DOW chemical company
Debentures offered. Comm & Fin Chr 164: 2407 N 11 '46

DOW theory
Good Dow theorist doesn't wait on signals; confirmation of bear trend followed several warnings. R. D. Sparhawk. Barron's 26: 13 O 14 '46
Market stands at point where declines began. C. B. Weigel. Barron's 26:12 Ap 22 '46
What does Dow theory say now? analysis of current market situation. T. W. Phelps. Comm & Fin Chr 163:1494+ Mr 21 '46

DOWLING, Robert M.
Gallery; Mr Pop! snap! crackle! Adv & Sell 39:120+ O '46

DOWLING, Robert Whittle, 1895-
Man over Manhattan; New York real estate is being pushed around by a new giant. por Arch Forum 84:96-9 Ja '46

DRAB
Color stability of olive drab infrared-reflecting camouflage finishes. E. E. Jukkola and R. Cohen. bibliog il Ind & Eng Chem 38: 927-30 S '46

DRAFT
Dividends from furnace draft. R. Reed. il plan Oil & Gas J 45:80+ S 14 '46
Draught maintenance in boiler plants. W. M. Gore. Blast F & Steel Pl 34:1012-15 Ag '46

DRAFT gears
Report of the Committee on couplers and draft gears; A.A.R. Mechanical division. Ry Age 121:276-8 Ag 17 '46; Same, with diags. Ry Mech Eng 120:460-3 S '46

DRAFTING room management
Handling drawing changes to assure promptness and accuracy. J. E. Thompson. il Product Eng 17:226-9 Mr '46

DRAFTING room practice
Application of fabricated construction to machine design; preparation of fabricated construction in the drawing office. F. Koenigsberger. diags Inst Mech Eng J & Proc 152: Proc 257-61 D '45; Same. Engineer 177:364-6 My 12 '44
Drafting-room practice, with respect to interchangeable components discussed at Ottawa conference on the unification of engineering standards. il diags Machine Design 18:133-6 F '46
Drawing office practice in relation to interchangeable components. C. A. Gladman. diags Inst Mech Eng J & Proc 152:Proc 388-401; Discussion. 401-18 Mr '46
Formulæ for the calculation of pipe-bend angles. G. Hookham. diags Engineering 161: 507-8 My 31 '46
Graphical division of the circle; reference book sheet. H. W. Stowell. diags Am Mach 90:147 Mr 14 '46
Layout of cam locks; reference book sheet. N. B. Archer. Am Mach 90:139 Ap 25 '46
Layout reproduction system; direct contact negatives and prints produced without camera or projector. A. H. Allen. il Steel 117:96-8 N 26 '45
Method of checking compound angles. J. Ahearn. diags Mach 52:182-5 D '45

See also
Airplanes—Manufacture—Drafting room practice
Engineering drawing

Standards
Why Packard made new drawings for the Rolls Royce Merlin engine. il diags Product Eng 17:81-5 N '46

Study and teaching
Production illustration. G. Tharratt. diags J Eng Educ 37:140-8 O '46

DRAFTING rooms

Equipment
Cylindrical draughting machine; new type of drawing board. A. M. Haworth. il Electrician 135:480 N 2 '45

Lighting
Lighting the drafting room; fluorescent lighting. il Arch Rec 99:64 Ja '46

DRAFTS
Accounting treatment of drafts issued by partnership. J Account 81:242-3 Mr '46
Collecting bank held liable for failure to notify forwarding bank promptly of status of drafts. Banking Law J 62:765-72 O '45
Uncollected drafts; failure to advise forwarding bank promptly. Burroughs Clearing House 30:54+ F '46

DRAGLINES. See Excavating machinery

DRAGOON mountains, Arizona
Structural geology of the Dragoon mountains, Arizona. D. J. Cederstrom. bibliog map Am J Sci 244:601-21, pl 1 S '46

DRAIN tile
Fresh vegetables come from tile storage. W. B. Ward. il diag Brick & Clay Rec 107:33 N '45

DRAINAGE
Loans for better drainage. C. C. Lewis. il Banking 39:52 Jl '46
Nicaragua experiences big dividends from a malaria campaign. P. J. Coffey. il map Eng N 135:722-5 N 29 '45
Proposed backlog of earthwork and drainage construction compared with annual contract volumes; graph. Eng N 136:sup49 Mr 21 '46
Trenching machine for agricultural drainage. il(p132) Engineering 161:127 F 8 '46
Wellpoints in a pumped-sand fill facilitate outfall sewer construction. il diags Eng N 137:238-40 Ag 22 '46

See also
Airports—Drainage
Ditches
Roads—Drainage
Wellpoint system

Great Britain
History and development of Fen drainage and pumping. L. E. Harris. bibliog il maps diags Engineer 182:141-5, 171-3, 180-2 Ag 16-30 '46

DRAINAGE (physical geography)
Flow from drainage basins determined by short-term records. L. L. Harrold. Am Soc C E Proc 71:433-44 Ap '45; Discussion. 71: 1311-12; 72:397-9 O '45, Mr '46

DRAINAGE, House
Canadian practice in installation and maintenance of sewer connections. N. MacNicol. Water & Sewage 83:120+ N '45
Drainage disposal from air conditioning systems. T. W. Reynolds. diags Heat & Ven 43:71-2 Mr '46
Private drain connections; discussion. Water & Sewage 83:40-8+ N '45

See also
Plumbing
Sewerage

DRAMA

See also
Ballet

DRAPERY
Schumacher demonstrates last word in display with new Avenue of ideas; making showrooms selling laboratories. il Sales Management 56:39-41 My 20 '46

DRAPERY—*Continued*
Standardized color card of home furnishings branch; aid in sale of textiles for the home. il Textile World 95:121 D '45

Testing

Testing upholstery, drapery fabrics is explained. Textile Col 68:51-2 S '46

DRAWBRIDGES. See Bridges, Bascule; Bridges, Lift; Bridges, Swing

DRAWING

See also
Engineering drawing
Graphic methods
Mechanical drawing

DRAWING boards. See Drafting rooms—Equipment

DRAWING instruments
Drafting aids to relay profiling; Contourograph for profiling terrain along the line-of-sight television path between Washington and Philadelphia. il Electronics 18:316+ D '45
Drawing-office radius curve. diag Engineer 182:152 Ag 16 '46
Robot Rembrandt, a new device facilitating drafting-room work. il Mach 52:186 Ag '46
Universal Boardmaster drafting machine. il Mach 52:203 Ag '46

DRAWINGS

See also
Airplanes—Drawings
Electric lines—Drawings

DRAWINGS, Isometric. See Isometric drawings

DREDGES
Ingalls building large all-welded hopper dredges for army. il Marine Eng 51:119+ F '46
Jets boost pumping capacity; Rapides gravel co. H. E. Swanson. il Rock Prod 49: 74-5+ O '46
Rebuilt suction dredge boom puts cutter head down 100 ft. il plan diag Eng N 135:884-5 D 27 '45

Advertising

Formula for sure-fire industrial copy: earthiness, authenticity; Yuba manufacturing co. dredges for mining. H. A. Sawin. il Sales Management 55:106+ N 15 '45

DREDGING
Cleaner product, more capacity; J. K. Davison & brothers modernizes dredge. il Rock Prod 48:88-9+ N '45
Dredge cleans waterworks basin without interrupting service in Philadelphia. il diags Eng N 137:314-15 S 5 '46
Dredging methods compared. L. B. Feagin. il Civil Eng 16:494-5 N '46
Panama canal discussions envisage 135-ft. dredging. Eng N 136:441 Mr 28 '46

See also
Coal dredging
Gold dredging

DRESS factories
Fashion speedup; new techniques in mass manufacture of dresses. Bsns W p63 My 18 '46

DRESS goods
Spun nylon-rayon challenges cotton mills. P. M. Thomas. il Textile World 96:141+ My '46

DRESS industry
Another example of trend toward diversification; dress manufacturers enter perfume and cosmetic field. E. M. Housman. il Ptr Ink 214:81-2+ F 8 '46
Beautiful staging for beautiful products; how Eisenberg does it; dresses, costume jewelry, cosmetics. H. Eisenberg. il Sales Management 55:40-3 D 15 '45
Klein's for cash; famous bargain store goes to Grayson Shops, West coast apparel chain. il Bsns W p78+ F 16 '46
Teen-age market: it's terrif. il Bsns W p72+ Je 8 '46

Advertising

$8,000,000,000 textile industry; is it ripe for brand name promotion? J. C. Cumming. il Sales Management 56:93-4+ Ja 1; 164+ Ja 15 '46
Persuaded to try a business paper, company is now a national advertiser; Lombardy's hard-hitting trade messages. E. M. Housman. il Ptr Ink 214:74+ Ja 4 '46

DRESSER industries, inc.
Annual report. Comm & Fin Chr 163:778 F 11 '46
Financial position. H. S. Coffin. Mag of Wall St 77:631, 669 Mr 2 '46
May wipe out nine months' loss. Barron's 26:1+ O 21 '46

DRESSES
Fira Benenson runs the Salon de Couture in Bonwit Teller, specialty store. il Fortune 34:130-5+ O '46
What the buyer should know about garment construction. E. H. Brooks. J Retailing 22: 50-5 Ap '46

DRESSING rooms
From fighting planes to dressing rooms; transparent plastic adapted to home construction. il Am Bld 67:89-91 D '45

DRIED coconut. See Coconut, Dried

DRIED eggs. See Eggs, Dried

DRIED food. See Food, Dried

DRIED meat. See Meat, Dried

DRIED milk. See Milk, Dried

DRIED prunes. See Prunes, Dried

DRIED vegetables. See Vegetables, Dried

DRIERS
Influence of driers upon polymerization of linseed oil by sunlight; abstract. J. Rinse. Paint Oil & Chem R 109:40 My 30 '46

DRIFT

See also
Moraines

DRILLING and boring (earth and rocks)
Calyx drill aids soft-ground examination; investigating foundation material for lock on Cross-Florida barge canal. H. A. Scott. il diag Eng N 137:102-4 Jl 25 '46
Core drilling important in Matahambre operation. P. R. Hill. Eng & Min J 147:86-7 Je '46
Diamond drilling as applied to ore production. il diags Eng & Min J 146:69-80 O '45; 147:58-64 Ja; 88-93 Mr '46
Diamond drilling of potash reserves in Eddy county, N.Mex. W. R. Storms. bibliog U S Bur Mines Rep of Invest 3861:1-11, pl 1-4 '46
Drill rig modification speeds canal project. il Eng N 137:390 S 19 '46
How air helped build a military base on Guam. R. P. Day. il Comp Air Mag 51:15-17 Ja '46
Improved type core barrel. J. L. Havlick. diags Min Cong J 32:55 Ap '46
New drilling technique on Marquette range. S. A. Tyler. Eng & Min J 147:119-21 F '46
New idea in drill boosters in bauxite mine. J. A. Fuller. diags Min Cong J 32:30-1 Mr '46
Securing and presenting foundation design data. T. R. Dames. il plan diag Nat Pet N 38 pt 2:R57-8+ Ja 2 '46
Texas bridge footing shafts drilled and under-reamed. J. P. Exum. il diag Roads & Sts 89:90-1 Mr '46
Tractor-mounted auger digs 34,000 holes for slope plantings; Cleveland's willow freeway. il Roads & Sts 88:84-5 D '45
Wagon drills mounted on trucks as jumbos; enlargement of the spillway at Saluda dam. il Eng N 136:475-6 Ap 4 '46
What goes on in the diamond-drill hole? P. Adamson. il Eng & Min J 147:70-3 S '46
Winter diamond drilling; supplying water to diamond drills in sub-zero weather at the Francoeur. J. M. Gardner. Can Min J 67:172 Mr '46

See also
Mining machinery
Mining methods
Petroleum—Well drilling
Quarries and quarrying
Rock drills
Shaft sinking
Tunnels and tunneling
Wells

DRILLING and boring (metal working, etc.)
Air and oil control feeds and retracts portable drill. L. Hagerman. il diags Am Mach 90: 123-4 Ja 3 '46
Angular and straight cuts combined. E. J. Tangerman. diag Am Mach 90:122 Ja 3 '46
Boring machine tool castings for anti-friction bearings. il Mach 52:179-80 Ap '46
Bullard Man-Au-Trol spacer locates work for drilling without jig use. il Am Mach 90:145 Ag 29 '46; Mach 53:184 S '46; Mech Eng 68:823-4 S '46; Ry Mech Eng 120: 492 S '46; Iron Age 158:73 S 26 '46
Drilling saddle bolt holes; Decatur, Ill. shops of the Wabash. il Ry Mech Eng 120:79 F '46
General-purpose jig for drilling small levers. diag Mach 52:197 Ag '46
How to get best results from the jig borer. J. W. Stedenfeld. diags Am Mach 90:130-4 Mr 28 '46
Lathe carriage pointer gages bore depth. D. R. Tryer. diag Am Mach 90:138 Ap 25 '46
Machinability testing apparatus and tests. D. G. W. Curry. il Engineering 161:597-8 Je 21 '46
Machining stainless steels. E. Von Hambach. diags Steel 119:62-7 S 30 '46
Methods of locating and boring shaft holes in gear-boxes. diags Mach 52:195-6 Je '46
Modifying boring tools. il Steel 119:121 S 16 '46
Power-feed attachments take wobble out of hand drilling. E. W. Cooper. il diag Am Mach 90:96-8 F 28 '46
Practical precision in miniature; Hamilton Watch, American Bosch, and Kollsman Instrument reveal secrets involved in drilling 0.004-in. holes and tapping 0.008-in. ones. H. S. Wharen. il diags Am Mach 90:103-7 My 23 '46
Set-ups that solved nine borizing problems. C. G. Nordmark. il diag Mach 52:162-8 Ja '46
Speed and precision with hyper drilling; abstract. K. Stad. Metal Prog 48:1358 D '45
Step-drilling taper-pin holes; proposed standard; reference book sheets. H. W. Fahrlander, comp. diag Am Mach 90:129, 131 Ja 3 '46
Using the chuck in layout work. E. Pagett. diags Power Pl Eng 50:101 S '46

See also
Broaching
Drilling and boring machinery
Machine shop practice
Metal cutting
Reamers

DRILLING and boring machinery
Adcock and Shipley drilling machine for drilling gudgeon pin holes in automobile pistons. il Automobile Eng 36:169 Ap '46
Adcock and Shipley special-purpose drilling machines il Engineer 182:128-9 Ag 9 '46; Automobile Eng 36:409 S '46
Arrangement of a three-spindle boring machine. il Engineer 181:160 F 15 '46
Automatic back-gear shifter; part of drill-press feeding device. W. F. Mac Glashan, jr. diag Mach 52:193 Ag '46
Automatic-cycle rough and finish boring of railroad car wheels, Snyder special-purpose machine. il Steel 118:100 Ap 22 '46
Boring is speeded; Pullman-Standard rotates tool instead of work. il Bsns W p57 Ag 31 '46
Borizing setups increase production and accuracy. C. G. Nordmark. il diags Iron Age 157:56-60 Mr 14 '46
British precision diamond tool company high-accuracy boring head. il Engineer 180:447 N 30 '45
Cleereman jig borer redesigned. il Am Mach 90:182 My 23 '46
Detroit center-drilling machine with self-centering vise. il Mach 53:223 N '46
Does the drill point clear? measuring drill clearance. W. E. Ainsworth and G. Munro. il diag Am Mach 90:120-1 Ag 29 '46
Drill jig eliminates milling operation. R. J. DeLucia. diags Am Mach 89:141 N 22 '45
Equivalent drill sizes; data sheet. Factory Management 103:164, 166 D '45
Gisholt two-element unbalance measuring and correcting equipment; transmits information to machine which drills holes in crankshafts to effect balance. il Mach 52: 198-200 Jl '46; Same cond. Automotive & Aviation Ind 95:41-2 Jl 1 '46; Same cond. Iron Age 158:62 Jl 25 '46
Inspection on jig-boring and jig-grinding machines. J. R. Moore. il charts Mach 52: 160-5 Ap '46
Interrupted-screw indicator attachment sets boring tools. A. F. Scoblic. diags Am Mach 90:124-5 Ja 3 '46
Jig-boring and jig-grinding machines promote interchangeability in toolmaking. J. R. Moore. il Mach 52:163-6 Mr '46
Jones and Shipman crankshaft drilling and reaming machine. il Engineering 161:522 My 31 '46, Engineer 181:504 My 31 '46
Jones and Shipman improved drilling machine. il Engineer 180:378 N 9 '45; Engineering 160:532 D 28 '45
Kearney & Trecker Model C Milwaukee automatic boring machine. il Steel 117:83+ D 31 '45
Kearns boring machine with a planer type table. il Engineer 182:346 O 18 '46
Kearns three-spindle horizontal boring machine. il diags Engineering 161:416-17, 420 My 3 '46
Kearns unit-construction machines. il Automobile Eng 36:114-15 Mr '46
Meddings high-speed sensitive drilling machine. il Engineer 181:117 F 1 '46
Microswitch starts drillpress when feed commences. J. McCord. diag Am Mach 90:125-6 Jl 4 '46
New Sip high-precision jig borer. il Mach 52.202-3 Jl '46
Newall hydraulically-operated jig borer. il Engineer 182:284 S 27 '46
Overhead rails overcome awkward positioning of drills. L. Mooradian. il diags Am Mach 90:136-7 Mr 14 '46
Paddon-Thomsen cylinder boring machines. il Automobile Eng 36:36-8 Ja '46
Pratt & Whitney jig borer. il Steel 117:148 D 10 '45
Ring-drilling machine employs high-speed air turbine. A. G. Means, jr. il diag Am Mach 90:141 Je 6 '46
Transfer-table millpress bores car wheels ten times faster. il Am Mach 90:124 S 26 '46

See also
Boring bars

DRILLS. See Drilling and boring machinery

DRILLS, Oil well
Hydraulic hoisting used in proposed rotary rig, N. Williams. il Oil & Gas J 45:148 My 18 '46
Ingenious ideas employed to keep older rig operating at maximum efficiency. N. Wilhams. il Oil & Gas J 45:100-1 O 26 '46
Large power-type rig in west Texas unitized to facilitate moving. K. M. Fagin. il diags Pet Eng 17:154+ Ag '46
Mobile drilling rigs. il Pet Eng 17:266 Mr '46
Multispeed rig gives high flexibility between rotary table and pumps. K. B. Barnes. il Oil & Gas J 45:133-4 Je 15 '46
New mechanical rotary drilling rig. il plan Pet Eng 17:130+ D '45
Packaged power features new rig design. K. B. Barnes. il Oil & Gas J 45:207+ Jl 27 '46
Salts cored successfully with oil field equipment; carnallite, sylvite and halite deposit, Utah. C. L. Severy. il diag Eng & Min J 147:85-7 Ag '46

DRINKING water, Packaging of
Canning drinking water; container and processing problems. W. J. Mutschler. flow sheet il Food Ind 18:1351-3 S '46

DRINKING water standards. See Water supply—Standards

DRINKING water systems
Passenger car auxiliaries; ultra-violet lamps, as drinking water sterilizers. H. H. Hanft. il Ry Mech Eng 120:92 F '46
Refrigeration for remote drinking water cooling systems. J. J. Corey. Refrig Eng 50:1-6 sec 2 D '45
Water for workers. il Nat Safety N 53:161-2 Mr '46

DRIVE-in and curb services
Building types; drive-in restaurants and luncheonettes; reference studies in design and planning. il plans Arch Rec 100:99-106 S '46
Drive-in restaurant. il map plans diag Arch Forum 83.162-3 N '45
Serving the drive-in customer; National Shawmut bank of Boston. R. A. Ilg. il Banking 38:41 N '45
Two roadside drive-ins use light framing and lots of glass. il plans diag Arch Forum 85: 144 O '46

DRIVEWAYS
Driveway cleared of snow by underground pipe coils. Gas Age 97:62 Ja 24 '46; Abstract. il Am Gas Assn Mo 28:60 F '46
Snow melting systems for driveways; Chevrolet-Gear and axle plant. D. D. Douglass. diag Heat & Ven 43:73 Je '46

DROP forging. See Forging

DROP forging association
Annual meeting, 11th, Chicago June 14-15. Steel 118:65 Je 24 '46

DROP hammers. See Hammers, Drop

DROPPING mercury electrode. See Polarography

DROPS
Method of determining the size of droplets dispersed in a gas. R. L. Stoker. il diag J Ap Phys 17:243-5 Ap '46

DROPSY
Famine edema and the mechanism of its formation. A. Keys and others. bibliog Science 103:669-70 My 31 '46

DROSOPHILA
Comparative toxicity of thiourea to four mutants of drosophila melanogaster. E. D. Goldsmith and M. H. Harnly. bibliog Science 103:639-51 My 24 '46

DRUG, chemical and allied trades section. See New York board of trade—Drug, chemical and allied trades section

DRUG factories
Modernized stock control plan; Lehn & Fink products corporation. J. C. Metsch. il Am Bsns 15:14-15+ D '45
Pharmaceutical plant uses scale models for plant and equipment layout and design; Johnson & Johnson baby products plant, Cranford, N.J. il Chem Eng 53:104-5 O '46
Streptomycin engineered into commercial production. R. W. Porter. flow sheet(p142-5) il Chem Eng 53:94-8 O '46

Accidents
Accident toll cut; Winthrop chemical company; abstract. B. Barton. Safety Eng 91: 58 F '46

DRUG habit
Cycle of morphine addiction. E. G. Williams and F. W. Oberst. bibliog Pub Health Rep 61:1-26 Ja 4 '46
Cycle of morphine addiction; biological and psychological studies. R. R. Brown. bibliog Pub Health Rep 61:37-53 Ja 11 '46

DRUG stores
How Rexall will gird independent retailers for chain competition; reconverting outdated retail establishments into superstores. il Sales Management 56:37-9 Je 15 '46
Large corner drug store opened up; with construction details. il Am Bld 67:80-1 N '45
Owl-Rexall super drug store, Hollywood. il Am Bsns 16:14-15 S '46
Sleepers, an argument for advertising continuity! four drug stores quickly round up 149 items no longer called for, in Printers' Ink investigation. V. J. Dallaire. il Ptr Ink 214:23-4 Ja 18 '46
Tomorrow's drug store; how will it look? what will it sell? B. Zerbe. il Adv & Sell 38:33-4+ D '45
Where are drug stores? pictograph. Sales Management 56:67 F 15 '46

DRUG trade
Business career in the drug field. G. R. Tompkins. il Dom Comm 34:26-7 My '46
Costly victory; wholesale druggists fined $87,000 on no-contest pleas. Bsns W p92+ Ja 12 '46
Drug makers' foreign market next year forecast at double record 1945 level. Barron's 26.1 My 20 '46
Drugs and toiletries; trends in 1946. T. W. Delehanty. il Dom Comm 34:7-8+ Ja '46
Face-lifting for the Whitehall family. il Mod Packaging 19:106-10 F '46
Family design for an ethical line; Bristol laboratories. il Mod Packaging 19:101-3+ N '45
Four-city comparison of buyer preference now available. C. Conlee. il Ptr Ink 216:94+ S 20 '46
Los Angeles food markets cash in on vest pocket drug stores; systematized as to stock, display, service and replacement; HandySpots. il Sales Management 57.132+ N 1 '46
NWDA urges sales technique streamlining. Oil Paint & Drug Rep 149:7+ Ap 22 '46
Package design; shall it be individual or uniform for whole line? Ptr Ink 214:86+ Mr 22 '46
Pharmaceuticals; packaging specifications; abstract. H. E. Nack. Mod Packaging 19: 144 Ap '46
Progress in drugs, fine chemicals and biological products during 1945. G. C. Green. Chem Age (Lond) 54:157-61, 181-6, 205-10, 229-32 F 9-Mr 2 '46
Taking a big bite out of costs; two-story office and warehouse building, Brunswig drug company, wholesalers, Los Angeles. il Am Bsns 16:18-19 S '46
Tomorrow's drug store; how will it look? what will it sell? B. Zerbe. il Adv & Sell 38:33-4+ D '45
Via new channel; drug items to be handled by magazine distributors. Bsns W p63-4+ Jl 13 '46
We try to help our customers sell; Frederick Stearns & co. division Sterling drug, inc. R. C. Brewster. Am Bsns 15:18-20 D '45
What size shippers? a distribution problem; National wholesale druggists' survey. il Mod Packaging 20:93-7+ S '46
When is a family-style package a sales handicap? Nyal re-designing all packages. D. G. Baird. il Sales Management 56:64+ Ap 1 '46

See also
American pharmaceutical manufacturers' association
Drug stores
Drugs—Prices
National wholesale druggists association
Proprietary association of America

Advertising
Class appeal in direct mail; three approaches in pharmaceutical selling. W. T. Doyle. il Ptr Ink 216:79-80+ Jl 19 '46
Distinctive mailings avoid the waste basket; color and frequency make drug pieces stand out in doctors' heavy mail. il Ptr Ink 214:28 F 1 '46
Drug, cosmetic and tobacco ads are greatest offenders. Ptr Ink 214:23-4 F 22 '46
Druggists urged to push radio-advertised products; Miles laboratories mailing goes to 50,000 retailers. il Ptr Ink 215:43 My 31 '46
How advertisers reach key professional men; four principal ways to influence a market (pharmaceuticals). W. T. Doyle. il Ptr Ink 214:61+ Mr 1 '46
How to write copy in a straitjacket; problems in the ethical medical field. J. R. Swain. Adv & Sell 39:53-4 Ap '46
Medicinal and pharmaceutical products, advertising subject to government regulations in Peru. For Comm W 24:23 S 7 '46
New prescription; American medical association revises its rules against drug advertising. Bsns W p70-2 Je 1 '46
Product expenditures of newspaper advertisers in 1945; medical. Ptr Ink 215:68-9 My 3 '46
Radio station makes inexpensive sales surveys for clients; gets druggists to fill out questionnaires in return for spot announcements. T. R. Cox, jr. Ptr Ink 216:43-4 Ag 30 '46
Sleepers: an argument for advertising continuity! four drug stores quickly round up 149 items no longer called for, in Printers' Ink investigation. V. J. Dallaire. il Ptr Ink 214:23-4 Ja 18 '46

DRUG trade—Advertising—*Continued*
Started advertising club with dealers; 92% joined immediately; Nyal of Canada. L. E. Wicklum. il Ptr Ink 213:24-6 D 14 '45
Why Parke, Davis is advertising to build prestige for pharmacists. E. G. Baird. Sales Management 57:72+ S 15 '46

Finance
Drug business booming. Barron's 26:1 Jl 15 '46
Drug companies eye new high earning level. S. G. Ebert. Barron's 26:12 My 6 '46

Securities
New horizons for drug companies; with financial survey of leading stocks. W. Beecher. il Mag of Wall St 78:753-4+ S 28 '46

Statistics
Drug store sales in 1945, Sales Management estimates. Sales Management 56:102, 114 My 10 '46

Australia
Australian drugs; war-time production from new sources. il Chem Age (Lond) 54:256-7 Mr 9 '46

Costa Rica
Commodities imported, 1938-1943. For Comm W 21:37 D 22 '45

Germany
Pharmaceutical activities of I. G. farbenindustrie. Chem & Met Eng 52:200+ N '45

Iraq
Drug imports into Iraq, 1938 and 1943. For Comm W 22:35 F 2 '46

Mexico
Mexican venture; Walgreen co. acquires two stores and right to manufacture. Bsns W p80+ Je 8 '46

Morocco
French Moroccan imports, 1938 and 1944. For Comm W 21:33 D 8 '45

Persia
Iran's demand for drugs is expanding. F. A. Delgado and M. D. Hall. il For Comm W 21:5-6 D 15 '45

Peru
Medicinal and pharmaceutical products: advertising subject to government regulations in Peru. For Comm W 24:23 S 7 '46

United States
World health needs will challenge drug industry. T. W. Delahanty. il For Comm W 23:3-7+ My 11 '46

Uruguay
Medicinal chemical products; imports subject to analytical controls; French codex of 1937 adopted as official national pharmacopoeia. For Comm W 25:19+ N 2 '46

DRUGGISTS. See Pharmacists

DRUGGISTS' liability insurance. See Insurance, Druggists' liability

DRUGS
ADMA meeting reviews technical progress. Oil Paint & Drug Rep 149:7+ My 13 '46
Improved remedies and devices are developed. il Dom Comm 34:21-3 Ag '46
Molded and wrapped in one operation; Lorophyn suppositories. C. Weckesser. il plan Mod Packaging 19:100-2 Je '46
Postcript; the apothecary's art. il Fortune 34:129 Jl '46
Some pharmaceutical developments in 1945. E. H. Volwiler and D. W. MacCorquodale. Chem & Eng N 24:346-9 F 10 '46
Survey of synthetic medicinals. C. P. Burt. J Chem Educ 23:358-61, 412-15 Jl-Ag '46
Use of ultraviolet light in tracing the course of a drug through the body. C. H. Taft. Science 103:340-1 Mr 15 '46

See also
Analgesics
Anesthetics
Anesthetics, Local
Antacids
Antiseptics
Antispasmodics
Aspirin
Chemistry, Medical and pharmaceutical
Chemotherapy
Medicines, Proprietary
Penicillin
Pharmaceutical research
Pharmacology
Poisons
Quinine
Rutin
Sulfanilamide
Sulfonamides

Laws and legislation
FDA favors revision of certification law. Oil Paint & Drug Rep 149:3+ My 13 '46
R label sales ban upheld by U.S. court. Oil Paint & Drug Rep 150:4+ Jl 8 '46

Prices
Chemicals, oils and drugs price records for 1939-1945; tabulation. Oil Paint & Drug Rep 149:7 Ja 14 '46
Fair trade row of druggists. Bsns W p86+ D 22 '45

DRUGS, Veterinary. See Veterinary medicine

DRUMMOND forest community. See Forests and forestry—Wisconsin

DRY cleaning. See Cleaning

DRY docks
Captain Cook graving dock at Sydney. M. W. Mehaffey. il diag Eng N 136:130-7 Ja 24 '46
Drydock construction at Cape Town. C. M. J. W. Kohler. il diag Eng N 136:859-62 My 30 '46
Graving dock lined with shotcrete at Brisbane, Australia. W. H. R. Nimmo. il diag Eng N 136:481-3 Ap 4 '46
Navy builds; illustrations. Arch Forum 84: 122-3 Mr '46
Precast forms used for underwater concrete; graving docks at San Francisco. il diag Eng N 135:868-72 D 27 '45
Sturrock graving dock, Cape Town. D. E. Paterson. il Engineer 181:122-4, 144-5 F 8-15 '46

DRY docks, Floating
L'amarrage du dock flottant de 25,000 tonnes d'Amsterdam. A. Bijls. diags Génie Civil 123:161 Je 15 '46
Drydock launching. il Welding J 25:998+ O '46
Floating drydocks for the United States navy. il Engineering 161:145-7, 156, 193-5, 204, 217-19, 265-7 F 15, Mr 8, 22 '46
Lifting capacity control of floating dry docks. J. S. Crandall. il diags Marine Eng 51:106-7 Je '46
Navy dry dock launched at Dravo. il Marine Eng 51:111-12 S '46
Navy launches, tests largest drydock ever built on inland river. il Civil Eng 16:413 S '46; Steel 119:87 Ag 19 '46
Speeding repairs on fighting craft. Elec Eng 64:408 N '45
They also served; story of navy floating dry docks. R. G. Skerrett. il Comp Air Mag 50:308-14 D '45
Unusual floating drydock combines steel and wood. J. S. Crandall. il Civil Eng 16:386-7 S '46

Construction
Controlling distortion; navy welding engineers join sections of steel floating dry docks. W. F. Dawson. il Steel 119:100-1+ S 2 '46
Some problems of welding design and fabrication of steel floating drydocks. A. Amirikian. il diags Welding J 25:929-35 O '46
Wartime needs develop new techniques in building concrete marine structures; floating docks and forts. il Concrete 54:8-10 Ag '46

DRY goods
Wholesale dry goods trading areas; 1945 retail sales 147% more than in 1935; P.I. market exploration. W. P. Burn. map Ptr Ink 216:45-8 S 6 '46

See also
Department stores
Hosiery
Knit goods
Textile fabrics

also National retail dry goods association

DRYING
Battery plates dried with infrared lamps. E. Jirik and A. J. McIlwraith. il Elec World 126:150+ S 14 '46
Continuous drying of adsorbent materials. E. Ledoux. Chem Eng 53:109-10 S '46

DRYING—*Continued*
Drying. S. J. Friedman. bibliog(111 references) Ind & Eng Chem 38:22-3+ Ja '46
Drying of solids; prediction of critical moisture content. D. B. Broughton. bibliog Ind & Eng Chem 37:1184-5 D '45
Gas-packing dry whole milk; replacement of oxygen by vacuumizing and filling headspace with inert gas. S. T. Coulter and R. Jenness. il Food Ind 18:352-5+ Mr '46
Incorporation of an infrared dryer into a continuous casting system; abstract. H. Hoare. Cer Ind 46:54 My '46
Infrared dries pottery before firing. P. H. Krupp. il Elec World 125:96 Mr 30 '46
Infrared drying in the ceramic industry; abstract. C. L. Bullock. Brick & Clay Rec 108:50 My '46
Infrared; suppliers, plant operators answer questions. il Cer Ind 46:102+ Ap '46
Radio-frequency dehydration of penicillin solution. G. H. Brown and others. il diag Inst Radio Eng Proc 34 [Waves & Electrons 1]:58W-65W F '46
Rapid product finishes. P. O. Blackmore. Paint Oil & Chem R 108:84-6 N 1 '45
Le séchage par les rayons infra-rouges au moyen de tubes radiants chauffés au gaz de ville. R. Duchêne. il diag Génie Civil 123:84-5 Ap 1 '46
Spray drying of magnesium chloride; abstract. K. E. Kunkel. Chem & Met Eng 53:254+ Mr '46

See also
Bricks—Drying
Clay drying
Drying apparatus
Electric machinery—Drying
Electric transformers—Drying
Gas, Natural—Dehydration
Infrared rays—Industrial heating
Paint—Drying
Paper drying
Rayon drying
Textile drying
Wood drying

Tables, calculations, etc.

Drying and freezing. M. Hirsch. bibliog Refrig Eng 51:331-4+ Ap '46

DRYING (crops)
All-electric farm; grain drying by electricity at St Helens. T. S. Parkinson and G. L. Tomlinson. il Elec R (Lond) 138:51-3 Ja 11 '46
Drying seed corn ears with forced heated air; abstract. H. J. Barre. diag Elec World 125:103-4 Ap 27 '46
Electric grain drying; farm at Bampton, Oxfordshire. il Elec R (Lond) 139:463-4 S 20 '46

See also
Hay drying
Wheat—Drying

DRYING (food)
Drying and freezing. M. Hirsch. bibliog Refrig Eng 51:331-4+ Ap '46

DRYING (fruits and vegetables)
Anhydrous food; dehydration process developed by Birdseye. Bsns W p52+ N 17 '45
Conveyors in the food industry; plant for dehydrated vegetables. E. E. Wright. il Mech Handling 33:532-40 S '46
Drying citrus cannery wastes and disposing of effluents. J. L. Heid. bibliog flow chart il Food Ind 17:1479-83 D '45
Moisture determination in dehydrated vegetables; vacuum oven method. B. Makower, S. M. Chastain and E. Nielsen. Ind & Eng Chem 38:725-31 Jl '46
Now, quick dehydration; Birdseye method. E. S. Stateler. flow diag il Food Ind 17:1450-2+ D '45
Sublimation, its packaging requirements. E. W. Flosdorf. il Mod Packaging 19:133-5+ N '45

See also
Food, Dried
Fruit, Dried
Vegetables, Dried

DRYING (meat)
How meat is dehydrated in New Zealand; frozen meat thawed, precooked, ground and trayed; dehydrated in multiple-tunnel dryer. J. C. Andrews. flow sheet il Food Ind 18:32-3+ Ja '46
Trichinae killed by 120-deg. F. dehydration. L. A. Spindler and others. il Food Ind 18:342-4+ Mr '46

DRYING agents
Desiccant for drugs; guards the potency of oral penicillin. il Mod Packaging 19:121 Ja '46
Poles seasoned quickly in hydrocarbon atmosphere. M. S. Hudson. il diags Elec World 126:90-3 S 14; 107-8 S 28 '46
Reactivation of adsorbent desiccants. E. Ledoux. Chem & Met Eng 53:127-8 Ja '46
Use of desiccants with undeveloped photographic film. C. J. Kunz and C. E. Ives. Soc Motion Picture Eng J 46:475-510 Je '46

See also
Silica gel

DRYING apparatus
Air handling work for industry; manufacture of drying and ventilating equipment; Universal sheet metal corp. il Sheet Metal Worker 37:50+ Mr '46
All electronic penicillin drying system. Franklin Inst J 241:165-6 F '46
Classification chart aids dryer selection. W. R. Marshall, jr. il Heating-Piping 18:71-6 My '46
Cuts drying time from days to minutes; infrared electric oven; Wiremold co. il Elec World 126:108+ O 26 '46
Drying stopper rods. il Steel 119:96 S 2 '46
Equipment advances 1944-45; drying. J. W. Greene. Chem Ind 57:851-2 N '45
Experimental dryer for pre-pilot plant studies; drying kok-saghyz rubber. D. A. Colker. il diag Ind & Eng Chem Anal ed 18:71-2 Ja '46
Hot air dryer doubles galvanizing output. W. G. Imhoff. il Iron Age 158:54-5 Ag 8 '46
How capacity of a drum dryer was doubled with a small additional investment. H. F. Reichard. diags Chem & Met Eng 52:118 D '45
How Seagram integrates two new power plants with spray driers; flue gas supplies heat. il plans diags Power Pl Eng 50:58-63+ Mr '46
Infrared unit speeds beverage carrier drying; Coca Cola bottling co. il Elec World 125:106 F 2 '46
Method of opening vacuum desiccators. J. D. Reid. Science 102:483 N 9 '45
New gas-fired production line dryer. R. Martin. il plans diags Cer Ind 47:70+ Jl '46
New pellet dryer for TCC catalyst offers diverse postwar uses. J. W. Payne and C. H. Lechthaler. diags Chem & Met Eng 52:105-7 D '45
Now, quick dehydration; Birdseye method. E. S. Stateler. flow diag il Food Ind 17:1450-2+ D '45
Simple laboratory hot-air dryer. I. R. C. Bick. diag J Chem Educ 23:127 Mr '46
Sulphuric acid air-lift used as an air dryer. W. Cowen and J. A. Storrow. diags Soc Chem Ind J 64:334-5 D '45

See also
Clothes dryers
Electric heating, Industrial
Infrared rays—Industrial heating

Design

Continuous drying of adsorbent materials. E. Ledoux. Chem Eng 53:109-10 S '46

Textiles

Change in condensate return on dryers saves fuel; Denston felt & hair co. A. Welz. il diags Textile World 96:100-1 Ag '46

DRYING oils
Antiskinning agents derived from nitroparaffins. H. G. Johnson. bibliog Ind & Eng Chem 37:1176-8 D '45
Course of autoxidation reactions. Paint Oil & Chem R 108:16 D 13 '45
Drying oil and oleoresinous varnish films; increase in acidity on aging. V. J. Frilette. bibliog Ind & Eng Chem 38:493-6 My '46
Drying oil polymerization since 1930. Paint Oil & Chem R 108:18+ D 13 '45
Drying oils and oil seeds in the British empire; abstract. G. T. Bray. Chem Age (Lond) 55:475-7 O 19 '46

DRYING oils—*Continued*
Drying oils and their use in protective coatings. R. Mansell. Paint Oil & Chem R 109: 9-10 S 19 '46
Drying oils situation viewed from divers angles. Oil Paint & Drug Rep 149:4 Ap 8; 7+ Ap 15; 4 Ap 22 '46
Oil for the lamps of paintdom. O. Eisenschiml. Paint Oil & Chem R 108:90 N 1 '45
Polymerization of drying oils; rubberlike product from vegetable oils, Norepol. J. C. Cowan, W. C. Ault and H. M. Teeter. bibliog flow sheet il Ind & Eng Chem 38:1138-44 N '46
Some Empire vegetable drying oils. Paint Oil & Chem R 108:10+ D 27 '45
Study of anti-oxidants and anti-skinning agents, by Cleveland paint and varnish production club. bibliog il Paint Oil & Chem R 108:9-10+ N 15 '45
Sulfurization of unsaturated compounds. H. E. Westlake, jr. bibliog(94 references) Chem R 39:227-9 O '46
Thermal polymerization of drying oils. H. E. Adams and P. O. Powers. bibliog J Ap Phys 17:325-37 My '46
What's ahead in raw materials; tung, oiticica and drying oils generally. M. P. Austin. Paint Oil & Chem R 108:54+ N 1 '45
See also
Linseed oil
Tall oil
Tung oil

DUAL banking. See Banks and banking—Dual system

DUBINSKY, David, 1892-
A.F.L. milestone: Dubinsky returns to the council. por Bsns W p98 N 10 '45
Garment workers. pors Fortune 34:172-9+ N '46

DUBOS, René Jules
Portrait. Fortune 34:104 Jl '46

DUCK (textile)
Effect of nitrogen on the growth of chaetomium globosum on cotton canvas. F. R. Romano. il Am Dyestuff Rep 35:363-4+ Jl 29 '46
Quartermaster fights the weather; tentage, and water resistant clothing. W. M. Lee. Am Dyestuff Rep 35:72-6 F 11 '46
Rotproofing of canvas. R. M. Brien and J. M. Dingley. Soap & San Chem 22:171 Je '46
Study of the water resistance of fire, water, and weather resistant cotton canvas. H. B. Kime. il Am Dyestuff Rep 35:261-4 My 20 '46

DUCKS
Air bubbles save ducks; compressed air prevents ice formation on lagoon in Milwaukee's Juneau park. il Comp Air Mag 51:46 F '46

DUCKWORTH, Joseph B.
Duckworth heads CAB safety unit. por Aviation N 4:40 D 17 '45

DULUTH, Minnesota
Bridges
Sky-hook bridge has narrow escape; failure of lifting mechanism. R. Day. il Steel 118:96+ Ap 22 '46

DULUTH, Missabe and Iron Range railway
Bonds offered. Comm & Fin Chr 164:2015 O 21 '46

DUMAS nitrogen analysis. See Nitrogen—Analysis

DU MONT, Allen B., laboratories, inc.
Stock marketed. Comm & Fin Chr 163:3132 Je 10 '46

DUMP cars
Disk latch provides positive action on dump cars. diags Eng & Min J 147:98 Mr '46
Electric hoist powers self-dumping car; Mammoth-St Anthony, ltd. il Eng & Min J 146: 103 N '45

DUMPING appliances
Bottom dump skip at Butte. W. R. Catrow. il diag Min Cong J 32:24-6 Mr '46
Boydell & co. dumpers. il Mech Handling 33:377-9 Je '46
Retractible ramp reduces mine car wear. il diag Eng & Min J 147:81 Je '46
See also
Car dumpers
Dump cars

DUNCAN, James
Massey-Harris; biggest farm-tool builders in the Empire. il Fortune 33:108-15+ Je '46

DUNLOP rubber company
Statement by the chairman. J. G. Bcharrell. Economist 150:1023 Je 22 '46

DUNN, Samuel Orace, 1877-
35 years as chief editor of Railway Age. por Ry Age 121.550 O 5 '46

DUNSHEATH, Perry, 1886-
Portrait. Inst E E J 93 pt 1:front Ja '46

DUPLEX houses. See Architecture, Domestic—Two-family houses

DUPLICATING machines (metal cutting)
Duplicating of plastic molds; duplicating machines, a valuable supplement to hobbing and milling in the production of mold cavities and force plugs. I. Thomas and J. Hohl. il Mod Plastics 23:117-23 My '46

DUPLICATING processes. See Copying processes

DU PONT de Nemours, E. I., and company
Annual report. Comm & Fin Chr 163:1424 Mr 18 '46
Du Pont technical laboratory. il Am Dyestuff Rep 35:61-2 Ja 28 '46
New series of research positions designed by Technical division of Rayon department. Science 103:141 F 1 '46
Southern states share big in $300,000,000 DuPont program. H. O. Belleville. il Manuf Rec 115:110-11+ Ja '46
Carothers research laboratory
Du Pont co. dedicates Carothers research laboratory for research in nylon. Chem & Eng N 24:2628 O 10 '46
Nylon research laboratory dedicated; honor of the late W. H. Carothers. Rayon 27: 522 O '46

DU PONT fellowships. See Scholarships and fellowships

DURABLE goods
Bloody foot prints in the snow or eight ideas for taming the industrial cycle. J. E. Wiley. Ind Marketing 31:34-6+ Ag '46
Buyer's measure is taken; durable goods' sales prospects. Bsns W p19-20 Ag 24 '46
Estimated durable goods expenditures, 1939-45. D. P. Warner and A. R. Koch. Fed Res Bul 32:967-73 S '46; Correction. 32:1113 O '46
Heavy industry shows lag. L. H. Bradshaw. Comm & Fin Chr 163:3059+ Je 6 '46

DURALUMIN
Corrosion of steel salt-bath pots by molten alkali nitrates, used for heat treatment of duralumin. R. J. Box and B. A. Middleton. Engineering 160:523-4, 543 D 21-28 '45; Same. Iron & Steel Inst J 151:71-8 no 1 '45
Early aluminum alloys; metallurgical studies from both British and German rigid airships. K. J. B. Wolf. il Iron Age 156:51-5 D 27 '45

DUREN, Hubert
Villages don't have to die. L. Haystead. por Fortune 32:192+ D '45

DUREZ. See Resinous products

DURYLPHENYL ketene
Vinyl alcohols; reduction of hindered diaryl ketenes by the Grignard reagent. R. C. Fuson and others. bibliog Am Chem Soc J 67:1937-9 N '45

DÜSSELDORF, Germany
Bridges
Multiple-span suspension bridge to replace Rhine arches at Düsseldorf. D. B. Steinman. il diag Eng N 136:982-5 Je 27 '46

DUST
Animal studies on the toxicity of inhaled antimony trioxide. C. U. Dernehl and others. bibliog il J Ind Hygiene 27:256-62 N '45
Are dust counts made by different laboratories comparable? abstract. P. D. Halley. Ind Med 14:843 N '45

DUST—*Continued*

Dust concentrations in stone crushing operations. A. C. Stern and others. Ind Med 15:165-8 F '46

Electronic counting and size determination of particles in aerosols. A. C. Guyton. diags J Ind Hygiene 28:133-41 Jl '46

Mist and dust collection in industry and buildings; methods of analyzing dust particles. C. E. Lapple. bibliog il Heating-Piping 17:611-15 D '45

Mist and dust collection in industry and buildings; methods of representing particle size. C. E. Lapple. bibliog Heating-Piping 18:108-13 F '46

Preparation of slides for measurement of dust particle size. W. E. McCormick. bibliog pl Pub Health Rep 61:129-32 F 1 '46

Silicious exposures in the fire brick industry; engineering study. W. W. Stalker. flow sheet J Ind Hygiene 27:275-82 D '45

Silicious exposures in the fire brick industry; roentgenologic study. W. L. Ritter and P. G. Bovard. J Ind Hygiene 27:283 D '45

Watch workers' clothing if operations must be dust-free. Am Mach 90:119 O 24 '46

See also

Coal dust
Dust removal
Flue dust
Foundry dust
Magnesium dust
Manganese dust
Mine dust
Silicosis
Wood dust

Analysis

Determination of free silica in industrial dust. T. M. Durkan. bibliog J Ind Hygiene 28: 217-28 S '46

Preparation of microscopic spheres from quartz. A. Salazar and L. Silverman. il diag J Ind Hygiene 27:231-3 O '45

DUST collectors

Aerotec dust collection plant. il diag Engineer 181:230 Mr 8 '46

Centrifugal filters for passenger cars. Ry Mech Eng 120:95 F '46

Characteristics of commercial types of dust collector. C. C. Hermann. il diags Chem & Met Eng 53:106-9 Ap '46

Collectors catch cast iron dust; Detroit Diesel engine division, General motors corporation. R. A. Shaw. il Am Mach 90:103 Jl 4 '46

Design of exhaust systems. F. H. Stebbins. il diags Sheet Metal Worker 36:48-52 D '45; 37:148-52 Ja; 53-5 F; 41-2+ Mr; 54-6+ Ap; 47-9 My; 38-9 Je; 49-51 Jl; 47-8+ Ag; 46-8 S '46

Don't excuse that dust; control of dust from military explosives. W. H. Ficks, jr. il Safety Eng 91:14-18 Ja '46

Dry-hot cleaning of blast furnace gas. F. E. Kling. flow diag il diags Blast F & Steel Pl 34:1257-64 O '46

Effect of dust concentration on cyclone performance. L. W. Briggs. diag Am Inst Chem Eng Trans 42:511-23 Je '46; Abstract. Chem & Met Eng 53:256+ Mr '46; Discussion. Am Inst Chem Eng Trans 42:523-6 Je '46

Equipment advances 1944-45; dust collection. V. W. Wilson. Chem Ind 57:853 N '45

Hazardous dust extraction; Rolls-Royce factory. il Engineer 182:379 O 25 '46

Multiclone units recover converter dust successfully; McGill smelting plant. L. Larson. il diags Eng & Min J 147:71-4 Ja '46

Multiple connections to separators. diags Sheet Metal Worker 37:64+ Mr '46

Problem in air recirculation when using dust collectors. J. M. Dalla Valle. Heat & Ven 43:71 F '46

Solving a separator problem. diag Sheet Metal Worker 37:68 Jl '46

Successful dust-removal installation. A. M. Morris. il Cer Ind 47:84+ Ag '46

Wedge-type collectors used at Conners Creek. H. E. Macomber. il Elec World 125: 75 Mr 30 '46

Testing

Characteristics of unit dust collectors. A. C. Stern and others. il diags Heating-Piping 18:117-26 My '46

DUST explosions

Code for the prevention of dust explosions in the plastics industry (ASAZ12.16, 1945). diags 22p pa 25c National fire protection assn, 60 Batterymarch st, Boston 10 '45

Dust explosions in wood-working plants. E. A. Blair. Safety Eng 90:38-9+ D '45

Effect of relief vents on reduction of pressures developed by dust explosions. I. Hartmann and J. Nagy. bibliog 13pl U S Bur Mines Rep of Invest 3924:1-22 '46

For safety in the plastics industry; new standard tells how to prevent dust explosions. H. R. Brown. il Ind Stand 17:52-5 Mr '46

Gaseous and dust explosions. S. G. Lipsett. Can Chem & Process Ind 30:41-6+ Mr '46

Industrial-dust explosions. H. R. Brown. U S Bur Mines Information Circ 7309:1-7 '45; Same cond. Heat & Ven 43:73-5 Mr '46; Same cond. il Safety Eng 91:16-17+ Je '46

Secondary dust explosions. Safety Eng 91:61 Je '46

DUST removal

Air duct design for industrial ventilating systems. C. C. Hermann. diags Chem & Met Eng 53:118-21 Mr '46

Characteristics of commercial types of dust collector. C. C. Hermann. il diags Chem & Met Eng 53:106-9 Ap '46

Cotton mills need controls for dust and heat. Textile World 96:113+ Ja '46

Design of hoods for efficient dust removal. C. C. Hermann. diags Chem & Met Eng 53:158-61 F '46

Dust control in hematite mining. B. D. Tebbens and I. R. Tabershaw. bibliog J Ind Hygiene 28:100-6 My '46

Dust removal at belt transfer points; foundry sand handling system. C. C. Hermann. diag Foundry 73:107+ D '45

Plant health surveys. W. C. L. Hemeon. Safety Eng 90:71-3 D '45

Practical methods used for dust disposal; final disposal of solid materials. C. C. Hermann. il diags Chem & Met Eng 53:136-8 My '46

See also

Air filters
Dust collectors
Electric precipitation
Exhaust systems
Flue dust

DUST sampling

Filter paper spot sampling of air-borne solids. B. D. Tebbens. il J Ind Hygiene 27:292-4 D '45

Increased ventilation, its effect on dust concentration in mine air. A. S. Richardson and others. il plan Min Cong J 32:40-1 S '46

Suspended particulate matter in New York City air; air pollution survey. B. Feiner and J. Siegel. Heating-Piping 17:557-8 O-N '45

DUST separators. See Dust collectors

DUTCH EAST INDIES. See Netherlands Indies

DUTCH GUIANA

Economic conditions

News by countries; Surinam. For Comm W 25:37 O 19; 19 N 2 '46

DUXBURY, George H.

Sketch. C. Axman. por East Underw 47:19 Ja 25 '46

DYE factories

Employees

Prevention of lesions of the bladder in the dye industry; abstract. A. Müller. J Ind Hygiene 28:sup89 Jl '46

Equipment

Alphabetical list of new products developed since Nov 1944. il Am Dyestuff Rep 34: 489-90 D 3 '45

Safety measures

Accident prevention in the dyeing and finishing industry. J. B. H. Morton. Soc Dyers & Col J 62:229-34 Ag '46

DYE industry

Chance to lead world opened for American dyes. S G. Ebert. Barron's 25:5 N 12 '45

End of cartel; seven companies fined in dyestuffs combine Bsns W p19 Ap 27 '46

Improved tube-type dye package. Mod Packaging 19:170 Ap '46

DYE industry—*Continued*
Reconversion of the dyestuff industry. H. F. Herrmann. Am Dyestuff Rep 34:493+ D 3 '45
Sales strategy that opened a rich new market for Rit. P. H. Schatz. il Sales Management 57:37-41 Ag 1 '46
See also
Geigy company

Advertising
Case histories of business-paper advertising campaigns; Aridye campaign aimed at repeat sales. il Ptr Ink 215:40-1 My 10 '46

History
Search for color in colonial times. I. H. Daniel. Textile Col 68:16-17+ Mr '46

Statistics
Recently released figures confirm vat dye gains, 1942-1945. Textile World 96:137 Je '46

Germany
Dyeing developments in Germany. G. D. Jackson, jr. Am Dyestuff Rep 35:223-5 My 6 '46
Dyestuff developments in Germany during World war II. M. A. Dahlen. Am Dyestuff Rep 35:119-23 Mr 11 '46; Excerpt. Chem & Met Eng 53:264+ Ap '46
Package dyeing in Germany. T. R. Smith. Am Dyestuff Rep 35:413-17 Ag 26 '46

Great Britain
Large expansion program for its dyestuffs division. Chem & Met Eng 53:182+ Je '46

United States
Dyestuffs manufacturers fined in trust suit. Oil Paint & Drug Rep 149:4+ Ap 22 '46

DYE laboratories
Du Pont technical laboratory. il Am Dyestuff Rep 35:61-2 Ja 28 '46

DYE patents
Abstracts from British and foreign journals and patents. Soc Dyers & Col J 62:36-40 Ja '46 [cont monthly]

DYE research
Cellulose-dyestuff complex; intensity of light reflected from dyed fibres. J. M. Preston and P. C. Tsien. bibliog il diag Soc Dyers & Col J 62:242-4+ Ag '46
German dyestuff research; abstract. M. A. Dahlen. Chem & Met Eng 53:264+ Ap '46
Postwar research forges ahead; dyestuffs. S. S. Rossander. bibliog Chem Ind 59:266+ Ag '46
Reactivity of γ-pyrone quaternary salts. R. M. Anker and A. H. Cook. Chem Soc J p117-20 F '46
Some experiments on the dyeing of nylon yarn. J. Boulton. bibliog Soc Dyers & Col J 62:65-84 Mr '46
Textile research of the A.A.T.C.C. W. D. Appel. Am Dyestuff Rep 35:91-4 F 25 '46

DYE testing
Evaluation of fastness to atmospheric fumes of dyed cellulose acetate rayon. il Am Dyestuff Rep 35:174-6 Ap 8 '46
Fastness to light; committee report. H. Christison; Appel. Am Dyestuff Rep 35:148+ Mr 25 '46
New tool for evaluating color transference. W. A. Holst. Am Dyestuff Rep 34:500-1 D 3 '45; Same. Textile Col 67:172-3+ D '45
See also
Dyes, Fastness of

DYEHOUSES
Equipment
Control instruments and their application to textile dyeing. W. H. Ridley. il Am Dyestuff Rep 35:226-9 My 6 '46
Modern salt and brine usage in textile plants. N. M. Agnew. flow sheet il diags Am Dyestuff Rep 35:157-63 Mr 25 '46

DYEING machines
Sampling cover for stock dyeing machine. diag Rayon 27:508 S '46

DYES, Fastness of
American association of textile chemists and colorists; wash fastness committee. C. W. Dorn. Am Dyestuff Rep 35:144 Mr 25 '46
Analysis of converters' problems in dyeing mixed fiber fabrics; limitations in dyeing mixtures of natural and synthetic fibers with regard to color fastness? Textile Col 67:164-5+ D '45
Correlation of structure with fastness to light of monoazo dyes. R. H. Kienle and others. bibliog J Phys Chem 50:363-73 Jl '46
Current trend may force fast colors for rugs. L. L. Walmsley. il Textile World 95:111+ N '45
Direct dyeings; increasing the fastness to light; British patent. Am Dyestuff Rep 35:503 O 21 '46
Evaluation of fastness to atmospheric fumes of dyed cellulose acetate rayon. il Am Dyestuff Rep 35:174-6 Ap 8 '46
Fading of colored textiles. A. H. Taylor. Illum Eng 41:35-8 Ja '46
Fastness to light; committee report. H. Christison; Appel. Am Dyestuff Rep 35:148+ Mr 25 '46
Gas fading and the A.A.T.C.C. Textile Col 67:120 N '45
New gas-fade proof process. Rayon 27:375 Jl '46
New tool for evaluating color transference. W. A. Holst. Am Dyestuff Rep 34:500-1 D 3 '45; Same. Textile Col 67:172-3+ D '45
Some experiments on the dyeing of nylon yarn. J. Boulton. bibliog Soc Dyers & Col J 62:77-84 Mr '46

DYES and dyeing
Agglomeration of dye; abstract. R. W. Jacoby. Textile World 96:196+ Ja '46
Alphabetical list of new products developed since Nov. 1944. Am Dyestuff Rep 34:477-81 D 3 '45
Analysis of converters' problems in dyeing mixed fiber fabrics; limitations in dyeing mixtures of natural and synthetic fibers with regard to color fastness? Textile Col 67:164-5+ D '45
Are new colors limitless? D. Nickerson. il diags Rayon 26:595-600 N '45
Colouring of plastics. C. R. M. Oehlcke. bibliog Soc Dyers & Col J 61:306-10 D '45
Control instruments and their application to textile dyeing. W. H. Ridley. il Am Dyestuff Rep 35:226-9 My 6 '46
Determination of critical concentrations for micelle formation in solutions of cationic soaps by changes in the color and fluorescence of dyes. M. L. Corrin and W. D. Harkins. J Chem Phys 14:641 O '46
Dye absorption by textiles. A. J. Hall. Rayon 27:493-7, 609-11, 668-9 S, N-D '46
Dyeing developments in Germany. G. D. Jackson, jr. Am Dyestuff Rep 35:223-5 My 6 '46; Excerpts. Textile World 96:106-7 My '46
Dyeing textiles; drying and moisture control. K. S. Laurie. Elec R (Lond) 137:819-20 D 7 '45
Dyes, dyeing, and dyed textiles. O. W. Clark. Rayon 26.663-5 D '45
Dyestuff developments in Germany during World war II. M. A. Dahlen. Am Dyestuff Rep 35:119-23 Mr 11 '46
Experiments in coloring polyvinyl chloride masses. F. Gournay. India Rubber World 114:280-2 My '46
German dyeing and finishing are below U.S. standards. C. N. Rabold. il diags Textile World 96:139+ Ap '46
Mission of the colorist. F. Kern. Textile Col 68:14-15 Jl '46
See also
Bleaching
Color matching
Color printing
Dye industry
Dyes, Fastness of
Pigments
Stains and staining (microscopy)
Textile printing

Bibliography
Abstracts from British and foreign journals and patents. Soc Dyers & Col J 62:36-40 Ja '46 [cont monthly]

Cellophane
Dyeing of cellulose with direct dyes; the absorption of chrysophenine by cellulose sheet; abstract. H. F. Willis and others. Soc Dyers & Col J 62:92-3 Mr '46

DYES and dyeing—*Continued*

Chemistry

Absorption spectra of the negative ions of two diaminotriphenylmethane dyes. B. M. Tolbert and G. E. K. Branch. Am Chem Soc J 68:315-19 F '46

Color and constitution; absorption of unsymmetrical carbocyanines. L. G. S. Brooker, R. H. Sprague and H. W. J. Cressman. Am Chem Soc J 67:1889-93 N '45

Color and constitution; interpretation of absorptions of dyes containing heterocyclic nuclei of different basicities. L. G. S. Brooker and others. Am Chem Soc J 67: 1875-89 N '45

Color and constitution; pyrrolocyanines. L. G. S. Brooker and R. H. Sprague. Am Chem Soc J 67:1869-74 N '45

Colour and structure of indigo, indanthrone, and similar compounds discussed from the standpoint of modern resonance theory. H. H. Hodgson. bibliog Soc Dyers & Col J 62: 176+ Je '46

Colors for chemical compounds. H. F. Herrmann. Soap & San Chem 22:137+ F '46

Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the action of chloramine-T on the thionaphthenquinones. C. E. Dalgliesh and F. G. Mann. Chem Soc J p913-17 D '45

Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of solvents and catalysts. C. E. Dalgliesh and F. G. Mann. Chem Soc J p910-13 D '45

Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of substituent groups in the thionaphthenquinones. C. E. Dalgliesh and F. G. Mann. Chem Soc J p893-909 D '45

Correlation of structure with fastness to light of monoazo dyes. R. H. Kienle and others. bibliog J Phys Chem 50:363-73 Jl '46

Critical concentration for the formation of micelles as indicated by the absorption spectrum of a cyanine dye. M. L. Corrin and others. J Chem Phys 14:216-17 Mr '46

Dichroic behaviour of substantive dyes: molecular theory of the dyeing of cellulose. T. H. Morton. Soc Dyers & Col J 62:272-80 S '46; Abstract. Chem Age (Lond) 54:312 Mr 23 '46

Disazo dyes; production; abstract. A. H. Knight and others. Textile Inst J 36:A415 O '45

Dyeing of cellulose with direct dyes; abstracts. H. A. Standing and others. Soc Dyers & Col J 62:92-3 Mr '46

Dyeing of cotton with mineral khaki; fungicidal and bactericidal efficiencies of cotton yarn treated by various mineral khaki processes. E. Race, F. M. Rowe and J. B. Speakman. bibliog diag Soc Dyers & Col J 61:310-21, pl 1-2 D '45

Dyeing of cotton with mineral khaki; the effect of exposure to weathering agencies on yarns pigmented with copper, chromium and iron compounds. E. Race and F. M. Rowe. bibliog il diags Soc Dyers & Col J 62:19-29 Ja '46

Dyeing of cotton with mineral khaki; the incorporation of copper with chromium and iron in mineral khaki for the production of an effective fungicide and bactericide. E. Race, F. M. Rowe and J. B. Speakman. bibliog il Soc Dyers & Col J 62:9-19, pl 1-2 Ja '46

Formation of hydrogen peroxide during the oxidation of reduced vat dyes. W. Atherton and H. A. Turner. bibliog diag Soc Dyers & Col J 62:108-14 Ap '46

*p*H control in dyeing processes. E. I. Noble. Soc Dyers & Col J 61:328-33 D '45

Recent advances in wool dyeing; relation of dyeing properties to dyestuff constitution. F. Townend and G. G. Simpson. bibliog Soc Dyers & Col J 62:47-52 F '46

Sodium 2-hydroxy-3-carboxynaphthalene-6-sulphonate and 2:6-dihydroxynaphthalene-3-carboxylic acid. E. J. Cross. bibliog Soc Dyers & Col J 62:150-1 My '46

Solubilization of water-insoluble dye in soap solutions; effects of added salts. J. W. McBain and A. A. Green. bibliog Am Chem Soc J 68:1731-6 S '46

Some experiments on the dyeing of nylon yarn. J. Boulton. bibliog Soc Dyers & Col J 62:65-84 Mr '46

Some fundamental principles of vat dyeing. O. W. Clark. bibliog il Am Dyestuff Rep 34:546-55 D 31 '45

Steric deformation; the synthesis of N-methyl etioporphyrin. W. K. McEwen. bibliog Am Chem Soc J 68:711-13 Ap '46

Cotton

Cross-dyeing socks gives heather effect. il Textile World 96:127 F '46

Dichroic behaviour of substantive dyes: molecular theory of the dyeing of cellulose. T. H. Morton. Soc Dyers & Col J 62:272-80 S '46

Dye staining technique for studying shrinkage control imparted to cotton by melamine resins. J. K. Dixon and others. bibliog Am Dyestuff Rep 35:215-17+ My 6 '46

Dyeing cotton hanks with sulfur colors. Am Dyestuff Rep 35:471-4 O 7 '46

Dyeing of cellulose with direct dyes; abstracts. H. A. Standing and others. Soc Dyers & Col J 62:92-3 Mr '46

Dyeing of cellulosic fibers; abstract. E. Brecher. Am Dyestuff Rep 35:477 O 7 '46

Dyeing of cotton with mineral khaki. E. Race, F. M. Rowe and J. B. Speakman. bibliog il Soc Dyers & Col J 57:213-23, 257-64; 58:32-6, 161-2; 61:224-36, 310-21; 62:9-29 Jl-Ag '41, F, Ag '42, S, D '45, Ja '46; Abstract [D & Ja] Am Dyestuff Rep 35: 180, 183 Ap 8 '46

Dyeing of direct dyes on cotton; rate-of-dyeing measurements; rate of migration and salt controllability. D. R. Lemin and others. bibliog diags Soc Dyers & Col J 62:132-44+ My '46; Same. Am Dyestuff Rep 35:403-6+, 431-9 Ag 26-S 9 '46; Discussion. Soc Dyers & Col J 62:285-6 S '46

Fading and tendering activity in vat dyes; new method for its diagnosis. Y. M. Waly and others. bibliog diag Soc Dyers & Col J 61:245-55 O '45

How different types of dyestuffs affect the rate of deterioration of cloth exposed to weathering; presented by Southeastern section. Am Dyestuff Rep 35:29-37 Ja 14 '46

Improving the dye affinity of cellulosic textiles. J. Wakelin. Rayon 27:41-2 Ja '46

Report of the committee appointed by council to discuss the dyeing properties of direct cotton dyes. il diag Soc Dyers & Col J 62:280-5 S '46

Soaping is key step in preparing cloth for printing. T. N. Patrick. il Textile World 96:151+ Mr '46

Some aspects of color. R. W. Jacoby. Am Dyestuff Rep 35:56-8 Ja 28 '46; Abstract. Textile World 95:139 D '45

Some natural dyes give long life to cotton fabric. M. S. Furry. Rayon 26:603-5 N '45

See also
Cotton printing

Hosiery

Cross-dyeing socks gives heather effect. il Textile World 96:127 F '46

Style simplification ups knitting production; Spalding knitting mills. E. D. White. il Textile World 96:111+ Ag '46

Jute

Dyeing jute in warp form; abstract. Am Dyestuff Rep 35:182 Ap 8 '46

New method of approach to the bleaching and subsequent dyeing of jute. G. Garrett. Soc Dyers & Col J 62:234-7 Ag '46; Abstract. Am Dyestuff Rep 35:477 O 7 '46

Metachrome process

Toughening dye molecules. Rayon 27:402 Ag '46

Natural dyes

Search for color in colonial times. I. H. Daniel. Textile Col 68:16-17+ Mr '46

Some natural dyes give long life to cotton fabric. M. S. Furry. Rayon 26:603-5 N '45

Nylon

Dispersed acetate colors best for dyeing nylon. Textile World 96:119+ Ja '46

Dyeing nylon with dispersed dyes. J. Wakelin. Rayon 27:373 Jl '46

DYES and dyeing—Nylon—*Continued*
Some aspects of nylon dyeing. A. K. Saville. Am Dyestuff Rep 35:51-5+ Ja 28 '46
Some experiments on the dyeing of nylon yarn. J. Boulton. bibliog Soc Dyers & Col J 62:65-84 Mr '46; Abstract. Am Dyestuff Rep 35:311-12 Je 17 '46

Package dyeing

Package dyeing in Germany. T. R. Smith. Am Dyestuff Rep 35:413-17 Ag 26 '46

Ramie

Dichroic behaviour of substantive dyes: molecular theory of the dyeing of cellulose. T. H. Morton. Soc Dyers & Col J 62:272-80 S '46

Rayon

Application of vat dyes to viscose rayon. S. Burgess; A. B. Cox. Soc Dyers & Col J 62:41-6 F '46; Abstract. Am Dyestuff Rep 35:237 My 6 '46; Discussion. Soc Dyers & Col J 62:46-7 F '46
Celanese-Fortisan dyeing and printing. A. Mellor. Soc Dyers & Col J 62:168-72 Je '46; Same. Am Dyestuff Rep 35:348-52 Jl 15 '46; Discussion. Soc Dyers & Col J 62:172-3 Je '46
Cellulose-dyestuff complex; intensity of light reflected from dyed fibres. J. M. Preston and P. C. Tsien. bibliog il diag Soc Dyers & Col J 62:242-4+ Ag '46
Dye absorption by textiles. A. J. Hall. Rayon 27:493-7, 609-11, 668-9 S, N-D '46
Dyeing cellulose acetate. J. Wakelin. Rayon 27:371-3 Jl '46
Dyeing of cellulose with direct dyes; abstracts. H. A. Standing and others. Soc Dyers & Col J 62:92-3 Mr '46
Evaluation of fastness to atmospheric fumes of dyed cellulose acetate rayon. il Am Dyestuff Rep 35:174-6 Ap 8 '46
Filament thickness and its significance to the dyer. Am Dyestuff Rep 35:455-7 S 23 '46
Gas fading and the A.A.T.C.C. Textile Col 67:120 N '45
Improving the dye affinity of cellulosic textiles. J. Wakelin. Rayon 27:41-2 Ja '46
Laboratory controls rayon piece goods finishing; Capitol piece dye works. E. S. Dunlap. il Textile World 96:123+ O '46
Pre-treatment of acetate cellulose fabrics; patents. Am Dyestuff Rep 35:440 S 9 '46
Rayon dyeing and finishing developments. W. F. Brosnan. Am Dyestuff Rep 34:491-2+ D 3 '45
Soaping is key step in preparing cloth for printing. T. N. Patrick. il Textile World 96:151+ Mr '46
Some aspects of color. R. W. Jacoby. Am Dyestuff Rep 35:56-8 Ja 28 '46

See also
Dyes and dyeing—
Wool-rayon
Rayon printing

Synthetic fibers

Acryl polymer fibers; dyeing and printing; British patent. Am Dyestuff Rep 35:504 O 21 '46
Analysis of converters' problems in dyeing mixed fiber fabrics; limitations in dyeing mixtures of natural and synthetic fibers with regard to color fastness? Textile Col 67:164-5+ D '45
Dyeing of vinyon. J. A. Woodruff. Am Dyestuff Rep 35:194-7+ Ap 22 '46
Techniques standardized for finishing mixed fabrics. C. N. Rabold. Textile World 96:112-14 S '46

See also
Dyes and dyeing—
Rayon

Terminology

Dyestuff nomenclature. C. L. Bird. Soc Dyers & Col J 61:321-8 D '45

Therapeutic use

See Dyes as antiseptics and disinfectants

Vat dyes

Application of vat dyes to viscose rayon. S. Burgess; A. B. Cox. Soc Dyers & Col J 62:41-6 F '46; Abstract. Am Dyestuff Rep 35:237 My 6 '46; Discussion. Soc Dyers & Col J 62:46-7 F '46
Atmospheric oxidation of cellulose in presence of reduced vat dyes. J. Brear and H. A. Turner. bibliog il Soc Dyers & Col J 61:273-8 N '45
Continuous pigment-pad vat dyeing. G. F. Womble. Rayon 27:316-18 Je '46
Factors which cause or prevent agglomeration of pigment particles; presented by Rhode Island section. il Am Dyestuff Rep 35:3-12 Ja 14 '46
Fading and tendering activity in vat dyes; new method for its diagnosis. Y. M. Waly and others. bibliog diag Soc Dyers & Col J 61:245-55 O '45
Formation of hydrogen peroxide during the oxidation of reduced vat dyes. W. Atherton and H. A. Turner. bibliog diag Soc Dyers & Col J 62:108-14 Ap '46
Good blotch printing of spun rayons achieved with vat colors. T. N. Patrick. il Textile World 95:118-19+ N '45
New developments in vat dyeing. Rayon 27:97 F '46
Recently released figures confirm vat dye gains, 1942-1945. Textile World 96:137 Je '46
Review of recent developments in printing. P. L. Meunier. Am Dyestuff Rep 35:309-10 Je 17 '46
Some fundamental principles of vat dyeing. O. W. Clark. bibliog il Am Dyestuff Rep 34:546-55 D 31 '45
Vat printing. R. C. Geering. Rayon 27:553-7 O '46

Wool

Combination of wool with acids and acid dyes, abstract. J. B. Speakman and G. H. Elliot. Am Dyestuff Rep 35:454 S 23 '46
Disazo dyes; production; abstract. A. H. Knight and others. Textile Inst J 36:A415 O '45
Dyeing and finishing of woolens and worsteds in Germany. Am Dyestuff Rep 35:253-5 My 20 '46
Dyeing of wool and union materials. D. McGowan. Rayon 27:204-6 Ap '46
German wool dyeing follows conventional pattern. H. D. Grimes. il Textile World 96:112 My '46
*p*H control in dyeing processes. E. I. Noble. Soc Dyers & Col J 61:328-33 D '45
Recent advances in wool dyeing; relation of dyeing properties to dyestuff constitution. F. Townend and G. G. Simpson. bibliog Soc Dyers & Col J 62:47-52 F '46

Wool—aralac

Synthetics complicate dyeing in wool-finishing plants. N. D. Marius. il Textile World 96:116 S '46

Wool—cotton

Dyeing of wool and union materials. D. McGowan. Rayon 27:204-6 Ap '46

Wool—rayon

Dyeing of wool and union materials. D. McGowan. Rayon 27:204-6 Ap '46
Synthetics complicate dyeing in wool-finishing plants. N. D. Marius. il Textile World 96:115-16 S '46

DYES and dyeing, Photographic
Desensitizing by dyes in relation to optical sensitizing of the silver halides. S. E. Sheppard and others. bibliog(29 references) J Phys Chem 50:210-22 My '46
Phototube for dye image sound track. A. M. Glover and A. R. Moore. bibliog il Soc Motion Picture Eng J 46:379-86 My '46
Preliminary sound recording tests with variable-area dye tracks. R. O. Drew and S. W. Johnson. bibliog diag Soc Motion Picture Eng J 46:387-404 My '46
Reactions of alkyl*iso*formanilides; reactions with pyridinium salts. E. B. Knott. Chem Soc J p120-2 F '46
Symmetrical dicarbocyanines having a methyl group as substituent on the chain. F. M. Hamer and R. J. Rathbone. Chem Soc J p595-600 S '45

DYES as antiseptics and disinfectants
Disinfectants and antiseptics; therapeutic dyes. E. G. Klarmann. Soap & San Chem 22:129+ F '46
Inhibition of sulphate-reducing bacteria by dyestuffs; practical applications in cable storage tanks and gas holders. T. H. Rogers. Soc Chem Ind J 64:292-5 O '45

DYES as antiseptics and disinfectants—*Cont.*
Quinoid structure and bacteriostatic activity. E. Fischer and others. bibliog Science 102:507-8 N 16 '45
Some pyridyl analogues of triphenylmethane. H. J Kahn and V. A. Petrow. Chem Soc J p858-61 D '45
Treatment of sulphate-reducing bacteria in a flour mill. E. C. Barton-Wright. Soc Chem Ind J 64:295 O '45

DYMAXION houses. See Fuller houses, inc.

DYNAMIC braking. See Braking, Dynamic

DYNAMICS
Combination of dynamical systems. T. G. Sofrin. bibliog diags J Aeronautical Sci 13: 281-8 Je '46
Dynamic behavior and design of servomechanisms. G. S. Brown and A. C. Hall. diags A S M E Trans 68:503-22 bibliog(p521-2); Discussion, 522-4 Jl '46
Dynamics of package cushioning. R. D. Mindlin. il diags Bell System Tech J 24:353-461 Jl '45
Elastic limit for dynamic loading. V. Bargmann and H. F. Ludloff. J Ap Phys 17:63 Ja '46
Energy losses in the chain-belt problem. F. R. Archibald. il diags Mech Eng 68:139-42 F '46
Power function for the determination of Lagrangian generalized forces. D. A. Wells. diag J Ap Phys 16:535-8 S '45; Discussion. F. A. Fuertes. 17:712 Ag '46

See also
Aerodynamics
Electrodynamics
Hydrodynamics
Machinery—Design
Mechanics
Moments of inertia
Thermodynamics
Vibration

DYNAMICS of a particle
Motion of a particle in a temperature gradient; thermal repulsion as a radiometer phenomenon. P. Rosenblatt and V. K. LaMer. bibliog diags Phys R 70:385-95 S 1 '46

DYNAMITE
Plant seizures; Mexican workers take over du Pont subsidiaries' dynamite factories. Bsns W p114+ S 14 '46
When dynamite came to the Comstock. C. S. Landis. il Explosives Eng 24:75-6+ My '46

DYNAMOMETERS
Cradled dynamometers and cradled gears; torque-measuring equipments. H. M. Martin. il diags Gen Elec R 49:20-5 Mr '46
Dodge plant finds way to beat coal strike with auto engine. Iron Age 157:173 Je 6 '46
Dynamometer testing of high speed motors for powered aircraft models. H. O. Cox. il plan diag Automotive & Aviation Ind 94:30-3+ My 15 '46
Dynamometer, trouble diagnostician. A. Bennett. il Bus Transportation 25:67-9 O '46
Measurement of small running torques with a driving-type dynamometer. H. A. Brelsford. il diag Product Eng 17:120-1 F '46
New heavy duty brake dynamometer. il Automotive & Aviation Ind 95:47 Ag 1 '46
Prony brake. P. M. Honnell. diags J Eng Educ 36:193-7 N '45
Testing automobile engines; electronically controlled dynamometer. il Electronics 19: 178 N '46

DYNAMOS. See Electric generators, Direct current

DYNAMOTORS
Testing
Maintenance testing of dynamotors. H. M. Tremaine. il diag Electronics 19:158+ Je '46

DYNATRON
Measurement applications of the dynatron. W. M. Ross. diag Electronics 18:320+ D '45

DYSENTERY
Detoxification by acetylation of soluble antigens from shigella dysenteriae (shiga) and E. typhosa. H. P. Treffers. bibliog Science 103:387-9 Mr 29 '46
Studies of the acute diarrheal diseases; further studies on the relative efficacy of sulfonamides in shigellosis. J. Watt and S. D. Cummins. bibliog Pub Health Rep 60:1355-61 N 16 '45
Studies of the acute diarrheal diseases; the sulfonamides in shigellosis. A. V. Hardy. Pub Health Rep 61:857-66 Je 14 '46

See also
Amebiasis

DYSMENORRHEA. See Menstruation

E

EAR
Injuries
Physics and physiology of acoustic trauma. L. Rüedi and W. Furrer. il Acoustical Soc Am J 18:409-12 O '46
Protection
Effects of ear protective devices on the intelligibility of speech in noise. K. D. Kryter. il Acoustical Soc Am J 18:413-17 O '46
Physics and physiology of acoustic trauma. L. Rüedi and W. Furrer. il Acoustical Soc Am J 18:409-12 O '46

See also
Noise

EAR defenders. See Ear—Protection

EAR plugs
Selective reduction of harmful noise; Neoprene ear plug. J. S. Miller, jr. diag Am Mach 90:116 Ag 15 '46

EARPHONES. See Hearing aids, Mechanical

EARRINGS
Earrings that act as hearing aids. il Mod Plastics 23:120-2 Je '46

EARTH
Accuracy of the earth-flattening approximation in the theory of microwave propagation. C. L. Pekeris. Phys R 70:518-22 O 1 '46
Recent theories on polar displacement. J. H. F. Umbgrove. bibliog map diags Am J Sci 244:105-13 F '46
Strength of the earth. M. K. Hubbert. bibliog map Am Assn Pet Geologists Bul 29: 1630-53 N '45
Terrestrial dynamics; abstract. B. Willis. Pet Eng 17:100 D '45
Zenith or nadir? man's knowledge of earth restricted by physical limitations binding him to earth's crust. F. W. Nordsiek. il map Tech R 48:289-92+ Mr '46

See also
Geology
Geophysics
Glacial geology
Magnetism, Terrestrial
Meteorology
Ore deposits
Paleontology
Volcanoes
Water, Underground

Age
Age of the earth. F. K. Morris. diags Tech R 48:223-6+ F '46

Electric properties

See also
Soils—Electric properties

Interior structure
Nature of the asthenosphere. R. A. Daly. bibliog Geol Soc Bul 57:707-26 Ag '46

EARTH movements

See also
Landslides
Mine subsidences

EARTH pressure
Stresses in the linings of shield-driven tunnels. A. Bull. diags Am Soc C E Proc 70: 1363-94 N '44; Discussion. 71:101-6, 240-56, 745-7, 885-96, 1151-2, 1355-8, 1551-5; 72:256-68 Ja-F, My-Je, S, N-D '45, F '46

EARTH temperature
Geothermal gradients in mid-continent and Gulf Coast oil fields; abstract. E. A. Nichols. Oil & Gas J 45:88 O 5 '46
Volcanic heat. J. Verhoogen. bibliog Am J Sci 244:745-71 N '46

EARTHQUAKES
Nuclear fission bomb as initiator of earthquakes. A. J. Shneiderov. Science 103:674-5 My 31 '46

EARTHQUAKES—*Continued*
Origin of microseisms. J. B. Macelwane. Science 104:300-1 S 27 '46
Radioactivity in the earth's crust. J. Alexander. Min & Met 27:449 Ag '46
Seismic sea waves. D. L. Thornton. Engineering 161:484-5 My 24 '46

California
Earth shock damages Los Angeles aqueduct. Eng N 136:400 Mr 21 '46

Pacific coast
Pacific northwest earth shock rated one of severest on record in that area. Eng N 137:3 Jl 4 '46

EARTHQUAKES and building
Making concrete masonry earthquake resistant. S. Hobbs. il Rock Prod 49:121-5 Jl '46
Three-story building on roller bearings; earthquake-resistant construction; addition to Sears, Roebuck building in Los Angeles. plan diags Eng N 136:925-7 Je 13 '46

EARTHQUAKES and public works
Earth shock damages Los Angeles aqueduct. Eng N 136:400 Mr 21 '46

EARTHWORK
Battling wet soil at Dubuque airport. H. J. McKeever. il Roads & Sts 89:65-8 Je '46
Building an airport in a hurry. C. H. Vivian. il plans Comp Air Mag 50:315-22 D '45
Dual-type, controlled-access highway from Toronto to Barrie; variety of earthmoving equipment used. il maps Roads & Bridges 84:41-52+ Jl '46
Effect of blankets on seepage through pervious foundations; application of formulas to the design of earth dams. P. T. Bennett. Am Soc C E Proc 71:19-32 Ja '45; Discussion. bibliog 71:407-10, 897-901, 1233-44; 72: 98-102 Mr, Je, O '45, Ja '46
Garrison dam on the Missouri river to make rolled fill history. maps diags Eng N 136: 920-2 Je 13 '46
Heavy grading required for airport at Charleston, W. Va. L. S. Wescott. il plans Civil Eng 15:553-5 D '45
Kanawha airport construction involves heavy grading. Pub Works 77:40 Ja '46
9½ million yard airport grading job moves into second year; Kanawha County airport, Charleston, W. Va. H. J. McKeever. il Roads & Sts 89:71-6 Ja '46
Proposed backlog of earthwork and drainage construction compared with annual contract volumes; graph. Eng N 136:sup49 Mr 21 '46
Remarques sur la butée des terres et les murs de soutènement. A. Couard. Génie Civil 123:236 S 1 '46
Studying causes of failure of a leaking clay core wall. A. W. Bishop. bibliog diag Pub Works 77:19-20+ Jl '46

See also
Dams
Dikes (engineering)
Drainage
Drilling and boring (earth and rocks)
Earth pressure
Excavating machinery
Filling
Foundation soils
Foundations
Grading (earthwork)
Levees
Railroads—Earthwork
Roads—Grading
Roads—Subgrades
Soil mechanics
Trenches
Tunnels and tunneling

Cost
Contract unit bid prices. Eng N 136:651+ Ap 18 '46

EAST INDIANS (in South Africa)
Indians in South Africa. Economist 151:498+ S 28 '46

EAST INDIES
See also
Paleontology—East Indies

EASTERN Europe. See Europe, Eastern

EASTERN gas and fuel associates
Value of preferred. Barron's 26:6-7 My 6 '46

EASTERN states messenger service
Special delivery; messenger service on air express shipments. Bsns W p32+ Je 29 '46

EASTMAN Kodak company
Eastman Kodak wage-dividend plan. Personnel J 25:15-17 My '46
Extends group insurance program. Weekly Underw 155:572 S 7 '46

EATON, Cyrus Stephen, 1883-
Eaton returns to steel; starts new venture with Kaiser and Frazer. por Bsns W p19-20 Je 15 '46

EATON manufacturing company
Stocks for 1946 re-investment. Mag of Wall St 77:359 D 22 '45

EATONITE. See Alloys, Hard facing

EBONITES. See Rubber

EBULLIOMETRY. See Boiling points

ECHO
Design and construction of anechoic sound chambers. L. L. Beranek and H. P. Sleeper, jr. il diags Acoustical Soc Am J 18:140-50 Jl '46
Reverberation chambers for rerecording. M. Rettinger. diags Soc Motion Picture Eng J 45:350-7 N '45

ECHO sounding. See Sounding

ECKER, Frederick H. 1867-
How to order a city; Metropolitan Life makes housing pay. por Fortune 33:132-7+ Ap '46

ECLIPSALOY 130. See Magnesium alloys

ECOLOGICAL society of America
Annual meeting, 30th, St Louis. Science 103: 515 Ap 26 '46

ECONOMIC and business foundation
Case history in public financial relations. Trusts & Estates 83:329-30 O '46

ECONOMIC and social council of the United nations. See United nations—Economic and social council

ECONOMIC conditions
Business abroad. Fortune 33:228+ Ja '46
Employment and price outlook. C. L. Benner. Comm & Fin Chr 163:717+ F 7 '46
Outlook for 1946: confusion in a split society. G. G. Munn. Comm & Fin Chr 163:124+ Ja 10 '46
Problem children of technology and banking. R. P. Soule. Chem & Eng N 24:614-18 Mr 10 '46
Rising prices chief threat to economic stability; excerpts from quarterly report. J. R. Steelman. Comm & Fin Chr 164:1778+ O 10 '46
Tangibles in today's economy around which future planning must be built. J. D. C. Weldon. il Mag of Wall St 78:11-13+ Ap 13 '46
World outlook. R. L. Eberhardt. Comm & Fin Chr 163:3063+ Je 6 '46
World prosperity and the British balance of payments. R. Hinshaw and L. A. Metzler. R Econ Stat 27:156-70 N '45

See also
Business conditions
Business depression
Cost of living
Economic policy
Economic statistics
Food supply
Labor supply
Prosperity
Reconstruction (World war, 1939-1945)
Standard of living
also subdivision Economic conditions under names of countries and regions, e.g. France—Economic conditions; Germany—Economic conditions; United States—Economic conditions

ECONOMIC council, National. See National economic council

ECONOMIC development, Committee for. See Committee for economic development

ECONOMIC planning
Controlled versus uncontrolled economy. B. B. Smith. Comm & Fin Chr 164:2265+ O 31 '46
Democracy and free enterprise. J. M. Hancock. Comm & Fin Chr 163:709+ F 7 '46
Has new deal planning been a success? B. M. Anderson. Comm & Fin Chr 164:2201+ O 31 '46
Let's revive the spirit of '76. L. H. Brown. Factory Management 104:104-6 S '46
Planned execution; the issue of scientific management. H. S. Person. Advanced Management 10:131-8 D '45

ECONOMIC planning—*Continued*
Planning in science. V. Bush. Chem & Eng N 24:1333-7 My 25 '46; Abstract. Metal Prog 49:1197-8 Je '46
Security vs. free enterprise. E. A. Krauss. Mag of Wall St 77:314-15+ D 22 '45
Socialism in Britain; what now? W. A. Berridge and R. R. Berridge. il Dun's R 54:16-20+ Ja '46

ECONOMIC planning, International
British proposals for international full employment. Comm & Fin Chr 164:2206+, 2337, 2370 O 31, N 7 '46
Full employment in the transition period. Int Labour R 52:589-608 D '45
New worldwide commodity controls likely. C. H. Grattan. Barron's 26:3+ Ja 28 '46
Some observations on world industrialization. M. L. Cooke. bibliog Mech Eng 68:406-10+ My '46
Why this peace should work; in the economic skies there are hopeful portents. W. L. Clayton. Fortune 33:123-5 My '46

ECONOMIC policy
America for all Americans. H. A. Wallace. Comm & Fin Chr 163:127+ Ja 10 '46
American economic stability. O. M. Gardner. Comm & Fin Chr 162:2713+ D 6 '45
Attacks purchasing power theory of prosperity; First national bank of Boston. Comm & Fin Chr 163:13+ Ja 3 '46
Banker looks ahead; address before American bankers association. W. R. Burgess. Comm & Fin Chr 164:1796+ O 10 '46
Britain's need for a property-owning democracy; reconciliation of freedom and order essential problem. A. Eden. Comm & Fin Chr 164:2340+ N 7 '46
Businessman's role in directing our economic future. B. Graham. Comm & Fin Chr 164:880+ Ag 15 '46
Can America avoid deflation? S. A. Marsh. Credit & Fin Management 48:16-19 F '46
Challenges to the economic future. A. Schindler. Comm & Fin Chr 164:612+ Ag 1 '46
Chief reconversion problem is restoration of free economy; report to Industrial conference board. F. A. Harper. Comm & Fin Chr 163:131+ Ja 10 '46
Common sense and progress. J. P. Seiberling. Comm & Fin Chr 164:2211+ O 31 '46
Controls; a bar to expansion. H. G. Moulton. Comm & Fin Chr 163:369+ Ja 24 '46
Cornerstone of our domestic policy. H. L. Ickes. Comm & Fin Chr 163:1689+ Mr 28 '46
Creation of Economic commission favored to advise government on utilization of resources; Chamber of commerce. Comm & Fin Chr 163:170 Ja 10 '46
Economic background for social action; objectives of the National association of manufacturers for 1946. R. R. Wason. Factory Management 104:290+ Ja '46
Economic policies for peace and prosperity. F. M. Vinson. Comm & Fin Chr 163:1781+ Ap 4 '46
Economic prospects and economic morals. B. B. Smith. Comm & Fin Chr 163:3469+ Je 27 '46
Economic prospects and problems for postwar reconversion period. M. Shields. Comm & Fin Chr 163:3397+ Je 20 '46
Factors in changing price levels. F. C. Rathje. Comm & Fin Chr 164:198+ Jl 11 '46
For new economic stability formula. A. W. Robertson. Comm & Fin Chr 162:2713+ D 6 '45
Full employment in the transition period. Int Labour R 52:589-608 D '45
Future of economic liberalism; address before National lawyers guild. W. Berge. Comm & Fin Chr 164:341+ Jl 18 '46
Government's role in full production. H. A. Wallace. Comm & Fin Chr 162:2700+ D 6 '45; Excerpts. Factory Management 104:270+ F '46
Inflation, debt and post-war economy. J. A. Zellers. Comm & Fin Chr 163:709+ F 7 '46
International conference on trade and employment proposed. Int Labour R 52:667-9 '45
Let us restore American business as usual. C. E. Wilson. Comm & Fin Chr 164:1379+ S 12 '46
Life, liberty, and the pursuit of happiness (1950 model). W. Beveridge. R Econ Stat 28:53-9 My '46
Marketing and full employment in war and peace. E. B. George. il Dun's R 54:11-14+ Jl '46
Menace of declining profits. A. M. Sakolski. Comm & Fin Chr 162:3129+ D 27 '45
Monetary theory of deficit spending. C. Warburton. bibliog R Econ Stat 27:74-84 My '45; Discussion and reply. 28:90-4 My '46
One year after VE-day; and where are we? R. A. Taft. Comm & Fin Chr 163:2781+ My 23 '46
Our new and revolutionary problems. A. M. Landon. Comm & Fin Chr 164:340+ Jl 18 '46
Our world to build. P. M. Millians. Comm & Fin Chr 163:1134+ F 28 '46
Paths to uninterrupted progress. E. Schram. Comm & Fin Chr 163:2640+ My 16 '46
Policy for domestic unity. H. E. Stassen. Comm & Fin Chr 162:2877+ D 13 '45
Postwar economic policies; small shelf of new books. H. S. Ellis. R Econ Stat 28:34-9 F '46
Price and other controls. T. C. Clark. Comm & Fin Chr 163:533+ Ja 31 '46
Private enterprise at 39-1 is good enough for me. P. G. Hoffman. Factory Management 104:102-4 Jl '46
Productivity, prices and a sound wage level. J. D. Gill and B. A. Stainton. Nat Pet N 38:36+ Ap 10 '46
Proposals for postwar stable economy; abstract. M. Nadler. Comm & Fin Chr 163: 2509+ My 9 '46
Remedies for our economic ills. W. D. Fuller. Comm & Fin Chr 163:1344+ Mr 14 '46
Renovated capitalism. M. V. Jones. J Bsns 18 pt 2:1-60 O '45
Roadblocks to prosperity. R. R. Wason. Comm & Fin Chr 163:1929+ Ap 11 '46
Simple economics will solve our problems! D. H. Green. Comm & Fin Chr 164:751+ Ag 8 '46
Some thoughts on basic factors affecting any trend toward autarky; abstract. E. Lipson. For Comm W 22:23 F 2 '46
State control in eastern Europe; compromise between Soviet and capitalistic systems reflected in all industries. J. Joesten. Barron's 26:15+ Ja 7 '46
Statistical miasma and administrative blunders. A. M. Sakolski. Comm & Fin Chr 163: 1634+ Mr 28 '46
There is a tide in the affairs of men; peacetime problems. D. B. Tresidder. il Dun's R 53:11-13+ D '45
Three barriers to world-wide economic teamwork. H. L. Jome. il Dun's R 54:10-14+ Ag '46
Today's needs: production and confidence. S. J. Broad. il Dun's R 54:11-14+ Mr '46
Tomorrow without fear. C. Bowles. 88p pa $1 Simon & Schuster, 1230 6th av, Rockefeller Center, New York 13 '46
Turn right! W. H. Hillyer. Comm & Fin Chr 164:2212+ O 31 '46
Utilizing our productive capacity. H. A. Wallace. Comm & Fin Chr 163:959+ F 21 '46
Wanted, a national policy that cuts through special interests. E. N. Case. Comm & Fin Chr 163:2788+ My 23 '46
Wanted: revival of science of government. H. E. Stassen. Comm & Fin Chr 163:249+ Ja 17 '46
What America needs. N. Thomas. Comm & Fin Chr 163:1690+ Mr 28 '46
Where do we stand now? possible impact of proposed price-wage formula. J. D. C. Weldon. il Mag of Wall St 77:624-6+ Mr 2 '46
Which way Americans? E. T. Weir. Comm & Fin Chr 163:2413+ My 2 '46

See also
Capitalism
Commercial policy
Corn laws
Economic planning
Industry and state
Money
Reconstruction (World war, 1939-1945)
Subsidies
Tariff
Taxation
Wages—Economic aspects

also subdivision Economic policy under names of countries, e.g. Great Britain—Economic policy

ECONOMIC research
CED plans expansion of activity in field of economic research; abstract. P. G. Hoffman. Iron Age 157:144 Mr 7 '46
Statistical estimation of simultaneous economic relations. T. Koopmans. bibliog Am Stat Assn J 40:448-66 D '45

ECONOMIC security. See Insurance; Insurance, Social; Old age pensions; Pensions, Industrial; Saving; Unemployment—Relief measures

ECONOMIC statistics
Economy in war and transition; national income and national product. Survey of Cur Bsns 26:4-9 F '46
Statistical estimation of simultaneous economic relations. T. Koopmans. bibliog Am Stat Assn J 40:448-66 D '45
See also
Consumption (economics)—Statistics
Employment—Statistics
Income—Statistics
Index numbers (economics)
Labor supply—Statistics
Production—Statistics
Saving—Statistics
Wages—Statistics

ECONOMICS
Adam Smith has been badly misinterpreted. il Fortune 34:140-3+ Jl '46
Bogey of economic maturity, by G. Terborgh; review by D. S. Tucker. Mech Eng 67:836-8 D '45; Review, by A. H. Hansen. R Econ Stat 28:13-17; Review (Great guessing game: Terborgh versus Hansen) by D. M. Wright. 18-22 F '46
Dr Hansen on The bogey of economic maturity. G. Terborgh. R Econ Stat 28:170-2 Ag '46
Economic and political consequences of Lord Keynes' theories. P. Cortney. Comm & Fin Chr 161:617+, 713+ F 8, 15 '45; Discussion. W. Craven-Ellis. 164:68+ Jl 4 '46; Reply. 164:111 Jl 4 '46
Economics of industrial interdependence. W. Leontief. il Dun's R 54:22-6+ F '46
Epidemic of fallacies. P. Cortney. Comm & Fin Chr 164:1989+ O 17 '46
Masterworks of economics; digests of 10 great classics. L. D. Abbott, ed. 754p $4 Doubleday & co, 14 W. 49th st, New York '46
Testament of Henry Simons. J. Davenport. Fortune 34:116-19 S '46
Weighing and interpreting economic trends. L. W. Douglas. Comm & Fin Chr 163:3261+ Je 13 '46
See also
Advertising—Economic aspects
Agriculture—Economic aspects
Balance of payments
Banks and banking
Business
Capital
Capitalism
Collectivism
Commerce
Consumption (economics)
Cooperation
Cost
Cost of living
Credit
Debts, Public
Distribution (economics)
Economic policy
Family allowances
Finance
Free trade and protection
Government regulation of industry
Housing
Income
Index numbers (economics)
Industrial relations
Industry
Interest
Labor and laboring classes
Land
Manufactures
Money
Population
Prices
Production
Profit
Profit sharing
Profiteering
Prosperity
Rent
Saving
Socialism
Speculation
Standard of living
Strikes
Supply and demand
Tariff
Taxation
Trade unions
Transportation
Trusts, Industrial
Value
Wage payment plans
Wages
Wealth

ECONOMICS, Engineering. See Engineering economics

ECONOMISTS
See also
Smith, Adam

ECONOMISTS, Industrial
They look ahead for business; abstract. C. L. Walker. Management R 35:261-2 Jl '46

ECONOMIZERS, Fuel. See Fuel economizers

ECUADOR
Commercial policy
Ecuador; exchange quota for first quarter of 1946 fixed. For Comm W 22:19 Mr 9 '46
Import and exchange controls. For Comm W 22:23-4 Mr 30 '46
Economic conditions
Latin America's economy as world conflict ended. For Comm W 24:43+ Ag 3 '46
News by countries. For Comm W 23:25 Je 22; 24:24 Jl 20; 19 Ag 3; 11-13 Ag 31; 23 S 21; 25:30 O 19 '46

EDDY currents
Induction heating of long cylindrical charges. H. F. Storm. bibliog diags Elec Eng 65: Trans 369-77 Je '46
Place of radiant, dielectric and eddy-current heating in the process heating field. L. J. C. Connell and others. bibliog il diag Inst E E J 92 pt 2:385-99 O '45; Discussion. 92 pt 2:399-402; 93 pt 2:48-50, 548-58 O '45, F, D '46
Power loss in electromagnetic screens. C. F. Davidson and others. Wireless Eng 23:8-15 Ja '46; Discussion. C. A. Siocos. 23:202 Jl '46

EDEMA. See Dropsy

EDISON, Charles, 1890-
Portrait. Bsns W p70 Ag 31 '46

EDISON, Thomas A. inc.
Edison's the name. Bsns W p68+ Ag 31 '46
Stock offered. Comm & Fin Chr 164:1081 Ag 26 '46

EDISON electric institute
Annual meeting, New York, June 3-5. Edison Elec Inst Bul 14:177-82+ Je '46; Elec World 125:93-4 Je 8 '46
EEI sales conference, 12th, Chicago, April 3-5. Edison Elec Inst Bul 14:113-15 Ap '46
Engineering committees meeting, Chicago, May 6-8. Elec World News ed 125:7-8 My 18 '46
National contributions to local selling. G. W. Ousler. Edison Elec Inst Bul 14:133-4+ My '46
New Edison electric institute tools for wiring promotion. R. F. Hartenstein. Edison Elec Inst Bul 14:167-8 My '46
Personnel of committees for 1946-1947. Edison Elec Inst Bul 14:315-25 S '46
Value of association work. G. C. Neff. Edison Elec Inst Bul 14:297-8 S '46

EDISON medal
Philip Sporn wins A.I.E.E. Edison medal. Elec World News ed 124:6-7 D 29 '45

EDITORS
Business paper editors receive editorial achievement awards; with biographical notes. Ind Marketing 30:37-9+, 190-1 O '45
38 editorial achievement awards presented to business paper editors. il Ind Marketing 31:34-6+ O '46

EDRISAL
Edrisal in the treatment of dysmenorrhea. H. J. Hindes. bibliog Ind Med 15:262-3 Ap '46

EDSALL, David Linn, 1869-1945
Sketch. C. K. Drinker. por(front) J Ind Hygiene 27:239-40 N '45

EDUCATION
Educational, cultural, and recreational services to increase participation in community life. R. R. Isaacs. Ann Am Acad 242:129-38 N '45
Training for thinking, or mass production of robots? L. M. Duryee. J Eng Educ 36: 292-5 D '45
See also
Acceleration (education)
Architectural education
Chemical education
College education
Colleges and universities
Employees, Training of
Engineering—Study and teaching

EDUCATION—See also—*Continued*
Engineering education
Foundations, Charitable and educational
Humanities
Industrial education
Libraries
Manual training
Medical education
Mining schools and education
Moving pictures in education
Museums
Phonograph in education
Technical education
United States—Army—Education

Consult Education Index for additional references

Bibliography

Education index, July 1945-June 1946. 723p H. W. Wilson co, New York 52 '46

Belgium

Educational problem. J. J. N. Kuypers. Ann Am Acad 247:107-10 S '46

Great Britain

County colleges. Economist 150.572-3 Ap 13 '46

Mississippi

Story of Mississippi. il Manuf Rec 115:96-8 Ja '46

Netherlands

Education of the youth during German occupation. C. van Eden. Ann Am Acad 245: 129-43 My '46

Texas

Featuring Texas. il Manuf Rec 115:155-7 Jl '46

EDUCATION, Cooperative. See Engineering education—Cooperative plan; Vocational education—Cooperative plan

EDUCATION, Higher
Conference on emergency problems in higher education. W. E. Wickenden. J Eng Educ 37:77-8 S '46
University prospect. Economist 150:204-5, 246-7, 286-7 F 9-23 '46

EDUCATION and democracy
Intergroup education through the school curriculum. T. Taba and H. E. Wilson. bibliog Ann Am Acad 244:19-25 Mr '46

EDUCATION and state
Support of education in a democracy. R. J. Munick. Science 102:567-9 N 30 '45

EDUCATION of workers
Education of the young citizen; project of National cash register company, limited. Gas J (Lond) 247:1057 Je 26 '46
Educational programs for employees; study by Dartnell corporation. Management R 35: 51-2 F '46
Hagan corporation invests in employes by financing college educations. Ind Marketing 30:117 D '45

EDUCATIONAL advertising. See Advertising, Educational

EDUCATIONAL research
Nature and need of educational research. D. E. Scates. Science 103:657-61 My 31 '46

EFFICIENCY, Industrial
American productivity; audit of the war years and a prediction. C. R. Walker. il Fortune 33:150-6+ Ja; 130-3+ F '46
Challenge of human engineering. H. Ford, jr. Advanced Management 11:48-51 Je '46
Controlled-conditions buildings compared with conventional factories; controlled light, temperature, humidity, ventilation and noise; with cost data. il diags Eng N 136: 784-7 My 16 '46
Effects of acoustical treatment in industrial areas. F. K. Berrien and C. W. Young. Acoustical Soc Am J 18:453-7 O '46
Efficient production and cost control; Lockheed aircraft corp. W. M. Mirisch. il Factory Management 103:109-13 D '45
Increased efficiency with industrial air conditioning. Dom Eng 166:156+ N '45
Measurement and appraisal of ordnance arsenal performance. J. A. Piacitelli. Mech Eng 68:333-8 Ap '46
Paper mill operating efficiencies. H. H. Brown. Paper Tr J 123:44-5 Ag 22 '46; Same cond. Paper Ind 28:872+ S '46
Reduction of costs. C. C. Balderston. Advanced Management 11:13-16 Mr '46
Vision tests predict worker capability; electric soldering, Bausch & Lomb optical company. N. F. Stump. il Factory Management 104:121-4 F '46
Working speed. Automobile Eng 35:542 D '45

See also
Ability tests
Color in industry
Division of labor
Employees—Rating
Employment management
Executives
Factories—Lighting
Factory management
Fatigue
Foundry management
Industrial engineering
Industrial management
Labor productivity
Machine shop management
Machinery in industry
Motion study
Music in industry
Office management
Planning
Standardization
Time study
Workplace layout

EFFLORESCENCE
Wick for testing efflorescence tendencies of materials. C. R. Amberg and L. Washburn. bibliog diags Am Cer Soc Bul 25:7-9 Ja 15 '46

EGG albumin. See Albumin

EGG powders. See Eggs, Dried

EGG trade

Australia

Egg production in Australia, with figures for 1935-1946. For Comm W 22:37 F 16 '46

Canada

Exports of shell and dried eggs from Canada, 1939-1945. For Comm W 23:35 My 4 '46

EGG white. See Albumin

EGGS

Prices

Excess supply of fresh eggs brings price down close to government's support level. Barron's 26:7 F 11 '46

EGGS, Dried
Dried egg; the nature of the reactions leading to loss of solubility of dried egg products. E. C. Bate-Smith and J. R. Hawthorne. Soc Chem Ind J 64:297-302 N '45
Dried eggs in cakes; abstract. J. E. Ary and R. Jordan. Food Ind 18:436+ Mr '46
In vitro proteolysis of egg white. R. A. Harte. bibliog Science 102:563-4 N 30 '45
Keeping quality of egg and milk mixtures; abstract. J. A. Pearce and others. Food Ind 18:1296 Ag '46
Salmonella in dried eggs; abstract. F. E. Chase and M. L. Wright. Food Ind 18: 968 Je '46
Troublesome reactions in dried eggs; abstract. Food Ind 18:284+ F '46
Use of whole-egg powder in making sponge cake; abstract. R. Jordan and M. S. Pettijohn. Food Ind 18:1635 O '46

Analysis

Chemical determination of vitamin A in dried whole eggs. C. R. Thompson and others. bibliog Ind & Eng Chem Anal ed 18:113-15 F '46
Determination of carotenoids and lipid amine-aldehyde products in dehydrated egg. H. J. Dutton and B. G. Edwards. bibliog Ind & Eng Chem Anal ed 18:38-41 Ja '46
Determination of free fatty acids in dried egg powders. C. M. Johnson and L. Kline. bibliog Ind & Eng Chem Anal ed 18:617-19 O '46
Factors influencing estimation of free fatty acids in dried egg powders. L. Kline and C. M. Johnson. bibliog Ind & Eng Chem Anal ed 18:35-8 Ja '46
Rapid method for determining fat content of dried eggs; modification of Babcock test. C. Paley and S. Rubin. bibliog il Food Ind 18:1194-5 Ag '46

Color

Changes in color of dehydrated eggs during storage. H. J. Dutton and B. G. Edwards. bibliog Ind & Eng Chem 38:347-50 Mr '46

Storage

Changes in color of dehydrated eggs during storage. H. J. Dutton and B. G. Edwards. bibliog Ind & Eng Chem 38:347-50 Mr '46

EGGS, Dried—Storage—*Continued*
Changes in stored dried eggs; role of phospholipides and aldehydes in discoloration. B. G. Edwards and H. J. Dutton. bibliog Ind & Eng Chem 37:1121-2 N '45
Changes in stored dried eggs; source of fluorescence. H. S. Olcott and H. J. Dutton. bibliog Ind & Eng Chem 37:1119-21 N '45
Changes in stored dried eggs; spectrophotometric and fluorometric measurement of changes in lipides. H. J. Dutton and B. G. Edwards. bibliog flow sheet Ind & Eng Chem 37:1123-6 N '45
Dehydrated egg powders; factors in palatability of stored powders. M. M. Boggs and H. L. Fevold. bibliog Ind & Eng Chem 38:1075-9 O '46
Dehydrated egg powders; relation of lipide and salt-water fluorescence values to palatability. M. M. Boggs and others. bibliog Ind & Eng Chem 38:1082-4 O '46
Dehydrated egg powders; sources of off-flavors developed during storage. H. L. Fevold and others. bibliog Ind & Eng Chem 38:1079-82 O '46
Dried egg; the nature of the reactions leading to loss of solubility of dried egg products. E. C. Bate-Smith and J. R. Hawthorne. Soc Chem Ind J 64:297-302 N '45
Storage of dried eggs; abstract. J. A. Pearce and others. Food Ind 18:1121 Jl '46

EGLOFF, Gustav, 1886-
Portrait. Chem & Eng N 24:359 F 10 '46

EGYPT
See also
Airlines—Egypt
Petroleum industry and trade—Egypt
Sugar industry and trade—Egypt

Commerce
Increased trade during 1945. For Comm W 23:26 My 11 '46

Commercial policy
Export regulations modified; new regulations for importers. For Comm W 23:26-7 Ap 27 '46

Economic conditions
News by countries. For Comm W 22:21 Ja 12; 24:18-21 Jl 27 '46

Foreign relations
Great Britain
Egypt's dilemma. Economist 151:364-6 S 7 '46
Exodus from Egypt. Economist 150:737-8 My 11 '46

EICOSANE
High molecular weight hydrocarbons; eicosane, 1-phenyleicosane and 3-ethyloctadecane. K. W. Sherk, M. V. Augur and M. D. Soffer. bibliog Am Chem Soc J 67:2239-40 D '45

EIKONOMETER. See Iconometer

EISENHOWER, Milton Stover, 1899-
Portrait. Bsns W p19 D 22 '45

EITINGON, Motty
Good sheep and sheep. Fortune 34:159 S '46

EJECTORS. See Air ejectors; Steam jets

EKCO products company
Plans that make a business grow. E. Whitmore. il Am Bsns 16:8-10+ F '46

EKKO process. See Electrodeposition of metals

ELAIDIC acid
Determination of geometric isomer composition by methoxymercuration; oleic and elaidic esters. T. Connor and G. F. Wright. bibliog Am Chem Soc J 68:256-8 F '46

ELAIDYL alcohol
Unsaturated alcohol esters of the 9,10-dihydroxystearic acids; preparation of elaidyl alcohol. D. Swern, E. F. Jordan, jr. and H. B. Knight. bibliog Am Chem Soc J 68:1673-4 Ag '46

ELASTIC braid
Dispenser carton to measure elastic braid. il Mod Packaging 19:111 F '46

ELASTIC demand. See Demand curve

ELASTIC fabrics
No rubber required in elastic cotton fabric; Strex. il Textile World 96:129 O '46

ELASTIC stop nut corporation of America
Annual report. Comm & Fin Chr 163:1157 Mr 4 '46

ELASTICITY
Action of impulsive loads on elastic structures. J. B. Wilbur. diags Boston Soc C E J 33:163-73 Jl '46
Creep under constant load in tension. P. J. Blatz and A. V. Tobolsky. J Chem Phys 14: 113-14 F '46
Driving-point impedance of an infinite solid plate. R. C. Jones. Acoustical Soc Am J 17:334-6 Ap '46
Dynamics of package cushioning. R. D. Mindlin. il diags Bell System Tech J 24: 353-461 Jl '45
Effective width of elastically supported flat plates. G. Gerard. bibliog diags J Aeronautical Sci 13:518-24 O '46
Elastic constants of anisotropic materials. R. F. S. Hearmon. diag Rs Mod Phys 18: 409-40 bibliog(125 titles, p436-40) Jl '46
Elastic deficiency and color of natural smoky quartz. C. Frondel. bibliog Phys R 69:543-4 My 1 '46
Elastic limit for dynamic loading. V. Bargmann and H. F. Ludloff. J Ap Phys 17:63 Ja '46
Elastic loss and relaxation times in cross-linked polymers. J. G. Kirkwood. bibliog J Chem Phys 14:51-6 F '46
Elastic, piezoelectric, and dielectric constants of potassium dihydrogen phosphate and ammonium dihydrogen phosphate. W. P. Mason. bibliog diags Phys R 69:173-94 Mr 1 '46
Elastic, piezoelectric, and dielectric properties of sodium chlorate and sodium bromate W. P. Mason. il diags Phys R 70: 529-37 O 1 '46
Elastic properties of cork; stress relaxation of compressed cork. S. L. Dart and E. Guth. il diag J Ap Phys 17:314-18 My '46
Elastic silica; a demonstration. J. W. Cole. J Chem Educ 23:97 F '46
Elasticity measurements. diag J Ap Phys 16: 848 D '45
Equations for computing elastic constants from flexural and torsional resonant frequencies of vibration of prisms and cylinders. G. Pickett. Am Soc T M Proc 45: 846-63 bibliog(p859-60); Discussion. 864-5 '45
Expanding domain of aeroelasticity. A. R. Collar. bibliog(62 titles) Roy Aeronautical Soc J 50:613-36 Ag '46
Experimental investigation of forced vibrations in a mechanical system having a nonlinear restoring force. C. A. Ludeke. diags J Ap Phys 17:603-9 Jl '46
Forced vibrations of piezoelectric crystals. H. Ekstein. bibliog diags Phys R 70:76-84 Jl 1 '46
Hysteresis and related elastic properties of tire cords. H. Wakeham and E. Honold. bibliog il J Ap Phys 17:698-711 Ag '46
Internal friction and plastic extension of zinc single crystals. T. A. Read and E. P. T. Tyndall. J Ap Phys 17:713-20 S '46
Mesure du module de Young et de sa variation en fonction de la température; usage d'un fil de transmission acoustique. C. Florisson. Génie Civil 123:221 Ag 15 '46
Methods of specifying the properties of viscoelastic materials. T. Alfrey and P. Doty. bibliog diags J Ap Phys 16:700-13 N '45
New approach to the theory of relaxing polymeric media. M. S. Green and A. V. Tobolsky. bibliog J Chem Phys 14:80-92 F '46
Pressure-volume relation for cylindrical tubes with elastometric walls; the human aorta. A. L. King. bibliog J Ap Phys 17:501-5 Je '46
Refinements in supersonic reflectoscopy; polarized sound. F. A. Firestone and J. R. Frederick. il diags Acoustical Soc Am J 18:200-11 Jl '46
Rubber in compression; notes on its elastic deformation. diags Automobile Eng 36:264 Je '46
Static displacement and coupled frequencies of a twisted bar R. J. Dunholter. diags J Aeronautical Sci 13:214-17 Ap '46
Stress-strain relations in ceramic materials. M. Lassettre and J. O. Everhart. il Am Cer Soc J 29:261-6 S 1 '46

ELASTICITY—*Continued*

Stress-time-temperature relations in polysulfide rubbers. M. D. Stern and A. V. Tobolsky. J Chem Phys 14:93-100 F '46

Structural skew plates. F. L. Ehasz. bibliog diags Am Soc C E Proc 71:805-30 Je '45; Discussion. 71:1436-8 N '45

Template for checking modulus of steel. W. B. Seens. Metal Prog 49:345 F '46

Tensile elastic properties of typical stainless steels and nonferrous metals as affected by plastic deformation and by heat treatment. D. J. McAdam, jr. and R. W. Mebs. il diags U S Nat Advisory Com for Aeronautics 1940:309-86 bibliog(p356-7) '41

Transmission, reflection, and guiding of an exponential pulse by a steel plate in water; experiment. M. F. M. Osborne and S. D. Hart. il Acoustical Soc Am J 18:170-84 Jl '46

Variational method for linear dissipative anisotropic elastic systems. G. D. Camp. Phys R 69:502-7 My 1 '46

Velocity of dilatation and Rayleigh waves in metal bars. J. H. McMillen. il diags Acoustical Soc Am J 18:190-9 Jl '46

Young's modulus for cemented carbides. Min & Met 27:517 O '46

See also

Compressibility
Deformation (mechanics)
Hysteresis (mechanics)
Photoelasticity
Plasticity
Poisson's ratio
Shock waves
Strains and stresses
Strength of materials
Torsion

ELASTI-GLASS

Elasti-Glass case returned to F.T.C. by U.S. Appeals court. Glass Ind 27:131 Mr '46

ELDERBERRY

Plant carbonic anhydrase. R. Day and J. Franklin. bibliog Science 104:363-5 O 18 '46

ELECTIONS

United States

Democratic party reaches lowest point in 16 yr.; Gallup poll. Iron Age 158:101+ O 24 '46

ELECTRIC alarms

Underground vault water alarm. A. A. Straub. diag Elec World 125:128+ My 25 '46

ELECTRIC analogies. See Heat transmission—Electric analogies; Hydraulics—Electric analogies; Hydrodynamics—Electric analogies; Mechanics—Electric analogies

ELECTRIC apparatus and appliances

Design considerations. E. T. Norris. Electrician 137:931 O 4 '46

Effect of voltage variations. Product Eng 17: 239-40 Mr '46

Electrical engineering in 1945. il Engineer 181: 55-7, 90-1, 99-101 Ja 18-F 1 '46

Performance guarantees; applying theory of probability. E. T. Norris. Inst E E J 93 pt 2:140-5 Ap '46

Technical perfection and utility. F. G. Marshall. Electrician 137:179-80 Jl 19 '46

Work of the service engineer and fitter; abstract. O. W. Roskill. Electrician 135:639 D 7 '45

See also

Airplanes—Electric equipment
Armatures
Commutators
Condensers (electricity)
Dynamometers
Electric apparatus industry
Electric batteries
Electric cables
Electric circuit breakers
Electric coils
Electric controllers
Electric converters
Electric current limiters
Electric equipment
Electric furnaces
Electric fuses
Electric generators
Electric instruments
Electric inverters
Electric lamps
Electric machinery
Electric meters
Electric mixers
Electric motors
Electric precipitation
Electric rectifiers
Electric shovels
Electric signals
Electric switchgear
Electric transformers
Electricity in mining
Electricity on the farm
Electromagnets
Galvanometers
Photoelectric cells
Potentiometers
Radar
Radio apparatus
Reactors
Refrigerators, Electric
Relays
Storage batteries
Voltage regulators

Exhibitions

I.M.E.A. exhibition. il Elec R (Lond) 138: 956-64 Je 21 '46; Electrician 136:1665-70, 1747-52 Je 21-28 '46

Paris fair. il Elec R (Lond) 138:899 Je 7 '46

Work of the N.P.L.; exhibition and demonstration of equipment. Electrician 136:1673 Je 21 '46

See also Electric apparatus and appliances, Domestic—Exhibitions

Manufacture

Automatic telephony; Strowger system. il Electrician 137:715-17 S 13 '46

Committees ease new products headaches by coordinating departmental activities; Westinghouse electric corporation. R. F. Bisbee. Am Mach 90:113-15 S 12 '46

Electrical equipment requires special analysis castings. R. A. Collacott. Foundry 74:156 O '46

Industrial enterprise; conversion of Hoover organisation to peace-time production. il Electrician 136:153-4 Ja 18 '46

Quality control of insulating varnishes. L. P. Hart, jr. il Gen Elec R 49:8-15 Ap '46

Reconversion; Westinghouse Mansfield plant. G. W. Birdsall. il diags Steel 118:96-9+ F 18 '46

Statistical methods in quality control. Elec Eng 64:181-2, 249-50, 299, 328-9, 363-4, 401-2, 448-50; 65:23-4, 81-3, 117-19, 466-8 My, Jl '45-Mr, O '46

Welding of electric apparatus. E. F. Potter. il diag Welding J 25:942-5 O '46

Merchandizing

Business development sessions of Pacific coast electrical association. Elec West 97: 82-4 Jl '46

Distributor display ideas. il Elec West 96: 97-8 Ap '46

EEI sales conference, 12th, Chicago, April 3-5. Edison Elec Inst Bul 14:113-15 Ap '46

E.E.I. sales training course. J. H. Ronayne. Edison Elec Inst Bul 14:265-8+ Ag '46

Electrical West sales guide. Elec West 95:97-100 D '45; 96:75 Ja; 113-16 F; 75-8 Mr; 99-102 Ap; 77-9 My; 111-14 Je; 97:69-72 Jl; 83-6 Ag; 97-9 S '46

Faulty goods; the legal position of a trader. F. E. Sugden. Elec R (Lond) 138:30 Ja 4 '46

Idaho ploughs for future harvests. il diag Elec West 97:94-6 S '46

Intensive selling is a must; work of Commercial division of Edison electric institute. G. W. Ousler. Edison Elec Inst Bul 14:227-30 Jl '46

New ideas in sales training. R. W. Wagner. Edison Elec Inst Bul 14:147-8 My '46

New plan for utility appliance financing announced by Chase national bank. Pub Util 36:790-2 D 6 '45

Northwest electric light and power assn. business development meeting, Portland, April 15-17. Elec West 96:74-6 My '46

Planning distribution for increased loads; relation to commercial policies; abstract. J. H. Foote. Elec World 125:79 Je 8 '46

Sales training receives impetus; program of wholesale distributors of electrical appliances in Philadelphia. E. H. Lewis. il Dom Comm 34:17 My '46

San Diego Bureau of radio and electrical appliances; spring conference. Elec West 97:64-7 Jl '46

Till those acres of diamonds near your home. V. W. Hartley. Edison Elec Inst Bul 14: 65-7+ Mr '46

See also

Electric apparatus and appliances, Domestic—Merchandizing
Electric apparatus industry
Electric utilities—Appliance selling

Repair

Servicing electrical appliances; abstract. R. L. White. Elec World 125:73 Je 8 '46

Safety measures

See Electric equipment—Safety measures

ELECTRIC apparatus and appliances—*Cont.*

Specifications

Relations between the manufacturer and the purchaser of electrical equipment. E. T. Norris. Electrician 135:439-40 O 26 '45; Abstract. Elec R (Lond) 137.556 O 19 '45

Standards

Guide for the designer in deciding upon product sizes. J. Gaillard. il Ind Stand 16:247-51 N '45

ELECTRIC apparatus and appliances, Domestic

All-electric kitchens. il Am Bld 68:132-3 O '46

All-purpose service unit. il Electrician 135: 662 D 14 '45

Design and performance of domestic electric appliances. W. N. C. Clinch and F. Lynn. Inst E E J 92 pt 2:23-32 F '45; Abstract. Elec R (Lond) 134:633-5 My 5 '44; Discussion. Inst E E J 92 pt 2.32-8; 93 pt 2 146-69 F '45, Ap '46; Elec R (Lond) 134:665-7 My 12 '44; Electrician 132:412-15 My 12 '44

Electrified living. Bsns W p73-4+ F 23 '46

Equipment in temporary houses Elec R (Lond) 138:569 Ap 12 '46; Electrician 136: 1034 Ap 19 '46

Ever new appliances in Pennsylvania schools used in home-making courses; replacement program. Elec World 125:106+ F 2 '46

Household appliances; Board of trade survey. Elec R (Lond) 137:639-40 N 2 '45

Progress in reverse cycle heating. M. M. Smith. il Edison Elec Inst Bul 14.160-2 My '46

Utilities seek volume to allow further rate cuts; want more big off-peak users like ranges, heaters and refrigerators. E. R. Abrams. Barron's 26:9+ Je 24 '46

See also

Electric stoves
Electric water heaters
Electricity in the home
Refrigerators, Electric
Washing machines, Electric

Exhibitions

Britain can make it; exhibition; electric domestic appliances. il Electrician 137:597 Ag 30 '46

Exhibition impressions. Electrician 135:433-4 O 26 '45

Improved appliance design; examples in the Britain can make it exhibition. il Elec R (Lond 139:489-92 S 27 '46; Electrician 137: 849-52 S 27 '46

Tho' buyers flock, yet there's no stock; Western merchandise mart, San Francisco. il Elec West 96:70-3 Mr '46

Manufacture

Making vacuum cleaners; Vactric, ltd. il Elec R (Lond) 138:915-18 Je 14 '46

Merchandizing

Allotment record ends complaints; E. H. Schaefer company, Milwaukee, electrical appliance wholesaler. il Am Bsns 16:13+ Ja '46

Electrical group stages contest. Ptr Ink 215: 102 My 10 '46

Excess retail dealers seen as threatening home appliance field. H. M. Kelly. Iron Age 158:155 N 7 '46

Hotpoint's packaged all-electric kitchens double sales W. R. Schafer. il Sales Management 57:42-3 O 1 '46

Replacement market for household appliances; tabulation. Pub Util 37:185 Ja 31 '46

Sales institutes refresh L.A. dealers. il Elec West 96:70-1 My '46

Safety measures

Post-war gadgets are electrical hazards; approved wares should be purchased. F. F. Sengstock. Weekly Underw 154:28-9+ Ja 5 '46

That every American may have a safe home; safety of gas and electric appliances. T. Fansler. Gas Age 97:38+ Ap 18 '46

ELECTRIC apparatus industry

Backlog order turmoil subsides under Sylvania's new control setup. C. H. Goddard. Sales Management 57:86+ S 15 '46

Bank-financed new distributors' buying group in the electrical appliance field; Monitor equipment corp. Bsns W p51 F 9 '46

Blueprint of Hotpoint's plan for training 20,000 salesmen. W. R. Schafer. il Sales Management 56.37-40 Mr 15 '46

Effect of bulge; rise in labor cost and demand for price advance. Bsns W p36 Mr 23 '46

Electrical and allied developments of 1945; appliances; manufacturers' war work G. Bartlett. il Gen Elec R 49:68-9 Ja '46

Electrical equipment; prospects for 1936. Steel 118:sup30-2 Ja 7 '46

Electrical leagues ready for peace-time programs. Elec World News ed 124:5-6 N 17 '45

Electrical manufacturers plan market expansion. R. L. White. Elec World 125:142-3 Ja 19 '46

Find no hoarding. Bsns W p83 F 16 '46

Full-scale manufacturing production not possible till spring, NEMA reveals. Elec World News ed 126:16-18 O 19 '46

GE offers dealers package-plan to hire and train good salesmen at low cost. il Sales Management 56:42-5 My 1 '46

Give the dealer a break' Edison Elec Inst Bul 14:273 Ag '46

Graybar builds training sessions around films. Sales Management 57.100 S 1 '46

Home economists now moving further into sales development; Hotpoint institute trains company and distributor salesmen in use-value. R. W. Turnbull. il Ptr Ink 214:26-7+ F 1 '46

ILG tacks up a welcome sign on the factory's big front door. L. B. Colby. il Sales Management 57:40-2 Jl 15 '46

Kelvinator recruits salesmen by selling salesmanship careers; booklets for dealers and prospective salesmen. C. T. Lawson. Sales Management 56:40-2 Ja 15 '46

Listen, see and do school refreshes Westinghouse sales engineers. J. M. McKibbin. il Sales Management 56:40-1 Ja 1 '46

More notes on firms that will make and sell new products. Sales Management 56:131-2+ Ja 15 '46

1946 starts with a warming up period. C. E. Greenwood. Edison Elec Inst Bul 14:7-8+ Ja '46

OPA suspends controls on electrical equipment. Elec World 125:145 Ap 13 '46

Proctor's policy; how and to whom it will sell. il Bsns W p88+ D 8 '45

Production and distribution of electrical equipment for the coming year. R. S. Peare. Edison Elec Inst Bul 14:157-9 My '46

Road show to demonstrate industrial electrification; "productive power" theme of huge exhibit to be staged in 75 cities by Westinghouse. H. R. Roberts. il Sales Management 57:104-6 O 1 '46

Staff functions and finance in expanding manufacturing companies. J. O. Knowles. Inst E E J 93 pt 1:74-8 F '46

Strikes over; what's the outlook? K. Hampton. Elec West 96:93 Ap '46

They learned the latest lowdown; San Diego Bureau of radio & electric appliances conference. il Elec West 96:70-4 Ja '46

250,000 salesmen needed! here's how electric industry will select and train them; National electrical wholesalers association three-part program. il Ptr Ink 216:43 Jl 12 '46

United Electrical's broadside; union charges of sitdown by radio and appliance makers. Bsns W p94+ D 29 '45

Westinghouse on wheels. il Sales Management 57:53 Ag 1 '46

What is a fair compensation set-up for sales engineers? ILG electric ventilating co. pays liberal basic salary plus incentive income for over-quota sales. P. D. Briggs. Sales Management 56:119+ Ap 1 '46

Wholesalers' committees aid industrial marketing; National electrical wholesalers association, apparatus and warehousing committees. C. G. Pyle. Ind Marketing 30: 46+ O '45

also General electric company; Sylvania electric products, inc.

ELECTRIC apparatus industry—*Continued*

Advertising

Benjamin's program correlates production, markets and promotion; three-year campaign plan. Ind Marketing 30:40-1+ D '45
Chatty letters from the boss help Thor strengthen dealer ties; Electric household utilities corp. E. N. Hurley. Sales Management 55:59-60 D 15 '45
Continuous point-of-sale program follows survey of dealer wants; retailers ordered $400,000 worth of sales kits from Landers, Frary & Clark in three weeks. il Ptr Ink 215:48-9 Ap 19 '46
Your advertising should please. K. Hampton. Elec West 97:85-6 Ag '46

See also
Electric lamps—Advertising

Directories

Electronics buyers' guide. Electronics 19B: [305-416] insert D1-D112 Je 15 '46; Additions and corrections. 19:217-18 N '46
Manufacturers' directory; with list of western branch offices or western representatives. Elec West 96:134+ Ap '46
Where to buy lighting in the West; list of manufacturers. Elec West 97:82-3 S '46

Exhibitions

See Electric apparatus and appliances—Exhibitions

Finance

Effect of the new wage-price policy on the electrical manufacturing industry. Elec World News ed 125:12-13 Mr 23 '46

Securities

Electrical equipment companies under new competition; with position of leading stocks. F. K. Walters. Mag of Wall St 77:710-11+ Mr 16 '46
Re-appraisals of electrical equipment stocks; with financial survey. R. Colston. il Mag of Wall St 78:634-5+ Ag 31 '46

Service

Servicing electrical appliances. R. L. White. Edison Elec Inst Bul 14:255-6 Jl '46

Statistics

Annual survey of appliance markets and estimated 1946 sales of major electrical devices. Ptr Ink 214:102 Mr 1 '46
Electric appliance production rapidly approaches pre-war high levels. Edison Elec Inst Bul 14:274 Ag '46
Peace-time production under way. Elec World 125:136-7 Ja 19 '46

Africa, British East

African imports; supplies to Kenya, and Uganda; 1943 and 1944 compared. Elec R (Lond) 138:149 Ja 25 '46

Africa, West

West African imports; 1944 and 1943 compared. Elec R (Lond) 138:860 My 31 '46

Argentina

Argentine foreign trade; 1943 and 1944 compared; tabulation. Elec R (Lond) 138:13 Ja 4 '46
Argentine imports and exports of electrical machinery in 1944, compared with 1943; tabulation. For Comm W 22:32 Mr 23 '46
Argentine trade; figures for first half of 1945 and 1944 compared. Elec R (Lond) 139:268 Ag 16 '46

Australia

Australian trade; imports and exports in 1943-44. Elec R (Lond) 139:150 Jl 26 '46
Australian trade; 1944 and 1945 compared. Elec R (Lond) 139:380 S 6 '46

China

Westinghouse will aid Chinese develop $35,000,000 electrical manufacturing plant. Elec World 126:82 Ag 17 '46

Egypt

Egyptian imports; 1944 and 1945 compared. Elec R (Lond) 139:268 Ag 16 '46

Germany

Few German practices found in advance of American. H. J. Scholz and C. F. Wagner. il diags Elec World 124:110-13 N 10 '45

Great Britain

Analysis of electrical exports. Electrician 136: 875-6, 951-2, 1025-6 Ap 5-19 '46
Banks and overseas trade. A. V. Barber. Elec R (Lond) 138:859-60 My 31 '46
BTH progress in 1945. Mech Handling 33:123-4 F '46
Design in our export trade; abstract. L. Gainage. Elec R (Lond) 139:540 O 4 '46
Electrical consumer goods. Electrician 135: 479 N 2 '45
Electrical engineering industry in postwar economy. G. L. Metz and R. L. Davies. Inst E E J 93 pt 1:334-41 Ag '46; Abstracts. Electrician 136:601 Mr 8 '46; Elec R (Lond) 138:367 Mr 8 '46; Discussion. Inst E E J 93 pt 1:341-7 Ag '46; Elec R (Lond) 138: 408-9 Mr 15 '46; Electrician 136:671-3 Mr 15 '46
Electrical manufacturing in 1945; report of B.E.A.M.A. council. Elec R (Lond) 138:610 Ap 19 '46; Electrician 136:1030 Ap 19 '46
Electrical overseas trade; financial statistics, 1938, 1944, 1945. Electrician 136:597-8 Mr 8 '46
Electrical overseas trade; first three months of 1938, 1945 and 1946 compared. Electrician 136:1101-2 Ap 26 '46
Electrical overseas trade; 9 months of 1938, 1944, 1945. Electrician 135:632-3 D 7 '45
Electrical overseas trade; statistics for 1938, 6 months of 1945, 1946. Electrician 137: 244-5 Jl 26 '46
Electrical statistics; 1945. Electrician 136:661 Mr 15 '46
Engineering outlook. Engineering 161:123-5, 149-51 F 8-15 '46
Exports and imports of electrical goods, destination and value, January-June 1945 and January-June 1944; tabulations. For Comm W 22:28-9 Ja 12 '46
Household appliances; Board of trade survey. Elec R (Lond) 137:639-40 N 2 '45
Manufacturers' activities. il Elec R (Lond) 138:108, 231-3, 341-2, 585 Ja 18, F 8, Mr 1, Ap 12 '46
Manufacturers' activities; orders for export and home markets. Electrician 136:669-70 Mr 15 '46
Manufacturers' activities in 1945. il Electrician 135:697-8, 727-8; 136:105-6, 161-2, 541-2 D 21-28 '45, Ja 11-18, Mr 1 '46
Overseas electrical trade; return for first nine months of 1945. Elec R (Lond) 137: 824 D 7 '45
Overseas trade prospects. Electrician 136:355-6 F 8 '46
Power and prosperity; abstract. E. R. Wilkinson. Elec R (Lond) 137:567 O 19 '45
Purchase tax and appliances; E.D.A. and E.A.W. appeals for its removal. Electrician 136:522 Mr 1 '46
Relations between the manufacturer and the purchaser of electrical equipment. E. T. Norris. Inst E E J 93 pt 1:37-40 Ja '46

India

Indian imports, 1944 and 1945 compared. Elec R (Lond) 138:464 Mr 22 '46
India's foreign trade, 1943-44 compared with 1944-45. Elec R (Lond) 137:842 D 7 '45

Ireland

Electrical export prospects; review of trade with Eire. G. F. Braddock. Electrician 136:1091-2 Ap 26 '46

Japan

Output of the electrical manufacturing industry in Japan, April and May 1946 tabulation. For Comm W 24:32-3 S 14 '46

Mexico

Business abroad. Fortune 34:224 S '46

Pacific coast

Coast sales jump 400% for Sylvania under custom-built selling plan. R. H. Bishop. Sales Management 56:99-100 Ja 1 '46

Palestine

Palestine electrical trade; 1944 and 1945 compared. Elec R (Lond) 139:107 Jl 19 '46

ELECTRIC apparatus industry—Palestine—*Continued*
Palestine imports; 1943 and 1944 compared. Elec R (Lond) 137:739 N 23 '45

Peru
Electrical trade of Peru; 1944 and 1943 compared. Elec R (Lond) 138:782 My 17 '46

Portugal
Portuguese imports of electrical equipment, 1943 and 1944 compared; tabulation. For Comm W 21:28-9 D 29 '45

South Africa
South African trade; 1944 compared with 1939; tabulation. Elec R (Lond) 139:226 Ag 9 '46
Value of imports of electrical goods into the Union of South Africa, 1944 compared with 1939; tabulation. For Comm W 25:23 O 5 '46

Spain
Imports of electrical goods into Spain, 1942 and 1943 compared; tabulation. For Comm W 21:32-3 D 22 '45
Spanish foreign trade; 1944 and 1943 compared. Elec R (Lond) 139:74 Jl 12 '46
Spanish trade and industry. Elec R (Lond) 139:25 Jl 5 '46

Sweden
Swedish foreign trade. Elec R (Lond) 139: 149 Jl 26 '46

Switzerland
Swiss foreign trade; 1944 compared with 1938. Elec R (Lond) 138:623-4 Ap 19 '46
Value of imports of electrical goods into Switzerland, 1938 and 1944 compared; tabulation. For Comm W 24:35 Jl 20 '46

Western states
Distributors are on the grow. il Elec West 95:105-7 D '45
Here's what the West's appliance sales outlook is like for the coming year if—. O. R. Doerr. il Elec West 96:72-3 My '46
What a market; if, as and when there's selling. il Elec West 96:96-112 F '46

ELECTRIC arc
Arc as a standard of light. J. T. MacGregor-Morris. diags Light & Lighting 39:101-3 Je '46
Arcing ground tests on a normally ungrounded 13-kv 3-phase bus. J. E. Allen and S. K. Waldorf. bibliog il diags Elec Eng 65:Trans 298-306 My '46
Carbon arc as a standard of light and radiation. Light & Lighting 39:44 Mr '46
Cathode dark space and negative glow of a mercury arc. C. G. Smith. bibliog il diags Phys R 69:96-100 F 1 '46
Combination arc-spark source for magnesium analysis. V. J. Caldecourt and J. L. Saunderson. il diags Opt Soc Am J 36:99-102 F '46
Dielectric recovery by an a-c arc in an air blast. T. E. Browne, jr. bibliog il diags Elec Eng 65:Trans 169-76 Mr '46
Germany made acetylene and carbon black by cracking natural gas in electric arc. E. S. Pettyjohn. il diags Nat Pet N 38 pt 2:R596+ Ag 7 '46
Long 60-cycle arcs in air. A. P. Strom. il Elec Eng 65:Trans 113-18 Mr '46
Stabilité et aptitudes diverses d'un arc électrique soumis à la régulation. C. Macherey. Génie Civil 123:171-3 Jl 1 '46
Stability of the low pressure mercury arc as a function of area at the cathode pool. C. W. Lufcy and P. L. Copeland. diags J Ap Phys 16:740-4 N '45

See also
Electric welding, Arc

ELECTRIC arc welding. See Electric welding, Arc

ELECTRIC associations

See also
American institute of electrical engineers
Edison electric institute
Illuminating engineering society
National association of electric companies
National electrical contractors association

ELECTRIC batteries
Characteristics of a silver-peroxide-zinc primary cell. I. A. Denison. diag Electrochem Soc Trans 90 (preprint 26):323-38 '46
Characteristics of the silver oxide-zinc-alkali primary cell. J. C. White and others. Electrochem Soc Trans 90 (preprint 20):273-9 '46
Dry cell designed to operate at —40° C containing lithium chloride in the electrolyte. M. E. Wilke. Electrochem Soc Trans 90 (preprint 23):299-305 '46
Lead dioxide cell containing various electrolytes. J. P. Schrodt and others. il Electrochem Soc Trans 90 (preprint 21):281-92 '46
Low temperature dry cells. E. Otto and others. diag Electrochem Soc Trans 90 (preprint 17):235-47 '46
Magnesium battery; abstract. Materials & Methods 24:686 S '46
Reaction of the Leclanché dry cell. L. C. Copeland and F. S. Griffith. Electrochem Soc Trans 89 (preprint 22):255-64 '46
Simple battery operated high voltage supply. L. E. Williams. diag R Sci Instr 17:296-7 Ag '46

See also
Electrolytic cells
Photoelectric cells
Radio receiving apparatus—Batteries
Storage batteries

ELECTRIC blankets
Care of electric blankets launderability tests. Rayon 27:472 S '46
Electronic control of electric blanket. il Electronics 19:186+ F '46
Electronically controlled blanket. Barron's 26:24 Ja 7 '46
Engineering problems of electric blanket. R. F. Sambleson. diag Elec World 124:125 N 10 '45
Phenolic control for electronic blanket. D. Maxwell. il Mod Plastics 23:137 Ap '46
Simmons puts showmanship into launching of new electronic blanket; film for training salespeople and for consumer audiences, augmented by demonstration. J. G. Roemer. Sales Management 57:60+ S 1 '46

ELECTRIC boat company
Thumbnail stock appraisal. Mag of Wall St 78:340 Je 22 '46

ELECTRIC bond and share company
Three steps lift Bond and Share's value. Barron's 26:7 Jl 22 '46

ELECTRIC brakes. See Brakes, Electric

ELECTRIC brazing. See Brazing

ELECTRIC broilers

Rating
Electric table broilers. il Consumers Res Bul 18:12-15 S '45

ELECTRIC cables
Cable connections for mobile sub. il Elec West 96:62-3 Ja '46
Cables hung over spools on pipe standard; rectifier substation of the Glogora coal co. diags Coal Age 51:106 Ag '46
Edison electric institute, Engineering committees meeting, Chicago, May 6-8. Elec World News ed 125:7-8 My 18 '46
Extra high tension d.c. cables; abstract. L. Domenach. Elec World 126:50 Ag 31 '46
Geon in the wire and cable industry. G. A. Fowles. il Rubber Age 58:703-8 Mr '46
Hand tool for bending small tubing and cable. il Elec World 125:130+ My 11 '46
High-impedance cable. H. E. Kallmann. diags Inst Radio Eng Proc 34:348-51 Je '46
High-voltage impregnated pressure cable. il diags Engineer 182:330-1 O 11 '46; Elec R (Lond) 139:577-9 O 11 '46; Electrician 137: 991-3 O 11 '46
How to determine current capacity for cables and buses in still air. J. P. C. McMath. Elec World 126:140 S 28 '46
Novel trends in European cable design. O. Jensen. diags Elec World 125:76-7 My 11 '46
Promise of synthetics as wire and cable insulations. R. B. McKinley. Elec World 124: 52-5 D 22 '45
Ring bus facilitates service connections. R. W. Coursey. diags Elec World 126:78 Ag 3 '46

ELECTRIC cables—*Continued*
Study of costs of 69- to 230-kv underground power-transmission systems and tie lines. J. G. Holm. bibliog Elec Eng 64:Trans 852-60 D '45
Thermoplastic cables. H. Barron. J. N. Dean and T. R. Scott. bibliog Inst E E J 91 pt 2: 287-309 Ag '44; Discussion. 91 pt 2:309-16; 92 pt 2:633-42 Ag '44, D '45
Trailing-cable development; abstract. F. E. Griffith. Coal Age 51:120+ Jl '46
War-proved advances in low-reactance cable for welding. M. Zucker. diags Welding J 24:1022-6 N '45

See also
Electric conduits
Electric lines
Telephone cables

Installation

Buried cable in Ontario. R. E. Jones. il Elec World 126:51-2 Ag 31 '46
Cable laying by plough. P. F. Clark. il diags Elec R (Lond) 137:355-8 S 14 '45; Abstract. Elec World 125:72 Ja 5 '46
Cables at Ballylumford. il Elec R (Lond) 137: 820 D 7 '45
Carry power cables on tiered troughs. R. S. Kibler. il diag Elec World 125:87 Ja 5 '46
Identifying phases in transmission circuits. diag Elec World 126:130 S 28 '46
Mystic cable tunnel; design and construction. O. S. Bray. diags Boston Soc C E J 33:68-81 Ap '46
Overhead rack ventilates cables. il Elec World 125:117 F 16 '46
Rural cable around Buffalo. J. H. Milbyer. il Elec World 126:52-3 Ag 31 '46

Joints

How to joint an aerial cable. diag Elec World 126:92 Jl 6 '46
Joints for pressure cables; discussion of paper by L. G. Brazier. Elec R (Lond) 138:287-8 F 22 '46; Electrician 136:473-5 F 22 '46
Oil-filled cable T tap saves investment. B. A. Gray. il diags Elec World 124:100 N 24 '45

See also
Potheads

Manufacture

Cable-making in Germany; use of synthetic rubbers. Electrician 136:43-4 Ja 4 '46

Protection

Cable protected by ground shield and circuit breaker. L. Wilson. diag Coal Age 51:81 O '46
Fireproofing power cables in groups. Elec World 126:114+ O 12 '46
German synthetic insulation for wire and cable. India Rubber World 113:219-21+ N '45
Metal guards protect aerial cable sheath. J. J. Graven. diags Elec World 124:144 N 10 '45
Semiconducting shielding for a-c power cable. E. J. Merrell. bibliog il diags Elec Eng 65:Trans 605-9 Ag-S '46

Rating

Power rating (thermal) of radio-frequency cables. R. C. Mildner. bibliog Inst E E J 93 pt 3:296-304 Jl '46
Short-time current ratings for aircraft wire and cable. B. W. Jones and J. A. Scott. diag Elec Eng 65:Trans 644-8 O '46

Sheathing

F-3 lead alloy; an improved cable sheathing. L. F. Hickernell and C. J. Snyder. bibliog il Elec Eng 65:Trans 563-9 Ag-S '46
Factors which influence aerial cable design and operation; discharge current of Oko-prene; abstract. R. J. Wiseman. diag Elec World 124:112 N 24; 88 D 22 '45
Lead-zinc for cable sheaths; abstract. M. Pfender and R. Schulze. Materials & Methods 22:1484 N '45
Mineral-insulated metal-sheathed conductors. F. W. Tomlinson and H. M. Wright. il Inst E E J 93 pt 2:325-35 Ag '46; Abstracts. Electrician 135:674 D 14 '45; Engineering 161:31 Ja 11 '46; Discussion. Inst E E J 93 pt 2:336-40; 94 pt 2:84-91 Ag '46, F '47; Electrician 135:708-10 D 21 '45; Elec R (Lond) 137:936-7 D 28 '45

Specifications

Ordering power cables; data required by manufacturers. C. C. Barnes. bibliog Elec R (Lond) 139:145-9 Jl 26 '46

Temperature

Determination of cable temperatures by means of reduced-scale models. A. Gemant and J. Sticher. bibliog il diag Elec Eng 65:Trans 475-82 Jl '46
Determination of the temperature rise and the maximum safe current through multi-conductor electric cables. H. P. Iskenderian and W. J. Horvath. diag J Ap Phys 17: 255-62 Ap '46
Thermal characteristics of transformers; temperature rise of cables. V. M. Montsinger. Gen Elec R 49:30-2 Jl '46

Terminals

See also
Potheads

Testing

Buried cable faults located by sonic detector. F. S. Benson and others. il diags Elec World 125:82-5 Je 22 '46
Cable fault location. F. Buck and W. Upham. Edison Elec Inst Bul 14:85-6 Mr '46
Cable faults located quickly and conveniently. diag Elec World 124:138 N 10 '45
Condenser pop locates aerial cable fault. F. W. Buck. diag Elec World 125:111 My 25 '46
End leakage in cable power-factor measurement. A. Rosen. diags Inst E E J 93 pt 2: 383-6 Ag '46
Inductive pick-up for fault location. G. L. Danner. diags Elec World 125:130 F 16 '46
Localization of faults in low-voltage cables, with special reference to factory technique. J. H. Savage. bibliog diags Inst E E J 92 pt 2:580-9; Discussion. 590-3; 93 pt 2:496-500 D '45, O '46
Locates faults in street light circuits; exploring coil method. C. E. White. diags Elec World 126:87 Ag 17 '46
Locating cable faults. B. Calvert. diags Elec R (Lond) 138:125-7 Ja 25 '46
Measuring cable a.c. capacitance and inductance. L. H. Hutchins, jr. il diags Elec World 126:55-6 O 26 '46
Measuring d.c. insulation resistance and capacitance. L. H. Hutchins, jr. il diags Elec World 126:64-5 Jl 6 '46
Portable high-voltage cable test unit. L. H. Hutchins, jr. il diag Elec World 126:114 O 12 '46
X-ray inspection of armored cable. il Elec West 97:70-1 Ag '46

ELECTRIC cables, Submarine

Inhibition of sulphate-reducing bacteria by dyestuffs; Practical applications in cable storage tanks and gas holders. T. H. Rogers. Soc Chem Ind J 64:292-5 O '45

See also
Cable laying and supply ships

Testing

Submarine-cable fault; method of localization. M. Datta. diags Elec R (Lond) 139: 303-4 Ag 23 '46

ELECTRIC capacity

Properties of the electrical double layer at a mercury surface; the effect of frequency on the capacity and resistance of ideal polarized electrodes. D. C. Grahame. bibliog diag Am Chem Soc J 68:301-10 F '46
System of graphing capacities and inductances. A. S. Runciman. Elec Eng 65:300 Je '46

ELECTRIC cells. See Electric batteries; Electrolytic cells; Photoelectric cells; Storage batteries

ELECTRIC charges

Army-navy precipitation-static project. R. Gunn and others. bibliog il diags Inst Radio Eng Proc 34:156-77, 234-54 Ap-My '46
Reciprocal electric force. F. W. Warburton. Phys R 69:40 Ja 1 '46
Variation along range of the $H\rho$-distribution and the charge of the fission fragments of the light group. N. O. Lassen. Phys R 69: 137-9 Mr 1 '46

See also
Space charge

ELECTRIC circuit breakers
Aircraft circuit-breakers. C. H. Flurscheim and J. A. Nott. il diags Roy Aeronautical Soc J 49:663-79 N '45
Arc quenching chamber ups oil circuit breakers capacity. A. R. Miller. il diag Elec World 124:86 D 22 '45
Arc quenching in low-oil-content breakers. E. Vogelsanger. diag Electrician 137:867-8 S 27 '46
Cable protected by ground shield and circuit breaker. L. Wilson. diag Coal Age 51:81 O '46
Circuit breaker mounted on steel panel. W. H. Edmunds. il Elec World 126:128 S 14 '46
Cooke and Ferguson low-oil-content circuit breakers. il Engineer 182:39-40 Jl 12 '46
Cooke and Ferguson new oil circuit-breaker. il Electrician 136:162 Ja 18 '46
Cooke and Ferguson 33-kv low oil-content circuit-breaker. il Engineering 161:282 Mr 22 '46
Evaluation of restriking voltages. J. R. Mortlock. diags Inst E E J 92 pt 2:562-79 bibliog(p575) D '45; Discussion. 93 pt 2:393-4 Ag '46
German electric power. C. H. Flurscheim and others. Electrician 137:321-2 Ag 2 '46
Industrial switchgear; effect of increasing short-circuit capacity of power systems. il Electrician 137:109-11 Jl 12 '46
Oil circuit-breaker contacts. il diag Electrician 136:599-600 Mr 8 '46
Overload protection. E. V. C. Habgood. diags Elec R (Lond) 139:416-18 S 13 '46
Progress in engineering knowledge during 1945; protective devices. P. L. Alger and others. diags Gen Elec R 49:33-5 bibliog(p66) F '46
Protected secondary banks. il plan Elec West 96:58-61 Mr '46
Quick-trip bus ties reduce breaker duties. diag Elec World 125:95 My 11 '46
Safety guards for energized breakers. F. C. Pohl. il Elec World 125:155 Ja 19 '46
Secondary banking with automatic sectionalizing. J. S. Rule. il plan diags Elec World 125:56-60 Mr 2 '46
Short-circuits need speedy interruption. D. L. Beeman. il diag Textile World 96:155+ F '46

Control
Breaker closing control rendered pump-free. O. Ramsaur. diag Elec World 125:112+ My 25 '46

Design
New line of high-voltage outdoor tank-type oil circuit breakers. W. F. Skeats and E. B. Rietz. bibliog il diags Elec Eng 65:Trans 224:31 Ap '46

Oilless
Advantages of air-blast breakers for very high voltages. H. Thommen. Electrician 137:868-9 S 27 '46
Air-blast breakers at Barrow. M. A. Garrett. il diag Elec R (Lond) 138:619-21 Ap 19 '46
Air-blast circuit breakers. A. R. Blandford. il diags Inst E E J 90 pt 2:411-23 D '43; Excerpts. Electrician 130:246-8 Mr 5 '43; Abstract. Elec R (Lond) 132:320 Mr 5 '43; Discussion. Inst E E J 90 pt 2:423-52; 93 pt 2:214-26 D '43, Je '46; Electrician 130: 274-6 Mr 12 '43; Elec R (Lond) 132:353-4 Mr 12 '43
Air-blast switchgear. il diags Elec R (Lond) 137:653-6 N 9 '45
Development, design, and performance of magnetic-type power circuit breakers. L. J. Linde and B. W. Wyman. bibliog il diags Elec Eng 65:Trans 386-93 Je '46
Dielectric recovery by an a-c arc in an air blast. T. E. Browne, jr. bibliog il diags Elec Eng 65:Trans 169-76 Mr '46
High-voltage oil-less switchgear. A. S. Faulkner. Inst E E J 92 pt 1:454 D '45
Influence of resistance switching on the design of high-voltage air-blast circuit breakers. H. E. Cox and T. W. Wilcox. il diags Inst E E J 91 pt 2:483-95 D '44; Discussion. 91 pt 2:495-509; 92 pt 2:536-49 D '44, D '45
Modern arc furnace; control and protective equipment. W. N. Gittings. il diags Steel 118:146-8 Mr 4 '46
Oilless circuit breakers. J. M. Goodall. il diags Electrician 136:589-92 Mr 8 '46
132-kv air-blast circuit breaker. il Engineer 181:570-1 Je 21 '46; Abstract. Elec R (Lond) 138:905-6 Je 7 '46
Pressure-arc-interruption circuit breakers for 400-cycle aircraft electric-power system. B. O. Austin. il Elec Eng 65:Trans 58-60 F '46
Size reduction and rating extension of magnetic air circuit breakers up to 500,000 kva. 15 kv R. C. Dickinson and R. Frink. il diags Elec Eng 65:Trans 220-3 Ap '46
Switchgear developments. J. M. Goodall. il diag Electrician 136:92-5 Ja 11 '46
Theory and design of air-blast circuit breakers. W. M. Butler. Inst E E J 92 pt 1:414 N '45

Rating
Application ratings of indoor power circuit breakers. O. B. Vikoren. Elec Eng 65:Trans 768-73 N '46

Standards
Important new data in standards for a-c power circuit breakers. H. R. Summerhayes and G. Sutherland. il Ind Stand 16: 221-2 O '45; Same. Edison Elec Inst Bul 13: 364-5 D '45

Tanks
Instrument reveals oil circuit breaker tank pressures. A. R. Miller. diag Elec World 125:90 Ja 5 '46

Testing
Field tests of interrupting capacity of 138-kv oil circuit breakers. W. B. Buchanan and G. D. Floyd. il diag Elec Eng 65:Trans 199-204 Ap '46
4,370,000-kva short-circuit tests on Grand Coulee 230-kv bus. W. H. Clagett and W. M. Leeds. il diags Elec Eng 65:Trans 729-35 N '46
High-speed switchgear; low-oil-content circuit-breakers. il Electrician 137:45-6 Jl 5 '46
Influence of resistance switching on the design of high-voltage air-blast circuit breakers. H. E. Cox and T. W. Wilcox. il diags Inst E E J 91 pt 2:483-95 D '44; Discussion. 91 pt 2:495-509; 92 pt 2:536-49 D '44, D '45
Oil circuit breaker demonstration tests. il diags Power Pl Eng 49:87-9+ N '45
On-line test station electrical features. A. R. Miller. il diag Elec World 124:146+ D 8 '45
Restriking voltage as a factor in the performance, rating and selection of circuit-breakers. J. A. Harle and R. W. Wild. diags Inst E E J 91 pt 2:469-82 bibliog(p479) D '44; Discussion. 91 pt 2:495-507; 92 pt 2: 529-36, 547-9 D '44, D '45

Tripping
Instantaneous trip blocking on a.c. supply. O. Ramsaur. diag Elec World 125:114 Je 22 '46
Slip cycle relays automatically separate power system. L. F. Hunt. il diag Elec World 126: 97 S 14 '46

ELECTRIC circuit breakers, Portable
Switchgear of increased rupturing capacity. il Engineer 182:63 Jl 19 '46

ELECTRIC circuits
Accuracy of lumping in an electric circuit representing heat flow in cylindrical and spherical bodies. V. Paschkis and M. P. Heisler. bibliog diag J Ap Phys 17:246-54 Ap '46
Adjustable-voltage control; basic principles and circuits. E. U. Lassen. il diags Product Eng 17:[no 7] 142-7 Jl '46
Basic control circuits for squirrel cage motors. H. Littlejohn. il diags Product Eng 17:444-8 Je '46
Circuit cushioning of gas-filled grid-controlled rectifiers. D. V. Edwards and E. K. Smith. il diags Elec Eng 65:Trans 640-3 O '46
Decade counting circuits. V. H. Regener. il diags R Sci Instr 17:185-9 My '46
Design and use of directly coupled pentode trigger pairs; sample diagrams for pulse generator, electronic switch, and scaling circuit. V. H. Regener. R Sci Instr 17: 180-4 My '46

ELECTRIC circuits—*Continued*

La détermination de la puissance optimum dans un circuit contenant un arc alternatif. C. Macherey. Génie Civil 123:61-3 Mr 1 '46

Direct- and quadrature-axis equivalent circuits of the synchronous machine. A. W. Rankin. bibliog diags Elec Eng 64:Trans 861-8 D '45; Correction. 65:Trans 40 Ja '46

Electric circuit models for the vibration spectrum of polyatomic molecules. G. Kron. diags J Chem Phys 14:19-31 Ja '46

Evaluation of circuit constants from oscillograms. L. S. Foltz. Elec Eng 65:490-2 O '46

Formulas for voltage drops on unbalanced secondary circuits. J. W. Anderson, 3d. diags Elec World 125:50-3 Ap 27 '46

General dynamical considerations applied to piezoelectric oscillations of a crystal in an electrical circuit. W. F. G. Swann. diags Franklin Inst J 242:167-95 S '46

High speed pulse recording circuit. B. E. Watt. diags R Sci Instr 17:338-42 S '46

Identifying phases in transmission circuits. diag Elec World 126:130 S 28 '46

Network analyzer tests of equivalent circuits of vibrating polyatomic molecules. G. K. Carter and G. Kron. diags J Chem Phys 14: 32-4 Ja '46

New resonant circuit. E. E. Schneider. diag Electronics 19:190+ S '46

Parallel circuits in servomechanisms. H. T. Marcy. bibliog diags Elec Eng 65:Trans 521-9 Ag-S '46

Progress in engineering knowledge during 1945; circuit analysis; methods for solution of differential equations. P. L. Alger and others. diags Gen Elec R 49:23-5 bibliog(p63) F '46

Reversible decade counting circuit. V. H. Regener. diags R Sci Instr 17:375-6 O '46

Shunt and series sections of transmission line for impedance matching. C. T. Tai. diags J Ap Phys 17:44-50 Ja '46

Simple battery operated high voltage supply. L. E. Williams. diag R Sci Instr 17:296-7 Ag '46

Simple potentiometer circuit for production of the tangent function. R. Hofstadter. diag R Sci Instr 17:298-300 Ag '46

Some precision circuit techniques used in wave-form generation and time measurement. B. Chance. il diags R Sci Instr 17: 396-415 O '46

Stabilité et aptitudes diverses d'un arc électrique soumis à la régulation. C. Macherey. Génie Civil 123:171-3 Jl 1 '46

Three-phase circuit calculations. G. W. Stubbings. Electrician 137:526-7 Ag 23 '46

Tunable rejection filter. R. C. Taylor. il diags Elec Eng 65:Trans 263-7 My '46

Why doesn't this power system operate right? diags Power Pl Eng 50:112+ Ja '46

See also

Electric contacts
Electric distribution
Radio circuits
Short circuits

Mechanical analogies

Mechanical model analogous to an oscillatory electrical circuit. G. G. Blake. diags Engineer 181:535-6 Je 14 '46

Printed circuits

Mechanized wiring; printed circuits. J. Markus. il Sci Am 175:63-5 Ag '46

Printed circuits. il Machine Design 18:106-8 Ag '46

Printed electric circuits. il Product Eng 17: [no 7] 134 Jl '46

ELECTRIC clocks. See Clocks, Electric

ELECTRIC codes

Code of electrical practice for the petroleum industry. A. D. Maclean. Inst Pet J 31:379-92; Discussion. 393-400 O '45

Codes of practice; electrically-driven pumps for hot-water services. Electrician 136:1244 My 10 '46

Codes of practice; service cables, consumer's controls and lightning protection. Electrician 136:963-4 Ap 12 '46

Fire loss from electrical causes is largely preventable. E. B. McBryde. Weekly Underw 153:1269-71 D 1 '45

Wiring code of practice. Electrician 136:337-8, 588 F 8, Mr 8 '46

See also

National electrical code

ELECTRIC coils

Coil-impregnating compounds nearly 100% solids. il Elec World News ed 126:22 S 7 '46

Coil systems for producing transverse and longitudinal magnetic gradients. G. H. Shortley and A. May. diags J Ap Phys 16: 841-3 D '45

Enclosed field coils solve rubber mill problem. J. S. Askey. il Rubber Age 59:185-6 My '46

How to install field coils on generators and motors. C. Gentilini. il diags Power Pl Eng 50:74-5 Je '46

Phos-copper brazing of armature coils. C. Lynn. il diags Diesel Power 24:982-5 Ag '46

Self-inductance of a toroidal coil without iron. H. B. Dwight. Elec Eng 64:Trans 805-6 N '45

Silicone-resin-treated magnet coils. G. L. Moses and J. J. Torok. bibliog il Elec Eng 65:Trans 412-16 Jl '46

See also

Armatures
Electromagnets
Inductance coils
Petersen earth coil
Radio coils
Reactors
Solenoids

Testing

Coil testers detect defective coils. il Elec World 126:138 O 12 '46

New magneto coil tester. il diag Machine Design 18:152-3 Ag '46

ELECTRIC communication

Cable and wireless research. il Elec R (Lond) 138:901-2 Je 7 '46; Electrician 136:1513 Je 7 '46

Communication developments imply greater flexibility. R. C. Leslie. il Dom Comm 34: 60-4 S '46

Communications; implement to peace. R. C. Wakefield. il Elec Eng 65:99-105 Mr '46

German communications system. E. H. Merrill. Pub Util 38:539-43 O 24 '46

Horizons in communications. F. B. Jewett. Metal Prog 49:1199-1200 Je '46

Microwaves on the way; new impetus to television, radio telephony, telegraphy, and facsimile. H. Manchester. il Sci Am 174:28-32 Ja '46

Some novel expressions for the propagation constant of a uniform line. J. L. Clarke. Bell System Tech J 25:156-7 Ja '46

Telecommunications research at Dollis Hill. il Elec R (Lond) 138:811 My 24 '46; Electrician 136:1317-18 My 17 '46; Engineer 181: 458-9 My 17 '46; Engineering 161:524 My 31 '46

See also

Radio communication
Radio telegraph
Radio telephone
Sound—Measurement
Telegraph
Telephone
Teletype
Television

ELECTRIC companies, National association of. See National association of electric companies

ELECTRIC condensers. See Condensers (electricity)

ELECTRIC conductivity

Bose-Einstein condensation of trapped electron pairs; phase separation and superconductivity of metal-ammonia solutions. R. A. Ogg, jr. bibliog Phys R 69:243-4 Mr 1 '46; Discussion. H. A. Boorse and others. diag 70:92 Jl 1 '46; Reply. 70:93 Jl 1 '46

Conductance of iodine in liquid hydrogen sulfide. E. E. Lineken. bibliog diag Am Chem Soc J 68:1966-8 O '46

Conduction and dispersion of ionized gases at high frequencies. H. Margenau. bibliog Phys R 69:508-13 My 1 '46

Conduction process in dilute metal-ammonia solutions. R. A. Ogg, jr. J Chem Phys 13: 533 N '45

Conductivity of metal-amine solutions. S. I. Weissman. Phys R 70:571-2 O 1 '46

Conductivity of sodium-ammonia solutions J. G. Daunt and others. Phys R 70:219 Ag 1 '46

Conductometric investigation of electrolytic solutions in hydrocarbons. A. Gemant. bibliog J Chem Phys 14:424-34 Jl '46

Diamagnetism and superconductivity. W. Band. Phys R 69:241 Mr 1 '46

ELECTRIC conductivity—*Continued*
Effect of ultrasonic waves on the conductivity of salt solutions. F. E. Fox and others. il diag Phys R 70:329-39 S 1 '46
Electrical conductivity measurements of carbon black. G Benson and others. diag Electrochem Soc Trans 90 (preprint 22): 293-8 '46
Electronic processes in liquid dielectric media; properties of metal-ammonia solutions. R. A. Ogg, jr. Am Chem Soc J 68:155 Ja '46
Fast superconducting bolometer. D. H. Andrews and others. il diags Opt Soc Am J 36:518-24 S '46
How electrical conductivity can aid in separation of immiscible liquids. J. E. Cornish. diags Chem Eng 53:127 Ag '46
How to test boiler water by conductivity; illustrated instructions. C. A. Noll. Power 90:412 Je '46
Occurrence of superconductivity in a collective electron assembly. W. Band. Phys R 69:41 Ja 1 '46
Persistent currents in frozen metal-ammonia solutions. J. W. Hodgins. bibliog diag Phys R 70:568 O 1 '46
Physical interaction of electrons with liquid dielectric media; properties of metal-ammonia solutions. R. A. Ogg, jr. Phys R 69: 668-9 Je 1 '46
Physics of the solid state. G. Busch. Engineering 160:490-1 D 14 '45
Practical conductivity measurements in plating applications. J. B. Mohler and J. Sternisha. il Metal Finishing 44:58-62+ F '46
Stokes' law and the limiting conductance of organic ions. E. Gonick. diag J Phys Chem 50:291-300 Jl '46
Superconductivity and magnetic energy between currents. W. Band. Phys R 69:241 Mr 1 '46
Superconductivity of lead at 3-cm wavelength. F. Bitter and others. Phys R 70: 97-8 Jl 1 '46
Superconductivity; resistance phenomena in conductors at temperatures near absolute zero. C. W. Hewlett. diags Gen Elec R 49: 19-25 Je '46
Temperatures of zero conductance and infinite viscosity of some negatively charged colloidal systems; ferric vanadate, molybdate, tungstate, borate, arsenate, and phosphate. S. P. Mushran and S. Prakash. J Phys Chem 50:251-6 My '46
Thermoluminescence and conductivity of phosphors. R. C. Herman and C. F. Meyer. bibliog J Ap Phys 17:743-8 S '46
Transfer phenomena and indeterminacy. J. G. Daunt and K. Mendelssohn. bibliog Phys R 69:126 F 1 '46
Use of the neon bulb for conductivity demonstration. G. W. Thiessen. J Chem Educ 23: 267 Je '46

See also
Dielectric constants
Dielectrics
Electrolytes—Conductivity

ELECTRIC conductors
Analysis of electromagnetic forces. W. A. Tripp. Elec Eng 64:351-6 O '45; Discussion. A. Gronner. 65:300-2 Je '46
Calculating conductor areas; relating current-carrying capacity to voltage drop. A. Salzmann. Elec R (Lond) 139:95-6 Jl 19 '46
Conductor constants afford exact voltage drop calculations. N. H. Erlandson and W. R. Buchanan. Elec World 126:90 O 26 '46
Co-ordination of insulation and spacing of transmission line conductors. W. W. Lewis. bibliog diags Elec Eng 65:690-4 O '46
Electrical conductivity of conductors. L. F. Roehmann. il Am Soc T M Proc 45:711-18 '45
Formulas for conductor size according to cost of resistance loss. H. B. Dwight. Elec Eng 65:Trans 22-5 Ja '46
Formulas for the inductance of coaxial busses comprised of square tubular conductors. H. P. Messinger and T. J. Higgins. bibliog diags Elec Eng 65:Trans 328-36 Je '46
Geometric mean distances for rectangular conductors. H. B. Dwight. bibliog Elec Eng 65:Trans 536-8 Ag-S '46
Method to determine size of conductor for a residential area. G. W. McCracken. diag Elec World 124:146 N 10 '45
New zinc-conductor alloy; abstract. W. Deisinger and R. Reinbach. Materials & Methods 22:1478+ N '45
Proper conductors prevent lamp flicker. Power Pl Eng 50:103 Ja '46
Underwriters' consider use of aluminum conductors. Elec Eng 65:486 O '46
Weights and datum costs of bare and triple braid weatherproof conductors; tables. P. W. Choate. Elec World 125:120 My 25 '46

See also
Busbars
Electric cables
Electric distribution
Electric wire
Radio conductors

Semi-conductors
Germanium crystal diodes. E. C. Cornelius. bibliog il diags Electronics 19:118-23 F '46
Heat treatment of semi-conductors and contact rectification. B. Serin. bibliog diag Phys R 69:357-62 Ap 1 '46
Method for measuring effective contact e.m.f. between a metal and a semi-conductor. W. E. Stephens and others. Phys R 69:42-3 Ja 1 '46; Correction. 69:244 Mr 1 '46
Nonlinear circuit element applications. H. E. Kallmann. bibliog diags Electronics 19:130-6 Ag '46
Properties and uses of thermistors; thermally sensitive resistors. J. A. Becker and others. bibliog il diags Elec Eng 65:Trans 711-25 N '46
Semiconducting shielding for a-c power cable. E. J. Merrell. bibliog il diags Elec Eng 65: Trans 605-9 Ag-S '46
Steady-state load curves for semi-conductor bolometers. R. C. Jones. bibliog Opt Soc Am J 36:448-54 Ag '46

Temperature
Calculation of the short-time ratings of bare electrical conductors. L. H. R. Everitt. Inst E E J 92 pt 1:380-7 O '45
Fusing currents. G. W. Stubbings. Electrician 136:217 Ja 25 '46
Resistance temperature coefficients of metals and semi-conductors. F. Ashworth and E. D. Taylor. Inst E E J 92 pt 1:412-13 N '45

ELECTRIC conduits
A-c wiring in conduit. C. O. von Dannenberg. diag Power Pl Eng 49:108 N '45
Effectiveness of conduit as r-f shielding. S. L. Shive. il diags Electronics 19:160-2+ F '46
Flexibility provided between solid structures and sinking ground for conduits carrying control wiring. B. D. Dexter. il diag Elec World 126:134+ S 14 '46

ELECTRIC contactors

See also
Brushes (electric machinery)

ELECTRIC contacts
Carbon for switch gear; abstract. F. Hofmann and L. Weller. Materials & Methods 22:1486 N '45
Electrical contact springs; radio section discussion meeting. Inst E E J 93 pt 3:242 Jl '46
How to make sure electrical contacts will work. W. H. Bloodworth. il Factory Management 104:134-6 Je '46
Making electrical contacts with metal powders. E. I. Larsen. Steel 118:119+ Ja 28 '46
Mechanical rectifier; the contact converter as developed by Siemens-Schuckert in Berlin, Germany. O. Jensen. il diags Electrochem Soc Trans 90 (preprint 10):163-76 '46
Modified Zisman apparatus for measuring contact potential differences in air; plate driven by radio loudspeaker and null point determined with oscillograph instead of earphones. S. Rosenfeld and W. M. Hoskins. diags R Sci Instr 16:343-5 D '45
Oil circuit-breaker contacts. il diag Electrician 136:599-600 Mr 8 '46
Silver to silver for fixed contacts. H. H. Rudd. Elec World 125:58-9 F 2 '46
Sintered metallic powders for electrical contacts. H. H. Hausner. il Engineering 161: 188-90 F 22 '46
Tungsten contact life exceeds that of silver. H. C. Miller. Elec World 125:89 Mr 2 '46

ELECTRIC contractor-dealers
One man's business; Gem state electric co. il Elec West 96:104 Je '46

ELECTRIC contractors
Contractors band to fight policy of REA and co-ops. Elec World 125:35 Mr 2 '46
Control of electrical installation work. W. R. Watson. Inst E E J 93 pt 2:249-59 Je '46; Abstracts. Electrician 136:168 Ja 18 '46; Elec R (Lond) 138:62 Ja 11 '46; Discussion. Electrician 136:168-70 Ja 18 '46; Elec R (Lond) 138:105-6 Ja 18 '46; Inst E E J 93 pt 2:259-62 Je '46; 94 pt 2:99-100 F '47
Electrical contracting industry. Electrician 136:949-50 Ap 12 '46
Electrical contractors. R. H. M. Drake. Electrician 137:101-3, 175-6 Jl 12-19 '46
Registration of contractors. A. H. Dykes. Elec R (Lond) 137:564-5 O 19 '45; Discussion. E. A. Pinto. 137:717-18 N 16 '45
Registration of contractors. P. V. Hunter and others. Elec R (Lond) 138:1016 Je 28 '46
Registration of contractors; views on compulsory and voluntary schemes. Electrician 137:96 Jl 12 '46
REA picks another fight; would shun contractors working for private utilities. Bsns W p58+ D 1 '45
Training more apprentices. il Elec West 96: 96-7 Je '46

Accounting

Balancing the books. S. H. Withey. Electrician 136:225-6 Ja 25 '46

ELECTRIC control
All-electric gun charging. W. C. Rohn. il diags Elec Eng 65:Trans 1-4 Ja '46
Amplidyne electrical control system. il diags Engineering 162:103-5 Ag 2 '46
Automatic controls essential for conveyor operation today; Bolair and Bergoo mines. C. W. Thompson. il diags Coal Age 51:86-92 Ap '46
Automatic operation of a small filtration plant; Boone county coal corp. E. H. Greenwald and H. E. Davis. diags Am Water Works Assn J 38:348-54 Mr '46
Complete slasher room control. il diag Rayon 27:549-50 O '46
Constant speed regulation; four systems for maintaining preset speed. J. E. Jones. il diags Product Eng 17:100-2 O '46
Control diagrams, an aid to design. F. L. Fisher. il diags Machine Design 18:159-64 Ap '46
Effect of measurement dead time in control of certain processes. D. P. Eckman. bibliog diags Pet Eng 17:59-60+ F '46; Same. Pet Refiner 25:117-20 Mr '46; Same. A S M E Trans 68:707-10; Discussion. 710-11 O '46
Electric measuring instruments. D. M. Nielsen. diags Elec Eng 65:66-74 F '46
Electro-pneumatic loom is developed in Brazil. H. E. Reed. il diags Textile World 96: 129+ My '46
Frequency response of automatic control systems. H. Harris, jr. bibliog diags Elec Eng 65:Trans 539-46 Ag-S '46
Improved control of mine hoist drives. J. G. Ivy. il diags Can Min J 67:20-3 Ja '46
Load equalisation; colliery winding equipment; flywheel set with Ward-Leonard control. G. Barnard. diags Elec R (Lond) 137: 754-6 N 23 '45
Load handling technique; Velac control system for hoisting motion of cranes on alternating current supplies. il Mech Handling 33:443-6 Jl '46
Matching the small motor to the job. le M. Dabbs. il Machine Design 18:155-8 Ap '46
Mechanical oscillators and their electrical synchronization. S. W. Herwald and others. bibliog il diags A S M E Trans 68:713-18 O '46
Motors, controls, switches; one-year summary. il Factory Management 104:158+ My '46
New d.c. system for remote positioning. R. W. Smeaton. il diag Elec World 125:77 Mr 30 '46
New remote control gear; products of Londex, ltd. Electrician 137:1005-6 O 11 '46
Progress in engineering knowledge during 1945; control. P. L. Alger and others. il diag Gen Elec R 49:53-4 bibliog(p66) F '46
Push button control for meter test table. J. L. Haley. il diag Elec World 125:79 Ap 27 '46
Safeguarding service lines by centralized control; Boeing's aircraft plant at Renton, Wash. E. J. Strickland. il Factory Management 104:98-102 Ap '46
Selection and application of automatic control for capacitors. T. W. Schroeder and W. C. Bloomquist. il diags Gen Elec R 48: 7-11 O; 22-31 D '45; 49:37-41 Mr '46
Theory of servo systems, with particular reference to stabilization. A. L. Whiteley. diags Inst E E J 93 pt 2:353-67; Discussion. 368-72 Ag '46

See also
Carrier current control
Electric controllers
Electric motors—Control
Electric switchgear
Magnetic control
Photoelectric cells—Control uses
Radio control
Rototrol
Selsyn apparatus
Thyratron
Vacuum tubes—Control uses

ELECTRIC controllers
Characteristics of electric controllers. H. D. James. Power Pl Eng 50:98-100 F '46
De Renzi cam-operated contactor controllers. il diag Mech Handling 33:47-8 Ja '46
Design of d-c auxiliary controllers for marine service. W. Schaelchlin. il diags Elec Eng 65:Trans 623-9 O '46
Motor control gear. il Electrician 137:661 S 6 '46
Smithson cam-operated controllers. il Mech Handling 32:717-18 D '45

See also
Rheostats

ELECTRIC converters
Electric power conversion at the trail plants of the Consolidated mining & smelting company of Canada, limited. A. G. Dickinson. il Electrochem Soc Trans 90 (preprint 14):205-17 '46
Lever device turns converter armature. il diags Elec World 125:111 My 11 '46
Mechanical rectifier; the contact converter as developed by Siemens-Schuckert in Berlin, Germany. O. Jensen. il diags Electrochem Soc Trans 90 (preprint 10):163-76 '46
Rotary converter for portable power supplies. diag Electronics 19:142 Ag '46
Spark gap converter as high-frequency power source for induction heating. O. Weitmann. il diag Steel 117:114-15+ N 19 '45
Westinghouse static phase converters. Mech Handling 33:178 Mr '46

See also
Electric inverters

ELECTRIC cooking
Coal-electric house unit; complete heating and cooking services. il Elec R (Lond) 138: 536 Ap 5 '46
Food service offers load opportunities. H. L. Murphey. il Elec World 125:116 Mr 2 '46
Frozen cooked meals for air passengers. il Electrician 136:1304 My 17 '46
Hermes' electrical equipment. il Electrician 137:663 S 6 '46
Large scale catering. Electrician 135:607 N 30 '45
Portland hotel installs complete electric kitchen. il Elec World 126:108 Ag 17 '46
To speed sales of commercial cooking. Elec World 126:114+ Jl 20 '46

See also
Electric broilers
Electric stoves
Electronic cooking

ELECTRIC cooperative associations. See Electric service, Rural—Cooperative lines

ELECTRIC coverlets. See Electric blankets

ELECTRIC current inverters. See Electric inverters

ELECTRIC current limiters
Resonant-circuit constant-current regulators; airport-approach and runway-marker light circuits. G. M. Kevern. il diag Elec Eng 64:Trans 807-10 D '45
Servicing the new Delco regulator. W. H. Crouse. il diags Bus Transportation 25:74-9 Je '46

ELECTRIC currents
Bearing wear is eliminated by shunting shaft currents. D. B. Hoover. il diags Eng & Min J 147:75-6 Ja '46; Same. Paper Ind 27:1364-6 D '45; Excerpts. Food Ind 17: 1298 N '45
Behavior of red fir poles for 11-kv lines under electrical stress due to insulator failure. W. Lethersich. Inst E E J 93 pt 2:387-93 Ag '46
Busbar spacing creates unbalanced circulating current in 3-phase system. L. G. Levoy, jr. il diags Power 90:537-8+ Ag '46
Current distribution for broadside arrays which optimizes the relationship between beam width and side-lobe level. C. L. Dolph Inst Radio Eng Proc 34:335-48 Je '46
Dangerous electric currents. C. F. Dalziel. bibliog Elec Eng 65:Trans 579-85 Ag-S '46
Fluctuations of electric current. D. A. Bell. bibliog Inst E E J 93 pt 3:37-44 Ja '46
Fusing currents. G. W Stubbings. Electrician 136:217 Ja 25 '46
How to determine current capacity for cables and buses in still air. J. P. C. McMath. Elec World 126:140 S 28 '46
Measurement of cathodic protection currents in submarine pipe lines. W. R. Hill. Pet Eng 17:168+ Mr '46
Measurement of large varying currents. A. C. Johnson. diags Elec Eng 65:Trans 8-11 Ja '46
Method to calculate fault current on industrial network system; table and graph. J. S. Parsons. Elec World 124:90-1 D 22 '45

See also
Eddy currents
Electric circuits
Electric conductivity
Electric distribution
Electric switchgear
Electric transformers
Electric waves
Electrodynamics
Short circuits

ELECTRIC currents, Alternating
Alternating current for mine transmission and distribution. D. E. Renshaw. Min Cong J 32:41-5 My '46
Alternating current made easy. E. G. Key. diags Power Pl Eng 50:99 Ag; 95-6 S '46 (to be cont)
Alternating current power for large aircraft. T. B. Holliday. il diags Product Eng 17: 503-8 Je '46
Bulk transmission by a.c. favored by Germany; with cost data. diag Elec World 126: 88-90 S 28 '46
Complexor representation of electric power. D. W. C. Shen. Elec R (Lond) 138:183-5 F 1 '46
Single phase load from 3-phase supply. C. O. von Dannenberg. diags Power Pl Eng 50:93-4 F '46
Single-phase to three-phase conversion by the Ferraris-Arno system. A. H. Maggs. diags Inst E E J 93 pt 2:133-6 Ap '46

ELECTRIC cutouts
How to connect and fuse capacitors; table and diagrams. Elec World 125:102 Ja 5 '46
How to determine sizes of fuses for 2300 to 6900-volt transformer cutouts. diags Elec World 124:106 N 24 '45

ELECTRIC cutting
New method for cutting cast-iron pipe. W. R. LaDue. plan Am Water Works Assn J 38:345-7 Mr '46
Sunken steel hopper barge cut to pieces on the bottom; use of combination of electric arc and oxygen jet. W. L. Dickey. diags Eng N 136:432-3 Mr 21 '46

See also
Metal cutting, Subaqueous
Tree felling

ELECTRIC discharges
Bushing insulators; surface discharge phenomena. E. G. Wright. bibliog diags Elec R (Lond) 138:733-6 My 10 '46
Cathode dark space and negative glow of a mercury arc. C. G. Smith. bibliog il diags Phys R 69:96-100 F 1 '46
Electrodeless discharges at high frequencies and low pressures. C. R. Nisewanger and others. Opt Soc Am J 36:581-7 O '46
Energy distribution of electrons in high frequency gas discharges. T. Holstein. diag Phys R 70.367-84 S 1 '46
Fluorescence of phosphors in rare gases. N. C. Beese. Opt Soc Am J 36:493-8 S '46
Initiation of discharge in arcs of the thyratron type. C. J. Mullin. bibliog diag Phys R 70:401-5 S 1 '46
Ionization currents in non-uniform electric fields. P. L. Morton. bibliog diag Phys R 70:358-66 S 1 '46
Magnetically-controlled gas discharge tubes. R. E. B. Makinson and others. bibliog diags J Ap Phys 17.567-72 Jl '46
Photographic use of electrical discharge flash-tubes. H. E. Edgerton. bibliog il diags Opt Soc Am J 36:390-9 Jl '46
Preliminary investigation of spark discharges along shock waves. E. E. Hackman. il diag Phys R 69:130 F 1 '46
Safe discharge of a.c. power capacitors. R. L. Fancher. diags Elec World 125:105-7 Ap 13 '46
Spectrum of high frequency discharge in air in relation to active nitrogen. N. R. Tawde and G. K. Mehta. Phys R 69:245 Mr 1 '46

See also
Corona (electricity)
Electric arc
Lightning

ELECTRIC distribution
Alternating current for mine transmission and distribution. D. E. Renshaw. Min Cong J 32:41-5 My '46
Busbar spacing creates unbalanced circulating current in 3-phase system. L. G. Levoy, jr. il diags Power 90:537-8+ Ag '46
Combined light and power systems for industrial plants. D. L. Beeman. il diags Elec Eng 65:Trans 76-83 F '46
Directional relays; checking connections for ring-main and parallel-feeder installations. V. B. Shah. diags Elec R (Lond) 137:601-3 O 26 '45
Distribution plans for future loads; abstract. C. Hutchinson. Elec World 125:99 My 11 '46
Electric power in a steel plant, Bethlehem steel company plant, Lackawanna. R. W. Graham. diags Elec Eng 64:Trans 816-18 D '45
Electrical power equipment for new British film studios. Engineer 181:559-60 Je 21 '46
Electrical power in Germany. Electrician 136: 885 Ap 5 '46
Electricity supply in south-west Wales. il Engineering 162:176-7, 180, 199-202 Ag 23-30 '46
Factory distribution; British industrial solvents, ltd. il diag Elec R (Lond) 139:401-7 S 13 '46
How to mark network vaults and equipment. diags Elec World 125:108 Je 22 '46
Improving power supply; generation and transmission trends. W. Dixon. Elec R (Lond) 137:559-60 O 19 '45
Industrial plant combined power and light. L. C. Peterman. Elec World 126:130+ S 28; 98 O 12; 82+ O 26 '46
Large lumber mill modernizes its electrical power system; Weyerhaeuser timber co. K. L. Watts. il diags Power 90:104-5+ F '46
Large-scale distribution; the system in north Wales and district. il map Elec R (Lond) 138:3-9 Ja 4 '46
Lessons from secondary banking practice. K. L. Partridge. diag Elec World 126:62-4 Jl 20 '46
Making sure the distribution system is adequate; Anaconda wire & cable company. R. B. Steinmetz. il Factory Management 104: 152-5 Ja '46
Modern secondary adequate for coming home loads; with cost data. D. K. Blake. Elec World 126:86-8 S 14 '46
New submersible network protector of higher rating. G. G. Grissinger and F. D. Johnson. bibliog il diags Elec Eng 65:Trans 41-6 F '46
Observations of a supply engineer. A. Kelso. diags Inst E E J 93 pt 1:83-6 F '46
Operations and plants of International nickel company of Canada; power. il diags Can Min J 67:467-71 My '46
Organization of the distribution department of a large electricity supply undertaking. A. Haddock. Inst E E J 93 pt 1:133-7 Mr '46

ELECTRIC distribution—*Continued*
Pioneering in electrical design; Torrance refinery. R. B. Bryant and F. M. Dorey. il plan Elec West 97:66-8 Ag '46
Planning distribution facilities for increased customer loads. F. Sanford. Edison Elec Inst Bul 14:257-9 Jl '46; Excerpt. Elec W 125:78 Je 8 '46; Discussion. J. H. Foote. Edison Elec Inst Bul 14:259-60 Jl '46; Elec W 125:79 Je 8 '46
Planning for the near-future electric power system. M. M. Samuels. Pub Util 38.3-13, 84-93 Jl 4-18 '46
Progress in engineering knowledge during 1945; power distribution. P. L. Alger and others. il Gen Elec R 49:48-50 bibliog(p65) F '46
Public utility planning; electric system. H. E. Wulfing. maps diags Western Soc E J 51: 17-25 Mr '46
Remote switching by superimposed currents. J. L. Carr. bibliog diags Inst E E J 91 pt 2: 535-42 D '44; Discussion. 91 pt 2:542-7; 92 pt 2:610-17 D '44, D '45
Resistance welders and the electricity supply industry. R. B. Giles. diags Inst E E J 92 pt 2:513-21 D '45
Revised distribution system of Chesapeake & Ohio. il Ry Mech Eng 119:606-7 D '45
Safeguarding service lines by centralized control; Boeing's aircraft plant at Renton, Wash. E. J. Strickland. il Factory Management 104:98-102 Ap '46
Safety in power distribution for coal mines. R. G. Gehlsen. il Min Cong J 32:27-9 Mr '46
Secondary banking with automatic sectionalizing. J. S. Rule. il plan diags Elec World 125:56-60 Mr 2 '46
Shunt capacitors for reduced cost, increased capacity. W. H. Cuttino. il diag Blast F & Steel Pl 34:368-9+ Mr '46; Same. Eng & Min J 147:76-8 My '46
Six years' experience with factory-built unit-type substations; quad-city area of Davenport, Iowa; Rock Island, Moline, and East Moline, Ill. E. F. Miller and R. B. Miller. il plans Elec Eng 65:Trans 751-6 N '46
60 cycles or 25 cycles? problem of standardizing frequency in southern Ontario. R. L. Hearn. map Water & Sewage 84:31+ Mr '46
Some power supply problems at Clinton engineer works. J. O. Coleman. il diags Elec World 125:85-7 Mr 16 '46
Substation capacity increased tenfold in an eastern military post. il diag Elec World 124:143 D 8 '45
Survey of generation and transmission. W. Dixon. il Inst E E J 93 pt 1:79-82 F '46
Textile mills supply; Sladen Wood mills. il Elec R (Lond) 138:359-62 Mr 8 '46
Three-phase distribution and electric welding and furnace loads. A. L. Morris. diags Inst E E J 93 pt 2:341-8; Discussion. 348-52 Ag '46; Electrician 136:738-40 Mr 22 '46; Elec R (Lond) 138:448-9 Mr 22 '46
Weather statistics and utility problems. A. J. Drummond. bibliog Inst E E J 93 pt 1:164-7 Ap '46
Works distribution; switchgear arrangements in a propeller factory. il Elec R (Lond) 137: 677 N 9 '45

See also
Boosters
Electric cables
Electric circuit breakers
Electric conductors
Electric conduits
Electric fuses
Electric lines
Electric plants—Interconnection
Electric rectifiers
Electric service, Rural
Electric substations
Electric switchgear
Electric transformers
Electric transmission
Electric wiring
Voltage regulation
Voltage standards

Change-over

A.c. to d.c. conversion; selection of equipment. T. D. Martin. Elec R (Lond) 139: 191-3 Ag 2 '46
From d.c. to a.c. with profit; Lackawanna changes power supply in Buffalo terminal. il Ry Mech Eng 120:487-9 S '46
Methodical distribution system changeover from 2.4 to 4.16 kv. F. T. Bear. diags Elec World 125:86-7 F 16 '46

Cost

SPA hydro program, summary and fallacies; steam and hydro costs compared. map Elec World 125:60-3 Mr 30 '46
Study of costs of 69- to 230-kv underground power-transmission systems and tie lines. J. G. Holm. bibliog Elec Eng 64:Trans 852-60 D '45
Transmission and distribution lines for Boysen unit, Wyoming; unit prices. Eng N 137:261+ Ag 22 '46

Grounding

Bonding, grounding eliminate excessive static. E. H. Aiken. diag Elec World 124:162 D 8 '45
Boston Edison benefits from common neutral practice. A. B. Jones. diags Elec World 125: 60-2 Ap 27 '46
Earthing installations; abstracts. H. W. Swann. Elec R (Lond) 138:825 My 24 '46; Electrician 136:1368-9 My 24 '46
Installation matters; discussion on earthing. Electrician 137:659-60 S 6 '46
Single-pole fusing. Electrician 136:27-8 Ja 4 '46
Surge characteristics of a single-circuit 3-phase transmission line having a single earth wire. W. G. Hawley. diag Inst E E J 92 pt 2:39-46 F '45; Discussion. 93 pt 2:190-1 Ap '46
Transmission ground wire used for common neutral. W. Schmidt and E. Kendall. diags Elec World 125:112+ Je 8 '46
Water works industry's attitude on grounding and stray current problems. C. F. Meyerherm. Am Water Works Assn J 37:1298-9 D '45

Grounds and faults

Arcing ground tests on normally ungrounded 13-kv 3-phase bus. J. E. Allen and S. K. Waldorf. bibliog il diags Elec Eng 65:Trans 298-306 My '46
Automatic switch for use on network secondaries. R. E. Brown. diag Elec World 125:92 Ap 27 '46
Buried cable faults located by sonic detector. F. S. Benson and others. il diags Elec World 125:82-5 Je 22 '46
Cable fault location. F. Buck and W. Upham. Edison Elec Inst Bul 14:85-6 Mr '46
Determination of ground-fault current and voltages on transmission systems. E. M. Hunter and P. H. Light. Gen Elec R 49: 19-23 Ap '46
D-c power systems for aircraft. H. J. Finison and R. H. Kaufmann. il diags Gen Elec R 49:41-8 Ag '46
Equipment protection involving high resistance faults. C. O. von Dannenberg. diag Power Pl Eng 50:101 Jl '46
Excess-current protection by h.r.c. fuses on medium-voltage circuits R. T. Lythall. bibliog diags Inst E E J 92 pt 2:419-29 O '45; Discussion. 92 pt 2:441-9, 627-32; 93 pt 2: 596-602; 94 pt 2:46-56 O, D '45, D '46, F '47
Excess-current protection by over-current relays on medium-voltage circuits. A. G. Shreeve and P. J. Shipton. bibliog diags Inst E E J 92 pt 2:430-41; Discussion. 441-50 O '45
Fault localisation; fall of potential tests. G. W. Stubbings. diags Elec R (Lond) 137: 947-9 D 28 '45
Fault location and relay performance; analysis by automatic oscillographs. H. P. Dupuis and W. E. Jacobs. map diags Elec Eng 65:Trans 442-6 Jl '46
Fault location narrowed by tone on d.c. network. P. B. Hull. Elec World 124:84-5 D 22 '45
Ground-fault neutralizer establishes its place on electric power systems. N. H. Meyers. bibliog il diags Gen Elec R 49:37-44 O '46
Holding power plant auxiliaries during power disturbances; relays in control circuits of starters operated by battery. T. Maynz. diag Power Pl Eng 50:88-90 Je '46
How to test for ground at service connection. diags Elec World 126:100 Jl 20 '46
Localization of faults in low-voltage cables, with special reference to factory technique. J. H. Savage. bibliog diags Inst E E J 92 pt 2:580-9; Discussion. 590-3; 93 pt 2:496-500 D '45, O '46
Locating cable faults. B. Calvert. diags Elec R (Lond) 138:125-7 Ja 25 '46
Man-made fault checks oscillograms. diag Elec World 125:101 Je 8 '46

ELECTRIC distribution—Grounds and faults— *Continued*
Method to calculate fault current on industrial network system; table and graph. J. S. Parsons. Elec World 124:90-1 D 22 '45
Neutral displacement; values with star-connected windings and star/star transformers. R. B. Rowson. diags Elec R (Lond) 138:921-4, 971-3 Je 14-21 '46
New electronic timing relay for reducing outages on power circuits. F. S. Dlouhy. diags Elec Eng 65:Trans 407-11 Jl '46
100-kv and 13-kv ground-fault neutralizers. L. M. Robertson. il Gen Elec R 49:14-16 S '46
Operating experience with distance ground relays. W. A. Wolfe. il diags Elec Eng 65: Trans 458-62 Jl '46
Overload protection. E. V. C. Habgood. diags Elec R (Lond) 139:416-18 S 13 '46
Phase-comparison carrier-current relaying. A. J. McConnell and others. il diags Elec Eng 64:Trans 825-33 D '45
Sensitive ground relay protection for complex distribution circuits. L. F. Hunt. diags Elec Eng 65:Trans 765-8 N '46
Simple network analyzer modified for coupled faults. M. J. Lantz. il diags Elec World 125:108-9 Ap 13 '46

Network analyzers

A-c network analyzer. N. H. Meyers and N. R. Schultz. bibliog il diags Gen Elec R 49: 34-40 S '46
New design for the a-c network analyzer. J. D. Ryder and W. B. Boast. bibliog il diags Elec Eng 65:Trans 674-80 O '46
Simple network analyzer modified for coupled faults. M. J. Lantz. il diags Elec World 125:108-9 Ap 13 '46
Today's network calculators will plan tomorrow's systems. D. Braymer. il Elec World 125:52-4 Ja 5; Table. 125:172 Ja 19 '46

Stability

Automatic load and frequency control in Northwest power pool. S. B. Smith and M. L. Blair. map Elec World 124:56-60 D 22 '45
Automatic voltage regulation. bibliog il Elec R (Lond) 138:258-9 F 15 '46
Capacitors on 24 kv. an adjunct to condenser serving large furnace load. E. R. Smith and others. il diag Elec World 124:114-15 N 10 '45
D.c. sectionalizing localizes interruptions at Kenilworth. il diags Coal Age 51:86-90 S '46
Distribution system economics; regulators and shunt capacitors used on lines in light load areas. O. B. Falls, jr. Elec West 95: 80-3 D '45
Outages reduced by banked secondary operation of transformers; Boston Edison co. S. T. Arnold. il diags Power Pl Eng 50:79-80+ O '46
Power for welding. L. W. Clark. il Welding J 24:811-17 S '45; Discussion. 25:47-9 Ja '46
Switched capacitors retrieve line loading capacity. R. O. Loomis and E. J. Archbold. il diag Elec World 125:46-8 Ap 27 '46

Tables, calculations, etc.

Calculating voltage drop in industrial a.c. circuits. L. H. Gussow. Elec World 125:60-3 Ja 5 '46
Conductor constants afford exact voltage drop calculations. N. H. Erlandson and W. R. Buchanan. Elec World 126:90 O 26 '46
Formulas for voltage drops on unbalanced secondary circuits. J. W. Anderson, 3d. diags Elec World 125:50-3 Ap 27 '46
Load curves for conductors on low-voltage distribution circuits. Elec World 125:100 Ja 5 '46
Method to determine distribution voltage drop and power loss. Elec World 124:156 D 8 '45
Quick guide to rural voltage drops. H. N. Muller, jr. and D. L. Whitehead. diags Elec World 125:55-7 Mr 30 '46
Short-circuit calculations. T. A. Ledward. diags Elec R (Lond) 137:737-9 N 23 '45
Simplified short-circuit analysis for small electrical systems. J. L. King. il diags Power 90:300-3 My '46
Symmetrical components; graphical introduction. B. J. Prigmore. diags Elec R (Lond) 139:567-8 O 11 '46
Tables yield data on range service needs; transformer capacity and requirements of secondary feeders. Elec World 125:83 F 2 '46
Use of kva.-distance constants for voltage drop calculations. N. H. Erlandson. Elec World 126:96 Ag 17 '46
Voltage drop on secondary circuits with unbalanced condition; charts. P. W. Choate. Elec World 125:158 Ap 13; 88 Ap 27; 126 My 11 '46

Testing

How to test for ground at service connection. diags Elec World 126:100 Jl 20 '46

ELECTRIC double layer
Properties of the electrical double layer at a mercury surface; the effect of frequency on the capacity and resistance of ideal polarized electrodes. D. C. Grahame. bibliog diag Am Chem Soc J 68:301-10 F '46

ELECTRIC driving
Adjustable-voltage control; basic principles and circuits. E. U. Lassen. il diags Product Eng 17:[no 7] 142-7 Jl '46
Analysis of servomechanisms for instrument and power drives. G. S. Perkins. il diag Product Eng 17:332-4 Ap '46
Are high speeds required? investigate high-cycle motors! M. B. Sawyer. il Machine Design 18:121-6 Ap '46
Constant speed regulation; four systems for maintaining preset speed. J. E. Jones. il diags Product Eng 17:100-2 O '46
Distilling oil. il Elec R (Lond) 139:285-90 Ag 23 '46
Electric drives for coal handling plant. C. H. Pike. il Mech Handling 33:480-4 Ag '46
Electric drives for wide speed ranges. H. E. Nason. diags Western Soc E J 51:31-7 Mr '46
Electric equipment for Cornell variable density wind tunnel. C. C. Clymer and M. A. de Ferranti. il diags Elec Eng 65:Trans 554-63 Ag-S '46
Electric motor drives. il Mech Handling 33: 33-6 Ja '46
Electronic drive for windup reels. K. P. Puchlowski. il diags Elec Eng 65:Trans 585-91 Ag-S '46
Equipment winds over 4000 miles of wire daily at Jones and Laughlin's wire rope division. Blast F & Steel Pl 34:749 Je '46
Independent turbo-electric rotary drive for steam rig. C. H. Eckel and K. M. Fagin. il diag Pet Eng 17:82+ Ap '46
Magnetic drives. F. A. Annett. diags Power 90:89-96 F '46
Matching the small motor to the job. le M. Dabbs. il Machine Design 18:155-8 Ap '46
Mechanical torque-limiting devices. N. C. Weyth and A. F. Gagne. diags Machine Design 18:127-30 My '46
Motor-driven car washer cuts cost. il Elec World 126:132+ O 12 '46
Motor-driven exciters for turbine alternators. R. B. Bodine and others. il diags Elec Eng 65:Trans 290-7 bibliog(Trans p294) My '46
New equipment. il Iron Age 156:79-82 N 22 '45; 157:65-6 F 21; 158:67-70 Ag 1; 59-62 O 31 '46
Norwich heat pump. J. A. Sumner. il diag Electrician 136:877-80 Ap 5 '46
Plastic board; electrical applications to the manufacture of Holoplast. il diag Elec R (Lond) 138:795-9 My 24 '46
Polyphase commutator regulator for speed control. A. G. Conrad and others. diags Elec Eng 65:Trans 321-7 Je '46
Power-operated soot blowers. il diag Engineer 182:122 Ag 9 '46
Specially designed motors solve many industrial drive problems. R. C. Robinson. il diags Product Eng 17:84-7 S '46
Speeds with standard pulleys; tables; data sheet. Power 90:713, 791 O-N '46
La synchronisation des moteurs électriques de commande individuelle des machines. M. Rosset. diags Génie Civil 123:179 Jl 1 '46
Three adjustable-speed systems for low power drives. R. S. Elberty. il diags Product Eng 17:[no 7] 90-3 Jl '46
Variable-speed motors; operating drives up to 24,000 r.p.m. diags Elec R (Lond) 139: 53-6 Jl 12 '46

ELECTRIC driving—*Continued*
Wind she blow like hurricane; power supply for wind tunnels of the Ames aeronautical laboratory, Moffett Field, Calif. D. I. Anzini. il diags Elec West 95:69-72 N '45

See also
Cranes, derricks, etc.—Electric equipment
Electric fans, Ventilating
Electric motors
Hoisting machinery, Electric
Machine tools—Electric driving
Mine hoisting, Electric
Mine pumping, Electric
Pumping machinery, Electric
Rototrol
Ship propulsion, Electric

Conveying machinery
Coal handling control gear. A. E. L. Jervis. il diags Electrician 136:405-6 F 15 '46
Electrically operated goods traffic. il Electrician 135:492 N 9 '45
Modernizing the coal-handling control at Philo. A. H. Beiler. il diags Power Pl Eng 50:86-90 S '46
New type driving gear. il Mech Handling 33: 564-8 S '46

Flour mills
Flour-mill electrification. il Engineering 161: 199-201 Mr 1 '46; Abstract. Electrician 136: 159-60 Ja 18 '46

Machine tools
See Machine tools—Electric driving

Paper mills
Application of motors to chippers. G. L. Oscarson. il Paper Ind 27:1519-21+ Ja '46
Electrical drive for corrugators. J. L. Van Nort. il diags Paper Ind 27:1690-3 F '46

Potteries
Potters' mills; changing over to electrical operation. il diag Elec R (Lond) 139:559-63 O 11 '46

Power plant auxiliaries
Adjustable speed magnetic drive. G. Stangland. il diags Power Pl Eng 50:82-6 Jl '46
Application of electric motors to power station auxiliaries. A. E. Beardmore. il Power Pl Eng 50:72-5+ F; 78-80+ Mr; 62-5 Ap '46
Central-station auxiliary-drive motors for constant and adjustable speed. H. Gibson. il diags Elec Eng 64:Trans 746-50 N '45
Electric drives for steam-electric generating-station auxiliaries. W. R. Brownlee and J. A. Elzi. diag Elec Eng 64:Trans 741-5 N '45
Holding power plant auxiliaries during power disturbances; relays in control circuits of starters operated by battery. T. Maynz. diag Power Pl Eng 50:88-90 Je '46
Modern practice in power-plant auxiliary equipment and systems. H. N. Muller, jr. il diags Elec Eng 64:Trans 868-72 D '45
Modernizing the coal-handling control at Philo. A. H. Beiler. il diags Power Pl Eng 50:78-81+ Ag; 86-90 S '46
Power station auxiliaries. T. H. Carr. Elec R (Lond) 139:409-10 S 13 '46
Power systems for auxiliary drives in steam-electric stations. J. B. McClure and S. I. Whittlesey. bibliog il diags Elec Eng 64: Trans 844-51 D '45
Unified boiler control. W. Szwander. diag Elec R (Lond) 138:217-21, 253-7 F 8-15 '46

Rolling mills
Hot and cold strip rolling; John Summers & sons. il Elec R (Lond) 139:439-43, 599-602 S 20, O 18 '46
Merchant mill and alloy finishing facilities at Fontana, R. M. Bickerstaff. il plan(insert) Blast F & Steel Pl 33:1513-22 D '45
Mercury arc frequency changer limits rolling mill demand; rectifier-inverter installation at Gary steel mill. R. W. Holman. il diag Elec World 125:112-16 Ap 13 '46
Output of rolling mills and auxiliary equipment increased by electrical developments. F. Mohler. il Blast F & Steel Pl 34:118-20 Ja '46
Rolling mill tension; method of control. diag Elec R (Lond) 137:725 N 16 '45
Steel company of Canada, ltd. follows modern practice in production of slabs and blooms; strip production. C. Longenecker. il layout plan diags Blast F & Steel Pl 34: 973-8, 1129-42 Ag-S '46

Rubber factories
Co-ordinated electric drive for a rubber calender train. K. W. John and others. il diags Elec Eng 65:Trans 128-34 Mr '46
Electrical applications in the rubber industry. J. Z. Linsenmeyer. il plan Rubber Age 59: 685-90 S '46

Ships' auxiliaries
Auxiliary turbo-generators. F. V. Smith. il diags Marine Eng 51:108-19 F '46
Design of d-c auxiliary controllers for marine service. W. Schaelchlin. il diags Elec Eng 65:Trans 623-9 O '46
Modern ships of the American merchant marine. F. V. Smith. il diags Gen Elec R 48: 34-42 D '45
Queen Elizabeth; electrical equipment of the Cunard White Star liner. il Elec R (Lond) 137:693-6 N 16 '45

Textile mills
Brown and sons synchronous drive for carding machines. il diags Engineering 161:368 Ap 19 '46
Cotton industry; result of survey by the E.D.A. textile sub-committee. Electrician 137:440 Ag 16 '46
Cotton mill conversion; with cost data. il Elec R (Lond) 137:579-83 O 26 '45
Finishing-range drives coordinated in numerous ways. R. B. Moore. diags Textile World 96:153+ Mr '46
Making artificial silk; unusual high-speed drives, British Enka. il Elec R (Lond) 139: 127-31 Jl 26 '46
Making cotton cloth; Sladen Wood mill co. il Elec R (Lond) 138:239-44, 359-62 F 15, Mr 8 '46
Mill modernization; Rock nook mill. il Elec R (Lond) 138:519-22 Ap 5 '46
New drives to carding machines. il Mech Handling 33:237-8 Ap '46
Stocking making; electrical methods. il Elec R (Lond) 139:113-15 Jl 19 '46

Woodworking shops
Which voltage is best for our purpose? electric drive for woodworking plant. Power 90:550-1+ Ag '46

ELECTRIC engineering
AIEE Pacific coast meeting, Seattle; abstracts of papers. Elec West 97:87-9 S '46
A.I.E.E. summer meeting, Detroit, June 24-28. Elec World 126:70-5 Jl 6 '46
American institute of electrical engineers winter meeting, New York, Jan. 21-25. Elec Eng 65:122-30 Mr '46; Elec World 125:60-7 F 2 '46; Power 90:179-82 Mr '46; Power Pl Eng 50:70-3 Mr '46
Design and engineering production. E. T. Norris. Engineering 162:331 O 4 '46
Electrical and allied developments of 1945. G. Bartlett. il Gen Elec R 49:3-71 Ja '46
Electrical engineering aspect of degaussing. I. S. Fraser and others. il diag Engineer 181:563-5 Je 21 '46
Electrical engineering in 1945. il Engineer 181: 55-7, 90-1, 99-101 Ja 18-F 1 '46
Engineers' achievements; abstract. P. Dunsheath. Electrician 135:571 N 23 '45
Engineers' joint meeting; Association of supervising electrical engineers and the Institution of engineers-in-charge. Electrician 135:567-8 N 23 '45
Merging of sciences in electrical engineering. J. L. Miller. Inst E E J 93 pt 1:87-90 F '46; Abstracts. Electrician 135:342-3 O 5 '45; Elec R (Lond) 137:479-80 O 5 '45
Missouri Valley electric association engineering conference, Kansas City. Elec World News ed 125:5 Ap 20 '46
Postwar engineering developments. M. W. Smith. il Elec Eng 65:197-201 My '46
Power system development for service to Hanford plutonium plant. B. V. Hoard and J. R. Curtin. map diags Elec Eng 65:Trans 773-8 N '46
Progress in engineering knowledge during 1945. P. L. Alger and others. il diags Gen Elec R 49:9-19+ F '46

ELECTRIC engineering—*Continued*
Symposia on many topics held by Pennsylvania electric association engineers. Elec World 125:95-6 Je 8 '46
Work of the service engineer and fitter; abstract. O. W. Roskill. Electrician 135:639 D 7 '45

See also
Armatures
Electric apparatus and appliances and other headings beginning Electric
Electricity
Electricity in mining
Electricity in the petroleum industry
Electricity on the farm
Electricity supply
Hydroelectric plants
Insulation (electric)
Radio communication and other headings beginning Radio
Railroads—Electric equipment
Railroads—Electrification
Ship propulsion, Electric
Telephone
Voltage regulation

Bibliography

Accessions to the library (cont). Inst E E J 92 pt 1:410-11; 93 pt 1:13, 68-9, 200, 241, 297, 333, 373 N '45, Ja-F, My-S '46
Bibliography; progress in engineering knowledge during 1945. P. L. Alger and others. Gen Elec R 49:63-7 F '46
Library section; recent articles and new books of interest to industry. Published in monthly numbers of General electric review

Examinations

Diploma scheme; regulations and syllabus of the Swann award. Electrician 135:441-2 O 26 '45

History

Electric power, foundation of industrial empire; achievements of Westinghouse. C. W. Kellogg. Metal Prog 49:1193-5 Je '46
Electric service in a great city, Philadelphia since 1881. H. P. Liversidge. Edison Elec Inst Bul 14:9-14 Ja '46

Safety measures

See also
Electric codes
Electric equipment—Safety measures
Electric substations—Safety measures
National electrical code

Study and teaching

Aids to technical teaching. J. B. J. Higham. diag Inst E E J 93 pt 1:99-102 F '46
Colliery electrical engineers; education and training proposals. F. W. Maynard. Elec R (Lond) 139:105-7 Jl 19 '46
Electrical engineer and his library; abstract. C. W. Marshall. Electrician 135:705 D 21 '45
Postcollegiate engineering education; curriculum developed by the General electric company. K. B. McEachron, jr. Mech Eng 68: 963-7 N '46
Post-graduate courses in electrical engineering, including radio; Radio section discussion meeting. Inst E E J 93 pt 3:363-4 S '46
Senior engineer's views on technical education and training. S. H. Richards. Inst E E J 93 pt 1:33-6 Ja '46
Teaching and practicing electrical design. N. M. Oboukhoff. diags J Eng Educ 36:522-33 Ap '46
Technical education; some present problems. H. J. Booth. Elec R (Lond) 137:625-6 N 2 '45

Tables, calculations, etc.

Calculation of rectifier and inverter performance characteristics. J. C. Read. diag Inst E E J 92 pt 2:495-509 O '45
Calculation of the magnetic field in dynamoelectric machines by Southwell's relaxation method. H. Motz and W. D. Worthy. bibliog Inst E E J 92 pt 2:522-8 D '45; Discussion. 93 pt 2:379-82 Ag '46
Complexor representation of electric power. D. W. C. Shen. Elec R (Lond) 138:183-5 F 1 '46
Evaluation of restriking voltages. J. R. Mortlock. diags Inst E E J 92 pt 2:562-79 bibliog(p575) D '45
Formulas for the inductance of coaxial busses comprised of square tubular conductors. H. P. Messinger and T. J. Higgins. bibliog diags Elec Eng 65:Trans 328-36 Je '46
Fractional termination for ladder networks. W. R. LePage. diags Elec Eng 65 Trans 530-6 Ag-S '46
Frequency response of automatic control systems. H. Harris, jr. bibliog diags Elec Eng 65.Trans 539-46 Ag-S '46
Method of van der Pol and its application to non-linear control problems. B. V. Bulgakov. bibliog Franklin Inst J 241.31-54 Ja '46
New approach to probability problems in electrical engineering. H. A. Adler and K. W. Miller. Elec Eng 65:Trans 630-2 O '46
Peak voltages induced by accelerated flux reversal in reactor cores operating above saturation density. T. Specht and E. C. Wentz. bibliog il diags Elec Eng 65:Trans 254-62 My '46
Pythagorean chart; application of theorem to alternating-current calculations. G. F. Freeman. Elec R (Lond) 137:929-31 D 28 '45
Utility of log-log vs arithmetic co-ordinate grids. A. A. Merrill. Gen Elec R 49:20-2 Jl '46

See also
Electric distribution—Tables, calculations, etc.
Electric lines—Tables, calculations, etc.

Germany

Electric power practice in Germany. H. J. Scholz and C. F. Wagner. Power Pl Eng 49: 90-1+ D '45
Few German practices found in advance of American. H. J. Scholz and C. F. Wagner. il diags Elec World 124:110-13 N 10 '45

Great Britain

British electrical engineers and the second World war. P. Dunsheath. Inst E E J 93 pt 1:17-27 Ja '46; Same cond. Engineering 160:335, 360-1, 383-4 O 26-N 9 '45; Same cond. Engineer 180:280-1, 302-5 O 12-19 '45

ELECTRIC engineers
Electrical engineers trained during the war. G. H. Fett. Inst Radio Eng Proc 34:481-2 Jl '46

ELECTRIC equipment
Bin size for the jobber's convenience. il Mod Packaging 19:106-8 Jl '46
Electrical and allied developments of 1945. G. Bartlett. il Gen Elec R 49:8-71 Ja '46
Electrical equipment for spectrographic analysis. R. S. Coulter. il diags Materials & Methods 23:1298-1302 My '46
Influence of maintenance requirements on the design of electrical installation equipment. H. Drake. Inst E E J 91 pt 2:328-35 Ag '44; Discussion. 91 pt 2:335-40; 92 pt 2: 415-18 Ag '44, O '45
Review of power and mechanical equipment; motors and switchgear, other electrical equipment. il Power 89:894-902 Mid-D '45
Surge current duty, size of equipment. C. A. Sederlund. Elec World 124:164+ D 8 '45

See also
Condensers (electricity)
Electric apparatus and appliances
Electric cables
Electric control
Electric converters
Electric distribution
Electric driving
Electric fittings
Electric instruments
Electric lighting
Electric plants (central stations)—Equipment
Electric switchgear
Electric wire
Electricity in mining
Electricity on the farm

also subdivision Electric equipment under special subjects, e.g.
Airplanes
Coal mines and mining
Cranes, derricks, etc.
Factories
Hospitals
Paper mills

Failures

Failures of electrical equipment. Locomotive 46:46-8 Ap '46

Maintenance and repair

Each inspector responsible for specific electrical equipment; E. R. Squibb & sons, Brooklyn, N.Y. J. E. Burns. il Factory Management 104:100-1 Ag '46
Headwork saves handwork in electrical maintenance; Triangle conduit & cable company. H. Ness. il Factory Management 104: 110-12 Ag '46

ELECTRIC equipment—Maintenance and repair—*Continued*
How to make sure electrical contacts will work. W. H. Bloodworth. il Factory Management 104:134-6 Je '46
Maintenance of industrial electronic equipment. Power Pl Eng 50:92-3 S; 98-9 O '46
Operation, maintenance and testing of overhead lines and associated outdoor equipment on a.c. systems. R. C. Hatton and J. McCombe. bibliog il diags Inst E E J 92 pt 2:273-83 Ag '45; Discussion. 92 pt 2: 283-90, 618-27 Ag, D '45
Organization of industrial electrical maintenance. J. C. B. Nicol. bibliog Inst E E J 92 pt 2:166-71 Je '45; Discussion. 92 pt 2: 171-6, 593-609 Je, D '45

Marking

How to mark network vaults and equipment. diags Elec World 125:108 Je 22 '46

Protection

Sealed electrical bushings for climate-proofing equipment; metal-to-ceramics seals, their manufacture, properties and applications. H. H. Hausner. bibliog il diag Product Eng 16:849-53 D '45
Special safeguarding of electric power supply in the chemical industry. J. B. Lancaster. Inst E E J 93 pt 1:142-4 Mr '46

Safety measures

Capacitors; hazards and precautions. Nat Safety N 53:42+ F '46
Crane trolley collecting device eliminates industrial accidents. il Elec World 126:100 Ag 17 '46
Electrical equipment for hazardous locations. il Nat Safety N 53:30-1+ Ja '46
Electricity at work. il Nat Safety N 53:126+ Mr '46
Electricity in factories. Elec R (Lond) 139: 411-12 S 13 '46
Fire loss from electrical causes; correct maintenance practice. E. B. McBryde. Weekly Underw 154:53-4+ Ja 5 '46
Flameproof electrical apparatus; testing memorandum on certification of requirements. Electrician 136:1658 Je 21 '46
Flameproof enclosure; commentary on the revised B.S. 229. J. A. B. Horsley. Elec R (Lond) 139:31-2 Jl 5 '46
Guarded trolleys required; safety device for traveling cranes and monorail hoists. il Elec West 95:94-5 D '45
Protecting personnel in handling portable electrical equipment. C. A. Lee. diag Chem Eng 53:109 O '46
Safe discharge of a.c. power capacitors. R. L. Fancher. diags Elec World 125:105-7 Ap 13 '46
Series circuit tester has safety fuse. W. C. Sedgwick. diags Elec World 125:112-13 My 11 '46

See also
Electric tools, Portable—Safety measures

Standards

Design of wiring accessories. J. Bland. Electrician 136:1315-16 My 17 '46; Discussion. 136:1507-8 Je 7 '46
Electrical committees report, 1945. il Ind Stand 16:278-81 D '45
Electrical standards for machine tools. R. H. Clark. Mech Eng 68:446-8+ My '46; Same abr. Mach 52:176-8 Ja '46
Machine tool electrical standards; reference book sheets. Am Mach 90:145, 147 F 14; 141, 143 F 28; 145 Mr 14 '46
New material in Standard on automatic stations. G. Sutherland and G. S. Lunge. il Ind Stand 17:56-8 Mr '46; Same. Edison Elec Inst Bul 14:116+ Ap '46; Elec Eng 65:223-4 My '46
Universal plug, now. Elec R (Lond) 139:59-60 Jl 12 '46

See also
Electric circuit breakers—Standards
Insulating materials—Standards

ELECTRIC fans
Balance in a phenolic fan blade; specially shaped and weighed preforms. il Mod Plastics 23:165 Ap '46

Rating

Electric fans. Consumers Res Bul 18:18-19 S '46

ELECTRIC fans, Ventilating
Air conditioning of factories; some electrical systems. Electrician 136:95-6 Ja 11 '46
Design, performance and selection of axial flow fans. F. P. Bleier. il diags Heat & Ven 43:83-94 O '46
Four factors for consideration in maintenance and installation of fans; abstract. G. A. Mathis. diags Dom Eng 167:142-3 Ap '46
Hoosac tunnel gets new propeller fans. il plan Ry Age 120:399-401 F 23 '46
Motors and drives for fans and blowers. G. H. Hall. il diags Heat & Ven 43:58-61 Je '46
New ventilating equipment installed for Hoosac tunnel. il Eng N 136:346 Mr 7 '46
Power requirements of Hoosac tunnel ventilation. il Elec World 126:108+ Ag 17 '46
Practical considerations in selecting centrifugal and axial flow fans. J. W. Markert. diags Heat & Ven 42:80-4 D '45
Selecting the right fan. C. A. Pickett and L. E. Peterson. Dom Eng 166:152-3 D '45
Ten considerations for attic ventilation. Dom Eng 168:162-3+ O '46
Ventilating of motor room; prevention of condensation. P. R. Jordan. plan diags Sheet Metal Worker 37:74+ S '46

Noise

Measurement of sound. E. N. Kemler and C. R. Freberg. il Heat & Ven 43:69-70 F '46
Sidelights on sound isolation in air conditioning. il diags Sheet Metal Worker 37:38-40 Mr '46

ELECTRIC field
Army-navy precipitation-static project; high-voltage characteristics of aircraft in flight. R. Gunn and J. P. Parker. bibliog il Inst Radio Eng Proc 34:241-7 My '46
Interchange of energy between an electron beam and an oscillating electric field. J. Marcum. diags J Ap Phys 17:4-11 Ja '46
Paths of ions and electrons in non-uniform crossed electric and magnetic fields. N. D. Coggeshall. bibliog Phys R 70:270-80 S 1 '46
Sampling air for bacterial content; new mechanical designs and applications of electrostatic fields. M. Luckiesh and others. il diags Gen Elec R 49:8-17 Mr '46
Some applications of field plotting. E. O. Willoughby. diags Inst E E J 93 pt 3:275-93 bibliog(p291) Jl '46
Theory of pulsating-field machines. R. Pohl. diags Inst E E J 93 pt 2:37-47 F '46
Transverse electric modes in coaxial cavities. R. A. Kirkman and M. Kline. diags Inst Radio Eng Proc 34:14P-17P Ja '46

See also
Stark effect

ELECTRIC filters
Filter theorem. T. H. Turney. diag Electrician 136:1089 Ap 26 '46
Improved film-drive filter mechanism. C. C. Davis. bibliog diags Soc Motion Picture Eng J 46:454-64 Je '46
Tunable rejection filter. R. C. Taylor. il diags Elec Eng 65:Trans 263-7 My '46

See also
Radio filters

ELECTRIC fires
Electrical motors and the fire hazard. E. B. McBryde. Weekly Underw 154:324-6 F 2 '46
Fire hazards under tank hoods. Elec World 125:122 F 16 '46
Fire loss from electrical causes; correct maintenance practice. E. B. McBryde. Weekly Underw 154:53-4+ Ja 5 '46
Fire loss from electrical causes is largely preventable. E. B. McBryde. Weekly Underw 153:737-8, 1269-71 O 6, D 1 '45
Installations and accidents. Electrician 137: 995-6 O 11 '46
Lessons from a transformer fire. Elec World 125:90-1 Mr 2 '46
Our rising fire loss figures; responsibilities of insurance inspector and fire prevention engineer. E. B. McBryde. diags Weekly Underw 154:1359-63 My 25 '46
Post-war gadgets are electrical hazards; approved wares should be purchased. F. F. Sengstock. Weekly Underw 154:28-9+ Ja 5 '46

ELECTRIC fittings
All-purpose socket outlets. T. C. Gilbert. Elec R (Lond) 138:763-4 My 17 '46
Electro-Plastics shuttered safety outlet. diags Elec R (Lond) 138:861 My 31 '46
House-service units. il Elec R (Lond) 137: 594 O 26 '45; Electrician 135:429-30 O 26 '45
Plug and socket controversy. Electrician 135: 657-8 D 14 '45
Plugs and sockets; conditions to be met in small post-war houses. J. F. Field. Elec R (Lond) 138:99-101 Ja 18 '46
Plugs and sockets; proposed standard. Electrician 136:524-5 Mr 1 '46
Universal plug, now. Elec R (Lond) 139:59-60 Jl 12 '46

ELECTRIC flashlights
Bright Star rises to rank among the first five battery and flashlight companies. M. B. Horton. il Sales Management 57:121+ O 15 '46
Three new flashlights. diags Consumers Res Bul 17:7 My '46

ELECTRIC furnaces
Drying out a spare furnace transformer. P. A. Emmons, jr. Elec World 126:87 S 28 '46
Electric-furnace alumina cement for high-temperature concrete. G. R. Pole and D. G. Moore. bibliog il Am Cer Soc J 29:20-4 Ja 1 '46
New industry; producing calcium carbide in south Wales. il diag Elec R (Lond) 138: 875-80; 139:47-51, 401-7 Je 7, Jl 12, S 13 '46

Atmosphere control

Fabrication by electric-furnace brazing; incendiary bombs. H. M. Webber. il diags Gen Elec R 49:22-9 My '46; Excerpts. Materials & Methods 23:725-8 Mr '46
Hartlöten von stahl im schutzgas-durchlaufofen. bibliog il diags V D I 87:661-2 O 16 '43; Abstract (Hard soldering of steel in protective gas atmosphere inside of endless conveyor furnace). Product Eng 17: 115-16 Ag '46

Power supply

Capacitors on 24 kv. an adjunct to condenser serving large furnace load. E. R. Smith and others. il diag Elec World 124: 114-15 N 10 '45
Three-phase distribution and electric welding and furnace loads. A. L. Morris. diags Inst E E J 93 pt 2:341-8; Discussion. 348-52 Ag '46; Electrician 136:738-40 Mr 22 '46; Elec R (Lond) 138:448-9 Mr 22 '46

ELECTRIC furnaces, Annealing
Bright annealing of brass. E. F. Elliott. il Metal Prog 49:346 F '46

ELECTRIC furnaces, Foundry
Large steel castings in West Coast plant. il Iron Age 156:61 N 22 '45
Melting 18-8 stainless steel. V. T. Popp, jr. Materials & Methods 22:1465 N '45
West Coast steel foundry uses large furnaces. R. L. Collier. il Foundry 73:98-100 D '45; Same. Marine Eng 51:126+ Jl '46

ELECTRIC furnaces, Heat treating
Calver electric tool furnace. il Engineering 161:500 My 24 '46
Electric furnaces; construction and operation. il Electrician 136:605-6, 667-8 Mr 8-15 '46
Electro-metallurgical progress; heat-treatment, welding and plating. L. Sanderson. Elec R (Lond) 138:525-6 Ap 5 '46
Forced air-circulation electric furnaces. il diags Engineering 160:493-4, 496 D 14 '45
Heat treatment; vertical forced-air circulation furnaces. il Automobile Eng 35:505-7 N '45
Precise control of steel hardening; Springfield armory. H. A. Knight. il Materials & Methods 22:1736-8 D '45
Temperature treatment in bolt manufacture; A. P. Newall & co. il Elec R (Lond) 137: 887-92 D 21 '45

Atmosphere control

Calibration of pit furnaces for airplane propellers. C. A. Liedholm. il diags Metal Prog 49:361-8, 744-9 F, Ap '46

ELECTRIC furnaces, High frequency
Ajax-Northrup induction furnace heats 350 slugs per hr. il Iron Age 158:55 S 12 '46
Crucible failure in the induction melting process. A. Gemant and J. Sticher. diag J Ap Phys 16:661-7 N '45
Electronic melting furnace facilitates injection molding of steel. S. M. Milanowski. il diags Steel 118:86-7+ My 27 '46
French high frequency furnace; abstract. A. de Saint-Andrieu. Materials & Methods 24: 716 S '46
High frequency steel melting; abstract. Materials & Methods 23:1378 My '46
Introduction to the high-frequency induction furnace. J. H. H. Teece. diag Inst E E J 93 pt 1:50-1 Ja '46

ELECTRIC furnaces, Laboratory
New carbon resistor furnace. W. J. Kroll and others. bibliog il diags Electrochem Soc Trans 89 (preprint 2):33-45 '46

ELECTRIC furnaces, Metallurgical
Elkem rotating arc furnace for electrothermic process. T. Ellefsen. il diags Electrochem Soc Trans 89 (preprint 12): 141-50 '46
Modern arc furnace; control and protective equipment. W. N. Gittings. il diags Steel 118:146-8+ Mr 4 '46

See also
Electric furnaces, Heat treating
Electric furnaces, Steel making
Electric furnaces, High frequency

ELECTRIC furnaces, Non-ferrous melting
Furnace production aided by fiberglas. diags Elec World 125:101 Je 8 '46
High temperature furnace for distilling and refining metals; developed to recover cupronickel from nickel silver. F. F. Poland. il Materials & Methods 23:710-12 Mr '46
Preventing induction furnace failures. J. L. Talbert. diag Materials & Methods 24:149 Jl '46

ELECTRIC furnaces, Steel making
Coreless induction furnaces. M. J. Marchbanks. Engineering 161:404 Ap 26 '46; Discussion. Elec R (Lond) 138:641 Ap 26 '46; Electrician 136:1035-6 Ap 19 '46
Electric furnace steel committee, Iron and steel division, A.I.M.E., 3d annual conference, Cleveland, Dec. 4-5. Iron Age 156:75-8 D 13 '45; Steel 117:112+ D 17 '45; Foundry 74:150+ Ja '46
Electric induction steel E.I.S. F. T. Chesnut. il Electrochem Soc Trans 88 (preprint 17):189-95 '45
Electronic equipment for induction melting alloy steel. S. R. Durand. il Foundry 74: 118+ N '46
Electronic melting furnace facilitates injection molding of steel. S. M. Milanowski. il diags Steel 118:86-7+ My 27 '46
High frequency steel melting; abstract. Materials & Methods 23:1378 My '46
Power and power factor in arc furnace operation; abstracts. E. H. Browning. Iron Age 158:63 O 17 '46; Steel 119:132 O 14 '46
Preparation of raw materials for fast melting in an electric arc furnace; abstract. S. D. Gladding. Steel 118:132 Je 3 '46
Silica hazard in arc furnace construction. E. M. Fieman. il Ind Med 15:14-15 Ja '46
Some thoughts on experimental electric arc furnace smelting. H. S. Newhall. Electrochem Soc Trans 88 (preprint 13):143-9 '45
Steel making; installation of arc furnaces; Brymbo steel co. il Elec R (Lond) 137:809-14 D 7 '45
Thermal engineer's view of an arc furnace; survey of some heat problems in arc furnaces. V. Paschkis. diag Electrochem Soc Trans 88 (preprint 20):211-18 '45
West Coast steel foundry uses large furnaces. R. L. Collier. il Foundry 73:98-100 D '45; Same. Marine Eng 51:140+ Jl '46

Charging

Top vs. machine charging basic arc electric furnaces. H. Bigge. Iron Age 156:77-8 D 13 '45

Control

Arc-furnace controls. Blast F & Steel Pl 34: 96 Ja '46

ELECTRIC furnaces, Steel making—*Cont.*

Lining

Dolomite linings for basic electric arc furnaces; abstracts. E. C. Brampton, H. Parnham and J. White. Engineer 180:442 N 30 '45; Engineering 160:453-4 N 30 '45; Iron Age 157.74 Ja 31 '46; Blast F & Steel Pl 34:412+ Mr '46; Metal Prog 50:146+ Jl '46; Discussion. Engineer 180:442-3 N 30 '45; Engineering 160:454 N 30 '45

ELECTRIC fuses

Excess-current protection by h.r.c. fuses on medium-voltage circuits. R. T. Lythall. bibliog diags Inst E E J 92 pt 2:419-29 O '45; Abstract. Elec R (Lond) 136:639-40 My 4 '45; Discussion. Inst E E J 92 pt 2:441-9, 627-32; 93 pt 2:596-602; 94 pt 2:46-56 O, D '45, D '46, F '47; Elec R (Lond) 136:693-4 My 11 '45; Electrician 134:447-9 My 18 '45

Fuse sizes vs. blowings and winding failures. J. G. Charest. Elec World 124:62-3 D 22 '45

Fuses fall short of transformer capabilities. L. L. Stahler. Elec World 125:92-4 My 11 '46

Fusing currents. G. W. Stubbings. Electrician 136:217 Ja 25 '46

How to connect and fuse capacitors; table and diagrams. Elec World 125:102 Ja 5 '46

How to determine sizes of fuses for 2300 to 6900-volt transformer cutouts. diags Elec World 124:106 N 24 '45

Series circuit tester has safety fuse. W. C. Sedgwick. diags Elec World 125:112-13 My 11 '46

Short-circuits need speedy interruption. D. L. Beeman. il diag Textile World 96:155+ F '46

Single-pole fusing. Electrician 136:27-8 Ja 4 '46

Universal fuse links surge-proof. diags Elec World 124:101 N 24 '45

Upright mounting solves 110-kv. fuse replacement. D. L. Greene. il Elec World 126:79 O 26 '46

Testing

Electromagnetic pressure recorder. H. H. Baxter. il diags Electrician 135:691-3 D 21 '45

ELECTRIC-gas operating companies

Comparatively little difference between listed and unlisted electric-gas stocks. Comm & Fin Chr 163:964+ F 21 '46

Electric-gas operating company stocks. Pub Util 36:848; 37:303-4, 783; 38:236-7, 558 D 20 '45, F 28, Je 6, Ag 15, O 24 '46

ELECTRIC generator sets

Bardco export generator sets. il Diesel Power 24:1087 S '46

Handling of generating sets. il Mech Handling 33:210-11 Ap '46

Improvements in portable generator design. Radio N 36:66 Jl '46

Newage screened alternator set. il Electrician 135:732 D 28 '45

Oil-engined 50-kw generating sets. il Engineer 182:241 S 13 '46

Portable power unit useful in refinery. diag Oil & Gas J 44:269 Mr 30 '46

Quick service helps meet power crisis; industrial power unit manufacturers rush standby units to Chicago area. Ind Marketing 31:46+ Je '46

Small generating sets. Elec R (Lond) 138:693-5 My 3 '46

Turner Diesel generating sets. il Mech Handling 33:177 Mr '46

ELECTRIC generators

Army-navy precipitation-static project high-voltage installation; artificial-lightning generator developed thru the University of Minnesota co-operation with Naval research laboratory. M. Newman and A. O. Kemppainen. bibliog il diags Inst Radio Eng Proc 34:247-54 My '46

Auxiliary turbo-generators. F. V. Smith. il diags Marine Eng 51:108-19 F '46

Excitation systems for turbine generators. M. D. Ross. diags Elec World 126:102 Jl 6; 102 Jl 20 '46; Same, without diags. Power 90:180 Mr '46

How to install field coils on generators and motors. C. Gentilini. il diags Power Pl Eng 50:74-5 Je '46

Matching the engine and generator of aircraft auxiliary powerplants. H. J. Finison. il Aero Digest 51:77-9+ D 1 '45

Some essentials of turbine-generator foundation design. il plans diags Eng N 137:316-20 S 5 '46

Turbine installation and maintenance; inspection of steam turbine driven generators and exciters. P. Dahlstrand. diags Paper Tr J 123:164-7 O 10 '46

Which supply for auxiliaries, transformer or house generator? H. W. Eales. diags Elec World 126:94-6 S 14 '46

See also

Electric motor generators

Radio generators

Bearings

Bearing wear is eliminated by shunting shaft currents. D. B. Hoover. il diags Eng & Min J 147:75-6 Ja '46; Same. Paper Ind 27:1364-6 D '45

Control

Automatic regulation of turbine generators to relieve power-supply systems of steel-mill load swings. W. W. Eberhardt and others. Elec Eng 64:Trans 751-8 N '45

Cooling

Liquid cooling of turbine generators. C. J. Fechheimer. Elec World 126:91-2 Jl 6 '46

Failure

Fatigue cracks in retaining rings of turbine-generators. J. B. Swering. il Locomotive 45:228-34 O '45; Same. Power Pl Eng 50:92-4 Jl '46

Lubrication

Grease lubrication of ball-bearing motors and generators. E. M. Higgins. il Mech Eng 67:639-44+ O '45; Discussion. 68:163-5 F '46

Manufacture

Casting turbogenerator parts; Allis-Chalmers mfg. co. il Foundry 74:90-1 Ag '46

Protection

Cement plant generator failures cut by fiberglas insulation. il Concrete (mill sec) 53:142 N '45

Photoelectric protection for electric generators. C. O. von Dannenberg. diag Power Pl Eng 49:104-5 O '45

Testing

Technique of electrical and hydraulic testing of hydroelectric units. G. D. Floyd and J. J. Traill. bibliog il Elec Eng 65:Trans 163-9 Mr '46

ELECTRIC generators, Alternating current

Adequate routine maintenance keeps hydro-electric generators on the job; Shawinigan water & power company. L. B. Stirling. il Power 90:617-19 S '46

Application and performance of electronic exciters for large a-c generators. H. A. P. Langstaff and others. il diags Elec Eng 65:Trans 246-53 My '46

Electronic exciter for 81,250-kva. turbo-alternator. H. A. P. Langstaff and R. F. Lawrence. il diags Elec World 125:88-91 Mr 16 '46

Electronic exciter for large generators. W. R. Farley and C. R. Marcum. diags Power Pl Eng 50:68-70 Ap '46

Grinding collector rings helps regulator performance. A. V. Kilpatrick. il Power Pl Eng 49:104 O '45

High-frequency alternators. J. H. Walker. diags Inst E E J 93 pt 2:67-80 F '46

How can I stop generator-field end play? diag Power 90:48-50 Ja '46

Motor-driven exciters for turbine alternators. R. B. Bodine and others. il diags Elec Eng 65:Trans 290-7 bibliog(Trans p294) My '46

Self-excited compensated alternator. C. W. H. Minchin. il diags Inst E E J 93 pt 2:373-9 Ag '46

Transients in a-c motors and generators. G. S. Smith. bibliog diags Elec Eng 65:Trans 61-9 F '46

Control

Can I reclose field switch on this generator? il Power 90:404-6 Je '46

ELECTRIC generators, Alternating current—Control—*Continued*
Constant-speed drives for aircraft alternators. C. J Breitwieser. il diags Elec Eng 64:Trans 763-8 N '45
Constant voltage from Diesel generator. il diag Machine Design 18:107 S '46
Exciter-regulator for aircraft alternators. P. T. Hadley and others. il diags Electronics 19:120-2 Jl '46

Cooling

Hydrogen cooling; its applications to large alternators R. Davis. Elec R (Lond) 138: 27-9 Ja 4 '46

Design

Standardization and design of a.c. turbo-type generators. G. A. Juhlin. diags Inst E E J 92 pt 2:147-58; Discussion. 92 pt 2:158-64; 93 pt 2:115-32 Ap '45, Ap '46

Parallel operation

Governor for variable-ratio transmission used in developmental 40-cycle electric system for large aircraft. P. F. Desch and others. il diags Elec Eng 65:Trans 194-8 Ap '46
Parallel operation of main-engine-driven 400-cycle aircraft generators. L. G. Levoy, jr. il diags Elec Eng 64:Trans 811-16 D '45

Standards

Standardisation and design of a.c. turbo-type generators. G. A. Juhlin. diags Inst E E J 92 pt 2:147-58 Ap '45; Excerpts. Electrician 133:523 D 8 '44; Discussion. Inst E E J 92 pt 2:158-64; 93 pt 2:115-32 Ap '45, Ap '46; Electrician 133:541-2 D 15 '44; Elec R (Lond) 135:849-50 D 15 '44

Temperature

Operation of large turbo-alternators to reduce rotor winding deformation. R. H. Coates and B. C. Pyle. il diags Inst E E J 93 pt 2: 192-204 bibliog(p204); Discussion. 204-12 Ap '46

Testing

Overspeed test on rotor of 22,000-kva alternator. il Engineering 162:333 O 4 '46

Windings

Operation of large turbo-alternators to reduce rotor winding deformation. R. H. Coates and B. C. Pyle. il diags Inst E E J 93 pt 2: 192-204 bibliog(p204) Ap '46; Abstracts. Electrician 135:631 D 7 '45; Elec R (Lond) 137:825 D 7 '45; Discussion. Inst E E J 93 pt 2:204-12; 94 pt 2:92-8 Ap '46, F '47; Electrician 135:668-71 D 14 '45; Elec R (Lond) 137:867-8 D 14 '45

ELECTRIC generators, Direct current
Arc-welding generators; abstract. J. C. Macfarlane and others. Elec R (Lond) 138:695 My 3 '46; Discussion. 138:745-6 My 10 '46; Electrician 136:1248-50 My 10 '46
Calculation of the magnetic field in dynamo-electric machines by Southwell's relaxation method. H. Motz and W. D. Worthy. bibliog Inst E E J 92 pt 2:522-8 D '45; Discussion 93 pt 2:379-82 Ag '46
Control and protection of aircarft d-c power systems. B. O. Austin. il diags Elec Eng 65:Trans 741-5 N '46
Direct-current motor and generator trouble-shooting chart; data sheets. Mach 52:243 F; 233 Mr '46
D-c power systems for aircraft. H. J. Finison and R. H. Kaufmann. bibliog il diags Gen Elec R 48:22-6 S; 35-41 O; 59-62 N; 56-63 D '45; 49:51-7 Mr '46 (to be cont)
Factors affecting insulation resistance of large d-c machines. J. S. Johnson and C. Weil. Elec Eng 65:Trans 705-10 N '46
Generation and regulation of electric power in aircraft; a survey of design features of generators and their control. I. O. Hockmeyer. bibliog il diags Inst E E J 93 pt 2: 2-14 F '46
Instability in d-c aircraft systems. H. B. Bunce and others. il diags Elec Eng 64: Trans 786-91 N '45
Interpoles on d-c motors and generators. E. G. Key. diags Power Pl Eng 49:102-4 Jl '45; Discussion. C. O. von Dannenberg. 50: 106 Ja '46
Lightweight electrical systems design problems and solutions. T. B. Holliday. il Product Eng 17:122-6 Ag '46
Privateer generator operation improved. il Aero Digest 51:62 N 15 '45
Short-circuit characteristics of d-c generators. G. E. Frost. bibliog il diags Elec Eng 65:Trans 394-402 Je '46
Some aspects of direct-current machine design. L. B. Knowles. bibliog Inst E E J 92 pt 1:451-2 D '45
Strip voltage improved by field-boosting generator. R. G. Gehlsen. diag Coal Age 51: 86-7 Je '46
Voltage loss of d-c generator. J. F. Slavinsky. Power Pl Eng 50:99 Je '46

See also
Amplidyne generator
Rototrol

Manufacture

High speed production of automobile generator frames by automatic metallic arc welding W. B. Horton. il Automotive & Aviation Ind 94:27+ Je 15 '46

Parallel operation

Parallel operation of direct-current ship service generators. D. B. Hoover. diags Marine Eng 51:109+ Mr '46

ELECTRIC generators, Electrostatic
New type of electrostatic generator. P. H. Miller, jr. diag Phys R 69:666 Je 1 '46
Two-million volt industrial radiography; use of Van de Graaff electrostatic generator. L. Cardenas. il Iron Age 157:52-5 Je 13 '46

ELECTRIC generators, Hand driven
Manual production of electrical energy. S. Rudeforth. il Engineering 161:553-4 Je 14 '46

ELECTRIC generators, Synchronous
Electrical accuracy of Selsyn generator; control transformer system. H. Chestnut. bibliog diags Elec Eng 65:Trans 570-6 Ag-S '46
Per-unit impedances of synchronous machines. A. W. Rankin. bibliog diag Elec Eng 64:Trans 569-73, 839-41 Ag, D '45

Tables, calculations, etc.

Direct- and quadrature-axis equivalent circuits of the synchronous machine. A. W. Rankin. bibliog diags Elec Eng 64:Trans 861-8 D '45; Correction. 65:Trans 40 Ja '46

ELECTRIC hammers
Portable electric hammer. il Engineer 181:548 Je 14 '46

ELECTRIC hardening. See Case hardening—Electric hardening

ELECTRIC heaters
Explosionproof heaters for hydrogen house at meteorological station. R. L. Ives. il diags Heating-Piping 18:83-4 O '46
Space heaters; Thermovent models. il diag Elec R (Lond) 138:328 Mr 1 '46
Westinghouse to make electric heaters for domestic consumption. H. F. Boe and W. W. Hicks. Iron Age 156:134 N 29 '45

Testing

Tests will determine electric space heating load characteristics. W. L. Sharp. il Elec World 125:82-4 Mr 16 '46

ELECTRIC heating
Coal economy and housing. P. Schiller. Elec R (Lond) 138:801-4 My 24 '46
Data from Portland house-heating tests. W. L. Sharp. il Elec World 126:84-5 S 14 '46
Domestic fuel policy; abstracts. Elec R (Lond) 138:527-8 Ap 5 '46; Electrician 136: 874 Ap 5 '46
Electric house heating in the Pacific Northwest. J. H. Polhemus. il Edison Elec Inst Bul 14:233-4+ Jl '46; Same cond. Elec World 125:86 Je 8 '46; Same cond. Heat & Ven 43:91-2 Jl '46
Electric house heating in the South. J. M. Barry. Edison Elec Inst Bul 14:235-6 Jl '46; Same cond. Elec World 125:87 Je 8 '46; Same cond. Heat & Ven 43:91 Jl '46
Electric house heating load characteristics. H. G. Kelsey. Elec World 124:82-3 N 24 '45
Electric house heating seminar; conference, San Francisco, Dec. 5-6. Elec West 96:58-9 Ja '46
Heating of dwellings. Elec R (Lond) 138:123-4 Ja 25 '46

ELECTRIC heating—*Continued*
Heating the home; a combined solid fuel and electric development. G. Harrison. Electrician 135:661 D 14 '45
House heating by electricity. Comm & Fin Chr 163:1348+ Mr 14 '46
Is house heating by electricity feasible? O. Ely. Pub Util 37:174-6 Ja 31 '45; Discussion. 37:368-9 Mr 14 '46
Poultry house heating. il Elec R (Lond) 137: 623 N 2 '45
Provision of heat by an electricity supply undertaking. R. A. S. Thwaites. bibliog Engineer 182:30-1 Jl 12 '46; Same cond. il Electrician 136:1739-42 Je 28 '46; Abstracts. Elec R (Lond) 138:1003-4 Je 28 '46; Engineering 162:30 Jl 12 '46; Discussion. Elec R (Lond) 139:14-15 Jl 5 '46; Electrician 137:31-3 Jl 5 '46; Engineering 162:30-1 Jl 12 '46
Space heating by electricity; case studies in Chattanooga. W. G. Davies. il Heat & Ven 43:63-4 Jl '46
Transient warming of rooms. Engineering 161:326 Ap 5 '46

See also
Boilers, Heating—Electric heating
Electric heating elements
Electric heaters

Cost

Electrifying miners' homes; costs compared with low-priced fuel. C. R. Taylor. Elec R (Lond) 138:135-6 Ja 25 '46

Panel system

New techniques in radiant heated floors. il Elec West 97:75-6 Ag '46
Panel heating installed in concrete floors. il Elec World 126:146 S 14 '46
Portland, Ore., veteran's house has handy layout heated by electric coils. il plan diag Arch Forum 85:122-3 O '46
Promising results with radiant baseboard. il Elec West 96:68-9 My '46
Radiant heating by electricity; with cost data. L. N. Roberson. il Heat & Ven 43: 89-92 S '46
Radiant panels; waffle-surfaced sheet-metal heating panel developed by J. C. Scurlock. il Elec West 97:76 Ag '46

ELECTRIC heating, Industrial
Arc welding machines aid varnish baking. il diags Elec World 125:78-9 Mr 30 '46; Same. Power Pl Eng 50:101-2 Mr '46
Automatic drying of electrical apparatus. R. G. Cazanjian. diag Ry Mech Eng 120:490-1 S '46
Comparative study of electric and gas-air methods of silver brazing. P. F. Berg. il diags Mach 52:151-4 Ja '46
Concreting at very low temperatures; electric heating, with cost data; abstract. K. Billig. Am Concrete Inst J 17:728-9 Je '46
Direct resistance heating method of hot dimpling 75S-T. T. E. Piper and A. Schoellerman. il diags Automotive & Aviation Ind 95:24-6+ S 15 '46
Drying powdered milk by electricity. il Elec West 95:89 D '45
Electric heat cuts tire recapping costs. R. A. Potter. il Elec World 126:112 O 26 '46
Electric heaters and their control. J. W. Harrison. il Machine Design 18:120-4 S '46
Electric steam box forms complex boat shapes. M. M. Clayton. il Elec World 126: 90 Ag 31 '46
L'énergie convertie en chaleur pendant le régime transitoire dans les circuits en résonnance; applications aux soudeuses électriques. D. Genkin. Génie Civil 123.235 S 1 '46
576-kw. spray-process powdered milk dryer. M. M. Clayton. Elec World 125:184+ Ja 19 '46
Foundry firing; electrical heating of high-viscosity creosote-pitch fuel. il Elec R (Lond) 137:615-19 N 2 '45
Low cycle heater drys metal plugs fast. C. D. Malloch and O. R. Eichenberger. il diag Elec World 126:116+ Jl 6 '46
Major load building with electric heating. C. P. Yoder. Edison Elec Inst Bul 14:269-72+ Ag '46
Place of radiant, dielectric and eddy-current heating in the process heating field. L. J. C. Connell and others. bibliog il diag Inst E E J 92 pt 2:385-99 O '45; Abstract. Elec R (Lond) 136:507 Ap 6 '45; Discussion. Inst E E J 92 pt 2:399-402; 93 pt 2.48-50, 548-58 O '45, F, D '46; Elec R (Lond) 136: 525-6 Ap 13 '45; Electrician 134:335-6 Ap 13 '45
Provision of heat by an electricity supply undertaking. R. A. S. Thwaites. bibliog Engineer 182:32-3 Jl 12 '46
Resin baking coatings by induction heating; abstract. R. J. Moore. diag Nat Pet N 37 pt 2:R992+ D 5 '45
Shoe grease electric cooker developed. M. M. Clayton. il Elec World 125:112 Ja 5 '46; Abstract. Elec West 96:67 Ja '46
60-cycle induction heater for shrink fits. il Iron Age 156:76 D 6 '45; Mach 52:156 F '46
Sixty-cycle induction heating; its advantages and limitations. C. A. Anderson. diags Elec World 126:62-4 O 26 '46
20-kva mobile brazer. il Machine Design 18: 157 S '46
Vapor degreasing; efficiency of electric and gas-heated degreasers. J. C. Joyce. il diags Steel 117:110+ N 26 '45

See also
Boilers—Electric heating
Case hardening—Electric hardening
Electric furnaces
Electric furnaces, Heat treating
Electric heating elements
Electric water heaters
Electric welding
Hot beds, Electric
Infrared rays—Industrial heating
Thawing, Electric

High frequency heating

Adjustable induction heating coils. il Steel 118:118 Mr 18 '46
Application of high frequency heating to silver brazing and silver soldering. H. A. Folgner. il Automotive & Aviation Ind 94: 38-40+ My 1 '46
Automatic frequency control for r-f heating. S. I. Rambo. bibliog il diags Electronics 19:120-2 Ap '46
Automatic induction brazing speeds tool tipping; Willey's carbide tool co. il Iron Age 157:54-5 Ap 11 '46
Baking cores dielectrically. J. McElgin. il Foundry 74:114-16+ Je '46
Basic factors in dielectric heating. E. S. Winlund. diags Elec World 126:80 Ag 3; 98 Ag 17; 84 Ag 31 '46
Brazing tool tips by induction heating; Willey's carbide tool co. il Steel 119:101+ Ag 19 '46
Brazing tool tips to shanks by induction heating. T. A. Vernor and E. F. Adams. il Mach 52:178 D '45; Same. Welding J 25:26 Ja '46
Capacitors for high-frequency induction-heating circuits. F. M. Clark and M. E. Scoville. bibliog il Elec Eng 64:Trans 791-6 N '45
Crucible failure in the induction melting process. A. Gemant and J. Sticher. diag J Ap Phys 16:661-7 N '45
Dielectric heat used in molding insulation for transformers. W. C. Sealey. il diag Elec World 126:88 Jl 20 '46
Dielectric heating analyzed for textile applications. R. A. Rusca. bibliog il diags Textile World 96:118-21+ My '46
Dielectric heating cuts twist-setting and drying time. C. N. Batsel. il diag Textile World 96:139+ S '46; Same. Radio N 36:44-5+ O '46
Dielectric heating dries transformer bushings. H. L. Cole. il diag Elec World 125: 102 Je 8 '46
Dielectric heating of granular materials; aluminum and silicon oxides. P. W. Schutz and E. K. McMahon. bibliog diags Ind & Eng Chem 38:179-84 F '46
Dielectric heating seals giant balls. il Electronics 19:158+ Jl '46
Dielectric melting of glass in France; abstract. M. Descarsin. Glass Ind 27:184+ Ap '46
Dielectric properties vs. temperature of thermosetting molding material preforms at radio frequencies. T. Hazen. bibliog Electrochem Soc Trans 90 (preprint 13):193-204 '46

ELECTRIC heating, Industrial—High frequency heating—*Continued*
Dies harden in passing; progressive induction heating with electronic control. J. A. Schaefer. il diags Am Mach 90:101-3 O 10 '46
Duplex operation of induction heaters. W. C. Rudd. il diags Electronics 19:93-5 N '46
Electric induction steel E.I.S. F. T. Chesnut. il Electrochem Soc Trans 88 (preprint 17):189-95 '45
Electronic heat in the food industries. V. W. Sherman. il diags Food Ind 18:506-9+ Ap '46; Same cond. Electronics 19:166+ Ap '46
Electronic heating and the ceramic industry. D. Harrell, jr. diags Brick & Clay Rec 108: 46-7; Discussion. 47-8 F '46
Electronic heating conference. Electronics 19: 184+ N '46
Electronic heating in the furniture industry. E. S. Winlund. il diags Electronics 19:108-13 My '46
Electronic rubber preheater. E. Mittelmann and G. P. Bosomworth. il diag Electronics 19:128-30 Mr '46
Electronic sterilization. H. A. Benjamin and O. F. Ecklund. il Food Ind 18:523-4 Ap '46
Electronics in processing foods; blanching of vegetables. S. R. Winters. il Radio N 35: 31+ Je '46
Family of high-frequency generators announced by RCA. il Elec World 126:100 Ag 31 '46
Formulas for high-frequency and induction heating. diag Elec World 124:152 N 10; 110 N 24 '45
Frozen foods defrosted by electronic heat. W. H. Cathcart. il Food Ind 18:1524-5 O '46
General Electric high-frequency heater il Elec R (Lond) 139:349-50 Ag 30 '46; Electrician 137:593 Ag 30 '46
Grid-controlled rectifiers for r-f heating. B. Boyd. il diags Electronics 19:125-7 O '46
Heating and vulcanizing rubber and similar resins with high-frequency current. V. L. Smithers. il India Rubber World 113:505-7+ Ja '46
High-frequency electric heating. il Electrician 136:351-4 F 8 '46
High-frequency generator for industrial heating. Engineering 162:184 Ag 23 '46
High-frequency hardening of plastics; abstract. H. Stäger and F. Held. Elec World 125:74 Ja 5 '46
High-frequency heat cures Foamex products. Elec World 125:126+ My 25 '46
High-frequency heating conference, Los Angeles, Dec. 3-4. Elec West 96:59-60 Ja '46
High-frequency heating developments. il Electronics 19:170+ Mr '46
High-frequency heating; developments in induction equipment by Birlec ltd. il Automobile Eng 36:13-19 Ja '46
High frequency heating in rubber and allied industries. G. P. Bosomworth. bibliog il diags Rubber Age 59:429-40 Jl '46; Same cond. Can Chem & Process Ind 30:28-34+ Jl '46
High frequency heating produces mold-free bread; used also for refreshing stale bread. W. H. Cathcart. il Food Ind 18:864-5 Je '46
H.f. inductor heating. il Elec R (Lond) 138: 399-403 Mr 15 '46
High-frequency preheating; thermosetting plastic material. A. R. Tinnerholm. il Mod Plastics 23:180-2 Ap '46
H.f. units for preheating moulding materials. il Engineer 181:368 Ap 19 '46
High intensity induction heating. W. M. Roberds. il diags Steel 118:104-7+ Mr 18 '46
Highly efficient radio frequency transformer for induction and dielectric heating. il Steel 119:96 Jl 29 '46
How to design coils for induction heating. F. W. Curtis. diags Am Mach 90:75-8 Ja 31 '46
Induction and dielectric heating data. Aviation 45:123 Ja; 100 Mr; 103 Ap; 105 My; 107 Je; 103 Jl '46; Excerpts (Dielectric heating formulas). Elec West 96:61 Ja '46; (Physical constants of metals; tabulation). Rayon 26:670 D '45; Same. Materials & Methods 22:1783 D '45
Induction brazing. R. Baubie. il Materials & Methods 23:1007-10 Ap '46
Induction brazing of carbide tips to tools. il Mach 52:177-8 Ap '46; Elec World 125: 136+ My 11 '46; Electronics 19:152+ Jl '46
Induction hardening as applied to farm machinery. F. F. Vaughn. il S A E J 54:38-43; Discussion. 43-4 Ja '46
Induction hardening of precision steel parts. W. Boyle. il Materials & Methods 23:425-8 F '46
Induction heat-treatment of internal surfaces as applied to automotive industries. H. E. Somes. il diags S A E J 54:45-54+ F '46
Induction heater made from welder components. il Elec World 126:73 Ag 3 '46
Induction heating applications in the machine-building industries. H. A. Strickland, jr. Mach 52:181-4 Ag '46
Induction heating applied to steel gears. T. H. Gray. il Materials & Methods 24:915-18 O '46
Induction heating can make money on a job-shop basis. C. Ricker. il diags Am Mach 89:130-3 D 20 '45
Induction heating, economics, applications, etc. E. L. Cady. il Materials & Methods 24:399-410 Ag '46
Induction heating in radio electron-tube manufacture. E. E. Spitzer. bibliog il diag Inst Radio Eng Proc 34 [Waves & Electrons 1]:110W-15W Mr '46
Induction heating of long cylindrical charges. H. F. Storm. bibliog diags Elec Eng 65: Trans 369-77 Je '46
Induction heating used to braze tool tips; Reed roller bit co. T. A. Vernor and E. F. Adams. il Elec World 126:76 Ag 3 '46
Induction heating with electronic generators. il Steel 119:84+ S 30 '46
Joints in a jiffy; electronic heating. J. Markus. il diags Sci Am 174:245-8 Je '46
Kitchen utensil output speeded by induction soldering; with cost data. L. Gise and J. R. Stewart. Iron Age 158:169-70 S 26 '46
Larger induction heating coils meet small-lot requirements; brazing and heat-treating. G. V. Bate. il diags Am Mach 89:91-4 D 6 '45
Manufacturing techniques; welding and induction heating. Barron's 26:5 Mr 11 '46
Metals firm uses h-f heat; Dexter metal treating co. il Elec West 96:106 Je '46
New electronic heat-sealer. il Mod Packaging 19:120-1 My '46
Plus and minus of induction heating. W. W. Young. Am Gas Assn Proc 1945:187-9; Same. Am Gas Assn Mo 27:235-7 My '45
Portable induction heating. il Steel 119:166+ N 11 '46
Pounds per minute of materials that can be heated through various temperature ranges by electronic heaters; table. Chem & Met Eng 53:127 Mr '46
Practical aspects of the selection of frequency and time cycles for the processing of metallic parts with induction heating. W. E. Benninghoff and H. B. Osborn, jr. il Am Soc for Metals Trans 34:310-34 bibliog (p334); Discussion. 335-50 '45
Problems in high frequency induction heating. E. H. Hulse. il diags Iron Age 158: 60-4 Jl 18 '46
Problems in the design of high-frequency heating equipment. W. M. Roberds. il diags Inst Radio Eng Proc 34:489-500 Jl '46
Production of starter ring gears revolutionized by electronic process. il Mach 52:192 Ja '46
Radiation from r-f heating generators; details of shielded room and filter. A. G. Swan. diag Electronics 19:162+ My '46
Radio-frequency dehydration of penicillin solution. G. H. Brown and others. il diag Inst Radio Eng Proc 34 [Waves & Electrons 1]:58W-65W F '46
R-f soldering of metal-to-glass seals. R. A. Ammon. il diag Electronics 19:120-1 Mr '46
Rapid baking of foundry cores by dielectric heating. R. T. Wise and J. P. Moran. il plan Materials & Methods 23:1307-12 My '46
Requirements of dielectric heating can be calculated from formulas; textile applications. il Textile World 95:151+ N '45
Seal cellulose acetate with high frequency. E. K. Cliver. Elec World 126:98+ O 26 '46
Singer electric bonding machine for thermoplastic materials. il Rayon 27:240 My '46

ELECTRIC heating, Industrial—High frequency heating—*Continued*
Spark gap converter as high-frequency power source for induction heating. O. Weitmann. il diag Steel 117:114-15+ N 19 '45
Split induction coil simplifies operations. il Elec World 125:140 Mr 16 '46; Same. Aeronautical Eng R 5:101 Ap '46
Underwater high frequency tempering. M. Lozinsky and B. Kholmsky. Iron Age 158: 76 S 12 '46
Underwater high-frequency tempering of steel. M. Lozinsky. Product Eng 17:137 O '46
Use of radio and electronics in the pulp and paper industry. K. R. Swinton. il Pulp & Pa of Can (Convention no) 47:183-4 [F] '46
What frequency for induction and dielectric heating? R. A. Nielson. il diags Steel 118: 102+ Mr 11 '46
Wood welder does three men's work; dielectric glue-setting machine. il Elec World 126:108 O 26 '46

See also
Case hardening—
Electric hardening

Tables, calculations, etc.

La détermination de la puissance optimum dans un circuit contenant un arc alternatif. C. Macherey. Génie Civil 123:61-3 Mr 1 '46
Induction heating of hollow metallic cylinders. A. Gemant. J Ap Phys 17:195-200 Mr '46

ELECTRIC heating elements
A.S.T.M. standards on electrical-heating and resistance alloys (with related information); prepared by A.S.T.M. committee B-4. 173p pa $2 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '46
Electrical resistance alloy; Kumanal. Engineering 162:211 Ag 30 '46
Mineral-insulated metal-sheathed conductors. F. W. Tomlinson and H. M. Wright. il Inst E E J 93 pt 2:325-35 Ag '46; Discussion. 93 pt 2:336-40; 94 pt 2:84-91 Ag '46, F '47

Repair

New mending materials for repair of open-type electric stove and appliance elements; Chanite and Nichrocite. Consumers Res Bul 17:25 F '46

ELECTRIC hoists. See Mine hoisting, Electric

ELECTRIC homes exhibitions. See Electric industries—Model home exhibits

ELECTRIC hot plates. See Hot plates, Electric

ELECTRIC hotbeds. See Hotbeds, Electric

ELECTRIC industries
Electrical industry program provides basic sales training. R. C. Hill. il Ind Marketing 31:33+ F '46

See also
Electric apparatus industry
Electric contractors
Electric engineering
Electric lighting
Electric plants (central stations)
Electric utilities
Electrometallurgy
Electroplating
Radio apparatus industry
also General electric company

Advertising

Okonite keys promotion to backdoor selling; convincing industry of need for adequate wiring. il Ind Marketing 31:62+ Mr '46

See also Electric apparatus industry—Advertising; Electric utilities—Advertising
also subdivision Advertising under names of various appliances, e.g. Electric lamps—Advertising

History

Chronology of 1945, by months. Elec World 125:139 Ja 19 '46

Materials

Electrical equipment requires special analysis castings. R. A. Collacott. Foundry 74:156 O '46
Electrical resistance alloy; Kumanal. Engineering 162:211 Ag 30 '46
Inside of electrical machines. R. H. Robinson. il diags Electrician 136:1085-8, 1239-43, 1371-4, 1515-18, 1659-63; 137:41-4, 169-72, 314-17, 447-50, 586-9, 787-91, 925-8, 1055-9 Ap 26, My 10, 24, Je 7, 21, Jl 5, 19, Ag 2, 16, 30, S 20, O 4, 18 '46 (to be cont)
Plastic materials of interest to the electrical man. J. Taylor. Electrician 135:209-10, 267-9, 353-5, 473-5, 541-2, 595-6, 675-8; 136:33-4 Ag 31, S 14, O 5, N 2, 16, 30, D 14 '45, Ja 4 '46
Plastics in electrical applications. J. Delmonte. il Machine Design 18:114-18+ Jl '46
Properties of polytetrafluoroethylene of interest to the electric industries. E. P. Yelton. il Electrochem Soc Trans 90 (preprint 15): 219-27 '46
Standard yarn numbering system proposed to help electrical industry. A. A. New. il Ind Stand 17:261-2 O '46
Stone-like plastic formed by molding; G-E mycalex. T. C. Du Mond. il Materials & Methods 24:87-9 Jl '46

Model home exhibits

Load building promotion plan; Union electric co, St Louis. W. A. Rooney. Elec World 126:148 S 14 '46

Statistics

Annual statistical issue. Elec World 125:107-38 Ja 19 '46

Great Britain

British electrical development association, annual meeting, London. Elec R (Lond) 138:439-43 Mr 22 '46; Electrician 136:724-6 Mr 22 '46
Consumer's views and experiences. F. Jackson. Inst E E J 93 pt 1:28-32 Ja '46; Abstracts. Electrician 135:405-6 O 19 '45; Elec R (Lond) 137:519-20 O 12 '45
Electrical contracting industry. Electrician 136:949-50 Ap 12 '46
Electrical contractors. R. H. M. Drake. Electrician 137:101-3 Jl 12 '46
Electrical statistical; supply and manufacturing industries. Electrician 136:460 F 22 '46
I.M.E.A. annual report. Electrician 136:1654 Je 21 '46
I.M.E.A. convention, Blackpool, June 24-28. Elec R (Lond) 138:999-1005; 139:3-15 Je 28-Jl 5 '46; Electrician 136:1726-52; 137:28-40 Je 28-Jl 5 '46; Engineering 162:5-6, 30-1 Jl 5-12 '46
Industry and the House; twelve months' parliamentary retrospect. F. J. Erroll. Elec R (Lond) 139:527-8 O 4 '46
Registration of contractors. A. H. Dykes. Elec R (Lond) 137:564-5 O 19 '45; Discussion. E. A. Pinto. 137:717-18 N 16 '45

India

Electrical progress in India. Electrician 136: 1579-80 Je 14 '46

South Africa

Developments in South Africa. Electrician 136:1527 Je 7 '46
Electricity in South Africa. Electrician 136: 1094 Ap 26 '46

United States

Annual statistical issue. Elec World 125:107-38 Ja 19 '46
More power to America. W. V. Merrihue. Edison Elec Inst Bul 14:251-3 Jl '46; Abstract. Elec World 125:84 Je 8 '46
Predicts $4.5 billion in electrical business; abstract. B. W. Clark. il Elec World 125: 170 F 16 '46
Saturation or growth; it's up to you. R. G. Ely. Edison Elec Inst Bul 14:135-7 My '46

Western states

Electrical West annual review number. il Elec West 96:77-112 F '46

ELECTRIC inspection
Each inspector responsible for specific electrical equipment; E. R. Squibb & sons, Brooklyn, N.Y. J. E. Burns. il Factory Management 104:100-1 Ag '46
Inspection cards. F. G. Marshall. Elec R (Lond) 138:463 Mr 22 '46
Installation inspection; log sheet. S. A. Daines. Elec R (Lond) 137:718 N 16 '45
Schedules that assure low cost for electrical inspection. E. A. Skonberg. il Factory Management 104:142-4 Jl '46

ELECTRIC inspection—*Continued*
Why reinspection should come first. M. K. Bliss. Elec West 95:96 D '45

See also
Electric substations—Inspection

ELECTRIC instruments
Analysis of servomechanisms for instrument and power drives. G. S. Perkins. il diag Product Eng 17:332-4 Ap '46
Applications of the thermal conductivity gas analyzer. A. J. Bialous and C. A. Hansen, jr. il diag Gen Elec R 49:20-6 O '46
Army-navy precipitation-static project; aircraft instrumentation for precipitation-static research. R. C. Waddel and others. bibliog il diags Inst Radio Eng Proc 34:161-6 Ap '46
Canned for life; product works in its package; gas packing electrical devices in metal containers, Stratopax. il Mod Packaging 19:151-3 D '45
Cloud range meter. F. J. Moles. il diag Gen Elec R 49:46-8 Ap '46
Electric measuring instruments. D. M. Nielsen. diags Elec Eng 65:66-74 F '46
Electric resistance wire strain gauges. diags Engineering 162:121-3 Ag 9 '46
Electric strain gages aid machine design. V. E. Hillman. il diags Iron Age 157:50-3 Ap 11 '46
Electric strain gauges. A. B. White. diag Elec R (Lond) 139:175-6 Ag 2 '46
Electrical and allied developments of 1945; testing and measuring. G. Bartlett. il Gen Elec R 49:46-50 Ja '46
Electrical measuring instruments. F. E. J. Ockenden; D. C. Gall. Inst E E J 93 pt 1: 348-54 bibliog(p351-2) Ag '46; Same cond. Engineering 162:234-5, 308 S 6, 27 '46
Electrical measurement of strain. S. C. Redshaw. il diags Roy Aeronautical Soc J 50: 568-602; Discussion. 50.603-12, 998-1001 Ag, D '46
Electrical moisture meter. L. Hartshorn and W. Wilson. bibliog il diags Inst E E J 92 pt 2:403-12 O '45; Abstract. Elec R (Lond) 136:619 Ap 27 '45; Discussion. Inst E E J 92 pt 2:412-15 O '45; Elec R (Lond) 136:619-20 Ap 27 '45; Electrician 134:383-4 Ap 27 '45
Electromagnetic torquemeter. M. W. Hively and D. F. Livermore. il diags A S M E Trans 68:723-6; Discussion. 726-7 O '46
Failure-sequence indicator for static test specimens. R. W. Powell. il diags A S M E Trans 68:763-6 O '46
Field determination of soil density by electric moisture meter. R. McGinn. diags Eng N 135:886 D 27 '45
Improved measurements for industrial processes. D. M. Considine and D. P. Eckman. il diags Steel 118:114-16+ My 20; 94-6+ My 27 '46; Same abr. (Electronics improves industrial process control). Chem Ind 58: 785-7, 982-4 My-Je '46; Same. J Chem Educ 23:274-82 Je '46
Industrial measurement; moisture meters. Elec R (Lond) 137:624 N 2 '45
Instruments for special purposes: discussion. Inst E E J 93 pt 2:394-6 Ag '46; Abstracts. Electrician 136:411-12 F 15 '46; Engineering 161:199 Mr 1 '46
Insulation resistance; Forrest test set. J. M. Goodall. il diag Electrician 136:407-9 F 15 '46
New method for rapid comparison and measurement of solution concentrations which also provides for the automatic control of solution strength. G. G. Blake. diags Chem & Ind p28-9 Ja 19 '46
Portable electrical tester insures quick airliner checks. il Aviation 45:49 O '46
Precision a.c./d.c. comparator for power and voltage measurements. G. F. Shotter and H. D. Hawkes. il diags Inst E E J 93 pt 2: 314-19; Discussion. 320-4 Ag '46
Progress in engineering knowledge during 1945; measurements. P. L. Alger and others. il diags Gen Elec R 49:38-40 F '46
Stress analysis; electric systems for gauging static and dynamic strains. il Automobile Eng 36:401-6 S '46
Stress measurement by electrical means; electric strain gauges. R. E. Kern and S. B. Williams. bibliog il diags Elec Eng 65: Trans 100-7 Mr '46

See also
Ammeters
Bolometers
Chronoscope
Convectron
Dials, Instrument
Electric apparatus and appliances
Electric measurements
Electric meters
Electric testing
Electroscope
Gages, Electric
Galvanometers
Hearing aids, Mechanical
Oscillators
Photoelectric cells
Potentiometers
Radio instruments
Recording instruments, Electric
Synchroscope
Taylor instrument companies
Vacuum tubes—Measurement uses
Voltmeters
Wheatstone bridge

Bearings
Instrument bearing friction. A. L. Nylander. il diags Gen Elec R 49:12-17 Jl '46
Meter and instrument jewels and pivots. G. F. Shotter. il diags Inst E E J 93 pt 2:15-32 F '46; Discussion. 93 pt 2:32-6; 94 pt 2:25-6 F '46, F '47

Exhibitions
Electrical instruments; varied display at Magnet house. Elec R (Lond) 138:107-8 Ja 18 '46; il Electrician 136:165-7 Ja 18 '46; Automobile Eng 36:77-8 F '46
Physical society's exhibition. il diags Engineer 181:23, 36-7, 70-1, 81-2, 105-7 Ja 4-F 1 '46; Engineering 161:40-2, 89-91, 114-15 Ja 11, 25-F 1 '46; Electrician 135:729-31; 136: 35-8 D 28 '45-Ja 4 '46; Elec R (Lond) 138: 43-50 Ja 11 '46; Wireless Eng 23:58-62 F '46

Manufacture
Instrument manufacture; Painton & co. il Elec R (Lond) 137:919-20 D 21 '45

Testing
Deviation factor vs output of sine-wave generators. C. T. Weller. il Gen Elec R 49:60-5 Mr '46

ELECTRIC insulation. See Insulation (electric)

ELECTRIC inverters
Analysis of three self-balancing phase inverters. M. S. Wheeler. diags Inst Radio Eng Proc 34:67P-70P F '46
Calculation of rectifier and inverter performance characteristics. J. C. Read. diag Inst E E J 92 pt 2:495-509 O '45
Carbon-pile speed governor. C. T. Button. diags Elec Eng 65:Trans 4-7 Ja '46
High voltage ignitron rectifiers and inverters for railroad service. J. L. Boyer and C. G. Hagensick. bibliog diags Elec Eng 65:Trans 463-70 Jl '46
How the inverter transfers d.c. power. R. W. Holman. Elec World 125:172+ Ap 13 '46
Jack & Heintz inverter provides high cycle current. il Am Mach 90:149 Mr 14 '46
Mercury arc frequency changer limits rolling mill demand; rectifier-inverter installation at Gary steel mill. R. W. Holman. il diag Elec World 125:112-16 Ap 13 '46

ELECTRIC irons
Every sales clerk a demonstrator of new iron. Ptr Ink 215:102 Je 14 '46
New irons in fire; General Mills diversifies. Bsns W p76+ Ag 10 '46
Side-rest iron. il Bsns W p70 Je 29 '46
There really is a product hungry market; Proctor electric company tests on irons in 6 cities. O. MacCarthy. il Adv & Sell 39: 52+ S '46

Handles
Changing styles in iron handles. J. H. DuBois. il Mod Plastics 23:85-8 My '46

Rating
Electric irons; four of the regular size, and two of the traveler's type. il Consumers Res Bul 18:5-8 Ag '46

ELECTRIC laboratories
Laboratory engineers find self-service stockrooms a new source of help. S. J. Radliff and W. S. Budlong. il plan Gen Elec R 49:25-7 Jl '46

ELECTRIC laboratories—*Continued*
Laboratory for basic electronics; United States military academy. P. M. Honnell and W. E. Strohm. il diags Elec Eng 65: 75-80 F '46
New laboratory for Benjamin electric company's plant at Des Plaines, Ill. il plans diags Arch Forum 85:81-6 S '46

ELECTRIC lamps
Electrical and allied developments of 1945; lighting equipment, applications. G. Bartlett. il Gen Elec R 49:62-5 Ja '46
Gaseous discharge tubes and applications. R. C. Hilliard. il diags Electronics 19:122-7 Mr '46
G-E lamp cartons redesigned to provide dealers with a better merchandising tool. il Mod Packaging 19:124-5+ Je '46
Lamp application research. L. C. Porter and J. E. Davenport. il Gen Elec R 49:8-17 O '46
Maintenance factors. P. Moon and D. E. Spencer. Illum Eng 41:211-31 bibliog(p230) Mr '46
Outline of stability of color matching lamps. H. Ellsworth. il Am Dyestuff Rep 35:165-6 Mr 25 '46
Progress in engineering knowledge during 1945; lighting. P. L. Alger and others. diags Gen Elec R 49:57-61 bibliog(p67) F '46
Recent developments in illumination. Power Pl Eng 50:65 My '46

See also
Electric lighting
Safety lamps, Electric
Ultraviolet rays—Lamps

Advertising

Lamp publicity. il Elec R (Lond) 139:467, 505, 589-90 S 20-27, O 11 '46
Lamp sales publicity. il Electrician 137:737, 808, 866, 934 S 13-O 4 '46

Flashing

Bright light sources; condenser flash lamps. J. N. Aldington. Light & Lighting 38:175-6; Discussion. 181 D '45
Continuous flash lighting; an improved high-intensity light source for high-speed motion picture photography. H. M. Lester. bibliog il diags Soc Motion Picture Eng J 45:358-69 N '45

Manufacture

Chemicals that cause trouble; toxic, irritating and flammable substances create safety and health problems in manufacture of electric lamps and electronic tubes. A. Korbelak. Nat Safety N 53:37-8+ My '46
Machine for making lamp bulbs; Alien property custodian patent. diags Glass Ind 27: 452 S '46
Machine for shaping the ends of glass tubes for use in lighting by luminous vapor; patent. diag Glass Ind 27:158-9 Mr '46
Westinghouse manufacture of electric light bulbs; patent. diag Glass Ind 27:133-4 Mr '46

See also
Electric lamps, Incandescent—Manufacture

Merchandizing

How Sylvania's market research molded a new package pattern. il Sales Management 55:179 D 1 '45
Shopping habits reveal lamp buying trends. Elec World News ed 125:19 Je 1 '46
Where to sell lamps; lighting fixtures; results of Sylvania surveys. il Elec West 96: 117-20 F '46

Statistics

Electric lamp production, shipments and stocks for 1945. Glass Ind 27:249 My '46

Testing

Color temperature testing in projector lamp production. S. Pakswer and J. Kirk. diag R Sci Instr 17:157-8 Ap '46

ELECTRIC lamps, Arc
Carbon arcs for motion picture and television studio lighting. F. T. Bowditch and others. bibliog il diag Soc Motion Picture Eng J 46:441-53 Je '46
Concentrated-arc lamp. W. D. Buckingham and C. R. Deibert. il diag Opt Soc Am J 36.245-50 My '46; Abstract. Iron Age 157:54 Ap 25 '46
General electric co. arc lamp for film studios. il Electrician 137:1004 O 11 '46
Miniature sun; new lamp using molten zirconium oxide. Bsns W p50+ Mr 16 '46
Report of the studio lighting committee, Society of motion picture engineers. diags Soc Motion Picture Eng J 45:249-60 O '45
Western union telegraph co. new high-intensity lamp. Elec R (Lond) 139:410 S 13 '46

See also
Electric lamps, Mercury vapor

ELECTRIC lamps, Cesium vapor
Cesium vapor lamps. N. C. Beese. diag Opt Soc Am J 36:555-60 O '46

ELECTRIC lamps, Fluorescent
Better light and better health in this schoolroom; fluorescent and germicidal lamps. L. E. Weber. il Elec World 125:132 My 25 '46
Care of F lights. L. B. Johnson. il diag Elec West 97:59 Jl '46
Combined light and power systems for industrial plants. D. L. Beeman. il diags Gen Elec R 49:28-35 Mr '46
Depreciation of fluorescent lamps without passage of current. H. C. Froelich. J Ap Phys 17:573-9 Jl '46
Designing with fluorescent lighting. M. Luckiesh. il Arch Rec 98:100-6 D '45; 99:62-7 Ja '46
Dimensional and operating data of fluorescent light sources; tabulation. C. N. Laupp, comp. Elec World 125:86 Mr 30 '46
L'éclairage par lampes-tubes fluorescentes. M. Adam. il diags Génie Civil 123:157-8 Je 15 '46
Experimental applications of tubular fluorescent lamps to street lighting; abstracts. L. J. Davies and W. D. Sinclair. il Electrician 137:732-4 S 13 '46; diags Elec R (Lond) 139:448-50 S 20 '46
Fading of colored textiles. A. H. Taylor. Illum Eng 41:35-8 Ja '46
Fluorescence of phosphors in rare gases. N. C. Beese. Opt Soc Am J 36:493-8 S '46
Fluorescent bus-lighting. diags Elec R (Lond) 137:873-4 D 14 '45
Fluorescent display; tube flashing circuit explained. il diag Elec R (Lond) 139:195 Ag 2 '46
Fluorescent fixtures. il Mod Plastics 23:94-6 Mr '46
Fluorescent lamp for Christmas trees. diag Elec World 125:110 Mr 2 '46
Fluorescent lamp mine lighting at Binley colliery. il Electrician 136:1377 My 24 '46
Fluorescent lamps and lighting. A. K. Gaetjens. il diags Power Pl Eng 49:96-8 D '45; 50:66-9 Ja '46
Fluorescent light answering demand. H. E. Way. Dom Comm 34:38 F '46
Fluorescent light display effects. H. H. Ballin. il diag Electrician 137:241-2 Jl 26 '46
Fluorescent lighting Nat Safety N 52:58+ D '45
Fluorescent lighting developments increase lamp output, decrease costs. A. G. Elley. il Eng N 137:105-8 Jl 25 '46
Fluorescent lighting for buses. W. E. Peek. il Bus Transportation 25:51-3 F '46
Fluorescent lighting for cars. W. W. Garstang. il Ry Age 119:854-5 N 24 '45; Same. Ry Mech Eng 119:608-9 D '45
Fluorescent lighting for commercial airline interiors; abstract. F. A. Rugge. Automotive & Aviation Ind 94:60+ Ja 1 '46
Fluorescent lighting in London underground. il Light & Lighting 39:51-2 Mr '46
Fluorescent lighting in mill; W. and E. Crowther, ltd. il Electrician 136:1589 Je 14 '46
Fluorescent lighting practice; abstract. W. J. Jones. Light & Lighting 39:86-7 My '46
Fluorescent lighting welcomed in a cotton mill. il Light & Lighting 39:54 Mr '46
Fluorescent tubes for the non-technical. T. C. Holdsworth. Light & Lighting 39:8-11 Ja '46
Fluorescent tubes used for propagation of cuttings and seedlings Elec World 125:134+ Mr 16 '46

ELECTRIC lamps, Fluorescent—*Continued*
40W fluorescent lamps. il Electrician 136:40 Ja 4 '46
Half-sold is half-lighted. N. H. Boynton. il Elec World 126:65-7 Jl 20 '46
Illumination from a line source. H. Reinhardt. Elec World 124:158 D 8 '45
Let there be safe light. R. N. Bradley. il Safety Eng 92:20+ S '46
Light for offices. il Elec West 96:91 Ap '46
Light for passenger cars. il diag Ry Age 120: 239-41 Ja 26 '46; Same. Ry Mech Eng 120: 93-4 F '46
Lighting an important factor in textile production quality and profits. il Rayon 27: 85-7 F '46
Lighting for production; fluorescent lamps. H. J. Williams. diags Am Mach 90:108-9 Ag 29 '46
Lighting of passenger cars; relative merits of fluorescent and incandescent lighting. A. J. Manson. diags Ry Mech Eng 120: 370-2, 427-9 Jl-Ag '46
Lighting of seadromes. A. L. Lewis. il diag Aero Digest 53:50-2+ S '46
Lighting product display. il Elec West 97:74-7 S '46
Luminous ceilings for United nations auditoriums. il plan Elec World 126:60-1 O 26 '46
Measurement of current transients in a low voltage circuit. B. T. Barnes and others. diag R Sci Instr 17:426-7 O '46
Modern trends in lighting; abstract. J. A. Prowse. Electrician 136:1235 My 10 '46
Modernize with light. A. F. Loewe. il Radio N 36:30-1+ Ag '46
Molded bases for round fluorescent bulbs. il Mod Plastics 23:126-7 F '46
More light urged; potentialities of fluorescent illumination stressed. il Bsns W p36+ My 11 '46
New fluorescent lamp; shorter type with improved auxiliaries. diag Elec R (Lond) 138: 21 Ja 4 '46
New fluorescent lamps for ships. il Marine Eng 50:254 N '45
Office illumination upped six fold by fluorescent lighting. il Elec World 124:166 N 10 '45
Partners of light; plastics ideally suited for diffusers, shields, fixtures, and glowing radiant panels. C. A. Breskin. il Sci Am 174:197-200 My '46
Photo studio lighting attracts patronage. R. A. Potter. il Elec World 124:170 D 8 '45
Railroad car lighting. il Mod Plastics 23:97-8 Mr '46
Report of the I.E.S. committee on progress. bibliog il diags Illum Eng 40:901-48 D '45
Safety factors in fluorescent installations. W. D. Renner. il Nat Safety N 53:25+ F '46
Shadowless lighting; Union special machine company, Chicago. J. R. Haugan. il Factory Management 104:105 My '46
Spray-booth lighting. W. H. Kahler. Safety Eng 90:62 Jl '45; Same, with il. Sheet Metal Worker 36:45+ Ag '45; Same. Ry Mech Eng 120:42 Ja '46; Abstract. Steel 117:146 O 15 '45
Studies of fluorescent street lighting. bibliog il diags Illum Eng 41:146-68 F '46
Survey shows bright future for commercial fluorescent lighting. Sales Management 56: 96 F 15 '46
Trend of fittings for fluorescent lamps; abstract. W. R. Stevens. Light & Lighting 39: 32 F '46

Cold cathode

Cold cathode lighting; abstract. H. A. Millar. Light & Lighting 38:179-80 D '45
Dimming fluorescent lighting; circuits for cold-cathode tubes. H. A. Miller. diags Elec R (Lond) 139:457-8 S 20 '46
Lighted ceilings; office of Spott electric co. il Elec West 95:92 D '45
Lighting innovation at Victoria station. il Light & Lighting 39:111 Je '46
Spokane is off to good start in store lighting modernization. il Elec World 126:108 Ag 3 '46

Length of service

Fluorescent lamp life calculated to determine replacements. R. R. Wylie. Textile World 95:122-3 N '45; Same. Am Mach 89:145, 147 D 20 '45
Life of fluorescent lamps. Light & Lighting 39:164 S '46

Physiological effect

Fluorescent lighting and health. Engineer 182:14 Jl 5 '46
Fluorescent lighting effects; medical men refute charges. R. O. Ackerley. Elec R (Lond) 139:257 Ag 16 '46

Starting

Heat effects on protective starters. W. S. Mowry. Elec World 125:116 Mr 2 '46
Progress in engineering knowledge during 1945; instant-starting fluorescent lamps. P. L. Alger and others. diag Gen Elec R 49: 37-8 bibliog(p67) F '46

ELECTRIC lamps, Incandescent
Characteristics of lamps as applied to the non-linear bridge, used as the indicator in voltage stabilizers. G. N. Patchett. il diags Inst E E J 93 pt 3:305-22 bibliog(p320) S '46
Filaments win street tests; fluorescent and incandescent lamps compared. il Elec West 96:108 Je '46
Incandescent lamps for film projection. T. J. J. A. Manders. Light & Lighting 39:143-5 Ag '46
Light for schools. il Elec West 96:68 Ja '46
Lighting for production; incandescent filament lamps. H. J. Williams. diags Am Mach 90:106 Ag 29 '46
Lighting of passenger cars; relative merits of fluorescent and incandescent lighting. A. J. Manson. Ry Mech Eng 120:370-2 Jl '46 (to be cont)
Lighting product display. il Elec West 97: 78-80 S '46
Load lamp for microwave power measurements. J. E. Beggs. il diags Electronics 19:204+ Je '46

Manufacture

Glass for lamps; making components for standard metal filament types. il Elec R (Lond) 138:479-84 Mr 29 '46

ELECTRIC lamps, Mercury vapor
Arterial highway lighted for safety. D. E. Luckey. il Elec World 125:124 Je 8 '46
Bright light sources. J. N. Aldington. Light & Lighting 38:175-6 D '45
Lighting for production; mercury-vapor lamps. H. J. Williams. diags Am Mach 90: 107 Ag 29 '46
Lights up, but accessible; Ryan plane plant. il Elec West 96:90 Ap '46
Ozone production by low-pressure mercury arcs. L. R. Koller. il diag Gen Elec R 49: 50-3 Ap '46
Production and decomposition of ozone by low pressure mercury vapor lamps. L. R. Koller. bibliog il J Ap Phys 16:816-20 D '45

See also
Electric lamps, Fluorescent

Testing

Photometry and colorimetry of electric discharge lamps. G. T. Winch. Light & Lighting 39:41-2; Discussion. 43 Mr '46

ELECTRIC lamps, Neon
Use of the neon bulb for conductivity demonstration. G. W. Thiessen. J Chem Educ 23:267 Je '46

ELECTRIC lamps, Photoflash
Photo-flash; announced by Raytheon mfg. co. il R Sci Instr 17:245 Je '46
Photographic use of electrical discharge flashtubes. H. E. Edgerton. bibliog il diags Opt Soc Am J 36:390-9 Jl '46
Wabash electroflash unit. il R Sci Instr 17: 202-3 My '46

ELECTRIC lamps, Portable
Lighting performance recommendations for portable and installed residence luminaires. diags Illum Eng 41:521-48 Jl '46

ELECTRIC lamps, Tungsten

Manufacture

Making electric lamps. il Elec R (Lond) 138: 755-60 My 17 '46

Prices

Lamp price reductions interrupted only by wars. Elec World News ed 126:18 Jl 27 '46

ELECTRIC light fixtures. See Lighting fixtures

ELECTRIC lighting

All-industry approach to commercial lighting; Wisconsin electric power co. C. N. Laupp. il plan diags Elec World 125:64-6 Ja 5 '46

Best ways to sell best lighting; Electrical World report. F. R. Innes. Elec World 126: 91-106 S 28 '46

Code of lighting practice. Electrician 135:726 D 28 '45

Common faults appearing in lighting systems. Elec World 125:130+ Mr 16 '46

Egg-crate ceilings in U.N. assembly auditoriums provide high level illumination; eliminate uncomfortable variations in brightness. il diags Arch Forum 85:183 O '46

Electric lighting for marine buoys and beacons. Engineer 181:527 Je 7 '46

Electrical and allied developments of 1945; lighting equipment, applications. G. Bartlett. il Gen Elec R 49:62-5 Ja '46

Electrical installations. J. A. McConnell. Inst E E J 93 pt 1:156-60 Ap '46

Half-sold is half-lighted. N. H. Boynton. il Elec World 126:65-7 Jl 20 '46

Its own medicine; lighting new Portland building of General electric supply corp. il Elec West 96:124-5 F '46

Lighting developments; work of E.L.M.A. reviewed. Electrician 135:667-8 D 14 '45

Lighting men get review-refresher at Salt Lake conference. J. F. McAllister. Elec West 96:63-5 My '46

Modern trends in lighting; abstract. J. A. Prowse. Electrician 136:1235 My 10 '46

Newer light sources used in post-war home; Slimline and Circline incandescent lamps. il Elec World 125:122 Ap 27 '46

Progress in engineering knowledge during 1945; lighting. P. L. Alger and others. diags Gen Elec R 49:57-61 bibliog(p67) F '46

Putting things in a good light; abstract. R. O. Ackerley. Electrician 135:567-8 N 23 '45

Vertical plane lighting. F. G. W. Tree. diag Electrician 135:459-60 N 2 '45

Where to buy lighting in the West; list of manufacturers. Elec West 97:82-3 S '46

Where to sell commercial and industrial lighting. il diags Elec World 125:118-32 Ap 13 '46

See also

Airports—Lighting
Better light-better sight bureau
Car lighting
Church lighting
Electric lamps
Factories—Lighting
Office lighting
Railroads—Lighting
School buildings—Lighting
Store buildings—Lighting
Street lighting

Control

Airfield lighting control. il Engineer 182:164-5 Ag 23 '46; Electrician 137:524-5 Ag 23 '46; Elec R (Lond) 139:311-12 Ag 23 '46

Light by push button. A. B. Smedley. il plan diag Elec West 96:66-7 My '46

Resonant-circuit constant-current regulators; airport-approach and runway-marker light circuits. G. M. Kevern. il diag Elec Eng 64:Trans 807-10 D '45

Stage and colour lighting; new automatic change system. il Electrician 136:523-4 Mr 1 '46

Cost

Combined light and power systems for industrial plants. D. L. Beeman. il diags Gen Elec R 49:28-35 Mr '46; Same. Elec Eng 65: Trans 76-83 F '46

Flicker

Proper conductors prevent lamp flicker. Power Pl Eng 50:103 Ja '46

Standards

Codes of practice. Electrician 136:1458 My 31 '46

ELECTRIC lighting, Decorative

See also

Light, Colored

ELECTRIC lines

Adaptation of power systems for carrier installations. W. H. Blankmeyer. il diag Elec World 125:61-3 Mr 2 '46

Boston Edison benefits from common neutral practice. A. B. Jones. diags Elec World 125:60-2 Ap 27 '46

Developments in rural telephone service of interest to electric utilities. A. E. Silver. il diags Edison Elec Inst Bul 14:199-204 Je '46; Excerpt. Elec World 125:80 Je 8 '46

New peak in electric power; high-voltage transmission experimental power line. P. Sporn. Nat Safety N 54:110 Jl '46

Les pertes de puissance dans les lignes à haute tension continue par l'effet de gouttes d'eau pendantes. M. Pauthenier, L. Demon and G. Dunaut. Génie Civil 123:207 Ag 1 '46

Planning distribution for increased loads; facilities required; abstract. F. E. Sanford. Elec World 125:78 Je 8 '46

Planning for the near-future electric power system. M. M. Samuels. Pub Util 38:84-93 Jl 18 '46

See also

Electric cables
Electric conduits
Electric plants—Interconnection
Electric railroads
Electric service, Rural
Electric transmission
Electric utilities
Electric wiring
Radio lines
Telephone lines
Trolley buses

also International conference on large high tension electric systems

Bird problem

Eagle roosts for transmission towers. G. V. Willets. il Power Pl Eng 50:99 Je '46

Construction

Dead ending of messenger strands. diags Elec World 126:98 Jl 6 '46

Outrigged ladder has great flexibility. il diags Elec World 124:148 D 8 '45

Three-mile feeder combines open-wire, aerial cable, submarine and underground construction; Central Illinois electric & gas co. R. M. Bert and others. il diags Elec World 125:52-4 F 2 '46

Translating electric power into oil for war; Southern California Edison saves fuel oil by bringing power from Boulder dam. J. H. Collins. Pub Util 37:827-34 Je 20 '46

See also

Electric lines—Overhead construction

Cost of construction

Tie line section cost $10,300 per mile. Elec World 126:127 S 28 '46

Transmission and distribution lines for Boysen unit, Wyoming; unit prices. Eng N 137: 261+ Ag 22 '46

Crossarms

New phase assembly stops crossarm splitting. E. H. Aiken. diags Elec World 124: 104 N 24 '45

New pole mounting for transformers. T. E. Horkay. diags Elec World 125:152+ Ap 13 '46

Pothead on crossarm provides more clearance. diag Elec World 124:102+ D 22 '45

Preservative treatment of various species for poles and crossarms. J. D. MacLean. Elec Eng 65:Trans 549-53 Ag-S '46

Tower arms relocated, dancing conflict voided. F. H. Legge. diag Elec World 125: 92 Mr 2 '46

Use pole-stock spars as transmission arms. J. E. McKinster. il diags Elec World 125: 84-5 F 16 '46

Damage from air raids

Equipment vulnerability to war damage measured. G. V. Harrap. il Elec World 126: 81 O 12 '46

Damage from storms

Post-storm rehabilitation of distribution system. P. J. Carlin. il Elec World 126.70-3 O 12 '46

Weather and electric power systems. J. S. Forrest and others. bibliog il map Inst E E J 93 pt 1:161-76 Ap '46; Abstracts. Electrician 135:444-6 O 26 '45; Elec R (Lond) 137:584-5, 621-2 O 26-N 2 '45

Design

Alternating current for mine transmission and distribution. D. E. Renshaw. Min Cong J 32:41-5 My '46

ELECTRIC lines—Design—*Continued*
Co-ordination of insulation and spacing of transmission line conductors. W. W. Lewis. bibliog diags Elec Eng 65:690-4 O '46
Lightning performane of 220-kv transmission lines. diags Elec Eng 65:Trans 70-6 F '46

Drawings

Drawings indexed by voltage and by supports. Elec World 124:140 N 10 '45

Ice problem

Glaze troubles; dancing wires. A. E. Davison. bibliog Edison Elec Inst Bul 14:121-2+ Ap '46
Ice storms and overhead lines. H. W. Grimmitt. map Inst E E J 93 pt 1:163-4; Discussion. 169-76 Ap '46

Inductive interference

How to make transpositions in single-circuit lines. diags Elec World 125:110 Je 22 '46
Inductive co-ordination aspects of rectifier installations. bibliog diags Elec Eng 65: Trans 417-36 Jl '46
Practical aspects of telephone interference arising from power systems. P. B. Frost and E. F. H. Gould. il diags Inst E E J 93 pt 1:255-67 bibliog(p267) Je '46; Excerpts. Electrician 135:471-2 N 2 '45; Discussion. Inst E E J 93 pt 1:267-74, 581-94 Je, D '46; Electrician 135:505-7 N 9 '45; Elec R (Lond) 137:671-2 N 9 '45
Protection of pilot wires from induced potentials. R. B. Killen and G. G. Law. map diags Elec Eng 65:Trans 267-70 My '46

Interconnection

Airbreak switch synchronizes tie. M. G. Clapper. il diag Elec World 125:98 F 2 '46

Maintenance and repair

Design for patrolman's suspension bridge. W. A. Schulz il diags Elec World 125:89 Mr 2 '46
Emergency repair pole-top saddle pin. diags Elec World 126:108 Jl 20 '46
High-line patrol by airplane. W. H. Blankmeyer. il Elec West 97:90-1 S '46
How live-line tools are used by TVA. W. L. Wages. il Elec World 126:129 S 28 '46
Operation, maintenance and testing of overhead lines and associated outdoor equipment on a.c. systems. R. C. Hatton and J. McCombe. bibliog il diags Inst E E J 92 pt 2:273-83 Ag '45; Discussion. 92 pt 2:283-90, 618:27; 93 pt 2:576-96 Ag, D '45, D '46
Platform designed for easy mounting and removal. R. L. Dodd. il diags Elec World 126:80 S 26 '46
Record-time repair of broken 287-kv. lines; emergency splicing device developed by Los Angeles city powermen. I. L. Bateman. il Elec West 96:85 Ap '46
Snow buggy for line repairs on continental divide. G. C. Farnsworth. il Elec World 125:48-9 Mr 30 '46
12-kv. insulators washed with hot-stick brush. il Elec World 124:116+ N 24 '45

See also
Linemen's equipment

Maps

Magnetic map shows location of crews; Detroit Edison co. Overhead lines department. il Elec World 125:102 F 2 '46

Overhead construction

Bonding, grounding eliminate excessive static. E. H. Aiken. diag Elec World 124: 162 D 8 '45
British standard for high-voltage overhead lines. Engineer 182:165-6 Ag 23 '46
Conductors dead-ended at different levels. C. F. Dobson. il Elec World 125:172+ Ja 19 '46
Develop hoisting plate for insulator assembly. diags Elec World 126:81 O 26 '46
High voltage overhead lines; B.S.S. to solve some rural electrification problems. diag Electrician 137:521-3 Ag 23 '46
High-voltage overhead lines; abstracts. W. J. Nicholls. Electrician 135:532-3 N 16 '45; Elec R (Lond) 137:710 N 16 '45; Discussion. Electrician 135:576-8 N 23 '45; Elec R (Lond) 137:749-50 N 23 '45
How messenger strands can be crossed and spliced. diags Elec World 126:82 Ag 3 '46
How to identify insulator position on electrical supply lines. diags Elec World 126: 98 Jl 20 '46
How to install messenger suspension clamps and cable safety strap; drawings. Elec World 125:86 Ap 27 '46
How to mount line capacitors. diags Elec World 125:166 Ja 19 '46
Large-scale distribution; the system in north Wales and district. il map Elec R (Lond) 138:3-9 Ja 4 '46
Messengers carry heavy overhead service cables. il Elec World 126:147 S 28 '46
Method of raising H-type structures. D. Stewart and H. J. Funk. il diag Elec World 126: 82 Ag 31; 112-13 S 14 '46
Method to provide line clearance at a telephone pole. diags Elec World 126:136 S 28 '46
⅓ labor saving with two-boom derrick; building wood pole line for Bonneville power administration. il Elec World 125:84 F 2 '46
Operation, maintenance and testing of overhead lines and associated outdoor equipment on a.c. systems. R. C. Hatton and J. McCombe. bibliog il diags Inst E E J 92 pt 2:273-83 Ag '45; Discussion. 92 pt 2:283-90, 618:27; 93 pt 2:576-96 Ag, D '45, D '46
Polarm structure applied to dead-ends and angle turns C. A. Booker. il Elec World 125:77 Ap 27 '46
Power activities in 21 army group; transmission line, Belgium to Holland. T. G. Martin. il map plan diag Electrician 137:576-81 Ag 30 '46
Projector shoots line over crossarms, trees. R. L. Dodd. diags Elec World 125:128 My 11 '46
Recent progress in the design of the high-voltage overhead lines of the British grid system. W. J. Nicholls. il diags Inst E E J 93 pt 2:82-91 Ap '46; Abstracts. Elec R (Lond) 137:710 N 17 '45; Electrician 135: 532-3 N 16 '45; Discussion. Inst E E J 93 pt 2:91-6; 94 pt 2:78-83 Ap '46, F '47; Elec R (Lond) 137:749-50 N 23 '45; Electrician 135:576-8 N 23 '45
Rural electrification: the use of the single-phase system of supply; abstract. J. S. Pickles and W. H. Wills. Engineering 161: 390 Ap 26 '46
Salt sprays safe for fire-fighting near electric lines. diag Elec World 124:86+ D 22 '45
Secondary banking with automatic sectionalizing. J. S. Rule. il plan diags Elec World 125:56-60 Mr 2 '46
Special structure eliminates guys in cultivated fields. E. H. Aiken. il diags Elec World 125:157 Ja 19 '46
Survey of generation and transmission. W. Dixon. Inst E E J 93 pt 1:81-2 F '46
Temporary brace for side arms. diag Elec World 124:137-8 N 10 '45
Use mid-span taps to clear lot corners. il Elec World 126:96 Jl 6 '46

See also
Electric lines—Cross-arms
Electric lines—Vibration

Poles and towers

Behavior of red fir poles for 11-kv lines under electrical stress due to insulator failure. W. Lethersich. Inst E E J 93 pt 2: 387-93 Ag '46; Abstract. Engineering 162: 268 S 20 '46
Chart guides pole class selection. H. E. Ostman. Elec World 126:94 Ag 17 '46
Concrete piles make economical tower footings. J. Lummis. il Elec World 126:57-9 O 26 '46
Defend crossing towers against erosion threat. il Elec World 126:110+ Jl 6 '46
Deterioration of tower galvanizing checked periodically. N. A. Kerstein and L. E. Gibson. il Elec World 126:82 O 26 '46
Eleven rack attachments used on poles; drawings. Elec World 125:114 Mr 16 '46
Five-pole structure supports long span. H. W Bischel. il Elec World 126:88 Ag 3 '46
Hang three-phase transformers from poles. N. Crider. il Elec World 124:99 N 24 '45
How a line pole butt can be reinforced. diag Elec World 126:80 Ag 31 '46
How racks can be used on poles; diagrams. Elec World 125:90 F 2 '46

ELECTRIC lines—Poles and towers—*Cont.*
How TVA installs a pole on an engerized line; illustrations. W. L. Wages. Elec World 126:112 O 12 '46
Install carrier telephone equipment on line tower. J. L. Buckley. il Elec World 124: 144 D 8 '45
Mechanical stress relief in transmission lines; effect of adding towers determined by study of models. J. N. Swarr. diag Elec World 126:77-8 O 12 '46
Method of raising poles with a truck. M. L. Monson. diag Elec World 125:116 Je 8 '46
Pole replacement study shows post-war requirements. F. B. Doolittle. Elec World 124:122-3 D 8 '45
Pole replacement tables yield minimum ground line circumference. E. S. Jackson. Elec World 126:110 O 12; 94 O 26 '46
Poles seasoned quickly in hydrocarbon atmosphere. M. S. Hudson. il diags Elec World 126:90-3 S 14; 107-8 S 28 '46
Preservative treatment of various species for poles and crossarms. J. D. MacLean. Elec Eng 65:Trans 549-53 Ag-S '46
Reinforced-concrete poles. H. F. Lidster. il Elec R (Lond) 138:559-63 Ap 12 '46
Rot spotter; Torque screw pole tester. diag Elec West 97:58 Jl '46
Steel tower economics. P. J. Ryle. diags Inst E E J 93 pt 2:263-74 Je '46; Abstract. Electrician 136:109 Ja 11 '46; Discussion. 136: 163-4 Ja 18 '46; Inst E E J 93 pt 2:275-84, 642-4 Je, D '46
Successful trial installation points way for joint use of poles in rural areas. H. J. Scholz and F. M. Craft. il diags Edison Elec Inst Bul 13:327-9 N '45; Same. Elec World 124:76-8 N 24 '45
Supports for overhead lines; concrete poles. D. A. Stewart. diags Engineering 162:233-4 S 6 '46
Torque screw pole tester graphs condition of standing poles. H. A. Stingle. il diag Elec World 126:69 Jl 6 '46
Treatment of southern pine poles; abstract. J. A. Vaughan. Elec World 125:69 F 2 '46
Vibration studies on steel towers of Boulder transmission lines. J. K. Minasian. il Civil Eng 16:62-3 F '46
Wish-bone arm construction cuts outages on 33 kv. H. F. Roempke. diags Elec World 126:73 Ag 31 '46

See also
Electric lines—Crossarms

Protection

Application of the ohm and mho principles to protective relays. A. R. van C. Warrington. bibliog diags Elec Eng 65:Trans 378-85 Je '46
Better lightning performance of transmission lines. T. W. Schroeder. diags Elec World 126:70-2 Jl 20 '46
Ground-fault neutralizer establishes its place on electric power systems. N. H. Meyers. bibliog il diags Gen Elec R 49:37-44 O '46
High-voltage research at the National physical laboratory; insulation of a transmission system. R. Davis. diags Engineer 180:412-13 N 23 '45; Same. Inst E E J 93 pt 1:182-4 Ap '46
Lightning investigations on 33-kv wood-pole lines. F. E. Andrews and G. D. McCann. bibliog il diags Elec Eng 64:Trans 768-77 N '45
Lightning performance of 220-kv transmission lines. diags Elec Eng 65:Trans 70-6 F '46
Mho distance relay. R. M. Hutchinson. bibliog il diags Elec Eng 65:Trans 353-9 Je '46
100-kv and 13-kv ground-fault neutralizers. L. M. Robertson. il Gen Elec R 49:14-16 S '46
Operating experience with distance ground relays. W. A. Wolfe. il diags Elec Eng 65:Trans 458-62 Jl '46
Philosophy of relaying. E. W. Knapp and B. C. Hicks. map diags Elec Eng 65:Trans 735-41 N '46
Protection of pilot wires from induced potentials. R. B. Killen and G. G. Law. map diags Elec Eng 65:Trans 267-70 My '46
Uninsulated guys afford lightning protection. il diag Elec World 125:94 Ja 5 '46

See also
Lightning arresters

Ravine crossing

Air gun aids stringing of transmission line across ravines. H. Peet, jr. il Elec World 125:107-8 Mr 16 '46

River crossing

Defend crossing towers against erosion threat. il Elec World 126:110+ Jl 6 '46
Mystic cable tunnel; design and construction. O. S. Bray. diags Boston Soc C E J 33: 68-81 Ap '46
River crossing tower stands on one foot. il Elec World 125:101 Je 22 '46

Safety measures

Plastic live-line shields extend protection to 15 kv. E. H. Kendall. il diag Elec World 125:80-1 Mr 16 '46
Safety eye holds winch line hook. il Elec World 125:90 Mr 2 '46
To avoid accident from multiple grounds. diag Elec World 125:90+ Ja 5 '46

Standards

British standard for high-voltage overhead lines. Engineer 182:165-6 Ag 23 '46
High voltage overhead lines; B.S.S. to solve some rural electrification problems. diag Electrician 137:521-3 Ag 23 '46
Standard overhead lines. Elec R (Lond) 139: 297 Ag 23 '46

Tables, calculations, etc.

Calculating conductor areas; relating current-carrying capacity to voltage drop. A. Salzmann. Elec R (Lond) 139:95-6 Jl 19 '46
Characteristic impedance of lines; balanced two-wire line, air spaced; chart. N. Marchand. Elec World 125:96 F 2 '46
Characteristic impedance of lines; chart. K. Zimmermann. Elec World 126:92 O 26; 126 N 9 '46 (to be cont)
Chart determines line voltage drop. N. E. Dillow. Elec World 125:88 Mr 30 '46
Geometric mean distances for rectangular conductors. H. B. Dwight. bibliog Elec Eng 65:Trans 536-8 Ag-S '46
Method to compute annual losses on lines and transformers. Elec World 125:98 Ja 5 '46
Method to determine size of conductor for a residential area. G. W. McCracken. diag Elec World 124:146 N 10 '45
Overhead-line sag charts. F. R. Haigh. Elec R (Lond) 139:251-4 Ag 16 '46
Rigorous methods of solving long transmission-line problems. R. H. Paul. Inst E E J 92 pt 2:20-2 F '45; Abstract. Elec World 125:70 F 2 '46
Unbalanced loads; calculation for medium-voltage overhead lines. A. G. Milne. Elec R (Lond) 137:896-8 D 21 '45

Tree problem

Asplundh meeting emphasizes public relations and wire-tree relationship. il Elec World News ed 126:17 S 21 '46
Chain saw speeds tree felling operations; Cincinnati gas & electric company. il Elec World 125:112 Mr 16 '46
Guide to tree trimming; drawings. Elec World 125:116 Mr 16 '46

Underground lines

Study of costs of 69- to 230-kv underground power-transmission systems and tie lines. J. G. Holm. bibliog Elec Eng 64:Trans 852-60 D '45

Vibration

Catwalk for installing vibration dampers on long spans. M. A. Kirsch. il Elec World 126:87 Jl 20 '46
Glaze troubles; dancing wires. A. E. Davison. bibliog Edison Elec Inst Bul 14:121-2+ Ap '46
Unique tool speeds damper installation; prevention of line vibration. il Elec World 124: 160+ N 10 '45
Vibration studies on steel towers of Boulder transmission lines. J. K. Minasian. il Civil Eng 16:62-3 F '46

ELECTRIC lines—*Continued*

Belgium

Power activities in 21 army group; transmission line, Belgium to Holland. T. G. Martin. il map plan diag Electrician 137: 576-81 Ag 30 '46

France

La reconstruction du réseau électrique à très haute tension dans l'est et le centre-est de la France, après les destructions dues à la guerre. D. Lafont and J. Gendrot. il map Génie Civil 123:153-6 Je 15 '46

Germany

What causes German line failures; abstract. H. J. Scholtz and C. F. Wagner. Elec World 125:75 Ja 5 '46

Netherlands

Power activities in 21 army group; transmission line, Belgium to Holland. T. G. Martin. il map plan diag Electrician 137: 576-81 Ag 30 '46

Wales

Large-scale distribution; the system in north Wales and district. il map Elec R (Lond) 138:3-9 Ja 4 '46

Western states

Gigantic program, but execution depends on manpower. il Elec West 96:80-95 F '46

ELECTRIC lines, Cooperative. See Electric service, Rural—Cooperative lines

ELECTRIC locomotives

Lötschberg railway's B_o-B_o electric locomotive. F. Gerber. il diag Engineer 182:251-3 S 20 '46

Swiss lightweight express passenger trains. Engineer 181:549 Je 14 '46

See also

Locomotives, Diesel-electric

ELECTRIC locomotives, Mine

Mine haulage; haulage by storage-battery locomotive. F. H. Slade. plans Mech Handling 33:554-8 S '46

Mine haulage with locomotives and track; with cost data. E. H. Jenks. il diag Min Cong J 31:47-9 D '45

Overload protection for mine locomotives. D. E. Renshaw. il Min Cong J 32:65-7 Ap '46

Safety shield protects locomotive operator. diag Eng & Min J 146:102 D '45

ELECTRIC losses

Capitalization of technical performance. E. T. Norris. bibliog Inst E E J 93 pt 2:137-9 Ap '46

Formulas for conductor size according to cost of resistance loss. H. B. Dwight. Elec Eng 65:Trans 22-5 Ja '46

Loss load factor. G. H. Stubbings. diag Electrician 137:919-20 O 4 '46

Method to compute annual losses on lines and transformers. Elec World 125:98 Ja 5 '46

Transmission system losses; West Penn power company. W. H. Osterle. map diags Edison Elec Inst Bul 14:71-6 Mr '46

See also

Electric machinery—Losses

ELECTRIC machinery

BTH progress in 1945. Mech Handling 33: 123-4 F '46

Electrical machine conventions. B. C. Lee. diags Electrician 137:645-7 S 6 '46

Inside of electrical machines. R. H. Robinson. il diags Electrician 136:1085-8, 1239-43, 1371-4, 1515-18, 1659-63; 137:41-4, 169-72, 314-17, 447-50, 586-9, 787-91, 925-8, 1055-9 Ap 26, My 10, 24, Je 7, 21, Jl 5, 19, Ag 2, 16, 30, S 20, O 4, 18 '46 (to be cont)

Performance guarantees; applying theory of probability. E. T. Norris. Inst E E J 93 pt 2:140-5 Ap '46

See also

Brushes (electric machinery)
Commutators
Cranes, derricks, etc.—Electric equipment
Electric apparatus and appliances
Electric converters
Electric driving
Electric generators
Electric locomotives
Electric motors
Electric plants
Electric protective apparatus
Electric shovels
Electric transformers
Electric welding machines
Electricity in mining
Electricity on the farm
Hydroelectric plants
Mine hoisting, Electric
Pumping machinery, Electric
Refrigerators, Electric
Rotors (electric machinery)
Ship propulsion, Electric
Voltage regulators

Cleaning

Cleaning electrical windings. D. L. Gibson. il diag Ry Mech Eng 119:539-42 N '45; Same. Paper Ind 28:64-7 Ap '46; Same cond. Textile World 95:116-17+ O '45

Cooling

Effect of altitude on ventilation and rating of aircraft electric machines. C. G. Veinott. Elec Eng 65:Trans 84-90 F '46

Design

Design and engineering production. E. T. Norris. Engineering 162:331 O 4 '46

Equivalent circuit of the primitive rotating machine. G. Kron. diags Gen Elec R 49: 43-9 Mr '46

Teaching and practicing electrical design. N. M. Oboukhoff. diags J Eng Educ 36: 522-33 Ap '46

Theory of pulsating-field machines. R. Pohl. diags Inst E E J 93 pt 2:37-47 F '46

Drying

Automatic drying of electrical apparatus. R. G. Cazanjian. diag Ry Mech Eng 120:490-1 S '46

Infra-red lamps speed insulation drying. M. A. Myers. il Power 90:47 Ja '46

Losses

Differential leakage of a fractional-slot winding. M. M. Liwschitz. bibliog diag Elec Eng 65:Trans 314-20 My '46

Evaluating motor losses through clutch analogy. L. W. Herchenroeder. diag Machine Design 18:125-7 Je '46

Manufacture

Braze welding damper windings. G. Stangland. il Steel 119:104-5+ S 23 '46

Castings and weldings. C. D. Gibb. il diags Engineer 181:591-4 Je 28 '46; Same. Engineering 162:84, 93-5 Jl 26 '46

Electrical craftsmanship; specialized production of Macfarlane engineering co. il Elec R (Lond) 138:785-6 My 17 '46

New insulating process; applies insulating varnish to armatures and stators; Zanderoll process. il Steel 119:134+ Ag 5 '46

Protection

Excess-current protection by h.r.c. fuses on medium-voltage circuits. R. T. Lythall. bibliog diags Inst E E J 92 pt 2:419-29 O '45; Discussion. 92 pt 2:441-9, 627-32; 94 pt 2: 46-56 O, D '45, F '47

Lightning protection of electric equipment. E. G. Merrick. diags Paper Ind 27:1034-7 O '45

Rating

Effect of altitude on ventilation and rating of aircraft electric machines. C. G. Veinott. Elec Eng 65:Trans 84-90 F '46

Temperature

New recorder for machine temperatures. H. S. Day. il diags Gen Elec R 49:30-2 S '46

Silicone resins raise insulation operating temperature limits. R. F. Horrell. il Pet Eng 17:204+ N '45; Same. Coal Age 51: 76-80 Mr '46; Same, without il. Paper Tr J 121:18+ N 29 '45

Vibration

Vibration problems; discussion of paper by A. J. King. Elec R (Lond) 138:286-7 F 22 '46; Electrician 136:476-8 F 22 '46

Windings

Braze welding damper windings. G. Stangland. il Steel 119:104-5+ S 23 '46

ELECTRIC measurements

Army-navy precipitation-static project; electrification of aircraft flying in precipitation areas. R. G. Stimmel and others. il Inst Radio Eng Proc 34:167-77 Ap '46

Characteristics and errors of capacitors used for measurement purposes; summary and discussion. C. G. Garton. Electrician 136: 543-4 Mr 1 '46

Current integrator. B. E. Watt. diags R Sci Instr 17:334-8 S '46

Determination of ground-fault current and voltages on transmission systems. E. M. Hunter and P. H. Light. Gen Elec R 49: 19-23 Ap '46

Dielectric properties of some homogeneous materials at high electric stress. A. E. W. Austen. bibliog diags Inst E E J 92 pt 1: 373-7 O '45

Drop-compensator gives circuit power factor. C. N. Teed. Elec World 125:109 My 25 '46

Electrical measurements on aircraft-engine ignition circuits. W. E. Berkey. bibliog il diags Elec Eng 65:Trans 49-53 F '46

Electrical resistance of iron wires and permalloy strips at radiofrequencies. A. W. Smith and others. bibliog diag J Ap Phys 17:33-6 Ja '46

Electrical resistivity of resin-treated wood and laminated hydrolyzed-wood and paper-base plastics. R. C. Weatherwax and A. J. Stamm. bibliog diag Elec Eng 64:Trans 833-8 D '45

Electrostatic and tensile properties of rubber and GR-S at elevated temperatures. R. S. Havenhill and others. il diags J Ap Phys 17:338-46 My '46; Same cond. India Rubber World 114:523-7 Jl '46

End leakage in cable power-factor measurement. A. Rosen. diags Inst E E J 93 pt 2: 383-6 Ag '46

Field determination of current-transformer errors by the secondary-voltage method. E. C. Goodale and J. I. Holbeck. bibliog diags Elec Eng 63:Trans 879-82; 65:54-5 D '44, Ja '46

Influence of irradiation on the measurement of impulse voltages with sphere-gaps. J. M. Meek. Inst E E J 93 pt 2:97-110 bibliog(p109-10) Ap '46; Abstracts and discussions. Electrician 135:608-10 N 30 '45; Elec R (Lond) 137:778-9 N 30 '45; Discussion. Inst E E J 93 pt 2:110-15 Ap '46

Measurement and effect of contact resistance in spot welding. R. A. Wyant. bibliog il diags Elec Eng 65:Trans 26-34 Ja '46

Measurement of a-c resistances at low frequencies in heavy conductors. G. G. Grissinger and F. D. Johnson. diag Elec Eng 65:Trans 45 F '46

Measurement of cathodic protection currents in submarine pipe lines. W. R. Hill. Pet Eng 17:168+ Mr '46

Measurement of current transients in a low voltage circuit. B. T. Barnes and others. diag R Sci Instr 17:426-7 O '46

Measurement of large varying currents. A. C. Johnson. diags Elec Eng 65:Trans 8-11 Ja '46

Measuring cable a.c. capacitance and inductance. L. H. Hutchins, jr. il diags Elec World 126:55-6 O 26 '46

Measuring d.c. insulation resistance and capacitance. L. H. Hutchins, jr. il diags Elec World 126:64-5 Jl 6 '46

Methods of minimizing lead loss in emissivity and resistivity determinations. L. Malter and D. B. Langmuir. diags J Ap Phys 17: 456-7 Je '46

Practical conductivity measurements in plating applications. J. B. Mohler and J. Sternisha. il Metal Finishing 44:58-62+ F '46

Precision a.c./d.c. comparator for power and voltage measurements. G. F. Shotter and H. D. Hawkes. il diags Inst E E J 93 pt 2: 314-19 Ag '46; Abstract. Elec R (Lond) 137:914 D 21 '45; Discussion. Inst E E J 93 pt 2:320-4 Ag '46; Elec R (Lond) 137: 935-6 D 28 '45; Electrician 135:745-6 D 28 '45

Progress in engineering knowledge during 1945; measurements. P. L. Alger and others. il diags Gen Elec R 49:38-40 bibliog (p65) F '46

Reactive measurements. G. W. Stubbings. Electrician 136:656-7 Mr 15 '46

Relation between nodal positions and standing wave ratio in a composite transmission system. E. Feenberg. diags J Ap Phys 17: 530-2 Je '46

Resistance measurements. S. Litt. il diags Radio N 35:44-6+ Ja '46

Standardization of temperature and electrical measurements. E. Goddess. il diags Product Eng 17:212-15 Mr '46

Three-phase supplies of zero VA. G. W. Stubbings. Electrician 136:1088-9 Ap 26 '46

See also

Dielectrics
Dynamometers
Electric engineering—Tables, calculations, etc.
Electric instruments
Electric meters
Electric resistance
Electric testing
Electric units
Electric waves
Frequency measurement
Galvanometers
Magnetic measurements
Oscillographs
Photoelectric cells—Measurement uses
Potential, Electric
Radio measurements
Vacuum tubes—Measurement uses
Voltmeters
Watt hour meters
Wattmeters
Wheatstone bridge

ELECTRIC meters

Accuracy of indicating instruments and some influencing factor limits. J. S. Wantland. Elec World 126:100 Jl 6 '46

Corrosion plays havoc with coastal meters. il Elec West 96:62-3 Mr '46

Electric metering of electrolytic pot lines. E. L. Kirk. bibliog diag Electrochem Soc Trans 90 (preprint 8):139-50 '46

Ferranti single-phase house service meters. il Engineer 181:503 My 31 '46

Instruments often help machines work at peak efficiency. J. H. Miller. il diags Product Eng 17:118-21 Ag '46

Meters chart the way to efficient operation of waterworks pumps at Hamilton, Ontario. J. A. Coulden. il Power 89:843-5 D '45

Reading meters in multiples of 10 kwhr. L. M. LaPorte. Edison Elec Inst Bul 14:254 Jl '46

See also

Ammeters
Demand meters
Frequency meters
Milliammeters
Ohmmeters
Potentiometers
Voltmeters
Watt hour meters
Wattmeters
Wavemeters

Bearings

Meter and instrument jewels and pivots. G. F. Shotter. il diags Inst E E J 93 pt 2:15-32 F '46; Abstracts. Elec R (Lond) 136:691 My 11 '45; Electrician 134:445 My 18 '45; Discussion. Inst E E J 93 pt 2:32-6; 94 pt 2: 25-6 F '46, F '47; Elec R (Lond) 136:691-3 My 11 '45; Electrician 134:445-6 My 18 '45

Meter ball dropper prevents losses. diag Elec World 126:88 Ag 31 '46

Meter jewel holder speeds inspection. W. H. Parmiter. il Elec World 125:88 Ja 5 '46

Cleaning

Washing machine saves time cleaning meter parts. il Elec World 125:88 Ja 5 '46

Installation

How to meter carnivals. il diags Elec World 126:72 Ag 31 '46

Manufacture

Meters and housing; problems facing manufacturers in meeting demand. Electrician 136:659-60 Mr 15 '46

R-f soldering of metal-to-glass seals. R. A. Ammon. il diag Electronics 19:120-1 Mr '46

Prepayment meters

Domestic service units; B.S. draft code and prepayment consumers. F. Jackson. il plan Elec R (Lond) 138:653-5 Ap 26 '46; Discussion. D. Bellamy. diag 138:979-80 Je 21 '46

Meters and the Stamp act. Electrician 137: 308 Ag 2 '46

Protection

Lightning protection for primary metering cabinets. R. Pfaff and H. N. Ekvall. il diag Elec World 125:110-11 Ap 13 '46

ELECTRIC meters—*Continued*

Testing

Calibration method for electrodynamic power factor meters. P. MacGahan. il diags Power Pl Eng 49.87+ O '45

CO relay helps decide discarding of old meters. B. V. Shepherd. diag Elec World 126:113 S 14 '46

Improved adapter has meter testing advantages. diag Elec World 125:84-5 F 2 '46

Meter laboratory records. S. A. Daines. Elec R (Lond) 138:487-8 Mr 29 '46

Old style meter discs are notched for strobo testing. R. J. McKnight. il Elec World 126: 98 O 26 '46

Production testing of panel meters. R. Ammon. il diag Electronics 19:170+ F '46

Push button control for meter test table. J. L. Haley. il diag Elec World 125:79 Ap 27 '46

Shop testing of meters examined in symposium. Elec World 124:124-6 D 8 '45

"Tea wagon" facilitates testing in meter lab. F. H. Rogers. il Elec World 126:91 Jl 6 '46

Test block safeguards lamp. diag Elec World 124:99-100 N 24 '45

Test status of meters shown by simple coding of cards. R. J. McKnight. il Elec World 126:128 S 14 '46

Variac slows standard in balance test. R. J. McKnight. il Elec World 126:142 S 28 '46

See also

Demand meters—Testing

ELECTRIC mine hoisting. See Mine hoisting, Electric

ELECTRIC mine lamps. See Safety lamps, Electric

ELECTRIC mixers

From trim-tab motor to hand mixer. il Mod Plastics 23:100-1 My '46

Rating

Household electric mixers. il Consumers Res Bul 18:5-8 S '46

ELECTRIC moment

Cyclopropane derivatives; the electric moments of some alicyclic compounds. M. T. Rogers and J. D. Roberts. bibliog Am Chem Soc J 68:843-6 My '46

Dipole moment and resonance in vinyl sulfide and six unsaturated chlorohydrocarbons. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:1005-8 Je '46

Dipole moment of carbowax 4000. W. J. Svirbely and J. J. Lander. bibliog Am Chem Soc J 67:2189-90 D '45

Dipole moment of hydrogen fluoride and the ionic character of bonds. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68: 171-3 F '46

Dipole moments and structures of ketene and of several polar molecules containing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:1357-60 Jl '46

Dipole moments of chlorobenzene, monochlorocyclopropane, and 1,2-dichlorocyclopropane, with a calculation of the exterior valence angle of the cyclopropane ring. B. I. Spinrad. bibliog diag Am Chem Soc J 68:617-20 Ap '46

Dipole moments of linear and cyclic polymethylpolysiloxanes. R. O. Sauer and D. J. Mead. bibliog Am Chem Soc J 68:1794-7 S '46

Dipole moments of steroids. W. D. Kumler. Am Chem Soc J 67:1901-6 N '45

Further investigations of polarity in hydrocarbons possessing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:244-7 F '46

Measurement of dipole moments. P. Bender. il diag J Chem Educ 23:179-81 Ap '46

New method of measuring the electric dipole moment and moment of inertia of diatomic polar molecules. H. K. Hughes. Phys R 70: 570-1 O 1 '46; Correction. 70:909 D 1 '46

ELECTRIC motor generators

Electric power conversion at the trail plants of the Consolidated mining & smelting company of Canada, limited. A. G. Dickinson. il Electrochem Soc Trans 90 (preprint 14):205-17 '46

Motor alternator for train communication. il Ry Age 120:677 Mr 30 '46

ELECTRIC motors

Aluminum rotors for electric motors; abstract. J. Piget. Materials & Methods 24:698 S '46

Application of electric motors to power station auxiliaries. A. E. Beardmore. il Power Pl Eng 50:72-5+ F; 78-80+ Mr; 62-5 Ap '46

Are high speeds required? investigate high-cycle motors! M. B. Sawyer. il Machine Design 18:121-6 Ap '46

Chart of motor characteristics. Power Pl Eng 50:108 S '46

Color coding of external motor and starter terminals. diags Min Cong J 32:46-7 Ja '46

Electric equipment for Cornell variable density wind tunnel. C. C. Clymer and M. A. de Ferranti. il diags Elec Eng 65:Trans 554-63 Ag-S '46

Electric motors for overhead traveller cranes. diags Mech Handling 33:431-5 Jl '46

Equipment reconversion inventory; centrifugal pumps, V-belt drives and electric motors. Diesel Power 23:1478+ D '45

How to install field coils on generators and motors. C. Gentilini. il diags Power Pl Eng 50:74-5 Je '46

Motor and drives for fans and blowers. G. H. Hall. il diags Heat & Ven 43:58-61 Je '46

Motors, controls, switches; one-year summary. il Factory Management 104:158+ My '46

New all-steel electric motor adds drive to production lines. Franklin Inst J 242:241-2 S '46

New developments in motor and control equipment; Electrical section, Engineering division, A.A.R. report. Ry Mech Eng 120: 37-8 Ja '46

See also

Armatures
Commutators
Electric driving
Electric locomotives
Electric motors, Induction
Electric motors, Railway
Electric motors, Synchronous
Pumping machinery Electric

Bearings

Bearing fault detector. diag Ry Mech Eng 120:221 Ap '46

Bearing wear is eliminated by shunting shaft currents. D. B. Hoover. il diags Eng & Min J 147:75-6 Ja '46; Same. Paper Ind 27: 1364-6 D '45; Excerpts. Food Ind 17:1298 N '45

Check sealed bearings at the end of five years; illustrated instructions. Textile World 96:136 Ag '46

Sealing motor bearings. diag Elec R (Lond) 137:756 N 23 '45

Welded pedestal bearings for large electric motors. E. W. Sjoquist. il diags Steel 118: 112-14 Je 3 '46

Care

Electric motor maintenance; experience in factory. D. T. Evans. Elec R (Lond) 137: 549-50 O 19 '45

Maintaining electric motors and controls. Aero Digest 51:59 D 15 '45

Motor checks warn of impending failures; Lindale, Ga. plant of Pepperell mfg. co. C. Turley. il Textile World 96:123+ F '46

Control

Applies d.c. to stop motor quickly. R. Morin. diag Factory Management 104:156+ Jl '46

British Thomson-Houston grouped motor control. il Mech Handling 32:712-15 D '45

Characteristics of electric controllers. H. D. James. Power Pl Eng 50:98-100 F '46

Electric control for large material handling plants for ore preparation. P. F. Grove. diag Mech Handling 33:268-71 My '46

Methods of reversing electric motors. J. L. Watts. diags Mech Handling 33:138-43 Mr '46

Motor control gear. il Electrician 137:661 S 6 '46

Synchronizing electric motors. diag Electronics 19:166+ Ja '46

See also

Electric controllers
Electric motors, Direct current—Control
Electric motors, Induction—Control

ELECTRIC motors—*Continued*

Cooling

Copper sheet sandwich aids motor cooling. il Elec World 126:74 Ag 31 '46
Motor ventilation requirements for aircraft service. L. W. Wightman. diags Product Eng 17:377-9 My '46

Design

Specially designed motors solve many industrial drive problems. R. C. Robinson. il diags Product Eng 17:84-7 S '46

Failures

Overspeeding wrecks hoist motor. il Locomotive 46.16-17 Ja '46

Fractional horsepower

F-hp; fractional-horsepower motors make possible new techniques and new products. il Fortune 32:153-7 D '45
How to apply sub-fractional horsepower motors. A. Skrobisch. il diags Product Eng 17:250-4 Mr '46
Matching the small motor to the job. le M. Dubbs. il Machine Design 18:155-8 Ap '46
Motor ventilation requirements for aircraft service. L. W. Wightman. diags Product Eng 17:377-9 My '46
New fractional horsepower motor standards announced by NEMA; abstracts. Elec World News ed 126:16-17 S 21 '46; Heat & Ven 43:106+ O '46; Mach 53:184 O '46; Product Eng 17:103-4 N '46
New Scottish factory; Hoover ltd. il Electrician 136:1233 My 10 '46
Standard small motors can fit most design needs. C. G. Veinott. il diags Product Eng 17:313-18, 423-7 Ap-My '46

Lubrication

Grease lubrication of ball-bearing motors and generators. E. M. Higgins. il Mech Eng 67:639-44+ O '45; Discussion. 68:163-5 F '46
Prelubrication cuts maintenance costs. E. N. Fabrizio. Marine Eng 51:118 Ag '46

Maintenance and repair

Best way to remove motor coils. diag Power 90:624-5 S '46

Protection

Electrical motors and the fire hazard. E. B. McBryde. Weekly Underw 154:324-6 F 2 '46
English electric company closed air circuit d.c. motors. il Engineer 181:299 Mr 29 '46
Fire hazards in electrical motors through fouling. E. B. McBryde. Weekly Underw 154:512-14 F 23 '46
Fire loss from electrical causes is largely preventable. E. B. McBryde. Weekly Underw 153:737-8, 1269-71 O 6, D 1 '45
Hermetic compressor motors. F. L. Slade. Refrig Eng 50:528-9+ D '45
Industrial motor protection. J. P. S. Pillans. Elec R (Lond) 137:659-60 N 9 '45
Our rising fire loss figures; responsibilities of insurance inspector and fire prevention engineer. E. B. McBryde. diags Weekly Underw 154:1359-63 My 25 '46
Silicone insulation. C. E. Kilbourne. il Machine Design 18:109-13 Ag '46
Ventilating a motor room; prevention of condensation. P. R. Jordan. plan diags Sheet Metal Worker 37:74+ S '46

Rating

Economic rating of motors and transformers. D. J. Bolton. Inst E E J 91 pt 2:195-206 Je '44; Discussion. 91 pt 2:209-18; 92 pt 2:139-44, 642-4 Je '44, Ap, D '45

Standards

Advantages of NEMA standardized motors. E. G. Wickersham. Steel 119:144+ S 23 '46
New fractional horsepower motor standards announced by NEMA; abstracts. Elec World News ed 126:16-17 S 21 '46; Heat & Ven 43:106+ O '46; Mach 53:184 O '46; Product Eng 17:103-4 N '46

Starting

Changes in motor starting rules recommended to facilitate domestic air conditioner installations. J. W. Anderson. Edison Elec Inst Bul 14:15-18+ Ja '46
Control diagrams, an aid to design. F. L. Fisher. il diags Machine Design 18:159-64 Ap '46
Holding power plant auxiliaries during power disturbances; relays in control circuits of starters operated by battery. T. Maynz. diag Power Pl Eng 50:88-90 Je '46
Relay system for starting motors. E. S. Reichard. diag Elec West 96:89 Ap '46
Solenoid starter offered by Allen-Bradley. il Elec World News ed 126:20 O 5 '46

Temperature

How to take a motor's temperature. Power Pl Eng 50:102 Ja '46; Discussion. J. R. Darnell. diag 50:108+ Mr '46

Testing

Dynamometer testing of high speed motors for powered aircraft models. H. O. Cox. il plan diag Automotive & Aviation Ind 94:30-3+ My 15 '46
Fault location in electric motors. J. L. Watts. diags Mech Handling 32:622-7, 683-6 N-D '45

Windings

Winding electric-tool motors. il Elec R (Lond) 138:1021 Je 28 '46

ELECTRIC motors, Alternating current

Applying 400 cycle motors to accessories. R. G. Holt. il Steel 118:94+ Ja 21 '46
Motor voltage considerations in refineries. E. Kun. Nat Pet N 38 pt 2:R132-3 F 6 '46; Same. Pet Eng 17:66 F '46; Same. il Pet Refiner 25:113-14 F '46; Same. Oil & Gas J 44:86+ Mr 2 '46
Transients in a-c motors and generators. G. S. Smith. bibliog diags Elec Eng 65:Trans 61-9 F '46
Use of steel marks turning point in motor design. F. C. Rushing. il diags Steel 119: 94+ S 30 '46

See also

Electric motors, Induction
Electric motors, Synchronous

ELECTRIC motors, Direct current

Copper strips on armature bands cause heating. R. O. Spencer. Power 90:116 F '46
Direct-current motor and generator trouble-shooting chart; data sheets. Mach 52:243 F; 233 Mr '46
General Electric unit-cooled d-c motors. il Blast F & Steel Pl 34:1172 S '46
Interpoles on d-c motors and generators. E. G. Key. diags Power Pl Eng 49:102-4 Jl '45; Discussion. C. O. von Dannenberg. 50:106 Ja '46
Some aspects of direct-current machine design. L. B. Knowles. bibliog Inst E E J 92 pt 1:451-2 D '45

Control

Carbon-pile speed governor. C. T. Button. diags Elec Eng 65:Trans 4-7 Ja '46
Dynamic braking control of d-c series motors; calculation of stability limit. G. W. Heumann and W. P. Smith. Elec Eng 65:Trans 454-7 Jl '46
Electronics in automatic chemical feed systems. R. T. Sheen. flow sheet il diags Am Inst Chem Eng Trans 42:725-39 Ag '46
Jones and Laughlin winds over 4000 miles of wire per day; use of General Electric Thy-mo-trol units. il diag Steel 118:106 Je 24 '46; Same, without il. Blast F & Steel Pl 34:749 Je '46; Same. Elec World 126: 100+ O 12 '46
Motor speed adjustment by electronic control. S. S. Wolff. il diags Product Eng 17: 353-7 My '46
Simplified thyratron motor control. H. H. Leigh. il diags Gen Elec R 49:18-27 S '46
Unsoldered connections for motor control; Thy-mo-trol. il Electronics 19:156 Je '46
Wire-winding equipment for use in making steel cable; Thy-mo-trol equipment. P. Somerville and others. il diags Gen Elec R 49:14-19 My '46

Manufacture

D.c. motor manufacture. il Elec R (Lond) 138:279-83 F 22 '46

ELECTRIC motors, Direct current—*Continued*

Starting

Design of d-c auxiliary controllers for marine service. W. Schaelchlin. il diags Elec Eng 65:Trans 623-9 O '46

ELECTRIC motors, Induction

Central-station auxiliary-drive motors for constant and adjustable speed. H. Gibson. il diags Elec Eng 64:Trans 746-50 N '45

Designing a plant around a motor; redesigns 28,800 small motors. il Product Eng 17:149-50 N '46

Die cast rotor testing by test stator method. P. H. Trickey. bibliog il diags Elec Eng 65:Trans 139-41 Mr '46

Dismountable electric motor. il diags Engineer 181:253 Mr 15 '46; Iron Age 157:53 Ap 11 '46; Comp Air Mag 51:197 Jl '46

Drawing the circle diagram of the induction motor. G. W. Stubbings. Electrician 136:884 Ap 5 '46

Evaluating motor losses through clutch analogy. L. W. Herchenroeder. diag Machine Design 18:125-7 Je '46

Induction-motor capacity. C. H. Pike. Elec R (Lond) 137:775-7 N 30 '45

Induction motor trouble-shooting chart; data sheet. Mach 52:235 D '45; insert [213C+] Ja '46

Induction motors; characteristics of squirrel-cage and slip-ring types. diags Elec R (Lond) 138:323-7 Mr 1 '46

Milestone in motors; Westinghouse new steel-frame unit. il Bsns W p74+ O 5 '46

Modern practice in power-plant auxiliary equipment and systems. H. N. Muller, jr. il Elec Eng 64:Trans 868-9 D '45

Polyphase commutator regulator for speed control. A. G. Conrad and others. diags Elec Eng 65:Trans 321-7 Je '46

Saturation in induction motors. T. Millar. Elec R (Lond) 138:456 Mr 22 '46

Selecting the electric motor. H. D. James. Power Pl Eng 49:80-1 D '45

Selecting the right motor for the job. J. M. Stein and G. A. Caldwell. il diags Steel 119:98-100+ Jl 15 '46

Short-circuit contributions of the induction motor. L. G. Levoy, jr. diag Power Pl Eng 50:83 Ap '46

Single-phase to three-phase conversion by the Ferraris-Arno system. A. H. Maggs. diags Inst E E J 93 pt 2:133-6 Ap '46

Small two-phase induction motor. il Engineer 180:472 D 7 '45; Electrician 135:599-600 N 30 '45; Engineering 161:81 Ja 25 '46; Elec R (Lond) 138:91 Ja 18 '46

360 cycle motors for compact design of portable tools. J. H. Karr. il diag Product Eng 17:110-12 N '46

Variable-speed motors; operating drives up to 24,000 r.p.m. diags Elec R (Lond) 139: 53-6 Jl 12 '46

Westinghouse announces new all-steel electric motor with new design; interchangeability of parts. il Iron Age 158:120 S 26 '46

Westinghouse life-line motors use steel design. il diags Am Mach 90:174 O 10 '46; Ry Mech Eng 120:576-7 O '46; Mech Eng 68: 984 N '46

What causes this motor to slow down? induction motor installed in mine shaft. diags Power 90:121+ F '46

Why do rotor bars break in 30-hp motor? diags Power 90:778-80 N '46

Control

Basic control circuits for squirrel cage motors. H. Littlejohn. il diags Product Eng 17:444-8 Je '46

Electronic motor control; drive for vertical milling machine. M. Morgan. il diags Machine Design 18:114-19 S '46

How a liquid slip regulator functions. F. R. Burt. diag Elec World 126:134 S 28 '46

Starting

Induction-motor starters. diags Elec R (Lond) 139:221-5 Ag 9 '46

Tables, calculations, etc.

Power-factor correction; calculations for induction motors. H. Neale. Elec R (Lond) 139:213-14 Ag 9 '46

Temperature

Loading of induction motors. il Mech Handling 33:340-3 Je '46

Shutdown versus hot-spot temperatures in polyphase induction motors. C. P. Potter and A. E. Frohardt. il diag Elec Eng 65: Trans 56-8 F '46

Testing

Shutdown versus hot-spot temperatures in polyphase induction motors. C. P. Potter and A. E. Frohardt. il diag Elec Eng 65: Trans 56-8 F '46

Wound- and dummy-rotor methods of quality control and trouble shooting of induction-motor windings and cores. P. H. Trickey. diag Elec Eng 64:Trans 842-4 D '45

Windings

Amortisseur action of the squirrel cage. E. Bretch. diags Elec Eng 65:255-8 Je '46

Differential leakage of a fractional-slot winding. M. M. Liwschitz. bibliog diags Elec Eng 65:Trans 314-20 My '46

Wound- and dummy-rotor methods of quality control and trouble shooting of induction-motor windings and cores. P. H. Trickey. diag Elec Eng 64:Trans 842-4 D '45

ELECTRIC motors, Railway

Coil springs and padded plates keep interpoles snug. il Coal Age 50:128 D '45

Modern double-reduction traction motor. L. Greer. il Elec Eng 65:Trans 471-4 Jl '46; Same cond. Ry Mech Eng 120:368-9+ Jl '46

Gearing

Design of gears for rail drives. D. R. Meier and J. C. Rhoads. il diags Machine Design 18:135-40+ Mr '46

Maintenance and repair

How one large repair shop dismantles electric motors. M. Axler. il Am Mach 90:155-6 Je 20 '46

Transportation

Moving traction motors to the shop. il Ry Mech Eng 120:269 My '46

ELECTRIC motors, Synchronous

Large synchronous motor dynamic-brakes its load. il Power 90:163 Mr '46

Per-unit impedances of synchronous machines. A. W. Rankin. bibliog diag Elec Eng 64: Trans 569-73, 839-41 Ag, D '45

Strip voltage improved by field-boosting generator. R. G. Gehlsen. diag Coal Age 51: 86-7 Je '46

Synchronous motor welder. il diags Machine Design 18:154-5 S '46

Way to eliminate main field rheostats. P. H. Adams. diags Elec World 125:76-7 Mr 30 '46

See also

Selsyn apparatus

Control

Diesel-electric synchronous motor ship drives; propulsion control problems. E. Frisch. il diags Elec Eng 65:Trans 660-6 O '46

Maintenance and repair

Synchronous motor trouble-shooting chart; Machinery's data sheets. Mach 52:243 Jl; 53:233 O '46

Tables, calculations, etc.

Direct- and quadrature-axis equivalent circuits of the synchronous machine. A. W. Rankin. bibliog diags Elec Eng 64:Trans 861-8 D '45; Correction. 65:Trans 40 Ja '46

Performance calculations on polyphase reluctance motors (synchronous motors without field excitation). P. H. Trickey. bibliog diag Elec Eng 65:Trans 191-3 Ap '46

Synchronous induction motors. C. Y. Mang. Elec R (Lond) 137:855-6 D 14 '45

ELECTRIC musical instruments. See Musical instruments, Electric

ELECTRIC organ. See Organ, Electric

ELECTRIC oscillations. See Oscillations, Electric

ELECTRIC outages. See Electric power—Interruptions

ELECTRIC plants

Atomic power will fuel electric plant at Oak Ridge. Elec World News ed 125:3 Ap 20 '46

See also

Electric plants (central stations) — Power plants; Steam plants
Electric substations

Equipment

Electrical and allied developments of 1945; power generation, transmission, distribution. G. Bartlett. il Gen Elec R 49:10-21 Ja '46

Interconnection

Automatic load and frequency control in Northwest power pool. S. B. Smith and M. L. Blair. map Elec World 124:56-60 D 22 '45

Control of load, frequency, and time of interconnected systems. C. K. Duff. bibliog il diags Elec Eng 64:Trans 778-86 N '45

Determination of reserve requirements for an interconnected system. H. W. Phillips. Edison Elec Inst Bul 14:117-20 Ap '46; Same. Elec World 125:78-81 My 11 '46

Grand Coulee drops 410 mw. but Northwest Pool holds together. Elec World 126:102+ O 26 '46

Northwest power pool reservoir operation. E. N. Peterson. map Elec World 125:48-51 F 2; 100-3 F 16 '46

Operating program of Northwest power pool. E. N. Peterson. map Elec World 126:44-8 Ag 31 '46

Power pooling during the war. E. Falck. Power Pl Eng 49:84-6 O '45

Primary supplies; generation and supply-exchange scheme in north Wales. il map Elec R (Lond) 137:849-51; 138:3-9 D 14 '45, Ja 4 '46

Slip cycle relays automatically separate power system. L. F. Hunt. il diag Elec World 126:97 S 14 '46

Study of costs of 69- to 230-kv underground power-transmission systems and tie lines. J. G. Holm. bibliog Elec Eng 64:Trans 852-60 D '45

Switched capacitors retrieve line loading capacity. R. O. Loomis and E. J. Archbold. il diag Elec World 125:46-8 Ap 27 '46

Transmission in France; abstracts. P. M. J. Ailleret. Elec R (Lond) 138:775-6 My 17 '46; Electrician 136:1309-11 My 17 '46

Transmission system losses; West Penn power company. W. H. Osterle. map diags Edison Elec Inst Bul 14:71-6 Mr '46

Industrial plants

Automatic regulation of turbine generators to relieve power-supply systems of steel-mill load swings. W. W. Eberhardt and others. Elec Eng 64:Trans 751-8 N '45

Electric power in a steel plant; Bethlehem steel company plant, Lackawanna. R. W. Graham. diags Elec Eng 64:Trans 816-18 D '45

Mercury arc frequency changer limits rolling mill demand; rectifier-inverter installation at Gary steel mill. R. W. Holman. il diag Elec World 125:112-16 Ap 13 '46

Isolated plants vs. purchased power

Does a laundry cut costs by buying or by generating its electricity? J. G. Berger. il Power 90:457-9 Jl '46

Laundry gains space by purchasing power. J. B. White, jr. Elec World 126:118+ Jl 6 '46

ELECTRIC plants (central stations)

Centralized power generation. P. Sporn. Elec Eng 65:105-7 Mr '46

Conservation in the power industry. N. E. Funk. Elec Eng 65:326-8 Jl '46

See also

Boiler plants — Steam plants
Electric distribution — Waterworks—Combination with electric plants
Electric lines
Electric utilities
Hydroelectric plants

Costs

Changing costs of electric power generation. E. R. Abrams. Comm & Fin Chr 163:2910+ My 30 '46

How to calculate incremental production costs. M. J. Steinberg. Power 90:444-6+ Jl '46

SPA hydro program, summary and fallacies; steam and hydro costs compared. map Elec World 125:60-3 Mr 30 '46

Damage from air raids

Power activities in 21 army group; restoring war damaged facilities. T. G. Martin. il diag Electrician 137:508-12 Ag 23 '46

Strategic bombing of electric utilities in Germany. Edison Elec Inst Bul 13:330-1+ N '45

Design

Minimum housing employed for low-cost Houston plant; simplified semi-outdoor design. R. E. Hansen and L. Elliott. il diag Elec World 125:82-4 My 11 '46

Modern steam electric power station built on Riverside site; Tidd plant. H. A. Kammer. il diag Eng N 137:591-4 O 31 '46

Diesel engine stations

Diesel-electric plant scores high in tornado test; North Branch, Minnesota. T. J. Malone. il Diesel Power 24:866-7+ Jl '46

Diesels predominate in Egypt's city owned power plants. G. W. Grupp. Diesel Power 24:1094-5+ S '46

Edmundston, N.B., serious about Diesel power. P. Gearin. il Diesel Power 24:1084+ S '46

First supercharged Diesel REA plant in Michigan. il Diesel Power 23:1330-2 N '45

Menasha municipal plant installs first supercharged intercooled Diesel. il Power 90:449 Jl '46

Employees

Power engineers' salaries; new basic and current schedules. Elec R (Lond) 138:664 Ap 26 '46

Equipment

All power handled on aluminum buses; Jennison station of New York state electric & gas corp. D. L. Greene. il diag Elec World 125:57-9 Ap 27 '46

Application and performance of electronic exciters for large a-c generators. H. A. P. Langstaff and others. il diags Elec Eng 65:Trans 246-53 My '46

Base loan economy, firmed capacity at Hell Gate. W. E. Caldwell. plan diags Elec World 124:116-19 N 10 '45

Battersea B. il Elec R (Lond) 139:479-85 S 27 '46

Cables at Ballylumford. il Elec R (Lond) 137: 820 D 7 '45

Coal-handling plant at Dalmarnock power station. il plan Engineering 160:420-2, 424 N 23 '45

Electronic exciter for 81,250-kva. turbo-alternator. H. A. P. Langstaff and R. F. Lawrence. il diags Elec World 125:88-91 Mr 16 '46

Factors in maintaining precipitator performance. O. E. Fawcett. il Elec World 126:74-6 O 12 '46

Hams Hall B generating station, Birmingham. il plan Engineering 161:97-9, 108 F 1 '46

Handling of coal at Dalmarnock power station. F. H. Slade. il plan Mech Handling 33:132-7 Mr '46

High plant economy at Stamford, flow diag il diags Elec World 124:68-71 N 24 '45

Indicators show supply line demand; unique relay arrangement. J. L. Haley. il Elec World 126:88-9 Ag 17 '46

Isolated-phase bus experience dominantly favorable. il Elec World 125:44-7 Mr 30 '46

Long Island lighting completes Glenwood station. W. Welch, jr. il diags Power 90:20-3 Ja '46

Marion high-pressure unit no. 10 completes five years of service. R. A. Baker. il diags Power 90:578-82+ S '46

Modernizing the coal-handling control at Philo. A. H. Beiler. il diags Power Pl Eng 50:78-81+ Ag; 86-90 S '46

One thousand F; new high in steam temperature; Atlantic City electric co. P. Sporn. map plan diags Elec World 126:60-7 Ag 17 '46

Overhead rack ventilates cables. il Elec World 125:117 F 16 '46

ELECTRIC plants (central stations)—Equipment—*Continued*
Power house installation; conveying and handling equipment, Bolton electricity generating station. J. A. Oates. il plan diag Mech Handling 33:408-18 Jl '46
Power plant in the country; New York state electric & gas corporation plant at Bainbridge. C. H. Vivian. il diag Comp Air Mag 51:146-52 Je '46
Quick-trip bus ties reduce breaker duties. diag Elec World 125:95 My 11 '46
Ribble power station. il Electrician 136:1735-8 Je 28 '46
Simple design, reliability keynote Jennison station. W. W. Perry and W. Greacen, 3d. il diags Elec World 124:118-21 D 8; 64-7 D 22 '45
Southwark station aimed to be simple and reliable. E. L. Hopping and others. il plans diags Elec World 125:70-5 Je 22; 126:66-8 Jl 6; 73-5 Jl 20 '46
Southwark station to have separate auxiliary generators. J. H. Harlow and F. R. Ford. diags Power Pl Eng 50:60-3+ Je '46
Third unit makes Atkinson largest power generating plant in Georgia il Manuf Rec 115:112-13+ Ja '46
33-kv switch-house at Blackburn. il Elec R (Lond) 139:325-9 Ag 30 '46
Topping at Hell Gate. R. T. Roberts; H. Knecht. flow diag il plan diags Power Pl Eng 49:70-5+ N '45; 50:58-65 F '46
Typical central stations installed under construction since September, 1941; tabulation. B. G. A. Skrotski, comp. Power 90:374-5 Je '46

Extensions

Battersea generating stations of the London power company. Engineering 161:17-18 Ja 4 '46; Engineer 180:505 D 21 '45; Elec R (Lond) 137:928 D 28 '45; Electrician 136:41-2 Ja 4 '46
Central station capacity continues expansion. il diag Power 90:2-5+ Ja '46
Consolidated Edison lays plans to complete waterside modernization. M. J. Steinberg. il plans Power 90:504-7 Ag '46
Extension to the Portobello generating station of the Edinburgh corporation. Engineering 162:164 Ag 16 '46; il Elec R (Lond) 139:231-2 Ag 9 '46
Kearsley power station extensions. il Engineer 182:376-7 O 25 '46
Malmö power station extension. O. G. Hammar. il layout plan diags Engineer 182:162-4, 192-4, 216-18 Ag 23-S 6 '46
Modernizing Rockford, Illinois, generating station. W. E. Hopkins and R. S. Kibler. flow diags il plans diags Power Pl Eng 50: 70-6 Jl; 114-16+ Ag '46
New unit of Florida power corporation at Bayboro plant in St Petersburg adds 25,000 kw to system capacity. il diag Power Pl Eng 49:90-1 N '45
Power station extensions; brief review of developments during last six years. il Electrician 136:151-2, 213-16, 275-8, 343-5, 413-15, 465-7, 729-30 Ja 18-F 22, Mr 22 '46
Springdale adds 80,000-kw unit. il diag Power Pl Eng 50:112-13 Jl '46
West Penn Power adds new unit at Springdale station. G. D. Burleigh. il diags Power 90:356-9, 440-3 Je-Jl '46
West Penn's new 80,000-kw generator in service. il Edison Elec Inst Bul 14:51-2+ F '46
Willow Holme power station; extensions to generating plant at Carlisle. il Elec R (Lond) 137:633-5 N 2 '45; Electrician 135: 493-7 N 9 '45

Fires and fire protection

Heavy damage at two utility plants following transformer failures. il Locomotive 45:240-1 O '45

Flood damage

Floods at Stourport. il Electrician 136:401+ F 15 '46

Fuel

Boiler experience burning refinery waste fuels. E. G. Gothberg. il Elec World 126:52-3 Ag 3 '46
Coal price rise to lift utilities' costs. Barron's 26:6 Jl 1 '46
Fisk and Northwest stations burn oil to meet emergency. il Power Pl Eng 50:86-7+ Je '46

Heating and ventilation

Ventilating problems in central power stations. E. L. Blair. diag Elec World 126:109-11 S 28 '46

Interconnection

See Electric plants—Interconnection

Lighting

Illumination in generating stations. E. B. Shew. Edison Elec Inst Bul 14:69-70 Mr '46
Light and color boost turbine room efficiency. E. E Schwalm. il Elec World 126:111 S 14 '46

Load

Automatic load and frequency control in Northwest power pool. S. B. Smith and M. L. Blair. map Elec World 124:56-60 D 22 '45
Automatic regulation of turbine generators to relieve power-supply systems of steel-mill load swings. W. W. Eberhardt and others. Elec Eng 64:Trans 751-8 N '45
Base load economy, firmed capacity at Hell Gate. W. E. Caldwell. plan diags Elec World 124:116-19 N 10 '45
Control of load, frequency, and time of interconnected systems. C. K. Duff. bibliog il diags Elec Eng 64:Trans 778-86 N '45
Determination of reserve requirements for an interconnected system. H. W. Phillips. Edison Elec Inst Bul 14:117-20 Ap '46; Same. Elec World 125:78-81 My 11 '46
Distribution plans for future loads; abstract. C. Hutchinson. Elec World 125:99 My 11 '46
Domestic load; forecasting lines of development. H. A. P. Caddell. Elec R (Lond) 139: 292-4 Ag 23 '46
Effects of weather on power-system operation. J. S. Forrest. Inst E E J 93 pt 1:161-3; Discussion. 169-76 Ap '46
Electric house heating load characteristics. H. G. Kelsey. Elec World 124:82-3 N 24 '45
Grid and the cold spell. Electrician 136:279-80 F 1 '46; Elec R (Lond) 138:172 F 1 '46
Load equalisation; colliery winding equipment; flywheel set with Ward-Leonard control. G. Barnard. diags Elec R (Lond) 137:754-6 N 23 '45
Major load building with electric heating. C. Yoder. Edison Elec Inst Bul 14:269-72+ Ag '46
Modern secondary adequate for coming home loads; with cost data. D. K. Blake. Elec World 126:86-8 S 14 '46
National load curve. Elec R (Lond) 139:538 O 4 '46; Electrician 137:916 O 4 '46
Planning distribution facilities for increased customer loads. F. Sanford. Edison Elec Inst Bul 14:257-9; Discussion. J. H. Foote. 259-60 Jl '46
Residential load study; Consolidated Edison company of New York. A. F. Rehberg. Edison Elec Inst Bul 14:97-105 Ap '46
Switched capacitors retrieve line loading capacity. R. O. Loomis and E. J. Archbold. il diag Elec World 125:46-8 Ap 27 '46
Tests will determine electric space heating load characteristics. W. L. Sharp. il Elec World 125:82-4 Mr 16 '46
Trend prediction important in planning. H. P. Seelye. diags Elec World 125:79-81 Je 22 '46
Weather and power systems; joint meeting of the I.E.E. and Royal meteorological society. Electrician 135:444-6 O 26 '45

Load dispatching

Load dispatcher. J. P. Paschall. Pub Util 37:352-5 Mr 14 '46
Mobile dispatchers' kits. C. P. Corey. il Elec World 126:106 Jl 6 '46

Location

Selection of sites for large thermic power stations: abstract. T. J. Gueritte. Electrician 137:801 S 20 '46

Maintenance and repair

Control records guide apparatus maintenance. W. L. Wilkinson. il Elec World 125:102 Je 22 '46
Record system controls power plant maintenance. K. Corporon. Elec World 126:86+ Ag 31 '46

ELECTRIC plants (central stations)—*Cont.*

Management

Functions of an efficiency bureau; Commonwealth Edison co. J. R. Michel. Power Pl Eng 50:76-7 F '46

Protection

Electric power plants protected during war. Power 89:872a-872b D '45

Records

Control records guide apparatus maintenance. W. L. Wilkinson. il Elec World 125:102 Je 22 '46

Record system controls power plant maintenance. K. Corporon. Elec World 126:86+ Ag 31 '46

Statistics

Annual statistical issue. Elec World 125:107-38 Ja 19 '46

Steam distribution

Consolidated Edison lays plans to complete waterside modernization. M. J. Steinberg. il plans Power 90:504-7 Ag '46

District heating and electric generation by utility companies. W. L. Bartel. Power Pl Eng 50:71+ Je '46

Supervisory systems

New material in Standard on automatic stations. G. Sutherland and G. S. Lunge. il Ind Stand 17:56-8 Mr '46; Same. Edison Elec Inst Bul 14:116+ Ap '46; Elec Eng 65:223-4 My '46

See also

Hydroelectric plants—Supervisory systems

Birmingham, England

La centrale thermoélectrique de Hams Hall B, à Birmingham. il diags Génie Civil 123: 192-3 Jl 15 '46

Hams Hall B generating station. il plan Engineering 161:97-9, 108 F 1 '46

Chicago

Fisk and Northwest stations burn oil to meet emergency. il Power Pl Eng 50:86-7+ Je '46

Egypt

Diesels predominate in Egypt's city owned power plants. G. W. Grupp. Diesel Power 24:1094-5+ S '46

England

Generation at Blackburn. il Elec R (Lond) 138:635-41; 139:325-9 Ap 26, Ag 30 '46

Kearsley power station extensions. il Engineer 182:376-7 O 25 '46

Ribble power station. il Electrician 136:1735-8; 137:781-2 Je 28, S 20 '46

Willow Holme power station; extensions to generating plant at Carlisle. il Elec R (Lond) 137:633-5 N 2 '45; Electrician 135: 493-7 N 9 '45

France

Power activities in 21 army group; restoring war damaged facilities; repairs at Caen. T. G. Martin. il diag Electrician 137:508-12 Ag 23 '46

Georgia

Third unit makes Atkinson largest power generating plant. il Manuf Rec 115:112-13+ Ja '46

Great Britain

Operating experience in Great Britain. E. Moran. Power Pl Eng 50:94-6 Jl '46

Power station extensions; brief review of developments during last six years. il Electrician 136:151-2, 213-16, 275-8, 343-5, 413-15, 465-7, 729-30 Ja 18-F 22, Mr 22 '46

Survey of generation and transmission. W. Dixon. il Inst E E J 93 pt 1:79-82 F '46

London

Battersea B. il Elec R (Lond) 139:479-85 S 27 '46

Battersea generating stations of the London power company. Engineering 161:17-18 Ja 4 '46; Engineer 180:505 D 21 '45; Elec R (Lond) 137:928 D 28 '45; Electrician 136:41-2 Ja 4 '46

New York (city)

Consolidated Edison continues development program. R. F. Brower. il map Power 89: 840-2 D '45

Consolidated Edison lays plans to complete waterside modernization. M. J. Steinberg. il plans Power 90:504-7 Ag '46

Topping at Hell Gate. R. T. Roberts; H. Knecht. flow diag il plan diags Power Pl Eng 49:70-5+ N '45; 50:58-65 F '46

Philadelphia

Southwark station aimed to be simple and reliable. E. L. Hopping and others. il plans diags Elec World 125:70-5 Je 22; 66-8 Jl 6; 73-5 Jl 20 '46

Southwark station to have separate auxiliary generators. J. H. Harlow and F. R. Ford. diags Power Pl Eng 50:60-3+ Je '46

Scotland

Coal-handling plant at Dalmarnock power station. il plan Engineering 160:420-2, 424 N 23 '45

Extension to the Portobello generating station of the Edinburgh corporation. Engineering 162:164 Ag 16 '46; il Elec R (Lond) 139:231-2 Ag 9 '46

Handling of coal at Dalmarnock power station. F. H. Slade. il plan Mech Handling 33:132-7 Mr '46

Sweden

Malmö power station extension. O. G. Hammar. il layout plan diags Engineer 182: 162-4, 192-4, 216-18 Ag 23-S 6 '46

Western states

Gigantic program, but execution depends on manpower. il Elec West 96:80-95 F '46

ELECTRIC plants, Cooperative

First supercharged Diesel REA plant in Michigan. il Diesel Power 23:1330-2 N '45

See also

Electric service, Rural—Cooperative lines

Hydroelectric plants, Cooperative

ELECTRIC plants, Municipal

Edmundston, N.B., serious about Diesel power. P. Gearin. il Diesel Power 24:1084+ S '46

Menasha municipal plant installs first supercharged intercooled Diesel. il Power 90:449 Jl '46

Typical municipal plants installed or under construction since September, 1941; tabulation. Power 90:378-9 Je '46

ELECTRIC plants, Portable

See also

Power plants, Floating

ELECTRIC potential. See Potential, Electric

ELECTRIC power

Atomic energy; application to the generation of electric power. J. A. Hutcheson. Elec Eng 65:149-50 Ap '46

Combined light and power systems for industrial plants. D. L. Beeman. il diags Elec Eng 65:Trans 76-83 F '46; Same. Gen Elec R 49:28-35 Mr '46

Complexor representation of electric power. D. W. C. Shen. Elec R (Lond) 138:183-5 F 1 '46

Conservation in the power industry. N. E Funk. Elec Eng 65:326-8 Jl '46

Electric power practice in Germany. H. J. Scholz and C. F. Wagner. Power Pl Eng 49: 90-1+ D '45

Electric power supply for steel mill loads. F. W. Cramer. Blast F & Steel Pl 34:579-83+ My '46

Electrical and allied developments of 1945; power generation, transmission, distribution. G. Bartlett. il Gen Elec R 49:10-21 Ja '46

How to determine power dissipated in water-cooled devices. H. W. Baker, jr. Elec World 126:124 S 14 '46

More power to America. W. V. Merrihue. Edison Elec Inst Bul 14:251-3 Jl '46

New power demands will spring from post-war industry. T. N. Sandifer. Pub Util 37: 677-84 My 23 '46

ELECTRIC power—*Continued*
Power supply aspects of nuclear research; separating isotopes of uranium by electromagnetic means. R. R. Wisner. Elec World 125:55 F 2 '46
Productive power exhibit. il Mech Eng 68:659 Jl '46
Productive power; method of selling new uses for electric power to American industry; exhibit. J. M. McKibbin, jr. and C. B. Stainback. il Edison Elec Inst Bul 14:249-50 Jl '46; Abstract. Elec World 125: 85 Je 8 '46
Uses and sources of electric power. M. M. Samuels. Ann Am Acad 242:67-78 N '45

See also
Chemical plants—Power
Coal mines and mining—Power
Electric distribution
Electric driving
Electric engineering
Electric plants
Electric plants (central stations)
Electric transmission
Electric welding—Power supply
Electricity supply
Hydroelectric plants
Power factor
Power plants
Steel works—Power
Tidal power
Voltage regulation

Interruptions

Grand Coulee drops 410 mw. but Northwest Pool holds together. Elec World 126:102+ O 26 '46
Home freezers during power outage. E. C. McCracken and others. Refrig Eng 51:117-20+ F '46
New electronic timing relay for reducing outages on power circuits. F. S. Dlouhy. diags Elec Eng 65:Trans 407-11 Jl '46
Outages reduced by banked secondary operation of transformers; Boston Edison co. S. T. Arnold. il diags Power Pl Eng 50: 79-80+ O '46
Single-phase switching saves outages. C. M. Lytle. Elec World 126:92+ Jl 20 '46
What causes German line failures; abstract. H. J. Scholtz and C. F. Wagner. Elec World 125:75 Ja 5 '46

Rates

See Electric rates

Statistics

Electric light and power industry in 1945. Edison Elec Inst Bul 14:1-4+ Ja '46
Record of a decade in the electric utility business; charts. Elec World 125:supp Ja 19 '46
222,367,000,000 kw.-hr. output, 1945; with tabulated data, 1931-1945. Elec World 125: 110-11 Ja 19 '46
Weekly production of electrical energy in the United States 1902 to 1946; chart. Elec World 125:supp Ja 19 '46

ELECTRIC power and light corporation
Compromise plan for Electric P & L. Barron's 26:1+ Jl 8 '46
Higher net forecast. Barron's 26:11 F 25 '46
Plan for compliance filed with SEC. Comm & Fin Chr 163:2723-5 My 20 '46
Plans to retire Electric P & L preferred. Barron's 26.1+ My 27 '46

ELECTRIC precipitation
Cottrell electrical precipitation equipment some technical and engineering features; recent developments and application in the chemical field. C. E. Beaver. Am Inst Chem Eng Trans 42:251-60 Ap '46; Abstract. Chem & Met Eng 53:270+ Ap '46; Discussion. Am Inst Chem Eng Trans 42: 260-1 Ap '46
Dust removal cuts merchandise losses; air conditioning system with electronic air cleaner; American sporting goods co. store. il Heat & Ven 43:51-2 Je '46
Electro-cell air filter. il Blast F & Steel Pl 34:622 My '46; Same. Ry Mech Eng 120:373 Jl '46
Electronic air cleaning. W. L. Gabbert. il diags Nat Safety N 54:96-7+ O '46
Electronic air-filter; Electro-Matic filter used at station WSM. B. F. Taylor. il Radio N 35:52-3+ My '46
Electronic air filtration. H. J. Noles. il diag Paper Ind 27:1025-7 O '45
Electronics makes a dustless house possible; Precipitron. il Am Bld 68:117 Ap '46
Factors in maintaining precipitator performance. O. E. Fawcett. il Elec World 126: 74-6 O 12 '46
First home unit Precipitron. il diag Sheet Metal Worker 37:76+ F '46
Fly-ash removal; electrostatic precipitator. Blast F & Steel Pl 34:264 F '46

ELECTRIC properties
Recent work in the field of high pressures; electrical effects. P. W. Bridgman. bibliog Rs Mod Phys 18:62-73 Ja '46

ELECTRIC propulsion of ships. See Ship propulsion, Electric

ELECTRIC protective apparatus
Consumer's control unit. Electrician 136:1231-2 My 10 '46
Control and protection of aircraft d-c power systems. B. O. Austin. il diags Elec Eng 65:Trans 741-5 N '46
D-c power systems for aircraft. H. J. Finison and R. H. Kaufmann. bibliog il diags Gen Elec R 49:46-52 Je; 41-8 Ag '46
Electronic bypass for measuring purposes. L. A. Finzi. il diag Electronics 19:196+ F '46
Equipment protection involving high resistance faults. C. O. von Dannenberg. diag Power Pl Eng 50:101 Jl '46
Excess-current protection by over-current relays on medium-voltage circuits. A. G. Shreeve and P. J. Shipton. bibliog diags Inst E E J 92 pt 2:430-41 O '45; Abstracts. Electrician 134:447 My 18 '45; Elec R (Lond) 136:640 My 4 '45; Discussion. Inst E E J 92 pt 2:441-50; 94 pt 2:56-7 O '45, F '47; Electrician 134.447-9 My 18 '45
High-voltage research at the National physical laboratory. R. Davis. il diags Inst E E J 93 pt 1:177-86 Ap '46; Same abr. Engineer 180:412-13, 435-6 N 23-30 '45
Installation matters. Electrician 137:105-6 Jl 12 '46
New series capacitor protective device. R. E. Marbury and J. B. Owens. il diags Elec Eng 65:Trans 142-6 Mr '46; Same abr. Power Pl Eng 50:82-5 S '46
New submersible network protector of higher rating. G. G. Grissinger and F. D. Johnson. bibliog il diags Elec Eng 65:Trans 41-6 F '46
Overload protection for mine locomotives. D. E. Renshaw. il Min Cong J 32:65-7 Ap '46
Progress in engineering knowledge during 1945; circuit protection. P. L. Alger and others. il diags Gen Elec R 49:54-6 bibliog (p66) F '46
Protection of industrial plants against insulation breakdown and consequential damages. H. R. Vaughan. bibliog diags Elec Eng 65:Trans 592-6 Ag-S '46
Protection of powerhouse auxiliaries. diags Elec Eng 65:Trans 746-51 N '46

See also
Electric circuit breakers
Electric distribution—Grounding
Electric fuses
Electric lines—Protection
Electric switchgear
Electric transformers—Protection
Lightning arresters
Lightning protection
Petersen earth coil
Reactors
Relays

ELECTRIC pumping machinery. See Pumping machinery, Electric

ELECTRIC railroads
Queer case of Quinby. R. Schram. Mass Transportation 42:62-5 F '46

Cars

See Cars, Electric railroad

Current collecting devices

Steel shoe beams for electric rolling stock. Engineering 162:185 Ag 23 '46; Engineer 182:174 Ag 23 '46

Power

L.M.S. electrified lines. Electrician 136:1671 Je 21 '46; Engineer 181:572 Je 21 '46

Receiverships

See also
Pittsburgh railways company

New Zealand

Motor coaches for the New Zealand government railways. il Engineer 181:594 Je 28 '46

ELECTRIC railroads—*Continued*

Switzerland

Swiss lightweight express passenger trains. Engineer 181:549 Je 14 '46

ELECTRIC railroads, Miniature

Railroading in miniature. J. L. Bonnano and J. E. Currier. il Mod Plastics 23:102-5 F '46

ELECTRIC rates

Allocating demand costs. J. A. Nordin. J Land & Pub Util Econ 22:163-70 My '46

Can rate change results be precisely predicted? G. C. Delvaille. Pub Util 37:465-76 Ap 11 '46

Cheap power, let's understand it. J. J. Deuel. Elec West 96:55-7 Mr '46

Commission attitude on removal of excess profits tax; possibilities for rate reductions. R. N. Larkin. Elec World 126:98 S 14 '46

Court affirms rebate in Detroit rate case. Elec World News ed 124:9 N 17 '45

Detroit Edison plans refund and rate cut. Elec World News ed 124:8 D 29 '45

Economics of rural electrification; rates and revenues. E. C. Hathaway. Edison Elec Inst Bul 14:275-6+ Ag '46; Same cond. Elec World 126:60-1 Jl 6 '46

Electricity and gas, price changes in domestic bills, January-June 1946. Mo Labor R 63:433-4 S '46

First six-month totals indicate record year for 1946; rate reductions. J. D. Wilson. Elec World 126:99 S 14 '46

Illuminating discussion of fair value and depreciation; Louisiana power and light company, rate case. Pub Util 38:371-4 S 12 '46

Maryland P.S.C. approves utility rate-making base. Elec World 124:139 D 8 '45

New grid tariff. Engineering 160:402 N 16 '45; Electrician 135:525-6 N 16 '45; Elec R (Lond) 137:697-8 N 16 '45

Novel presentation of residential rate; graphical presentation. Elec World 124:122+ N 24 '45

Possible means of unifying and equating electricity supply tariffs. C. T. Melling. Electrician 136:1743-6 Je 28 '46; Abstracts. Elec R (Lond) 138:1002-3 Je 28 '46; Engineering 162:31 Jl 12 '46; Discussion. Elec R (Lond) 139:13 Jl 5 '46; Electrician 137:34-6 Jl 5 '46

Price changes in 1945. Mo Labor R 62:655-7 Ap '46

Price of electricity; customer opinion survey. Elec World 125:91 My 25 '46

Rates should cover all costs declares Indiana utilities commissioner. Pub Util 38:49-50 Jl 4 '46

Reduced capital costs tend to drive electric rates down. E. R. Abrams. Barron's 26:9+ Ag 5 '46

Regulatory outlook under Supreme court rulings. J. E. Benton. Pub Util 37:743-53 Je 6 '46

Rural electrification costs; American and British charges compared. W. D. Kennedy and G. O. McLean. Elec R (Lond) 139:215-16 Ag 9 '46

Southwest power pool members continue opposition to SPA rate schedules. Elec World 126:83 Ag 17 '46

Strikes against electric utilities; higher bills as result of wage increases; customer opinion survey. Elec World 125:90 My 25 '46

Tariffs without tears. A. Earls. Elec R (Lond) 138:167-9 F 1 '46

Two-year operation of the New Jersey rate plan. J. R. Foster. Pub Util 38:352-60 S 12 '46

Utilities face rate slashes. Bsns W p81-2+ S 28 '46

Utilities seek volume to allow further rate cuts. E. R. Abrams. Barron's 26:9+ Je 24 '46

ELECTRIC reactors. See Reactors

ELECTRIC rectifiers

Application of high-voltage steel-tank mercury-arc rectifiers to broadcast transmitters. P. A. T. Bevan. il diags Inst E E J 92 pt 2:469-89 O '45; Summary. Elec R (Lond) 136:805 Je 1 '45; Discussion. Inst E E J 92 pt 2:490-4 O '45; Elec R (Lond) 136:805-6 Je 1 '45; Electrician 134:493-4 Je 1 '45

Calculation of rectifier and inverter performance characteristics. J. C. Read. diag Inst E E J 92 pt 2:495-509 O '45

Capacitor charging rectifier. H. J. Bichsel. diag Electronics 19:123-5 Ja '46

Capacity of mercury-arc rectifiers. Power 90: 510 Ag '46

Circuit cushioning of gas filled grid-controlled rectifiers. D. V. Edwards and E. K. Smith. il diags Elec Eng 65:Trans 640-3 O '46

Electric power conversion at the trail plants of the Consolidated mining & smelting company of Canada, limited. A. G. Dickinson. il Electrochem Soc Trans 90 (preprint 14):205-17 '46

Electrolysis phenomena in soft-glass stems of rectifier tubes. J. Gallup. il diag Am Cer Soc J 29:277-81 O 1 '46

High-voltage steel-tank mercury-arc rectifier equipments for radio transmitters. J. C. Read. il diags Inst E E J 92 pt 2:453-68 O '45; Summary. Elec R (Lond) 136:805 Je 1 '45; Discussion. Inst E E J 92 pt 2:490-3 O '45; Elec R (Lond) 136:805-6 Je 1 '45; Electrician 134:493-4 Je 1 '45

Inductive co-ordination aspects of rectifier installations. bibliog diags Elec Eng 65: Trans 417-36 Jl '46

Maintenance of rectifiers on electrochemical installations. J. E. Housley and G. N. Hughes. il diag Elec Eng 65:Trans 436-41 Jl '46

Nonlinear commutating reactors for rectifiers. A. Schmidt, jr. diags Elec Eng 65:Trans 654-6 O '46

Power rectifiers for studio lighting. L. A. Umansky. il diags Soc Motion Picture Eng J 45:414-40 D '45

Rectification and power supply for the electrolytic industry. T. R. Rhea and B. R. Connell. bibliog il plans diags Electrochem Soc Trans 90 (preprint 5):73-93 '46

Rectifier capacity. C. C. Herskind and H. C. Steiner. diags Elec Eng 65:Trans 667-70 O '46

Rectifiers for compressor engine ignition; high pressure gas line from Corpus Christi, Texas, to Cornwell, W.Va. Elec World 124: 71 N 24 '45

Reduced harmonic voltage across rectifiers. M. Osnos. diag Electronics 19:248+ F '46

Selenium rectifiers for cathodic protection; abstract. W. F. Bonner. Nat Pet N 38 pt 2: R450+ Je 5 '46

Some chemical and physical problems in the manufacture of selenium rectifiers. C. A. Escoffery. bibliog il diags Electrochem Soc Trans 90 (preprint 6):95-126 '46

Studies on the polymorphic transformation of selenium. C. A. Escoffery and S. Halperin. bibliog il Electrochem Soc Trans 90 (preprint 7):127-37 '46

Westinghouse hermetically sealed rectifier. Blast F & Steel Pl 34:759 Je '46

What you should know about industrial electronics; electronic rectifier equipment. diags Am Mach 90:138 O 10; 130 O 24; 133 N 7 '46

What you should know about industrial electronics; electronic tubes as rectifiers. il Am Mach 90:138 F 14 '46

What you should know about industrial electronics; mercury-pool tubes. diags Am Mach 90:138 Mr 14 '46

See also

Ignitron
Radio rectifiers
Thyratron

Cooling

Rectifier coolant refrigerated, recirculated. A. D. Therrien. il diags Elec World 125:54 Ap 27 '46

ELECTRIC refrigerators. See Refrigerators, Electric

ELECTRIC research

British electrical and allied industries research association annual report. Engineer 181:155-6 F 15 '46; Engineering 161:187-8 F 22 '46; Elec R (Lond) 138:209-10 F 8 '46; Electrician 136:341-2 F 8 '46

Electrical and allied developments of 1945; research and laboratory investigations. G. Bartlett. il Gen Elec R 49:70-1 Ja '45

ELECTRIC research—*Continued*
High-voltage research at the National physical laboratory. R. Davis. il diags Inst E E J 93 pt 1:177-86 Ap '46; Same abr. Engineer 180:412-13, 435-6 N 22-30 '45; Abstract. Electrician 135:573-5 N 23 '45
Laboratory research work; British Thomson-Houston co. il Electrician 136:291-2 F 1 '46
Progress in engineering knowledge during 1945. P. L. Alger and others. il diags Gen Elec R 49:9-19+ bibliog(p63-7) F '46
Results of research; examples of work by G.E.C. laboratories. Electrician 136:662 Mr 15 '46

ELECTRIC resistance
Determining the resistance of a sensitive d.c. meter. G. Dexter. diags Radio N 35:30 Mr '46
Electrical observations of the austenite-martensite transformation in steel. A. W. McReynolds. bibliog il diags J Ap Phys 17: 823-33 O '46
Electrical resistance of iron wires and permalloy strips at radiofrequencies. A. W. Smith and others. bibliog diag J Ap Phys 17:33-6 Ja '46
Electrical resistivity of resin-treated wood and laminated hydrolyzed-wood and paper-base plastics. R. C. Weatherwax and A. J. Stamm. bibliog diag Elec Eng 64:Trans 833-8 D '45
Formulas for conductor size according to cost of resistance loss. H. B. Dwight. Elec Eng 65:Trans 22-5 Ja '46
Measurement and effect of contact resistance in spot welding. R. A Wyant. bibliog il diags Elec Eng 65:Trans 26-34 Ja '46
Methods of minimizing lead loss in emissivity and resistivity determinations. L. Malter and D. B. Langmuir. diags J Ap Phys 17: 456-7 Je '46
Properties of the electrical double layer at a mercury surface; the effect of frequency on the capacity and resistance of ideal polarized electrodes. D. C. Grahame. bibliog diag Am Chem Soc J 68:301-10 F '46
Resistance measurement by vacuum tube voltmeter. diags Elec World 126:128 S 28 '46
Resistance measurements. S. Litt. il diags Radio N 35:44-6+ Ja '46
Resistance temperature coefficients of metals and semi-conductors. F. Ashworth and E. D. Taylor. Inst E E J 92 pt 1:412-13 N '45
Resistivity of chromium. D. L. Matson. Materials & Methods 23:443+ F '46
Seventeen resistances of three resistors. N. W. Lewis. diags Inst E E J 92 pt 1:378-9 O '45
Superconductivity; resistance phenomena in conductors at temperatures near absolute zero. C. W. Hewlett. diags Gen Elec R 49: 19-25 Je '46

See also
Electric conductivity
Insulation (electric)
Wheatstone bridge

ELECTRIC resistors
A.S.T.M. standards on electrical-heating and resistance alloys (with related information); prepared by A.S.T.M. committee B-4. 173p pa $2 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '46
Coatings for wire-wound resistors. E. E. Marbaker. il Am Cer Soc J 28:329-42 D 1 '45
Copper oxide and silicon carbide varistors. E. J. Iversen. il diags Product Eng 17:121-3 N '46
Metrosil material, a non-linear resistor. W. Needham. il Elec World 125:162 Ja 19 '46
Properties and uses of thermistors; thermally sensitive resistors. J. A. Becker and others. bibliog il diags Elec Eng 65:Trans 711-25 N '46
Seventeen resistances of three resistors. N. W. Lewis. diags Inst E E J 92 pt 1:378-9 O '45
Silicon carbide non-ohmic resistors. F. Ashworth and others. il diags Inst E E J 93 pt 1:385-401 bibliog(p393-4) S '46; Excerpts. Engineering 161:295 Mr 29 '46; Discussion. Inst E E J 93 pt 1:401-5, 595-8 S, D '46; Electrician 136:817-18 Mr 29 '46
Stability of double-walled manganin resistors. J. L. Thomas. pl J Res Nat Bur Stand 36:107-10 Ja '46
Thermistor-controlled devices: Mech Eng 68: 833 S '46
Thermistor-regulated low-frequency oscillator. L. Fleming. il diags Electronics 19:97-9 O '46
Thermistors detect temperature variations of one-millionth of a degree. il Sci Am 175: 126-7 S '46
Toroidal resistances. il Elec R (Lond) 137: 716 N 16 '45
Wire wound precision resistors made by Resistance products co. il R Sci Instr 17: 117 Mr '46

See also
Radio resistors

ELECTRIC safety lamps. See Safety lamps, Electric

ELECTRIC saws. See Saws, Electric

ELECTRIC service, Rural
Buried cable in Ontario. R. E. Jones. il Elec World 126:51-2 Ag 31 '46
Development of electricity supply as a public service in a country district. P. S. Grant. Inst E E J 93 pt 1:123-5 Mr '46
Developments in rural telephone service of interest to electric utilities. A. E. Silver. il diags Edison Elec Inst Bul 14:199-204 Je '46
Economics of rural electrification; rates and revenues. E. C. Hathaway. Eidson Elec Inst Bul 14:275-6+ Ag '46; Same cond. Elec World 126:60-1 Jl 6 '46
Electrifying the Soviet countryside. G. Susloparov. Elec R (Lond) 138:902 Je 7 '46
57,382 miles in 1946; rural lines. Elec World 125:128 Ja 19 '46
Goal of universal rural electric service, Idaho power company. Pub Util 36:786-8 D 6 '45
High voltage overhead lines; B.S.S. to solve some rural electrification problems. diag Electrician 137:521-3 Ag 23 '46
Joint rural line service in Connecticut; abstract. G. J. Williams. Elec World 126:128 S 28 '46
Kilowatt hours will grow with farm income; agricultural development work by power companies. R. Godley. Pub Util 37:754-8 Je 6 '46
Observations of a supply engineer; transformer oil acidity on rural lines. A. Kelso. diags Inst E E J 93 pt 1:84-6 F '46; Abstract. Elec R (Lond) 137:585 O 26 '45
Poles in rural areas; joint use for power and telephones. Electrician 136:462 F 22 '46
Power for farms. Bsns W p69-70+ S 21 '46
Power plant in the country; New York state electric & gas corporation plant at Bainbridge. C. H. Vivian. il diag Comp Air Mag 51:146-52 Je '46
Predicting agricultural power demands in southern San Joaquin valley. M. W. Phillips. Elec West 96:81-4 Ap '46
Progress of rural electrification in United States. G. C. Neff. Edison Elec Inst Bul 14:187-9+ Je '46; Excerpts. Elec World 125:81 Je 8 '46
Quick guide to rural voltage drops. H. N. Muller, jr. and D. L. Whitehead. diags Elec World 125:55-7 Mr 30 '46
Rural cable around Buffalo. J. H. Milbyer. il Elec World 126:52-3 Ag 31 '46
Rural electrical service in Ontario. Engineering 161:38 Ja 11 '46
Rural electrification costs; American and British charges compared. W. D. Kennedy and G. O. McLean. Elec R (Lond) 139: 215-16 Ag 9 '46
Rural electrification in U.S.A.; status and plans; with cost data. C. W. Kellogg. Edison Elec Inst Bul 13:319-22 N '45
Rural electrification job remaining to be done. C. R. Wickard. Pub Util 37:149-57 Ja 31 '46
Rural electrification; the use of the single-phase system of supply; abstract. J. S. Pickles and W. H. Wills. Engineering 161: 390 Ap 26 '46; Discussion. Elec R (Lond) 138:645-6 Ap 26 '46; Electrician 136:1031-3 Ap 19 '46
Rural electrification's real objective; plea for coöperation between REA co-ops and business-managed electric companies. G. C. Neff. Pub Util 36:811-19 D 20 '45
Rural job ahead for electric utilities; abstract. R. W. Godley. Pub Util 38:559-62 O 24 '46

ELECTRIC service, Rural—*Continued*
Rural supplies; development at Chester. Elec R (Lond) 138:213-14 F 8 '46
Rural utility row flares. map Bsns W p19-20 S 7 '46
Serving rural consumers; Lancashire electric power co. il Elec R (Lond) 138.835-40 My 31 '46
Smaller rural transformer advantages. F. T. Bear. Elec World 124:69 D 22 '45
Steps in the planning of a rural sales department. J. D. Howard. Elec World 126: 65-7 O 26 '46
Story of rural electrification in Wisconsin broadcast by pioneers. Edison Elec Inst Bul 13:332 N '45
Successful trial installation points way for joint use of poles in rural areas. H. J. Scholz and F. M. Craft. il diags Edison Elec Inst Bul 13:327-9 N '45; Same. Elec World 124:76-8 N 24 '45
Swedish rural electrification. A. Rusck. Elec R (Lond) 139:263-4 Ag 16 '46
Thomas W. Martin rural electrification award is resumed. Edison Elec Inst Bul 14:298 S '46
Urges companies to speed farm electrification. G. C. Neff. Pub Util 38:431-3 S 26 '46
Wickard hits utility plans for farm extensions. Pub Util 38:157-9 Ag 1 '46

See also
Electricity on the farm
Rural electrification administration
Telephone service, Rural

Cooperative lines

Ark-La Co-op not public utility high court rules. Elec World News ed 125:8 Je 15 '46
Ark-La cooperative ruled public utility. Elec World News ed 124:6 D 1 '45
Badger co-op balked in move to buy Wisconsin hydro co; decision by Wisconsin public service commission. Elec World 126: 90 O 12 '46
Badger cooperative utility purchase gets adverse recommendation from examiner on application for right to buy Wisconsin hydro-electric co. Elec World News ed 126:5 Jl 13 '46
Can the state commissions regulate REA co-ops? F. X. Welch. Pub Util 38:588-92 N 7 '46
Challenge of coöperatives. H. C. Wolfe. Pub Util 37:80-91 Ja 17 '46
Companies failed on rural power job. C. R. Wickard. Pub Util 38:361-2 S 12 '46
Co-ops warned of opposition at NRECA convention. Pub Util 37:424-6 Mr 28 '46
Electric co-op serving one nonmember not a public utility; Arkansas-Louisiana electric coöperative. Pub Util 38:259-60 Ag 15 '46
For an electrified Georgia; friendly relationships between Georgia power company and REA coöperatives. W. E. Mitchell. Pub Util 38:135-7 Ag 1 '46
Keeping REA on the track; how to protect farmers from being loaded with debt through REA loans for unwise construction and acquisition of properties. L. H. Boren. Pub Util 36:745-53 D 6 '45
Recent decisions limiting controls over co-ops. Pub Util 38:97 Jl 18 '46
Reproduction cost rejected as a measure of value for sale to coöperative. Pub Util 38: 635-6 N 7 '46
REA arguments against lowest bid requirement. R. N. Larkin. Elec World 125:92 Je 8 '46
Sho-Me co-op given year to reorganize. Elec World News ed 125:6 Ja 26 '46
Should government-owned utilities be taxed? TVA and REA coöperatives. B. C. McCabe. Pub Util 37:333-42 Mr 14 '46
Three-state co-ops plan super-power system. Elec World News ed 124:8-9 D 29 '45
Utility and co-op make pact for area development; Washington water power co. Elec World News ed 126:3 Jl 27 '46
Utility will cooperate with nearby co-ops; Oklahoma Gas & Electric tells of program. Elec World 124:95 N 24 '45
Wickard concedes over half of REA lines inadequate. Elec World News ed 126:3 S 7 '46
Wickard slaps at co-ops for cream-skimming. Pub Util 37:358-9 Mr 14 '46

See also
National rural electric cooperative association

Cost

Completed costs of two rural extensions. Elec World 126:92 Jl 6 '46
Pioneering in rural service. R. E. Hayman. Pub Util 38:138-48 Ag 1 '46

ELECTRIC shavers
How Schick dramatized the kickoff for new product, Shaverest. il Sales Management 56:41 Je 1 '46
Three razors; 3 materials. il Mod Plastics 24: 104-5 S '46

Holders

Schick adds related product. il Ptr Ink 215: 64 Je 21 '46

ELECTRIC ships. See Ship propulsion, Electric

ELECTRIC shock. See Electricity, Injuries from

ELECTRIC shops (repair)
Organized for all 'round service. il Elec West 95:90-1 D '45

ELECTRIC shops (retail trade)
Good sense in business management. K. Hampton. il Elec West 96:77-8 Ja; 115-16 F; 77-8 Mr; 101-2 Ap; 79-80 My; 113-14 Je; 97:71-2 Jl; 85-6 Ag; 99-101 S '46
How much capital is needed? Elec West 96: 76-7 Ja '46
May's, an idea mine; Los Angeles department store's new appliance shop. il Elec West 97:78-9 Ag '46

ELECTRIC shovels
Improved heavy-duty quarry shovel. J. A. Oates. il Mech Handling 33:231-5 Ap '46
Moving a 170-ton shovel from a mountaintop airport. il Roads & Sts 89:66-8 S '46

ELECTRIC signals
Bunker signal system aids coal handling. J. Q. Wendell. diags Elec World 125:110+ Mr 16 '46

See also
Railroads—Signals

ELECTRIC signs
Broadway spectaculars may enter realm of H. G. Wells, using helium balloons, etc. il Ptr Ink 213:53+ N 23 '45

ELECTRIC spark
Combination arc-spark source for magnesium analysis. V. J. Caldecourt and J. L. Saunderson. il diags Opt Soc Am J 36:99-102 F '46
Fire hazards under tank hoods. Elec World 125:122 F 16 '46
Micro-electromagnetic waves; spark-generated waves; description of detector. M. G. Kellner and E. T. S. Walton. bibliog diags Wireless Eng 23:46-51 F '46
Some aspects of Meek's sparking equation. L. H. Fisher. Phys R 69:530 My 1 '46

See also
Spark gap

ELECTRIC standards
Sign of reactive power; AIEE committee report on proposed change. diags Elec Eng 65:512-16 N '46
60 cycles or 25 cycles? problem of standardizing frequency in southern Ontario. R. L. Hearn. map Water & Sewage 84:31+ Mr '46
Stability of double-walled manganin resistors. J. L. Thomas. pl J Res Nat Bur Stand 36:107-10 Ja '46
Standardization of temperature and electrical measurements. E. Goddess. il diags Product Eng 17:212-15 Mr '46

See also
Electric circuit breakers—Standards
Electric equipment—Standards
Electric lighting—Standards
Electric lines—Standards
Voltage standards

ELECTRIC steam generator. See Boilers—Electric heating
ELECTRIC sterilizers. See Sterilizers, Electric

ELECTRIC stoves
Design of connecting hood over electric range to carry away fumes and heat. plan diags Sheet Metal Worker 37:57+ Ap '46
General Electric cooker with new features. il Electrician 136:1525 Je 7 '46
N.H.D. electric cookers. Electrician 136:1321 My 17 '46
Range load increased without upping demand; utilizes new switch. il Elec World 125:152 Mr 16 '46
Sterling thermal storage cooker. il Electrician 137:309-10 Ag 2 '46
Tables yield data on range service needs; transformer capacity and requirements of secondary feeders. Elec World 125:83 F 2 '46

Merchandizing

For success in selling electric ranges. J. P. Maloney. Elec World 126:130+ O 12 '46
So you want us to sell ranges. il Elec West 96:110 Je '46
Why we give distributors a voice in top management; Domestic appliance division, Pressed steel car co. A. Raysson. il Sales Management 57:37-9 N 1 '46

Rating

Electric table stoves. il Consumers Res Bul 18:18-20 Ag '46

ELECTRIC substations
Combined light and power systems for industrial plants. D. L. Beeman. il diags Elec Eng 65:Trans 76-83 F '46; Same. Gen Elec R 49:28-35 Mr '46
Six years' experience with factory-built unit-type substations; quad-city area of Davenport, Iowa; Rock Island, Moline, and East Moline, Ill. E. F. Miller and R. B. Miller. il plans Elec Eng 65:Trans 751-6 N '46
Substation capacity increased tenfold in an eastern military post. il diag Elec World 124:143 D 8 '45

Costs

Cost of a new factory substation. Elec World 126:92 Jl 20 '46
Cost of adding 5,000-kva. transformer to bank. Elec World 126:81 O 26 '46

Design

Criteria for post-war substation design. J. S. Parsons and R. L. Witzke. il diags Elec World 125:68-71 Ja 5 '46
Distribution substation design standardized. J. C. Jones. il Elec World 125:115 F 16 '46
Simplicity of substations rests on voltage stratification. P. D. Tuttle. diags Elec World 125:87-9 My 11 '46
Standardized unit substations help solve industrial power problems. L. W. Long. il diags Power 90:583-5 S '46
Unit substations fit any power system. L. W. Long. il diag Power 90:756-8 N '46

Equipment

Capacitors on 24 kv. an adjunct to condenser serving large furnace load. E. R. Smith and others. il diag Elec World 124:114-15 N 10 '45
Condenser assembly without crane. A. J. Swank and P. S. Gehringer. il Elec West 95:84-5 D '45
Modernisation of sub-station switchgear. il Engineer 182:99-100 Ag 2 '46; Engineering 162:126 Ag 9 '46; Electrician 137:305-7 Ag 2 '46
Primary supplies; generation and supply-exchange scheme in north Wales. il Elec R (Lond) 137:852-4 D 14 '45
Rectifier coolant refrigerated, recirculated. A. D. Therrien. il diags Elec World 125:54 Ap 27 '46
Strain insulator effect in substation span sags. J. R. Stover. Elec World 126:62-3 Jl 6 '46
Upright mounting solves 110-kv. fuse replacement. D. L. Greene. il Elec World 126:79 O 26 '46

Fires and fire protection

Lessons from a substation fire. Elec World 126:142+ S 28 '46

Inspection

Organized substation inspection. Elec World 125:92-5 Mr 16 '46

Models

This model substation can simulate any fault; training of substation operators. P. E. Smith. il diag Elec World 126:68-9 Ag 17 '46

Protection

Linear couplers, field tests and experience at York and Middletown, Pa. E. L. Harder and others. bibliog il diags Elec Eng 65: Trans 107-13 Mr '46
To ground an outdoor substation. diag Elec World 125:83 Mr 30 '46

Safety measures

Safety-with-paint scientifically planned; substation interiors of Portland general electric co. il Elec World 125:78 Ap 27 '46

Supervisory control

Analysis and selection of supervisory control. R. B. Pollock and A. A. Straub. il diag Elec World 126:112-13 S 28 '46
Operational control of electricity supply systems. W. Kidd and E. M. S. McWhirter. bibliog il plans diags Inst E E J 92 pt 2: 311-22 Ag '45; Discussion 92 pt 2:322-6, 554-61 Ag, D '45

ELECTRIC substations, Automatic
New material in Standard on automatic stations. G. Sutherland and G. S. Lunge. il Ind Stand 17:56-8 Mr '46; Same. Edison Elec Inst Bul 14:116+ Ap '46; Elec Eng 65:223-4 My '46

ELECTRIC substations, Outdoor
Aluminum substation structure for eased upkeep and safety. D. R. Pattison and F. Burhenn. il diags Elec World 126:46-8 Ag 3 '46
Design data of Alcoa aluminum alloy 61S-T used for substation-structure members. diags Elec World 126:84 Ag 3 '46
Distribution substation design standardized. J. C. Jones. il Elec World 125:115 F 16 '46
Electric power in a steel plant, Bethlehem steel company plant, Lackawanna. R. W. Graham. diags Elec Eng 64:Trans 816-18 D '45
Preparing and repainting outdoor electrical equipment. E. B. Curdts. il Elec World 124: 84-6 N 24; 128-30 D 8 '45
Revised distribution system of Chesapeake & Ohio. il Ry Mech Eng 119:606-7 D '45
Simplicity of substations rests on voltage stratification. P. D. Tuttle. diags Elec World 125:87-9 My 11 '46

ELECTRIC substations, Portable
Cable connections for mobile sub. il Elec West 96:62-3 Ja '46
Mobile unit substations. S. B. Farnham. il diag Western Soc E J 51:70-82 Je '46
Substation on wheels. il Ry Mech Eng 120: 148 Mr '46
Versatility features mobile substations; abstract. S. B. Farnham. Elec World 125: 72 Ja 5 '46

ELECTRIC switches. See Electric switchgear

ELECTRIC switchgear
Airbreak switch synchronizes tie. M. G. Clapper. il diag Elec World 125:98 F 2 '46
Automatic switch for use on network secondaries. R. E. Brown. diag Elec World 125:92 Ap 27 '46
Automatic switch saves investment in breaker. P. Naney. diag Elec World 124:145 D 8 '45
Can I reclose field switch on this generator? il Power 90:404-6 Je '46
Circuit interruption. R. W. J. Cockram. il diag Elec R (Lond) 139:385-8 S 6 '46
Control can be a snap; precision snap-acting electric switches; illustrations with text. A. L. Riche. Am Mach 90:105-8 My 9 '46
Control circuit switches; snap-action limit type. A. E. L. Jervis. il diags Elec R (Lond) 137:833 D 7 '45
Ferguson Pailin 33-kv low oil volume switchgear. il diags Engineer 181:355-6 Ap 19 '46
Flameproof switchgear for mines. il diag Engineering 161:317-18 Ap 5 '46
Four arrangements of operating mechanisms for air switches. diags Elec World 124:108 N 24 '45
Fundamental properties of the vacuum switch. R. Koller. bibliog il diags Elec Eng 65:Trans 597-604 Ag-S '46

ELECTRIC switchgear—*Continued*
Illuminated wall-switch plate. il Consumers Res Bul 18:25-6 O '46
Industrial switchgear; effect of increasing short-circuit capacity of power systems. il Electrician 137:109-11 Jl 12 '46
Inflammable atmospheres; air-break switchgear for mines and other dangerous situations. F. Heaton and A. R. Heaton. diags Elec R (Lond) 138:405-7 Mr 15 '46
Isofuse quick-break rotary switch. il Electrician 136:1106 Ap 26 '46
Limit switches; their selection and characteristics. C. S. Kidd. il diags Product Eng 17:132-7 S '46
Limit switching mechanisms; methods of mechanical actuation; drawings. Product Eng 17:392-3 My '46
Manhole switch simple, positive in action. il Elec World 124:145 D 8 '45
Metal-clad switchgear handles interrupting needs at Coaldale. W. E. Connor and R. R. Richart. il diags Coal Age 51:72-9 Je '46
Metal-clad unit-type switchgear for 33-kv service. C. H. Kreger. il Elec Eng 65:Trans 360-8 Je '46
Microswitch starts drillpress when feed commences. J. McCord. diag Am Mach 90: 125-6 Jl 4 '46
Modern practice in power-plant auxiliary equipment and systems. H. N. Muller, jr. il diag Elec Eng 64:Trans 870-1 D '45
Modern switchgear. R. N. Buttrey. il Electrician 137:236-40, 457-60, 853-5, 1123-5 Jl 26, Ag 16, S 27, O 25 '46 (to be cont)
Modernisation of sub-station switchgear. il Engineer 182:99-100 Ag 2 '46; Engineering 162:126 Ag 9 '46; Electrician 137:305-7 Ag 2 '46
Mutac silent a.c. switch. diag Electrician 137: 181-2 Jl 19 '46
Range load increased without upping demand; utilizes new switch. il diag Elec World 125: 152 Mr 16 '46
Remote control of small electric switches; abstract. diags Product Eng 17:[no 7] 117 Jl '46
Remote switching by superimposed currents. J. L. Carr. bibliog diags Inst E E J 91 pt 2: 535-42 D '44; Discussion. 91 pt 2:542-7; 92 pt 2:610-17 D '44, D '45
Salford mercury switches. il Engineer 181: 503 My 31 '46
Sectionalizing or restoration of service by use of air switches. diags Elec World 124:148 N 10 '45
Selecting limit switches. C. S. Kidd. il diags Product Eng 17:123-5 O '46
Selection and application of automatic control for capacitors. T. W. Schroeder and W. C. Bloomquist. il diags Gen Elec R 48: 7-11 O; 22-31 D '45; 49:37-41 Mr '46
Single-phase switching saves outages. C. M. Lytle. Elec World 126:92+ Jl 20 '46
Snap switches speed gaging. A. L. Riche. il diags Am Mach 90:112-15 Jl 4 '46
33-kv switch-house at Blackburn. il Elec R (Lond) 139:325-9 Ag 30 '46
Three new pressure control switches announced. il Elec World News ed 126:20 O 5 '46
Transportable metal-enclosed switchgear. il Engineering 161:84, 91 Ja 25 '46; Electrician 136:219-20 Ja 25 '46; Engineer 181:113-14 F 1 '46; Elec R (Lond) 138:244 F 15 '46
Trends in switchboard design; abstract. C. P. West. diags Elec World 125:135 Ap 13 '46
Works distribution; switchgear arrangements in a propeller factory. il Elec R (Lond) 137:677 N 9 '45

See also
Electric circuit breakers
Electric contacts
Electric fuses

Manufacture

Air diffusion and distribution system meets requirements of factory process; Minneapolis-Honeywell regulator co. E. E. Herbacek. il plan diags Heating-Piping 17:601-4 D '45
Automatic baking doubles production per man-hour; Raymersion infrared electric oven at factory of Trumbull electric mfg. co. il diag Elec World 125:100+ Ap 27 '46
Switchgear production; G. P. Dennis, ltd. il Elec R (Lond) 139:272 Ag 16 '46

Testing

Modern switchgear. R. N. Buttrey. il Electrician 137:457-60 Ag 16 '46

ELECTRIC symbols
Coordinated symbols used in new edition of Graphical symbols for electric power. W. L. Heard. diags Ind Stand 17:97-9 My '46; Same. Edison Elec Inst Bul 14:311-12+ S '46

See also
Electronics—Symbols

ELECTRIC testing
Circuit tester; announced by Precision apparatus company, inc. il R Sci Instr 17: 244-5 Je '46
Long 60-cycle arcs in air. A. P. Strom. il Elec Eng 65:Trans 113-18 Mr '46
Primary circuit tester. il Elec World 125:114 Je 22 '46
Secondary test set discerns meter loads. M. F. Wider. il Elec World 125:112 Je 8 '46
Tester distinguishes 120/240 and 120/208 volts. diags Elec World 125:170+ Ap 13 '46

See also
Dynamometers
Electric instruments
Electric measurements
also subdivision Testing under special headings, e.g. Electric coils; Electric distribution; Electric transformers; Insulation (electric)

ELECTRIC testing of metals
Electronics in engineering; radio-frequency crack detector. il Engineer 181:82-3 Ja 25 '46
Probolog spots corrosion, cracks, holes in exchanger tubes. il Oil & Gas J 44:121 D 15 '45

ELECTRIC thawing. See Thawing, Electric

ELECTRIC toasters

Rating

Non-automatic toasters. il Consumers Res Bul 18:5-8 Jl '46

ELECTRIC tools, Portable
How to get the most from your electric tools. il Roads & Sts 89:104-5 Je '46
More power and less weight characterize portable 360-cycle electric tools. Steel 118: 178 Ap 1 '46
Portable electrical tools. il Electrician 136: 1509-10 Je 7 '46
Portable power speeds work and avoids delay. il Am Bld 68:126 F '46
Power-feed attachments take wobble out of hand drilling. E. W. Cooper. il diag Am Mach 90:96-8 F 28 '46
360 cycle motors for compact design of portable tools. J. H. Karr. il diag Product Eng 17:110-12 N '46
Tool nobody wanted; how Skilsaw cracked its market; protection for distributors, and business paper advertising. B. Sullivan. il Sales Management 57:46+ Ag 1 '46

Advertising

Back your distributors with sound advertising; six successful selling points, time-tested by Black & Decker. L. R. O'Neill. il Ind Marketing 31:43-4+ Je '46
How to win sales support and influence buyers! advertisement of Black & Decker, makers of portable electric tools tells why it pays to buy thru distributors. L. R. O'Neill. Ptr Ink 216:44-5 Ag 16 '46

Safety measures

Electric tool and cord dangers. il Safety Eng 92:20 Ag '46
Grounding electric tools. G. E. Kimball. il Safety Eng 92:30-1 Jl '46
Grounding portable electric tools. il Elec West 96:87 Ap '46
Portable power tools; precaution should be taken to prevent injuries. Safety Eng 91:55 Mr '46

ELECTRIC toys

See also
Electric railroads, Miniature

ELECTRIC traction
Electric transportation, a big load builder. J. A. Miller. il Elec West 95:77-9 D '45

ELECTRIC traction—*Continued*
Electrical and allied developments of 1945; locomotives, urban transit. G. Bartlett. il Gen Elec R 49:42-3 Ja '46

See also
Electric locomotives
Electric railroads
Electric trucks
Street railroads
Subways
Trolley buses

ELECTRIC transformers
Accessible a.c power for low-voltage equipment; Continental can company. W. E. Scott. il Factory Management 104:151 Mr '46
Capacitor stabilization of arc-welding transformers. J. H. Blankenbuehler and R. V. Lester. diags Elec Eng 65:Trans 54-5 F '46
Characteristics of resistance welding transformers. F. E. Murray and R. C. Jones. diags Elec Eng 65.Trans 726-8 N '46
Cost of adding 5,000-kva. transformer to bank. Elec World 126.81 O 26 '46
Electrical accuracy of Selsyn generator; control transformer system. H. Chestnut. bibliog diags Elec Eng 65:Trans 570-6 Ag-S '46
Inductive co-ordination aspects of rectifier installations. bibliog diags Elec Eng 65: Trans 417-36 Jl '46
International H.T. conference. diags Electrician 137:513-16, 590-2 Ag 23-30 '46
Lessons from secondary banking practice. K. L. Partridge. diag Elec World 126:62-4 Jl 20 '46
Low-current-secondary current transformers. Elec Eng 65:Trans 649-50 O '46
Meter readings corrected for transformer errors. L. M. Stoakes. Elec World 125:134 My 11 '46
Method of preventing mercury from drossing; regulators on Inertaire transformers. R. Gassner. Elec World 124:112+ N 24 '45
Midget transformers announced by United transformer corp. il R Sci Instr 17:115 Mr '46
Outages reduced by banked secondary operation of transformers; Boston Edison co. S. T. Arnold. il diags Power Pl Eng 50: 79-80+ O '46
Portable crane aids transformer handling. diags Elec World 126:132 S 28 '46
Power supply for a.c. welders. il Electrician 136:339-40 F 8 '46
Small rotary transformers for aircraft. Engineering 162:246 S 13 '46
Smaller rural transformer advantages. F. T. Bear. Elec World 124:69 D 22 '45
Thermal demand meter test controls phase of load current; adjustable ratio transformers. E. J. Norton and E. D. Kane. il diags Elec World 125:66-9 Mr 2 '46
Three-phase distribution and electric welding and furnace loads. A. L. Morris. diags Inst E E J 93 pt 2:341-8; Discussion 348-52 Ag '46
Transformateur de réglage à enroulement secondaire mobile il diags Génie Civil 123: 267 O 1 '46
Two-million volt industrial radiography; use of low frequency resonance transformer. L. Cardenas. il Iron Age 157:52-5 Je 13 '46
What you should know about industrial electronics; functions of transformers. il Am Mach 90:141 Jl 18 '46
Which supply for auxiliaries, transformer or house generator? H. W. Eales. diags Elec World 126:94-6 S 14 '46

See also
Radio transformers

Autotransformers
Lessons from a transformer fire. Elec World 125:90-1 Mr 2 '46

Cleaning
Machine that cleans transformer laminations. C. A. Reitz. il Elec World 126:73 Ag 3 '46

Connections
Extended delta hook-up useful in industry. diags Elec World 125:118 Je 8 '46
Field test yields ratio of delta-connected bushing current transformers. C. E. Asbury. diags Elec World 124:72-5 N 24 '45
Gets two-phase from three-phase supply. J. Gibson. diags Elec World 125:122+ Mr 16 '46
How a phase rotation problem was solved. C. E. White. diags Elec World 125:107 Mr 16 '46
How to connect transformers for use as voltage boosters. diags Elec World 125:156 Ap 13 '46
Neutral displacement; values with star-connected windings and star/star transformers. R. B. Rowson. diags Elec R (Lond) 138: 921-4, 971-3 Je 14-21 '46
Single phase load from 3-phase supply. C. O. von Dannenberg. diags Power Pl Eng 50: 93-4 F '46
Vector analysis of Scott-connected transformer. J. M. DeGuilmo. diag Elec World 124: 94 D 22 '45

Cooling
Selection of transformer locations; nonflammable cooling liquid may offer added advantage. R. G. Gazanjian. Ry Mech Eng 119:613 D '45

Design
New high-voltage potential transformers. G. Camilli and E. S. Townsend. il diags Gen Elec R 49:8-14 Ag '46

Drying
Dielectric heating dries transformer bushings. H. L. Cole. il diag Elec World 125:102 Je 8 '46
Drying out a spare furnace transformer. P. A. Emmons, jr. Elec World 126:87 S 28 '46

Failures
Fuse sizes vs. blowings and winding failures. J. G. Charest. Elec World 124:62-3 D 22 '45
Heavy damage at two utility plants following transformer failures. il Locomotive 45: 240-1 O '45

Installation
Bank transformers in single-pole cluster. H P. Seelye. il Elec World 125:89 Ja 5 '46
Crane on truck eases transformer handling. E. J. Miller. il diag Elec World 125:124 My 25 '46
Hang three-phase transformers from poles. N. Crider. il Elec World 124:99 N 24 '45
Jig eases lifting of primary metering grid. W. H. Way. il Elec World 125:90 Ja 5 '46
New pole mounting for transformers. T. E. Horkay. diags Elec World 125:152+ Ap 13 '46
Rigging guide for hoisting transformers. A. W. Chewning. il diag Elec World 125:98 Mr 2; 118, 128 Mr 16 '46
Selection of transformer locations; nonflammable cooling liquid may offer added advantage. R. G. Gazanjian. Ry Mech Eng 119:613 D '45
Transformer mounts on ground sites. Elec World 125:114+ My 11 '46

Losses
Method to compute annual losses on lines and transformers. Elec World 125:98 Ja 5 '46

Manufacture
Industrial enterprise; Gresham Transformers. il Electrician 137:173-5 Jl 19 '46

Oil
See Insulating oil

Painting
Flow-paint overhead network transformers. F. C. Pohl. il Elec World 125:132+ F 16 '46

Parallel operation
Self-coupling, new method of automatic parallel operation. E. T. Norris. il diags Elec R (Lond) 136:942-4 Je 29 '45; Abstract. Elec World 125:87 F 2 '46
Transformer diagrams. T. A. Ledward. Electrician 136:1441-2 My 31 '46

Protection
Dielectric strength and protection of modern dry-type air-cooled transformers. P. L. Bellaschi and E. Beck. il diags Elec Eng 64:Trans 759-63 N '45
Differential protection, delta-wye transformer banks. J. M. De Guilmo. diags Elec World 126:74 Ag 3; 89 Ag 17; 74+ Ag 31; 126+ S 14 '46

ELECTRIC transformers—Protection—*Cont.*
Differential relay protection extended to tertiary winding. J. R. Linders. diag Elec World 126:100 O 12 '46
Fuses fall short of transformer capabilities. L. L. Stahler. Elec World 125:92-4 My 11 '46
How to determine sizes of fuses for 2300 to 6900-volt transformer cutouts. diags Elec World 124:106 N 24 '45
Lightning protection for primary metering cabinets. R. Pfaif and H. N. Ekvall. il diag Elec World 125:110-11 Ap 13 '46
New submersible network protector of higher rating. G. G. Grissinger and F. D. Johnson. bibliog il diags Elec Eng 65:Trans 41-6 F '46
Protected secondary banks. il plan Elec West 96:58-61 Mr '46
Secondary banking with automatic sectionalizing. J. S. Rule. il plan diags Elec World 125:56-60 Mr 2 '46
Single-pole fusing. Electrician 136:27-8 Ja 4 '46
Transformer protection; new instantaneous magnetic-balance system. diags Elec R (Lond) 137:711-12 N 16 '45; Abstract. Elec World 125:134 Ap 13 '46

Rating

Economic rating of motors and transformers. D. J. Bolton. Inst E E J 91 pt 2:195-206 Je '44; Discussion. 91 pt 2:209-18; 92 pt 2:139-44, 642-4 Je '44, Ap, D '45

Reconstruction

Rebuilding to the core salvages capacity. E. T. Meldrim. il Elec West 97:69 Ag '46

Standards

Standardized control transformers; abstract. E. E. Opel. diag Product Eng 17:[no 7] 119-20 Jl '46
Transformer practice with reference to standardization. A. G. Ellis. diags Inst E E J 93 pt 2:285-302 bibliog(p302) Je '46; Abstract. Electrician 136:228 Ja 25 '46; Discussion. Elec R (Lond) 138:129-30 Ja 25 '46; Electrician 136:228-30 Ja 25 '46; Inst E E J 93 pt 2:302-9 Je '46

Storage

Transformer yard that runs itself; stock yard of the Light gas & water division, Memphis. il Elec World 126:71 Ag 31 '46

Tables, calculations, etc.

Formulas for voltage drops on unbalanced secondary circuits. J. W. Anderson, 3d. diags Elec World 125:50-3 Ap 27 '46
Instrument transformer errors. G. W. Stubbings. Electrician 136:1581-2 Je 14 '46
Tables yield data on range service needs; transformer capacity and requirements of secondary feeders. Elec World 125:83 F 2 '46

Tanks

Transformer utilizes novel tank design. il Elec World News ed 126:19 O 19 '46

Tap changing

Metropolitan-Vickers high-voltage tap changer; abstract. diag Elec World 125:88 Je 22 '46
On-load tap-changers. il Electrician 135:547-8 N 16 '45

Temperature

Guides for operation of transformers, regulators, and reactors. Elec Eng 64:Trans 797-805 N '45
Temperature rise of water-cooled power transformers. J. R. Meador. Elec Eng 65: Trans 18-21 Ja '46; Same. Gen Elec R 49: 55-9 Ap '46
Thermal characteristics of transformers. V. M. Montsinger. bibliog Gen Elec R 49:31-5+ Ap; 31-40 My; 30-40 Jl '46

Testing

Condenser checks reactiformer. A. F. Stilson. diag Elec World 126:78 Ag 3 '46
Field determination of current-transformer errors by the secondary-voltage method. E. C. Goodale and J. I. Holbeck. bibliog diags Elec Eng 63:Trans 879-82; 65:54-5 D '44, Ja '46
Field test yields ratio of delta-connected bushing current transformers. C. E. Asbury. diags Elec World 124:72-5 N 24 '45
How to determine transformer polarity. diags Elec World 125:118 My 25 '46
Transformer loading checked continuously. Elec World 125:79 Mr 30 '46
Transformer loading checked year round. Elec World 125:116-17 F 16 '46

Transportation

Trailers for handling network transformers. N. J. Bukey. il Elec World 125:77-8 Ap 27 '46

Windings

Design and measurements of capacitor discharge welding transformers. T. W. Dietz and G. M. Stein. il Elec Eng 65:Trans 154-9 Mr '46
Fuse sizes vs. blowings and winding failures. J. G. Charest. Elec World 124:62-3 D 22 '45
Mechanical stresses in transformer windings. E. Billig. il diags Inst E E J 93 pt 2:227-43 bibliog(p239-40) Je '46; Abstracts. Electrician 135:673 D 14 '45; Engineering 161: 9 Ja 4 '46; Discussion. Electrician 135:706-8 D 21 '45; Inst E E J 93 pt 2:243-8 Je '46
Thermal characteristics of transformers. V. M. Montsinger. Gen Elec R 49:31-40 My '46
Transformer diagrams. T. A. Ledward. Electrician 136:1441-2 My 31 '46

ELECTRIC transient phenomena
Automatic oscillograph with a memory; for obtaining photographic records of randomly occurring transients. A. M. Zarem. il diags Elec Eng 65:Trans 150-4 Mr '46
Carrier-frequency amplifiers; transient conditions with frequency modulation. C. C. Eaglesfield. diag Wireless Eng 23:96-102, 258-9 Ap, S '46
Electrodynamic direct-inking pan for inking wave forms of transients directly on a moving paper chart. H. B. Shaper. il Electronics 19:148-51 Mr '46
Four-channel electronic switch; permits display of four or more transients at once on cathode-ray oscilloscope screen. N. A. Moerman. il diags Electronics 19:150-3 Ap '46
High speed oscillograph for transient measurements. N. Rohats. il diag Electronics 19: 135-7 Ap '46
Surge characteristics of a single-circuit 3-phase transmission line having a single earth wire. W. G. Hawley. Inst E E J 92 pt 2:39-46 F '45; Discussion. 93 pt 2:190-1 Ap '46
Transient delay line useful in radar, television, or test oscilloscope work. J. M. Lester. il diags Electronics 19:147-9 Ap '46
Transient response of filters. D. G. Tucker. bibliog il diags Wireless Eng 23:36-42, 84-90 F-Mr '46
Transient response of tuned-circuit cascades. D. G. Tucker. bibliog il diag Wireless Eng 23:250-8 S '46
Transients in a-c motors and generators. G. S. Smith. bibliog diags Elec Eng 65:Trans 61-9 F '46

ELECTRIC transmission
Bulk transmission by a.c. favored by Germany; with cost data. diag Elec World 126: 88-90 S 28 '46
500-mile, 230-kv. series compensated transmission; Bonneville studies theoretical and practical aspects. S. E. Schultz. Elec World 126:70-1 Ag 17 '46
High voltage d.c. transmission; abstract. C. Ehrensperger. Elec World 126:49-50 Ag 31 '46
High voltage line; power transmission tests to be made by American gas & electric service corp. il Bsns W p48+ Ja 5 '46
Planning for the near-future electric power system. M. M. Samuels. Pub Util 38:84-93 Jl 18 '46
Power system development for service to Hanford plutonium plant. B. V. Hoard and J. R. Curtin. map diags Elec Eng 65:Trans 773-8 N '46
Shunt and series sections of transmission line for impedance matching. C. T. Tai. diags J Ap Phys 17:44-50 Ja '46

ELECTRIC transmission—*Continued*
Study of costs of 69- to 230-kv underground power-transmission systems and tie lines. J. G. Holm. bibliog Elec Eng 64:Trans 852-60 D '45
Transmission and distribution of electricity to mines; with cost data. B. L. Metcalf. diags map Inst E E J 91 pt 2:277-87 Ag '44; Discussion. 91 pt 2:287-96; 92 pt 2:550-3 Ag '44, D '45
Transmission in France; abstracts. P. M. J. Ailleret. Elec R (Lond) 138:775-6 My 17 '46; Electrician 136:1309-11 My 17 '46
Transmission system losses; West Penn power company. W. H. Osterle. map diags Edison Elec Inst Bul 14:71-6 Mr '46
Westinghouse tests ultra high voltage power transmission; abstract. P. Sporn. Iron Age 157:136-8 Ja 10 '46

See also
Electric cables
Electric conductors
Electric distribution
Electric driving
Electric lines
Electric plants—Interconnection
Electric switchgear
Voltage regulation
also International conference on large high tension electric systems

Tables, calculations, etc.

Transmission problems. R. H. Paul. Electrician 136:1097-9, 1165-7, Ap 26-My 3 '46

ELECTRIC trucks, Industrial
American industrial trucks. il Mech Handling 32:632-5 N '45
Automatic transportation co. improved electric propelled hand truck. il India Rubber World 114:570 Jl '46
Built-in pallets cut scrap-handling time; Allis-Chalmers supercharger plant. F. MacDonald. il diag Factory Management 103:92-3 N '45
Crompton Parkinson armoured heavy duty electric truck. il Engineer 181:481 My 24 '46; Elec R (Lond) 138:746 My 10 '46; Mech Handling 33:375-7 Je '46
Electric battery trucks in the ceramics industry; Wheatly & co. il Mech Handling 33: 143-4 Mr '46
Electric battery trucks in tile factories. il Electrician 136:32 Ja 4 '46
Handling 23,000-pound coils; Jones & Laughlin steel corp. il Steel 118:128-30 Je 24 '46
Industrial truck a big energy user. Elec World 125:128 Je 8 '46
Intra-plant transportation expedited by battery trucks; Hubbard & co. il Steel 119: 106+ N 4 '46
Materials handling; use of power trucks. il Mech Handling 33:83-8 F '46
Modern materials-handling methods; industrial trucks. H. S. Wharen. diags Am Mach 90:128-33 Je 20 '46
Operation-to-operation handling; Duff-Norton mfg. co. il Steel 119:138+ S 23 '46
Plug-in power truck. il Steel 118:127 Mr 4 '46
Power trucks break production bottleneck at Elliott co.'s Jeannette, Pa., plant. il Steel 118:163-4 My 6 '46
Sheet steel handling simplified; Baker industrial truck for loading and unloading steel. il Iron Age 157:57 My 2 '46
Thirty-five years of lift-truck growth. T. F. Moriarty. il Paper Tr J 121:76+ N 22 '45
Truck method of handling spike kegs. il Steel 118:117+ Mr 11 '46
Wingrove and Rogers high lift fork truck. il Mech Handling 33:584-7 S '46
Yale Worksaver electric lift truck requires short turning radius. il Am Mach 89:148 D 6 '45; Mech Eng 67:sup45 D '45; Ry Age 119:902 D 1 '45; Steel 118:138+ Ap 8 '46

Advertising

Marketing power industrial trucks; Elwell-Parker electric company, Cleveland. C. B. Cook. il Ind Marketing 31:42-3+ Ja '46

Maintenance and repair

Power truck maintenance. F. H. Slade. il Mech Handling 33:199-201 Ap '46

Tiering trucks

High-lift trucks utilize vertical storage space; Merck & company, Rahway, N.J. il Factory Management 104:97 Ap '46

ELECTRIC units
Application of the ohm and mho principles to protective relays. A. R. van C. Warrington. bibliog diags Elec Eng 65:Trans 378-85 Je '46
Equivalent values of electrical, mechanical, and heat units; data sheet. Factory Management 104:166 Mr '46

ELECTRIC utilities
Public utility analyzes market for retailers; Virginia electric & power co. Ptr Ink 216: 112+ S 13 '46

See also
Electric industries
Electric lines
Electric plants (central stations)
Electric service, Rural
Holding companies
also National association of electric companies; Standard gas and electric corporation

Accidents

Charts accident causes for field study; Texas power and light co. Elec World 125:83 Mr 30 '46
Industry's fatal accidents down in 1944; statistics. D. C. Stewart. Edison Elec Inst Bul 13:323-6 N '45
Significance tests for industrial injury rates. D. C. Stewart. Edison Elec Inst Bul 13: 361-3+ D '45

Accounting

Accountants of AGA and EEI hold first post-war conference, Cincinnati, April 1-3. Edison Elec Inst Bul 14:109-11 Ap '46
Accounting and business practice section, Northwest electric light & power assn, annual spring conference, Portland, May 22-23. Elec West 97:88+ Jl '46; Elec World News ed 125:5 Je 1 '46
Allocating demand costs. J. A. Nordin. J Land & Pub Util Econ 22:163-70 My '46
Capitalization of technical performance. E. T. Norris. bibliog Inst E E J 93 pt 2:137-9 Ap '46
Changes in balance sheet accounting. O. Ely. Pub Util 37:111 Ja 17 '46
Consolidated Edison may adopt straight-line depreciation. O. Ely. Pub Util 38:296-9 Ag 29 '46
Customers' billing in an electric utility. J. D. Elliott. Edison Elec Inst Bul 13:354-6+ D '45
Depreciation and utility security analysis; abstract. A. W. Hastings. Pub Util 36: 715-16 N 22 '45
Retirement forecast method of gauging depreciation. M. C. Mason. Pub Util 37:69-79 Ja 17 '46
Training of accounting employees. Edison Elec Inst Bul 14:155-6 My '46

Advertising

Coordinating a cooperative campaign at national and local levels. V. Dallaire. Ptr Ink 216:40-1 Jl 26 '46
Electric companies advertising program. P. H. McCance. Edison Elec Inst Bul 14:225-6 Jl '46; Abstract. Elec World 125:82-3 Je 8 '46
Electric industry fights back; 170 companies use advertising to oppose government ownership. A. C. Spurr. Adv & Sell 39:47-8 S '46
Enterprising utilities cooperate in territorial trade development; industrial facilities of Chicago and northern Illinois form basis for promotion program. il Ind Marketing 31:32+ F '46
Multi-million-dollar slogan that's paying off four ways; "Best location in the nation," Cleveland Electric advertising. A. Williams. il Ptr Ink 216:53-6 Ag 2 '46
Puppets tell lighting story in schools. R. H. Knox. il Elec World 125:138 F 16 '46
Utility advertising men urged to keep public relations in mind. T. Crosby. Pub Util 38: 113-16 Jl 18 '46
Utility and newspaper advertising. B. L. Walters. Edison Elec Inst Bul 14:153-4+ My '46
Utility puts family appeal in advertising; New Jersey power & light co. C. F. Westin. il Elec World 125:136+ Mr 16 '46

ELECTRIC utilities—*Continued*

Appliance renting

Providing the appliances; hire, hire-purchase or cash down? R. D. Reynolds. Elec R (Lond) 138:335-6 Mr 1 '46

Appliance selling

B.C. electric railway co.'s booklet tells dealers sales plan. Elec West 95:81 N '45
Case for utility merchandising. P. C. Spowart. Elec World 126:85 O 12 '46
Economics of hire and hire-purchase; abstract. N. H. Bridge. Electrician 137:861 S 27 '46
Priority register for post-war appliances; Concord (N.H.) electric co. R. G. Knowlton. il Elec World 125:138+ F 16 '46
Providing the appliances; hire, hire-purchase or cash down? R. D. Reynolds. Elec R (Lond) 138:335-6 Mr 1 '46
Utilities change sales policy; trend toward dependence on independent dealer. Bsns W p74+ Ja 5 '46

See also
Electric utilities—
Dealer relations

Complaints

How to investigate customers' complaints. Elec World 126:108+ Ag 3 '46

Costs

Claiming still more of revenue; expenses, 1945. Elec World 125:120-1 Ja 19 '46
Further increases in wage and fuel costs loom for price-fixed utilities. Barron's 26:1 F 25 '46
Public utility construction cost index, 1921-1945. Eng N 136:577 Ap 18 '46
$232,039,000 maintenance, 1945 and 1946. Elec World 125:129 Ja 19 '46

Customer relations

Customer service policy. P. E. Ewers. Edison Elec Inst Bul 14:138-42 My '46
Supply authorities and consumers. Electrician 135:663-4 D 14 '45

Dealer relations

Phoenix dealers quizzed on sales plan. il Elec West 95:79-80 N '45
Utilities change sales policy; trend toward dependence on independent dealer. Bsns W p74+ Ja 5 '46
West Penn power cooperative plans and promotional activities explained to dealers. Edison Elec Inst Bul 13:322 N '45

Development work

Enterprising utilities cooperate in territorial trade development; industrial facilities of Chicago and northern Illinois form basis for promotion program. il Ind Marketing 31:32+ F '46
Kilowatt hours will grow with farm income; agricultural development work by power companies. R. Godley. Pub Util 37:754-8 Je 6 '46
Multi-million-dollar slogan that's paying off four ways; "Best location in the nation," Cleveland Electric advertising. A. Williams. il Ptr Ink 216:53-6 Ag 2 '46
Power company takes lead in area industrial development; Puget Sound power & light co. C. T. Bakeman. il Elec World 125:56-7 F 2 '46
Rural job ahead for electric utilities; abstract. R. W. Godley. Pub Util 38:559-62 O 24 '46
Utility industry's interest in the establishment and growth of small industries. T. N. McCarter, jr. Edison Elec Inst Bul 14:191-2+ Je '46
Utility promotes home-building project in western Pennsylvania. il Elec World 126: 75 Ag 17 '46

Employees

Age factor in disabling morbidity, 1940-44; experience of the Boston Edison company. W. M. Gafafer. Pub Health Rep 60:1447-62 D 7 '45
Arbitration gains ground; Duquesne Light settlement. Bsns W p98+ O 26 '46
Bow-wow, Mister Meterman! how to handle dogs. B. McAlister. Pub Util 37:213-20 F 14 '46; Same. Edison Elec Inst Bul 14:53-5+ F '46
Choosing the electric industry for a career. Edison Elec Inst Bul 14:25 Ja '46
City's intervention balked in Pittsburgh strike. Pub Util 38:549-51 O 24 '46
Demonstrators in the industry; statement by Electrical association for women. Electrician 137:97 Jl 12 '46
Distribution staff duties summarized. Elec World 124:83-4 D 22 '45; 125:104 Ja 5; 156-7 Ja 19; 86 F 2; 134+ F 16; 96 Mr 2; 109 Mr 16; 82-3 Mr 30; 150-1 Ap 13; 111-12 My 11; 112 My 25; 116 Je 8; 104+ Je 22; 126:94+ Jl 6 '46
District representative plan. J. R. Gardner. Edison Elec Inst Bul 14:149-52 My '46
EEI resuscitation medals honor alertness, skill, teamwork that saved lives. M. B. Woods. il Edison Elec Inst Bul 14:39-46 F '46
Employee relations as viewed by a supervisor. K. I. Jack. Pub Util 37:818-26 Je 20 '46
How a governor stopped a threatened utility strike in Virginia. W. M. Tuck. Pub Util 38:267-76 Ag 29 '46
How Consolidated Edison spots and trains men for executive jobs. D. S. Sargent. Sales Management 57:69-70+ S 1 '46
Independent union in new contract demands share of excess profits; Duquesne Light and affiliated companies given 35 demands. Elec World News ed 126:7 Ag 10 '46
Load dispatcher. J. P. Paschall. Pub Util 37:352-5 Mr 14 '46
Making our company the best; slogan of employees of Arkansas power & light company. C. H. Moses. Pub Util 38:519-27 O 24 '46
Northwest electric light & power association; Personnel section conference. Elec World 125:95 Je 22 '46
Pittsburgh enjoins power strikers; injunction dissolved. R. N. Larkin. Elec World 126: 114-15, 119-20 S 28 '46
Pittsburgh gets injunction, halts Duquesne Light strike. il Elec World 126:103-4 S 14 '46
Pittsburgh strike ends when union agrees to arbitration. Elec World 126:71-2 O 26 '46
Postwar labor trends. H. K. Breckenridge. Edison Elec Inst Bul 14:237-40 Jl '46; Abstract. Elec World 125:89 Je 8 '46
Should strikes in electric utilities be outlawed? L. H. Hill. Elec World 126:68-9 O 26 '46
Strikes against electric utilities. Elec World 125:71-97 My 25 '46
Training of accounting employees. Edison Elec Inst Bul 14:155-6 My '46
Union leader's arbitration pledge dims strike threat; Duquesne light co. and union in agreement. Elec World News ed 126:5 S 21 '46
Utility dilemma. Bsns W p106-7 Ja 12 '46
Veterans' training course turns out journeymen craftsmen. I. L. Bateman. il Elec World 126:60-1 Jl 20 '46
Wage structure of the electric light and power industry, July 1945. J. W. Bloch. Mo Labor R 63:369-79 S '46
Your friends are on your pay roll. A. M. Cooper. Elec West 96:55-6 My '46

See also
Electric utilities—
Salesmen
Linemen

Equipment and supplies

War surplus; yardstick or club? T. N. Sandifer. Pub Util 36:820-8 D 20 '45

Exhibits

Duquesne Light shows Pittsburghers how electricity is supplied to them. il Elec World 126:54-5 Ag 31 '46

Extension policies

Consider utilities' needs in planning subdivisions. plan Elec World 126:93 Jl 6 '46
Rural electrification's real objective; plea for coöperation between REA co-ops and business-managed electric companies. G. C. Neff. Pub Util 36:811-19 D 20 '45

ELECTRIC utilities—Extension policies—*Cont.*
Utility and co-op make pact for area development: Washington water power co. Elec World News ed 126:3 Jl 27 '46

Finance

Class A and Class B privately owned electric utilities in the United States; source and disposition of electric operating revenues, 1941-Sept 1945; chart. Pub Util 36:845 D 20 '45
Factors to be considered in making bank loans to electric utility companies; abstract. W. G. Olson. Pub Util 37:433-5 Mr 28 '46
FPC review of the utilities' financial record, 1937-1944. O. Ely. Pub Util 37:107-10 Ja 17 '46
Gigantic program, but execution depends on manpower. il Elec West 96:80-95 F '46
Monetary inflation and the public utility industry. H. G. Guthmann. Edison Elec Inst Bul 14:143-6 My '46
Nearly a billion dollars; budget, 1945 and 1946. Elec World 125:122-3 Ja 19 '46
1946 outlook for utility earnings. O. Ely. Pub Util 37:364-6 Mr 14 '46
Outlook of electric utilities under inflation. E. R. Abrams. Pub Util 37:92-8 Ja 17 '46
Premium bonds; offered by Sacramento utility district. Bsns W p73-4 Jl 20 '46
Private company in accord with U.S. power agencies; Montana-Dakota utilities company of Minneapolis. Pub Util 37:622-3 My 9 '46
Tax factors exaggerate early 1946 utility earnings gains. E. R. Abrams. Barron's 26: 10+ Ap 1 '46
$3,334,000,000 revenue, 1945. Elec World 125: 118-19 Ja 19 '46
Utilities, equipment maker foresee rise in profitable power sales. Barron's 26:1+ Ag 12 '46
Utility writeoff. Bsns W p76 Ja 26 '46

See also
Electric rates
Electric utilities—Securities
Electric utilities—Taxation
Holding companies
also Associated gas and electric system

Government ownership

Arizona bodies struggle to control state's power. Elec World 124:93 N 24 '45
Depreciation problem; trend toward federal ownership of utilities. H. E. Riggs. Pub Util 38:528-38 O 24 '46
Edmundsons electricity corporation; no case for nationalisation. T. Royden. Electrician 136:1766-70 Je 28 '46
Federal regulation slows public ownership drive; Holding company act improved conditions. G. Purcell. Elec World News ed 124:3 N 17 '45
French supply nationalised. Electrician 136: 947 Ap 12 '46
Game-end rally; public power bloc probably will push through major legislation. Bsns W p28+ Je 29 '46
Government power; status of federal and state power development, existing and contemplated; tabulation. Elec World 125:132-3 Ja 19 '46
Interior stymied; public power aspirations for steam plants. Bsns W p53 Jl 20 '46
Montreal Light stockholders reject indemnity offered by Quebec Hydro. Elec World 126: 85 Jl 6 '46
Nationalisation and its alternative. Electrician 136:653-5 Mr 15 '46
Nationalisation and rationalisation; supply position in South Africa. B. Price. Electrician 137:177-9 Jl 19 '46
Nationalisation of supply; set back in South Australia. Electrician 136:893-4 Ap 5 '46
New power issue; A.P.&L. co. proposal to build electric plant at site of army dam. Bsns W p26 Ag 24 '46
Offer of Omaha P.P.D. to buy Nebraska power accepted. Elec World 126:121 S 28 '46
Opposition to nationalisation; I.M.E.A. manifesto. Electrician 136:398 F 15 '46
Public power agencies not affected by budget cut. Elec World News ed 125:3-4 Ja 26 '46
Public vs. private power. Bsns W p15-17 Mr 16 '46
SEC reluctant to take part in public vs. private power. Elec World 125:68 Ap 27 '46
Should government-owned utilities be taxed? TVA and REA coöperatives. B. C. McCabe. Pub Util 37:333-42 Mr 14 '46
Significance of public ownership of utilities. J. A. Whitlow. Pub Util 38:149-56, 218-25 Ag 1-15 '46
What happens when taxpaying utilities are taken over by public power. K. M. Robinson. Edison Elec Inst Bul 13:309-14 N '45

See also
Electric utilities—Municipal ownership
Hydroelectric plants—Government ownership
Ontario—Hydroelectric power commission
Public utility districts

Law

Electricity law and the sales engineer; abstract. J. P. Crowther. Electrician 137:861-2 S 27 '46

Management

Best ways to sell best lighting; Electrical world report. F. R. Innes. Elec World 126: 91-106 S 28 '46
Blackpool undertaking. il Elec R (Lond) 138: 951-4 Je 21 '46; Electrician 136:1651-3 Je 21 '46
Central Maine power defines post-war load-building policies. Elec World 125:76-8 Je 22 '46
Distribution staff duties summarized. Elec World 124:102+ N 24 '45
District representative plan. J. R. Gardner. Edison Elec Inst Bul 14:149-52 My '46
Electricity supply management; abstracts. J. Eccles. Elec R (Lond) 138:1000-2 Je 28 '46; Electrician 136:1731-4 Je 28 '46; Discussion. Elec R (Lond) 139:11-12 Jl 5 '46; Electrician 137:29-31 Jl 5 '46
Electricity supply organisation. G. V. Harrap. Elec R (Lond) 138:97-8 Ja 18 '46
Intensive selling is a must; abstract. G. W. Ousler. Elec World 125:72 Je 8 '46
Operating economics; administrative services; sessions at annual meeting of Pacific coast electrical association. Elec West 97: 84-8 Jl '46
Organization of the distribution department of a large electricity supply undertaking. A. Haddock. Inst E E J 93 pt 1:133-7 Mr '46
Planned promotion sells planned street lighting; Duquesne light co. L. H. Lingenmann and F. B. Mahon. il Elec World 124:112-14 D 8 '45
Selling is the answer. C. A. Collier. Edison Elec Inst Bul 13:341-3 D '45
Trend prediction important in planning. H. P. Seelye. diags Elec World 125:79-81 Je 22 '46
Turning on the electrical switches of peace. F. McQuillin. il Edison Elec Inst Bul 13: 345-53 D '45

Municipal ownership

Electricity supply management; abstracts. J. Eccles. Elec R (Lond) 138:1000-2 Je 28 '46; Electrician 136:1731-4 Je 28 '46; Discussion. Elec R (Lond) 139:11-12 Jl 5 '46; Electrician 137:29-31 Jl 5 '46
Municipal plant threat. F. X. Welch. Pub Util 37:759-73 Je 6 '46
Nonprofit subterfuge for acquiring public utilities. D. B. Van Dusen. Pub Util 37:135-48, 201-12, 282-8 Ja 31-F 28 '46

Non-profit corporations

FPC renounces authority over power company acquired by nonprofit corporation; Nebraska power company. Pub Util 37:455-6 Mr 28 '46
Myers, catalyst; Seattle utility broker. Bsns W p68+ F 23 '46
Nonprofit subterfuge for acquiring public utilities. D. B. Van Dusen. Pub Util 37:135-48, 201-12, 282-8 Ja 31-F 28 '46

Officials

Leaders in a new era of electric service. J. P. Callahan. Pub Util 37:14-22 Ja 3 '46

Public relations

Electricity out of coal! utilities should tell how electricity actually is produced. G. Kerr. Pub Util 37:412-14 Mr 28 '46

ELECTRIC utilities—Public relations—*Cont.*
Grass roots public relations. E. Fleischmann. Pub Util 37:550-5 Ap 25 '46
Kisses for all Cinderellas. A. B. Collins. Edison Elec Inst Bul 14:33-5 F '46
Public relations and selling confront utility companies; abstract. M. Taylor; C. A. Collier. Pub Util 37:180-4 Ja 31 '46
Utility advertising men urged to keep public relations in mind. T. Crosby. Pub Util 38: 113-16 Jl 18 '46
Who's lobbying for what and how successful is it? Pub Util 37:784-6 Je 6 '46
Your friends are on your pay roll. A. M. Cooper. Elec West 96:55-6 My '46

Radio communication

Cost of FM radio phone units. Elec World 126:92 Ag 17 '46
Experience with emergency FM radio communication; Union electric company of Missouri. J. P. Woodward and W. R. McMillan. Edison Elec Inst Bul 14:83-4 Mr '46; Same. il Gas Age 97:22-4 My 16 '46
New rules permit use of mobile radio service in utility operation and maintenance. E. D. Glatzel. Edison Elec Inst Bul 14: 299-301 S '46
Two-way radio for power line crews; West Penn power company. il Electronics 19:123 N '46

Rates

See Electric rates

Records

Adequate customer records an aid to sales management. F. M. Geddes. Elec World 124:68-9 D 22 '45
Customers' billing in an electric utility. J. D. Elliott. Edison Elec Inst Bul 13:354-6+ D '45
Inspection cards. F. G. Marshall. Elec R (Lond) 138:463 Mr 22 '46
Market analysis card for industrial survey. A. D Spillman. Elec World 125:184 Ja 19 '46
Meter laboratory records. S. A. Daines. Elec R (Lond) 138:487-8 Mr 29 '46
Method for cataloging construction materials. H. A. Frazier. il Elec World 125:168 Ja 19 '46
Reporting application loads connected. A. D. Spillman. Elec World 125:130 Mr 16 '46
Three ways to speed up chart reading and folding. A. Payne. il Elec World 125:124 F 16 '46

Regulation

Conflicting federal utility control laws criticized. Elec World News ed 125:3 F 9 '46
Federal control of power project not to be fettered by state laws. Pub Util 37:719 My 23 '46
Fundamental legislation for electricity supply to consumers. W. Fennell. Inst E E J pt 1:300-9; Discussion. 309-16 Jl '46
Regulatory outlook under Supreme court rulings. J. E. Benton. Pub Util 37:743-53 Je 6 '46
Utility dilemma. Bsns W p106-7 Ja 12 '46
Utility has duty to supply power to picketed homes; Long Island lighting co. must furnish service to building project on which utility employees refuse to work because of strike. Elec World News ed 125:7 Ja 12 '46

Safety measures

Alter rod driver to prevent accidents. diags Elec World 126:94 Jl 6 '46
Making utility derrick use safer. Elec World 124:158+ N 10 '45
Out of the accident cellar; Missouri power & light company. H. Bruegging. il Nat Safety N 53:36-7+ Ja '46; Same cond. Elec World 125:88-9 F 16 '46
Safer right-of-way working methods. Elec World 125:94 Ja 5 '46
What safety begets. T. W. Trice. Edison Elec Inst Bul 14:77-8+ Mr '46

See also
Linemen's equipment

Salesmen

E.E.I. sales training course. J. H. Ronayne. Edison Elec Inst Bul 14:265-8+ Ag '46
Electrical industry out for consumer's dollar; sales training program borrows from Army's experiences in education. J. H. Ronayne. Pub Util 37:811-17 Je 20 '46
Freshen up on salesmanship; Utah power & light co. is aiding dealers, distributors and salesmen. Elec West 96:94-5 Je '46
Steps in the planning of a rural sales department. J. D. Howard. Elec World 126:65-7 O 26 '46

Securities

Common stock financing for plant additions revived. O. Ely. Pub Util 38:102-3 Jl 18 '46
Highest refunding year, 1945; with tabulated data, 1931-1945. Elec World 125:134 Ja 19 '46
Low-priced utilities reappraised; with statistical data on leading utility holding companies. E. A. Barnes. il Mag of Wall St 77:203-5+ N 24 '45
Price-earnings ratios for 26 utility companies' stocks; based on earnings adjusted for estimated tax savings under new law. Pub Util 37:501-2 Ap 11 '46
Revenue bond financing; abstract. S. B. Robinson. Elec World News ed 125:5 My 18 '46
Two new utility operating company stocks; Scranton Electric and Public service company of New Hampshire. O. Ely. Pub Util 37:697-9 My 23 '46

Service

How a service bureau centralizes customer calls. A. F. Augustine. Elec World 126.118 S 14 '46
Kitchen planning promotion at Hartford. Elec World 126:90+ Ag 31 '46
New service supplies know-how; Northwest research advisory service. L. V. Ross. Elec West 97:92-3 S '46
Post-war home service building. E. Fisher. Elec World 125:110+ Ja 5 '46
Self-correction by industry; presenting power factor studies to customers. D. K. Grandey. Elec West 96:57-9 My '46
Service check lists for commercial customers. Elec World 126:112 Ag 17 '46
Servicing electrical appliances. R. L. White. Edison Elec Inst Bul 14:255-6 Jl '46; Abstract. Elec World 125:73 Je 8 '46

See also
Electric service, Rural

Service companies

See also
American public power association

Statistics

Annual statistical issue. Elec World 125:107-38 Ja 19 '46

Taxation

Commission attitude on removal of excess profits tax; possibilities for rate reductions. R. N. Larkin. Elec World 126:98 S 14 '46
Meters and the Stamp act. Electrician 137: 308 Ag 2 '46
Should government-owned utilities be taxed? TVA and REA coöperatives. B. C. McCabe. Pub Util 37:333-42 Mr 14 '46
What happens when taxpaying utilities are taken over by public power. K. M. Robinson. Edison Elec Inst Bul 13:309-14 N '45

Valuation

Reproduction cost rejected as a measure of value for sale to coöperative. Pub Util 38: 635-6 N 7 '46

War problems

Electric power plants protected during war. Power 89:872a-872b D '45
For security in war more reserve capacity needed; Industrial college of armed forces conducts seminar. Elec World 125:101 My 25 '46

War service

Army and navy honor utilities for war-time services; list. Edison Elec Inst Bul 14:130-2 My '46
Case history of utility service during the war; activities of Cities service company. Pub Util 38:562-4 O 24 '46
Ever ready for any emergency, were the utility men. O. W. Griswold. Edison Elec Inst Bul 14:129-30 My '46

ELECTRIC utilities—War service—*Continued*
Navy continues honoring utilities for wartime services; Detroit Edison, New England, and Middle Atlantic companies get scrolls. Elec World News ed 125:7 Ap 20 '46

Arizona

Arizona bodies struggle to control state's power. Elec World 124:93 N 24 '45
Commission divides territory between public utility companies; Arizona Edison vs. California Electric. Pub Util 36:802 D 6 '45

Australia

Nationalisation of supply; set back in South Australia. Electrician 136:893-4 Ap 5 '46

France

French supply nationalised. Electrician 136: 947 Ap 12 '46

Georgia

For an electrified Georgia; friendly relationships between Georgia power company and REA cooperatives. W. E. Mitchell. Pub Util 38:135-7 Ag 1 '46
Georgia Power to spend $47,000,000 in three years. Manuf Rec 115:59+ O '46

Great Britain

Clyde Valley electrical power company, annual general meeting. Economist 150:555 Ap 6 '46
Edmundsons electricity corporation, limited, ordinary general meeting, 49th, London. Economist 150:1067 Je 29 '46
Edmundsons electricity corporation; no case for nationalisation. T. Royden. Electrician 136:1766-70 Je 28 '46
Electricity statistics. Electrician 135:563 N 23 '45
Fundamental legislation for electricity supply to consumers. W. Fennell. Inst E E J 93 pt 1:300-9 Jl '46; Abstract. Electrician 136:418 F 15 '46; Discussions. 136:418-20 F 15 '46; Inst E E J 93 pt 1:309-16 Jl '46
Future of electricity supply. Elec R (Lond) 138:977 Je 21 '46; Electrician 136:1677 Je 21 '46
London associated electricity undertakings, limited; ordinary general meeting, London. Economist 150:509 Mr 30 '46
Midland counties electric supply company, limited; ordinary general meeting, London. W. Shearer. Economist 150:612 Ap 13 '46
Nationalisation and its alternative. Electrician 136:653-5 Mr 15 '46
Northmet power company; County of London electric supply company, limited; ordinary general meetings. Economist 150:472-3 Mr 23 '46
Opposition to nationalisation; I.M.E.A. manifesto. Electrician 136:398 F 15 '46
Scottish power company, limited; ordinary general meeting, Edinburgh. Economist 150: 655 Ap 20 '46
Supply authorities and consumers. Electrician 135:663-4 D 14 '45

See also
Electricity supply—
Great Britain

Japan

Japan's two-bit power outfit. R. Hellman. Pub Util 37:663-76 My 23 '46

Nebraska

Offer of Omaha P.P.D. to buy Nebraska power accepted. Elec World 126:121 S 28 '46

New Jersey

Two-year operation of the New Jersey rate plan. J. R. Foster. Pub Util 38:352-60 S 12 '46

Paterson, New Jersey

Alexander Hamilton's company sold to city of Paterson; Society for establishing useful manufactures. E. R. Abrams. Pub Util 37: 158-69 Ja 31 '46

South Africa

Electrical legislation; an example from South Africa. B. Price. Elec R (Lond) 138: 978 Je 21 '46

Texas

Texas utilities co. shows principles of integration; SEC, using Holding company act as guide, authorizes merger. map Elec World 125:151-2 Ja 19 '46

United States

Atomic energy and the utilities. J. J. O'Neill. Pub Util 37:734-42 Je 6 '46
Path ahead with a backward glance; abstract. C. W. Kellogg. Pub Util 37:307-10 F 28 '46
Planning for the near-future electric power system. M. M. Samuels. Pub Util 38:3-13, 84-93 Jl 4-18 '46
Postwar outlook for the electric utilities. H. P. Liversidge. Edison Elec Inst Bul 13: 315-18+ N '45
President's address before Edison electric institute. C. W. Kellogg. Edison Elec Inst Bul 14:183-6 Je '46; Excerpts. Elec World 125:70-1 Je 8 '46
Washington utility outlook for 1946. F. X. Welch. Pub Util 37:3-13 Ja 3 '46
Year in review. F. R. Innes. Elec World 125:140-1 Ja 19 '46

See also
Electricity supply—
United States

Virginia

How a governor stopped a threatened utility strike. W. M. Tuck. Pub Util 38:267-76 Ag 29 '46

Washington (state)

Portland utility turns over property to P.U.D. Elec World News ed 125:8 Ja 26 '46

See also Puget Sound power and light company

Western states

Electrical West annual review number. il Elec West 96:77-112 F '46

ELECTRIC vehicles
Electric vehicles association; report for 1945. Electrician 136:1526 Je 7 '46
Future of electric vehicles. W. T. Wardale. Electrician 136:1506 Je 7 '46
Invalid carriage. il Elec R (Lond) 138:468 Mr 22 '46

See also
Electric trucks, Industrial
Trolley buses

ELECTRIC washing machines. See Washing machines, Electric

ELECTRIC water coolers
Sunroc refrigeration co., inc.; engaging family business in water coolers. il Fortune 34:150-5 O '46

ELECTRIC water heaters
Domestic heating services. E. A. Pinto. Elec R (Lond) 139:269-71 Ag 16 '46
Domestic water heating. G. V. Radford. Elec R (Lond) 137:595-6 O 26 '45
Domestic water heating; combination of solid-fuel fire with electric immersion element; abstract. R. Grierson and F. Jackson. Elec R (Lond) 138:412 Mr 15 '46; Discussion. Elec R (Lond) 138:449-50 Mr 22 '46; Electrician 136:742-4 Mr 22 '46
Domestic water heating; top-entry circulators v. side-entry immersion heaters. Elec R (Lond) 138:883-4 Je 7 '46; Discussion. 139:22, 135-6 Jl 5, 26 '46
Domestic water heating; type of control; special tariffs. Electrician 136:1523 Je 7 '46
Electric water heating development; abstract. P. Honey. Electrician 136:1236 My 10 '46
Heat pump water heater shows promise; possibility of combination of water heating and refrigeration. F. M. Reed. Elec World 125:96-7 F 16 '46
Water heating in temporary houses; abstract. W. H. Shaw. Elec R (Lond) 138:412 Mr 15 '46; Discussion. 138:449-50 Mr 22 '46
Water heating on the march. W. F. Ogden. Edison Elec Inst Bul 14:165-6+ My '46

Control

Remote control by high-frequency currents. Engineering 162:163 Ag 16 '46
Supervising control system for water heaters announced. il Elec World News ed 126:22 S 7 '46

ELECTRIC water heaters—*Continued*

Merchandizing

What sells water heaters? J. H. Adams. Elec West 97:97-9 S '46

ELECTRIC waves

Deviation factor vs output of sine-wave generators. C. T. Weller. il Gen Elec R 49: 60-5 Mr '46

See also

Electric circuits
Electricity
Electronics
Harmonics (electric waves)
Lightning
Oscillations, Electric
Radio waves

ELECTRIC welders

Analysis of certification of electric arc operators for work on Navy contracts at private plants. V. M. Alexieff. il Welding J 25:344-5 Ap '46

Training

Sensible training methods. il Mech Handling 33:322-3 My '46

ELECTRIC welding

British welding industry; abstracts. Elec R (Lond) 138:576 Ap 12 '46; Electrician 136: 886 Ap 5 '46

British welding statistics. Welding J 25:652+ Jl '46

Butt welding for small tools. H. J. Chamberland. il Aero Digest 52:48-9+ Mr '46

Castings salvaged by dot-welding. il Iron Age 157:59 F 28 '46

Cooling and heating rates of plates, cylinders and spheres. V. Paschkis. bibliog diag Welding J 25:sup497-502 S '46

Design for resistance welding. I. A. Crawford. Welding J 25:927-8 O '46

Design of fixtures for projection welding; Lockheed aircraft corp. M. L. Ochieano. diags Iron Age 157:55-6 My 2 '46

Electrical technique in resistance welding. T. E. Calverley. diags Inst E E J 93 pt 1:97-8 F '46

Electrical welding. Economist 151:183-4 Ag 3 '46

L'énergie convertie en chaleur pendant le régime transitoire dans les circuits en résonnance; applications aux soudeuses électriques. D. Genkin. Génie Civil 123:235 S 1 '46

Flash welding. Mech Eng 68:742 Ag '46

Flash welding alloy-steel rings. P. B. Scharf. il Iron Age 156:50-3 Ag 16 '45; Same. diags Welding J 25:313-17 Ap '46

Flash welding is versatile. C. B. Smith. il diag Am Mach 90:94-7 Ag 29 '46

Flash welding of hard-drawn high-carbon steel wire. R. W. Bennett and R. D. Williams. il diags Welding J 25:sup658-68 O '46

40-foot 1,000,000-amp butt weld; production of large diameter pipe; A. O. Smith corp. il Steel 118:120-3+ F 4 '46

High-speed spotwelding. B. Gross. il Iron Age 157:52-5 F 21 '46

Hints for better spot welding. T. A. Beck. Sheet Metal Worker 36:88+ N '45

How to weld aluminum. il Iron Age 158:67-71 Jl 4; 53-7 Jl 11 '46

Incentive system for repair welding steel castings. W. S. Hansen. il Foundry 74:150+ O '46

Manufacturing techniques; welding and induction heating. Barron's 26:5 Mr 11 '46

Mass-production welding; manufacture of the Sten gun. il Elec R (Lond) 138:199-202 F 8 '46

Measurement and effect of contact resistance in spot welding. R. A. Wyant. bibliog il diags Elec Eng 65:Trans 26-34 Ja '46

More than 500 welds used in aircraft jet-propulsion gas turbine. il Steel 119:105+ Jl 15 '46

Poke welding of stainless steel cold storage sheathing on ocean-going vessels. R. K. Waldvogel. il Welding J 25:738-44 Ag '46

Progress in engineering knowledge during 1945; welding. P. L. Alger and others. il Gen Elec R 49:28-30 bibliog(p 64) F '46

Projection welding for short runs. R. O. Klenze. il diags Machine Design 17:101-6 N '45

Projection welding push rod. E. B. Rhodes. diags Welding J 25:842-3 S '46

Quantity production of railroad passenger cars by resistance welding. A. M. Unger. il diags Welding J 25:911-14 O '46

Resistance welding enameling stock; abstract. C. G. Bassler. Materials & Methods 23:526+ F '46

Resistance welding for sheet metal shops. H. S. Card. il Sheet Metal Worker 37:44-6+ F '46

Resistance welding of sheet metal. R. T. Gillette. il diags Heat & Ven 43:76-9 Mr '46

Resistance welding of stainless steels. J. J. Riley. il diag Am Mach 90:112-15 N 7; 108-12 N 21; 164-8 D 5 '46

Resistance welding on stainless steel aircraft engines and accessories. F. G. Harkins and W. L. Hales. il diags Welding J 25:39-46 Ja '46

Resistance welding; what it is, how it works. diags Am Mach 90:121-4 Ag 1 '46

Review of power and mechanical equipment; welding. il Power 89:906-7 Mid-D '45

Shooting Star engine is triumph for modern welding. Franklin Inst J 242:163-4 Ag '46

Some observations of spot-weld consistency in aluminum alloys. W. F. Hess and others. bibliog il Welding J 25:sup201-22 Ap '46

Spot welding accelerates tryouts for new products; Progressive welder company production of steel tables. Iron Age 157:55 Ap 11 '46

Spot welding design data. F. S. Dever. il diags Product Eng 17:105-9 N '46; Same cond. Aviation 45:66-8 O; 64-5 N '46

Spot welding in sheet metal shops. il diags Sheet Metal Worker 37:43-5+ O '46

Spot welding light metals; abstract. W. Heiz. Materials & Methods 24:448 Ag '46

Spot welding of dissimilar thicknesses of Alclad 24S-T. W. F. Hess and others. il Welding J 24:sup667-72 D '45

Summary of the spot welding of high-tensile carbon and low-alloy steels. W. D. Doty and W. J. Childs. bibliog Welding J 25: sup624-30 O '46

This is resistance welding, new General Electric motion picture. il Mach 52:182-3 Je '46

Vering portable spot welder aids small manufacturer. il Iron Age 157:64 My 9 '46

Welding automobile bodies at Kaiser-Frazer's Willow Run plant. C. H. Wick. il diag Mach 53:170-5 N '46

Welding galvanized steel. E. F. Pellowe and F. F. Pollak. diags Iron Age 156:64-5 N 15 '45

Welding of nickel-alloy steels. T. N. Armstrong. Iron Age 157:56-8 F 14 '46

Welding progress. H. E. Linsley. il Iron Age 157:136-8+ Ja 3 '46

Welding techniques used in I-40 gas turbine. Aeronautical Eng R 5:109-10 Je '46

Well-planned tooling makes sound flash welds. C. B. Smith. il diags Am Mach 90: 127-30 S 12; 114-16 S 26 '46

Yield point and ductility decisive in nonferrous flash-butt welding; abstract. I. A. Oehler. Steel 118:147 My 20 '46

Control

Application of capacitor discharge to welding. H. J. Bichsel and J. R. Parsons. il diags Welding J 24:1035-9+ N '45; Discussion. 25:144-5 F '46

High speed welder control. il Steel 118:118+ F 4 '46; Same cond. Am Mach 90:156 F 14 '46

Photoelectric controlled welding; Pullman-Standard car mfg. co. il Steel 119:72 S 30 '46

Power supply

Alternating and direct current welding. L. Cline. Welding J 25:51-2 Ja '46

Application of series capacitors to flash welders. J. F. Deffenbaugh. il diags Elec Eng 65:Trans 686-9 O '46

Capacitor charging rectifier. H. J. Bichsel. diag Electronics 19:123-5 Ja '46

Characteristics of resistance welding transformers. F. E. Murray and R. C. Jones. diags Elec Eng 65.Trans 726-8 N '46

Current-force recording in resistance welding. J. M. Popp. il diags Electronics 19:166+ Ag '46

Design and measurements of capacitor discharge welding transformers. T. W. Dietz and G. M. Stein. il Elec Eng 65:Trans 154-9 Mr '46

ELECTRIC welding—Power supply—*Continued*
Investigation of current wave-form for spot welding Alclad 24S-T, 0.020 in. in thickness. W. F. Hess and others. il Welding J 25:sup20-9 Ja '46
Investigation of the spot welding of aluminum alloys using magnetic energy storage equipment provided by the Sciaky brothers. W. F. Hess and others. diags Welding J 24:sup629-43 D '45
110-volt welder. il Steel 118:150 My 6 '46
Power for welding. L. W. Clark. il Welding J 24:811-17 S '45; Discussion. 25:47-9 Ja '46
Raytheon miniature weld power unit. il Welding J 25:484+ My '46
Resistance welders and the electricity supply industry. R. B. Giles. diags Inst E E J 92 pt 2:513-21 D '45
Resistance welding with storage-battery power. J. D. Gordon. il Mach 52:167-70 Ag '46; Same cond, with diag. Mech Eng 68:797-801 S '46
Single phase load from 3-phase supply. C. O. von Dannenberg. diags Power Pl Eng 50: 93-4 F '46
Synchronous motor welder. il diags Machine Design 18:154-5 S '46
Three-phase distribution and electric welding and furnace loads. A. L. Morris. diags Inst E E J 93 pt 2:341-8; Discussion. 348-52 Ag '46; Electrician 136:738-40 Mr 22 '46; Elec R (Lond) 138:448-9 Mr 22 '46

See also
Electric welding, Arc—Power supply

Standards

Proposed tentative standards and recommended practices for automotive flash-butt welding. diags Welding J 24:1166-76 D '45

Subaqueous welding

See also Electric welding, Arc—Subaqueous welding

Testing

Effect of three variables in spot-welding. H. Van Sciver. il Metal Prog 48:1292-5 D '45
Fatigue behavior in reverse bending of welded sheet steel. R. L'Hermite and D. Seferian. il diags Welding J 25:sup512-17 S '46
Fatigue properties of flash welds. H. J. Grover and others. il diags Welding J 24: sup599-617 N '45
Flash welding of Alclad 24S-T alloy in the 0.064-in. thickness. W. F. Hess and F. J. Winsor. il Welding J 25:sup9-20 Ja '46
Interpretation of radiographs of spot welds in Alclad 24S-T and 75S-T aluminum alloys. R. C. McMaster and F. C. Lindvall. bibliog il Welding J 25:707-23 Ag '46; Abstract. Steel 119:104-7 O 14 '46
Investigation of electrode pressure-cycles and current wave-forms for spot welding Alclad 24S-T. W. F. Hess and others. bibliog il diags Welding J 25:sup148-62 Mr '46
Investigation of the effect of spot welding on the sheet efficiency of aluminum alloy 24S-T. W. F. Hess and others. il diags Welding J 25:sup288-306, sup361-75 My, Jl '46
Investigation of the fatigue strength of spot welds in the aluminum alloy Alclad 24S-T. W. F. Hess and others. bibliog il Welding J 25:sup344-58 Je '46
Progress report on the spot welding of high-tensile carbon and low-alloy steels. W. F. Hess and others. bibliog il Welding J 25: sup503-12 S '46
Radiography of spot welds in light alloy and ferrous sheet materials. R. C. McMaster and F. C. Lindvall. il Welding J 25:851-60 S '46
Resistance-seam-welded sacks used as hydraulic presses; for testing welds of dissimilar metals; other uses. R. T. Gillette. il diags Gen Elec R 49:7-10 Jl '46; Same. Welding J 25:847-50 S '46
Selecting spot-welding schedules for low-carbon steel. J. Heuschkel. bibliog il diags Welding J 25:sup700-28 O '46
Spot weld strengths and structures of 75ST Alclad aluminum alloy. M. L. Ochieano. il diags Product Eng 17:102-5 S '46
Spot welding of heavier gages of aluminum alloy; instruments for rapid measurement of current and tip force. R. C. McMaster and N. A. Begovich. il diags Welding J 24:sup644-52 D '45
Spot welding of multiple thicknesses of 0.040-in. Alclad 24 S-T. W. F. Hess and others. il diags Welding J 25:sup413-24 Jl '46
Spot welding of NE 8715, NE 8630 and SAE 4340 in the 0.062-in. thickness. W. F. Hess and others. bibliog il Welding J 25:sup123-8 F '46
Spot welding of ten aluminum alloys in the 0.040-inch gage including XB75S-T (bare and Alclad), R-301-T, Alclad 24S-T81, 24S-T (bare and Alclad), 3S-½H, 14S-T, 52S-½H, and 61S-T. W. F. Hess and others. bibliog il diags Welding J 25:sup467-84 Ag '46
Spot welding of wire-brushed 24S-T Alclad aluminum alloy sheets in thicknesses from 0.081 to 0.125 in., inclusive. Welding J 24: sup652-67 D '45
Straining of weld metal during cooling. E. P. DeGarmo. il diags Iron Age 156:48-50 D 20 '45
Strength of spot welds in lead, lead alloys and terne plate. J. Heuschkel. il Product Eng 16:872-6 D '45
Tension tests of single-row spot-welded joints in 24S-T Alclad aluminum alloy sheet. R. Della-Vedowa. il diags Welding J 25:sup 115-22 F '46; Discussion. A. R. Hard. 25: sup339+ Je '46
Variation in quality of spot welds in low-carbon steel over a range of welding variables. J. J. Riley. il Welding J 25:833-42 S '46

Unionmelt process

Automatic welding action. il Steel 117:122 D 17 '45
Automatic welding process increases production threefold; production of strainers for well pumps. il Mach 52:184-5 F '46
Effect of weld length upon the residual stresses of unrestrained butt welds. E. P. DeGarmo and others. diags Welding J 25: sup485-7 Ag '46
High quality tank manufacture. W. P. Hindman. il diags Mach 52:135-42 Ja '46
Redistribution of residual welding stresses by tensile loading along a Unionmelt weld joining two 3-ft. x 12-ft. x 1-in. plates. J. L. Meriam and others. il diags Welding J 25:sup697-9 O '46; Discussion. 26:sup 191-2 Mr '47
Straining of weld metal during cooling. E. P. DeGarmo. il diags Iron Age 156:48-50 D 20 '45
Worn parts built up by automatic welding. il Iron Age 157:73 Mr 14 '46

ELECTRIC welding, Arc
A.c. arc welding; abstract. Materials & Methods 23:810 Mr '46
Alco all-welded boilers; welding, stress-relieving and inspection equipment, American locomotive co., Schenectady plant. il Ry Mech Eng 120:339-43 Jl '46
Arc strike welder. il Welding J 25:894 S '46
Arc welded steel has double strength; Saginaw arc welded wheel. il Automotive & Aviation Ind 94:62 Je 1 '46
Arc welding assembles the Elliott gas turbine. il diag Am Mach 90:110-12 Ja 3 '46
Arc welding permits field repairs on corroded pressure vessel. F. G. Clark. il Nat Pet N 37 pt 2:R995-6 D 5 '45
Arc welding pure aluminum; abstract. F. H. Keating. Materials & Methods 22:1836+ D '45
Arcwelding trends in wartime Germany. F. W. Myers, jr. il Iron Age 157:56-60 F 7; 54-8 Mr 21; 46-50 Ap 25 '46
Atomic bomb development was hastened by welding; manufacture of tanks. A. F. Davis. il diag Welding J 25:118-19 F '46; Same cond. Materials & Methods 23:193 Ja '46
Automatic stud welding. il diags Steel 119: 158+ N 11 '46
Automatic welding in steel plant maintenance; abstract. H. E. Holman. Steel 119: 132+ O 14 '46
Automatic welding process; boiler and tank fabrication. R. H. Newton. il diag Steel 119:108+ S 16 '46

ELECTRIC welding, Arc—*Continued*
Bellcrank production boosted by switching weld location. il Aviation 44:197 D '45
Carbon-arc welding for high-strength design; aluminum alloys. diags Iron Age 157:54 My 2 '46
Cast-iron welding. il Elec R (Lond) 138:599-603 Ap 19 '46
Cement kiln trunnion roll repaired by arc welding; with cost data. il Concrete 54:86 Ag '46
Cement plant repairs heavy castings. il diag Rock Prod 48:69+ O '45
Changeover of a band saw to welded design. J. R. Morrill. il diags Welding J 25:543-5 Je '46
Construction of a welded crane. il Mech Handling 33:389 Je '46
Construction of 100 all-welded cabooses signifies trend to shielded arc methods. A. T. Cox, jr. il Welding J 25:650-1 Jl '46
Conversion of a portable crane to welded design. F. W. Kessler. il diags Welding J 25:242-5 Mr '46
Corrosion tests of multi-arc welded high-strength aluminum alloys. L. W. Smith. bibliog il diag Electrochem Soc Trans 89 (preprint 28):343-63 '46
Crack sensitivity of chromium-nickel stainless weld metal. R. D. Thomas, jr. il Metal Prog 50:474-9 S '46
Current procedures in pipe line welding. A. F. Davis. il Pet Eng 17:177-8 Mr '46
Efficient arc welding by means of proper procedures. W. J. Conley. il diags Welding J 25:131-41 F '46
Electric welding built a wartime refinery; Tuttwiler plant at Lake Charles, La. E. G. Woolman. il diags Nat Pet N 38 pt 2: R351-2+ My 1 '46
Fall-away jig cuts welding time; beet loader frames, Lindeman power equipment company. H. B. Fairbanks and G. L. Revell. il Am Mach 90:112-13 My 9 '46
Fish eyes in arc welds. J. B. Arthur. il Iron Age 157:52-3 My 16 '46
Floating aluminum bridges welded by carbon arc process. W. J. Conley. il Civil Eng 15: 561-2 D '45; Same. Materials & Methods 22:1423-5 N '45
Fusion welding of sheet metal; construction of amphibious truck, DUKW. J. M. Diebold. il diags Welding J 25:724-32 Ag '46
Gantry aids welded tank production. il diags Iron Age 158:70-1 S 12 '46
Grate bars can be repaired by welding. N. E. Smith. il Heat & Ven 43:83 My '46
High speed production of automobile generator frames by automatic metallic arc welding. W. B. Horton. il Automotive & Aviation Ind 94:27+ Je 15 '46
Hinges fabricated by welding. C. H. Buckmaster. il diag Iron Age 157:64 F 21 '46
How to weld aluminum. il Iron Age 157:60-4 Je 27 '46
How to weld with small welders. A. H. Hemker. il Power Pl Eng 50:96-7 O '46
Important elements of sheet metal welding. O. T. Barnett. diags Steel 118:86-7+ Je 10 '46
Improvements in manual arc welding. W. J. Conley. Metal Prog 49:103 Ja '46
Industrial group using arc welding; Wyoming iron works. il Sheet Metal Worker 37:74+ Je '46
Lead welding with a carbon arc. S. C. Cairns. il Materials & Methods 23:775 Mr '46
Locomotive radiator headers; automatic metallic arc welding; Young radiator co. F. C. Archer. il diag Steel 118:139+ My 6 '46
Maintenance and repair of oil pipe lines. O. Wildman. Welding J 24:1019-21 N '45; Discussion. 25:46-7 Ja '46
Personalized service in welding engineering pays dividends at Lincoln Electric. A. F. Davis. il Ind Marketing 31:32-3+ Ja '46
Pressure vessels made with welded nickel alloy linings. T. H. Menaugh. il diags Materials & Methods 23:1289-92 My '46
Principle of automatic shielded arc welding. R. H. Davies. il Elec World 125:114 My 11 '46
Procedure for making a welded die. J. Mikulak. il Materials & Methods 22:1466 N '45
Procedures for arc welding gray iron castings. C. E. Phillips. il diags Welding J 25: 547-8 Je '46; Same. Foundry 74:140+ Ag '46; Excerpts. Materials & Methods 24:150 Jl '46
Procedures in aluminum welding. diags Aero Digest 51.60-1 D 15 '45
Rebuilding locomotive wheels by automatic shielded arc methods; Pittsburgh coal co. L. K. Stringham. il Welding J 25:336-9 Ap '46
Reclaiming locomotive parts by welding; Locomotive maintenance officers' association report. Ry Mech Eng 120:529-32 O '46
Repair of gears, pinions and augers by electric welding. J. B. Edwards. Brick & Clay Rec 107:54 N '45
Scrap-handling magnet improved through welded design. il diags Steel 118:134+ F 4 '46
Search for gas and oil is aided by welded equipment. il Pet Eng 17:138+ Je '46
Simplifying construction by automatic stud welding. il Iron Age 157:65-7 Je 27 '46
Ten things to watch in making a sound arc weld; illustrated instructions. Am Mach 90:102-3 Mr 14 '46
Tool and die welding. A. R. Butler and F. E. Kessler. il Welding J 25:953-61 O '46
Use of direct transformation data in determining preheat and postheat requirements for arc welding deep hardening steels and weld deposits. L. F. Bowne, jr. bibliog il Welding J 25:sup234-41 Ap '46
War-born advancements in welding have vital peacetime role. A. F. Davis. il Sheet Metal Worker 37:101-2 Ja '46
War-proved advances in low-reactance cable for welding. M. Zucker. diags Welding J 24:1022-6 N '45
Welded gas turbine rotors. J. F. Cunningham, jr. il diags Welding J 25:237-41 Mr '46
Welded pipe bends. il Engineer 182:120 Ag 9 '46
Welded redesign brings marked improvements to electric meat saw machine. J. S. McKeighan. il Welding J 25:53-4+ Ja '46
Welding a 500 hp. Diesel engine. L. Berner. il diags Welding J 25:319-27 Ap '46
Welding cuts product costs; Woodbury sheet metal works. il Sheet Metal Worker 37:43 Ag '46
Welding in a concrete products plant. il Concrete 54:14+ Je '46
Welding in airline practice. J. R. Morrill. il Aero Digest 53:55 S '46
Welding mild steel. H. O. Westendarp, jr. Steel 117:94-5+ N 26 '45
Welding of combat vehicles. L. M. Dalcher. il diags Welding J 24:1046-51 N '45
Welding of electric apparatus. E. F. Potter. il diag Welding J 25:942-5 O '46
Welding of magnesium; argon method. L. F. Pearsall. diag Welding J 25:549 Je '46
Welding of nickel-alloy steels. T. N. Armstrong. bibliog diags Iron Age 157:36-41 Ja 24; 49-55 Ja 31; 69-76 F 7 '46
Welding of 3½% Ni-0.40% carbon class An steel forgings; repairing damaged propeller shafting. B. Ronay. il diags Welding J 25: 495-503 Je '46
Welding the industry to the farm. T. L. Van Law. il Elec West 97:62-3 Jl '46
Wheel-type welding jigs. il Ry Mech Eng 120: 16-17 Ja '46

Cost

Determination of labor costs in electric arc welding. J. L. Cahill. Welding J 24:1060-2 N '45
Economics of arc welding. W. J. Brooking. il diags Welding J 24:1027-33 N '45; Same cond. Steel 118:80-1+ Ja 21; 124-6+ Ja 28 '46; Discussion. Welding J 25:130 F '46
Welded foundry equipment; follow boards; comparative cost data. il Steel 119:136+ Ag 5 '46

Electrodes

Applications of lime ferritic electrodes. O. T. Barnett. il diag Steel 119:96-7+, 80-4+ Ag 19-26 '46
Binding agents for flux coatings, their composition and production. W. Andrews. bibliog Welding J 24:1147-54 D '45
Cast iron welding rod; Ni-Rod electrode. il Bus Transportation 25:187-8 Jl '46; Iron Age 157:68 Je 20 '46; Diesel Power 24: 970+ Ag '46; Steel 119:128 S 9 '46

ELECTRIC welding, Arc—Electrodes—*Cont.*
Comparable arc welding electrodes for steel; 2 fold tables. Iron Age 157:139-40 Ja 3 '46
Contact arc welding. P. C. van der Willigen. bibliog il diags Welding J 25:sup313-20 My '46
Discussion of the two E6013 welding electrode types. O. T. Barnett. il Steel 118: 122-3+ Mr 4 '46
E601X electrode group. O. T. Barnett. il Welding J 25 962-8 O '46
Effects of moisture in electrode coatings. J. B. Arthur. Iron Age 158:58 S 19 '46
Electrodes for welding chromium-molybdenum steel. D. L. Mathias and G. M. Leigh. bibliog il Welding J 25:399-405 My '46
Extruded coating for self-hardening electrodes. Blast F & Steel Pl 34:1174 S '46
Extruding powdered metals to form synthetic welding wire. F. G. Daveler. diags Materials & Methods 23:1317-20 My '46
German welding rod manufacture. C. G. Merritt. Iron Age 157:66-70 Je 6 '46
How to select wear-resisting alloys for welding. J. A. Cunningham. il diags Welding J 25:915-20 O '46
Improved electrodes for hard-facing announced by Lincoln Electric. Mech Eng 68:sup37 Mr '46; Same. Welding J 25:274 Mr '46
Investigation of arc starting characteristics of d-c welders with reference to electrode freezing. J. M. Tyrner. il diag Elec Eng 65:Trans 97-9 Mr '46; Same. Welding J 25: 437-9 My '46
Manufacture of welding electrodes; International nickel co. il Mach 52:152-5 Ap '46
Measuring eccentricity of welding electrode coatings. H. P. Zade. il diags Iron Age 157:46-9 Ap 11 '46
Metal and thermit corporation high-tensile electrode. Welding J 25:272 Mr '46
Metal & thermit corporation new high tensile electrodes. Blast F & Steel Pl 34:285 F '46
Moisture on welding rods; abstract. H. Stager and F. Held. Materials & Methods 23:1664 Je '46
New rod permits machinable cast iron welds. il Iron Age 156:122 N 15 '45
Preliminary investigation of the constitution of mild-steel arc-weld deposits. H. A. Sloman and others. il Welding J 25:sup39-52 Ja '46; Same cond. Engineering 160:197, 217-20, 238-9 S 7-21 '45
Reduction of residual welding stresses by the use of austenitic electrode. F. Jonassen and others. diags Welding J 25:sup489-91 S '46
Shielded-arc electrodes handle hard-facing jobs. Am Mach 90:158 F 28 '46
Three coatings for stainless steel welding electrodes. O. T. Barnett. diags Steel 118: 98-100+ Mr 25 '46
Welding of hardenable steels with high-alloy (austenitic) electrodes. S. A. Herres and A. M. Turkalo. il diags Welding J 25: sup669-96 bibliog(sup686, 696) O '46
Welding of high-strength constructional steels with ferritic electrodes. S. A. Herres and P. E. Woodward. bibliog il diags Welding J 25:sup646-58 O '46

Failure

Factors affecting weld cracking and how to overcome such conditions. L. K. Stringham. il Welding J 25:440-1 My '46

Gas formation

Water-gas reaction applied to welding-arc atmospheres. M. W. Mallett. bibliog Welding J 25:sup396-9 Jl '46

Heliarc process

Heliarc welding, a newly developed arcwelding process. H. T. Herbst. il diag Mach 53:166-71 S '46
Heliarc welding process as applied in the aircraft industry. T. E. Piper. il Welding J 24:903-6 O '45; Discussion. 25:32 Ja '46
Heliarc welding technique. il diag Aero Digest 53:54+ O '46
Helium-shielded arc. il Sci Am 175:29 Jl '46 5+ Ap; 31-40 My; 30-40 Jl '46
See also
Electric welding, Arc—Inert gas shielding

Hydrogen process

Atomic hydrogen welding in aviation. F. S. Dever. il Welding J 25:309-12 Ap '46
Shooting star engine is triumph for modern welding. J. G. Shaw, jr. il Welding J 25: 529-30 Je '46
Weldability factors for 18-8 stainless. F. H. Page, jr. Iron Age 156:58-61 D 27 '45

Hygienic aspects

Electric arc welding ventilation and its relation to oxygen deficiency. F. J. Viles, jr. and L. Silverman. bibliog J Ind Hygiene 27:289-91 D '45
Engineering control of welding exposures. B. F. Postman. il diags Heat & Ven 43:82-8 Ap '46
Nitrogen dioxide; rate of oxidation of nitric oxide and its bearing on the nitrogen dioxide content of electric arc fumes. H. B. Elkins. bibliog J Ind Hygiene 28:37-9 Mr '46
Welding and the parathyroids; abstract. J Ind Hygiene 28:sup12 Ja '46

Inert gas shielding

Gas-shielded arc welding of aluminum; use of atomic hydrogen, helium and argon. A. F. Leach. il diags Welding J 24:1129-34 D '45
Inert-arc welding; uses helium or argon; application to aluminum, magnesium, and stainless steel. R. F. Wyer. il Iron Age 158:57-8 O 31 '46

Power supply

Arc-welding generators; abstract. J. C. Macfarlane and others. Elec R (Lond) 138:695 My 3 '46; Discussion. 138:745-6 My 10 '46; Electrician 136:1248-50 My 10 '46
Capacitor stabilization of arc-welding transformers. J. H. Blankenbuehler and R. V. Lester. diags Elec Eng 65:Trans 54-5 F '46
Limited-imput arc welders. E. Steinert. il Welding J 25:844-7 S '46
Lincoln shield-arc generator driven by 2-cycle Diesel engine. il Am Mach 90:158 F 14 '46
Power supply for a.c. welders. il Electrician 136:339-40 F 8 '46

Safety measures

General Electric safety-type electrode holder. diag Electrician 137:865 S 27 '46
Handle with gloves; arc welding electrode holder, source of danger. il Safety Eng 91: 18 F '46
Safety in arc welding; electrode holder. il Engineer 181:159 F 15 '46

Standards

Electric arc-welding standards. Steel 117:75-6 D 31 '45
N.E.M.A. electric arc-welding machine and electrode standards. Welding J 25:317-18 Ap '46
Tentative standard specifications for field welding of steel water pipe joints. Am Water Works Assn J 38:391-400 Mr '46

Subaqueous welding

Underwater cutting and welding. C. Kandel. il Welding J 25:209-12 Mr '46
Underwater cutting and welding speeded and simplified by electric arc processes. C. Kandel. il Eng N 136:484-7 Ap 4 '46
Underwater welding to be useful in repairing damaged ships, underwater pipe, tanks and other installations. J. R. Morrill. il Steel 117:112-13+ D 3 '45
Welding under water. Elec R (Lond) 138:894 Je 7 '46

Testing

Arc welded steel joints; abstract. H. Cornelius and F. Bollenrath. Materials & Methods 22:1818 D '45
Effect of certain block and other special welding procedures on residual welding stresses. F. Jonassen and others. diags Welding J 25:sup492-6 S '46
Effect of metallurgical changes due to welding upon the fatigue strength of carbon-steel plates. W. M. Wilson and others. il Welding J 25:sup425-50 Ag '46
Effect of periods of rest on the fatigue strength of welded joints. diags Welding J 25:sup518-21 S '46

ELECTRIC welding, Arc—Testing—*Continued*
Impact strength of arc-welded joints in aircraft steel. H. O. Klinke. il Welding J 23:sup633-4 D '44; Same. Aero Digest 52: 82-3 Je '46
Inspection handbook for manual metal-arc welding. il diags Welding J 25:410-36 My '46
Investigation of arc starting characteristics of d-c welders with reference to electrode freezing. J. M. Tyrner. il diag Elec Eng 65:Trans 97-9 Mr '46; Same. Welding J 25: 437-9 My '46
Investigation of the weldability of copper-bearing steels. N. H. Keyser and C. H. Lorig. bibliog diags Welding J 25:sup597-611 O '46
Model tests of weld reinforcements for the hatch corners of welded ships. G. L. Smith. il diags Welding J 24:sup257-67, sup321-30; 25:sup163-70 My-Je '45, Mr '46
Quantitative measurement of the cracking tendency in welds. R. D. Stout and others. bibliog il diags Welding J 25:sup522-31 S '46
Quantitative measurement of welding response by bead welds. R. D. Stout and others. Welding J 24:sup625-8 D '45
Reinforcement of branch pieces. J. S. Blair. il diags Engineering 162:1-4, 217-21, 228, Jl 5, S 6 '46 (to be cont)
Review and summary of weldability testing carbon and low alloy steels; ship hull construction. G. G. Luther and others. bibliog(53 titles) il diags Welding J 25:sup376-96 Jl '46
Unfair tests restrict arc welding applications. J. F. Lincoln. Steel 119:132 O 7 '46
Weldability tests of cast steels. F. S. McKenna and C. E. Jackson. il diags Welding J 24:sup573-9 N '45

ELECTRIC welding machines
A.c. welder for farms. il Bsns W p58 Je 22 '46
Butt-flash welder furnished for hand, hydraulic, air or motor operation. il diags Product Eng 16:834-5 D '45
Electroforged gratings; abstract. A. J. Randolph. Materials & Methods 23:817 Mr '46
Electronic smithy makes horseshoes. Electronics 19:170 O '46
Induction heater made from welder components. il Elec World 126:73 Ag 3 '46
Industrial hemstitcher; resistance welding. F. P. Peters. il Sci Am 175:9-11 Jl '46
Metropolitan-Vickers light-duty spot-welding machine. il Engineering 161:69 Ja 18 '46
Miniature welder. il Sci Am 175:33 Jl '46
Original resistance welder design for production of U.S. navy 40-mm ammunition boxes. F. M. Pence. il diag Welding J 25: 824-8 S '46
Progressive flash welding machines. il Steel 117:130 D 17 '45
Progressive welder co. machine. il Machine Design 18:74 O '46
Series capacitors raise power factor of resistance welders. R. E. Marbury. il diags Factory Management 104:149-53 F '46
Spot-welder adjusts work table, controls electrodes electronically. Sci Am 175:174 O '46
Taylor-Winfield large vertical flash welders. il Materials & Methods 23:558 F '46; Welding J 25:172+ F '46; Iron Age 157:58-9 Mr 7 '46
Welding machine speeds refrigerator manufacture. C. C. Peck. il diag Iron Age 157: 62-3 F 21 '46

ELECTRIC welding machines, Domestic
Home and farm electric welding outfit. il Consumers Res Bul 17:17-19 Ap '46

ELECTRIC winches. See Winches, Electric

ELECTRIC wire
Aluminum building wires proposed as substitute for scarce copper. Eng N 137:522 O 17 '46
Electrical resistance of iron wires and permalloy strips at radiofrequencies. A. W. Smith and others. bibliog diag J Ap Phys 17:33-6 Ja '46
Fine wires in the electron-tube industry. G. A. Espersen. bibliog il diag Inst Radio Eng Proc 34 [Waves & Electrons] 1:116W-20W Mr '46
Geon in the wire and cable industry. G. A. Fowles. il Rubber Age 58:703-8 Mr '46
German synthetic insulation for wire and cable. India Rubber World 113:219-21+ N '45
Inside of electrical machines. R. H. Robinson. il Electrician 137:787-91 S 20 '46
Methods of removing the insulating film from Formex wire. E. J. Flynn and G. W. Young. il Gen Elec R 49:8-15 Je '46
Promise of synthetics as wire and cable insulations. R. B. McKinley. Elec World 124: 52-5 D 22 '45
Salvage bare and weatherproof wire; cost data. R. E. Fritzer. Elec West 96:67 Mr '46
Synthetic insulation stripped faster from fine copper leads; effect of solder temperature. V. Canziani. il Am Mach 90:135-8 S 26 '46

See also
Electric cables
Electric conductors
Electric lines
Trolley wire

Advertising

Belden manufacturing company hitches horsepower to name promotion. il Ind Marketing 31:45+ Ag '46

Testing

High voltage d-c testing of rubber insulated wire. W. N. Eddy and W. D. Fenn. Elec Eng 65:Trans 576-8 Ag-S '46
Inside of electrical machines. R. H. Robinson. diag Electrician 137:925-7 O 4 '46
Short-time current ratings for aircraft wire and cable. B. W. Jones and J. A. Scott. diag Elec Eng 65.Trans 644-8 O '46

ELECTRIC wiring
Adequate wiring needs on modern farmsteads; abstract. W. T. Ackerman. Elec World 126:110+ Ag 3 '46
Adequate wiring pushed at Boston. Elec World 124:122 N 24 '45
Design of wiring accessories. J. Bland. Electrician 136:1315-16 My 17 '46; Discussion. 136:1507-8 Je 7 '46
Electric company liable for negligence by employe of wiring contractor. East Underw 47.26 Ap 26 '46
Electric utilities and leagues distribute over 85,000 copies of farmstead wiring handbook. Edison Elec Inst Bul 14:302+ S '46
How to position series lighting wire at corners; diagrams. Elec World 124:152 D 8 '45
Lessons from federal housing practice. S. Beamer and R. A. MacIntyre. il Elec West 96:64-6 Mr '46
Making sure the distribution system is adequate; Anaconda wire & cable company. R. B. Steinmetz. il Factory Management 104: 152-5 Ja '46
Mechanized wiring; printed circuits. J. Markus. il Sci Am 175:63-5 Ag '46
Wiring code of practice. Electrician 136:337-8, 588 F 8, Mr 8 '46
Wiring synchronized with home production; Precision-built homes; Barrett & Hilp. il Elec West 97:60-1 Jl '46

See also
Electric cables
Electric codes
Electric conduits
Electric distribution
Electric fittings
Electric fuses
Electric lighting
Electric lines
Electric transmission
National electrical code

Diagrams

Control diagrams, an aid to design. F. L. Fisher. il diags Machine Design 18:159-64 Ap '46

Safety measures

Domestic wiring. Electrician 137:441-2 Ag 16 '46
Earthing for low-voltage heavy current installations; abstracts. H. W. Swann. Electrician 136.1368-9 My 24 '46; Elec R (Lond) 138:825 My 24 '46
Installations and accidents. Electrician 137: 995-6 O 11 '46

Symbols

See Electric symbols

ELECTRIC wiring, Interior
Adequate wiring essential in modern mechanical home. il plans Am Bld 68:118-19+ O '46
All-purpose socket outlets. T. C. Gilbert. Elec R (Lond) 138:763-4 My 17 '46

ELECTRIC wiring, Interior—*Continued*
Consumer's control unit. Electrician 136:1231-2 My 10 '46
Electrical installations. J. A. McConnell. Inst E E J 93 pt 1:156-60 Ap '46
Handbook of farmstead wiring design; abstract. Pub Util 37:791-2 Je 6 '46
Housing and wiring problems. Electrician 135: 561-2 N 23 '45
Installations in temporary houses. P. Ridler. Elec R (Lond) 138:297-8 F 22 '46
Light by push button. A. B. Smedley. il plan diag Elec West 96:66-7 My '46
London county council housing plans; electrical facilities. il Electrician 135:724-6 D 28 '45
Multiple service points. P. Ridler. il Elec R (Lond) 137:793-4 N 30 '45
New Edison electric institute tools for wiring promotion. R. F. Hartenstein. Edison Elec Inst Bul 14:167-8 My '46
Pushbutton wiring system for post-war homes. il plan diag Elec World 125:90-1 My 11 '46
Recommended practices for school wiring. Elec West 95:86-8 N '45
Room circuits; bearing of the I.E.E. regulations. R. H. Rawll. Elec R (Lond) 138: 622-3 Ap 19 '46
Wiring for prefabricated houses. il Electrician 136:675-6 Mr 15 '46

See also
Electricity in the home

ELECTRIC workers
Dayton: union battleground; Communist issue in electrical manufacturing industry. Bsns W p76+ Je 15 '46
Distribution construction not yet halted by strike at electrical manufacturing plants. Elec World 125:75-6 F 2 '46
18½ cent raise refused by Westinghouse strikers. Elec World News ed 125:9 Mr 23 '46
Electrical industry wages; hours of work and average earnings for one week of July, 1945. Elec R (Lond) 138:426 Mr 15 '46
Future army technicians; electrical training for boys at Arborfield school. Electrician 136:1312 My 17 '46
NEMA drives for laws to end union restrictions. Elec World 125:101 Mr 16 '46
No Moses coup; exodus from C.I.O. union proves a flop. Bsns W p94+ Je 29 '46
Non-wage issues; General Electric seeks U.E. agreement on union security and piece-rate standards. Bsns W p96+ Ap 27 '46
Open door for labor-saving; electricians drop all restrictions on tools, new methods and materials. Arch Forum 84:24+ F '46
Process analysis; Midland electric manufacturing co. methods for training personnel. il Elec R (Lond) 138:939-40 Je 14 '46
This model substation can simulate any fault; training of substation operators. P. E. Smith. il diag Elec World 126:68-9 Ag 17 '46
Training in electrical industries; University of California's experience with war training program. C. F. Dalziel and others. Elec Eng 65:310-16 Jl '46
Training more apprentices. il Elec West 96: 96-7 Je '46

See also
Electric plants (central stations)—Employees
Electric utilities—Employees
Linemen

ELECTRICAL association for women
Annual meeting, 25th, London. Elec R (Lond) 138:767-8 My 17 '46; Electrician 136:1303 My 17 '46
Demonstrators in the industry; statement by Electrical association for women. Electrician 137:97 Jl 12 '46
E.A.W. comes of age. Elec R (Lond) 137:543-8 O 19 '45

ELECTRICAL inspectors, International association of. See International association of electrical inspectors

ELECTRICAL leagues, International association of. See International association of electrical leagues

ELECTRICITY
What you should know about industrial electronics; fundamentals of electricity. il Am Mach 90:138 My 9; 116 My 23 '46

See also
Armatures
Corona (electricity)
Dielectrics
Electric currents
Electroacoustics
Electrodynamics
Electrons
Electrophysiology
Electrostatics
Electrotherapeutics
Insulation (electric)
Ionization, Electrolytic
Lightning
Photoelectric cells
Piezoelectricity
Potential, Electric
Radio communication
Telegraph
Telephone
Thermoelectricity

History
Early electrical discoveries by Benjamin Franklin and his contemporaries. M. MacLaren. Franklin Inst J 240:1-14 Jl '45; Same, with bibliog. Elec Eng 65:57-64 F '46

Tables, calculations, etc.
Conversion factors and formulas; unit definitions and evaluating data of common application to mine electrical problems. D. J. Baker. Min Cong J 31:44-5 D '45

ELECTRICITY, Accidents from
Failures of electrical equipment. Locomotive 46:46-8 Ap '46

ELECTRICITY, Injuries from
Dangerous electric currents. C. F. Dalziel. bibliog Elec Eng 65:Trans 579-85 Ag-S '46
Distant secondary circulatory and vasomotor reactions to accidental electric shock; abstract. G. H. Hyslop. J Ind Hygiene 27: supl60 O '45
EEI resuscitation medals honor alertness, skill, teamwork that saved lives. M. B. Woods. Edison Elec Inst Bul 14:39-46 F '46
Electrical accidents. Engineering 162:301-2 S 27 '46
Electrical accidents; factory department's report. H. W. Swann. Electrician 137:719-20 O '46
Handle with gloves; arc welding electrode holder, source of danger. il Safety Eng 91: 18 F '46
How to treat electric shock. Safety Eng 91: 27 Je '46
Lightning strikes on the job; Apalachia tunnel. G. K. Leonard. il diags Civil Eng 15: 545-7 D '45
Lineman is saved by pole top method. H. F. Lovering. Edison Elec Inst Bul 14:314 S '46

See also
Electricity in mining—Safety measures

ELECTRICITY, Static
Army-navy precipitation-static project; electrification of aircraft flying in precipitation areas. R. G. Stimmel and others. il Inst Radio Eng Proc 34:167-77 Ap '46
Basic mechanisms of static electrification. L. B. Loeb. bibliog Science 102:573-6 D 7 '45
Bonding, grounding eliminate excessive static. E. H. Aiken. diag Elec World 124:162 D 8 '45
Can electro-static sparks endanger mines or ignite explosive charges? Coal Age 51:102+ O '46
Electrostatic processes. J. H. Jupe. diag Electrician 136:1093-4 Ap 26 '46
Electrostatics in the rubber industry. R. Beach. diags Rubber Age 58:453-60 Ja '46; Abstract. India Rubber World 113:528+ Ja '46
Future trends in requirements by users of printing; electronographic press uses static electricity. W. C. Huebner. Paper Tr J 123: 35-6 Jl 4 '46; Same cond. Paper Ind 28:1048-50 O '46
High potential areas in North America. R. L. Ives. bibliog map diag Am J Sci 244:263-70 Ap '46
Ionotron static eliminator. diag Rubber Age 58:496 Ja '46
Mixed metal magic. J. Markus. il Sci Am 175: 169-71 O '46
Sensitivity of explosives to initiation by electrostatic discharges. F. W. Brown and others. U S Bur Mines Rep of Invest 3852: 1-8, pl 1-8 '46

ELECTRICITY, Static—*Continued*

Sorting alloys; triboelectric instrument. N. F. Agnew. il diag Electronics 19:124-5 S '46

Sorting metals by tribo-electrification. A. Doscheck. il Steel 117:106+ D 24 '45

Static electricity grounded to loom frame. R. Lynch. diag Textile World 96:138 Ag '46

Static eliminated by grounding or neutralizing. H. S. Knowlton. il diags Textile World 96:110-13+ Je '46

Static eliminator provides conducting path of alpha rays. il Sci Am 175:30 Jl '46

Static makes dipped coatings shed tears. E. P. Miller. il diags Am Mach 90:90-2 Ag 29 '46; Same abr. Mech Eng 68:910-11 O '46

Studies of static electricity in snowflakes. il Gen Elec R 49:52 Jl '46

Textile problems on static electricity. H. E. Wenrich. il diags Rayon 27:249-51, 302-4 My-Je '46

See also

Electric charges
Electric discharges
Electrostatics

ELECTRICITY in air conditioning

Changes in motor starting rules recommended to facilitate domestic air conditioner installations. J. W. Anderson. Edison Elec Inst Bul 14:15-18+ Ja '46

Electrical and allied developments of 1945; air conditioning and commercial refrigeration. G. Bartlett. il Gen Elec R 49:66-7 Ja '46

Experience with a heat-pump system; building of United illuminating company; with cost data. E. H. Walton and C. A. Williams. flow diag Elec Eng 63:361; 64:421-2 O '44, N '45

Heat pump as an electric heating and cooling unit; abstract. J. M. Barry. Heat & Ven 43:91 Jl '46

Heat pump report and program. P. Sporn. Elec World 125:55-6 Ap 27 '46

Cost

How to select economical condensing pressures for air conditioning; using Freon 12. A. P. Boehmer. il Heating-Piping 18:77-81 S; 94-8; data sheet(p99-100) O '46

ELECTRICITY in mining

Conversion factors and formulas; unit definitions and evaluating data of common application to mine electrical problems. D. J. Baker. Min Cong J 31:44-5 D '45

Electrically operated excavators. H. Sharp. il Mech Handling 33:163-6 Mr '46

Electrification at Climax. F. O. Garrabrant. il Min & Met 27:342-5 Je '46

Lime for the land; electrical applications to limestone mining and preparation. il Elec R (Lond) 137:731-5 N 23 '45

Oil-shale winning; electrical applications in the Scottish oil industry. il Elec R (Lond) 139:87-92 Jl 19 '46

See also

Coal mines and mining—Electric equipment
Coal mines and mining—Power
Electric locomotives, Mine
Mine hoisting, Electric
Mine pumping, Electric

Safety measures

Color coding of external motor and starter terminals. diags Min Cong J 32:46 Ja '46

Electrical and mechanical hazards in metal mines; metal-mine accident-prevention course, section 6. bibliog il diags U S Bur Mines Miners' Circ 56:2-39; pa 20c Supt. of doc. '46

Electricity in mines; Safety in mines research board 23d annual report. Electrician 135:597-8 N 30 '45

Inflammable atmosphere; air-break switchgear for mines and other dangerous situations. F. Heaton and A. R. Heaton. diags Elec R (Lond) 138:405-7 Mr 15 '46

ELECTRICITY in refrigeration

Electrical and allied developments of 1945; air conditioning and commercial refrigeration. G. Bartlett. il Gen Elec R 49:66-7 Ja '46

Value of heat with special reference to the heat pump. O. Faber. il diags Inst Mech Eng J & Proc 154:154-62 bibliog(p162-3) S '46; Same cond. Engineer 179:358-60 My 4 '45; Discussion. Inst Mech Eng J & Proc 154:163-78 S '46

See also

Electricity in air conditioning
Refrigerators, Electric

ELECTRICITY in the home

Abandonment of daylight saving resulted in use of 800,000,000 kwhr more by residential electric consumers last winter. Edison Elec Inst Bul 14:279 Ag '46

Characteristics of the domestic load. P. Schiller. Engineering 161:398 Ap 26 '46

Domestic load building in north Wales. il Elec R (Lond) 138:319-21 Mr 1 '46

Domestic load; forecasting lines of development. H. A. P. Caddell. Elec R (Lond) 139: 292-4 Ag 23 '46

Domestic service units; B.S. draft code and prepayment consumers. F. Jackson. il plan Elec R (Lond) 138:653-5 Ap 26 '46; Discussion. D. Bellamy. diag Elec R (Lond) 138: 979-80 Je 21 '46

Domestic use now averages 100 kwhr per month. C. W. Kellogg. Edison Elec Inst Bul 13:331 N '45

Electric house heating load characteristics. H. G. Kelsey. Elec World 124:82-3 N 24 '45

Electrical installations, J. A. McConnell. Inst E E J 93 pt 1:156-60 Ap '46

Electricity in Switzerland; consumption for domestic purposes, 1943. Elec R (Lond) 139: 344 Ag 30 '46

Electricity in the post-war house; abstract. J. J. Bernard. Electrician 136:1176 My 3 '46

Electrified housekeeping; potential market for electrical equipment. J. S. Piper. il Banking 38:38-9+ Je '46

House-service units. il Elec R (Lond) 137:594 O 26 '45; Electrician 135:429-30 O 26 '45

Housing and wiring problems. Electrician 135: 561-2 N 23 '45

Kitchen planning promotion at Hartford. Elec World 126:90+ Ag 31 '46

Lessons from federal housing practice. S. Beamer and R. A. MacIntyre. il Elec West 96:64-6 Mr '46

London county council housing plans; electrical facilities. il Electrician 135:724-6 D 28 '45

Modern secondary adequate for coming home loads; with cost data. D. K. Blake. Elec World 126:86-8 S 14 '46

Plugs and sockets; conditions to be met in small post-war houses. J. F. Field. Elec R (Lond) 138:99-101 Ja 18 '46

Predicts $4.5 billion in electrical business; abstract. B. W. Clark. il Elec World 125: 170 F 16 '46

Progress, 1926-1946; electrical living. il plans Am Bld 68:118-19+ O '46

Pushbutton wiring system for post-war homes. il plan diag Elec World 125:90-1 My 11 '46

Residential load study; Consolidated Edison company of New York. A. F. Rehberg. Edison Elec Inst Bul 14:97-105 Ap '46

Some common interests of the home builders and the electrical industry. F. W. Cortright. Edison Elec Inst Bul 14:163-4+ My '46

Trying it on the public; postwar house of Fritz Burns. il Elec West 96:94-5 Ap '46

Utility promotes home-building project in westren Pennsylvania. il Elec World 126:75 Ag 17 '46

See also

Electric industries—Model home exhibits

ELECTRICITY in the petroleum industry

Code of electrical practice for the petroleum industry. A. D. Maclean. Inst Pet J 31:379-92; Discussion. 393-400 O '45

Pumping wells with electric power. J. H. Field. Oil & Gas J 45:125+ Je 15; 106+ Jl 22 '46

See also

Petroleum—Pumping, Electric
Petroleum pipe lines—Pumping stations, Electric

ELECTRICITY on the farm

Adequate wiring needs on modern farmsteads; abstract. W. T. Ackerman. Elec World 126:110+ Ag 3 '46

All-electric dairy farming. il Elec R (Lond) 139:345-6 Ag 30 '46

All-electric farm; grain drying by electricity at St Helens. T. S. Parkinson and G. L. Tomlinson. il Elec R (Lond) 138:51-3 Ja 11 '46

All-electric farms featured in Maine show. Elec World 126:94+ Ag 31 '46

Are you working with 4-H clubs? T. E. Wilson; W. D. Hemker. Edison Elec Inst Bul 14:123 Ap '46

Automatic pressure water systems. C. Neitzke. Edison Elec Inst Bul 14:307-10 S '46

Cheapest hired hand. L. Haystead. Fortune 34:152+ Jl '46

Drying seed corn ears with forced heated air; abstract. H. J. Barre. diag Elec World 125:103-4 Ap 27 '46

Electric grain drying; farm at Bampton, Oxfordshire. il Elec R (Lond) 139:463-4 S 20 '46

Electric utilities and leagues distribute over 85,000 copies of farmstead wiring handbook. Edison Elec Inst Bul 14:302+ S '46

Electrical and allied developments of 1945; industrial equipment, applications. G. Bartlett. il Gen Elec R 49:35 Ja '46

Electrical aspect of farm mechanization. C. A. Cameron Brown. bibliog il plan diags Inst E E J 91 pt 2:517-29 D '44; Abstract. Elec R (Lond) 134:531-2 Ap 14 '44; Discussion. Inst E E J 91 pt 2:529-34; 93 pt 2:51-61 D '44, F '46; Elec R (Lond) 134:559-61 Ap 21 '44; Electrician 132:344-6 Ap 21 '44

Electrical farm hand; opportunity for country banks in rural electrification. R. O'Neill. il Banking 39:47-9+ Jl '46

Electrical services for farm buildings; report of Scottish committee. Electrician 137:652 S 6 '46

Electrification of Highland agriculture; abstract. C. A. Cameron Brown. Electrician 136:815-16 Mr 29 '45

Energy consumption of farm equipment; tabulation. Elec World 125:108+ F 2 '46

Europe leading U.S. in farm service a myth. E. A. Stewart. Elec World 125:67 Ja 5 '46

Handbook of farmstead wiring design; abstract. Pub Util 37:791-2 Je 6 '46

Hay drier a profit maker for both farmer and utility. C. Jerrings. il Elec World 125:50-1 Mr 30 '46

Horizon is bright for more farm electrification. H. B. Walker. Elec West 96:53-5 Ja '46

National conference to spur progress of farm electrification. Edison Elec Inst Bul 14:313 S '46

Notes on design of mow hay driers. A. A. Pfingsten. Elec World 126:112+ Jl 20 '46

Royal Lancashire show; electrical exhibits. il Elec R (Lond) 139:262 Ag 16 '46

Serving rural consumers; Lancashire electric power co. il Elec R (Lond) 138:835-40 My 31 '46

Suggested device for emptying grain bins. diags Elec World 125:128+ Je 22 '46

Utilities give course for 4-H club leaders in Wisconsin. A. B. Barfield. il Elec World 124:170+ N 10 '45

Water and electricity supplies on farms; National farm survey of England and Wales. Engineering 162:210 Ag 30 '46

Welding the industry to the farm. T. L. Van Law. il Elec West 97.62-3 Jl '46

Wisconsin celebrates farm electrification in series of radio broadcasts. il Elec World 124:133 N 10 '45

See also

Electric service, Rural — Rural electrification administration

Electrohorticulture

Cost

Pay-as-you-go farm electrification; farm of J. Motz is testing ground of cooperative research program. W. D. Hemker. Elec World 124.174-6 D 8 '45

ELECTRICITY supply

Electricity supply at home and abroad. H. Nimmo. Engineer 182:351-3 O 18 '46

Utility industry statement on atomic energy as a source of electricity supply. Elec World 125:54-5 Mr 2 '46

See also

Electric lines — Electric power

Electric plants — Electric utilities

War measures

Electricity supply; emergency spare plant pool. il Engineer 181:79-80 Ja 25 '46; Engineering 161:57, 60 Ja 18 '46; Elec R (Lond) 138:59-61 Ja 11 '46; Electrician 136:88-91 Ja 11 '46

Arizona

Central Arizona requires California steam power to supply hydro deficit. Elec World News ed 125:7 Je 15 '46

Baltimore

Maryland P.S.C. approves utility rate-making base. Elec World 124:139 D 8 '45

Boston, Massachusetts

Boston Edison benefits from common neutral practice. A. B. Jones. diags Elec World 125:60-2 Ap 27 '46

Calcutta

Electricity supply in Calcutta. Electrician 135:590 N 30 '45

California

Predicting agricultural power demands in southern San Joaquin valley. M. W. Phillips. Elec West 96:81-4 Ap '46

Senators debate need of California federal power line. Pub Util 37:239-46 F 14 '46

Translating electric power into oil for war; Southern California Edison saves fuel oil by bringing power from Boulder dam. J. H. Collins. Pub Util 37:827-34 Je 20 '46

Ceylon

Electrical notes from Colombo. Electrician 137:455-6 Ag 16 '46

Electrical progress in Ceylon. Electrician 136: 1168 My 3 '46

Chile

Chilean state electrification. D. Santa Maria. J Land & Pub Util Econ 21:365-70 N '45

Europe

Developments on the continent. Electrician 136:1090 Ap 26 '46

Europe leading U.S. in farm service a myth. E. A. Stewart. Elec World 125:67 Ja 5 '46

Power activities in 21 army group. T. G. Martin. il map plan diag Electrician 137: 508-12, 576-81 Ag 23-30 '46

Finland

Finland increases electric power supply. Power 90:647c S '46

France

Electrical industry in France. Electrician 136: 212 Ja 25 '46

Electricity in France. Electrician 135:447 O 26 '45

Electricity in France. Electrician 136:733 Mr 22 '46

Electricity supply in France. il Elec R (Lond) 137:600 O 26 '45

Nationalisation of French supply. Electrician 135:690 D 21 '45

Transmission in France; abstracts. P. M. J. Ailleret. Elec R (Lond) 138:775-6 My 17 '46; Electrician 136:1309-11 My 17 '46

See also

Electric lines—France

Germany

Air war and the utilities; vulnerable German power system never a primary target. T. N. Sandifer. Pub Util 36:766-70 D 6 '45

Bulk transmission by a.c. favored by Germany; with cost data. diag Elec World 126: 88-90 S 28 '46

Electric power practice in Germany. H. J. Scholz and C. F. Wagner. Power Pl Eng 49:90-1+ D '45

Electrical power in Germany. Electrician 136; 885 Ap 5 '46

ELECTRICITY supply—Germany—*Continued*
German electric power. C. H. Flurscheim and others. Electrician 137:321-2 Ag 2 '46
German H.V. practice. Elec R (Lond) 138: 343-4 Mr 1 '46
Germany to be stripped of major part of electrical industry. J. H. Ronayne. Edison Elec Inst Bul 14:79-82+ Mr '46
Strategic bombing of electric utilities in Germany. Edison Elec Inst Bul 13:330-1+ N '45
United States advocates control of German power. Elec World News ed 124:3-4 D 29 '45

Great Britain
CEB looks forward. Economist 150:650 Ap 20 '46
Central electricity board report for 1945. Elec R (Lond) 138:605-7 Ap 19 '46; Electrician 136:1016-20 Ap 19 '46; Engineer 181:359-60 Ap 19 '46
Characteristics of the domestic load. P. Schiller. Engineering 161:398 Ap 26 '46
Consumption of electricity, 1938-39 and 1944-45 compared. Economist 150:108 Ja 19 '46
Efficient electricity supply; main principles of the 1936 P.E.P. report. Elec R (Lond) 137:950-1 D 28 '45
Electricity generation, 1933-1945. Electrician 135:468 N 2 '45
Electricity in national industrial reconstruction; abstract. E. R. Wilkinson. Electrician 136:896 Ap 5 '46
Electricity output and sales, 1944-45. Elec R (Lond) 138:148 Ja 25 '46
Electricity output; monthly figures for war period; table. Elec R (Lond) 137:641 N 2 '45
Electricity supply; emergency spare plant pool. il Engineer 181:79-80 Ja 25 '46; Engineering 161:57, 60 Ja 18 '46; Elec R (Lond) 138:59-61 Ja 11 '46; Electrician 136:88-91 Ja 11 '46
Electricity supply on the North-East coast. S. E. Monkhouse. Engineering 161:270 Mr 22 '46; Abstract. Elec R (Lond) 138:409 Mr 15 '46
Electrification; suggested use of all available coal for production of electricity. V. Z. de Ferranti. Engineer 182:317-19 O 11 '46; Abstracts. Elec R (Lond) 139:565-6 O 11 '46; Electrician 137:985-7 O 11 '46
Fuel and power: Ministry's statistical digest for 1945. Elec R (Lond) 139:571-2 O 11 '46
Fundamental legislation for electricity supply to consumers; abstract. W. Fennell. Elec R (Lond) 138:205 F 8 '46; Discussion. 138:247-8 F 15 '46
Improving power supply; generation and transmission trends. W. Dixon. Elec R (Lond) 137:559-60 O 19 '45
National load curve. Elec R (Lond) 139:538 O 4 '46; Electrician 137:916 O 4 '46
New grid tariff. Engineering 160:402 N 16 '45
New grid tariff; arrangements to operate from Jan. 1st. Elec R (Lond) 137:697-8 N 16 '45
New grid tariff; full statement. H. Hobson. Electrician 135:525-6 N 16 '45
Possible means of unifying and equating electricity supply tariffs. C. T. Melling. Electrician 136:1743-6 Je 28 '46; Abstracts. Elec R (Lond) 138:1002-3 Je 28 '46; Engineering 162:31 Jl 12 '46; Discussion. Elec R (Lond) 139:13 Jl 5 '46; Electrician 137: 34-6 Jl 5 '46
Power generation; abstract. R. W. Biles. Elec R (Lond) 139:570 O 11 '46
Presidential address before Incorporated municipal electrical association. W. Walker. Electrician 136:1727-30 Je 28 '46; Abstracts. Elec R (Lond) 138:999-1000 Je 28 '46; Engineering 162:5-6 Jl 5 '46
Prospects of electricity supply. E. Shinwell. Electrician 137:37-9; Discussion. 39-40 Jl 5 '46
Rural supplies; development at Chester. Elec R (Lond) 138:213-14 F 8 '46
Supply companies' meeting. Elec R (Lond) 138:813 My 24 '46; Electrician 136:1369-70 My 24 '46
Tariffs without tears. A. Earls. Elec R (Lond) 138:167-9 F 1 '46
240v standard; implications discussed at meeting of I.E.E. Electrician 136:1449-50 My 31 '46; Engineering 161:571 Je 14 '46
Voltage standardisation. Elec R (Lond) 138: 251, 304 F 15-22 '46
Voltage standardisation; decision to adopt 240V. Electrician 136:399-400 F 15 '46
Voltage standardisation; explanation by commissioners. Electrician 136:596+ Mr 8 '46

Hawaii
There's power in Pearl Harbor; power vessel, Jacona. H. Heinrich. il Elec West 97:57-8 Jl '46

India
Electrical development in India. Electrician 135:699 D 21 '45
Electricity in India. Electrician 135:475-7, 538 N 2, 16 '45
Indian electrical developments. Electrician 136:550 Mr 1 '46
Power development in Madras. map Electrician 136:1436 My 31 '46

Ireland
Electrical progress in Eire; abstracts. Elec R (Lond) 139:118 Jl 19 '46; Electrician 137:164 Jl 19 '46
Northern Ireland electricity board 13th annual report for 1944. Electrician 136:284 F 1 '46
Production of electricity, Eire; year ended March 31, 1945. For Comm W 21:43 N 10 '45
Ulster board's activities; abstracts. L. McMaster. il Elec R (Lond) 138:903 Je 7 '46; Electrician 136:1521-2 Je 7 '46

Italy
Electricity supply in Italy. Engineering 162:90 Jl 26 '46
Supply problems in Italy. Electrician 137:461 Ag 16 '46

Liverpool
Liverpool's electrical jubilee. il Electrician 137:713-15, 783-4 S 13-20 '46; Elec R (Lond) 139:469-70 S 20 '46

Mexico
Mexico's electrification program. B. Nikiforoff and others. il maps Elec Eng 65:193-7, 245-51 My-Je '46
Power development features Mexico's industrial program. il map Power 90:172-3 Mr '46
United States power experts recruited to advise Mexico. Elec World News ed 126:3 S 21 '46

Mississippi
Story of Mississippi. il Manuf Rec 115:92 Ja '46

New York (city)
Residential load study; Consolidated Edison company of New York. A. F. Rehberg. Edison Elec Inst Bul 14:97-105 Ap '46

Newport, England
Newport's fiftieth anniversary. Elec R (Lond) 137:631 N 2 '45

Northwestern states
Automatic load and frequency control in Northwest power pool. S. B. Smith and M. L. Blair. map Elec World 124:56-60 D 22 '45
Northwest power pool reservoir operation. E. N. Peterson. map Elec World 125:48-51 F 2; 100-3 F 16 '46
Operating program of Northwest power pool. E. N. Peterson. map Elec World 126:44-8 Ag 31 '46

Norway
Norway electric power up 800,000,000 kilowatt-hours since '39. For Comm W 24:20 Ag 3 '46
Norway's electricity requirements. Elec R (Lond) 137:704 N 16 '45

Ontario
Rural electrical service in Ontario. Engineering 161.38 Ja 11 '46
60 cycles or 25 cycles? problem of standardizing frequency in southern Ontario. R. L. Hearn. map Water & Sewage 84:31+ Mr '46

Philadelphia
Electric service in a great city. H. P. Liversidge. Edison Elec Inst Bul 14:9-14 Ja '46

ELECTRICITY supply—*Continued*

Pittsburgh

Pittsburgh enjoins power strikers; injunction dissolved. R. N. Larkin. Elec World 126: 114-15, 119-20 S 28 '46

Portugal

Supply in Portugal, 1943. Elec R (Lond) 137:660 N 9 '45

Russia

Electrifying the Soviet countryside. G. Susloparov. Elec R (Lond) 138:902 Je 7 '46
Russia wants electric power. Fortune 33: 203-4 Mr '46
Soviet electrical developments. Electrician 137:665 S 6 '46
Soviet to double electric power. map Bsns W p113-14+ N 10 '45
USSR to double prewar power capacity by 1950. il map Power 90:14-15 Ja '46

Scotland

Electrification of Highland agriculture; abstract. C. A. Cameron Brown. Electrician 136:815-16 Mr 29 '46
Planning in Scotland. Elec R (Lond) 139:428 S 13 '46

South Africa

Electricity in South Africa. Electrician 135: 737-8 D 28 '45
Electricity supply in South Africa. Engineering 162:326 O 4 '46
Nationalisation and rationalisation. B. Price. Electrician 137.177-9 Jl 19 '46
South African commission; review of activities in 1945; abstracts. il Elec R (Lond) 139: 378-9 S 6 '46; Electrician 137:662 S 6 '46

Southampton, England

Southampton electricity jubilee. Electrician 136:1182 My 3 '46

Southwestern states

SPA hydro program, summary and fallacies; steam and hydro costs compared. map Elec World 125:60-3 Mr 30 '46
Summary of utility group's offer to distribute federal hydro power. Pub Util 38:564-5 O 24 '46
Utilities battle proposed SPA transmission grid. Elec World 125:83 Mr 2 '46

Sweden

Swedish rural electrification. A. Rusck. Elec R (Lond) 139:263-4 Ag 16 '46

Switzerland

Electricity in Switzerland; consumption for domestic purposes, 1943. Elec R (Lond) 139:344 Ag 30 '46

Texas

Power. il Manuf Rec 115:146-7 Jl '46

Toronto

Toronto hydro-electric system; annual report. Electrician 137:516 Ag 23 '46

Trinidad

Control in Trinidad; annual report for 1944. Elec R (Lond) 137:668 N 9 '45

United States

Drain on power. il Bsns W p31-2+ S 14 '46
Electric light and power industry in 1945. Edison Elec Inst Bul 14:1-4+ Ja '46
Generators hum. Bsns W p46-8 Jl 20 '46
Ickes releases statement on federal power policy. Elec World News ed 125:3-4 Ja 12 '46
Power pooling during the war. E. Falck. Power Pl Eng 49:84-6 O '45
Production and industrial use of electricity, 1939-1944; graph. Elec World 125:97 F 16 '46
Two federal agencies act to keep electricity flowing in case of coal strike. Elec World 125:103-6 My 11 '46
222,367,000,000 kw.-hr. output, 1945; with tabulated data, 1931-1945. Elec World 125: 110-11 Ja 19 '46

Wales

Domestic load building in north Wales. il Elec R (Lond) 138:319-21 Mr 1 '46
Electricity supply in south-west Wales. il Engineering 162:176-7, 180, 199-202 Ag 23-30 '46
Industrial load building; electrical survey in north Wales. il map Elec R (Lond) 138: 159-65 F 1 '46
Primary supplies; generation and supply-exchange scheme in north Wales. il map Elec R (Lond) 137:849-54; 138:3-9 D 14 '45, Ja 4 '46

Western states

New horizons ahead. il Elec West 96:77-9 F '46

Wisconsin

Story of rural electrification in Wisconsin broadcast by pioneers. Edison Elec Inst Bul 13:332 N '45

ELECTROACOUSTIC transducers

Generalized plane wave horn theory. V. Salmon. bibliog Acoustical Soc Am J 17:199-211 Ja '46

ELECTROACOUSTICS

Absolute pressure calibration of condenser microphones by the reciprocity method. A. L. DiMattia and F. M. Wiener. bibliog il Acoustical Soc Am J 18:341-4 O '46
Achievements of Harvard's Electroacoustic laboratory. il Electronics 19:312+ Mr '46; Abstracts. Am Cer Soc Bul 25:118 Mr 15 '46; Mech Eng 68:352-4 Ap '46; Franklin Inst J 241:386-8 My '46
Electro-acoustic laboratory at Harvard university; war work. il Chem & Eng N 24: 228-9 Ja 25 '46
Violation of the reciprocity theorem in linear passive electromechanical systems. E. M. McMillan. diags Acoustical Soc Am J 18: 344-7 O '46
War influence on acoustic trends; abstract. H. S. Knowles. il Electronics 19:246+ Ja '46

Bibliography

Radio progress during 1945; electroacoustics. Inst Radio Eng Proc 34 [Waves & Electrons 1]:181-3 Ap '46
Reports issued by the electro-acoustic laboratory during World war II and now declassified. Acoustical Soc Am J 18:222 Jl '46

ELECTROCHEMICAL analysis

Combination arc-spark source for magnesium analysis. V. J. Caldecourt and J. L. Saunderson. il diags Opt Soc Am J 36:99-102 F '46
Coulometric analysis. J. J. Lingane. diags Am Chem Soc J 67:1916-22 N '45
Efficiency of the electrolytic separation of potassium isotopes. D. A. Hutchison. bibliog J Chem Phys 14:401-8 Jl '46
Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45; Same. Metal Finishing 43:497-9+ D '45; Abstract. Steel 119:124-5+ Ag 5 '46
Separation of cadmium from zinc by electrochemical means. W. H. Hammond. bibliog (204 references) diags Electrochem Soc Trans 88 (preprint 27):297-323 '45

ELECTROCHEMICAL industries

Federal power commission and National resources planning board. R. M. Lawrence and L. A. Monroe. Chem Ind 58:967-9 Je '46

Power

Modern electroalchemy; hydroelectric power for electrochemical industries of eastern Canada. W. M. Goodwin. il Comp Air Mag 51:130-3 My '46
Rectification and power supply for the electrolytic industry. T. R. Rhea and B. R. Connell. bibliog il plans diags Electrochem Soc Trans 90 (preprint 5):73-93 '46; Abstract. Chem Eng 53:302+ N '46

France

La situation des industries électrochimiques et électrometallurgiques françaises. Génie Civil 123:40-1 F 1 '46

ELECTROCHEMICAL society

Meeting, 89th, Birmingham, April 11-13. Steel 118:108+ Ap 29 '46; Chem & Eng N 24: 1200-1 My 10 '46

ELECTROCHEMISTRY

Electrochemistry of the rare earth group. B. S. Hopkins. bibliog Electrochem Soc Trans 89 (preprint 8):113-18 '46

Electro-organic chemical preparations. S. Swann, jr. bibliog tables Electrochem Soc Trans 88 (preprint 23):237-54 '45

Fluorine production paves way for new chemical industry. R. W. Porter. il diags Chem & Met Eng 53:106-8 Jl '46

Improved methods of preparation of permselective collodion membranes combining extreme ionic selectivity with high permeability. H. P. Gregor and K. Sollner. bibliog diag J Phys Chem 50:53-70 Ja '46

New type of electrochemical reaction. J. E. Stareck. Electrochem Soc Trans 89 (preprint 6):95-100 '46

Preparation of beryllium powder. J. M. Tien. bibliog Electrochem Soc Trans 89 (preprint 19):223-31 '46

Sulfamic acid in electrochemical processes in Italy. W. G. Cass. Chem & Eng N 24: 1585 Je 10 '46

See also

Electric precipitation
Electrodeposition of metals
Electrodes
Electrolysis
Electrolytes
Electrolytic cells
Electrometallurgy
Electroplating
Ionization, Electrolytic
Overvoltage

ELECTRODEPOSITION of metals

Control of sulfur in electrolytic manganese. J. Koster. bibliog diags Electrochem Soc Trans 89 (preprint 26):307-17 '46

Copper powder; commercial preparation by electrodeposition; abstract. A. W. Hothersall and G. E. Gardam. Metal Prog 48:1134+ N '45

Electroforming microwave components. F. Hassell and F. Jenks. il Electronics 19: 134-8 Mr '46

Electrolysis of manganese into a metal cathode from suspensions of manganese oxide and carbon in molten manganous chloride. B. Cartwright and S. F. Ravitz. bibliog Electrochem Soc Trans 89 (preprint 4):73-82 '46

Electrowinning of chromium from trivalent salt solutions. R. R. Lloyd and others. flow sheets il Electrochem Soc Trans 89 (preprint 20):233-44 '46

First electrodeposition of metal for corrosion resistance. S. G. Bart. il Chem Ind 58: 51 Ja '46

Metal coated plastics. diags Steel 118:92-5+ F 18 '46

Metallizing non-conductors. B. Shomberg. il Metal Finishing 44:157-60 Ap '46 (to be cont)

Precision metal parts produced by electroforming. H. R. Clauser. il diags Materials & Methods 24:112-16 Jl '46

Precision seamless tubing by electrodeposition; Ekko process of United States rubber co. J. Albin. il diags Iron Age 157:54-8 Ja 10 '46

See also

Electrometallurgy
Electroplating

ELECTRODES

Amperometric microtitration of very dilute chromate solutions using the rotating platinum electrode. I. M. Kolthoff and D. R. May. Ind & Eng Chem Anal ed 18:208-9 Mr '46

Amperometric titration of chloride, bromide, and iodide using the rotating platinum electrode. H. A. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:355-8 Je '46

Amperometric titration of cyanide with silver nitrate, using the rotating platinum electrode. A. H. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:574-5 S '46

Amperometric titration of mercaptans with silver nitrate using the rotating platinum electrode. I. M. Kolthoff and W. E. Harris. bibliog diags Ind & Eng Chem Anal ed 18:161-2 Mr '46

Amperometric titration of mixtures of halides using the rotating platinum electrode. H. A. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:358-9 Je '46

Attachment of electroencephalographic electrodes. C. W. Darrow and J. H. Pathman. Science 103:22 Ja 4 '46

Effect of surface finish and wall thickness on the operating temperature of graphite radio-tube anodes. L. L. Winter and H. G. MacPherson. il diag Inst Radio Eng Proc 33:834-7 D '45

Factors affecting anode consumption in chlorine cells. R. B. Hammond and N. J. Johnson. Chem Eng 53:94-6 S '46

Fine-tapered silver electrodes for physiological work. K. D. Roeder. Science 104: 425-6 N 1 '46

Influence of structure and strain in a metal cathode on the electrolytic reduction of nitrobenzene to aniline. D. N. Solanki. bibliog Electrochem Soc Trans 88 (preprint 18):197-202 '45

Magnesium as a galvanic anode; some factors affecting its performance. H. A. Robinson. il diags Electrochem Soc Trans 90 (preprint 4):49-71 '46

Magnesium for cathodic protection of pipe lines. R. M. Hutchison. diag Pet Eng 17: 213+ Mr '46

New electrolytic selenium photo-cell. A. von Hippel and others. bibliog diags J Ap Phys 17:215-24 Ap '46

Paper capacitors containing chlorinated impregnants; mechanism of stabilization. L. Egerton and D. A. McLean. bibliog il Ind & Eng Chem 38:512-17 My '46

Porous carbon electrodes; wicking electrodes for utilization of insoluble liquid depolarizers; reduction of nitrobenzene. N. M. Winslow. bibliog diags Electrochem Soc Trans 88 (preprint 16):175-88 '45

Properties of the electrical double layer at a mercury surface; the effect of frequency on the capacity and resistance of ideal polarized electrodes. D. C. Grahame. bibliog diag Am Chem Soc J 68:301-10 F '46

Protection of two 8-in. coated pipe lines with magnesium. A. Smith, jr. il diag Oil & Gas J 45:195-6+ S 21 '46

Reproducibility of the lead electrode and the electromotive force of the lead stick-lead amalgam cell at 0° to 60° C. R. G. Bates and others. bibliog diags J Res Nat Bur Stand 36:159-70 F '46

Self-cleaning laminated zinc electrode prevents corrosion; patent. Pet Processing 1: 122+ O '46

Standard electrode potentials of the mercury-mercurous sulfate electrode in methanol at 20, 25, 30 and 35°. E. W. Kanning and M. G. Bowman. bibliog Am Chem Soc J 68: 2042-6 O '46

Study of anodes for electrolytic manganese. D. Schlain and others. bibliog U S Bur Mines Rep of Invest 3863:1-20, pl 1-5 '46

See also

Cathodes
Electric welding, Arc—Electrodes

ELECTRODES, Glass

Electrode function (pH response) of potash-silica glasses. D. Hubbard. bibliog J Res Nat Bur Stand 37:223-8 O '46

Hygroscopicity and electrode function (pH response) of glasses as a measure of serviceability. D. Hubbard. bibliog J Res Nat Bur Stand 36:511-20 Je '46

Potentiometric determination of sodium sulphide in sulphate pulp black liquor. P. B. Borlew and T. A. Pascoe. bibliog Paper Tr J 122:31-4 Mr 7 '46

ELECTRODYNAMICS

Analysis of electromagnetic forces. W. A. Tripp. Elec Eng 64:351-6 O '45; Discussion. A. Gronner. 65:300-2 Je '46

Classical theory of electromagnetism and gravitation; special theory. H. C. Corben. Phys R 69:225-34 Mr 1 '46

Five-dimensional field theory. K. C. Wang and K. C. Cheng. Phys R 70:416-18 O 1 '46

New approach to kinematic cosmology. L. Infeld and A. E. Schild. bibliog Phys R 70: 410-25 S 1 '46

ELECTRODYNAMICS—*Continued*
Relativistic interaction of electrons on Podolsky's generalized electrodynamics. D. J. Montgomery. Phys R 69:117-24 F 1 '46

See also
Electrostatics
Wave mechanics

ELECTROENCEPHALOGRAPHY. See Brain

ELECTROFORMING. See Electrodeposition of metals

ELECTROHORTICULTURE
Electricity in horticulture. Elec R (Lond) 137:815-17 D 7 '45

ELECTROHYDRAULIC control
Electrohydraulic control of Diesel-electric drives. C. B. Lewis and M. A. Edwards. il diags Mech Eng 68:953-5 N '46

ELECTROKYMOGRAPH
Heart-tester. Bsns W p73 Ag 17 '46

ELECTROLUX. See Refrigerators, Gas

ELECTROLYSIS
Concentration of ^{39}K and ^{41}K by balanced ion migration in a counterflowing electrolyte. A. K. Brewer and others. diags Science 104: 156-7 Ag 16 '46
Efficiency of the electrolytic separation of chlorine isotopes. D. A. Hutchison. bibliog J Chem Phys 13:536-7 N '45
Electrolysis in alcohol; results with metallic chloride. C. Charmetant and R. Paris. Chem Age (Lond) 54:336 Mr 30 '46
Electrolysis phenomena in soft-glass stems of rectifier tubes. J. Gallup. il diag Am Cer Soc J 29:277-81 O 1 '46
Preparation of beryllium powder; abstract. J. M. Tien. Chem & Met Eng 53:260 Jl '46

See also
Electrochemical analysis
Electrodeposition of metals
Electrodes
Electrolytes
Electrolytic cells
Electrolytic corrosion
Electrometallurgy
Metal cleaning, Electrolytic

Costs

Process design and operation guided by the economic balance. C. G. Kirkbride. Chem Eng 53:122-4 S '46

ELECTROLYTES
Activity of 1-*n*-dodecanesulfonic acid in aqueous solutions. H. F. Walton. bibliog Am Chem Soc J 68:1180-2 Jl '46
Dissociation of strong electrolytes. O. Redlich. bibliog(154 references) Chem R 39: 333-56 O '46
Free volume and entropy in condensed systems; entropy in binary liquid mixtures; partial molal entropy in dilute solutions; structure and thermodynamics in aqueous electrolytes. H. S. Frank and M. W. Evans. bibliog J Chem Phys 13:507-32 N '45
Heats of solution and dilution of calcium sulfate dihydrate in aqueous sodium chloride solutions. W. E. Wallace. bibliog diag J Phys Chem 50:152-68 Mr '46
Hexanolamine caprylate and diisopropylamine caprylate as colloidal electrolytes. E. Gonick. Am Chem Soc J 68:177-81 F '46
Isotropic and anisotropic liquid phases in the system hexanolamine oleate-water. E. Gonick and J. W. McBain. Am Chem Soc J 68:683-5 Ap '46
Poisson-Boltzmann equation derived from the transfer of momentum. A. S. Coolidge and W. Juda. Am Chem Soc J 68:608-11 Ap '46
Sensitivity of precipitation reactions of dilute electrolytes. R. K. McAlpine. J Chem Educ 23:28-34 Ja '46
Solutions of electrolytes; a simplified presentation of contemporary theory. W. F. Luder. diag J Chem Educ 22:575-82 D '45
Variation of the transference numbers for calcium chloride in aqueous solution with temperature. A. G. Keenan and others. bibliog J Chem Phys 13:466-9 N '45

Conductivity

Conductance of aqueous solutions of calcium chloride at temperatures from 15° to 45°C. G. C. Benson and A. R. Gordon. bibliog J Chem Phys 13:470-2 N '45
Conductance of electricity through solutions of strong and weak electrolytes. J. G. Miller and W. W. Lucasse. bibliog J Chem Educ 22:565-6 N '45
Electrical conductance of aqueous solutions; potassium metaperiodate and potassium perrhenate at 25°. J. H. Jones. bibliog Am Chem Soc J 68:240-1 F '46
Hitherto unobserved phenomenon in solutions of long-chain salts in methanol-water mixtures. E. C. Evers, P. F. Grieger and C. A. Kraus. Am Chem Soc J 68:1137 Je '46
Reinvestigation of the conductance of aqueous solutions of potassium chloride, sodium chloride, and potassium bromide at temperatures from 15° to 45°C. G. C. Benson and A. R. Gordon. J Chem Phys 13:473-4 N '45

ELECTROLYTIC cells
Economic factors in operation of cylindrical chlorine cells. L. P. Wenzell and others. diag Electrochem Soc Trans 89 (preprint 16):181-91 '46; Abstract. Chem & Met Eng 53:252 Je '46
Electric metering of electrolytic pot lines. E. L. Kirk. bibliog diag Electrochem Soc Trans 90 (preprint 8):139-50 '46
Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45; Same. Metal Finishing 43:497-9+ D '45; Abstract. Steel 119:124-5+ Ag 5 '46
Factors affecting anode consumption in chlorine cells. R. B. Hammond and N. J. Johnson. Chem Eng 53:94-6 S '46
Germany's vertical rotating cathode mercury cell. il diag Chem & Met Eng 53:113-15 Ja '46
Mercury chlorine cell data now available. Oil Paint & Drug Rep 149:3+ Je 24 '46
New type of electrochemical reaction. J. E. Stareck. Electrochem Soc Trans 89 (preprint 6):95-100 '46; Abstract. Chem & Eng N 24:1201 My 10 '46
Regenerative plating and other applications of porous diaphragms and cells. M. R. Diggin. il diags Metal Finishing 44:8-12 Ja '46
Two-compartment cell softens water electrolytically. L. Streicher. il diags Civil Eng 16:312-13 Jl '46

See also
Voltameters

ELECTROLYTIC corrosion
Electrolytic corrosion of Fourdrinier wire seams. il Paper Ind 28:53-6 Ap '46
Neutralizing circuit for elimination of long line current corrosion; abstract. W. R. Schneider. Nat Pet N 38 pt 2:R452 Je 5 '46
Study of electrolysis of steel in concrete; Electrical section, Engineering division, A.A.R. report. il Ry Mech Eng 120:32-6 Ja '46; Excerpts. Ry Age 119:987-8 D 15 '45

ELECTROLYTIC metal cleaning. See Metal cleaning, Electrolytic

ELECTROLYTIC polishing. See Polishing, Electrolytic

ELECTROMAGNETIC barograph. See Barographs

ELECTROMAGNETIC field
Calculation of the electromagnetic field, frequency and circuit parameters of high-frequency resonator cavities. H. Motz. bibliog diags Inst E E J 93 pt 3:335-43 S '46

ELECTROMAGNETIC shielding
Cylindrical shielding and its measurement at radio frequencies. A. R. Anderson. il diags Inst Radio Eng Proc 34:312-22 My '46
Power loss in electromagnetic screens. C. F. Davidson and others. Wireless Eng 23:8-15 Ja '46; Discussion. C. A. Siocos. 23:202 Jl '46

ELECTROMAGNETISM
Analysis of electromagnetic forces. W. A. Tripp. Elec Eng 64:351-6 O '45; Discussion. A. Gronner. 65:300-2 Je '46
Classical theory of electromagnetism and gravitation; special theory. H. C. Corben. Phys R 69:225-34 Mr 1 '46

ELECTROMAGNETS
Electromagnetic processes of the atomic bomb project. R. R. Wisner. il Power Pl Eng 50:82-5+ My '46; Abstract. Chem & Eng N 24:1382-3 My 25 '46

ELECTROMAGNETS—*Continued*
Power supply aspects of nuclear research; separating isotopes of uranium by electromagnetic means. R. R. Wisner. Elec World 125:55 F 2 '46
Scrap-handling magnet improved through welded design. il diags Steel 118:134+ F 4 '46
Silicone-resin-treated magnet coils. G. L. Moses and J. J. Torok. bibliog il Elec Eng 65:Trans 412-16 Jl '46
See also
Chucks, Magnetic
Magnetic separators
Solenoids

ELECTROMECHANICAL transducers
Violation of the reciprocity theorem in linear passive electrochemical systems. E. M. McMillan. diags Acoustical Soc Am J 18: 344-7 O '46

ELECTROMETALLURGY
Electrochemical society, 89th meeting, Birmingham; abstracts of papers. Steel 118: 108+ Ap 29 '46
Maintenance of rectifiers on electrochemical installations. J. E. Housley and G. N. Hughes. il diag Elec Eng 65:Trans 436-41 Jl '46
Metallurgical treatment of cobalt ores from the Goodsprings mining district, Nevada. F. K. Shelton. U S Bur Mines Rep of Invest 3836:1-34, pl 1-7 bibliog(p32-4) '46
Platinum refining and melting; possibilities of electric method. C. C. Downie. Metal Prog 50:483-4 S '46
Study of certain factors in the hydrometallurgy and electrodeposition of cobalt. F. K. Shelton and others. bibliog U S Bur Mines Rept of Invest 3832:1-43 '45
See also
Aluminum metallurgy—Electrometallurgy
Copper metallurgy—Electrometallurgy
Electrodeposition of metals
Electroplating
Manganese metallurgy—Electrometallurgy
Nickel metallurgy—Electrometallurgy
Steel metallurgy—Electrometallurgy

ELECTRON accelerator
Application of the betatron to practical radiography. J. P. Girard and G. D. Adams. bibliog il diags Elec Eng 65:Trans 241-6 My '46
Betatron. Elec R (Lond) 138:816 My 24 '46; il Electrician 136:1366 My 24 '46; Engineer 181:472 My 24 '46
Betatron built by General Electric. il Machine Design 17:108 D '45
Betatron pulsing system has many industrial applications. I. Paul and T. J. Wang. il diags Electronics 19:156-60 Ja '46
Combination of betatron and synchrotron for electron acceleration. H. C. Pollock. Phys R 69:125 F 1 '46
Energy-angle distribution of betatron target radiation. L. I. Schiff. Phys R 70:87 Jl 1 '46
First industrial use of betatron. Elec World News ed 124:18 D 15 '45
Graphical method for determining particle trajectories. W. E. Parkins and E. C. Crittenden, jr. J Ap Phys 17:447-9 Je '46
Hundred million-volt betatron. il Gen Elec R 48:67 D '45
Increasing the effectiveness of a betatron. T. J. Wang. diag Phys R 69:42 Ja 1 '46
Megavoltmeter for induction electron accelerators. W. F. Westendorp. il diag R Sci Instr 17:215-17 Je '46
Method of increasing betatron energy. D. W. Kerst. Phys R 68:238-4 N 1 '45
Methods for betatron or synchrotron beam removal. E. C. Crittenden, jr. and W. E. Parkins. J Ap Phys 17:444-7 Je '46
Million volt betatron opens possibilities in X ray penetration; abstract. C. G. Suits. Iron Age 156:153-4 N 22 '45
New improvement will raise energy of betatron from 100,000,000 to 160,000,000 volts. C. G. Suits. Franklin Inst J 242:165-6 Ag '46
100,000,000 electron volts; new super X-ray generator. J. Markus. il Sci Am 174:12-13 Ja '46
100 million volt betatron makes most powerful X-rays. il Power Pl Eng 50:61+ Ap '46
Orbits of particles in the racetrack. R. Serber. Phys R 70:434-5 S 1 '46
Particle accelerators as mass analyzers. P. B. Weisz. Phys R 70:91 Jl 1 '46
Production of heavily ionizing particles by X-rays generated by a 100-mev betatron. M. Schein and others. il Phys R 70:435-6 S 1 '46
Production of particle energies beyond 200 Mev. L. I. Schiff. bibliog diags R Sci Instr 17:6-14 Ja '46
Proposed high energy particle accelerator; the cavitron. R. F. Post. bibliog Phys R 69:126-7 F 1 '46
Racetrack: a proposed modification of the synchrotron. H. R. Crane. diag Phys R 69:542 My 1 '46
Radiation losses in the induction electron accelerator. J. P. Blewett. Phys R 69:87-95 F 1 '46
Removal of the electron beam from the betatron. L. S. Skaggs and others. il Phys R 70:95 Jl 1 '46
Silver half dollar made radioactive with hundred million volt betatron; abstract. Franklin Inst J 241:456-7 Je '46
Stability of electron orbits in the synchrotron. N. H. Frank. Phys R 70:177-83 Ag 1 '46
Stability of orbits in the racetrack. D. M. Dennison and T. H. Berlin. Phys R 69:542-3 My 1 '46
Stability of synchrotron orbits. D. M. Dennison and T. H. Berlin. Phys R 70:58-67 Jl 1 '46
Synchro-betatron, electron accelerator guide fields. H. F. Kaiser and E. C. Greanias. il diag Phys R 69:536-7 My 1 '46
Theory of the synchrotron. D. Bohm and L. Foldy. bibliog Phys R 70:249-58 S 1 '46
200 million-volt betatron for Glasgow university. Engineering 161:583 Je 21 '46
Two-million volt industrial radiography; use of betatron. L. Cardenas. il Iron Age 157: 52-5 Je 13 '46
Two possible modifications of the induction accelerator. E. Amaldi and B. Ferretti. R Sci Instr 17:389-95 O '46
Use of direct current in induction electron accelerators. W. F. Westendorp. il diags J Ap Phys 16:657-60 N '45
Wave guide acceleration of particles. E. L. Hudspeth. diag Phys R 69:671 Je 1 '46

ELECTRON beams. See Electrons—Beams

ELECTRON diffraction cameras. See Cameras, Electron diffraction

ELECTRON gun
Electron guns for television application. G. A. Morton. bibliog diags Rs Mod Phys 18: 362-78 Jl '46
High current electron guns. L. M. Field. bibliog diags Rs Mod Phys 18:353-61 Jl '46
Wideband microwave amplifier tube. il diags Electronics 19:90-2 N '46

ELECTRON metal
Rate of loading vs. strength; Elektron A8; abstract. J. L. Walker. Materials & Methods 24:190+ Jl '46

ELECTRON microscope
Applications of metallic shadow-casting to microscopy. R. C. Williams and R. W. G. Wyckoff. il J Ap Phys 17:23-33 Ja '46
Electron diffraction and electron microscope study of oxide films formed on metals and alloys at moderate temperatures; stripped oxide films of metals. R. T. Phelps, E. A. Gulbransen and J. W. Hickman. bibliog il diags Ind & Eng Chem Anal ed 18:391-400 Je '46
Electron microscope; abstract. M. E. Haine. Chem & Ind p100 Mr 2 '46
Electron microscope at Georgia tech. B. H. Weil and others. il diags Georgia School of Technology State Eng Exp Sta [Atlanta] Reprint Circ no 4:1-5 '46
Electron microscope probes atomic nature of rust. il Steel 118:78-9 Ja 21 '46
Electron microscopical replica techniques for the study of organic surfaces; low pressure polystyrene-silica technique and silver-silica double evaporation method. R. B. Barnes and others. bibliog il diags J Ap Phys 16:730-9 N '45
Electron optics and the electron microscope, by V. K. Zworykin and others; review. C. G. A. Hill. il diag Chem Age (Lond) 54: 577-80 My 25 '46

ELECTRON microscope—*Continued*
Filmless sample mounting for the electron microscope. J. H. L. Watson. il J Ap Phys 17:121-7 F '46
Frozen-dried preparations for the electron microscope. R. W. G. Wyckoff. Science 104:36-7 Jl 12 '46
Further improvement in the resolving power of the electron microscope. J. Hillier. il J Ap Phys 17:307-9 Ap '46
High dispersion electron diffraction by primary magnification. G. L. Simard and others. il diag J Ap Phys 16:832-6 D '45
High speed microtome for the electron microscope. E. F. Fullam and A. E. Gessler. il R Sci Instr 17:23-35 Ja '46
Investigation of secondary phases in alloys by electron diffraction and the electron microscope. R. D. Heidenreich and others. bibliog il diags J Ap Phys 17:127-36 F '46
Method for preparing rubber latex specimens for the electron microscope. R. H. Kelsey and E. E. Hanson. bibliog il J Ap Phys 17: 675-7 Ag '46
Microscope in metallurgy; studies at high and low temperatures. L. Sanderson. diag Chem Age (Lond) 54:612-14 Je 1 '46
Modifications of specimens in electron microscopy. L. Marton and others. il Science 104:35-6 Jl 12 '46
New developments in the study of surface chemistry. E. A. Gulbransen. il diags Metal Prog 49:553-5 Mr '46
Observation of gold particles in glass with the electron microscope. G. S. Bachman and others. bibliog il Glass Ind 27:399+ Ag '46
Oxide films formed on alloys at moderate temperatures; electron diffraction and electron microscope study. E. A. Gulbransen, R. T. Phelps and J. W. Hickman. bibliog il Ind & Eng Chem Anal ed 18:640-52 O '46
Particle size determination from X-ray line broadening. L. S. Birks and H. Friedman. bibliog il J Ap Phys 17:687-92 Ag '46
Petroleum research goes electronic. R. Sneddon. il Pet Eng 17:59-60 N '45
Physics research division broadens its activities. G. M. Webb and others. Pet Eng 18: 230+ O '46
Preparation of electron microscope specimens for determination of particle size distribution in aqueous suspensions. A. M. Cravath and others. il J Ap Phys 17:309-10 Ap '46
Preparation of powdered materials for electron microscopy. M. C. Schuster and E. F. Fullam. bibliog Ind & Eng Chem Anal ed 18:653-7 O '46
Shadow-casting adaptor for the electron microscope. T. F. Anderson. bibliog il diag R Sci Instr 17:71-2 F '46
Some recent developments in the field of electron microscopy. R. W. G. Wyckoff. Science 104:21-6 Jl 12 '46
Study of distortion in electron microscope projection lenses. J. Hillier. il diags J Ap Phys 17:411-19 Je '46
Thin undistorted sections for electron microscopy. H. C. O'Brien, jr. and J. W. McBain. pl Am Chem Soc J 68:1139 Je '46
Use of radio and electronics in the pulp and paper industry. K. R. Swinton. il diags Pulp & Pa of Can (Convention no) 47:184-7 [F] '46
Vibrating muller for the preparation of dispersions of fine pigments for electron microscopy. H. C. O'Brien, jr. diag Science 103:429 Ap 5 '46

Bibliography
Supplementary bibliography of electron microscopy. M. E. Rathbun, M. J. Eastwood and O. M. Arnold. J Ap Phys 17:759-62 O '46

ELECTRON microscope society of America
Annual meeting, 3d, Princeton university, Nov. 30-Dec. 1; with abstracts of papers. J Ap Phys 17:66-8 Ja '46

ELECTRON multipliers
Calculated frequency spectrum of the shot noise from a photo-multiplier tube. R. D. Sard. diags J Ap Phys 17:768-77 O '46

ELECTRON optics
Class of electron lenses which satisfy Newton's image relation. R. G. E. Hutter. J Ap Phys 16:670-8 N '45
Effect of grid-support wires on focusing cathode emission. C. Yeh. Inst Radio Eng Proc 34:444-7 Jl '46
Electron optics and the electron microscope. V. K. Zworykin and others. 766p $10 John Wiley & sons, 440 4th av, New York 16 '45
Electron optics and the electron microscope, by V. K. Zworykin and others; review. C. G. A. Hill. il diag Chem Age (Lond) 54:577-80 My 25 '46
Electronic night sight; target illuminated by infrared light; combination orthicon and cathode-ray tube with built-in electron multiplier converts reflected light into visible image. il diag Electronics 19:95 Je '46
Image formation in cathode-ray tubes and the relation of fluorescent spot size and final anode voltage. G. Liebmann. bibliog diags Inst Radio Eng Proc 33:381-9 Je '45; Correction. 33:485 Jl '45; Discussion 34:580-6 Ag '46
Infrared image tube. G. A. Morton and L. E. Flory. il diags Electronics 19:112-14 S '46
Infrared image tube and its military applications. G. A. Morton and L. E. Flory. il diags RCA R 7:385-413 S '46
Invisible light aids marksman; locating enemy at night by means of infrared light beam and electronically operated telescopic sight. il diag Radio N 35:35+ Je '46
Night vision with electronic infrared equipment; German systems. il diags Electronics 19:192+ Je '46
Rigorous treatment of the electrostatic immersion lens whose axial potential distribution is given by: $\varphi(z)=\varphi_0 \exp(K \arctan z)$ R. G. E Hutter. bibliog J Ap Phys 16:678-99 N '45
Study of distortion in electron microscope projection lenses. J. Hillier. il diags J Ap Phys 17:411-19 Je '46

See also
Electron microscope
Television

ELECTRON telescope
Infrared image tube. G. A. Morton and L. E. Flory. il diags Electronics 19:112-14 S '46
Infrared image tube and its military applications. G. A. Morton and L. E. Flory. il diags RCA R 7:385-413 S '46

ELECTRONIC cooking
Electronic cooking in slot machine. il Electronics 19:164+ Mr '46; Gen Elec R 49:71 F '46; Food Ind 18:336 Mr '46
Electronic heat in the food industries. V. W. Sherman. il diags Food Ind 18:506-9+ Ap '46; Same cond. Electronics 19:166+ Ap '46
Electronic range defects prevent home popularity. il Elec World News ed 125:8 Je 1 '46
Mold conquered; electronic oven. il Bsns W p54 N 24 '45
Radio cooking; users wouldn't like it, is verdict. il Elec West 96:96 Ap '46
Raytheon radarange for cooking. il Electronics 19:178+ N '46

ELECTRONIC corporation of America
Stocks offered. Comm & Fin Chr 163:191 Ja 14 '46

ELECTRONIC numerical integrator and computer. See Calculating machines

ELECTRONIC patents
Patent puzzle; over 6,000 patent applications covering microwave apparatus filed during war. D. K. Lippincott. Electronics 19:92-3 My '46

ELECTRONIC switch. See Vacuum tubes—Control uses

ELECTRONIC time, inc.
Electronic time. Bsns W p32 D 1 '45

ELECTRONICS
AIEE winter convention; abstracts of papers on electronic subjects. il diags Electronics 19:230+ Ap '46
Economics of electronics. J. Markus. il Sci Am 173:349-51 D '45
Electrical and allied developments of 1945. G. Bartlett. il maps Gen Elec R 49:54-8 Ja '46
Electron ballistics in high-frequency fields. A. L. Samuel. diags Bell System Tech J 24: 322-52 bibliog(p350-2) Jl '45

ELECTRONICS—*Continued*
Electronics for engineers; reference articles, charts, and graphs from Electronics magazine. J. Markus and V. Zeluff. 390p $6 McGraw-Hill book co, 330 W. 42d st, New York 18 '45
Electronics for the marine industry. il Marine Eng 51:124-6 Ap '46
Electronics in textile testing. E. R. Schwarz. bibliog il diag Am Dyestuff Rep 35:198-204 Ap 22 '46
Navy radio and electronics during World war II. J. B. Dow. Inst Radio Eng Proc 34: 284-7 My '46
Progress in engineering knowledge during 1945; electronics. P. L. Alger and others. diags Gen Elec R 49:35-7 bibliog(p66-7) F '46
Some electronic applications; abstract. Franklin Inst J 241:450-1 Je '46

See also
Electron microscope
Electron optics
Electrons
Oscillographs, Cathode ray
Photoelectric cells
Radio engineering
Television
Vacuum tubes
also Massachusetts institute of technology—Research laboratory of electronics

Bibliography

Bibliography; approximately 500 books about scientific, engineering, and technological aspects of electronics and related fields. Electronics 19B:239-43 (Buyers guide no) Je 15 '46
Technical papers by RCA authors. RCA R 7:281-3, 448-51 Je, S '46
Ten year index of the editorial contents of electronics; list of articles most often requested, January 1936-June 1946. Electronics 19B:161-74 (Buyers guide no) Je 15 '46

Indexes

Electronic engineering master index; a subject index to electronic engineering periodicals, January, 1925 to June, 1945. F. A. Petraglia, ed. 318p $17.50 Electronics research pub. co, 238 E. 44th st, New York '45

Study and teaching

Laboratory for basic electronics; United States military academy. P. M. Honnell and W. E. Strohm. il diags Elec Eng 65:75-80 F '46

Symbols

Graphical symbols for electronic diagrams. Electronics 19B:84-5 (Buyers guide no) Je 15 '46

ELECTRONICS (periodical)
Ten year index of the editorial contents of electronics; list of articles most often requested, January 1936-June 1946. Electronics 19B:161-74 (Buyers guide no) Je 15 '46

ELECTRONICS, Industrial. See Vacuum tubes—Industrial applications

ELECTRONOMETER. See Strain gages

ELECTRONS
Binding energy of polyelectrons. A. Ore. Phys R 70:90 Jl 1 '46
Bose-Einstein condensation of trapped electron pairs; phase separation and superconductivity of metal-ammonia solutions. R. A. Ogg, jr. bibliog Phys R 69:243-4 Mr 1 '46
Classical theory of the point electron. M. Schönberg. bibliog Phys R 69:211-24 Mr 1 '46
Conduction and dispersion of ionized gases at high frequencies. H. Margenau. bibliog Phys R 69:508-13 My 1 '46
Diamagnetism and superconductivity. W. Band. Phys R 69:241 Mr 1 '46
Electron affinity of amide radical and the chemical stability of metal-ammonia solutions. R. A. Ogg, jr. J Chem Phys 14:399-400 Je '46
Electron transit time in time-varying fields. A. B. Bronwell. diags Inst Radio Eng Proc 33:712-16 O '45; Discussion. L. A. Ware and H. B. Phillips. 34:151P, Mr '46
Energy distribution of electrons in high frequency gas discharges. T. Holstein. diag Phys R 70:367-84 S 1 '46
Heavy-electron pair theory in the limit of strong coupling. J. M. Blatt. bibliog Phys R 69:285-97 Ap 1 '46
Mechanism of benzidine-type rearrangements, and the rôle of π-electrons in organic chemistry. M. J. S. Dewar. Chem Soc J p406-8 My '46
Metastable ions formed by electron impact in hydrocarbon gases. J. A. Hipple and others. bibliog diag Phys R 69:347-56 Ap 1 '46
Pair production of light mesons by electrons. H. Feshbach and L. Tisza. Phys R 68:233 N 1 '45
Paths of ions and electrons in non-uniform crossed electric and magnetic fields. N. D. Coggeshall. bibliog Phys R 70:270-80 S 1 '46
Physical interaction of electrons with liquid dielectric media; properties of metal-ammonia solutions. R. A. Ogg, jr. Phys R 69:668-9 Je 1 '46
Quantum effects in the interaction of electrons with high frequency fields and the transition to classical theory. L. P. Smith. diag Phys R 69:195-210 Mr 1 '46
Relativistic interaction of electrons on Podolsky's generalized electrodynamics. D. J. Montgomery. Phys R 69:117-24 F 1 '46
Self-energy of the electron. G. Racah. Phys R 70:406-9 S 1 '46
Size of an electron and the nature of its mass. G. W. O. Howe. Wireless Eng 23: 33-5 F '46
Structure in the X-ray K absorption edge of metallic potassium. J. B. Platt. bibliog Phys R 69:337-46 Ap 1 '46
Superconductivity and magnetic energy between currents. W. Band. Phys R 69:241 Mr 1 '46
Theory of the electron and of the nucleon. A. Pais. bibliog Phys R 68:227-8 N 1 '45
Volt-ampere characteristics for the flow of ions or electrons between concentric cylinders in gases at atmospheric pressure. C. W. Rice. Phys R 70:228-9 Ag 1 '46
Weather cycles and their causes. H. P. Gillette. Roads & Sts 89:104+ Ap '46
Why do we believe in electrons? A. Standen. J Chem Educ 23:356 Jl '46

See also
Electric discharges
Mesotrons
Pauli exclusion principle
Vacuum tubes

Beams

Beam production in radial beam tubes, beam power tubes and other low voltage electronic devices. A. M. Skellett. bibliog il diags Rs Mod Phys 18:379-83 Jl '46
Beam tetrode characteristics; the effect of electron deflections. S. Rodda. bibliog Wireless Eng 23:140-5 My '46
Calorimetric experiment on the radiation losses of 2-Mev electrons. W. W. Buechner and R. J. Van de Graaff. bibliog diag Phys R 70:174-7 Ag 1 '46
Electron ballistics in high-frequency fields. A. L. Samuel. diags Bell System Tech J 24:322-52 bibliog(p350-2) Jl '45
Electron beams in strong magnetic fields. J. R. Pierce. Phys R 68:229-30 N 1 '45
Influence of space charge on the bunching of electron beams. L. Brillouin. Phys R 70: 187-96 Ag 1 '46
Interchange of energy between an electron beam and an oscillating electric field. J. Marcum. diags J Ap Phys 17:4-11 Ja '46
Methods for betatron or synchrotron beam removal. E. C. Crittenden, jr. and W. E. Parkins. J Ap Phys 17:444-7 Je '46
New method for displacing the electron beam in a synchrotron. J. S. Clark and others. Phys R 70:562-3 O 1 '46
Physical limitations in electron ballistics. J. R. Pierce. bibliog diags Bell System Tech J 24:305-21 Jl '45

See also
Electron gun

Diffraction

Electron diffraction and electron microscope study of oxide films formed on metals and alloys at moderate temperatures; stripped oxide films of metals. R. T. Phelps, E. A. Gulbransen and J. W. Hickman. bibliog il diags Ind & Eng Chem Anal ed 18:391-400 Je '46

ELECTRONS—Diffraction—*Continued*
Electron diffraction investigation of dimethylketene dimer. W. N. Lipscomb and V. Schomaker. bibliog J Chem Phys 14:475-9 Ag '46

Electron diffraction investigation of the molecular structure of thioacetic acid. W. Gordy. J Chem Phys 14:560-2 S '46

Electron diffraction investigation of vanadium tetrachloride. W. N Lipscomb and A. G. Whittaker. bibliog Am Chem Soc J 67: 2019-21 N '45

Examination of electro-cleaned steel by electron diffraction; abstract. C. W. Smith and I. L. Karle. Iron Age 158:70 O 10 '46

High dispersion electron diffraction by primary magnification. G. L. Simard and others. il diag J Ap Phys 16:832-6 D '45

Investigation of secondary phases in alloys by electron diffraction and the electron microscope. R. D. Heidenreich and others. bibliog il diags J Ap Phys 17:127-36 F '46

Oxide films formed on alloys at moderate temperatures; electron diffraction and electron microscope study. E. A. Gulbransen, R. T. Phelps and J. W. Hickman. bibliog il Ind & Eng Chem Anal ed 18:640-52 O '46

Stabilized d-c high-voltage supply, using rectified high frequency; electron diffraction instrument. A. M. Gurewitsch and P. C. Noble. il diags Gen Elec R 48:46-52 D '45

Emission from metals

Dissociation energies of surface films of various oxides as determined by emission measurements of oxide coated cathodes. H. Jacobs. bibliog diags J Ap Phys 17:596-603 Jl '46

Electron emission and the photovoltaic effect; study of the photovoltaic effect for the electrode: solution of sodium in liquid ammonia. A. L. Ferguson and G. H. Kissin. bibliog il diags Electrochem Soc Trans 89 (preprint 21):245-54 '46

Reflection, scattering, etc.

Energy-angle distribution of betatron target radiation. L. I. Schiff. Phys R 70:87 Jl 1 '46

Experiments on the elastic single scattering of electrons by nuclei. R. J. Van de Graaff and others. bibliog diags Phys R 69:452-9 My 1 '46

Reaction of radiation on electron scattering and Heitler's theory of radiation damping. H. A. Bethe and J. R. Oppenheimer. Phys R 70:451-8 O 1 '46

Scattering of electrons by hydrocarbon films. J. Karle. diags J Chem Phys 14:297-305 My '46

Secondary emission

Secondary electron emission from oxide-coated cathodes. M. A. Pomerantz. bibliog diags Franklin Inst J 241:415-33; 242:41-6 Je-Jl '46; Same cond. Phys R 70:33-40 Jl 1 '46

Secondary emission from germanium, boron, and silicon. L. R. Koller and J. S. Burgess. Phys R 70:571 O 1 '46

See also
Electron multipliers

Thermionic emission

Oxide coated cathode literature, 1940-1945. J. P. Blewett. bibliog diag J Ap Phys 17:643-7 Ag '46

Pulsed properties of oxide cathodes E. A. Coomes. bibliog diag J Ap Phys 17:647-54 Ag '46

Velocity

See also
Electron accelerator

ELECTROPHORESIS
Electrophoresis; technique for analysis of blood protein mixtures. il diag Electronics 19:196+ S '46

Fractionation of proteins by electrophoresis-convection. L. E. Nielsen and J. G. Kirkwood. diag Am Chem Soc J 68:181-5 F '46

Optical methods in electrophoresis; principles, apparatus, determination of apparatus constants, and application to refractive index measurements. L. G. Longsworth. bibliog il diags Ind & Eng Chem Anal ed 18:219-29 Ap '46

ELECTROPHYSIOLOGY
Double-beam c-r tube in biological research. T. H. Bullock. il diags Electronics 19:103-5 Jl '46

Electrical correlates of peripheral nerve injury. R. G. Grenell and H. S. Burr. Science 103:48-9 Ja 11 '46

Electricity, life, and sensation. V. G. Lippitt. diags Elec Eng 64:404-8 N '45

Apparatus

Attachment of electroencephalographic electrodes. C. W. Darrow and J. H. Pathman. Science 103:22 Ja 4 '46

Fine-tapered silver electrodes for physiological work. K. D. Roeder. Science 104: 425-6 N 1 '46

ELECTROPLATING
Alkaline electrotinning; abstract. T. G. Timby. Steel 119:104 Jl 8 '46

American electroplaters' society, annual meeting, Pittsburgh. Iron Age 158:58-62 Jl 25; 68-71 Ag 8 '46

American electroplaters' society, 33d annual meeting, Pittsburgh; abstracts of papers. Metal Finishing 44:283-7+ Jl '46

Bright alloy plating; producing ternary deposit of copper, tin and zinc. Steel 118: 105+ F 25 '46

Codeposition of tungsten and nickel from an aqueous ammoniacal citrate bath. L. E. Vaaler and M. L. Holt. bibliog Electrochem Soc Trans 90 (preprint 9):151-62 '46

Common plating bath troubles. H. J. Sedusky and J. B. Mohler. bibliog Metal Finishing 44:243-7, 293-6 Je-Jl '46

Deposition of nickel-cobalt alloys from chloride solutions. C. B. F. Young and C. Struyk. bibliog il diags Electrochem Soc Trans 89 (preprint 1):1-31 '46

Distribution of current along a cylindrical anode inside of a concentric tube. A. Weisselberg and others. Electrochem Soc Trans 90 (preprint 1):1-8 '46

Electrodeposition of copper; a review of recent literature. H. Bandes. bibliog(76 references) Electrochem Soc Trans 88 (preprint 26):282-96 '45; Same. Metal Finishing 44:110-16 Mr '46

Electrodeposition of nickel-cobalt-tungsten alloys from an acid plating bath. P. F. Hoglund and M. L. Holt. bibliog Electrochem Soc Trans 88 (preprint 24):255-65 '45; Same. Metal Finishing 44:248-51+ Je '46

Electrodeposition of tin-zinc alloys; abstract. R. M. Angles. Engineering 161:427 My 3 '46

Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45; Same. Metal Finishing 43:497-9+ D '45; Abstract. Steel 119:124-5+ Ag 5 '46

Electro-metallurgical progress; heat-treatment, welding and plating. L. Sanderson. Elec R (Lond) 138:526 Ap 5 '46

Electroplated engine bearing developed by Cleveland Graphite. Iron Age 158:126 Jl 11 '46

Electroplated pipe interiors. S. G. Bart. il Steel 118:96-7+ Je 24 '46

Electroplates for a stop-off when nitriding. C. J. Miller. Metal Prog 49:783-4 Ap '46

Electroplating during the war. E. A. Ollard and E. B. Smith. il Chem Age (Lond) 54: 633-8, 664-7 Je 8-15 '46

Electroplating laboratory; Diggin electroplating control table. il Metal Finishing 44:403 S '46

Electroplating of aluminum and its alloys. M. Raskin. flow chart il Metal Finishing 44:337-9 Ag '46

Electroplating on aluminum. bibliog flow sheet il Steel 118:142-4+ My 6 '46

Electroplating, polishing and buffing at the U.S. naval gun factory, Washington, D.C. A. L. Fry. il Metal Finishing 44:467-71+ N '46

ELECTROPLATING—*Continued*
Electrotinning of wide steel strip at high speed; abstract. S. S. Johnston and G. C. Jenison. flow sheet il diags Steel 119:102-4 Jl 8 '46
Finishing developments. A. Bregman. il Iron Age 157:130-5+ Ja 3 '46
German synthetic mechanical goods; rubber to metal adhesion; electroplating of metal to be used for adhesion. India Rubber World 113:231-5 N '45
Glycerine in metal treatment. G. Leffingwell and M. A. Lesser. bibliog il Materials & Methods 22:1432-4 N '45
Hamilton micro barrel-plater. H. S. Morgan. il Materials & Methods 23:773 Mr '46
Hard chromium plating directly on carbon and graphite. R. S. Herwig. il Materials & Methods 22:1751-3 D '45
How and why of a tank rheostat. H. W. Sussman. il diag Metal Finishing 44:108-9+ Mr '46
Job or contract electroplating business in 1945. Metal Finishing 44:116-17 Mr '46
Method for welding sheet aluminum to S.A.E. 4140 steel; study of different metals used as intermediate. W. F. Hess and E. F. Nippes, jr. bibliog il diags Welding J 25: sup129-48 Mr '46
Methods of preparation of aluminum for electrodeposition. H. Bengston. flow sheet il Electrochem Soc Trans 88 (preprint 25): 267-79 '45; Same. Metal Finishing 44:202-6+ My '46
Plated bearings; discussion. H. H. Jackson and others. Automobile Eng 36:245 Je '46
Plating auto hardware; Ternstedt plant of General motors corp. H. Chase. il Iron Age 158:59-61 S 19 '46
Plating bath characteristics. H. J. Sedusky and J. B. Mohler. bibliog diags Metal Finishing 44:374-81 S '46
Polishing and plating Oldsmobile three-piece bumpers. C. O. Herb. il Mach 53:158-65 N '46
Practical conductivity measurements in plating applications. J. B. Mohler and J. Sternisha. il Metal Finishing 44:58-62+ F '46
Preparing die castings for plating; Die casting division of Electric auto-lite co. H. Chase. il Iron Age 157:58-61 My 23 '46
Properties of the plate. H. J. Sedusky and J. B. Mohler. bibliog diags Metal Finishing 44:420-2+, 476-8 O-N '46
Protective value of electro-tin as an undercoating. S. Wernick. Metal Finishing 44:13-15, 67+ Ja-F '46
Regenerative plating and other applications of porous diaphragms and cells. M. B. Diggin. il diags Metal Finishing 44:8-12 Ja '46
Routine control of brass plating processes; polarographic, electrochemical, and chemical analysis of plating solutions and deposits. H. E. Z. Gordon and E. R. Roberts. bibliog diag Electrochem Soc Trans 90 (preprint 2):9-22 '46
Speculum plating and its uses. J. Ireland. il Materials & Methods 22:1400-2 N '45
Surface finishes for aluminum. J. F. Mason. il Iron Age 158:66-9 S 12 '46
Surface finishing of beryllium copper. il Iron Age 156:62-3 N 15 '45
Surgical instrument finishing and plating. J. G. Cowley and F. McKnight. il Metal Finishing 44:150-2 Ap '46
Tanks for electroplating solutions. G. B. Hogaboom, jr. and N. Hall. il Metal Finishing 44:63-6 F '46
Technical developments of 1945. N. Hall and G. B. Hogaboom, jr. bibliog and patent list(255 references) il Metal Finishing 44: 2-7+ Ja '46
Wage structure of electroplating and polishing industry, January 1945. J. W. Bloch. Mo Labor R 62:767-76 My '46
War turns a page in metal processing; finishing. il Am Mach 90:103-4 Ja 31 '46
Water and electrodeposition. F. R. Morral. bibliog il Metal Finishing 44:472-5 N '46
What is a clean surface? E. H. Lyons, jr. bibliog Electrochem Soc Trans 88 (preprint 1): 1-7 '45; Same. Steel 117:82+ D 31 '45

See also
Corronizing
Electrodeposition of metals
Nickel plating
Speculum plating
Zinc plating

Bibliography
Bibliography of electrodeposited nickel alloys. M. B. Diggin and O. Kardos. Metal Finishing 44:429-32 O '46

Cost
Choice of plated coatings. H. L. Farber. il Metal Prog 49:754 Ap '46

History
All our yesterdays; survey of articles on plating at turn of century. il Metal Finishing 43:452-3; 44:106-7, 161-3, 334-6+ N '45, Mr-Ap, Ag '46

Specifications
Function of specifications in electroplating. C. E. Huessner and others. Steel 119:164+ O 14 '46

Stripping
Copper stripping methods. F. C. Mathers and E. L. Martin. Iron Age 158:65 S 19 '46
Stripping metallic coatings; engineering file facts. G. Black. Materials & Methods 23: 477 F '46
Taking it off; current methods of stripping. G. Black. Metal Finishing 43:457-8 N '45

Testing
Corrosion-resisting properties of electro-deposited tin-zinc alloys. R. M. Angles and R. Kerr. il Engineering 161:289-92, 300 Mr 29 '46
Identification of electroplated coatings; engineering file facts. G. Black and others. Materials & Methods 24:673 S '46
Methods for testing adhesion of electrodeposits; abstract. A. L. Ferguson. Steel 119: 106 Jl 8 '46
Throwing power of anodizing baths; device for visually determining corrosion protection; can be applied to measure throwing power of plating baths. R. S. Herwig and A. Leigh. il diags Iron Age 156:51-3 D 20 '45
X ray diffraction studies of electrodeposits. T. Voyda. Iron Age 158:61 Jl 25 '46

Waste
Disposing of plating room waste liquors. C. J. Lewis. Iron Age 158:71-2 Ag 8 '46

ELECTROPULT. See Airplanes—Take-off

ELECTROSCOPE
Radioactive studies; analytical method for determination of long-life carbon C^{14}. F. C. Henriques, jr. and C. Margnetti. bibliog diag Ind & Eng Chem Anal ed 18:417-19 Jl '46
Radioactive studies; analytical procedure for measurement of long-lived radioactive sulfur, S^{35}, with a Lauritzen electroscope and comparison of electroscope with special Geiger counter. F. C. Henriques, jr. and others. bibliog diags Ind & Eng Chem Anal ed 18:349-53 Je '46

ELECTROSTATIC field. See Electric field

ELECTROSTATIC generators. See Electric generators, Electrostatic

ELECTROSTATIC lens. See Electron optics

ELECTROSTATICS
Electrocoating fabrics. Franklin Inst J 241: 161-2 F '46
Electrostatic and tensile properties of rubber and GR-S at elevated temperatures. R. S. Havenhill and others. il diags J Ap Phys 17:338-46 My '46; Same cond. India Rubber World 114:523-7 Jl '46
Electrostatic processes cut finishing costs; applied to dip and spray painting. il diags Elec World 124:115-17 D 8 '45
Electrostatic spraying of porcelain enamels. L. C. Goldberg. il Cer Ind 46:65-8 F '46

See also
Condensers (electricity)
Electric charges
Electric discharges
Electric generators, Electrostatic
Electricity, Static
Electrodynamics
Potential, Electric

ELECTROTHERAPEUTICS
Co-operation between the electrical and medical professions, and possible effect on absenteeism in industrial undertakings E. H. Miller. diags Inst E E J 93 pt 1:129-33 Mr '46

ELECTROTYPING
Sheet vinyl electrotype processing. il Mod Plastics 23:111-13 Jl '46

ELEKTRON. See Electron metal

ELEOSTEARIC acid
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain elaeostearic as well as linoleic and oleic acids. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 65:74-81 Mr '46

ELEPHANT Butte reservoir. See Rio Grande

ELEVATOR insurance. See Insurance, Elevator

ELEVATORS
Elevator cab details for apartment house; time-saver standards; plan and diagrams. Arch Rec 99:97 Ja '46
High-density apartment design for elevator efficiency. il plans diags Arch Rec 99:72-80 Ja '46
See also
Hoisting machinery
Insurance, Elevator

Safety measures
How to assure safe elevator operation. G. H. Reppert. il Ind Stand 16:260-5 D '45; Same abr. Safety Eng 91:32+ Mr; 54-5+ Ap '46
Interpretations of safety code for elevators. Mech Eng 68:843-4 S '46
Keeping elevators safe. J. A. Dickinson. il diags Stand 17:78-9 Ap '46
Man lifts. diags Nat Safety N 52:40+ D '45
Modifications approved to safety code for elevators. Mech Eng 68:1016 N '46

ELEVATORS, Electric
Modern electric lift practice. L. S. Atkinson. il diags Inst E E J 92 pt 2:254-64 Ag '45; Same cond. Engineering 160:118-20, 137-40 Ag 10-17 '45; Abstract. Elec R (Lond) 136: 358 Mr 9 '45; Discussion. Inst E E J 92 pt 2:265-8; 93 pt 2:310-12 Ag '45, Je '46; Elec R (Lond) 136:390 Mr 16 '45; Electrician 134:235-6 Mr 16 '45

ELK HILLS oil reserve. See Oil reserves (United States navy)

ELLA Sachs Plotz foundation for the advancement of scientific investigation
Grants-in-aid during 1945. Science 103:425 Ap 5 '46

ELLIOTT-LYSHOLM compressor. See Air compressors

ELLISON, Paul Stearns, 1899-
Personalities in industrial advertising. por Ind Marketing 31:118+ My '46

ELMIRA, New York

Water supply
Evolution of Elmira water works; abstract. J. M. Caird. Water & Sewage Works 93: 177-8 My '46

EL PASO, Texas
El Paso celebrates International mining day. J. J. Shores. Explosives Eng 23:262 N '45

EL PASO electric company
Bonds offered. Comm & Fin Chr 164:2285 N 4 '46

EL PASO natural gas company
Stock offered. Comm & Fin Chr 164:275-6 Jl 15 '46

EL SALVADOR. See Salvador

EMBANKMENTS
Iowa's new embankment specification. il Roads & Sts 89:67-70 My '46
New developments in use of asphalt in erosion control. il Roads & Sts 89:90-2 Ap '46
Soil compaction conference; meeting of ARBA committee, Washington, Nov. 15-16. Roads & Sts 89:67-9+ Ja '46
Soil compaction in embankments and subgrades. E. F. Bennett. Roads & Bridges 84: 80-1+ Ap '46
See also
Dams
Dikes (engineering)
Levees

EMBARKATION. See Ports of embarkation

EMBEZZLEMENT
FDIC entitled to proceeds of insurance paid out of embezzled bank funds. Banking Law J 63:312-17 Ap '46
How honest are people? M. Stearns. Banking 38:44-5 N '45

EMBOSSING machines (sheet metal work)
Redesigning? consider materials changes; graphotype; machine for embossing plates for addressing machine. R. K. Lotz. il diags Machine Design 17:127-9 D '45

EMBRYOLOGY
Demonstration of the bronchial tree and pulmonary blood vessels in the fetal pig. A. C. Clement. Science 104:9-10 Jl 5 '46
Embryonic induction in regenerating mesenchyme. H. S. Emerson. Science 104:232-3 S 6 '46

EMERY, Alden Hayes, 1901-
Elected ACS secretary. por Chem & Eng N 24:141 Ja 25 '46
Meet your new secretary. A. C. Fieldner. pors Chem & Eng N 24:462-3 F 25 '46

EMINENT domain
Condemnation of land for airports. C. S. Rhyne. Aero Digest 53:41+ Jl '46
New right of way laws needed in many states. J. M. Devers. Roads & Sts 89:103+ S '46

EMMONS, William Harvey, 1876-
Honorary member. A. I. Levorsen. por Am Assn Pet Geologists Bul 30:733-4 My '46

EMPIRE scientific conference
Conference, convened and organised by the Royal society. Chem Age (Lond) 54:702-3 Je 22 '46

EMPIRE State building

Airplane collision
Companies pay $161,920 on Empire State fire loss. Nat Underw 49:5 N 29 '45
Empire State bomber crash claims aggregate $750,000, Weekly Underw 155:440 Ag 24 '46

EMPLOYEES
Better eyes for industry; improved eye tests. D. O. Woodbury. il Tech R 48:159-62 Ja '46
Employee loyalty: business asset; labor turnover may be guide to credit rating. J. E. Bullard. Credit & Fin Management 48:24-7+ Ag '46
Employees' tenancies; position under the Rent restriction act. F. E. Sugden. Elec R (Lond) 137:642 N 2 '45
How to conduct employee opinion surveys. T. N. Boggs and L. L. Maness. Factory Management 104:90-4 Mr '46
How to get along with the boss. J. Garth. Am Bsns 15:28+ D '45
Inland on parade; Inland rubber corporation exhibition of all company products held solely for employees. il Ind Marketing 31:40 Ap '46
Inter-employee or interdepartment relationships; friction between office and factory help, etc. E. G. Thomssen. Soap & San Chem 22:79+ Jl '46
Salaried man or small agency owner? pro and con of being own boss in a small town. H. C. Jones. Ptr Ink 214:33-4 F 22 '46
Sampling workers' opinions. J. W. Irwin. Dun's R 53:32+ N '45; Abstract. Management R 35:118-19 Ap '46
What the factory worker really thinks about productivity, nationalization of industry, and labor in politics. Factory Management 104:81-8 Ja '46
What the factory worker really thinks about wages and hours, strikes, full employment, and veterans. Factory Management 103:81-92 D '45
What the worker thinks; results of questionnaire; Wilson foundry & machine co. W. O. Leonard. Foundry 74:82-3+ Ap '46

EMPLOYEES—*Continued*
Worker opinion survey did a good job for us; Victor adding machine company. A. V. Larson. Factory Management 104:156-7 S '46

See also
Ability tests
Absenteeism (labor)
Airplane factories—Employees
Apprentices
Arbitration, Industrial
Automobile factories—Employees
Bakers and bakeries—Employees
Bank employees
Bonus system
Brokers—Employees
Building trades—Labor conditions
Canneries—Employees
Carpet factories—Employees
Chemical workers
Collective bargaining
Colleges and universities—Employees
Cotton mills—Employees
Dental service, Industrial
Disabled—Rehabilitation
Electric utilities—Employees
Electric workers
Employees' representation in management
Employment management
Employment systems
Eye—Examination
Foremen
Gas companies—Employees
Glass factories—Employees
Government employees
Handicapped
Hotels—Employees
Hygiene, Industrial
Industrial relations
Insurance companies—Employees
Job analysis
Labor and laboring classes
Mail order business—Employees
Medical service, Industrial
Motor bus lines—Employees
Motor truck drivers
Municipal employees
Munition factories—Employees
Negroes—Employment
Occupations
Office workers
Oil companies—Employees
Paper mills—Employees
Payrolls
Pensions, Industrial
Petroleum refineries—Employees
Physical examinations
Radio workers
Railroads—Employees
Retail workers
Salesmen
Saving
Servants
Shipyards—Employees
Sickness
Steel workers
Street railroads—Employees
Sugar factories—Employees
Suggestion systems
Supervisory workers
Telephone companies—Employees
Textile workers
Veterans—Employment
Wage payment plans
Wages
Welfare work in industry
Woman—Employment

Clothing

See Clothing, Protective

Length of service

Hamilton employees receive service awards. Foundry 74:131 Jl '46
Old-timers out; civil service rules give superseniority to veterans. Bsns W p98 Ja 19 '46
Seniority issue. Bsns W p90+ Je 8 '46
Seniority settled; Supreme court decision in Fishgold case. Bsns W p104 Je 1 '46
What price seniority? San Diego Electric protects employee's seniority rights. H. H. Wilson. il Bus Transportation 25:54-7 F '46

Physical examinations

See Physical examinations

Promotion

Training prospective officers. L. L. White. Ry Age 121:257-9 Ag 17 '46; Same. Ry Mech Eng 120:446-8 S '46

See also
Ability tests
Employees—Rating

Rating

Are management's views of supervision faulty? Q. W. File. Personnel J 24:242-9; Discussion. 251-4 Ja '46
Better words on rating scales. J. D. Weinland. Personnel J 25:131-4 O '46
Employee rating insures unbiased opinions. N. Sabador and G. H. Bennett. Factory Management 103:114-17 D '45
Employee rating simplified; plan used by United States life insurance company. G. A. Strader. Am Bsns 15:52-3 N '45
Employee training and rating. S. C. Casteel. Am Water Works Assn J 38:906 Ag '46
Job evaluation and merit rating. A. S. Knowles. Mech Eng 68:709-11 Ag '46
Job evaluation, salary standardization, and merit rating. L. K. Curry. Bankers Mo 63: 487-9+ O '46
Merit rating system for supervisors; Inland manufacturing division, General motors corporation. C. K. Haas. Factory Management 103:127-30 N '45
Merit rating that really works. R. W. Ells. Am Bsns 16:14-15+ Jl '46
Method for evaluating supervisory personnel; Interaction Chronograph. E. D. Chapple and G. Donald, jr. Harvard Bsns R 24 no2: 197-214 [Ja] '46
Work measurement; factory management and maintenance. R. M. Barnes. il Factory Management 104:145-52 Jl '46

See also
Ability tests

Selection

See Employment systems

Testing

See Ability tests

EMPLOYEES, Dismissal of
Some guideposts to the right of discharge; difference between employers and unions. M. M. Shipman. Oil Paint & Drug Rep 150: 3+ S 16 '46

See also
Layoff systems

EMPLOYEES, Government. See Government employees

EMPLOYEES, New. See Employment management—New employees

EMPLOYEES, Reports to
Consolidated Edison company of New York issues special annual report for employees. Pub Util 38:173-4 Ag 1 '46
Economic facts pictured for employees; New York Central system. C. R. Dugan. il Ry Age 120:918-19 My 4 '46
Explaining profits to employees. H. C. Greer. J Account 82:76-7 Jl '46
Let's take the lead in giving workers economic facts. Factory Management 104:124-9 Je '46
Management speaks in annual reports to stockholders and employes. il Sales Management 57:104 N 1 '46
Plant posters take place of annual report to employees. il Ptr Ink 214:25 Mr 1 '46
Profits in payroll terms; getting down to earth in explaining profits to employees. F. Wallace. Trusts & Estates 82:466-7 My '46

EMPLOYEES, Selection of. See Employment systems

EMPLOYEES, Training of
Aiming millwright training at low-cost production; Wyman-Gordon company, Harvey, Ill. R. B. Cribbs. il Factory Management 104:146-8 My '46
Airline mobile training units. il Aero Digest 52:42-3 Ap '46
Briefing the electrical gang on the newer devices; Goodyear tire & rubber company. R. F. Snyder. il Factory Management 104: 162-3 Je '46
Case studies of production; raising productivity in plants manufacturing electronic gear. M. Lechner. il plans diags Electronics 18:140-6 D '45
Certified Diesel mechanic; training program, Central Greyhound. il Bus Transportation 25:50-2 Ag '46
Classroom plus on-the-job training pays its way in instrument course; Baton Rouge refinery. D. P. Thornton, jr. il Pet Processing 1:136-9 O '46
Cutting typing and stenographic costs. il Am Bsns 16:20-4+ Ja '46
Employee education in the paper industry. W. G. Hendrich. Paper Ind 28:660-2 Ag '46
Employee training and rating. S. C. Casteel. Am Water Works Assn J 38:903-6 Ag '46

EMPLOYEES, Training of—*Continued*

Films promote loyalty, aid typists, increase morale; how companies are using motion pictures and sound-slidefilms for special training problems. Am Bsns 16:32 Mr '46

Ford students; expanding training program. Bsns W p75 Ap 13 '46

Graybar film stresses proper follow-through on orders. il Sales Management 57:82+ Ag 15 '46

How to profit from a driver training program; Dixie-Sunshine trailways. il Bus Transportation 25:57-9 Jl '46

Indoctrination period for operation of new type airline aircraft; abstract. R. C. Stunkel. S A E J 53:sup26 N '45

Inexpensive demonstrators dramatize sales, practical knowledge; Sohio's training plan. H. Taylor. il Nat Pet N 38:32-3+ S 4 '46

Is the Diesel industry training its men? Diesel Power 24:1075-8+ S '46

It pays to spin for quality; teaching methods. C. M. Bowden. il diags Textile World 96:143+ S '46

Lineman training course combines class and practice; Oklahoma gas & electric co. R. F. Danner. il Elec World 126:82-4 O 12 '46

Management has big role in boosting station profit, training employes, improving personnel efficiency. Nat Pet N 38:23-4+ Jl 31 '46

Methods for maintaining good customer relations; training telephone service employees; interview with V. Pack. F. A. Herr. Am Gas J 163:23-6 D '45

Now every day is school day at Standard Accident. D. G. Baird. il Sales Management 56:139+ F 15 '46

On-the-job training. Sheet Metal Worker 37: 70+ My '46

On-the-job training for graduate engineers; Allis-Chalmers. R. G. Greiner. il Factory Management 104:154-5 Ag '46

On-the-job training; what four department stores in Buffalo are doing. A. W. Woodard. J Retailing 22:5-6+ F '46

Operators told why as well as how in program to cut plant operating costs; Standard oil co. of New Jersey, pump maintenance course. W. F. Bland. il Pet Processing 1:3-6 S '46

Perception versus routine; do your assistants know what they are doing? J. P. Callahan. Credit & Fin Management 48:30-2 Ag '46

Personnel training on repressuring project, West Pampa pool of Texas. J. Woodruff. Oil & Gas J 44:147 F 23 '46

Plant training in a public utility. H. C. Walker. Elec Eng 65:13-16 Ja '46

Practical methods produce results in training utility employees; abstract. W. H. Senyard. Pub Util 38:176-9 Ag 1 '46

Process analysis; Midland electric manufacturing co. methods for training personnel. il Elec R (Lond) 138:939-40 Je 14 '46

Profitable servicing; training program, Donaldson radio & electric company. G. Lowry. il Radio N 36:48-9 S '46

Program for foundry training; Lynchburg foundry co. F. W. Hurt. il Foundry 74:72-5+ S '46

Program for training servicemen. C. C. Westmoreland. il diags Am Gas Assn Mo 28:323-8 Jl-Ag '46

Recruiting, selecting and training home service personnel. W. D. Williams. Gas Age 96: 16-19+ D 27 '45

Retraining is the answer as maintenance goes diverse; PAA's Atlantic div. A. G. Thomas and A. Merkin. il Aviation 44:112-14 D '45

Sensible training methods. il Mech Handling 33:322-3 My '46

Service training program at Hartford-Empire. Glass Ind 27:343-4 Jl '46

Tailoring training to trainee in work simplification; RCA Victor division. W. A. Hoffman. il plans Factory Management 104:120-2 Je '46

Teaching plant men new techniques in the mechanical crafts; training program of Standard Oil (N.J.). il Nat Pet N 38 pt 2: R323-5 My 1 '46

Test those new miners. H. B. Hicks. Can Min J 67:726-9 Jl '46

Tool-engineer training helps prevent production errors; AC spark plug division. General motors corporation. W. F. Eitel. il Am Mach 90:104-7 Mr 28 '46

Training and retraining; New Orleans school for transit employees. T. Wicker. il Mass Transportation 42:375-6 S '46

Training film dramatizes reasons for card room waste. Textile World 96:129 Ag '46

Training for better service; JIT and JRT government programs applied to large-scale retailing. A. Hulsebach. J Retailing 22:7-10 F '46

Training for home service; Southern California gas company. M. A. Bates. il Am Gas Assn Mo 27:526-8 D '45

Training in electrical industries; University of California's experience with war training program. C. F. Dalziel and others. Elec Eng 65:310-16 Jl '46

Training new personnel in the power plant. G. L. Radamaker. Power Pl Eng 50:98-9 S '46

Training of accounting employees. Edison Elec Inst Bul 14:155-6 My '46

Training of filtration plant personnel. A. E. Clark. Water & Sewage Works 93:311 Ag '46

Training of metallurgical engineers in the steel industry. F. C. Wright. Blast F & Steel Pl 34:373-5 Mr '46

Training of nonacademic employees; University of Illinois. D. E. Dickason. Personnel J 25:62-6 Je '46

Training operators for refinery efficiency. J. B. Hamblen and W. A. Sullender. diags Oil & Gas J 44:236+ Mr 30 '46

Training plant operators at Fort George G. Meade. A. M. Tawney. Am Water Works Assn J 38:234-8 F '46

Training spark testers. E. W. Lundahl. diags Iron Age 158:65-7 Jl 18 '46

Training time study men. T. R. Turnbull. il Iron Age 158:50-4 Ag 1 '46

TWA opens Flight engineers' school. il Aero Digest 51:72 N 15 '45

Trends in refinery training. H. T. Fort. il Pet Eng 18:194+ O '46

University-industry training plan of International harvester co; abstract. A. C. Seyfarth. Trusts & Estates 82:232 F '46

Using films in office training; abstract. Management R 35:411-12 O '46

Veterans on-the-job training program. E. Adams. il Pet Eng 17:184+ S '46

Visualizing the package speeds production. W. J. Byrd. il diags Mod Packaging 19: 131-3 F '46

Your friends are on your pay roll. A. M. Cooper. Elec West 96:55-6 My '46

Your system can be no better than the training of its workers. A. H. Nielsen. Mass Transportation 42:235-7 Je '46; Abstract. Bus Transportation 25:71-2 Jl '46

See also

Apprentices
Bank employees—Training
Corporation schools
Employees' manuals
Executives—Training
Foremen—Training
Instructions
Insurance, Life—Agents—Training
Railroads—Employees—Training
Safety instructions and training
Salesmen—Training
Supervisory workers—Training
Vocational education—Cooperative plan

EMPLOYEES, Transportation of

Atom's express; bus service provided at Clinton engineer works, Oak Ridge, Tenn. C. Byrd. il Bus Transportation 24:68-71 N '45

Northrop sets safety record; buses used to transport employees. Safety Eng 90:48 N '45

Personnel carrier for large line crews. E. W. Templin and I. L. Bateman. il diags Elec World 125:58-9 Ja 5 '46

EMPLOYEES as sales promoters

Going to stage a business show? here's how United-Whelan does it; banquet for suppliers, employes as actors. il Sales Management 56:58+ Ap 15 '46

How many salesmen can a company have? E. T. Parrack. Ind Marketing 31:42 My '46

EMPLOYEES as salesmen

Mail-order catalog relieves salesmen of large-line selling; American Type Founders plan. J. A. Murphy. il Ptr Ink 217:46-7 O 4 '46

EMPLOYEES as stockholders

Biggest issue; stock and bond proposal. Bsns W p82 S 7 '46

EMPLOYEES as stockholders—*Continued*
Incentive plans for top executives. C. Davidson. Chem Ind 59:656-7 O '46
Profit sharing and stock ownership for wage earners and executives. B. M. Stewart and W. J. Couper. 142p bibliog(p141-2) pa $1.25 Industrial relations counselors, 1270 6th av, New York 20 '45

EMPLOYEES' associations
Employees' M and H program; consolidated natural gas company. N. D. Bradley. Am Gas Assn Mo 28:311+ Jl-Ag '46

EMPLOYEES' benefit plans
Bristol-Myers benefit plan. Ind Med 15: sup40+ F '46
Joint administration of employee benefit plans. Trusts & Estates 82.507-8 My '46
Office salaries since VJ-day. Am Bsns 16:32+ S '46
Security provisions in labor contracts. E. T. Reisner. bibliog Personnel J 25:67-71 Je '46
Trends in employee benefit plans; profit sharing inadequate for pension benefits. J. H. Shreiner. Trusts & Estates 82:417-19 Ap '46

EMPLOYEES' booklets
Dramatizing personnel policies; cartoon booklet prepared by the Paraffine companies, inc. and distributed to employees. Factory Management 103:97-108 N '45

EMPLOYEES' buildings
Bathhouse design economizes on space; Reels Cove mine of the Tennessee products corp. plan Coal Age 51:128 F '46
Workers own and operate their recreation building; Allen B. Wrisley company, Chicago. il Factory Management 104:90-1 F '46

EMPLOYEES' clothing. See Clothing, Protective

EMPLOYEES' conferences
Employee forums on company operations; Kellett aircraft corporation. il Am Mach 90: 102-3 Ap 25 '46

EMPLOYEES' counselors
Advice, guidance and counseling. W. G. Shepherd. Personnel J 25:167-70 N '46
Status of counselor. S. H. Kovach. Personnel J 25:106 S '46

EMPLOYEES' insurance. See Insurance, Group—Employees' insurance; Insurance, Life—Employees' insurance

EMPLOYEES' inventions. See Inventions, Employees'

EMPLOYEES' lunches. See Lunches, Employees'

EMPLOYEES' lunchrooms and cafeterias. See Lunchrooms and cafeterias, Employees'

EMPLOYEES' magazines
ANA calls for house organ reconversion. Ptr Ink 216:94 Jl 19 '46
Challenge to management. M. Brown. Pulp & Pa of Can 47:68-9 Ag '46
Employe publications, a boon to agencies, a service for advertisers. P. F. Biklen and R. D. Breth. Ind Marketing 30:55+ N '45
Employee magazine gets results you can see; Ohio seamless tube company safety campaign. M. Freese. Ptr Ink 215:47 My 24 '46
Give your employes a paper! A. Izzard. il Ind Marketing 31:53+ S '46
How to unearth usable material for company house organs. Sales Management 56: 160 Ja 15 '46
Letters from transit house organ editors. Mass Transportation 41:370-2 D '45
Publicity for all employees; system for measuring employe publicity. L. A. McPherson. Ind Marketing 30:64+ O '45
Slanting the employee magazine toward peacetime activities. 11p Dartnell corporation, Ravenswood and Leland av, Chicago '46
Telling the safety story in the Weirton steel employees bulletin. J. A. Jones. il Nat Safety N 54:32-3+ Jl '46
Why not use all the angles? message of safety in employee publications. H. F. Heil. il Nat Safety N 52:22-4+ D '45

EMPLOYEES' manuals
Company manuals promote good will and coordination in the chemical industry. W. von Pechmann. Ind & Eng Chem 37:sup103-4 N '45
Handbook lifts employe morale; W. F. Hall printing company. Inland Ptr 117:74 Ap '46
Preparing an employes' handbook. F. B. Fitts. Ind Marketing 30:76+ D '45

EMPLOYEES' ownership
Production man's idea launches workers' company; Bristol machine tool co. il Bsns W p29 My 18 '46

EMPLOYEES' recreation. See Recreation

EMPLOYEES' representation in management
Employee-management participation; program of Community savings bank of Rochester. Trusts & Estates 83:333-4 O '46
How to achieve full labor-management cooperation. C. S. Golden. Advanced Management 11:21-4 Mr '46
Joint production committees in Norway. Int Labour R 53:222-4 Mr-Ap '46
Labor-management and factory committees in Italy. J. C. Adams. Mo Labor R 62:912-13 Je '46
Labor's philosophy and cost reduction programs. J. N. Scanlon. Factory Management 103:314+ D '45
Management-staff council; Wachovia bank and trust company, Winston-Salem, N.C. T. L. Carroll. il Banking 38:33-5+ Mr '46
Managers must manage. R. M. C. Littler. bibliog Harvard Bsns R 24 no 3:366-76 [Ap] '46
Misnomer; management prerogatives. Bsns W p100 Ap 27 '46
Profits shared; Eric Johnston's plan. Bsns W p96 Ja 26 '46
Representation in management as decreed by the government of France. Personnel J 24: 260-4 Ja '46
To work together. D. Ross-Ross. Pulp & Pa of Can 47:66-8 Ag '46
Tragic mistakes in conferences. C. S. Slocombe. Personnel J 24:348-59 Mr '46 [reprinted from May, 1935, issue]
Union interest in engineering techniques. W. Gomberg. Harvard Bsns R 24 no 3:356-65 [Ap] '46
Wartime methods of labour-management consultation in the United States and Great Britain. Int Labour R 52:309-34 O '45

EMPLOYEES' saving plans. See Saving

EMPLOYEES' suggestions. See Suggestion systems

EMPLOYEES' trusts
Blasts latest pension ruling. M. Elrod, jr. Nat Underw (Life ed) 50:8 F 1 '46
Employe trust funds help to reduce taxes. A. Gray. Inland Ptr 116:78-9 D '45-Ja '46
Employees trust for stock purchase. Trusts & Estates 83:60-1 Jl '46
Insurance contracts for profit-sharing trusts. F. P. McGuire. Trusts & Estates 81:371-2 N '45
Pension and profit-sharing plans; Manufacturers trust company booklet. East Underw 46:3+ N 30 '45
Profit-sharing: current vs. deferred distribution. H. S. Koster. Trusts & Estates 82:218 F '46
Profit-sharing plans with retirement benefits. F. P. McKenzie. East Underw 47:52 pt 2 O 4 '46
Profit sharing trust starts with first payment; ruling by Internal revenue commissioner. Nat Underw (Life ed) 50:8 Ja 18 '46
Trends in employees' trusts; deferred profit-sharing plans desirable. E. B. Gardner. Trusts & Estates 82:169-72 F '46
See also
Pension trusts

EMPLOYERS
Gag on employers; NLRB holds management must not force workers to hear antiunion talks. Bsns W p89-91 S 7 '46

EMPLOYERS' associations
Employer combines limit Swedish unions. H. G. Tonndorf. Factory Management 104: 270+ Je '46
Labor and employer organizations during German occupation. E. Kupers. Ann Am Acad 245:62-9 My '46

EMPLOYERS' liability
Compensation carrier held liable under employer's evidence that payments in amount of wages were mere donations. Weekly Underw 153:1298 D 1 '45

EMPLOYERS' liability—*Continued*
Congress should preempt compensation air law field. K. R. Thompson. East Underw 46:35 D 21 '45
Damage suit maintainable against employer for injuries sustained in fall on premises after hours. Weekly Underw 154:915 Ap 6 '46
Employed or not employed? digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:32-3 F 14 '46
Study question of street accidents. W. C. Ropiequet. Nat Underw 49:28 D 20 '45
Unusual law suits affecting gas utilities. L. T. Parker. Am Gas J 165:34-5 Ag '46
See also
Insurance, Employers' liability — Workmen's compensation

EMPLOYERS' liability insurance. See Insurance, Employers' liability

EMPLOYMENT
American workers not beset by fear of economic future; Gallup poll. Iron Age 157: 99+ Je 13 '46
Australian re-establishment and employment act. Int Labour R 52:516-21 N '45
British proposals for international full employment. Comm & Fin Chr 164:2206+, 2337, 2370 O 31, N 7 '46
Businessman's role in directing our economic future. B. Graham. Comm & Fin Chr 164: 880+ Ag 15 '46
CED sees employment at highest peacetime level; reports by districts. Iron Age 157: 106-7 Ja 17 '46
Cost of labor's featherbeds; abstract. M. S. Pitzele. Management R 35:263-5 Jl '46
Distribution, a key to full employment. A. E. Taylor. Comm & Fin Chr 164:2219+ O 31 '46
Dovetailing rural public works into employment policy. E. J. Howenstine, jr. R Econ Stat 28:165-9 Ag '46
Economic progress and full employment. O. Lange. Ann Am Acad 246:91-4 Jl '46
Employment policy in India during the transition period. Int Labour R 52:513-15 N '45
Foreign reaction to American full employment aims; importance of international trade. M. V. Guardiola. Comm & Fin Chr 162:3130+ D 27 '45
Four keys to the 1946 question; job security. J. L. Trecker. Dun's R 54:13-15+ O '46
Full employment four centuries ago. A. W. Gray. Banking 38:119 F '46
Full employment illusions. F. A. Hayek. Comm & Fin Chr 164:333+ Jl 18 '46
Full employment in Sweden. A. Bjornberg. Comm & Fin Chr 164:333+ Jl 18 '46
Full employment in the transition period. Int Labour R 52:589-608 D '45
Full employment, 1946 model. Nat City Bank p115-19 O '46
Full employment plus for America. I. Mosher. il Dun's R 53:11-14+ N '45
Full production means full employment, plus; address before National association of manufacturers. I. Mosher. Comm & Fin Chr 162:2697+ D 6 '45; Excerpts. Factory Management 104:262+ F '46
Future employment for technical persons. Can Chem & Process Ind 30:50-1+ Ag '46
High-level employment; a challenge to retail distribution. M. P. McNair. Comm & Fin Chr 163:374+ Ja 24 '46
How to create jobs in a free economy; abstracts. J. L. Trecker. Mach 52:189-90 D '45; Automotive & Aviation Ind 93:17+ D 15 '45
How we can make jobs for millions. J. A. Krug. Power Pl Eng 50:57 Mr '46
Industry looks for employment in 1946 to top 1939 level by 40.5%. Steel 118:sup6-7 Ja 7 '46
Is foreign trade indispensable to the prosperity of American labor? P. V. Horn. For Comm W 21:15 D 1 '45
Labor market in the transition. Fed Res Bul 32:957-64 S '46
Life, liberty, and the pursuit of happiness (1950 model). W. Beveridge. R Econ Stat 28:53-9 My '46
Maintenance of full employment after the transition period; a comparison of the problem in the United States and the United Kingdom. M. Kalecki. Int Labour R 52:449-64 N '45
Majority oppose feather bedding practices; Gallup poll. Iron Age 157:101 Mr 28 '46
Marketing and full employment in war and peace. E. B. George. il Dun's R 54:11-14+ Jl '46
Opinion on the relation between foreign trade and employment. E. E. Poulton. Mo Labor R 61:858-62 N '45
Prosperity and employment. I. Wright. Comm & Fin Chr 163:1220+ Mr 7 '46
Quality control creates jobs. E. L. Cady. il Sci Am 174:149-51 Ap '46
Readjustments in employment. Survey of Cur Bsns 26:2-3 Ja '46
Responsibility of organized labor for employment. S. Slichter. Management R 35:120-2 Ap '46
Second thoughts on British white paper on employment policy. J. Jewkes. Comm & Fin Chr 163:3197+ Je 13 '46
Small business must take large part in re-employment plan; abstract. L. Wilkie. Iron Age 156:148+ D 6 '45
Smaller working force promises rise in living standard; facts puncture 60 million job bubble of needless public employment. B. W. Corrado. Barron's 26:7+ Ap 15 '46
Stimulating peacetime employment; summary of principal problems. S. H. Slichter. il Dun's R 53:11-13+ O '45
Symposium on fiscal and monetary policy. L. W. Mints, A. H. Hansen, H. S. Ellis, A. P. Lerner, and M. Kalecki. R Econ Stat 28:60-84 My '46
Those 58,500,000 jobs. W. P. Burn. map Ptr Ink 214:33-6+ Mr 1 '46
Trade and employment; the proposals submitted by United States for consideration by an international conference. Economist 149:869-73 D 15 '45
What the factory worker really thinks; full employment. Factory Management 103:88-90 D '45
Who owns the job; industry or labor? L. H. Haney. Comm & Fin Chr 163:2651+ My 16 '46
See also
Age and employment — Labor supply
Applications for positions — Negroes—Employment
Child labor — Prisoners of war—Employment
Employment departments — Unemployment
Handicapped — Veterans—Employment
High school students—Employment — Woman—Employment

Government guaranty
See Employment—Legislation, Proposed

International aspects
Informational requirements for full employment policies. A. Loveday. Comm & Fin Chr 163:3201+ Je 13 '46

Legislation, Proposed
Attacks full employment bill. H. Hazlitt. Comm & Fin Chr 162:2324+ N 15 '45
Forecasting as a basis of public policy. Nat City Bank p136-7 D '45
Full employment bills. W. E. Spahr. Comm & Fin Chr 163:247+ Ja 17 '46
What will full employment cost? W. E. Spahr. Credit & Fin Management 47:12-16 N '45; Same cond. Comm & Fin Chr 162:1449+ S 27 '45
See also
Employment act of 1946

Stability
Company plan for year-round jobs. Management R 34:484-6 D '45
Industry weighs regularized jobs against guaranteed annual wages. Am Mach 90:152 O 24 '46
Job security testing ground; Lorain county's cooperative plan. Bsns W p19-20 N 2 '46
Management's responsibility toward stabilized employment. R. R. Deupree. Manuf Rec 115:50-1+ Mr '46; Abstract. Soap & San Chem 21:45 N '45
Stabilized jobs; N.A.M. program. Bsns W p102-3 O 12 '46

EMPLOYMENT—Stability—*Continued*

Statistics

Adjusted manufacturing series of employment and pay rolls; revised monthly estimates by major industry group from January 1944 to December 1945. Mo Labor R 63:297-301 Ag '46

Brookings and Tucker estimates; further comments. E. E. Hagen. R Econ Stat 27: 196-201 N '45

Economy in war and transition; labor market. Survey of Cur Bsns 26:9-12 F '46

Employment and earnings in the Philadelphia knitted-outerwear industry, 1944 and 1945. G. E. Votava. Mo Labor R 63:205-10 Ag '46

Employment and pay rolls in the telegraph industry, monthly figures, 1937-1943; revised series. Survey of Cur Bsns 26:23 Ag '46

Employment situation in foreign countries. M. H. Schoenfeld and others. Mo Labor R 62:6-24, 187-210 Ja-F '46; Same, with later data. U S Bur Labor Statistics Bul 864:1-43; pa 10c Supt. of doc. '46

Employment situation in Latin America. J. R. Mock and E. D. Owen. Mo Labor R 62: 741-52 My '46

Employment statistics in the planning of a full-employment program. C. Stewart and L. Wood. Am Stat Assn J 41:313-21 S '46

Estimated number of production workers in manufacturing industries; revised series; monthly average, 1929-1944 and monthly figures, 1939-July 1944. Survey of Cur Bsns 25:22 D '45

Factory employment and pay rolls, by industries (without seasonal adjustment) monthly, Oct-Nov 1944 and July-Nov 1945. Fed Res Bul 32:73-4 Ja '46 [cont monthly]

Industrial distribution of nonagricultural employment, 1940-1945; chart. Survey of Cur Bsns 26:1 Ja '46

Job changes during the war; maps. Factory Management 104:97 My '46

Manufacturing employment by industrial groups, January 1940 to December 1945; tabulation. Survey of Cur Bsns 26:14 Jl '46

Manufacturing employment, September 1939-March 1946. Mo Labor R 63:1-7 Jl '46

Nonfarm placements by U.S. employment service in 1945. Mo Labor R 62:755-7 My '46

Postwar national income; appraisal of criticisms of the Brookings Institution estimate. J. Mayer and others. R Econ Stat 27:189-91 N '45

Postwar output at full employment; a rebuttal. R. S. Tucker. R Econ Stat 27:192-6 N '45

Postwar output in the United States at full employment. L. H. Bean. R Econ Stat 27: 202-3 N '45

Production-worker employment and pay rolls in manufacturing industries, monthly average, 1944-1945 and monthly figures, Jan. 1944-Feb. 1945; revised series. Survey of Cur Bsns 26:24 Jl '46

See labor shortage until year-end with leveling off early next year; employment in Michigan, Ohio and Kentucky. J. K. Johnson. Iron Age 158:100-1 O 3 '46

Survey reveals first employment advance for Cleveland area. Iron Age 156:181-2 N 15 '45

Wages and salaries, employment, and average annual earnings per full-time employee in private industries, 1942-45; tabulation. Survey of Cur Bsns 26:32 O '46

Wages and salaries, employment and average annual earnings per full-time employee in private industries, 1943-44; tabulation. Survey of Cur Bsns 25:23 N '45

Workers' experiences during first phase of reconversion. N. Weinberg. Mo Labor R 62:707-17 My '46; Same, with additional data showing effect of incomplete coverage on findings. U S Bur Labor Statistics Bul 876:1-18; pa 10c Supt. of doc. '46

EMPLOYMENT act of 1946

Employment act of 1946. Mo Labor R 62:586-8 Ap '46

Planning for maximum employment. Nat City Bank p102-4 S '46

Substitute full employment bill signed by President; text of act. Comm & Fin Chr 163:1137 F 28 '46

EMPLOYMENT agencies

Appointments department; Ministry of labour. Economist 151:613-14 O 19 '46

Joint control; states to determine workers benefits, but U.S. controls pursestrings. Bsns W p104+ O 5 '46

Veterans get Los Angeles sales jobs with minimum of foot-work. Sales Management 56:103-4 My 20 '46

See also

Engineering colleges—Placement service
United States—Employment service

EMPLOYMENT contracts. See Labor contracts

EMPLOYMENT departments

Armstrong's personnel program; a ten-point program. Glass Ind 27:441-3+ S '46

Factory mind. E. J. Redmon. Personnel J 25: 59-61 Je '46

Personnel work on the grill. D. A. Stewart and D. J. Bolanovich. Personnel J 24:282-8 F '46; Discussion (Statistics on the grill). H. G. Heneman, jr. 25:171-7 N '46

Three cornered cooperation; safety, medical and personnel divisions. J. S. Felton. Nat Safety N 53:26-7 F '46

Veterans and large companies; combat veteran needed in employment department. E. A. McKay. Personnel J 25:139-41 O '46

Records

Better personnel record system; Hotel Book-Cadillac, Detroit. R. G. French. il Am Bsns 16:18-19+ F '46

Better way to process employment records; Hudson motor car company's use of stencil duplicating equipment. R. G. French. Am Bsns 16:11+ Je '46

Matching worker to job; Walter Kidde & company. il Factory Management 103:123 N '45

More facts for personnel men; Detroit Diesel division, General Motors. R. G. French. il Am Bsns 16:12-13+ Ag '46

Records for personnel work. P. B. Niles. Am Water Works Assn J 38:901-2 Ag '46

This record reveals extra skills of workers; Fisher body division of General motors corporation. R. G. French. il Am Bsns 15:12-13+ D '45

Visual aid to staff administration. G. R. Millward. il Engineer 182:118-20 Ag 9 '46

What price seniority? San Diego Electric protects employee's seniority rights. H. H. Wilson. il Bus Transportation 25:54-7 F '46

EMPLOYMENT management

Absenteeism and turnover; how North Star controls them. R. E. Hibbs. il Textile World 96:153+ S '46

Advertising; luxury or investment? Hormel gives employes the facts. H. Haupt. il Sales Management 56:46+ Mr 15 '46

Advertising methods at the point of production. L. A. Lincoln. Adv & Sell 38:200-1 N '45

Are management's views of supervision faulty? Q. W. File. Personnel J 24:242-9; Discussion. 251-4 Ja '46

Are we stuck in dead end jobs? Gerber dispels employe doubts. W. H. Knowlton. il Sales Management 57:98+ Ag 1 '46

Are you personnel minded? A. R. Cook. il Food Ind 17:1443-5 D '45

Armstrong's personnel program; a ten-point program. Glass Ind 27:441-3+ S '46

Better personnel administration. F. H. Kirkpatrick. Personnel J 24:231-8 D '45

Building a sound personnel policy; interview with D. G. Humm. E. Whitmore. Am Bsns 16:8-9+ O '46

Challenge of human engineering. H. Ford, 2d. Comm & Fin Chr 163:377+ Ja 24 '46; Same cond. Automotive & Aviation Ind 94: 39+ Ja 15 '46; Abstract. Mach 52:182-3 F '46

Challenge to management; house organ's part in employee relations. M. Brown. Pulp & Pa of Can 47:68-9 Ag '46

Collective bargaining vs. collective management. A. Crager. Bus Transportation 25: 48-51 My '46

EMPLOYMENT management—*Continued*
Crisis in employee relations; four factors. O. C. Cool. il Food Ind 18:7-8+ Ja '46; Same. Chem Ind 58:58-9+ Ja '46
Detroit improves employment system in public works. Eng N 135:745 N 29 '45
Educational programs for employees; study by Dartnell corporation. Management R 35: 51-2 F '46
Employee loyalty: business asset; labor turnover may be guide to credit rating. J. E. Bullard. Credit & Fin Management 48:24-7+ Ag '46
Employee relations as viewed by a supervisor. K. I. Jack. Pub Util 37:818-26 Je 20 '46
Engineer and manager. C. G. Watson. Engineer 181:271-2 Mr 22 '46
Five requirements for success in personnel management. E. Mottershead. Bankers Mo 63:429-31 S '46
Ford's bill of rights for management. Mass Transportation 41:377 D '45
Four steps to foremanship. D. T. Armstrong. Am Mach 90:124-5 Mr 14 '46
Fruitful errors of Elton Mayo, who proposes to management and labor a social basis for industrial peace. il Fortune 34:180-3+ N '46
Good industrial relations. E. O. Keller. il Am Gas Assn Mo 28:383-8+ S '46
Hagan corporation invests in employes by financing college educations. Ind Marketing 30:117 D '45
Here is how, and where, management should talk to workers. R. Newcomb. il Ptr Ink 214:39+ F 22 '46
How employes are kept informed. Trusts & Estates 81:369 N '45
How management in 100 plants gets information to workers. il Factory Management 104:114-17 Jl '46
How to conduct employee opinion surveys. T. N. Boggs and L. L. Maness. Factory Management 104:90-4 Mr '46
How to gain miner cooperation. W. Williams and others. il Coal Age 50:86-91 D '45
How to get your ideas across. J. F. Blair. Am Bsns 15:8-9+ D '45
How to improve teamwork by improved administration of company policies down the line. J. F. Blair. Am Bsns 16:10-11+ Mr '46
How to set up a personnel budget. A. M. Clark. Am Bsns 15:10-11+ N '45
How will you make workers cost conscious? P. Wishart. Factory Management 103:294+ D '45
Human factors in management, by S. D. Hoslett, reviewed by I. Knickerbocker. Mech Eng 68:976 N '46
Human relations in industry. S. A. Lewisohn. Comm & Fin Chr 163:2133+ Ap 18 '46; Same. Advanced Management 11:97-100+ S '46
Labor and technological advances; abstract. A. Ramond. Management R 35:224-6 Je '46
Labor's crisis, but management's opportunity. W. Williams. Factory Management 104:72-4 Ap '46
Leadership and what it takes. R. L. Lee. Edison Elec Inst Bul 14:303-6 S '46
Management; tongue-tied, deaf and blind? J. J. Corson. Advanced Management 11:101-4 S '46
Management's no.1 public relations job; ideas for combatting discontent among employees. E. T. Parrack. il Adv & Sell 39:33-4+ Mr '46
Modern techniques of personnel relations. J. D. Corrigan. Paper Ind 27:1408 D '45
Neglect leads to socialism. R. Watson. Personnel J 24:289-95 F '46
New labor relations factor in the textile engineering field. J. J. McElroy. Rayon 27: 87-8, 141-3 F-Mr '46; Same. Mech Eng 68: 344-6 Ap '46; Discussion. 68:914-15 O '46
90 years of personnel experience. C. C. Fracker. Personnel J 24:374-9 Ap '46; Discussion. R. R. Hopkins; J. S. McMahon. 25:107-10 S '46
Northwest electric light & power association; Personnel section conference. Elec World 125:95 Je 22 '46
Objective attitudes in collective bargaining; mutual benefit point of view needed. W. V. Owen. Personnel J 25:100-5 S '46
Pajamas and the ego; psychology at the Harwood plant, Marion, Va. Fortune 34:140 Ag '46
Personality problems in managerial groups. H. Meltzer. bibliog Ind Med 15:429-34 Jl '46
Personnel administration in libraries. L. Martin, ed. 168p $3 Univ. of Chicago press, 5750 Ellis av, Chicago
Personnel department at Climax. A. W. Doepke. il Min & Met 27:361-2 Je '46
Personnel management. Economist 151:204-5 Ag 10 '46
Personnel paradoxes. J. H. Frost. Personnel J 24:329-33 Mr '46
Personnel philosophy. L. K. Johnson. Personnel J 25.42-9 Je '46
Program for labor peace. C. B. Boulet. Gas Age 98:50+ O 31 '46
Providing incentives for good housekeeping; Inland manufacturing division, General Motors. H. I. Newsome. il Factory Management 104:132-3 Je '46
Report of Personnel committee. Am Gas Assn Proc 1945:55-63
Returning G.I. looks at his job. Elec West 96:89-92 Je '46
Salaried employees; a case study. R. B. Eckles. Personnel J 25:178-80 N '46
Sampling workers' opinions. J. W. Irwin. Dun's R 53:32+ N '45; Abstract. Management R 35:118-19 Ap '46
Selling the new layout to employees; posters prepared by Raytheon manufacturing co. G. DeVries. il plan Factory Management 103:116-17 N '45
Small-plant program for good employee relations; Pulverizing machinery company. C. G. Wyder. il Factory Management 104: 126-30 Ja '46
Some management responsibilities for good industrial relations. E. M. Little. Pulp & Pa of Can 47:87-9+ S '46
Some reflections on the responsibilities of supervisors in the field of labor relations. G. R. Schenck. Paper Tr J 122:143-6 Je 20 '46
Standardization in the chemical industry; employment practices, employee training. W. von Pechmann. Ind & Eng Chem 38:sup85-6 O '46
Technique of developing company policy. W. M. McFeely. Paper Ind 27:1702-4 F '46
Theft of goods and filching of time. E. G. Thomssen. Soap & San Chem 22:73+ S '46
These posters improved employee attitudes; Delco Products. il Factory Management 104: 94-5 S '46
Top management's responsibility for industrial relations. K. H. Shaffer. Advanced Management 11:9-12+ Mr '46
Training for better service; JIT and JRT government programs applied to large-scale retailing. A. Hulsebach. J Retailing 22:7-10 F '46
Trends in personnel administration for office employees. H. M. Dirks. N A C A Bul 27: 765-77 My 1 '46
Two-way information flow pays off; Thompson Products formula for outstanding employee-employer relationship. Factory Management 104:108-12 My '46
Understanding foreman. D. T. Armstrong. Am Mach 90:108 Je 6 '46
Warm or cold management? R. D. Loken. Personnel J 24:308-17 F '46
We give our supervisors economic and company facts; Minneapolis-Honeywell regulator co., 12 weekly meetings of 1 hour each. C. W. Drew. il Factory Management 104: 120-4 S '46
What are employee relations? A. R. Cook. il Food Ind 18.839-40+ Je '46
What do you know about retail personnel management? J Retailing 22:15-16 F '46
What is management? R. Schram. Mass Transportation 42:41-2 Ja '46
What the advertising manager can do to help employe relations. L. H. Hill. il Ind Marketing 31:31-2+ My '46
Why men are loyal to unions; problems of the personnel man. R. W. Ells. il Am Bsns 16:8-9+ Ja '46

EMPLOYMENT management—*Continued*
Worker opinion survey did a good job for us; Victor adding machine company. A. V. Larson. Factory Management 104:156-7 S '46

See also
Ability tests
Absenteeism (labor)
Apprentices
Bank employees
Bonus system
Building trades—Labor conditions
Chaplains, Industrial
Collective bargaining
Efficiency, Industrial
Employees—Rating
Employees, Dismissal of
Employees, Reports to
Employees, Training of
Employees' booklets
Employees' conferences
Employees' manuals
Employees' representation in management
Employment departments
Employment managers
Employment systems
Factory management
Foremen
Incentives in industry
Industrial relations
Instructions
Job analysis
Job rotation
Labor and laboring classes
Labor turnover
Lunches, Employees'
Lunchrooms and cafeterias, Employees'
Medical service, Industrial
Mental hygiene, Industrial
Mine foremen
Music in industry
Paper mills—Employees
Psychology, Industrial
Recreation
Safety devices and measures
Sales management
Shipyards—Employees
Suggestion systems
Supervisory workers
Time study
Veterans—Reemployment
Wage payment plans
Welfare work in industry
Woman—Employment

Incentives

How to dramatize your products and sell your employes as well as your customers. L. H. Brendel. il Ind Marketing 31:38-9+ My '46
Incentive plan in a repair shop; Lincoln electric company; abstract. L. Giles. Management R 35:236-8 Je '46
Incentive plans must be properly applied. J. C. Lewis. Cer Ind 46:62-3 Mr '46

See also
Bonus system
Employees' benefit plans
Profit sharing
Wage payment plans

New employees

Dramatizing personnel policies; cartoon booklet prepared by the Paraffine companies, inc. and distributed to employees. Factory Management 103:97-108 N '45

EMPLOYMENT managers
Profession of personnel administration. Personnel J 24:265-9 Ja '46

EMPLOYMENT of women. See Woman—Employment

EMPLOYMENT service (United States). See United States—Employment service

EMPLOYMENT stabilization bureau, inc.
Job security testing ground; Lorain county's cooperative plan. Bsns W p19-20 N 2 '46

EMPLOYMENT systems
Earn-as-you-learn idea sells technical apprenticeship; Shuron optical co. Sales Management 56:173 Ja 15 '46
Employment and the older worker. M. T. Waggaman. Mo Labor R 62:386-96 Mr '46
Industry cooperates in hiring veterans. il Am Mach 89:126-30 N 22 '45
Interview procedures and employee testing methods. (Special investigation report no. 537) 2 pts 40p. 86p Dartnell corp, 4660 Ravenswood av, Chicago 40 '46
Matching worker to job; Walter Kidde & company. il Factory Management 103:123 N '45
Matching workers and jobs? E. G. Ghiselli. Ind Med 15:518-20 S '46
Operations and plants of International nickel company of Canada; employment practices. Can Min J 67:501-2 My '46
Picking safe bus drivers. Bus Transportation 25:40-2 Mr '46
Placing the handicapped. B. Hanman. Nat Safety N 54:103-6+ bibliog(p156) O '46; Same, Ind Med 15:597-604 O '46
Pre-planning a personnel selection program. W. V. Ronner. Factory Management 104:88-92 Ap '46
Psychoneurosis, its impact on industry; are psychoneurotics employable? G. A. Eadie. Ind Med 15:325-30 My '46
Recruiting, selecting and training home service personnel. W. D. Williams. Gas Age 96:16-19+ D 27 '45
Selecting solicitors scientifically. H. Dawes. Ry Age 120:1181-2 Je 15 '46
Selection of engineering personnel. F. Holliday. Roy Aeronautical Soc J 50:240-61 bibliog(p261); Discussion. 262-74 Ap '46
Selection of home service personnel. F. M. Rosenkrans. Gas Age 97:33-4 Mr 21 '46
Stores still short of help; Macy's uses complete promotion. il Ptr Ink 213:29 N 30 '45
Turnover begins with hiring. H. Slavin. Personnel J 25:142-4 O '46
Value of avocational experience; fitting workers to jobs. P. H. Casselman. Personnel J 25:127-30 O '46

See also
Ability tests
Civil service
Disabled—Rehabilitation
Employees—Rating
Employment agencies
Employment management
Foremen—Selection
Handicapped
Insurance, Life—Agents—Selection
Labor recruiting
Labor turnover
Physical examinations
Salesmen—Selection

Advertising aids

Help wanted ads pull when written in jive talk. Ptr Ink 215:105 Ap 5 '46
How Northwestern Mutual recruits salesmen by direct mail. Sales Management 56:106+ My 20 '46
Lyon metal products; where public relations is practiced at the community level. D. D. McMahon. Ind Marketing 31:47+ Ja '46
New York state rulings on discrimination in help-wanted ads. Ptr Ink 215:108+ Ap 12 '46
Printed promotional pieces now being used to solve problem of obtaining and keeping employes; Whiting corporation, Harvey, Illinois. Inland Ptr 118:31 N '46
Selling printing as a career; Los Angeles using printed material to interest students in high schools. il Ptr Ink 213:156+ D 14 '45
Six advertising steps for recruiting good salesmen; Investors syndicate. W. R. Gerler. Ptr Ink 216.32-3 Ag 23 '46

Interviews

Manual of employment interviewing. (Research report no9) bibliog 75p pa $1.50 Am. management assn, 330 W 42d st, New York 18 '46
Planned interviews; key to successful selection of sales trainees; General Foods' method. R. H. Moulton. Ptr Ink 215:40-1+ My 3 '46

EMULSIFICATION
Rapid emulsifier; A. T. Case company emulsifying machine. E. G. Thomssen. Soap & San Chem 22:75 S '46

EMULSIFIERS
GR-S emulsified with rosin soap. G. R. Cuthbertson, W. S. Coe and J. L. Brady. Ind & Eng Chem 38:975-6 S '46
L'influence des émulsifiants sur les mousses extinctrices. Génie Civil 123:99 Ap 15 '46
Report of the Bureau of agricultural and industrial chemistry; improved tallow emulsifiers; abstract. O. E. May. Rubber Age 59:198 My '46

EMULSIONS
Accelerated breaking of unstable emulsions. H. P. Meissner and B. Chertow. bibliog il Ind & Eng Chem 38:856-9 Ag '46
Borderline emulsion paints; abstract. Paint Oil & Chem R 109:26 S 19 '46
Co-operative research in the road emulsion industry by the technical sub-committee of the Road emulsion and cold bituminous roads association. E. R. Hatt and W. R. Peard. il diags Soc Chem Ind J 64:243-53 S '45
Emulsion polymerization of ethylene. Hopff and Kern. Mod Plastics 23:153-60+ Je '46

EMULSIONS—*Continued*
Emulsions and their applications to textiles. H. A. Neville. bibliog Am Dyestuff Rep 34: 534-6 D 17 '45
Emulsions of oil in water as corrosion inhibitors. P. Hamer and others. diags Iron & Steel Inst J 151:109-26 bibliog(p126) pl 9-12; Discussion. 127-31 no 1 '45
Fatty acid soaps in emulsion polymerization. L. W. Rainard. India Rubber World 114: 67-9 Ap '46
General theory of the reaction loci in emulsion polymerization. W. D. Harkins. J Chem Phys 13:381-2; 14:47 S '45, Ja '46
Industrial emulsions. E. H. Kadmer. Pet Refiner 25:133-6 Jl '46
Loci of emulsion polymerization; diffusion of organic molecules from emulsion droplets through an aqueous phase into polymer latex particles. W. D. Harkins and R. S. Stearns. J Chem Phys 14:215-16 Mr '46
Loci of emulsion polymerization; the diffusion of organic molecules from emulsion droplets through an aqueous phase into soap micelles. R. S. Stearns and W. D. Harkins. J Chem Phys 14:214-15 Mr '46
Measuring the distribution of particle size in dispersed systems. W. M. Dotts. bibliog diag Ind & Eng Chem Anal ed 18: 326-8 My '46
Regulator theory in emulsion polymerization; chain transfer of low molecular weight mercaptans in emulsion and oil-phase. W. V. Smith. bibliog Am Chem Soc J 68:2059-64 O '46
Regulator theory in emulsion polymerization; control of reaction rate by diffusion for high molecular weight mercaptans. W. V. Smith. Am Chem Soc J 68:2064-9 O '46
Regulator theory in emulsion polymerization; regulator reaction in copolymerizing systems. W. V. Smith. Am Chem Soc J 68: 2069-71 O '46
Structure of soap micelles as indicated by X-rays and interpreted by the theory of molecular orientation; solubilization of hydrocarbons and other oils in aqueous soap solutions. W. D. Harkins and others. J Chem Phys 13:534-5 N '45
Using wax emulsions to improve ceramic production. il Cer Ind 46:73-4 F '46

EMULSIONS, Photographic. See Photographic emulsions

ENAMEL (paint). See Paint

ENAMEL and enameling
Abstracts of ACS convention papers. Cer Ind 46:60-7 Je '46
Advancements in nickel-dipping practice. G. H. McIntyre. bibliog Am Cer Soc Bul 25: 333-7 S 15 '46
Automatic spray enameling machine developed by Ferro enamel corp. il Steel 119: 124 O 7 '46
Ball milling and mill additions. G. H. Spencer-Strong. Cer Ind 47:60+ Ag '46
Ceramic batches; enamel batches; recipes. Cer Ind 46:134+ Ja '46
Checking pickle room operations. il Cer Ind 45:60-1 N '45; 47:72+ O '46
Cleaning and pickling before vitreous enameling. L. E. Punderson. plan Cer Ind 46:63 My '46
Coatings for wire-wound resistors; electric resistors. E. E. Marbaker. il Am Cer Soc J 28:329-42 D 1 '45
Continuous spray-pickle machine. E. H. Rollfs. il diag Cer Ind 47:66-7 S '46
Controlled, lead can be safely used in enamels. Cer Ind 46:92 Ap '46
Development of new applications for ceramic coatings. Iron Age 157:157-9 F 14 '46
Effect of molybdenum and other oxides on surface tension of silicate melts and on properties of refractories and abrasives. C. R. Amberg. bibliog diag Am Cer Soc J 29:87-93 Ap 1 '46
Electrostatic spraying of porcelain enamels. L. C. Goldberg. il Cer Ind 46:65-8 F '46
Enamelers not adverse to using lead. Cer Ind 46:64 Mr '46
Enameling for art's sake. K. F. Bates. il Cer Ind 47:94-5+ S '46
Enameling steel cleaned by heating to 900° F. F. W. Rozene. diags Cer Ind 46: 63-4 F '46
Fabrication and enameling performance of titanium enameling steel. F. R. Porter. il Am Cer Soc Bul 25:259-66 Jl 15 '46
Foresight speeds reconversion; enamel shop of Malleable iron range co, Beaver Dam, Wis. il Cer Ind 46:65-8 Mr '46
Gas opacification of white cover coat enamels. P. A. Huppert. Cer Ind 46:86+ Ap '46
Ground, cover coat, burned at same time and temperature. W. J. Plankenhorn. Cer Ind 46:70 Mr '46
Ingram-Richardson manufacturing company. il Am Cer Soc Bul 24:445-7 D 15 '45
More progress with better equipment; potteries, enameling plants, etc.; illustrations with text. Cer Ind 46:52-3 F '46
New coatings and applications expand use of porcelain enamel. il Steel 119:154+ N 11 '46
New porcelain enamels; a new wire-wound resistor. Chem & Eng N 24:908 Ap 10 '46
Porcelain enamel coating for aluminum. J. F. Mason. Iron Age 158:60 Ag 15 '46
Porcelain enamel institute 7th annual forum reviews enameling practices. Cer Ind 45: 58-9 D '45
Porcelain enamel, the versatile finish. F. L. Meacham. Am Cer Soc Bul 24:419-21 N 15 '45
Porcelain enamel, wonder materials, faces wonder market. il Cer Ind 45:62-5 D '45
Porcelain enamels for metal protection; abstracts. G. H. McIntyre. Steel 117:119-20 O 15 '45; Chem & Met Eng 52:242+ D '45
Previewing future markets for porcelain enamel products. F. C. Woleslagle. il Ind Marketing 30:34-5 N; 50-1+ D '45; 31:64+ Ja '46
Recent advances in porcelain enameling. G. H. McIntyre. Steel 118:98+ Ja 21 '46
Reclaiming enamels wet and dry. diags Cer Ind 47:68-9 S '46
Relation of enameling iron preparation and accessory conditions to copperhead-type defects. W. H. Pfeiffer and R. S. Sheldon. Am Cer Soc J 29:235-9 S 1 '46
Super opaque titanium enamels; abstract. C. M. Andrews and A. I. Andrews. Materials & Methods 23:800 Mr '46
Titanium-stabilized iron for enameling. E. Wainer. bibliog il Am Cer Soc Bul 25:248-59 Jl 15 '46
Top executives give experiences and views on 8 keys to better enameling. Cer Ind 45:66-7 D '45
Use of lithium carbonate in dry process enamels. Cer Ind 46:70 F '46
Uverite; a mill addition opacifier for porcelain enamel. C. J. Harbert and J. W. Iliff. bibliog Am Cer Soc J 29:93-8 Ap 1 '46
Why not lead-fluxed porcelain enamel? Cer Ind 46:69-70 F '46

See also
Furnaces, Enameling
Sheet metal, Enameled

Color

What the enamel superintendent should know about colors. A. Lindberg. bibliog Cer Ind 47:62+ O '46

Testing

Effect of coefficient of expansion of ground- and cover-coat enamels on thermal-shock and impact resistance. F. A. Petersen and A. I. Andrews. bibliog Am Cer Soc J 29: 288-95 O 1 '46
Factors governing adherence of enamels applied to sheet iron. L. A. Johnson and E. E. Howe. bibliog il Am Cer Soc J 29:296-301 O 1 '46
Stiffening effect of porcelain enamel on sheet iron. D. S. Wolford and G. E. Selby. bibliog il diags Am Cer Soc J 29:162-75 Je 1 '46
Wear-testing ceramic finishes; Taber abraser tests enamel, glaze, and glass surfaces. il Cer Ind 47:72 S '46

ENAMELED sheet metal. See Sheet metal, Enameled

ENAMELED ware

See also
Bathtubs—Manufacture

ENAMELING furnaces. See Furnaces, Enameling

ENCEPHALITIS, Epidemic
Complement-fixing and neutralizing antibodies against Japanese B virus in the sera of Okinawan horses. H. L. Hodes and others. Science 103:357-9 Mr 22 '46
Heated, avirulent antigens for complement-fixation tests with certain encephalitis viruses. J. Casals. Science 102:618-19 D 14 '45

ENCEPHALOMYELITIS
Disease virus back-siphoned through plumbing. il Dom Eng 168:116-17 O '46
Growth and distribution of murine encephalomyelitis virus in the developing chick embryo. J. T. Riordan and M. J. Sá-Fleitas. bibliog Science 103:499-500 Ap 26 '46
Influence of anesthesia on experimental western equine encephalomyelitis. S. E. Sulkin and others. bibliog Science 104:53-4 Jl 19 '46
Rapid production of acute disseminated encephalomyelitis in rhesus monkeys by injection of brain tissue with adjuvants. E. A. Kabat and others. bibliog Science 104: 362-3 O 18 '46
Virus encephalomyelitis in buffaloes. T. S. Sheng. Science 103:344+ Mr 15 '46

ENCYCLOPÆDIA Britannica
Britannica readers ask about safety; Library research service. Nat Safety N 54:30 Ag '46
Films to books; Britannica will convert movies to printed page, market titles through dealers. Bsns W p86 Mr 23 '46

ENCYCLOPEDIAS
Handy encyclopedia of useful information. L. Copeland, ed. 438p $1 Blakiston co, 1012 Walnut st, Philadelphia 5 '46

ENDICOTT JOHNSON corporation
Financial position. H. S. Coffin. Mag of Wall St 77:631, 669 Mr 2 '46

ENDOCHIN
Synthesis of 4-hydroxyquinolines; synthesis of 3-*n*-heptyl-7-methoxy-2-methyl-4-quinolinol. N. J. Leonard, H. F. Herbrandson and E. M. Van Heyningen. bibliog Am Chem Soc J 68:1279-81 Jl '46

ENDOCHIN, Analogs of
Synthesis of 4-hydroxyquinolines; 3-(di-*n*-butylaminomethyl)-7-methoxy-2-methyl-4-quinolinol. C. C. Price and W. G. Jackson. bibliog Am Chem Soc J 68:1282-3 Jl '46

ENDOCRINOLOGY
Relation of endocrine glands to the gastric secretory depressant in urine (urogastrone). J. Kaulbersz and others. bibliog Science 102:530-1 N 23 '45

ENDOWMENT policies. See Insurance, Life—Endowment policies

ENDOWMENT policies, Educational. See Insurance, Life—Educational endowment policies

ENEMY property
APC aim is speed. Bsns W p19 Jl 6 '46
Alien property custodian issues order affecting stock in certain seized corporations. For Comm W 24:21 S 28 '46
Alien property custodian tells of insurance wards. Nat Underw 50:16 O 24 '46
Alien property office transfer to Justice department studied. Oil Paint & Drug Rep 150:3+ Ag 12 '46
Aliens may not have stock of seized corporations. Comm & Fin Chr 164:1495 S 19 '46
Court rules Jersey Standard entitled to some Farben patents. Nat Pet N 37:46 N 14 '45
Dividing the loot; agreement with Swiss on hidden German assets. Bsns W p24+ My 18 '46
German patents; allied conference to decide their status. Chem Age (Lond) 55:170 Ag 10 '46
Patented enemy technology now available to American mills. diags Textile World 96: 89-92 Ja '46
Seized German patents freed by accord. Chem & Eng N 24:2234 Ag 25 '46

ENERGY. See Force and energy

ENGINEER (periodical)
Retirement of L. St L. Pendred. Engineer 181:295 Mr 29 '46

ENGINEERING
Engineering applications of aerial reconnaissance. D. J. Belcher. il Geol Soc Bul 57: 727-33, pl 1-6 Ag '46
Engineering evolution from war to a peacetime world. L. K. Silcox. Mech Eng 68:101-6+ F '46; Same abr. J Eng Educ 36:1-10 F '46
Engineering for tomorrow; abstract. C. A. Scarlott. Iron Age 157:104 Ap 11 '46
Engineering news events of 1945; chronological summary. Eng N 136:172-3 F 7 '46
Plastics as engineering materials. J. Sherman. il Materials & Methods 23:982-6 Ap '46
Postwar engineering developments. M. W. Smith. il Elec Eng 65:197-201 My '46

See also
Aeronautic engineering
Air conditioning
Airports
Aqueducts
Automobile engineering
Blasting
Bridges
Building
Building materials
Chemical engineering
City planning
Civil engineering
Concrete construction
Construction equipment
Dams
Dikes (engineering)
Docks
Drainage
Drilling and boring (earth and rocks)
Earthwork
Electric engineering
Engineers
Foundations
Gas engineering
Harbors
Heating
Highway engineering
Hydraulic engineering
Industrial engineering
Irrigation
Lighting
Machinery
Marine engineering
Mechanical engineering
Mechanical handling
Military engineering
Mining engineering
Municipal engineering
Pavements
Petroleum engineering
Pipe laying
Public works
Pumping
Radio engineering
Railroad engineering
Refrigerating engineering
Refrigeration and refrigerating machinery
Reservoirs
Roads
Sanitary engineering
Sewerage
Steam engineering
Steam engines
Steel construction
Strains and stresses
Streets
Strength of materials
Structural engineering
Surveying
Technical writing
Technology
Telephone
Textile engineering
Tunnels and tunneling
Ventilation
Water supply engineering

Accounting
Can engineering survive being classed as overhead? F. N. Hveem. Civil Eng 16:327 Jl '46

Bibliography
Additions to the library. Inst Mech Eng J & Proc 152:149-52 D '45 [cont monthly in Journal section]
Engineering index, 1945. 1250p $50 Engineering index, 29 W. 39th st, New York '46
Reviews of books and notes on books received in the Engineering societies library. Published in monthly numbers of Mechanical engineering
Survey of the present state of engineering bibliography. A. R. Stock. J Doc 1:151-5 D '45; Same. Engineering 161:247 Mr 15 '46

Definition
New definition of engineering offered for adoption. Eng N 136:129 Ja 24 '46
Profession of engineering; a definition. G. L. Sullivan. J Eng Educ 37:64-7 S '46

Examinations
Measurement and guidance project in engineering education; a report of progress and plans. K. W. Vaughn. J Eng Educ 36:676-84 Je '46
Public examinations in engineering. E. E. Mann. Engineering 161:257 Mr 15 '46

Exhibitions
Centenary exhibits at the Imperial college. il Engineer 180:320-2, 344 O 26-N 2 '45

ENGINEERING—*Continued*

History

Further notes on engineering in the middle ages. J. K. Finch. J Eng Educ 36:378-82 Ja '46

Why engineers should study history. S. B. Hamilton. Engineering 160:324-5 O 26 '45; Same cond. Engineer 180:346-7 N 2 '45

Bibliography

Practical guide to engineering history sources; Cooper union bulletin. H. Lancour. J Eng Educ 37:68-9 S '46

Social aspects

Engineering approach to the solution of world problems. J. S. Caswell. Inst Mech Eng J & Proc 154:12-15 Je '46

Engineering progress or world stagnation. diags Power Pl Eng 50:103 O '46 (to be cont)

Science, technology, and man. P. Le Rolland. Mech Eng 68:961-2+ N '46

Some broad aspects of specialization. E. F. Carter. Inst Radio Eng Proc 34:372-4 Je '46

Some observations on world industrialization. M. L. Cooke. bibliog Mech Eng 68:406-10+ My '46

Study and teaching

Ground school and engineering school; some notes on training. G. D. Stout. J Eng Educ 36:612-17 Je '46

I think; suggestions for engineering teachers. B. F. Bailey. J Eng Educ 36:621-5 Je '46

Note on foreign service and the foreign student. J. K. Finch. J Eng Educ 36:576-8 My '46

Should engineers study statistics? H. Working. bibliog J Eng Educ 36:557-64 My '46

Use of audio-visual aids in engineering instruction. W. G. Gnaedinger and C. L. Barker. J Eng Educ 36:175-9 N '45

See also

Engineering colleges
Engineering education

Tables, calculations, etc.

Hidden half of the problem; inclusion of units in every equation. C. D. Crosno. J Eng Educ 37:149-52 O '46

Nomograph for formulas containing fractional exponents. W. H. Burrows. Ind & Eng Chem 38:586-9 Je '46

Nomographic representation of polynomials. W. H. Burrows. J Eng Educ 36:361-75 Ja '46; Excerpts. Product Eng 17:402-3 My '46

Textbooks

Electrical engineer and his library; abstract. C. W. Marshall. Electrician 135:705 D 21 '45

See also

Mechanics—Textbooks

Argentina

Engineer looks at Argentina. R. Hammond. diag Engineer 182:161-2 Ag 23 '46

New Zealand

Landslides and their relation to engineering in the Dunedin district, New Zealand. W. N. Benson. bibliog maps plans diags Econ Geol 41:328-47 Je '46

Russia

Engineering developments in Asiatic Russia. C. A. Middleton-Smith. il maps Engineer 180:161-4, 178-80, 200-1, 218-20, 238-9, 258-9, 278-80, 338-9, 360-1, 384-5, 406-7 Ag 31-O 12, N 2-23 '45

United States

L'organisation industrielle aux États-Unis. J. Trouiller. il Génie Civil 123:93-6 Ap 15 '46

Western states

Civil engineers in summer convention discuss western engineering problems. Concrete 54: 32-3+ Ag '46

ENGINEERING, Structural. See Structural engineering

ENGINEERING college research association

Problems and organization needs of the Engineering college research association. W. R. Woolrich. J Eng Educ 36:315-19 Ja '46

Report of the Engineering college research association's committee on legislation; digest of S 1850. C. E. MacQuigg. J Eng Educ 36:579-86 My '46

ENGINEERING colleges

Education for a changing world. B. R. Van Leer. J Eng Educ 35:434-8 Mr '46

Post-war undergraduate training of engineers. O. S. Bray. J Eng Educ 36:211-14 N '45

Specialist for engineering education appointed. J Eng Educ 36:587 My '46

Survey of the current conditions in the engineering schools. Eng N 136:381, 454, 524, 684-5, 758, 892 Mr 14, 28, Ap 11, 25, My 9, Je 6 '46

War project called E.S.M.W.T. and its permanent lessons for American engineering schools. D. C. Jackson and F. D. Carvin. J Eng Educ 36:327-36; Comment. J. W. Studebaker. 336-7 Ja '46

Washington university, College of engineering; evolution of a policy. A. W. Buchan. il J Eng Educ 36:250-5 D '45

See also

Engineering education
Engineering graduates
Engineering students
Mining schools and education
also names of colleges, e.g.
Massachusetts institute of technology

Accidents

What causes campus casualties? accident records of Illinois institute of technology. E. C. Woodward. Nat Safety N 52:32-3 D '45

Administration

Problems and organization needs of the division of administrative officers. S. C. Hollister. J Eng Educ 36:161-2 N '45

Curriculum

Colleges urged to teach standards. G. M. Aron. Ind Stand 17:231 S '46

Condensation of a report on course XV, M.I.T. R. W. King. J Eng Educ 36:634-52 Je '46

Engineering physics as a college curriculum. J Eng Educ 36:439-46 Mr '46

English and the Humanistic-social division. K. O. Thompson. J Eng Educ 36:163-9 N '45

Functions of history in the engineering curriculum. S. W. Chapman. J Eng Educ 36:272-9 D '45

Horizontal options through major engineering curricula; one solution to the 4-year quandary. L. E. Grinter. J Eng Educ 36:536-41 Ap '46

Humanistic and social science subjects in relation to the engineering curriculum. F. W. Roys. J Eng Educ 36:203-6 N '45

Humanistic-social overhauling. C. J. Freund. J Eng Educ 36:284-91 bibliog(p289-91) D '45

Humanistic-social studies in engineering; another viewpoint. S. F. Borg. J Eng Educ 36:424-5 Mr '46

Hydraulics courses important in the civil engineering curriculum. H. A. Thomas, jr. Civil Eng 16:111-12 Mr '46; Discussion. D. Johnstone. 16:267-9 Je '46

Hydrology in the Civil engineering curriculum. H. W. Wood, jr. J Eng Educ 36:519-21 Ap '46

List of undergraduate engineering curricula accredited by ECPD as of Oct. 20, 1945. Elec Eng 65:51-2 Ja '46

Progress reports of the Society's professional committee on engineering education for 1944 and 1945. Am Soc C E Proc 72:375-96 Mr '46; Discussion. 72:913-16, 1023-8 Je-S '46

Realism in engineering education. A. S. Langsdorf. Elec Eng 65:251-4 Je '46

Report on humanistic social studies in engineering education. H. P. Hammond; R. M. Boarts and J. C. Hodges. J Eng Educ 36:338-51 Ja '46

ENGINEERING colleges—Curriculum—*Cont.*
Servomechanisms courses; their pedagogic value. D. P. Campbell. J Eng Educ 36:426-33 Mr '46
Should humanistic-social study be made engineering education? A. C. Ames. J Eng Educ 36:543-6 My '46
Some principles of curriculum making. L. O. Stewart. J Eng Educ 36:354-60 Ja '46
Suggestion for engineering education. L. E. Moore. J Eng Educ 36:198-202 N '45
Teaching of quality control to engineers. L. E. Simon. bibliog J Eng Educ 37:111-16 O '46

Enrollment

Engineering student enrollment growing, but far from normal. W. B. Plank. J Eng Educ 36:572-5 My '46; Same. Min & Met 27:267-8 My '46
Enrollment of civilian engineering students, as of Nov. 5, 1945; tabulation. J Eng Educ 36:388-99 Ja '46

Graduate work

Aims of a curriculum for civil engineering graduates. W. S. Hamilton. Civil Eng 16: 163-4 Ap '46
Enrollment of graduate civilian engineering students, as of Nov. 5, 1945. J Eng Educ 36:395-9 Ja '46

Laboratories

See Engineering laboratories

Placement service

College senior and the small industry. N. H. Memory. J Eng Educ 37:168-73 O '46

Professors and instructors

Best and worst teachers of engineering. H. H. Remmers and others. J Eng Educ 36:296-8 D '45
Cooperative engineering education for the teacher industry's opportunity. W. J. Seeley. J Eng Educ 36:207-8 N '45
How do you do? qualifications of a good teacher. A. M. Hill. J Eng Educ 36:209-10 N '45
Opinion on the training of teachers in the humanities. S. R. Price. J Eng Educ 37: 79-95 S '46
Report of the Committee on academic tenure, professional service and responsibility. J. R. Killian, jr. and others. J Eng Educ 36: 601-11 Je '46
What about our faculties? H. P. Hammond and E. A. Walker. J Eng Educ 36:447-50 Mr '46

Records

Transcript—document OR! J. P. Vidosic. J Eng Educ 36:352-3 Ja '46

Research

Reconversion of educational research. L. E. Beck. J Eng Educ 36:215-20 N '45
Research and the staff member. E. E. Litkenhous. J Eng Educ 37:135-9 O '46

Student selection

Measurement and guidance project in engineering education; a report of progress and plans. K. W. Vaughn. J Eng Educ 36:676-84 Je '46

ENGINEERING contracts
Conditions for civil engineering contracts. N. G. Gedye. Engineer 181:335 Ap 12 '46
Future costs and their effects on engineering budgets. L. R. Howson. Am Soc C E Proc 72:337-46 Mr '46
N.Y. shares builder's saving on contract to S. A. Healy co. for completion of Merriman dam. Eng N 136:393 Mr 21 '46
New York's contracting policy. C. H. Sells. Roads & Sts 88:73 D '45

See also
Contractors
Roads—Contracts

ENGINEERING departments
Clerical and semi-technical services in engineering department management. J. E. Thompson. diags Product Eng 17:102-5 Ag '46
Design planning and scheduling in complex computer development; gunfire control device for aircraft. A. F. Wild. il Product Eng 16:817-20 D '45
Engineering management fundamentals adapted to the small company. J. E. Thompson. Product Eng 17:110-13 O '46
Engineering wage incentives. W. M. Mirisch. Management R 35:184-6 My '46
More power to engineering. J. C. Zeder. S A E J 53:sup17-22 N '45
Process engineering controls costs. C. D. Townsend. il Am Mach 90:94-6 Jl 4 '46
Release and control of advance engineering information. J. E. Thompson. flow chart Product Eng 17:54-8 Ja '46
Why the engineering department must specify production methods. il Product Eng 16:729-32 N '45; Discussion (Let the shoemaker stick to his last). E. J. Tangerman. Am Mach 89:134-7 D 20 '45

ENGINEERING drawing
Drawing tangents and normals to plane curves. G. F. H. Harker. diags Engineering 161:209-11 Mr 1 '46
Dual dimensioning of drawings for machining and casting uses. G. N. Cole. diags Product Eng 17:398-400 My '46
Fixed-angle photos simplify explosion sketches. R. B. Wittman. il diags Am Mach 90:90-2 Ja 3 '46
Handling drawing changes to assure promptness and accuracy. J. E. Thompson. il Product Eng 17:226-9 Mr '46
Production illustration. G. Tharratt. diags J Eng Educ 37:140-8 O '46
Release and control of advance engineering information. J. E. Thompson. flow chart Product Eng 17:54-8 Ja '46
Technical illustration as an aid to marketing. F. R. Gruger, jr. il diags Ind Marketing 30:36-8+ D '45; 31:34-6+ Je '46
Useful block diagrams are easy to construct. A. T. Broderick. diags Eng & Min J 147: 74-5 O '46

See also
Drafting room practice

ENGINEERING economics
Capitalization of technical performance. E. T. Norris. bibliog Inst E E J 93 pt 2:137-9 Ap '46
Economics of the engineering materials. H. A. Knight. il Materials & Methods 24:613-18 S '46
Estimating chemical engineering equipment costs. J. Happel, R. S. Aries and W. J. Borns. Chem Eng 53:99-102 O; 97-100 D '46
Process design and operation guided by the economic balance. C. G. Kirkbride. Chem Eng 53:118-24 S '46

ENGINEERING education
Condensation of a report on course XV, M.I.T. R. W. King. J Eng Educ 36:634-52 Je '46
Developing creative engineers. J. F. Young. Mech Eng 67:843-6 D '45; Same. J Eng Educ 36:305-14 D '45
Do we really need engineers and scientists? A. R. Cullimore. J Eng Educ 36:320-6 Ja '46
Education and atomic power; implications in student training of utilizing atomic energy. W. G. Pollard. Mech Eng 68:509-13 Je '46
Fundamentals in engineering education. H. L. Bullock. Mech Eng 68:167 F '46
Half-educated engineer. B. M. Woods. J Eng Educ 37:60-3 S '46
Industrial manager asks engineering educators for better citizens. W. J. Coulter. Min & Met 27:389-90 Jl '46
Introductory course in administration for engineers. H. Rubey. J Eng Educ 36:185-7 N '45
Jet propulsion; its effect upon engineering education. F. J. Malina. J Eng Educ 37: 179-85 O '46
Metallurgical education and the metal industries. H. T. Heald. Min & Met 27:402-3 Jl '46
Plea for higher standards in the engineering profession. F. S. Blackall, jr. Mech Eng 68:933-4+ N '46; Excerpts. Iron Age 158: 146+ O 10 '46

ENGINEERING education—*Continued*
Postcollegiate engineering education; curriculum developed by the General electric company. K. B. McEachron, jr. Mech Eng 68: 963-7 N '46
Progress reports of the Society's professional committee on engineering education for 1944 and 1945. Am Soc C E Proc 72:375-96 Mr '46; Discussion. 72:913-16, 1023-8, 1173-4 Je-O '46
Realism in engineering education. A. S. Langsdorf. Elec Eng 65:251-4 Je '46
Returns from a questionnaire on the accelerated program. J. W. Stewart. J Eng Educ 36:188-92 N '45
Should humanistic-social study be made engineering education? A. C. Ames. J Eng Educ 36:543-6 My '46
Some thoughts on engineering education. D. M. Baker. Am Soc C E Proc 72:461-82 Ap '46; Discussion. 72:1041-56, 1133-60, 1415-20; 73:224-30 S-O, D '46, F '47
Technical education; some present problems. H. J. Booth. Elec R (Lond) 137:625-6 N 2 '45
Technological education in a democracy. W. L. De Baufre. J Eng Educ 37:153-61 O '46
Threshold of a new era. H. S. Rogers. J Eng Educ 37:8-15 S '46
You're never too old to learn. A. R. Stevenson, jr. J Eng Educ 36:256-61 D '45

See also
Engineering colleges
Engineering students
Mining schools and education
Naval education
Technical education

also subdivision Study and teaching under engineering subjects, e.g. Mechanical engineering—Study and teaching

also American society for engineering education

Cooperative plan

Cooperative engineering education for the teacher industry's opportunity. W. J. Seeley. J Eng Educ 36:207-8 N '45
Co-operative system; a manifesto; Committee on aims and ideals of cooperative engineering education. J Eng Educ 37:117-34 bibliog(p131-4) O '46
Hagen corp. sets up plan to back workers in obtaining degrees; company pays half of tuition fees. Iron Age 156:146 N 22 '45
Origin and development of cooperative courses at the University of Cincinnati. C. W. Park. J Eng Educ 36:420-3 Mr '46

Refresher courses

Refresher courses, a phase of continuation-education. L. O. Stewart. J Eng Educ 36: 180-4 N '45

Great Britain

Technical education for engineers in England. W. Abbott. J Eng Educ 36:653-6 Je '46

ENGINEERING ethics
Canons of ethics for engineers; standard of professional conduct for members of the American welding society. Welding J 25: 684 Jl '46
Engineers and honesty. F. W. Willey. Min & Met 27:177 Mr '46
Forum on professional relations (cont). D. W. Mead. Civil Eng 15:566 D '45
Great responsibility. L. K. Silcox. J Eng Educ 36:547-56 My '46

ENGINEERING foundation
Annual report. A. L. Queneau and E. H. Colpitts. Mech Eng 68:86-8 Ja '46
Report on year's research activities, projects. Elec Eng 65:48-9 Ja '46

Welding research council

Welding research; report. C. A. Adams. Welding J 24:sup624 N '45
Welding research in America. Weigel. Chem Age (Lond) 55:473-4 O 19 '46

ENGINEERING graduates
Aims of a curriculum for civil engineering graduates. W. S. Hamilton. Civil Eng 16: 163-4 Ap '46
Discuss opportunities for engineering graduate; American foundrymen's association. Foundry 74:144 Jl '46
On-the-job training for graduate engineers; Allis-Chalmers. R. G. Greiner. il Factory Management 104:154-5 Ag '46
Outlook in the demands for and supply of engineering graduates. J Eng Educ 37:25-49 S '46
Special engineering requirements of the small industry. G. L. Hartman. J Eng Educ 37: 174-8 O '46
Training of metallurgical engineers in the steel industry. F. C. Wright. Blast F & Steel Pl 34:373-5 Mr '46

ENGINEERING institute of Canada
Annual general meeting, 60th, Montreal, Feb. 7-8. Eng N 136:268-9 F 21 '46; Water & Sewage 84:54+ Mr '46; Roads & Bridges 84: 116+ Mr '46

ENGINEERING instruments

See also
Aeronautic instruments
Electric instruments
Radio instruments
Servomechanisms

ENGINEERING laboratories
Clark's new laboratory for testing axles and transmissions. il Automotive & Aviation Ind 94:20-1 Je 15 '46
Gas turbine developments; combustion research laboratories of Joseph Lucas, ltd. il diags Engineer 182:2-5 Jl 5 '46
Laboratory engineers find self-service stockrooms a new source of help. S. J. Radliff and W. S. Budlong. il plan Gen Elec R 49: 25-7 Jl '46
Laboratory for teaching steam-turbine principles. F. K. Fisher and W. R. Harris. il diags Power 90:764-6 N '46
University lab, Georgia school of technology. il plans Arch Rec 98:114-15 N '45

See also
Aeronautic laboratories
Electric laboratories
Highway departments—Laboratories
Metallurgical laboratories
Railroads—Laboratories

Equipment

Simple method of determining Poisson's ratio. R. J. Wilkins. il diags Engineering 162:52 Jl 19 '46

ENGINEERING libraries

See also
Engineering societies library, New York

ENGINEERING literature
Electrical engineer and his library; abstract. C. W. Marshall. Electrician 135:705 D 21 '45

See also
Engineering—Bibliography

ENGINEERING materials. See Materials

ENGINEERING mathematics. See Mathematics

ENGINEERING physics. See Physics

ENGINEERING reports
More power to engineering. J. C. Zeder. S A E J 53:sup19-20 N '45

ENGINEERING research
Creative engineering research; its stimulation and development. W. R. Woolrich. J Eng Educ 36:565-71 My '46
Engineering educators include research functions. Product Eng 17:145 S '46
Engineering schools and departments, research and extension activities for the sessions of 1944-45. Purdue Univ Eng Exp Sta, Research Ser 96:1-64 '45
Expediency of an adequate national program of engineering research. E. L. Shaw. Aero Digest 51:38-9 D 1 '45
Flow of gases at sonic and supersonic speeds. G. A. Hankins and W. F. Cope. il diags Engineer 181:206-8 Mr 1 '46; Discussion. 181: 203-4 Mr 1 '46; Engineering 161:329-30 Ap 5 '46
National physical laboratory. il Engineer 181: 590-1 Je 28 '46
Opportunities for engineering research in the South. E. N. Kemler. Manuf Rec 114:41-2 N; 56-7+ D '45

ENGINEERING research—*Continued*
Progress in engineering knowledge during 1945. P. L. Alger and others. il diags Gen Elec R 49:9-19+ bibliog(p63-7) F '46
Research on internal combustion prime movers. J. Calderwood. il diags Engineer 181: 428-9, 460-1, 483-5, 506-7, 525-6 My 10-Je 7 '46; Same. Engineering 162:69-71, 117-20 Jl 19, Ag 2 '46
Science and engineering. B. A. Bakhmeteff. Civil Eng 16:99-100 Mr '46
Team work in research. C. H. Lander. diags Engineer 180:330-1, 353-5 O 26-N 2 '45; Same cond. Engineering 161:21-3, 33 Ja 4-11 '46
Value of cryogenic (low temperature) work in the training of a research engineer. R. M. Buffington. Refrig Eng 52:228 S '46

See also
Aeronautic research
Automobile research
Electric research
Gas research
Highway research
Hydraulic research
Industrial research
Lighting research
Petroleum research
Railroad research
Scientific research

History
Historic researches. Engineer 180:452-4, 476-7; 182:92-4, 114-16, 136-8, 158-61, 268-70, 292-3 D 7-14 '45, Ag 2-23, S 27-O 4 '46

ENGINEERING, science and management war training. See Technical education—Engineering, science and management war training

ENGINEERING societies
American society of engineers, proposed. B. M. Faires. Mech Eng 67:735-6 N '45; Discussion. 68:166-7 F '46
Engineer family in the British Commonwealth. P. Dunsheath. J Eng Educ 37:96-104 S '46
Engineer labor policy proposed. W. N. Carey. Civil Eng 16:316 Jl '46
Immediate measure to strengthen the professional and economic position of the engineering profession. Mech Eng 68:807-15 S '46
Inclusive professional engineering society. J. P. Munroe. Elec Eng 65:191 Ap '46
National spokesman for engineers. A. B. Stickney. Mech Eng 68:347-8 Ap '46; Same Min & Met 27:213-14 Ap '46; Same. Welding J 25:342-3 Ap '46; Same. Refrig Eng 51: 319-20+ Ap '46; Same. J Eng Educ 36:515-18 Ap '46; Same cond. Power Pl Eng 50:59 Je '46
Planning subcommittee issues progress report on study of organization of engineering profession. Elec Eng 65:169-73 Ap '46
Professional engineers in southern California form bargaining units. S. S. Green. Civil Eng 16:213-15 My '46
Some thoughts on an all-inclusive engineering society. H. A. Wagner. Min & Met 27: 447-8 Ag '46

See also names of societies, e.g.
American society of civil engineers
American society of heating and ventilating engineers
American society of mechanical engineers
Engineering college research association
Engineers' council for professional development

ENGINEERING societies library, New York
Annual report. H. W. Craver. Mech Eng 68: 86 Ja '46; Elec Eng 65:49 Ja '46
Dr Harrison W. Craver appointed consulting librarian. Mech Eng 68:380 Ap '46
Engineers honor H. W. Craver, director, Engineering societies library since 1917. Mech Eng 68:674 Jl '46
Institute's library and how to use it. T. T. Head and J. W. Laist. Min & Met 27:396-7 Jl '46
Issues information folder. Mech Eng 68:677-81 Jl '46
Services offered. Elec Eng 65:424 Ag-S '46

ENGINEERING society of Cincinnati
Engineering society of Cincinnati. P. H. Goodell. Chem Eng 53:107 Ag '46

ENGINEERING standards. See Standards, Engineering

ENGINEERING students
United States armed forces institute examinations in mathematics as a means of determining credit in engineering mathematics. J. H. Zant. J Eng Educ 36:170-4 N '45

See also
Engineering colleges—Enrollment
Engineering colleges—Student selection

Employment
College senior and the small industry. N. H. Memory. J Eng Educ 37:168-73 O '46

See also
Engineering education—Cooperative plan

ENGINEERS
Architects and engineers; their relations on each new job constitute a serious problem; abstract. M. X. Wilberding. Mech Eng 68: 561 Je '46
Bargaining under existing laws advised; report of Society's committee on employment conditions. Civil Eng 16:133-4 Mr '46
Broader fields for engineers in industry. J. P. Kottcamp. Factory Management 104: 276+ F '46
Collective bargaining by engineers in Los Angeles, Calif. W. N. Carey. Civil Eng 16: 130-2 Mr '46
Collective bargaining for professional employees. R. L. Forshay. Mech Eng 68:968-70+ N '46
Developing creative engineers. J. F. Young. Mech Eng 67:843-6 D '45
Do we really need engineers and scientists? A. R. Cullimore. J Eng Educ 36:320-6 Ja '46
Engineer and management. L. H. Hill. Western Soc E J 51:25-30 Mr '46; Same. Elec Eng 65:322-5 Jl '46
Engineer and the union. H. D. Burns. bibliog Elec Eng 65:445-8 O '46
Engineers and scientists in government service; hiring and rating of technical talent in Naval ordnance laboratory. R. D. Bennett. Elec Eng 64:383-6 N '45; Discussion. 65:52-3 Ja '46
Engineers, contractors urged to assume construction leadership; urges institute for study of construction economics. A. P. Greensfelder. il Civil Eng 16:429-30 O '46
Engineer's father. T. J. MacKavanagh. J Eng Educ 37:58-9 S '46
Engineer's place in naval research. W. G. Schindler. Inst Radio Eng Proc 33:823-4 D '45
Engineers: wanted. R. C. Price. J Eng Educ 37:50-7 S '46
Engines and engineers. C. C. Pounder. Engineering 161:333-4, 356-7 Ap 5-12 '46; Excerpts. Engineer 181:360-1 Ap 19 '46
Half-educated engineer. B. M. Woods. J Eng Educ 37:60-3 S '46
Idealism for the embryo engineer; war and postwar years seen as offering a great variety of opportunities by self-improvement. L. H. Berger. Civil Eng 16:31-2 Ja '46
If I were an engineer. R. R. Price. J Eng Educ 36:496-501 Ap '46
Immediate measure to strengthen the professional and economic position of the engineering profession. Mech Eng 68:807-15 S '46
More power to engineering. J. C. Zeder. S A E J 53:sup17-22 N '45
Opportunities for engineers. L. G. Haller. Mech Eng 68:565 Je '46
Plea for higher standards in the engineering profession. F. S. Blackall, jr. Mech Eng 68:933-4+ N '46
Professional engineers in southern California form bargaining units. S. S. Green. Civil Eng 16:213-15 My '46
Professional goals for today. W. E. Wickenden. Elec Eng 65:365-9 Ag-S '46
Professional problems; abstract. J. M. Weiss. Chem & Met Eng 53:278+ Ap '46
Qualities of a profession; endless horizons. V. Bush. J Eng Educ 36:463-8 Mr '46
Recruiting and training foundry engineers. D. D. Henry. Foundry 74:96+ S '46

ENGINEERS—*Continued*
Should engineering concerns be managed by engineers? Electrician 135:508 N 9 '45
Societies jointly study engineers' economic status. Elec Eng 65:47 Ja '46
Some thoughts on engineering education. D. M. Baker. Am Soc C E Proc 72:461-82 Ap '46; Discussion 72:1041-56, 1133-60, 1415-20; 73:224-30 S-O, D '46, F '47
Supply and demand for foundry engineers. F. G. Sefing. Foundry 74:111+ O '46
Times call for mobilization of engineers and scientists. H. S. Aurand. il Civil Eng 16: 475-6 N '46
Western bargaining unit men form national group. Civil Eng 16:380 S '46
What next in collective bargaining? T. R. Agg. Civil Eng 16:409-10 S '46

See also
Chemical engineers
Civil engineers
Engineering colleges
Engineering education
Lighting engineers
Mining engineers
Sanitary engineers
Technical writing

also Engineers' council for professional development

Biography

Bibliography

Book-length biographies of engineers, metallurgists and industrialists. T. J. Higgins, comp. Bulletin of Bibliography [F. W. Faxon co, Boston] 18:206-10, 235-9; 19:10-12 Ja-S '46

Directories

Officers, council members, and committees of the Society for the promotion of engineering education for 1944-46, with list of members. J Eng Educ 36:12-238 F '46
Western society of engineers year book. Western Soc E J 50:1-76 pt 2 S '45

Public relations

Constructive work with organizations spurs professional growth. G. E. Barnes. Civil Eng 16:454 O '46
Economics for engineers; abstract. J. C. Stevens. Civil Eng 16:271 Je '46
Engineer in public life. C. Hinshaw. Civil Eng 16:201 My '46
Engineer's opportunity to serve society. R. B. Wiley. Civil Eng 16:193-5 My '46
Engineer's part in community life. C. A. Farwell. Boston Soc C E J 33:63-7 Ap '46
Industrial manager asks engineering educators for better citizens. W. J. Coulter. Min & Met 27:389-90 Jl '46
Is the engineer a lone wolf? R. V. Wright. Mech Eng 68:717-19 Ag '46
Less talk, more action, needed on professional standing. G. M. Dexter. bibliog Mech Eng 68:241-4 Mr '46
Public relations for engineers. F. Thomas. Civil Eng 16:88 F '46
Science and engineering; engineer's scientific approach needed to guide man's destiny. B. A. Bakhmeteff. Civil Eng 16:99-100 Mr '46
Science knocks at the door of American politics. M. L. Cooke. Advanced Management 10:126-30 D '45
Science, strength, and stability; problem of attaining national harmony and international peace. V. Bush. il Tech R 48:553-6+ Jl '46; Same. Elec Eng 65:508-12 N '46
Some broad aspects of specialization. E. F. Carter. Inst Radio Eng Proc 34:372-4 Je '46
What engineers don't know can hurt; interview with B. M. Woods. W. Snowden. Elec West 96:92-3 Je '46

Registration

AIEE endorses model law for registration of engineers. Elec Eng 65:219-23 My '46
Licensing of engineers. Min & Met 27:460-1 S '46
Report of the Committee on state licensing of professional engineers of the Illuminating engineering society. Illum Eng 41:295-305 Ap '46

Salaries

ASCE urges raise in engineers' pay, revises professional classifications. Eng N 137:563 O 31 '46
Current salaries of young engineers. Min & Met 27:547 N '46
Interim classification and compensation plan revised by Board of direction. Civil Eng 16: 510-11 N '46
Mining engineers comparatively well paid; Canadian survey. Min & Met 27:547 N '46

Canada

Doubt Ontario engineers wage status. Eng N 136:531 Ap 18 '46
Status of employed Canadian engineers clarified by National labor board. Eng N 137: 217 Ag 22 '46

Denmark

Denmark in the world of engineering. G. O. Andrup. il Eng N 136:413-15 Mr 21 '46

Great Britain

Engineer family in the British Commonwealth. P. Dunsheath. J Eng Educ 37:96-104 S '46

ENGINEERS' council for professional development
A.S.R.E. joins E.C.P.D.'s efforts in accrediting technical curricula. map Refrig Eng 51: 646 Je '46
Annual meeting, New York. Oct. 18-19. Eng N 137:549 O 24 '46; Civil Eng 16:512-13 N '46
Annual meeting, New York, Oct. 19-20, 1945. Elec Eng 64.461-2 D '45
E.C.P.D. in 1945. Mech Eng 68:24-6 Ja '46
Objectives, officers, committee work. Refrig Eng 51:230 Mr '46
Report at thirteenth annual meeting; abstract. E. S. Lee. Civil Eng 16:40 Ja '46

ENGINEERS joint council
Engineers focus attention on EJC. Civil Eng 16:379-80 S '46

ENGINEERS public service company
Annual report. Comm & Fin Chr 163:1862 Ap 8 '46
Break-up value rises. Barron's 26:8+ Mr 11 '46
SEC division objects to terms for liquidation of company. Comm & Fin Chr 164:1081 Ag 26 '46

ENGINEHOUSES. See Roundhouses

ENGINES
Engines and engineers. C. C. Pounder. Engineering 161:333-4, 356-7 Ap 5-12 '46; Excerpts. Engineer 181:360-1 Ap 19 '46
Free-piston engines and compressors. C. R. Earle. il diag Power Pl Eng 50:72-3+ Ap '46

See also
Air engines
Air turbines
Airplane engines
Automobile engines
Diesel engines
Gas engines
Gas turbines
Heat engines
Internal combustion engines
Locomotives
Motor bus engines
Motor truck engines
Pistons
Pumping machinery
Steam engines
Steam turbines

Lubrication

Maintenance of lubricating oils for prime movers. B. Hunter. Marine Eng 51:117-20 S '46; Same. il Power Pl Eng 50:78-9+ S '46

ENGLISH channel
European cross-channel ships. il Marine Eng 51:130-3 Ag '46

ENGLISH Channel pipe line
Craft and cable ships for operation Pluto; summary and discussion. M. K. Purvis. Engineer 181:400-1 My 3 '46; Engineering 161:474-5 My 17 '46
Operation Pluto; abstract. J. S. Blair. Materials & Methods 23:1644 Je '46

ENGLISH Channel tunnel
Channel tunnel, oldest unfinished engineering project. W. Ley. Tech R 48:293-4+ Mr '46
Channel tunnel project. R. A. Ryves. Engineer 182:126-8 Ag 9 '46

ENGLISH language
Accountants and utilitarian writing. J. M. Clapp. J Account 81:384-96 My '46
Apprenticeship in word artistry is made up of hard work, gifts notwithstanding. E. N. Teall. Inland Ptr 117:63-4 Je '46

ENGLISH language—*Continued*
Busy beaver constructs by instinct, but the homo sapiens is not that well endowed! E. N. Teall. Inland Ptr 117:48 My '46
Churchill on plain English. Ptr Ink 215:82+ Ap 5 '46
Dizzy and Winnie demonstrate class in English. E. N. Teall. Inland Ptr 118:55-6 O '46
Here is a letter from England that might turn out to be a (or an) historical document. E. N. Teall. Inland Ptr 117:85-6 S '46
Power of restraint; John Hersey's New Yorker article on the atomic bomb. Ptr Ink 216: 154 S 27 '46

See also
Advertising copy—
Language, style,
etc.
Technical writing

Dictionaries

Jarrold's dictionary of difficult words. R. H. Hill, comp. 344p $2.50 Howell, Soskin, 17 E. 45th st, New York 17 '46

History

English dictionary from Cawdrey to Johnson 1604-1755. D. T. Starnes and G. E. Noyes. 299p $3.50 Univ. of North Carolina press, Chapel Hill '46

Study and teaching

English and the Humanistic-social division. K. O. Thompson. J Eng Educ 36:163-9 N '45

If I had a son; I could not educate him in the public schools. C. E. Abbott. J Chem Educ 23:438 S '46

Opinion on the training of teachers in the humanities. S. R. Price. J Eng Educ 37: 79-95 S '46

Writing laboratory course; Rensselaer polytechnic institute. F. Abbuhl. J Eng Educ 36:269-71 D '45

ENGLISH speaking union
Educational work of the English-speaking union. E. A. Ford. Assn of Sp Lib & Inf Bur Proc 1945:42

ENGOBES
Engobes, slips and underslips. C. W. Parmelee. bibliog Cer Ind 47:74+ Ag; 98+ S; 82+ O; 98 N '46 (to be cont)

ENGRAVING

See also
Photoengraving

ENIAC. See Calculating machines

ENOLS
Reaction between quinones and metallic enolates; bromo-*m*-xyloquinone and sodio ethyl malonate. L. I. Smith and P. F. Wiley. Am Chem Soc J 68:894 My '46

Reaction between quinones and metallic enolates; second paper on bromotrimethylquinone and sodio malonic esters. L. I. Smith and P. F. Wiley. il Am Chem Soc J 68:887-93 My '46

ENTERTAINMENT of customers. See Salesmen—Entertainment of customers

ENTOMOLOGICAL society of America
Annual meeting, 40th, St Louis. Science 103: 513 Ap 26 '46

ENTRANCES
Architectural program to make public buildings accessible to physically handicapped. il Arch Forum 83:240 N '45

Four attractive entrances designed for brickbuilders; illustrations. Brick & Clay Rec 109:26-7 Jl '46

ENTROPY
Entropy and the second law of thermodynamics. A. E. Martell. J Chem Educ 23:166-8 Ap '46

Force constant of the association bond in the formic and acetic acid dimers. J. O. Halford. diags J Chem Phys 14:395-8 Je '46

Free volume and entropy in condensed systems; entropy in binary liquid mixtures; partial molal entropy in dilute solutions; structure and thermodynamics in aqueous electrolytes. H. S. Frank and M. W. Evans. bibliog J Chem Phys 13:507-32 N '45

Free volume and entropy in condensed systems; entropy of vaporization in liquids and the pictorial theory of the liquid state. H. S. Frank. bibliog diags J Chem Phys 13: 493-507 N '45

Free volume and entropy in condensed systems; fluctuation entropy and free volume in some monatomic crystals. H. S. Frank. J Chem Phys 13:478-92 N '45

Heat capacity and entropy, heats of fusion and vaporization and the vapor pressure of butene-1; the zero point entropy of the glass; the entropy of the gas from molecular data. J. G. Aston and others. bibliog Am Chem Soc J 68:52-7 Ja '46

Note on communal entropy; remarks on a paper by Henry S. Frank; discussion by O. K. Rice. J Chem Phys 14:348-50 My '46

Standard free energy of formation and entropy of the aqueous magnesium ion. C. C. Stephenson. bibliog Am Chem Soc J 68:721 Ap '46

ENVELOPES
Don't be stingy about the size of your envelopes. D. Ross. Ptr Ink 217:43 O 25 '46

Select envelopes for the job your letters must do. E. N. Mayer, jr. Ptr Ink 217:39 O 18 '46

ENZYMES
Ascorbic-citric acids prevent browning of cut fruit. H. G. Luther and G. O. Cragwall. il Food Ind 18:690-2+ My '46

Commercially dehydrated vegetables; oxidative enzymes, vitamin content, and other factors. M. F. Mallette and others. bibliog Ind & Eng Chem 38:437-41 Ap '46

Effect of ribonucleinase on succinic dehydrogenase and cytochrome oxidase. C. A. Zittle. Franklin Inst J 240:504-5 D '45

Enzyme activity; index of quality in frozen vegetables. M. A. Joslyn. bibliog(50 references) Food Ind 18:1204-10+ Ag '46

Enzymes hydrolyzing ribo- and desoxy-ribonucleic acids. C. A. Zittle. bibliog Franklin Inst J 241:379-81 My '46

Enzymes in industry. Tech R 48:219-21 F '46

Enzymic synthesis and degradation of starch; the amylolytic function of the Q-enzyme of the potato. E. J. Bourne, A. Macey and S. Peat. Chem Soc J p882-8 D '45

Enzymic synthesis and degradation of starch; the synthesis of amylopectin. E. J. Bourne and S. Peat. Chem Soc J p877-82 D '45

Low ester pectin from apple pomace. H. H. Mottern and C. H. Hills. bibliog Ind & Eng Chem 38:1153-6 N '46

Metabolite antagonists. R. O. Roblin, jr. bibliog(484 references) diags Chem R 38:255-377 Ap '46

Nature of the inhibition of ribonucleinase and succinic dehydrogenase by mononucleotides. C. A. Zittle. bibliog Franklin Inst J 241:154-5 F '46

Pancreatic enzymes and liver fat. C. H. Best. Science 103:207 F 15 '46

Peroxide bleaching of mechanical pulps; influence of bacteria and enzymes. J. S. Reichert and others. bibliog Paper Tr J 122: 37-40 Ja 31; 54-8 My 16 '46; Same abr(pt 2) Paper Ind 28:124+ Ap '46

Pulling wool by the use of enzymes; Arazym NSL. Am Dyestuff Rep 35:257-8 My 20 '46

Ribonucleinase; abstracts. C. A. Zittle. Franklin Inst J 241:252, 448 Mr, Je '46

Use of enzyme in riboflavin determination; free and combined riboflavin. L. Rosner, E. Lerner and H. J. Cannon. bibliog Ind & Eng Chem Anal ed 17:778-9 D '45

See also
Amylases
Carbonic anhydrase
Cholinesterase
Hyaluronidases
Oxidases
Phosphorylase
Proteinases

Nomenclature

Nomenclature of proteolytic enzymes. T. Winnick and D. M. Greenberg. Science 102:648-9 D 21 '45

EPHEDRINE
Reduction of sympathetic synaptic transmission as an index of inhibition at adrenergic junctions in general. A. S. Marrazzi. bibliog Science 104:6-8 Jl 5 '46

EPIDEMICS
Communicable disease epidemics once made frightful ravages. L. I. Dublin. East Underw 47:14+ pt 2 O 4 '46

EPIDEMICS—*Continued*
Diphtheria incidence and trends in relation to artificial immunization, with some comparative data for scarlet fever. S. D. Collins. bibliog(35 titles) Pub Health Rep 61: 203-40 F 15 '46
Epidemic of a severe pneumonitis in the bayou region of Louisiana. B. J. Olson and others. bibliog map Pub Health Rep 59: 1299-1311, 1331-50, pl 1-3, 1363-74, pl 1-10; 60:1488-1503; 61:69-78, 1100-15 O 6-20 '44, D 14 '45, Ja 18, Jl 26 '46
Relation between epidemics of acute bacterial pneumonia and influenza. bibliog Science 102:561-3 N 30 '45
See also
Infectious diseases

Statistics

Industrial control chart applied to the study of epidemics. W. H. Rich and M. C. Terry. bibliog Pub Health Rep 61:1501-11 O 18 '46

EPILEPTICS

Employment

Epilepsy and job placement. C. D. Bridges. Ind Med 15:51-2+ Ja '46

EPINEPHRINE. See Adrenalin

EPOXIDES
Control of microbiological food spoilage by fumigation with epoxides. R. Whelton and others. bibliog il Food Ind 18:23-5, 174-6+ Ja-F '46

EPOXYBUTENE
Reaction of 3,4-epoxy-1-butene with methanol; direction and mechanism of ring opening. R. G. Kadesch. bibliog Am Chem Soc J 68:41-5 Ja '46

EPOXY compounds
Hydroxylation and epoxidation of some 1-olefins with per-acids. D. Swern, G. N. Billen and J. T. Scanlan. bibliog Am Chem Soc J 68:1504-7 Ag '46

EQUATION of state
Equation for the line of saturation of liquids and vapors. J. E. Haggenmacher. Am Chem Soc J 68:1123-6 Je '46
Equations of state for radially symmetric distributions of matter. M. Wyman. Phys R 70:396-400 S 1 '46
Generalized Beattie-Bridgeman equation of state for real gases. G. Su and C. Chang. bibliog Am Chem Soc J 68:1080-3 Je '46
Generalized equation of state for real gases. G. Su and C. Chang. bibliog Ind & Eng Chem 38:802-3 Ag '46
Generalized van der Waals equation of state for real gases. G. Su and C. Chang. Ind & Eng Chem 38:800-2 Ag '46
Note on van der Waals reduced equation of state. C. A. Stevenson. J Chem Educ 23: 148 Mr '46
Significance of the equation of state for rubber. E. Guth and others. J Ap Phys 17: 347-51 My '46
Surfaces of solids; a unitary thermodynamic theory of the adsorption of vapors on solids and of insoluble films on liquid subphases. G. Jura and W. D. Harkins. bibliog Am Chem Soc J 68:1941-52 O '46

EQUATIONS
Equation computer. Chem & Eng N 24:686 Mr 10 '46
Equations for computing elastic constants from flexural and torsional resonant frequencies of vibration of prisms and cylinders. G. Pickett. Am Soc T M Proc 45: 846-63 bibliog(p859-60); Discussion. 864-5 '45
Hidden half of the problem; inclusion of units in every equation. C. D. Crosno. J Eng Educ 37:149-52 O '46
Investigation of three methods for solving the flutter equations and their relative merits. R. J. Ruggiero. bibliog J Aeronautical Sci 13:3-22 Ja '46
See also
Differential equations

EQUATIONS, Integral. See Integral equations

EQUATIONS, Simultaneous
Computer for solving linear simultaneous equations. C. E. Berry and others. bibliog il diags J Ap Phys 17:262-72 Ap '46
Four methods for the solution of simultaneous linear equations. R. H. Scanlan and M. G. Harrison. Product Eng 17:513-15 Je '46
Simultaneous linear equations in absorption spectrophotometry and mass spectrometry. J. L. Saunderson and H. H. Grossman. Opt Soc Am J 36:243 Ap '46

EQUILENIN
New method of producing fused ring structures related to the steroids; a synthesis of equilenin. W. S. Johnson, J. W. Petersen and C. D. Gutsche. bibliog Am Chem Soc J 67:2274-5 D '45
Synthesis of substances related to the sterols; *dl-cis*-equilenin. A. J. Birch, R. Jaeger and R. Robinson. Chem Soc J p582-6 S '45

EQUILIBRIUM, Chemical. See Chemical equilibrium; Phase rule and equilibrium

EQUIPMENT industries
Capital goods dually allocated. Bsns W p19 S 21 '46
Developments in equipment field. J. T. Callaway. Roads & Bridges 84:57-8 Je '46
Industrial companies dress up their annual financial statements. Ind Marketing 31:66 Je '46
Postwar boom in capital goods industries. A. W. Zelomek. Comm & Fin Chr 163:1635+ Mr 28 '46
Proposed trade practice rules for equipment distributors. Roads & Bridges 84:64+ Ag '46
Three industrial trade groups seek five billion dollar sales goal; American supply & machinery manufacturers, National supply & machinery distributors, and Southern supply & machinery distributors. map Sales Management 57:106+ S 1 '46
Transportation equipment; prospects for 1946. Steel 118:sup22-5 Ja 7 '46
See also
Automobile accessories industry
Electric apparatus industry
Industrial market
Machine tool industry
Machinery industry
Office equipment industry
Plumbing supplies industry
Printing supplies industry
Railroad supplies industry

Advertising

Advertising helps prospective customers solve reconversion problems; Allis Chalmers' inventory kit exposes manufacturers' warbeaten facilities. N. H. Jacobsen. Ind Marketing 30:33-4 D '45
Men, mechanics and management for technical news; analysis of technical news handling by the industrial marketer. H. W. Smith, jr. Ind Marketing 30:36+ O '45
Telling an unusual story does some unusual selling; Towmotor corporation. E. Southworth. il Ind Marketing 30:35+ D '45
This industrial equipment manufacturer bears down on four fundamentals; case study: Pangborn corporation. A. L. Gardner. il Ptr Ink 213:25-7+ N 23 '45
See also
Advertising mediums—Trade journals
Machinery industry—Advertising
Mechanical handling—Advertising
Tractor industry and trade—Advertising

Directories

Directory of processing equipment for production, fabrication and treating of metals. Materials & Methods 23:1592-1608 Je '46
Equipment distributors, Canada; addresses of head and branch offices; list of principals they represent. Roads & Bridges 84:149-56 Je '46
Manufacturers and agents of sewerage and waterworks equipment; addresses; products index. Water & Sewage 84:129-31 Jl '46
33d annual review number. il diags Am Mach 90:106-96 Ja 17 '46

Securities

Heavy industry shows lag. L. H. Bradshaw. Comm & Fin Chr 163:3059+ Je 6 '46
See also
Electric apparatus industry—Securities

EQUIPMENT industries—*Continued*

Statistics

Estimated durable goods expenditures, 1939-45. D. P. Warner and A. R. Koch. Fed Res Bul 32:967-73 S '46; Correction. 32:1113 O '46

EQUIPMENT trust certificates. See Railroads—Equipment trust certificates

EQUITABLE life insurance company of Iowa
Changes to CSO, 2½ per cent reserve basis. Life Ins Courant 51:131-3 Mr '46

Equitable of Iowa Quebec convention biggest in history; 34th annual production clubs convention. Nat Underw (Life ed) 50:3+ Jl 5 '46

ERGOGRAPHS
Modification of the ergograph. F. W. Kinard and C. D. Coleman. il Science 103:731 Je 21 '46

ERGOSTEROL
Absorption spectrum of the antimony trichloride-ergosterol reaction product. A. Mueller. Ind & Eng Chem Anal ed 18:214-15 Mr '46

Antibacterial action of phenanthrene-related substances. W. Raab. bibliog Science 103: 670-1 My 31 '46

Analysis

Quantitative determination of ergosterol, cholesterol, and 7-dehydrocholesterol; antimony trichloride method. F. W. Lamb, A. Mueller and G. W. Beach. bibliog Ind & Eng Chem Anal ed 18:187-90 Mr '46

ERITREA
Documentation on Ethiopia and Eritrea. A. D. Roberts. bibliog J Doc 1:185-93 Mr '46

EROSION
Defend crossing towers against erosion threat. il Elec World 126:110+ Jl 6 '46

Flying farmers study erosion; Indiana banker gives free rides to Hoosier farmers. C. W. Gee. Banking 39:17 O '46

Limiting factors in erosion control demonstrations. P. E. McNall. J Land & Pub Util Econ 21:383-6 N '45

New developments in use of asphalt in erosion control, on river banks, on highway embankments and slopes. il Roads & Sts 89:90-2 Ap '46

Shoulder gutters check airfield erosion. H. A. Scott. il diags Eng N 135:732-4 N 29 '45

See also
Coast changes
Soil conservation

EROSION of metals
See also
Hydraulic machinery—Cavitation

ERRORS, Popular
Rains of fishes; myth or fact? E. W. Gudger. Science 103:693-4 Je 7 '46; Reply. B. Evans. 103:713 Je 14 '46

ERRORS and omissions policies. See Insurance, Fire—Errors and omissions policies

ESPANOLA, Ontario
Re-incarnation of a paper mill; KVP company limited, mill at Espanola. D. W. Emmerson and others. il map Pulp & Pa of Can 47:17-95 O '46

ESSAYS

Bibliography

Essay and general literature index, 1944-1945. B. B. Rakestraw, D. H. West and L. P. Lee, eds. 561p Wilson, H.W. '46

ESSELEN, Gustavus John, 1888-
Gustavus J. Esselen honored in Boston on 25th anniversary of founding of his chemical consulting practice. por Chem & Eng N 24:1066 Ap 25 '46

ESSENTIAL oil association of the United States of America
Annual meeting, New York, Jan. 11. Oil Paint & Drug Rep 149:7+ Ja 21 '46

ESSENTIAL oils
Dollars from scents. M. D. Hall. il Dom Comm 34:38-42 Jl '46

Essential-oil exports from Haiti, 1942-1945. For Comm W 23:47 Je 22 '46

Essential oils imports up in Jan.-June, 1946. Oil Paint & Drug Rep 150:65 O 28 '46

Grass oil from Guatemala. For Comm W 24: 24 Ag 10 '46

Oil of angelica; production and characteristics. E. Guenther. il Food Ind 18:36-8+ Ja '46

See also
Perfumery

ESTATE planning
Care in planning estates. S. A. Monroe. East Underw 47:25 Mr 1 '46

Closely held business; valuation and transfer of interests. Trusts & Estates 82:539 Je '46

Co-operative movement in estate analysis; estate analysts association proves effective. C. Patch, jr. Trusts & Estates 82:501-2 My '46

Coordinating insurance and general estate; suggested will and trust provisions relating to life insurance. B. M. Becker. Trusts & Estates 83:33-6 Jl '46

Estate planning. S. J. Foosaner. Spectator (Life ed) 153:12-14 F '46

Estate planning. R. N. Graham. Trusts & Estates 81:504 D '45

Estate planning. Spectator (Life ed) 153:14-16 Ap; 16-18 My; 154:19-21 Ag '46

Estate planning; the rôle of the accountant. E. N. Polisher. J Account 82:140-7 Ag '46

Is life insurance attachable by creditors? E. A. Muller. Mag of Wall St 77:343+ D 22 '45

National estates week; proposal for concerted effort on need for wills and revision. B. S. DeBoice. Trusts & Estates 83:389-91 O '46

Objectives of estate planning. H. T. Powers. Trusts & Estates 82:475-7, 561-6; 83:139-42, 337-42 My-Je, Ag-O '46

Obstacles to estate creation. J. S. Myrick. Comm & Fin Chr 163:3534 Je 27 '46; Same cond. Trusts & Estates 83:169-70 Ag '46

Presentation of estate planning; play given at Penn Mutual Murray Bay conference. East Underw 47:150+ pt 2 O 4 '46

Principles of tax absorption; a reappraisal. V. A. Miletti. Trusts & Estates 83:233-5 S '46

Providing for heirs; use of annuities. E. A. Muller. Mag of Wall St 77:715 Mr 16 '46

Some trends in art of estate planning. M. A. Shattuck. Comm & Fin Chr 163:2075+ Ap 18 '46; Excerpt. East Underw 47:8 Ap 19 '46

Trends in estate planning. H. S. Koster. Trusts & Estates 82:110-12 Ja '46 [cont monthly]

Urgency of estate planning; program for public education. R. A. Wormser. Trusts & Estates 82:193-6 F '46

Visual estate coordination. H. S. Koster. Trusts & Estates 82:110-12 Ja '46

Visual tax planning; graphs show tax consequences of gifts and trusts. O. O. Marquardt. Trusts & Estates 82:492-500 My '46

See also
Insurance, Life—Estate protection

ESTATE tax. See Inheritance tax

ESTATES (law)
Community property estate tax cases; Wiener and Rompel decisions analyzed. W. L. Nossaman. Trust & Estates 82:221-4 F '46

Estate taxation; premium test; case of Whittemore v. Kraemer. Spectator (Life ed) 153:6-9+ Mr '46

1945 state legislation affecting trusts and estates. W. L. Cloutier. Trusts & Estates 82:99-105 Ja '46

Taxing the dead in Connecticut. M. L. Hayward. Barron's 26:32 S 16 '46

See also
Reversions

ESTATES, Decedents'
Alleged survivor not entitled to proceeds of bank deposit; survivorship statute inapplicable. Banking Law J 63:557-63 Jl '46

Flow and control of estate funds. Trusts & Estates 81:462-3 D '45

ESTATES, Decedents'—*Continued*
New Hallock regulations; standards set for taxability of transfers taking effect at death. L. B. Brown. Trusts & Estates 83: 227-32 S '46
See also
Executors and administrators
Wills

ESTER gums
Use of ester gum in surface coatings. R. Mansell. Paint Oil & Chem R 109:9-10+ Je 13 '46

ESTERIFICATION
Behavior of nitro alcohols toward formic acetic anhydride. C. D. Hurd, S. S. Drake and O. Fancher. bibliog Am Chem Soc J 68:789-91 My '46
Esterification of fatty acids with glycerol. N. Ivanoff. Chem & Met Eng 53:270 Mr '46
Esterification of galacturonic acid and polyuronides with methanol-hydrogen chloride. E. F Jansen and R. Jang. Am Chem Soc J 68:1475-7 Ag '46
Transesterification reactions of alkyl silicates. D. F. Peppard, W. G. Brown and W. C. Johnson. Am Chem Soc J 68:77-9 Ja '46

ESTERS
Alkamine esters of substituted 1-naphthaleneglycolic acids. R. F. Feldkamp and M. L. Moore. Am Chem Soc J 67:1898-9 N '45
Alkamine esters of substituted *p*-xenylglycolic acids. J. A. Faust, R. F. Feldkamp and M. L. Moore. bibliog Am Chem Soc J 67:1897-8 N '45
Aminoalkyl esters of thiazolecarboxylic and thiazolyl-4-acetic acids. E. R. H. Jones, F. A. Robinson and M. N. Strachan. Chem Soc J p87-91 F '46
Branched-chain fatty acids; a further study of the preparation of ketones and keto esters by means of organocadmium reagents. J. Cason. bibliog Am Chem Soc J 68:2078-81 O '46
Carbohydrate phosphoric esters; the alkaline hydrolysis of α-methylglycopyranoside-6-phosphate, methylglucofuranoside-3-phosphates and *iso*-propylidene glucofuranose-3- and -6-phosphates. E. E. Percival and E. G. V. Percival. Chem Soc J p874-6 D '45
Determination of ethers and esters of ethylene glycol; modified alkoxyl analysis. P. W. Morgan. bibliog diag Ind & Eng Chem Anal ed 18:500-4 Ag '46
Esters containing phosphorus. H. McCombie and others. Chem Soc J p380-2, 873-4, 921-2 Je, D '45
Esters of halogenated aminobenzoic acids. M. Rubin and others. bibliog Am Chem Soc J 68:623-4 Ap '46
Higher fatty alcohol esters of gallic acid. S. G. Morris and R. W. Riemenschneider. Am Chem Soc J 68:500-1 Mr '46
Lac-glycol esters; their preparation, properties, and use. Chem Age (Lond) 53:619-20 D 29 '45
Polymerisation of allyl esters. W. Simpson. bibliog Soc Chem Ind J 65:107-11 Ap '46
Preparation and synthetic applications of alkyl chlorosilicates. D. F. Peppard, W. G. Brown and W. C. Johnson. bibliog Am Chem Soc J 68:70-2 Ja '46
Proportion of ester anion and amide from esters and sodium amide; carbonation of esters; synthesis of malonic acid derivatives. C. R. Hauser, R. Levine and R F. Kibler. bibliog Am Chem Soc J 68:26-9 Ja '46
Solid esters of cellosolves and carbitols. D. C. O'Donnell and R. J. Carey. Am Chem Soc J 68:1865 S '46
Solvents in the paint industry; the esters. R. B. Pollak. bibliog Paint Oil & Chem R 109:12+ My 2 '46
Some tetrahydrothiophene β-keto ester derivatives. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:2213-16 D '45
Spectrophotometric studies of the oxidation of fats; oxygen absorption and chromophore production in fatty esters. R. T. Holman and G. O. Burr. bibliog Am Chem Soc J 68:562-6 Ap '46
Synthesis of α,β-unsaturated esters. A. Galat. Am Chem Soc J 68:376-7 Mr '46
Unsaturated alcohol esters of the 9,10-dihydroxystearic acids; preparation of elaidyl alcohol. D. Swern, E. F. Jordan, jr. and H. B. Knight. bibliog Am Chem Soc J 68:1673-4 Ag '46
Use of refractive indices of dimethyl esters. D. F. Houston and J. S. Furlow. bibliog Ind & Eng Chem Anal ed 18:541-2 S '46
Vibrational spectra of esters and ketones. H. W. Thompson and P. Torkington. Chem Soc J p640-5 O '45
Wetting of steel surfaces by esters of unsaturated fatty acids. N. F. Miller. bibliog il diags J Phys Chem 50:300-19 Jl '46

Analysis
Colorimetric determination of fatty acids and esters. U. T. Hill. Ind & Eng Chem Anal ed 18:317-19 My '46
Identification of the alcohol components of simple esters. W. B. Renfrow and A. Chaney. Am Chem Soc J 68:150 Ja '46

ESTHETICS
What is good taste? T. B. Stanley. J Retailing 21:99-102 O '45

ESTIMATES
Contractors' bids vs. engineers' estimates; study of public works projects. Concrete 54:7 Mr '46
Determining selling prices for industrial products. C. O. Wellington. Steel 119:114-16+ S 9 '46
Estimating die costs. R. Howell. il Iron Age 156:44-8 N 29 '45
How to estimate manufacturing costs in a small or job shop. D. P. Oberg. Am Mach 90:101-3 Ap 11 '46
See also
Building—Estimates
Chemical engineering—Estimates
Sales estimates

ESTOPPEL
Principle of estoppel; digest of recent cases; J. I. Roesch. Spectator (Property ed) 11: 36-7 D 20 '45 [reprinted from Spectator Ag 17 '44 p28-30]

ESTRADIOL
1-Methyl-3-ethyl-4-(*p*-hydroxyphenyl)-Δ^3-cyclohexenylethylcarbinol, an open-model of estradiol. M. Rubin and H. Wishinsky. Am Chem Soc J 68:338-40 F '46

ESTROGENIC activity
New naphthalene derivatives structurally related to stilboestrol. B. J. F. Hudson. Chem Soc J p76-8 F '46
Synthetic estrogenic compounds; trialkyl derivatives of 1,3-di-(*p*-hydroxyphenyl)-propane; benzestrol. A. H. Stuart and others. bibliog Am Chem Soc J 68:729-33 My '46
Thiamine deficiency and high estrogen findings in uterine cancer and in menorrhagia. J. E. Ayre and W. A. G. Bauld. bibliog Science 103:441-5 Ap 12 '46

ESTROGENS
Estrogens labeling explained by FDA. Oil Paint & Drug Rep 148:5 N 19 '45
1-Ethyl-2-methyl-7-hydroxy-1,2,3,4,9,10,11,12-octahydrophenanthryl-2-carboxylic acid. J. H. Hunter and J. A. Hogg. Am Chem Soc J 68:1676 Ag '46
New synthetic oestrogens; the synthesis of 4 : 4′-dihydroxy-α : β : 2 : 2′-tetramethylstilbene and 4 : 4′-dihydroxy-α : β : 2 : 2′-tetramethyldibenzyl. B. J. F. Hudson and E. Walton. Chem Soc J p85-7 F '46
Preparation of new derivatives of diethylstilbestrol and hexestrol by the Claisen rearrangement. E. Kaiser and J. J. Svarz. Am Chem Soc J 68:636-8 Ap '46
Synthetic estrogens and the relation between their structure and their activity. U. V. Solmssen. Chem R 37:481-598 bibliog(286 references, p583-9, 597-8) D '45

ESTUARIES
Effect of obstructions in tidal estuaries. A. M. Binnie. Engineering 161:241-2 Mr 15 '46

ETCHING (metals)
Etching for the microscope; abstract. C. A. E. Wilkins. Materials & Methods 23:1390+ My '46
Further note on the microstructure of high-silicon acid-resisting iron. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 151:105-7, pl 7-8; Discussion. 107-8 no 1 '45

ETCHING (metals)—*Continued*

Metallographic etchant to distinguish oxidation in steel. A. M. Hall. il Metal Prog 50:92-6 Jl '46

Methods of examining the microstructure of nickel coatings. Automobile Eng 36:140 Mr '46

New etching reagent for the detection of oxygen segregations in steel. L. Fine. il Metal Prog 49.108-12 Ja '46

Rapid estimation of grain size in magnesium castings. J. P. Ogilvie. Metal Prog 49:349 F '46

Spotting soft spots; etching procedure. L. P. Begley. Metal Prog 49·349 F '46

ETHANE

1,1-Di-(*p*-chlorophenyl)-ethane. O. Grummitt, A. C. Buck and E. I. Becker. bibliog Am Chem Soc J 67:2265-6 D '45

Fat-oil deethanization. A. M. Whistler. flow diags Oil & Gas J 45:105-6+ O 26 '46

Metastable ions formed by electron impact in hydrocarbon gases. J. A. Hipple and others. bibliog diag Phys R 69:347-56 Ap 1 '46

Partial oxidation of ethane used in German ethylene manufacture. Pet Processing 1:135 O '46

Super-expansibility of methane-ethane mixtures. W. O. Clinedinst. bibliog Pet Refiner 25:148-9 Je '46

ETHANETHIOL. See Ethyl mercaptan

ETHANOL. See Alcohol

ETHANOLAMINE

Method for the micro-determination of the sorption of fumigants. F. P. W. Winteringham. bibliog diags Soc Chem Ind J 65:48-51 F '46

ETHER (anesthetic). See Ethyl ether

ETHERS

Allyl ethers of carbohydrates; ethers of glucoso and galactose. E. A. Talley, M. D. Vale and E. Yanovsky. bibliog Am Chem Soc J 67:2037-9 N '45

Allyl ethers of carbohydrates; preparation and polymerization of β-methallyl ethers. P. L. Nichols, jr., A. N. Wrigley and E. Yanovsky. bibliog Am Chem Soc J 68:2020-2 O '46

Chemistry of dicyclopentadiene; addition of alcohols and phenols. H. A. Bruson and T. W. Riener. Am Chem Soc J 68:8-10 Ja '46

Chemistry of the diaryl ethers. H. E. Ungnade. bibliog(305 references) Chem R 38: 405-46 Je '46

Determination of ethers and esters of ethylene glycol; modified alkoxyl analysis. P. W. Morgan. bibliog diag Ind & Eng Chem Anal ed 18:500-4 Ag '46

Diglycerol by a new ether synthesis. H. J. Wright and R. N. Du Puis. Am Chem Soc J 68:446-8 Mr '46

Mixed allyl ethers of starch. R. M. Hamilton and E. Yanovsky. bibliog Ind & Eng Chem 38:864-6 Ag '46

Some aryl di-β-amidinoethyl ethers. A. H. Cook and K. J. Reed. Chem Soc J p920-1 D '45

Use of ether as ignition agent; Ring process in German aircraft. R. J. Bender. Automotive & Aviation Ind 95:41-2+ S 1 '46

Vinyl ethyl ether and other vinyl ethers. C. D. Hurd and D. G. Botteron. bibliog Am Chem Soc J 68:1200-1 Jl '46

ETHICS

See also

Accounting ethics
Advertising ethics
Business ethics
Engineering ethics
Medical ethics
Professional ethics

ETHIOPIA

Bibliography

Documentation on Ethiopia and Eritrea. A. D. Roberts. J Doc 1:185-93 Mr '46

Commerce

Our loan to Ethiopia; exchange restrictions necessitate borrowing. Comm & Fin Chr 164:338+ Jl 18 '46

Economic conditions

News by countries. For Comm W 22:27 Ja 26 '46

Industries and resources

Ethiopian balance sheet. Economist 151:340 Ag 31 '46

ETHNOLOGY

See also

Anthropology

Bibliography

Bibliography of Indonesian peoples and cultures. R. Kennedy. (Yale anthropological studies; v. 4) 212p pa $2.50 Yale univ. press, New Haven, Conn. '45

ETHYL acetamidocyanoacetate

Synthesis of amino acids from ethyl acetamidomalonate and ethyl acetamidocyanoacetate; the use of primary halides. N. F. Albertson. bibliog Am Chem Soc J 68:450-3 Mr '46

ETHYL acetamidomalonate

Synthesis of amino acids from ethyl acetamidomalonate and ethyl acetamidocyanoacetate; the use of primary halides. N. F. Albertson. bibliog Am Chem Soc J 68:450-2 Mr '46

ETHYL acetate

L'acétate d'éthyle comme carburant et apporteur d'indétonance pour les essences éthylées. H. Guinot and H. Augé. diag Chimie & Ind 55.167-73 Mr '46

Ultrasonic adsorption in copper acetate and ethyl acetate. R. T. Beyer and M. C. Smith bibliog diag Acoustical Soc Am J 18·424-8 O '46

Analysis

Colorimetric determination of ethyl acetate. A. G. Keenan. bibliog Can Chem & Process Ind 29:857-8 D '45

ETHYL acetoacetate

Dissociation constants of acetylacetone, ethyl acetoacetate and banzoylacetone. M. L. Eidinoff. bibliog Am Chem Soc J 67:2072 D '45

ETHYL acrylate

Properties of Lactoprene EV. T. J. Dietz and others. Ind & Eng Chem 38:960-7 S '46

Rapid vulcanization of saturated acrylic elastomers. W. C. Mast and others. bibliog il India Rubber World 113:223-8+ N '45

ETHYL alcohol. See Alcohol

ETHYL aniline

Some derivatives of *m*-ethylaniline; a novel disproportionation of an aminophenylmethylcarbinol. C. S. Marvel and C. G. Overberger. bibliog Am Chem Soc J 68:185-7 F '46

ETHYL anilinomaleate

Preparation of N-aryl-α-arylaminomaleimides. A. R. Surrey and R. A. Cutler. bibliog Am Chem Soc J 68:514-17 Mr '46

ETHYL anthraquinone

Hydrogen peroxide production through 2-ethyl anthraquinone; abstract. W. G. Gormley. Chem & Met Eng 53:208+ Ap '46

ETHYL benzene

Azeotropic purification of styrene. L. Berg, J. M. Harrison and C. W. Montgomery. bibliog flow sheet Ind & Eng Chem 38:1149-52 N '46

Bauxite, dehydrogenation catalyst for styrene production. W. H. Wood and R. G. Capell. bibliog il diag Ind & Eng Chem 37:1148-52 D '45

Ethylbenzene; high yield and rate of production by liquid-phase ethylation. A. W. Francis and E. E. Reid. bibliog(104 references) diag Ind & Eng Chem 38:1194-203 N '46

Styrene production by catalytic dehydrogenation; low pressure operation. J. M. Mavity and others. bibliog Am Inst Chem Eng Trans 41:519-28 O '45

Styrene production by catalytic dehydrogenation; operation at ordinary pressures with benzene as diluent. J. M. Mavity, E. E. Zetterholm and G. L. Hervert. bibliog Ind & Eng Chem 38 829-32 Ag '46

Thermodynamic properties of ethylbenzene vapor from 300° to 1500°K. F. G. Brickwedde and others. bibliog J Chem Phys 13: 547-53 D '45

Thermodynamic properties of solid and liquid ethylbenzene from 0° to 300° K. R. B. Scott and F. G. Brickwedde. bibliog diag J Res Nat Bur Stand 35:501-12 D '45

ETHYL benzene—*Continued*

Analysis

Recording infra-red analyzers for butadiene and styrene plant streams. N. Wright and L. W. Herscher. il diags Opt Soc Am J 36:195-202 Ap '46

ETHYL benzylaminopropionate
Hydrogenolysis of ethyl β-benzylaminopropionate. A. M. Mattocks and W. H. Hartung. Am Chem Soc J 68:2108 O '46

ETHYL carbamate. See Urethane

ETHYL cellulose
Packaging metal parts; strip coatings. C. E. Waring. il Mod Packaging 19:204-7 Mr '46
Polystyrene and ethyl cellulose chime housings. il diag Mod Plastics 23:136-7 Ag '46
Serve and sell; Barber-Colman's new packaging for cutting tools, utilizing plastic strip-coating; Protecto-coat. il Mod Packaging 20:102-4+ O '46
Three precision molded parts for child's camera. il Mod Plastics 23:101-3 Jl '46

ETHYL chloride
Coördination compounds of boron trichloride; systems with methyl chloride and ethyl chloride. D. R. Martin and W. B. Hicks. bibliog J Phys Chem 50:422-7 S '46

ETHYL cleaner. See Cleaning compositions

ETHYL corporation
Ethyl sales are built on service. J. J. Frey. il Ind Marketing 31:38-9+ F '46

ETHYL ether
Acetic acid-ethyl ether-water system; mutual solubility and tie line data. C. J. Major and O. J. Swenson. bibliog diags Ind & Eng Chem 38:834-6 Ag '46
Cold starting of Diesel engines; use of ethyl ether. P. H. Schweitzer. il diags Diesel Power 24:1190-3+ O '46
Ether anesthesia centenary observed. Oil Paint & Drug Rep 150:7+ O 21 '46
Ethyl ether (diethyl oxide); hazards and precautions. bibliog Nat Safety N 54:39-40+ Jl '46
Mercury photo-sensitized reactions of diethyl ether. B. D. Darwent and others. J Chem Phys 14:551-7; Discussion. 557-9 S '46
Preparation of antigens from yolk sacs infected with rickettsiae. N. H. Topping and C. C. Shepard. bibliog flow chart Pub Health Rep 61:701-7 My 17 '46
Refractive index of ethanol-water mixtures and density and refractive index of ethanol-water-ethyl ether mixtures. T. A. Scott, jr. bibliog J Phys Chem 50:406-12 S '46
Release of antigen from certain bacteria on treatment with ether. C. C. Shepard. bibliog Pub Health Rep 61:54-9 Ja 11 '46
Removal of peroxide from organic solvents. W. Dasler and C. D. Bauer. bibliog Ind & Eng Chem Anal ed 18:52-4 Ja '46

Analysis

Determination of dissolved gases in volatile liquids; a boiling-out method. C. C. Meloche and W. G. Fredrick. diag Ind & Eng Chem Anal ed 17:796-8 D '45
Determination of ether vapor in gaseous mixtures; separation and determination in gaseous mixtures containing ethylene and determination of dissolved ethylene in ethyl ether. C. C. Meloche and W. G. Fredrick. bibliog Ind & Eng Chem Anal ed 17:795-6 D '45

ETHYL gasoline. See Gasoline—Ethyl mixtures

ETHYL lactate
Esters containing phosphorus. H. G. Cook, H. McCombie and B. C. Saunders. Chem Soc J p873-4 D '45
Experiments on the interaction of hydroxy compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases. W. Gerrard and M. J. Richmond. Chem Soc J p853-7 D '45

ETHYL linolate
Spectrophotometric studies of the oxidation of fats; oxygen absorption and chromophore production in fatty esters. R. T. Holman and G. O. Burr. bibliog Am Chem Soc J 68:562-6 Ap '46

ETHYL mercaptan
Streptomyces antibiotics; the degradation of streptomycin and dihydrostreptomycin with ethyl mercaptan. F. A. Kuehl, jr. and others. bibliog Am Chem Soc J 68:2096-101 O '46

ETHYL octadecane
High molecular weight hydrocarbons; eicosane, 1-phenyleicosane and 3-ethyloctadecane. K. W. Sherk, M. V. Augur and M. D. Soffer. bibliog Am Chem Soc J 67:2239-40 D '45

ETHYL oleate
Spectrophotometric studies of the oxidation of fats; oxygen absorption and chromophore production in fatty esters. R. T. Holman and G. O. Burr. bibliog Am Chem Soc J 68:562-6 Ap '46

ETHYL phenylacetate
Carbethoxylation of ethyl phenylacetate and ethyl α-phenyl-*n*-butyrate using sodium amide. H. G. Walker, jr. and others. bibliog Am Chem Soc J 68:672-3 Ap '46

ETHYL phenylbutyrate
Carbethoxylation of ethyl phenylacetate and ethyl α-phenyl-*n*-butyrate using sodium amide. H. G. Walker, jr. and others. bibliog Am Chem Soc J 68:672-3 Ap '46

ETHYL propionylacrylate
Compounds related to penicillic acid; ethyl β-propionylacrylate and its formylation product. J. S. Moffatt, G. Newbery and W. Webster. Chem Soc J p451-4 Je '46

ETHYL silicate
New electrical materials. bibliog il Electrician 137:383-6 Ag 9 '46
Properties of ethyl silicate. H. D. Cogan and C. A. Setterstrom. Chem & Eng N 24:2499-2501 S 25 '46

ETHYLATION
Ethylation of benzene in presence of solid phosphoric acid. V. N. Ipatieff and L. Schmerling. bibliog Ind & Eng Chem 38:400-2 Ap '46
Ethylbenzene; high yield and rate of production by liquid-phase ethylation. A. W. Francis and E. E. Reid. bibliog(104 references) diag Ind & Eng Chem 38:1194-1203 N '46

ETHYLENE
Alcohol from petroleum; pictured flowsheet. Chem & Met Eng 52:136-9 N '45
Bending force constants for halogenated ethylenes. K. S. Pitzer and N. K. Freeman. bibliog J Chem Phys 14:586-8 O '46
Color reactions of some unsymmetrical diarylethylenes. D. S. Tarbell and E. G. Lindstrom. bibliog Am Chem Soc J 68:1930-2 O '46
Dow process for styrene; abstract. J. E. Mitchell, jr. diags Chem & Met Eng 53:280+ My '46
Emulsion polymerization of ethylene; report presented at 26th Kuko (Plastic committee) meeting in Ludwigshafen, Feb. 18, 1943. Hopff and Kern. Mod Plastics 23:153-60+ Je '46
Ethyl alcohol made from refinery ethylene; Standard Oil's Baton Rouge plant. il Chem & Met Eng 52:96-8 N '45
Ethylbenzene; high yield and rate of production by liquid-phase ethylation. A. W. Francis and E. E. Reid. bibliog(104 references) diag Ind & Eng Chem 38:1194-1203 N '46
Ethylene imine ketones. N. H. Cromwell and J. A. Caughlan. bibliog Am Chem Soc J 67:2235-8 D '45
Formation of tetraarylethylenes from diarylcarbinols. F. Bergmann and S. Israelashvili. bibliog Am Chem Soc J 68:354-6 Mr '46
Heat content, free-energy function, entropy, and heat capacity of ethylene, propylene, and the four butenes to 1,500°K. J. E. Kilpatrick and K. S. Pitzer. bibliog J Res Nat Bur Stand 37:163-71 S '46
High pressure polymerization of ethylene. G. M. Kline. flow diags il Mod Plastics 23:141-5+ My '46
Novel reaction between amines and dibenzoylmethylethylene; evidence for a chelate structure for *cis*-dibenzoylmethylethylene. R. E. Lutz and P. S. Bailey. bibliog Am Chem Soc J 67:2229-32 D '45

ETHYLENE—*Continued*
Petroleum byproducts, a big factor in organic chemical industry; Chem & Met report. bibliog il Chem & Met Eng 52:121-8 D '45 [reprint 25c]
Photochemical reactions in sunlight; (a) reaction of ethylenes with phenanthraquinone and with benzil; (b) a new type of photochemical equilibrium. A. Schönberg and A. Mustafa. Chem Soc J p551-3 S '45
Production of synthetic alcohol from ethylene; abstract. C. M. Beamer. flow diag Pet Processing 1:88-9 O '46
Reactions of thermochromic ethylenes. A. Schönberg, A. F. A. Ismail and W. Asker. Chem Soc J p442-6 Je '46
Separation and chemical utilization of coal gas constituents. N. Booth. Gas J (Lond) 248:489+ S 18 '46
Simplified flow diagrams; ethyl alcohol from ethylene. W. L. Nelson. flow diag Oil & Gas J 44:112 F 16 '46
Some reactions of *cis*-dibenzoyl-(morpholinomethyl)-ethylene; reduction and cyclization. P. S. Bailey and R. E. Lutz. bibliog Am Chem Soc J 67:2232-5 D '45
Structure of ethylene polysulfides. H. E. Westlake, jr. and others. bibliog Am Chem Soc J 68:748-51 My '46
Syntheses of glycerol and propylene glycol from propylene, and ethylene glycol from ethylene. D. M. Newitt and P. S. Mene. Chem Soc J p97-100 F '46
Synthetic lubricants from ethylene condensations. H. Schildwachter. bibliog diag Pet Refiner 25:109-13 Mr '46

Analysis

Determination of ether vapor in gaseous mixtures; separation and determination in gaseous mixtures containing ethylene and determination of dissolved ethylene in ethyl ether. C. C. Meloche and W. G. Fredrick. bibliog Ind & Eng Chem Anal ed 17:795-6 D '45
Determination of ethylene. Ind & Eng Chem Anal ed 18:339 My '46
Determination of ethylene; 22% mercuric sulfate in 22% sulfuric acid. A. W. Francis and S. J. Lukasiewicz. bibliog Ind & Eng Chem Anal ed 17:703-4 N '45
Simultaneous determination of ethylene and 1,2-propylene glycols. B. Warshowsky and P. J. Elving. bibliog Ind & Eng Chem Anal ed 18:253-4 Ap '46

Manufacture

Low temperature processing of light hydrocarbons. A. W. Pratt and N. L. Foskett. il diag Am Inst Chem Eng Trans 42:149-61; Discussion. 161-3 F '46
Partial oxidation of ethane used in German ethylene manufacture. Pet Processing 1: 135 O '46

ETHYLENE chloride
Toxicology of 1,2-dichloroethane (ethylene dichloride) effects of daily inhalations. L. A. Heppel and others. bibliog J Ind Hygiene 28:113-20 Jl '46

Analysis

Determination of chlorinated hydrocarbon vapors in air. R. W. Schayer and H. H. Ackerman. diag J Ind Hygiene 28:237-40 S '46

ETHYLENE chlorohydrin

Analysis

Determination of ethylene chlorohydrin. K. Uhrig. Ind & Eng Chem Anal ed 18:469 Ag '46

ETHYLENEDIAMINE
sym-Dialkylethylenediamines. F. Linsker and R. L. Evans. bibliog Am Chem Soc J 68: 1432 Ag '46
Preparation of some monoalkyl- and symmetrical dialkylethylenediamines. J. A. King and F. H. McMillan. bibliog Am Chem Soc J 68:1774-7 S '46
Pyrolysis of some polyethylene amines. W. M. Hutchinson, A. R. Collett and C. L. Lazzell. diag Am Chem Soc J 67:1966-8 N '45

ETHYLENE dichloride. See Ethylene chloride

ETHYLENE glycol. See Glycol

ETHYLENE iodide
Thermal decomposition of ethylene iodide catalyzed by iodide ions. T. Iredale and T. R. Stephan. bibliog J Phys Chem 49:595-601 N '45

ETHYLENE oxide
Constitution of the product of the reaction of benzylethylene oxide with ammonia. A. J. Castro and C. R. Noller. bibliog Am Chem Soc J 68:203-4 F '46
Control of microbiological food spoilage by fumigation with epoxides. R. Whelton and others. bibliog il Food Ind 18:23-5, 174-6+ Ja-F '46

ETHYLENESULFONIC acid
Preparation of ethylenesulfonic acid; salts and esters. W. F. Whitmore and E. F. Landau. bibliog Am Chem Soc J 68:1797-8 S '46

ETHYLENIMINE
Addition of primary and secondary amines to ethylenimine in the presence of aluminum chloride. G. H. Coleman and J. E. Callen. bibliog Am Chem Soc J 68:2006-7 O '46

ETHYLIDENE glycerol
Condensation reactions; a laboratory preparation of ethylidene glycerol. M. M. Maglio and C. A. Burger. bibliog J Chem Educ 23:174-5 Ap '46

ETHYNYLCARBINOL
Researches on acetylenic compounds; αβ-acetylenic hydroxy-acids. L. J. Haynes and E. R. H. Jones. Chem Soc J p503-6 Je '46

ETHYNYL ketones
Researches on acetylenic compounds. K. Bowden and others. Chem Soc J p39-54 Ja '46

ETOBICOKE, Ontario

Water supply

Water treatment in Etobicoke; use of Calgon; respective merits of lime-soda-ash and zeolite processes. F. McArthur. il Water & Sewage 84:66-7+ Ap '46

EUCALYPTUS oil
Carbonyl constituents of eucalyptus oils; constitution of phellandral; *d-*, *l-*, and *dl-β-iso*propyladipic acids. G. Burger and A. K. Macbeth. Chem Soc J p145-7 Mr '46

EUGENOL
Synthesis of 3-methyl*iso*quinolines. G. R. Clemo and J. H. Turnbull. Chem Soc J p533-5 Ag '45

EULER'S formula
Euler critical load for pinned-pinned polynomial tapered struts. F. J. Turton. Roy Aeronautical Soc J 49:639-45 O '45

EUROPE
Report from Europe. P. Kelly. Arch Forum 84:105-6+ Mr '46
Return of the West; western Europe seems sane, conservative, tired of excitement, of Russia, and of U.S. obsession with unity. W. S. Schlamm. il Fortune 34:164-7+ O '46

See also
Chemical industries—Europe
Coal mines and mining—Europe

Commerce

Economic relationships between European countries. E. S. Mason. Comm & Fin Chr 162:2326+ N 15 '45
Foreign trade on the continent. Economist 149:754-5 N 24 '45
Northern and western Europe; trade recovery. S. L. Deese. For Comm W 24:11-12+ Jl 13 '46
State trading in Europe; its status and prospects. H. Chalmers. For Comm W 21:3-4+ N 10 '45
Trade of European neutrals. J. Kunstenaar. il For Comm W 24:9-10 Jl 13 '46

Economic conditions

Business abroad. Fortune 33:228+ Ja '46
Results of monetary reforms in western Europe. R. W. Bean. Fed Res Bul 32:1115-22 O '46
Western Europe struggles up from wreckage. E. Kaskeline. Barron's 26:12 N 4 '46

EUROPE—Economic conditions—*Continued*

German occupation

German contracting in occupied Europe. A. L. Horniker. Harvard Bsns R 25 no 1:74-91 [O] '46

Industries and resources

Europe turns left; trend toward nationalization of key industries; iron and steel production expected to rise throughout 1946. V. Delport. il Steel 118:344-5+ Ja 7 '46

Politics and government

Pleads for united Europe. W. Churchill. Comm & Fin Chr 164:1545+ S 26 '46

Revolutionary complexion of Europe. M. Palyi. Comm & Fin Chr 164:478+ Jl 25 '46

See also
Political parties—Europe

EUROPE, Eastern

Eastern Europe's plight. Bsns W p109-10 My 25 '46

Land and politics; review of H. Seton-Watson's Eastern Europe between the wars, 1918-1941, by W. Ebenstein. J Land & Pub Util Econ 22:59-63 F '46

EUROPEAN war, 1914-1918

Aerial operations

Recollections of early naval flying. F. J. Rutland. il Engineering 162:17-18, 27-8, 49-51, 97-100 Jl 5-19, Ag 2 '46

Economic aspects

It was very much the same in 1919-21; reprinted from Printers' Ink fiftieth anniversary issue. Ptr Ink 217:59-60+ O 25 '46

Naval operations

H.M.SS. Minerva and Magnificent, 1914-1917. E. C. Smith. il map Engineering 162:73-5, 147-9 Jl 26, Ag 16 '46

EUROPIUM

Isotopes

Assignment of mass to 46-hr. samarium and 9 2-hr. europium by a mass spectrograph. R. J. Hayden and M. G. Inghram. Phys R 70:89 Jl 1 '46

EVANS, Ward Vinton, 1883-

Honored by Chicago chapter, AIC. por Chem & Eng N 24:2782 O 25 '46

EVANS, Wilbur, 1907-

Star of Broadway musical comedy studies advertising on the side. por Ptr Ink 214:66 Ja 25 '46

EVAPORATION

Evaporation. W. L. Badger and R. A. Lindsay. bibliog Ind & Eng Chem 38:4-5+ Ja '46

Evaporation of antimony. L. Harris. J Ap Phys 17:757 S '46

Evaporation of liquids in currents of air. S. H. Wade. il Inst Chem Eng Trans 20:1-8; Discussion. 9-13 '42

Free evaporation into air of water from a free horizontal quiet surface. L. M. K. Boelter, H. S. Gordon and J. R. Griffin. bibliog flow diags diags Ind & Eng Chem 38 596-600 Je '46

Industrial applications of the heat pump. P. Sporn and others. diags Chem & Met Eng 53:98-100+ Je '46

Manufacture of ice by indirect evaporation. G. Holman. Power Pl Eng 50:94-6 Je '46

Metal coating by vacuum evaporation. F. C. Benner. il Mod Plastics 23:110-11 F '46

Some aspects of the economics of evaporation. H. B. Caldwell and W. D. Kohlins. diags Am Inst Chem Eng Trans 42:495-509 Je '46

Tables, calculations, etc.

Design of multiple-effect evaporators for minimum area or minimum cost. C. F. Bonilla. bibliog Am Inst Chem Eng Trans 41:529-37 O '45

EVAPORATORS

Compression evaporator. il diag Chem Ind 57: 1061+ D '45

Constant-level feeder for thermostatic baths and continuous evaporators. M. S. Telang. bibliog diags Ind & Eng Chem Anal ed 18:453-4 Jl '46

Design of multiple-effect evaporators for minimum area or minimum cost. C. F. Bonilla. bibliog Am Inst Chem Eng Trans 41.529-37 O '45; Discussion. 42:407-9 Ap '46

Developing circulation in an evaporator. C. A. Lee. diag Chem Eng 53:128 Ag '46

Economic features of low-pressure evaporating and distilling plants; with cost data. M. L. Ireland, jr. Marine Eng 50:159-64; Discussion. 168-71 D '45

Equipment advances 1944-45. W. L. Badger. Chem Ind 57:858 N '45

Evaporation. W. L. Badger and R. A. Lindsay. bibliog Ind & Eng Chem 38:4-5+ Ja '46

Evaporator heat balance. G. E. Seavoy. il diags Paper Ind 27:1795-8 Mr '46

Evaporators generate clean steam from impure water for many uses. J. B. Forbes. il diags Power 90:151-3 Mr '46

Function of the evaporator in practical refrigeration. G. Holman. il diags Power Pl Eng 50:94-7 Mr '46

Glass vacuum evaporator. B. N. Reavell. diag Chem & Ind p254-5 Jl 6 '46

Laboratory evaporator. W. M. Ames. diag Chem & Ind p 194 My 18 '46

Laboratory study of continuous vegetable oil extraction; countercurrent extractor, rising-film evaporator, and oil stripper. A. C. Beckel, P. A. Belter and A. K. Smith. il diags Ind & Eng Chem Anal ed 18:56-8 Ja '46

Some aspects of the economics of evaporation. H. B. Caldwell and W. D. Kohlins. diags Am Inst Chem Eng Trans 42:495-509 Je '46

Water distillation makes successful use of vapor recompression. il Chem & Met Eng 53:129 Ja '46

Will evaporator that is larger do the job? diags Power 89:850-2 D '45

See also
Vaporizers

Cleaning

Chemical removal of calcium sulfate scale. J. L. Wasco and F. N. Alquist. il diag Ind & Eng Chem 38:394-7 Ap '46

Descaling of salt water evaporators. Marine Eng 51:109-10 S '46

EVERGLADES

Tapping the Everglades: nature's great empire. C. R. Bitting. il Comm & Fin Chr 163:401+ Ja 24 '46

EVERGREENS

See also
Conifers

EVERSHARP, inc.

Seeks greater diversification. Barron's 26:6 Ag 12 '46

EVIDENCE (law)

Some fundamental rules of evidence. L. S. Popkin. J Account 81:466-70 Je '46

See also
Expert evidence
Telephone conversation as evidence

EVOLUTION

See also
Society for the study of evolution

EWING, Esmond, 1891-

Sketch. por East Underw 47:1+ Je 28 '46

EXAMINATIONS

See also
Engineering—Examinations

EXAMINATIONS, Physical. See Physical examinations

EXCAVATING machinery

Electrically operated excavators. H. Sharp. il Mech Handling 33:163-6 Mr '46

Flame cutting and welding in bulldozer manufacture. H. H. Washbond and O. F. Wilkinson. il Iron Age 158:56-9 S 12 '46

Georgetown stripping coordinates operations for efficiency. R. R. Richart. il diags Coal Age 51:88-96 O '46

Heavy grading required for airport at Charleston, W. Va. L. S. Wescott. il plans Civil Eng 15:553-5 D '45

Large dragline in coal stripping. R. M. Dickey. il Min Cong J 32:49-50 Je '46

EXCAVATING machinery—*Continued*
Machine tool builder fabricates earth mover; Gradall, by Warner & Swasey co. il Iron Age 158:53 N 7 '46
Mobile excavator crane. il diag Engineer 181: 471-2 My 24 '46
Special land leveller used at Yakima project. H. T. Nelson. il Eng N 135:747-8 N 29 '45
25-cu. yd. dragline heads modern units at new Maumee pit. il diag Coal Age 51:101-5 F '46

See also
Electric shovels
Mining machinery
Rock drills
Shoveling machines
Trenching machinery

EXCAVATION
Heavy rock excavation in Kentucky hauled with earthmoving scrapers; highway relocation project. il Eng N 137:384-5 S 19 '46
Wellpoints in a pumped-sand fill facilitate outfall sewer construction. il diags Eng N 137:238-40 Ag 22 '46

See also
Blasting
Drilling and boring (earth and rocks)
Excavating machinery
Shaft sinking
Shoveling machines
Tunnels and tunneling

Safety measures
Advantages of steel sheeting for use in trench excavation. W. T. Adams. il diags Pub Works 77:17-18 F '46
Army safety requirements for excavations. diags Pub Works 77:29-30 Ja '46

EXCAVATION, Subaqueous
Deep cutoff trench of puddled clay for earth dam and levee protection. H. Kramer. il diag Eng N 136:986-90 Je 27 '46
Moving sticky mud with drag equipment; tail race below DeCew Falls powerhouse. il Eng N 137:587-90 O 31 '46
River-channel excavation; lightning causes explosion. H. R. Johnston. il plan Civil Eng 15:547-8 D '45
Wellpoints dewater Denison Dam closure area. T. C. Gill. il diag Civil Eng 16:108-10 Mr '46

See also
Dredging
Petroleum—Well drilling, Subaqueous
Tunnels and tunneling, Subaqueous

EXCESS profits tax
Administration of Section 722; joint committee on internal revenue taxation. M. Austin. J Account 81:259-64 Mr '46
All things to all men; 722. Bsns W p45 Je 1 '46
Appoint Excess profits tax council members. Comm & Fin Chr 164:200 Jl 11 '46
Coasting on tax refunds; abuse in use of carryback and refund provisions. P. G. Evans. Comm & Fin Chr 163:253+ Ja 17 '46
Commission attitude on removal of excess profits tax; possibilities for rate reductions. R. N. Larkin. Elec World 126:98 S 14 '46
Congress finally having its way on tax refunds; Treasury's blockade on Section 722 appeals is broken. J. P. Reeves. Barron's 26:12 O 7 '46
Excess profits tax settlements. P. G. Evans. Comm & Fin Chr 164:2217 O 31 '46
Five financial aids in restoring peacetime business. S. H. Apfel. Dun's R 54:16-20+ My '46
Hamel heads new Excess profits tax council. Comm & Fin Chr 163:3262; 164:143 Je 13, Jl 4 '46
How new tax law affects company operations. J. K. Lasser. il Dun's R 54:15-22 Mr '46
Membership of Excess profits tax council to administer refunds of corporations. Comm & Fin Chr 164:530 Jl 25 '46
Possibilities for excess-profits tax relief by elimination of abnormal base-period deductions. R. S. Bock. J Account 81:397-403 My '46
Relief claims under Section 722. J Account 82: 355-7 O '46
Section 721; opinion by J. Bierman. J Account 82:324-5 O '46
Section 722; abstract. M. H. Miller. J Account 81:419 My '46
Section 722 of the Internal revenue code, testimony of the Commissioner of internal revenue on the Board. J Account 82:90-2 Jl '46
Tax carry-backs; Postwar refunds. Nat City Bank p32-4 Mr '46
Tax effects on business. J. J. Klein. Comm & Fin Chr 163:1213+ Mr 7 '46; Same. Credit & Fin Management 48:7-9 Ap '46
Tax reduction by carry-backs and carry-overs; summary of present legislation. J. H. Landman. J Account 81:282-5 Ap '46

Accounting
Analysis of the Section 722 bulletin; check list for miscellaneous problems, combination cases, etc. H. Canary. J Account 81: 227-35 Mr '46
Analysis of the Section 722 bulletin; check list for Section 722 (b)(4); types of events which the bulletin says will qualify you for relief. T. J. Dolan. J Account 81:69-72 Ja '46
Analysis of the Section 722 bulletin; check list for Section 722 (b) (4); what some students say are types of events which may also qualify you for relief. T. D. Williams. J Account 81:138-40 F '46
Analysis of the Section 722 bulletin; check list for Section 722 (b) (4); what some students say you may do to reconstruct. T. G. Thurston. J Account 80:449-53 D '45
Analysis of the Section 722 bulletin; check list for Section 722 (b) (4); what the bulletin says you must do to reconstruct. W. A. Hurley. J Account 80:369-74 N '45
Analysis of the Section 722 bulletin; check list for Section 722 (b) (5). C. N. Whitehead. J Account 81:141-4 F '46
Analysis of the Section 722 bulletin; check list for Section 722 (c). C. Melvoin. J Account 81:314-19 Ap '46
Consolidated equity invested capital. J. R. Hellerstein. J Account 80:456-64 D '45
Here's tax relief for that abnormal income. H. K. Marks. Adv & Sell 39:37+ Mr '46
Section 722. J Account 80:387-8 N '45
Tax credits in interim reports. E. S. Reno. J Account 82:28-31 Jl '46
Treatment of Sansome earnings and profits for equity invested capital purposes. J. D. Bierman. J Account 82:317-23 O '46

Great Britain
EPT and reconversion. Economist 149:604 O 27 '45
EPT refunds. Economist 151:146 Jl 27 '46

Venezuela
Venezuela imposes excess-profit tax in surprise decree. M. C. Cody. Oil & Gas J 44:58 Ja 12 '46

EXCHANGE

See also
Balance of payments
Commerce
Foreign exchange
Money

EXCHANGE, Foreign. See Foreign exchange

EXCHANGE charges, Bank. See Banks and banking—Collection charges

EXCHANGES
Commodities on the warpath; open drive for free play of supply and demand in setting prices. Bsns W p63-4+ F 16 '46
Commodity markets. Economist 150:182-3 F 2 '46
Economists for free markets; survey by National association of commodity exchanges and allied trades; abstract. Comm & Fin Chr 164:1060 Ag 22 '46
Rye, wheat futures trading halted. Comm & Fin Chr 163:3395 Je 20 '46
Spokesman for the commodity exchanges. Fortune 33:196 My '46

See also
New York coffee and sugar exchange

EXCHANGES, Stock. See Stock exchange

EXCITATION equipment
Application and performance of electronic exciters for large a-c generators. H. A. P. Langstaff and others. il diags Elec Eng 65: Trans 246-53 My '46

EXCITATION equipment—*Continued*
Electronic exciter for 81,250-kva. turbo-alternator. H. A. P. Langstaff and R. F. Lawrence. il diags Elec World 125:88-91 Mr 16 '46
Electronic exciter for large generators. W. R. Farley and C. R. Marcum. diags Power Pl Eng 50:68-70 Ap '46
Excitation, control and cooling ignitron tubes. C. C. Herskind and E. J. Remscheid. diags Elec Eng 65:Trans 632-5 O '46
Excitation for large turbine-generators; advantages and disadvantages of different systems. M. D. Ross. Power 90:180 Mr '46; Same, with diags. Elec World 126:102 Jl 6; 102 Jl 20 '46
Exciter-regulator for aircraft alternators. P. T. Hadley and others. il diags Electronics 19:120-2 Jl '46
Industrial application of Rototrol regulators. W. R. Harris. il diags Elec Eng 65:Trans 118-23 Mr '46
Motor-driven exciters for turbine alternators. R. B. Bodine and others. il diags Elec Eng 65:Trans 290-7 bibliog(Trans p294) My '46
Reserve exciters and their connections. H. W. Eales. diag Elec World 126:94 Jl 20 '46
Turbine installation and maintenance; inspection of steam turbine driven generators and exciters. P. Dahlstrand. diags Paper Tr J 123:164-7 O 10 '46
Way to eliminate main field rheostats. P. H. Adams. diags Elec World 125:76-7 Mr 30 '46

EXCURSION boats
Excursion boat, Delaware Belle. il Marine Eng 51:97-9 O '46

EXECUTIVES
Appraising executive performance. A. A. Low. Factory Management 103:264+ N '45
Business executive's responsibilities. H. A. Bullis. Comm & Fin Chr 162:2369+ N 15 '45
Code of executive relations; abstract. O. R. Strackbein. Management R 35:362-4 S '46
Executive poll shows human relations to be prime responsibility. Iron Age 158:153-4 S 19 '46
FBI's old grads. Bsns W p19-20 Jl 20 '46
Fortune management poll; profits, wages? whose is social responsibility? Fortune 33: 197-8 Mr '46
How to get along with the boss. J. Garth. Am Bsns 15:28+ D '45
How to improve teamwork by improved administration of company policies down the line. J. F. Blair. Am Bsns 16:10-11+ Mr '46
Intelligent, impartial self-analysis enables executive in chemical industry to overcome temporary setbacks. W. von Pechmann. Ind & Eng Chem 38:107-8 S '46
Is a foreman a worker? T. H. Fairchild. Personnel J 24:345-7 Mr '46
Lone wolf executive. J. Garth. Am Bsns 16: 36+ F '46
Management poll; Fortune forum of executive opinion on U.S. executives themselves. Fortune 34:5-6+ O '46
1946 will test leadership. W. M. Rooney. Steel 118:245+ Ja 7 '46
Pattern of executive leadership. M. E. Dimock Advanced Management 10:139-45 D '45
Pension plans for key men. P. F. Millett. Trusts & Estates 83:345-8, 524-7 O-N '46
Play it safe executive; how to force him to act. J. Garth. Am Bsns 16:42-5 Ja '46
Ten commandments for top executives. H. Simmons. Ptr Ink 216:52 Jl 5 '46
They all started as salesmen. Sales Management 55:38-9 D 15 '45
Top executives: serve your country! W. L. Batt. Sales Management 57:50 Jl 1 '46
Wanted; mature managers. B. M. Selekman. Harvard Bsns R 24 no2:228-44 [Ja] '46

See also
Bonus system (for executives)
Business management
Credit managers
Efficiency, Industrial
Employment management
Employment managers
Factory management
Foremen
Sales managers
Supervisory workers

Salaries
Accounting for compensation in the form of stock options. J. L. Dohr. J Account 80:439-43 D '45
Breech tops executive salaries in world's largest industry. Aviation N 6:15-16 Ag 26 '46
Deferred compensation under executive employment contracts. H. S. Koster. Trusts & Estates 83:149-50 Ag '46
Employees' salary compensation; tax judges show greater leniency in recent years. V. R. Wolder. Credit & Fin Management 48: 24+ Je '46
Hot sales idea is deferred annuity for key men. Nat Underw (Life ed) 50:8+ N 8 '46
How agencies compensate account executives. Ptr Ink 215:47-8 My 10 '46
Incentive plans for top executives. C. Davidson. Chem Ind 59:650-7 O '46; Same. Credit & Fin Management 48:16+ Ag '46
Management, how much is it worth? Trusts & Estates 83:17-20 Jl '46
Salary and bonus plans for key executives. Ptr Ink 213:122 D 7 '45
Stock options and incentives. Fortune 33:160 Je '46
Top airline executive salaries gained slightly, survey shows. Aviation N 6:26 S 9 '46

Training
Building tomorrow's leaders; Monsanto chemical co. H. W. Lundin. Chem & Eng N 24:31-3 Ja 10 '46
Businessmen go back to school; University of Chicago's refresher courses. A. Tinney. il Am Bsns 16:28+ S '46
Education for executives. C. I. Barnard. J Bsns 18:175-82 O '45
Executive training. C. J. Carden. J Retailing 22:1-4 F '46
How Consolidated Edison spots and trains men for executive jobs. D. S. Sargent. Sales Management 57:69-70+ S 1 '46
How General Foods gives management training to top executives. A. S. Iglehart. Sales Management 57:37-9 Jl 15 '46
Objectives of business education. R. D. Calkins. Harvard Bsns R 25 no 1:46-57 [O] '46
Train your top men too! C. Francis. Sales Management 57:53 Jl 1 '46

EXECUTORS and administrators
Bank held liable for negligence in loaning money to executor of estate where estate deposit made loan unnecessary. Banking Law J 62:772-8 O '45
Comparative fees of executors. F. O. Shelton. Trusts & Estates 81:491-2 D '45
Executor's note pledging estate pass book as security. C. R. Rosenberg, jr. Burroughs Clearing House 30:54+ N '45

See also
Wills

EXHAUST steam
Condensing by compression; a locomotive experiment. H. Holcroft. il diag Engineer 182: 202-3, 227-9, 248-9 S 6-20 '46
Saving fuel is good business; exhaust steam utilization. Heating-Piping 18:113-14 Ja '46
Separator made from scrap removes oil from exhaust steam going to boiler feed. R. W. Machen. il Pet Processing 1:97 O '46

EXHAUST systems
Air duct design for industrial ventilating systems. C. C. Hermann. diags Chem & Met Eng 53:118-21 Mr '46
Air velocities near exhaust hoods; chart and calculations; reference data. diags Heat & Ven 43:78a-78b Ap '46
Copper hoods and ducts solve hatter's problem; removing steam used in treating felt. il Sheet Metal Worker 37:49+ S '46
Design of connecting hood over electric range to carry away fumes and heat. plan diags Sheet Metal Worker 37:57+ Ap '46
Design of exhaust systems (cont). F. H. Stebbins. il diags Sheet Metal Worker 36: 59-60+ N; 48-52 D '45; 37:148-52 Ja; 53-5 F; 41-2+ Mr; 54-6+ Ap; 47-9 My; 38-9 Je; 49-51 Jl; 47-8+ Ag; 46-8 S; 49-51 O '46
Design of exhaust systems for industrial dust control. J. M. Kane. diags Heat & Ven 42: 68-76 N '45
Design of hoods for efficient dust removal. C. C. Hermann. diags Chem & Met Eng 53:158-61 F '46
Energy losses at suction hoods. A. D. Brandt and R. J. Steffy. il diags Heating-Piping 18:105-16 bibliog(p112); Discussion. 116-19 S '46

EXHAUST systems—*Continued*
Engineering control of welding exposures. B. F. Postman. il diags Heat & Ven 43:82-8 Ap '46
Exhaust systems for brake lining plant; Raybestos co. il diag Sheet Metal Worker 37:99-100 Ja '46
Exhaust systems that work. L. C. Stokes. il Nat Safety N 53:22-3+ Ap '46
Foundry ventilation. J. M. Kane. bibliog il diags Foundry 74:86-9+ F; 104-8+ Mr '46
Guides for industrial ventilation. A. D. Brandt. il Heat & Ven 43:67-70 Mr '46
Industrial ventilation; Naval air station at Coco Solo, Canal Zone; illustrations with text. F. F. Kravath. Heat & Ven 43:63-7 Ag '46
Keeping air clean. il Nat Safety N 53:18+ Mr '46
Kitchen ventilating problem. plan diags Sheet Metal Worker 37:51-2 F '46
Make-up air. T. W. Reynolds. diags Heat & Ven 43:65-6 Ap '46
Multiple connections to separators. diags Sheet Metal Worker 37:64+ Mr '46
Portable exhaust unit for removing paint fumes from passenger cars. il Ry Mech Eng 120:131 Mr '46
Recirculating spray booth exhaust. F. P. Jung. diag Heat & Ven 43:62-4 My '46
Reducing heat loads in industrial air conditioning; manufacture of vacuum tubes, RCA Victor division of Radio corporation of America. L. R. St Onge. il diags Refrig Eng 51:35-8; Discussion. 38+ Ja '46
Removal of tar fog from coal gas. E. H. M. Badger. diag Soc Chem Ind J 65:168-9 Je '46
Value and limitations of high-speed turbo-exhausters for the removal of tar-fog from carburetted water-gas. E. H. M. Badger. diag Soc Chem Ind J 65:166-8 Je '46
Ventilating separators, breakers, screens. C. C. Hermann. diags Foundry 74:97+ S '46
Ventilating the mold shakeout. C. C. Hermann. il diags Foundry 74:104-5+ Ap; 117+ Je '46
Ventilation of solvent degreasers. J. B. Skinner and W. M. Pierce. il diags Heat & Ven 43:72-5 F '46
Ventilation requirements for industrial solvents. W. C. L. Hemeon. il diags Heat & Ven 43:82-6 Mr; 79-81 Ap '46
We keep exhaust systems clean to keep them running; American safety razor company. C. G. Riley. il Factory Management 104:100-1 Jl '46

See also
Dust removal

Testing

How to test the performance of an exhaust ventilating system. J. M. Dalla Valle. diags Heat & Ven 43:70-3 Je '46

EXHIBITIONS
Cleveland exposition displays mid-America's industry. W. B. Fiske. il Ind Marketing 31: 40-2 Jl '46
Early revival of trade shows seems probable. il Ind Marketing 30:60+ O '45
Fairs and exhibitions. For Comm W 23:45-6 Je 29 '46 [cont irregularly]
How to get the most out of trade expositions; who goes to industrial shows? why? how much time do they spend? what types of exhibits interest and help them most? J. T. Fosdick. il Ptr Ink 215:33-5 Je 21 '46
London exhibit. Bsns W p118+ S 28 '46
Los Angeles' successful Decalade of world trade; Commerce department's foreign-trade guidance. W. Measday. il For Comm W 25:7+ N 2 '46
Marine exposition demonstrates interest in foreign trade. il Ind Marketing 31:49 Jl '46
New products in minority at furniture show. Ptr Ink 214:74 Ja 25 '46

See also
Aeronautics—Exhibitions
Building trades—Exhibitions
Chemical industries—Exhibitions
Engineering—Exhibitions
Machine tools—Exhibitions
National marine exposition
Packaging—Exhibitions
Science—Exhibitions

EXHIBITS
Building center of New England to open in Boston in June. il Sales Management 56:142 Ap 1 '46
Dealers combine to stem loss of customers; permanent exhibit and advertising tell story of solid fuels in Twin Cities. V. J. Dallaire. il Ptr Ink 214:90+ Mr 8 '46
Erie learns about foundries; exhibit held by Northwestern Pennsylvania chapter of American foundrymen's association and Erie foremen's association. W. G. Gude. il Foundry 74:89-90 Jl '46
For maximum sales efficiency analyze trade shows by magazine methods. J. F. Apsey, jr. Ind Marketing 31:41+ S '46
How to become a display expert. H. Elfenbein. il Ind Marketing 31:54+ My '46
How to make exhibits pay. D. Ross. Ptr Ink 216:76+ S 13 '46
It's action that stops the crowd at a trade show exhibit. W. F. Schleicher. il Sales Management 57:145-6+ S 15 '46
New uses for industrial displays and exhibits point to potent postwar sales promotion. R. E. Quaid. il Ind Marketing 30:42-3+ D '45
Trade shows as an adjunct to selling; abstract. J. F. Apsey, jr. Management R 34: 440-1 N '45
U.S. Steel shows how to merchandise technical literature. M. L. Neison and H. J. Anderson. il Ind Marketing 31:38-9 Jl '46
What constitutes a successful industrial exhibit? M. L. Neison. il Ptr Ink 216:34-5 Ag 23 '46

See also
Electric utilities—Exhibits
Gas companies—Exhibits

EXHIBITS, Traveling
Carnegie-Illinois demonstrates new Hopper car to 2,000 railroad brass hats; road show set up in 10 railroad centers. il Sales Management 57:91-2 O 15 '46
Farm; industry's big opportunity; United States rubber company's exhibit and advertising campaign. A. B. Ecke. il Sales Management 56:37-40 Je 1 '46
Flying store takes U.S. wares to Latin America; Trans-Caribbean Air's distributing venture. il Sales Management 56:41 Mr 1 '46
Historical display proves good public relations; 100 historic watches shown by U.S. time corp. Ptr Ink 216:52 S 6 '46
Productive power exhibit. il Mech Eng 68: 659 Jl '46
Productive power; traveling show equipped to present possibilities of newly developed uses for electric power; abstract. J. M. McKibbin and C. B. Stainback. Elec World 125:85 Je 8 '46
Road show to demonstrate industrial electrification; "productive power" theme of huge exhibit to be staged in 75 cities by Westinghouse. H. R. Roberts. il Sales Management 57:104-6 O 1 '46
Westinghouse on wheels. il Sales Management 57:53 Ag 1 '46

EXPANDING universe. See Universe

EXPANSION (heat)
Coefficient of expansion. W. L. Nelson. Oil & Gas J 44:121 Ap 13 '46
Density and thermal expansion of liquid phosgene. C. N. Davies. bibliog J Chem Phys 14:48-9 Ja '46
Development of cordierite in ceramic bodies. H. H. Hausner. bibliog Cer Ind 46:80+ My '46
Effect of coefficient of expansion of ground- and cover-coat enamels on thermal-shock and impact resistance. F. A. Petersen and A. I. Andrews. bibliog Am Cer Soc J 29: 288-95 O 1 '46
New apparatus for determination of coefficient of expansion, transformation point, and softening point of glass. S. Lindroth. il diags Am Cer Soc Bul 24:450-1 D 15 '45
Some physical properties of mica. P. Hidnert and G. Dickson. bibliog diags J Res Nat Bur Stand 35:309-53, pl 1-4 O '45
Stability of heated structures. L. M. Wilson. il diags Gas J (Lond) 246:602-4+, 634-5 O 31-N 7 '45; Discussion. 246:680-1 N 14 '45

EXPANSION (heat)—*Continued*
Temperature strains in structural members. T. Baldwin and J. O. Cowburn. diag Engineering 162:265-7 S 20 '46
Thermal conductivity, expansion and specific heat of insulators at extremely low temperatures. G. B. Wilkes. il diags Refrig Eng 52:37-42 bibliog(p42); Discussion. 42+ Jl '46
Thermal expansion and second-order transition effects in high polymers. R. F. Boyer and R. S. Spencer. bibliog J Ap Phys 15: 398-405; 16:594-607; 17:398-404 Ap '44, O '45, My '46
Thermal-expansion stresses in reinforced plastics; polystyrene and aluminum oxide; phenol-formaldehyde resin and glass fibers; plywood, etc. P. S. Turner. J Res Nat Bur Stand 37:239-50 O '46

EXPANSION problems. See Business management—Expansion problems

EXPERIENCE
How valuable is experience in advertising? H. Halsell. Adv & Sell 39:54 S '46

EXPERT evidence
Chemist as an expert witness. J. Alexander. Chem & Eng N 24:1198-9 My 10 '46
Forensic accounting, its place in today's economy. M. E. Peloubet. J Account 81: 458-62 Je '46

EXPLORATION geophysicists, Society of. See Society of exploration geophysicists

EXPLOSIONS
Chemical process vessel explosion causes $50,000 damage. Locomotive 46:68+ Jl '46
Design of explosion pressure vents. H. R. Brown il diag Eng N 137:445-7 O 3 '46
Explanation of unusual fires or explosions on gas company premises which occured during 1944. Am Gas Assn Proc 1945:64-70
Explosion of a turbo-generator. Marine Eng 51:125 Je '46
Explosion of steam roll in laundry kills two, injures eight. il Locomotive 46:27 Ja '46
Explosions in cyanide furnaces. Safety Eng 91:34 Ja '46
Explosions in medium-pressure acetylene generators. G. W. Jones and others. diags U S Bur Mines Rep of Invest 3755:1-20 '44
Gaseous and dust explosions. S. G. Lipsett. Can Chem & Process Ind 30:41-6+ Mr '46
Hydrogen gas explosion damages condenser-turbine; believed caused by reaction between clean iron and hydrochloric acid. E. D. St John. il Elec World 125:98-9 F 16 '46
Lessons from a sludge tank explosion. H. W. Taylor. il Eng N 135:887-9 D 27 '45; Discussion. 136:289-91 F 21 '46
Man killed cleaning oil tank under steam pressure. Locomotive 46:26 Ja '46
New gas explosion law suits. L. T. Parker. Am Gas J 165:33-5 S '46
New gas explosion suits. L. T. Parker. Am Gas J 164:45-7 My '46
Non-linear propagation of underwater shock waves. M. F. M. Osborne and A. H. Taylor. diags Phys R 70:322-8 S 1 '46
Rendering tank failure. il Locomotive 46:14-15 Ja '46
Repairs to steam turbine unit following hydrogen explosion; caused by use of hydrochloric acid for scale removal. E. D. St. John. il diags Power Pl Eng 50:64-8 Mr '46
River-channel excavation; lightning causes explosion. H. R. Johnston. il plan Civil Eng 15:547-8 D '45
Solvents in the paint industry. R. B. Pollak. Paint Oil & Chem R 108:20+ N 29 '45
Two killed; eleven injured by explosion of uninsured hot water tank in school. il Locomotive 46:8-9 Ja '46
Two vulcanizer accidents. il Locomotive 46: 2-3 Ja '46

See also
Air compressors—Failures
Boiler explosions
Coal mines and mining—Accidents and explosions
Dust explosions
Inflammable liquids
Inflammable mixtures
Pressure vessels—Failures

EXPLOSIVE rivets. See Rivets

EXPLOSIVES
Active list of permissible explosives and blasting devices approved previous to Dec. 31, 1945. J. E. Tiffany and Z. C. Gaugler. U S Bur Mines Rep of Invest 3910:1-20 '46
AAF and petroleum research; airplane engine fuel; rocket propellants. D. L. Putt. Am Pet Inst Proc 25(3):30-7 '45
Chemistry in war; lecture before officers of Reichswehrministerium, Nov. 11, 1920. F. Haber. J Chem Educ 22:526-9+ N '45
Clearing minefields with explosives; demolition snakes. J. L. Bisch. il diags Explosives Eng 24:150-3 S '46
Container-dent sensitivity of explosives. G. L. Schuyler. Science 104:354-5 O 11 '46
Explosive reaction of diazonium compounds with sulphides of sodium. H. H. Hodgson. bibliog Chem & Ind p362 N 24 '45
Explosives; Edna and Dina; abstract. R. Connor. Chem & Eng N 24:2467 S 25 '46
Explosives research laboratory at U S. naval powder factory, Indian Head, Md. il plans Chem & Eng N 24.1210 My 10 '46
Hazards from chlorates and perchlorates in mixtures with reducing materials. I. Kabik. bibliog U S Bur Mines Information Circ 7340:1-6 '45
Modern military high explosives. W. H. Rinkenbach and L. F. Audrieth. J Chem Educ 22.522-4 N '45
Postwar education and training in military chemistry. L. F. Audrieth. J Chem Educ 22:583-5 D '45
Research and development, military explosives and propellants. M. W. Kresge. il J Ap Phys 16:792-7 D '45
Sensitivity of explosives to initiation by electrostatic discharges. F. W. Brown and others. U S Bur Mines Rep of Invest 3852: 1-8, pl 1-8 '46
Sensitivity to shock of mixtures of trinitrotoluene and potassium chlorate; abstract. A. Alberto and M. R. Liberalli. Chem & Met Eng 53:290 Ap '46

See also
Ammonium picrate
Blasting
Bombs
Mines, Military
Nitroglycerine
Torpedoes
Trinitrotoluene

Manufacture

Axis manufacture of explosives. R. A. Cooley. flow sheet il diag Chem Ind 59:645-9+ O '46
Behind a curtain of war secrecy, construction speeded output of RDX; Holston ordnance works. il map Eng N 137:96-101 Jl 25 '46

Safety measures

Explosives-handling practices at the mines of the Anaconda copper mining co. at Butte, Mont. E. F. Courtney and J. A. Johnson. 6pls U S Bur Mines Information Circ 7356: 1-13 '46
Prevention of explosives accidents in metal mines; metal-mine accident-prevention course, section 4. bibliog il U S Bur Mines Miners' Circ 54:1-80 '45

Storage

Storage of explosives in underground mines of the Lake Superior district. F. E. Cash. 9pls U S Bur Mines Information Circ 7343: 1-9 '46
Surface storage of explosives. D. Harrington and R. G. Warncke. 13pls U S Bur Mines Information Circ 7307:1-16 '45

Testing

Electronic chronoscope for measuring velocities of detonation of explosives. C. R. Nisewanger and F. W. Brown. 9pls bibliog U S Bur Mines Rep of Invest 3879:1-18 '46

Transportation

No fatalities during war from transport of explosives. Ry Age 120:833 Ap 20 '46
Safety in transporting flammable chemicals; Hercules Powder nitrocellulose trucks. C. L. Jones. il Chem Eng 53:103 O '46

EXPORT advertising. See Advertising, Foreign

EXPORT associations
Small British firms form groups to promote exports. Ptr Ink 214:122 Ja 18 '46

EXPORT associations—*Continued*
Webb-Pomerene law is promising plan to augment export efforts. R. L. Hoadley. Aviation 45:99+ Mr '46
See also
Coal exporters' association
Railway car export corporation of America

EXPORT credit insurance. See Insurance, Export credit

EXPORT credits insurance corporation. See Insurance, Export credit—Canada

EXPORT-import bank of Washington
Credit to Finland under loan agreement with Export-import bank. Comm & Fin Chr 163: 881 F 14 '46
Ex-imp and "fundnbank." H. Bratter. Banking 38:40-1 Je '46
Expansion in offing. H. M. Bratter. Comm & Fin Chr 163:383+ Ja 24 '46
Export-import bank activities; official releases concerning important loans. For Comm W 21:20-1+ N 17 '45; 22:20-3 Ja 26; 15+ F 9; 17 F 16; 51 Mr 30 '46
Export-import bank gives credit to Czechoslovakia. Comm & Fin Chr 163:3060 Je 6 '46
Export-import bank looks at South America; interview, Herbert E. Gaston. H. M. Bratter. Comm & Fin Chr 163:2639+ My 16 '46
Export-import bank participations. H. Bratter. Banking 38:41+ My '46
Export-import bank to assist in financing cotton exports. Burroughs Clearing House 30: 28 N '45
Export-import credit to China approved. Comm & Fin Chr 163:702 F 4 '46
Export insurance provided by proposed new division of Export-import bank. Weekly Underw 154:264 Ja 26 '46
Foreign loan policy of the United States; statement by National advisory council on international monetary and financial problems. Fed Res Bul 32:227-31 Mr '46
Functions of the Export-import bank; spur to exports through guaranteed loans. V. L. Horoth. Mag of Wall St 77:635-6+ Mr 2 '46
Government financing of reconstruction and foreign trade; work of Export-import bank. W. Chatfield-Taylor. Comm & Fin Chr 162: 2453+ N 22 '45
International investment agencies' legal spheres. N. Ostroff. For Comm W 23:3+ Je 8 '46
Loan agreement between Export-import bank and Mexico. For Comm W 21:46 D 22 '45
Program of foreign lending. W. C. Taylor. Comm & Fin Chr 163:717+ F 7 '46; Excerpt. For Comm W 22:19 F 9 '46
Reconstruction and the Export-import bank. W. M. Martin, jr. Comm & Fin Chr 163: 958+ F 21 '46
Second loan agreement between Export-import bank and Netherlands. Comm & Fin Chr 162:2447 N 19 '45
Semi-annual report. Comm & Fin Chr 163: 1691+ Mr 28 '46
Taylor quits Export-import bank; succeeded by W. M. Martin. Comm & Fin Chr 163: 1009 F 21 '46
Wants extension of Export-import bank now. H. E. Gaston. Comm & Fin Chr 164:82 Jl 4 '46

EXPORT trade
Appraisal of foreign purchasing power for U.S. goods. V. L. Horoth. Mag of Wall St 77:755-6+ Mr 30 '46
Approach to Latin American markets. A. O. Stanley. 154p Dun & Bradstreet, 290 Broadway, New York 8 '45
AMA offers 18 recommendations for increased exports based on the reciprocal trade program. Steel 118:123-4 Ap 1 '46
Banks and overseas trade. A. V. Barber. Elec R (Lond) 138:859-60 My 31 '46
British loan and American foreign trade. W. L. Clayton. il Dun's R 54:11-15+ My '46
Canada faces heavy losses of exports to United Kingdom markets. Iron Age 156:119 N 22 '45
Check list for Latin-American marketers. Ptr Ink 216:106+ Ag 16 '46
Chemical exports in 1946. C. C. Concannon. Chem & Eng N 24:324-7 F 10 '46
Cotton export plan aims at rehabilitation and trade. G. T. Montgomery. Textile World 96:143+ Je '46
Doing business today with Germany, Japan, Korea, Austria; basic facts about conditions and methods. For Comm W 24:40 S 28 '46
Essentials of success in international trade. E. E. Schnellbacher. il For Comm W 21:3-4+ D 29 '45
Export conference; packaging experts report to the Merchant marine. Mod Packaging 19: 126+ N '45
Export opportunities for paint. F. B. Hillhouse. Paint Oil & Chem R 108:80-1 N 1 '45
Export; past and future. R. H. Johnston. il Iron Age 157:164-9+ Ja 3 '46
Export trade is beset by problems too. J. F. Strub. Paper Tr J 123:28+ O 24 '46
Facts and fallacies of foreign trade; abstract. J. Quirk. Management R 34:417-20 N '45
Foreign funds for purchase of American steel seen unlimited. J. Anthony. Iron Age 158:95-6 Jl 11 '46
Foreign trade and American prosperity. J. A. de Haas. Comm & Fin Chr 163:829+ F 14 '46
Foreign trade as a postwar career; abstract. G. C. Payne. For Comm W 21:21 D 22 '45
Foreign trade essentials. H. A. Wallace. Comm & Fin Chr 163:2789+ My 23 '46
Foreign trade, foreign investment, and American prosperity; review of International trade and domestic employment, by C. B. Hoover, and House report no. 541, Postwar foreign economic policy of the United States. L. W. McKenzie, jr. Mech Eng 68:816-17 S '46
Foreign trade is path to frontiers of abundance. A. Paul. For Comm W 25:3+ O 19 '46
Foreign trade outlook. J. Abbink. Comm & Fin Chr 163:965+ F 21 '46
Foreign-trade prospects for the veteran today. W. S. Thomas and others. il For Comm W 23.3-5+ Je 29 '46
Fruits and vegetables; foreign-trade outlook. C. W. Kitchen. il For Comm W 22:3-5 Ja 12 '46
Hold OPA responsible for steady flow of many scarce commodities to foreign lands. Comm & Fin Chr 163:3206+ Je 13 '46
How foreign trade affects United States economy. M. Winkler. Comm & Fin Chr 164:753+ Ag 8 '46
Interchange of standards promotes international trade; American standards association in continuous cooperative contact with Mexican standards department. G. S. Case. Ind Stand 16:243 N '45
International trade and the pulp and paper industry. C. G. Parker. Pulp & Pa of Can 46:993-4+ D '45
Latin America scene of major U.S.-British export battle. il Aviation N 6:21 Jl 8 '46
Loans foster foreign trade. Bsns W p109-10 Jl 20 '46
Looking ahead to world-trade goals. H. B. Lary. For Comm W 21:3-5+ N 24 '45
Market research association discusses export outlook. Chem & Eng N 24:793 Mr 25 '46
More exports to avoid surplus production in the United States. K. Collins. Comm & Fin Chr 163:1930+ Ap 11 '46
New guide spells out techniques of trading; review of CED's International trade handbook. C. Cloyes. For Comm W 24:25+ Jl 13 '46
Organize to promote export market; railroad equipment manufacturers in group named by President to foster overseas market. Ry Age 121:229 Ag 10 '46
Our outlook for world trade. W. K. Jackson. Comm & Fin Chr 163:1089+ F 28 '46; Same. Credit & Fin Management 48:7-10 Mr '46
Packaging for the Latin-American market; problems, legal, linguistic and protective, for the exporter. B. G. Taines. il Ptr Ink 215:59-62+ My 10 '46
Plan now for paint export markets. H. F. Hetrick. map Paint Oil & Chem R 109:9-10 Ja 10 '46
Postwar demand for United States exports. J. H. Adler. R Econ Stat 28:23-33 F '46

EXPORT trade—*Continued*
Problems in international trade relations. A. Paul. Comm & Fin Chr 164:337+ Jl 13 '46
Program for trade policy; Committee for financing foreign trade. W. W. Aldrich. Comm & Fin Chr 164:203+ Jl 11 '46
Public relations in foreign markets; manufacturers build good-will in Latin America. J. C. Burt and B. G. Taines. il Ptr Ink 214:27-9+ F 22 '46
Requirements for export trade. G. W. Wolf. Comm & Fin Chr 164:1784+ O 10 '46
Responsibilities of exporters. V. R. Kokatnur. Chem Ind 58:72 Ja '46
Revere's letters build sales and good-will abroad for U.S. D. F. Haggerty. Sales Management 56:109+ F 15 '46
Right and wrong way to carry on trade with South American markets. D. Lindquist. Iron Age 158:145-7 Jl 25 '46
Rough trip ahead for foreign trade. H. Bratter. Banking 39:47+ O '46
Steel export tonnage was nearly 36 million for 5-yr war period. Iron Age 157:148 Je 27 '46
UNRRA's role in U.S. exports. J. Kunstenaar. il For Comm W 23:11-13+ Je 15 '46
U.S. surpluses abroad, big, challenging problem. N. I. Dalton. For Comm W 21:3-4+ D 15 '45
Various problems confront chemical manufacturers who wish to enter foreign trade. W. von Pechmann. Ind & Eng Chem 38:sup 87-8 Jl '46
We're losing our export markets. R. L. Hoadley. il Aviation 45:44-5 S '46
What postwar foreign trade might mean to us. W. S. Swingle. Comm & Fin Chr 163: 528+ Ja 31 '46
What we export. S. L. Deese. For Comm W 23:9-10 Je 15 '46
Why not a Canadian export printing industry? A. Merrill. il Pulp & Pa of Can 47: 55-6 Ap '46
World-trade vistas open as readjustments come. H. A. Wallace. For Comm W 23:3+ My 18 '46
Your stake in foreign trade. A. Paul. il Dom Comm 34:5-6+ My '46

See also
Balance of payments
Commerce
Foreign exchange
Free trade and protection
Latin America—Commerce
Marks of origin
Packing for shipment
Tariff
United States—Commerce

Advertising

See Advertising, Foreign

Finance

Business must share risks to make foreign trade gainful; Chicago world trade conference. H. A. Wallace and others. Iron Age 157:146+ Mr 7 '46
Financing foreign trade. W. Ward. Comm & Fin Chr 164:2077+ O 24 '46
U.S. dollar loan program seen bolstering export of aircraft. Aviation N 6:23-4 N 4 '46
Who pays for our exports and how? W. Ward. Am Inst Banking Bul 28:13-14+ Ap '46

See also
Banks and banking—Foreign banking service
Export-import bank of Washington

Government aid

Commercial intelligence crux of successful trade. E. F. Becker. For Comm W 24:3-5+ Ag 3 '46
Export sellers get strong government backing in developing $10 billion foreign market. S. E. Cohen. Ind Marketing 30:36+ N '45
Exporters ask Commerce dept. for market data on 108 foreign countries. Ptr Ink 213: 49+ D 21 '45
Government promotion of international trade. A. Paul. Comm & Fin Chr 163:289+ Ja 17 '46
Information program for world traders; Department of commerce. E. E. Schnellbacher. For Comm W 22:10-11+ Ja 19 '46
Los Angeles' successful Decalade of world trade; Commerce department's foreign-trade guidance. W. Measday. il For Comm W 25:7+ N 2 '46
Outlines plans to develop international trade. A. Paul. Comm & Fin Chr 164:1313 S 5 '46
Tax benefits for foreign trade; abstract. Management R 35:246-8 Je '46
Webb-Pomerene law is promising plan to augment export efforts. R. L. Hoadley. Aviation 45:99+ Mr '46

See also
Insurance, Export credit

Marketing

Channels for trading abroad. C. Cloyes and E. F. Becker. (Economic ser. no. 52) 24p Office of international trade, Dept. of commerce bldg, Washington 25, D.C. '46
Difficulties of selling abroad by mail order. Ptr Ink 214:84 Ja 11 '46
Flying store takes U.S. wares to Latin America; Trans-Caribbean Air's distributing venture. il Sales Management 56:41 Mr 1 '46
Selling in the export market; rules for representatives in Latin America. R. L. Hoadley. il Aviation 45:42-3 O '46

Regulation

Aircraft industry sponsors drive to lift export license controls. Aviation N 6:11 S 16 '46
Auto manufacturers call for end to all bars to foreign trade. Iron Age 157:172+ Ap 4 '46
Continuing export control on U.S. automotive vehicles. For Comm W 24:30 S 28 '46
Export control today; procedures and purposes. J. C. Borton. il For Comm W 24:3-4+ Ag 17 '46
Export price controls. H. V. Webber. Comm & Fin Chr 164:1699 O 3 '46
Exporters see no improvement in new accelerated licensing plan. G. F. Sullivan. Iron Age 158:88-9 O 3 '46
International trade unit set up to administer export controls; new Department of commerce agency, Office of international trade operations. Steel 117:92+ D 3 '45
Post-war export quotas. R. C. Turner. Comm & Fin Chr 163:3484+ Je 27 '46
U.S. export control and related announcements. Published in Foreign commerce weekly

Sales management

20th Century-Fox to hit foreign market with vets trained in film exploitation. N. Kelne. Ptr Ink 215:117+ Je 14 '46

Statistics

America's export trade. R. H. Johnston. Management R 35:158-9 My '46
Foreign economic administration activities in the chemicals field. M. Williams. bibliog Chem & Eng N 23:2322-7 D 25 '45
New foreign-trade transport statistics. J. E. Ely. For Comm W 21:3-9+ N 24 '45
U.S. foreign trade in first half of 1945. il For Comm W 21:5-7+ N 10 '45
United States trade; exports and imports, 1945 and Jan. 1946-date; graphs. For Comm W 23:7 Je 15 '46 [cont monthly]
U.S. trade in the year of the great transition. G. A. Witherow. maps For Comm W 22: 3-7+ Mr 30 '46
U.S. trade with U.S.S.R. during calendar year '45; with tabulations by principal commodities. For Comm W 23:10+ Je 29 '46

EXPRESS rates
Argument concluded in Ex Parte no 163; Railway express agency seeks increase in rates. Ry Age 121:488+ S 21 '46

EXPRESS service
Handling of railway parcels traffic. F. H. Slade. il Mech Handling 33:277-81 My '46

See also
Air express service
Railway express agency

EXPRESSWAYS
Access rights legislation required for freeway construction. J. M. Devers. Eng N 137:249 Ag 22 '46

EXPRESSWAYS—*Continued*
Almost ready to start Cleveland freeway; with cost data. Eng N 136:153 Ja 31 '46
Controlled-access highways. J. D. Millar. il Roads & Bridges 84:55-8+ Jl '46
Enlarged tax areas promote construction of limited-access highways. C. M. Noble. il map Civil Eng 16:456-8 O '46
Express highway planning in metropolitan areas. J. Barnett. il maps Am Soc C E Proc 72:287-305 Mr '46; Discussion 72:722-4, 1057-69 My, S '46
Expressways and buses to relieve Detroit's traffic congestion; with cost data. il plans Roads & Bridges 84:49-58 Ja '46
How importance of Lodge project is explained to Detroit public; statement, prepared by the Wayne County board of road commissioners. il Roads & Sts 88:71-2 D '45
Limited-access highway begun by Virginia. il maps Eng N 135:754-5 D 6 '45
Los Angeles freeway contracts let; bids on section of Santa Ana parkway. map diag Roads & Sts 89:86-7 F '46
Plan $48 million expressway at Atlanta. il Eng N 136:390 Mr 14 '46
Plans are progressing on Detroit's John C. Lodge expressway. L. C. Smith. il maps Roads & Sts 88:68-71 D '45
Texas urban expressways being designed from center out. il map Roads & Sts 88:65-8 N '45
Traffic solution; triple-deck expressway for New York. il Arch Forum 84:9 F '46
Tripartite pact signed for Chicago's $50 million Congress St. expressway. Eng N 135: 833 D 20 '45
Two-bridge rotary for controlled access interchange; Shirley memorial highway in Arlington, Va. D. W. Loutzenheiser. il plan Roads & Sts 89:85-8 Ap '46
Urban traffic-congestion problem. H. A. MacDonald. il plan Roads & Bridges 84:76-9+ Ap '46
What can be done about traffic congestion? urban parkways and expressways. W. S. Chapin. il Civil Eng 16:151-3 Ap '46

EXPROPRIATION in Mexico. See Mexico—Expropriation policy

EXTENSOMETERS
Autographic method for obtaining load-extension records of high-speed tensile tests on sheet specimens at elevated temperatures. A. E. Flanigan and others. il diags J Aeronautical Sci 13:405-9 Ag '46
Simple extensometer for plastics. A. D. Ross. diags Engineering 161:241 Mr 15 '46

EXTERIOR lighting. See Buildings—Exterior lighting

EXTRA expense insurance. See Insurance, Extra expense

EXTRACTION apparatus
Combination glass Soxhlet extractor and vapor degreaser for general laboratory use. H. A. Sauer. diag Ind & Eng Chem Anal ed 18:73 Ja '46
Improved form of extraction apparatus. A. E. Robinson. diag Chem & Ind p40 Ja 26 '46
Ion exchange process for extracting cinchona alkaloids. N. Applezweig and S. E. Ronzone. bibliog flow sheet il Ind & Eng Chem 38:576-9 Je '46
Laboratory study of continuous vegetable oil extraction; countercurrent extractor, rising-film evaporator, and oil stripper. A. C. Beckel, P. A. Belter and A. K. Smith. il diags Ind & Eng Chem Anal ed 18:56-8 Ja '46
Large-size laboratory Soxhlet extractor. R. Salkin and I. A. Kaye. diags Ind & Eng Chem Anal ed 18:215-16 Mr '46
Liquid/liquid extraction; application to column design; abstract. H. R. C. Pratt and S. T. Glover. Chem Age (Lond) 54:435 Ap 20 '46
Liquid-liquid extraction in spray towers. H. F. Johnson, jr. and H. Bliss. bibliog flow sheet diags Am Inst Chem Eng Trans 42: 331-58 Ap '46

EXTRACTION processes
Butadiene purification by solvent extraction. A. S. Smith and T. B. Braun. bibliog diag Ind & Eng Chem 37:1047-52 N '45
Chemistry of western pines; effect of solvents on extractives from ponderosa pine. A. B. Anderson. Ind & Eng Chem 38:759-61 Jl '46
Composition of raffinate and extract layers in selective solvent refining. V. A. Kalichevsky. Nat Pet N 38 pt 2:R613+ Ag 7 '46
Extraction of lignin from hydrolyzed lignocellulose. R. Katzen, F. G. Sawyer and D. F. Othmer. Ind & Eng Chem 37:1218-22 D '45
Hexane used as solvent for soybean oil extraction. R. E. Greenfield. il Oil & Gas J 44:101-2 F 9 '46
Ion exchange process for extracting cinchona alkaloids. N. Applezweig and S. E. Ronzone. bibliog flow sheet il Ind & Eng Chem 38:576-9 Je '46
Newest extraction process will get last drop of oil. il Paint Oil & Chem R 109:9 Ag 22 '46
Processing penicillin. F. C. Whitmore and others. diags Ind & Eng Chem 38:942-8 S '46
Solvent extraction. J. C. Elgin. bibliog (48 references) Ind & Eng Chem 38:26-7+ Ja '46
Solvent extraction of cottonseed and peanut oil; effect of heat on cottonseed oil miscellas. H. L. E. Vix and others. bibliog il diag Ind & Eng Chem 38:635-42 Je '46
Solvent extraction of penicillin. D. Rowley, H. Steiner and E. Zimkin. Soc Chem Ind J 65:237-40 Ag '46
Some German solvent extraction developments. J. P. Jones. Nat Pet N 38 pt 2:R83-4, R181-2+, R273-4+, R344-6+ F 6, Mr 6, Ap 3, My 1 '46
Thiophenol spruce lignin. F. E. Brauns and W. H. Lane. bibliog Paper Tr J 122:38-40 F 21 '46
Use of selective solvents to extract fractions from synthetic oil from coal. E. Terres. flow sheets il Nat Pet N 38 pt 2:R84-8 F 6 '46 (to be cont)
Vapor-liquid equilibria in non-ideal solutions. R. R. White. bibliog Am Inst Chem Eng Trans 41:539-54 O '45

Tables, calculations, etc.
Successive multiple-contact extraction nomograph. M. Nord. Ind & Eng Chem 38:560 My '46

EXTREME pressure lubricants. See Lubrication and lubricants

EXTRUSION process
Cellulose ester plastic sheeting produced by nonsolvent continuous extrusion. il diag Mod Plastics 23:132-6 My '46
Die for forming extruded rivet in sheet-metal plate. W. C. Mills. diags Mach 52:191-2 D '45
Distortion due to contour-forming of extrusions and preformed sheet-metal sections. W. Schroeder. il diags A S M E Trans 68:287-92 My '46
Equipment and technique of extrusion; details of processing extruded sheets, tubing and wire coating. R. B. Akin. il diags Mod Plastics 24:134-42 O '46
Extruded shapes speed brass forging output; Titan metal manufacturing co. H. Chase. il Materials & Methods 24:103-8 Jl '46
Extruding aluminum at Reynolds Metals. G. W. Birdsall. il Steel 117:120-4+ D 3 '45
Extruding powdered metals to form synthetic welding wire. F. G. Daveler. diags Materials & Methods 23:1317-20 My '46
Extrusion principle applied to the injection molding of rubber. il diags Product Eng 17:96-7 O '46
Extrusion process; abstract. W. W. Cotter and W. R. Clark. Metal Prog 49:816+ Ap '46
Extrusions by impact. H. Chase. il Sci Am 175:111-13 S '46
Extrusions push ahead. F. P. Peters. il Sci Am 174:53-5 F '46
German practice in extruding zinc alloys. S. Tour. Iron Age 157:54 Je 27 '46
Hot extrusion of steel pipe; Mannesmann co. at Witten, Germany. S. Tour. Iron Age 157:38 My 30 '46
Hot extrusion of steel tubing; Mannesmann tube works, Germany. G. M. Butler. diags Steel 118:126+ Je 3 '46

EXTRUSION process—*Continued*
Impact extrusions. H. Chase. bibliog il diags Materials & Methods 23:1323-34 My '46
Mechanical principles of the screw extrusion machine. Z. Rogowsky. diag Engineering 162:358-60 O 11 '46
Plastic coated metal tubing; cellulose acetate butyrate. il diags Product Eng 17: 307-8 Ap '46
Progress in plastics. A. E. Williams. diag Engineer 182.230 S 13 '46
Properties and limitations for stepped and tapered extrusions. W. H. Arata. diags Product Eng 17:487-91 Je '46
Study of several groups of organic binders under low-pressure extrusion; flours, starches, gums, alcohols and cellulose derivatives, wood extracts and alginates. C. C. Treischel and E. W. Emrich. Am Cer Soc J 29:129-32 My 1 '46
Zinc extrusions. L. E. Browne. il Steel 118: 96+ Ja 14 '46
Zinc extrusions attain commercial status. H. Chase. il Materials & Methods 22:1724-7 D '45

EYE
Amino acid and protein deficiencies as causes of corneal vascularization; a preliminary report. V. P. Sydenstricker and others. bibliog Science 103:194-6 F 15 '46
Effect of long ultraviolet radiation on the human eye. E. Ludvigh and V. E. Kinsey. Science 104:246 S 13 '46
See also
Color sense
Optics, Physiological
Sight

Accommodation and refraction
Adaptation phenomena and their practical significance; abstract. W. Godding. Light & Lighting 39:106 Je '46
Theory of the space-eikonometer. K. N. Ogle. bibliog il diag Opt Soc Am J 36:20-32 Ja '46

Examination
Better eyes for industry; improved eye tests. D. O. Woodbury. il Tech R 48:159-62 Ja '46
Color vision in industry. G. A. Strebel, jr. Ind Med 15:425-6 Jl '46
Eye testing demands accuracy; Verhoeff stereopter. H. E. Hasenzahl. il Mod Plastics 23:121-2 Mr '46
Eyes of industry; abstract. Ind Med 15:355 My '46
One-way light, two-way testing. Ind Med 15: sup12+ Mr '46
Program of industrial vision. L. H. Whitney. Ind Med 14:820-1+ O '45
Theory of the space-eikonometer. K. N. Ogle. bibliog il diag Opt Soc Am J 36:20-32 Ja '46
Vision checking; program announced by American optical company. il Safety Eng 91:28-9 F '46
Vision checking speeded by new sight-screening unit. il Sci Am 174:268 Je '46
Vision testing in industry. J. Tiffin and W. F. Long. Purdue Univ, Eng Ext Dept, Ext Ser 59:27-40 '46
Vision tests predict worker capability; electric soldering, Bausch & Lomb optical company. N. F. Stump. il Factory Management 104:121-4 F '46

Injuries
Hope for the one-eyed; eye surgeon offers encouraging facts. P. Duke-Elder. Nat Safety N 53:22+ F '46
How to remove sodium silicate from eye. F. M. Suarez. Paper Ind 27:1248 N '45
New eye safety program; eye accident statistics. il Safety Eng 91:47-8+ Mr '46
Perforating ocular injuries. P. E. Duncan. bibliog il Ind Med 15:512-14 S '46

Movements
Lifwynn eye-movement camera. H. Syz. il Science 103:628-9 My 17 '46

Protection
Eye protection on the make; making welders' goggle lenses and plates. il Safety Eng 91: 22-3+ Je '46
Program of industrial vision. L. H. Whitney. Ind Med 14:820-1+ O '45
Sight's partner. il Nat Safety N 53:32-3+ Je '46
We value vision; protecting eyes against flying objects and correcting defects; Victor adding machine company. R. E. Blackburn. il Nat Safety N 53:50+ Ja '46
Welding hazards and safeguards. H. W. Boggess. Oil & Gas J 45:131 Je 15 '46
See also
Goggles

F

FABRICS, Textile. See Textile fabrics
FACE
Protection
See Head—Protection
FACSIMILE transmission. See Radio facsimile
FACT finding boards. See Labor disputes

FACTOR of safety
Factor of safety in stability analyses. D. M. Burmister. Civil Eng 16:315 Jl '46; Discussion. diag 16:404, 462, 463 S-O '46
For safety, use safety factor. H. W. Boggess. diags Oil & Gas J 45:119 My 25 '46
Safety of structures. A. M. Freudenthal. bibliog Am Soc C E Proc 71:1157-91 O '45; Discussion, 72:111-14, 251-5, 559-60, 885-8 Ja-F, Ap, Je '46
Vues actuelles sur la notion de coefficient de sécurité. M. Prot. bibliog Génie Civil 123: 219-21 Ag 15 '46

FACTORIES
Controlled-conditions buildings compared with conventional factories; controlled light, temperature, humidity, ventilation and noise; with cost data. il diags Eng N 136:784-7 My 16 '46
Cost study of one-story factory. plan diags Eng N 136:560-2 Ap 18 '46; Discussion. E. F. McKeon and M. Graham. 137:258 Ag 22 '46
Current trends in plant design and construction. il Factory Management 104:B70-B72+ pt 2 Ap '46
Design of explosion pressure vents. H. R. Brown. il diag Eng N 137:445-7 O 3 '46
Factory design for low-cost production; building types study in collaboration with Mill and factory. il plans Arch Rec 98:118-40 N '45
Importance of the small plant in industry; abstract. A. C. Shire. il Mech Eng 68:909-10 O '46
Industrial construction. Economist 149:909 D 22 '45
Industrial enterprise; lamp shade manufacture; Waite and son. il Electrician 136: 965-6 Ap 12 '46
Industrial plant of the future. G. H. Miehls. Power Pl Eng 50:57 My '46
Let better plant buildings help lower production costs. il Factory Management 104:B41-B42 pt 2 Ap '46
Mexican experiment in employee relations; Distribuidora Mexicana, fabricator of office and household metal furniture is complete industrial community. il Factory Management 104:66-9 Ap '46
Modern laminating plant; General Electric facilities at Lynn, Mass. il Mod Plastics 24: 180 S '46
Nature at its best; controlled conditions (light, temperature, humidity, noise) in factories. il Nat Safety N 53:20-2+ My '46
New conveyor works; Mavor and Coulson. il Mech Handling 33:312-13 My '46
Packaged manufacturing plants for foreign use planned on West coast. Iron Age 158: 141-2 Ag 22 '46
Plant shared; multiple tenancy plan test in Birmingham. Bsns W p39 Ja 5 '46
Plants delayed; new construction beset by shortages of materials and labor. il Bsns W p42+ N 2 '46
Recent new plants; Carboloy. il Factory Management 104:B64-B66 pt 2 Ap '46
Reynolds Spring. il Factory Management 104: B50-B51 pt 2 Ap '46

FACTORIES—*Continued*
Single or multi-story plant is dictated by process. W. G. Sanders. il Factory Management 104:B52-B54 pt 2 Ap '46
Small-plant services for efficient production; Pulverizing machinery co. C. G. Wyder. il Factory Management 104:145-9 Ja '46
Trends in factory layout and design. G. H. Michls. il Eng N 136:840-2 My 30 '46
Windowless shops? discussion. A. Silvester and others. Am Mach 90:170+ My 9 '46

See also
Airplane factories
Automobile factories
Branch factories
Chemical plants
Concrete products plants
Cotton mills
Dress factories
Drug factories
Factory management and other headings beginning Factory
Foundries
Glass factories
Industrial buildings
Machine shops
Metallurgical plants
Munition factories
Paper mills
Radio telephone in factories
Rayon mills
Rock products plants
Rolling mills
Rubber factories
Soap factories
Starch factories
Steel works
Textile mills
Tire factories
Unemployment—Relief measures—Manufacturing
Watch factories
Water supply for factories

Accounting

Are service department costs taken for granted? A. T. Caruso. N A C A Bul 28: 164-72 S 15 '46
Budgets for cost control. D. B. Caminez. N A C A Bul 28:303-15 N 1 '46
Control of cost in a small manufacturing business. R. E. Staunton. N A C A Bul 28:255-70 O 15 '46
Control of maintenance costs. F. E. Oakhill. N A C A Bul 28:225-30 O 1 '46
Coordination of company financial planning with external economic conditions. H. G. Peterson, jr. N A C A Bul 27:575-87 Mr 1 '46
Cost and asset construction; capitalizing overhead and general and administrative expenses attributable to construction. F. S. Kaulback, jr. bibliog J Account 82:398-400 N '46
Distribution cost analysis; a management tool for cost reduction. C. H. Sevin. U S Bur For & Dom Com, Economic Ser 50: 1-56; pa 15c Supt. of doc. '46
Earning of earned surplus. E. A. Kracke. J Account 82:18-27 Jl '46
Factory accountant's place in management. C. E. Jarchow. N A C A Bul 27:531-48 F 15 '46
How not to go broke on setup costs. G. J. Oberst. Am Mach 90:99-103 F 14 '46
Industrial accounting in a competitive economy. M. Smith. N A C A Bul 27:995-1007 Je 15 '46
Installing an incentive wage plan. C. M. Reinherr and P. Griek. N A C A Bul 27:383-400 Ja 1 '46
Interest on investment as a cost factor. A. E. Grover. N A C A Bul 27:783-6 My 1 '46
Reports on utilization of manpower; R. G. LeTourneau, inc. C. D. Weller. N A C A Bul 27:727-42 Ap 15 '46
Save your depreciation reserve. H. A. Strangman. Am Mach 90:113 O 10 '46
Standard costs and their relation to cost control. W. W. Miller. N A C A Bul 27:663-73 Ap 1 '46
Standards as a management tool; Dobeckmun co. R. L. Brittain. N A C A Bul 28:144-63 S 15 '46
Surplus debate begets surplusage. E. A. Kracke. J Account 81:273-81 Ap '46
Use of sales and production forecasts in the determination of variances. S. Z. Bronner. N A C A Bul 27:623-34 Mr 15 '46
Work simplification, a case study of vouchers payable. J. D. Anderson. flow chart N A C A Bul 27:979-87 Je 1 '46

See also
Depreciation
Factories—Records
Inventories—Accounting
Payrolls—Accounting

Air conditioning

Air conditioning applications in industrial plants. R. V. Mehaffey. Dom Eng 167:148+ Ap '46
Factory in a railway tunnel; wartime use of 5 miles of London subway. S. C. Mount. il diag Heat & Ven 43:74-7 O '46
Job evaluation and the heating, ventilating, and air conditioning engineer. R. M. McGrath. il Heating-Piping 18:34-7 Jl '46; Discussion. H. A. Mosher. 18:87 O '46
When is complete air conditioning of the modern factory advisable? H. A. Mosher. bibliog il Heating-Piping 17:305-10, 385-8 Je-Jl '45; Discussion. 17:487-90, 620-1 S, D '45; 18:114-15 F; 106-7 Ap; 89 My; 82 Ag '46
Windowless shops? discussion. A. Silvester and others. Am Mach 90:170+ My 9; 188+ Je 6 '46

See also Factories—Heating and ventilation

Cleaning

Keeping the plant clean. Nat Safety N 53: 155+ Mr '46
New devices improve cleaning and effect economies. J. R. Perry. il Food Ind 18:1518-22+ O '46

Cleanliness

College of plant housekeeping; B. F. Goodrich co. P. Plant. il Safety Eng 91:30-2+ F '46
Eight steps to a clean shop; Hallicrafters company. C. Knoblaugh. il Factory Management 104:134-5 Jl '46
For a safer plant, watch the housekeeping. H. E. Williams. il Nat Safety N 53:27-8+ Ap '46
Grime does not pay; B. F. Goodrich company booklet. il Safety Eng 91:12-13 My '46
Inspection plan improves plant housekeeping; Wright aeronautical corporation. V. McCabe. Factory Management 103:150-1 N '45
Proper chemical plant design is aid to sanitation. M. H. Solworth. il diags Chem Ind 58:970-3 Je '46
Providing incentives for good housekeeping; Inland manufacturing division, General Motors. H. I. Newsome. il Factory Management 104:132-3 Je '46
Starch plant uses curved corners for cleanliness; Clewiston, Fla. plant of U.S. sugar corp. il diag Arch Forum 85:103 O '46
Wage incentives encourage better housekeeping; Passaic, N.J. plant, United States rubber company. R. W. Gibbs and W. G. Weeks. il Factory Management 103:136-40 D '45
We keep exhaust systems clean to keep them running; American safety razor company. C. G. Riley. il Factory Management 104:100-1 Jl '46

Electric equipment

Accessible a.c. power for low-voltage equipment; Continental can company. W. E. Scott. il Factory Management 104:151 Mr '46
Busbar spacing creates unbalanced circulating current in 3-phase system. L. G. Levoy, jr. il diags Power 90:537-8+ Ag '46
Combined light and power systems for industrial plants. D. L. Beeman. il diags Gen Elec R 49:28-35 Mr '46
Electric motor maintenance; experience in factory. D. T. Evans. Elec R (Lond) 137: 549-50 O 19 '45
Electrical and allied developments of 1945; industrial equipment, applications. G. Bartlett. il Gen Elec R 49:24-35 Ja '46
Electrical installations in factories. Electrician 136:47-8 Ja 4 '46
Electricity in factories; annual report of the Chief inspector of factories. Electrician 135: 627-8 D 7 '45
Electricity in factories; prevention of accidents. Elec R (Lond) 139:411-12 S 13 '46
How to install and maintain electronic controls. H. L. Palmer. il diags Factory Management 103:147-9 N; 152-4 D '45
How to make sure electrical contacts will work. W. H. Bloodworth. il Factory Management 104:134-6 Je '46

FACTORIES—Electric equipment—*Continued*
Industrial plant combined power and light. L. C. Peterman. Elec World 126:130+ S 28; 98 O 12; 82+ O 26 '46
Industrial power factor corrected by current control. G. Kohlweiler. diags Elec World 126:89 S 14 '46
Industrial switchgear; effect of increasing short-circuit capacity of power systems. il Electrician 137:109-11 Jl 12 '46
Making sure the distribution system is adequate; Anaconda wire & cable company. R. B. Steinmetz. il Factory Management 104: 152-5 Ja '46
Organization of industrial electrical maintenance. J. C. B. Nicol. bibliog Inst E E J 92 pt 2:166-71 Je '45; Discussion. 92 pt 2: 171-6, 593-609 Je, D '45
Power factor correction. H. Andrewes. il diag Electrician 137:375-80 Ag 9 '46
Protection of industrial plants against insulation breakdown and consequential damages. H. R. Vaughan. bibliog diags Elec Eng 65:Trans 592-6 Ag-S '46
Schedules that assure low cost for electrical inspection. E. A. Skonberg. il Factory Management 104:142-4 Jl '46
Simplified short-circuit analysis for small electrical systems. J. L. King. il diags Power 90:300-3 My '46
Unit substations fit any power system. L. W. Long. il diag Power 90:756-8 N '46

See also
Airplane factories—Electric equipment
Electric driving
Paper mills—Electric equipment
Solenoids

Equipment

Automatic factory; threat-and-promise of laborless machines is closer than ever. il Fortune 34:160-4 N '46
Better plant facilities increase production; Brown instrument company. G. H. Fry, jr. il Factory Management 104:142-5 Mr '46
How we modernized for low-cost operation; Link-belt company. J. R. Clemens. il Factory Management 104:150-3 Ag '46
Improvements, not repairs add to plant efficiency; Flintkote company. R. A. D'Amato. il Factory Management 103:149-51 D '45
Machines without men. E. W. Leaver and J. J. Brown. Fortune 34:165+ N '46
New equipment; plant service. il diag Iron Age 156:81-4 D 6 '45; 157:81-4 Mr 14; 63-6 Mr 28; 72 My 2; 69-72 Je 27; 158:67-70 Ag 22; 77-80 O 10 '46
Standardized factory facilities. R. MacLatchie. il Factory Management 103:139-46 N '45
33d annual review number; plant service equipment, parts and materials. il diags Am Mach 90:176-92 Ja 17 '46
Three-purpose conference room; Container corporation of America. W. Hasselo. il Factory Management 104:121 Ag '46

See also
Conveying machinery
Equipment industries
Factories—Maintenance and repair
Machinery, Replacement of
Mechanical handling
Power plants

Expansion

Plant expansion. Bsns W p24+ S 14 '46
Plant expansion being overdone; abstract. Management R 35:421-2 O '46

Fire protection

See Factory fire brigades; Fire protection

Floors

Floor maintenance. Nat Safety N 54:34 Ag '46
Floor underfoot. il Nat Safety N 53:89+ Mr '46
Painted floors. Safety Eng 92:55 Jl '46
Selecting the right floor for low upkeep cost. G. Money. il diags Factory Management 104:140-1 Ag '46
Steel floor plates resist heavy trucking wear; Wickwire Spencer steel co. J. A. Finneran. il Factory Management 103:155 D '45

See also
Food factories—Floors
Textile mills—Floors

Foreign branches

See Branch factories, Foreign

Heating and ventilation

Accidents involving ventilating equipment. L. W. Hutchins. Heat & Ven 43:84-5 My '46
Air conditioning of factories; some electrical systems. Electrician 136:95-6 Ja 11 '46
Biggest radiant panel job is fired by 120 individual water heaters; A. O. Smith corp. il plan diags Dom Eng 168:110-15+ S '46; Am Gas Assn Mo 28:368-9 S '46; Gas Age 98:33-4 S 5 '46; Heat & Ven 43:59-61 S '46; Power 90:739-41 N '46
Case studies show need of supply air in plant ventilation. J. B. Skinner and W. M. Pierce. il plan diag Heat & Ven 43:57-61 My '46
Control of solvent vapor exposure; abstract. Heating-Piping 18:129 Jl '46
Factory design; heating and ventilating. il Arch Rec 98:130-4 N '45
Forced-draft ventilation removes process heat; Gair-Bogota plant. C. Nelson. il Factory Management 104:146-8 Mr '46
Forty miles of piping used in new plant's radiant heating system; A. O. Smith corp. il Steel 119:112-13+ S 23 '46
Guides for industrial ventilation. A. D. Brandt. il Heat & Ven 43:67-70 Mr '46
Industrial radiant heating pays its way. il Factory Management 104:110-13 Jl '46
Industrial unit ventilators. J. E. York. diags Heat & Ven 43:70-4 S '46
Keeping air clean. il Nat Safety N 53:18+ Mr '46
Latest in radiant heating; new A. O. Smith corporation plant at Kankakee, Ill. il Factory Management 104:88-9 S '46
Locating unit heater thermostats. T. W. Reynolds. diag Heat & Ven 43:69 Je '46
Make-up air. T. W. Reynolds. diags Heat & Ven 43:65-6 Ap '46
Milestone in radiant heating; A. O. Smith corporation's new plant. il Bsns W p66+ Ag 17 '46
Modernized piping and heating services aid plant efficiency. H. M. Nobis. il diags Heating-Piping 17:549-52 O-N '45
Need for industrial ventilation data. R. J. S. Caldwell. il Heating-Piping 18:85-6 O '46
Oil heat for industry. J. Smith. flow diag il Sci Am 175:217-19 N '46
120 water heaters meet space heating needs of big radiant installation; A. O. Smith corp. C. W. Colby. il Heating-Piping 18:69-73 S '46
Relation of the ventilation engineer to industrial hygiene. H. G. Dyktor. Heating-Piping 17:559-61 O-N '45
Unit heating vs. radiant heating. M. J. Druse. Power Pl Eng 50:102 O '46; Same. Heating-Piping 18:80-1 Je '46
Ventilating a motor room; prevention of condensation. P. R. Jordan. plan diags Sheet Metal Worker 37:74+ S '46
Ventilation for fire prevention and health; Eastman Kodak company. A. L. Cobb. il Nat Safety N 53:24-6+ Ja '46
Ventilation of solvent degreasers. J. B. Skinner and W. M. Pierce. il diags Heat & Ven 43:72-5 F '46
Ventilation requirements for industrial solvents. W. C. L. Hemeon. il diags Heat & Ven 42:95-8 D '45; 43:69-73 Ja; 82-6 Mr; 79-81 Ap '46
War plant wasted lots of fuel; changes made save 26%. S. R. Lewis. il Heating-Piping 18:96-7 Ap '46
World's largest radiant heating system is installed in A. O. Smith corporation's Kankakee (Ill.) plant. il plan Arch Forum 85: 184-5 O '46

See also
Exhaust systems
Foundries—Heating and ventilation

Layout

Another case in the effective use of scale-model layout. J. R. Upjohn. il Factory Management 104:108-9 S '46
Building model lessens chance for layout mistakes; reconversion at the Dole valve company, Chicago. il Factory Management 104: 104-5 Ja '46

FACTORIES—Layout—*Continued*
Design and layout for efficiency, safety and health. il Nat Safety N 53:15-16+ Mr '46
Machine tool scale models and templets for plant lay-outs. il Mach 52:175 Ag '46
Mass-production layout techniques in a job shop; Raytheon electrical equipment division. J. Gould. il plans Factory Management 104:97-9 F '46
New layout, output up a half; Apex electrical manufacturing company, Cleveland. J. Duirk. il plan Factory Management 104:90-3 S '46
Pharmaceutical plant uses scale models for plant and equipment layout and design; Johnson & Johnson baby products plant, Cranford, N.J. il Chem Eng 53:104-5 O '46
Plant layout as a factor in reducing production costs. H. A. Anderson. il Manuf Rec 114:60-1+ D '45
Quick layouts for quicker reconversion; Thompson products, inc. W. H. West. il Factory Management 104:117 Mr '46
Scale-model preview of plant and process. K. G. Freeman. il Factory Management 104: 92-3 Jl '46
Scale model speeds Kaiser-Frazer conversion; three-dimensional, seven-color plant layout. il Factory Management 104:116-17 My '46
Scintilla's self-contained setup; producing ignition equipment and Diesel fuel injection systems. J. Geschelin. il Automotive & Aviation Ind 94:30-3+ My 1 '46 (to be cont)
Selling the new layout to employees; posters prepared by Raytheon manufacturing co. G. DeVries. il plan Factory Management 103:116-17 N '45
Templet or model for plant layout. R. W. Mallick and J. H. Sansonetti. il plan diags Am Mach 90:101-4 Ag 15 '46
Three-dimension layouts aid in plant consolidation. il Factory Management 104:88-9 Mr '46
Transparent plastic plant models in three-dimensional layout. il Factory Management 104:108-9 Ag '46
Welded H-trusses of standard design aid development of conveyorized layout; General electric co. factory, Tiffin, Ohio. il plan diag Eng N 137:360-3 S 19 '46

See also
Metal working plants—Layout
Soap factories—Layout
Shipping rooms—Layout

Lighting

Better lighting; better work. J. S. Walsh. il Food Ind 18:1548-50+ O '46
Combined light and power systems for industrial plants. D. L. Beeman. il diags Elec Eng 65:Trans 76:83 F '46; Same. Gen Elec R 49:28-35 Mr '46
Design and performance of industrial lighting; abstract. H. Allpress. Light & Lighting 39:24-5 F '46
Designing with fluorescent lighting; possibilities and problems in lighting industrial buildings. M. Luckiesh. il Arch Rec 98:100-6 D '45
Electricity in factories; annual report of the Chief inspector of factories. Electrician 135: 627-8 D 7 '45
Factory design; lighting for work. il Arch Rec 98:135-6 N '45
Factory lighting; exhibition and demonstration at Manchester. Electrician 137:984 O 11 '46
Flexible lighting for flexible layout; Ford instrument co. G. S. Stringer. il Factory Management 104:129-31 Jl '46
Let there be safe light. R. N. Bradley. il Safety Eng 92:20+ S '46
Light for seeing. il Nat Safety N 53:17+ Mr '46
Light to reduce fatigue. Safety Eng 91:71-2 Mr '46
Lighting and decoration in an underground factory. P. W. L. Broke-Smith and F. A. Hulcoop. il Light & Lighting 38:144-6 O '45
Lighting for safety. C. P. Connolly. il Safety Eng 90:28-31 N '45
New lighting, fresh paint help workers see better; Graflex, inc., Rochester. V. G. Rollins. il Factory Management 104:140-1 Mr '46
War time developments in industrial lighting technique. il Light & Lighting 38:169-70 N '45
War-time lessons in lighting applied to peace-time production; Heppenstall co. R. L. Conboy. il Elec World 126:58-9 Ag 3 '46
White paint raises light intensity 25%; Simonds saw and steel co. il Elec World 126:99 O 12 '46
Works lighting; W. T. Glover and co. il Electrician 137:382 Ag 9 '46

See also
Foundries—Lighting
Machine shops—Lighting
Textile mills—Lighting

Location

Factories on the move. E. L. Cady. il Sci Am 174:255-7 Je '46
How Ford selects plant sites. H. H. Ormond. il Am Bsns 16:12-13+ Je '46
Implications of decentralization. R. J. Cordiner. Factory Management 103:252+ N '45
Industry looks for new plant sites. V. Bell. il Steel 118:66-7 Je 24 '46
Industry now has wider choice in plant location. C. P. Wood. il Factory Management 104:B43-B46 pt 2 Ap '46
Locating regional plants. Management R 35: 110-11 Ap '46
Location of industry; British experience and programs. D. F. Heatherington. il For Comm W 23:3-5+ My 4; 12-14+ My 11 '46

See also
Cities and towns—Industries

Lunchrooms

See Lunchrooms and cafeterias, Employees'

Maintenance and repair

Aiming millwright training at low-cost production; Wyman-Gordon company, Harvey, Ill. R. B. Cribbs. il Factory Management 104:146-8 My '46
Area foremen simplify maintenance control; Buick motor division, General Motors. H. E. Hardenbrook. il Factory Management 104:137-42 F '46
Briefing the electrical gang on the newer devices; Goodyear tire & rubber company. R. F. Snyder. il Factory Management 104: 162-3 Je '46
Building restrictions dictate better upkeep; survey of 25 plants. il Factory Management 104:112a-112f My '46
Control of maintenance costs. F. E. Oakhill. N A C A Bul 28:225-30 O 1 '46
Find out why? glass factory roof collapse averted. F. A. Linke. Safety Eng 91:58-9 Mr '46
Fingertip control of maintenance jobs; American optical co. E. V. Lewis. il Factory Management 104:164 Je '46
Five-point program for preventive maintenance; Du Pont de Nemours & company. H. G. Wiest, jr. Factory Management 104: 153 Jl '46
Inventory charts visualize condition of equipment; Leeds & Northrup. T. R. Crellin. il Factory Management 104:145-8 F '46
Maintenance log book reduces machine outage; Congoleum-Nairn, inc. R. E. O'Donovan. il Factory Management 103:131-3 D '45
Maintenance made safe by plant committees. P. J. Brand. il Factory Management 104:137-8 S '46
Organized for preventive maintenance; Bell & Howell. B. Weaver. Factory Management 104:102-3 S '46
Organized to maintain seven plant locations; Pollak manufacturing company. D. J. Buckley. Factory Management 104:137-40 Ja '46
Planned building maintenance goes futher, costs less. W. S. Wainwright. il Factory Management 104:B67-B69 pt 2 Ap '46
Planned maintenance, means of increasing profits. V. W. Wilson. diag Chem Ind 59: 484-6 S '46
Preventive maintenance cuts downtime 87 percent; Colt's patent fire arms manufacturing company. J. F. Boyd. il Factory Management 103:156-9 N '45

FACTORIES—Maintenance and repair—*Cont.*
Production facilities vs. pretentious offices. E. G. Thomssen. Soap & San Chem 22:81+ O '46
Profitable plant improvement. E. E. Hoffman. Paint Oil & Chem R 108:94-6 N 1 '45
Scheduling maintenance for the whole year. R. F. Bartlett. il Factory Management 104:136-9 Mr '46
Scope of maintenance function unusually broad here; Kollsman instrument division of Square D. company. J. E. Hitlin. il Factory Management 104:152-5 S '46
Two-part inspection form means lower upkeep costs; Ryan aeronautical corporation, San Diego. D. H. Palmer. il Factory Management 104:100-1 Je '46
Utilizing highest skill of maintenance personnel; Philco corporation H. N. Johnston. il Factory Management 104:94-6 Ag '46

Moving

Major move with minor loss of production; Bell aircraft corp, Buffalo. W. A. Baumgart. il Factory Management 104:105-8 Ap '46
Moved two plants with no loss in production; Thompson Products il Factory Management 104:152-5 Je '46
Moving operation; Titan Metal, Delaware plant moved intact to Pennsylvania. Bsns W p30 Jl 27 '46

Noise

See Noise

Painting

Color can help in safety. il Nat Safety N 53:23+ Mr '46
Engineered color for safety. E. D. Peck. il Safety Eng 90:14-16+ D '45
How to use color in the shop. H. J. Williams. il diags Am Mach 90:121-32 My 9 '46
Lighting and paint. M. Luckiesh. Paint Oil & Chem R 108:92-4 N 1 '45
Maintenance painting, a survey of practices in 200 plants. Factory Management 104:94-6 Jl '46
New lighting, fresh paint help workers see better; Graflex, inc., Rochester. V. G. Rollins. il Factory Management 104:140-1 Mr '46
Painted floors. Safety Eng 92:55 Jl '46
Painting the shop without interrupting production; Warner Swasey company. A. F. Foose. il diags Factory Management 104: 150-1 Ja '46
Planned color means plant painting. A. R. Gardner. Paint Oil & Chem R 108:66+ N 1 '45
Users say color steps up production. W. A. Rossi. il Cer Ind 46:52-3 My '46
White paint raises light intensity 25%; Simonds saw and steel co. il Elec World 126:99 O 12 '46

Protection

More duties for the plant protection force; Heppenstall company, Pittsburgh. R. B. Heppenstall. il Factory Management 104: 133-5 Mr '46

See also
Factory fire brigades

Reconversion

Automotive industry to spend $2 billion for reconversion. S. J. Keith. il Ind Marketing 30:40-2+ O '45
Babies converted; General Tire's war plants turn to auto accessories and plumbing fixtures. il Bsns W p54-5 F 16 '46
Bent on living; Electrol, inc., meets peacetime competition. Bsns W p80 S 14 '46
Dunlop's new factory; conversion from war to peace at Speke. il Chem Age (Lond) 55: 347-9 S 21 '46
Earning of earned surplus. E. A. Kracke. J Account 82:18-27 Jl '46
Electrical expansion; aircraft factory converted to rubber production; Dunlop rubber co. il Electrician 137:792 S 20 '46
Equipment reconversion inventory; centrifugal pumps, V-belt drives and electric motors. Diesel Power 23:1478+ D '45
Foresight speeds reconversion; enamel shop of Malleable iron range co, Beaver Dam, Wis. il Cer Ind 46:65-8 Mr '46
From bombs to beauty; Wynne precision company handmade costume pins resembling fish lures. J. Mebane. il Manuf Rec 115:39+ My '46
From ships to locomotives; Ingalls shipbuilding corp. converts part of Pascagoula yards to production of Diesel electrics. Bsns W p54 N 10 '45
Reconversion; Westinghouse Mansfield plant. G. W. Birdsall. il diags Steel 118:96-9+ F 18 '46
Surplus debate begets surplusage. E. A. Kracke. J Account 81:273-81 Ap '46

Records

Control of work in process inventories. E. K. Johnson. N A C A Bul 27:232-52 N 15 '45
Down goes order processing cost; parts order control system of Service department, Timken-Detroit axle company. R. G. French. il Am Bsns 16:12-13+ My '46
Fingertip control of maintenance jobs; American optical co. E. V. Lewis. il Factory Management 104:164 Je '46
Five-part scrap ticket insures quick replacement of parts; Lionel corporation. T. Pagano. il Factory Management 104:150-1 S '46
Flexible tool control repays costs many times over; General Electric's Pittsfield apparatus works. C. W. Reagan. il Factory Management 104:90-1 Ag '46
Inventory charts visualize condition of equipment; Leeds & Northrup. T. R. Crellin. il Factory Management 104:145-8 F '46
Machine upkeep history on a single form; Iron fireman manufacturing company, Cleveland. J. Burchfield. Factory Management 104:125 Jl '46
Maintenance log book reduces machine outage; Congoleum-Nairn, inc. R. E. O'Donovan. il Factory Management 103:131-3 D '45
Management control for stock inventories. R. H. Wilson. Factory Management 104:142-5 Ag '46
One-card graphic system for close control of materials; RCA Victor division. N. N. Barish. il Factory Management 104:149-52 My '46
One-girl system provides perpetual inventory; Federal manufacturing & engineering corporation. E. N. Reynolds. il Factory Management 103:94-6 N '45
One-writing plan ends back-order delays; Chain belt company, Milwaukee, installs new system of order billing. G. E. Toles. il Am Bsns 16:12-13+ O '46
Organized for preventive maintenance; Bell & Howell. B. Weaver. Factory Management 104:102-3 S '46
Records on film cut cost at Wilson foundry & machine company. il Am Bsns 16:28+ My '46

See also
Punched card system

Remodeling

Whether to modernize or build a new plant. L. E. Cooney. il Factory Management 104: B61-B63 pt 2 Ap '46

Roofs

Precast concrete roof slabs; Flexicore units for Dayton plant. il diags Concrete 54:8-10+ S '46
Welded H-trusses of standard design aid development of conveyorized layout; General electric co. factory, Tiffin, Ohio. il plan diag Eng N 137:360-3 S 19 '46

Sanitation

See Factory sanitation

Yards

Lighting

More benefits of proper plant lighting; yards and premises; promotion of street lighting. il Safety Eng 91:30-1 My '46

FACTORIES, Underground

Factory in a railway tunnel; wartime use of 5 miles of London subway. S. C. Mount. il diag Heat & Ven 43:74-7 O '46
Government reports on underground plants in Germany. Heating-Piping 18:73 S '46

FACTORIES, Underground—*Continued*
Lighting and decoration in an underground factory. P. W. L. Broke-Smith and F. A. Hulcoop. il Light & Lighting 38:144-6 O '45
Military future of mining; factories underground are safe from atomic bombs. B. W. Brown. Min & Met 27:551 N '46
Supercharger manufacture; factory in abandoned chalk mine; Sir George Godfrey and partners, ltd. il plan Automobile Eng 36: 25-8 Ja '46

FACTORS
Bulwark of free enterprise. Rayon 27:4 Ja '46
Growth of American textile factoring. Rayon 27:6-7 Ja '46
What does a factor do? billion dollar business solves collection problem. H. J. Delaney. Credit & Fin Management 48:10-13+ Je '46

FACTORS' liens
Factor's lien financing. J. W. Olmsted. Banking 39:47+ Ag '46

FACTORY communication
Control plan ends assembly delays; teletype system speeds production in General Motors truck and coach division at Pontiac. R. J. French. il Am Bsns 15:16-17+ N '45
Plant truck traffic control with intercoms. il Electronics 19:160+ Jl '46
Truck dispatching by intercommunication system. il Steel 119:116 S 16 '46
Two-way radio speeds palletized storage; Eastman Kodak company. il Factory Management 104:126-7 Ag '46

FACTORY costs
Cost savings by precision work. A. M. Ewing. il Dom Comm 34:13-15 F '46
Determining selling prices for industrial products. C. O. Wellington. Steel 119:114-16+ S 9 '46
Production costs per unit expected to rise 25.7%; selling costs 13.7% over 1939. Steel 118:sup8-9 Ja 7 '46

See also
Labor cost
Machine shops—Costs

FACTORY fire brigades
Combat experience prevents costly fumbling at fires. il Power 90:656-8 O '46
Employee fire brigades. Safety Eng 92:60 Ag '46
Industrial fire brigades training manual. 2d ed 188p pa $1.50 National fire protection assn, 60 Batterymarch st, Boston 10 '46
Organizing protection. il Nat Safety N 53: 133-4 Mr '46
Professor Fire; training plan at Beaumont, Texas refinery. H. T. Fort. il diag Nat Safety N 53:18-19+ Je '46
When fire strikes; every employee must know what to do. il Safety Eng 90:14-16+ N; 44+ D '45

FACTORY floors. See Factories—Floors

FACTORY inspection
Factories in 1944; annual report of the Chief inspector of factories. Chem Age (Lond) 53:533-5 D 8 '45
Inspections for fire control. J. H. Craig. il Safety Eng 91:55-60 Ja '46
Work of the British factory department in 1944. Int Labour R 53:249-53 Mr-Ap '46

FACTORY insurance association
Annual meeting, 3d, New York, March 28. East Underw 47:17 Ap 5 '46; Nat Underw 50:3 Ap 4 '46
Defense plant corporation deal may stir things up; 10% rate reduction issue. Spectator (Property ed) 11:8 N 8 '45

FACTORY laws and legislation
Chemical works and the Factories act. B. S. Dyer. Chem Age (Lond) 54:283-5, 303-7, 331-4 Mr 16-30 '46

See also
Labor laws and legislation

FACTORY lunchrooms. See Lunchrooms and cafeterias, Employees'

FACTORY management
Better supervisors because they know their product; Hytron corporation. R. C. Berman. diags Factory Management 103:100-4 D '45
Case studies of production; raising productivity in plants manufacturing electronic gear. M. Lechner. il plans diags Electronics 18:140-6 D '45
Case study of production and cost control; Iron fireman manufacturing co., Portland, Ore. C. J. Peters. flow chart N A C A Bul 27:891-916 My 15 '46
Committees ease new products headaches by coordinating departmental activities; Westinghouse electric corporation. R. F. Bisbee. Am Mach 90:113-15 S 12 '46
Doubled volume, lowered cost, by work simplification; Lionel toy trains. C. V. Giaimo. il Factory Management 104:146-9 Ag '46
Every supervisor a cost manager. H. V. Oberg. Paper Ind 27:1218 N '45
Factory accountant's place in management. C. E. Jarchow. N A C A Bul 27:531-48 F 15 '46
Foreman's part in cost reduction. G. S. Dively. Factory Management 103:304+ D '45
From 70 to 30,000 pens a day in six months; Reynolds exemplifies the American way. il Factory Management 104:134-5 My '46
How does top management look at cost control? W. L. McGrath. Sheet Metal Worker 37:103-6 Ja '46; Excerpts. Factory Management 103:266+ D '45
How we modernized for low-cost operation; Link-belt company. J. R. Clemens. il Factory Management 104:150-3 Ag '46
Management of the well developed research program. L. W. Bass. Chem & Met Eng 53:127+ Jl '46
Managing a small plant is a large task. H. W. Richter. il Food Ind 18:1339-40+ S '46
More duties for the plant protection force; Heppenstall company, Pittsburgh. R. B. Heppenstall. il Factory Management 104: 133-5 Mr '46
Quick ways to low-cost operation; 39 cost cutting ideas. Factory Management 104: 118-19 My; 118-19 Je; 118-19 Jl '46
Reconverting production thinking to peacetime cost consciousness. E. P. DeGarmo. Automotive & Aviation Ind 94:31+ Ja 1 '46
Safety is good management. F. J. Healy. il Nat Safety N 54:18-19+ Ag '46
Safety's Siamese twins; safety must be linked to efficient production. S. Weinberger. il Safety Eng 90:20-2+ N '45
Should machine shops be decentralized? RCA splits machine shops into units serving separate divisions. B. P. Hamilton. diag Am Mach 90:108-11 O 24 '46
Small plant set-up for peacetime subcontracting; Lights, inc. Alhambra, Calif. R. A. Trumpis. il Factory Management 104: 104-5 Je '46
So you're designing a new product! G. K. Hendrick. Iron Age 158:36-40 O 31 '46
Standards as a management tool; Dobeckmun co. R. L. Brittain. N A C A Bul 28: 144-63 S 15 '46
Using case material to prompt better methods; Saginaw steering gear division, General Motors; photographs. Factory Management 104:97-9 Jl '46
Why the engineering department must specify production methods. il Product Eng 16:729-32 N '45; Discussion (Let the shoemaker stick to his last). E. J. Tangerman. Am Mach 89:134-7 D 20 '45

See also
Airplane factories—Management
Assembling methods
Branch factories
Dental service, Industrial
Efficiency, Industrial
Employees
Employees' representation in management
Employment management
Employment systems
Engineering departments
Executives
Factories—Accounting
Factories—Cleanliness
Factories—Heating and ventilation
Factories—Maintenance and repair
Factories—Records
Factory costs
Factory transportation
Foremen
Foundry management
Hours of labor—Shift schedules
Hygiene, Industrial
Industrial management
Inspection

FACTORY management—See also—*Continued*
Instructions
Job analysis
Job work
Machine shop management
Machine works—Management
Material control
Material handling
Mechanical handling
Medical service, Industrial
Metal waste
Metal working plants—Management
Motion study
Music in industry
Noise
Office management
Packaging
Packing for shipment
Planning
Production and sales, Coordination of
Production control
Purchasing
Purchasing departments
Quantities (in production)
Research departments
Routing systems
Safety devices and measures
Salvage (waste, etc.)
Shipment of goods
Standardization
Stores systems
Suggestion systems
Textile mills—Management
Time study
Tool rooms
Traffic departments, Industrial
Visitors
Wage payment plans
Welfare work in industry
Workplace layout

Quality control

Analytical statistics in industry. H. Working. J Eng Educ 36:407-13 Mr '46
Binomial coefficients; derivation of a formula. H. Sohon. J Eng Educ 36:414-19 Mr '46
Classification and inspection of castings for airplanes. M. A. Melcon. Automotive & Aviation Ind 94:40+ Ap 1 '46
Cost savings by precision work. A. M. Ewing. il Dom Comm 34:13-15 F '46
Curve-tracer for acoustic devices; quality control over production of handset receivers obtained. R. K. Hellmann. il diags Electronics 18:130-3 D '45
Dollars for your thoughts; Ordnance department statistical methods of quality control to prevent destruction of tank armor during tests. L. E. Simon. Ind Stand 17:203-6 Ag '46
Graphical solutions of statistical problems; applications of Probability graph paper. F. Levi. Engineer 182:338-40, 362-4 O 18-25 '46 (to be cont)
How statistical methods can improve chemical processes. W. R. Pabst. Chem Ind 59: 479-83 S '46
Industrial quality control; reviews. Am Stat Assn J 41:111-15 Mr '46
Life quality predictions by statistical methods. E. B. Ferrell. Machine Design 18:141-4 F '46
New approach to statistical quality control. J. Manuele. Automotive & Aviation Ind 95:21+ Jl 1 '46
P charts, what they are and what they do; Heintz & Kaufman radio tube manufacturers. il Factory Management 104:129-36 S '46
Probability and quality control. E. Goddess. Am Mach 90:110-11 Ag 15; 118-19 Ag 29 '46
Quality control creates jobs. E. L. Cady. il Sci Am 174:149-51 Ap '46
Quality control in the production of basic electric furnace aircraft and bearing steels. W. J. Reagan. Blast F & Steel Pl 34:995-1001 Ag '46
Quality control of high-tensile steel castings. W. West, C. C. Hodgson and H. O. Waring. bibliog il diag Iron Age 156:52-5 N 29 '45
Quality control of insulating varnishes. L. P. Hart, jr. il Gen Elec R 49:8-15 Ap '46
Quality control reports issued by the Quality control program, Carnegie institute of technology; reviews. Am Stat Assn J 41:115-25 Mr '46
Quality control through product testing. P. L. Alger. Elec Eng 65:11-12 Ja '46
Quality control to cut costs; Fansteel metallurgical corporation. J. Turner. Am Bsns 16:14-15+ Je '46
Quality control with 2,000,000-volt X-ray unit; manufacturing bombs and new type of shell. G. A. Van Brunt. il plans Factory Management 104:141-4 Ja '46
Quality reports for management. M. A. Brumbaugh. Elec Eng 65:391-3 Ag-S '46
Recent devices that help management to cut costs and control quality. H. Johnston. il Am Bsns 16:10-11+ S '46
Some statistical studies of surface quality controls; semi-finished killed steel. H. J. Forsyth. il Blast F & Steel Pl 34:469-74+ Ap '46
Statistical control applied to wrench manufacture. F. J. Robbins. Metal Prog 50:287-90 Ag '46
Statistical control in workshop administration. W. T. O'Dea. Inst Mech Eng J & Proc 154:1-8; Discussion. 9-11 Je '46
Statistical control of the production process. A. M. Mood. il Food Ind 18:1189-91, 1372-4+ Ag-S '46
Statistical methods in quality control. Elec Eng 64:181-2, 249-50, 299, 328-9, 363-4, 401-2, 448-50; 65:23-4, 81-3, 117-19, 466-8 My, Jl '45-Mr, O '46
Statistical methods in quality control, by P. C. Clarke and G. R. Armstrong. Review, by G. R. Gause. Am Stat Assn J 41:130-2 Mr '46
Statistical quality control at Lockheed; abstract. J. R. Crawford and P. C. Hammer. Metal Prog 50:150+ Jl '46
Statistical quality control in war production. H. Working. Am Stat Assn J 40:425-47 D '45
Statistical quality control of metal stampings. G. R. Armstrong. Iron Age 157:46-8 F 21 '46
Teaching of quality control to engineers. L. E. Simon. bibliog J Eng Educ 37:111-16 O '46
Tolerances on assemblies. B. Epstein. diags Am Mach 90:119-21 Ja 3 '46
Use of statistical methods in quality control program. W. T. Rogers. Steel 118:119-20 F 11 '46; Same, Blast F & Steel Pl 34:233-5 F '46; Abstract. Chem & Met Eng 53:274+ Ap '46
Using statistics to control mass-production quality; North American Philips company. E. Goddess. il Factory Management 104: 110-12 F '46
Wound- and dummy-rotor methods of quality control and trouble shooting of induction-motor windings and cores. P. H. Trickey. diag Elec Eng 64:Trans 842-4 D '45

See also
Candy factories—Quality control
Food factories—Quality control
Inspection

FACTORY sanitation
Controlled industrial sanitation, a precision tool for industrial hygiene. M. H. Solworth. Ind Med 14:969-73 D '45
Sanitary code for food wrappings. J. R. Sanborn. Pulp & Pa of Can 47:83-5 My '46
Sanitation at work. il Safety Eng 91:67-70 Ja '46
Washrooms and lockers. il Nat Safety N 53: 156+ Mr '46

See also
Chemical plants—Sanitation
Factories—Cleanliness
Food factories—Sanitation
Packing houses—Sanitation

FACTORY transportation
Dispatch system controls intraplant trucking; B. F. Goodrich company. il Factory Management 104:120-1 Jl '46
Factory design; shipping and receiving. il Arch Rec 98:137-8 N '45
Mobile crane eases non-routine material movements. il Steel 119:98+ Jl 29 '46
Truck dispatching by intercommunication system. il Steel 119:116 S 16 '46

See also
Conveying machinery
Electric trucks, Industrial
Material handling
Mechanical handling
Motor trucks, Industrial
Pallets
Tractors, Industrial
Trucks

FADING. See Dyes, Fastness of

FADING, Radio. See Radio transmission—Fading

FAIR employment practice commission (proposed)
Fight for fair employment practice law will continue. L. B. Schwellenbach. Comm & Fin Chr 163:1226+ Mr 7 '46

FAIR employment practice committee
FEPC ends its hectic career. Bsns W p88+ My 11 '46

FAIR employment practice committee—*Cont.*
FEPC officially ends. Comm & Fin Chr 164: 256 Jl 11 '46
Law and race relations. W. Maslow. bibliog Ann Am Acad 244:75-81 Mr '46

FAIR labor standards act. See Labor laws and legislation—United States

FAIRBANKS, Morse and company
Commemorates 115th birthday. Steel 118:73 Ja 14 '46
Fairbanks-Morse vs. Link-Belt; comparative audit. S. Devlin. Mag of Wall St 77:398-400+ Ja 5 '46

FAIRS
Welsh industries fair, Cardiff. Engineering 161:581-2, 607; 162:319 Je 21-28, O 4 '46
See also
Exhibitions

FALLS
Build safety in your scaffolds. A. Turnbull, jr. il Safety Eng 91:52-5 Je '46

FAMILY
American family. M. F. A. Montague. il Tech R 48:281-4+ Mr '46
City-family composition in relation to income, 1941 and 1944. L. A. Epstein and A. S. Ritter. Mo Labor R 62:175-80 F '46
Outcasts; problem families. Economist 151: 324-6 Ag 31 '46

FAMILY allowances
Developments in civilian family allowances, 1944-45. M. T. Waggaman. Mo Labor R 61:930-49 N '45
Family allowances for teachers. Mo Labor R 63:243-6 Ag '46
Military family allowances in the United States, Canada, and Great Britain, 1945. M. T. Waggaman. Mo Labor R 63:94-7 Jl '46
New provisions for family allowances in three countries. M. T. Waggaman. Mo Labor R 63:246-8 Ag '46

FAMILY finance. See Domestic finance

FAMILY finance corporation
Stocks offered. Comm & Fin Chr 164:682 Ag 5 '46

FAMILY of products
Armour repackages full line to gain fresh shelf appeal and family identity. F. W. Specht. il Sales Management 55:40-2 D 1 '45
Carborundum, one name for the family. il Mod Packaging 19:120-3 Je '46
Checking the product line. Management R 35:18-19 Ja '46
Company founded on sales policies sticks to them after 20 years; National Gypsum. il Sales Management 56:46+ My 1 '46
Dazey sells the entire line; kitchen helps. Ptr Ink 216:35 Ag 30 '46
Family resemblance in design for General Mills' new department. W. A. MacDonough. il Ptr Ink 215:33-4+ Ap 12 '46
House organ sells full line in firm where salesmen are specialists; Bakelite Review. M. Zwilling. Sales Management 57:95-6+ Jl 1 '46
Package design; shall it be individual or uniform for whole line? Ptr Ink 214:86+ Mr 22 '46
Post re-styles cereal packages to gain family identity. il Sales Management 56:112+ Ap 1 '46
12 trade names reduced to 1; Pyrene fire extinguisher. il Mod Packaging 19:116-19 Ag '46
When is a family-style package a sales handicap? Nyal re-designing all packages. D. G. Baird. il Sales Management 56:64+ Ap 1 '46

FAMILY partnerships. See Partnership—Taxation

FAMINE emergency committee
To persuade us to tighten our belts. por Bsns W p17 Mr 9 '46

FAMINES
See also
Starvation

FAN, Shuton, 1883-1945
Sketch. Chem & Ind p392 D 15 '45

FANGLOMERATE. See Conglomerate

FANS, Mechanical
Contra-rotation axial flow fans. F. C. Lynam and S. P. Hawes. diags Engineer 182:15-17 Jl 5 '46
Design and application of high-pressure coefficient axial-flow fans. J. G. Sawyer. bibliog diags J Aeronautical Sci 12:281-4 Jl '45; Discussion. F. Dallenbach. 13:141-2 Mr '46
Engine fan has adjustable-pitch thermostatically controlled blades. il diags Product Eng 17:108 F '46
Fan laws simplify performance calculation. R. D. Moyer. Power 90:517-19 Ag '46
Heating and air conditioning applications with the forward curve blade fan. il Dom Eng 167:154-5 F '46
High speed backward curve blade fan. J. W. Muessig. Dom Eng 167:145 Mr '46
Industrial fans; their practical evaluated rating, performance, and control. M. S. Kice. diags Inst Mech Eng J & Proc 154:101-9, pl 1-2; Discussion. 110-23 Je '46
Selecting the right fan for heating and ventilating. N. P. Runge. Dom Eng 167:148+ Ja '46
Study of surging in fan or compressor systems. R. C. Binder. bibliog Franklin Inst J 241:125-36 F '46
See also
Electric fans, Ventilating
Fans, Mine

Maintenance and repair
Four factors for consideration in maintenance and installation of fans; abstract. G. A. Mathis. diags Dom Eng 167:142-3 Ap '46

FANS, Mine
Accessory equipment for axial-flow mine fans studied. R. Mancha. Min & Met 27:101-2 F '46
Defects of auxiliary fans. diags Coal Age 51:102+ Ag '46
Exhaust vs. pressure fans. diags Coal Age 51:98+ Ag '46
Fan failure deenergizes underground power circuits. J. G. Pollock and R. R. Richart. il diags Coal Age 51:89-93 Ja '46
Safety with auxiliary fans. diags Coal Age 51:104+ S; 106+ O; 110+ N '46

FANSTEEL metallurgical corporation
Stock offered. Comm & Fin Chr 163:70 Ja 7 '46
Wider use for Fansteel's rare metals. Barron's 26:6 Je 24 '46

FAR EAST
Far Eastern rivalries. Economist 149:667-8 N 10 '45
Human rights as a condition of peace in the Far East. C. P. Romulo. Ann Am Acad 243:8-10 Ja '46
See also
Banks and banking—Far East
China
Japan
Public health—Far East
Rubber industry and trade—Far East

Commerce
Far East: major source of prewar imports; prospects for trade revival. Index 26 no 3: 58-72 [S] '46

FARADAY, Michael, 1791-1867
Faraday and the radio engineer; an imaginary interview. R. H. Wright. J Chem Educ 23:251-2 My '46

FARM accounting
Helping the farmer keep books; program of Home state bank of Jefferson, Iowa. W. Garst. Banking 39:52+ Ag '46

FARM buildings
Farm column. Fortune 33:204+ Ap '46; Same with additions. Arch Forum 84:160+ Ap '46
Good practice in constructing farm buildings of clay tile. diags Brick & Clay Rec 108: 26-7 Je '46
Selling all-concrete farm buildings; Buehner cinder block co. R. S. Torgerson. il plans Rock Prod 49:188-9 Ag '46
Site-welded steel farm buildings demonstrate low-cost, superior construction at University of Wisconsin. il plan Arch Forum 84: 214-15 Ap '46

FARM buildings—*Continued*
Site welding of farm units deemed practical. Iron Age 157:147-8 F 14 '46
Steel on farms. Sci Am 175:222 N '46
Tile floors in farm buildings. diags Brick & Clay Rec 107:28 D '45

FARM chemurgic council, National. See National farm chemurgic council

FARM credit. See Agricultural credit

FARM credit administration
Federal subsidies to farm loan agencies; position on Dec. 31, 1945. Banking 38:61 Ap '46

FARM forestry. See Woodlots

FARM houses. See Farmhouses

FARM income
Evolution of the American farmer. F. R. Walters. il Mag of Wall St 78:501-3+ Ag 3 '46
Farm situation. R. W. Babson. Comm & Fin Chr 162:3169+ D 27 '45
Farms and gross income from farming, 1945; graphs. Sales Management 56.56 My 10 '46
Fewer farmers make more money; graph. Bsns W p68 Je 22 '46
Gross farm dollars in 1945, Sales Management estimates; ranking of the leading 200 counties. Sales Management 56:92 My 10 '46
Inflation of farm incomes, 1938-1943. Economist 149:628-9 N 3 '45
Postwar farm markets. D. S. Wilson. Survey of Cur Bsns 26:14-20 Je '46
Wartime wages, income, and wage regulation in agriculture; comparative wages and wage regulation. M. Sworzyn. Mo Labor R 63: 195-204 Ag '46

FARM journals
Farm Journal releases data sheets for all counties in the U. S. R. C. Schindler. Sales Management 56:106-7 Ja 15 '46

See also
Advertising mediums —Farm papers

FARM labor
Labor unionism in American agriculture. U S Bur Labor Statistics Bul 836:1-457; pa 70c Supt. of doc. '45
Labor unionism in American agriculture. S. Jamieson. bibliog Mo Labor R 62:25-36 Ja '46
Pension plan provided for farm employes. Nat Underw (Life ed) 50:8 Ja 11 '46
Wartime wages, income, and wage regulation in agriculture. M. Sworzyn. Mo Labor R 63:36-44, 195-204 Jl-Ag '46

FARM land values. See Land values

FARM life
How the automobile has changed life of Americans. F. M. Reck. il Nat Pet N 37: 37+ N 28 '45

FARM loans. See Agricultural credit

FARM management
Senator Cato knew his hay. V. B. Hart. Banking 39:29 S '46

FARM market
Better farming, better markets; Business Week reports to executives. Bsns W p61-5 N 2 '46
Big farm market for refrigeration equipment. W. B. Henderson. Dom Eng 168:172 O '46
Changes in farms and acreage; preliminary survey of 1945 census of agriculture; market exploration map. W. P. Burn. Ptr Ink 214:29-32 F 1 '46
Dealer! sell all these in one load; city and farm homes profitable clay products markets. diag Brick & Clay Rec 108:35-6 F '46
Farm; industry's big opportunity; United States rubber company's exhibit and advertising campaign. A. B. Ecke. il Sales Management 56:37-40 Je 1 '46
Farm Journal releases data sheets for all counties in the U. S. R. C. Schindler. Sales Management 56:106-7 Ja 15 '46
Farm market for paints. H. R. Tolley. Paint Oil & Chem R 108:26 N 1 '45
Farmer and the oil he buys. B. H. Morse. Nat Pet N 38:30+ Je 26 '46
Farmers need marketers' help; statistics on consumption of products; abstract. R. Shaw. Nat Pet N 38:18 Ap 17 '46
Field day reveals growing market for farm planes; Prairie farmer and WLS are hosts at West Lafayette, Indiana. il Sales Management 57:67+ Ag 15 '46
Filling stations, tank wagons split farm auto and truck business, but the wagons get 70% of the tractor trade; survey by Successful farming magazine. F. C. Sturtevant. graphs Nat Pet N 37.46, 48 D 19 '45
Flying farmers. Bsns W p33 Ag 3 '46
Keep pace with agriculture; new outlets for sheet metal. il Sheet Metal Worker 37:37-8 Jl '46
Liquid assets and expenditure plans of farm operators. Fed Res Bul 32:965-6 S '46
Postwar farm markets. D. S. Wilson. Survey of Cur Bsns 26:14-20 Je '46
Swelling farm demand and quota restrictions plague mail order houses. C. T. Post. Iron Age 157:114 Ap 18 '46
Take a look at the city farmer. E. T. Parrack. il Adv & Sell 39:64+ F '46
Treated lumber processors see American farms as live market. T. Armstrong. il Sales Management 57:94-6 Ag 1 '46
What factories can do for the farm; farmer's view. A. P. Whallon. il Manuf Rec 114: 46-7+ N '45

See also
Advertising—Farmers, Appeal to
Electricity on the farm
Farm buildings
Plumbing trade—Farm market

FARM mortgages. See Mortgages, Farm

FARM papers. See Farm journals

FARM population
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; extent of immunization against smallpox, diphtheria, and typhoid fever. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 61:97-109 Ja 25 '46

FARM produce

See also
Crops
Dairy products
Grain
Live stock
Wheat

By-products

Agricultural residues in plastics; plasticizers and inorganic extenders in 25-percent phenolics. R. V. Williamson and others. fold table Mod Plastics 23:177-80+ F '46
Experiment to manufacture liquid fuel from farm wastes under way; converting corncobs into alcohol and by-products. Steel 117:101 N 12 '45
Fibrous agricultural residues committee of the Technical association of the pulp and paper industry, 2d annual conference, Peoria, April 26. Paper Tr J 122:46-8 My 2 '46
High frequency cooking of farm wastes promises new building boards. Arch Forum 84:169 Ja '46
Industrial utilization of agricultural residues. E. C. Lathrop. Pulp & Pa of Can 46:927-8 N '45
Meeting of fibrous agricultural residues committee. Paper Tr J 121:50-4 D 20 '45
Meeting of TAPPI fibrous agricultural residues committee; report. Paper Tr J 1233:48-9 S 12 '46

Industrial uses

See also
Chemurgy

Marketing

See also
Markets, Farmers'
Produce terminals

Prices

Agricultural prices and production. Survey of Cur Bsns 26:4-7 O '46
Evaluation of the wartime farm price-support programs. G. Hadary. J Bsns 18:219-21 O '45
Expensive commodity price support program ahead unless weather cuts yields. Barron's 26:5 Ag 26 '46
Farm parity policy shifts; plan for assuring parity income. Bsns W p21-2+ D 29 '45

FARM produce—Prices—*Continued*
Forecasts revival of price support for farm commodities; Northern trust company of Chicago. Comm & Fin Chr 164:1271+ S 5 '46
In the outlook: the farm price situation; graph. Bsns W p28 Ap 13 '46
Industrial wage increases may speed up rise in farm prices. Barron's 26:7-8 F 25 '46
New attempts to juggle farm prices. Barron's 25:7 N 19 '45
New parity formula seems in the making. Barron's 25:9 D 17 '45
Only farm products ride crest of confused markets. Bsns W p16 Jl 13 '46
Price relationships and the food markets. C. P. Anderson. Comm & Fin Chr 163:966+ F 21 '46
30% rise for farmers too? Bsns W p19-20 N 10 '45
Uncertain tomorrow. E. L. Butz. Comm & Fin Chr 164:2333+ N 7 '46
Will farm bloc upset national economy? N. T. Carruthers. Mag of Wall St 77:700-2+ Mr 16 '46

Transportation

Self-refrigerating transports planned. Aviation N 5:8 My 13 '46

FARM security administration
Farm borrower group disappoints; only $12 million in force on government agency obligors. Nat Underw (Life ed) 49:4 D 7 '45
FSA borrowers may place own insurance. East Underw 46:30 D 21 '45; Same. Spectator (Property ed) 11:18 D 20 '45
Funds for farms. Bsns W p32+ Mr 23 '46

FARM telephone. See Telephone service, Rural

FARM tenancy
Farm column. L. Haystead. il Fortune 32: 190+ D '45
Institutional obstacles to land improvement; summary of results of three watershed surveys in the South. J. F. Timmons. bibliog J Land & Pub Util Econ 22:140-50 My '46
Tenant-farm and land-use regulation in Italy. Mo Labor R 61:923-4 N '45

FARMERS
Balance sheet of agriculture, 1946; United States Department of agriculture report; abstract. N. J. Wall and others. Fed Res Bul 32:974-94 S '46
Farmer and national debt. M. M. Townsend. Comm & Fin Chr 163:2637+ My 16 '46
Farmers divided; one group helps strikers, another forms vigilante committee. Bsns W p94+ Mr 2 '46
Place of French-speaking farmers of southern Louisiana in future land development and reclamation projects. R. W. Harrison and W. M. Kollmorgen. J Land & Pub Util Econ 22:223-31 Ag '46
Savings bond reserves for farm stability. V. B. Hart. Banking 39:126 O '46
What farmers can do to improve market position. Sales Management 56:142 Ja 1 '46

See also
Advertising—Farmers, Appeal to
Agricultural credit
City farmers club of Pittsburgh
Farm labor
Farm market
Farm tenancy
Land settlement
National farmers union
Radio broadcasting—Agricultural programs

Insurance requirements

How to sell farmers. G. C. Cundiff and others. Rough Notes 89:19-24 Ag '46

See also
Insurance, Liability—Farm policies

FARMERS' cooperative associations
Co-op under fire. Bsns W p81 Ja 19 '46
Co-ops fear loss of tax advantage over private business. il Nat Pet N 38:64 Mr 13 '46
Farm co-ops led tax-exempt groups in '43 income; unions were fourth. Nat Pet N 37:3 N 21 '45
Farmers' cooperatives as competitors. H. W. Selby. Harvard Bsns R 24 no2:215-27 [Ja] '46
Organizations asked to request taxation, annual income reports. E. C. Smith. Nat Pet N 37:12 D 12 '45
Steel volume handled by co-ops seen growing despite quota limitations. C. T. Post. il Iron Age 157:120A Ap 4 '46

See also
Electric service, Rural—Cooperative lines

FARMERS' markets. See Markets, Farmers'

FARMERS union, National. See National farmers union

FARMERS union grain terminal association
Co-op under fire. Bsns W p81 Ja 19 '46

FARMHOUSES
Home on the farm; farmers eager to build. Arch Forum 85:20+ S '46
Remodeled farmhouse solves a priority and scarcity problem in Oregon. il plans Arch Forum 84:86-7 My '46

FARMING. See Agriculture

FARMS
Changes in farms and acreage; preliminary survey of 1945 census of agriculture; market exploration map. W. P. Burn. Ptr Ink 214:29-32 F 1 '46
Farms and homes from surplus military lands. A. T. M. Lee. J Land & Pub Util Econ 21:331-8 N '45
Non-agricultural factors in land prices. G. H. Walter. J Land & Pub Util Econ 22: 173-6 My '46
Problems fail to frighten investors in farms. R. P. Crawford. Barron's 26:7 Ag 19 '46
Shell Oil's research center. il Sales Management 57:130 N 1 '46
Thank you farm; Spartanburg county, S.C. gives farm to veteran and starts him on soil conservation program. G. Webb. il Banking 38:53-5 Ja '46

See also
Dairy farms
Electricity on the farm
Farm buildings and other headings beginning Farm
Farmers
Insurance, Life—Farm property
Land settlement
Safety on the farm

Corporation farms

Family farms only, National farmers union asks state-by-state action. Bsns W p44+ F 2 '46
Making good land from bad; project to aid Georgia agriculture through the Callaway plan. F. M. Call and J. L. DeJong. il Banking 39:50-1+ Jl '46

See also
Wheat farming corporation

FARNSWORTH television and radio corporation
Annual report. Comm & Fin Chr 164:1082 Ag 26 '46
Stock offered. Comm & Fin Chr 163:1281-2 Mr 11 '46

FASHION
Ad campaign to push California brand is set by apparel makers. il Sales Management 56:46+ F 1 '46
American fashions compete with French designs in Paris. Ptr Ink 217:86 O 11 '46
Beauty and utility; highlighting some of the newer and more unusual uses of plastics in fashion. il Mod Plastics 23:91-5 Jl '46
Defined: design, style, fashion and fad. M. Marsh. il Ptr Ink 214:30-2+ Ja 18 '46
Fabric buyers ask converters to stress style. R. Corby. Textile Col 68:10-11+ F '46
Fashion feudists; Californians ask court to stop easterners' use of state's name on labels. Bsns W p81-2+ Ap 20 '46
Fashion is eye glasses; for work and play. il Mod Plastics 23:96-8 Jl '46
Fira Benenson runs the Salon de Couture in Bonwit Teller, specialty store. il Fortune 34:130-5+ O '46
How to get merchandising help from teenagers; Eaton's of Canada meets with Junior fashion council. il Ptr Ink 214:61-3 Mr 8 '46
Levi's jump the range; cowboy britches fashionable on campuses. P. Ferry. Adv & Sell 39:52+ O '46
McCampbell shows latest fashions. H. R. Mauersberger. il Rayon 27:115 Mr '46

FASHION—*Continued*
New England revelation. H. D. Hodgkinson. Textile Col 68:26-7 My '46
Pendulum of fashion. J Retailing 21:157 D '45
Prophet with honor; Amos Parrish's semi-annual retailing clinics. Bsns W p72+ N 2 '46
Styled in Chicago; apparel manufacturers. Bsns W p83 D 22 '45
Theatre de la mode; ingenuity of the couture Parisienne; photographs. Textile Col 68:26-7 Je '46

FASTENINGS
Advanced fastening system; Speed nut. il Steel 118:92-5+ F 11 '46
Design opportunities in fastener assemblies; use of screws and lock washers. W. M. Hanneman. il Machine Design 18:173-4 Ap '46
Lion spring-locking fastener. il Aeronautical Eng R 5:93 Jl '46
Loosening by vibration of threaded fastenings. J. N. Goodier and R. J. Sweeney. diags Mech Eng 67:798-802 D '45
Rubber-ring fastener for link pins. H. S. Sizer. il diags Machine Design 18:91-2 O '46
Truss braces; self-crimping nails; Speed clinch. il diags Forum 85:150 Jl '46
Vibration-proof fastening; Lion locking fastener. il Steel 119:112 S 16 '46
Zipper seals liquids and gases under pressure. diag Steel 118:98 Ja 14 '46

See also
Bolts and nuts — Rivets
Latches — Screws

FASTENINGS (clothing)
$8,000,000,000 textile industry: is it ripe for brand name promotion? buttons, zippers, thread, fasteners. J. C. Cumming. Sales Management 56:121+ Mr 1 '46

Advertising
High-priced items using hidden product provide dramatic theme; Talon fasteners. Ptr Ink 216:60 Ag 9 '46

FASTNESS of dyes. See Dyes, Fastness of

FATIGUE
Fatigue, thief of time. Nat Safety N 53: 10-11 Mr '46
Light to reduce fatigue. Safety Eng 91:71-2 Mr '46
Problem of pilot fatigue. F. K. Teichmann. Aviation N 4:29 D 10 '45

FATIGUE in metals
Airplane landing-gear fatigue problems. J. A. MacLean. bibliog il diags Aeronautical Eng R 4:12-21 N '45
Can compression stress cause fatigue failure? J. C. Straub. Am Mach 90:120 O 24 '46
Correlation of stress concentration with fatigue strength of engine components. C. W. Gadd and others. diags S A E J 53:640-7 N '45
Corrosion-fatigue properties of some hard lead alloys in sulfuric acid. D. J. Mack. bibliog il diag Am Soc T M Proc 45:629-50 '45
Damping capacity and the fatigue of metals. R. F. Hanstock and A. Murray. il diags Engineering 161:358-60, 381-3 Ap 12-19 '46; Discussion. Engineer 181:284-5 Mr 29 '46
Détermination simplifiée de l'endurance de l'acier et des autres métaux. A. Buchwald. Génie Civil 123:37-8 F 1 '46
Effect of inert atmospheres on fatigue tests. H. J. Gough and D. G. Sopwith. Engineering 162:197 Ag 30 '46
Effect of metallurgical changes due to welding upon the fatigue strength of carbon-steel plates. W. M. Wilson and others. il Welding J 25:sup425-50 Ag '46
Effect of overstress in fatigue on the endurance life of steel. J. B. Kommers. diag Am Soc T M Proc 45:532-41 '45; Abstract. Metal Prog 49:170+ Ja '46; Discussion. Am Soc T M Proc 45:542-3 '45
Effect of periods of rest on the fatigue strength of welded joints. diags Welding J 25:sup518-21 S '46
Effect of stresses on fatigue of aluminum alloys; abstract. G. Forrest. Materials & Methods 23:1356+ My '46; Summaries and discussions. Engineering 161:280-1 Mr 22 '46; Engineer 181:285 Mr 29 '46
Effect of structural changes in steel on fatigue life of bearings. A. B. Jones. il diags Steel 119:68-70+ S 30 '46; Abstract. Iron Age 158:74-5 Jl 4 '46
Experimental verification of cumulative fatigue damage; abstracts. M. A. Miner. bibliog il diags Automotive & Aviation Ind 93:20-4+ D 1 '45; Machine Design 17:111-15 D '45
Fatigue behavior in reverse bending of welded sheet steel. R. L'Hermite and D. Seferian. il diags Welding J 25:sup512-17 S '46
Fatigue cracks in retaining rings of turbine-generators. J. B. Swering. il Locomotive 45.228-34 O '45; Same. Power Pl Eng 50:92-4 Jl '46
Fatigue failures of aircraft parts, their cause and cure. D. M. Davis. bibliog il Aeronautical Eng R 5:15-23 Ja '46
Fatigue properties of flash welds. H. J. Grover and others. il diags Welding J 24: sup599-617 N '45
Fatigue strengths of magnesium casting alloys; abstract. F. A. Fox and J. L. Walker. Materials & Methods 23:488+ F '46
Fatigue strength of steel forgings. C. Lipson and G. Noll. il Product Eng 17:130-1 S '46
Fatigue testing machine built for Northwestern university. L. T. Wyly. il Civil Eng 16:471 O '46
General Electric pneumatic fatigue tester operates at high temperatures. Automotive & Aviation Ind 95:27+ Ag 15 '46
Investigation of the fatigue strength of spot welds in the aluminum alloy Alclad 24S-T. W. F. Hess and others. bibliog il Welding J 25:sup344-58 Je '46
Metallographic observations of ball bearing fatigue phenomena; abstract. A. B. Jones. Iron Age 158:74-5 Jl 4 '46
Metals tortured in new testing method; pneumatic fatigue-testing machine. il Gen Elec R 49:54 O '46; Elec World News ed 126:19 N 2 '46
New pneumatic fatigue testing development described at meeting; abstract. F. B. Quinlan. Iron Age 158:134+ Ag 15 '46; Mech Eng 68:831 S '46
Pneumatic fatigue test for gas turbine buckets. il diags Steel 119:112-13+ S 9 '46
Shot peening and the fatigue of metals; abstract. H. F. Moore. Product Eng 17:321-2 Ap '46
Study of size effect and notch sensitivity in fatigue tests of steel. H. F. Moore. diags Am Soc T M Proc 45:507-21 '45; Abstract. Materials & Methods 23:538 F '46; Discussion. Am Soc T M Proc 45:522-31 '45
Study of the damaging effect of fatigue stressing on SAE X4130 steel. J. A. Bennett. bibliog diags J Res Nat Bur Stand 37:123-39 Ag '46
Sulfur print method for the study of crack growth in the corrosion-fatigue of metals. R. C. Brumfield. il diag Am Soc T M Proc 45:544-53 '45
Surface treatment for fatigue; abstract. O. Foppl. Materials & Methods 22:1844 D '45
Work hardened surfaces of fatigue specimens. F. C Hull and H. R. Welton. il Metal Prog 48:1287-8 D '45

FATS and oils. See Oils and fats

FAUCETS
Studies of the Filto-kleen device; filter device placed on faucets. H. E. Jordan. il Am Water Works Assn J 38:244-6 F '46

FAULTS (geology)
Balcones, Luling, and Mexia fault zones in Texas. A. W. Weeks. bibliog map Am Assn Pet Geologists Bul 29:1733-7 D '45
Metamorphism along the Pulaski fault in the Appalachian valley of Virginia. B. N. Cooper. bibliog pl map Am J Sci 244:95-104 F '46
Northern end of the Taconic thrust sheet in western Vermont. E. P. Kaiser. bibliog fold pl map Geol Soc Bul 56:1079-98 D '45
Origin and mechanics of the thrust faults adjacent to the Bearpaw mountains, Montana. F. Reeves. bibliog map diags Geol Soc Bul 57:1033-47, pl 1 N '46
Report on gold belts in the Little Long Lac Sturgeon River district. A. E. Tyson. bibliog maps Can Min J 66:839-50 D '45

FAULTS (geology)—*Continued*
Study of fault determinations by geophysical methods in the fluorspar areas of western Kentucky. F. W. Lee and S. J. Hemberger. bibliog 36pls U S Bur Mines Rep of Invest 3889:1-27 '46

FEATHERBEDDING. See Employment

FEATHERS
Fur and feathers; a response to falling temperature? R. B. Cowles. Science 103:74 Ja 18 '46

FEDERAL bureau of investigation. See United States—Federal bureau of investigation

FEDERAL commissions. See United States—Executive departments; also names of commissions, e.g. Federal communications commission; Interstate commerce commission

FEDERAL communications commission
Challenge to FCC; broadcasters up in arms over regulation of stations' programing. Bsns W p31 O 12 '46
FCC backtracks hearing Jan. 18 to determine if FM will be reassigned to its old band in addition to present one. Bsns W p92 Ja 12 '46
FCC criticized. Bsns W p36 D 15 '45
FCC to investigate recorder device uses; telephone companies involved. Pub Util 36:727 N 22 '45
NAB hits FCC's criticism of radio advertising and soap operas. Ptr Ink 214:115+ Mr 15 '46
Telephone recording devices; statement by FCC. Pub Util 38:292-3 Ag 29 '46
Warned by FCC; broadcasters renewals will be stricter. Bsns W p74 Mr 16 '46
Why did federal commissions adopt new rules? changes required by Administrative procedure act. A. Haines. Pub Util 38:593-601 N 7 '46

FEDERAL crop insurance corporation
Await important changes in FCIC and REA setup; Anderson wants close cooperation with private insurance. Nat Underw 50:3+ Ag 15 '46
Crop insurance in the United States. P. A. McDonnell. Spectator (Property ed) 12:10-14+ O 24 '46
Deficit for government plan; taxpayers must again come to rescue. Weekly Underw 155: 357+ Ag 17 '46
Mention Falls as possibility for new FCIC post; chance of commercial insurance participation is weighed. Nat Underw 50:2 My 23 '46
NAIA report asks that federal crop insurance be self-supporting. East Underw 47:22 Je 28 '46; Same. Nat Underw 50:3+ Je 27 '46

FEDERAL deposit insurance corporation
Businessmen's bank deposits are insured. M. T. Harl. Dom Comm 34:13-17 O '46
Federal court has jurisdiction of suit by Federal deposit insurance corporation. Banking Law J 63:478-84 Je '46
FDIC audit. J Account 82:357-8 O '46
FDIC entitled to proceeds of insurance paid out of embezzled bank funds. Banking Law J 63:312-17 Ap '46
Lauds act to retire Treasury's interest in FDIC. M. T. Harl. Comm & Fin Chr 164: 747+ Ag 8 '46
Repayment of FDIC funds urged in report. T. C. Andrews. Comm & Fin Chr 164:1183 Ag 29 '46
Secret oral contract concerning status of loan unenforceable against FDIC. Banking Law J 63:421-4 My '46
Strengthening the banking system; importance of preserving the FDIC. M. T. Harl. Comm & Fin Chr 163:3109+ Je 6 '46
See also
Banks and banking—Guaranty of deposits

FEDERAL employees. See Government employees

FEDERAL government
See also
State governments—Federal relations

FEDERAL home loan bank administration
Operating analysis library
Operating analysis library, Federal home loan bank administration. J. B. McClurkin. Special Lib 37:216-17 S '46

FEDERAL housing administration
FHA in the post-war era. R. M. Foley. Comm & Fin Chr 162:2457+ N 22 '45
Future of the FHA; interview with Raymond M. Foley. M. Kane. Banking 38:52-3+ F '46
Mortgage insurance trend; is building giving FHA the brush-off? Arch Forum 84:9-10 My '46
National Life reports good F.H.A. loan record. L. D. Meredith. Weekly Underw 153: 1227 N 24 '45
Insured mortgage plan
FHA insurance of class 3 loans revived. Banking 38:67+ My '46
FHA will continue insuring mortgages. R. M. Foley. Comm & Fin Chr 164:254 Jl 11 '46
For G.I.'s. N. M. Giffen, jr. il Mag of Wall St 78:286+ Je 8 '46
Rental housing under FHA. R. M. Foley. il Banking 39:79+ S '46

FEDERAL interdepartmental safety council
Greater safety for federal workers; Interdepartmental safety council program. Nat Safety N 53:28 My '46

FEDERAL life and casualty company
Forty years of constructive service; abstract. East Underw 47:34 O 18 '46

FEDERAL light and traction company
Files dissolution plan with SEC. Comm & Fin Chr 164:1592 S 30 '46
Value above market. Barron's 26:8 Jl 29 '46

FEDERAL power commission
Changing complexion of the FPC. Elec World 125:140 Ap 13 '46
Cloud over FPC; loss of independent status. Bsns W p20-1 D 29 '45
Commission studies future liquid fuel supplies. Chem Ind 59:498+ S '46
Federal control of power project not to be fettered by state laws. Pub Util 37:719 My 23 '46
Federal power commission and National resources planning board. R. M. Lawrence and L. A. Monroe. Chem Ind 58:967-9 Je '46
FPC bars Leo Crowley from three utility directorates. Elec World News ed 125:9 Je 29 '46
It's up to Congress; both sides seek legislation as FPC natural gas hearings end. Bsns W p31 O 19 '46
State law compliance by FPC licensee unnecessary. Pub Util 37:689 My 23 '46
Utility writeoff. Bsns W p76 Ja 26 '46
Why did federal commissions adopt new rules? changes required by Administrative procedure act. A. Haines. Pub Util 38:593-601 N 7 '46
See also
Gas, Natural—Government investigation

FEDERAL power projects. See Hydroelectric plants—Government ownership

FEDERAL prison industries, inc.
Audit report; excerpts. J Account 82:87-90 Jl '46

FEDERAL reserve act
Acceptances by member banks; revision of Regulation C; with text. Fed Res Bul 32: 996-8 S '46

FEDERAL reserve bank of New York
Annual report; abstract. Comm & Fin Chr 163:2645+ My 16 '46
New rules on advances and discounts; text. Comm & Fin Chr 164:533+ Jl 25 '46
Ratio of profits of members to capital funds 11.6% in 1945. Comm & Fin Chr 163:1544 Mr 21 '46

FEDERAL reserve banks
What makes inconvertible Federal reserve currency work. Lin Lin. Comm & Fin Chr 164:482+ Jl 25 '46
Directors
Directors of Federal reserve banks and branches. Fed Res Bul 32:130-41 F '46

FEDERAL reserve banks—*Continued*

Member banks

Acceptances by member banks; revision of Regulation C; with text. Fed Res Bul 32: 996-8 S '46

All member banks; assets and liabilities on December 31, 1945, by class of bank. Fed Res Bul 32:544 My '46

All member banks, assets and liabilities on June 29, 1946, by class of bank. Fed Res Bul 32:1198 O '46

Earnings and expenses of Federal reserve banks during 1945. Fed Res Bul 32:194-5 F '46

Member bank earnings, first half of 1945, with comparisons, 1940-1944. Fed Res Bul 31: 1106-7, 1161 N '45

Member bank earnings, 1945. Fed Res Bul 32:674-84 Je '46

Member bank operating ratios, 1945. Fed Res Bul 32:932-4 Ag '46

Member bank profits in 1945. R. I. Robinson and C. Cagle. Fed Res Bul 32:376-83 Ap '46

Par collection of checks

Banks on Federal Reserve par list; with tabulation giving number of commercial banks classified according to Federal Reserve par list status, by districts and states, Dec. 31, 1945 and comparison with 1942. Fed Res Bul 32:124-5 F '46

Federal reserve par list, October 1946. 34p Board of governors of the Federal reserve system, Constitution av at 20th st, Washington, D.C. '46

Rediscount rate

See Discount—Rates

Statistics

Earnings and expenses of Federal reserve banks for the six-month period ended June 30, 1946. Fed Res Bul 32:935 Ag '46

Member bank profits in 1945. R. I. Robinson and C. Cagle. Fed Res Bul 32:376-83 Ap '46

FEDERAL reserve board

Bankers get a year of grace; Board takes milder tone. Bsns W p17-18 Je 22 '46

Dearer money; Federal reserve board moves to put a floor under interest rates. Bsns W p19 My 4 '46

Rules of organization and rules of procedure adopted pursuant to Administrative procedure act; text. Fed Res Bul 32:998-1015 S '46

Services and publications of the Federal reserve system, S.E.C. and Treasury department. W. C. Chadbourne. bibliog il Chem Ind 59:663-8 O '46

Credit policy

Analysis of the Federal reserve board report. A. G. Lanston. Comm & Fin Chr 164:335+ Jl 18 '46

Banking control in USA. Economist 151:304-5 Ag 24 '46

Federal reserve board credit control proposals. W. E. Spahr. Comm & Fin Chr 164: 197+ Jl 11 '46

Federal reserve board proposes inflation curbs. Comm & Fin Chr 163:3341+ Je 20 '46

Federal reserve system and credit control. R. A. Young. Comm & Fin Chr 164:2080+ O 24 '46

Inflationary forces and the FRB. M. S. Eccles. Comm & Fin Chr 164:2201+ O 31 '46

Interest rates and Federal reserve policy. J. H. Riddle. Comm & Fin Chr 164:2201+ O 31 '46

Investment strait-jacket; recommendations of Board of governors of Federal reserve system. M. Nadler. Banking 39:37-8+ Ag '46

Money-credit issue boils. Bsns W p15-16 Mr 30 '46

Postwar monetary problems; task of Federal Reserve. W. Thomas. Comm & Fin Chr 164: 1013+ Ag 22 '46

Proposals for new monetary controls. Nat City Bank p75-8 Jl '46; Same. Comm & Fin Chr 164:71+ Jl 4 '46

Reserve Board suggests new fiscal policies. Burroughs Clearing House 30:26+ Jl '46

Traditional banking controls vs. Federal reserve recommendations. F. E. Lee. Comm & Fin Chr 164:1646+ O 3 '46

FEDERAL shipbuilding and dry dock company

War developments. Marine Eng 51:150+ Ap '46

FEDERAL specifications board

Federal specifications board gets industry advisory body. Oil Paint & Drug Rep 149:3+ My 20 '46

FEDERAL trade commission

Administration maps wider field for FTC. Bsns W p7 Je 1 '46

Back to normal? return to milder attitude. Bsns W p90+ Ap 13 '46

Demands horse sense in price competition; in Standard Oil dissent accuses FTC of tinkering with Robinson-Patman act. L. B. Mason. Ptr Ink 216.40-2 Ag 16 '46

FTC and business can be friends under trade practice plan. G. A. Nichols. Ptr Ink 216:44-5 S 27 '46

FTC appropriation cut by House group. Oil Paint & Drug Rep 150:3+ Jl 8 '46

FTC challenge; McKesson & Robbins accused of misusing word free in describing premiums. Bsns W p88+ Mr 23 '46

FTC prepares for new rule; Arden demonstrator decision. Bsns W p64-6 Je 22 '46

FTC setup streamlined. Oil Paint & Drug Rep 149:3+ F 25 '46

FTC special drug group fails of purpose. F. Cullen. Oil Paint & Drug Rep 150:5+ Jl 15 '46

FTC sponsors industrial competition, self regulation. S. E. Cohen. Ind Marketing 31: 66+ Mr '46

FTC trade rules revisions issued. Oil Paint & Drug Rep 150:3 Jl 1 '46

FTC trademark orders subject to review by courts. Oil Paint & Drug Rep 149:3+ Ap 1 '46

FTC vigorously defended at Reece bill hearings. Oil Paint & Drug Rep 149:3+ Mr 4 '46

FTC's Detroit decision; text of letter by National council of independent petroleum association. Nat Pet N 38:12+ Ja 23 '46

FTC's ears burn. Bsns W p53 F 9 '46

Lack of funds hampers FTC reorganization. Nat Pet N 38:21 Ag 21 '46

Majority FTC decision in beer label case eases up on business. L. W. Moffett. Iron Age 157:80+ Ap 25 '46

Reece bill hearings open with modifications requested. Oil Paint & Drug Rep 149:3+ F 4 '46

FEDERAL water and gas corporation

Court reverses SEC. Comm & Fin Chr 163:779 F 11 '46

FEDERAL wholesale druggists association

Midyear meeting, New York, Feb. 5-7. Oil Paint & Drug Rep 149:3+ F 11 '46

FEDERAL works agency

Community facilities program of the Federal works agency. L. A. Gillett. N E Water Works Assn J 59:348-55 D '45

Municipal sewage projects top FWA planning loan list. Eng N 136:83+ Ja 17 '46

FEDERATED department stores, inc.

Federated policy department store group will use Houston unit as proving ground. Bsns W p83-5 Ag 10 '46

Thumbnail stock appraisal. Mag of Wall St 77:454 Ja 19 '46

FEDERATION of American scientists

Announces complete agreement with principles proclaimed in President's letter and embodied in McMahon bill. Science 103: 311 Mr 8 '46

World-wide exchange of views among scientists on atomic energy control. Science 104: 108 Ag 2 '46

FEDERATION of atomic scientists

Organization. J Ap Phys 17:108 F '46

FEDERATION of insurance counsel

Meeting, Atlantic City, Oct. 26. Weekly Underw 155:1128+ N 9 '46

FEDERATION of paint and varnish production clubs

Advisory committee meeting, Atlantic City, May 3-4. Oil Paint & Drug Rep 149:5 My 13 '46

FEDERATION of paint and varnish production clubs—*Continued*
Our Federation of paint and varnish production clubs. E. L. Gott. Paint Oil & Chem R 108:24 N 1 '45
President E. L. Gott's report to the advisory committee. Paint Oil & Chem R 108:110-11 N 1 '45
Regional meetings. Oil Paint & Drug Rep 148: 41-7 N 12 '45; Can Chem & Process Ind 29: 742-5 N '45

FEDERATION of sewage works associations
Board meeting, Chicago, Oct. 17-18. Water & Sewage 83:34+ O '45; Water Works & Sewerage 92:317-20 N '45; Eng N 135:627 N 8 '45

FEDERATION of textile technical associations of Canada
Second annual convention. Can Chem & Process Ind 30:49+ O '46

FEED mechanism
Automatic back-gear shifter; part of drill-press feeding device. W. F. MacGlashan, jr. diag Mach 52:193 Ag '46
Automatic hopper feeds for small cylindrical parts. E. W. Duston. diags Mach 52:193-4 Je '46
Dry feeder developed for activated carbon. E. Engstrom. il Chem & Met Eng 52:118 N '45
Electronics in automatic chemical feed systems. R. T. Sheen. flow sheet il diags Am Inst Chem Eng Trans 42:725-39 Ag '46
Fine feeding mechanism adjustable from 1 to 50 microns per revolution. B. J. Wolfe. diags Mach 53:212-14 N '46
Lehman lathe features automatic turret-feed regulator. il Steel 119:96 Jl 22 '46
Power feeding mechanism controlled by resistance to band-saw blade. W. F. Ocenasek diags Mach 53:194-5 O '46
Reciprocating slide mechanism for feeding parts from a stack. diag Mach 52:190 F '46

FEED water
Can't neglect Diesel water facilities; cooling systems and steam heating equipment. G. E. Martin. il plan Ry Age 121:332-4 Ag 24 '46
Corrosion of plant equipment by steam and water. R. C. Ulmer. il Power Pl Eng 50: 72-5+ O '46 (to be cont)
Intercrystalline cracking; significance of the silica-sodium hydroxide ratio in boiler failure. C. D. Weir. Mech Eng 67:834-5 D '45
Replaces lime with caustic soda for dependable water-softener operation; with cost data; Pittsburgh plate glass co. T. W. Heiskell. il diag Power 90:747-9+ N '46
2000-psi forced-circulation boiler at the Somerset station of Montaup electric co.; studies of feedwater-steam system. W. D. Bissel and others. Power Pl Eng 50:79-80 Ja '46

See also
Feed water purification

Testing
How to take a dissolved oxygen test sample; illustrated instructions. C. A. Noll. Power 90:338 My '46
How to test boiler water by conductivity; illustrated instructions. C. A. Noll and others. Power 90:412 Je '46
How to test for free CO_2 in boiler water; illustrated instructions. C. A. Noll. Power 90:199 Mr '46
How to test for nitrate in boiler water; illustrated instructions. C. A. Noll and others. Power 90:56 Ja '46
How to test for sulphite in boiler water. C. A. Noll. il Power 90:126 F '46
How to test water for sulphates. C. A. Noll. il Power 90:556 Ag '46
How to test water in the boiler room. E. O. Davis. il Power Pl Eng 49:72-7 O '45; Discussion. 50:102 F; 102-3 Jl '46
Special studies of the feedwater-steam system of the 2000-psi boiler at Somerset station of Montaup electric company. W. D. Bissell and others. diags A S M E Trans 68: 429-39 My '46; Excerpts. Power Pl Eng 50: 79-80 Ja '46; Discussion. A S M E Trans 68: 439-42 My '46

FEED water heaters
Consumption of off peak power with boiler feed water heater at Wright Hargreaves mines, limited. J. B. Lowes. diags Can Min J 67:718-19 Jl '46
How detect contamination of heater condensate by oil? diags Power Pl Eng 50:114 Mr; 114 My '46

FEED water heating
Boiler fireman's handbook; heating feedwater. J. R. Darnell. il diags Power Pl Eng 50: 100-2 Je '46
Certain aspects of high-pressure centrifugal pumping cycles. I. J. Karassik. diags A S M E Trans 68:65-71; Discussion. 71-4 Ja '46

FEED water pumps. See Pumps, Feed water

FEED water purification
Boiler compounds. M. A. Lesser. bibliog Soap & San Chem 22:130-3+ Ap '46
Boiler water conditioning at West Point power plant; colloidal treatment. F. R. Meyers. il Power Pl Eng 50:116-18+ S '46
Boiler water quality and treatment. K. W. Brown. bibliog Am Water Works Assn J 38:973-9 Ag '46
Economic features of low-pressure evaporating and distilling plants; with cost data. M. L. Ireland, jr. Marine Eng 50:159-64; Discussion. 168-71 D '45
Engineering problems of water treatment. L. F. Collins. Power Pl Eng 50:78-81+ Jl '46; Same cond. Heating-Piping 18:86-8 My '46
Feed pump drives treatment feeder. C. O. London. il Power 90:472 Jl '46
Feedwater treatment. E. Novak. Marine Eng 51:138-42 Ap '46
Feedwater treatment for locomotive use. T. W. Hislop. Mech Eng 67:515-16 Ag '45; Discussion. 68:73-6 Ja '46
Organic treatment of boiler water; internal use of reagents. B. G. Houseman. Chem Age (Lond) 53:493-5 N 24 '45
Separator made from scrap removes oil from exhaust steam going to boiler feed. R. W. Machen. il Pet Processing 1:97 O '46
Sixth water conference; Civil section of Engineers' society of western Pennsylvania. Power Pl Eng 49:86+ N '45
Treating to prevent scale introduces carry-over problem; Youngstown, Ohio, plant of the Republic steel corp. E. M. Griffiths. diags Power 90:26-9 Ja '46
Water conditioning for the 2000-psi boiler at the Somerset station of Montaup electric company. W. W. Cerna and R. K. Scott. bibliog il A S M E Trans 68:443-51 My '46; Excerpts. Power Pl Eng 50:81-3 Ja '46
Water treatment. G. H. Pearson. Blast F & Steel Pl 34:1154+ S '46
Water treatment benefits. il Ry Mech Eng 119:575-7+ D '45
Water-treatment question box. K. M. Herstein and J. S. G. Shotwell. diags Power 90:54, 198, 334, 554, 707, 785 Ja, Mr, My, Ag, O-N '46

FEED water regulators
Electronic probe controls liquid levels. diags Product Eng 17:93 O '46

FEEDER airlines. See Airlines—Feeder airlines

FEEDERS
Feed pump drives treatment feeder. C. O. London. il Power 90:472 Jl '46
Practical carbon feeder. V. Opie. il diag Water Works & Sewerage 92:373-4 D '45
Program disc regulation of chlorine feed. E. W. Barbee. il diag Am Water Works Assn J 38:1064-8 S '46
What happens to branch distribution? chlorinator feed problem. diags Power 90:50-1 Ja '46

FEEDING and feeding stuffs
Application of chemistry to animal husbandry. J. G. Archibald. J Chem Educ 23: 49-51 Ja '46
Big supply of feeds promises lower livestock prices this winter. Barron's 26:11 Ag 5 '46
Chromates in animal nutrition. W. G. Gross and V. G. Heller. bibliog J Ind Hygiene 28:52-6 Mr '46
Cut in livestock feeding needed to make good on wheat export pledge; feed grains. Barron's 26:5+ F 4 '46

FEEDING and feeding stuffs—*Continued*
Effect of storage on carotene of plant extracts. A. R. Kemmerer and G. S. Fraps. bibliog Ind & Eng Chem 38:457-8 Ap '46
Effect of the prepartum diet of the cow on the vitamin A reserves of her newborn offspring. G. H. Wise and others. bibliog Science 103:616-18 My 17 '46
Feed stringency. il Bsns W p39 Ja 19 '46
Feeding yeasts from wood sugar stillage. E. F. Kurth and V. H. Cheldelin. bibliog Ind & Eng Chem 38:617-19 Je '46
Fused tricalcium phosphate fertilizer; possible animal feed supplement. D. E. Williams and others. bibliog Ind & Eng Chem 38:651-4 Je '46
It's feed vs. food. il Bsns W p17 My 18 '46
Proportioning vitamins in cattle feeds. Food Ind 18:1642+ O '46
Protein feed from sulphite waste liquor; production of Torula yeast. R. D. Walker, jr. and R. A. Morgen. bibliog diag Paper Tr J 123:43-7 Ag 8 '46
Straw cellulose for feeding-stuffs; an aid in fighting the food shortage. Chem Age (Lond) 54:277-8 Mr 16 '46
Thermal defluorination of superphosphate. E. J. Fox and others. bibliog Ind & Eng Chem 38:329-34 Mr '46

See also
Meal
Poultry—Feeding

Analysis

Chemical determination of vitamin A in mixed feeds and feedstuffs. W. Brew and M. B. Scott. bibliog Ind & Eng Chem Anal ed 18:46-8 Ja '46
Chromatographic estimation of vitamin A in mixed feeds. M. L. Cooley, J. B. Christiansen and C. H. Schroeder. bibliog Ind & Eng Chem Anal ed 17:689-92 N '45

FEES

See also
Trust fees

FEET. See Foot

FELDSPAR

Use of soda feldspar in whiteware bodies. G. A. Loomis and A. R. Blackburn. bibliog il Am Cer Soc J 29:48-57 F 1 '46

FELS research institute

New research laboratory building on Antioch college campus. Science 104:12 Jl 5 '46

FELS research institute of Temple university school of medicine

New organization for research in gastroenterology and internal medicine. Science 104:293 S 27 '46

FELT

Felt for polishing and buffing. W. Colwell. il Materials & Methods 23:193 Ja '46
German felt industry. Chem & Eng N 24: 956 Ap 10 '46
Mechanical felts. W. S. Shaw. Textile Inst J 37:P72-4 Ap '46
Plain and laminated felt seals; their design and application. W. H. Lehmberg. il diags Product Eng 17:209-11 Mr '46

Industrial applications

Felt wick lubricating systems for bearings and machine parts. W. H. Lehmberg and E. L. Johnson. il Product Eng 17:509-12 Je '46

FELTS (paper making)

Felt saving hints. Paper Ind 27:1564 Ja '46
Mildewproofing of paper mill felts; use of Preventol GD. F. A. Soderberg. Paper Tr J 122:153-4 Je 20 '46

Cleaning

Reconditioning paper mill felts. R. W. Mitchell. il Paper Ind 27:1210-12+ N '45

FENNEMAN, Nevin M., 1865-1945

Memorial. W. Bucher. bibliog por(pl 4) Geol Soc Proc 1945:215-28 Je '46

FENS (district) England

History and development of Fen drainage and pumping. L. E. Harris. bibliog il maps diags Engineer 182:141-5, 171-3, 180-2 Ag 16-30 '46

FERMENTATION

Evaluation of malts for production of alcohol from wheat. C. B. Thorne and others. bibliog Ind & Eng Chem 37:1142-4 N '45
Fermentation of Douglas fir hydrolyzate by S. cerevisiae. E. E. Harris and others. Ind & Eng Chem 38:896-904 S '46
Liquid-vapor equilibria in the acetylmethylcarbinol-water system. R. H. Blom and A. Efron. bibliog il Ind & Eng Chem 37:1237-40 D '45
Mold as an adjunct to malt in grain fermentation. N. M. Erb and F. M. Hildebrandt. bibliog Ind & Eng Chem 38:792-4 Ag '46
Production of 2,3-butanediol from acid-hydrolyzed starch. G. E. Ward, O. G. Pettijohn and R. D. Coghill. bibliog Ind & Eng Chem 37:1189-94 D '45
Production of lactic acid by fermentation of sulfite waste liquor; abstract. R. H. Leonard and W. H. Peterson. Can Chem & Process Ind 30:100 O '46
Recovery of 2,3-butanediol produced by fermentation. M. Senkus. flow sheet Ind & Eng Chem 38:913-16 S '46
Saccharification of grain mashes for alcoholic fermentation; plant-scale use of mold amylase. L. A. Underkofler, G. M. Severson and K. J. Goering. bibliog il Ind & Eng Chem 38:980-5 O '46

See also
Alcohol—Manufacture
Enzymes

FERMENTERS. See Biological apparatus

FERRIC sulfates. See Iron sulfates

FERRITIN

Ferritin; its properties and significance for iron metabolism. S. Granick. bibliog il Chem R 38:379-403 Je '46
Protein apoferritin and ferritin in iron feeding and absorption. S. Granick. Science 103: 107 Ja 25 '46

FERRO enamel corporation

New field in residence construction, Thermo-Namel system. Barron's 26:7 Ag 12 '46

FERRO machine and foundry company

Lung lab pays off quickly; Ferro's testing facilities. Bsns W p54+ Jl 20 '46

FERROALLOYS

Elkem rotating arc furnace for electrothermic process. T. Ellefsen. il diags Electrochem Soc Trans 89 (preprint 12):141-50 '46
Ferro-alloy metals; annual review and forecast. G. K. Herzog. il Min Cong J 32:58-60 F '46
Ferro-alloys, 1945. E. K. Jenckes and others. Eng & Min J 147:88-90 F '46
Prospects for 1946. S. M. Norwood. Comm & Fin Chr 163:576 Ja 31 '46

See also
Ferromanganese
Ferrosilicon
Iron alloys
Spiegeleisen

Statistics

World production of pig iron and ferroalloys, by countries, 1929-1945; tabulation. Steel 118:347 Ja 7 '46

FERROCHROMIUM

Beneficiation of Montana chromite concentrates by roasting and leaching. R. R. Lloyd and others. bibliog 2pls U S Bur Mines Rep of Invest 3834:1-37 '46
Higher third quarter prices set for ferrochrome and ferrosilicon. Steel 118:83 Je 17 '46

FERROCYANIDES

Structure of compounds of ferrocyanide type; crystal structure of hexamethyl*iso*cyanidoferrous chloride. H. M. Powell and G. W. R. Bartindale. il Chem Soc J p799-803 N '45

FERROMANGANESE

Electrolytic manganese vs. ferromanganese addition agents. R. T. C. Rasmussen and F. Sillers, jr. Iron Age 156:80+ D 6 '45
Ferromanganese, 80 pct; prices, monthly, 1932-1945; tabulation. Iron Age 157:224 Ja 3 '46

FERROSILICON

Ferrosilicon, 1945. N. B. Melcher and J. Hozik. Eng & Min J 147:89 F '46
50 pct ferrosilicon; prices, monthly, 1933-1945; tabulation. Iron Age 157:252 Ja 3 '46
Higher third quarter prices set for ferrochrome and ferrosilicon. Steel 118:83 Je 17 '46

FERRY, John Douglass, 1912-

Lilly award in biological chemistry. por Chem & Eng N 24:2458 S 25 '46

FERRYBOATS
Electric ferry added to New York fleet. il Marine Eng 51:107-9 S '46

FERTILIZATION (biology)
Chiasmatypy or the doctrine of delayed action fertilization. E. C. Jeffrey. diags Science 102:653-6 D 28 '45

FERTILIZER control officials, Association of American. See Assoication of American fertilizer control officials

FERTILIZER industry
Broader horizons for fertilizers. Chem Ind 59:674+ O '46
Famine in fertilisers. Economist 149:568-9 O 20 '45
Fertilizer policy drawn tighter in new Kefauver TVA bill. Oil Paint & Drug Rep 148:3+ D 31 '45
Fertilizers in 1945-1946. F. S. Lodge. Chem & Eng N 24:334-5 F 10 '46
Phosphatic fertilizers shortage acute. Oil Paint & Drug Rep 149:5+ Ap 29 '46
Plant food council pledges fertilizer aid to farmers. Oil Paint & Drug Rep 150:7+ Jl 1 '46
Public relations is theme of fertilizer association meeting. Chem & Eng N 24:1803 Jl 10 '46

Regulation

Fertilizers interstate inspection opposed. Oil Paint & Drug Rep 150:3 Jl 8 '46
Mixed fertilizer control bill drafted. Oil Paint & Drug Rep 150:7+ O 28 '46

Statistics

Fertilizer industry as a consumer of chemicals. M. H. Lockwood. Chem Ind 59:661-2 O '46
Fertilizer materials face almost unlimited demand to aid farm and food production. Chem & Met Eng 53:104-5 Ja '46
Fertilizer trade declined during war. Chem Ind 58:141-2 Ja '46

Belgium

Belgian fertilisers; shortage of potash. Chem Age (Lond) 54:503 My 4 '46

Great Britain

Britain's fertilizer industry; illustrations. Chem & Met Eng 53:134-5 My '46
London's chemical industry; fertilisers in West Ham. W. A. Parks and E. A. Rudge. il Chem Age (Lond) 55:167-9 Ag 10 '46

Japan

Russian and Japanese phosphates. Chem Ind 58:990 Je '46

United States

Commercial fertilizer companies look to expanded sales. E. Haller. Barron's 26:5 Ja 7 '46
Fertilizer and research. R. M. Salter. Manuf Rec 115:188+ Jl '46
Fertilizer fight; trade association campaign against government competition. Bsns W p36+ O 5 '46
Fertilizer materials production outlook issued for 1946-47. Oil Paint & Drug Rep 150:5+ Ag 12 '46
Fertilizer use still growing. C. K. Horner. il Dom Comm 34:20-2+ Je '46
Government phosphatic fertilizer plant in Alabama asked. Oil Paint & Drug Rep 150:3+ Jl 8 '46

See also Association of American fertilizer control officials

FERTILIZERS
Bacterial fertilization for field crops; abstract. A. K. Balls. Food Ind 18:1472 S '46
Chemistry of composts. D. H. F. Clayson. bibliog Chem & Ind p130-2 Mr 23 '46; Discussion. p303 Ag 10 '46
Fertilizer association discusses production and distribution. Oil Paint & Drug Rep 149:3+ Je 17 '46
Fertilizer needs stressed by Secretary of agriculture Anderson. Oil Paint & Drug Rep 149:3+ F 18 '46
Fused tricalcium phosphate fertilizer; possible animal feed supplement. D. E. Williams and others. bibliog Ind & Eng Chem 38:651-4 Je '46
National fertilizer association 19th annual southern convention. Oil Paint & Drug Rep 148:7+ N 26 '45
Serpentine fertilizer; abstract. Rock Prod 49: 127 Ap '46
World fertilizer materials situation; abstract. J. W. Wizeman. Chem & Met Eng 53:266+ F '46

See also
Ammonium nitrate
Lime as fertilizer
Phosphates
Refuse as fertilizer
Sewage sludge as fertilizer
Sodium nitrate

Manufacture

Compressing gases from earth and sky to grow more food; compressor plant at Alberta nitrogen products ltd. il Can Min J 66:850-1 D '45
Heavy chemical industry in 1945; fertiliser industry. P. Parrish. il diag Chem Age (Lond) 54:48-52 Ja 12 '46

Moisture content

Production of grained ammonium nitrate fertilizer; conditioning treatments and moistureproof bags. P. Miller and others. bibliog il Ind & Eng Chem 38:709-18 Jl '46

FEVER
See also
Malaria
Q fever
Relapsing fever
Rheumatic fever
Typhoid fever
Typhus fever

FEVER producing substances. See Pyrogens

FEWCLOTHES. See Folklore, Negro

FIBER, Vulcanized. See Vulcanized fiber

FIBER bonding. See Cotton yarn

FIBER drum manufacturers' association
Fiber drum industry trade association. Chem & Eng N 24:1580 Je 10 '46

FIBERGLAS. See Glass fibers

FIBERS
Fibre from waste wood. J. W. Church. Pulp & Pa of Can (Convention no) 47:275 [F] '46; Same. Paper Ind 27:1577-8 Ja '46
Filmless sample mounting for the electron microscope. J. H. L. Watson. il J Ap Phys 17:121-7 F '46
Molecular orientation of fibres; abstract. J. M. Preston. Chem & Ind p65-6 F 9 '46
Rapid measurement of an index of fibre length. R. de Montigny and P. Zborowski. diag Pulp & Pa of Can (Convention no) 47: 99-112, 115 [F] '46; Same cond. Paper Ind 28:882+ S '46; Correction. Pulp & Pa of Can (Convention no) 47:294 [F] '46
Relation of the chemical composition of fibres to their papermaking properties. J. M. Limerick and A. J. Corey. bibliog Pulp & Pa of Can 47:62-4+ Mr '46
Rubber-like condition of the fibers of animal skin; abstract. D. J. Lloyd and M. Garrod. Am Dyestuff Rep 35:453 S 23 '46
Vegetable-fiber imports, United Kingdom, 1938-1945. For Comm W 22:36 Mr 9 '46

See also
Caroá
Cotton fibers
Glass fibers
Jute
Ramie
Rayon fibers
Textile fibers
Vulcanized fiber

Identification

Report on fiber identification symposium. F. A. Burningham. Paper Tr J 121:33-4 D 6 '45
Stain for the identification of bleached sulphite and bleached kraft. F. W. Stocker and L. G. Durant. col pl Pulp & Pa of Can 47:67-9 Ap '46; Same cond, without pl. Paper Ind 27:1711-13 F '46
Wilson stain for identification of papermaking fibers. J. H. Graff. Paper Ind 27:1363 D '45

FIBRINOGEN
Engineering technique commercializes human blood fractionation. J. R. Callaham. flow diag il Chem & Met Eng 53:101-3 Je '46

FIBROIN
Equilibrium between silk and aqueous solutions; internal reaction of silk fibroin; abstract. T. H. Morton. Am Dyestuff Rep 35: 454 S 23 '46

FIBROIN—*Continued*
Structure of silk fibroin and its bearing on fibrous proteins; abstract. D. Coleman and F. O. Howitt. Am Dyestuff Rep 35:454 S 23 '46

FIBROSARCOMAS. See Tumors

FICHTER, Friedrich, 1869-
Swiss chemist. R. E. Oesper. pors J Chem Educ 23:394 Ag '46

FICTION
Fiction in a special library; Potomac electric power company, Washington, D.C. I. A. Zink. Special Lib 37:150-3 My-Je '46
See also
Advertising mediums —Fiction

FIDELITY insurance. See Insurance, Surety and fidelity

FIELD, Marshall, and company. See Marshall Field and company

FIELD glasses
Binoculars back to bird walks. Fortune 33: 228+ F '46
Prism binoculars. il Consumers Res Bul 17: 10-12 Je '46

FIES, Milton Henry, 1882-
Sketch. Min & Met 27:426 Ag '46

FIGS
Fig crop and marketing, Spain. For Comm W 21:31 N 24 '45

FIGURINES. See Ceramic sculpture

FILAMENTS
Methods of minimizing lead loss in emissivity and resistivity determinations. L. Malter and D. B. Langmuir. diags J Ap Phys 17:456-7 Je '46
Ultrathin nickel ribbons for bolometer filaments. F. G. Brockman. Metal Prog 49: 1172 Je '46

FILARIASIS
Preparation of a filaricide; *p*-[bis-(carboxymethylmercapto)-arsino]-benzamide. T. H. Maren. Am Chem Soc J 68:1864-5 S '46
Report on the medicinal treatment of filariasis Bancrofti. O. Temkin. 69p National research council, Division of medical sciences, 2101 Constitution av, Washington 25, D.C. '45
Transplantation of adult filarial worms, litomosoides carinii, in cotton rats. D. R. A. Wharton. Science 104:30 Jl 12 '46

FILES and filing (documents, etc.)
Better way to fill back orders; use of colored metal file signals. H. L. Corley, jr. Am Bsns 16.38+ Ap '46
Blind binders or open files? I. Welch. il Am Bsns 16:38 Mr '46
Destruction of correspondence; dailies of expired policies. Rough Notes 88:26 N '45
Filing of research reports. G. G. Harris. Special Lib 37:43-4 F '46
Filing practice in the civil service. K. S. Jefferies. J Doc 2:8-16 Je '46
Filing systems in the accountant's office H. R. Caffyn. J Account 82:74-5 Jl '46
Indexing and filing of correspondence in the laboratories of J. Lyons & co. ltd. M. Shaw. J Doc 2:17-20 Je '46
Microfilming in the office. D. A. Ploesser. Am Gas Assn Mo 28:119-20 Mr '46; Abstract. Management R 35:44-5 F '46
Modified Holmstrom system of documentation; Moore's loose-leaf filing system. A. G. Clement and R. H. S. Robertson. il J Doc 1:217-21 Mr '46
Moot points in the filing of business papers. J. E. Holmstrom. J Doc 2:1-7 Je '46
Simple system for reprint filing. L. R. Richardson. Science 104:181-2 Ag 23 '46
Technical filing system for the pulp and paper industry. J. D. Clark. Paper Ind 27:1359+ D '45

FILES and rasps
Care and use of files. il Sheet Metal Worker 37:56 O '46
New tools help the fixer in reaming and grinding. H. E. Wenrich. il Textile World 96:115+ Ag '46

FILLETING machine, Fish. See Fish filleting machine

FILLETS
Section properties of fillets; engineering data sheet. V. M. Kibardin. Machine Design 18: 155-7 Ag; 159-61 S '46

FILLING
Compacted fill equals natural ground; Clinton engineer works. J. D. Watson and O. R. Bradley. il diag Eng N 135:810-12 D 13 '45
Construction of highway fills in swamps and bogs. G. Piette. il Roads & Bridges 84:62+ My '46
Cost analysis of sanitary fill; Fort Worth, Texas. R. R. Lacy. il Water & Sewage 84: 23-4+ Je '46
Fill refuse disposal franchise renewed in San Francisco. il Eng N 137:296-7 S 5 '46
Methods and degree of compaction of fills and subgrades. G. B. Williams. il Roads & Bridges 84:61+ My '46
Sanitary landfill used to fill cut in residential area; with cost data. Eng N 137:375 S 19 '46
Vertical sand drains for accelerating and controlling ground settlement. H. J. McKeever. il Roads & Sts 89:72-8 Ag '46
Wellpoints used to compact sand fill. H. E. Berger. diag Eng N 137:44-5 Jl 11 '46

FILLING machines
Automatic can filler and crimper shuts off grease flow at proper weight. il Nat Pet N 38 pt 2:R258 Ap 3 '46
Carter vacuum filling machines. il Chem & Eng N 24:838 Mr 25 '46
Filling-weight control with X and R charts. H. P. Goode and F. B. MacKenzie. il Mod Packaging 20:118-22+ O '46
Middleton squares; distinctive tobacco tins; automatic filling machinery. il Mod Packaging 20:96-8 O '46
Vacuum filling machine, by Scientific filler co. il Mod Packaging 19:148 N '45

FILLING of cans. See Can filling

FILLING stations. See Gasoline service stations

FILMS
Aggregational states in adsorbed films on incompletely wettable solid surfaces. D. H. Bangham. J Chem Phys 14:352-3 My '46
Boiling and condensing film coefficients for water and normal hexane. D. L. Katz and others. flow sheet il Pet Refiner 25:93-6 S '46
Film formation of unsaturated media; abstract. Albers and Schmidt. Paint Oil & Chem R 109:40 Ag 8 '46
Film properties and utilization of resin-starch. C. C. Kesler and others. bibliog Paper Tr J 122:39-43 Mr 28 '46; Same cond. Paper Ind 28:712+ Ag '46
Film resistances in rectification. R. E. Peck and E. F. Wagner. bibliog diag Am Inst Chem Eng Trans 41:737-53 D '45
Films and surface cleanliness. J. C. Harris. bibliog Metal Finishing 44:328-30+, 386-8 Ag-S '46
Formation of ionized water films on dielectrics under conditions of high humidity. R. F. Field. J Ap Phys 17:318-25 My '46
Measuring coverage and film thickness of printing ink and paint films. R. Buchdahl and M. F. Polglase. Ind & Eng Chem Anal ed 18:115-17 F '46
Mixed monolayers of β-lactoglobulin and lauryl sulfate. H. B. Bull. Am Chem Soc J 68:747-8 My '46
Monolayers of β-lactoglobulin; film molecular weight. H. B. Bull. Am Chem Soc J 68:745-7 My '46
Monolayers of oxidized and heat-bodied linseed oil. D. C. Lichtenwalner and others. bibliog J Phys Chem 49:511-19 N '45
Organosols; new dispersion coatings. J. Hoyt. diags Mod Packaging 19:193+ Mr '46
Preparation of powdered materials for electron microscopy. M. C. Schuster and E. F. Fullam. bibliog Ind & Eng Chem Anal ed 18:653-7 O '46
Recognition of phase transitions in adsorbed films on solids. D. H. Bangham. J Chem Phys 14:352 My '46
Scattering of electrons by hydrocarbon films. J. Karle. diags J Chem Phys 14:297-305 My '46
Shrinkage phenomena on cellulose films. R. Prince and J. Seiberlich. il J Phys Chem 50:222-35 My '46

FILMS—*Continued*
Surface chemistry in relation to biology. E. K. Rideal. Can Chem & Process Ind 29:861-2+ D '45
Surface film thicknesses of polymeric substances in relation to molecular structure. F. T. Wall and M. Zelikoff. bibliog Am Chem Soc J 68:726 Ap '46
Surfaces of solids; a first- and a second-order phase change in the adsorbed film of *n*-heptane on graphite. G. Jura and others. bibliog J Chem Phys 14:344-7 My '46
Surfaces of solids; a unitary thermodynamic theory of the adsorption of vapors on solids and of insoluble films on liquid subphases. G. Jura and W. D. Harkins. bibliog Am Chem Soc J 68:1941-52 O '46
Surfaces of solids; adsorbed films of water and normal heptane on the surface of graphite. W. D. Harkins, G. Jura and E. H. Loeser. bibliog Am Chem Soc J 68:554-7 Ap '46
Surfaces of solids; first-order phase changes of adsorbed films on the surfaces of solids; the film of *n*-heptane on ferric oxide. G. Jura and others. bibliog J Chem Phys 14: 117-23 Mr '46
Temperature dependence of water vapor permeability of organic polymer films. P. M. Doty, W. H. Aiken and H. Mark. bibliog diag Ind & Eng Chem 38:788-91 Ag '46
Transmission of light by superconducting lead films. A. Wexler. bibliog Phys R 70: 219 Ag 1 '46
Unsupported films and sheetings. C. W. Patton. Am Dyestuff Rep 35:277-8+ Je 3 '46

See also
Oil films

FILMS, Metallic
Control methods for anodic oxide films; abstract. J. Herenguel and R. Segond. Materials & Methods 22:1508+ N '45
Dissociation energies of surface films of various oxides as determined by emission measurements of oxide coated cathodes. H. Jacobs. bibliog diags J Ap Phys 17:596-603 Jl '46
Electron diffraction and electron microscope study of oxide films formed on metals and alloys at moderate temperatures; stripped oxide films of metals. R. T. Phelps, E. A. Gulbransen and J. W. Hickman. bibliog il diags Ind & Eng Chem Anal ed 18:391-400 Je '46
Films and surface cleanliness. J. C. Harris. bibliog Metal Finishing 44:328-30+ Ag '46
Further note on the microstructure of high-silicon acid-resisting iron. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 151:105-7, pl 7-8; Discussion, 107-8 no 1 '45
Isolation of the protective film on passive iron. C. W. Gibby and D. Dickinson. il diag Chem & Ind p227-8 Je 15 '46
Nature of the anodic oxidation film. A. Portevin. il Metal Prog 49:975-6 My '46
Non-destructive testing methods; film thickness gages. R. Le Grand. il diags Am Mach 90:136-7 My 23 '46
Oxide films formed on alloys at moderate temperatures; electron diffraction and electron microscope study. E. A. Gulbransen, R. T. Phelps and J. W. Hickman. bibliog il Ind & Eng Chem Anal ed 18:640-52 O '46
Passivation of stainless steel. E. M. Mahla and N. A. Nielsen. il diag Electrochem Soc Trans 89 (preprint 27):319-41 bibliog(p339-41) '46
Performance and structure of anodic coatings on aluminum. F. Keller and J. D. Edwards. il Iron Age 156:75-8 N 22 '45
Rapid and direct measurement of vapor pressure of liquid metals. A. H. Weber and G. Plantenberg. diag Phys R 69:649-51 Je 1 '46
Running steel in contact without lubrication. R. C. Edwards. il Iron Age 157:56-7 F 28 '46
Spot-checking anodic films. G. Black. diag Materials & Methods 24:680 S '46
Study of the surface film on chromium-nickel (18/8) stainless steel. W. H. J. Vernon and others. bibliog diag Iron & Steel Inst J 150:81-92 no 2 '44
Surface preparation of aluminum alloy sheet for spot welding. R. A. Wyant and others. bibliog Welding J 25:sup65-76 F '46

FILMS, Photographic. See Moving picture films

FILTER paper
Chloride-free filter paper. D. Cushing and others. bibliog Science 103:568-9 My 3 '46
Filter paper spot sampling of air-borne solids. B. D. Tebbens. il J Ind Hygiene 27: 292-4 D '45
Filtration error in nitrogen determinations. J. L. Leitch and L. A. Wells. bibliog diags Franklin Inst J 241:73-7 Ja '46

Testing
Filter paper collection of cadmium and iron fumes in air. L. Silverman and C. Valenzuela. J Ind Hygiene 28:107-11 My '46
Testing analytical filter papers; TAPPI suggested method T471sm-46. Paper Tr J 122: 57-8 Mr 21 '46

FILTER sand. See Sand, Filter

FILTERS, Electric. See Electric filters

FILTERS and filtration
Automatic filter with pneumatic purging mechanism; water filter for industrial use. il diag Comp Air Mag 51:113 Ap '46
Colloidal turbidity of tropics water removed by slow sand filters; Tegucigalpa, Honduras. il map plan diags Eng N 136:355-7 Mr 7 '46
Filtration of water through diatomaceous earth. S. B. Applebaum. flow diags il Water & Sewage Works 93:208-10 Ag '46
Improving water plant operation with activated silica. H. R. Hay. bibliog Water & Sewage Works 93:353-8, 389-92 S-O '46
Manganese removal by break-point chlorination; experiences at Baltimore. S. E. Edwards and G. B. McCall. il Water & Sewage Works 93:303-5 Ag '46; Same cond. Eng N 137:167-8 Ag 8 '46
Polishing sewage effluents and industrial water supplies; automatic back-wash sand filter. diags Pub Works 77:28 S '46
Preparation of water for filtration. E. S. Hopkins. bibliog il diag Pub Works 77:19-21+ S '46
Removal of the cercariae of schistosoma mansoni from water by filtration through diatomaceous silica in a small model filter. M. F Jones and F. J. Brady. Pub Health Rep 61:1538-43, pl 1 O 25 '46
Use of lime to eliminate small mud balls in filters. A. E. Clark. Water & Sewage Works 93:186 My '46
Variety of treatment methods utilized by French water company. M. N. Baker. il diags Eng N 137:380-1 S 19 '46
Water filtration plant; KVP plant. J. F. McCallum. il Pulp & Pa of Can 47:92-3 O '46

See also
Filtration plants
Sewage disposal—Filtration

Cleaning
Keeping filters clean. W. A. Peirce; J. W. Myers, jr. Am Water Works Assn J 38:22-30 Ja '46
Putting a small filter plant back on its feet. R. E. Parsons. Am Water Works Assn J 38:223-6 F '46

Vacuum filters
Vacuum filtration at York township. E. H. Munroe. il Water & Sewage 84:36+ S '46

FILTERS and filtration (technical chemistry)
Apple juice process simplified and speeded by filtration; described step by step and illustrated by flowsheet. D. N. Ohlhues. flow sheet il Food Ind 17:1292-3 N '45
Asbestos as filter aid in sugar refining. T. Liu. Ind & Eng Chem 38:521-4 My '46
Call on powdered metal process for millions of nickel filters for switch of V-T fuse. il Steel 118:84-5+ Ap 22 '46
Clarification of acid-hydrolyzed mash and beer for the production of 2,3-butanediol from corn. A. J. Strohmaier and C. L. Lovell. Ind & Eng Chem 38:721-4 Jl '46
Correlating filtration theory with industrial practice. B. F. Ruth. bibliog il Ind & Eng Chem 38:564-71 Je '46
Defecation of refinery sirups; phosphoric acid and lime as pipe line defecants. G. G. Halvorsen and A. R. Bollaert. bibliog diag Ind & Eng Chem 38:385-9 Ap '46

FILTERS and filtration (technical chemistry)—*Continued*
Equipment advances 1944-45; filtration. C. P. Bonilla. Chem Ind 57:857 N '45
Expendable-cartridge filter for aircraft fuel. F. B. Harvuot. il Aero Digest 52:60 Mr '46
Filtration error in nitrogen determinations. J. L. Leitch and L. A. Wells. bibliog diags Franklin Inst J 241:73-7 Ja '46
Filtration of subsider muds and the effect of bagacillo as a filter aid. S. E. Coalstad. diags Soc Chem Ind J 65:175-80 Je '46
High-speed filter aid for chromatographic analysis. J. B. Wilkes. bibliog Ind & Eng Chem Anal ed 18:329-30 My '46
Removal of carbon from hot caustic solution. A. J. Luettgen, K. S. Whisler and H. D. Bauman. il Ind & Eng Chem 38:832-4 Ag '46
Small all-glass ground-joint filters. M. T. Bush. diags Ind & Eng Chem Anal ed 18: 584-5 S '46
Stoneware suction filters; batch operating technique. Chem Age (Lond) 54:694-6 Je 22 '46

See also
Filter paper

FILTRATION plants
Automatic operation of a small filtration plant; Boone county coal corp. E. H. Greenwald and H. E. Davis. diags Am Water Works Assn J 38:348-54 Mr '46
Water filtration plants in Canada. il Water & Sewage 84:4+ Jl '46
Water storage and filtration for a small village; Corning, Ohio. W. W. Graf. il Pub Works 77:21-2 Ja '46

See also
Filters and filtration
Waterworks

Employees

Training of filtration plant personnel. A. E. Clark. Water & Sewage Works 93:311 Ag '46

Equipment

Arvida water-filtration plant. W. S. Lea. il plans diag Water & Sewage 84:15-20+ My '46
Chicago water filtration plant designed to pump 700 million gallons a day. il Power Pl Eng 50:77 Jl '46
Chicago's south district filtration plant placed in partial operation. W. W. DeBerard and J. R. Baylis. il map diags Civil Eng 16: 197-200 My '46
Multi-purpose seal coat protects waterworks structures, both concrete and metal; filter plants at Atlanta, Ga. P. Weir. il Eng N 136:728-31 My 2 '46
Putting a small filter plant back on its feet. R. B. Parsons. Am Water Works Assn J 38:223-6 F '46
Renovation and rustproofing applied to filter plants. P. Weir. il Water & Sewage Works 93:R127-30 Ap '46
Unit construction of a filter plant. il diag Eng N 136:715-18 My 2 '46

FINANCE
Symposium on fiscal and monetary policy. L. W. Mints, A. H. Hansen, H. S. Ellis, A. P. Lerner, and M. Kalecki. R Econ Stat 28:60-84 My '46

See also
Bankruptcy
Banks and banking
Bonds
Budget
Building—Finance
Capital
Corporations—Finance
Credit
Debts, Public
Deflation (finance)
Domestic finance
Electric utilities—Finance
Finance companies
Financial statements
Foreign exchange
Gold as money
Holding companies
Housing finance
Income
Income tax
Inflation (finance)
Insurance
Insurance, Life—Finance
Interest
Investment trusts
Investments
Loans, Bank
Louisville industrial foundation
Mining industry and finance
Money
Municipal finance
Prices
Profit
Promissory notes
Public utilities—Finance
Railroads—Finance
Reserves
Roads—Finance
Securities
Sewerage—Finance
State finance
Stock exchange
Stocks
Taxation
Trusts, Industrial
War finance
Waterworks—Finance
Wealth

Belgium

Financial reconstruction of Belgium. M. Frère. Ann Am Acad 247:30-6 S '46

Canada

Outlook for investment business. A. R. Duffield. Comm & Fin Chr 162:2718+ D 6 '45

See also
Budget—Canada

Chile

Chile's balance of payments, 1943 and 1944 compared. For Comm W 21:17 D 15 '45

China

Canada grants export credits to China. For Comm W 22:21-2 Mr 2 '46

Denmark

Denmark and capital levy. J. Lyons. Mag of Wall St 78:25+ Ap 13 '46

Europe

Results of monetary reforms in western Europe. R. W. Bean. Fed Res Bul 32:1115-22 O '46

Finland

Finland seeks ten-year loan. S. Tuomioja. Comm & Fin Chr 162:2453+ N 22 '45
Finnish loans. Fortune 33:234+ My '46

France

Devaluation of the French franc and gold transfers. Fed Res Bul 32:871-3 Ag '46
Franc devalued. Fortune 33:207 Mr '46
France seeks a loan. Comm & Fin Chr 163: 1793 Ap 4 '46
French credit agreement with the United States; text. Comm & Fin Chr 163:2920+ My 30 '46
French financial agreements. Economist 150: 348 Mr 2 '46
French loan should drop economic false front; linked to tug-of-war between Reds and western world. P. Wohl. Barron's 26:3+ Ap 15 '46
Proposed American loan to France. J. Lyons. Mag of Wall St 77:578-9+ F 16 '46
U.S. props French economy. Bsns W p109 Je 8 '46

See also
Banks and banking—France

Germany

Issue of financial reform. Economist 151:408-9 S 14 '46

See also
Banks and banking—Germany

Great Britain

Advocates loan to Britain. P. D. Reed. Comm & Fin Chr 162:3015+ D 20 '45
Aid from Canada; loan negotiations. Economist 150:384 Mr 9 '46
Anglo-American agreement; credit to Britain and world trade. J. F. Byrnes. Comm & Fin Chr 163:831+ F 14 '46
Anglo-American financial agreement; address before Boston Chamber of commerce. W. W. Aldrich. Comm & Fin Chr 163:2829+ My 23 '46
Anglo-American financial agreement; British white paper concerning financial position of the United Kingdom. Fed Res Bul 32:20-7 Ja '46
Anglo-American financial agreement; text. Economist 149:867-9 D 15 '45
Anglo-American financial arrangements; speech in House of Lords. J. M. Keynes. Comm & Fin Chr 163:127+ Ja 10 '46
Anglo-American loan and U.S. international policy. F. M. Vinson. Comm & Fin Chr 163: 1687+ Mr 28 '46

FINANCE—Great Britain—*Continued*

Anglo-American loan and world peace; statement before Senate Banking and currency committee. M. S. Eccles. Fed Res Bul 32: 373-5 Ap '46; Same. Comm & Fin Chr 163: 1687+ Mr 28 '46

Anglo-American loan pact. F. M. Vinson. Comm & Fin Chr 163:519+ Ja 31 '46

Anglo-American loan terms crippling to Britain. L. S. Amery. Comm & Fin Chr 163: 2507+ My 9 '45

Anglo-American negotiations; with text of financial agreement and related documents. For Comm W 21:7-9+ D 22 '45; Same. Fed Res Bul 32:14-19 Ja '46

Bankers association of foreign trade advocate British loan. Comm & Fin Chr 162:2616 N 29 '45

Blocked sterling balances. P. Einzig. Comm & Fin Chr 162:2699+ D 6 '45

Blocked sterling balances; origin and operation; relation to the U.S. Index 25 no 4: 86-97 [D] '45

Britain and loan delay. P. Einzig. Comm & Fin Chr 163:2501+ My 9 '46

Britain as lender. P. Einzig. Comm & Fin Chr 163:829+ F 14 '46

Britain has alternative to U.S. aid; greater productivity of British workers as source for creating exports to pay debts. H. Heinemann. Comm & Fin Chr 162:2325+ N 15 '45

Britain sacrificed export trade at U.S. behest; proposed loan is good business. W. L. Batt. Comm & Fin Chr 163:2829+ My 23 '46

Britain's frozen sterling won't thaw for loan alone; liquidation steps will furnish headaches in plenty. C. H. Grattan. Barron's 26:3+ My 27 '46

Britain's socialists rely on created credit. F. B. Makin. Barron's 26:5 Ag 12 '46

British banking sums up economic position. N. Crump. Comm & Fin Chr 163:1090+ F 28 '46

British credit: trade keystone. Bsns W p15-16 D 15 '45

British financial agreement is essential to world peace; statement before House Banking and currency committee. F. M. Vinson. Comm & Fin Chr 163:2644+ My 16 '46

British financial trends; review of recent banking and monetary developments. D. F. Heatherington. il For Comm W 24:8-11+ S 28; 25:5-7+ O 5 '46

British loan; address before Foreign policy association. M. S. Eccles. Fed Res Bul 32: 232-5 Mr '46

British loan and American foreign trade. W. L. Clayton. il Dun's R 54:11-15+ My '46

British loan good bargain. W. Ward. Comm & Fin Chr 163:959+ F 21 '46

British loan; keystone to world trade stability; statement before House Banking and currency committee. C. S. Dewey. Comm & Fin Chr 163:2922+ My 30 '46

British loan opposed by Senators Wheeler and Johnson. Comm & Fin Chr 163:965+ F 21 '46

British loan's future rests on productive efficiency. C. H. Grattan. Barron's 26:3+ Ja 14 '46

British white paper on war finance; text. Fed Res Bul 32:723-48 Jl '46

Can sterling be freed? Economist 149:876-7 D 15 '45

Canada loan to Britain; long-term credit planned. Bsns W p108-9 Ja 5 '46

Canadian and American credits to Britain. N. Crump. Comm & Fin Chr 163:2079+ Ap 18 '46

Cheaper money in Britain. P. Einzig. Comm & Fin Chr 163:1926+ Ap 11 '46

Congressional reactions to UK loan vary. H. M. Bratter. Comm & Fin Chr 162:2874+ D 13 '45

Congressmen disillusioned on British loan. J. P. Wolcott. Comm & Fin Chr 162:2452+ N 22 '45

Dollar loan as seen from London. P. Einzig. Comm & Fin Chr 162:2569+ N 29 '45

Dollar obscurity; deficit still £750 million? Economist 150:306-7 F 23 '46

Factors favoring British loan. A. H. Vandenberg. Comm & Fin Chr 163:2221+ Ap 25 '46

Factors favoring loan to Britain. W. W. Aldrich. Comm & Fin Chr 163:1341+ Mr 14 '46

Financial agreement between United States and United Kingdom; text. Comm & Fin Chr 162:2926 D 13 '45

Foreign trade developments; aid to Britain. Burroughs Clearing House 30:28+ N '45

Gilt-edged in this century. Economist 150: 675-6 Ap 27 '46

Have lend-gift but get quid pro quo; attacks British commercial and colonial policy. R. R. McCormick. Comm & Fin Chr 162:2449+ N 22 '45

Is Britain a debtor country? Economist 149: 688 N 10 '45

Loan a bitter pill for Great Britain. P. Einzig. Comm & Fin Chr 162:2873+ D 13 '45

Loan to Britain; salient aspects analyzed. D. G. Acheson. For Comm W 22:3 F 16 '46

Loan to Britain; what it means to American business. Bsns W p43-55 Mr 30 '46 [reprint 20c]

Loan to British shapes postwar trade pattern. H. M. Tremaine. Mag of Wall St 77: 380-1+ Ja 5 '46

London reactions to British loan. P. Einzig. Comm & Fin Chr 162:3004+, 3129+ D 20, 27 '45

National finances. Economist 150:589-97 Ap 13 '46

New orthodoxy. Economist 150:804-5 My 18 '46

Next task; sterling settlements. Bsns W p113-14 F 23 '46

Our stake in Britain's economy. W. L. Batt. Comm & Fin Chr 162:2571+ N 29 '45

Problem of British credits. W. W. Aldrich. Comm & Fin Chr 162:2873+ D 13 '45; Same. Credit & Fin Management 48:10-12+ Ja '46

Proposed loan-gift to England. W. F. Hauhart. Comm & Fin Chr 162:2873+ D 13 '45

Repayment of blocked sterling. P. Einzig. Comm & Fin Chr 163:2911+ My 30 '46

Revenue of the United Kingdom, year ending March 31, 1946, as compared with the corresponding periods of preceding year and receipts into and issues out of the Exchequer in the period ending December 31, 1945, as compared with the corresponding period of preceding year. Economist 150:36 Ja 5 '46 [rev quarterly]

Secretary Wallace's statement in advocacy of the financial agreement with Great Britain. For Comm W 22:42-4 Mr 23 '46

Senatorial reactions to U.K. loan. G. H. Taylor; A. Capper. Comm & Fin Chr 163:2+ Ja 3 '46

Should Congress approve loan to Great Britain? symposium. C. W. Brooks; M. S. Rukeyser; P. D. Reed. Comm & Fin Chr 163:246+ Ja 17 '46

Should we subsidize Britain; two different views; interviews with Representative F. L. Crawford and Jesse Jones. H. M. Bratter. Comm & Fin Chr 162:2323+ N 15 '45

Six years of British war finance. Economist 149:sup2 O 27 '45

Statistical background. Economist 149:874-5 D 15 '45

Subsidizing the British empire. J. H. Jones. Comm & Fin Chr 163:2221+ Ap 25 '46

Substitute for loan to Britain. E. Celler. Comm & Fin Chr 163:1499+ Mr 21 '46

Ten years of civil expenditure. Economist 150:581 Ap 13 '46

Text of financial agreement between the governments of the United States and the United Kingdom. Index 25 no 4:98-100 [D] '45

Three aspects of loan to Britain; statement before House Banking and currency committee. M. S. Eccles. Comm & Fin Chr 163: 2921+ My 30 '46

Towards cheaper money. Economist 149:601-2 O 27 '45

Truman-Attlee views on U.S.-U.K. economic and financial aims. Comm & Fin Chr 162: 2921+ D 13 '45

Truman urges Congress ratify British loan. Comm & Fin Chr 163:518+ Ja 31 '46

United Kingdom and postwar international trade. Fed Res Bul 32:1-13 Ja '46

Upholds loan to Britain; Executive committee of United States associates, International chamber of commerce. Comm & Fin Chr 163:383+ Ja 24 '46

FINANCE—Great Britain—*Continued*
Why loan to Britain should be denied. W. Chamberlain. Comm & Fin Chr 163:371+ Ja 24 '46; Reply. J. L. Rowe. 163:831+ F 14 '46

See also
Bank of England
Banks and banking—Great Britain
Budget—Great Britain
Securities—Great Britain

Greece

Greece's balance of payments. Economist 151:180 Ag 3 '46

Hungary

Legislation regarding bank notes, bills of exchange, and special taxes on income and increases in assets. For Comm W 21:26 N 17 '45

Italy

Should we make a loan to Italy? L. Currie. Comm & Fin Chr 163:3469+ Je 27 '46

Latin America

Export-import bank looks at South America; interview, Herbert E. Gaston. H. M. Bratter. Comm & Fin Chr 163:2639+ My 16 '46
Financial developments in Latin America, 1945. C. F. Carson. il For Comm W 23:12-15+ Ap 27; 12-13+ My 4 '46

Mississippi

Story of Mississippi; government-finance. il Manuf Rec 115:99-100 Ja '46

Netherlands

Financial situation. F. A. G. Keesing. Ann Am Acad 245:33-8 My '46
Holland and the problem of capital in circulation. P. Lieftinck. Comm & Fin Chr 163:1495+ Mr 21 '46
Holland's financial position. J. Van Galen. Comm & Fin Chr 162:2886+ D 13 '45
Holland's position and prospects. E. D. de Meester. Comm & Fin Chr 162:2570+ N 29 '45
Rebuilding Holland's economy; Netherlands RFC, aided by private institutions, pushes restoration, expansion of industry and agriculture. Bsns W p109-10+ O 19 '46

New York (city)

Cities seek new income sources. Bsns W p41-3 Ap 13 '46

New Zealand

Foreign-exchange transactions, year ended March 31, 1944 and March 31, 1945. For Comm W 21:22 D 15 '45

Peru

Peruvian credit situation. J. Lyons. Mag of Wall St 77:271-2+ D 8 '45

Philippine Islands

Government finance; banking; validity of transactions under the Japanese. For Comm W 21:47 D 22 '45

Russia

Bretton Woods and Soviet Russia. M. V. Condoide. Comm & Fin Chr 163:1495+ Mr 21 '46
Does Russia expect capitalism to finance communism? proposals for a loan from U.S. H. M. Bratter. Comm & Fin Chr 163:962+ F 21 '46

Sweden

Sweden's five-year fiscal plan. Economist 151:138 Jl 27 '46

United States

Administration's anti-inflation program. Comm & Fin Chr 164:1133+ Ag 29 '46
Annual report to Congress; abstract. F. M. Vinson. Comm & Fin Chr 163:1788+ Ap 4 '46
Balance sheet for United States, inc. J. W. Snyder. Comm & Fin Chr 164:1845, 1853 O 10 '46
Can our inflation be stopped? E. M. Zimmermann. Comm & Fin Chr 163:3199+ Je 13 '46
Constructive financial program. A. Sproul. Comm & Fin Chr 163:2909+ My 30 '46
Credit and fiscal policy in inflation. Nat City Bank p54-7 My '46
Declining interest rates and inflation. J. J. O'Leary. Comm & Fin Chr 163:1494+ Mr 21 '46
Economy in war and transition; financial developments. Survey of Cur Bsns 26:28-31 F '46
Federal financial operations in fiscal year ending June 30, 1946; Treasurer's report. Comm & Fin Chr 164:1181+ Ag 29 '46
Federal taxation in the United States; history of existing tax system and Proposals for revision. Index 26 no 2:25-39 [Je] '46
Federal trust fund investments; analysis by Research department of Federal reserve bank of New York. Comm & Fin Chr 164:752+ Ag 8 '46
Financial facts and fancies. T. I. Parkinson. Comm & Fin Chr 163:1629+ Mr 28 '46
Financial problems, domestic and foreign. A. M. Pope. Comm & Fin Chr 163:2501+ My 9 '46
Fiscal and monetary requisites for peacetime prosperity. M. Shields. Comm & Fin Chr 163:1086+ F 28 '46
Fiscal progress since VJ-day. E. H. Foley, jr. Comm & Fin Chr 163:2783+ My 23 '46
Fiscal tasks ahead; address before American bankers association. J. W. Snyder. Comm & Fin Chr 164:1794-5+ O 10 '46
Foreign transactions of the U.S. government, 1940-1945; statement by Office of international trade operations. For Comm W 21:11+ D 15 '45; Comm & Fin Chr 162:2803 D 6 '45
Government, the banks and the national debt. S. E. Leland. bibliog Comm & Fin Chr 163:242+ Ja 17 '46
Government's fiscal policy. F. Cole. Comm & Fin Chr 162:3002+ D 20 '45
Government's imminent fiscal policy. J. M. Snyder. Comm & Fin Chr 164:1534+ S 26 '46
How government has lost control over monetary situation. C. C. Abbott. Barron's 26:20+ Ja 7 '46
Inflationary danger in federal borrowing from reserve banks; direct sale of government securities. B. B. Hickenlooper. Comm & Fin Chr 162:3004+ D 20 '45
Investment and money market outlook. A. M. Pope. Comm & Fin Chr 163:1086+ F 28 '46; Same. Chem & Eng N 24:618-20 Mr 10 '46
Low interest rates and public welfare. T. I. Parkinson. Comm & Fin Chr 162:2321+ N 15 '45; Excerpt. Nat Underw (Life ed) 49:3 N 9 '45
Monetary aspects of national debt policy. R. I. Robinson. Comm & Fin Chr 163:1687+ Mr 28 '46
Monetary manipulation. T. I. Parkinson. Comm & Fin Chr 163:369+ Ja 24 '46
Monetary theory of deficit spending. C. Warburton. bibliog R Econ Stat 27:74-84 My '45; Discussion and reply. 28:90-4 My '46
Money and banking. Nat City Bank p29-31 Mr '46
National fiscal policy. W. E. Spahr. Comm & Fin Chr 163:1782+ Ap 4 '46
Needed; reconversion in thought and action. E. Schram. Comm & Fin Chr 163:2069+ Ap 18 '46
New era in Treasury policy. J. T. Madden. Comm & Fin Chr 164:1460+ S 19 '46
Our monetary problems. M. S. Szymczak. Comm & Fin Chr 163:2349+ My 2 '46
Peacetime problems and fiscal policy. F. M. Vinson. Comm & Fin Chr 162:2575+ N 29 '45
Postwar monetary status. R. C. Leffingwell. Comm & Fin Chr 163:2349+ My 2 '46
Prospective cost of government in United States during 1947-1951. A. S. Pouchot. Comm & Fin Chr 162:2707+ D 6 '45
Restoring fiscal sanity in America. H. F. Byrd. Comm & Fin Chr 163:2505+ My 9 '46
Significant shifts in investment trends; some effects of government fiscal policy. W. Gates. Mag of Wall St 77:627-8+ Mr 2 '46
Snyder reports Treasury fiscal year operations. Comm & Fin Chr 164:253+ Jl 11 '46
Treasury finance and banking developments. Fed Res Bul 32:461-8 My '46

FINANCE—United States—*Continued*
U.S. debt, 1946. Fortune 34:96-7+ Jl '46
War period foreign transactions of the United States government. G. L. Bach. Survey of Cur Bsns 26:7-15+ Mr '46
Wartime monetary expansion and postwar needs. Fed Res Bul 31:1091-9 N '45
See also
Budget—United States
Debts, Public—United States
Government expenditures
Income tax—United States
Inflation (finance)
Money—United States
Reconstruction finance corporation
Taxation—United States

FINANCE, Domestic. See Domestic finance

FINANCE, International
Appraisal of foreign purchasing power for U.S. goods. V. L. Horoth. Mag of Wall St 77:755-6+ Mr 30 '46
Baruch offers plan for postwar foreign economic policy; advocates creation of a Supreme economic council for Europe. E. Blair. Barron's 25:4 N 19 '45
Blocked sterling balances; origin and operation; relation to the U.S. Index 25 no 4: 86-94 [D] '45
Dollar's value abroad and Bretton Woods. Barron's 25:7 D 10 '45
Dollar's value abroad; inflation grips our former foes, crippling them as foreign markets. Barron's 25:5 D 24 '45
Economy in war and transition; international trade and financial transactions. Survey of Cur Bsns 26:23-6 F '46
Europe's financial needs; mistakes of 1919. R. B. Warren. Comm & Fin Chr 162:2569+ N 29 '45
Financial problems in future foreign trade. R. F. Loree. Comm & Fin Chr 162:2875+ D 13 '45
Foreign lending program emerging. Nat City Bank p41-5 Ap '46
Monetary reconstruction in continental Europe. F. H. Klopstock. Comm & Fin Chr 163:2071+ Ap 18 '46
Our foreign lending program. M. S. Szymczak. Comm & Fin Chr 163:2783+ My 23 '46
USSR's role in international finance. C. Prince. Harvard Bsns R 25 no 1:111-28 [O] '46
U.S. dollars; worldwide need. Bsns W p113-14+ My 18 '46
Will New York take up London's financial leadership? I. Wright. Comm & Fin Chr 164:605+ Ag 1 '46
World financial police force is in making. Barron's 26:5 Ap 1 '46
See also
Balance of payments
Banks and banking, International
Foreign exchange
International bank for reconstruction and development
International monetary fund
Investments, Foreign
Loans, Foreign
Money—International aspects
Money, International
also National advisory council on international monetary and financial problems; United nations monetary and financial conference

Treaties

See Financial treaties and agreements

FINANCE, Municipal. See Municipal finance

FINANCE, Personal
Family spending and saving in wartime. U S Bur Labor Statistics Bul 822:1-218; pa 35c Supt. of doc. '45
Income vs. tax; investment yield after income tax. Life Ins Courant 50:428-9 S '45; Revised tables. 51:26 Ja '46
Monthly savings; how compound interest affects savings which are made monthly. Life Ins Courant 51:326-9 Jl '46
Regular withdrawals; ABC of compound interest and its effect upon income. Life Ins Courant 51:178-82 Ap '46
Retirement income sales talk. G. W. Isgrig. Spectator (Life ed) 153:12-15 My '46
Your cost of living; what is it doing to your life insurance? Life Ins Courant 51:270-1 Je '46
See also
Estate planning

FINANCE, State. See State finance

FINANCE companies
Airplanes on time; Universal C.I.T. finances purchases of private craft. Bsns W p39 Jl 27 '46
Banks vs. finance companies in auto financing. A. G. Rude. Comm & Fin Chr 164: 490+ Jl 25 '46
British capital finds a job; new finance corporations. Bsns W p105 Jl 6 '46
Experience with reductions in the small-loan rate in Wisconsin. E. Shapiro. J Bsns 18: 209-18 O '45
Finance company precluded from conducting sale of money orders. Banking Law J 63: 584-7 Ag '46
Largest sales finance group enters lightplane market; Universal CIT credit corp. W. Kroger. Aviation N 6:14 Jl 29 '46
See also
Factors

Insurance selling

Loan companies reputedly forcing insurance purchases in St Louis. Nat Underw 50:20 Jl 18 '46; Same. Nat Underw (Life ed) 50:9 Jl 19 '46

FINANCIAL advertisers association
Annual convention, 30th, Hot Springs, Va., Nov. 26-29. Banking 38:41-2+ Ja '46; Burroughs Clearing House 30:15-17+ Ja '46

FINANCIAL ratios
Changing trends in investment returns; with ratios of earnings on invested capital by representative industries and companies. W. Gates. Mag of Wall St 77:316-18+ D 22 '45
Fourteen important ratios for 36 manufacturing industries, 1944. R. A. Foulke. Dun's R 53:21-2, 63 D '45
Fourteen important ratios for 12 retail and 24 wholesale trades, 1944; tables. R. A. Foulke. Dun's R 53:17-18 N '45
Retail operating ratios; new figures for men's furnishings. R. L. Tebeau. il Dun's R 54: 15-17+ Ag '46
Variations in department store sales-expense ratios. R. H. Johnson. Survey of Cur Bsns 26:18-24 S '46
Yardstick for retailers; standard operating ratios. A. D. Cotton. Dom Comm 34:20-7 Jl; 22-5 O '46
Yardsticks of retail health; notes on 14 ratios for 12 lines; with tabulations. il Dun's R 54:16-17 O '46

FINANCIAL statements
Accounting for expenses and losses allocable to income of the war period. C. G. Blough. J Account 80:338-41 N '45; Same cond. Management R 35:64-6 F '46
Adequacy and accuracy of financial statements; Securities and exchange commission proceedings to determine whether the registration of Red Bank oil company common stock, $1 par value, should be suspended or withdrawn. J Account 80:492-3 D '45
Amendment to regulation S-X designed to provide for special disclosure of war costs, losses and expenses. J Account 81:435-6 My '46
Analyzing 1946 statements; survey provides measuring stick for credit men. W. D. Eck. Credit & Fin Management 48:9-10+ O '46
Are annual statements outmoded? credit men require up-to-date information. E. Heath. Credit & Fin Management 47:4-5+ N '45
Cost and value in accounting. W. A. Paton. J Account 81:192-9 Mr '46
Earning of earned surplus. E. A. Kracke. J Account 82:18-27 Jl '46
Farm financial statements as used by Dyersville national bank, Iowa. A. W. Bird. Banking 38:72-3 F '46
How taxes affect partnerships; withdrawals change capital status; credit aspects. L. F. Hufnagel. Credit & Fin Management 48:7-9+ F '46
Inadequate financial statements; Securities and exchange commission in matter of Suburban securities company. P. J. Graber. J Account 82:179-80 Ag '46

FINANCIAL statements—*Continued*
Independence, scope of audit; findings and opinion of Securities and exchange commission in matter of Red Bank oil company. O. L. DuBois. J Account 81:251-8 Mr '46
Preparation of financial statements for audit reports. J Account 82:72 Jl '46
Reports to stockholders. A. J. O'Hara. J Account 81:115-19 F '46
Semantics of financial reports; abstract. D. Knowlton. Management R 35:298-300 Jl '46
Simplifying accounting statements. C. Neureuther. J Account 82:158-9 Ag '46
Statement analysis for the small retail business. S. C. Wise. J Retailing 22:44-9 Ap '46
Statements of recast war-period income and related problems. W. H. Whitney. J Account 81:377-83 My '46
Study of stockholders' reports of unlisted companies. J Account 82.167-78 Ag '46
Surplus debate begets surplusage. E. A. Kracke. J Account 81:273-81 Ap '46
Tax credits in interim reports. E. S. Reno. J Account 82:28-31 Jl '46

See also
Income statements
Profit and loss statements

FINANCIAL statistics
Financial, industrial, and commercial statistics. Published in monthly numbers of Federal reserve bulletin

See also
Assets, Liquid
Banks and banking—Statistics

FINANCIAL treaties and agreements
Anglo-American agreement; Britain and loan delay. P. Einzig. Comm & Fin Chr 163:2501+ My 9 '46
Anglo-American agreement; British financial agreement is essential to world peace; statement before House Banking and currency committee. F. M. Vinson. Comm & Fin Chr 163:2644+ My 16 '46
Anglo-American agreement; British loan; address before Foreign policy association. M. S. Eccles. Fed Res Bul 32:232-5 Mr '46
Anglo-American agreement; British loan and American foreign trade. W. L. Clayton. il Dun's R 54:11-15+ My '46
Anglo-American agreement; British loan; keystone to world trade stability; statement before House Banking and currency committee. C. S. Dewey. Comm & Fin Chr 163:2922+ My 30 '46
Anglo-American agreement; British loan opposed by Senators Wheeler and Johnson. Comm & Fin Chr 163:965+ F 21 '46
Anglo-American agreement; British loan; what it means to American business. Mag of Wall St 78:261-3 Je 8 '46
Anglo-American agreement; businessman's stake in British loan. W. L. Clayton. Dom Comm 34:3-4 Ap '46
Anglo-American agreement; changing sentiments on United Kingdom loan. H. M. Bratter. Comm & Fin Chr 163:1218+ Mr 7 '46
Anglo-American agreement; credit to Britain and world trade. J. F. Byrnes. Comm & Fin Chr 163:831+ F 14 '46
Anglo-American agreement; dangers of government foreign lending. R. A. Taft. Comm & Fin Chr 163:2359+ My 2 '46
Anglo-American agreement; dollar loan Economist 149:820-1 D 8 '45
Anglo-American agreement; factors favoring British loan. A. H. Vandenberg. Comm & Fin Chr 163:2221+ Ap 25 '46
Anglo-American agreement; factors favoring loan to Britain; statement before Senate banking and currency committee. W. W. Aldrich. Comm & Fin Chr 163:1341+ Mr 14 '46
Anglo-American agreement; foreign loans and exchange rates. M. Palyi. Comm & Fin Chr 163:2351+ My 2 '46
Anglo-American agreement; loan at last. Economist 151:81-2 Jl 20 '46; Same. Iron Age 158:111+ Ag 1 '46
Anglo-American agreement; loan to Britain; part of larger program; statement before House Banking and currency committee. H. A. Wallace. Comm & Fin Chr 163:3061+ Je 6 '46
Anglo-American agreement; loan to Britain restores economic dead-center. N. Crump. Comm & Fin Chr 164:747+ Ag 8 '46
Anglo-American agreement; loan to Britain; salient aspects analyzed. D. G. Acheson. For Comm W 22:3 F 16 '46
Anglo-American agreement; loan to Britain; what it means to American business. Bsns W p43-55 Mr 30 '46 [reprint 20c]
Anglo-American agreement; loan to Great Britain ratified and signed. Comm & Fin Chr 164:398 Jl 18 '46
Anglo-American agreement; London's reaction to loan ratification. P. Einzig. Comm & Fin Chr 164:344+, 482+ Jl 18-25 '46
Anglo-American agreement; repayment of blocked sterling. P. Einzig. Comm & Fin Chr 163:2911+ My 30 '46
Anglo-American agreement; second thoughts. Economist 149:849-50 D 15 '45
Anglo-American agreement; Secretary Wallace's statement. For Comm W 22:42-4 Mr 23 '46
Anglo-American agreement; should Congress accept? H. M. Bratter. Comm & Fin Chr 163:3+ Ja 3 '46
Anglo-American agreement; statement on proposed loan; Executive committee of United States associates, International chamber of commerce. Comm & Fin Chr 163:383+ Ja 24 '46
Anglo-American agreement; sterling after the loan. Economist 151:102-4 Jl 20 '46
Anglo-American agreement; subsidizing the British empire. J. H. Jones. Comm & Fin Chr 163:2221+ Ap 25 '46
Anglo-American agreement; substitute for loan to Britain. E. Celler. Comm & Fin Chr 163:1499+ Mr 21 '46
Anglo-American agreement; three aspects of loan to Britain; statement before House Banking and currency committee. M. S. Eccles. Comm & Fin Chr 163:2921+ My 30 '46
Anglo-American agreement; Truman urges Congress ratify British loan. Comm & Fin Chr 163:518+ Ja 31 '46
Anglo-American agreement; why loan to Britain should be denied. W. Chamberlain. Comm & Fin Chr 163:371+ Ja 24 '46; Reply. J. L. Rowe. 163:831+ F 14 '46
Anglo-American financial agreement. Nat City Bank p6-11 Ja '46; Excerpt. Comm & Fin Chr 163:439 Ja 24 '46
Anglo-American financial agreement; address before Boston Chamber of commerce. W. W. Aldrich. Comm & Fin Chr 163:2829+ My 23 '46
Anglo-American financial agreement approved by National foreign trade council. Comm & Fin Chr 162:3137+ D 27 '45
Anglo-American financial agreement; Britain's frozen sterling won't thaw for loan alone. C. H. Grattan. Barron's 26:3+ My 27 '46
Anglo-American financial agreement; British white paper concerning financial position of the United Kingdom. Fed Res Bul 32:20-7 Ja '46
Anglo-American financial agreement; text. Economist 149:867-9 D 15 '45; Same. Comm & Fin Chr 162:2926 D 13 '45; Same. Index 25 no 4:98-100 [D] '45
Anglo-American financial arrangements; speech in House of Lords. J. M. Keynes. Comm & Fin Chr 163:127-+ Ja 10 '46
Anglo-American loan and U.S. international policy. F. M. Vinson. Comm & Fin Chr 163:1687+ Mr 28 '46
Anglo-American loan and world peace; statement before Senate Banking and currency committee. M. S. Eccles. Fed Res Bul 32:373-5 Ap '46; Same. Comm & Fin Chr 163:1687+ Mr 28 '46
Anglo-American loan pact. F. M. Vinson. Comm & Fin Chr 163:519+ Ja 31 '46
Anglo-American loan terms crippling to Britain. L. S. Amery. Comm & Fin Chr 163:2507+ My 9 '46
Anglo-American negotiations; with text of financial agreement and related documents. For Comm W 21:7-9+ D 22 '45; Same. Fed Res Bul 32:14-19 Ja '46

FINANCIAL treaties and agreements—*Cont.*
Anglo-Argentine agreement. Economist 151: 460, 465 S 21 '46
Anglo-Canadian credit; loan to Britain by Canada. Bsns W p116-17 Mr 16 '46
Anglo-Czech monetary agreement. Economist 149:689 N 10 '45
Anglo-Czechoslovak monetary agreement; text. Comm & Fin Chr 162:3143 D 27 '45
Anglo-French financial agreement. Economist 150:716+ My 4 '46
Anglo-French financial agreement; no fresh credit for France. Economist 150:348 Mr 2 '46
Anglo-French financial agreement of 1945. Economist 150:262-3 F 16 '46
Anglo-Norwegian monetary agreement concluded. For Comm W 21:46 D 22 '45
Anglo-Norwegian monetary agreement; text. Comm & Fin Chr 162:2916 D 13 '45
Anglo-Norwegian monetary pact. Economist 149:725 N 17 '45
Anglo-Polish financial agreement. Economist 150:1063 Je 29 '46
Anglo-Portuguese monetary agreement; text. Comm & Fin Chr 163:2653+ My 16 '46
Anglo-Portuguese money pact. Economist 150: 649-50 Ap 20 '46
Anglo-Swedish agreement; credit from Sweden. Economist 150:853 My 25 '46
Anglo-Swiss agreement; Swiss sterling control. Economist 150:467 Mr 23 '46
Anglo-Swiss financial arrangements and the sterling agreements. Economist 150:421-2 Mr 16 '46
Anglo-Swiss monetary agreement of March 12, 1946; text. Comm & Fin Chr 164:2219+ O 31 '46
Argentina; financial agreement, exchange of notes regarding release of blocked assets and commercial protocol signed with Belgium. For Comm W 24:16 Jl 20 '46
Belgium concludes payments agreement with Finland. For Comm W 23:20 Ap 6 '46
Britain's financial and trade pact with Argentina and Brazil. il Mag of Wall St 79: 80 O 26 '46
British financial trends; summaries of recent agreements. D. F. Heatherington. il For Comm W 24:8-11+ S 28 '46
British loan. Fortune 33:91 F '46
British loan, a good investment. F. M. Vinson. Comm & Fin Chr 163:246+ Ja 17 '46
British loan not a sofa but a springboard. H. Dalton. Comm & Fin Chr 164:482+ Jl 25 '46
Commons and House of Lords approve U.S. loan. Comm & Fin Chr 162:3025 D 20 '45
Egypt's sterling. Economist 150:66 Ja 12 '46
Finland concludes payments agreement with the Netherlands and payments agreement with Turkey. For Comm W 24:38-9 Ag 17 '46
Franco-American agreements of May 28, 1946; text. Fed Res Bul 32:866-70 Ag '46
French credit agreement with the United States; text. Comm & Fin Chr 163:2920+ My 30 '46
French-Swiss financial agreement. For Comm W 22:19 F 9 '46
Holds British loan unbusinesslike. J. H. Jones. Comm & Fin Chr 162:3015+ D 20 '45
International trade struggle: Great Britain and Latin America; Washington agreement does not solve commercial problems. R. Schueller. Comm & Fin Chr 162:3009+ D 20 '45
Italy signs payments and merchandise exchange agreements with Sweden. For Comm W 22:25 F 2 '46
Loan to Britain shapes postwar trade pattern. H. M. Tremaine. Mag of Wall St 77:380-1+ Ja 5 '46
London reactions to British loan. P. Einzig. Comm & Fin Chr 162:3004+, 3129+ D 20, 27 '45
Meaning of Britain's trade agreements with Europe. V. L. Horoth. Mag of Wall St 77: 199-200+ N 24 '45
Netherlands signs monetary agreement with Denmark. For Comm W 23:33 My 18 '46
Norway agreement governing financial payments concluded with Sweden. For Comm W 23:30 Ap 6 '46

FINENESS. See Particles

FINISHING materials
Applied finishes for zinc alloy die castings. il Product Eng 17:389-91 My '46
Applying plastic coatings; new flame spraying process, powder weld. il Mod Plastics 23:194 Je '46
Behaviour of plasticizers in nitrocellulose films. H. L. Tuthill. Paint Oil & Chem R 108:7-10+ D 13 '45
Coatings and finishes, 1945. K. Rose. il Materials & Methods 23:105-8 Ja '46
Coatings for plastics, by Pittsburgh paint and varnish production club. Paint Oil & Chem R 108:114-15 N 1 '45
Heat-reactive hydrocarbon resins and oils; abstract. W. J. Sparks and J. D. Garber. Oil Paint & Drug Rep 148:42-3 N 12 '45
Machine finishes producers; addresses of companies, tradename, type of finish, etc. Machine Design 18:248-50+ O '46
New solvents and plasticizers for surface coatings; abstract. W. A. Woodcock. Can Chem & Process Ind 29:744-5 N '45
Properties of Saran coating latex. G. W. Stanton and W. A. Henson. il Paper Tr J 123:48-52 Ag 8 '46; Same cond. Ind & Eng Chem 38:468-72 My '46; Same, with additions. Mod Packaging 19:194-9 Mr '46
Protective organic coatings. J. J. Mattiello. Chem Ind 59:277+ Ag '46
Rapid product finishes. P. O. Blackmore. Paint Oil & Chem R 108:84-6 N 1 '45
Refrigerator finishing. R. N. Sanger. Refrig Eng 50:533-4+ D '45
Saran coating latex. G. W. Stanton and W. A. Henson. il Ind & Eng Chem 38:468-72 My '46; Same with additions. Mod Packaging 19:194-9 Mr '46

See also
Lacquer and lacquering
Paint
Resinous products—Finishing materials
Textile finishing
Varnish and varnishing
Waxes

Standards
Applied finishes standardization and basic principles of procedure; Sperry gyroscope company. S. B. Ashkinazy. il Product Eng 17:24-8 Ja '46

FINLAND
See also
Building—Finland
Finance—Finland

Economic conditions
Finland's economic position. Economist 149: 633-4 N 3 '45
News by countries. For Comm W 24:14 Ag 24 '46

Industries and resources
Finland's prospects for forest-products exports; what's the outlook in vital woodpulp field? R. P. Donogh. il For Comm W 22:3-5+ Mr 23 '46; Same. Paper Ind 28: 104+ Ap '46

Reparations
Finland's reparations excessive. H. Hoover. Comm & Fin Chr 164:2267 O 31 '46

FINNED cylinders. See Airplane engines—Cooling

FIR
Behavior of red fir poles for 11-kv lines under electrical stress due to insulator failure. W. Lethersich. Inst E E J 93 pt 2:387-93 Ag '46; Abstract. Engineering 162:268 S 20 '46

See also
Douglas fir

FIRE alarms
Electronic fire and flame detector. P. B. Weisz. il diag Electronics 19:106-9 Jl '46
Fire protection on hospital ship, Frances Y. Slanger. il Marine Eng 51:122-4 Ag '46
Plug-in fire call system for superimposed current control system. S. A. Daines. il diag Elec R (Lond) 139:585-6 O 11 '46

FIRE apparatus
Low-pressure fire-extinguishing system. il Engineer 180:413-15 N 23 '45

FIRE apparatus—*Continued*
Operations and plants of International nickel company of Canada; fire protection. il map diags Can Min J 67:496-500 My '46

See also
Fire extinguishers
Fire protection

FIRE apparatus, Motor
Fire extinguisher utilizes both CO_2 and foam. il Elec World News ed 126:21 S 21 '46

FIRE brick
Brick from Kaiser. Bsns W p36+ N 10 '45
Conditions for obtaining thermally stable brick of lowfired chamotte; abstract. E. K. Keler and V. N. Abramova. Am Cer Soc J 29 (Cer A [25]):106 Je 1 '46
Fire brick estimating table. Brick & Clay Rec 108:37 Ja '46
Role of refractories in peacetime production; fireclay refractories. il Brick & Clay Rec 108:70-1 Ja '46
Spalling of refractory brick. Paper Ind 27: 1396 D '45
Stability of heated structures. L. M. Wilson. il diags Gas J (Lond) 246:602-4+, 634-5 O 31-N 7 '45; Discussion. 246:680-1 N 14 '45

See also
Silica brick

Manufacture

Silicious exposures in the fire brick industry; engineering study. W. W. Stalker. flow sheet J Ind Hygiene 27:275-82 D '45
Silicious exposures in the fire brick industry; roentgenologic study. W. L. Ritter and P. G. Bovard. J Ind Hygiene 27:283 D '45

Testing

Comparison of repeated reheat tests of various grades of firebrick with service results. W. T. Tredennick and others. il Am Cer Soc J 29:75-83 Mr 1 '46

FIRE brigades, Factory. See Factory fire brigades

FIRE clay
Effect of compounds of sulfur on reheat volume change of fire-clay and high-alumina refractories. A. R. Lesar and others. bibliog il Am Cer Soc J 29:70-5 Mr 1 '46
Prospecting for and testing of clay samples from Missouri fire-clay deposits. L. E. Puntney. Am Cer Soc Bul 24:448-50 D 15 '45

See also
Fire brick

FIRE departments

See also
Firemen

FIRE departments, Industrial. See Factory fire brigades

FIRE extinction
Combat experience prevents costly fumbling at fires. il Power 90:656-8 O '46
Dry chemicals extinguish textile lint fires; powder propelled by carbon dioxide. R. G. Shepherd. il Textile World 96:114-15 O '46
Extinction of gasoline flames by inert gases. G. W. Jones and W. R. Gilliland. U S Bur Mines Rep of Invest 3871:1-14, pl 1-3 '46
Extinction of propane and butane flames by dichlorodifluoromethane. G. W. Jones and F. E. Scott. pl U S Bur Mines Rep of Invest 3908:1-8 '46
Foam quells aircraft fires. il Aero Digest 52:62+ Ap '46
Navy shows how to fight fire; illustrations with text. Pet Eng 17:77-8 Mr '46; Excerpts. Safety Eng 91:27 Mr '46
Professor Fire; training plan at Beaumont, Texas, refinery. H. T. Fort. il diag Nat Safety N 53:18-19+ Je '46
Putting out oil fires with water. D. Powell. il Marine Eng 51:132+ Jl '46
Role of water in conquering fire in refining plants. D. Powell. il Pet Refiner 25:129-32 O '46
Salt sprays safe for fire-fighting near electric lines. diag Elec World 124:86+ D 22 '45
6,800 sq. ft. of burning oil; effectiveness of air foam demonstrated. il Safety Eng 91: 37-8 My '46

See also
Coal mines and mining—Fires and fire protection
Fire extinguishers
Sprinkling systems

Study and teaching

Modern fire protection training. R. Sneddon. il diag Pet Eng 17:68+ Ap '46

FIRE extinguisher manufacturers association
Extinguisher manufacturers form new association. Safety Eng 92:30 Ag '46

FIRE extinguishers
A, B, C's of maintenance. P. W. Eberhardt. il Safety Eng 90:31-2+ D '45
Dry-powder fire extinguishers. Consumers Res Bul 17.26 Je '46
Extinguishers-on-rails safe-guard streamliners against fires. il Sci Am 174:34 Ja '46
Fire control nozzle; Aquatomic fog nozzle. Blast F & Steel Pl 34:407 Mr '46
First-aid extinguishers. Nat Safety N 53: 135+ Mr '46
How to service hand fire extinguishers. Elec World 125:104 Mr 2 '46
Market for portable fire extinguishers. W. Thompson. Dom Comm 34:22-3 Ja '46
Protection against garage fires. P. W. Eberhardt. il Bus Transportation 25:66-8 Ag '46
Report on fire extinguishing equipment methods and manufacture in Germany; abstract. C. A. Getz. Chem & Met Eng 53:226 My '46
12 trade names reduced to 1; Pyrene fire extinguisher. il Mod Packaging 19:116-19 Ag '46

Rating

Fire extinguishers. Consumers Res Bul 18:18-20 O '46 (to be cont)

FIRE extinguishers, Carbon dioxide
Aircraft firefighting equipment. P. W. Eberhardt. il Aero Digest 52:59+ Mr '46
Carbon dioxide is suitable agent to fight textile fires. F. B. Allen. il Textile World 95:104-5 D '45
Engineered fire protection. I. J. Hammill. il Air Transport 4:61-2 N '46
Fire protection on hospital ship, Frances Y. Slanger. il Marine Eng 51:122-4 Ag '46
L'influence des émulsifiants sur les mousses extinctrices. Génie Civil 123:99 Ap 15 '46
Low-pressure fire-extinguishing system. il Engineer 180:413-15 N 23 '45
Piping carbon dioxide for fire protection. W. W. Voss. il diags Heating-Piping 18:73-9 Ap '46
Slick fire protection. il Air Transport 4:60 Jl '46
Where there's smoke; combined smoke detection and carbon dioxide fire extinguishing systems for ships. M. A. Laswell. il Nat Safety N 52:26-7 D '45

FIRE hose

Advertising

When only one item in line is in good production; Raybestos fire hose. Ptr Ink 215: 72 My 17 '46

FIRE houses
Design for small fire house. il map plan Arch Forum 83:111 N '45

FIRE insurance. See Insurance, Fire

FIRE losses
Fire losses continue upward; graph. Bsns W p74 F 2 '46
Fire losses in the U.S; 1905-1946; tabulation. Comm & Fin Chr 164:1808 O 10 '46
Greatest fire losses in history call for curbing waste. F. A. Christensen. Credit & Fin Management 48:30 S '46
Large-loss fires skyrocketed to new high total in 1945. East Underw 47:1+ F 1 '46; Same. Weekly Underw 154:301+ F 2 '46; Same cond. Nat Underw 50:3 Ja 31 '46
Neglect, carelessness, indifference contribute to higher fire losses. P. B. Reed and others. East Underw 47:25 O 11 '46
1945 fire losses set fifteen-year record. East Underw 47:18 Ja 18 '46; Nat Underw 50:1 Ja 17 '46
Protectionists term fire partner of inflation; analysis of losses exceeding $50,000. Weekly Underw 154:1060 Ap 27 '46

FIRE losses—*Continued*
United efforts needed to prevent record fire loss figures in 1946, National Board reports. East Underw 47:18 My 31 '46

FIRE protection
Ball brothers' rebuilt number 1 factory stresses fire protection. L. Augburn. il Glass Ind 27:549-51+ N '46
Building codes and fire safety. B. L. Wood. Western Soc E J 51:89-98 Je '46
Burning out of business; it's difficult to recover from a fire. F. Williams. Credit & Fin Management 48:37 My '46
City firemen boss plant protection program; Leland electric company. H. L. Fleck. il Factory Management 103:152-4 N '45
Cold facts on coal storage. il Safety Eng 91: 46+ My '46
Electrical motors and the fire hazard. E. B. McBryde. Weekly Underw 154:324-6 F 2 '46
Fire control keyed to split-second action. A. F. Meyer. il Factory Management 104:110-12 S '46
Fire depts. urged to rally public support. A. C. Hutson. East Underw 47:19 Jl 26 '46; Same cond. Nat Underw 50:6 Ag 1 '46
Fire hazard threatens unprotected new homes. P. Bugbee. Ind Stand 17:104 My '46
Fire hazards in electrical motors through fouling. E. B. McBryde. Weekly Underw 154:512-14 F 23 '46
Fire loss from electrical causes; correct maintenance practice. E. B. McBryde. Weekly Underw 154:53-4+ Ja 5 '46
Fire loss from electrical causes is largely preventable. E. B. McBryde. Weekly Underw 153:737-8, 1269-71 O 6, D 1 '45
Fire loss prevention methods in U.S. G. W. Booth. East Underw 47:20 My 17 '46
Fire precautions during construction. il Safety Eng 91:25-6 Ap '46
Fires involving oil burners rise; National Board on how to cut risks. East Underw 47:18 Ag 30 '46; Same cond. Nat Underw 50:5 Ag 29 '46
For safe grandstands and tents; new American standard. il Ind Stand 17:219-21 S '46
Governor Baldwin of Connecticut acts to reduce costly fires; names six-man committee to study ways of increasing safety in public institutions. E. P. Monley. East Underw 47:1+ Ja 25 '46
Inspections for fire control. J. H. Craig. il Safety Eng 91:55-60 Ja '46
Legal edicts won't prevent fires; need for individual responsibility. J. Ashmead. Weekly Underw 154:5+ Ja 5 '46
Let the public know. F. A. Christensen. Rough Notes 89:17-18 O '46
Modern fire code is urged for Boston by Commission. Nat Underw 50:7 Ag 29 '46
Money to burn. R. C. Coleman. il Safety Eng 92:10-11+ Jl '46
New process fire hazards. T. A. Fleming. il Safety Eng 92:18-19+ Ag '46
Organizing protection. il Nat Safety N 53: 133-4 Mr '46
Pipeless furnace hazards. M. E. Bulske. Rough Notes 89:34 Ja '46
Recent developments in protection against fire. G. W. Booth. il Nat Safety N 52:78-9+ O '45
Safeguard new construction against fire. il Safety Eng 91:51 F '46
Safety code for welding, burning and heating; Norfolk navy shipyard, Portsmouth, Va. il Safety Eng 91:22+ F '46
Ventilation for fire prevention and health; Eastman Kodak company. A. L. Cobb. il Nat Safety N 53:24-6+ Ja '46
Western actuarial bureau triples scholarships to Illinois institute of technology. Nat Underw 50:6 Ag 29 '46
What can I do for Fire prevention week? Rough Notes 89:32 S '46

See also
Fire apparatus
Fire extinguishers
Fire extinction
Fire resisting materials
Fireproof construction
Fireproofing
Forest fires
Inflammable mixtures
Insurance, Fire—Preventive work
Mine fires
Oil fires
Sprinkling systems

also subdivision Fires and fire protection under special subjects, e.g.
Automobiles
Coal mines and mining
Cotton mills
Hotels
Oil refineries
Paint factories
Petroleum refineries
Piers
Railroads
Steel construction

also National fire protection association

Contests and awards
Atlanta winner of fire waste contest. East Underw 47:22 Ap 12 '46; Nat Underw 50:4 Ap 11 '46
Memphis receives top award for activities during Fire prevention week. East Underw 47:20 Ja 18 '46

Laws and regulations
Liability to furnish fire protection; high court denies property owners recovery for city of Beacon's alleged negligence. Weekly Underw 153:1385+ D 15 '45

Standards
OK standards for places of outdoor assembly. Nat Underw 50:7 Ag 15 '46
Texas court upholds use of fire protection standards. Ind Stand 17:196-8 Ag '46

FIRE protection, Rural
Seek county protection set-up; Kentucky plan will obviate dispute arising from purely local arrangement. Weekly Underw 153: 1249+, 1399 D 1, 15 '45

FIRE protection association, National. See National fire protection association

FIRE protection institute
Institute formed; educational program backed by Fire extinguisher manufacturers association. East Underw 47:22 Jl 19 '46

FIRE resisting materials
Fire-retardant paints for steel surfaces, by New York paint and varnish production club. Paint Oil & Chem R 108:129-36 N 1 '45

See also
Asbestos
Fireproofing
Plastic materials—Fire hazards
Refractory materials

Testing
Flame test room permits testing of hose used on military aircraft. il Steel 117:128 D 10 '45
Lightweight fire-protection for steel; vermiculite-gypsum plaster. diags Arch Rec 100:124-5 O '46
Test criterion for an incombustible material. N. P. Setchkin and S. H. Ingberg. diag Am Soc T M Proc 45:866-75; Discussion, 876-7 '45
Testing flame-resistant cellulose acetate. M. Bentivoglio and B. E. Cash. il Mod Plastics 23:119-21 F '46

FIRE stations. See Fire houses

FIRE underwriters, National board of. See National board of fire underwriters

FIRE underwriters association of the Pacific
Annual meeting, 70th, San Francisco. Nat Underw 50:2+ Mr 7 '46

FIRE waste council, National. See National fire waste council

FIREARMS
Small arms and small arms ammunition research and development. R. R. Studler. il J Ap Phys 16:760-4 D '45

See also
Flame throwers
Machine guns
Revolvers
Rifles

Manufacture
Preventive maintenance cuts downtime 87 percent; Colt's patent fire arms manufacturing company. J. F. Boyd. il Factory Management 103:156-9 N '45

FIREBALLS (lightning). See Lightning

FIRELAND tribes. See Indians of South America—Chile

FIREMEN
City firemen boss plant protection program; Leland electric company. H. L. Fleck. il Factory Management 103:152-4 N '45

FIREMEN'S insurance company of Newark
90th anniversary. East Underw 46:26 D 7 '45
Traces remarkable development. F. L. Brokaw. Weekly Underw 153:1310-11 D 8 '45

FIREPLACES
Fireplace in the home means cheery living; illustrations. Brick & Clay Rec 108:20-1 Je '46
Heating capacity rating for circulating type fireplace. Brick & Clay Rec 109:31 Ag '46

FIREPROOF construction
Fire-safe apartment houses pay dividends. plans Arch Rec 100:122-3 Ag '46
Steel vs. wood joists for fire-resistive apartment buildings. plans Arch Forum 85:16+ Ag '46

FIREPROOFING
American wood preservers' association, annual meeting, Cincinnati, April 23-25. Ry Age 120:910-11 My 4 '46
Flameproofing agents for textiles, paper and wood; abstracts. R. G. Fordyce. il Chem Ind 57:1069-70 D '45; Chem & Met Eng 53: 276+ Ja '46
Potent new sales plus: flameproofing. E. M. Kelley. il Sales Management 56:37-41 F 1 '46
Pressure treated wood; a modern material for engineering structures. R. H. Mann. il Boston Soc C E J 32:191-2 O '45

FIREPROOFING of textiles
American association of textile chemists and colorists; committee on fire resistance. J. R. Redmond. Am Dyestuff Rep 35:145-6 Mr 25 '46
Bancroft's new ban flame finish for fabrics; protects against fire and mildew. il Rayon 27:84 F '46
Cellulose-phosphonamide as a flameproof material; U.S. patent. Am Dyestuff Rep 35: 440 S 9 '46
Durable flameproofing suitable for cotton outer garments. K. S. Campbell and J. E. Sands. bibliog il Textile World 96:118-19+ Ap '46
Flameproofing acetate rayon; British patent. Am Dyestuff Rep 35:503 O 21 '46
Flameproofing agents for textiles, paper and wood; abstracts. R. G. Fordyce. il Chem Ind 57:1069-70 D '45; Chem & Met Eng 53:276+ Ja '46
Flameproofing of textiles; abstract. Soap & San Chem 22:85 Mr '46
Flameproofing textiles, urea and ammonium salt; British patent. Am Dyestuff Rep 35: 476 O 7 '46
Glycerine increases its textile uses. G. Leffingwell and M. A. Lesser. Rayon 27:263-4 My '46
Permanence of flame-proofed fabrics. S. A. Rulon and others. Am Dyestuff Rep 35: 489-92+ O 21 '46

FIRES
Chicago fire shows need for proper design. Eng N 136:899 Je 13 '46
Do meteorites start fires? B. Mather. Nat Safety N 54:99-100 Jl '46
Double warning; hotel disasters dramatize the nation's spiraling fire losses. il Bsns W p16-17 Je 15 '46
Electronic fire and flame detector. P. B. Weisz. il diag Electronics 19:106-9 Jl '46
Explanation of unusual fires or explosions on gas company premises which occurred during 1944. Am Gas Assn Proc 1945:64-70
Fire aids inflation; quarterly survey of National fire protection association. Safety Eng 91:56 My '46
Fire hazards of gasoline tractors. Nat Safety N 52:125 N '45
Incendiary fires rose moderately in 1945; increase in arson arrests; National Board report. East Underw 47:21 My 24 '46
Irritating vapors produced by burning cellulosic materials; Cocoanut Grove cases. W. H. Easton. bibliog J Ind Hygiene 27:211-16 O '45
List of fire causes. Gas Age 97:40 Ap 18 '46
Old sol is firebug, jug is accomplice; sun rays intensified by shining through bottle cause fire. il Nat Safety N 53:78-9 F '46
Plastics introduce no new hazard into the work of firemen; abstract. F. D. Snell. Nat Safety N 54:166 O '46
Report on the investigation of the fire at the liquefaction, storage, and regasification plant of the East Ohio gas co. Cleveland, Ohio, October 20, 1944. M. A. Elliott and others. bibliog 32pls U S Bur Mines Rep of Invest 3867:1-44 '46
Storage loss by fire. il Safety Eng 91:59-60 F '46
Superheated air flows upward; abstract. T. A. Fleming. Safety Eng 92:31 Ag '46
When fire strikes; every employee must know what to do. il Safety Eng 90:14-16+ N; 44+ D '45

See also
Arson
Electric fires
Fire extinction
Fire losses
Fire protection
Forest fires
Inflammable liquids
Insurance, Fire
Mine fires
Oil fires
Plastic materials—Fire hazards
Spontaneous combustion

also subdivision Fires and fire protection under special subjects, e.g.
Airports
Coal mines and mining
Motor trucks
Oil refineries
Petroleum refineries
Piers
Railroads

FIRESTONE tire and rubber company
Annual report. Comm & Fin Chr 163:191-2 Ja 14 '46
Firestone research laboratory, Akron, Ohio. il plans diags Arch Rec 98:82-97, 143+ N '45
Investment audit. H. F. Travis. il Mag of Wall St 79:84-5+ O 26 '46
Thumbnail stock appraisal. Mag of Wall St 77:211 N 24 '45
Thumbnail stock appraisal. Mag of Wall St 78:23 Ap 13 '46

FIRST aid in illness and injury
Caring for the injured. il plan Nat Safety N 53:175-6+ Mr '46
Components of first aid kits. H. W. Boggess. Oil & Gas J 45:139 O 19 '46
First aid for solvent exposure. il Safety Eng 92:64 Ag '46
That ounce of prevention, and how the medical department provides it. H. G. Ross. il Nat Safety N 53:30-1+ Ap '46
Treatment of hot resin burns and safe handling of thermoplastic materials. W. B. Warden and W. J. Sigmund. bibliog Pet Refiner 25:89-92 Mr '46

FIRST Boston corporation
Merger of Mellon securities corp. into First Boston corp. voted by directors. Comm & Fin Chr 163:3481+ Je 27 '46

FIRTH carpet company
Profits up sharply. Barron's 26:7 Jl 8 '46

FISCHER reagent
Determination of moisture in sugar solutions with Karl Fischer reagent. F. W. Zerban and L. Sattler. il Ind & Eng Chem Anal ed 18:138-9 F '46
Determination of the solubility of styrene in water and of water in styrene. W. H. Lane. Ind & Eng Chem Anal ed 18:295-6 My '46
Determination of water content in oils. M. M. Acker and H. A. Frediani. bibliog Ind & Eng Chem Anal ed 17:793-4 D '45
Karl Fischer method for moisture determination; abstract. Smith, Bryant and Mitchell. Paint Oil & Chem R 109:24-5 My 2 '46
Titrimetric procedures using the Karl Fischer reagent. G. Wernimont. bibliog diags Can Chem & Process Ind 30:122+ My '46
Water content of powders determined by rapid method. W. P. Turner, jr. bibliog il diag Food Ind 18:502-5 Ap '46

FISCHER-TROPSCH process
Catalytic synthesis of hydrocarbons and oxygenated compounds from ketene and its relation to the Fischer-Tropsch synthesis. B. R. Warner, M. J. Derrig and C. W. Montgomery. bibliog Am Chem Soc J 68: 1615-17 Ag '46
Chemical utilization of natural gas limited only by commercial demand. A. L. Foster. Oil & Gas J 44:84 My 4 '46

FISCHER-TROPSCH process—*Continued*
Fischer-Tropsch synthesis considered as a polymerization reaction. E. F. G. Herington. bibliog Chem & Ind p346-7 S 21 '46
Fischer-Tropsch unit at Leipzig gas works. W. A. Horne and J. P. Jones. flow diag Gas Age 97:28+ F 7 '46
German soap substitutes; O.X.O. process for manufacture, from Fischer-Tropsch olefins, of fatty alcohols. Soap & San Chem 22: 75+ O '46
Germany's Fischer-Tropsch process. E. Cotton. flow diags il diags Nat Pet N 38 pt 2: R425-6+ Je 5 '46
Investigation by the U.S. government technical oil mission. W. J. Schroeder. Am Pet Inst Proc 25(3):24-9 '45; Same cond. Oil & Gas J 44:112+ N 24 '45; Excerpts. Chem & Met Eng 53:220+ Ja '46
Iso-paraffin synthesis; wartime research by Kaiser Wilhelm institute für kohlenforschung on Fischer-Tropsch synthesis; abstract. D. R. Dewey. Chem & Met Eng 53:206+ Ap '46
New version of Fischer-Tropsch reaction gives 90% yields of iso-paraffins. V. Haensel. Nat Pet N 37 pt 2:R955-6 D 5 '45
Production of lubricating oils from the olefines produced in the Fischer-Tropsch synthesis. D. Gall. bibliog Soc Chem Ind J 65:185-9 Jl '46
RFC finances plant to synthesize high-octane fuel from natural gas; will use adaptation of Fischer-Tropsch process. Steel 118:91 My 20 '46
Review of Fischer-Tropsch and related processes for synthetic liquid fuel production. N. R. Golumbic. bibliog 4pls U S Bur Mines Information Circ 7366:1-24 '46
Synthetic soap and edible fats; the Fischer-Tropsch process; a reminder. Chem Age (Lond) 54:308 Mr 23 '46
Synthine process. J. C. Lane and B. H. Weil. bibliog and patent list (341 references) il diags Pet Refiner 25:87-98 Ag; 97-108 S; 109-20 O '46 (to be cont)
Thoria-alumina catalyst best for isoparaffin synthesis, zinc oxide is less efficient, for use in the Fischer-Tropsch reaction. il Oil & Gas J 44:86+ Ja 19 '46
Utilization of natural gas in the United States. G. G. Oberfell. Gas Age 97:27-9 Ja 10 '46; Same. Nat Pet N 38 pt 2:R48-50 Ja 2 '46; Same. Pet Eng 17:170+ Ja '46; Same. Pet Refiner 25:101-3 Ja '46; Same. Min & Met 27:169-70 Mr '46; Same cond. Am Gas Assn Mo 28:7-13 Ja '46; Same cond. Oil & Gas J 44:76-8 D 15 '45
X-ray diffraction and magnetic studies of unreduced ferric oxide Fischer-Tropsch catalysts. L. J. E. Hofer, W. C. Peebles and W. E. Dieter. bibliog Am Chem Soc J 68:1953-6 O '46

See also Gasoline, Natural—Manufacture—Hydrocol process

FISH, Canned. See Canned fish

FISH, Frozen
British experiment with methods of freezing herring. Refrig Eng 50:472 N '45
Herring freezing; refrigeration plant for storing surplus fish. il Elec R (Lond) 137:925-7 D 28 '45
Iceland's quick-frozen fish-fillet industry. J. H. Rogatnick. plan For Comm W 22:11+ Mr 2 '46
Outlets sought for fish and shellfish. A. J. Mullen. il Dom Comm 34:30-2 F '46

FISH, Smoked
Cross-ventilated tunnel smokehouse; abstract. E. Linton and A. L. Wood. Food Ind 18: 1290+ Ag '46

FISH and wildlife service. See United States—Fish and wildlife service

FISH as food

See also
Canned fish
Fish meal
Food, Frozen

Preservation
How to retard rancidity in salt-cured fish. R. E. Silver. il Food Ind 17:1454-6+ D '45
Vanillic acid esters as food preservatives. I. A. Pearl and J. F. McCoy. il Food Ind 17:1458-61+ D '45

Storage
Control of rancidity in stored fish; abstract. H. L. A. Tarr. Food Ind 18:968+ Je '46

Transportation
Boston tests inland shipments of fresh fish by ice box plane. il Sales Management 55: 129 D 1 '45
Iceless pack for seafood, air-borne. S. A. Larsen. il Mod Packaging 19:104-7 D '45
Pennsylvania-central airlines' fish package with kraft-foil liner. il Mod Packaging 19: 107 D '45

FISH filleting machine
Fish filleting machine cuts all commercial sizes. J. V. Ziemba. il Food Ind 18:1530-4+ O '46

FISH livers
Drill sampling device for fish livers; precision and accuracy. F. B. Sanford and G. C. Bucher. il Ind & Eng Chem Anal ed 18:269-71 Ap '46
How fish liver sampler works. F. B. Sanford and L. G. McKee. il diags Food Ind 18:677 My '46

FISH meal
La farine de poisson dans l'alimentation de l'homme. Génie Civil 123:284 O 15 '46

FISH nets
Fish net preservative. Chem Eng 53:145 Ag '46

FISH oil
Fish-oil production, Nova Scotia, Canada, 1944. For Comm W 22:39 Mr 2 '46
High-quality oil; patent. Food Ind 17:1568 D '45
Large-scale production of liver oils from some New Zealand fish; abstract. M. M. Cunningham and C. Scott. Food Ind 17: 1401 N '45
South African fish products; mode and degree of fat storage in the Cape John Dory (zeus capensis C. and V.) in relation to the chemical compositions of the liver and body fats. M. M. Black and others. Soc Chem Ind J 65:13-15 Ja '46
South African fish products; periodic acid as a reagent in the analysis of the unsaponifiable fractions of natural fats. M. L. Karnovsky and W. S. Rapson. bibliog Soc Chem Ind J 65:138-40 My '46
South African fish products; the South African seal fishery. M. M. Black and others. map Soc Chem Ind J 64:326-31 D '45
Survival time of hypertensive rats receiving fish-oil extracts. F. Reichsman. Science 104: 64 Jl 19 '46
What's ahead in raw materials. L. Falk, jr. Paint Oil & Chem R 108:52 N 1 '45

Analysis
Spectrophotometric changes during oxidation of vitamin A oils. G. R. Halpern. bibliog Ind & Eng Chem Anal ed 18:621-5 O '46

FISH products
South African fish products; mode and degree of fat storage in the Cape John Dory (zeus capensis C. and V.) in relation to the chemical compositions of the liver and body fats. M. M. Black and others. Soc Chem Ind J 65:13-15 Ja '46
South African fish products; periodic acid as a reagent in the analysis of the unsaponifiable fractions of natural fats. M. L. Karnovsky and W. S. Rapson. bibliog Soc Chem Ind J 65:138-40 My '46
South African fish products; the South African seal fishery. M. M. Black and others. map Soc Chem Ind J 64:326-31 D '45

FISH protection
Electric fish screen keeps intake clear. F. L. Reinmann. diag Elec World 125:149 Ap 13 '46
Electronic control of fish fence. il Electronics 19:164 Mr '46
Fishways on the Fraser river designed for wide head variation. il Eng N 137:386-8 S 19 '46
La nouvelle échelle à poissons du barrage mobile des installations hydro-électriques de Kembs (Haut-Rhin). il plan diags Génie Civil 123:237 S 1 '46

FISH protection—*Continued*
Salmon swim Hell's Gate through new fishway. C. W. Harris. il plans Civil Eng 16: 431-3 O '46
Seven years' operating experience at Bonneville hydroelectric plant; how salmon runs are handled in the fishways. il diags Power 90:148-50 Mr '46
See also
Dams—Fish problem
FISH trade
Boston tests inland shipments of fresh fish by ice box plane. il Sales Management 55: 129 D 1 '45
Outlets sought for fish and shellfish. A. J. Mullen. il Dom Comm 34:30-2 F '46
See also
Canned fish
Tuna fish
Canada
Demand for Canadian canned fish mounts. For Comm W 22:11+ F 9 '46
Iceland
Iceland's quick-frozen fish-fillet industry. J. H. Rogatnick. plan For Comm W 22:11+ Mr 2 '46
Ireland
Fishing industry in Eire. For Comm W 22: 35-6 Ja 26 '46
Sweden
New markets found for export of Swedish fish. For Comm W 24:37 Ag 3 '46
FISHER, Arthur E. 1876-
Sketch. East Underw 47:22 Ja 11 '46
FISHER brothers
Packard's ride; rumor linking company to Fisher brothers' plans. Bsns W p70+ D 15 '45
FISHERIES
Fishing fleet idle in Boston. Bsns W p97 Ja 26 '46
Fishing treaty; six-man commission may end bickering among fishermen of Lake states and Ontario. Bsns W p46+ Ja 12 '46
Union indicted; West coast C.I.O. fishermen charged with coercing dealers. Bsns W p46 S 14 '46
See also
Tuna fish
Australia
Australia is going fishing. A. Makaroff. il Food Ind 18:530+ Ap '46
Newfoundland
Fisheries developments in Newfoundland. L. O. Sanderhoff and H. Scott. il For Comm W 21:10-11+ D 22 '45
FISHES
Photoelectric fish counter. L. V. Whitney and A. D. Hasler. diags Electronics 19: 178+ Mr '46
Rains of fishes; myth or fact? E. W. Gudger. Science 103:693-4 Je 7 '46; Reply. B. Evans. Science 103:713 Je 14 '46
Reversal in the winter flounder, pseudopleuronectes americanus: the three known cases. E. W. Gudger. Science 102:672-3 D 28 '45
See also
Sound production by fishes
Tuna fish
Diseases and pests
Sulfa drugs and the treatment of furunculosis in trout. J. S. Gutsell. Science 104: 85 Jl 26 '46
South Africa
South African fish products. W. S. Rapson and others. bibliog Soc Chem Ind J 63: 313-16, 340-2, 367-72; 64:5-11, 44-50, 61-5, 114-18, 139-43, 172-7, 326-31; 65:13-15, 138-40 O '44-Je, D '45-Ja, My '46
'ISHHOOKS
Fly fishing and trout flies; with portfolio of paintings. Fortune 33:126-33+ My '46
'ISHING
Fly fishing and trout flies; with portfolio of paintings. Fortune 33:126-33+ My '46
FISHING boats
Admiralty motor fishing vessels; summary and discussion. W. J. Holt. Engineering 161:521-2 My 31 '46
San Simeon, Diesel-driven shrimper. il Marine Eng 51:124 Ag '46
See also
Whaling vessels
FISHING tackle
Resin bonded glass fiber fly-rod. A. M. Howald. il Mod Plastics 23:124-5 F '46
FISHWAYS. See Fish protection
FISSION (term)
Use of fission. I. M. Freeman. Science 104:87 Jl 26 '46; Discussion. G. M. Kosolapoff; J. D. Buddhue. 104:301 S 27 '46
FITS (machinery)
Experiment in the use of a standard limit system. J. Loxham. Engineer 181:415; Discussion. 411-12 My 3 '46
Fits and tolerances of involute splines. G. L. McCain. Automotive & Aviation Ind 94:24-7 My 15 '46
Freeze fitting of auto parts; refrigeration used to shrink cylinder block valve inserts. il Steel 119:96 Ag 12 '46
60-cycle induction heater for shrink fits. il Iron Age 156:76 D 6 '45; Mach 52:156 F '46
FITZGERALD, E. Roy, 1893-
Fitzgerald; big name in buses. por(cover) Bsns W p70+ Jl 20 '46
FIVE- and ten-cent stores
If you want to sell the 5 & 10's, learn to do business their way. T. H. McClure. Sales Management 57:50+ S 1 '46
Variety chains are readjusting; new lines and higher prices. il Bsns W p78+ Jl 20 '46
FIVE-day week. See Hours of labor—Five-day week
FIVE-dimensional field theory
Five-dimensional field theory. K. C. Wang and K. C. Cheng. Phys R 70:416-18 O 1 '46
FIXTURES, Lighting. See Lighting fixtures
FLAMBEAU river, Wisconsin
Aerating a river to reduce pollution by sulfite liquor. il plan Eng N 136:416-18 Mr 21 '46
FLAME cultivators. See Cultivators
FLAME detectors
Electronic fire and flame detector. P. B. Weisz. il diag Electronics 19:106-9 Jl '46
FLAME photometers. See Photometers
FLAME propagation
Combustion studies of the Diesel engine. E. W. Landen. bibliog il diags S A E J 54: 276-82; Discussion. P. Myers and O. Uyehara. 284-8 Je '46
Flame speeds and energy considerations for explosions in a spherical bomb. E. F. Fiock and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:39-58 '41
FLAME throwers
Centenary of the Imperial college; development of flame gun. il Engineering 160:413-17 N 23 '45
Napalm. L. F. Fieser and others. il diag Ind & Eng Chem 38:768-73 Ag '46
Team work in research; flame throwers and fog dispersal. C. H. Lander. diags Engineer 180:353 N 2 '45; Same. Engineering 161:23 Ja 4 '46
FLAMEPROOFING. See Fireproofing
FLAMES
Flame cleaning of steel; abstract. A. J. Pfetzing. Materials & Methods 23:824 Mr '46
Flame cleaning of steel, using gas; preparation for painting. A. J. Pfetzing. il Gas Age 96:13-14 N 29 '45
Flame radiation measuring instrument. E. M. Yard. bibliog il diags Electronics 19:102-4 N '46
Flame-temperature measurements in internal-combustion engines; theory, development, and calibration of an electro-optical pyrometer. O. A. Uyehara and others. bibliog il diags A S M E Trans 68:17-28; Discussion. 28-30 Ja '46

FLAMES—*Continued*
Industrial applications of the non-aerated gas flame. J. F. Waight. il diags Gas J (Lond) 246:765-8+ N 28 '45; Discussion. 246:842-3+ D 12 '45
See also
Oxyacetylene flame
FLANDERS, Ralph Edward, 1880-
Vermont gives C.E.D. a man in the Senate. por Bsns W p7 Ag 24 '46
FLANGES
Draw up those flange bolts more uniformly. L. H. Carr. il diags Power 90:78-80 F '46
Elevated-temperature stretch-flanging of some aluminum alloys. E. G. Thomsen and others. il diags A S M E Trans 68:643-6 Ag '46
Pietzker's effective breadth of flange re-examined. J. M. Murray. bibliog diags Engineering 161:364-5 Ap 19 '46
Portable pneumatic machine faces blind flanges. J. Wilson and J. Zahler. il Am Mach 90:143 S 12 '46
Strength of thin steel compression flanges. G. Winter. bibliog il diags Am Soc C E Proc 72:199-226 F '46; Discussion. 72:909-12, 1188-90 Je, O '46
FLANNAGAN bill. See Agricultural credit
FLANNAGAN-HOPE act. See Agricultural research
FLASH welding. See Electric welding
FLASHING
Good roofs require more than mopping. E. A. Swenson. il Eng N 137:518 O 17 '46
Sheet lead pan lintel flashing. diag Sheet Metal Worker 37:67 Ap '46
Sheet metal workers' catechism (cont). W. Neubecker. diags Sheet Metal Worker 37: 58 F; 70 Mr; 47-8 Je; 52+ Ag; 54-5 O '46
Where to use flashing and caulking. diags Brick & Clay Rec 109:31-2 Jl '46
FLASHING lamps. See Electric lamps—Flashing
FLATIRONS. See Electric irons; Steam irons
FLAVANONE
Flavanones and related compounds; preparation of polyhydroxychalcones and -flavanones. T. A. Geissman and R. O. Clinton. bibliog Am Chem Soc J 68:697-700 Ap '46
Flavanones and related compounds; the colored reduction products of polyhydroxyflavanones. T. A. Geissman and R. O. Clinton. bibliog Am Chem Soc J 68:700-6 Ap '46
Flavanones and related compounds; the reduction of luteolin and apigenin trimethyl ether with sodium amalgam. T. A. Geissman and R. O. Clinton. Am Chem Soc J 68:706-8 Ap '46
FLAVONES
Flavanones and related compounds; the reduction of luteolin and apigenin trimethyl ether with sodium amalgam. T. A. Geissman and R. O. Clinton. Am Chem Soc J 68:706-8 Ap '46
FLAVOR
Chemistry of flavor. E. C. Crocker. J Chem Educ 22:567-9 N '45
Flavor retention with organic packaging materials. E. C. Crocker. il Mod Packaging 19:147-50 D '45
FLAVORING extract manufacturers association
Annual meeting, Chicago. Oil Paint & Drug Rep 149-7+ Je 10 '46
FLAVORING materials
Apple essence. Bsns W p60-1 F 2 '46
Flavoring group sees continued scarcities. Food Ind 18:1052+ Jl '46; Oil Paint & Drug Rep 149:7+ Je 10 '46
Protein hydrolysates; flavor ingredients for foods; acid digestion of casein, corn or wheat gluten. L. A. Hall. flow sheet il Food Ind 18:681-4+ My '46
See also
Vanilla
FLAX
Acreage and production of flax, Kenya, 1939-1945. For Comm W 22:37 Ja 12 '46
Cultivation of flax crop. R. N. Johnson. Oil Paint & Drug Rep 150:40 O 14 '46
Egyptian flax industry. For Comm W 21:52 N 10 '45
Flax can be run on cotton and worsted machinery. S. A. G. Caldwell. il Textile World 96:106-7+ Ja '46
German chemical industries; unretted flax and hemp as a textile fiber. Chem & Met Eng 52:186+ D '45
Processing of domestic flax for textile use. J. L. Taylor. il flow diags Georgia School of Technology State Eng Exp Sta [Atlanta] Bul 9:1-28 Ja; Bul 10:1-24 My '46 (pa ea 75c)
Recent developments in retting of flax and disposal of the waste waters; abstracts. T. W. Brandon and others. Chem & Ind p205 My 25 '46
See also
Phormium tenax
FLAX straw
American made paper for your cigarettes. J. A. Lee. flow sheet(p138-41) il Chem & Met Eng 53:94-7 Je '46
Flax straw procurement. L. F. Dixon. Paper Ind 28:439-40 Je '46; Same. Paper Tr J 123: 43-4 O 31 '46
Manufacture of flax pulp from flax fibre. H. S. Spencer. Pulp & Pa of Can 47:95-7 S '46
FLAXSEED
New flaxseed price ceiling unlikely to attract imports from Argentina. Barron's 26:5 S 16 '46
Nitrogenous constituents of flaxseed; peptization. E. P. Painter and L. L. Nesbitt. bibliog Ind & Eng Chem 38:95-8 Ja '46
Analysis
Linseed proteins; alkali dispersion and acid precipitation. A. K. Smith, V. L. Johnsen and A. C. Beckel. bibliog Ind & Eng Chem 38:353-6 Mr '46
FLEAS as carriers of infection
Effect of temperature on the sex ratio of xenopsylla cheopis recovered from live rats. L. C. Cole. bibliog Pub Health Rep 60:1337-42 N 9 '45
Epidemiological significance of seasonal variations in rodent-ectoparasite distribution. A. S. Rumreich and J. A. Koepke. bibliog Pub Health Rep 60:1421-8 N 30 '45
Transmission of salmonella enteritidis by pulex irritans and ctenocephalus canis. G. Varela and J. Olarte. bibliog Science 104: 104-5 Ag 2 '46
Tularemia; attempted transmission by each of two species of fleas; xenopsylla cheopis (Roths.) and diamanus montanus (Baker). F. M. Prince and M. C. McMahon. bibliog Pub Health Rep 61:79-85 Ja 18 '46
FLEMING, Sir Alexander, 1881-
Portrait. Fortune 34:104 Jl '46
FLEMING, Robert Vedder, 1890-
Heads group of bankers. por(cover) Bsns W p8 F 9 '46
FLEMING-HALL tobacco company
Stock units offered. Comm & Fin Chr 162: 3072 D 24 '45
FLIES
Black fly incubator-aerator cabinet. L. J. Thomas. diag Science 103:21 Ja 4 '46
Control of housefly breeding in partly digested sewage sludge; experiments with various larvicides. T. A. Olson and R. G. Dahms. Pub Works 77:24+ My '46
DDT against house flies; the comparative toxicity to houseflies of *p,p'* DDT, *o,p'* DDT, and pyrethrum extract. W. A. Gersdorff. Soap & San Chem 22:126-7 Mr '46
Insecticidal cords; generating smoke by burning cords impregnated with DDT or other toxic materials. D. E. Pearsall and P. P. Wallace. Soap & San Chem 22:139+ O '46
Toxicity of aerosols to house flies. E. R. McGovran and J. H. Fales. Soap & San Chem 22:127-9 S '46
See also
Blowflies
Fly sprays and repellents
FLIES (fishhooks). See Fishhooks
FLINT, Michigan
Flint weathering the strike. Bsns W p19-20 F 16 '46
FLOATING bridges. See Bridges, Floating
FLOATING dry docks. See Dry docks, Floating

FLOATING power plants. See Power plants, Floating

FLOCCULATION

Acid flocculation test for determination of gum content of heavy distillate fuel oils. W. A. Proell and J. A. Bolt. Oil & Gas J 44:234-5+ Mr 30 '46

Flocculation of suspensions by immiscible liquids. E. K. Fischer, E. N. Harvey, jr. and A. S. Dyer. bibliog Am Chem Soc J 68:522-3 Mr '46

Two-dimensional form of flocculation; photographs of flocculates that can be mistaken for single particles. H. Green. il Ind & Eng Chem 38:679-82 Jl '46

FLOCCULATION test. See Serum diagnosis

FLOOD control

Agricultural flood control program; review of the watershed investigations and reports. H. H. Wooten. bibliog J Land & Pub Util Econ 22:35-47 F '46

Blasting river ice prevents spring floods. C. Dintruff. il Explosives Eng 24:13-15 Ja '46

Concrete for flood control; Cajon Creeks improvement project. il diag Rock Prod 48: 88-9+ D '45

Correlating flood control and water supply, Los Angeles coastal plain. F. B. Laverty. il maps Am Soc C E Proc 71:831-48 Je '45; Discussion. 71:1439-42; 72:697-704 N '45, My '46

Economic uses of our inland waterways. E. B. Black. Am Water Works Assn J 38: 868-77 Jl '46

Expanding reclamation program; harnessing western rivers for irrigation, power production, flood control, and other purposes; with cost data. K. Markwell. il Civil Eng 16:207-9 My '46

Flood prevention and control in the anthracite region. S. H. Ash. il Min Cong J 32:32-4+ Mr '46

Floodwaters in Santa Ana basin controlled by concrete channels. il Concrete 54:8-9+ Jl '46

Habbaniyah flood relief scheme. il map diags Engineer 181:378-81 Ap 26 '46

Missouri basin inter-agency committee. R. C. Crawford. il Civil Eng 16:64-5 F '46

Missouri River basin development; coordinated plan as approved by Congress. D. E. Freeman. il Civil Eng 16:258-9 Je '46

Missouri River development program. L. A. Pick. map Am Water Works Assn J 38: 859-67 Jl '46

Model study of Brown canyon debris barrier. K. J. Bermel and R. L. Sanks. il map diag Am Soc C E Proc 72:613-28 My '46; Discussion. 72:1325-6 N '46

National river basin policy needed to give all regions equal opportunity. W. C. McNown. Eng N 137:55-6 Jl 11 '46

Role of the lower tributaries in the Missouri Valley plan. H. W. Wood, jr. maps Civil Eng 16:118-19 Mr '46

Six of the world's largest pumps protect Cincinnati against floods. il diags Power 90:511-13 Ag '46

Start Missouri basin 10-year program of water resources development. Eng N 136: 766 My 16 '46

Status of major projects, 1946. il Eng N 136: 235-6 F 7 '46

Steel rails for bank protection on Salinas river, California. H. F. Cozzens. il Civil Eng 16:113-15 Mr '46

$2 billion program begun on Missouri River basin. Eng N 136:527+ Ap 18 '46

Utilization of rivers in the public interest. W. W. Horner. Am Water Works Assn J 38:878-82 Jl '46

Yangtze River dam project. il Engineer 182: 294-5 O 4 '46

Yellow River project (China) being rushed. For Comm W 23:21 My 11 '46

See also

Central Valley project, California
Dams
Levees
Mississippi river—Flood control projects
Pipe lines—Damage from floods
Rivers—Bank protection
Rivers—Regulation

Cost

Bids received on several flood control and irrigation projects for early start. Eng N 136:749+ My 9 '46

Wall and appurtenant works, Portsmouth-New Boston, Ohio river; unit prices. Eng N 135:684 N 15 '45

FLOODS

Graphical solution for flood routing problems. H. M. Cheng. Civil Eng 16:126-8 Mr '46

See also

Bridges—Damage from floods, etc.
Flood control
Pipe lines—Damage from floods
Railroads—Damage from floods, storms, etc.
Rain and rainfall
Roads—Damage from floods, etc.
Run-off

Cincinnati

Six of the world's largest pumps protect Cincinnati against floods. il diags Power 90:511-13 Ag '46

New England

Flood flow formulas. H. B. Kinnison. Boston Soc C E J 33:1-19; Discussion (Applications of the Kinnison-Colby flood formulas). B. L. Bigwood. 3 fold pls 20-8 Ja '46

United States

Disaster; relief work of the American national Red cross. C. F. Rupprecht. il map Spectator (Life ed) 153:56-63+ N '45; Same. Spectator (Property ed) 11:10-15+ D 20 '45

Role of the lower tributaries in the Missouri Valley plan. H. W. Wood, jr. maps Civil Eng 16:118-19 Mr '46

FLOOR cleaning

Floor oils and sweeping compounds. M. A. Lesser. bibliog Soap & San Chem 22:32-5 Ja '46

FLOOR coverings

Infrared removes floor covering. il Bus Transportation 25:65 Jl '46

Progress, 1926-1946; floors, coverings. il Am Bld 68:116-17 O '46

See also

Rugs

Testing

New machine for measuring wear resistance of walkway materials. A. W. Cizek, jr. and others. il Am Soc T M Proc 45:943-51 '45

FLOOR oils

Floor oils and sweeping compounds. M. A. Lesser. bibliog Soap & San Chem 22:32-5 Ja '46

FLOOR wax

Liquid floor waxes. E. G. Thomssen. Soap & San Chem 22:75+ My '46

Veeco and Waxoff, floor wax removers. Consumers Res Bul 17:26 Je '46

Which floor wax? R. Jarden. diag Soap & San Chem 22:122-3+ S '46

FLOORING

TVA develops process for making flooring from culls. Eng N 135:889 D 27 '45

TVA flooring; cull hardwoods used in laminated product. il Bsns W p58+ D 15 '45

FLOORS

Acoustic ratings of floor types; time saver standards. diags Arch Rec 99:125+ My '46

Floors; lumber and concrete, precast and poured. il diags Arch Forum 85:119 Jl '46

Heat loss through floors of basementless buildings; reference data. diags Heat & Ven 43:88a-88b Ja '46

New machine for measuring wear resistance of walkway materials. A. W. Cizek, jr. and others. il Am Soc T M Proc 45:943-51 '45

Progress, 1926-1946; floors, coverings. il Am Bld 68:116-17 O '46

Radiant heating under hardwood floor. il Heat & Ven 43:88 Ap '46

Reflective insulation under wooden floors. Heat & Ven 43:75 Je '46

Theater auditorium floor slopes; time saver standards. Arch Rec 99:129 Je '46

Thermoplastic binder for floor tiles. il Mod Plastics 23:110-11 Ag '46

FLOORS—*Continued*
Tile floors in farm buildings. diags Brick & Clay Rec 107:28 D '45
Under floor condensation causes decay of wood. il Heat & Ven 43:91 F '46
See also
Bridges—Floors
Factories—Floors
Food factories—Floors

Anti-slip surfaces
Friction has its uses; keeping it underfoot is a perpetual problem. il Nat Safety N 52: 25+ N '45
Lathe for indenting floor plate rolls. S. Koffsky. il diags Steel 118:88-91+ Mr 11 '46
Non-skid paint used to reduce accidents; abstract. F. R. McLean. Nat Pet N 38:36 Jl 31 '46

FLOORS, Concrete
Arena floor is insulated with mascrete; Boston arena. C. Stiles. il Concrete 54:22-3 Ap '46
Designing the proper concrete floors for the food plant. R. D. Rader. il diags Food Ind 18:1026-30+ Jl '46
Improved floor construction for radiant heating systems. J. E. Peterson. diag Heating-Piping 18:73-6 Jl '46; Discussion. 18:98 S '46
Minimum standard requirements for precast concrete floor units (ACI 711-46). diags Am Concrete Inst J 18:133-46 O '46
New plant built to meet big demand for floor and roof slabs; Cities fuel & supply co. R. S. Torgerson. il diag Rock Prod 49:129+ S '46
New techniques in radiant heated floors. il Elec West 97:75-6 Ag '46
Panel heating installed in concrete floors. il Elec World 126:146 S 14 '46
Proposed minimum standard requirements for precast concrete floor units; reported by ACI committee 711. diags Am Concrete Inst J 17:245-58 Ja '46
Why slab-bank floors are economical. F. N. Severud. il diags Eng N 137:526-8 O 17 '46

Testing
Wear resistance tests on concrete floors and methods of dust prevention. G. Wästlund and A. Eriksson. bibliog il diag Am Concrete Inst J 18:181-99 O '46

FLOORS, Steel
Lathe for indenting floor plate rolls. S. Koffsky. il diags Steel 118:88-91+ Mr 11 '46
Laying steel floor plates the right way. C. P. Closkey. il Factory Management 104:110 Ap '46
Steel floor plates resist heavy trucking wear; Wickwire Spencer steel co. J. A. Finneran. il Factory Management 103:155 D '45

FLORENCE, Fred Farrel, 1891-
Portrait. Bsns W p21 O 26 '46

FLORIDA
Florida; agricultural, vacation and industrial state. il Comm & Fin Chr 163:393-412 Ja 24 '46
Group of four Florida agencies to handle state's ad budget. Ptr Ink 213:128 N 23 '45
See also
Agriculture—Florida
Petroleum—Florida

Industries and resources
Florida, a united state. L. K. Thomson. Comm & Fin Chr 163:972+ F 21 '46
Florida's bright industrial future. A. W. Higgins. il Comm & Fin Chr 163:396+ Ja 24 '46

Sanitary affairs
Florida polio study. M. Byrne. il Dom Eng 168:118-19 O '46

FLORIDA east coast railway
Examiner of ICC decides against plan; favors control by paper company. Comm & Fin Chr 164:7 Jl 1 '46
Reorganization plan filed by ACL. Comm & Fin Chr 162:2270 N 12 '45

FLORIDA Everglades. See Everglades

FLORIDA public utilities company
Preferred stock offered. Comm & Fin Chr 163:1157 Mr 4 '46

FLORIGEL. See Fullers' earth

FLORISTS
Florist industry alert to change. D. V. Knibb. il Dom Comm 34:24-5 F '46
Florists' telegraph delivery goes world-wide. il Ptr Ink 214:116 Mr 15 '46
Little landscapes put these florists into a new business; Podesta and Baldocchi, San Francisco. il Sales Management 56:136+ Mr 15 '46

Advertising
Shorthand ad copy proves effective for Max Schling. Ptr Ink 216:110 S 6 '46

FLORISTS' shops
Flower shop provides display spaces inside and out. il plan Arch Forum 85:141 O '46

FLOTATION agents
Chemical view of flotation processes. J. A. Barr, jr. flow sheet il diags Rock Prod 49: 92-4 O '46

FLOTATION machines
Flotation machine for the non-metallics industry. J. A. Barr, jr. il diags Rock Prod 49:71-5 S '46
How efficient is a flotation machine? A. W. Fahrenwald. diag Eng & Min J 145:82+ Ja '44; Discussion (Flotation machine efficiency; a differing viewpoint). K. L. Sutherland. 147:84 My '46
Whales survived, but dinosaurs didn't; trend toward big flotation machines might well be reappraised. E. H. Rose. Eng & Min J 147:82-3 Je '46; Discussion (Stay with it, squares). R. H. Ramsey. 147:75 Jl '46

FLOTATION plants
Rubber-lined pipe resists abrasion in mill circuits. J. Casale. Eng & Min J 146:100-1 D '45

FLOTATION process
Discriminating particles and working bubbles; flotation process. A. M. Gaudin. il Tech R 48:491-4+ Je '46
Fine-grinding and concentration at Climax. E. J. Duggan. flow sheets il Min & Met 27:323-9 Je '46
Flotation. F. D. DeVaney. bibliog Ind & Eng Chem 38:20-1+ Ja '46
Improving flotation of non-sulphide minerals; study of relationship of crystal structure. A. M. Gaudin. diags Eng & Min J 146:91-5+ D '45
Making tin flotation work; Bolivian ores. A. M. Gaudin and others. bibliog flow sheet il diag Eng & Min J 147:54-9 O; 72-4 N '46 (to be cont)
New flotation technique in copper-lead separation; San Francisco mines of Mexico, ltd. G. O. Deshler and T. R. Herndon. il diag Eng & Min J 147:67-9 My '46
Studies on the flotation of spodumene from the Edison mine, Keystone, South Dakota. G. A. Munson and K. L. Erickson. bibliog pl U S Bur Mines Rep of Invest 3892:1-8 '46
See also
Flotation machines

FLOTATION process (non-metals)
Froth flotation. J. A. Barr, jr. flow sheets il diags Rock Prod 49:65-7+ Jl; 128-32 Ag; 71-5 S; 92-4 O '46

FLOUR
Flour rule stands; 80% order. Bsns W p17 Mr 9 '46
New flour requires some baking adjustments. R. T. Bohn. il Food Ind 18:492-3+ Ap '46
Nutritive value of wheat flour proteins. H. C. H. Graves. bibliog Chem & Ind p261-3 Jl 13 '46
Residues in wheat flour fumigated with methyl bromide. S. E. Lewis and K. Eccleston. bibliog Soc Chem Ind J 65:149-52 My '46
Vitamin-B_1 in fortified and natural high vitamin flours. J. J. C. Hinton. bibliog Chem & Ind p94-7 Mr 2 '46
See also
Corn flour
Popcorn flour
Potato flour
Soybean flour

Analysis
Adsorption of aneurin (vitamin B_1) on sand. H. N. Ridyard. bibliog diag Soc Chem Ind J 65:92-5 Mr '46

FLOUR—*Continued*

Manufacture

Development of flour milling; abstract. C. H. Bailey. Chem & Eng N 24:1059 Ap 25 '46
Flour mills go to "80"; mandatory for millers. D. B. Pratt, jr. il Food Ind 18:494-5+ Ap '46
Treatment of sulphate-reducing bacteria in a flour mill. E. C. Barton-Wright. Soc Chem Ind J 64:295 O '45

Testing

New routine tests in examining wheaten products. A. J. Amos. Chem & Ind p372-3 O 12 '46

FLOUR bags. See Cotton bags

FLOUR mills

DDT in flour mills; abstract. Soap & San Chem 22:157 Ap '46

Electric equipment

Flour-mill electrification. il Engineering 161: 199-201 Mr 1 '46; Abstract. Electrician 136: 159-60 Ja 18 '46

FLOUR trade

Fixed flour sizes; a simplification achievement. W. F. Janssen. il map Mod Packaging 19:96-7+ D '45
Flour incognito; millers will withdraw advertised brand names for duration of emergency requiring 80% use of wheat. Bsns W p87 F 23 '46
Impact of grain restrictions on various industries. G. W. Mathis. Mag of Wall St 78: 26-8 Ap 13 '46
Trademark tests; Pillsbury's Golden Bake Mix and General Mills' Cheerioats. Bsns W p90 D 15 '45

See also
General Mills, inc.

Cuba

Cuban flour consumption. For Comm W 23: 42 My 25 '46

FLOW. See Fluidity; Fluids; Rheology

FLOW meters

Akron V-notch liquid recorder. il diag Water & Sewage 84:32 Ja '46
Ammonia scrubbers controlled by simple flowmeter. F. Gibadlo. diag Chem Eng 53: 127-8 Ag '46
Concentric orifices. D. R. Taylor. bibliog diag Water & Sewage Works 93:129-36 Ap '46
Estimate factors increase efficiency of chart computation. Oil & Gas J 44:323 D 29 '45
Flow measurement and a new temperature time cycle controller. R. H. Munch. il Ind & Eng Chem 38:sup75-6 Je '46
How to use metering characteristics of steam jet ejectors. P. Freneau. diag Chem & Met Eng 53:104-7 Je '46
Low-resistance valve and indicating flowmeter for respiratory measurements. L. Silverman and R. C. Lee. bibliog diags Science 103:537-9 Ap 26 '46
New direct reading meter for air flow measurements. L. Silverman and L. Epstein. il diags Heating-Piping 18:100-4 My '46
Orifice meter in natural gasoline measurement; with simplified calculation charts. R. W. Weeks. bibliog Pet Refiner 25:135-9 Ap '46
Pipe line metering. W. H. Marsh. il Pet Eng 17:196 Mr '46
Reducing mercury losses in flow meter operations. J. P. Squier. diag Oil & Gas J 45:79 Ag 10 '46
Selection and application of refinery instruments. A. Krieg. diags Pet Eng 17:164+ Ap '46
Selection, installation and maintenance of refinery process control instruments. E. Bainbridge. diags Pet Refiner 25:101-5 Mr '46
12 helpful ideas on flow meters to aid efficiency in fuel economy. diags Heating-Piping 17:625-7 D '45

See also
Current meters
Gas meters
Orifice meters
Pitometers
Rotameters
Water meters

Testing

Compact, accurate manometer for high differentials. L. J. Rowell. il diags Power Pl Eng 50:58-60 Ap '46
Portable 3-fluid U-tube stand speeds flowmeter testing. E. P. Prahl. il diag Power 90:523-5 Ag '46

FLOW of gas. See Air flow; Gas flow

FLOW of metals. See Metals—Fluidity

FLOW of water. See Water flow

FLOW regulators

Change-over switch for pipe systems. il Engineer 182:18 Jl 5 '46

FLOW sheets

Flexible flowsheet treats varying lead-zinc ore; Mammoth-St Anthony, ltd. C. E. Craven. il Eng & Min J 146:85-9 N '45
Flow sheets in pulp and paper mill design. E. T. Jones. flow diag Paper Ind 28:224-5 My '46

FLOWER shops. See Florists' shops

FLOWERS

Transportation

Flowers by air in eye appeal packages. il Mod Packaging 19:100-3 Ja '46
Mystery of the missing payload; how the Flying Tigers solved it. il Sales Management 56:76+ Je 15 '46

FLUE dust

Fly-ash removal; electrostatic precipitator. Blast F & Steel Pl 34:264 F '46
How faulty operating methods increase pollution of city air. F. A. Chambers. Heating-Piping 18:109-10 Ja '46
Labor saving devices in the open hearth shop; slag and flue dust removal. B. D. McCarthy. il Steel 118:122+ Ap 8 '46
Multiclone units recover converter dust successfully; McGill smelting plant. L. Larson. il diags Eng & Min J 147:71-4 Ja '46
New lightweight aggregate from fly ash and slag. R. F. Leftwich. plan Concrete 54:14-15+ Ja '46
Wedge-type collectors used at Conners Creek. H. E. Macomber. il Elec World 125: 75 Mr 30 '46

See also
Smelter fumes

Analysis

Lead in smelter products; a rapid polarographic method. W. Hered and G. R. Hered. bibliog diag Ind & Eng Chem Anal ed 17: 780-1 D '45

FLUE gas

Charts shorten time to calculate flue-gas moisture and volume. H. Richardson. Power 90:532-3 Ag '46
Dividends from furnace draft. R. Reed. il plan Oil & Gas J 45:80+ S 14 '46
How Seagram integrates two new power plants with spray driers; flue gas supplies heat. il plans diags Power Pl Eng 50:58-63+ Mr '46
Stack losses from wood fuel; charts. E. C. Willey. Heat & Ven 42:67 N '45
Sulfur in manufactured gas; its effect upon dew point of flue products. W. Buckley. bibliog Am Gas Assn Mo 28:403-6 S '46
Waste heat boilers; abstract. W. Gregson. diag Gas J (Lond) 247:227-8 F 6 '46
What is the temperature of your chimney gas? W. F. Schaphorst. Am Gas J 164:38 Ap '46

See also
Smelter fumes

Analysis

Analyses of mixtures of light gases by infrared absorption. N. D. Coggeshall and E. L. Saier. bibliog il diag J Ap Phys 17: 450-6 Je '46
Combustion control; Cities Service heat prover. il diag Steel 117:134+ D 10 '45
How to test your kiln for sulphur. M. J. Bozsin. Brick & Clay Rec 109:50+ Ag '46

FLUES

Cleaning flues and tubes. S. F. Wentz. il diags Ry Mech Eng 119:594-6 D '45

FLUIDITY
Atmospheric oxidation of cellulose in presence of reduced vat dyes; preparation of cuprammonium solution for fluidity determination using cuprous oxide. J. Brear and H. A. Turner. Soc Dyers & Col J 61:277-8 N '45
Rapid test for fluidity measurement. G. B. Taylor. il diags Iron Age 157:62-3 Ap 11 '46

See also
Viscosity

FLUIDIZATION
Unit operations and equipment; fluidized solids. Chem & Met Eng 53:140 F '46

FLUIDS
Application of the differential manometer to the measurement of fluid density and specific gravity with special reference to temperature effects. R. D. Cowherd. diags Paper Tr J 123:33-40 O 3 '46
Fluid dynamics. W. W. Kraft. bibliog Ind & Eng Chem 38:6-7+ Ja '46
Fluid flow through granular materials; abstract. A. R. Morcom. Chem & Ind p142 Mr 30 '46
Investigation of factors that affect fluid flow in porous media. R. Sneddon. il Pet Eng 17: 55-8 Ja '46
Material or heat transfer between a granular solid and flowing fluid; present status of the theory. E. W. Thiele. bibliog Ind & Eng Chem 38:646-50 Je '46
Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. 71:1141-7, 1415-24 S, N '45
Methods of producing uniform velocity distribution. R. L. Stoker. diags Ind & Eng Chem 38:622-4 Je '46
Phase changes of Bose-Einstein fluid models. L. Goldstein. bibliog J Chem Phys 14:276-82 Ap '46
Practical petroleum engineering; fluid flow; graphic solutions of design problems (cont). P. Buthod and B. W. Whiteley. bibliog charts Oil & Gas J 44:76-7+ D 1; 92-3+ D 8; 112-14; D 15; 70-2 D 22; 305-8 D 29 '45; 74-6 Ja 5 '46
Study of surging in fan or compressor systems. R. C. Binder. bibliog Franklin Inst J 241:125-36 F '46
Two-phase, two-component flow in the viscous region. R. C. Martinelli, J. A. Putnam and R. W. Lockhart. diag Am Inst Chem Eng Trans 42:681-702; Discussion. 702-5 Ag '46
Universal chart gives speedy answers to problems in fluid flow. C. W. Woodman. Power 90:297-9 My '46
Velocity in shell of exchanger. W. L. Nelson. bibliog diags Oil & Gas J 44:62+ F 2 '46

See also
Aerodynamics
Air flow
Equation of state
Flow meters
Fluidity
Gas flow
Gases
Hydraulics
Hydrodynamics
Liquids
Vapors
Viscosity
Water flow

FLUMES
Flume crosses canyon on a rigid frame; aqueduct crossing, Crooked river, Oregon. il diags Eng N 137:448-9 O 3 '46
Long settling flume recovers fines; Northville sand and gravel company. il Rock Prod 49:82 Ap '46
Some problems and considerations in open channel flow measurement. R. E. Sprenkle. il diags Water Works & Sewerage 92:345-9 N '45
Use conical settling tanks and special flume; Consumers sand and gravel co. flow sheet il Rock Prod 49:62-3 Mr '46

FLUORENE
Anomalous reaction between ammonia and 9-chlorofluorene; substitution of the labile hydrogen in fluorene derivatives. L. A. Pinck and G. E. Hilbert. bibliog Am Chem Soc J 68:377-80 Mr '46
Behavior of certain fluorene compounds containing trivalent carbon and tetravalent nitrogen. L. A. Pinck and G. E. Hilbert. Am Chem Soc J 68:2011-13 O '46
Electrolyte catalysis in the ammonolysis of 9-phenyl-9-chlorofluorene by liquid ammonia, alkaline-earth nitrates. W. F. Roper, R. C. Anderson and G. W. Watt. Am Chem Soc J 67:2269-70 D '45
Michael condensation of fluorene with unsaturated compounds. L. A. Pinck and G. E. Hilbert. bibliog Am Chem Soc J 68.2014-17 O '46
Reaction of diazofluorene with 9-substituted fluorene derivatives. L. A. Pinck and G. E. Hilbert. Am Chem Soc J 68:867-8 My '46

FLUORENE compounds

See also
Teflon

FLUORENE dimethyl sulfide
Molecular rearrangement of fluorylidene dimethyl sulfide to fluorene-1-dimethyl sulfide. L. A. Pinck and G. E. Hilbert. Am Chem Soc J 68:751-3 My '46

FLUORENONE
Alkaline hydrolysis of fluorenone-spirohydantoin. G. H. Harris, B. R. Harriman and K. W. Wheeler. bibliog Am Chem Soc J 68:846-8 My '46
New syntheses of heterocyclic compounds; Schmidt rearrangement of 1 : 3-dimethyl-2-azafluorenone. V. A. Petrow. Chem Soc J p200-3, 888-91 Mr, O '46

FLUORESCENCE
Changes in stored dried eggs; source of fluorescence. H. S. Olcott and H. J. Dutton. bibliog Ind & Eng Chem 37:1119-21 N '45
Colorimetry of fluorescent samples. I. H. Godlove. Am Dyestuff Rep 35:390-3 Ag 12 '46
Dehydrated egg powders; relation of lipide and salt-water fluorescence values to palatability. M. M. Boggs and others. bibliog Ind & Eng Chem 38:1082-4 O '46
Determination of carotenoids and lipid amine-aldehyde products in dehydrated egg. H. J. Dutton and B. G. Edwards. bibliog Ind & Eng Chem Anal ed 18:38-41 Ja '46
Fading of groundwood by light; inhibition of fading through the use of ultraviolet absorbing compounds. P. A. Nolan. Paper Tr J 121:35-9 D 6 '45
Fluorescence and photochemistry of glass. W. A. Weyl. Glass Ind 27:395-7 Ag '46
Fluorescence of drinking waters as evidence of sewage pollution. R. A. McLean and M. L. Speas. bibliog Am Water Works Assn J 38:355-60 Mr '46
Fluorescence of phosphors in rare gases. N. C. Beese. Opt Soc Am J 36:493-7 S '46
Fluorescence of radium burns. J. De Ment. Science 103:631 My 17 '46
Fluorochemistry of uranium. J. De Ment. bibliog il J Chem Educ 23:213-19 My '46
Locating uranium with the ultraviolet lamp. J. DeMent. bibliog il Min Cong J 32:26-30 My '46
Phytofluene; isolation from canned tomato paste. L. Zechmeister and A. Sandoval. bibliog Am Chem Soc J 68:197-201 F '46
Principles and uses of luminescent, fluorescent and phosphorescent materials. M. Harwood. Rayon 27:265-6 My '46
Quantitative differentiation of minute amounts of the coproporphyrin isomers (I and III) based on fluorescence behavior. S. Schwartz and others. Science 103:338-40 Mr 15 '46
Theory of diffusion controlled reactions with application to the quenching of fluorescence. E. W. Montroll. bibliog J Chem Phys 14:202-11 Mr '46
Use of color and fluorescence indicators for determining the structure of glasses. W. A. Weyl. J Ap Phys 17:628-39 Jl '46

See also
Glass—Fluorescence
Luminescence

FLUORESCENT lamps. See Electric lamps, Fluorescent

FLUORESCENT lighting. See Electric lamps, Fluorescent

FLUORIDE poisoning
Fluoride fumes cloud Ford labor picture; strike looms. il Iron Age 158:106 N 7 '46

FLUORIDES
Atmospheric concentrations of fluorides in aluminum reduction plants. C. D. Yaffe. il J Ind Hygiene 28:29-31 Mr '46

FLUORIDES—*Continued*
Binding agents for flux coatings, their composition and production. W. Andrews. Welding J 24:1152-4 D '45
Directed chlorination of aliphatic fluorides. A. L. Henne, J. B. Hinkamp and W. J. Zimmerschied. bibliog Am Chem Soc J 67:1906-8 N '45
See also
Carbamyl fluoride

FLUORINATION
Fluorinated derivatives of propane and propylene. A. L. Henne and T. P. Waalkes. bibliog Am Chem Soc J 68:496-7 Mr '46

FLUORINE
Action of fluorine and fluorides on wool; abstract. R. F. Hudson and P. Alexander. Am Dyestuff Rep 35:455 S 23 '46
Active refrigeration, lubrication, and vapor boiler component in pure state on market for first time. Heat & Ven 43:109 Ag '46
Advances in fluorine chemistry; A.C.S. symposium. Chem & Eng N 24:2461-2 S 25 '46
Chemistry opens up new fields. Barron's 26: 25 S 16 '46
Elemental fluorine on market. Chem Ind 59: 304 Ag '46
F. F. H. Moissan (1852-1907) and the isolation of fluorine (1886). K. R. Webb. bibliog diag Chem & Ind p306-8 Ag 17 '46
Fluorine developments released; illustrations. Chem & Eng N 24:2360-1 S 10 '46
Fluorine production paves way for new chemical industry. R. W. Porter. il diags Chem & Met Eng 53:106-8 Jl '46; Same abr. Chem Age (Lond) 55:231-3 Ag 24 '46
Fluorine ready; limited quantities released for experimental use. il Bsns W p60+ Je 29 '46
Fused tricalcium phosphate fertilizer; possible animal feed supplement. D. E. Williams and others. bibliog Ind & Eng Chem 38:651-4 Je '46
Future of fluorine. il Chem & Eng N 24:1948 Jl 25 '46
Pure fluorine gas. il Chem & Met Eng 53: 153 Jl '46
Thermal defluorination of superphosphate. E. J. Fox and others. bibliog Ind & Eng Chem 38:329-34 Mr '46
See also
Water supply—Fluorine content

Analysis
Multiple still for use in the Willard-Winter separation of fluorine. H. V. Churchill. il Ind & Eng Chem Anal ed 17:720-1 N '45

FLUORINE compounds
Fluorinated derivatives of propane and propylene. A. L. Henne and T. P. Waalkes. bibliog Am Chem Soc J 68:496-7 Mr '46
Fluorine compounds, recent work in the U.S. and Germany. Chem Age (Lond) 54:214 F 23 '46
Fluorine production paves way for new chemical industry. R. W. Porter. il diags Chem & Met Eng 53:106-8 Jl '46; Same abr. Chem Age (Lond) 55:231-3 Ag 24 '46
Fluorocarbon bromides. T. J. Brice, W. H. Pearlson and J. H. Simons. bibliog Am Chem Soc J 68:968 Je '46
German chemical industries; new liquid incendiary agent. Chem & Met Eng 52:184+ D '45
Pressor amines containing nuclear chlorine and fluorine. L. S. Fosdick, O. Fancher and K. F. Urbach. bibliog Am Chem Soc J 68:840-3 My '46
Some compounds containing the trifluoromethyl group. H. Gilman and others. bibliog Am Chem Soc J 68:426-8 Mr '46
Vinyl aromatic compounds; fluorinated derivatives. M. W. Renoll. bibliog Am Chem Soc J 68:1159-61 Jl '46

Analysis
Organic fluorine compounds; Russian method of analysis described. N. S. Nikolaev. bibliog Chem Age (Lond) 54:309-11 Mr 23 '46

FLUORITE. See Fluorspar

FLUOROACETIC acid
Natural occurrence of fluoroacetic acid, the acid of the new rodenticide 1080. C. W. Klingensmith. Science 102:622-3 D 14 '45

FLUOROBENZENE
Absorption spectrum of fluorobenzene in the near ultraviolet. S. H. Wollman. il J Chem Phys 14:123-30 Mr '46

FLUOROBORATES
Diazonium borofluorides; a study of arylcopper complexes. W. M. Whaley and E. B. Starkey. bibliog Am Chem Soc J 68:793-5 My '46

FLUOROCARBONS
Determination of hydrogen in highly fluorinated carbon compounds. W. H. Pearlson, T. J. Brice and J. H. Simons. diag Ind & Eng Chem Anal ed 18:330-1 My '46
Fluorine and fluorocarbons. Can Chem & Process Ind 30:47 S '46

FLUOROMETRIC analysis
Determination of beryllium in ores; fluorometric method. M. H. Fletcher, C. E. White and M. S. Sheftel. bibliog diags Ind & Eng Chem Anal ed 18:179-83 Mr '46
Determination of carotenoids and lipid amine-aldehyde products in dehydrated egg. H. J. Dutton and B. G. Edwards. bibliog Ind & Eng Chem Anal ed 18:38-41 Ja '46
Excessively high riboflavin retention during braising of beef; comparison of methods of assay. W. F. Hinman and others. bibliog Ind & Eng Chem Anal ed 18:296-301 My '46
Fluorochemistry of uranium. J. De Ment. bibliog il J Chem Educ 23:213-19 My '46
Fluorometric attachment for the Beckman spectrophotometer. M. H. Fletcher, C. E. White and M. S. Sheftel. diags Ind & Eng Chem Anal ed 18:204-5 Mr '46
Fluorometric determination of aluminum in steels, bronzes, and minerals. A. Weissler and C. E. White. bibliog Ind & Eng Chem Anal ed 18:530-4 S '46
Fluorometric determination of nicotinamide. J. V. Scudi. bibliog Science 103:567 My 3 '46
Spectrophotometric and fluorometric measurement of changes in lipides. H. J. Dutton and B. G. Edwards. bibliog Ind & Eng Chem 37:1123-6 N '45
Use of enzyme in riboflavin determination; E. Lerner and H. J. Cannon. bibliog Ind & free and combined riboflavin. L. Rosner, Eng Chem Anal ed 17:778-9 D '45

FLUOROPHENOLS
Polymeric compounds formed by the decomposition of 2,4,6-tribromo-3-fluorophenol bromide and the sodium salt of 2,4,6-tribromo-3-fluorophenol. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 68:397-400 Mr '46

FLUOROSCOPY
Aircraft quality castings; use of radiography and fluoroscopy; Northrop aircraft inc. T. E. Piper. il diags Foundry 74:96-101+ Je '46; Same cond. Iron Age 157:46-9 My 2 '46
Fluoroscopy of light-alloy castings. B. Cassen and D. S. Clark. il diag Iron Age 156:54-9 N 1 '45; 157:48-50 Ap 18 '46; Same cond (pt 1). Automotive & Aviation Ind 94:26-30+ Ja 1 '46
Non-destructive testing methods; fluoroscopic inspection. R. Le Grand. il diags Am Mach 90:124-7 My 23 '46

FLUOROSILICATES
Alkyl fluorosilicates. D. F. Peppard, W. G. Brown and W. C. Johnson. Am Chem Soc J 68:76-7 Ja '46

FLUOROSTYRENE
Vinyl aromatic compounds; fluorinated derivatives. M. W. Renoll. bibliog Am Chem Soc J 68:1159-61 Jl '46

FLUOROTYROSINE
Toxicity of 3-fluoro-*d*(+)- and *l*(-)-tyrosine. C. Niemann and M. M. Rapport. Am Chem Soc J 68:1671-2 Ag '46

FLUORSPAR
Concentration of fluorite for Metals reserve company stock piles. M. M. Fine and others. 2pls U S Bur Mines Rep of Invest 3893:1-13 '46
Exploration of Eagle Mountain fluorspar deposits, Hudspeth county, Tex. W. E. Dennis. 4pls U S Bur Mines Rep of Invest 3878:1-11 '46
Exploration of Gallinas fluorspar deposits, Lincoln county, N. Mex. J. H. Soulé. U S Bur Mines Rep of Invest 3854:1-25, pl 1-7 '46

FLUORSPAR—*Continued*
Exploration of the Bear Lodge fluorite property, Crook county, Wyo. W. C. Dunham. U S Bur Mines Rep of Invest 3877:1-7, pl 1-5 '46
Exploration of the Packard fluorspar property, Gila county, Ariz. J. B. Cummings. U S Bur Mines Rep of Invest 3880:1-7, pl 1-6 '46
Exploration of the White Eagle fluorspar mine, Cooks Peak mining district, Grant county, N. Mex. J. H. Soulé. 3pls U S Bur Mines Rep of Invest 3903:1-5 '46
Filtration technique for fluorspar concentrates. Chem & Met Eng 53:165 F '46
Fluorspar reserves in Illinois gravely affected during war; other minerals; abstract. M. M. Leighton. Iron Age 157:124 F 28 '46
Study of fault determinations by geophysical methods in the fluorspar areas of western Kentucky. F. W. Lee and S. J. Hemberger. bibliog 36pls U S Bur Mines Rep of Invest 3889:1-27 '46

FLUORYLIDENE dimethyl sulfide
Molecular rearrangement of fluorylidene dimethyl sulfide to fluorene-1-dimethyl sulfide. L. A. Pinck and G. E. Hilbert. Am Chem Soc J 68:751-3 My '46

FLUSHING, Long Island
Model retail center planned for Flushing. il Bsns W p20 Ag 17 '46

FLUX
Binding agents for flux coatings, their composition and production. W. Andrews. Welding J 24:1147-54 D '45
Fluxing molten aluminum with dry nitrogen. P. M. Hulme. il Materials & Methods 22: 1435-8 N '45
Hot-dip galvanizing practice; principles of fluxing. W. H. Spowers, jr. il plan Steel 119:74+ S 30; 134+ O 7 '46
Welding fluxes for magnesium. Iron Age 156: 71 N 22 '45
Why not lead-fluxed porcelain enamel? Cer Ind 46:69-70 F '46

FLUX, Magnetic. See Magnetic flux

FLUXMETER
Fluxmeter method of measurement. H. A. Miller. diags Electrician 136:1577-9 Je 14 '46
Marion direct-reading fluxmeter. il R Sci Instr 17:41 Ja '46

FLY. See Flies

FLY ash. See Flue dust

FLY fishing. See Fishing

FLY rods. See Fishing tackle

FLY sprays and repellents
Aerosol formulation; laboratory tests with pyrethrum and DDT aerosols against the common malaria mosquito and the housefly. A. W. Lindquist and others. il Soap & San Chem 12:135+ My '46
Aerosol toxicity; effect of the nonvolatile content of a DDT aerosol on mortality of houseflies. J. H. Fales and others. Soap & San Chem 22:157-8 Je '46
Concentrated sprays tested for utility in control of flies and mosquitoes. H. O. Schraeder and others. Soap & San Chem 22:145+ Ap '46
Debunking a color theory; tests of colored wrappers and foils as fly repellents. A. Harsham. il Food Ind 18:851+ Je '46
Determination of pyrethrins deterioration; solubility in dichlorodifluoromethane. W. A. Gersdorff and W. F. Berthel. Soap & San Chem 22:155+ O '46
Effect of fly food on resistance to insecticides containing DDT or pyrethrum. E. R. McGowan and W. A. Gersdorff. Soap & San Chem 21:165+ D '45
Using DDT for fly control. L. A. Sandholzer and J. M. Lemon. il diags Food Ind 18:860-3+ Je '46; Discussion. 18:1301 Ag '46
See also
Cattle fly sprays
Live stock sprays

FLYING boats
Application of basic data on planing surfaces to the design of flying-boat hulls. W. S. Diehl. diags U S Nat Advisory Com for Aeronautics 1940:287-93 '41
Flying boat dock; turntable ramp developed by V. Marianno. il Air Transport 4:98 Ja '46
Flying boats. C. H. Schildhauer. il map Aeronautical Eng R 5:5-9+ Mr '46
Radio-controlled dynamic model augments hydrodynamic research. E. G. Stout. il Aviation 45:171-3 F '46
Spratt flying boat has simple prop. il Aviation N 4:20 D 17 '45

Take-off
Calculated effect of various hydrodynamic and aerodynamic factors on the take-off of a large flying boat. R. E. Olson and J. M. Allison. bibliog diags U S Nat Advisory Com for Aeronautics 1940:497-512 '41

FLYING clubs. See Aviation—Clubs

FLYING clubs, National association of. See National association of flying clubs

FLYING machines
See also
Airplanes
Flying boats
Gliders
Helicopters

FLYING store. See Exhibits, Traveling

FLYING wing airplanes. See Airplanes, Flying wing

FLYWHEELS
Calculations for engine flywheel. A. H. Moulton. Power Pl Eng 50:105-6 Ag '46
Load equalisation; colliery winding equipment; flywheel set with Ward-Leonard control. G. Barnard. diags Elec R (Lond) 137: 754-6 N 23 '45

FOAM
Anti-foam agent. Chem & Eng N 24:1260+ My 10 '46; Chem & Met Eng 53:169 My '46
Foam in the pulp and paper industry. E. P. McGinn. bibliog il Paper Ind 27:1368-9+ D '45
Foaming volume and foam stability. S. Ross. bibliog J Phys Chem 50:391-401 S '46

FOAMEX. See Rubber, Sponge

FOAMSLAG
New foamslag slab factory; Glasgow corporation's experiment. Chem Age (Lond) 55:229-30 Ag 24 '46

FOG
Approach and runway lighting for adverse weather conditions. G. M. Kevern. diags Illum Eng 41:455-73 Je '46
Centenary of the Imperial college; development of fog dispersal equipment. il Engineering 160:437-8 N 30 '45
Electronic intercom system helps coal tugboats conquer river fog. il Min Cong J 31: 68 N '45
FIDO pressure test cuts operation cost; fog dispersal experiments. il Aviation N 6:11 O 7 '46
Navy proving base trying out all fog dispersing systems for military air bases. S. Bangs. il Aviation N 4:12 D 3 '45
Navy tests proving practicality of de-fogging devices for airfields. il Eng N 135:759 D 6 '45
New anti-fog device does well in test. S. Bangs. Aviation N 5:12-13 Ja 21 '46
Team work in research; flame throwers and fog dispersal. C. H. Lander. diags Engineer 180:354 N 2 '45; Same. Engineering 161: 33-4 Ja 11 '46

FOLDERS. See Advertising, Mail—Folders

FOLDING paper box association of America
Annual meeting, 12th, Chicago. Mod Packaging 19:112-13+ Ap '46

FOLIC acid
Activity of synthetic folic acid in purified rations for the chick. T. D. Luckey and others. bibliog Science 103:682-4 Je 7 '46
Folic acid takes its place in the vitamin B series. H. Gee. il Food Ind 18:1186-8+ Ag '46
Granulocytopenia and anemia in rats fed diets of low casein content. A. Kornberg and others. bibliog Science 103:646-8 My 24 '46
Growth response of tetrahymena geleii W to folic acid and to the streptococcus lactis R factor. G. W. Kidder and R. C. Fuller, 3d. bibliog Science 104:160 Ag 16 '46

FOLIC acid—*Continued*
Mechanism of action of folic acid and liver extract in the treatment of anemia. J. E. Davis. Science 104:37 Jl 12 '46
Therapeutic effect of folic acid in tropical sprue. T. D. Spies and others. Science 104: 75-6 Jl 26 '46

FOLKLORE, Negro
Fewclothes (Dan Chains). W. S. Powell. Comp Air Mag 50:297-8 N '45

FOLLOW-up systems
Converting advertising inquiries into sales; Turco products, Los Angeles. H. Rorick. il Ind Marketing 31:40-1+ Ja '46
Distributor rates leads for manufacturers on thermometer; Patterson bros., New York. Ptr Ink 214:104 F 22 '46
How to cut servicing costs on inquiries. W. I. Brennan. il Ind Marketing 31:38+ S '46
How to follow leads that result from advertising; two check lists: 17 steps for processing inquiries; 26 things that follow-up letters can do. C. J. Swan. Ptr Ink 217:37-9 N 8 '46
Successful plans for following up prospects; mail, demonstration, personal calls, sampling or premiums. il Ptr Ink 217:56+ O 4 '46
Systematic direct mail follow-up gets maximum results. R. Stone. il Ind Marketing 30:40-1 N '45
To create prospects, show proper use of your product; educational work in schools and before organized groups. Ptr Ink 217: 89-90+ O 11 '46
What's become of advertising follow-through? H. Helm. Ptr Ink 216:29-31 Ag 23 '46

FONTANA dam. See Dams, Concrete

FOOD
Army appetizers; war-developed table products. Bsns W p86 F 23 '46
Does instinctive appetite correct science? B. D. Ingels. Food Ind 18:177 F '46
Food and phylogeny; abstract. C. S. Haynes. Chem & Ind p204 My 25 '46
Food purchases by city families in February 1945. Mo Labor R 62:297-301 F '46
Science and food; abstract and discussion. L. H. Lampitt. Chem & Ind p99 Mr 2 '46

See also
Airlines—Food service
Bakers and bakeries
Bread
Butter
Canned food
Cookery
Cornstarch
Cost of living
Dairy products
Diet
Drying (fruits and vegetables)
Eggs
Farm produce
Fish as food
Flavor
Flour
Food, Dried
Food, Frozen
Food preservation
Food supply
Fruit
Infants' food
Meat
Milk
Nutrition
Potatoes
Poultry
Restaurants
Sugar
Taste
Vegetables
Vitamins
Yeasts

Analysis
Amino acid composition of proteins. H. B. Vickery and H. T. Clarke. Science 102: 454-6 N 2 '45; Reply. R. J. Block and D. Bolling. 103:431-2 Ap 5 '46; Discussion (Amino acids in food materials. E. B. Hart). 103:432+ Ap 5 '46
Nutritive value of canned foods; comparison of vitamin values obtained by different methods of assay. N. B. Guerrant, M. G. Vavich and O. B. Fardig. bibliog Ind & Eng Chem Anal ed 17:710-13 N '45
Physical and chemical methods for moisture determination. D. W. Grover. bibliog Chem & Ind p365 O 5 '46
Use of enzyme in riboflavin determination; free and combined riboflavin. L. Rosner, E. Lerner and H. J. Cannon. bibliog Ind & Eng Chem Anal ed 17:778-9 D '45

Insect infestation
Action on certain insects of fabrics impregnated with D.D.T. H. Hayhurst. Soc Chem Ind J 64:296 O '45
Food plant sanitation is not just a chore. M. E. Parker. il Food Ind 18:332-6 Mr '46
Insect resistance of packages, paper, and paperboard; TAPPI suggested method T 473 sm-46. Paper Tr J 122:63-4 Ap 18 '46

Manufacture
Common ailments of quality in processed foods. C. W. Kaufman. il Food Ind 18:12-15 Ja '46
Electronic heat in the food industries. V. W. Sherman. il diags Food Ind 18:506-9+ Ap '46
Planning for clean flavor; 13 reports on causes of off-odors in foods and simple methods for curing the problem. J. A. Dunn. diags Food Ind 18:188-90+ F '46
Preserving product quality with new ingredients. C. F. Davis. il Food Ind 17:1462-4 D '45
Treatment of water for food manufacturing purposes; discussion of Food group. Chem & Ind p111-12 Mr 9 '46

See also
Drying (fruits and vegetables)
Food factories
Peeling machines

Moisture content
Physical and chemical methods for moisture determination. D. W. Grover. bibliog Chem & Ind p365 O 5 '46

Prices
All-out controls curb Canada's prices; Toronto and Buffalo food prices compared. Bsns W p16 O 19 '46
Cost of living and food prices in various countries, yearly 1929-1944; monthly Nov. 1944-Nov. 1945. Int Labour R 53:128-33 Ja-F '46 [cont quarterly]
Dun & Bradstreet weekly wholesale food price index, 1943 to date. Published in monthly numbers of Dun's statistical review; summary in Dun's review
Food supply and price considerations. P. S. Willis. Comm & Fin Chr 164:1537+ S 26 '46
Retail food prices, United States, Canada, United Kingdom, Germany, Netherlands, Switzerland, 1934-1944 and monthly, Nov. 1944-Nov. 1945. Fed Res Bul 32:105 Ja '46 [cont monthly]
Retail prices of food in October 1945. Mo Labor R 61:1226-31 D '45 (cont monthly)

Rationing
Let them eat grass? Fortune 33:85 My '46
Meat and butter rationing ends; sugar continues. Comm & Fin Chr 162:2619 N 29 '45
Return to rationing acceptable; Gallup poll. Iron Age 157:105+ My 2 '46

Spoilage
Control of microbiological food spoilage by fumigation with epoxides. R. Whelton and others. bibliog Food Ind 18:23-5, 174-6+ Ja-F '46

Standards
Are food identity standards assets or liabilities? F. N. Peters. il Food Ind 18:1180-2+ Ag '46

Storage
Control of microorganisms in food storage rooms. W. L. Mallmann and E. S. Churchill. Refrig Eng 51:523-8+ Je '46; Discussion. 52:143+ Ag '46
Refrigeration limitations, and aids; with pointers on use of bacterial lamps. A. W. Ewell. Refrig Eng 50:523-4+ D '45

Transportation
Flexible cooling for part loads; protected in transit by blankets and dry ice. map diags Food Ind 17:1464-5 D '45
Palletized food shipments; shipment of canned citrus juices for the armed forces. B. W. Skinner. il Food Ind 18:1020-1+ Jl '46
Refrigerated transport. P. B. Reed. il Refrig Eng 52:115-21+ Ag '46
Shipments of perishable foods by R.R. reported. Refrig Eng 51:556 Je '46
Top icing for perishable loads; crushed ice packing machines. il Food Ind 18:1202-3 Ag '46

See also
Refrigeration on cars, trucks, etc.

FOOD, Compressed
Peacetime food compression. C. A. Magoon and others. il Food Ind 18:362-4+ Mr '46

FOOD, Dried
Birdseye announces anhydrous foods: for canners, the jitters? il Sales Management 55: 135 D 1 '45
Common ailments of quality in processed foods. C. W. Kaufman. il Food Ind 18:12-15 Ja '46
Dehydrofreezing; new way of preserving food. L. B. Howard and H. Campbell. Food Ind 18:674-6 My '46
Peacetime food compression. C. A. Magoon and others. il Food Ind 18:362-4+ Mr '46
Sublimation, its packaging requirements. E. W. Folsdorf. il Mod Packaging 19:133-5+ N '45

See also
Eggs, Dried
Fish, Dried
Fruit, Dried
Meat, Dried
Milk, Dried
Vegetables, Dried

Moisture content
Water content of powders determined by rapid method. W. P. Turner, jr. bibliog il diag Food Ind 18:502-5 Ap '46

FOOD, Frozen
Appraisal of the frozen-foods industry; various marketing obstacles. A. Morrow. J Retailing 21:105-12 O '45
A.&P. experiment; tests with frozen foods. Bsns W p57-8+ Ag 24 '46
Dehydrofreezing; new way of preserving food. L. B. Howard and H. Campbell. Food Ind 18:674-6 My '46
Delivered frozen; new food merchandising setup. Bsns W p94 D 8 '45
Florida's place in frozen food industry. J. W. Martin. Comm & Fin Chr 163:402+ Ja 24 '46
Foil for freezers; a single-unit container. il Mod Packaging 19:101-3 Ap '46
Freezer locker plant is going commercial; increased facilities for freezing fruits and vegetables. H. Carlton. il layout Food Ind 18:1542-4+ O '46
Freezer packages; a survey of commercial types. Mod Packaging 19:132+ Ja '46
Frozen cooked meals for air passengers. il Electrician 136:1304 My 17 '46
Frozen food foundation. Mod Packaging 19: 184+ My '46
Frozen food industry and locker plant journal. Published monthly by Food publications, inc, 205 E. 42d st, New York 17
Frozen foods a new billion dollar baby. S. G. Ebert. Barron's 26:11 Mr 11 '46
Frozen foods; a new horizon. il Bsns W p30-2+ F 2 '46
Frozen foods in the retail market; frozen food stores, department stores and freezer-locker plants to compete with retail food stores. H. Carlton. il Food Ind 18:696-7+ My '46
Frozen foods; interim report. il Fortune 34: 104-9+ Ag '46
Frozen foods skyrocketed in wartime Germany. Food Ind 18:183 F '46
Frozen foods: will annual volume hit half a billion in five years? L. B. Colby. il Sales Management 56:35-7 Ja 15 '46
Frozen in cans. Bsns W p80+ O 19 '46
Future of frozen foods depends on proper packaging. A. P. Dearing. il Food Ind 18: 1196-7+ Ag '46
German refrigeration; report of wartime equipment and processes. Refrig Eng 52: 233-5+ S '46
Immersion freezing in liquid nitrous oxide; German process. G. MacKinney. flow diags Food Ind 18:667-9+ My '46
Immersion freezing of foods offers possible propane market. Pet Processing 1:8 S '46
Industrial development in the Southeast. J. P. Ferris. il Mech Eng 68:787-91 S '46
Into frozen foods; department stores explore field through the researches of Frozen food foundation. Bsns W p88+ D 1 '45
Locker kits, packages to fit the food. il Mod Packaging 19:158+ Ja '46
More frozen foods; Snow crop marketers. Sales Management 55:88 N 15 '45
Preservation of foods by freezing. C. Birdseye. il map Refrig Eng 51:sup 1-8 F '46
Problems concerning frozen foods. J. E. Nicholas and N. B. Guerrant. bibliog Refrig Eng 50:417-19+ N '45
Research and quality control of precooked frozen foods. B. L. Hutchings and C. F. Evers. il Refrig Eng 51:26-9 Ja '46; Same. Food Ind 18:184-7 F '46; Discussion. Refrig Eng 51:29+ Ja '46
Six major problems facing frozen foods. R. E. Nagler. il Sales Management 56:46+ Mr 1 '46
Sky plate boost; Maxson incorporates food division, plans stock issue and big expansion program. Bsns W p32 Ja 5 '46
So you are going into freezing? check-list questionnaire. C. R. Havighorst. il Food Ind 17:1471-5 D '45
Where do we go from here with frozen foods. E. T. Gibson. il Food Ind 18:528-9 Ap '46
Will department stores dominate frozen food selling; by phone? Frostmaster plan of delivery from low-rent outlying points. il Sales Management 56:58+ My 1 '46

See also
Fish, Frozen
Freezers
Fruit, Frozen
Milk, Frozen
Shrimps, Frozen
Vegetables, Frozen

Advertising
Co-op advertising, consumer education urged for frozen foods industry; abstract. J. M. Bess. Ptr Ink 215:97+ Je 7 '46

Bibliography
Literature search on the preservation of food by freezing. B. H. Weil and F. Sterne. (Special Rep no23) pa $4 State engineering experiment station, Georgia school of technology, Atlanta, Ga. '46

Cabinets
Frozen food? you just open the door. il Bsns W p84 Ap 6 '46
Frozen foods filing cabinet eliminates need for zero room; Iceberg refrigerated locker systems. il Sales Management 55:139-40 D 15 '45
New Avco line; small home storage cabinets for frozen foods. Bsns W p22 Ja 19 '46

Defrosting
Frozen foods defrosted by electronic heat. W. H. Cathcart. il Food Ind 18:1524-5 O '46
R-f heating in bakery industry. V. W. Sherman. Electronics 19:166+ Ap '46

Moisture content
Role of water in freezing foods. M. R. Daughters and D. S. Glenn. bibliog Refrig Eng 52:137-40 Ag '46

Standards
Quality grades are essential for frozen food packs. G. A. Fitzgerald. il Food Ind 18: 874-6 Je '46

Storage
Food packaging studies; significance of WVTR in protecting frozen meat. D. Metcalf and others. Mod Packaging 20:147-9 S '46

See also
Cold storage lockers

Transportation
Freezer-heater; quick-defrost refrigerating machine. il Bsns W p68 Ap 6 '46
Portable container used for shipment of frozen food. J. V. Ziemba. il Food Ind 18: 1358-9+ S '46
Refrigerator truck line; Texas operators request ICC to authorize trailer-truck frozen food hauling in 41 states. Bsns W p64 My 4 '46
Truck frozen shrimp over desert roads; 600-mile run from California to Arizona. il map Food Ind 18:1551-2 O '46

See also
Meat, Frozen—Transportation

FOOD and agriculture organization of the United nations
First meeting. F. M. Williams. Mo Labor R 61:1091-3 D '45

FOOD and agriculture organization of the United nations—*Continued*
F.A.O. asks power. Bsns W p110+ S 21 '46
FAO setup to advise UNO on food problems. Food Ind 17:1495-6 D '45
UNO's food organization helpless before its biggest problem; has no means of building up purchasing power of world's undernourished. C. H. Grattan. Barron's 25:3+ D 24 '45
World food plans. Economist 151:402-4 S 14 '46
World food policy. Economist 149:549-50 O 20 '45

FOOD brokers
Broker; an important link in food distribution. J. R. Bromell. Dom Comm 34:44-7 Ag '46

FOOD containers
Foil, metal-end containers for frozen items as food industry tests new packaging. B. Tolk. il Ptr Ink 216:110 S 27 '46
Note on the effect of tinplate and of lacquered surfaces on the oxidative deterioration of butterfat. C. H. Lea. Soc Chem Ind J 65:136-8 My '46
Portable container used for shipment of frozen food. J. V. Ziemba. il Food Ind 18:1358-9+ S '46
Sanitary code for food wrappings. J. R. Sanborn. Pulp & Pa of Can 47:83-5 My '46

FOOD factories
Better lighting; better work. J. S. Walsh. il Food Ind 18:1548-50+ O '46
H. J. Heinz, Tracy, Calif. plant processes baby food in one continuous operation. il plan Arch Forum 85:99 O '46
Ways to save water in the food plant. I. Reichman. il diag Food Ind 17:1310-12+, 1484-6+ N-D '45

See also
Bakers and bakeries
Canneries
Packing houses

Electric equipment

Electronics in processing foods; blanching of vegetables. S. R. Winters. il Radio N 35: 31+ Je '46

Employees

Job evaluation may help to minimize stoppages. C. W. Risberg. il Food Ind 18:489-91 Ap '46
What are employee relations? A. R. Cook. il Food Ind 18:839-40+ Je '46

Equipment

Canned plum pudding process put on continuous basis. W. Reiman and N. H. Volle. flow sheet il Food Ind 17:1286-90 N '45
Conveyors in the food industries. il Mech Handling 33:236, 282-7 Ap-My '46
Conveyors in the food industry; plant for dehydrated vegetables. E. E. Wright. il Mech Handling 33:532-40 S '46
Evaluating screw conveyors for materials handling. D. O. Mocine. diags Food Ind 18:852-5+ Je '46
700 tons of food sorted daily by electron tubes. il Elec World 125:136 My 25 '46; diag Electronics 19:152 Jl '46
Utilization of cooling towers in the food industries. E. Simons. bibliog il diags Food Ind 18:1360-4+ S '46

Floors

Designing the proper concrete floors for the food plant. R. D. Rader. il diags Food Ind 18:1026-30+ Jl '46

Quality control

New consistometer measures corn consistency; useful for pancake batter, apple sauce and preserves. M. C. Adams and E. L. Birdsall. il Food Ind 18:844-6+ Je '46
Pack-coding avoids grief; code mark should be changed to indicate every change in processing and in quality or origin of the raw materials. M. Mergentime. il Food Ind 18:1014-15+ Jl '46
Planning for clean flavor; 13 reports on causes of off-odors in foods and simple methods for curing the problem. J. A. Dunn. diags Food Ind 18:188-90+ F '46
Preserving product quality with new ingredients. C. F. Davis. il Food Ind 17:1462-4 D '45
Quality control means better packaging. D. M. Brown. il Food Ind 18:350-1 Mr '46
Quality grades are essential for frozen food packs. G. A. Fitzgerald. il Food Ind 18: 874-6 Je '46
Research and quality control of precooked frozen foods. B. L. Hutchings and C. F. Evers. il Refrig Eng 51:26-9 Ja '46; Same. Food Ind 18:184-7 F '46; Discussion. Refrig Eng 51:29+ Ja '46
Systematic sampling pays in controlling filling weights; use in can-filling weight control; Shewhart charts. H. P. Goode and G. I. Dundas. il Food Ind 17:1468-70 D '45

Sanitation

Food plant sanitation is not just a chore. M. E. Parker. il Food Ind 18:332-6, 510-12+ Mr-Ap '46
New devices improve cleaning and effect economies. J. R. Perry. il Food Ind 18:1518-22+ O '46
Sanitary candy manufacture. W. H. Eddy. il Food Ind 17:1457 D '45
Using DDT for fly control. L. A. Sandholzer and J. M. Lemon. il diags Food Ind 18: 860-3+ Je '46
Using DDT in food factories for long insecticidal effect. J. Feiner. il Food Ind 17:1446-9 D '45
What sanitation means to the processor. R. E. Sanborn. il Food Ind 18:26-8 Ja '46

See also
Packing houses—Sanitation

FOOD fair stores, inc.
One-stop supermarkets. Bsns W p70+ Jl 27 '46

FOOD industry and trade
Are we stuck in dead end jobs? Gerber dispels employe doubts. W. H. Knowlton. il Sales Management 57:98+ Ag 1 '46
Birdseye announces anhydrous foods: for canners, the jitters? il Sales Management 55:135 D 1 '45
Business executive's responsibilities; address at annual convention of Grocery manufacturers of America. H. A. Bullis. Comm & Fin Chr 162:2369+ N 15 '45
Facts to guide postwar decisions. A. C. Nielsen. Food Ind 18:358-9+ Mr '46
Food industry sees big volume, big plant expansion for 1946. Sales Management 55:112+ D 1 '45
Food merger; seven wholesalers and processors combine as Airline foods corp. Bsns W p88 Mr 30 '46
Four-city comparison of buyer preference now available. C. Conlee. il Ptr Ink 216: 94+ S 20 '46
Frozen foods; interim report. il Fortune 34. 104-9+ Ag '46
Home inventory survey gives advertised brands increased preference; tenth study by Cleveland press. Ptr Ink 215:102+ My 3 '46
How new eating habits affect the food industry. F. R. Cawl. il Adv & Sell 39:45-6+ Ag '46
Mass feeding offers big market. G. J. Kraft. il Food Ind 18:40-2+ Ja '46
Relations with the public; which public, consumers or citizens? W. H. Chase. Ptr Ink 213:118+ N 23 '45
So you are going into freezing? check-list questionnaire. C. R. Havighorst. il Food Ind 17:1471-5 D '45
Too good to be true; Imitation food display company; Mary Inman's studio. L. H. Singer. il Adv & Sell 38:93 D '45
What constitutes an adequate sample? M. S. Anderson and C. W. Whittaker. il Food Ind 18:849-50+ Je '46

See also
Bakers and bakeries
Bread
Candy trade
Canned food
Coffee trade
Dairy products
Food, Dried
Food, Frozen
Food brokers
Food packages
Grain trade
Grocery trade
Infants' food
Market stores
Meat industry and trade
Milk trade
Packing houses
Produce terminals
Restaurants
Sugar industry and trade

FOOD industry and trade—*Continued*

Advertising

Thrice-a-week ads sell single product; monthly ads show relationship of several; recipes build new demand for foods. D. Markstein. il Ptr Ink 216:39 Jl 26 '46

What makes newspaper ads pull? how they can gain more readership at no extra cost. A. B. Stanford. Adv & Sell 39:41-2+ S '46

See also
Canned food—Advertising

Finance

See also
Heinz, H. J., company

History

25 years of food processing. G. L. Leffler and M. V. Brown. Food Ind 18:39 Ja '46

Securities

New influences affecting food distributors; with reappraisal of leading stocks. P. Dobbs. Mag of Wall St 78:514-15 Ag 3 '46

1946 outlook for food companies; with position of leading stocks. F. R. Walters. Mag of Wall St 77:518-21+ F 2 '46

Outlook for food processors; with reappraisal of leading stocks. S. Devlin. il Mag of Wall St 78:510-13+ Ag 3 '46

Statistics

Food store sales in 1945, Sales Management estimates. Sales Management 56:98, 110 My 10 '46

Production of selected food products, seasonally adjusted, 1945-March 1946; graphs. Survey of Cur Bsns 26:5 My '46

25 years of food processing. G. L. Leffler and M. V. Brown. Food Ind 18:39 Ja '46

Cuba

New market for American food. R. Lamarche V. il Food Ind 18:698-700 My '46

Germany

All that's left of German chocolate industry. W. T. Clarke. il diags Food Ind 18:1183-5+ Ag '46

Development of food products in wartime Germany. G. T. Carlin. il Food Ind 18:1018-19+, 1526-8 Jl, O '46

Food industry of Germany; abstract. G. T. Carlin. Can Chem & Process Ind 29:868 D '45

Sidelights on food processing from McGraw-Hill man in Berlin. T. Falco. il Food Ind 18:1529+ O '46

What do we want from Germany? help needed by government in securing and compiling data on German industry and science. P. A. Deutsch. il Food Ind 18:847-8 Je '46

Mississippi

Mississippi attracts industry and aids state by building plants, furnishing capital, labor and raw materials. D. Markstein. il Food Ind 18:1022-3 Jl '46

FOOD laboratories

New research laboratory will aid the food processor; Food machinery corp. il Food Ind 18:1200-1 Ag '46

Standard Brands to build research laboratory. Chem & Eng N 24:1212 My 10 '46

FOOD laws and legislation

Amino acids addition makes food special. Oil Paint & Drug Rep 148:5 N 19 '45

Are food identity standards assets or liabilities? F. N. Peters. il Food Ind 18:1180-2+ Ag '46

Fair practices and Food and drug act. B. Watson. il Dom Comm 34:7-10 Je '46

Keeping an eye on law suits. L. T. Parker. Food Ind 18:198-201 F '46

Brazil

Brazil's new National food commission. For Comm W 21:24 N 24 '45

FOOD machinery

See also
Dough mixers
Fish filleting machine
Nut shelling machines
Peeling machines

FOOD machinery corporation

Sales at peacetime tops. Barron's 25:8 N 26 '45

FOOD mixers

See also
Dough mixers

FOOD packages

About face! General Foods introduces the changeover package for Post cereal family. il Mod Packaging 19:96-9 F '46

Analyzing the problems of prepackaging perishables. R. E. Bauer. il Food Ind 18:360-1+ Mr '46

Armour repackages full line to gain fresh shelf appeal and family identity. F. W. Specht. il Sales Management 55:40-2 D 1 '45

Chips don't chip; new, high-speed, accurate weigher permits packaging of potato chips and similar products with minimum breakage. il Mod Packaging 19:116-19 My '46

Does your package rate with the housewife? il Mod Packaging 19:89-92 Ag '46

Dried fruit packaging. il Mod Packaging 20:122-7+ S '46

Films for produce; their physical characteristics and requirements. H. Platenius. il Mod Packaging 20:139-43+ O '46

Flavor retention with organic packaging materials. E. C. Crocker. il Mod Packaging 19:147-50 D '45

Foil for freezers; a single-unit container. il Mod Packaging 19:101-3 Ap '46

Food packaging studies; non-metal materials for bulk packaging. R. F. Brooks and others. Mod Packaging 19:152-4 Je; 143+ Jl; 144-5+ Ag; 20:147-9 S '46

Future in foods; a survey of packaging trends. D. R. French. il Mod Packaging 19:174-9 Mr '46

Future of frozen foods depends on proper packaging. A. P. Dearing. il Food Ind 18:1196-7+ Ag '46

Gas-packing dry whole milk; replacement of oxygen by vacuumizing and filling headspace with inert gas. S. T. Coulter and R. Jenness. il Food Ind 18:352-5+ Mr '46

Good to eat; appetite appeal for health foods; Choplets. il Mod Packaging 19:168-9 Mr '46

Locker kits, packages to fit the food. il Mod Packaging 19:158+ Ja '46

No shelf appeal needed; Sexton label design for institutional food products. il Mod Packaging 19:128-30 Jl '46

Part packages play in self-service selling. L. B. Steele. Adv & Sell 39:92+ Je '46

Peacetime food compression. C. A. Magoon and others. il Food Ind 18:362-4+ Mr '46

Post re-styles cereal packages to gain family identity. il Sales Management 56:112+ Ap 1 '46

Pre-packaging forum; produce industry. M. P. Rasmussen and others. Mod Packaging 20:132-5 O '46

Produce pre-packaging in New York and New England. M. P. Rasmussen and H. Platenius. il Mod Packaging 19:98-104 Jl; 128-34+ Ag '46

Quaker oats modernizes a 69-year-old character. il Mod Packaging 19:126-31 Mr '46

Quality control means better packaging. D. M. Brown. il Food Ind 18:350-1 Mr '46

Quick wrap for bacon and sausage. G. Hightower. il Food Ind 17:1466-7 D '45

Sealing temperature and WVP; a correlation in effectiveness of waxed papers. W. Rabak and J. B. Stark. il Mod Packaging 19:157-60 Ap '46

Sublimation, its packaging requirements. E. W. Flosdorf. il Mod Packaging 19:133-5+ N '45

Well-dressed birds for a broader poultry market. il Mod Packaging 19:122-4+ F '46

What are the potentialities of new films and foils? F. I. Hanmer, jr. il Food Ind 18:1365-7+ S '46

See also
Cereals, Prepared

FOOD packages—*Continued*

Protection

Debunking a color theory; tests of colored wrappers and foils as fly repellents. A. Harsham. il Food Ind 18:851+ Je '46

Plastic dips for paper packages; Institute of paper chemistry program of evaluation. T. A. Howells. il Mod Packaging 20:144-5+ O '46

Standards

Pack-coding avoids grief; code mark should be changed to indicate every change in processing and in quality or origin of the raw materials. M. Mergentime. il Food Ind 18:1014-15+ Jl '46

Testing

Gas permeability; an isostatic test method. D. W. Davis il diags Mod Packaging 19: 145-9+ My '46

How processors can test and improve their own packages. A. L. Pitman. il diag Food Ind 18:1038-40+ Jl '46

Insect resistance of packages, paper, and paperboard; TAPPI suggested method T 473 sm-46. Paper Tr J 122:63-4 Ap 18 '46

Isostatic method for determining the gas permeability of sheet materials. D. W. Davis. bibliog il diags Paper Tr J 123:33-40 Ag 29 '46; Same cond. Mod Packaging 19: 145-9+ My '46

FOOD preservation

Control of microbiological food spoilage by fumigation with epoxides. R. Whelton and others. bibliog il Food Ind 18:174-6+ F '46

Gas-packing dry whole milk; replacement of oxygen by vacuumizing and filling headspace with inert gas. S. T. Coulter and R. Jenness. il Food Ind 18:352-5+ Mr '46

Refrigeration limitations, and aids; with pointers on use of bacterial lamps. A. W. Ewell. Refrig Eng 50:523-4+ D '45

See also

Canned food
Canning and preserving
Cold storage
Drying (fruits and vegetables)
Food, Dried
Food, Frozen
Fruit—Preservation
Vegetables—Preservation

FOOD preservatives

Vanillic acid esters as food preservatives. I. A. Pearl and J. F. McCoy. il Food Ind 17: 1458-61+ D '45

FOOD research

Chicago university undertakes food research program. Food Ind 18:1396+ S '46

Developing food acceptance research. W. F. Dove. Science 103:187-90 F 15 '46

Non-enzymatic browning; reaction in foods; symposium. Food Ind 18:1523+ O '46

Protein hydrolysates; flavor ingredients for foods; acid digestion of casein, corn or wheat gluten. L. A. Hall. flow sheet il Food Ind 18:681-4+ My '46

Research and quality control of precooked frozen foods. B. L. Hutchings and C. F. Evers. il Refrig Eng 51:26-9 Ja '46; Same. Food Ind 18:184-7 F '46; Discussion. Refrig Eng 51:29+ Ja '46

Root of Poor Richard's trouble; salaries of food technologists and inadequate training. Food Ind 18:349+ Mr '46

Undercooling retards freezing of canned foods; data sheets. Food Ind 18:513-17, 866-9, 1034-7, 1370-1 Ap, Je-Jl, S '46

See also Nutrition research; United States—Quartermaster corps—Laboratories

FOOD stores

Better selling, better merchandising dominate Red & White expansion plan. R. O. Harb. il plan Sales Management 56:80+ F 1 '46

Frozen foods in the retail market; frozen food stores, department stores and freezer-locker plants to compete with retail food stores. H. Carlton. il Food Ind 18:696-7+ My '46

Romance and glamour in a cracker barrel; pre-packaging, freezing and chilling techniques are revolutionizing the food business. W. J. Stelpflug. J Retailing 22:19-22 F '46

Supplies of food in independent retail stores, October 1945. Mo Labor R 61:1232-3 D '45

See also

Grocery stores
Market stores

FOOD supply

Applications of science to food production. H. A. White. il Tech R 48:557-60+ Jl '46

Calories or catastrophe; estimate of needs of our starving neighbors and program for supplying our share. J. H. Cassels. il Food Ind 18:3-6 Ja '46

Combined food board taken over by IEFC. Oil Paint & Drug Rep 149:3 Je 24 '46

Combined U.S., Britain and Canadian food board ends; International council of 19 nations continues work. Comm & Fin Chr 164:134 Jl 4 '46

Facing the facts of famine relief. W. I. King. Comm & Fin Chr 164:477+ Jl 25 '46

Food and farming. Economist 150:283-4 F 23 '46

Food scandal. il map Fortune 33:88-95 My '46

Food white paper; abstract. Economist 150: 525-6 Ap 6 '46

Gas industry aids Save food campaign. il Am Gas Assn Mo 28:269 Je '46

Government report on world food. Comm & Fin Chr 164:130 Jl 4 '46

Grain crisis. Nat City Bank p58-9 My '46

Help the food deficit nations help themselves! J. Hirsch. Barron's 26:3 Je 10 '46

Hungry world? Economist 150:243-4 F 16 '46

International ever-normal granary approved by President's cabinet. Comm & Fin Chr 164:888 Ag 15 '46

It's feed vs. food. il Bsns W p17 My 18 '46

Reports world food survey. H. Hoover. Comm & Fin Chr 163:2975 My 30 '46

Short and long food chains among vegetable crops. J. H. MacGillivray. Science 102:533-5 N 23 '45

Truman, with Hoover, LaGuardia, Anderson, pleads for food exports. Comm & Fin Chr 163:2273 Ap 25 '46

U.S.-Britain make food pact. Comm & Fin Chr 163:2976 My 30 '46

USDA sees tight world food supply following low farm production. Food Ind 17:1329 N '45

U.S. food allocations for Europe and North Africa. For Comm W 21:27 D 1 '45

U.S. wheat; world's salvation. Bsns W p15 F 16 '46

War against famine. C. C. Davis. Banking 38:43+ Je '46

Weather the key to world food crisis; three-year series of droughts brings threat of grain shortages to millions of people. R. Wayland. Barron's 26:6 F 25 '46

Work of the Famine emergency committee; Gallup poll. Iron Age 157.134 Ap 18 '46

World ever-normal granary plan; interview with L. A. Wheeler and text of Sir John Orr's plan. H. M. Bratter. Comm & Fin Chr 164:1013+ Ag 22 '46

World famine situation. H. Hoover. Comm & Fin Chr 163:2789+ My 23 '46

World food needs; the basic picture. C. P. Anderson. For Comm W 23:3+ Ap 20 '46

World food shortage. Economist 150:521-2 Ap 6 '46

World food shortage threatens recovery in rubber, jute and tin production. Barron's 26:6 My 13 '46

World food supplies in an expanding economy. H. R. Tolley. il For Comm W 24: 3-7+ S 7 '46

See also

Corn laws

also Food and agriculture organization of the United nations

Albania

In Albania UNRRA is literally a lifesaver. For Comm W 23:24 Ap 6 '46

Belgium

Food and nutrition. E. J. Bigwood. Ann Am Acad 247:87-91 S '46

Canada

Good neighbor tightens domestic controls to increase exports. Bsns W p117 Mr 23 '46

FOOD supply—*Continued*

Europe

European food shortage critical; Truman directs emergency measures. Comm & Fin Chr 163:1008 F 21 '46
Europe's acute food needs not to continue indefinitely. For Comm W 23:41 Je 15 '46
More aid for Europe. Economist 150:124-5 Ja 26 '46
Parcels overseas; introduce our brand names to Europeans. il Bsns W p22 Je 8 '46
Public wants bomb test results kept secret; will give up food for Europe; Gallup polls. Iron Age 157:105+ Mr 21 '46
Share thru care campaign inaugurated to send food packages to Europe. Comm & Fin Chr 163:3483+ Je 27 '46
Some recent developments in human feeding. J. Drummond. il Food Ind 18:327-30+ Mr '46
U.S. acts to avert famine, Hoover to survey Europe's needs. Comm & Fin Chr 163:1402 Mr 14 '46

France

How the Italians, French and Germans are eating. G. Burck and N. von Hoershelman. il Fortune 33.223+ My '46

Germany

Frozen foods skyrocketed in wartime Germany. Food Ind 18:183 F '46
How the Italians, French and Germans are eating. G. Burck and N. von Hoershelman. Fortune 33:226+ My '46
Ruhr in spring. Economist 150:929 Je 8 '46; Same. Iron Age 157:123+ Je 20 '46

Great Britain

Agricultural dilemma. Economist 150:998-9 Je 22 '46
Food chemists helped Britain to weather the war. D. W. Kent-Jones. il Food Ind 17: 1313+ N '45
Foodstuffs, 1945; imports, home production, rationing, price control. Economist 150: supl1-12 Mr 23 '46
Peacetime food policy. Economist 150:44-5 Ja 12 '46

India

India faces famine. Economist 150:257 F 16 '46

Italy

How the Italians, French and Germans are eating. G. Burck and N. von Hoershelman. il Fortune 33:223+ My '46
UNRRA's work in Italy helps make wheels turn. il For Comm W 23:16-17+ Je 1 '46

Latin America

Latin America's food; "Servicios" aid advance. W. C. Brister. il For Comm W 23: 10-13+ My 25 '46

Netherlands

Food shortage and public health, first half of 1945. C. Banning. Ann Am Acad 245:93-110 My '46
Food supply during German occupation. J. Breunis. Ann Am Acad 245:87-92 My '46

Poland

Hungry Poland. Economist 150:543 Ap 6 '46

Sweden

Food rationing necessary for long time to come. A. Gjöres. For Comm W 23:41 My 11 '46

United States

Food supply and price considerations. P. S. Willis. Comm & Fin Chr 164:1537+ S 26 '46
Foodstuffs; trends in 1946. C. E. Lund. il Dom Comm 34:30-2 Ja '46
Supplies of food in independent retail stores, October 1945. Mo Labor R 61:1232-3 D '45

FOOD technologists
Food technologist of the future; abstract. B. Dewey. Chem & Eng N 24:1058 Ap 25 '46
Root of Poor Richard's trouble; salaries of food technologists and inadequate training. Food Ind 18:349+ Mr '46
Why not a technologist, Mr Baker? W. R. Van Meter. il Food Ind 18:1005-7+ Jl '46

FOOD technologists, Institute of. See Institute of food technologists

FOOD technology
Cream puff troubles are overcome by test studies. F. G. Wheeler. il Food Ind 18:20-2 Ja '46
Development of food products in wartime Germany; fats and oils processing, egg dehydration, flour milling, bread baking and the manufacture of proteins from molds. G. T. Carlin. il Food Ind 18:1526-8 O '46
Food chemists helped Britain to weather the war. D. W. Kent-Jones. il Food Ind 17: 1313+ N '45
Food technology conference in Buffalo. Chem & Eng N 24:1058-60 Ap 25 '46
IFT meets again; 6th annual conference at Buffalo. Food Ind 18:663-6+ My '46
Need of technological supervision in the food industry; with special reference to the selection, preparation and freezing of fruits and vegetables. H. C. Diehl. Refrig Eng 51:123-5+, 223-6+ bibliog(45 titles, p226+); Discussion. 268+ F-Mr '46
Sidelights on food processing from McGraw-Hill man in Berlin. T. Falco. il Food Ind 18:1529+ O '46
What do we want from Germany? help needed by government in securing and compiling data on German industry and science. P. A. Deutsch. il Food Ind 18:847-8 Je '46
What technology means to the canner. G. C. Scott. il Food Ind 17:1165-7, 1316-17 O-N '45

FOOD workers
How to get a job; seeking better-than-average employment in the food field. A. Stone. Food Ind 18:1515-17+ O '46

FOOT
Foot ailments; abstract. G. H. Tichenor. Ind Med 14:sup22 N '45

Appliances

Molding laminated foot appliances. il Mod Plastics 23:114-16 Je '46

Protection

Enemies of feet. Nat Safety N 54:42+ Ag '46

See also
Shoes, Safety

FOOTBALL
Pro football peak. il Bsns W p32+ D 22 '45

Advertising

New football conference battles pro loop with varied pre-season advertising drive. W. H. Davis. Ptr Ink 216:150 S 6 '46

FOOTINGS
Calculation of bearing capacities of footings by circular arcs. P. Andersen. diags Eng N 136:866-8 My 30 '46

FOOTINGS, Concrete
Concrete piles make economical tower footings. J. Lummis. il Elec World 126:57-9 O 26 '46
Floating block theory in structural analysis. S. U. Benscoter. diags Am Concrete Inst J 17:205-26 Ja '46
Texas bridge footing shafts drilled and underreamed. J. P. Exum. il diag Roads & Sts 89:90-1 Mr '46

FORAMINIFERA
Foraminifera of two submarine cores from the North Atlantic basin. F. B. Phleger, jr. and W. A. Hamilton. bibliog Geol Soc Bul 57.951-65, pl 1; Discussion. 960-4 O '46

FORAMINIFERA, Fossil
Tertiary foraminifera from St Croix, Virgin Islands. J. A. Cushman and D. J. Cederstrom. bibliog map diag U S Geol S Professional Pa 210-A:1-17, insert; pa 20c Supt. of doc. '46
Upper cretaceous foraminifera of the Gulf coastal region of the United States and adjacent areas. J. A. Cushman. bibliog U S Geol S Professional Pa 206:1-241, pl 1-66; pa $1 Supt. of doc. '46

See also
Fusulina

FORBES, Archibald Finlayson
Portrait. Bsns W p109 O 12 '46

FORBIDDEN lines. See Spectrum—Forbidden lines

FORCE and energy
Emergent energy. G. Strömberg. bibliog Franklin Inst J 241:323-39 My '46
Impact stress in elastic bodies calculated by the energy method. M. F. Spotts. bibliog diags Product Eng 17:200-4 Mr '46
See also
Power (mechanics)

FORD motor company
Advanced tooling at piston and crankshaft departments reorganized by Ford. J. Geschelin. il layout plans diag Automotive & Aviation Ind 95:18-23+ O 1 '46
Aptitude testing of Ford workers. F. A. Miller. Automotive & Aviation Ind 94:28-9+ My 1 '46
Changes in Engineering division. Iron Age 158:126+ O 24 '46
Delays at Ford; U.A.W. council opposes clauses on productivity and promotion. Bsns W p104 Mr 16 '46
Engines rebuilt; Ford co. turns business over to dealers. Bsns W p55-6 Je 22 '46
$50,000,000 for science and competition; Ford research and engineering center. il Bsns W p41 Je 8 '46
Ford asks union for work guarantees. Factory Management 104:278+ Ja '46
Ford college trains dealers in ABC's of profit-making; Business management school of modern merchandising; key men are trained first. D. G. Baird. Sales Management 57:56+ Jl 15 '46
Ford cylinder sleeve production. C. O. Herb. il Mach 52:139-47+ Jl '46
Ford disputes Bowles; denies making application for higher car price ceilings. Comm & Fin Chr 163:972 F 21 '46
Ford divests; drops unprofitable sidelines. Bsns W p28 Mr 16 '46
Ford employs new strategy; negotiations with C.I.O.'s U.A.W. Bsns W p96+ D 8 '45
Ford figures show manufacturing costs on two-door sedan up $450 since 1941. Steel 118:77-8 F 18 '46
Ford gains security. Bsns W p96 Mr 2 '46
Ford motor co. disposes of natural rubber holdings in Brazil. Rubber Age 58:357 D '45
Ford research and engineering center. A. H. Allen. il Steel 118:73-4 Je 10 '46
Ford research center announced. Chem & Eng N 24:1680 Je 25 '46
Ford Rouge and Highland Park plants resume; new contract signed. Steel 118:75-6 Mr 11 '46
Ford students; expanding training program. Bsns W p75 Ap 13 '46
Ford's pay offer to unions. Comm & Fin Chr 162:3036 D 20 '45
Ford's public. Bsns W p26+ Mr 30 '46
Ford's year of decision. il Bsns W p21-2+ O 12 '46
Henry Ford II's Mr Bugas. Fortune 34:146+ Jl '46
How Ford selects plant sites. H. H. Ormond. il Am Bsns 16:12-13+ Je '46
Price of error; Ford liable for back pay under superseniority ruling. Bsns W p106+ Ag 24 '46
Research and engineering center. il Mech Eng 68:819 S '46
Two-way bargaining demand by Ford. il Bsns W p93 N 24 '45
What Ford told Bowles about low production. Factory Management 104:232+ Ap '46
Why it costs 87% more to build cars. H. Ford, 2d. Automotive & Aviation Ind 94: 19 F 15 '46

FORD motor company, England
Statement by the chairman. P. L. D. Perry. Economist 150:946 Je 8 '46

FORD motor company of Canada
Ford of Canada announces new car and truck models. il Automotive & Aviation Ind 94: 30-1+ Ap 15 '46
Profiting from war production experience at Ford of Canada. J. Geschelin. il diag Automotive & Aviation Ind 95:22-5+ Jl 1 '46

FOREIGN advertising. See Advertising, Foreign

FOREIGN economic administration. See United States—Foreign economic administration, Office of

FOREIGN exchange
Army lost $50,000,000 to GI exchange operators. H. M. Bratter. Comm & Fin Chr 164: 1652 O 3 '46
Canadian dollar back to parity. Bsns W p93 Jl 13 '46
Currency black markets; trading in dollars prevalent throughout central Europe. H. M. Bratter. Comm & Fin Chr 164:1925+ O 17 '46
Declining gold and foreign exchange reserves in Latin America, selected dates June 1945-July 1946. Mag of Wall St 79:80 O 26 '46
Dollar left vulnerable by U.S. policies; Canada and Sweden take advantage of forced-export maneuvers. T. P. McCarthy. Barron's 26:3 Jl 29 '46
Dollar to be unchanged; Snyder notifies International monetary fund. Comm & Fin Chr 164:1534 S 26 '46
Dollar's value abroad. F. Pick. Barron's 25:7 D 10; 5 D 24 '45; 26:25 Ja 7; 19 Ja 28; 14 F 4; 5 F 25; 8 Mr 4; 10 Mr 18; 5 Ap 1; 6 Jl 29; 9 O 21 '46
Exchange rates run wild. L. A. Hahn. Comm & Fin Chr 164:1005+ Ag 22 '46
Foreign exchange plays numerous rôles. B. L. Shepard. J Account 82:244 S '46
Foreign exchange rates. Published in weekly Monday numbers of Commercial & financial chronicle
Foreign exchange rates, 1937-1944 and monthly Dec. 1944-Nov. 1945. Fed Res Bul 32:103 Ja '46 [cont monthly]
Foreign loans and exchange rates. M. Palyi. Comm & Fin Chr 163:2351+ My 2 '46
Government-sponsored bank association in China formed to assist in administration of exchange controls. For Comm W 23:27 My 25 '46; Same. Comm & Fin Chr 163:3110 Je 6 '46
Is dollar depreciation in the offing? W. C. Hanson. il Mag of Wall St 78:496-8+ Ag 3 '46
Latin American exchange rates. Published in Foreign commerce weekly
Netherlands; problem of foreign exchange. M. W. Holtrop. For Comm W 24:26 Ag 3 '46
New exchange rates; first task of International monetary fund. M. J. Wasserman. Comm & Fin Chr 164:878+ Ag 15 '46
Rupee parity. Economist 151:556 O 5 '46
Shanghai exchange market reopening. Economist 150:388 Mr 9 '46
Sterling after the loan. Economist 151:102-4 Jl 20 '46
Sterling-Continental exchange rate gyrations. P. Einzig. Comm & Fin Chr 164:1653+ O 3 '46
Twenty-seven Shanghai banks designated for foreign exchange dealings. For Comm W 23:22 Ap 6 '46
Up-valuation of Canadian and Swedish currencies. Nat City Bank p93-5 Ag '46
Will foreign exchange speculation cease? effects of International monetary fund. A. M. Sakolski. Comm & Fin Chr 163:3197+ Je 13 '46
See also
Balance of payments

Regulation
Anglo-Swiss agreement; Swiss sterling control. Economist 150:467 Mr 23 '46
Anglo-Swiss financial arrangements and the sterling agreements. Economist 150:421-2 Mr 16 '46
Black currency markets ignore rates set in Bretton Woods agreement. F. Pick. Barron's 26:14 F 4 '46
Blocked sterling balances; origin and operation; relation to the U.S. Index 25 no 4: 86-97 [D] '45
Brazilian remittances decree. Economist 150: 424, 765 Mr 16, My 11 '46
Britain to reduce exchange controls. P. Einzig. Comm & Fin Chr 163:121+ Ja 10 '46
Canada restores dollar parity. F. Cist. Comm & Fin Chr 164:341+ Jl 18 '46
Canada's exchange control. Economist 151: 21-2 Jl 6 '46
China's customs gold unit; foreign exchange not to be granted for import of certain items; foreign exchange to be sold only to established traders. For Comm W 23:16 Je 29 '46

FOREIGN exchange—Regulation—*Continued*
Currency revaluation in Canada. N. Crump. Comm & Fin Chr 164:480+ Jl 25 '46
Dollars on level terms; effects on Britain. Economist 151:63 Jl 13 '46
Ecuador; exchange quota for first quarter of 1946 fixed. For Comm W 22:19 Mr 9 '46
Exchange control in Latin America today; with outline of exchange-control systems by countries. C. F. Carson. For Comm W 24: 8-9+ Jl 6 '46
Exchange control strengthened in Iran. For Comm W 21:20 D 1 '45
Exchange eased; Brazil's new rules. Bsns W p110 Ap 20 '46
Final step in unfreezing of Norse, Finn assets. Comm & Fin Chr 163:171 Ja 10 '46
Financial developments in Latin America, 1945. C. F. Carson. For Comm W 23:12-13+ My 4 '46
Foreign exchange control in China. Economist 150:674 Ap 27 '46
Foreign funds control; Treasury department releases. Published in Federal reserve bulletin
Franc devalued. Economist 149:944 D 29 '45
France; regulations applying to imports of currency by travelers. For Comm W 22: 22-3 F 23 '46
Freezing controls relaxed by Treasury dept. Comm & Fin Chr 162:2924 D 13 '45
French colonies; ordinance requiring deposit of foreign exchange and securities with an approved agency. For Comm W 22:25 Mr 30 '46
French devaluation favors sterling, French hoarders prefer gold and dollars. Barron's 26:25 Ja 7 '46
Future of the sterling area. D. F. Heathering-ton. Comm & Fin Chr 163:7+ Ja 3 '46
Iran; new foreign-exchange regulations approved. For Comm W 23:19 Ap 20 '46
Italy; currency regulations. For Comm W 23: 32 Ap 27; 27-8 Je 29 '46
Lira devaluated; Treasury dept. statement. Comm & Fin Chr 163:879 F 14 '46
New temporary exchange and trade-control regulations issued by Chinese government. For Comm W 22:9 Mr 16 '46
Next task; sterling settlements. Bsns W p113-14 F 23 '46
No free London exchange dealings. P. Einzig. Comm & Fin Chr 163:1640+ Mr 28 '46
Norwegian foreign exchange control. Comm & Fin Chr 162:2372 N 15 '45
Poland; control of transactions in foreign exchange. For Comm W 23:33 My 25 '46
Recent exchange-control developments in Paraguay. J. J. Magurn. il For Comm W 24:10-11+ S 21 '46
Reduction in value of the French franc and its consequences; parities between French franc and other francs of the franc zone. For Comm W 22:24 Mr 2 '46
Requisitioning of liquid holdings of foreign exchange in France and its oversea possessions. For Comm W 22:24 Mr 30 '46
Siam to fix new exchange rate for baht. For Comm W 22:23 F 23 '46
Siamese government takes steps to clarify trade and exchange control situation. For Comm W 23:21 Je 8 '46
Sweden lowers value of dollar and pound. Comm & Fin Chr 164:353 Jl 18 '46
Trade in Shanghai. Economist 151:18 Jl 6 '46
Treasury ends freezing in Philippines. Comm & Fin Chr 164:1473 S 19 '46
Turkey devalues. Economist 151:426 S 14 '46
Unfreeze Belgian assets. Comm & Fin Chr 162:2863 D 10 '45
Value of franc cut; action essential. Comm & Fin Chr 162:3144 D 27 '45
Value of Swedish crown appreciated in relation to the U.S. dollar and the pound sterling. For Comm W 24:29 Ag 3 '46

FOREIGN investments. See Investments, Foreign

FOREIGN language press
Basic daily circulation for foreign language periodicals; table. C. D. Maddy. Adv & Sell 38:68+ N '45

FOREIGN loans. See Loans, Foreign

FOREIGN service act of 1946. See United States—Foreign service

FOREIGN students in the United States
Foreign trainees acquire U.S. technical know-how; work of International training administration. G. N. Butler. il For Comm W 24: 3-5+ S 28 '46
Note on foreign service and the foreign student. J. K. Finch. J Eng Educ 36:576-8 My '46
Scandinavian craftsmen, technological students, coming to United States. For Comm W 23:18 Je 22 '46
See also
Chinese students in the United States

FOREIGN trade. See Commerce; Commercial policy; Export trade

FOREIGN trade zones. See Free ports and zones

FOREMAN'S association of America
Foreman issues; management awaits court clarification of F.A.A. Bsns W p96 O 12 '46
Foreman's association of America; conditions leading to formation of union. Mo Labor R 62:241-4 F '46
F.A.A. war chest; push court fight for right to bargain. Bsns W p94+ D 22 '45
F.A.A.'s weapon; circuit court approval of collective bargaining rights. Bsns W p86+ S 7 '46
Foremen's groups gaining. Bsns W p92 S 21 '46
Foremen's test at Bohn. Bsns W p94 Mr 16 '46
Union wins more foremen. Bsns W p95-6+ My 18 '46

FOREMEN
Are foremen part of management? T. A. Sullivan. Factory Management 103:256+ N '45
Area foremen simplify maintenance control; Buick motor division, General Motors. H. E. Hardenbrook. il Factory Management 104:137-42 F '46
Changing position of foremen in American industry. Advanced Management 10:155-61 D '45
Don't keep foremen in the dark on costs. P. Bernstein. Am Mach 90:126-7 F 28 '46
Foreman; should list his specific duties and insist that management define bounds of his authority. R. J. Spence. Am Mach 90: 144 Je 20 '46
Foreman's part in cost reduction. G. S. Dively. Factory Management 103:304+ D '45
Foreman's part in veteran rehiring. L. Stessin. Paper Ind 27:1217-18 N '45
Foremen as health managers; International business machines corp. C. F. Burris. Safety Eng 90:68-70 D '45
Foremen's league charges NLRB decisions encouraging unionization of management. Steel 118:52 Ap 22 '46
Foremen's league opens national headquarters. Automotive & Aviation Ind 94:48 Ja 1 '46
Four steps to foremanship. D. T. Armstrong. Am Mach 90:124-5 Mr 14 '46
Give the foreman schedule responsibility; Signode steel strapping company. F. A. H. Hulick. il Am Mach 90:116-20 Mr 14 '46
How the foreman can help the veteran. F. A. Magoun. Factory Management 104:300+ Je '46
How we know management is the foreman's business; Aluminum company of America. R. K. Heineman. Factory Management 104: 96-9 S '46
Incentive plan for foremen; Aircraft screw products company; abstract. E. M. Lang. Management R 34:429-31 N '45
Is a foreman a worker? T. H. Fairchild. Personnel J 24:345-7 Mr '46
Let's help the foreman in accident prevention. J. E. Trainer. il Nat Safety N 53: 28-9+ Je '46
Man in the middle; the foreman. E. A. Jackman. Paper Ind 28:564+ Jl '46
Mouthpiece or manager? C. D. Mackinnon and others. Am Mach 90:162+ Ag 29 '46
Multiple factors in foreman incentives. C. W. Lytle. Factory Management 104:278+ Je '46
Objectives for foremen. D. T. Armstrong. Am Mach 90:109 N 7 '46
So you want to be a foreman. W. R. Van Meter. il Food Ind 18:163-5+ F '46

FOREMEN—*Continued*
Special investigation, grievance procedures, section 2, report no. 529. p54-91 Dartnell corp, Ravenswood & Leland avs, Chicago '46
Stock at thirty-five. Personnel J 24:270-8 Ja '46
Understanding foreman. D. T. Armstrong. Am Mach 90:108 Je 6 '46
What is the foreman's job? D. T. Armstrong. Am Mach 90:142+ Ja 31 '46
Wooing foremen; C.I.O.'s U.F.A. trying to organize supervisors in Pennsylvania steel mills. Bsns W p86-7 Mr 9 '46
See also
Mine foremen
Supervisory workers

Selection

Joe and his foreman. J. E. Horrocks and J. R. Kinzer. Personnel J 25:135-8 O '46

Training

Making sure foremen have the know-how. il Factory Management 104:136-8 Jl '46
Top management trains foremen in management; Goodyear tire & rubber co. K. Umbaugh. il Factory Management 104:120-4 Mr '46
Training foremen to play on the management team; American rolling mill company. R. R. Tryon. il Factory Management 104:100-5 F '46

Unionization

American foreman unionizes. E. Dale. J Bsns 19:25-30 Ja '46
Answer to the foremen's union. E. Mottershead. Cer Ind 47:52-3 O '46
Board grants foremen right to union vote at Battle Creek plants of American steel & wire co. Iron Age 157:76 Ap 18 '46
Foremen unionization encouraged by NLRB. Iron Age 157:150+ My 9 '46
Foremen's unions gain foothold in oil industry and NLRB certifies groups as bargaining agents. R. Bjorkback. Nat Pet N 38:34 O 2 '446
Organizers of foremen get NLRB boost. Bsns W p100 Mr 16 '46
Unionization of foremen upheld by National labor relations board. Steel 118:77+ Mr 18 '46

FOREMEN'S conferences
Better supervisors because they know their product; Hytron corporation. R. C. Berman. diags Factory Management 103:100-4 D '45
How will you make workers cost conscious? P. Wishart. Factory Management 103:294+ D '45
Supervisors kept in the know by weekly get-together; National cash register company. W. E. Bahl. Factory Management 104:122 Ag '46
Top management trains foremen in management; Goodyear tire & rubber co. K. Umbaugh. il Factory Management 104:120-4 Mr '46

FORENSIC accounting. See Accounting, Forensic

FOREST conservation
British Columbia to increase forest protection. Paper Tr J 122:28 Ap 11 '46
Conservation in Sweden. R. Black. Pulp & Pa of Can 47.114+ O '46
Control of forest insects. E. Ménard. Pulp & Pa of Can 47:100-1 Jl '46
Share the wealth; Canada's forest conservation. P. Kellogg. il Pulp & Pa of Can 47:87-8+ Je '46

FOREST fires
B.C. forest service; forest protection in 1945. E. Druce. Pulp & Pa of Can 47:89 Ap '46
Fire weather records and forecasts; abstract. I. C. McQueen. il Pulp & Pa of Can 47:99-100 Jl '46
Forest fires. Franklin Inst J 242:234-5 S '46
Forest protection E. E. Shaw. Pulp & Pa of Can 47:97 My '46
Forest protection in Quebec during 1945. G. H. Bernier. Pulp & Pa of Can 47:94+ Ap '46
Moyens de combattre les incendies de forêts de pins maritimes. Génie Civil 123:11-12 Ja 1 '46
Nova Scotia protection service during 1945. D. A. S. Dyer. Pulp & Pa of Can 47:87+ Ap '46
Ontario forest protection during 1945. il Pulp & Pa of Can 47:92-3 My '46
Sweden shares Canada's destiny as manufacturer of woodlands. R. Black. Pulp & Pa of Can 47:117+ S '46
See also
Insurance, Forest

FOREST insurance. See Insurance, Forest

FOREST management
Forests and forest management in Newfoundland. W. E. McCraw. Pulp & Pa of Can 47:90+ Ap '46
La sylviculture intensive et l'exploitation forestière rationnelle. P. Razous. il diags Génie Civil 123:245-7 S 15 '46
Trees, the new cash crop. L. Haystead. map Fortune 34:212+ O '46

FOREST products
See also

Gums and resins	Turpentine
Lumber	Wood
Naval stores	Wood pulp

FOREST products laboratory. See United States—Forest products laboratory

FOREST rangers
McPhail to head Maritime forest ranger school. Pulp & Pa of Can 47:63+ Ja '46
Maritime forest ranger school. il Pulp & Pa of Can 47:93-4+ Je '46

FORESTRY laws and legislation
Rural land-use legislation in the states; the war years. H. Walker, jr. bibliog J Land & Pub Util Econ 22:236-8 Ag '46

FORESTRY research
Co-operative studies in forest research. Pulp & Pa of Can 47:118+ O '46
Summary of research work contemplated by Dominion forest service for 1946. W. M. Robertson. Pulp & Pa of Can 47:100 My '46
U.S. Forestry research conference. Pulp & Pa of Can 47:98+ Je '46

FORESTRY schools and education
Trees as a crop in the South; vocational forestry training camps for farm youth. H. J. Malsberger. il Manuf Rec 114:36-7 N '45

FORESTS, Municipal
Should your city have a municipal forest? G. A. Duthie. Am Water Works Assn J 38:888-9 Jl '46

FORESTS and forestry
Address by the president of Woodlands section C.P.P.A. forest insect control, etc. R. M. Fowler. Pulp & Pa of Can (Convention no) 47:239-40+ [F] '46
Forest influences on reservoir watersheds. E. N. Munns. Am Water Works Assn J 38:1111-24 O '46
New perspectives in forest tree breeding. F. I. Righter. Science 104:1-3 Jl 5 '46
Observations on spruce regeneration. H. D. Long. il Pulp & Pa of Can 47:67-8 Mr '46
Practical forestry as it relates to watershed areas. E. E. Minor. Am Water Works Assn J 38:1103-4 O '46
Thrift versus drift in forest practice. R. B. Robertson. Paper Tr J 123:151-3 O 10 '46
See also
Jungle
Lumber trade
Lumbering

Finance

Evaluation of returns from forest lands. R. C. Hawley. Am Water Works Assn J 38:1105-10 O '46

Study and teaching

See Forestry schools and education

British Columbia

B.C. forest service; forest protection in 1945. E. Druce. Pulp & Pa of Can 47:89 Ap '46
British Columbia to increase forest protection. Paper Tr J 122:28 Ap 11 '46
Selective cutting in British Columbia. H. Weatherby. il Pulp & Pa of Can 47:62-3 F '46

FORESTS and forestry—*Continued*

Canada

Broader approach to Canada's forest problem. J. S. Bates. Pulp & Pa of Can 47:89+ My '46; Discussion. F. B. Moran. 47:111-13+ S '46
Busy month for Canadian forestry associations. Pulp & Pa of Can 46:1017+ D '45
Canada's forest industries join to urge ten-point program. Paper Tr J 122:12 My 2 '46
Forest policy of the Canadian pulp and paper association. R. M. Fowler. Pulp & Pa of Can 47:85-6 Je '46
Share the wealth; Canada's forest conservation. P. Kellogg. il Pulp & Pa of Can 47: 87-8+ Je '46

Chile

Interesting forest project in Chile. J. D. Gilmour and H. R. MacMillan. Pulp & Pa of Can 47:119+ S '46

Finland

Finland's prospects for forest-products exports; what's the outlook in vital wood-pulp field? R. P. Donogh. il For Comm W 22:3-5+ Mr 23 '46; Same. Paper Ind 28: 104+ Ap '46

Middle western states

Available pulp timber stands in the Lake states. E. L. Demon. Paper Ind 28:1032+ O '46

Mississippi

Story of Mississippi; forests. il Manuf Rec 115:90-1 Ja '46

Newfoundland

Forests and forest management in Newfoundland. W. E. McCraw. Pulp & Pa of Can 47: 90+ Ap '46

Nova Scotia

Nova Scotia protection service during 1945. D. A. S. Dyer. Pulp & Pa of Can 47:87+ Ap '46

Ontario

Broader approach to Canada's forest problem. F. B. Moran. Pulp & Pa of Can 47: 111-13+ S '46
Ontario forest protection during 1945. il Pulp & Pa of Can 47:92-3 My '46
Ontario regulates settler's pulpwood harvest. T. E. Mackey. il Pulp & Pa of Can 47: 103-4 Jl '46

Pacific coast

Available pulp timber stands of the West coast. H. J. Andrews. Paper Ind 28:1036+ O '46

Paraguay

U.S. forestry experts help Paraguay organize industries. For Comm W 22:20 F 2 '46

Quebec

Forest protection in Quebec during 1945. G. H. Bernier. Pulp & Pa of Can 47:94+ Ap '46
Quebec opinion leans to national forest growth. W. A. E. Pepler. Paper Tr J 122: 10 My 30 '46

Saskatchewan

Saskatchewan restricts timber sales; abstract. J. L. Phelps. Pulp & Pa of Can 47: 104+ Jl '46

Southern states

Southern forests as a source of pulpwood. J. W. Cruikshank. map Paper Ind 28:1028+ O '46

Sweden

Sweden shares Canada's destiny as manufacturer of woodlands. R. Black. Pulp & Pa of Can 47:117+ S; 114+ O '46

Texas

Featuring Texas. il Manuf Rec 115:144-5 Jl '46

United States

Survey of available wood stands in the United States; symposium. Paper Tr J 123: 116+ O 10 '46

Wisconsin

Experiment in forest-farm resettlement; federally-sponsored Drummond forest community in northern Wisconsin. S. Henderson. J Land & Pub Util Econ 22:10-21 F '46
Nepco forest pays dividends in wood. Paper Tr J 122:12 Je 6 '46
Trees for tomorrow; forestry project founded by nine paper mills. M. N. Taylor. il Paper Ind 27:1806-9 Mr '46

FORESTS and forestry, Mine

Anaconda's tree farms; grows trees for its mine timber. H. Olson. il Min Cong J 31: 40-3 D '45

FORGE shops

Equipment

Use of bronze welding in repairing a draw bench cylinder. il Steel 119:82+ S 30 '46

Heating and ventilation

Plant-designed system solves forge-shop heating problems; Wyman-Gordon co. C. J. Lloyd. il diags Power 90:252-4+ Ap '46

FORGERY

Bank not liable to depositor for payment on forged withdrawal slip. Banking Law J 63: 723-6 O '46

See also
Bankers' blanket bond
Checks, Fraudulent

FORGERY insurance. See Insurance, Forgery

FORGING

Brass press forgings or die castings; which? H. Chase. il diag Materials & Methods 23: 995-1001 Ap '46
Case for drop-forging. R. E. W. Harrison. Am Mach 90:135-6 Mr 28 '46
Cold-forged inserts; abstract. W. G. Waltermire. diags Product Eng 17:116-17 S '46
Controlled-stage process finish-forges turbojet blades. C. E. Wilderman. il Aviation 45: 81-3 Mr '46
Development of forgings and stampings. J. T. Robinson. il Steel 118:110-11+ Mr 18 '46
Electroforged gratings; abstract. A. J. Randolph. Materials & Methods 23:817 Mr '46
Extruded shapes speed brass forging output; Titan metal manufacturing co. H. Chase. il Materials & Methods 24:103-8 Jl '46
Forging and pressforming, 1945. T. C. Du Mond. il Materials & Methods 23:116-17 Ja '46
Forging of magnesium. A. L. Rustay. il Mach 52:141-8 Je '46
Forging practice in wartime Germany. C. W. Heppenstall, jr. il Iron Age 158:55-7 Ag 1 '46
Forging with closed dies in hydraulic presses. C. W. Hinman. il Mach 52:176-8 F '46
High speed forging increases auto parts production; Oldsmobile forge plant. H. Chase. il diags Steel 119:98-9+ O 21 '46
Limitations and design of precision press forgings. il Product Eng 16:821-3 D '45
Manufacture and production of aluminium-alloy forgings and stampings; abstract. J. R. Handforth and J. T. Robinson. Engineering 161:138 F 8 '46
Shell forgings; abstract. W. F. Jones. Materials & Methods 24:986+ O '46
Upsetting aluminum heads. H. G. Howell. il Steel 119:108-11+ S 23 '46
Upsetting tubular members simplified by special grippers. L. R. Pistoles. il diags Iron Age 158:42-8 Ag 15 '46
What technical men expect in 1946; forging, drawing and stamping. Steel 118:282+ Ja 7 '46

See also
Hammers, Drop
Steel forgings

FORGING dies. See Dies, Forging

FORGING furnaces. See Furnaces, Forging

FORGING machinery

18,000-ton forging press; Wyman-Gordon products corp. L. E. Browne. il Steel 118: 114-16+ Je 17 '46
Half-century of forging; Erie foundry co's development of forging hammers. il Steel 118:107+ My 27 '46

FORGING machinery—*Continued*
Large castings required for huge forging press; illustrations with text. Foundry 74: 140 S '46
Wyman-Gordon 18,000-ton forging press; abstract. Mech Eng 68:821-2 S '46

FORGINGS
Drop forgings for gas turbine application. C. I. Schweizer. il Materials & Methods 24: 642-5 S '46
Forgings for stressed fittings. W. Naujoks. il Aero Digest 53:82-3+ O '46
Forgings producers; directory. Machine Design 18.234-9 O '46
Nonferrous forgings. C. H. Pihl. il diags Steel 118:130-2+ Je 17 '46

FORMALDEHYDE
Action of formaldehyde on *m*-hydroxybenzoic acid. C. A. Buehler and others. Am Chem Soc J 68:574-7 Ap '46
Comparison between certain reactions of the aloins and those of glucose. J. H. Gardner. bibliog Am Chem Soc J 67:2111-12 D '45
Condensation of diethylamine and formaldehyde with phenol, *o*-, *m*- and *p*-cresols. G. F. Grillot and W. T. Gormley, jr. Am Chem Soc J 67:1968-9 N '45
Cross linkages in cellulose and their practical implications; with review of effects of formaldehyde treatment upon properties of cellulose; claims of patent to Kantorowicz. E. Heuser. bibliog Paper Tr J 122:46-8 Ja 17 '46; Same cond. Paper Ind 27:1904 Mr '46
Determination of small amounts of aromatic hydrocarbons in aqueous solutions. H. E. Morris, R. B. Stiles and W. H. Lane. bibliog Ind & Eng Chem Anal ed 18:294 My '46
Determination of the solubility of styrene in water and of water in styrene. W. H. Lane. Ind & Eng Chem Anal ed 18:295-6 My '46
Formaldehyde use reported for 1944. Oil Paint & Drug Rep 149:58 Ap 22 '46
Nopol; the reaction of β-pinene with formaldehyde. J. P. Bain. bibliog Am Chem Soc J 68:638-41 Ap '46
Polymer reaction product of tyrosine and formaldehyde. A. E. Brown. bibliog Am Chem Soc J 68:1011-15 Je '46
Preparation and reduction of nitro amines obtained from aromatic amines, formaldehyde, and nitroparaffins. H. G. Johnson. bibliog Am Chem Soc J 68:14-18 Ja '46
Preparation of some hexahydropyrimidines from nitroparaffins. M. Senkus. bibliog Am Chem Soc J 68:1611-13 Ag '46
Producing formalin from sewage digester gas; experiments conducted in Johannesburg. H. Wilson. Pub Works 76:42+ N '45
Rayon material; formaldehyde treatment for increasing water resistance; British patent. Am Dyestuff Rep 35:503 O 21 '46
Reaction of aliphatic amines with formaldehyde and nitroparaffins; secondary amines. H. G. Johnson. Am Chem Soc J 68:12-14 Ja '46
Reaction of formaldehyde with proteins; participation of the guanidyl groups and evidence of crosslinking. H. Fraenkel-Conrat and H. S. Olcott. bibliog Am Chem Soc J 68:34-7 Ja '46
Reaction of 2-methylfuran with formaldehyde and substituted ammonium chlorides. R. F. Holdren and R. M. Hixon. Am Chem Soc J 68:1198-1200 Jl '46
Reaction of primary aliphatic amines with formaldehyde and nitroparaffins. M. Senkus. bibliog Am Chem Soc J 68:10-12 Ja '46
Recovery of 2,3-butanediol produced by fermentation. M. Senkus. flow sheet Ind & Eng Chem 38:913-16 S '46
Some preliminary investigations of the phenol-formaldehyde reaction; abstract. T. T. Jones. Chem & Ind p 19-20 Ja 12 '46
Structure of urea—formaldehyde resins. C. S. Marvel and others. bibliog Am Chem Soc J 68:1681-6 S '46
Wood treatment with urea resin-forming systems (dimensional stability). M. A. Millett and A. J. Stamm. bibliog Mod Plastics 24: 150-3+ O '46

Analysis
Simultaneous determination of ethylene and 1,2-propylene glycols. B. Warshowsky and P. J. Elving. bibliog Ind & Eng Chem Anal ed 18:253-4 Ap '46

FORMALIN. See Formaldehyde

FORMAMIDE
Acylation of polyuronides with formamide as a dispersing agent. J. F. Carson and W. D. Maclay. bibliog Am Chem Soc J 68:1015-17 Je '46
Condensation of pyruvic acid and formamide. W. Shive and G. W. Shive. bibliog Am Chem Soc J 68:117-19 Ja '46
Purification of hesperidin with formamide. D. E. Pritchett and H. E. Merchant. Am Chem Soc J 68:2108-9 O '46

FORMAMIDINE
Synthesis of 4-hydroxyquinolines; modified preparation through *bis*-(*m*-chlorophenyl)-formamidine. C. C. Price and R. M. Roberts. bibliog Am Chem Soc J 68:1255-6 Jl '46

FORMANILIDE
Reactions of alkyl*iso*formanilides; with carboxylic acids, sulphonic acids, and sulphonamides. E. B. Knott. Chem Soc J p686-9 O '45

FORMEX wire. See Electric wire

FORMFIT institute
Formfit helps corset retailers find way to greater profits; fact-finding research project. il Sales Management 56:56+ Ja 1 '46

FORMIC acid
Behavior of nitro alcohols toward formic acetic anhydride. C. D. Hurd, S. S. Drake and O. Fancher. bibliog Am Chem Soc J 68:789-91 My '46
Force constant of the association bond in the formic and acetic acid dimers. J. O. Halford. diags J Chem Phys 14:395-8 Je '46
Hydroxylation and epoxidation of some 1-olefins with per-acids. D. Swern, G. N. Billen and J. T. Scanlan. bibliog Am Chem Soc J 68:1504-7 Ag '46
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance; comparison of the rates of reaction of methyl, ethyl, *n*-propyl, and *neo*pentyl bromides with wet formic acid. I. Dostrovsky and E. D. Hughes. Chem Soc J p171-3 Mr '46
Synthesis of free formic acid from carbon monoxide and water. H. Pichler and H. Buffleb. bibliog Chem Age (Lond) 53:463-8 N 17 '45

FORMING tools
Grinding gages for circular form tools. J. J. Meadows. diags Iron Age 157:59-60 Mr 21 '46

FORMS and blanks, Business
Control of business forms. C. O'Donnell. flow chart J Bsns 19:176-82 Jl '46
Control of printed forms. C. F. Margeson. N A C A Bul 27:1202-8 Ag 15 '46
Down goes order processing cost; parts order control system of Service department, Timkin-Detroit axle company. R. G. French. il Am Bsns 16:12-13+ My '46
How Jewel Tea speeds control of inventory of business forms. P. Eastman. il Am Bsns 16:20-1 Ag '46
Modernized stock control plan; Lehn & Fink products corporation. J. C. Metsch. il Am Bsns 15:14-15+ D '45
Portfolio of sales control forms. Sales Management 56:98+ Ap 1; 96-7+ Je 1; 57:116-18+ Jl 1 '46
Simplified plan aids installment buying; Sun electric corporation uses master Ditto copy. J. Turner. il Am Bsns 16:18-19+ Ag '46
Well planned forms prove their worth; forms for plumbing and heating contractor-dealers. il Dom Eng 167:114-15+ F '46

See also
Banks and banking—
Forms, blanks, etc.
Factories—Records

Standards
Standards for business forms. G. W. Peak. Management R 35:161-3 My '46

FORSTER, Martin Onslow, 1872-1945
Sketch; contributions to chemistry of camphor. E. F. Armstrong and J. L. Simonsen. por Chem Soc J p550-7 Je '46

FORT WAYNE corrugated paper company
Stocks offered. Comm & Fin Chr 163:1157-8 Mr 4 '46

FORT WORTH, Texas

Industries

Reconversion problems likened to growing pains. C. W. Davis. il Manuf Rec 115:36-8+ My '46

Sanitary affairs

Cost analysis of sanitary fill. R. R. Lacy. il Water & Sewage 84:23-4+ Je '46

Sanitary landfills cut waste disposal costs. Eng N 137:441 O 3 '46

Water supply

Wartime capital improvement. W. S. Mahlie and U. Stephens. diags Am Water Works Assn J 38:491-8 Ap '46

FORTICEL. See Cellulose propionate

FORTIFICATION
Germany's island fortresses. maps Engineer 180:433-5; 181:354-5 N 30 '45, Ap 19 '46

FORTISAN dyeing. See Dyes and dyeing—Rayon

FORTY-plus clubs
Renewed activity on the forty-plus front. Bsns W p92 Ap 20 '46

FORWARDING companies (air freight)
Forwarding by air; Air dispatch, inc. Bsns W p42 Jl 27 '46

FOSSIL cycad national monument
Yale cycadeoids. G. R. Wieland. Science 102: 513-14 N 16 '45

FOSSILS. See Paleobotany; Paleontology

FOSSILS, Photography of. See Photography of fossils

FOSTER, Lemuel L.
Way it should be; Negro personnel department official at Macy's. por Fortune 34:170 O '46

FOSTER, Ward Grenelle, 1860-1941
Business in answers; saga of "Ask Mr Foster." F. Smith. il Adv & Sell 39:35+ Ja '46

FOSTER WHEELER corporation
Thumbnail stock appraisal. Mag of Wall St 77:455 Ja 19 '46

FOULING organisms
Baffling the barnacle. R. G. Skerrett. il Comp Air Mag 51:264-9 O '46

Control of fouling organisms in fresh- and salt-water circuits; mollusks, bryozoa, sponges, barnacles, and tunicates. J. G. Dobson. il A S M E Trans 68:247-60 bibliog(106 titles, p258-60); Discussion. 260-5 Ap '46

Fouling of ships' bottoms: identification of marine growths. Iron & Steel Inst J 150: 143-56, pl 10-17 no 2 '44

How to control marine growths in circulating water systems. J. G. Dobson. il Power Pl Eng 50:70-5 Ag '46

FOUNDATION soils
Compacted fill equals natural ground; Clinton engineer works. J. D. Watson and O. R. Bradley. il diag Eng N 135:810-12 D 13 '45

Contribution à l'étude de l'équilibre limite de rupture du sol sous des massifs de fondation transmettant des charges centrées. E. de Beer. diags Génie Civil 123:111-12, 124-6, 141-3 My 1-Je 1 '46

Foundation displacements along the Malheur River siphon as effected by swelling shales. R. C. Mielenz and C. J. Okeson. il map Econ Geol 41:266-81 My '46

Research on frost action in soils; road damage; permafrost foundations. R. M. Hardy. il Roads & Bridges 84:74-6+ S '46

Shipways with cellular walls on a marl foundation. M. M. Fitz Hugh and others. diags Am Soc C E Proc 71:1327-53 N '45

Wellpoints used to compact sand fill. H. E. Berger. diag Eng N 137:44-5 Jl 11 '46

See also
Dams—Foundations
Roads—Subgrades
Soil mechanics
Wellpoint system

Testing

Calyx drill aids soft-ground examination; investigating foundation material for lock on Cross-Florida barge canal. H. A. Scott. il diag Eng N 137:102-4 Jl 25 '46

Construction of new compressor stations on Texas to West Virginia gas pipe line. H. Dawe. plans diags Pet Eng 17:57-60+ Je '46

Nevada highway compaction tests. il Roads and Sts 89:72-3+ Jl '46

Obtaining and presenting foundation design data. T. R. Dames. il map diags Pet Eng 17:181+ D '45; Same cond. Nat Pet N 38 pt 2:R57-8+ Ja 2 '46

Soil sampling and testing for highways and airports. R. M. Hardy. il diags Roads & Bridges 84:63-6+ F '46

Soil studies for San Jacinto dam. J. N. Thompson. il map Civil Eng 16:57-9 F '46

Tests of compacted clay soils provide highway design guides. H. C. Porter. diags Eng N 135:726-8 N 29 '45

FOUNDATIONS
All ceramic house is built on an engineered, floating foundation. il diags Brick & Clay Rec 108:29-30 Ap '46

Construction of concrete foundations for oil well derricks and pumping equipment. F. B. Plummer. Oil & Gas J 44:103 D 1; 113 D 8; 129 D 15 '45

Grouting auxiliary assures foundation. diag Pet Refiner 25:136 My '46

Obtaining and presenting foundation design data. T. R. Dames. il map diags Pet Eng 17:181+ D '45; Same cond. Nat Pet N 38 pt 2:R57-8+ Ja 2 '46

Process buildings over faulted rock; construction of electromagnetic plant at Clinton engineer works. L. Kerr and P. Brown. il Eng N 135:795-7 D 13 '45

Rigid-frame structures subject to non-uniform thermal action; foundations for boilers and oil refinery furnaces. C. C. H. Tommerup. diags Am Soc C E Proc 72:759-80 Je '46

Service station is hung from masts to minimize foundations and costs. il plan diag Arch Forum 84:115 Mr '46

Today's house; foundations, with and without basements. il plans diags Arch Forum 85: 109-10 Jl '46

Two special methods of restoring and strengthening masonry structures; intrusion mixture containing Alfesil, and Prepakt concrete. J. W. Kelly and B. D. Keatts. il diags Am Concrete Inst J 17:289-304 F '46

See also
Bridges—Foundations and piers
Caissons
Cofferdams
Concrete piling
Dams—Foundations
Footings, Concrete
Foundation soils
Piers (foundations)
Piles and pile driving
Roads—Foundations
Steam turbines—Foundations

Settlement

Cork slab foundation for heavy machine tools on poor grade filled land. il Iron Age 158: 64-5 S 19 '46

Flexibility provided between solid structures and sinking ground for conduits carrying control wiring. B. D. Dexter. il diag Elec World 126:134+ S 14 '46

Precast sectional walls and roof allow for uneven reservoir settlement at New Orleans. il diags Eng N 137:244-8 Ag 22 '46

FOUNDATIONS, Charitable and educational
Capital assets of American foundations. Comm & Fin Chr 163:2705 My 16 '46

See also Ella Sachs Plotz foundation for the advancement of scientific investigation; Josiah Macy junior foundation

Directories

See also
Social work—Directories

FOUNDERS fire and marine company of Los Angeles
Organize $4 million California company. Nat Underw 50:4 Ap 18 '46

FOUNDING. See Aluminum founding; Brass founding; Bronze founding; Iron founding

FOUNDRIES

Colorado's oldest foundry; Denver plant of the Griffin wheel co. F. G. Steinebach. il Foundry 74:212 My '46

Erie learns about foundries; exhibit held by Northwestern Pennsylvania chapter of American foundrymen's association and Erie foremen's association. W. G. Gude. il Foundry 74:88-90 Jl '46

Ford's foundry expansion and modernization program. A. H. Allen. Foundry 74:124+ Ja '46

Foundry for Volta Redonda plant. Blast F & Steel Pl 33:1400-2 N '45

Foundry progress. J. Albin. il Iron Age 157: 142-5+ Ja 3 '46

G.M. job shop; sets up foundry division. Bsns W p49-50+ Jl 27 '46

Industrial expansion is active in South Africa. B. P. Skok. Foundry 74:159 O '46

Norfolk navy yard holds foundry conference. Foundry 74:197 Ag '46

Operations and plants of International nickel company of Canada; Bayonne works. il Can Min J 67:531-3 My '46

Saginaw Malleable. il Factory Management 104:B47-B49 pt 2 Ap '46

Some bottlenecks of reconversion. A. Wiley. Foundry 73:97+ D '45

Where are the dogs of yesteryear; foundry cast statuary. J. L. Morrison. il Foundry 74: 108-10+ O '46

See also
Foundry practice

Accounting

See Foundry accounting

Cleanliness

White paint aids good housekeeping. J. L. Yates. il Foundry 74:106-9+ Jl '46

Electric equipment

See also
Electric furnaces,
Foundry

Employees

Comeback drive; U.A.W. campaign to boost foundry wages. Bsns W p102 O 5 '46

Cost controls need readjustment. C. E. Westover. Foundry 74:102-3+ Ap '46

Discuss opportunities for engineering graduate; American foundrymen's association. Foundry 74:144 Jl '46

Distribution of workers in 235 foundries analyzed by National founders association. Steel 118:97 Mr 4 '46

Employment opportunities in foundry occupations. C. R. Winegarden and R. H. Lewis. Mo Labor R 61:1112-31; 62:573-85 D '45, Ap '46; Same, with additional data. U S Bur Labor Statistics Bul 880:1-55; pa 15c Supt. of doc. '46; Abstract. Foundry 74:103+ Mr '46

Employment outlook for molders. C. R. Winegarden. Mo Labor R 62:573-85 Ap '46

Foundry employment expected to grow in next several years. Iron Age 157:140+ F 7 '46

Hamilton employees receive service awards. Foundry 74:131 Jl '46

Incentive system for repair welding steel castings. W. S. Hansen. il Foundry 74:150+ O '46

Job evaluation in the foundry. B. Bendiner. Foundry 74·94-5+ Ag '46

Labor distribution analyzed. Foundry 74:249 F '46

Medical facilities, a foundry asset. J. M. Price. il Foundry 74.80-1+ Ag '46

Program for foundry training; Lynchburg foundry co. F. W. Hurt. il Foundry 74:72-5+ S '46

Recruiting and training foundry engineers. D. D. Henry. Foundry 74:96+ S '46

Supply and demand for foundry engineers. F. G. Sefing. Foundry 74:111+ O '46

Wage structure in foundries, January 1945. J. F. Laciskey; W. C. Quant. Mo Labor R 63:61-7 Jl '46

What the worker thinks; results of questionnaire; Wilson foundry & machine co. W. O. Leonard. Foundry 74:82-3+ Ap '46

Equipment and supplies

Aluminum Alloys foundries equipped for large scale production; Aluminum alloys corp. J. Geschelin. il Automotive & Aviation Ind 94:28-32 F 1 '46

Beardsley & Piper's 3-way campaign; publications, house organ and mail advertising to foundries. S. P. Owen. il Ind Marketing 31:59+ Jl '46

Blowing cylinder barrel cores; Buick motor division. A. H. Allen. il plan Foundry 74: 170-3+ My '46

Casting tuyeres in the Bethlehem foundry. P. Dwyer. il Foundry 73:110-13+ D '45; Same abr. Steel 118:138+ F 4 '46

Dust removal at belt transfer points; foundry sand handling system. C. C. Hermann. diag Foundry 73:107+ D '45

Equipment and safety; joint discussions; American foundrymen's association. Foundry 74:164+ Je '46

Equipment makers bid for billion dollar foundry market. W. B. Fiske. il Ind Marketing 31:39+ Je '46

Feeding of castings aided by new compound; Thermotomic. J. C. Sullivan. il Foundry 74:272+ Je '46

Foundries of the future. J. B. Lamenzo. il plans diags Foundry 73:84-7+ N; 88-93+ D '45

Foundry progress; new equipment shown at Cleveland exhibit. Bsns W p54+ My 18 '46

Free flow, high production with mechanized hauling; Ferro machine & foundry company, Cleveland. H. B. Myers. il plans Factory Management 104:106-12 Ja '46

Gray iron foundry conditioning. C. W. Schwenn. il Foundry 74:104-8+ Je '46

Increases malleable iron capacity; Albion malleable iron co. P. Dwyer. il plan Foundry 74:90-3+ Mr '46

Mechanize bathtub foundry; Richmond radiator co. P. Dwyer. il plan diag Foundry 74: 68-73+ N '46

Mechanised bronze foundry. J. A. Oates. il plan Mech Handling 33:12-20 Ja '46

Mechanization of an iron foundry; sand treatment plant. il Mech Handling 33:405-7 Jl '46

Modern Canadian foundry. Engineer 182:195-6 Ag 30 '46

Modernisation and mechanisation to aid foundry production. G. W. Nicholls. Mech Handling 33:150-5, 205-9 Mr-Ap '46

Moulding box knock-out. il Engineer 180:401 N 16 '45

Navy yard revamps foundry; Norfolk navy shipyard. P. Dwyer. il Foundry 74:78-82+ S; 112-15+ O '46

New brass foundry typifies modern design; H. B. Salter mfg. co. P. Dwyer. il diags Foundry 74:158-63+ My '46

New equipment. il Iron Age 157:65-6 F 28; 158:81-2 S 26 '46

New feeding technique for castings; use of Thermotomic, exothermically reacting compound. T. E. Lloyd. il Iron Age 157:62-4 Ap 25 '46

Pneumatic transfer cylinder for foundry mechanization. F. J. Howard. il diags Mech Handling 33:428-30 Jl '46

Producing 70 tons of die castings daily; Electric auto-lite co. H. Chase. il plan Iron Age 157:76-80 My 9; 58-61 My 23 '46

Quonset huts house foundry; E. M. Benedict co. E. Bremer. il Foundry 74:83+ S '46

Reducing foundry hand-work. F. A. Foxall. Mech Handling 33:74 F '46

Sanitary ware foundry modernized; Richmond radiator co. il Foundry 74:148 F '46

Steel castings produced centrifugally; Youngstown alloy casting corp. E. Bremer. il Foundry 74:78-81+ N '46

Stopper rods dried in new type oven. il Foundry 74:142 Ag '46

Welded foundry equipment; follow boards; comparative cost data. il Steel 119:136+ Ag 5 '46

X ray checks casting quality; Bethlehem steel co. il Foundry 74:94-5+ Je '46

See also
Casting machines
Cupola furnaces
Foundry ladles
Foundry machinery
Molds (for casting)
Sand, Foundry

FOUNDRIES—Equipment and supplies—*Cont.*

Heating and ventilation

Foundry health; ventilation important part of program; Ferro machine and foundry company. Heat & Ven 43:106+ S '46

Foundry ventilation. J. M. Kane. bibliog il diags Foundry 74:86-9+ F; 104-8+ Mr '46

Lung lab pays off quickly; Ferro's testing facilities. Bsns W p54+ Jl 20 '46

Ventilating separators, breakers, screens. C. C. Hermann. diags Foundry 74:97+ S '46

Ventilating the mold shakeout. C. C. Hermann. il diags Foundry 74:104-5+ Ap; 117+ Je '46

Layout

Foundries of the future. J. B. Lamenzo. il plans diags Foundry 73:84-7+ N; 88-93+ D '45

Small brass foundry operated on third floor; Atlantic brass work inc. E. Bremer. il layout plan Foundry 74:102-3+ O '46

Lighting

Planned lighting for the modern foundry. W. H. Kahler. il diags Foundry 74:82-5+ O '46

Management

See Foundry management

Records

Pattern records. F. C. Cech. il Foundry 74:86-7+ O '46

Safety measures

Check list for foundries. il Safety Eng 91:35 Ap '46

Doctor discusses foundries. J. E. Mullen. Foundry 74:109+ Mr '46

Equipment and safety; joint discussions; American foundrymen's association. Foundry 74:164+ Je '46

Safety shoe foils 2,000 lb. casting; Hamilton foundry & machine company. il Safety Eng 91:20 Je '46

Silicosis prevention in the foundry; abstract. W. J. Rees. Am Cer Soc J 29 (Cer A [25]): 60 Mr 1 '46

Statistics

Analysis of the gray iron casting industry. Foundry 74:96+ Ag '46

Foundry statistics; tables (cont). Foundry 74:123 Ja; 200 Ap; 276 Je; 132 S; 152 O; 110 N '46

Gray iron foundries need 40,000 more workers, CPA survey. Steel 118:66 F 11 '46

Wartime expansion in light-metal foundries. Foundry 74:138, 141 F '46

Waste

Correction of foundry waste. A. J. Edgar. il Foundry 74:94-5+ O '46

Examination and treatment of industrial magnesium foundry wastes. O. C. Garst. U S Bur Mines Rep of Invest 3860:1-36, pl 1-4 '46

China

Iron founding under war conditions in China. E. K. Smith. il Comp Air Mag 51:100-1 Ap '46

Wartime foundries of China. E. K. Smith. il Foundry 73:82-3+ D '45

France

Organization of the foundry industry in France. V. Delport. Foundry 74:113+ F '46

Japan

Japanese foundry industry; abstract. A. C. Den Breejen. Mech Eng 68:901 O '46

Peru

South American foundry built under handicaps; International petroleum co. at Negritos. H. J. Burrus. il Foundry 74:224+ O '46

South Africa

Industrial expansion is active in South Africa. B. P. Skok. Foundry 74:159 O '46

FOUNDRY accounting

How to figure depreciation. A. E. Grover. Foundry 74:160 Ap '46

Nonferrous cost accounting. Foundry 74:82-5+ F; 100-2+ Mr; 216-19 Ap '46

FOUNDRY chemistry

Rapid method for determination of copper in steel; especially suitable for foundry control. F. B. Clardy, J. C. Edwards and J. L. Leavitt. bibliog Ind & Eng Chem Anal ed 17:791-2 D '45

FOUNDRY costs

Cleaning costs in a small gray iron foundry. A. E. Grover. Foundry 74:83+ N '46

See also
Foundry accounting

FOUNDRY dust

Dust removal at belt transfer points; foundry sand handling system. C. C. Hermann. diag Foundry 73:107+ D '45

Silicosis diagnosis. L. E. Hamlin. Safety Eng 91:82 Ja '46

Ventilating separators, breakers, screens. C. C. Hermann. diags Foundry 74:97+ S '46

FOUNDRY furnaces. See Electric furnaces, Foundry; Furnaces, Foundry

FOUNDRY ladles

Drying stopper rods. il Steel 119:96 S 2 '46

Ladle reactions in rimmed steel. F. G. Norris and E. B. Hughes. Iron Age 157:72-6 Je 6 '46

Ladles and pouring practice; abstract. M. Corbman. Iron Age 156:75 D 13 '45

Simplifies cylinder block pouring; motor driven ladle; Buick motor division. il Foundry 74:93 N '46

FOUNDRY machinery

Blowing cylinder barrel cores; Buick motor division. A. H. Allen. il plan Foundry 74:170-3+ My '46

Core blowing practice. L. D. Pridmore. il Foundry 74:94-5+ Mr '46

Shakeout handles large castings; Worthington pump & machinery corp. J. L. Yates. il Foundry 74:102-3+ F '46

Some new foundry plant. il diags Engineer 181:151-2 F 15 '46

See also
Casting machines
Die casting machines

FOUNDRY management

A.F.A. congress sessions recount foundry developments. Foundry 74:110-13+ Jl '46

Annual lecture course considers foundry control; American foundrymen's association. Foundry 74:160 Jl '46

Controlling gray iron quality. J. E. Linabury. Foundry 74:90+ F '46

Correction of foundry waste. A. J. Edgar. il Foundry 74:94-5+ O '46

Cost controls need readjustment. C. E. Westover. Foundry 74:102-3+ Ap '46

Elimination of casting defects. G. Johnstone, jr. il Foundry 74:76-8+ Ag; 92-5+ S '46

Gray iron foundry conditioning. C. W. Schwenn. il Foundry 74:104-8+ Je '46

Medical facilities, a foundry asset. J. M. Price. il Foundry 74:80-1+ Ag '46

Modernization of foundries. L. B. Knight. il Foundry 74:88-9+ Ap '46

Putting equipment to work. R. G. McElwee. Foundry 74:99+ Mr '46

Some bottlenecks of reconversion. A. Wiley. Foundry 73:97+ D '45

See also
Foundries—Employees
Foundry practice
Pattern storage
Foundry accounting

FOUNDRY practice

Application of radiography to the improvement of foundry technique. R. Jackson. diags Iron & Steel Inst J 151:225-59 bibliog(p258-9) pl 17-28; Discussion. 259-71 no 1 '45

Birmingham 14th annual conference. Foundry 74:132+ Ap '46

Casting turbogenerator parts; Allis-Chalmers mfg. co. il Foundry 74:90-1 Ag '46

Casting tuyeres in the Bethlehem foundry. P. Dwyer. il Foundry 73:110-13+ D '45; Same abr. Steel 118:138+ F 4 '46

Comparison of precision casting methods. W. A. Morey. Foundry 74:85+ Ag '46; Same, with ils and diags. Machine Design 18:83-6 O '46

Converter process in steel foundries. J. H. Hall. il Foundry 74:83+ Mr; 107+ Ap; 174+ My '46

FOUNDRY practice—*Continued*
Eliminating castings defects; abstract. P. Boutin. Mech Eng 68:647-8 Jl '46
Feeding of castings; abstract. R. W. Ruddle. Materials & Methods 23:1650 Je '46
Feeding of castings aided by new compound; Thermotomic. J. C. Sullivan. il Foundry 74:272+ Je '46
First report of the Foundry practice subcommittee. diags Iron & Steel Inst J 151: 329-81, pl 45; Discussion. 382-90 no 1 '45
Foaming of bearing metal during casting. E. A. Wolfenden. Metal Prog 50:479-80 S '46
Foundry developments; Chicago conference, March 20-22. Foundry 74:174+ Je '46
Foundry progress. J. Albin. il Iron Age 157: 142-5+ Ja 3 '46
Heat generating compound for ferrous and nonferrous castings; Thermotomic. il Steel 119:112 Jl 1 '46
High-pressure feeding of static molds. S. T. Jazwinski and S. L. Finch. il diags Iron Age 157:59-63 Ja 10; 54-63 Ja 17 '46
How to cast ingot molds. P. Dwyer. diags Foundry 74:158+ F '46; Same. Steel 118: 126-8 Mr 18 '46
Institute of British foundrymen, annual conference, Birmingham, June 19-21. Foundry 74:97+ Ag '46
Lost wax at work. il diags Sci Am 173:334-6 D '45
Mass production of precision castings; illustrations with text; Haynes stellite co. diags Steel 118:96-100+ Ap 8 '46
Massive quartzite; a refractory material for handling molten iron and steel. A. R. Blackburn. bibliog il Ohio State U Eng Exp Sta Bul 124:1-34 '45 (pa 50c)
Mechanized casting of soil pipe and fittings; Warden-King ltd. P. Dwyer. il diag Foundry 74:110-12+ Je; 102-4+ Jl '46
Melting and casting. E. F. Cone. il Materials & Methods 23:110-14 Ja '46
Michigan foundry groups, conference, East Lansing, April 5-6. Foundry 74:222+ My '46
New England foundrymen meet in two-day conference, Cambridge, Mass, March 29-30. Foundry 74:215+ My '46
New feeding technique for castings; use of Thermotomic, exothermically reacting compound. T. E. Lloyd. il Iron Age 157:62-4 Ap 25 '46
New foundry compounds cuts cleaning, scrap; Thermotomic. Iron Age 157:108 Mr 28 '46
Precision investment castings. E. L. Cady. il diags Materials & Methods 23:742-60 Mr '46
Quad-city chapter, A.F.A., resumes regional conferences, Davenport, Iowa, Nov. 15-16. Foundry 74:139+ Ja '46
Quality control of high-tensile steel castings. W. West, C. C. Hodgson and H. O. Waring. bibliog il diag Iron Age 156:52-5 N 29 '45
Removing dissolved gases from molten metals. P. M. Hume. bibliog il diags Steel 119: 108-11+ O 7; 110-11+ O 14 '46
Side feeding of steel castings; influence of the mechanism of freezing. B. Gray. diags Iron & Steel Inst J 150:5-17, pl 1-4 no 2 '44
What technical men expect in 1946; casting. Steel 118:334-6+ Ja 7 '46
Wisconsin 9th annual foundry conference, Milwaukee, Feb. 7-8. Foundry 74:126+ Mr; 148+ Ap '46

See also
Aluminum bronze
Aluminum founding
Brass founding
Bronze founding
Cast iron
Casting, Centrifugal
Castings—Cleaning
Chilled iron
Cores
Cupola furnaces
Die casting
Electric furnaces, Foundry
Iron founding
Magnesium founding
Molds (for casting)
Pattern making
Sand, Foundry
Steel castings
Steel ingots

also Association technique de fonderie de France

Study and teaching
Motion pictures to teach foundry work; United States Office of education. S. Reid. il Foundry 74:86-7+ N '46
Recruiting and training foundry engineers. D. D. Henry. Foundry 74:96+ S '46

Terminology
Glossary of terms employed in the foundry; data sheet. E. Bremer, comp. Foundry 73: 145-6 D '45; 74:157-8 Ja; 151-2 F; 161-2 Mr; 167-8 Ap; 203-4 My; 187-8 Je; 169 Jl '46

FOUNDRY research
First report of the Foundry practice subcommittee. diags Iron & Steel Inst J 151: 329-81, pl 45; Discussion. 382-90 no 1 '45
Foundry research at American cast iron pipe co. E. Bremer. il Foundry 74:96-9+ Jl '46
Foundry research at Watertown arsenal; adoption of centrifugal casting process in gun barrel production. W. G. Gude. il Foundry 73:104-6+ D '45
Motion radiography of mold pouring. S. L. Fry. il Foundry 74:92-6 F '46
Nonferrous foundry research at the Naval research laboratory. B. M. Loring. il Foundry 74:98-101+ F '46
Test bars for 85-5-5-5 alloy. G. H. Clamer. il plans diags Foundry 74:84-9+ S; 104-7+ O '46
X-ray movies in the foundry; abstract. S. L. Fry. Metal Prog 49:812+ Ap '46

FOUNDRY sand. See Sand, Foundry

FOUNDRY sanitation
Health and environmental conditions in the iron foundry; abstract. G. F. Keatinge and N. M. Potter. J Ind Hygiene 28:sup44-5 Mr '46

See also
Foundries—Heating and ventilation
Foundry dust

FOUNDRY workers. See Foundries—Employees

FOUNTAIN pens
At pens' points; Eversharp and Eberhard stave off Reynolds' injunction move. Bsns W p34-5 D 8 '45
Battle of the pens; Eversharp and Ball enliven ball-point competition. Bsns W p70+ My 4 '46
Finland producing fountain pens. For Comm W 25:28 O 26 '46
Fountain-pen scramble. Fortune 34:144+ Jl '46
Furore over pens; Macy introduces ball-bearing competitor from South America. il Bsns W p76+ Mr 2 '46
New Reynolds fountain pen. il Consumers Res Bul 17:13-14 F '46
Pen phenomenon; orders for ball-bearing point far exceed Reynolds' capacity. Bsns W p84+ D 15 '45
Reynolds issue; to offer 100,000 shares to public. Bsns W p44+ Je 15 '46
Reynolds offers model 2. Bsns W p74 Ap 20 '46
Reynolds reports selling 1,500,000 pens in 120 days. Ptr Ink 214:112 Mr 1 '46
Writing of ball-point pens does a fade-out. Consumers Res Bul 18:17-18 O '46

Advertising
How many angles on the point of a pen? Ptr Ink 215:91-2 My 24 '46

Manufacture
From raw material to fountain pen. W. G. Tucker. il Mod Plastics 23:137-41 Je '46
From 70 to 30,000 pens a day in six months; Reynolds exemplifies the American way. il Factory Management 104:134-5 My '46
Layer-cake plastics. C. A. Breskin. il Sci Am 175:160-2 O '46

Rating
Birome and Kimberly pens. il Consumers Res Bul 17:13-14 Je '46
Three more ball-tip pens; Reynolds 400, Blythe, and Eversharp. il Consumers Res Bul 18:20-2 Ag '46

FOUNTAINS
Neptune with a chisel; Swedish fountain-maker; Carl Milles. il Arch Forum 84:92-6 Je '46

FOUR-family houses. See Architecture, Domestic—Four-family houses

4-H clubs
Are you working with 4-H clubs? T. E. Wilson; W. D. Hemker. Edison Elec Inst Bul 14:123 Ap '46

4-H clubs—*Continued*
Utilities give course for 4-H club leaders in Wisconsin. A. B. Barfield. il Elec World 124:170+ N 10 '45

FOURDRINIER machines. See Paper making machinery

FOURIER'S series
Pressure broadening of spectral lines. H. M. Foley. bibliog Phys R 69:616-28 Je 1 '46
Steady-state operational calculus. D. L. Waidelich. bibliog diag Inst Radio Eng Proc 34:78P-83P F '46; Discussion. 34:579-80 Ag '46
See also
Harmonic analyzers

FOWL. See Poultry

FOWLER, George
Man with heart and flower. J. G. Schneider. por Adv & Sell 39:134+ My '46

FOWLER, Robert Thomas Grant, 1885-
Fowler overland; transcontinental flight in 1911. J. Hettich. por Aero Digest 53:26+ S '46

FOX, Abijah U.
Portrait. Bsns W p82 S 28 '46

FOX, John Jacob, 1874-1944
Sketch. J. T. Hewitt. Chem Soc J p719-22 O '45

FOY, Byron Cecil, 1893-
Foy from Chrysler: new equation in Jahco. por Bsns W p18 Je 1 '46

FRACTIONAL-horsepower motors. See Electric motors—Fractional horsepower

FRACTIONAL precipitation. See Precipitation

FRACTIONATING columns. See Distillation apparatus

FRACTOGRAPHY. See Metallography

FRACTURE of metals. See Metals—Failure

FRACTURES (surgery)
Fracture problems; fracture therapy by internal and external fixation. B. R. Parker and W. L. Culpepper. bibliog il Ind Med 15:90-6 F '46

FRAMED structures
Moment-stiffness relations in continuous frames with prismatic members. G. H. Dell. Am Soc C E Proc 72:587-611 My '46; Discussion. I. Oesterblom. 72:1182-4 O '46
Moving loads on restrained beams and frames. R. C. Brumfield. Am Soc C E Proc 71:627-55 My '45; Discussion. 71:1251-8, 1425-30, 1576-96; 72:115-18, 269-77, 523-33, 675-81 O '45-F, Ap-My '46
Rigid-frame structures subject to non-uniform thermal action; foundations for boilers and oil refinery furnaces. C. C. H. Tommerup. diags Am Soc C E Proc 72:759-80 Je '46
Stress-area method applied to frames. G. C. Best. J Aeronautical Sci 13:151-5 Mr '46

FRAMES for pictures. See Picture frames

FRAMING (building)
Frame walls. il diag Arch Forum 85:115 Jl '46
New framing system, adaptable to wood or metal construction, yields maximum stability with minimum material. il diags Arch Forum 84:211 Ap '46
Welded frame for a 16-story building; hospital at Hartford, Conn. A. E. Poole and L. F. Booth. il diags Eng N 137:577-9 O 31 '46

FRANCE
Reconstruction in France. Engineer 181:76-7, 98-9 Ja 25-F 1 '46
See also
Automobile industry and trade—France
Chemical industries—France
Electrochemical industries—France
Finance—France
Labor laws and legislation—France
Paper industry and trade—France
Petroleum—France
Petroleum industry and trade—France
Roads—France
Rubber industry and trade—France

Colonies

Central finance office of Overseas France. For Comm W 24:27-8 Jl 20 '46
Plans for the economic and social development of oversea territories authorized; colonial fund to finance plans established. For Comm W 24:21-2 Jl 27 '46
See also
Labor laws and legislation—France (colonies)

Commerce

French Cabinet decides to boost imports to $1.5 billion in year. Iron Age 158:134+ S 12 '46

United States

France maps U.S. purchases. Bsns W p97-8 Je 22 '46

Commercial policy

Export plan established for first part of 1946. For Comm W 23:23-4 Ap 6 '46
French colonies; ordinance requiring deposit of foreign exchange and securities with an approved agency. For Comm W 22:25 Mr 30 '46
French import plan for 1946. For Comm W 24:16-17+ Jl 6 '46
Licensing requirements for goods imported under the regime of special temporary admission. For Comm W 23:26-7 My 11 '46
Luxury transaction taxes on specified products changed; relaxation of export-license controls on additional products. For Comm W 23:27-9 Ap 27 '46
Planned exports; France sets new foreign trade quotas. Bsns W p96-7 Jl 13 '46
Revised regulations on imports from the United States. For Comm W 25:14-15 N 2 '46
Trade organization committees and offices and Central allotment office to be dissolved; allotment of industrial products temporarily controlled; revised regulations for bills of lading made to order of IMPEX. For Comm W 23:26-7 Je 22 '46

Constitution

Constitution; but for how long? Economist 151:625-6 O 19 '46
De Gaulle and the constitution. Economist 151:532-3 O 5 '46
French constitution. Economist 150:660-1 Ap 27 '46
National assembly 1946. Economist 151:337 Ag 31 '46

Economic conditions

Building damage and reconstruction in France. Mo Labor R 61:925-9 N '45
Bundles for Blum; French case for coal and credits. Economist 150:544 Ap 6 '46
France comes back fast toward stability and prosperity. F. Pick. Barron's 26:3 Jl 8 '46
France in 1945. Economist 150:supl0 Mr 23 '46
French loan should drop economic false front; linked to tug-of-war between Reds and western world. P. Wohl. Barron's 26:3+ Ap 15 '46
Progress of French recovery. Nat City Bank p128-31 N '46
Recovery in France. G. Soloveytchik. Comm & Fin Chr 164:741+ Ag 8 '46
La situation économique de la France; mesures proposées pour son redressement. Génie Civil 123:227-9 S 1 '46
Towards industrial recovery in France. Economist 149:632-3 N 3 '45

Economic policy

Current economic thinking in France. C. Rist. Comm & Fin Chr 163:3210+ Je 13 '46
Establishment and operation of the French modernization and equipment plan. For Comm W 24:25-7 Jl 20 '46
French economy. Economist 149:929-30 D 29 '45

Economic relations

Belgium - France - Luxemburg - Netherlands; economic agreement for mutual consultation effective in France. For Comm W 23:25 My 4 '46

United States

France and the United States; four agreements on economic and financial problems; text. For Comm W 23:51-3 Je 15 '46

FRANCE—*Continued*

Foreign relations

Prestige or diplomacy in France? Economist 150:17 Ja 5 '46

Great Britain

Alliance with France? Economist 150:887-8 Je 1 '46

United States

Franco-American agreements of May 28, 1946; text. Fed Res Bul 32:866-70 Ag '46

History

Revolution—Bibliography

French revolutionary pamphlets; a check list of the Talleyrand and other collections. H. E. Hayden, comp. 152p New York pub. lib, 5th av. & 42d st, New York '45

Industries and resources

Establishment and operation of the French modernization and equipment plan. For Comm W 24:25-7 Jl 20 '46

L'évolution de nos ressources en énergie et en matières premières au cours du deuxième semestre 1945. L. Viguier. Chimie & Ind 55:65-70 Ja '46

French industrial comeback; chart. Bsns W p113 Je 1 '46

Politics and government

Fourth republic. Economist 150:56-7 Ja 12 '46

French crisis. Economist 150:174-5 F 2 '46

French new deal. Economist 149:588-9 O 27 '45

General de Gaulle receives vote of confidence from French Assembly. Comm & Fin Chr 162:2622 N 29 '45

Right incline in France. Economist 150:913-15, 969-70 Je 8-15 '46

Le rouge et le noir. Economist 150:376-7 Mr 9 '46

FRANCHISE insurance. See Insurance, Franchise (term)

FRANKENSTEEN, Richard T. 1907-

On the other foot; Frankensteen, in employer role. por Bsns W p78 Jl 13 '46

FRANKFURT, Germany

Water supply

Water supply in Frankfurt. K. S. Watson. il map Water & Sewage Works 93:257-60 Jl '46

FRANKFURTERS. See Sausage

FRANKLIN, Benjamin, 1706-1790

Early electrical discoveries by Benjamin Franklin and his contemporaries. M. MacLaren. Franklin Inst J 240:1-14 Jl '45; Same, with bibliog. Elec Eng 65:57-64 F '46

Franklin and Lavoisier. H. S. van Klooster. por J Chem Educ 23:107-9 Mr '46

FRANKLIN institute

Medal day proceedings. Franklin Inst J 242: 67-80 Jl '46

Biochemical research foundation

Annual report. E. McDonald. Franklin Inst J 241:23-9 Ja '46

Laboratories

Franklin Institute laboratories. R Sci Instr 17:122 Mr '46

Reorganizes industrial research laboratories. Product Eng 17:329 Ap '46

FRARY, Francis Cowles, 1884-

Perkin medal; achievements of the medalist. W. N. Jones. Ind & Eng Chem 38:127-8 F '46

Perkin medal award. Science 103:335 Mr 15 '46

Perkin medal awarded Frary by Society of chemical industry. pors Chem & Eng N 24: 150-2 Ja 25 '46

Perkin medal presented in recognition of outstanding achievement in applied chemistry. por Ind & Eng Chem 38:124 F '46

Personal side of Francis C. Frary. J. G. Vail. Ind & Eng Chem 38:125-7 F '46

FRASER river, British Columbia

Fishways on the Fraser river designed for wide head variation. il Eng N 137:386-8 S 19 '46

Salmon swim Hell's Gate through new fishway. C. W. Harris. il plans Civil Eng 16: 431-3 O '46

FRATERNAL congress of America, National. See National fraternal congress of America

FRATERNAL societies. See Benefit societies

FRAUD

All false matter sent by mail can be evidence; issuance of false financial statements. M. S. Mattuck. Credit & Fin Management 48:9+ Jl '46

Diversiform dishonesty; defining fraud under the Investment company act. E. H. Cashion. Comm & Fin Chr 162:2460+ N 22 '45

Look for renewed business fraud; postwar expansion aids the commercial crook. R. C. Kramer. Credit & Fin Management 48:36 My '46

See also

Checks, Fraudulent
Embezzlement
Insurance, Life—Fraudulent statements
Swindlers and swindling
Tax fraud

FRAZER, Joseph Washington, 1892-

Adventures of Henry and Joe in autoland. por Fortune 33:96-103+ Mr '46

FRAZIER-LEMKE act. See Mortgages, Farm

FRÉCHETTE, Howells, 1879-

Fréchette honored at dinner. Am Cer Soc Bul 25:36 Ja 15 '46

Retires, chief of Division of industrial minerals, Bureau of mines, Ottawa. por Am Cer Soc Bul 24:438-9 N 15 '45

FREE energy

Heats, equilibrium constants and free energies of formation of the alkylbenzenes. W. J. Taylor and others. bibliog J Res Nat Bur Stand 37:95-122 Ag '46

Standard free energy of formation and entropy of the aqueous magnesium ion. C. C. Stephenson. bibliog Am Chem Soc J 68: 721 Ap '46

FREE goods. See Sales policies—Free goods

FREE ports and zones

Foreign-trade zones help small business. il For Comm W 24:3+ Ag 31 '46

Free port no. 2; New Orleans gets rating. Bsns W p34+ Jl 6 '46

Seek free ports; Quebec, Halifax, and Saint John. Bsns W p116 Ag 24 '46

See also

Dairen, China

FREE speech

Gag on employers; NLRB holds management must not force workers to hear antiunion talks. Bsns W p89-91 S 7 '46

Speeches upheld; Montgomery Ward's right to defend its reputation. Bsns W p93 N 2 '46

See also

Freedom of the press

FREE trade and protection

Choice for business. Fortune 33:3 Je '46

Corn laws. Economist 149:902-4 D 22 '45

International trade: cooperative or competitive? C. A. Peters, comp. Ref Shelf v 19 no 1:1-306 bibliog(p292-306) '46 ($1.25)

International trade increasingly shackled; our loans will not prevent continued quota and exchange restrictions. J. Hirsch. Barron's 25:7+ D 17 '45

See also

Tariff

FREE volume

Free volume and entropy in condensed systems; entropy in binary liquid mixtures; partial molal entropy in dilute solutions; structure and thermodynamics in aqueous electrolytes. H. S. Frank and M. W. Evans. bibliog J Chem Phys 13:507-32 N '45

Free volume and entropy in condensed systems; entropy of vaporization in liquids and the pictorial theory of the liquid state. H. S. Frank. bibliog diags J Chem Phys 13:493-507 N '45

Free volume and entropy in condensed systems; fluctuation entropy and free volume in some monatomic crystals. H. S. Frank. J Chem Phys 13:478-92 N '45

FREEDOM. See Liberty

FREEDOM of the press
Legitimate press in the Netherlands during German occupation. D. Hans. Ann Am Acad 245:113-17 My '46
Lose free speech protection against taxation of advertising. A. W. Gray. Inland Ptr 118: 52-3 O '46
Significance of a free press. S. Wells. Comm & Fin Chr 164:933+ Ag 15 '46

FREEPORT sulphur company
Selected companies, with an open road to higher earnings and dividends. Mag of Wall St 77:758, 801 Mr 30 '46

FREEZERS
Development of a home freezer. E. C. Tanner. il Refrig Eng 51:321-3 Ap '46
Home food freezers join appliances testing market for consumer demand. Ptr Ink 216: 100 Ag 23 '46
Home freezer design and the moisture problem. G. S. Hill. Refrig Eng 51:418+ My '46
Home freezers during power outage. E. C. McCracken and others. Refrig Eng 51:117-20+ F '46
1946 Gibson refrigerator has full-width freezer and chilling compartments. il diags Product Eng 17:460-1 Je '46
Plastics in four home appliances. il Mod Plastics 24:108-10 S '46
Technical phases of home freezer development. C. E. Lund. il diags Refrig Eng 51: 513-20 Je '46; Discussion. 52:142+ Ag '46
Tool steel super-cooled in deepfreeze units. il Elec World 125:142+ F 16 '46

Rating

Test of three home freezers. il Consumers Res Bul 18:5-9 O '46

FREEZING
Damage by freezing to canned meat products containing carbohydrates. B. W. Gardner, jr. diags Food Ind 18:192-5+ F '46
Drying and freezing. M. Hirsch. bibliog Refrig Eng 51:331-4+ Ap '46
Effect of freezing rate on vegetables; appearance, palatability, and vitamin content of peas and snap beans. F. A. Lee, W. A. Gortner and J. Whitcombe. bibliog il Ind & Eng Chem 38:341-6 Mr '46
Freezer locker plant is going commercial; increased facilities for freezing fruits and vegetables. H. Carlton. il layout Food Ind 18:1542-4+ O '46
Frozen orange juice; picture story. Food Ind 18:670-3 My '46
Immersion freezing in liquid nitrous oxide; German process. G. MacKinney. flow diags Food Ind 18:667-9+ My '46
Need of technological supervision in the food industry; with special reference to the selection, preparation and freezing of fruits and vegetables. H. C. Diehl. Refrig Eng 51:223-6+ bibliog(45 titles, p226+); Discussion. 268+ Mr '46
Recommendations issued for freezeproofing coal. Gas Age 97:34 Mr 21 '46
Role of water in freezing foods. M. R. Daughters and D. S. Glenn. bibliog Refrig Eng 52:137-40 Ag '46

See also
Concrete—Freezing
Food, Frozen
Refrigeration and refrigerating machinery
Soils—Freezing
Soils—Frost penetration
Water pipes—Freezing

FREEZING of assets. See Foreign exchange—Regulation

FREEZING points
Analysis of mixtures of meta- and para-cresols and their butylated products. D. R. Stevens and J. E. Nickels. Ind & Eng Chem Anal ed 18:260-1 Ap '46
Application of platinum resistance thermometry to some industrial physicochemical problems. D. R. Stull. bibliog il diags Ind & Eng Chem Anal ed 18:234-42 Ap '46
Determination of freezing point of oil; abstract. A. Petrikaln. Chem & Met Eng 53: 284 Ja '46
Determination of the purity of hydrocarbons by measurement of freezing points. A. R. Glasgow, jr. and others. bibliog diags J Res Nat Bur Stand 35:355-73 N '45
Freezing points and polymorphism of the eight C_9H_{12} alkylbenzenes. A. E. Hirschler and W. B. M. Faulconer. bibliog Am Chem Soc J 68:210-13 F '46
Physical and chemical properties of organometallic compounds; vapour pressures and freezing points of simple metal alkyls of groups II, III, and V. C. H. Bamford, D.L. Levi and D. M. Newitt. diags Chem Soc J p468-71 Je '46
Physical properties of 2- and 3-methylthiophene. F. S. Fawcett. bibliog Am Chem Soc J 68:1420-2 Ag '46
Purification and properties of 29 paraffin, 4 alkylcyclopentane, 10 alkylcyclohexane, and 8 alkylbenzene hydrocarbons. A. F. Forziati and others. bibliog J Res Nat Bur Stand 35:129-36 F '46
Purification, purity and freezing points of 31 hydrocarbons of the API-NBS series. A. R. Glasgow, jr. and others. bibliog J Res Nat Bur Stand 37:141-5 Ag '46
Routine analysis of sodium-potassium alloys. S. L. Walters and R. R. Miller. diags Ind & Eng Chem Anal ed 18:468-9 Ag '46
Undercooling retards freezing of canned foods; data sheets. Food Ind 18:513-17, 866-9, 1034-7, 1370-1 Ap, Je-Jl, S '46

See also
Cryostats

FREIGHT, Perishable

See also
Food—Transportation
Fruit—Transportation
Railroads—Ice supply
Refrigerator cars
Vegetables—Transportation

FREIGHT airplanes. See Airplanes, Freight

FREIGHT and freightage

See also
Airlines—Freight service
Airplanes, Freight
Bills of lading
Demurrage
Freight cars
Freight handling
Freight ships
Motor trucks in freight service
Packing for shipment
Railroads—Freight
Shipment of goods
Shipping
Transportation

Claims

Delivery of goods in relation to fire insurance; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:34-6 Je 27 '46
In absence of declared valuation consignee collects market value; Loeb vs. Friedman's Express. East Underw 47:17 Jl 19 '46

FREIGHT car service
Bad car situation. W. C. Kendall. Ry Age 121:691+ O 26 '46
Big demand for cars foreseen; abstract. W. C. Kendall. Ry Age 120:1225-6 Je 22 '46
Car situation calls for maximum cooperation; abstract. W. C. Kendall. Ry Age 121:140+ Jl 27 '46
Car supply; the job ahead. C. Hungerford. Ry Age 121:260-1 Ag '46; Same. Ry Mech Eng 120:449-50 S '46
Carman's part in claim prevention. J. Marshall. il Ry Mech Eng 120:84-6 F '46
Efficient transportation still requires shipper cooperation. il Ry Age 120:997-9 My 18 '46
Facts on grain movement. W. C. Kendall. Ry Age 120:584 Mr 16 '46
Faster freight. il Bsns W p28 Ap 27 '46
Federal agencies act in transport crisis. Ry Age 121:374+ Ag 31 '46
Freight car supply situation analyzed; abstract. E. G. Plowman. Ry Age 120:921-2 My 4 '46
Freight service tailored to the trade. il Ry Age 120:991-3 My 18 '46
Johnson still urging 50,000 car program. Ry Age 121:195+ Ag 3 '46
More freight, less cars alarm top management. D. I. Brown. il Iron Age 158:100-2 Ag 1 '46
National association of shippers advisory boards, 10th annual meeting, St Louis, Oct. 22. Ry Age 121:578-9 O 26 '46
No early drop in freight load seen; abstract. W. C. Kendall. Ry Age 119:1026-7 D 22 '45
No surplus of cars in early prospect; Atlantic states shippers advisory board meeting. Ry Age 120:245 Ja 26 '46
Poor cars for auto loading risk loss of business. E. T. Pate. Ry Age 120:676-7 Mr 30 '46

FREIGHT car service—*Continued*
Rail car shortage is crucial. il Bsns W p15-16 Ag 24 '46
Railroad efficiency highest ever known. J. M. Johnson. Ry Age 121:738+ N 2 '46
Railroads will increase car supply; abstract. J. J. Pelley. Ry Age 121:230-1 Ag 10 '46
Sees railroads taxed by record harvests. W. C. Kendall. Ry Age 121:523-4 S 28 '46
Shippers' outlook. Bsns W p17 O 12 '46
Steelman's report notes rail burdens. Ry Age 121:576+ O 5 '46
Wartime rail service credited to teamwork; annual report of the Car service division, Association of American railroads. Ry Age 120:156+ Ja 12 '46
Washington acts in grain car shortage. Ry Age 120:520+ Mr 9 '46
Western roads' grain revenues down. Barron's 26:7 Je 24 '46

See also
Demurrage
Freight cars—Interchange

Car load

Economy in heavier freight car loading. N. W. Kendall. il Dom Comm 34:33-5+ F '46
Lightweight freight cars; corrective for high tare. A. F. Stuebing. Ry Mech Eng 120:292-4+ Je '46; Same. Ry Age 120:956-8 My 11 '46
Minimum car-loading orders revised by O.D.T. Ry Age 121:201 Ag 3 '46
Railways seek L.C.L. traffic. il Ry Age 120:1009-11 My 18 '46

FREIGHT cars
Car-side straightener. il Ry Mech Eng 119:603 D '45
Freight car and freight progress. il Ry Age 120:1024-6 My 18 '46
Freight-car doors; hazards in opening and closing doors. il diag Nat Safety N 53:52+ Ja '46
Frisco lines spending $2,500,000 on new and rebuilt freight cars; work at Yale yard, Memphis, Tenn. A. Daniel. il Manuf Rec 115:38-9+ S '46
Moderate increase in freight-car orders probable during 1946. C. B. Peck. il Ry Age 120:32-3 Ja 5 '46
Pacemaker box cars fitted for speed. il Ry Age 120:1265-7 Je 29 '46
Report of the Committee on car construction. diags Ry Mech Eng 120:452-7 S '46; Same abridged, without diags. Ry Age 121:279-80 Ag 17 '46
Reynolds directs newly designed freight and passenger car equipment. diags Iron Age 156:114 N 22 '45
Transport crisis. Bsns W p121 S 28 '46
Transportation corps exhibits German equipment. Ry Mech Eng 120:228 Ap '46
Will it be new or rebuilt freight cars? P. P. Barthelemy. il Ry Age 120:467-8 Mr 2 '46

See also
Car doors
Car painting and finishing
Coal cars
Dump cars
Freight car service
Loading and unloading—Cars
Ore cars
Refrigerator cars
also Car department officers' association; Railway car export corporation of America

Floors

Device for laying freight car floors. il Ry Mech Eng 120:86 F '46

Interchange

Arbitration committee report; A.A.R. Mechanical division. Ry Age 121:271-3 Ag 17 '46; Same. Ry Mech Eng 120:468-70 S '46
Changes in interchange rules studied by the Northwest carmen's association. Ry Mech Eng 120:129-30 Mr '46
Interchange and billing for car repairs; report of Car department officers' association. Ry Mech Eng 120:548-51 O '46
I.C.C.'s appraisal of per diem charges. Ry Age 120:521-3 Mr 9 '46
Novel system mechanizes all car records; hook-up of teletype and card-punch machines on New Haven. J. L. Barngrove, jr. il Ry Age 120:394-8 F 23 '46
Prices for labor and materials; A.A.R. Mechanical division report. Ry Age 121:274-5 Ag 17 '46; Same. Ry Mech Eng 120:450-1 S '46
$2 per diem charge proposed; I.C.C. asked to investigate railroad car-hire practices. J. M. Johnson. Ry Age 121:415+ S 7 '46
$2 per diem opposed by short line roads. Ry Age 121:530 S 28 '46

Manufacture

Little shop with big stuff; Bessemer, Ala. plant of Pullman-standard car manufacturing co. il Manuf Rec 115:42-3+ Ap '46

Painting

See Car painting and finishing

Prices

Freight car prices; tabulation. J. G. Lyne. Ry Age 120:87 Ja 5 '46

Private ownership

Car lines report for 1944. Ry Age 120:589 Mr 16 '46
Court sustains I.C.C. on car allowance. Ry Age 120:885-6 Ap 27 '46

Repair

Handling freight-car wheel changes. P. P. Barthelemy. il diag Ry Mech Eng 120:310-13, 354-5 Je-Jl '46
Hopper-car program at McComb shops. il Ry Mech Eng 120:263-5 My '46
Interchange and billing for car repairs; report of Car department officers' association. Ry Mech Eng 120:548-51 O '46
Report on light car-repair tracks; Car department officers' association. il Ry Mech Eng 120:551-4 O '46
Wheel-type welding jigs. il Ry Mech Eng 120:16-17 Ja '46

Statistics

49,063 freight cars ordered in 1945. A. J. McGinnis. Ry Age 120:95-9 Ja 5 '46
Orders for freight cars for service in the United States and for export, first six months, 1946; tabulations. Ry Age 121:108-9 Jl 20 '46

Weight

Freight cars for economical operation. A. F. Stuebing. Ry Age 120:956-8 My 11 '46
Lightweight freight cars; corrective for high tare. A. F. Stuebing. Ry Mech Eng 120:292-4+ Je '46; Same. Ry Age 120:956-8 My 11 '46

FREIGHT cars, Aluminum
Missouri Pacific aluminum hopper cars. il diags Ry Age 120:270-2 F 2 '46; Same. Ry Mech Eng 120:62-4 F '46
Welded aluminum alloy tank cars. A. H. Woollen. Welding J 25:129-30 F '46

FREIGHT cars, Steel
American Car and Foundry builds covered hopper car. il diags Ry Mech Eng 120:347-8 Jl '46; Same, without diags. Ry Age 120:1212-13 Je 22 '46
Carnegie-Illinois demonstrates new Hopper car to 2,000 railroad brass hats; road show set up in 10 railroad centers. il Sales Management 57:91-2 O 15 '46
General American covered hopper car, for the transportation of Vinylite. il Ry Age 121:726 N 2 '46
Great Northern buys low-floor flat cars of Cor-Ten steel. il Ry Age 120:907-8 My 4 '46
Great Northern 50-ton drop-bottom gondolas. il diags Ry Mech Eng 120:68-71 F '46; Same cond. Ry Age 120:453-5 F 16 '46
High-strength steels give railroads sturdier and lighter freight cars. il Steel 119:117+ Ag 19 '46
Lightweight freight cars; corrective for high tare. A. F. Stuebing. Ry Mech Eng 120:292-4+ Je '46; Same. Ry Age 120:956-8 My 11 '46
USS builds all-welded Cor-Ten hopper. il Ry Age 120:722-3 Ap 6 '46; Same. Ry Mech Eng 120:254-6 My '46; Welding J 25:458+ My '46

FREIGHT forwarders. See Forwarding companies (air freight)

FREIGHT handling
Better service for express customers. C. G. Peterson. il Ry Age 121:687-9 O 26 '46

FREIGHT handling—*Continued*
Dockmen get a lift; mechanical equipment for moving freight at trucking terminals. F. Davin. il Nat Safety N 54:22-3+ Jl '46
Electrically operated goods traffic. il Electrician 135:492 N 9 '45
Handling of railway parcels traffic. F. H. Slade. il Mech Handling 33:277-81 My '46
Lost: $100,000,000; faulty packing and careless handling chief causes of 1945's loss and damage toll. C. H. Dietrich. il Ry Age 120: 189-93 Ja 19 '46
Mechanisation at reconstructed Birmingham goods depot. il plan Mech Handling 32:695-700 D '45
See also
Airplanes, Freight
Cargo handling
Container system (freight handling)
Loading and unloading—Cars
Railroads—Terminals

FREIGHT rates
See also
Motor trucks in freight service—Rates
Railroads—Rates
Shipping—Rates

FREIGHT ships
Adaptations of the basic Liberty design; abstract and discussion. E. B. Williams. Marine Eng 50:188 D '45
C-4 cargo ship program completed. Marine Eng 51:129 S '46
C1-M cargo motorships. Marine Eng 51:111 Je '46
Canadian Pacific cargo liner, Beaverdell. il plan Engineering 161:511-14, 516 My 31 '46
Canadian Pacific railway turbo-electric cargo liner Beaverdell. il plans diags Engineer 181:217-19, 239-41 Mr 8-15 '46; Same abr. Marine Eng 51:100-6 S '46; Abstracts. Elec R (Lond) 138:577-9 Ap 12 '46; Electrician 136:1021-4 Ap 19 '46
Cargo handling; relation to overseas commerce; with discussion of costs and economics. A. C. Rohn. il plans Marine Eng 50:149-58; Discussion. 174-6+ D '45
Experiments with models of cargo liners; summary and discussion. A. F. Lindblad. Engineer 181:399 My 3 '46; Engineering 161: 450 My 10 '46
Federal yard lays keels for gypsum vessels. Marine Eng 51:71 O '46
Foreign trade route and vessel requirements. Marine Eng 50:132-5 D '45
Great Lakes bulk-cargo carrier. L. A. Baier. bibliog il plan diags Mech Eng 68:857-65 O '46
LCT 'freighters; reconverted warcraft on Gulf of Mexico. Bsns W p36+ Ag 24 '46
Modern ships of the American merchant marine. F. V. Smith. il diags Gen Elec R 48: 34-42 D '45
New American South African C-3's. H. L. Seward. il plans diags Marine Eng 51:100-9 My '46
Progressive engineering features on cargo liner Mormacgulf. O. W. Page. il plans diags Marine Eng 51:80-100 Jl '46
Victory ships completed. Marine Eng 50:135 D '45
See also
Colliers
Ore ships
Stowage
Tank ships

FREIGHT solicitors. See Railroads—Freight solicitors

FREIGHT terminals. See Produce terminals; Railroads—Terminals; Terminals

FRENCH CANADIANS
How to approach the French-Canadian market; six wrong ways. C. W. Cook. Ptr Ink 216:71 Ag 23 '46
Radio idea pays; programs written solely for French Canadians. Bsns W p117 D 15 '45

FRENCH in Louisiana
Place of French-speaking farmers of southern Louisiana in future land development and reclamation projects. R. W. Harrison and W. M. Kollmorgen. J Land & Pub Util Econ 22:223-31 Ag '46

FRENCH language
Dictionaries
Common usage dictionary, French-English, English-French. R. S. Weiman, ed. 278p $3 Crown publishers, 419 4th av, New York 16 '46

FRENCH MOROCCO. See Morocco

FRENCH-SWISS financial agreement. See Financial treaties and agreements

FRENCH WEST AFRICA
Commercial policy
Import-license procedure again revised in French West Africa and French Togoland. For Comm W 21:29-30 N 10 '45

FREON. See Chlorofluoromethanes

FREON 12. See Dichlorodifluoromethane

FREQUENCY changers
Electronic equipment for induction melting alloy steel. S. R. Durand. il Foundry 74: 118+ N '46
First electronic frequency converting equipment installed for melting alloy steels. Blast F & Steel Pl 34:1300 O '46; Same cond. il Iron Age 158:57 N 7 '46
Fundamentals of electronic frequency conversion. M. M. Morack. bibliog il diags Power Pl Eng 50:58-65 My '46
Mercury arc frequency changer limits rolling mill demand; rectifier-inverter installation at Gary steel mill. R. W. Holman. il diag Elec World 125:112-16 Ap 13 '46

FREQUENCY control
Automatic frequency control for r-f heating. S. I. Rambo. bibliog il diags Electronics 19: 120-2 Ap '46
Automatic load and frequency control in Northwest power pool. S. B. Smith and M. L. Blair. map Elec World 124:56-60 D 22 '45
Control of load, frequency, and time of interconnected systems. C. K. Duff. bibliog il diags Elec Eng 64:Trans 778-86 N '45
Frequency-biased tie-line control; abstract. R. Keller. Elec World 125:86 Je 22 '46

FREQUENCY conversion in superheterodynes. See Radio receiving apparatus—Superheterodyne

FREQUENCY distribution (statistics)
Relationship between price change and price level for common stocks. Z. Szatrowski. Am Stat Assn J 40:467-83 D '45

FREQUENCY measurement
Decade counting circuits. V. H. Regener. il diags R Sci Instr 17:185-9 My '46
Nomogram for frequency formula. C. P. Nachod. Elec Eng 64:469 D '45

FREQUENCY meters
Counting rate and frequency meter. E. Lorenz and others. diags R Sci Instr 17:276-9 Jl '46
Heterodyne frequency meter for ultra-high frequencies. il R Sci Instr 16:324-5 N '45
Measure of frequency. il Mod Plastics 23:118 F '46
Measurement of frequencies in the range 100 mc/s to 10 000 mc/s. L. Essen and A. C. Gordon-Smith. diags Inst E E J 92 pt 3: 291-5 D '45
Measuring and monitoring broadcast frequencies. L. S. Cole. il diags Electronics 19:110-11 Jl '46
V.h.f. heterodyne frequency meter; application of split concentric-tuned oscillator. A. A. Goldberg. il diags Radio N 35:32-4+ Mr '46
Testing
Calibration of frequency meters. il diag Elec World 126:97 O 12 '46

FREQUENCY modulation. See Radio frequency modulation

FREQUENCY modulation transmitters. See Radio transmitters—Frequency modulation transmitters

FREQUENCY modulators
Low frequency mechanical modulator. B. B. Underhill. il diag R Sci Instr 17:280-1 Jl '46
Mechanical frequency modulation system as applied to the cyclotron. F. H. Schmidt. bibliog il diags R Sci Instr 17:301-6 Ag '46

FRESH water flora
See also
Plankton

FRICKE, O. G.
Topflight craftsmen. por Inland Ptr 117:74 Je '46

FRICTION
Friction charts for gases including correction for temperature, viscosity and pipe roughness. R. D. Madison and W. R. Elliot. Heating-Piping 18:107-12 O '46
Frictional heat speeds welding, bonding, and molding of plastics. C. A. Breskin. il Sci Am 174:20-2 Ja '46
Frictional pressure loss nomogram. J. R. Ernst. Engineer 182:5-6, supp Jl 5 '46
Frictional properties of some white metal bearing alloys; the role of the matrix and the hard particles. D. Tabor. bibliog il J Ap Phys 16:325-37 Je '45; Abstract. Metal Prog 49:604+ Mr '46
General correlation of friction factors for various types of surfaces in crossflow. A. Y. Gunter and W. A. Shaw. bibliog diags A S M E Trans 67:643-56; Discussion. 656-60 N '45
Heat transfer and friction of water in an annular space F. G. Carpenter and others. bibliog diags Am Inst Chem Eng Trans 42: 165-87 Ap '46
IP machine used to measure friction of textiles. R. A. Armitage. il Textile World 96: 202 Ja '46
Instrument bearing friction. A. L. Nylander. il diags Gen Elec R 49:12-17 Jl '46
Load in a bolt due to tightening the nut. J. L. M. Morrison. diags Engineering 161: 409-12 My 3 '46
Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. bibliog 71:1141-7, 1415-24, 72: 857-63 S, N '45, Je '46
New friction chart for round ducts. D. K. Wright, jr. bibliog Heating-Piping 17:577-84; Discussion. 584 O-N '45

FRICTION, Internal
Internal friction and plastic extension of zinc single crystals. T. A. Read and E. P. T. Tyndall. J Ap Phys 17:713-20 S '46
Internal friction in drill lubricants. J. Bjorksten. Iron Age 158:45 Jl 11 '46

FRICTION materials

Testing

Woven and molded friction materials for disk-type clutches. H. Nutt. il Product Eng 17:273-5 Ap '46

FRIEDEL, Charles, 1832-1899
Portrait. J Chem Educ 23:front Ja '46

FRIEDEL-CRAFTS reaction
Acylation of 4-hydroxy-3-carbethoxy-2-methylthiophen. J. H. Beynon and A. B. A. Jansen. Chem Soc J p600-1 S '45
Comparison of zirconium tetrachloride with aluminum chloride as a Friedel-Crafts catalyst. H. W. Heine, D. L. Cottle and H. L. Van Mater. Am Chem Soc J 68:524 Mr '46
Ethylbenzene; high yield and rate of production by liquid-phase ethylation. A. W. Francis and E. E. Reid. bibliog(104 references) diag Ind & Eng Chem 38:1194-203 N '46
Friedel-Crafts reaction with o-nitrophenol and acyl halides. F. C. Brown. bibliog Am Chem Soc J 68:872-3 My '46
Mechanism of condensation of the anhydrides of mono- and di-substituted succinic acids with aromatic hydrocarbons under the conditions of the Friedel-Crafts reaction. M. A. Saboor. Chem Soc J p922-5 D '45
New catalysts for Friedel-Crafts type reactions. A. N. Sachanen and P. D. Caesar. bibliog Ind & Eng Chem 38:43-5 Ja '46
New naphthalene derivatives structurally related to stilboestrol. B. J. F. Hudson. Chem Soc J p76-8 F '46
Oxidative ring closure in the Friedel-Crafts reaction. G. D. Buckley. Chem Soc J p561-6 S '45
Polymerization of alpha-methylstyrene. A. B. Hersberger, J. C. Reid and R. G. Heiligmann. bibliog il diag Ind & Eng Chem 37: 1073-8 N '45
Studies in the anthracene series; methyl ketones and carbinolamines derived from 1,2,3,4-tetrahydroanthracene. E. A. Garlock, jr. and E. Mosettig. bibliog Am Chem Soc J 68:2255-9 D '45
Synthesis of 2,4-dichloropropiophenone. J. T. Sheehan. Am Chem Soc J 68:1672 Ag '46

FRIES reaction
Fries reaction; nature of the substance described as 2-hydroxy-1-benzoylnaphthalene (m. p 175°). A. Schönberg and A. Mustafa. Chem Soc J p642 Jl '46

FRITS
Leadless and colored fritted glazes. C. W. Parmelee. Cer Ind 45:84+ N '45

FRITZSCHE brothers, inc.
Marks seventy-fifth year. Oil Paint & Drug Rep 150:5+ S 16 '46

FROEDTERT grain and malting company
Sees greater use of malt. Barron's 26:16 Ap 15 '46

FROG legs
Frog-leg industry hops ahead in Cuba. J. L. Martinez. For Comm W 24:8+ Ag 24 '46

FROST
Cryopedology; study of frozen ground and intensive frost-action with suggestions on nomenclature. K. Bryan. bibliog map diags Am J Sci 244:622-42 S '46

FROST penetration. See Soils—Frost penetration

FROSTBITE
Distribution of sodium and water in muscle following severe cold injury. J. M. Crismon and F. A. Fuhrman. bibliog Science 104: 408-9 N 1 '46

FROZEN fish. See Fish, Frozen

FROZEN food. See Food, Frozen

FROZEN food cabinets. See Food, Frozen—Cabinets

FROZEN food foundation, inc.
Meeting, 1st, Syracuse. Mod Packaging 19: 184+ My '46

FROZEN food lockers. See Cold storage lockers

FROZEN food products, inc.
Into frozen foods; department stores explore field through the researches of Frozen food foundation. Bsns W p88+ D 1 '45

FROZEN fruit. See Fruit, Frozen

FROZEN ground
Cryopedology; study of frozen ground and intensive frost-action with suggestions on nomenclature. K. Bryan. bibliog map diags Am J Sci 244:622-42 S '46

See also
Soils—Freezing

FROZEN milk. See Milk, Frozen

FROZEN peas. See Peas, Frozen

FROZEN shrimps. See Shrimps, Frozen

FROZEN vegetables. See Vegetables, Frozen

FRUCTOSE
L-fructose. M. L. Wolfrom and A. Thompson. bibliog il Am Chem Soc J 68:791-3 My '46
Sugar research rewarded; levulose, commercially available. Bsns W p76-8 S 14 '46

FRUEHAUF trailer company
Stock offered. Comm & Fin Chr 163:2005 Ap 15 '46
Thumbnail stock appraisal. Mag of Wall St 78:213 My 25 '46

FRUIT

See also

Apples	Oranges
Avocados	Peaches
Citrus fruit	Pears

Analysis

Determination of sulfur dioxide in fruits. J. D. Ponting and G. Johnson. bibliog Ind & Eng Chem Anal ed 17:682-6 N '45

Prepackaging

Analyzing the problems of prepackaging perishables. R. E. Bauer. il Food Ind 18:360-1+ Mr '46
Grower packaging of produce; California leads the way. il plan Mod Packaging 19:103-9+ My '46
Pre-packaging forum; produce industry. M. P. Rasmussen and others. Mod Packaging 20:132-5 O '46

FRUIT—*Continued*

Preservation

Ascorbic-citric acids prevent browning of cut fruit. H. G. Luther and G. O. Cragwall. il Food Ind 18:690-2+ My '46

La conservation des fruits en cave par la méthode Krebser. Génie Civil 123:235 S 1 '46

Controlling orange decay; thiourea, thioacetamide, 2-aminothiazole, and quinosol in aqueous solution. J. F. L. Childs and E. A. Siegler. bibliog Ind & Eng Chem 38:82-7 Ja '46

Storage of dried fruit; gas changes during storage of dried apricots and influence of oxygen on rate of deterioration. E. R. Stadtman and others. bibliog Ind & Eng Chem 38:324-9 Mr '46

Storage

See also
Apples—Storage
Citrus fruit—Storage
Fruit, Dried—Storage

Transportation

Air transport of perishables. il Aero Digest 52:76-7+ Ja '46

Produce by air; pre-packaged and pre-cooled. il Mod Packaging 19:96-100+ N '45

Wooden boxes without nails for prepackaged fruit or vegetables. il Mod Packaging 19: 188 Mr '46

FRUIT, Dried

Control of microbiological food spoilage by fumigation with epoxides. R. Whelton and others. bibliog Food Ind 18:23-5, 174-6+ Ja-F '46

Dried fruit packaging. il Mod Packaging 20: 122-7+ S '46

Nutritive value of dehydrated vegetables and fruits. P. L. Pavcek and others. bibliog Ind & Eng Chem 38:853-6 Ag '46

See also
Apples, Dried
Apricots, Dried
Prunes, Dried
Raisins

Moisture content

Storage of dried fruit; influence of moisture and sulfur dioxide on deterioration of apricots. E. R. Stadtman and others. Ind & Eng Chem 38:99-104 Ja '46

Storage

Storage of dried fruit; gas changes during storage of dried apricots and influence of oxygen on rate of deterioration. E. R. Stadtman and others. bibliog Ind & Eng Chem 38:324-9 Mr '46

Storage of dried fruit; influence of moisture and sulfur dioxide on deterioration of apricots. E. R. Stadtman and others. Ind & Eng Chem 38:99-104 Ja '46

Storage of dried fruit; influence of temperature on deterioration of apricots. E. R. Stadtman and others. Ind & Eng Chem 38:541-3 My '46

FRUIT, Frozen

Need of technological supervision in the food industry. H. C. Diehl. Refrig Eng 51:123-5+, 223-6+ bibliog(45 titles, p226+); Discussion. 268+ F-Mr '46

See also
Peaches, Frozen
Strawberries, Frozen

FRUIT juices

Preservation

Germans using improved methods to preserve fruit juices; mellowing by mold enzymes, concentration by continuous freezing, storage in CO_2 under pressure. Z. I. Kertesz. il diag Food Ind 18:496-8+ Ap '46

FRUIT trade

Fruits and vegetables; foreign-trade outlook. C. W. Kitchen. il For Comm W 22:3-5 Ja 12 '46

Joseph Di Giorgio. il Fortune 34:96-103+ Ag '46

See also
California fruit growers exchange
Citrus fruit
Cranberries
Produce terminals
United fruit company

Advertising

More fruit, lower prices, stiffer competition: Sunkist's problem. Sales Management 55: 69 N 15 '45

California

Grower packaging of produce. il Mod Packaging 19:103-9+ My '46

Canada

Fruit production and imports, 1942-1945. For Comm W 23:28 Ap 13 '46

Chile

Chile's production of canned fruits. For Comm W 23:43 My 18 '46

Deciduous-fruit situation. For Comm W 22: 34 Mr 23 '46

Cuba

Cuba's avocado output; air shipments loom large. P. M. Davenport. il For Comm W 25:5-6+ N 2 '46

Estimated production of Cuban processed fruits and vegetables, 1937-41 average; yearly figures, 1942-1945. For Comm W 23: 43 Je 22 '46

Dominican Republic

Exports, 1944-45; imports, 1938-1945. For Comm W 21:30 D 29 '45

Ecuador

Production and export of fruits. For Comm W 22:33-4 Mr 30 '46

French West Africa

Fruit production in French West Africa. For Comm W 22:31-2 F 2 '46

Germany

Germans using improved methods to preserve fruit juices; mellowing by mold enzymes, concentration by continuous freezing, storage in CO_2 under pressure. Z. I. Kertesz. il diag Food Ind 18:496-8+ Ap '46

Mexico

Mexican imports of deciduous fruits, 1940-1944. For Comm W 21:29 D 15 '45

South Africa

South Africa's citrus-fruit trade recovering. A. J. Mullen. il For Comm W 24:8-9+ S 7 '46

FRYE, Jack, 1904-

Portrait. Bsns W p68 D 15 '45

FUCHSIN

Detection of palladium using pararosaniline hydrochloride; a spot test procedure. P. W. West and E. S. Amis. bibliog Ind & Eng Chem Anal ed 18:400-2 Je '46

FUCOSE

Chemistry of gum tragacanth; derivatives of *d*- and *l*-fucose. S. P. James and F. Smith. Chem Soc J p746-8 N '45

FUEL

Alberta's fuels. Bsns W p112 D 29 '45

Comparative thermal values of various fuels; chart. Power Pl Eng 50:110 Ap '46

Fuel and the future. Engineer 182:342-3, 364-5+, 389-91 O 18-N 1 '46

Fuel combustion characteristics. W. L. Nelson. Oil & Gas J 45:113 Ag 10 '46

Future fuel supply; abstract. R. Adams. Power 90:497c Jl '46

Heat and cost properties of fuels; charts; engineering file facts. Materials & Methods 24:675 S '46

L'Institut des combustibles minéraux de l'Académie des sciences de l'U.R.S.S. Génie Civil 123:115 My 1 '46

Nation's reserve of solid fuels and its relation to the future supply of gaseous and liquid fuels. A. C. Fieldner. Gas Age 98: 37-40+ S 19 '46

Report on investigations by fuels and lubricants teams at the I. G. Farbenindustrie, A. G., works, Ludwigshafen and Oppau. R. Holroyd, ed. 33pls U S Bur Mines Information Circ 7375:1-75 '46

Rocket engine fuels. R. McLarren. il Automotive & Aviation Ind 95:20-3+ Ag 15 '46

Training of the fuel technologist; abstracts. J. W. Whitaker. Mech Handling 33:37-9+ Ja '46; Engineering 161:165 F 15 '46

FUEL—*Continued*
21% of vet housing units used oil heat units first half of '46. Nat Pet N 38:41 O 9 '46

See also
Airplane engines—Fuel
Automotive fuel
Benzol (commercial benzene)
Blast furnace gas
Boilers—Firing
Briquets (fuel)
Coal
Coal, Pulverized
Coke
Coke dust
Coke-oven gas
Combustion
Diesel engines—Fuel
Fuel economy
Furnaces
Gas as fuel
Gasoline
Heating
Internal combustion engines—Fuel
Kerosene
Lignite
Liquid fuel
Locomotives—Fuel
Oil fuel
Peat
Petroleum coke
Pitch as fuel
Power plants—Fuel
Steel works—Fuel
Tar as fuel
Tractors—Fuel
Waste fuel
Wood as fuel

Bibliography
Survey of literature on the manufacture and properties of iron and steel, and kindred subjects Iron & Steel Inst J 150:1A-170A no 2 '44
Survey of literature on the manufacture and properties of iron and steel, and kindred subjects. Iron & Steel Inst J 151:1A-161A no 1 '45

FUEL, Colloidal
Colloidal fuel. D. W. Machin.. Ry Mech Eng 119:585-6 D '45

FUEL economizers
Corrosion in Briner economizers. J. T. MacDonald. Pulp & Pa of Can 47:60-1 Mr '46
Proposed steam producer evaporates high-pressure steam outside furnace; modification of Benson boiler. diags Power 90:663-5 O '46
Renewing packing grommets on economizer cleanout plug; accident. Marine Eng 51:134 Ag '46

FUEL economy
Atmospheric pollution and the fuel problem. W. B. Kennedy. Engineering 162:222 S 6 '46
Check your insulation for better fuel utilization. Heating-Piping 18:94-5 Ap '46
Coal economy and housing. P. Schiller. Elec R (Lond) 138:801-4 My 24 '46
Combustion control; Cities Service heat prover. il diag Steel 117:134+ D 10 '45
Conservation of coal for locomotives. J. F. Barkley. Ry Mech Eng 120:11-12 Ja '46
Domestic fuel policy. Economist 150:500+ Mr 30 '46
Domestic fuel policy; abstracts. Elec R (Lond) 138:527-8 Ap 5 '46; Electrician 136: 874 Ap 5 '46
Fuel considerations in the fabrication of non-ferrous metals and light alloys. L. Aitchison. Chem Age (Lond) 55:535-7 N 2 '46
Fuel cost economy at the blast furnace and its relation to coal selection and preparation. W. M. Bertholf. Blast F & Steel Pl 34:727-32+ Je '46; Same. Steel 119:122-4+ Jl 15 '46
Fuel economy in chemical works; its relation to other factors in design. B. E. A. Vigers. Chem Age (Lond) 55:497-504 O 26 '46
Fuel economy in iron and steel-works; abstracts of papers. M. Tigerschiold and others. Engineer 181:445; Discussion. 466-7 My 17 '46
Fuel utilisation. G. E. Foxwell. Engineering 160:502-3, 512-13 D 14-21 '45; Abstract. Gas J (Lond) 247:103 Ja 16 '46
Hints for better coal combustion. E. W. Fair. Rayon 27:323 Je '46
Measurement of steam flow; suitable instruments aid economy. T. F. Hurley. diags Chem Age (Lond) 53:559-62 D 15 '45
Place of the gas industry in the national fuel economy. G. E. Foxwell. Gas J (Lond) 247:760-2+ My 8 '46; Discussion. 247:808-9 My 15 '46
Practical proposal on fuel forums. C. E. Miller. Power 89:839 D '45
Saving fuel is good business; Bureau of mines quiz sheets. diags Heating-Piping 17:623-7; 18:111-14 D '45-Ja; 105-6 My '46

See also
Fuel economizers
Soot blowers

FUEL oil. See Oil fuel; Oil fuel industry

FUEL pumps. See Pumps, Fuel

FUEL research
See also
Coal research
Gas research

FUEL tanks. See Airplanes—Fuel tanks

FUJIWARA reaction
Observations on the Fujiwara reaction as a test for chlorinated hydrocarbons. F. J. Webb and others. bibliog J Ind Hygiene 27: 249-55 N '45

FULBRIGHT bill. See Inventions

FULLER, Richard Buckminster, Jr.
Fuller's house has better than even chance of upsetting the building industry. pors Fortune 33:166-72+ Ap '46

FULLER, Walter Deane, 1882-
Portrait. Sales Management 57:40 O 1 '46

FULLER brush company
Fuller brush man comes back. Bsns W p80+ D 8 '45

FULLER houses, inc.
Commercial model of hemispherical house unveiled. il plan Bsns W p46 Mr 23 '46; Eng N 136:444-5 Mr 28 '46; diags Heat & Ven 43:100-1 Ap '46
Design, materials and methods combined in new type house. J. Anthony. il plans Iron Age 157:106-7 Mr 28 '46
8,000 lb. house; Fuller's four room, two bath unit is made of plane materials by plane mechanics. il plans Arch Forum 84:129-36 Ap '46
Fuller's house has better than even chance of upsetting the building industry. il Fortune 33:166-72+ Ap '46
Hemispherical house. il plan Mech Eng 68: 459-60 My '46
Industrializing shelter; the Fuller house. il plan diags Arch Rec 99:118-20+ My '46

FULLER'S earth
Les argiles smectiques de Sainte-Radegonde (Vaucluse). map Génie Civil 123:64 Mr 1 '46
Fullers earth as a binder for catalysts and adsorbents; Florigel. R. G. Capell and others. bibliog il Pet Refiner 25:117-19 F '46

FULLING
Lightweight fabric gives trouble in fulling. Textile World 96:196+ S '46

FUMES
Case studies show need of supply air in plant ventilation. J. B. Skinner and W. M. Pierce. il plan diag Heat & Ven 43:57-61 My '46
Evaluation of fastness to atmospheric fumes of dyed cellulose acetate rayon. il Am Dyestuff Rep 35:174-6 Ap 8 '46
Fighting dangerous fumes; Cessna aircraft company, Wichita, Kan. il Factory Management 104:84-5 Ap '46
Filter paper collection of cadmium and iron fumes in air. L. Silverman and C. Valenzuela. J Ind Hygiene 28:107-11 My '46
Fume control vital in welding. D. Hanna. il Safety Eng 91:27-8+ Ap '46
In scrapping our ships never scrap safety; poisonous fumes, hazard in oxyacetylene cutting. W. R. Stewart. il Safety Eng 91: 20-1 Ja '46

See also
Smelter fumes

FUMIGANTS
Control of microbiological food spoilage by fumigation with epoxides. R. Whelton and others. bibliog Food Ind 18:23-5, 174-6+ Ja-F '46
Method for the micro-determination of the sorption of fumigants. F. P. W. Winteringham. bibliog diags Soc Chem Ind J 65:48-51 F '46

FUMIGATION
Insecticidal cords; generating smoke by burning cords impregnated with DDT or other toxic materials. D. E. Pearsall and P. P. Wallace. Soap & San Chem 22:139+ O '46
Residues in wheat flour fumigated with methyl bromide. S. E. Lewis and K. Eccleston. bibliog Soc Chem Ind J 65:149-52 '46
Sorption of methyl bromide by wheat. F. P. W. Winteringham and A. Harrison. bibliog Soc Chem Ind J 65:140-9 My '46

FUND statements. See Balance sheets

FUNERAL directors. See Undertakers

FUNERALS, Cost of
Funeral costs reported. Bsns W p41 Je 22 '46

FUNGI
Control of bacteria and fungi in paper mills. L. J. Rampel. bibliog Paper Tr J 121:27-9 N 29 '45
Deleterious effects of fungi. F. J. Sowa. Rayon 27:257-9 My '46
Fungicides in war and peace. H. N. Mitchell. il Textile Col 68:14-15+ F; 22-3+ Mr; 26-7 Ap '46
Preventing the fungus fouling of optical instruments. R. E. Vicklund. il diag Ind & Eng Chem 38:774-9 Ag '46
Problem of fungal growth as it affects synthetic resins, plastics and plasticizers. A. E. Brown. il Mod Plastics 23:189-95+ Ap '46
Review of information on mycological citric acid production. H. W. von Loesecke. bibliog(145 references) Chem & Eng N 23:1952-9 N 10 '45

See also
Helminthosporium
Mildew
Molds (botany)

Culture mediums
Effect of corn steep liquor ash on penicillin production. S. G. Knight and W. C. Frazier. Science 102:617-18 D 14 '45
Wood soil contact culture technique for laboratory study of wood-destroying fungi, wood decay and wood preservation. J. Leutritz, jr. bibliog il diag Bell System Tech J 25:102-35 Ja '46

FUNGI, Pathogenic
Inhibition of fungus respiration: a metabolic bio-assay method. W. J. Nickerson. bibliog Science 103:484-6 Ap 19 '46
Studies of the role of fungi in pulmonary disease; cross reactions of histoplasmin. C. W. Emmons and others. bibliog Pub Health Rep 60:1383-94 N 23 '45

See also
Ringworm

FUNGICIDAL paint. See Paint, Fungicidal

FUNGICIDES
Dyeing of cotton with mineral khaki; the incorporation of copper with chromium and iron in mineral khaki for the production of an effective fungicide and bactericide. E. Race, F. M. Rowe and J. B. Speakman. bibliog il Soc Dyers & Col J 62:9-19, pl 1-2 Ja '46
Effect of pH on fungistatic activity of dinitro-o-cresol. P. W. Brian. bibliog Soc Chem Ind J 64:315 N '45
Fungicidal action of copper. R. L. Wain. bibliog Chem & Ind p70-3 F 16 '46; Discussion. p 410-11 D 29 '45
Fungicidal activity of bisphenols as mildew preventives on cotton fabric. P. B. Marsh and M. L. Butler. bibliog il Ind & Eng Chem 38:701-5 Jl '46
Fungicides for the skin; abstract. S. J. Hopkins. Soap & San Chem 22:155 Ap '46
German pesticide work told in U.S. reports. Oil Paint & Drug Rep 148:7+ D 10 '45
Inhibition of fungus respiration: a metabolic bio-assay method. W. J. Nickerson. bibliog Science 103:484-6 Ap 19 '46
Mercurial fungicide wax problems. W. F. Horner, F. R. Koppa and H. W. Herbst. il Ind & Eng Chem 37:1069-73 N '45
Mildew and rot resistance of textiles and effectiveness of textile fungicides. H. D. Barker. Am Dyestuff Rep 35:274-6+ Je 3 '46
New agricultural chemicals combat pests and improve crops. E. D. Witman. il Chem Ind 58:590-2 Ap '46
New fungicides; propionate-propionic acid product proves effective in control of athlete's foot and other fungus diseases. F. Owens. bibliog Soap & San Chem 22:126-9+ My '46
Petroleum industry research helps agriculture to minimize crop losses; Union oil company laboratory to study control of insects, fungi, and bacteria. R. Sneddon. il Pet Eng 17:77-8+ Je '46
Preventing the fungus fouling of optical instruments. R. E. Vicklund. il diag Ind & Eng Chem 38:774-9 Ag '46
Use of fungicides in paint and varnish; abstracts. A. Minich. Can Chem & Process Ind 29:745 N '45; Oil Paint & Drug Rep 148:45-6 N 12 '45
Wood soil contact culture technique for laboratory study of wood-destroying fungi, wood decay and wood preservation. J. Leutritz, jr. bibliog il diag Bell System Tech J 25:102-35 Ja '46

Analysis
Quantitative determination of phenolic fungicides. S. Gottlieb and P. B. Marsh. bibliog Ind & Eng Chem Anal ed 18:16-19 Ja '46

Testing
Fungicides in war and peace. H. N. Mitchell. il Textile Col 68:14-15+ F; 22-3+ Mr; 26-7 Ap '46
Service test of copper-treated cotton sandbags. J. D. Dean and others. il Am Dyestuff Rep 35:346-8 Jl 15 '46

FUR
Unstable sable. Fortune 32:278 D '45

See also
Sheepskin

Bleaching
See Bleaching—Fur

FUR bearing animals
Fur and feathers; a response to falling temperature? R. B. Cowles. Science 103:74 Ja 18 '46

FUR coats
Advertising
Shift from ready-made to made-to-measure raises sagging sales; fur coats. Ptr Ink 215: 89-90 Ap 12 '46

FUR farming
Muskrat farming in marshlands of Wayne county, Ohio. M. C. Gilfillan. il Banking 38:58 D '45

FUR insurance. See Insurance, Fur

FUR trade

See also
Sheepskin

Australia

See also
Rabbit skins

Canada
Animals on Canadian fur farms, raised and to be pelted, estimates, 1944 and 1945. For Comm W 21:29 D 1 '45
Reconsideration of quotas on silver-fox furs. For Comm W 22:42 F 2 '46

Great Britain
Resumption of fur auctions. Economist 150: 349 Mr 2 '46

Norway
Norway's second fur auction. For Comm W 23:42 Je 1 '46

FURAN
Derivatives of acetyl hydroxy furans and their conversion into substituted acetones A. L. Wilds, W. J. Close and J. A. Johnson, jr. bibliog Am Chem Soc J 68:89-92 Ja '46
Furans; the ultraviolet absorption of isomeric furaldoximes. R. F. Raffauf. bibliog Am Chem Soc J 68:1765-6 S '46
Solvents in the paint industry; the furans. R. B. Pollak. Paint Oil & Chem R 109:9-10+ Jl 25 '46
Use of the bromo- and chloromethylation reactions in the synthesis of some dialkylaminomethyl-2,5-diphenylfurans. R. E. Lutz and P. S. Bailey. Am Chem Soc J 68:2002-5 O '46

See also
Tetrahydrofuran

FURFURAL
Advances in furfural resin applications. il Mod Plastics 23:126-9 Jl '46
Autoxidation of furfural. A. P. Dunlop, P. R. Stout and S. Swadesh. il Ind & Eng Chem 38:705-8 Jl '46
Comparison between certain reactions of the aloins and those of glucose. J. H. Gardner. bibliog Am Chem Soc J 67:211-12 D '45

FURFURAL—*Continued*
Extractive distillation; separation of C_4 hydrocarbons using furfural. J. Happel and others. bibliog diags Am Inst Chem Eng Trans 42:189-214 Ap '46
Preparation of dihydropyran, δ-hydroxyvaleraldehyde and 1,5-pentanediol from tetrahydrofurfuryl alcohol. L. E. Schniepp and H. H. Geller. bibliog Am Chem Soc J 68:1646-8 Ag '46
Vapor pressure and vapor-liquid equilibria in the system furfural—2-methylfuran. R. F. Holdren and R. M. Hixon. diags Ind & Eng Chem 38:1061-2 O '46

FURNACE doors
Plastic lined furnace doors. J. N. Hornak. Blast F & Steel Pl 34:900 Jl '46

FURNACE industry and trade
Light treatment increases response to questionnaire and sales manuals. G. Brown. Ptr Ink 217:107-8+ O 18 '46
1946 warm air furnace shipments headed for record. il Steel 119:76-7 N 4 '46

FURNACES
Copper furnace brazing. G. A. Robinson. il diags Mach 52:139-46 D '45
Dual purpose furnace offered by Surface combustion corp. Chem & Eng N 23:2132 N 25 '45
Furnace tube decoking with steam and air. H. Bottomley. diags Pet Refiner 25:109-10 Ag '46
Heat-flux pattern in fin tubes under radiation. A. R. Mumford and E. M. Powell. diags A S M E Trans 67:693-5 N '45
Notes on gas-fired pyrometric cone equivalent furnace; abstract. S. M. Phelps and R. W. Limes. Brick & Clay Rec 108:64+ My '46

See also
Blast furnaces
Cement kilns
Coke ovens
Cupola furnaces
Electric furnaces
Glass furnaces
Glass tanks
Grates
Kilns
Lime kilns
Oil burners
Open hearth furnaces
Refractory materials
Refuse incinerators

Atmosphere control
Copper brazing intricate parts; National cash register co. il Steel 119:108+ N 4 '46
Furnace atmospheres, important factor in sintering of powder metal compacts; abstract. H. M. Webber and A. G. Hotchkiss. Iron Age 157:80 Je 20 '46
Lindberg generator provides atmosphere for several furnaces. flow diag Am Mach 90: 154 Ag 29 '46

See also
Furnaces, Forging—Atmosphere control
Furnaces, Heat treating—Atmosphere control

Control
Air-gas ratio control applied to nonatmospheric-pressure furnaces. H. C. McRae. diags A S M E Trans 68:385-90 My '46
Wellman Smith Owen stoker-fired furnace control system. il Engineer 181:368 Ap 19 '46

Lining
Physical properties of some high-temperature refractory compositions. G. R. Pole and others. bibliog il diag Am Cer Soc J 29:208-22 Ag 1 '46

FURNACES, Annealing
New method of coil annealing; abstracts. H. H. Armstrong and F. F. Schlitt. Iron Age 158:72-3 O 10 '46; Steel 119:131-2 O 14 '46
Small plant wire annealing by gas; Atlas tack corporation. il Am Gas Assn Mo 28:82 F '46

FURNACES, Boiler
Dividends from furnace draft. R. Reed. il plan Oil & Gas J 45:80+ S 14 '46
For good operation, remember air is a fuel; importance of volume of air flow to furnaces. E. J. Davis. Heating-Piping 17:627 D '45
Heat storage losses in steam boilers, and savings attained by use of steam generators. J. G. Coutant. il diag Am Gas J 164: 18-19 Ap '46
How to design plant for process steam and power; how large a furnace? W. A. Shoudy. il diags Power 90:460-2 Jl '46

FURNACES, Carburizing
Gas carburising. il diags Engineer 181:382-3 Ap 26 '46; Engineering 161:488-9 My 24 '46
Lift truck adapted to charging box furnaces. diags Iron Age 157:55 Je 13 '46
Preventing surface decarburization in large shaved transmission gears; controlled furnace atmosphere. E. G. de Coriolis. il diag Iron Age 156:56-61 N 29 '45

FURNACES, Cupola. See Cupola furnaces

FURNACES, Electric. See Electric furnaces

FURNACES, Enameling
World's largest continuous gas-fired enameling furnace; dual fuel system; Smoot-Holman co. F. A. Herr. il Am Gas J 165:11-13+ S '46

FURNACES, Forging
18,000-ton forging press; with special forging and heat-treating furnaces, produces magnesium and aluminum alloy forgings; Wyman-Gordon products corp. L. E. Browne. il Steel 118:114-16+ Je 17 '46

Atmosphere control
Precision atmosphere forging; A. O. Smith corp. E. G. de Coriolis. il Steel 118:90-4 Ap 8 '46

FURNACES, Foundry
Side-blow converter in the postwar period. A. W. Gregg. bibliog il Foundry 74:74-6+ N '46

See also
Electric furnaces, Foundry

Firing
Foundry firing; electrical heating of high-viscosity creosote-pitch fuel. il Elec R (Lond) 137:615-19 N 2 '45

FURNACES, Galvanizing
Hot-dip galvanizing practice. W. H. Spowers, jr. il diags Steel 119:100+ Ag 26 '46

FURNACES, Heat treating
Car-type furnaces used in manufacture of tanks by Chicago bridge & iron co. Steel 118:93 Ap 29 '46
Corrosion of steel salt-bath pots by molten alkali nitrates, used for heat treatment of duralumin. R. J. Box and B. A. Middleton. Engineering 160:523-4, 543 D 21-28 '45
18,000-ton forging press; with special forging and heat-treating furnaces, produces magnesium and aluminum alloy forgings; Wyman-Gordon products corp. L. E. Browne. il Steel 118:114-16+ Je 17 '46
Industrial heat-treating furnaces in Germany; abstract. C. H. Stevenson. Am Cer Soc J 29 (Cer A [25]):164 S 1 '46
Interruptible quenching. C. H. Lekberg. Am Gas J 164:31-4 Ap '46
Martempering furnace. A. E. Fowler. il Metal Prog 49:752-3 Ap '46
Metals heated and heat treated on faster schedule with gas; abstract. F. O. Hess. Iron Age 158:108 O 24 '46
New equipment; heat treat. il Iron Age 156: 78-80 N 15 '45; 157:57-60 My 30 '46
Rockwell batch heating furnaces. il Steel 117: 146+ D 10 '45
Rockwell heat treating furnace. il Steel 118: 121 My 13 '46
33d annual review number. il Am Mach 90: 159-62 Ja 17 '46
War turns a page in metal processing; heat-treating. flow diag il Am Mach 90:93-7 Ja 31 '46

See also
Electric furnaces, Heat treating

Atmosphere control
Bright-hardening of tools and machine parts in controlled atmospheres. C. E. Peck. flow diag il diag Mach 52:158-63 F; 178-80 Mr '46
Critical survey of controlled atmospheres. E. J. Funk, jr. and D. Von Ludwig. Iron Age 158:42-7 S 19; 74-9 S 26; 50-4 O 3 '46
Practical tool room heat treatment; avoiding decarburization. F. J. McMulkin. Iron Age 157:56-9 Je 13 '46
Some users' experience with lithium atmospheres for heat treating; with cost data. R. S. Burpo, jr. il diag Materials & Methods 24:622-5 S '46
Surface Combustion dual-purpose furnace. il Mach 52:210 D '45

FURNACES, Heat treating—Atmosphere control—*Continued*
Surface combustion furnace uses novel system of enriching gas. diag Am Mach 90: 186 My 23 '46

Control

Automatic control of furnace temperature and pressure. il diags Engineer 182:321-2 O 11 '46

FURNACES, Heating
How to build and use a preheating furnace. H. H. Moss. diag Materials & Methods 24: 677+ S '46
How to construct a preheat furnace; illustrated instructions. Power 90:787 N '46
Instrumentation of soaking pits. J. P. Vollrath. diags Blast F & Steel Pl 33:1391-3 N '45
Measurement of rate of heating of steel slabs in reheating furnaces; abstract. J. W. Percy. Iron Age 158:74-5 O 10 '46
Roll conveyor for billet-heating furnace. diags Mech Handling 33:448 Jl '46
Roll hearth furnace; abstract. W. Offenberg. Materials & Methods 23:508 F '46
Soaking pit operation. D. M. McGeary and R. D. Hindson. il Blast F & Steel Pl 34: 721-6, 861-5, 986-9 Je-Ag '46
Temperature uniformity in heating-up processes. M. P. Heisler. A S M E Trans 68: 493-500; Discussion. 500-2 Jl '46

FURNACES, Laboratory
New three-way bench furnace. il Am Gas Assn Mo 28:271 Je '46
Safe, effective roaster for sulphide ore tests. O. Wiser. diags Eng & Min J 147:65 Jl '46

FURNACES, Metallurgical
Combustion control; Cities Service heat prover. il diag Steel 117:134+ D 10 '45
Refining of copper residues; variations of the reverberatory process. O. P. Einerl and F. Neurath. bibliog il plan diags Chem Age (Lond) 54:369-72 Ap 6 '46

See also
Blast furnaces
Cupola furnaces
Furnaces, Reverberatory
Open hearth furnaces

FURNACES, Non-ferrous melting
Ellipsoid melting furnace. A. J. G. Smith. diag Iron Age 158:79 S 26 '46
Magnesium melting pots maintained by metal spraying; process inhibiting scale formation. il Steel 118:130+ F 4 '46
Metal-spraying magnesium melting pots. A. V. Keller. Materials & Methods 23:482 F '46

FURNACES, Recuperative and regenerative
Metal recuperators. Chem Age (Lond) 54:177-9 F 16 '46
Reversing regenerative furnaces, as applied to the glass industry. J. R. Green. diags Cer Ind 46:56-9 F '46
Soaking pit operation. D. M. McGeary and R. D. Hindson. il diags Blast F & Steel Pl 34:721-6, 861-5, 986-9 Je-Ag '46

FURNACES, Reverberatory
Operations and plants of International nickel company of Canada; smelting. il diags Can Min J 67:432-6 My '46
Refining of copper residues; working the reverberatory furnace. O. P. Einerl and F. Neurath. il Chem Age (Lond) 54:235-9 Mr 2 '46

FURNACES, Solar
Fours solaires pour la réalisation de très hautes températures. F. Trombe and others. diags Génie Civil 123:266 O 1 '46

FURNACES, Steel making
Side-blow converter in the postwar period. A. W. Gregg. bibliog il Foundry 74:74-6+ N '46

See also
Cupola furnaces
Electric furnaces, Steel making
Furnaces, Heating
Open hearth furnaces

Lining

Progress in the use of refractories in 1945. L. A. Smith. il diags Blast F & Steel Pl 34:241-3 F '46
Refractory facts and trends discussed by steel makers. il diag Brick & Clay Rec 107:55-6+ O '45

FURNACES, Warm air
1946 warm air furnace shipments headed for record. il Steel 119:76-7 N 4 '46
Smokeless coal heaters. J. R. Fellows. bibliog il diags Mech Eng 68:519-25 Je '46; Abstracts. Heat & Ven 43:104+ Ap '46; Sheet Metal Worker 37:86 Ap '46

Installation

Labor on gravity installations; average time allowances. Sheet Metal Worker 37:72+ S '46

Rating

Rating equations for hand-fired warm-air furnaces. A. P. Kratz and others. diags Ill U Eng Exp Sta Circ 51:1-53 '45 (pa 60c)

Statistics

Furnace statistics, third quarter. Sheet Metal Worker 37:109 Ja '46

FURNESS, Withy and company
Statement by the chairman at annual general meeting. E. H. Murrant. Economist 151:472 S 21 '46

FURNITURE
Mengel Module by Morris Sanders is flexible, well-made, easy to assemble. il Arch Forum 85:11 S '46
Nitrocellulose lacquers; evaluation of low-viscosity-type nitrocelluloses in furniture finishing compositions. W. Koch, H. C. Phillips and R. Wint. Ind & Eng Chem 38: 518-21 My '46
Plastics in Britain's postwar homes; recently developed Plimber plastic timber. il Mod Plastics 23:108-10 Mr '46
Shock-proof furniture; Eames' molded plywood models are equipped with new rubber joints. il Arch Forum 84:10-12 Ap '46
Stockholm exhibit: 100 years of industrial design progress. il Arch Forum 84:11 My '46

See also
Beds, Folding
Cabinets (furniture)
Cupboards
Slip covers, Furniture

Manufacture

Electronic heating in the furniture industry. E. S. Winlund. il diags Electronics 19:108-13 My '46
Modern furniture uses plastics; flexible furniture units covered with resin-bonded veneers use acetate plug to close assembly holes. il Mod Plastics 24:108 O '46
Unique methods used in the manufacture of furniture; abstract. R. R. Smith. Mech Eng 68:462 My '46
Wood welder does three men's work; dielectric glue-setting machine. il Elec World 126:108 O 26 '46

Transportation

Furniture protection; new performance standards and packing methods to cut down the staggering total of $5,500,000 lost during the year 1945 through freight damage claims. il Mod Packaging 19:180-3 Mr '46

FURNITURE, Built-in
Built-in features: closets, cabinets, shelves, bunks, benches. il plans Arch Forum 85: 138-9 Jl '46
China closet becomes built-in furniture for any living area. il Am Bld 68:62-3 Ag '46
Well-styled built-ins for future homes. il Am Bld 67:98 D '45

FURNITURE, Metal

Manufacture

Mexican experiment in employee relations; Distribuidora Mexicana, fabricator of office and household metal furniture is complete industrial community. il Factory Management 104:66-9 Ap '46

FURNITURE, Steel

See also
Tables, Steel

FURNITURE covers. See Slip covers, Furniture

FURNITURE factories

Equipment

Continuous-flow handling lowers unit costs 40 percent; Mengel furniture. G. A. Van Brunt. il plan Factory Management 104:129-33 My '46

FURNITURE industry and trade
Furniture; big day a-coming. il Bsns W p24+ Ja 19 '46
Furniture race; buyers swarm to Chicago seeking scarce merchandise. Bsns W p58-9 Jl 13 '46
Long-term outlook for household furniture. H. B. McCoy. Dom Comm 34:23-7 S '46
Making a name; Mengel co. il Bsns W p65-6 Je 1 '46
Mengel converts to brand-name furniture. H. L. Stephen. il Ptr Ink 215:104+ My 10 '46
Mengel promotes own brand to cut risks of private label business. il Sales Management 56:56+ Je 1 '46
Pascoe's progress. Fortune 34:156+ S '46
Quality furniture produced in Louisville; Mengel company. P. Hughes. il Manuf Rec 115:40-1+ O '46
Store questions customers about gripes, media, brands. Ptr Ink 215:84 Ap 12 '46
Tomlinson employs fashion's force in its 1946 sales plan; trains furniture salesmen in wood-lore; promotional program. W. A. Tomlinson. il Sales Management 56:56+ Ap 1 '46

Advertising

Missing ingredient in furniture advertising; fashion would help. G. T. Sweetser. il Adv & Sell 39:68+ Mr '46

See also
Chairs—Advertising

Philippine Islands

Furniture needs of the Philippines today; prospect for sales of U.S. products? J. B. Richards. For Comm W 22:11 F 23 '46

FURNITURE polish
Furniture polishes. M. A. Lesser. bibliog Soap & San Chem 22:130-3 O '46
Reviva; furniture cleaning mixture. Consumers Res Bul 17:12 F '46

FURNITURE stores
Furniture store is opened to sidewalk by recessed wall of glass; Modernage furniture co., New York city. il plan Arch Forum 85:136 O '46
Open design provides excellent display space for a variety of household items in a small area; Hollywood star furniture co. il map plans diag Arch Forum 83:157 N '45
Small store for large displays; Rock-a-bye children's furniture store, Brooklyn. il plans Arch Rec 99:106-7 F '46

FURRIERS' customers insurance. See Insurance, Furriers' customers

FURUNCULOSIS. See Fishes—Diseases and pests

FUSES
L'application du radar à la balistique; l'obus à fusée radar. diag Génie Civil 123:63 Mr 1 '46
Call on powdered metal process for millions of nickel filters for switch of V-T fuse. il Steel 118:84-5+ Ap 22 '46
Fuzes for electronic mines. Electronics 19:162+ O '46
Generator-powered proximity fuze. R. D. Huntoon and B. J. Miller. il diags Electronics 18:98-103 D '45
Plastic compositions for dielectric applications. W. C. Goggin and R. F. Boyer. bibliog il Ind & Eng Chem 38:1090-6 N '46
Proximity fuze; explodes projectile as soon as it comes close enough to target to inflict damage. il Radio N 34:51+ D '45
Proximity fuze tubes; abstract. M. A. Acheson. il Electronics 19:228+ Ja '46
Proximity fuzes for artillery. H. Selvidge. il diags Electronics 19:104-9 F '46
Radio proximity fuze; abstract. H. Trotter, Jr. Electronics 19:226+ Ja '46
Radio proximity fuze design. W. S. Hinman, jr. and C. Brunetti. 5 pls diags J Res Nat Bur Stand 37:1-13 Jl '46
VT or radio proximity fuze. 76p Applied physics laboratory, Johns Hopkins univ, 8621 Georgia av, Silver Spring, Md. '45

Manufacture

Tooling for tapers; manufacture of fuse firing pin and striker. J. J. Meadows. diags Iron Age 158:68-72 Jl 18 '46

FUSES, Electric. See Electric fuses

FUSION, Heat of
Heats of solution of hexamethylbenzene, cetyl alcohol, and dicetyl in related liquids; heats of fusion by an extrapolation process. G. S. Parks and R. D. Rowe. bibliog J Chem Phys 14:507-10 S '46

FUSULINA
Marine early Permian of the central Andes and its fusuline faunas. C. O. Dunbar and N. D. Newell. bibliog map diags Am J Sci 244:377-402, 457-91 12pl Je-Jl '46
Permian fusulinids of California. M. L. Thompson and others. (Memoir 17) 77p, pl 1-18 Geological soc. of America, 419 W. 117th st, New York 27 '46

FUTURES
Commodity markets. Economist 150:182-3 F 2 '46

See also
Exchanges
Hedging
Speculation

FUZES. See Fuses

G

G.I. taxicab association
G.I.'s find an ally; effort to get permit to run cabs in Philadelphia. Bsns W p21 Ja 26 '46

GABLONZ, Czechoslovakia. See Jablonec

GAGES
Adjustable internal limit gage measures ball races. A. J. Wormwood. Am Mach 90:151 My 23 '46
Ball-pin gage lays out difficult sine bar work. F. A. Dowler. diags Am Mach 90:139 Mr 14 '46
Blind inspectors gage by sound. il diag Am Mach 89:111 N 22 '45; Mach 52:174 Jl '46
Buick's advanced practice in inspecting cylinders; use of Sheffield Precisionaire machines. il Mach 53:176-83 N '46
Cylinder bores; new equipment for rapid and automatic multiple gauging. il Automobile Eng 36:356 Ag '46
Depth scriber made from old micrometer. P. T. Chapman. il diag Am Mach 90:141 Mr 28 '46
Dial-indicator depth gage avoids error due to feel. D. E. McDonald. diag Am Mach 90:140 F 28 '46
Do's and don'ts in gage design. L. D. Berg. diags Am Mach 90:129-32 F 14 '46
Drawing office practice in relation to interchangeable components. C. A. Gladman. diags Inst Mech Eng J & Proc 152:Proc 388-401; Discussion. 401-18 Mr '46
Effect of interference errors on tooth thickness of splines. A. S. Beam. il diags S A E J 54:313-18 Je '46
Flush-pin gage checks thread depth accurately. J. T. R. McCann. diag Am Mach 89:136 D 6 '45
Gage checks cylinder blocks automatically at 32 points. il Iron Age 157:49 My 23 '46
Gage for checking the height of burrs. P. L. Budwitz. diags Mach 52:196 Ap '46
Gage for inspecting bonds of laminated materials or measuring sheet thickness. il Mach 52:224 My '46
Gauge and toolmakers' exhibition. il Engineer 181:59-61 Ja 18 '46
Grinding gages for circular form tools. J. J. Meadows. diags Iron Age 157:59-60 Mr 21 '46
Grinding precision tools. H. J. Chamberland. il Steel 119:126+ O 7 '46
Handy gaging tool. il Iron Age 156:48 N 29 '45
Hegman fineness gauge. J. M. Purdy. il diag Paint Oil & Chem R 109:14+ Ag 22 '46
Height-gage extension arm reaches difficult places. D. E. McDonald. il diag Am Mach 89:144 N 22 '45
High-amplification gage and internal grinder hold tolerances to millionths of an inch; airplane fuel injection device; Eclipse-Bendix plant. il Steel 118:116 Ap 8 '46
Inspection methods under Buick's new program. C. N. Ofield. il Mach 52:139-47 F '46

GAGES—*Continued*
New equipment. il Iron Age 158:67-70 S 5 '46
New principle developed in thread ring gage design. A. H. Allen. il diags Steel 119:112+ S 2 '46
Non-destructive testing methods; film thickness gages. R. Le Grand. il diags Am Mach 90:136-7 My 23 '46
Non-destructive testing methods; thickness gages measure irregularities in tubing. R. Le Grand. il diags Am Mach 90:134-5 My 23 '46
Packaged air conditioning unit holds uniform temperature for master gages. E. Rasmussen. il diags Heating-Piping 17:524-6 O-N '45
Pipe gage takes measurements over wide range in tight places. il Sci Am 174:278 Je '46
Producto-check gage components assemble in various combinations. il Am Mach 90:160 F 14 '46
Sapphire as a production tool. R. F. Waindle. il Am Mach 90:101-4 Je 6 '46
Simple gage for checking pump gears. G. A. Almorth. diags Mach 52:193-4 D '45
Special slide rule solves gage design problems. B. B. Patton. diags Iron Age 158: 52-4 O 24 '46
Square plate and nest lays out precision gage. C. Weslow. diags Am Mach 90:116-17 Ja 31 '46
Standard height gage, adapter eliminate blocks in sine bar work. L. L. Dodds. diag Am Mach 90:139 S 26 '46
Taper plug gage for jig boring. L. L. Dodds. diag Am Mach 90:153 My 23 '46
33d annual review number; inspection, layout, and testing equipment. il Am Mach 90: 166-71 Ja 17 '46
Thread cutting with dieheads; methods of thread gaging. H. Schlarman. diags Am Mach 90:119-23 Jl 4 '46
Thread measuring gauge. il Engineer 180:332 O 26 '45
Three-wire thread gaging simplified; charts and tables; thread forms include National fine and National coarse series, Whitworth standard, British association, British standard fine, and French standard. J. J. Meadows. diag Iron Age 157:51-7 Ap 18 '46
Tree stores plug and ring gages; stand with revolving shelves. L. D. Berg. diags Am Mach 90:121 Mr 14 '46
Triangular button gage checks many angles. O. Craft. diag Am Mach 90:140 O 10 '46
Wear gauge for chafing plates. il diags Ry Mech Eng 120:308-9 Je '46

See also
Measuring instruments
Micrometers
Pressure gages
Strain gages
Vacuum gages
Water gages

Standards

Formulas and chart for determining the properties of copper wire in the American wire gage; reference book sheet. C. P. Nachod. Product Eng 17:159, 161 Ag '46

GAGES, Electric
Electronic comparator gage. W. H. Hayman. il diags Electronics 19:134-6 Jl '46
Flying mike; continuous gage for rolled strip. il Steel 118:87+ Ap 22 '46
Jack & Heintz electronic gages. il Mach 52: 206 D '45
Snap switches speed gaging. A. L. Riche. il diags Am Mach 90:112-15 Jl 4 '46

GAGES, Vacuum. See Vacuum gages

GAIR, Robert, company
Stock offered. Comm & Fin Chr 163:1282-3 Mr 11 '46

GALACTOSE
Allyl ethers of carbohydrates; ethers of glucose and galactose. E. A. Talley, M. D. Vale and E. Yanovsky. bibliog Am Chem Soc J 67:2037-9 N '45
Characterisation of 2 : 6-dimethyl *d*-galactose. D. J. Bell. Chem Soc J p692-4 O '45

GALACTURONIC acid
Esterification of galacturonic acid and polyuronides with methanol-hydrogen chloride. E. F. Jansen ad R. Jang. Am Chem Soc J 68:1475-7 Ag '46
Oxidation of galacturonic acid and of 5-keto-gluconic acid in alkaline solution. H. S. Isbell and N. B. Holt. bibliog J Res Nat Bur Stand 35:433-8 N '45

GALLAGHER, Paul E. 1899-
California craftsman wins a top state post. F. McCaffrey. por Inland Ptr 117:73-4 S '46

GALLIC acid
Higher fatty alcohol esters of gallic acid. S. G. Morris and R. W. Riemenschneider. bibliog Am Chem Soc J 68:500-1 Mr '46

GALLIHER, Edgar Wayne, 1907-1945
Memorial. H. W. Hoots. bibliog por(pl 5) Geol Soc Proc 1945:229-33 Je '46

GALLIUM
Gallium thermometer. Mech Eng 68:905 O '46

GALLOTANNIN. See Tannins

GALVANIZED steel. See Steel, Galvanized

GALVANIZING
Bright galvanizing bath. R. L. Kaufmann. Iron Age 157:53 My 16 '46
Dry galvanizing; abstract. H. Bablik. Materials & Methods 24:710 S '46
Hot air dryer doubles galvanizing output. W. G. Imhoff. il Iron Age 158:54-5 Ag 8 '46
Hot-dip galvanizing practice. W. H. Spowers, jr. il plans diags Steel 119:108-10+ Ag 12; 100+ Ag 26; 127-8 S 2; 136-8+ S 9; 122+ S 16; 149-50+ S 23; 74+ S 30; 134+ O 7; 118+ O 21; 114+ O 28; 118-20+ N 4; 112-14 N 18; 88-90+ N 25; 123+ D 2 '46

GALVANIZING furnaces. See Furnaces, Galvanizing

GALVANOMETERS
A-c galvanometer. A. L. Quirk and H. D. Hall. il diags Electronics 18:147-9 D '45
Contact modulated amplifier to replace sensitive suspension galvanometers. M. D. Liston and others. il diags R Sci Instr 17:194-8 My '46
Electronic a. c. galvanometer; the Galvascope. il R Sci Instr 16:328 N '45
Note on critical damping. N. Thompson. diags Inst Radio Eng Proc 34:660 S '46

See also
Fluxmeter

GALVIN manufacturing corporation
New heater to add to Galvin's net soon. Barron's 26:6 Ag 19 '46

GAMBLE, Bertin C.
Gamble's venture; control of Investors syndicate. Bsns W p72+ N 17 '45

GAMBLE-SKOGMO, inc.
Plans unification. Comm & Fin Chr 164:1593 S 30 '46
Retail empire is consolidating. Bsns W p68+ S 14 '46

GAMES

See also
Baseball
Bowling
Football

GAMMA rays
Angular correlation of successive γ-rays. G. Goertzel and I. S. Lowen. bibliog Phys R 69:533 My 1 '46
Design of beta-ray and gamma-ray Geiger-Müller counters. W. Good and others. il diags R Sci Instr 17:262-5 Jl '46
Disintegration schemes of radioactive substances; Co^{60}. M. Deutsch and others. bibliog Phys R 68:193-7 N 1 '45
Effort to observe anomalous gamma-rays connected with atomic bomb test of July 1, 1946. Phys R 70:565 O 1 '46
Fast neutron energy absorption in gases, walls, and tissue. P. C. Aebersold and G. A. Anslow. bibliog Phys R 69:1-21 Ja 1 '46
Gamma-ray anomaly following the atomic bomb test of July 1, 1946. G. Herzog. Phys R 70:227 Ag 1 '46
Gamma ray inspection method; Penetron used to determine loss in wall thickness of equipment serving gas-distillate wells. E. H. Short, jr. il Oil & Gas J 45:119+ Je 29 '46
γ-Rays of radium D. S. Tsien. bibliog Phys R 69:38 Ja 1 '46
Invisible industrial hazard. S. R. Warren, jr. bibliog il diag Elec Eng 65:499-507 N '46

GAMMA rays—*Continued*
Ionization of the atmosphere in the New York area before and after the Bikini atom bomb test. V. F. Hess and P. Luger. Phys R 70: 564-5 O 1 '46
Note on the lifetime of metastable states. M. L. Wiedenbeck. bibliog Phys R 69:567-9 Je 1 '46
Radioactive Te from Sb bombardment. J. E. Edwards and M. L. Pool. bibliog il Phys R 69:140-1 Mr 1 '46
Technique of gamma radiography. R. Halmshaw. diags Engineering 162:169-70 Ag 23 '46

GAMMA-valerolactone. See Valerolactone

GANGRENE, Gas
Ambiguity of international antitoxic units. I. C. Hall. bibliog Science 103:423-4 Ap 5 '46
Lecithinase activity of clostridium perfringens toxin. E. J. Theriault. (Public health rep supp 188) bibliog 25p U.S. Public health service, Washington; pa 10c Supt. of doc. '45

GANSE, Franklin W. 1859-
Sketch. C. Axman. por East Underw 47:3 Mr 22 '46

GAR WOOD industries, inc.
Annual report. Comm & Fin Chr 163:464 Ja 28 '46
Chuck Perelle. Fortune 34:138+ Ag '46

GARAGE doors
Engineered products five greater values. il Am Bld 68.134-6 O '46

GARAGE keepers' legal liability insurance. See Insurance, Automobile—Garage owners' and dealers' liability policies

GARAGES
Garage in India is built with prestressed concrete. R. E. Shama. diag Concrete 54:22-3+ Jl '46
Underground garages advocated. Eng N 136: 919 Je 13 '46

Heating and ventilation
Features panel heat in ad for garage help. il Dom Eng 167:158+ Ap '46
Radiant panel heating installation in garage. diags Dom Eng 168:126+ S '46
Warm-air heating a large garage. il Sheet Metal Worker 37:68+ Ap '46

GARAGES, Motor bus. See Motor bus lines—Garages

GARAGES, Private
Garage is part of the home today. il plans Am Bld 68:80-1 Mr '46
Garages made into small apartments. il plans Am Bld 67:88+ D '45

GARBAGE disposal. See Refuse disposal; Sewage disposal—Sludge and refuse mixing

GARBAGE incinerators. See Refuse incinerators

GARDEN cities
Garden cities and the metropolis. L. Rodwin. bibliog J Land & Pub Util Econ 21:268-81 Ag '45; Replies. C. Bauer; L. Mumford. 22:65-9; Rejoinder. 69-77 F '46

GARDENING
Gardens provide good sales leads. il Dom Comm 34:32-3 My '46
See also
Vegetable gardening

GARDENS
Brick decorates the garden; illustrations. Brick & Clay Rec 109:22 Ag '46
Brick steps, walks, walls featured in gardens designed by landscape architect Thomas D. Church; illustrations. Brick & Clay Rec 108:30-1 Ja '46
See also
Landscape gardening

GARDNER, Bertie Charles, 1884-
Portrait. Bsns W p120 N 17 '45

GARMENT bags
Protective vinyl covers; drawer cases and closet accessories. il Mod Plastics 23:99 Mr '46

GARMENT workers
Garment workers. il Fortune 34:172-9+ N '46
See also International ladies' garment workers' union

GARMENT workers' union, International ladies'. See International ladies' garment workers' union

GARNISHMENT. See Attachment and garnishment

GARRETSON, L. Roy, 1888-
Personalities in industrial advertising. por Ind Marketing 31:72 Ap '46

GARRISON, Lloyd Kirkham, 1897-
Portrait. Bsns W p19 D 22 '45

GARTH, William, Jr.
Three men on paper plates. por Fortune 33: 149-52+ F '46

GAS
Ammonia and hydrogen sulphide from gas; abstract. A. Samtleben. Chem & Met Eng 53:280 F '46
Separation and chemical utilization of coal gas constituents. N. Booth. Gas J (Lond) 248:434-6+, 489+ S 11-18 '46
See also
Blast furnace gas
Butane
Coal distillation
Coke-oven gas
Flue gas
Gas, Natural
Gas, Producer
Gas, Water
Gas analysis
Gas appliances
Gas as fuel
Gas companies
Gas industry
Gas manufacture
Gas producers
Gases
Liquefied petroleum gas
Propane
Sewage sludge—Gas production

Bibliography
Gas abstracts. Published monthly by Institute of gas technology, Chicago

Gum formation
Gums in gas and the principal chemical problems which that question raises. G. Leonet. Gas Age 98:21-4+ Ag 22 '46

Manufacture
See Gas, Water—Manufacture; Gas manufacture

Sulfur content
Apparatus for the determination of organic sulphur compounds in manufactured gas. I. J. W. MacHattie and N. L. McNiven. bibliog il diags Can Chem & Process Ind 30:87-90+ Jl '46; Same. Am Gas J 165:47-51 O '46
Catalytic removal of organic sulphur compounds from coal gas by metallic thiomolybdates. E. B. Maxted and A. Marsden. Soc Chem Ind J 65:51-2 F '46
Sulfur in manufactured gas; its effect upon dew point of flue products. W. Buckley. bibliog Am Gas Assn Mo 28:403-6 S '46

GAS, Natural
AGA holds natural gas meeting. Chem & Eng N 24:1378+ My 25 '46
Ammonia, its production from natural gas. G. S. Mitchell. flow sheets il Pet Refiner 25:97-111 Je '46
Carbon dioxide in a natural gas-condensate system. F. H. Poettmann and D. L. Katz. diag Ind & Eng Chem 38:530-4 My '46
Chemical utilization of natural gas limited only by commercial demand. A. L. Foster. Oil & Gas J 44:83-4+ My 4 '46
Explanation of unusual fires or explosions on gas company premises which occurred during 1944. Am Gas Assn Proc 1945:66-70
Fertilizer from natural gas; Lion oil company manufactures ammonium nitrate and other ammonia products. D. P. Thornton, jr. flow diag il Nat Pet N 38 pt 2:R483-8 Jl 3 '46
Gasoline from natural gas; Hydrocol process. P. C. Keith. il diag Oil & Gas J 45: 102+ Je 15 '46; Same. Am Gas Assn Mo 28:253-7+ Je '46; Same. Am Gas J 164:11-15 Je '46; Same. Chem Ind 59:58-63 Jl '46; Same cond. Nat Pet N 38 pt 2:R506-9+ Jl 3 '46
Germany made acetylene and carbon black by cracking natural gas in electric arc. E. S. Pettyjohn. il diags Nat Pet N 38 pt 2: R596+ Ag 7 '46
Lubricants from natural gas. Bsns W p64 Ja 12 '46
Natural gas and gasoline; production, etc. Oil & Gas J 44:184-5 Ja 26 '46

GAS, Natural—*Continued*

Natural gas role in chemicals; abstract. W. N. Watson. Oil Paint & Drug Rep 149:3+ Je 24 '46

New synthetic lubricants from natural or other hydrocarbon gases. J. C. Kratzer and others. il Nat Pet N 38 pt 2:R135-6+ F 6 '46; Same, with additional il. Pet Refiner 25:127-38 F '46; Same. S A E J 54:228-37 My '46

No superior uses for gas, report indicates. Oil & Gas J 44:48 Ja 5 '46

Origin of nitrogen in natural gases. G. H. Cady. bibliog Science 104:341-2 O 11 '46

Petrochemistry directs natural-gas conversion at Lion oil co. plant; to produce ammonia and its products. A. L. Foster. il diags Oil & Gas J 45:98-101+ Je 22 '46

Replaceability of natural gas; processes for generating gas and oil from coal. W. K. Lewis. Gas Age 98:29-30+ S 5 '46

Report of Petroleum and natural-gas division, fiscal year 1944. R. A. Cattell and others. bibliog 9 pls U S Bur Mines Information Circ 7358:1-29 '46

Super-expansibility of methane-ethane mixtures. W. O. Clinedinst. bibliog Pet Refiner 25:148-9 Je '46

Synthetic ammonia produced from natural gas. J. A. Lee. il Chem & Met Eng 52: 94-6 D '45

Thermal conductivity of natural gas. W. L. Nelson. Oil & Gas J 45:83 O 12 '46

Uncatalyzed reaction of natural gas and steam. A. S. Gordon. bibliog diag Ind & Eng Chem 38:718-20 Jl '46

Use of gas for carbon black. E. M. Eckhart and I. Williams. il India Rubber World 114:376-9 Je '46

See also

Gas as fuel—Natural gas
Gasoline, Natural
Liquefied petroleum gas
Petroleum

See also American gas association—Natural gas department

Accounting

Order reducing rates and directing accounting adjustments; Federal power commission in matter of Southern natural gas company. V. Z. Brink. J Account 81:521-3 Je '46

Recording gravitometers in accounting for propane-butane production. K. B. Barnes. il Oil & Gas J 44:103-4 Ja 12 '46

Analysis

Determination of helium group gases in natural gases and in the atmosphere. G. H. Cady and H. P. Cady. bibliog diags Ind & Eng Chem Anal ed 17:760-6 D '45

Improved apparatus and procedure for the determination of helium in natural gas. E. M. Frost, jr. 7 pls U S Bur Mines Rep of Invest 3899:1-16 '46

Measuring distribution of liquids in flow-string of a gas-condensate well; mobile laboratory measures water in condensate as part of corrosion study. C. K. Eilerts and others. il diag Oil & Gas J 44:91-4+ D 15 '45

Bibliography

Natural gas uses (for purposes other than as heating fuel). 15p Louisiana natural gas conservation committee, Baton Rouge '45

Compression

Absorber pressure increase of 200 lb. reduces repressuring horsepower 37%. H. N. Wade. diag Oil & Gas J 44:120+ Ap 20 '46; Same. Pet Eng (Ref annual) 17:235+ Jl 1 '46

Automatic compressor stations solve United's field-supply problem. A. L. Foster. il map plans diags Oil & Gas J 45:186+ S 21 '46

Colorado interstate gas co. opens new station. Oil & Gas J 45:151 Je 15 '46

Completes $10,000,000 expansion program: Panhandle eastern pipe line company. F. H. Love. il Pet Eng 17:136+ Mr '46

Engineer's viewpoint on design of compressor cylinders for high pressure gas compression. H. A. Gehres. il diags Pet Eng (Ref annual) 17:290+ Jl 1 '46

Equilibrium water vapor content of compressed gases. E. G. Hammerschmidt. bibliog Gas Age 97:24-5+ Je 27 '46; Same. Am Gas J 165:21-3 Ag '46

High- and low-pressure processing combined in McCarthy plant. C. C. Pryor. flow diag il diag Pet Refiner 25:89-94 Jl '46

High recovery, superfractionation mark Superior's Lake Creek operations. A. L. Foster. flow diag il Oil & Gas J 44:50-1+ F 2 '46

Inflammability of natural gas; effect of pressure upon the limits. G. W. Jones and R. E. Kennedy. U S Bur Mines Rep of Invest 3798:1-13, pl 1-4 '45; Same cond. Oil & Gas J 44:78-80+ N 10 '45

Safe practices in compressor stations. D. Attaway. bibliog il Pet Eng 17:55-8 N '45

Shell cycling plant designed for high pressure absorption. C. C. Pryor. flow diag il Pet Refiner 25:117-23 Ap '46

Conservation

Arkansas-Louisiana-Texas has good gas-conservation record. G. Weber. il Oil & Gas J 45:82-3 N 2 '46

Gas-conservation projects are active over wide front. C. J. Deegan. il Oil & Gas J 44:86+ My 4 '46

Gas recovery systems. D. Rogers, jr. bibliog il diags Pet Eng (Ref annual) 17:196+ Jl 1 '46

Saving the gas; increased value of flared byproduct in oil fields. Bsns W p21-2 Mr 30 '46

Texas' gas-conservation committee starts functions. Oil & Gas J 44:56 N 10 '45

Texas to reduce gas-oil ratios. E. Thompson. Nat Pet N 37:36 D 26 '45

Unitization is called key to conservation of gas. Oil & Gas J 44:48 Mr 2 '46

Contracts

Principal features of the casinghead-gas contract. diags Oil & Gas J 44:105-6 Ja 12; 101-2 Ja 19 '46

Dehydration

Carthage high pressure absorption plant. F. H. Love. il Pet Eng 17:179+ Je '46

Diethylene glycol plant dehydrates gas to exact specification. flow diag il Pet Refiner 25:115-16 F '46

Drying natural gas with adsorbents; simplified flow diagram. W. L. Nelson. Oil & Gas J 44:273 Mr 30 '46

New glycol dehydration plant reduces gas dew point 50°. il Nat Pet N 38 pt 2:R421-2 Je 5 '46

Packaged type dehydration plants. H. F. Dawe. flow diag il diags Pet Eng 17:119-22 Mr '46

Solid adsorbent type dehydration plant placed in operation in Carthage field. F. H. Love. flow diag il Pet Eng 17:151-2+ F '46

Distillate wells

Application of laboratory data on phase behavior to evaluation of condensate reserves. W. W. McAllister. Pet Eng 17:90+ D '45; Oil & Gas J 44:92+ F 9 '46

Calculated recoveries by cycling from a retrograde reservoir of variable permeability; abstract. M. B. Standing and others. Oil & Gas J 45:110 O 26 '46; Discussion. 45:53+ N 2 '46

Cotton Valley, five years later. G. Weber. bibliog il map Oil & Gas J 45:94-5+ S 7 '46

Design plan of United's new Carthage plant; 170,000 gallons of liquid products per day. G. Weber. il map diag Oil & Gas J 45: 86-9 Jl 20 '46

Development of windowed cell; natural gas well study by U.S. Bureau of mines; equipment for observing hydrocarbon phases under variable pressures. C. K. Eilerts and others. bibliog il diags Am Gas Assn Mo 28: 435-40 O '46

High- and low-pressure processing combined in McCarthy plant. C. C. Pryor. flow diag il diag Pet Refiner 25:89-94 Jl '46

Lake Creek cycling project example of applied engineering technique. E. H. Short, jr. il map diag Oil & Gas J 44:64-6+ D 1 '45

Measuring distribution of liquids in flow-string of a gas-condensate well; mobile laboratory measures water in condensate as part of corrosion study. C. K. Eilerts and others. il diag Oil & Gas J 44:91-4+ D 15 '45

GAS, Natural—Distillate wells—*Continued*
Optimum rate of production of oil, condensate, and natural gas (cont). P. J. Jones. Oil & Gas J 44:87+ D 1; 105+ D 8; 116-18 D 15; 63+ D 22; 300-1+ D 29 '45; 60+ Ja 5; 89+ Ja 12; 90+ Ja 19; 288-91 Ja 26; 72+ F 2; 88+ F 9; 94+ F 16 '46
Solid adsorbent type dehydration plant placed in operation in Carthage field. F. H. Love. flow diag il Pet Eng 17:151-2+ F '46
Testing condensate wells; illustrations with text. W. J. Davis. diags Pet Eng 17:100+ Ag '46
Trends in processing gas-condensate reservoirs. F. H. Dotterweich and E. O. Bennett. Oil & Gas J 45:111+ My 11 '46
Vapor-phase equilibrium cell aids condensate-field studies. C. J. Deegan. il Oil & Gas J 45:128+ My 18 '46
Works out equations on gas flow rates in condensate wells. Nat Pet N 38:42 Je 26 '46

See also
Gas, Natural—Recycling

Corrosion problem
Excessive corrosion rates in high-pressure condensate wells; abstract. E. C. Greco and H. T. Griffin. Oil & Gas J 45:93 My 18 '46
Gamma ray inspection method; Penetron used to determine loss in wall thickness of equipment serving gas-distillate wells. E. H. Short, jr. il Oil & Gas J 45:119+ Je 29 '46
High-pressure gas-well corrosion caused by CO_2, H_2S, and fatty acids. T. S. Bacon. il Oil & Gas J 44:119-20+ My 4 '46
Internal tubing caliper; problem of internal corrosion in tubing and fittings of condensate wells. P. E. Chaney. il Pet Eng 17: 122+ Ap '46; Same. diag Oil & Gas J 44: 115+ Ap 20 '46
Progress reported by N.G.A.A. and N.A.C.E. in fight on corrosion. Oil & Gas J 45:83 O 26 '46
Sodium chromate effective in combating corrosion in gas wells. C. K. Eilerts. il diag Oil & Gas J 45:124+ My 18 '46

Fuel use

See Gas as fuel—Natural gas

Geology

Geology of Katy field, Waller, Harris, and Fort Bend counties, Texas. A. P. Allison and others. maps Am Assn Pet Geologists Bul 30:157-80 F '46

Terminology
Geological terminology in classification of oil and gas accumulations. I. C. Brod. bibliog diags Am Assn Pet Geologists Bul 29:1738-55 D '45

Government investigation

Bailey tells FPC Mississippi opposes natural-gas restrictions; Houston hearing ends. Oil & Gas J 44:76-7 F 16 '46
Charleston meeting completes FPC regional hearings. Gas Age 97:27-8 My 16 '46
Coal's case presented at FPC gas hearings. Coal Age 51:126-8 Ag '46
Consumers join producers in combating federal gas control; Federal power commission's hearing, Chicago. Oil & Gas J 44:40 Mr 2 '46
Diverse recommendations made by states in briefs with FPC. H. D. Ralph. Oil & Gas J 45:76 O 26 '46
FPC Biloxi hearing is shortest to date. Gas Age 97:30 Mr 7 '46
FPC completes Washington hearings. Gas Age 98:31-2 Ag 22 '46
FPC continues Washington hearings. Gas Age 98:19-20+ Ag 8 '46
Federal power commission hearing in Houston. K. Ford. Gas Age 97:30-2+ F 21 '46
FPC hearings reveal no need for extension of federal regulation. E. H. Poe. Oil & Gas J 44:95-6+ My 4 '46
FPC hears additional views on natural gas. Pub Util 37:370-81 Mr 14 '46
FPC hears consumers' views on natural gas. Pub Util 37:570-4 Ap 25 '46
FPC hears widely divergent views in gas investigation. Oil & Gas J 44:46 D 1 '45
Federal power commission holds Chicago hearings. Gas Age 97:23-6 Mr 21 '46
Federal power commission natural gas investigation. E. G. Dahlgren. Gas Age 97: 22-4+ Ja 10 '46
FPC natural-gas investigation enters its final phase. Oil & Gas J 45:69 Je 22; 60-1 Je 29; 57 Jl 6; 63 Jl 13; 64 Jl 20; 126-7 Jl 27; 58 Ag 3; 67 Ag 10 '46
FPC natural gas investigation reaches final hearings. Pub Util 38:171-2 Ag 1 '46
FPC natural gas regional hearings end. Pub Util 37:704-6 My 23 '46
FPC opens final series of hearings. Gas Age 98:32+ Jl 25 '46
It's up to Congress; both sides seek legislation as FPC natural gas hearings end. Bsns W p31 O 19 '46
A look at the FPC gas investigation. E. H. Poe. Am Gas Assn Mo 27:485-9 N '45; Same. Gas Age 96:54-5+ N 15 '45; Same. Am Gas Assn Proc 1945:45-8; Abstract. Pub Util 36: 720-1 N 22 '45
Natural gas and coal conflict at FPC hearings. E. H. Poe. Pub Util 38:111-13 Jl 18 '46
Natural gas investigation continues with Charleston hearing. Am Gas Assn Mo 28: 216 My '46
Natural gas testimony stresses chemical industry significance. Chem Ind 59:302+ Ag '46
Parmelee and Duncan heard in gas inquiry. Ry Age 121:65-6 Jl 13 '46
Proper price incentive would do much to further gas conservation; testimony before Federal power commission. C. J. Deegan. Oil & Gas J 44:56-8 F 9 '46
Report on New Orleans FPC hearings. Gas Age 96:50-1+ D 13 '45
Summary of FPC hearings at Charleston, W. Va. Am Gas J 164:43 Je '46
Summary of final hearing, F.P.C. natural gas investigation. Am Gas J 165:37-8 S '46
Summary of the FPC natural gas hearings at Chicago. Am Gas J 164:54 Ap '46
Texas gas hearings open. C. J. Deegan. Oil & Gas J 44:36-8+ F 2 '46
Which way does FPC gas probe point? S. H. Crosby. Pub Util 38:464-71 O 10 '46
Wind-up of long series of FPC natural gas hearings. Pub Util 38:245-8 Ag 15 '46
Witnesses tell FPC Louisiana's gas resources are jeopardized; investigation by Federal power commission. Oil & Gas J 44:84 N 24 '45

Hydrates

Gas hydrate composition and equilibrium data. E. M. Frost, jr. and W. M. Deaton. bibliog Oil & Gas J 45:170+ Jl 27 '46
Possibilities in hydrate storage of natural gas. B. Miller. bibliog il Gas Age 97:37-40+ My 2 '46
Possibilities of storing natural gas in the form of a solid hydrate. B. Miller and E. R. Strong, jr. il diag Am Gas Assn Proc 1945:80-94; Same abr. Am Gas Assn Mo 28: 63-7+ F '46

Laws and regulations

Court and commission case review; recent decisions of courts, F.P.C., and state public service commissions. W. A. Dougherty. Am Gas Assn Mo 28:264-7 Je '46; Same. Gas Age 97:25-7+ My 30 '46
FPC finds a way; barrier to direct sale of gas by Panhandle to Ford. Bsns W p18 Mr 30 '46
Gas business problems since the Natural gas act. E. Buddrus. Pub Util 38:472-7 O 10 '46
Legal aspects of the transportation of natural gas in interstate commerce. M. Newcomb. bibliog Pet Eng (Ref annual) 17: 306+ Jl 1 '46
Legal problems involved in cycling gas in gas fields. H. P. Pressler, jr. bibliog Pet Eng 17:151-2+ Jl '46
Legal problems presented by underground storage of natural gas. J. B. Sayers. Gas Age 97:21-4+ F 7 '46
Natural gas act and the oil and gas producer. W. Hawkins. Oil & Gas J 44:281-2+ Ja 26 '46
Operating company official looks at the Federal gas act. R. H. Hargrove. Pub Util 38:453-63 O 10 '46

GAS, Natural—Laws and regulations—*Cont.*
Panhandle scores; State court rules pipeline company may sell natural gas to Ford. Bsns W p52-4 O 26 '46
Problems of interstate natural gas pipe lines with respect to state and federal regulation. A. T. Shotwell. Gas Age 97:24-8+ F 21 '46

Liquefaction

Report on the investigation of the fire at the liquefaction, storage, and regasification plant of the East Ohio gas co. Cleveland, Ohio, October 20, 1944. M. A. Elliott and others. bibliog 32pls U S Bur Mines Rep of Invest 3867:1-44 '46

Measurement

Computing values from orifice meter charts. W. F. Martin. Pet Eng 17:101 Jl '46
Effect of hydrogen sulphide on coefficient for orifice gas meters. F. K. Beach. bibliog Pet Eng 17:230+ Mr '46
New methods of gas measurement and chart computation. D. C. Strong. il Gas Age 97: 32-3 My 2 '46
Stop profit leaks from poorly defined pressure bases. J. P. Squier. Oil & Gas J 45:81 Ag 3 '46

Merchandizing

California utilization problems; policies affecting supply and demand of natural gas and its orderly marketing. R. E. Wehe. Am Gas Assn Mo 28:421-3+ O '46
How Mondakonia grew to $50,000,000. G. E. Stedman. il map Gas Age 98:110-12+ O 3 '46
Natural gas, growing coal competitor. map Coal Age 51:72-7 S '46

Moisture content

Equilibrium water vapor content of compressed gases. E. G. Hammerschmidt. bibliog Gas Age 97:24-5+ Je 27 '46; Same. Am Gas J 165:21-3 Ag '46

Peak load

How the Pittsburgh group plans to use propane; meeting peak load when supply of natural gas is inadequate. A. B. Lauderbaugh. Gas Age 98:108-9 O 3 '46
Ohio Fuel Gas installs propane-air plants. map Gas Age 98:25+ Ag 22 '46

Pipe lines

Automatic compressor stations solve United's field-supply problem. A. L. Foster. il map plans diags Oil & Gas J 45:186+ S 21 '46
Big-Inch lines recommended as natural-gas carriers; report made to the Reconstruction finance corp. by Ford, Bacon & Davis, inc.; with cost data. Oil & Gas J 44:45-6 Ja 5; 62-3+ Ja 12 '46
Big Inch to pipe natural gas from Texas to southern California; new line to be constructed. Pub Util 38:499-500 O 10 '46
California extension of Texas transmission line now in progress. F. A. Herr. Am Gas J 165:28-9 Ag '46
Cathodic protection on large diameter pipe lines; with cost data. N. K. Senatoroff. Gas Age 98:18-19+ Jl 25 '46
Clear right-of-way with rotary saw. il Pet Eng 17:181 Mr '46
Colorado interstate gas co. opens new station. Oil & Gas J 45:151 Je 15 '46
Combatting the noise problem in gas pressure regulators. W. A. La Violette. il plan Gas Age 98:101-4+ O 3 '46
Completes $10,000,000 expansion program; Panhandle eastern pipe line company. F. H. Love. il Pet Eng 17:136+ Mr '46
Construction of new compressor stations on Texas to West Virginia gas pipe line. H. Dawe. flow diag il plans diag Pet Eng 17: 57-60+ Je; 41-4+ Jl '46
Construction of 3200-ft. natural gas pipe line suspension bridge over Red river. G. R. Lunt. il Pet Eng 17:198+ Mr '46
Engineering firm says Big Inch, Little Big Inch will net government greater return if converted to natural gas service. W. D. Laudeman. Nat Pet N 37:18+ D 26 '45
FPC approves record-size Texas-California pipe line. D. M. Duff. Oil & Gas J 45:76 Je 15 '46
Future outlook for gas transmission lines. M. L. Mayfield. maps Pet Eng 17:59-61+ My '46
Future outlook for gas transmission lines. M. L. Mayfield. Min & Met 27:186-7 Mr '46
Gas industry stands prepared to serve any foreseeable market. E. H. Poe. map Oil & Gas J 45:293-4+ S 21 '46
Gas line melee; who shall supply service to Chicago-Detroit territory. Bsns W p41-2+ Ja 26 '46
Interstate natural gas transmission lines. N. C. McGowen. map Pet Eng (Ref annual) 17:280+ Jl 1 '46
Jobs for Inches; to carry natural gas to New York-Philadelphia area. Bsns W p19 D 29 '45
Labor and industrial interests fail to block gas pipe-line facilities; case of Natural gas pipeline company of America. Pub Util 38:191 Ag 1 '46
Latest equipment expedites construction of loop on Panhandle Eastern line. P. Reed. il Oil & Gas J 44:124-5 D 15 '45
Legal aspects of the transportation of natural gas in interstate commerce. M. Newcomb. bibliog Pet Eng (Ref annual) 17: 306+ Jl 1 '46
Lone Star completes new 14-inch line. il Gas Age 97:28 Je 27 '46
Longest Los Angeles shoestring to date; 1,200-mile pipe line to natural gas from Texas and New Mexico. J. H. Collins. map Pub Util 38:602-9 N 7 '46
Looping increases line capacity. F. H. Love. il Pet Eng 17:35-8 Jl '46
Meeting increased demand for natural gas with present pipe-line facilities. E. Budrus. il diag Oil & Gas J 45:180-1 S 21 '46
Memphis Natural to complete pipe-line looping program. il map Oil & Gas J 45:63 Je 1 '46
Natural gas; to use or to hold. il Chem Ind 58:286+ F '46
New pipe line outlet for Carthage. F. H. Love. il Pet Eng 17:252+ My '46
Patrolling a pipe line by light plane. A. D. Morton. il Gas Age 96:20-1 N 29 '45
Patrolling natural gas pipe lines by airplane. A. W. Sommerville. il Pet Eng 17:180+ Ja '46
Pipe-line construction; map and tabulated data. Oil & Gas J 44:92-3 My 4 '46
Pipe line construction recently authorized by F.P.C. Am Gas J 165:23-4 Ag '46
Pipelining in the Rockies; Colorado interstate gas co. protection against floods. G. F. Brunston. il Gas Age 98:105-7+ O 3 '46
Problems of interstate natural gas pipe lines with respect to state and federal regulation. A. T. Shotwell. Gas Age 97:24-8+ F 21 '46
Profit-limitation prospect hampers plans of long-haul gas lines. H. D. Ralph. Oil & Gas J 45:54 S 28 '46
Radio for the gas industry. W. T. Bulla. Pet Eng 17:134 Mr '46
Role for Big Inch and Little Inch; carrying natural gas could be profitable. Barron's 26:13 S 9 '46
Safety in gas pipe line maintenance. A. W. Breeland. il diag Pet Eng 17:190+ Mr '46
Simple method of allowing for change in elevation when calculating gas flow in pipe lines. B. Miller. Gas Age 96:39-41 D 13 '45
Southern California 26 inch pipe line from Blythe to Los Angeles county. F. A. Herr. maps Am Gas J 164:15-18 Ja '46
Special equipment expedites pipe-line coating. P. Reed. il Oil & Gas J 44:73 Mr 2 '46
Start-to-finish construction report for Alberta gas-line extension. B. W. Snyder. il map Oil & Gas J 45:251-2+ S 21 '46
Telemetering and remote control. H. J. Keeling. bibliog Pet Refiner 25:128-9 Ja '46
Texas gas for California. A. F. Bridge. map Oil & Gas J 45:204+ S 21 '46; Abstract. Gas Age 98:116-17+ O 3 '46
United gas pipe line co. installs radiotelephone network. il map Gas Age 97:47-50+ My 2 '46
United Gas Pipe Line's new radiotelephone network speeds company communications. O. C. Irvine. il map Pet Eng 17:142+ Je '46
United solves difficult problems in Red River suspension bridge. N. Williams. il plan Oil & Gas J 44:68-9+ F 2 '46

GAS, Natural—Pipe lines—*Continued*
Will FPC favor competing pipe lines to inadequately served areas? petition of Michigan-Wisconsin pipe line company. Pub Util 38:109-11 Jl 18 '46

See also
Montana-Dakota utilities company

Costs

Cost behavior in natural gas transportation. J. E. Flanders. Gas Age 98:22-5 Ag 8; 28-30+ Ag 22 '46
Cost of hypothetical pipe line from Carthage field, Tex. to Little Rock, Ark. map Gas Age 97:30-2 Ja 10 '46
Economics of gas lines; cost data. map Oil & Gas J 45:176-7 S 21 '46

Gathering lines

Different ways of gathering casinghead gas. diags Oil & Gas J 44:101-2 Ja 19 '46
Drip accumulators in casinghead-gas lines. diags Oil & Gas J 44:297 Ja 26 '46
Drips problem. J. A. Campbell. il Pet Eng 17:39-40 Jl '46

Production estimates

Application of laboratory data on phase behavior to evaluation of condensate reserves. E. W. McAllister. Pet Eng 17:90+ D '45; Same. Oil & Gas J 44:92+ F 9 '46
Back pressure open flow computations simplified. W. F. Martin. Pet Eng 17:152+ N '45

Production methods

Helium tracer studies in the Elk Hills, California field. E. M. Frost, jr. 8pls U S Bur Mines Rep of Invest 3897:1-6 '46; Abstract. Oil & Gas J 45:107+ Ag 10 '46

Production rate

Optimum rate of production of oil, condensate, and natural gas (cont). P. J. Jones. Oil & Gas J 44:87+ D 1; 105+ D 8; 116-18 D 15; 63+ D 22; 300-1+ D 29 '45; 60+ Ja 5; 89+ Ja 12; 90+ Ja 19; 288-91 Ja 26; 72+ F 2; 88+ F 9; 94+ F 16 '46

Prospecting

Emanometric oil and gas prospecting. S. J. Pirson. bibliog diags Pet Eng 17:132+ Ja '46

Rates

Gas business problems since the Natural gas act. E. Buddrus. Pub Util 38:472-7 O 10 '46
Natural gas pipe line co. new rates approved by FPC. Gas Age 97:50 Mr 21 '46
Original cost less depreciation plus working capital adopted as rate base; Mississippi River fuel corporation. Pub Util 37:653 My 9 '46

Recycling

Cycling products as motor fuel. G. G. Brown. Pet Eng (Ref annual) 17:244+ Jl 1 '46; Same. Nat Pet N 38 pt 2:R436+ Je 5 '46
Extensive water analysis in cycling fields yields useful information on corrosion. Oil & Gas J 44:270 Mr 30 '46
Lake Creek cycling project example of applied engineering technique. E. H. Short, jr. il map diag Oil & Gas J 44:64-6+ D 1 '45
Legal problems involved in cycling gas in gas fields. H. P. Pressler, jr. bibliog Pet Eng 17:151-2+ Jl '46
New cycling plant conserves gas; produces 300,000 gal. products daily; Sheridan condensate field, Texas. A. L. Foster. il diag Oil & Gas J 45:60-2+ Je 1 '46
Plans and opportunities for natural-gasoline and cycling industries. J. H. Dunn. Pet Refiner 25:143-4+ My '46
Production trend in Lone Star's Grapeland recycling plant. A. L. Foster. il flow chart Oil & Gas J 45:76-9+ Ag 24 '46
Shell cycling plant designed for high pressure absorption. C. C. Pryor. flow diag il Pet Refiner 25:117-23 Ap '46
Sheridan cycling plant Shell's first; illustrations with text. F. H. Love. il Pet Eng 17:80+ Ja '46
Survey of cycling plants, listed by states. Oil & Gas J 44:135 Ap 20 '46
Volatile hydrocarbons separated from condensate at Sheridan cycling plant. W. J. Davis. il plan Pet Eng 17:103+ Ap '46
Water invasion controlled by gas injection in Bahrein Island operations. diag Oil & Gas J 44:286+ D 29 '45

Bibliography

Bibliography on recycling of gas wells. (Petroleum bibliography no. 21) 13p Tulsa pub. lib, Technical dept, Tulsa 3, Okla. '46

Research

Development of windowed cell; natural gas well study by U.S. Bureau of mines; equipment for observing hydrocarbon phases under variable pressures. C. K. Eilerts and others. bibliog il diags Am Gas Assn Mo 28:435-40 O '46
Natural gas research activities of the U.S. Bureau of mines. E. G. Dahlgren. il Gas Age 97:41-4+ My 2 '46
Possibilities of storing natural gas in the form of a solid hydrate. B. Miller and E. R. Strong, jr. il diag Am Gas Assn Proc 1945:80-94; Same abr. Am Gas Assn Mo 28: 63-7+ F '46

Statistics

Natural gas industry in rapid expansion. O. Ely. Pub Util 37:564-7 Ap 25 '46
Production must rise to meet increasing industrial uses. W. W. Burns. Oil & Gas J 44.100+ My 4 '46

Storage

Depleted sands provide floating gas storage. N. Williams. il map Oil & Gas J 45:58-9+ Je 1 '46
Legal problems presented by underground storage of natural gas. J. B. Sayers. Gas Age 97:21-4+ F 7 '46
Performance of the Playa del Rey gas storage reservoir. L. S. Kelsey and E. C. Babson. Gas Age 98:24-7+ Jl 25 '46
Playa del Rey oil field solves gas storage problem for Los Angeles area. R. Sneddon. il Pet Eng 17:51-6 D '45
Possibilities in hydrate storage of natural gas. B. Miller. bibliog il Gas Age 97:37-40+ My 2 '46
Possibilities of storing natural gas in the form of a solid hydrate. B. Miller and E. R. Strong, jr. il diag Am Gas Assn Proc 1945.80-94; Same abr. Am Gas Assn Mo 28:63-7+ F '46
Report on the investigation of the fire at the liquefaction, storage, and regasification plant of the East Ohio gas co. Cleveland, Ohio, October 20, 1944. M. A. Elliott and others. bibliog 32pls U S Bur Mines Rep of Invest 3867:1-44 '46
Review of underground storage operations at La Goleta. M. L. Fort. Gas Age 97:31+ My 30 '46
World's largest all-welded, 5 lift wet seal holder at Long Beach, Cal. F. A. Herr. il Am Gas J 164:15-18 My '46

Study and teaching

Natural gas home study course at University of Kansas. C. M. Young. Am Gas Assn Mo 28:377-8+ S '46

Sulfur content

Effect of hydrogen sulphide on coefficient for orifice gas meters. F. K. Beach. bibliog Pet Eng 17:230+ Mr '46

Uses

Industrial application of chemicals. Oil Paint & Drug Rep 150:7+ S 30 '46

Well equipment

Internal corrosion on high pressure condensate wells baffles engineers. Am Gas Assn Mo 27:563 D '45

Well testing

Testing condensate wells; illustrations with text. W. J. Davis. diags Pet Eng 17:100+ Ag '46

Alberta

Start-to-finish construction report for Alberta gas-line extension. B. W. Snyder. il map Oil & Gas J 45:251-2+ S 21 '46

GAS, Natural—*Continued*

Appalachian area

Developments in Appalachian area in 1945. maps Am Assn Pet Geologists Bul 30:861-78 Je '46

Natural gas in the Appalachian district. E. E. Roth and others. map Gas Age 98:96-100+ O 3 '46

Present and future prospects of oil and natural gas industry in Appalachian area; abstract. J. V. Goodman. Gas Age 96:49 D 13 '45

California

California gas men study means of augmenting reserves; abstracts of papers at annual meeting of Pacific Coast gas association. Oil & Gas J 45:160-1 S 21 '46

California utilization problems; policies affecting supply and demand of natural gas and its orderly marketing. R. E. Wehe. Am Gas Assn Mo 28:421-3+ O '46

Developments in California in 1945. G. B. Moody. maps Am Assn Pet Geologists Bul 30:829-50 Je '45

Natural gas development in California. R. M. Bauer. Am Gas J 164:34 Mr '46

Natural gas reserves of California. Am Gas J 165:31 O '46

New drilling and pipe line extensions in south California. Am Gas J 164:28 Ja '46

Review of underground storage operations at La Goleta. M. L. Fort. Gas Age 97:31+ My 30 '46

California, Supply to

Texas gas for California. A. F. Bridge. map Oil & Gas J 45:204+ S 21 '46

Chicago, Supply to

Building summer gas load to improve annual load factor. H. D. Valentine. il Gas Age 98:94-5+ O 3 '46

Detroit, Supply to

Bulk gas rivals. Bsns W p30+ D 29 '45

France

French research emphasizing oil exploration and utilization of petroleum gas. P. Guillaumat. il map Oil & Gas J 44:98-100 Ap 27 '46

Kansas

Developments in North Mid-continent in 1945. V. B. Cole and E. A. Koester. Am Assn Pet Geologists Bul 30:895-901 Je '46

Little Rock, Arkansas, Supply to

Cost of hypothetical pipe line from Carthage field, Tex. to Little Rock, Ark. map Gas Age 97:30-2 Ja 10 '46

Long Beach, California, Supply to

World's largest all-welded, 5 lift wet seal holder at Long Beach, Cal. F. A. Herr. il Am Gas J 164:15-18 My '46

Los Angeles, Supply to

Playa del Rey oil field solves gas storage problem for Los Angeles area. R. Sneddon. il Pet Eng 17:51-6 D '45

Louisiana

Cotton Valley, five years later. G. Weber. bibliog il map Oil & Gas J 45:94-5+ S 7 '46

Louisiana Governor Davis opposes piping out gas to states which have 1000 years of coal. Nat Pet N 37:5 N 14 '45

Witnesses tell FPC Louisiana's gas resources are jeopardized; investigation by Federal power commission. Oil & Gas J 44:84 N 24 '45

Mexico

Mexican industry seeks gas. C. Vinson. il Oil & Gas J 44:49 F 2 '46

Planning natural-gas system to serve Mexico City's industries. For Comm W 24:28 Ag 24 '46

Michigan

Developments in Michigan in 1945. H. J. Hardenberg. map Am Assn Pet Geologists Bul 30:886-94 Je '46

Montana

See also
Montana-Dakota utilities company

New Mexico

Developments in Arizona, western New Mexico, and northern New Mexico in 1945. R. L. Bates. map Am Assn Pet Geologists Bul 30:958-62 Je '46

Russia

Soviet taps gas reserves. map Bsns W p113 Mr 16 '46

St Louis, Supply to

Laclede to supply St Louis with straight natural gas. Gas Age 97:37-8 My 16 '46

Texas

Absorption plant aids gas conservation. W. J. Davis. il Pet Eng 17:199+ My '46

Carthage is booming because of natural gas. il Gas Age 96:57 D 13 '45

Development in south Texas in 1945. B. Scrafford. map Am Assn Pet Geologists Bul 30:972-9 Je '46

Developments in north and west-central Texas in 1945. map Am Assn Pet Geologists Bul 30:963-71 Je '46

Developments in Texas Panhandle in 1945. P. A. Montgomery, jr. and L. Fugitt. bibliog Am Assn Pet Geologists Bul 30:925-9 Je '46

East Texas development of United Gas in operation. Am Gas J 164:44 Je '46

Geology of Katy field, Waller, Harris, and Fort Bend counties. A. P. Allison and others. maps Am Assn Pet Geologists Bul 30:157-80 F '46

History of reserves and production of natural gas and natural gas liquids in Texas. P. Olcott. Am Assn Pet Geologists Bul 30:1123-30 Jl '46; Excerpt. Oil & Gas J 45:72+ Jl 13 '46

Lake Creek cycling project example of applied engineering technique. E. H. Short, jr. il map diag Oil & Gas J 44:64-6+ D 1 '45

Legal problems involved in cycling gas in gas fields. H. P. Pressler, jr. bibliog Pet Eng 17:151-2+ Jl '46

New cycling plant conserves gas; produces 300,000 gal. products daily; Sheridan condensate field, Texas. A. L. Foster. il diag Oil & Gas J 45:60-2+ Je 1 '46

Texas battles federal control of end use of gas. B. Booth. Nat Pet N 38:48+ F 6 '46

Texas' gas-conservation committee starts functions. Oil & Gas J 44:56 N 10 '45

Texas gas hearings open. C. J. Deegan. Oil & Gas J 44:36-8+ F 2 '46

United States

Average gas-oil ratio of Nation's oil fields. K. M. Fagin. Pet Eng 17:51-4 N '45

Case for natural gas. E. H. Poe. Gas Age 98:17-19+ Jl 11 '46

Future outlook for gas transmission lines. M. L. Mayfield. Min & Met 27:186-7 Mr '46

Gas industry stands prepared to serve any foreseeable market. E. H. Poe. map Oil & Gas J 45:293-4+ S 21 '46

Growing importance of the natural gas industry; leading companies appraised. F. R. Walters. il Mag of Wall St 78:278-9+ Je 8 '46

Impressive expansion of the natural gas industry in the United States 1925-1945; maps. Gas Age 97:34-5 My 2 '46

Natural gas industry, its problems and outlook. G. Agassiz. Am Gas J 164:11-14+ My '46

Natural gas industry plans big expansion. S. G. Ebert. Barron's 26:9+ O 7 '46

Natural gas marches on. R. H. Hargrove. Gas Age 97:29+ Ja 24 '46

Natural-gas reserves. E. DeGolyer. map Oil & Gas J 44:80-2 My 4 '46

Natural gas reserves as of Dec. 31, 1945. N. C. McGowen. Gas Age 98:25+ O 17 '46

Natural gas; the glamour industry. E. F. Schmidt. il Gas Age 97:24-7 My 2 '46

Opportunities ahead. W. C. Beckjord. il Gas Age 97:23+ My 2 '46

GAS, Natural—United States—*Continued*
Utilization of natural gas in the United States. G. G. Oberfell. bibliog Gas Age 96: 12-15+ D 27 '45; 97:25-9+ Ja 10 '46; Same (pt 2). Nat Pet N 38 pt 2:R46-51 Ja 2 '46; Same. Pet Eng 17:158+ Ja '46; Same. Pet Refiner 25:94-104 Ja '46; Same. Min & Met 27:165-72 Mr '46; Same cond. Am Gas Assn Mo 28:7-13 Ja '46; Same cond. Oil & Gas J 44:76-8 D 15 '45; Abstract. Chem & Met Eng 53:126 Ja '46
Which way does FPC gas probe point? S. H. Crosby. Pub Util 38:464-71 O 10 '46

West Virginia
Future of natural gas industry in West Virginia. J. E. Billingsley. Gas Age 96:24-5+ D 27 '45
Gas and modern living. C. W. Meadows. Am Gas Assn Proc 1945:50-3

Wisconsin, Supply to
Gas line threat; union opposition to pipeline from Texas-Oklahoma fields. Bsns W p22 O 5 '46

Wyoming
Depleted sands provide floating gas storage. N. Williams. il map Oil & Gas J 45:58-9+ Je 1 '46

GAS, Oil
Peak and base load gas production past and future. E. G. Boyer. Gas Age 98:31-5+ Jl 11 '46
Thermal cracking of petroleum; effect of time, temperature, pressure, and type of charging stock on products. H. C. Sung, G. G. Brown and R. R. White. bibliog Ind & Eng Chem 37:1153-61 D '45
See also
Gas oil

GAS, Producer
Agricultural tractors operated on generator gas; abstract. H. Lute. diags Product Eng 16:866-8 D '45
La cémentation gazeuse. J. Pomey. diags Chimie & Ind 54:97-104 Ag '45; Excerpt (Gaseous cementation). Chem & Met Eng 53:276+ F '46
Exploration, composition and washing, burning and gas-producer tests of a coal occurring near Coaldale, Esmeralda county, Nev. L. L. Newman and K. A. Johnson. flow diag il diags U S Bur Mines Tech Pa 687:57-70; pa 30c Supt. of doc. '46
Wartime carbonization. A. McFadyen. Gas J (Lond) 248:564-6+; Discussion. 573 O 2 '46
Waste waters from suction gas plants; abstract. H. J. Bandt. Am Water Works Assn J 38:791-2 Je '46
See also
Gas producers

Testing
Engine tests with producer gas. F. A. Middleton and C. S. Bruce. bibliog diag J Res Nat Bur Stand 36:171-84 F '46

GAS, Sewage sludge. See Sewage sludge—Gas production

GAS, Water
Analysis of a standard sample of the carburetted water-gas type by laboratories cooperating with the American society for testing materials. M. Shepherd. fold table diags J Res Nat Bur Stand 36:313-49 Mr '46
Analysis of water gas; investigation of reagents; abstract. R. Zel'vyanskaya. Chem Age (Lond) 54:554 My 18 '46
LP-air-manufactured gas mixtures. D. W. Price. Gas Age 97:33-4 F 7 '46; Same. Am Gas J 164:14-15 F '46
LP gas-air and manufactured gas mixtures. W. E. Churchill. Am Gas J 164:11-13 F '46
Value and limitations of high-speed turboexhausters for the removal of tar-fog from carburetted water-gas. E. H. M. Badger. diag Soc Chem Ind J 65:166-8 Je '46
See also
Gas oil

Manufacture
Continuous vertical retort coke for C.W.G. production. Weston. Gas J (Lond) 248:25 Jl 3 '46
Gasification of lignite and subbituminous coal. V. F. Parry and others. 17pls U S Bur Mines Rep of Invest 3901:1-59 '46
Increasing water gas set capacity; generator air supply. B. P. Jenkins. Gas Age 98:21-6+ S 5 '46
Liquefied petroleum gases in water gas production. K. Richter. Gas Age 96:25+ N 29 '45; Same. Am Gas J 163:15-16 D '45
Post-war future of water gas manufacture. K. W. Stookey. il Gas Age 97:26-7+ F 7 '46
Proportioning purifier air; installation in a water-gas plant. D. L. Dowling. il diag Am Gas Assn Mo 28:429-31 O '46
Results obtained with the tangential generator-carburetter connection. G. L. Bixby. Am Gas Assn Mo 27:511+ N '45
Water gas set capacities. P. T. Dashiell. il Am Gas Assn Mo 27:537-42+ D '45

GAS analysis
Analyses of mixtures of light gases by infrared absorption. N. D. Coggeshall and E. L. Saier. bibliog il diag J Ap Phys 17:450-6 Je '46
Analysis of a standard sample of the carburetted water-gas type by laboratories cooperating with the American society for testing materials. M. Shepherd. fold table diags J Res Nat Bur Stand 36:313-49 Mr '46
Analysis of water gas; investigation of reagents; abstract. R. Zel'vyanskaya. Chem Age (Lond) 54:554 My 18 '46
Apparatus and procedure for technical butadiene analysis. C. L. Gregg. diags Ind & Eng Chem Anal ed 17:728-30 N '45
Apparatus for the determination of organic sulphur compounds in manufactured gas. I. J. W. MacHattie and N. L. McNiven. bibliog il diags Can Chem & Process Ind 30:87-90+ Jl '46; Same. Am Gas J 165:47-51 O '46
Applications of the thermal conductivity gas analyzer. A. J. Bialous and C. A. Hansen. jr. il diag Gen Elec R 49:20-6 O '46
Aqueous solutions of alcohols as confining liquids for gas analysis; solubility of carbon dioxide. K. A. Kobe and G. E. Mason. Ind & Eng Chem Anal ed 18:78-9 Ja '46
Automatic apparatus for determination of small concentrations of sulfur dioxide in air; new countercurrent absorber for rapid recording of low and high. M. D. Thomas, J. O. Ivie and T. C. Fitt. bibliog il diags Ind & Eng Chem Anal ed 18:383-7 Je '46
Balloon barrage purity meter. W. F. Gardner and R. E. Norris. il diags Gas J (Lond) 246:847-8 D 12 '45
Combustibles recorder-controller and the Penetron. R. H. Munch. il diag Ind & Eng Chem 38:sup79-80 Ja '46
Determination of basic nitrogen in hydrocarbon feed stocks. L. Donn and H. Levin. diags Ind & Eng Chem Anal ed 18:593-5 O '46
Determination of dissolved gases in volatile liquids; a boiling-out method. C. C. Meloche and W. G. Fredrick. diag Ind & Eng Chem Anal ed 17:796-8 D '45
Determination of ether vapor in gaseous mixtures; separation and determination in gaseous mixtures containing ethylene and determination of dissolved ethylene in ethyl ether. C. C. Meloche and W. G. Fredrick. bibliog Ind & Eng Chem Anal ed 17:795-6 D '45
Determination of helium group gases in natural gases and in the atmosphere. G. H. Cady and H. P. Cady. bibliog diags Ind & Eng Chem Anal ed 17:760-6 D '45
Determination of tar fog in gas. E. H. M. Badger and D. S. Wilson. il diag Soc Chem Ind J 65:119-21 Ap '46
General Electric gas analyzer and dew point recorder. Materials & Methods 24:483 Ag '46
Manometric system for volumetric gas analyzers. A. R. Anderson. diag Ind & Eng Chem Anal ed 18:70 Ja '46
Mass spectrometer; a flexible tool for industrial analysis and research. N. D. Coggeshall. bibliog il diags Chem Ind 58:420-3 Mr '46
Mass spectrometer analyzes gases. il Oil & Gas J 44:143 N 24 '45
Mass spectrometer as an analytical tool. A. K. Brewer. il Min & Met 27:207-9 Ap '46

GAS analysis—*Continued*
Oxygen-hydrogen indicator; Deoxo indicator. il R Sci Instr 17:244 Je '46
Precision semimicromethod for gas analysis. L. K. Nash. bibliog diag Ind & Eng Chem Anal ed 18:505-8 Ag '46
Rapid test for isobutane (+) fractions in natural gasoline plant absorber residue gases. G. M. Liljenstein and W. M. Schaufelberger. diags Pet Eng (Ref annual) 16:231+ Jl 1 '45; Same. Pet Refiner 25:129-34 Ap '46; Same abr. Oil & Gas J 43:96+ D 16 '44
Simple method of measuring a small noncondensable impurity in Xe or other condensable gas. E. Kenty. diag R Sci Instr 17:158-9 Ap '46
Simultaneous determination of hydrogen sulfide and carbon dioxide in a continuous gas stream. C. L. Blohm and F. C. Riesenfeld. bibliog diag Ind & Eng Chem Anal ed 18: 373-6 Je '46
Sulphuric acid equilibrium cell determines air moisture content continuously. A. E. Kroll and P. G. Foust, jr. diag Chem & Met Eng 53:115-16 Je '46
Thermal conductivity method of gas analysis. C. C. Minter. il diags J Chem Educ 23:237-9 My '46
Thermal gas analyzer. il R Sci Instr 17:456 O '46

See also
Flue gas—Analysis
Gas, Natural—Analysis

GAS and oil engines. See Diesel engines; Gas engines; Gas turbines; Internal combustion engines

GAS appliance industry
Gas appliance manufacturers association holds annual meeting in Chicago. Am Gas J 165:18 Jl '46
Looking ahead with the appliance manufacturer. L. C. Harvey. Gas Age 97:28-9+ Ja 24 '46
Stretching the market for appliances and equipment beyond the gas mains. K. W. Rugh. Gas Age 98:25-7+ Jl 11 '46
Why manufacturers need home service. C. W. Kimball. Am Gas J 164:41 Ap '46

See also
Gas appliances—Merchandizing
Gas appliances, Domestic—Merchandizing

Directories

Gas engineering and appliance directory. Gas Age 97:75-162 Je 13 '46

GAS appliance manufacturers association
Annual meeting, 11th, Chicago, June 11-12. Gas Age 97:26-7+ Je 27 '46

GAS appliances
Bryant industrial flomixers in production. il diag Gas Age 97:58 Ap 4 '46
Commercial uses for gas. W. Johnson and W. F. Moore. Gas J (Lond) 248:190-2+, 233-4 Jl 31-Ag 7 '46
Food service industry cooperation between the Food service equipment industry and the American gas association. F. H. Trembly, jr. Am Gas Assn Mo 27:554-5+ D '45; Same. Am Gas J 163:41-2 D '45
Modern gas kitchen equipment. J. J. Bourke. Am Gas Assn Mo 28:399-400 S '46
Testing and design of flued gas fires and drying cabinets. L. W. Andrew. Gas J (Lond) 246:642+ N 7 '45
Utilization and general research. E. P. Noppel. Am Gas Assn Proc 1945:22-7; Same. Am Gas Assn Mo 27:533-6+ D '45; Same cond. Am Gas J 164:51-2 Ja '46

See also
Gas burners
Gas ovens
Gas stoves
Gas water heaters
Refrigerators, Gas

History

Gas industry; from light to heat. D. Chandler. il diags Gas J (Lond) 248:477-8+, 522+ S 18-25 '46; Discussion. 248:531 S 25 '46

Ignition devices

Automatic ignition development; new Bryant gas range "lyter". C. H. Cummings. il diags Am Gas Assn Mo 28:56+ F '46

Installation

Codes and standard practices covering installation of gas appliances. H. W. Geyer. bibliog Am Gas J 164:38-9 Je '46
Gas burning furnace ordinance adopted in Los Angeles. Am Gas J 165:38-9 Ag '46

Merchandizing

Chase bank offers appliance financing plan. Gas Age 96:31-2+ N 1 '45; Same. Pub Util 36:790-2 D 6 '45; Same cond. Am Gas J 163:54 N '45
Commercial gas cooking equipment; what is our competition? L. L. Peters. Am Gas J 164:25-7 Je '46; Same. Gas Age 97:25-6+ My 16 '46
Competition, an aid to progress. H. W. Reed. Gas Age 97:13-14+ Je 27 '46
Dealer cooperation and appliance standardization. S. B. Severson. Am Gas J 165: 15-18 Jl '46
Helping the merchant to help himself; Michigan consolidated gas co. training school for dealers. D. D. Sheldon. il Gas Age 97:51-2 My 2 '46
Promotion. L. C. Harvey. Am Gas Assn Proc 1945:34-6
Report of Appliance financing committee; plans used for financing sales by dealers. Am Gas Assn Proc 1945:144-72
Responsibility of sales management in a machine economy. G. S. Jones, jr. Gas Age 98:17-18+ Ag 8 '46
Revised merchandising program in southern California of benefit to dealers; dealers credited with company sales. F. A. Herr. il Am Gas J 164:13-16 Ap '46
Symposium on dealer plans in New England. R. D. Stuart and others. Gas Age 97:27-31+ Ap 18 '46
Why I am enthusiastic about gas appliances; dealer cooperation, Cambridge gas light co. P. R. Paffen. il Gas Age 97:34+ Mr 7 '46

See also
Gas companies—Appliance selling

Repair

On the job with industrial maintenance; Brooklyn union gas company. C. Wierum. il Am Gas Assn Mo 28:344+ Jl-Ag '46
Program for training servicemen. C. C. Westmoreland. il diags Am Gas Assn Mo 28: 323-8 Jl-Ag '46

Standards

Dealer cooperation and appliance standardization. S. B. Severson. Am Gas J 165:15-18 Jl '46
High-altitude performance covered in new standard for gas appliances. Ind Stand 17: 127 My '46

Testing

See also American gas association—Appliance testing laboratory

Ventilation

Moisture problem in housing; A.G.A. research projects on humidity control and venting of gas heaters. E. C. Adams. Am Gas Assn Mo 28:321-2+ Jl-Ag '46
Research problems in venting gas-fired space heaters. C. E. Blome. Gas Age 97:31+ Mr 21 '46

GAS appliances, Domestic
All-gas kitchens. il Am Bld 68:133 O '46
All-gas Quonset huts to help solve housing shortage. il Gas Age 97:15+ My 16 '46
A.G.A. technical conference on domestic gas research, Cleveland, Feb. 18-19. Gas Age 97:21-2+ Mr 21 '46; Am Gas J 164:17 Mr '46
Construction industries and home show in southern California. Am Gas J 165:30 S '46
From experiment to achievement; Radiation ltd. sponsors two experimental houses. il Gas J (Lond) 246:677 N 14 '45
Gas gives four major services in deluxe post-war home. F. A. Herr. il Am Gas J 165:21-4 Jl '46
Gas utilization; future prospects and needs in the domestic sphere. H. Hartley. Gas J (Lond) 247:306-8, 350-1 F 20-27 '46
Growth of the job of service engineer. O. W. Roskill. Gas J (Lond) 247:151-2+; Discussion. 157+ Ja 23 '46

GAS appliances, Domestic—*Continued*
Manufacturer's viewpoint on A.G.A. domestic gas research. L. C. Harvey. Gas Age 97: 27-8+ Mr 21 '46
Product designs of today; features of new gas-fired appliances. il Am Gas J 163:41-2+ N '45
Shaping things to come. J. M. A. Mitchell. Gas J (Lond) 247:61-2 Ja 9 '46
Veterans return to new freedom gas homes; project at Vanderbilt university. E. E. Bryan. il plan Gas Age 98:33+ Ag 22 '46

Merchandizing

New freedom gas kitchen program. H. V. Potter. Am Gas Assn Proc 1945:36-8
New market for gas, fabricated homes. P. Lance. Gas Age 96:19 D 27 '45
1946 gas promotion equipment. J. H. Warden. il Am Gas Assn Mo 28:122-3+ Mr '46
Residential gas section ready for coming year. J. J. Quinn. Gas Age 97:35-8+ Ja 24 '46
Servel's new freedom kitchen; promotion plan adaptable to small and large utilities. R. J. Canniff. il Am Gas Assn Mo 28:100-1 Mr '46
We must make it easy to buy. H. W. Nichols. Am Gas Assn Mo 28:396-7 S '46

Safety measures

That every American may have a safe home; safety of gas and electric appliances. T. Fansler. Gas Age 97:38+ Ap 18 '46

GAS as fuel
Flame cleaning of steel, using gas; preparation for painting. A. J. Pfetzing. il Gas Age 96:13-14 N 29 '45
Fuel services in post-war homes; discussion. Gas J (Lond) 246:842 D 12 '45
Gaseous fuels in Britain. D. D. Howat. bibliog Chem Age (Lond) 54:107-11, 133-7 Ja 26-F 2 '46
Industrial and commercial gas, a preview. H. A. Sutton. Gas Age 97:33-4 Ja 24 '46
Institution of gas engineers district heating committee; report. Gas J (Lond) 246:848+, 888+, 933+; 247:33-4 D 12 '45-Ja 2 '46
Our equity in industry. E. M. Tharp. Gas Age 98:13-15+ O 17 '46
Presidential address before North British association. T. S. Lockhart. il Gas J (Lond) 247:635-6 Ap 17 '46
Schweer brick co. converting to gas at St Louis plant. il Brick & Clay Rec 109.58 S '46
Town gas in the glass industry. R. J. Bradshaw. Gas J (Lond) 246:636+ N 7 '45; Discussion. 246:678 N 14 '45
United nations choose gas for heating, cooking, hot water, for New York city headquarters. il Gas Age 98:20 O 17 '46

See also
Blast furnace gas
Boilers—Gas firing
Butane
Coke-oven gas
Gas, Producer
Gas appliances
Gas appliances, Domestic
Gas burners
Gas cooking
Gas heaters
Gas heating
Gas heating, Industrial
Gas ovens
Gas producers
Gas stoves
Liquefied petroleum gas
Propane
Sewage sludge—Gas production

Bibliography

Abstracted articles of current interest to the industry. Am Gas J 163:58-62 N '45; 164: 45-50 Ja; 30-4 F; 44-8 Mr '46

Natural gas

Application of natural gas fuel to a Diesel cycle engine. L. W. Crump and M. E. Orelup. il Gas Age 97:19-20+ Mr 21 '46
Blending modern fuel gases; method of establishing interchangeability limits. J. Huck. il Am Gas Assn Mo 28:199-202 My '46
Building summer gas load to improve annual load factor. H. D. Valentine. il Gas Age 98:94-5+ O 3 '46
Case for natural gas. E. H. Poe. Gas Age 98:17-19+ Jl 11 '46
Fuel struggle; FPC may ask further power over natural gas. map Bsns W p40+ Ag 10 '46
Gas supplies all of college fuel requirements; Texas A. and M. college. C. Thompson. il Gas Age 98:31-2+ S 5 '46
Natural gas, growing coal competitor. map Coal Age 51:72-7 S '46
Production must rise to meet increasing industrial uses. W. W. Burns. Oil & Gas J 44:100+ My 4 '46
Utilization of LP-gas by the natural gas industry. F. E. Drake. Gas Age 97:22-4+ My 30 '46
Utilization of natural gas in the United States. G. G. Oberfell. bibliog Gas Age 96: 12-15+ D 27 '45; 97:25-9+ Ja 10 '46; Same (pt 2). Nat Pet N 38 pt 2:R46-51 Ja 2 '46; Same. Pet Eng 17:158+ Ja '46; Same. Pet Refiner 25:94-104 Ja '46; map Min & Met 27: 165-72 Mr '46; Same cond. Am Gas Assn Mo 28:7-13 Ja '46; Same cond. Oil & Gas J 44:76-8 D 15 '45

GAS associations
Functions of regional associations. C. Johnstone. Am Gas Assn Mo 28:205-7 My '46

GAS boosters
Power plant and machinery for exhausting and boosting gas. L. J. Clark. Gas J (Lond) 248:31-2; Discussion. 32 Jl 3 '46

GAS burners
Aerated burners of high stability. L. T. Minchin. bibliog diags Gas J (Lond) 248: 188-9, 231-2, 277+ Jl 31-Ag 14 '46
Boiler fireman's handbook; gas firing. J. R. Darnell. il diags Power Pl Eng 50:98-101 Mr '46
Calculating coil and burner requirements for gas-fired immersion heating. R. M. Buck. diags Iron Age 158:46-52 Jl 11 '46
C.C. burner applied to industrial heating processes. J. Palser. il Gas J (Lond) 247: 104-6; Discussion. 106-7 Ja 16 '46
Forestalling heating headaches; conversion burner school for dealers. J. W. Frazier. il Am Gas Assn Mo 28:426-8 O '46
Gas conversion burners, a bonanza in 1946; design and installation data. R. Reed. Gas Age 98:30-1 O 17 '46
Gas industry; from light to heat. D. Chandler. il diags Gas J (Lond) 248:477-8+, 522+ S 18-25 '46; Discussion. 248:531 S 25 '46
Gas range burner of new type. il diags Product Eng 17:195 Mr '46
How Equitable Gas educates dealers for conversion burner boom. J. W. Frazier. il Gas Age 98.27-9+ S 19 '46
Industrial applications of the non-aerated gas flame. J. F. Waight. il diags Gas J (Lond) 246:765-8+ N 28 '45; Discussion. 246:842-3+ D 12 '45
Primary air injection; new equation correlates components of burner design. E. J. Weber. Am Gas Assn Mo 28:312-14+ Jl-Ag '46
Radiant heat burner for use on solid top ranges. il diags Gas J (Lond) 247:142-3 Ja 23 '46
Radiant, high-temperature gas heat in ceramic firing; abstract. E. Blaha. Cer Ind 46:94 Je '46

See also
Bunsen burner

GAS burning equipment
New method of heating sludge digesters; Baltimore adopts direct heating with submerged gas burning. C. E. Keefer. il diags Water & Sewage Works 93:236-8 Je '46
New three-way bench furnace. il Am Gas Assn Mo 28:271 Je '46

See also
Gas heating, Industrial
Gas water heaters

GAS carburizing. See Case hardening—Gas carburizing

GAS cleaning

See also
Blast furnace gas—Cleaning

GAS companies
Company reports should be merchandised; U.S. steel corporation's moving picture; idea adaptable to gas companies. L. S. Metcalfe. il Gas Age 96:52+ D 13 '45

See also Standard gas and electric corporation

Accidents

Accident experience of the gas industry, 1944. I. Dunston. Mo Labor R 62:82-4 Ja '46

GAS companies—Accidents—*Continued*
Gas company employes have unusual accidents; recent court decisions. L. T. Parker. Am Gas J 164:32-3 Je '46

Accounting
Accountants make plans for 1946. E. F. Embree. Gas Age 97:31-2 Ja 24 '46
Accounting for merchandise sales. R. S. McGlone and W. C. Wolff. Am Gas Assn Mo 27:549-51 D '45
Accounting for payroll deductions. D. A. Hamilton. Am Gas Assn Proc 1945:105-6
Accounting routine for handling salvage material and equipment. K. C. Campbell. Am Gas Assn Proc 1945:141-2
Distribution of payroll charges. J. A. Schultz. Am Gas Assn Proc 1945:107-8
Do property records and accounting procedures require simplification? C. A. Locke. Am Gas Assn Proc 1945:112-15
Functional and cost accounting. O. Gressens. Am Gas Assn Mo 28:275-7 Je '46
Joint national accounting conference. Am Gas Assn Mo 28:221-5+ My '46
Limitations of cost comparisons; joint A.G.A.-E.E.I. report. Am Gas Assn Mo 28:393-5+ S '46
Outline of customers' accounting procedure and brief description of duties. Am Gas Assn Proc 1945:119-24
Outline of unit plan and station plan of bookkeeping. Am Gas Assn Proc 1945:115-19
Payroll accounting. A. N. W. LaRose. Am Gas Assn Proc 1945:98-102
Pension accounting. A. T. Gardner. Am Gas Assn Proc 1945:109-12; Same. Am Gas Assn Mo 27:453-5 O '45
Provisions of income tax law and regulations affecting owners of oil and gas properties. F. T. Terry. J Account 81:217-26 Mr '46
Utility budgetary control. A. W. Hatch. Am Gas Assn Mo 28:77-8 F '46

Advertising
See Gas industry—Advertising

Appliance selling
Accounting for merchandise sales. R. S. McGlone and W. C. Wolff. Am Gas Assn Mo 27:549-51 D '45
Every employee is a salesman; Iowa electric light and power co. G. I. Cole. il Gas Age 97:40+ My 2 '46
How Alabama gas co. controls sales. G. E. Stedman. Gas Age 98:26-7+ Ag 22 '46
Revised merchandising program in southern California of benefit to dealers; dealers credited with company sales. F. A. Herr. il Am Gas J 164:13-16 Ap '46
Servel's new freedom kitchen; promotion plan adaptable to small and large utilities. R. J. Canniff. il Am Gas Assn Mo 28:100-1 Mr '46
Validity of gas accessory sale contracts. L. T. Parker. Am Gas J 165:42-3+ Jl '46

Customer relations
Credit and collection procedures and practices. Am Gas Assn Proc 1945:133-6
Customer service policy. P. E. Ewers. Am Gas Assn Mo 28:335-8+ Jl-Ag '46
How are we doing? W. E. Sturm. Am Gas Assn Proc 1945:127-9; Same. Am Gas Assn Mo 27:403-4 S '45
Methods for maintaining good customer relations; training telephone service employees; interview with V. Pack. F. A. Herr. Am Gas J 163:23-6 D '45
Public utility credit policy. J. G. Ross. Am Gas Assn Proc 1945:124-7; Same. Am Gas Assn Mo 27:277-8+ Je '45
Survey of uncollectible bill results. Am Gas Assn Mo 27:130-3

Dealer relations
Appliance sales plan of Michigan consolidated gas co. M. W. Bowman. Am Gas J 163:18+ D '45
Dealer, utility relations. W. E. Lind. Am Gas J 165:19-20+ S '46
Forestalling heating headaches; conversion burner school for dealers. J. W. Frazier. il Am Gas Assn Mo 28:426-8 O '46
How Equitable Gas educates dealers for conversion burner boom. J. W. Frazier. il Gas Age 98:27-9+ S 19 '46
Report of Appliance financing committee; plans used for financing sales by dealers. Am Gas Assn Proc 1945:144-72

Directories
Membership list as of January 1, 1946. Am Gas Assn Mo 28:sup1-56 Mr '46

Electric utility competition
Commercial cooking; how to defeat competition for this load. L. L. Peters. Gas Age 97:25-6+ My 16 '46; Same. Am Gas J 164:25-7 Je '46
Competition, an aid to progress. H. W. Reed. Gas Age 97:13-14+ Je 27 '46

Employees
Better conditions for gas workers; recommendations of National joint industrial council for the gas industry. Gas J (Lond) 246:930 D 26 '45
Education and industry. P. F. R. Venables. Gas J (Lond) 247:432-3; Discussion. 433-5 Mr 13 '46
Employees' M and H program; Consolidated natural gas company. N. D. Bradley. Am Gas Assn Mo 28:311+ Jl-Ag '46
Every employee is a salesman; Iowa electric light and power co. G. I. Cole. il Gas Age 97:40+ My 2 '46
Gas service co. enthusiastic about employing students for home service. C. D. Greason. il Gas Age 98:21-2+ O 17 '46
Good industrial relations. E. O. Keller. il Am Gas Assn Mo 28:383-8+ S '46
Methods for maintaining good customer relations; training telephone service employees; interview with V. Pack. F. A. Herr. Am Gas J 163:23-6 D '45
Program for labor peace. C. B. Boulet. Gas Age 98:50+ O 31 '46
Program for training servicemen. C. C. Westmoreland. il diags Am Gas Assn Mo 28:323-8 Jl-Ag '46
Recruiting, selecting and training home service personnel. W. D. Williams. Gas Age 96:16-19+ D 27 '45
Reinstatement training of ex-service personnel. R. N. Le Fevre. Gas J (Lond) 247:885 My 29 '46
Report of Home service committee; reproduction of booklet, Home service, the road to opportunity. Am Gas Assn Proc 1945:173-8
Report of Personnel committee. Am Gas Assn Proc 1945:55-63
Selection of home service personnel. F. M. Rosenkrans. Gas Age 97:33-4 Mr 21 '46
Service and labor problems of the Long Island lighting co.; installations in housing project delayed because of labor dispute. Am Gas J 164:53 Ja '46
Training for home service; Southern California gas company. M. A. Bates. il Am Gas Assn Mo 27:526-8 D '45
Unique pact; pledges union to use influence for wage reduction in bad years. Bsns W p87 Je 22 '46
Why has gas industry such difficulty in attracting best type of young people? discussion. Gas J (Lond) 248:68 Jl 10 '46
See also
McCarter medal

Equipment and supplies
How about those new trucks? S. F. Gale. il Gas Age 96:21-2+ D 27 '45
Standardization of truck bodies. S. F. Gale. plans Gas Age 97:17-19+ Ap 18 '46

Exhibits
Kitchen center opens; Rochester gas and electric corporation. il Am Gas Assn Mo 28:262+ Je '46
Set the stage for home service; fundamentals of good kitchen displays and home service demonstration platform arrangements. H. Swenson. il plans Am Gas Assn Mo 28:53-5+ F '46

Extension policies
Legal duty to extend gas service. L. T. Parker. Am Gas J 163:55-7 N '45

Finance
Inflation and the utilities. H. G. Guthmann. Am Gas Assn Mo 28:195-8+ My '46

GAS companies—Finance—*Continued*
Outlook for financing manufactured gas. W. W. Bodine. Gas Age 98:42+ O 31 '46

Law

Avoid legal pitfalls. L. T. Parker. Am Gas J 164:61-3 O '46
Gas company employes have unusual accidents; recent court decisions. L. T. Parker. Am Gas J 164:32-3 Je '46
How to reduce motor truck liability. L. T. Parker. Am Gas J 164:35-7 Ap '46
Legal duty to extend gas service. L. T. Parker. Am Gas J 163:55-7 N '45; 164:43-4+ Ja '46
New gas explosion law suits. L. T. Parker. Am Gas J 165:33-5 S '46
New gas explosion suits. L. T. Parker. Am Gas J 164:45-7 My '46
Review gas supply law suits. L. T. Parker. Am Gas J 163:38-40 D '45; 164:27-8 Mr '46
Review of outstanding 1945 gas higher court decisions. L. T. Parker. Am Gas J 164:35-6 F '46
Unusual law suits affecting gas utilities. L. T. Parker. Am Gas J 165:34-6 Ag '46
Validity of gas accessory sale contracts. L. T. Parker. Am Gas J 165:42-3+ Jl '46

Management

How Alabama gas co. opens market for dealers and manufacturers. G. E. Stedman. il Gas Age 97:28-31+ My 2 '46
How Knoxville has built annual load of 42.66 Mcf per residential customer. G. E. Stedman. Gas Age 97:19-21+ Ap 4 '46
Industrial gas progress in Detroit. M. W. Bowman. Am Gas J 164:23-4 Ja '46
Manchester leads the way; show window displays, advertising dealer cooperation, etc; Manchester gas company. E. Niederer, jr. il Am Gas J 164:21-3 Ja '46; Same. Am Gas Assn Mo 28:58-60 F '46; Same. Gas Age 97:35-6+ F 7 '46
Modern administrative control for public utility undertakings. F. W. Allum. Gas J (Lond) 247:390-2 Mr 6 '46
New responsibilities of management. H. W. Reed. Am Gas Assn Mo 27:490-3 N '45; Same. Gas Age 96:26-7+ N 29 '45; Same. Am Gas Assn Proc 1945:41-3
Presidential address before Manchester district association of gas engineers. Gas J (Lond) 247:718-20+ My 1 '46
Why I am enthusiastic about gas appliances; dealer cooperation, Cambridge gas light co. P. R. Paffen. il Gas Age 97:34+ Mr 7 '46

See also
Gas companies—Employees

Public relations

One public relations program centers around fishing; Pacific gas and electric co. forecasts fishing conditions. A. K. Smart. Am Gas J 164:18 Mr '46
Three phases of public relations. G. A. Saas. Gas Age 98:33-4+ S 19 '46

See also
Cooking schools

Radio communication

Radio for the gas industry. W. T. Bulla. Pet Eng 17:134 Mr '46
United gas pipe line co. installs radio-telephone network. il map Gas Age 97:47-50+ My 2 '46

Records

Close inventory control in a centralized operation. F. A. Jaxtheimer. Am Gas J 165:52-3 O '46
Comments on manual payroll systems. O. Ullery. Am Gas Assn Proc 1945:103-5
Credit history; recording past-due service accounts, notice of disconnection and all disconnections for non-payment of service. Am Gas Assn Proc 1945:136-40
Do property records and accounting procedures require simplification? C. A. Locke. Am Gas Assn Proc 1945:112-15
Tabulating card control of meters. C. D. Otcasek. il Am Gas Assn Mo 28:173-6 Ap '46

Safety measures

Safe distribution practices. Am Gas J 164:52-3+ My '46
Safety in gas pipe line maintenance. A. W. Breland. il diag Pet Eng 17:190+ Mr '46
Safety work of natural gas company applies both on and off the job; United gas pipe line company, Shreveport, Louisiana. C. L. Hightower. Pub Util 36:788-90 D 6 '45

Salesmen

Detroit method of sales training. M. W. Bowman. Am Gas J 164:31-3 My '46
Distinctive sales-training program. G. E. Stedman. Gas Age 96:42-4 D 13 '45
Industrial sales staff; reorganization and training at Southern counties gas company. F. A. Herr. Am Gas J 163:52-3 N '45
Revised industrial sales course adopted to meet post war conditions; Southern California gas co. Am Gas J 164:16-17 F '46

Securities

Growing importance of the natural gas industry; leading companies appraised. F. R. Walters. il Mag of Wall St 78:278-9+ Je 8 '46
Manufactured gas company stocks; tabulation. Pub Util 37:112, 435; 38:39, 487 Ja 17, Mr 28, Jl 4, O 10 '46
Natural gas stocks. Pub Util 37:178, 566; 38:106, 488 Ja 31, Ap 25, Jl 18, O 10 '46
U.G.I. to cut a tie; Kansas city gas companies pick up own preferred. Bsns W p52+ Je 1 '46

Service

Accenting teacher relations; home economics teachers get review of service policies and activities at get-acquainted dinners; Ohio fuel gas company. W. F. Smiley. il Am Gas Assn Mo 28:263+ Je '46
Bride's cooking school conducted by Home economics dept. of Southern California gas company. F. A. Herr. il Am Gas J 164:20-1+ Je '46
Demonstration techniques for home service workers. R. A. Shank. il Am Gas Assn Mo 28:371-3 S '46
Gas appliance cooking school; Pacific gas & electric co. il Am Gas J 163:64-5 N '45
Gas industry aids Save food campaign. il Am Gas Assn Mo 28:269 Je '46
Growth of the job of service engineer. O. W. Roskill. Gas J (Lond) 247:151-2+; Discussion. 157+ Ja 23 '46
Home service; 1946. L. P. Dunbar. Am Gas J 164:39-40 Ap '46
Home service promotion to company groups. K. L. Rathbone. Gas Age 97:19-20 My 16 '46
Home service workshops at Pittsburgh and Kansas City. il Gas Age 97:23-6+ Mr 7 '46; Am Gas Assn Mo 28:124-5+ Mr '46
How Blackstone Valley helps customers plan better homes. B. T. Poor. il Gas Age 98:29 Ag 8 '46
Model school-lunch program; home service department of the Cumberland and Allegheny gas co. W. L. Hutcheson. il Gas Age 96:18-19+ N 29 '45
New York and Richmond is first gas company to open Home planning bureau. C. A. Kennedy. il Gas Age 97:28-9+ Ap 4 '46
On the job with industrial maintenance; Brooklyn union gas company. C. Wierum. il Am Gas Assn Mo 28:344+ Jl-Ag '46
Organizing for home service. R. Soule. il Am Gas Assn Mo 28:109-12 Mr '46
Planning the home laundry. M. Fenner. il plans Am Gas Assn Mo 28:424-5 O '46
Principles of gas service. Am Gas Assn Proc 1945:290-4
Selection of home service personnel. F. M. Rosenkrans. Gas Age 97:33-4 Mr 21 '46
Stage that commands; theatre-type auditorium for gas equipment demonstration; East Ohio gas company. A. V. McManus. il plan diag Am Gas Assn Mo 28:382+ S '46
Training for home service; Southern California gas company. M. A. Bates. il Am Gas Assn Mo 27:526-8 D '45
Trends in appliance servicing policies on free work and charging for service. Am Gas Assn Proc 1945:287-90
What the restaurant operator expects of the gas company. A. T. Pitman. Gas Age 98:44+ S 19 '46
Why manufacturers need home service. C. W. Kimball. Am Gas J 164:41 Ap '46

See also
Cooking schools

GAS companies—*Continued*

Show windows

Manchester leads the way; show window displays, advertising dealer cooperation, etc; Manchester gas company. E. Niederer, jr. il Am Gas J 164:21-2 Ja '46; Same. Am Gas Assn Mo 28:58-60 F '46; Same. Gas Age 97:35-6 F 7 '46

Stores systems

Close inventory control in a centralized operation. F. A. Jaxtheimer. Am Gas J 165: 52-3 O '46

Materials and supplies stock numbering system operation; benefits and advantages. J. M. Imlay. Am Gas Assn Proc 1945:142-3

GAS compressors

Compressing gases from earth and sky to grow more food; compressor plant at Alberta nitrogen products ltd. il Can Min J 66:850-1 D '45

Construction of new compressor stations on Texas to West Virginia gas pipe line. H. Dawe. flow diag plans il diag Pet Eng 17:57-60+ Je; 41-4+ Jl '46

Effect of engine exhaust pressure on performance of compressor-engine-turbine units. C. F. Taylor. bibliog diags S A E J 54:64-73 F '46

Effects and corrections of gas pulsation problems. F. M. Stephens. il Gas Age 98:31-2+ S 19 '46; Same. Am Gas J 165:41-2, 76 O '46; Same. Oil & Gas J 45:78-9+ S 14 '46; Same. Pet Eng 17:192+ S '46

Engineer's viewpoint on design of compressor cylinders for high pressure gas compression. H. A. Gehres. il diags Pet Eng (Ref annual) 17:290+ Jl 1 '46

Free-piston compressor work leads to new semiclosed cycle development; ten years' research at Sulzer bros, Winterthur, Switzerland. J. Calderwood. il diags Power 90: 294-6 My '46

Free-piston engines and compressors. C. R. Earle. il diag Power Pl Eng 50:72-3+ Ap '46

Two-stage compressor converted to one-stage without plant shutdown. il Pet Refiner 25: 130 Mr '46

See also

Gas boosters

Safety measures

Safe practices in compressor stations. D. Attaway. bibliog il Pet Eng 17:55-8 N '45

GAS compressors, Portable

Unitized portable compressor plant as used for pressure maintenance. F. L. Kallam. il Pet Eng 17:70+ My '46

GAS conservation. See Gas, Natural—Conservation

GAS containers

Storage and handling of gas-filled cylinders. Paper Ind 28:420 Je '46

Storing gas cylinders. Safety Eng 92:54 Jl '46

GAS cooking

Advancing the art of broiling; test data on domestic gas range broilers. M. Zare. il diag Am Gas Assn Mo 28:105-8+ Mr '46

Banish baking failures! results of different kinds of utensils and various oven materials. J. Huck. il Am Gas Assn Mo 28: 113-14 Mr '46

Bride's cooking school conducted by Home economics dept. of Southern California gas company. F. A. Herr. il Am Gas J 164: 20-1+ Je '46

Commercial cooking; how to defeat competition for this load. L. L. Peters. Gas Age 97:25-6+ My 16 '46; Same. Am Gas J 164:25-7 Je '46

Commercial uses for gas. W. Johnson and W. F. Moore. Gas J (Lond) 248:190-2+, 233-4 Jl 31-Ag 7 '46

Design and installation of small industrial canteens. D. G. Winslow. Gas J (Lond) 247:108-9+; Discussion. 111 Ja 16 '46

Elements of shop design for local-service bakeshops. D. J. Brogan. il diags plans Gas Age 96:35-8 D 13; 27-9 D 27 '45; 97:33-6 Ja 10 '46

Food service industry cooperation between the Food service equipment industry and the American gas association. F. H. Trembly, jr. Am Gas Assn Mo 27:554-5+ D '45; Same. Am Gas J 163:41-2 D '45

Gas appliance cooking school; Pacific gas & electric co. il Am Gas J 163:64-5 N '45

Microscopic examination of meat; American gas association testing laboratories study effect of broiling. il Am Gas Assn Mo 28: 261 Je '46

New fourth zone cooker; Vendo low pressure steam cooker. il Am Gas Assn Mo 28: 156-7 Ap '46; Same. Gas Age 97:37+ Ap 4 '46

School of American cookery at Portland gas & coke co. il Am Gas J 165:17-18 Ag '46

Selling commercial cooking equipment. F. A. Kaiser. Am Gas Assn Proc 1945:180-4

What the restaurant operator expects of the gas company. A. T. Pitman. Gas Age 98: 44+ S 19 '46

See also

Gas stoves

GAS cutting

Flame-gouging of steel castings. A. E. Blake, jr. il Materials & Methods 22:1428-31 N '45

See also

Oxyacetylene cutting

GAS detectors

Leak detection by mass spectrometry. il diag Chem Ind 58:413 Mr '46

GAS distribution

Automatic loading of district governors. F. J. Woolfenden. Am Gas J 164:27-9 My '46; Same, with diags. Am Gas Assn Mo 28: 286-9 Je '46

Consolidated Edison installs propane-air peak load plants. G. Calabrese. il map diag Gas Age 98:89-92+ O 3 '46

Consumer investigation; probable load imposed by new housing. J. R. Denoon. Gas J (Lond) 246:599 O 31 '45

Conversion from coal gas to 100% propane-air gas. H. K. Seeley. flow diag il Am Gas J 163:35-9 N '45

Development of a gas grid. W. Hodkinson and H. B. Taylor. Gas J (Lond) 248:269-71, 321+ Ag 14-21 '46; Discussion. 248:393-6 S 4 '46

Device for obtaining readings from unattended stations. G. H. Davis. diags Am Gas J 164:29-30 Je '46

Distribution, a vital link; abstract. H. C. Wolf. Am Gas J 164:48-9 My '46

Distribution maintenance work in small street openings. E. F. Schuldt. Gas Age 98:46+ O 31 '46

Economical mechanization for a widespread gas area; with cost data. J. E. C. Currens. il Am Gas J 165:35-8+ O '46

Further distribution at Tottenham; with cost data. E. O. Rose. il plans Gas J (Lond) 247: 313-14+ F 20 '46; Discussion. 247:352+, 395-6 F 27-Mr 6 '46

Gas production system is aided by the weatherman; Weather bureau provides the Cincinnati gas and electric co. with estimate of anticipated mean temperature. Gas Age 97:24 F 7 '46

How the Pittsburgh group plans to use propane; meeting peak load when supply of natural gas is inadequate. A. B. Lauderbaugh. Gas Age 98:108-9 O 3 '46

Liquefied petroleum gas; its relation to the manufactured gas industry. F. E. Drake. Gas Age 96:15-17+ N 29 '45; Same. Am Gas J 163:11-15 D '45

LP gas plant and distribution practice; Philadelphia electric company. E. G. Boyer. il diag Am Gas Assn Mo 28:315-20+ Jl-Ag '46; Same cond. Am Gas J 165:31-5 Jl '46

Lowering distribution investment costs to serve fringe territory. J. F. Sauer. Gas Age 97:35+ Mr 21 '46

Power plant and machinery for exhausting and boosting gas. L. J. Clark. Gas J (Lond) 248:31-2; Discussion. 32 Jl 3 '46

Pressure regulation in the distribution of gas; with special reference to a double diaphragm gas-pressure-loaded governor. S. M. Thomson. diags Gas J (Lond) 247: 20-1, 63-5 Ja 2-9 '46

Public utility planning for growth; gas system. V. F. Bittner. Western Soc E J 51:14-17 Mr '46

Report of subcommittee on economics of distribution design for domestic load building. Am Gas Assn Proc 1945:297-306

GAS distribution—*Continued*
Simple method of allowing for change in elevation when calculating gas flow in pipe lines. B. Miller. Gas Age 96:39-41 D 13 '45
Unattended holder station; Northampton gas light co. P. G. Facey. il Gas Age 98:30+ Jl 11 '46; Same. Am Gas J 165:37+ Jl '46
Wartime distribution developments at Perth. N. Baird. il map diags Gas J (Lond) 248: 561-3, 602+, 643-4+ O 2-16 '46

See also
Gas, Natural—Pipe lines
Gas governors
Gas holders
Gas leakage
Gas pipes

Cost

Cost of hypothetical pipe line from Carthage field, Tex. to Little Rock, Ark. map Gas Age 97:30-2 Ja 10 '46
Development of a gas grid. W. Hodkinson and H. B. Taylor. Gas J (Lond) 248:321+ Ag 21 '46

Extensions

See Gas companies—Extension policies

Long distance lines

See also
Gas, Natural—Pipe lines

GAS engine plants. See Power plants—Gas engine plants

GAS engineering
Liquefied petroleum gas; its relation to the manufactured gas industry. F. E. Drake. Gas Age 96:15-17+ N 29 '45; Same. Am Gas J 163:11-15 D '45

See also
Gas distribution
Gas heating
Gas manufacture
Gas pipes
Gas works

Bibliography

Abstracted articles of current interest to the industry. Am Gas J 163:58-62 N '45; 164:45-50 Ja; 30-4 F; 44-8 Mr '46

Examinations

Institution of gas engineers; results of 1946 examinations. Gas J (Lond) 248:392 S 4 '46

Study and teaching

Professional prospect. B. W. Dawkins. Gas J (Lond) 247:885-6; Discussion. 886+ My 29 '46

See also
Gas, Natural—Study and teaching

Tables, calculations, etc.

Gas enriching value of oils; graphic method of evaluation. S. P. Cauley and E. B. Delgass. Am Gas Assn Mo 27:494-9 N '45

GAS engines
Auto ignition adapted for gas engines. diags Pet Refiner 24:150+ D '45

See also
Gas turbines
Internal combustion engines
Power plants—Gas engine plants

Exhaust

Engine exhaust heats building. il diag Oil & Gas J 45:115 Jl 13 '46

History

Samuel Brown and the gas engine. A. K. Bruce. Engineer 182:214-16 S 6 '46

Safety measures

How to avoid injuries from gas engines. H. W. Boggess. il Oil & Gas J 45:107 My 11 '46

Valves

Test stand for gas-engine valves. J. F. Maher. il diags Power 90:774 N '46

GAS fitting
Orifice-meter fitting. G. B. Reece. Pet Refiner 24:154 N '45
Uniform appliance installation code adopted by Western plumbing officials assn. F. A. Herr. Am Gas J 164:11-13+ Mr '46

See also
Gas tubing

GAS flow
Adsorption wave. I. M. Klotz. bibliog diags Chem R 39:241-68 O '46
Air-gas ratio control applied to nonatmospheric-pressure furnaces. H. C. McRae. diags A S M E Trans 68:385-90 My '46
Calculation of flow of air and diatomic gases. C. W. Smith. bibliog J Aeronautical Sci 13:309-15 Je '46
Effects and corrections of gas pulsation problems. F. M. Stephens. il Gas Age 98:31-2+ S 19 '46; Same. Am Gas J 165:41-2, 76 O '46; Same. Oil & Gas J 45:78-9+ S 14 '46; Same. Pet Eng 17:192+ S '46
Flow of gases at sonic and supersonic speeds. G. A. Hankins and W. F. Cope. il diags Engineer 181:206-8 Mr 1 '46; Discussion. 181: 203-4 Mr 1 '46; Engineering 161:329-30 Ap 5 '46
Flow of gases in pipes at low pressures. G. P. Brown and others. J Ap Phys 17:802-13 O '46
Friction charts for gases including correction for temperature, viscosity and pipe roughness. R. D. Madison and W. R. Elliot. Heating-Piping 18:107-12 O '46
Gas flow in the mass spectrometer. R. E. Honig. bibliog il diags J Ap Phys 16:646-54 N '45
Heat-capacity lag in gas dynamics. A. Kantrowitz. bibliog diags J Chem Phys 14:150-64 Mr '46
Mathematical theory of gas flow. M. M. Munk. Aero Digest 51:49+ D 1 '45; 52:52+ F '46
Practical petroleum engineering; fluid flow; graphic solutions of design problems. P. Buthod and B. W. Whiteley. charts Oil & Gas J 44:130-2 N 24; 76-7+ D 1; 92-3+ D 8; 112-14 D 15; 70-2 D 22; 305-8 D 29 '45
Simple method of allowing for change in elevation when calculating gas flow in pipe lines. B. Miller. Gas Age 96:39-41 D 13 '45
Steady flow of a gas through a tube with heat exchange or chemical reaction. P. Chambre and C. Lin. bibliog diags J Aeronautical Sci 13:537-42 O '46
Super-expansibility of methane-ethane mixtures. W. O. Clinedinst. bibliog Pet Refiner 25:148-9 Je '46
Theoretical flow of a frictionless, adiabatic, perfect gas inside of a two-dimensional hyperbolic nozzle; abstract. H. W. Emmons. Aeronautical Eng R 5:63 Ag '46
Two-phase, two-component flow in the viscous region. R. C. Martinelli, J. A. Putnam and R. W. Lockhart. diag Am Inst Chem Eng Trans 42:681-702; Discussion. 702-5 Ag '46

See also
Fluids
Gas meters

GAS gangrene. See Gangrene, Gas

GAS governors
Automatic loading of district governors. F. J. Woolfenden. Am Gas J 164:27-9 My '46; Same, with diags. Am Gas Assn Mo 28: 286-9 Je '46
Meter and regulator repairman's problems. E. R. Gilmore. Gas Age 97:37+ F 21 '46
Pressure regulation in the distribution of gas; with special reference to a double diaphragm gas-pressure-loaded governor. S. M. Thomson. diags Gas J (Lond) 247:20-1, 63-5 Ja 2-9 '46
Wartime distribution developments at Perth; Bryan-Donkin self-loading pilot governor and Venturi. N. Baird. il diag Gas J (Lond) 248:644+ O 16 '46
Wartime distribution developments at Perth; Peebles patent self-loading station governor. N. Baird. diags Gas J (Lond) 248: 563 O 2 '46

GAS heaters
Attics getting the heaters. il Sheet Metal Worker 37:80 O '46
Bryant domestic heating unit. il diag Product Eng 17:97 N '46
Research problems in venting gas-fired space heaters. C. E. Blome. Gas Age 97:31+ Mr 21 '46
Testing and design of flued gas fires and drying cabinets. L. W. Andrew. Gas J (Lond) 246:642+ N 7 '45

GAS heaters—*Continued*

Safety measures

Gas burning furnace ordinance adopted in Los Angeles. Am Gas J 165:38-9 Ag '46

GAS heating

Automatic heating installation techniques; course given by Gas heating institute of southern California. il Dom Eng 168:144-5+ S '46

Builders of homes for veterans vote two-to-one for gas. Gas Age 98:22 O 17 '46

Chance for coal at an 80-million-ton market; search for cheap complete gasification process to supply heating gas. il Coal Age 50:82-7 N '45

Consolidated Edison installs propane-air peak load plants. G. Calabrese. il map diag Gas Age 98:89-92+ O 3 '46

Current central heating research. R. C. Weast and J. A. Morse. diags Am Gas J 164:21-4+ Mr '46

Domestic fuel policy; abstracts. Elec R (Lond) 138:527-8 Ap 5 '46; Electrician 136: 874 Ap 5 '46

Gas conversion burners, a bonanza in 1946; design and installation data. R. Reed. Gas Age 98:30-1 O 17 '46

Gas fuels Lacy nurseries. C. Thompson. il Gas Age 98:27-8 Ag 8 '46

Heating motor courts by gas. C. H. Dean. il Am Gas Assn Mo 28:153-5+ Ap '46

Moisture problem in housing; A.G.A. research projects on humidity control and venting of gas heaters. E. C. Adams. Am Gas Assn Mo 28:321-2+ Jl-Ag '46

Peak and base load gas production past and future. E. G. Boyer. Gas Age 97:15-18+ Je 27; 98:31-5+ Jl 11 '46

Report of subcommittee on economics of distribution design for domestic load building. Am Gas Assn Proc 1945:297-306

What's new in commercial heating? H. S. Birkett. il Gas Age 97:31-3+ Mr 7 '46

Cost

Individual and district heating systems; abstract. D. V. H. Smith. Gas J (Lond) 247: 767 My 8 '46

GAS heating, Industrial

Air-gas ratio control applied to nonatmospheric-pressure furnaces. H. C. McRae. diags A S M E Trans 68:385-90 My '46

Automatic arrangement for silver-soldering refrigerator or condenser coils. il Mach 52: 178 Je '46

Automatic machines use gas to heat-treat parts. F. Maud. il diags Am Mach 90:101-6 S 26 '46

Calculating coil and burner requirements for gas-fired immersion heating. R. M. Buck. diags Iron Age 158:46-52 Jl 11 '46

Comparative study of electric and gas-air methods of silver brazing. P. F. Berg. il diags Mach 52:151-4 Ja '46

C.C. burner applied to industrial heating processes. J. Palser. il Gas J (Lond) 247: 104-6; Discussion. 106-7 Ja 16 '46

Convection drying of paint. Gas J (Lond) 248: 310 Ag 21 '46

First report on radiant heating of Joint research committee; abstract. Am Gas J 164:47-8 Mr '46

Flowing tin by radiant heat; abstract. H. L. Halstead. Materials & Methods 22:1518+ N '45

Gas-fired immersion heaters speed up plating production; Chemical plating company. il Metal Finishing 44:382-3 S '46

Gas heat-treats giant X-ray tubes. il Am Gas Assn Mo 28:345 Jl-Ag '46

Gas in industry at war. H. R. Hems. il Engineering 160:352, 357-9, 386-7 N 2-9 '45

Gas well represented at National metal exposition. il Gas Age 97:27-8+ Mr 7 '46; Am Gas Assn Mo 28:126-7 Mr '46; Am Gas J 164:31-2 Mr '46

Heating by immersion and submerged combustion. C. C. Eeles. chart Am Gas Assn Mo 28:179-81 Ap '46; Same. Am Gas J 165: 14-16 S '46

High-speed gas heating. F. O. Hess. il Am Gas Assn Mo 28:149-52 Ap '46

High speed heating with gas provides heat treat tool. C. W. Eigenbrot. il diag Materials & Methods 23:1313-16 My '46

Importance of gas in glass making pointed out to Federal power commission. Glass Ind 27:193 Ap '46

Industrial and commercial gas men meet at Toledo. Gas Age 97:33-4+ Ap 18 '46; Am Gas Assn Mo 28:230-2+ My '46; Am Gas J 164:35-6+ My '46

Industrial applications of the non-aerated gas flame. J. F. Waight. il diags Gas J (Lond) 246:765-8+ N 28 '45; Discussion. 246:842-3+ D 12 '45

Industrial flomixers in production; constant-ratio mixer for low pressure air and gas. il diag Am Gas Assn Mo 28:214 My '46

Industrial gas progress in Detroit. M. W. Bowman. Am Gas J 164:23-4 Ja '46

Infra-red versus convection heating. C. C. Eeles. Am Gas Assn Proc 1945:189-97; Same. Am Gas Assn Mo 27:281-6 Je '45; Same cond. Gas J (Lond) 246:339+, 375 S 5-12 '45

Interruptible quenching. C. H. Lekberg. Am Gas J 164:31-4 Ap '46

Large volume water heating; industrial processing, laundries, hot water demand. M. B. Mackay. Am Gas J 165:27-9 S '46

Metals heated and heat treated on faster schedule with gas; abstract. F. O. Hess. Iron Age 158:108 O 24 '46

New gas equipment gives localized heat for soldering at low cost. diag Am Gas Assn Mo 28:131 Mr '46; Same. Gas Age 97:40 Mr 21 '46

New gas-fired production line dryer. R. Martin. il plans diags Cer Ind 47:70+ Jl '46

New heat treatment shop; Anderson, Boyes & co. il Gas J (Lond) 248:679 O 23 '46

Plastics industry and gas research. diags Chem Age (Lond) 55:79-80 Jl 20 '46

Plus and minus of induction heating. W. W. Young. Am Gas Assn Proc 1945:187-9; Same. Am Gas Assn Mo 27:235-7 My '45

Prepared atmospheres and high-speed furnaces typify gas heating progress; American gas association's sales conference on industrial and commercial gas. Steel 118: 116 Ap 22 '46

Presidential address before Wales and Monmouthshire junior gas association. K. M. Ernest. Gas J (Lond) 247:65-6+ Ja 9 '46

Le séchage par les rayons infra-rouges au moyen de tubes radiants chauffés au gaz de ville. R. Duchêne. il diag Génie Civil 123: 84-5 Ap 1 '46

Small plant wire annealing by gas; Atlas tack corporation. il Am Gas Assn Mo 28:82 F '46

Summary of results and conclusions on research in high speed direct air-gas heating of metals; abstract. Am Gas J 164:45 Mr '46

Vapor degreasing; efficiency of electric and gas-heated degreasers. J. C. Joyce. il diags Steel 117:110+ N 26 '45

What's doin' in the East in industrial and commercial gas. J. Huston. Gas Age 97:20-1+ Ap 18 '46

World's largest continuous gas-fired enameling furnace; dual fuel system; Smoot-Holman co. F. A. Herr. il Am Gas J 165:11-13+ S '46

GAS holders

First all-welded steel gas storage holder in Massachusetts. R. C. Bauer and W. R. Stevens. il Am Gas Assn Mo 28:39-41 Ja '46; Same. Am Gas J 164:31-4 Ja '46; Same. Gas Age 97:29-31+ F 7 '46

High-pressure gasholders. G. M. Gill. Gas J (Lond) 248:236-7+ Ag 7 '46; Discussion. 248:241, 272+ Ag 7-14 '46

Hoisting engine hoists itself; removal from gas holder. H. B. McDermid. diag Power Pl Eng 50:104 O '46

Inhibition of sulphate-reducing bacteria by dyestuffs; practical applications in cable storage tanks and gas holders. T. H. Rogers. Soc Chem Ind J 64:292-5 O '45

Large gas holders at Long Beach feature all-welded construction. H. O. Hill. il Welding J 25:745-6 Ag '46

New features in tank construction. il Gas J (Lond) 248:391 S 4 '46

Spectacular rigging operation; erection of a large gas holder. H. B. McDermid. diags Power Pl Eng 50:94 Ag '46

GAS holders—*Continued*
Static high pressure gasholders. R. G. Marsh. il Gas J (Lond) 248:69 Jl 10 '46
Unattended holder station; Northampton gas light co. P. G. Facey. il Gas Age 98:30+ Jl 11 '46; Same. Am Gas J 165:37+ Jl '46
Welded gas holders with panel type lifts. R. Kraus. il diags Welding J 24:1135-9 D '45
World's largest all-welded, 5 lift wet seal holder at Long Beach, Cal. F. A. Herr. il Am Gas J 164:15-18 My '46

Ice protection

Automatic heating of a 1500m., 3 lift gas holder. D. R. Campbell. Am Gas J 165:29-30 Jl '46
District holder heating plant. A. A. Putnam. Am Gas J 165:29 Jl '46

Painting

Gasholder painting by flotation; method employed by Consolidated Edison co. il Am Gas J 164:55-6 My '46; Same. Am Gas Assn Mo 28:203-4 My '46; Same. Gas Age 97:11-12 My 16 '46

Purging

Purging of gasholders. N. G. Mather. Gas J (Lond) 247:195+ Ja 30 '46

Wrecking

Demolition of a waterless gas tank. il diags Eng N 135:628-9 N 8 '45
Roof floated on air during wrecking job. il Comp Air Mag 51:106 Ap '46; Same. Gas Age 98:20+ Jl 11 '46

GAS in air conditioning
All-year gas air conditioning unit. H. C. Pierce. il diags Refrig Eng 50:413-16+ N '45
Selecting and training application engineers for gas air conditioning. G. E. May. Gas Age 98:34-5+ Ag 22 '46; Same abr. Am Gas J 165:15-17 Ag '46
Thanks to parking troubles, gas wins new air conditioning market; establishment of medical clinics in residential sections, Dallas, Tex. il Gas Age 97:21+ My 16 '46

GAS in refrigeration
See also
Refrigerators, Gas

GAS industry
Manufactured gas for the future. W. E. Steinwedell. il Gas Age 98:24+ Jl 11 '46
Southern gas association holds 35th annual convention, Galveston, March 21-22. Gas Age 97:23-6 Ap 18 '46
Synthetic liquid fuels and the manufactured gas industry. B. Miller. Gas Age 97:19-21+ F 21 '46
See also
Gas appliance industry
Gas companies
Gas distribution
Gas manufacture
Gas works

Advertising

ABC's of Janitrol quick-getaway plan; merchandising program built around home-planning bureau. il Am Gas Assn Mo 28:61-2 F '46
Advertising paves the way. J. P. Leinroth. Gas Age 97:22+ Ap 18 '46
Commercial cooking; how to defeat competition for this load. L. L. Peters. Gas Age 97:26+ My 16 '46
Gas grows glamorous. G. A. Bishop. il Am Gas Assn Mo 28:389 S '46
It's your advertising, why not use it? J. D. Keane. il Am Gas Assn Proc 1945:184-6; Same. Am Gas Assn Mo 27:184+ Ap '45
Musical recordings popularize gas and promote good will; Southern California gas co. F. A. Herr. il Am Gas J 164:39-41 F '46
National gas advertising. J. J. Quinn. Am Gas Assn Proc 1945:29-34
P.U.A.A. awards prizes. Gas Age 98:21-3 Jl 11 '46
Radio program Quizzing the wives wins many friends for Boston Gas. il Am Gas Assn Mo 28:271 Je '46
Smart merchandising sells gas in the electrical Northwest. R. Laing. il Gas Age 98:36+ S 19 '46
Southern utilities advertise economy of gas. D. Markstein. il Gas Age 98:30+ S 19 '46
There are 17,000,000 of 'em; appeals to the Teen-ager. G. A. Bishop. il Gas Age 98:23-4 O 17 '46

Directories

Gas Journal calendar and directory, 1946. pl-144 Walter King, ltd, 11 Bolt court, Fleet st, London, E.C. 4 '46
Membership list as of January 1, 1946. Am Gas Assn Mo 28:supl-56 Mr '46

Exhibitions

Construction industries and home show in southern California. Am Gas J 165:30 S '46

Finance

Comparative working results of London's seven gas companies for 1945; tabulation. Gas J (Lond) 247:806-7 My 15 '46

Merchandizing

Building the commercial market. L. Ourusoff. Am Gas Assn Mo 28:283-5+ Je '46
Come and get it; gas appliance advertising and sales promotion. G. A. Bishop. Gas Age 97:33 F 21 '46
Gas sales promotion program. D. A. Hulcy. il Am Gas Assn Mo 28:145-8+ Ap '46; Same. Am Gas J 164:9-11 Ap '46; Same. Gas Age 97:22-4 Ap 4 '46
How Knoxville has built annual load of 42.66 Mcf per residential customer. G. E. Stedman. Gas Age 97:19-21+ Ap 4 '46
Industrial and commercial gas men meet at Toledo. Gas Age 97:33-4+ Ap 18 '46; Am Gas Assn Mo 28:230-2+ My '46; Am Gas J 164:35-6+ My '46
Mobilizing for the industrial market. F. H. Adams. Am Gas Assn Proc 1945:198-202; Same. Am Gas Assn Mo 27:387-90+ S '45
Need for aggressive merchandising soon. F. H. Adams. Gas Age 97:25+ F 7 '46
N.E.G.A. Sales division studies kitchens, dealers. Gas Age 97:40+ Mr 21 '46
New responsibilities of management. H. W. Reed. Am Gas Assn Mo 27:490-3 N '45; Same. Gas Age 96:26-7+ N 29 '45
Our equity in industry. E. M. Tharp. Gas Age 98:13-15+ O 17 '46
Our horizon is as far as we choose to look. F. C. Smith. Gas Age 97:29-30+ Je 27 '46
Our postwar sales objectives. H. A. Sutton. Am Gas Assn Mo 27:508-10 N '45; Same. Gas Age 96:23+ N 29 '45
Pennsylvania gas association sales conference. il Am Gas J 164:40-1 Mr '46
Profitable publicity. A. Q. Smith. Am Gas Assn Mo 28:450-2 O '46
Selling commercial cooking equipment. F. A. Kaiser. Am Gas Assn Proc 1945:180-4
Southern California has new program to stimulate all-gas dealers. il Gas Age 97:22-3+ F 21 '46
Vitalized blue flame for display. D. W. Frye. il Gas Age 96:25 D 27 '45; Same. Am Gas Assn Mo 28:19 Ja '46
What price dealer cooperation? H. S. Christman. Am Gas Assn Mo 28:210-14+ My '46
What's doin' in the East in industrial and commercial gas. J. Huston. Gas Age 97:20-1+ Ap 18 '46
See also
Gas appliances—Merchandizing
Gas appliances, Domestic—Merchandizing
Gas companies—Appliance selling
Gas companies—Salesmen
Gas heating
Gas industry and the plumbing trade

Model home exhibits

House of the blue flame proves prime promotion at Atlanta. G. E. Stedman. il Gas Age 98:19-20, 60+ S 5 '46

Statistics

Gas industry progress in last decade, and expansion in the next four years. Gas Age 97:29 Mr 7 '46

War measures

Efficiency of London's gas system during wartime air raid conditions. S. Everard. il Am Gas Assn Mo 28:102-3 Mr '46
Gas industry in Germany; 1939-45. H. D. Greenwood. Gas J (Lond) 248:154-6+ Jl 24 '46

GAS industry—*Continued*

Belgium

Gas industry in Belgium, 1939-1945. M. Brabant. Gas J (Lond) 248:71-2 Jl 10 '46

Canada

Canadian gas industry. E. J. Tucker. Am Gas Assn Mo 28:303-5 Jl-Ag '46

France

Gas industry in France, 1939-1945. P. Mougin and J. Thibault. Gas J (Lond) 248:112+ Jl 17 '46

Germany

Gas industry in Germany; 1939-45. H. D. Greenwood. Gas J (Lond) 248:154-6+ Jl 24 '46

Great Britain

Address to the Wales and Monmouthshire association. O. P. Cronshaw. Gas J (Lond) 247:800+ My 15 '46

Alternative to nationalization; Heyworth report. G. M. Gill. Gas J (Lond) 247:967-9, 1017 Je 12-19 '46

Better conditions for gas workers; recommendations of National joint industrial council for the gas industry. Gas J (Lond) 246:930 D 26 '45

British gas council, and its parents; first annual meeting and report. Gas J (Lond) 247:1006-8+ Je 19 '46

Eastern association of gas engineers and managers; annual meeting, Cambridge, May 21-23. Gas J (Lond) 247:882-4 My 29 '46

Future of the gas industry; views on the Heyworth report. E. W. Smith. Gas J (Lond) 247:186; Discussion. 186-8 Ja 30 '46

Gas consolidation, ltd.; twelfth annual general meeting. Gas J (Lond) 248:445+ S 11 '46

Gas in industry at war. H. R. Hems. il Engineering 160:352, 357-9, 386-7 N 2-9 '45

Gas industry statistics; 1938-1944, tabulation. Gas J (Lond) 247:1052-3 Je 26 '46

Gas industry's verdict on nationalization. Gas J (Lond) 248:353-6+ Ag 28 '46

Gas light and coke company and other company meetings. Gas J (Lond) 247:356+, 401+, 439-40, 517, 558+ F 27-Mr 13, 27-Ap 3 '46

Gas production in Great Britain; 1938-44. Engineering 162:158 Ag 16 '46

Gas report; Heyworth committee's nationalisation proposals. Elec R (Lond) 137:865-6 D 14 '45

Gas utilization; future prospects and needs in the domestic sphere. H. Hartley. Gas J (Lond) 247:306-8, 350-1 F 20-27 '46

Great Britain looks at her gas industry. Pub Util 38:493-9 O 10 '46

Lock, stock and barrel. E. Shinwell. Gas J (Lond) 247:965-6 Je 12 '46

Modern administrative control for public utility undertakings. F. W. Allum. Gas J (Lond) 247:390-2 Mr 6 '46

Nationalisation for gas. Economist 149:836-7 D 8 '45

Nationalization of British gas industry recommended in Heyworth report. Am Gas Assn Mo 28:78 F '46

1945, review of gas industry. Gas J (Lond) 246:920-8 D 26 '45

Place of the gas industry in the national fuel economy. G. E. Foxwell. Gas J (Lond) 247:760-2+ My 8 '46; Discussion. 247:808-9 My 15 '46

Presidential address before Manchester and district junior gas association. F. Cartledge. Gas J (Lond) 246:886-7 D 19 '45

Presidential address before Midland association of gas engineers and managers. G. P. Mitchell. Gas J (Lond) 247:641-3 Ap 17 '46

Presidential address before North British association. T. S. Lockhart. il Gas J (Lond) 247:635-6 Ap 17 '46

Presidential address before North of England gas managers' association. E. Crowther. Gas J (Lond) 247:1053-4+ Je 26 '46

Proposed re-organisation of the gas industry. Engineering 160:497-8 D 14 '45

Regionalization and the Heyworth report. E. W. Smith. Gas J (Lond) 247:841-2; Discussion. 842-3; 880 My 22-29 '46

Report of the Heyworth committee. Gas J (Lond) 246:840 D 12 '45

Shaping things to come. J. M. A. Mitchell. Gas J (Lond) 247:61-2 Ja 9 '46

Society of British gas industries; annual report. Gas J (Lond) 247:881-2 My 29 '46

This question of integration. K. L. Pearce. Gas J (Lond) 246:682+ N 14 '45

Two-fuel industry. A. Cole. Gas J (Lond) 247:25-6+; Discussion. 30 Ja 2 '46

United Kingdom gas corporation, limited, annual general meeting, London. B. Ottley. Economist 151:29 Jl 6 '46

Waverley association of gas managers; presidential address. H. Robinson. Gas J (Lond) 248:27-8 Jl 3 '46; Discussion. 248:70 Jl 10 '46

Netherlands

Gas industry in Holland; 1939-1945. P. Hijdelaar. Gas J (Lond) 248:268 Ag 14 '46

New England

Symposium on dealer plans in New England. R. D. Stuart and others. Gas Age 97:27-31+ Ap 18 '46

Norway

Gas industry in Norway, 1939-1945. J. Irminger. Gas J (Lond) 248:311 Ag 21 '46

Sweden

Gas industry in Sweden: 1939-1945. A. Hedberg. Gas J (Lond) 248:235-6 Ag 7 '46

Switzerland

Gas industry in Switzerland, 1939-1945. H. Zollikofer. Gas J (Lond) 248:396-7 S 4 '46

United States

Blue flame is on the march! H. C. Wolf. Am Gas Assn Mo 27:523-5+ D '45

Gas industry in 1945. E. J. Boothby. Am Gas Assn Mo 28:3-6 Ja '46; Same. Am Gas J 164:11-14 Ja '46

Gas industry in the United States; 1939-1945. C. E. Paige. Gas J (Lond) 248:196+ Jl 31 '46

Gas industry progress in last decade, and expansion in the next four years. Gas Age 97:29 Mr 7 '46

Highlights of the gas utility industry in 1945. E. J. Boothby. Gas Age 97:25-7+ Ja 24 '46

Industry mobilized; president's address at the A.G.A. annual meeting. J. F. Robinson. Am Gas Assn Mo 27:475-9+ N '45; Same. Gas Age 96:51-3 N 15 '45; Same. Am Gas Assn Proc 1945:12-15

Life begins in '46. E. J. Boothby. Am Gas Assn Mo 28:143-4+ Ap '46

Manufactured gas industry enters a new era. H. W. Reed. Gas Age 97:30 Ja 24 '46

See also

American gas association

United States—Interior, Department of—Oil and gas division

GAS industry and the plumbing trade

Co-operative appliance merchandising plan is offered to southern California dealers. Dom Eng 168:100+ Jl '46

GAS laboratories

See also American gas association—Appliance testing laboratory

GAS leakage

Damage to vegetation due to gas leakage; method of detecting past contact of the soil with gas. diag Gas Age 96:23+ D 27 '45

GAS lifts

Elements of gas lift practices. L. P. Conner. Pet Eng 17:127-8+ N '45

Producing oil with quantities of water; with cost data. S. F. Shaw. Pet Eng 17:100+ Je '46

GAS lighting

Association of public lighting engineers; exhibition. Gas J (Lond) 248:487-8 S 18 '46

Photometric equipment. F. W. Sansom. diags Gas J (Lond) 247:759 My 8 '46

Public lighting and the modern use of gas. P. C. Sugg. Gas J (Lond) 248:681-2 O 23 '46

History

Dates of gas lighting in principal cities. Pub Util 38:479 O 10 '46

GAS mantles
Thorium reclamation; recovery from gas-mantle residues. A. G. Arend. il diag Chem Age (Lond) 55:259-62 Ag 31 '46

GAS manufacture
Carbonizing, expanding, and oxidation properties of coal. J. D. Davis. Am Gas Assn Proc 1945:426-36
Catalytic gasification of higher hydrocarbons. C. H. Riesz and others. bibliog diags Am Gas Assn Mo 28:159-64+ Ap '46
Coal, brains, and ingenuity. E. V. Evans. Gas J (Lond) 247:633-4 Ap 17 '46
Future of gas enrichment oils. A. J. McIntosh and E. B. Delgass. Gas Age 98:16-20+ O 17 '46
Gas production research. P. T. Dashiell. Am Gas Assn Proc 1945:18-22
Gas service and gas quality. J. E. Davis. Gas J (Lond) 247:844+ My 22 '46
Gasification of lignite and subbituminous coal. V. F. Parry and others. 17pls U S Bur Mines Rep of Invest 3901:1-59 '46
High pressure gasification of coal; two plants in Germany; abstract. H. M. Weir. Am Gas J 164:58 My '46
Increasing gas production capacity; Brooklyn union gas co. S. Green. il Am Gas Assn Mo 27:501-2 N '45
Low-cost gas from lignite; Parry process. Comp Air Mag 50:303 N '45
Manufactured gas for the future. W. E. Steinwedell. il Am Gas J 165:25+ Ag '46
Oxygen utilization in gas making processes; abstract. L. L. Newman. Chem Eng 53:248+ Ag '46
Production and chemical men meet in New York. Gas Age 97:19-22+ Je 27 '46; Am Gas Assn Mo 28:346-51 Jl-Ag '46; Am Gas J 165:11-14 Jl '46
Production developments; Gas production research committee of the American gas association. E. L. Hall. Gas Age 97:32-4 Ap 4 '46
Reactions in the retort and their influence on the nature and yield of the products of carbonization. S. R. Illingworth. Gas J (Lond) 247:848+; Discussion. 853-4 My 22 '46
Replaceability of natural gas; processes for generating gas and oil from coal. W. K. Lewis. Gas Age 98:29-30+ S 5 '46
Utilization of waste heat in the carbonizing industries. J. G. King and F. J. Dent. diags Gas J (Lond) 247:435-7+ Mr 13 '46
Wartime carbonization. A. McFadyen. Gas J (Lond) 248:564-6+; Discussion. 573 O 2 '46

See also
Gas, Water—Manufacture — Gas producers; Gas retorts

By-products

Presidential address before North British association. T. S. Lockhart. il Gas J (Lond) 247:635-6 Ap 17 '46
Removal of phenols from gas works ammoniacal liquor. D. G. Murdoch and M. Cuckney. il Chem Age (Lond) 55:493-6 O 26 '46

See also
Benzol (commercial benzene)

Coal mine gasification

Subterranean gasification of coal. G. O. Nusinov. diags Can Chem & Process Ind 30:29-32 Je '46
Synthine process; underground gasification of coal. J. C. Lane and B. H. Weil. bibliog and patent list (178 references) il Pet Refiner 25:91-4 Ag '46

Complete gasification process

Chance for coal at an 80-million-ton market; search for cheap complete gasification process to supply heating gas. il Coal Age 50:82-7 N '45
Modern methods of carbonization; with cost data. J. W. Gibson. Gas J (Lond) 246:884-5 D 19 '45
Oxygen-steam producer blast; gasification of coke at atmospheric pressure. R. F. Mitchell. bibliog il diags Can Chem & Process Ind 30:34-42 Ag '46
Total gasification systems operated with oxygen blast; abstract. J. J. Sebastian. Am Gas J 164:44-5 Mr '46

GAS masks
Adsorption wave. I. M. Klotz. bibliog diags Chem R 39:241-68 O '46
Improvements in gas mask faceblanks. S. H. Katz and I. Pockel. bibliog il India Rubber World 114:808-11+; 115:69-72+ S-O '46

GAS measurement
Streamlined orifice calculations. E. E. McReynolds. flow charts Pet Refiner 25:130-5 Ag '46

See also
Gas, Natural—Measurement — Gas meters; Gravitometers

GAS meters
Computing values from orifice meter charts. W. F. Martin. Pet Eng 17:101 Jl '46
Demand metering instruments; rate recorders developed by Peoples gas light and coke company. H. E. Ferguson. il diag Am Gas Assn Mo 27:529-32+ D '45
Effect of hydrogen sulphide on coefficient for orifice gas meters. F. K. Beach. bibliog Pet Eng 17:230+ Mr '46
Impedance of meter valves. H. Johnston. Gas J (Lond) 248:685-6+, 727-8+ O 23-30 '46 (to be cont)
Maintenance of orifice meter plates and tubes. W. Bostrom. Pet Refiner 24:152-3 N '45
New methods of gas measurement and chart computation. D. C. Strong. il Gas Age 97:32-3 My 2 '46
Orifice-meter fitting. G. B. Reece. Pet Refiner 24:154 N '45
Pressure at meter inlet. J. T. Haynes; F. T. Buist. Gas J (Lond) 248:118 Jl 17 '46
Rockwell-Emco domestic meter. il Am Gas J 164:42 Ap '46
Tabulating card control of meters. C. D. Otcasek. il Am Gas Assn Mo 28:173-6 Ap '46
Unit coefficients for orifice meters. T. K. M. Smith. Pet Refiner 24:151-2 N '45
Wartime distribution developments at Perth. N. Baird. il diag Gas J (Lond) 248:643-4+ O 16 '46

Installation

United Gas foreman devises meter building anchor. il Gas Age 98:29 S 19 '46

Repair

Meter and regulator repairman's problems. E. R. Gilmore. Gas Age 97:34-7 F 21 '46
Simplifying meter adjustment. A. V. Brashear. il diag Am Gas Assn Mo 28:85-7 F '46

Testing

Testing large-capacity rotary gas meters. H. S. Bean and others. 3pls diags J Res Nat Bur Stand 37:183-209 S '46; Same cond. Am Gas J 165:22-4+ S; 19-24 O '46
Use of the slope gauge in meter shop practice. F. L. Morgan. Gas Age 98:35+ S 19 '46

GAS mixing
Blending modern fuel gases; method of establishing the interchangeability limits of any gas with natural gas. J. Huck. il Am Gas Assn Mo 28:199-202 My '46
How the Pittsburgh group plans to use propane; meeting peak load when supply of natural gas is inadequate. A. B. Lauderbaugh. Gas Age 98:108-9 O 3 '46
LP-air-manufactured gas mixtures. D. W. Price. Gas Age 97:33-4 F 7 '46; Same. Am Gas J 164:14-15 F '46
LP gas-air and manufactured gas mixtures W. E. Churchill. Am Gas J 164:11-13 F '46
Liquefied petroleum gas, it's future in the gas industry. F. E. Drake. flow diag il Am Gas J 165:15-18+ O '46
Liquefied petroleum gas; its relation to the manufactured gas industry. F. E. Drake. Gas Age 96:15-17+ N 29 '45; Same. Am Gas J 163:11-15 D '45
Peak and base load gas production past and future. E. G. Boyer. Gas Age 98:31-5+ Jl 11 '46
Utilization of LP-gas by the manufactured gas industry. A. R. Stryker. Gas Age 96:46-9+ D 13 '45

GAS oil
Coking of hydrocarbon oils. G. Armistead, jr. bibliog diags Oil & Gas J 44:103+ Mr 16 '46
Corrosive action of benzole absorption oils. C. M. Cawley and H. E. Newall. Soc Chem Ind J 64:285-90 O '45
Cycle stocks from catalytic cracking; hydrogenation and desulfurization. C. L. Brown, A. Voorhies, jr. and W. M. Smith. bibliog il diag Ind & Eng Chem 38:136-40 F '46
Factors affecting quality of motor gasoline from catalytic cracking of gas oils. G. Armistead, jr. bibliog Oil & Gas J 44:76+ Mr 9 '46
Future of gas enrichment oils. A. J. McIntosh and E. B. Delgass. Gas Age 98:16-20+ O 17 '46
Gas enriching value of oils; graphic method of evaluation. S. P. Cauley and E. B Delgass. Am Gas Assn Mo 27:494-9 N '45
Increasing gas production capacity; Brooklyn union gas co. S. Green. Am Gas Assn Mo 27:501-2 N '45
O'Keeffe carbon burning lining for carbureters used in heavy oil process. W. E. Lebo. diags Am Gas Assn Mo 27:558-9 D '45
Propane deasphalting process. C. W. Kraemer. flow chart il Oil & Gas J 44:228+ Mr 30 '46

GAS ovens
Dodge bodies baked by direct-fired ovens. R. LeGrand. il plan diags Am Mach 90:117-21 S 26 '46
Drawer-type oven. il Sci Am 175:34 Jl '46
Heat treating magnesium castings. il Gas Age 96:20 D 27 '45

GAS ovens, Baking
Bread baking; with data on relative fuel costs. A. E. Livett. Gas J (Lond) 247:144+ Ja 23 '46

GAS packing of foods. See Food packages

GAS pipes
Distribution maintenance work in small street openings. E. F. Schuldt. Gas Age 98:46+ O 31 '46
Doing it with air; Southern counties gas company of California. il Comp Air Mag 51:134-5 My '46
Experience with 2 inch cast iron pipe in southern California. Am Gas J 163:36 D '45
Installation standards for plastic pipe. S. A. Bradfield. il diag Am Gas Assn Mo 28: 453-7 O '46
Laclede uses cast-iron mechanical joints in laying new mains. R. Latimer. il Gas Age 98:33 Jl 25 '46
Simple method of allowing for change in elevation when calculating gas flow in pipe lines. B. Miller. Gas Age 96:39-41 D 13 '45
Some technical notes relating to cast iron gas mains. W. Boden. Gas J (Lond) 247:269-71, 273; Discussion. 273 F 13 '46
Working pressure in gas mains. W. Hodkinson. Gas J (Lond) 248:26 Jl 3 '46

See also
Gas, Natural—Pipe lines
Gas fitting

Cleaning

Reconditioning gas mains. il Gas Age 97:52 Ja 24 '46

Leakage

See Gas leakage

Protection

Installation and protection of underground gas distribution systems with pipe line enamels; abstract. P. D. Mellon. Nat Pet N 38 pt 2:R453 Je 5 '46

Vibration

Effects and corrections of gas pulsation problems. F. M. Stephens. il Gas Age 98:31-2+ S 19 '46; Same. Am Gas J 165:41-2, 76 O '46; Same. Oil & Gas J 45:78-9+ S 14 '46; Same. Pet Eng 17:192+ S '46

GAS producers
Building a slagging type gas producer for pilot plant gas supply. T. P. Hignett and E. L. Stout. il diag Chem & Met Eng 53: 136-7 Ja '46
Gas engine and gas producer practice in Australia. W. N. Dunstan. diags Engineer 180:400-1 N 16 '45
Heat-resisting alloys for gas producers; abstract. J. Sissener. Materials & Methods 24:162+ Jl '46
Oxygen-steam producer blast; gasification of coke at atmospheric pressure R. F. Mitchell. bibliog il diags Can Chem & Process Ind 30:34-42 Ag '46
La récupération du coke des mâchefers de gazogène des usines à gaz. diag Génie Civil 123.64 Mr 1 '46

Testing

Engine tests with producer gas. F. A. Middleton and C. S. Bruce. bibliog diag J Res Nat Bur Stand 36:171-84 F '46

GAS purification
Catalytic purification of coal gas; visit to Gas light and coke company's works. il Chem Age (Lond) 54:699-701 Je 22 '46
Catalytic removal of organic sulphur compounds from coal gas by metallic thiomolybdates. E. B. Maxted and A. Marsden. Soc Chem Ind J 65:51-2 F '46
Commercial prospects of spent oxide. C. Irwin. Gas J (Lond) 246:675 N 14 '45; Discussion. P. Parish. 246:755 N 28 '44
Oxide purification and benzole extraction. C. Whitehead. Gas J (Lond) 247:274+ F 13 '46
Proportioning purifier air; installation in a water-gas plant. D. L. Dowling. il diag Am Gas Assn Mo 28:429-31 O '46
Removal of hydrogen sulphide from fuel gases. G. U. Hopton and R. H. Griffith. Gas J (Lond) 246:809-10+, 845 D 5-12 '45; Discussion. 247:69+ Ja 9 '46
Removal of sulphur compounds from town gas by catalytic hydrogenation. E. B. Maxted and J. J. Priestley. il diags Gas J (Lond) 247:471-2+, 515-16, 556-7, 593 Mr 20-Ap 10 '46
Sulphur removal; abstract. B. Holmes. Gas J (Lond) 247:932 Je 5 '46
Tower gas purifiers at Wandsworth. diag plan Engineer 180:444-5 N 30 '45
Underground gas purification. A. J. Smith. diags Am Gas J 164:42 F '46

See also
Blast furnace gas—Cleaning

Tar removal

Determination of tar fog in gas; removal from carburetted water gas and coal gas. E. H. M. Badger and D. S. Wilson. il diag Soc Chem Ind J 65:119-21, 166-9 Ap, Je '46

GAS rates
Building summer gas load to improve annual load factor. H. D. Valentine. il Gas Age 98:94-5+ O 3 '46
Electricity and gas, price changes in domestic bills, January-June 1946. Mo Labor R 63:433-4 S '46
Gas charges, with special reference to tariffs. A. Tennant. Gas J (Lond) 247:229-30; Discussion. 230+ F 6 '46
Price changes in 1945. Mo Labor R 62:655-7 Ap '46
Rate revisions in California. Am Gas J 164: 34-6+ Je '46
Revised wholesale price series for gas. Mo Labor R 63:123 Jl '46

GAS refrigerators. See Refrigerators, Gas

GAS research
Blue flame is on the march! H. C. Wolf. Am Gas Assn Mo 27:523-5+ D '45
Chance for coal at an 80-million-ton market; search for cheap complete gasification process to supply heating gas. il Coal Age 50:82-7 N '45
Current water heater research. W. B. Kirk. Am Gas J 164:14-16 Mr '46
Gas production research. P. T. Dashiell. Am Gas Assn Proc 1945:18-22
Gas production research; quarterly report of A.G.A. committee. Am Gas Assn Mo 28:370 S '46
Institution of gas engineers 11th autumn research meeting, London. Gas J (Lond) 246: 802-4+ D 5 '45
Laboratories open research center. il plan Am Gas Assn Mo 28:379-80 S '46

GAS research—*Continued*
Manufacturer's viewpoint on A.G.A. domestic gas research. L. C. Harvey. Gas Age 97:27-8+ Mr 21 '46
Moisture problem in housing; A.G.A. research projects on humidity control and venting of gas heaters. E. C. Adams. Am Gas Assn Mo 28:321-2+ Jl-Ag '46
Peak and base load gas production past and future. E. G. Boyer. Gas Age 97:15-18+ Je 27; 98:31-5+ Jl 11 '46
Production developments; Gas production research committee of the American gas association. E. L. Hall. Gas Age 97:32-4 Ap 4 '46
Research in the gas industry; abstract. J. G. King. Chem & Ind p382 O 19 '46
Research problems in venting gas-fired space heaters. C. E. Blome. Gas Age 97:31+ Mr 21 '46
Utilization and general research. E. P. Noppel. Am Gas Assn Proc 1945:22-7; Same. Am Gas Assn Mo 27:533-6+ D '45; Same cond. Am Gas J 164:51-2 Ja '46
See also
Gas, Natural—Research

GAS retorts
New method of increasing retort tightness. A. G. Bird. il diags Gas J (Lond) 247:679-80+ bibliog(p684) Ap 24 '46; Discussion. 247:724+ My 1 '46
Newtownards vertical retort installation inaugurated. il Gas J (Lond) 248:520-1 S 25 '46
Reactions in the retort and their influence on the nature and yield of the products of carbonization. S. R. Illingworth. Gas J (Lond) 247:848+; Discussion. 853-4 My 22 '46
Stability of heated structures. L. M. Wilson. il diags Gas J (Lond) 246:602-4+, 634-5 O 31-N 7 '45; Discussion. 246:680-1 N 14 '45
Woodall-Duckham retorts at Lincoln. il Gas J (Lond) 248:640-2 O 16 '46

GAS storage
Gas storage and the industrial load. F. G. Pyper. diags Gas J (Lond) 247:225 F 6 '46
See also
Gas, Natural—Storage
Gas holders

GAS stoves
Automatic ignition development; new Bryant gas range "lyter." C. H. Cummings. il diags Am Gas Assn Mo 28:56+ F '46
Domestic gas cookers; design of hotplate. E. W. Dunning. diags Gas J (Lond) 247:594+ Ap 10 '46; Discussion. 247:645+ Ap 17 '46
Dozens of pamphlets to help train salesmen. Ptr Ink 215:75 Je 7 '46
Factors governing supply of gas ranges. A. B. Ritzenthaler. Am Gas Assn Mo 28:177 Ap '46
Gas range burner of new type. il diags Product Eng 17:195 Mr '46
Kitchen ventilating systems. H. J. Hense. il plans Am Gas Assn Mo 28:215-16 My '46
New CP requirements for automatic gas ranges. Gas Age 98:46+ S 19 '46; Same. Am Gas Assn Mo 28:448 O '46
Note to designers of kitchen stoves. il Am Gas Assn Mo 28:14 Ja '46
Product designs of today; features of new gas-fired appliances. il Am Gas J 163:41-2+ N '45
Radiant heat burner for use on solid top ranges. il diags Gas J (Lond) 247:142-3 Ja 23 '46

Advertising
Range men set promotion sights on 12,500,000 decrepit stoves. J. I. Gorton. il Sales Management 56:46+ My 20 '46

Merchandizing
CP is your baby. J. I. Gorton. il Am Gas Assn Mo 28:278-81+ Je '46
Cooking range survey in Philadelphia, Pa. Am Gas J 165:68 O '46
Springboard to action program; sales department of the Geo. D. Roper corporation. Am Gas J 164:47 Je '46
We're all through dreaming. E. C. Sorby. Gas Age 97:36+ Mr 21 '46

Testing
Advancing the art of broiling; test data on domestic gas range broilers. M. Zare. il diag Am Gas Assn Mo 28:105-8+ Mr '46

GAS supply

Belgium
Gas industry of Belgium. J. L. Turner. map Am Gas J 164:21-4 My '46

California
Rate revisions in California. Am Gas J 164:34-6+ Je '46

Great Britain
Development of a gas grid. W. Hodkinson and H. B. Taylor. Gas J (Lond) 248:269-71, 321+ Ag 14-21 '46; Discussion. 248:393-6 S 4 '46

Knoxville, Tennessee
How Knoxville has built annual load of 42.66 Mcf per residential customer. G. E. Stedman. Gas Age 97:19-21+ Ap 4 '46

London
Comparative working results of London's seven gas companies for 1945; tabulation. Gas J (Lond) 247:806-7 My 15 '46
Efficiency of London's gas system during wartime air raid conditions. S. Everard. il Am Gas Assn Mo 28:102-3 Mr '46
Gas for new towns in the greater London area. Gas J (Lond) 248:432 S 11 '46
London gas strike. Gas J (Lond) 246:771 N 28 '45

Memphis, Tennessee
Memphis uses propane. il Gas Age 98:20+ Jl 25 '46

Naples
When war came to a gas plant in Italy. F. M. Reiter. il Gas Age 97:17-22+ Mr 7; 20-30+ Mr 21 '46

Perth, Scotland
Wartime distribution developments at Perth. N. Baird. il map diags Gas J (Lond) 248:561-3, 602+, 643-4+ O 2-16 '46

Tottenham, England
Further distribution at Tottenham; with cost data. E. O. Rose. il plans Gas J (Lond) 247:313-14+ F 20 '46; Discussion. 247:352+, 395-6 F 27-Mr 6 '46

GAS tanks
See also
Gas holders

Explosions
Report on the investigation of the fire at the liquefaction, storage, and regasification plant of the East Ohio gas co. Cleveland, Ohio, October 20, 1944. M. A. Elliott and others. bibliog 32pls U S Bur Mines Rep of Invest 3867:1-44 '46

GAS tubing
Flexible tubing for domestic appliances. Austin. Gas J (Lond) 248:25 Jl 3 '46

GAS turbine locomotives. See Locomotives, Gas turbine

GAS turbine power plants. See Power plants—Gas turbine plants

GAS turbines
Allis-Chalmers multistage gas turbine. il Chem & Eng N 24:656 Mr 10 '46
Alloys beat the heat; key materials of turbosuperchargers, gas turbines, and jet engines. F. P. Peters. il diag Sci Am 174:152-4 Ap '46
American society of mechanical engineers, semi-annual meeting, Detroit; abstracts of power plant papers. il diags Power 90:528-30 Ag '46
Atomic power to drive gas turbines. Diesel Power 23:1365 N '45
Closed-cycle gas turbine looks to further development. C. Keller. il diags Power 90:37-40 Ja '46
Cobalt-base high temperature alloys for gas turbines and superchargers. L. E. Browne. Steel 118:88-91+ My 27 '46

GAS turbines—*Continued*
Combustion-gas turbine in the Houdry process. J. E. Evans and R. C. Lassiat. bibliog il diag Pet Refiner 24:135-40 N '45; Same cond. Power Pl Eng 50:118+ Mr '46
Combustion in the gas turbine. D. G. Shepherd. diags Engineer 181:268-9, 300-1 Mr 22-29 '46
Especially developed for gas turbines, airflow chart has many uses; data sheet. W. M. Rohsenow. Power 90.203 Mr '46
Free-piston compressor work leads to new semiclosed cycle development; ten years' research at Sulzer bros, Winterthur, Switzerland. J. Calderwood. il diags Power 90: 294-6 My '46
Gas turbine engine and gas industry. J. G. King. Gas J (Lond) 248:118+ Jl 17 '46
Gas turbine evolution speeded. il Bsns W p54 Ap 13 '46
Gas-turbine generator proposed as commercial unit in 10,000 kilowatt size. il Sci Am 175:127 S '46
Gas turbine in industry. J. R. Carlson. Blast F & Steel Pl 34:874+ Jl '46
Gas turbine metallurgy; abstract. E. M. Phillips. diags S A E J 54:sup34-5 Jl '46
Gas turbine operates experimentally at 1,350 F. J. T. Rettaliata; C. F. Kottcamp. il diag Elec World 125:102-4 Ap 13 '46
Gas turbines; operation, plant design, performance, etc. L. N. Rowley and B. G. A. Skrotzki. il plans diags Power 90:667-86 O '46
Gas turbines; recently developed materials for blades and discs. S. G. Hooker. Automobile Eng 36:123 Mr '46
Gas turbines; report by Turbine and condensers subcommittee of Prime movers committee, Edison electric institute. Mech Eng 68:355 Ap '46
Group of companies to sponsor gas turbine research at M.I.T. Sales Management 55: 46 N 15 '45
High temperature alloys for gas turbines; abstracts of ASTM papers. Iron Age 158: 73-4 Jl 4 '46
High temperature alloys; research on materials for gas turbines. N. J. Grant. Iron Age 157:42-8 My 23; 50-6 My 30; 77-80 Je 6; 60-3 Je 20 '46
High-temperature gas turbine power plants. J. S. Haverstick and A. M. G. Moody. bibliog il diags Blast F & Steel Pl 33:1546-50+ D '45
Limitations of gas turbines; abstract. J. R. Carlson. Elec World 125:87 Je 22 '46
New heat resisting metals for engines. R. K. Winkleblack. Automotive & Aviation Ind 95:40-4 O 15 '46
Oil and gas power conference; with list of papers. Power Pl Eng 50:132 Ag '46
Parsons experimental gas turbine plant. il diags Engineer 182:50-3 Jl 19 '46
Pioneer in gas-turbine research; Sanford A. Moss. Comp Air Mag 51:85 Mr '46
Practical gas-turbine plants tested; abstracts of ASME papers. il diags Power 89:914-15 Mid-D '45
Refractories for combustion turbine blades. Engineer 181:549-50 Je 14 '46
Research on internal combustion prime movers. J. Calderwood. il diags Engineer 181:428-9, 460-1, 483-5, 506-7, 525-6 My 10-Je 7 '46; Same. Engineering 162:69-71, 117-20 Jl 19, Ag 2 '46
16-25-6 alloy for gas turbines; with photomicrographs. M. Fleischmann. il Iron Age 157:44-53 Ja 17; 50-60 Ja 24 '46
Super alloys for high temperature service. H. A. Knight. il Materials & Methods 23: 1557-63 Je '46
Superalloys for high temperature service in gas turbines and jet engines; round-table discussion at National metal congress. F. S. Badger and others. il diags Metal Prog 50:97-122 Jl '46
3,500-hp. gas turbine operates at 1,500 deg. F. Elec World News ed 125:18 Mr 9 '46; Same. il Marine Eng 51:133+ Mr '46
La turbine à combustion et la propulsion des avions par réaction. Destival. Génie Civil 123:132-3 My 15 '46
Waste heat boilers; abstract. W. Gregson. diag Gas J (Lond) 247:227-8 F 6 '46
Water-cooled rotor turbine developed by German researchers. Mech Eng 68:658 Jl '46
Wrought heat resisting alloys for gas turbine service. C. T. Evans, jr. bibliog Metal Prog 48:1083-95+ N '45

See also
Locomotives, Gas turbine

Bibliography
Trends in gas turbine development. C. G. Segeler, comp. Am Gas Assn Mo 28:185-6 Ap '46

Design
Gas turbine; experimental power plant. il diags Machine Design 18:114-18 Ag '46; Same cond. Mech Eng 68:571-4 Je '46
Where gas turbines will fit in future power fields; development and application of units built in Swizerland. H. Pfenninger and S. A. Tucker. il diags Power 90:728-31 N '46

Fuel
Coal as the fuel for the gas turbine; abstract. J. I. Yellott. Chem & Eng N 24:1382 My 25 '46
Powdered coal feeds a turbine. H. Manchester. diags Sci Am 175:76-9 Ag '46

History
John Barber and the gas turbine. A. K. Bruce. Engineer 181:216-17 Mr 8 '46

Manufacture
Arc welding assembles the Elliott gas turbine. il diag Am Mach 90:110-12 Ja 3 '46
Drop forgings for gas turbine application. C. I. Schweizer. il Materials & Methods 24: 642-5 S '46
New rail turbines; coal-burning gas units by Allis-Chalmers and Elliott. Bsns W p58-60 S 7 '46
Welded gas turbine rotors. J. F. Cunningham, jr. il diags Welding J 25:237-41 Mr '46

Patents
Exploratory excursion into gas-turbine patents. E. M. Fernald. diags Mech Eng 68: 727-32 Ag '46

Temperature
Gas turbine takes its own temperature; alloy shows color change for every 25 degree change in temperature. Blast F & Steel Pl 34:264-5 F '46; Same cond. Gen Elec R 49: 57 My '46

Testing
Gas turbine; experimental power plant. il diags Machine Design 18:114-18 Ag '46; Same cond. Mech Eng 68:571-4 Je '46
Pneumatic fatigue test for gas turbine buckets. il diags Steel 119:112-13+ S 9 '46

GAS turbines, Aircraft
Aeronautics in 1945. il Engineer 181:30-1, supp 1 Ja 11 '46
Aircraft gas turbine engines, United States, England, Germany; specifications tabulated. Automotive & Aviation Ind 94:126 Mr 15 '46
Aircraft gas turbines with centrifugal compressors. R. S. Hall. S A E J 54:476-80 S '46
Application of jet propulsion to military aircraft. W. G. Carter. Roy Aeronautical Soc J 50:347-52; Discussion. 352-74 My '46
Application of the gas turbine in its forms to the field of commercial aviation. R. M. Clarkson. diags Roy Aeronautical Soc J 50:333-46; Discussion. 346-7, 358-74 My '46
Application of the gas turbine to aircraft propulsion. S. G. Hooker. il diags Roy Aeronautical Soc J 50:298-322; Discussion. 329-32, 358-74 My '46
Aviation gas turbine installation problems. M. C. Benedict. il diags S A E J 54:88-92 F '46
Axial-flow design makes possible light, compact aircraft gas turbines; jet units designed by Westinghouse electric corp. il Power 90:19 Ja '46
BMW-003 turbo-jet engine compared with Jumo 004. W. G. Lindquist and R. W. Cole. il diags S A E J 54:503-10 S '46; Same cond. plans Automotive & Aviation Ind 94:30-3 Je 15; 95:26-9 Jl 1 '46

GAS turbines, Aircraft—*Continued*
Bristol Theseus propeller turbine. il diag Engineer 182:258-61 S 20 '46
British aircraft gas turbines. H. R. Cox. il diags J Aeronautical Sci 13:53-83 F '46; Excerpts. Engineer 181:512-13, 534-5 Je 7-14 '46; Abstract. Aviation N 4:9 D 24 '45; 5:12 Ja 21 '46; Discussion. J Aeronautical Sci 13:83-7, 180-2 F, Ap '46
British Mamba has tiny power package. il Aviation N 6:18 O 28 '46
Composite-engine aircraft as a basic conception; Ryan FR-1 Fireball; combination of piston and turbojet power. R. B. Johnston and H. S. Gordon. Aviation 45:59-62 Ap '46
De Havilland enters the jet propulsion engine field. il Aero Digest 52:98-9+ My '46
De Havilland Goblin jet-propulsion engine. il Engineering 161:175-6 F 22 '46
Design analysis of BMW 003 turbojet. R. C. Schulte. il diags Aviation 45:55-68 Mr '46
Design analysis of General Electric Type I-16 jet engine. R. C. Schulte. il diag Aviation 45:43-50 Ja '46
Design analysis of Westinghouse 19-B Yankee turbojet J. Foster, jr. il diags Aviation 45: 60-8 Ja '46
Design and construction of German 109-011 A-O turbojet. il diag Aviation 45:63-4 S '46
Design details of Metro-Vickers F/3 turbojet. J. Foster, jr. il diags Aviation 45: 66-7 Je '46
Development of ceramic materials for use in gas turbine engines. G. H. De Witt. diags Product Eng 17:135-7 N '46
Development of propjet; two-way harnessing of gas turbine force drives propeller and boosts with jet thrust simultaneously. il Steel 117:92+ O 29 '45; Aviation N 4:20+ O 29 '45; Automotive & Aviation Ind 93:28+ N 15 '45; Nat Pet N 37:64 N 14 '45; Mech Eng 67:854-5 D '45
Development of the internal-combustion turbine; abstract of symposium, Institution of mechanical engineers; War emergency issue no. 12. Engineering 162:208-9 Ag 30 '46
Development of the I-40 jet propulsion gas turbine. D. D. Streid. il diag Automotive & Aviation Ind 94:36-8+ Ja 1 '46; Same. Aviation 45:51-9 Ja '46; Same. Pet Eng 17: 190+ Ja '46; Same. Aviation 45:51-9 Ja '46; Same. Pet Refiner 25:142-4 F '46; Same, without il. Diesel Power 24:58-9+ Ja '46
Early history of the Whittle jet propulsion gas turbine. F. Whittle. diags Inst Mech Eng J & Proc 152:Proc 419-35, pl 1-12 Mr '46; Same. Engineering 161:212-16, 237-9, 252, 261-4 Mr 1-15 '46; Same cond. Engineer 180:288-90, 310-12, 328-9 O 12-26 '45; Abstract. S A E J 54:sup26-7 S '46
Effect of engine exhaust pressure on performance of compressor-engine-turbine units. C. F. Taylor. bibliog diags S A E J 54:64-73 F '46; Abstract. Automotive & Aviation Ind 94:37-8 Ja 15 '46
L'emploi de la turbine à combustion pour la propulsion des avions; les turbo-propulseurs. il Génie Civil 123:206-7 Ag 1 '46
Engineering details of the Rolls-Royce Nene turbojet. il diags Aviation 45:73-6 My '46
Engineering development of the jet engine and gas turbine burner. F. C. Mock. il diags S A E J 54:218-27; Discussion. 227 My '46
Factors affecting the design of jet turbines. W. R. Hawthorne. il plan diags S A E J 54:347-57; Discussion. K. Campbell. 357 Jl '46
Features of General Electric type I-40 gas turbine. diag Aero Digest 52:61+ Ja '46
Future scope of propellers. L. G. Fairhurst. diag Roy Aeronautical Soc J 49:694-9 D '45
Gas turbine and jet propulsion metals. W. L. Nelson. Oil & Gas J 44:105 N 10 '45
Gas turbine developments. il diags Engineer 182:2-5 Jl 5 '46
Gas-turbine fundamentals. D. D. Streid. bibliog diags Mech Eng 68:127-33 F '46
Gas turbine in aviation; its past and future. S. R. Puffer and J. S. Alford. Mech Eng 67:803-12 D '45
Gas turbine mobile instructional unit. il Engineer 182:195 Ag 30 '46
Gas-turbine propeller drive for aircraft. il Engineering 161:56 Ja 18 '46
Gas turbines and aircraft. F. W. Godsey, jr. diags S A E J 54:458-65 S '46
Gas turbines of the future. J. W. Smith. il diag Automotive & Aviation Ind 95:40-1+ N 1 '46
Gear for gas turbine plane. il Product Eng 17:486 Je '46
General Electric torpedo-shaped jet engine developed. il Product Eng 17:140 S '46
Goblin jet-propulsion engine. il Engineer 180: 482-3 D 14 '45; Excerpt. Mech Eng 68:463 My '46
Heat-resisting steel for gas turbines. Aeronautical Eng R 4:131 D '45
Jet engines; abstracts. G. H. Woodward and R. P. Kroon. il Mech Eng 69:34-6 Ja '46; diag Aero Digest 52:88-9+ My '46
Jet engines for flying speed record; Rolls-Royce Derwent V. il Engineer 182:151 Ag 16 '46
Jet propulsion and its application to high-speed aircraft D. J. Keirn and D. R. Shoults. bibliog il diag J Aeronautical Sci 13:411-24 Ag '46
Jet propulsion engines and propeller drive gas turbines; their application in future aviation. R. P. Kroon. il diags Franklin Inst J 241:167-85 Mr '46
Maintenance principles for gas turbine jet engines. J. Foster, jr. il diags Aviation 44: 115-18 D '45
Mechanical design considerations influencing blading performance in aircraft gas turbine power plants; abstract. N. C. Price. Automotive & Aviation Ind 94:100+ F 1 '46
Metallurgical development of materials for turbosuperchargers and aircraft gas turbines. W. L. Badger. il diags Iron Age 158: 40-5 Jl 25; 60-6 Ag 1 '46; Abstract. Metal Prog 50:510+ S '46
Metallurgy and the gas turbine. F. T. Sisco. diag Min & Met 27:276-7 My '46
P-80 Shooting Star jet propulsion gas turbine. il diag Product Eng 17:111 F '46
Petroleum research engineer's outlook on fuels for conventionally powered and gas turbine powered aircraft. A. G. Cattaneo and others. il S A E J 54:55-63 F '46; Abstract. Automotive & Aviation Ind 93: 30+ D 15 '45
Place of the gas turbine in aviation. C. D. Flagle and F. W. Godsey, jr. diags Automotive & Aviation Ind 92:33-6+ Je 1 '45; Same. Aviation 44:131-3+ Je '45; Same. Aero Digest 50:60-3+ Ag 1 '45; Same. Engineer 180:67-8, 87-9 Jl 27-Ag 3 '45; Excerpts. Comp Air Mag 50:171-2 Je '45; Power 89:465-6 Jl '45; Abstract. Aviation N 3:26+ Je 11 '45; Elec Eng 65:160-3 Ap '46
Possibilities of the turbo-jet power plant. P. B. Taylor and S. T. Robinson. il diags S A E J 54:20-6 O '46
Pre-stressing rotating disks used in turbines and compressors. H. Dobkin. diags Steel 118:104-6+ Je 3 '46
Propellers for aircraft gas turbines. G. W. Brady. diags J Aeronautical Sci 13:449-56+ S '46
Reflections on powerplants. C. L. Lawrance. Aero Digest 53:24-5 Ag '46
Republic to try exhaust turbines in compound engine on Rainbow. Aviation N 4: 10 N 12 '45
Rolls-Royce gas turbine development. il diags Engineering 162:224-6, 247-9, 252 S 6-13 '46
Rolls-Royce Nene and Derwent engines; abstract. J. D. Pearson. Mech Eng 68:463-4 My '46
Shooting Star engine is triumph for modern welding. Franklin Inst J 242:163-4 Ag '46
Team work in research. C. H. Lander. Engineering 161:22-3 Ja 4 '46; Same cond. Engineer 180:330-1 O 26 '45
Theseus I propeller gas-turbine aero-engine. il Engineering 162:367-9, 372 O 18 '46
Three British jet engines; Goblin II, Nene I and F. 3. il diags Automotive & Aviation Ind 95:28-33+ S 1 '46
Turbine blade design blocks jet progress. Aviation N 6:13 S 23 '46
Turbine compounding of the piston aero engine. H. R. Ricardo. Roy Aeronautical Soc J 50:323-9; Discussion. 329-32, 358-74 My '46
Turbo-jet to rule tomorrow's skies. F. Whittle. il S A E J 54:17-19 O '46

GAS turbines, Aircraft—*Continued*
Westinghouse axial flow compressor reduces jet engine diameter. il diag Product Eng 17:90-3 Ag '46
See also
Jet propulsion of aircraft

Gearing

Gearing developed for gas turbine aircraft. Iron Age 157:153 Ap 11 '46

Installation

Aviation gas turbine installation problems. M. C. Benedict. Automotive & Aviation Ind 95:56 Ag 1 '46

Manufacture

Controlled-stage process finish-forges turbojet blades. C. E. Wilderman. il Aviation 45:81-3 Mr '46
Grinding dovetail serrations on aircraft turbine buckets. G. V. Keller. il diag Mach 53: 146-52 O '46
More than 500 welds used in aircraft jet-propulsion gas turbine. il Steel 119:105+ Jl 15 '46
Shooting star engine is triumph for modern welding. J. G. Shaw, jr. il Welding J 25: 529-30 Je '46
Taylor-Winfield large vertical flash welders. il Materials & Methods 23:558 F '46; Welding J 25:172+ F '46; Iron Age 157:58-9 Mr 7 '46
Welding jet engine parts. W. J. Campbell. il diags Iron Age 158:46-9 S 5 '46
Welding techniques used in I-40 gas turbine. Aeronautical Eng R 5:109-10 Je '46

Testing

Flight testing of jet engines. R. D. Gilson. il Mech Eng 68:411-14 My '46

GAS turbines, Marine
Allis-Chalmers exhibits world's largest gas turbine unit in operation. Iron Age 157:121 Ap 4 '46
Allis-Chalmers gas turbine. il diags Diesel Power 24:596-600+, 720-4+ My-Je '46; Same abr. Steel 118:134-6+ My 6 '46
Allis-Chalmers 3500 hp gas turbine undergoing high temperature tests. J. R. Custer. il diags Automotive & Aviation Ind 94:28-9+ Ap 15 '46
Elbow combustion chamber designed for gas turbine built for navy. M. A. Mayers and W. W. Carter. bibliog diags A S M E Trans 68:391-8 My '46
Experimental 1500-F unit at Annapolis yields valuable high-temperature data. W. B. Tucker and others. il diags Power 90:290-3 My '46
Experimental gas turbine operates at 1350 degrees fahrenheit; Navy-Allis-Chalmers propulsion development. il diags Steel 118: 134-6+ My 6 '46; Power Pl Eng 50:86-9 My '46
Gas turbine; experimental power plant. il diags Machine Design 18:114-18 Ag '46; Same cond. Mech Eng 68:571-4 Je '46
German E-boat turbine propulsion design revealed. diag Iron Age 157:117 Ja 31 '46
Marine gas turbine installation. C. H. Johnson. diags Marine Eng 51:108-16 Ap '46
Marine gas-turbine plant. A. Lysholm. il Mech Eng 68:992 N '46
Marine gas turbine plant. C. R. Soderberg and others. il diags Marine Eng 51:132-8 Ja '46; Excerpts. Mech Eng 68:157-9 F '46; Discussion. Marine Eng 51:154+ Ja '46
6000-Bhp gas turbine. diags Mech Eng 68: 983 N '46
Stationary gas turbine operates at 1500 degrees F. il Product Eng 17:415 My '46

Testing

Gas turbine tests at U.S. naval experiment station. il diags Marine Eng 51:110-19 My '46
Instrumentation and techniques used in testing gas turbines at Annapolis. C. F. Kottcamp. Marine Eng 51:120-1 My '46; Abstract. Power Pl Eng 50:89 My '46

GAS water heaters
Biggest radiant panel job is fired by 120 individual water heaters; A. O. Smith corp. il plan diags Dom Eng 168:110-15+ S '46; Am Gas Assn Mo 28:368-9 S '46; Gas Age 98:33-4 S 5 '46; Heat & Ven 43:59-61 S '46; Power 90:739-41 N '46
Complete heat service unit; burning gas and solid fuel. il Gas J (Lond) 247:185 Ja 30 '46
Current central heating research; gas-fired summer-winter hook-up. R. C. Weast and J. A. Morse. diags Am Gas J 164:23-4+ Mr '46
Current water heater research. W. B. Kirk. Am Gas J 164:14-16 Mr '46
Forty miles of piping used in new plant's radiant heating system; A. O. Smith corp. il Steel 119:112-13+ S 23 '46
Gas heating system melts snow from theatre sidewalk. il Am Gas Assn Mo 28:207 My '46
Hot water for the automatic washer. C. A. Thorp and R. A. Siskin. il diags Am Gas Assn Mo 28:308-10 Jl-Ag '46
Instantaneous water heating for commercial uses. diags Am Gas J 164:53 Je '46
Large volume water heating; how to select and install correct types of systems for specific purposes. M. E. Mackay. Am Gas J 164:37-41+ Ja; 21-6 F; 35-9+ Mr; 42-3+ My; 40-2 Je; 165:39-41+ Jl; 31-3 Ag; 27-9 S; 55-8 O '46 (to be cont)
Large water heater at Texas A. and M. heats water for swimming pool. il Gas Age 97:48 Mr 7 '46
New multipoint water heater. il Gas J (Lond) 248:533 S 25 '46
120 water heaters meet space heating needs of big radiant installation; A. O. Smith corp. C. W. Colby. il Heating-Piping 18: 69-73 S '46
Product designs of today; features of new gas-fired appliances. il Am Gas J 163:46-8+ N '45
Radiation New World single-point storage gas water heater. il Gas J (Lond) 247:349 F 27 '46
Ranalah instantaneous gas water heater. il Gas J (Lond) 247:389 Mr 6 '46
Uniform appliance installation code adopted by Western plumbing officials assn. F. A. Herr. Am Gas J 164:11-13+ Mr '46

Manufacture

Post-war Ascot organization. il Gas J (Lond) 247:469 Mr 20 '46

Merchandizing

Get a load of this! selling increased use of hot water. G. M. Rohde, jr. il Am Gas Assn Mo 28:15-18 Ja '46
Heading for hot water! C. R. Davis. Gas Age 96:26 D 27 '45
Selling the difference. G. M. Rohde, jr. il Am Gas Assn Mo 28:97-9+ Mr '46
Ten to one water heaters sales plan. M. M. Scott. Am Gas Assn Mo 28:18 Ja '46
Water heater promotion, a vital need today. W. J. Schmidt. Gas Age 98:26-7+ O 17 '46

Testing

Evaluation of performance. L. Friedman. Gas J (Lond) 246:718+ N 21 '45

GAS works
Catalytic purification of coal gas; visit to Gas light and coke company's works. il Chem Age (Lond) 54:699-701 Je 22 '46
Gas Journal handbook; a memorandum on gas works practice, with general information and tables for daily reference in the gas and allied industries [pt 2 of Gas Journal calendar and directory] p145-244 Walter King, ltd, 11 Bolt court, Fleet st, London, E.C. 4 '46

Conversion

Liquefied petroleum gas, it's future in the gas industry. F. E. Drake. flow diag il Am Gas J 165:15-18+ O '46
Utilization of LP-gas by the manufactured gas industry. A. R. Stryker. Gas Age 96:46-9+ D 13 '45

Costs

Presidential address before Manchester district association of gas engineers. Gas J (Lond) 247:718-20+ My 1 '46

GAS works—Costs—*Continued*
Public utility construction cost index, 1921-1945. Eng N 136:577 Ap 18 '46

Damage from air raids

When war came to a gas plant in Italy. F. M. Reiter. il Gas Age 97:17-22+ Mr 7; 29-30+ Mr 21 '46

Equipment

Control on small works; discussion. Gas J (Lond) 247:928+ Je 5 '46
Conversion from coal gas to 100% propane-air gas. H. K. Seeley. flow diag il Am Gas J 163:35-9 N '45
Developments in carburetted water gas. C. A. Schlegel. Gas Age 96:24-7 N 1 '45; Same. il Am Gas J 163:27-31 N '45
Device for obtaining readings from unattended stations. G. H. Davis. diags Am Gas J 164:29-30 Je '46
Durability of refractory materials in the carbonizing industry. E. Heaton, F. H. Clews and A. T. Green. Gas J (Lond) 247:605+ Ap 10 '46
Fischer-Tropsch unit at Leipzig gas works. W. A. Horne and J. P. Jones. flow diag Gas Age 97:28+ F 7 '46
Gas engineering and appliance directory. Gas Age 97:75-162 Je 13 '46
Increasing gas production capacity; Brooklyn union gas co. S. Green. Am Gas Assn Mo 27:501-2 N '45
Increasing water gas set capacity; generator air supply. B. P. Jenkins. Gas Age 98:21-6+ S 5 '46
Mobile briquetting plant. il plan diags Gas J (Lond) 248:108-9 Jl 17 '46
Presidential address before Manchester district association of gas engineers. Gas J (Lond) 247:718-20+ My 1 '46
Removal of sulphur compounds from town gas by catalytic hydrogenation. E. B. Maxted and J. J. Priestley. il diags Gas J (Lond) 247:471-2+, 556-7, 593 Mr 20, Ap 3-10 '46
Report of Koppers company, inc., Engineering and construction division, Pittsburgh, Pa. W. A. Leech, jr. il Am Gas Assn Proc 1945:421-4
Report of subcommittee on wrinkles. il diags Am Gas Assn Proc 1945:211-78
Results obtained with the tangential generator-carburetter connection. G. L. Bixby. Am Gas Assn Mo 27:511+ N '45
Tower gas purifiers at Wandsworth. diag plan Engineer 180:444-5 N 30 '45
Wartime distribution developments at Perth. N. Baird. il map diags Gas J (Lond) 248:561-3, 602+ 643-4+ O 2-16 '46
Water gas set capacities. P. T. Dashiell. il Am Gas Assn Mo 27:537-42+ D '45
Woodall-Duckham retorts at Lincoln. il Gas J (Lond) 248:640-2 O 16 '46

See also
Carburetors (gas works)
Gas boosters
Gas holders
Gas retorts

Fires and fire protection

Explanation of unusual fires or explosions on gas company premises which occurred during 1944. Am Gas Assn Proc 1945:64-70

Load

Consumer investigation; probable load imposed by new housing. J. R. Denoon. Gas J (Lond) 246:599 O 31 '45
Gas storage and the industrial load. F. G. Pyper. diags Gas J (Lond) 247:225 F 6 '46
Peak and base load gas production past and future. E. G. Boyer. Gas Age 97:15-18+ Je 27; 98:31-5+ Jl 11 '46
Report of subcommittee on economics of distribution design for domestic load building. Am Gas Assn Proc 1945:297-306

Management

Presidential address before North of England gas managers' association. E. Crowther. Gas J (Lond) 247:1053-4+ Je 26 '46

Peak load

Catalytic gasification of higher hydrocarbons. C. H. Riesz and others. bibliog diags Am Gas Assn Mo 28:159-64+ Ap '46
Consolidated Edison installs propane-air peak load plants. G. Calabrese. il map diag Gas Age 98:89-92+ O 3 '46
Consolidated Edison installs propane plant for peak. Gas Age 96:30 N 29 '45

Power

Atomic energy and the gas industry. J. G. King. Gas J (Lond) 248:121 Jl 17 '46
Gas turbine engine and the gas industry. J. G. King. Gas J (Lond) 248:118+ Jl 17 '46
Power plant and machinery for exhausting and boosting gas. L. J. Clark. Gas J (Lond) 248:31-2; Discussion. 32 Jl 3 '46
Power utilization on a medium sized gas-works. S. Ashworth. Gas J (Lond) 247:482+ Mr 20 '46
Steam; its generation and use in the gas industry. D. Hicks. Gas J (Lond) 248:600; Discussion. 601 O 9 '46
Three stoker-fired boilers replace nine hand-fired units in three plants; Consumers' gas co. of Toronto. il diags Power 90:432-6 Jl '46
Waste heat boilers; abstract. W. Gregson. diag Gas J (Lond) 247:227-8 F 6 '46

Waste

Treatment and removal of waste waters from carbonization of coal; abstract. W. Becher. Am Water Works Assn J 38:797-8 Je '46

GASES
Absorption of microwaves by gases. W. D. Hershberger and J. E. Walter. diag J Ap Phys 17:495-500, 814-22 Je, O '46
Accommodation coefficients for heat conduction between gas and bright platinum, for nine gases between 80° K (or their boiling points) and 380° K. E. R. Grilly and others. bibliog J Chem Phys 14:435-40 Jl '46
Compressibilities of gas mixtures. G. Su, P. Huang and Y. Chang. bibliog Am Chem Soc J 68:1403-4 Ag '46
Compression and expansion of gases; data sheet. R. E. Bruckner. chart Power 89:863 D '45
Conduction and dispersion of ionized gases at high frequencies. H. Margenau. bibliog Phys R 69:508-13 My 1 '46
Correlating viscosities of gases with temperature and pressure. D. F. Othmer and S. Josefowitz. bibliog Ind & Eng Chem 38:111-16 Ja '46
Cracking of heavy petroleum stocks over heated surfaces. A. Y. Larin. diags Nat Pet N 38 pt 2:R286+ Ap 3 '46
Dielectric constants of eight gases. L. G. Hector and D. L. Woernley. bibliog il Phys R 69:101-5 F 1 '46
Free heat convection through enclosed plane gas layers. M. Jakob. A S M E Trans 68:189-93 bibliog(p193); Discussion. 193-4 Ap '46
Gas conversion tables. Oil & Gas J 44:B100-1 sec 2 Mr 30 '46
Gases in bronze. R. A. Colton. bibliog(58 references) il Foundry 74:88-9+ Mr '46
General gas solubility law. M. Basnicki. Can Chem & Process Ind 30:71 F '46
Generalized Beattie-Bridgeman equation of state for real gases. G. Su and C. Chang. bibliog Am Chem Soc J 68:1080-3 Je '46
Generalized equation of state for real gases. G. Su and C. Chang. bibliog Ind & Eng Chem 38:802-3 Ag '46
Generalized van der Waals equation of state for real gases. G. Su and C. Chang. Ind & Eng Chem 38:800-2 Ag '46
Gram-molecular volume slide-box. G. W. Josten. il J Chem Educ 22:613 D '45
Improved hot wire cell for accurate measurements of thermal conductivities of gases over a wide temperature range; results with air between 87° and 375° K. W. J. Taylor and H. L. Johnston. bibliog diag J Chem Phys 14:219-33 Ap '46
Isotope separation by thermal diffusion: the cylindrical case. W. H. Furry and R. C. Jones. bibliog Phys R 69:459-71 My 1 '46
Metastable ions formed by electron impact in hydrocarbon gases. J. A. Hipple and others. bibliog diag Phys R 69:347-56 Ap 1 '46
Method of determining the size of droplets dispersed in a gas. R. L. Stoker. il diag J Ap Phys 17:243-5 Ap '46

GASES—*Continued*

Modified law of corresponding states for real gases. G. Su. bibliog Ind & Eng Chem 38: 803-6 Ag '46

Mutual diffusion of pairs of gases. F. T. Wall and G. A. Kidder. bibliog diag J Phys Chem 50:235-42 My '46

Pressure-volume relations of the gaseous methylamines at 0° and reduced pressures. J. C. Arthur with W. A. Felsing. bibliog Am Chem Soc J 68:1883-5 O '46

Propagation of plane sound waves in rarefied gases. H. Tsien and R. Schamberg. Acoustical Soc Am J 18:334-41 O '46

Recent work in the field of high pressures; volumetric effects in gases. P. W. Bridgman. bibliog Rs Mod Phys 18:10-13 Ja '46

Some considerations of Dalton's law for gaseous mixtures. A. Foá. Chem & Ind p97-9 Mr 2 '46

Some properties of very intense shock waves. R. G. Sachs. Phys R 69:514-22 My 1 '46

Theory of multimolecular adsorption from a mixture of gases. T. L. Hill. J Chem Phys 14:46-7 Ja '46

Theory of multimolecular adsorption from a mixture of gases. T. L. Hill. bibliog J Chem Phys 14:268-75 Ap '46

Thermal and acoustic effects attending absorption of microwaves by gases. W. D. Hershberger and others. bibliog il RCA R 7:422-31 S '46

Thermal conductivites of eight common gases between 80° and 380°K. H. L. Johnston and E. R. Grilly. bibliog J Chem Phys 14: 233-8 Ap '46

Thermodynamic properties of gaseous 1,3-butadiene and the normal butenes above 25°C; equilibria in the system 1,3-butadiene, *n*-butenes, and *n*-butane. J. G. Aston and others. bibliog J Chem Phys 14: 67-79 F '46

Thermodynamic properties of gases; carbon dioxide. R. L. Sweigert, P. Weber and R. L. Allen. bibliog Ind & Eng Chem 38:185-200 F '46

Volt-ampere characteristics for the flow of ions or electrons between concentric cylinders in gases at atmospheric pressure. C. W. Rice. Phys R 70:228-9 Ag 1 '46

See also

Absorption
Accommodation coefficients
Acetylene
Adsorption
Aerodynamics
Air
Blast furnace gas
Carbon dioxide
Chlorine
Coke-oven gas
Dew points
Electric discharges
Equation of state
Flame propagation
Flue gas
Foam
Gas
Gas, Natural
Gas analysis
Gas flow
Helium
Hydrogen
Inflammable mixtures
Ionization, Gaseous
Molecular beams
Nitrogen
Oxygen
Plants, Effect of gases on
Vapor pressure
Vaporization
Vapors

Apparatus

Adsorption apparatus without stopcocks for use with hydrocarbon gases. C. B. Wendell, jr. and G. L. Cabot. bibliog diags Ind & Eng Chem Anal ed 18:454-6 Jl '46

Apparatus and procedure for technical butadiene analysis. C. L. Gregg. diags Ind & Eng Chem Anal ed 17:728-30 N '45

Gas testing devices; abstract. Materials & Methods 23:1108 Ap '46

Hypersorption process for separation of light gases. C. Berg. il diags Am Inst Chem Eng Trans 42:665-79; Discussion. 679-80 Ag '46

Improved apparatus and procedure for the determination of helium in natural gas. E. M. Frost, jr. 7pls U S Bur Mines Rep of Invest 3899:1-16 '46

Improved laboratory gas scrubber. K. H. Jack. il diags Chem & Ind p290 Ag 3 '46

Instrument for determining the partial pressure of oxygen in a gas. L. Pauling, R. E. Wood and J. H. Sturdivant. diags Am Chem Soc J 68:795-8 My '46; Abstract. Science 103:338 Mr 15 '46

Manometric system for volumetric gas analyzers. A. R. Anderson. diag Ind & Eng Chem Anal ed 18:70 Ja '46

Modified gas-absorption apparatus. A. N. Bolstad and R. E. Dunbar. diag Ind & Eng Chem Anal ed 18:337 My '46

Precision semimicromethod for gas analysis. L. K. Nash. bibliog diag Ind & Eng Chem Anal ed 18:505-8 Ag '46

Separation of gases. M. Ruhemann. bibliog diags Inst Chem Eng Trans 20:55-61; Discussion. 61-4 '42

See also

Scrubbers

Liquefaction

Separation and chemical utilization of coal gas constituents. N. Booth. Gas J (Lond) 248:435-6 S 11 '46

GASES, Asphyxiating and poisonous

Irritating vapors produced by burning cellulosic materials. W. H. Easton. bibliog J Ind Hygiene 27:211-16 O '45

Plastics introduce no new hazard into the work of firemen; abstract. F. D. Snell. Nat Safety N 54:166 O '46

Tanks are troublemakers. il Safety Eng 92: 17+ Ag '46

Toxicity hazards of burning plastics; abstract. Chem Eng 53:248 S '46

Volatile hydrides of toxicological importance. S. H. Webster. bibliog(60 titles) il J Ind Hygiene 28:167-82 S '46

See also

Carbon disulfide
Carbon monoxide poisoning
Chemical warfare
Hydrogen sulfide
Mustard gas
Nitrogen oxides
Respiratory apparatus

GASES, Compressed

Compressed methane for commercial vehicles, gas produced from sewage. Engineer 181: 299 Mr 29 '46

Equilibrium water vapor content of compressed gases. E. G. Hammerschmidt. bibliog Gas Age 97:24-5+ Je 27 '46; Same. Am Gas J 165:21-3 Ag '46

See also

Gas, Natural—Compression

GASES, Kinetic theory of

Statistical mechanical theory of transport processes; general theory. J. G. Kirkwood. bibliog J Chem Phys 14:180-201 Mr '46; Correction. 14:347 My '46

GASES, Liquefied

Production and storage of liquid methane; abstract. A. Egerton and others. Gas J (Lond) 247:678 Ap 24 '46

See also

Helium, Liquid

GASES, Rare

Corresponding states in the frozen rare gases. G. W. Murphy and O. K. Rice. bibliog J Chem Phys 14:518-25 S '46

Determination of helium group gases in natural gases and in the atmosphere. G. H. Cady and H. P. Cady. bibliog diags Ind & Eng Chem Anal ed 17:760-6 D '45

Fluorescence of phosphors in rare gases. N. C. Beese. Opt Soc Am J 36:493-7 S '46

See also

Argon
Helium
Krypton
Xenium

GASES, Solidified

Corresponding states in the frozen rare gases. G. W. Murphy and O. K. Rice. bibliog J Chem Phys 14:518-25 S '46

GASES in metals. See Metals—Gas content

GASES in warfare. See Chemical warfare

GASKETS

Ajax spiralwound gaskets. il Marine Eng 50: 220 N '45

Developments in the field of testing procedures for the evaluation of natural and synthetic rubbers and plastic elastomers, sponsored by Bureau of ships, Navy department. T. A. Werkenthin. il diags Rubber Age 59:579-83 Ag '46

New developments in Silastic, heat resistant silicone rubber. P. C. Servais. il India Rubber World 114:657-8 Ag '46

Non-metallic gasket materials; white fiber asbestos (chrysotile). Paper Ind 27:1091 O '45

GASKETS—*Continued*

Silicone rubbers; new gasketing materials for high-temperature uses. J. A. Moffitt and A. Panagrossi. il Machine Design 18:109-13 S '46

GASOLINE

Bureau of mines issues report on survey of premium and regular gasoline samples. Nat Pet N 38:22 Ap 10 '46

Catalytic conversion of hydrocarbons; catalytic promoting effect of antimony tetroxide in the aromatization of hydrocarbons with a chromia-alumina catalyst. F. E. Fisher and others. bibliog diag Ind & Eng Chem 38:61-4 Ja '46

Extinction of gasoline flames by inert gases. G. W. Jones and W. R. Gilliland. U S Bur Mines Rep of Invest 3871:1-14, pl 1-3 '46

National motor-gasoline survey, summer 1945. O. C. Blade. map U S Bur Mines Rep of Invest 3883:1-34 '46

National motor-gasoline survey, winter 1945-46. O. C. Blade and C. R. Sponsler. map U S Bur Mines Rep of Invest 3959:1-39 '46

New high-powered gasolines. Consumers Res Bul 17:24 Ap '46

Octane number and lead susceptibility of gasoline; effect of organic chlorine and sulfur. C. Holloway, jr. and W. S. Bonnell. Ind & Eng Chem 37:1089-91 N '45

Relation of octane number and peroxide content of catalytic gasolines. H. Velde. Pet Refiner 25:137-40 Je '46

Use of chemical additives in petroleum products. L. A. Hamilton and P. V. Keyser, jr. bibliog il Nat Pet N 38 pt 2:R228+ Mr 6 '46

Water and gasoline don't mix; dealing with water that has gotten into your gasoline. Consumers Res Bul 17:17-19 F '46

World supplies of gasoline, kerosine, and burning oils. S. P. Coleman. Am Pet Inst Proc 25(2):9-13 '45

See also

Airplane engines—Fuel
Automobile engines—Fuel
Automotive fuel
Gasoline service stations
Internal combustion engines—Fuel
Motor bus engines—Fuel
Motor truck engines—Fuel
Petroleum refining

Analysis

Detection of elemental sulfur in gasoline by the Sommer test. G. E. Mapstone. Ind & Eng Chem Anal ed 18:498-9 Ag '46

Determination of organic peroxides in hydrocarbons. E. M. Tanner and T. F. Brown. bibliog Inst Pet J 32:341-50 Je '46

Determination of tetraethyllead in gasoline by X-ray absorption. M. V. Sullivan and H. Friedman il diag Ind & Eng Chem Anal ed 18:304-6 My '46

Proposed method of test for total olefinic and aromatic hydrocarbons in gasoline. il diags Am Soc T M Proc 45:247-52 '45

Anti-knock and anti-knock mixtures

Desulfurization, reforming add octane numbers to motor fuel; abstract. M. W. Conn and G. M. Brooner. Oil & Gas J 45:57 O 5 '46

Development of reference fuel scales for knock rating. D. B. Brooks. bibliog S A E J 54:394-402 Ag '46; Same abr. Pet Refiner 25:130-6 Ja '46; Abstract. Ind Stand 17:18 Ja '46; Discussion. S A E J 54:402-3 Ag '46

Extension of the octane scale above 100 octane number. Inst Pet J 31:418-20 O '45

Fuels rated by performance; boardline knock tests in petroleum research use road-performance as criterion. E. F. Lindsley. il Sci Am 174:113-15 Mr '46

Knock ratings of gasoline substitutes. A. D. Puckett. diag J Res Nat Bur Stand 35: 273-84 O '45

Lead susceptibility of cracked and reformed gasolines; table and chart. W. L. Nelson. Oil & Gas J 44:107 N 10 '45

Normal heptane as a reference fuel in measuring antiknock quality of gasoline. H. M. Trimble and A. W. Suderman. Oil & Gas J 45:66+ N 2 '46

Octane number trends of motor fuels from 1930 to 1946; with graphs. R. R. Couch and R. C. Alden. Nat Pet N 38:43-4 Ja 23 '46

Public wants antiknock quality in gasoline. C. B. Veal. Nat Pet N 38:18+ Ap 10 '46

Reference fuel scales for knock rating; abstract. D. B. Brooks. Franklin Inst J 241: 137-8 F '46

Significance of octane number. H. W. Best. Automotive & Aviation Ind 94:32-4+ Mr 1 '46

Story of diisopropyl. R. C. Alden and others. bibliog flow diag il Oil & Gas J 44:70-3+ F 9 '46

Superiority of desulfurized gasoline. W. L. Nelson. Oil & Gas J 44:284 N 17; 75 D 22 '45

Ethyl mixtures

Ethyl fluid crisis grows as lead inventories sink to new low. Nat Pet N 38:15-16 S 25 '46

Ethyl sales are built on service. J. J. Frey. il Ind Marketing 31:38-9+ F '46

High-test competition; Du Pont plans to enter field. Bsns W p19 O 12 '46

Oil jobbers, refiners, API's Marketing committee protest CPA's lead order. Nat Pet N 38:3-6 Ap 10; 3-4 Ap 17; 4-5 Ap 24 '46

Evaporation losses

Gasoline loss control and molecular weight determinations. H. G. Kcefoed. bibliog 4pls diags Inst Pet J 32:529-74 S '46

Notes on test of permeation of concretes by gasoline vapor. R. L. Blaine. diags Concrete 54.3-7 O '46

Reducing losses of volatile liquids in atmospheric pressure storage. G. W. McCullough and others. Nat Pet N 38 pt 2:R122+ F 6 '46

Storage of volatile petroleum products. H. C. Boardman. il Pet Refiner 25:109-16 Ap '46

Gum formation

Gasoline gum tolerance of ordnance equipment. M. L. Alspaugh. il S A E J 54:289-95 Je '46; Excerpts. Nat Pet N 38 pt 2: R166 Mr 6 '46; Discussion. S A E J 54: 295-6 Je '46

Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in cyclohexene and gasoline. H. F. Lewis and others. bibliog il Ind & Eng Chem 37:1108-11 N '45

Removal of chlorine and gum formers from alkylates. R. G. Haldeman and W. A. Pardee. bibliog diag Ind & Eng Chem 38:242-6 Mr '46

Resistance to gum formation in motor fuel in storage is studied for the army. J. R. Sabina. Nat Pet N 38 pt 2:R163-5 Mr 6 '46

Use of inhibitors in motor gasolines. G. Armistead, jr. bibliog Oil & Gas J 44:97+ Ap 13 '46

Manufacture

Application of fluid catalytic cracking in present refinery operations; with cost data. D. Read. Oil & Gas J 44:243-4+ Mr 30 '46; Abstract. Chem & Eng N 24:1202 My 10 '46

Aviation gasoline from paraffinic stocks; abstract. C. E. Starr and others. Oil & Gas J 45:59 S 14 '46

Avon fluid catalytic cracking plant continues longest run. C. K. Viland. il Pet Eng 17: 131-2+ My '46

Catalytic cracking for production of motor gasoline. G. Armistead, jr. bibliog il diag Oil & Gas J 44:60-3+ Mr 2 '46

Coking of hydrocarbon oils. G. Armistead, jr. bibliog diags Oil & Gas J 44:103+ Mr 16 '46

Combustion-gas turbine in the Houdry process. J. E. Evans and R. C. Lassiat. bibliog il diag Pet Refiner 24:135-40 N '45; Same cond. Power Pl Eng 50:118+ Mr '46

Commercial operations at the modified Thermofor catalytic cracking unit of the Socony-Vacuum oil co., Paulsboro, N.J; abstract. H. D. Noll. Chem & Eng N 24: 2603 O 10 '46

Commercial T.C.C. operations on partially vaporized charge stock. H. D. Noll and others. flow diag il diags Oil & Gas J 45: 116+ O 19 '46

GASOLINE—Manufacture—*Continued*

Comparison of bead and clay catalysts for T.C.C. process. L. P. Evans. il Oil & Gas J 44:167-8+ Mr 30 '46

Crude oil assays prove valuable working tool for refiner's design engineers and plant operators. J. L. Petersen. Pet Processing 1: 113-14+ O '46

Cycle stocks from catalytic cracking; hydrogenation and desulfurization. C. L. Brown, A. Voorhies, jr. and W. M. Smith. bibliog il diag Ind & Eng Chem 38:136-40 F '46

Cycloversion process. flow chart il Oil & Gas J 44:136-8 Mr 30 '46

Demonstration plant for atomic energy catalytic cracking process announced; said to use catalyst of a uranium ore. Nat Pet N 38:41 Jl 24 '46

Development of postwar oil refining. E. R. Smoley and V. O. Bowles. Pet Eng 17:59+ Ap '46; Same. Pet Refiner 25:172+ Ap '46

Earnings, a function of catalyst activity. R. E. Bland and E. A. Smith. il Pet Eng 17: 55-6+ Ag '46; Same. Pet Refiner 25:115-18 Ag '46

Economic and successful operation obtained at HF alkylation plant; Sinclair refining co.'s Corpus Christi refinery. J. A. Scott and R. M. Cooper. flow diags Oil & Gas J 44:204+ Mr 30 '46

18,000 b/d refinery spends $750,000 to remodel facilities, improve products; Cosden petroleum corp. flow sheets flow diag il Nat Pet N 38 pt 2:R570-2+ Ag 7 '46

Factors affecting quality of motor gasoline from catalytic cracking of gas oils. G. Armistead, jr. bibliog Oil & Gas J 44:76+ Mr 9 '46

Fiberglas tower packing helps Atlantic engineers speed production of high octane gasoline. Franklin Inst J 240:432 N '45

Fluid catalytic cracking process. flow charts il Oil & Gas J 44:139-41 Mr 30 '46

Fluid catalytic cracking unit for the small refiner. D. Read. flow diags Nat Pet N 38 pt 2:R313-17 Ap 3 '46; Same. Oil & Gas J 44:144+ Ap 20 '46; Same. Pet Refiner 25: 119-22 My '46; Same. Pet Eng (Ref annual) 17:256+ Jl 1 '46

Fluid dynamics. W. W. Kraft. bibliog Ind & Eng Chem 38:6-7+ Ja '46

Fundamentals of isomerization for operators. J. S. Finger. flow diag Pet Refiner 25:105-10 Ja '46

Gasoline improved by washing with water in large vertical vessel. il Pet Refiner 24:146 D '45

High-capacity operations on fluid cracking units. E. V. Murphree and others. flow sheet il diags Am Pet Inst Proc 25(3):57-64 '45; Same abr. Pet Refiner 24:97-100 N '45; Same abr. Pet Eng 17:136+ D '45; Same abr. Nat Pet N 37 pt 2:R972+ D 5 '45; Discussion. Am Pet Inst Proc 25(3):64-5 '45

Houdry process. flow chart il Oil & Gas J 44:142-4 Mr 30 '46

Houdry's new small-scale TCC unit; abstract. C. Peavy. Chem & Eng N 24:1202-3 My 10 '46

HF alkylation process. flow chart il Oil & Gas J 44:153-5 Mr 30 '46

Hydroforming; a catalytic method for naphtha upgrading. L. R. Hill and others. flow diags il Nat Pet N 38 pt 2:R456-8+ Je 5 '46

Hydroforming for production of high-octane motor fuel. L. R. Hill, G. A. Vincent and E. F. Everett. flow sheets il Am Inst Chem Eng Trans 42:611-37 Ag '46

Hydroforming process. flow charts il Oil & Gas J 44:150-2 Mr 30 '46

Hydrogen fluoride-paraffin systems; significance of liquid-phase equilibria in the hydrogen fluoride alkylation process. E. B. Butler, C. B. Miles and C. S. Kuhn, jr. diags Ind & Eng Chem 38:147-55 F '46

Idle isomerization unit converted to produce polymer gasoline. W. R. Newman. il diags Pet Refiner 25:91-3 O '46

Improved design of Houdry reactor results in higher gasoline output. R. C. Lassiat and C. H. Thayer. flow diag diags Oil & Gas J 45:84+ Ag 3 '46; Same. Pet Eng 17:82+ S '46; Same. Pet Refiner 25:127-30 S '46; Same cond. Pet Processing 1:37+ S '46

Improved fluid catalytic cracking unit reduces maintenance costs. B. J. Flock. il Oil & Gas J 45:72+ O 5 '46

Increase output of alkylate over 600% by removing equipment bottlenecks. G. B. Ryan and D. G. Stevens. il diags Nat Pet N 38 pt 2:R411-12+ Je 5 '46

Isomate process. J. E. Swearingen, R. D. Geckler and C. W. Nysewander. diags Am Inst Chem Eng Trans 42:573-91 bibliog(p591) Ag '46; Same cond. flow sheet flow diag il Pet Processing 1:140+ O '46; Discussion. Am Inst Chem Eng Trans 42:592-3 Ag '46

Isomerization of light hydrocarbons. S. F. Perry. flow plans Am Inst Chem Eng Trans 42:639-46 Ag '46

Isomerization process. flow charts il Oil & Gas J 44:159-61 Mr 30 '46

Liquid-charge technique in TCC processing. T. P. Simpson and others. bibliog flow diags il diags Am Pet Inst Proc 25(3):43-52 '45; Same. Pet Refiner 24:110-16 N '45; Same, without diags. Oil & Gas J 44:119+ N 24 '45; Same cond. Nat Pet N 37 pt 2: R977+ D 5 '45

Materials of construction in bead catalyst plant; Socony vacuum plant, Paulsboro, N. J. flow sheet Chem & Met Eng 53:231-2+ My '46

Mechanics of the manufacture of aviation gasoline; abstract. L. Steffens. S A E J 53: sup27 N '45

Mechanism of flow in fluid catalyst cracking. H. P. Wickham. flow sheet il diags Mech Eng 68:237-40 Mr '46

Modern refining processes; gas reversion and polyform processes. G. Armistead, jr. diags Oil & Gas J 45:189+ Jl 27 '46

Modern refining processes; hydroforming process. G. Armistead, jr. bibliog flow diag il Oil & Gas J 45:85-7+ Ag 31 '46

Motor-operated valves on Sun Houdry unit in continuous service since 1937. F. R. Staley. il Oil & Gas J 44:215+ Mr 30 '46

New coking unit adds versatility, increases yields at Pure's refinery. A. L. Foster. flow diags il Oil & Gas J 45:74-6+ S 7 '46

New developments in suspensoid catalytic cracking. C. F. Burk. il Can Chem & Process Ind 30:37-9+ O '46; Same. Oil & Gas J 45:100-1+ O 12 '46

New 1000 b/d catalytic cracker operates on fluid principle; with cost data. flow sheet il Nat Pet N 37 pt 2:R939-42 D 5 '45

New pellet dryer for TCC catalyst offers diverse postwar uses. J. W. Payne and C. H. Lechthaler. diags Chem & Met Eng 52: 105-7 D '45

Nonselective catalytic polymerization has important postwar utility. G. Armistead, jr. bibliog diags Oil & Gas J 44:131-4+ Ap 6 '46

Numerous improvements in HF alkylation will cut costs and reduce losses. W. B. Shanley and H. J. Nebeck. flow charts Oil & Gas J 44:94-6+ D 1 '45

Octane improvement processes; abstract. D. Read. Chem Eng 53:248+ S '46

Octane rating improvement of olefinic gasolines by isomerization. L. Berg, G. L. Sumner, jr. and C. W. Montgomery. bibliog diag Ind & Eng Chem 38:734-7 Jl '46

Over-all transfer rates. W. L. Nelson. Oil & Gas J 45:105 Je 8 '46

Peacetime utility of wartime petroleum refining processes. F. D. Parker. bibliog Pet Refiner 24:117-23 N '45; Same. Pet Eng 17: 116+ D '45; Same. Nat Pet N 38 pt 2:R27-32 Ja 2 '46

Poly plant converts to peace. H. E. Chambers and W. L. Pursell. flow chart il Oil & Gas J 45:118-19+ My 18 '46

Polymerization process. flow charts il Oil & Gas J 44:164-5 Mr 30 '46

Polytreating of catalytically cracked gasolines. V. Haensel and V. N. Ipatieff. diag Ind & Eng Chem 38:1045-7 O '46

Postwar refinery operations capitalize on skills developed during emergency. A. L. Foster. il Oil & Gas J 45:160+ Jl 27 '46

Recovering alkylation spent acid. J. A. Lee. flow sheet(p146-9) il Chem & Met Eng 53: 102-5 Jl '46; Same, without flow sheet and il. Chem Age (Lond) 55:285-7 S 7 '46

Refining; prewar and postwar trends, etc. Oil & Gas J 44:180-3 Ja 26 '46

Refrigeration applications in petroleum processing. C. W. Cannon. diags Refrig Eng 51: 130-4+ F '46

GASOLINE—Manufacture—*Continued*

Resistance of nickel-containing alloys to corrosives encountered in the petroleum refineries. B. B. Morton. il diag A S M E Trans 68:229-35 Ap '46

Selection and application of break-inducing reagents in doctor treating. C. M. Blair, jr. il Pet Refiner 25:111-13 Ag '46

Shell vapor-phase isomerization process for the production of isobutane. H. A. Cheney and C. L. Raymond. bibliog flow diag il Am Inst Chem Eng Trans 42:595-609 Ag '46

Simplicity and flexibility of Thermofor catalytic cracking. H. D. Noll and others. flow diags Nat Pet N 38 pt 2:R304-8+ Ap 3 '46; Same. Oil & Gas J 44:110+ Ap 6 '46; Same. Pet Refiner 25:123-9 My '46; Same. Pet Eng (Ref annual) 17:221-2+ Jl 1 '46

Small fluid cat cracker designed to compete with units of larger capacity; with cost data. flow chart Oil & Gas J 45:97+ Je 8 '46

Story of hydroforming. L. Hill. flow diag il Sci Am 174:23-4+ Ja '46

Sulfuric acid alkylation process. flow charts il Oil & Gas J 44:156-8 Mr 30 '46

Sulphuric acid refining in the production of aviation and motor fuel. F. Sager. bibliog Pet Refiner 25:127-30 Je '46

Suspensoid process. flow chart il Oil & Gas J 44:145-6 Mr 30 '46

Tannin solutizer process continues to show possibilities. Pet Processing 1:7-8 S '46

Thermal cracking of petroleum; effect of time, temperature, pressure, and type of charging stock on products. H. C. Sung, G. G. Brown and R. R. White. bibliog Ind & Eng Chem 37:1153-61 D '45

TCC unit turnaround procedure; inspecting, cleaning, and repairing of thermofor catalytic cracking unit. J. B. Godwin and R. B. Kennedy. Pet Eng 17:93-4+ N '45

Thermofor process. flow chart il Oil & Gas J 44:147-9 Mr 30 '46

Unusual techniques feature the production of synthetic bead catalyst; Socony Vacuum's plant at Paulsboro, N.J. R. W. Porter. flow sheet(p138-41) il diags Chem & Met Eng 53:94-8 Ap '46

Upping octane within cost limits poses $64 question for refiners. D. P. Thornton, jr. Nat Pet N 37 pt 2:R942-3 D 5 '45

Use of inhibitors in motor gasolines. G. Armistead, jr. bibliog Oil & Gas J 44:97+ Ap 13 '46

Use of simple hydrogenation to reduce unsaturation of cracked naphthas; abstract. A. Voorhies, jr. and others. Oil & Gas J 45:60 S 14 '46

Use of tannins as oxidation catalysts in regenerating treating solutions; abstracts. J. Happel and S. P. Cauley. flow diag Pet Processing 1:146-7 O '46; Oil & Gas J 45:60 S 14 '46

Vapor phase oxidizing cracking of oil products. L. I. Berents and V. E. Glushnev. bibliog Nat Pet N 37 pt 2:R912+, R1014-16+ N 7, D 5 '45

Wartime refinery operations and their effect upon motor and aviation fuels. W. M. Holaday. diags S A E J 54:303-9 Je '46

What's happened to the avgas plants? Pet Processing 1:9+ S '46

See also

Gasoline, Natural—Manufacture
Petroleum distillation
Petroleum refining

Costs

Process design and operation guided by the economic balance. C. G. Kirkbride. Chem Eng 53:123-4 S '46

Hydrogenation process (coal)

Gasoline by hydrogenation of coal; simplified flow diagram. W. L. Nelson. Oil & Gas J 44:125 Ap 6 '46

German wartime aviation fuels largely made by hydrogenation of coal. il Oil & Gas J 44:92-3+ F 16 '46

Measurement

Change in 60° temperature correction sales urged by marketers poses many problems. E. Lamm. Nat Pet N 38:28 My 8 '46

Orifice meter in natural gasoline measurement; with simplified calculation charts. R. W. Weeks. bibliog Pet Refiner 25:135-9 Ap '46

Pipe line metering. W. H. Marsh. il Pet Eng 17:196 Mr '46

Temperature correction report text presented New York convention. Nat Pet N 38:32+ O 16 '46

Prices

FTC adopts own attorney's ideas in Indiana Standard case; modified order draws dissent from L. B. Mason. Nat Pet N 38:11-16 Ag 14 '46

FTC files motion to change order in Indiana Standard Detroit area case. Nat Pet N 38: 3-4 Ja 30; 12+ F 6; 3-4 F 27; 11 Mr 6 '46

FTC takes Detroit case under advisement. Nat Pet N 38:5-6 My 1 '46

FTC's Detroit decision; text of letter by National council of independent petroleum association. Nat Pet N 38:12+ Ja 23 '46

Gasoline price trends show law of supply and demand a better regulator than OPA. J. P. Mosher, jr. Nat Pet N 38:24 Mr 27 '46

Increased margins on gasoline in store for jobbers in Midwest, survey reveals. Nat Pet N 38:11 S 11 '46

Independent jobbers throughout Midwest see tank wagon boost as meaning higher margins; with text of bulletin by G. Primm. Nat Pet N 38:11-12 S 4 '46

Socony revises wholesale gasoline, kerosine, light fuel prices in East. Nat Pet N 38:16 Ag 28 '46

Rating

Gasoline. Consumers Res Bul 18:10-11 Jl '46

Rationing

Effect of the war on motor vehicle registrations and highway motor fuel consumption. E. M. Cope and S. F. Bielak. Automotive & Aviation Ind 94:40-2+ F 15 '46

Gasoline rations for U.S. motorists on essential business in Europe. For Comm W 24: 19 Ag 3 '46

ODT releases figures showing flowback of gasoline coupons during rationing period. Nat Pet N 38:4 Ja 9 '46

Specifications

Aviation fuels; what the airlines want and expect. G. K. Brower. S A E J 54:125-32+ Mr '46

Industry snubbed as federal agency writes new gasoline specifications. D. P. Thornton, jr. Nat Pet N 38:3-4 Ja 23 '46

New federal motor fuel specifications are issued by Treasury procurement division. Nat Pet N 38:16 F 27 '46

Storage

See Gasoline storage

Sulfur content

Catalytic desulphurization of gasoline; abstract. I. M. G. Namedli. Chem & Met Eng 53:272 Je '46

Desulfurization; chemical versus catalytic. W. L. Nelson. Oil & Gas J 44:85 Mr 2 '46

Evaluation of sulfur compounds in gasolines. F. C. Moriarty. Pet Refiner 25:106-8 O '46; Abstract. Chem & Eng N 24:2603 O 10 '46

Octane number and lead susceptibility of gasoline; effect of organic chlorine and sulfur. C. Holloway, jr. and W. S. Bonnell. Ind & Eng Chem 37:1089-91 N '45

Recent advances in Perco catalytic desulfurization. G. M. Brooner and M. W. Conn. bibliog il diag Oil & Gas J 45:96-8+ O 26 '46

Regeneration of caustic solutions for gasoline treating by catalytic air oxidation. D. C. Bond. flow diag il Oil & Gas J 44:83-4+ D 8 '45

Selection and application of break-inducing reagents in doctor treating. C. M. Blair, jr. il Pet Refiner 25:111-13 Ag '46

Sulphur compounds from Pánuco gasoline. W. Friedmann, C. Canseco and C. Rodriguez. bibliog Pet Refiner 22:61-5 Ja '43; 25:101-8 F '46

Superiority of desulfurized gasoline. W. L. Nelson. Oil & Gas J 44:284 N 17; 75 D 22 '45

Use of tannins in mercaptan removal; abstract. J. Happel and S. P. Cauley. Chem Eng 53:242+ S '46

Taxation

API Petroleum industries committee; bulwark against rising tide of petroleum taxes. Nat Pet N 38:56-8 O 30 '46

GASOLINE—Taxation—*Continued*
Canadian motorist, trucker faces prospect of continuation of wartime gasoline tax. P. Glanzer. Nat Pet N 38:32 Jl 24 '46
Costlier driving. Bsns W p38+ Mr 16 '46
Don't look now, Mr Oil Man, but that tax collector is still riding next to you. Nat Pet N 37:20+ N 21 '45
Industry warned of evils of gasoline-tax diversions. W. W. Burns. Oil & Gas J 44:81+ F 16 '46
1945 U.S. gasoline consumption shows 16% increase over 1944. Nat Pet N 38:40+ Je 19 '46
State avgas taxes range from 0-7c with high in Tennessee, Louisiana. Nat Pet N 38:28 S 18 '46
32 states plan to increase gasoline taxes to help raise funds for highway program. Nat Pet N 38:3-4 Je 12 '46

Testing

Report of Technical committee A on gasoline; proposed changes in exhaust system specifications for methods D 357 and D 614. diags Am Soc T M Proc 45:233-6 '45

Transportation

See also
Gasoline pipe lines
Railroad—Rates—Gasoline
Tank cars
Tank trucks

GASOLINE, Natural
Natural-gasoline industry looks two ways in seeking outlets for products. J. H. Dunn. Oil & Gas J 44:112-14+ Ap 20 '46; Same. Nat Pet N 38 pt 2:R380-4+ My 1 '46
'46 natural gasoline output estimated at six billion gallons; abstract. F. S. Lott and A. T. Combe. Nat Pet N 38:42 F 6 '46
Orifice meter in natural gasoline measurement; with simplified calculation charts. R. W. Weeks. bibliog Pet Refiner 25:135-9 Ap '46
Plan operations to use natural gas products or suffer profit loss. E. O. Thompson. Nat Pet N 38:14+ Ap 3 '46
Volume of oil and gasoline vapors. W. L. Nelson. Oil & Gas J 45:103 Jl 6 '46
Warren Petroleum's purchase of Hanlon companies combines two leaders in natural gasoline industry. E. Lamm. il Nat Pet N 38:22+ Je 5 '46

Manufacture

Absorber pressure increase of 200 lb. reduces repressuring horsepower 37%. H. N. Wade. diag Oil & Gas J 44:120+ Ap 20 '46; Same. Pet Eng (Ref annual) 17:235+ Jl 1 '46; Same. Pet Refiner 25:92-6 My '46
Absorption plant aids gas conservation. W. J. Davis. il Pet Eng 17:199+ My '46
California Natural gasoline association fall meeting, Los Angeles, Oct. 11. Oil & Gas J 45:99+ O 19 '46
Carthage high pressure absorption plant. F. H. Love. il Pet Eng 17:179+ Je '46
Continuous absorption oil purifier keeps circulatory system clean. flow sheet il Pet Processing 1:33-4+ S '46
Cycling products as motor fuel. G. G. Brown. Pet Eng (Ref annual) 17:244+ Jl 1 '46; Same. Nat Pet N 38 pt 2:436+ Je 5 '46
Design plan of United's new Carthage plant; 170,000 gallons of liquid products per day. G. Weber. il map diag Oil & Gas J 45:86-9 Jl 20 '46
Desulfurization and superfractionation make products of higher octane number. T. W. Legatski and H. R. Legatski. flow charts il diag Oil & Gas J 45:99-100+ My 11 '46; Same. Pet Refiner 25:109-12 My '46
East Texas development of United Gas in operation. Am Gas J 164:44 Je '46
Fat-oil deethanization. A. M. Whistler. flow diags Oil & Gas J 45:105-6+ O 26 '46
Gasoline-from-gas now competitive with oil. E. V. Murphree. Nat Pet N 38:46 O 9 '46
High- and low-pressure processing combined in McCarthy plant. C. C. Pryor. flow diag il diag Pet Refiner 25:89-94 Jl '46
High recovery, superfractionation mark Superior's Lake Creek operations. A. L. Foster. flow diag il Oil & Gas J 44:50-1+ F 2 '46
Natural-gasoline plants in the United States, January 1, 1944. F. S. Lott and E. M. Seeley. U S Bur Mines Information Circ 7306:1-19 '45
New cycling plant conserves gas; produces 300,000 gal. products daily; Sheridan condensate field, Texas. A. L. Foster. il diag Oil & Gas J 45:60-2+ Je 1 '46
New Gulf Coast gasoline plant serves three fields. E. H. Short, jr. flow chart il map Oil & Gas J 45:114-17+ My 25 '46
Plans and opportunities for natural-gasoline and cycling industries. J. H. Dunn. Pet Refiner 25:143-4+ My '46
Plant additions increase butane recovery; Continental oil company's plants in K.M.A. field. F. H. Love. il Pet Eng 17:51-4 Ap '46
Practical refrigeration for natural-gasoline plants. R. W. Heath and others. bibliog flow sheets il Oil & Gas J 44:128-9+ F 23 '46; Same. Nat Pet N 38 pt 2:R202-4+ Mr 6 '46; Same. Pet Refiner 25:93-100 Mr '46; Same. Pet Eng 17:162+ My '46
Process improvements mark design and operation of Abercrombie plant; pressure-maintenance plant, Old Ocean field; gasoline and other liquid products produced in the operation. flow chart il Oil & Gas J 44:88-90+ D 15 '45
Production trend in Lone Star's Grapeland recycling plant. A. L. Foster. il flow chart Oil & Gas J 45:76-9+ Ag 24 '46
Rapid test for isobutane (+) fractions in natural gasoline plant absorber residue gases. G. M. Liljenstein and W. M. Schaufelberger. diags Pet Eng (Ref annual) 16: 231+ Jl 1 '45; Same. Pet Refiner 25:129-34 Ap '46; Same abr. Oil & Gas J 43:96+ D 16 '44
Separate processing for rich and lean gas. il Pet Refiner 25:106-8 My '46
Shell cycling plant designed for high pressure absorption. C. C. Pryor. flow diag il Pet Refiner 25:117-23 Ap '46
Solid adsorbent type dehydration plant placed in operation in Carthage field. F. H. Love. flow diag il Pet Eng 17:151-2+ F '46
South Coles levee unit pressure maintenance and cycling project. L. P. Foote. flow sheet il map Pet Eng 17:146+ Ag; 106+ S '46; Same cond. flow diag Oil & Gas J 45:70-3+ Ag 3 '46
United gas pipe line company's Carthage field-pressure gasoline plant. C. C. Pryor. il flow diags Pet Refiner 25:121-6 S '46
Volatile hydrocarbons separated from condensate at Sheridan cycling plant. W. J. Davis. il plan Pet Eng 17:103+ Ap '46

Hydrocol process

Engineering developments in southwest Texas. J. W. Crutchfield and H. T. Pruett. Pet Eng 18:208+ O '46
Gasoline from natural gas; Hydrocol process. P. C. Keith. il diag Oil & Gas J 45:102+ Je 15 '46; Same. Am Gas Assn Mo 28:253-7+ Je '46; Same. Am Gas J 164:11-15 Je '46; Same. Chem Ind 59:58-63 Jl '46; Same cond. Nat Pet N 38 pt 2:R506-9+ Jl 3 '46
RFC finances plant to synthesize high-octane fuel from natural gas; will use adaptation of Fischer-Tropsch process. Steel 118:91 My 20 '46

Specifications

LPG and natural-gasoline specifications. Oil & Gas J 44:87 Ja 5 '46

Statistics

Natural gas and gasoline; production, etc. Oil & Gas J 44:184-5 Ja 26 '46
Survey of natural gasoline plants, listed by states. Oil & Gas J 44:131-2+ Ap 20 '46

GASOLINE, Substitutes for
Knock ratings of gasoline substitutes. A. D. Puckett. diag J Res Nat Bur Stand 35: 273-84 O '45
Utilization of nonpetroleum fuels in automotive engines. J. T. Duck and C. S. Bruce. bibliog J Res Nat Bur Stand 35:439-65 D '45

See also
Automotive fuel

GASOLINE delivery

Costs

Reducing costs of gasoline delivery; study of jobber and major company records. F. C. Sturtevant. Nat Pet N 38:27-8+ S 25 '46

GASOLINE handling

Gasoline loss control and molecular weight determinations. H. G. Koefoed. bibliog 4pls diags Inst Pet J 32:529-74 S '46

GASOLINE heaters

Package heater developed for Boeing Stratoliner. H. R. Porter. il diags S A E J 54: 191-9 Ap '46

GASOLINE industry

Oil jobbers, refiners, API's Marketing committee protest CPA's lead order. Nat Pet N 38:3-6 Ap 10 '46

Shell sales training turns gas station operators into businessmen. il Sales Management 56:79-80+ Ja 15 '46

Socony's blueprint for municipal airport development. E. Kinney. Sales Management 57:60-1+ Ag 1 '46

Advertising

Esso plugs local pride in radio spots; booklets show dealers selling job of radio program. map Sales Management 56:101 F 15 '46

Laws and regulations

Brand replaces grade label on gas in North Carolina; standards rise. Nat Pet N 38: 9-10 Ja 16 '46

Changes in regulations pertaining to tetraethyl lead gasoline. Pub Health Rep 61: 1487-8 O 11 '46

Service

See also
Oil companies—
Travel bureaus

Statistics

1945 U.S. gasoline consumption shows 16% increase over 1944. Nat Pet N 38:40+ Je 19 '46

Third quarter motor fuel demand revised upward. Nat Pet N 38:7 Je 5 '46

Kentucky

Kentucky's liberalized truck rules promise bigger oil markets. H. Taylor. Nat Pet N 38:48 Mr 6 '46

Michigan

Michigan jobbers urge labor laws, ask margin hike from all suppliers. E. Lamm. Nat Pet N 38:17 S 18 '46

North Carolina

Brand replaces grade label on gas in North Carolina; standards rise. Nat Pet N 38: 9-10 Ja 16 '46

GASOLINE pipe lines

Chart for product pipe lines; pressure drop. W. L. Nelson. Oil & Gas J 45:298 S 21 '46

Crossing the Whangpoo at Shanghai; military pipe line. F. E. Hangs. il map Pet Eng 18:174+ O '46

Humble completes first Gulf coast-Dallas products line. P. Reed. il Oil & Gas J 45:184-5+ S 21 '46

Military pipe line systems a World war II development. J. J. King. il Pet Eng 17:150+ Mr '46

Products line construction features. F. H. Love. il Pet Eng 17:169-70+ S '46

See also
Petroleum pipe lines —Multiple fluid lines

GASOLINE pumps

Self-service gas; automatic coin-operated pump. Bsns W p42+ S 28 '46

Strikes, material shortage hamper gas pump output. Nat Pet N 38:22+ Mr 6 '46

GASOLINE research

Coordinating research council. K. G. Mackenzie. Am Pet Inst Proc 25(3):38-40 '45; Same. Nat Pet N 37 pt 2:R958+ D 5 '45

Development of reference fuel scales for knock rating. D. B. Brooks. bibliog S A E J 54:394-402 Ag '46; Same abr. Pet Refiner 25:130-6 Ja '46; Discussion. S A E J 54: 402-3 Ag '46

Gasoline explosion pressures. M. S. Plesset and F. R. Gilmore. bibliog diag A S M E Trans 68:89-97 F '46

Octane number and lead susceptibility of gasoline; effect of organic chlorine and sulfur. C. Holloway, jr. and W. S. Bonnell. Ind & Eng Chem 37:1089-91 N '45

Process development and production of isohexane and isoheptane as aviation fuel components. S. F. Birch and others. diags Inst Pet J 32:167-99; Discussion. 200-5 Ap '46

Research and development in the Ordnance department, U.S. army; fuels and lubricants. R. E. Jeffrey, jr. J Ap Phys 16:801-6 D '45

Vapor phase oxidizing cracking of oil products. L. I. Berents and V. E. Glushnev. bibliog Nat Pet N 37 pt 2:R912+, R1014-16+ N 7, D 5 '45

GASOLINE service stations

Air, sea, land service base in Florida handles petroleum needs of all three; Miami aviation center. map Nat Pet N 38:30 Ap 3 '46

Army manual warns veterans profit-and-loss still operates in service-station business. Nat Pet N 37:58+ N 21 '45

Combination auto and aircraft service stations will be needed as interest in flying gains; abstract. A. Keif. Nat Pet N 38:40 Ja 30 '46

Filled up. Fortune 33:225 Ja '46

Firm begins work on record-size service station in Los Angeles; drawing of proposed station for Craig oil company. Nat Pet N 37:52 N 21 '45

Ohio Oil unveils postwar model service station. il Nat Pet N 38:42 Je 19 '46

Pure Oil's postwar service stations to provide more space. il Nat Pet N 37:34 N 14 '45

Remarks on service-station survey. W. M. Hughes. Am Pet Inst Proc 25(1):104-6 '45

Rise in number of applicants for service stations can speed replacement of incompetent operators. F. C. Sturtevant. Nat Pet N 38: 24+ F 20 '46

Series of 17 films is nucleus of Humble Oil sales training. il Sales Management 55:165+ N 15 '45

Shell sales training turns gas station operators into businessmen. il Sales Management 56: 79-80+ Ja 15 '46

Survey shows motorists prefer convenient stations near home, motor oil in sealed containers. Nat Pet N 38:29+ O 23 '46

Advertising

Clean-up bandwagon is rolling; advertising campaign, Standard oil co. (Ohio). F. C. Sturtevant. il Nat Pet N 38:27-8 Mr 13 '46

Automobile accessories

Patterned sales strategy: story behind Socony's new Mobil tire; effort to provide Mobilgas dealers with complete servicing program for motorists. E. Kinney. il Sales Management 56:56+ F 15 '46

Petroleum marketers can beat shortages through wise merchandising of TBA items. F. C. Sturtevant. Nat Pet N 38:28+ O 2 '46

Cleanliness

Check shows sales boost in clean stations; value of using NPN inspection form. F. Holman. Nat Pet N 38:28 My 15 '46

Check up for good housekeeping and increased profits; Service station housekeeping inspection form. Nat Pet N 38:23-5+ Ap 24 '46

Perfect service station's score of 80% illustrates the need for NPN's inspection form. H. Taylor. Nat Pet N 38:38+ My 1 '46

Recheck of stations shows housekeeping gains over January, but many still below standard. H. Taylor. Nat Pet N 38:44+ Je 19 '46

Spot radio campaign gets cooperation of dealers; Esso wants rest rooms clean; spot radio plug was dealer premium. Ptr Ink 217:37 N 1 '46

Station operators praise NPN inspection form. il Nat Pet N 38:27 My 8 '46

GASOLINE service stations—Cleanliness— *Continued*
Veteran's wide-awake clean-up program brings customers into his station. H. Taylor. il Nat Pet N 38:29+ Mr 20 '46

Construction and design
Industrial designer plans service station of tomorrow; George Cooper Rudolph. il Ind Marketing 31:76+ Mr '46
Sales appeal, good housekeeping feature Colonial Esso station. il plan Nat Pet N 38: 48 Mr 20 '46
Service station is hung from masts to minimize foundations and costs. il plan diag Arch Forum 84:115 Mr '46
Service station to improve Main street; modern design in prefabricated stainless steel. G. C. Rudolph. il Am Bld 67:136 D '45; Same cond. Iron Age 156:74 N 1 '45
Sinclair service station designed to make it easy to buy. il Nat Pet N 37:50 N 21 '45
Tomorrow's service stations must sell merchandise and service. il plans Am Bld 67: 74-6 N '45

Employees
Inexpensive demonstrators dramatize sales, practical knowledge; Sohio's training plan. H. Taylor. il Nat Pet N 38:32-3+ S 4 '46
Management has big role in boosting station profit, training employes, improving personnel efficiency. Nat Pet N 38:23-4+ Jl 31 '46
Service station dealers in Illinois charge union used threats, coercion. E. Lamm. Nat Pet N 38:11-13 Ag 21 '46

Equipment
Oil jobber equipment; slight improvement. F. C. Sturtevant. Nat Pet N 38:34+ Ag 14 '46

Heating and ventilation
Meet some new developments in station design; radiant heating. P. Wollstadt. il plans Nat Pet N 38:38+ O 16 '46

Leasing
Station leases; NPN survey. F. C. Sturtevant. Nat Pet N 38:31+ O 9; 35+ O 23 '46

Location
Selecting franchised dealers and locations; Shell Oil county-to-county survey. P. K. Lakin. il Ptr Ink 216:66+ S 13 '46

Management
Approved service; housekeeping, merchandising and service must be grade A to display the sign; Skelly oil co. H. Taylor. il Nat Pet N 38:38+ Je 5 '46
Buffalo, N.Y. dealer shows enterprise and collects dividends; by B. Scheu, as told to E. C. Sterry. il Nat Pet N 37:30 N 14 '45
Check shows sales boost in clean stations; value of using NPN inspection form. F. Holman. Nat Pet N 38:28 My 15 '46
Check up for good housekeeping and increased profits; Service station housekeeping inspection form. Nat Pet N 38:23-5+ Ap 24 '46
Cleanliness and service will be drawing card when nationwide travel boom duplicates Miami's. Nat Pet N 38:25-6 Mr 27 '46
Commerce department service station manual stresses housekeeping, equipment maintenance. Nat Pet N 38:31-2 F 20 '46
Co-op challenges private business with station clean-up and service campaign. Nat Pet N 38:64+ Mr 13 '46
Jobber finds 52-year policy of meeting public demands and friendly service pays; Vahey-Marsh-Woods co. H. Ridder. il Nat Pet N 38:25+ Ag 21 '46
Management service for dealers. F. C. Sturtevant. Nat Pet N 38:39+ Ag 7 '46
More help keeps stations open longer hours, improves both housekeeping and sales. F. C. Sturtevant. Nat Pet N 38:28 Ap 10 '46
NPN staff men check Cleveland area; find stations lack cleanliness, sales appeal, trained operators. H. Taylor. Nat Pet N 38:32-4+ F 13 '46
Oil industry tackles reconversion of dirty service stations. F. C. Sturtevant. Nat Pet N 38:26+ Mr 6 '46
Oil marketers use Frank (John Q. Public) Bean's article as shot in the arm for improving service. F. C. Sturtevant. Nat Pet N 38:22+ Ap 3 '46
Perfect service station's score of 86% illustrates the need for NPN's inspection form. H. Taylor. Nat Pet N 38:38+ My 1 '46
Recheck of stations shows housekeeping gains over January, but many still below standard. H. Taylor. Nat Pet N 38:44+ Je 19 '46
Sales training schools, builders of profits. F. C. Sturtevant. Nat Pet N 38:30+ S 11 '46
Season's open; oil jobbers prepare to reap profits as trek of anglers to lake resorts begins. E. Lamm. il Nat Pet N 38:20+ My 29 '46
Service stations of today; what about those of tomorrow? F. A. Bean. Nat Pet N 38: 26-8 F 6 '46; Replies. 38:19-20+ F 27; 31-2 Mr 6 '46
Spring change-overs money-makers for service stations. Nat Pet N 38:53-4 Mr 13 '46
To buy, lease, or start a business? S. C. Saunders. Dom Comm 34:16+ Ap '46
Training, cleanup campaign, better personnel selection as profit makers. F. A. Bean. Nat Pet N 38:21+ My 22 '46
Winter change-over keeps cars running and maintains year-around gallonage. F. C. Sturtevant. Nat Pet N 38:26+ O 16 '46

Side line selling
Many oil jobbers venture into non-automotive merchandising field to meet dealer demands. F. C. Sturtevant. Nat Pet N 38:42+ My 1 '46
Oil jobber finds separate personnel necessary for extensive appliance merchandising setup. F. Sturtevant. Nat Pet N 38:29+ My 29 '46

Temporary stations
Temporary stations. F. C. Sturtevant. il Nat Pet N 38:30 S 18 '46
Temporary stations protect oil company investments. H. Ridder. Nat Pet N 38:13-14 O 23 '46

GASOLINE storage
Reducing losses of volatile liquids in atmospheric pressure storage. G. W. McCullough and others. il diag Nat Pet N 38 pt 2:R122+ F 6 '46
Relation of octane number and peroxide content of catalytic gasolines. H. Velde. Pet Refiner 25:137-40 Je '46
Resistance to gum formation in motor fuel in storage is studied for the army. J. R. Sabina. Nat Pet N 38 pt 2:R163-5 Mr 6 '46
Storage of volatile petroleum products. H. C. Boardman. il Pet Refiner 25:109-16 Ap '46
Use molasses tanks for avgas storage. G. Duke. Nat Pet N 38:12 My 1 '46

Fires and fire protection
Automatic fire system guards gasoline plant. J. C. Albright. il Pet Refiner 25:114 Ag '46

GASOLINE tanks
Cutting and welding of gas-filled tanks. il Steel 118:117 Ap 15 '46
Factors affecting selection of storage for pipe line terminals. D. E. Larson. il Pet Eng 17:158+ Mr '46

GASOLINE tanks, Concrete
Notes on test of permeation of concretes by gasoline vapor. R. L. Blaine. diags Concrete 54:3-7 O '46
Rubber-lined concrete tanks store aviation gasoline successfully. Eng N 136:137 Ja 24 '46

GASPÉ peninsula
See also
Mines and mineral deposits—Gaspé peninsula

GASPERI, Alcide de, 1881-
Portrait. Fortune 34:164 O '46

GASTEROPODA, Fossil
Triassic freshwater gastropods from southern Utah. T. Yen and J. B. Reeside, jr. pl Am J Sci 244:49-51 Ja '46

GASTRIC juice
Gastric mucigogue action of the alkyl sulfates. H. Shay and others. bibliog Science 103:50-2 Ja 11 '46

GASTRO-INTESTINAL diseases. See Digestive organs—Diseases

GATES, Artemus L., 1895-
Back to business. por Bsns W p94 Ag 24 '46

GATES, Hydraulic
Coaster gate and handling equipment for river outlet conduits in Shasta dam. J. E. Warnock and H. J. Pound. il diags A S M E Trans 68:199-206 Ap '46
Six of the world's largest pumps protect Cincinnati against floods. il diags Power 90:511-13 Ag '46
Spillway gates and equipment on TVA projects. K. C. Roberts. il diags Civil Eng 16: 13-16 Ja '46
Vessels in collision with lock gates. I. DeYoung. Am Soc C E Proc 72:138-40 Ja '46
Vibration damage to spillway gates; Bonneville dam. il diags Eng N 136:420-1 Mr 21 '46

GATINEAU power company (Quebec)
Securities offered. Comm & Fin Chr 164:420 Jl 22 '46

GAUMONT-BRITISH picture corporation
Statement by the chairman at annual general meeting. J. A. Rank. Economist 149: 656 N 3 '45

GAUSS meter. See Magnetic measurements

GAUSS'S formula
Gauss's formula in chemical engineering calculations. A. E. Kroll. bibliog Chem Eng 53:102-4 S '46

GAY, Francisque
Portrait. Fortune 34:165 O '46

GEAR cutting
Basic relationship of hypoid gears; design for duplex cutting. E. Wildhaber. il diags Am Mach 90:122-8 Ag 15 '46
Double spur gears from one piece of stock. diags Power Pl Eng 50:90 Ap '46
Gear shaving. il diags Automobile Eng 36: 443-50, 481-6 O-N '46
Hobbed gear tooth layout simplified. C. A. Young. diags Am Mach 90:133-5 S 12; 130-1 S 26 '46
Latest developments in bevel gears; Curvic clutches and couplings; abstract. E. B. Gleason. il diag S A E J 54:sup20-2 Ag '46
Theory and practice of gear cutting illustrated in motion-picture film. il Mach 52: 188-9 Ap '46

GEAR cutting machines
Anti-vibration foundations for heavy machines. Engineer 181:403 My 3 '46
Cork slab foundation for heavy machine tools on poor grade filled land. il Iron Age 158: 64-5 S 19 '46
Gear production increased by underpass gear shaving. il diag Iron Age 157:81 Je 20 '46
Gleason revacycle gear generator. il Am Mach 90:161 S 12 '46
Machine tool design responds to needs of industry; how machining operations will be affected. il Am Mach 90:124-5 Mr 28 '46
Muir gear hobbing machines. il Engineer 181: 253-4 Mr 15 '46
Production processes; their influence on design; gear-shaper generating. R. W. Bolz. il diags Machine Design 18:121-8 Mr '46
Revacycle gear cutting and tire press; two innovations at Fort Wayne plant, International harvester co. J. Geschelin. il Automotive & Aviation Ind 95:41+ S 15 '46

GEAR manufacturers association, American. See American gear manufacturers association

GEAR testing machines
Evaluating surface durability of gears. T. H. Wickenden and others. il diags Machine Design 18:142-6 Jl '46; Same. Automotive & Aviation Ind 95:36-40 Ag 1 '46; Abstract. Iron Age 157:60-1 Je 13 '46
Fellows 12-H machine checks lead of helical gears by pointer motion. il Am Mach 90:161 S 26 '46
Modern gear inspection; Michigan tool co. machine. il Steel 119:82+ O 28 '46

GEARING
Analysis of servomechanisms for instrument and power drives. G. S. Perkins. il diag Product Eng 17:332-4 Ap '46
Compact drive obviates chatter; roll lathe headstock. E. C. Denne. il Machine Design 18:117-18 Ap '46
High-pressure gear pumps. T. E. Beacham. il diags Engineering 161:284-5, 310-12, 334-5 Mr 22-Ap 5 '46; Same cond. Engineer 181: 182-4 F 22 '46; Discussion. Engineering 161: 185-6, 208-9 F 22-Mr 1 '46; Engineer 181:180-2 F 22 '46
Modern double-reduction traction motor. L. Greer. il Elec Eng 65:Trans 471-4 Jl '46; Same cond. Ry Mech Eng 120:368-9+ Jl '46
Practical considerations that affect gear durability in speed reducers. K. N. Mills. il diags Product Eng 17:358-61 My '46
Repair of rolling-mill pinion by thermit welding. il Engineering 161:32-3 Ja 11 '46
Some common gear difficulties and how to overcome them; chart; data sheet. Mach 53:233 O '46
Spraying of gear lubricants. D. E. Whitehead. il diag Power Pl Eng 50:89+ Mr '46
Two-gear speed-reduction mechanism redesigned to obtain uniform rotation. G. W. Newton. diags Mach 53:195-6 O '46

See also
Chain gear
Power transmission
also subdivision Gearing under special subjects, e.g.
Airplane engines—Gearing
Automobile engines—Gearing
Automobiles—Gearing
Electric motors, Railway—Gearing

Design

Design of gears for rail drives. D. R. Meier and J. C. Rhoads. il diags Machine Design 18:135-40+ Mr '46
Gear box construction; patent. il diag Automobile Eng 36:230 My '46
Gear pump teeth; designing to avoid compression of fluid at base of tooth. H. Walker. il diags Automobile Eng 36:347-9 Ag '46
Helical gears. H. Walker. il diags Engineer 182:24-6, 46-8, 70-1 Jl 12-26 '46
Helical gears for automobile gear boxes. F. Shaw. diags Automobile Eng 36:221-9, 313-16 My, Jl '46
Hobbed gear tooth layout simplified. C. A. Young. diags Am Mach 90:133-5 S 12; 130-1 S 26 '46
Revised gear-blank tolerances cut costs. K. E. Bauerle. diags Am Mach 89:132-5 N 22 '45
Single-tooth pinion drives. diag Engineering 160:347 N 2 '45

Failure

Gear tooth wear and failure; nomenclature standard. il Mach 52:166-9 Ap '46

Manufacture

Automatic induction hardening of Ford starter ring gears. C. O. Herb. il Mach 53:166-9 N '46
Automatic press holds gears and prevents distortion during quenching. il diags Product Eng 17:94-5 S '46
Design and fabrication of welded steel reduction gear drives. G. L. Snyder. il diags Welding J 25:699-703 Ag '46
Finishing spur gears for aircraft engines. S. Cornell. il diags Iron Age 156:46-50 D 27 '45
Fuller's reorganized setup for postwar production of transmissions. J. Geschelin. il Automotive & Aviation Ind 94:34-40+ Je 1 '46
Gear box manufacture; Guy Motors. il diags Automobile Eng 36:429-37 O '46
Gear-tooth finish improved by burnishing. G. H. Sanborn. il Am Mach 90:88-9 Ja 3 '46
German process applies coating to steel gears; abstract. S. Tour. Iron Age 157:71 My 2 '46
Grinding hardened steel precision gears. E. A. Koether. il Materials & Methods 22: 1754-8 D '45
Heat treatment of steel gears; abstract. Materials & Methods 22:1846+ D '45
High speed heating with gas provides heat treat tool. C. W. Eigenbrot. il diag Materials & Methods 23:1313-16 My '46
Induction heating applied to steel gears. T. H. Gray. il Materials & Methods 24:915-18 O '46
Making large gears; Joshua Hendy iron works; abstract. C. A. Sheffield. Materials & Methods 23:822+ Mr '46
Manufacture of file hard precision gears. W. G. Guthrie. il Metal Prog 48:1300-5 D '45

GEARING—Manufacture—*Continued*
Methods of locating and boring shaft holes in gear-boxes. diags Mach 52:195-6 Je '46
Precision production of steel aircraft gears. O. E. Brown. il Materials & Methods 23: 1303-6 My '46
Preventing surface decarburization in large shaved transmission gears; controlled furnace atmosphere. E. G. de Coriolis. il diag Iron Age 156:56-61 N 29 '45
Production of starter ring gears revolutionized by electronic process. il Mach 52:192 Ja '46
Pump gears from stampings; patent assigned to Equi-Flow inc. diags Machine Design 18:164+ Mr '46
Selective carburizing by the mill scale method. R. B. Seger. il Steel 119:76 Ag 26 '46
Selective induction hardening of previously hardened parts. R. C. Gibbons. il Steel 118: 92-3+ My 27 '46
Spring-loaded burring tool. O. Gammon. il diags Am Mach 89:95 D 6 '45
Underpass shaving features Wisconsin Axle's production of gears and pinions. P. L. Adams. il Automotive & Aviation Ind 94: 24-6+ Je 15 '46

See also
Gear cutting machines

Measurement

Fellows lead-measuring instrument. il Mech Eng 68:905 O '46
Fellows lead-measuring instrument for checking helical gears. il Mach 53:186-7 S '46

Standards

Fine pitch gears, inspection and tolerances; American gear manufacturers association standard. diags Product Eng 16:598-601, 710-13, 758-60 S-N '45; 17:[no8] 130-9 Ag '46
Gear tooth wear and failure; nomenclature standard. il Mach 52:166-9 Ap '46
Revised gear-blank tolerances cut costs. K. E. Bauerle. diags Am Mach 89:132-5 N 22 '45
War experience helps in standards on gear tolerances and inspection. G. Davenport. il diag Ind Stand 17:86-7 Ap '46

Testing

Evaluating surface durability of gears. T. H. Wickenden and others. il diags Machine Design 18:142-6 Jl '46; Same. Automotive & Aviation Ind 95:36-40 Ag 1 '46
Fine pitch gears, inspection and tolerances; American gear manufacturers association standard. diags Product Eng 16:598-601, 710-13, 758-60 S-N '45; 17:[no8] 130-9 Ag '46
Gear inspection time cut by use of masters. W. J. Adams, jr. il Am Mach 90:104-7 Ap 11 '46
Michigan sine-line lead comparator for helical gears. il Mach 52:202 Jl '46
New approach in evaluating surface roughness of gear teeth. L. D. Martin. il diags Product Eng 17:110-14 S '46
Simple gage for checking pump gears. G. A. Almorth. diags Mach 52:193-4 D '45

See also
Gear testing machines

GEARING, Bevel
Latest developments in bevel gears; Curvic clutches and couplings; abstract. E. B. Gleason. il diag S A E J 54:sup20-2 Ag '46
New motion-transformer developed for converting rotary into reciprocating motion, or vice versa. il Iron Age 157:64 F 28 '46

Manufacture

Broaching bores in bevel-gear blanks on a self-feeding machine. il diag Mach 53:168-70 O '46

GEARING, Helical. See Gearing, Spiral

GEARING, Hypoid
Basic relationship of hypoid gears. E. Wildhaber. il diags Am Mach 90:108-11 F 14; 131-4 F 28; 132-5 Mr 14; 110-14 Je 6; 150-2 Je 20; 106-10 Jl 18; 104-6 Ag 1; 122-8 Ag 15 '46
Development and lubrication of the automotive hypoid gear. F. F. Musgrave. bibliog Inst Pet J 32:32-44 Ja '46
Mechanical testing of extreme pressure lubricants (with special reference to hypoid oils). H. L. West. bibliog 8pls Inst Pet J 32:206-29 Ap '46

GEARING, Planetary
Gearing developed for gas turbine aircraft. Iron Age 157:153 Ap 11 '46
Graham variable-speed drive protects against overloads. il Am Mach 89:162 N 22 '45

GEARING, Spiral
Charts aid in specifying gear-pin sizes. W. T. Taylor. Machine Design 17:151-4 D '45; 18:149-52 Ja '46
Helical gears. H. Walker. il diags Engineer 182:24-6, 46-8, 70-1 Jl 12-26 '46
Helical gears for automobile gear boxes. F. Shaw. diags Automobile Eng 36:221-9, 313-16 My, Jl '46

GEARING, Spur
Charts aid in specifying gear-pin sizes. W. T. Taylor. Machine Design 17.151-4 D '45; 18: 149-52 Ja '46
Design of gears for rail drives. D. R. Meier and J. C. Rhoads. il diags Machine Design 18:135-40+ Mr '46
Displacement correction factors for rotary spur gear pumps. W. B. Erichson. diags Product Eng 17:440-3 Je '46
Finishing spur gears for aircraft engines. S. Cornell. il diags Iron Age 156:46-50 D 27 '45
Gear pump teeth; designing to avoid compression of fluid at base of tooth. H. Walker. il diags Automobile Eng 36:347-9 Ag '46

GEARING, Worm
Chart for efficiencies of worm drives; reference book sheet. J. H. K. Kao. Product Eng 17:155, 157 O '46
Intermittent leadscrew makes double-helix worm. U. Wheatly. diags Am Mach 90:117 Ja 31 '46
Magnetic reversible gear drive utilizes magnetic flux; patent assigned to Woodward governor co. diag Machine Design 17:163 N '45

GEIGER-MÜLLER counters
Arrangement with small solid angle for measurement of beta rays. L. F. Curtiss and B. W. Brown. diags J Res Nat Bur Stand 37:91-4 Ag '46
Automatic sample changer to be used for measuring radioactive samples. W. C. Peacock and W. M. Good. diags R Sci Instr 17:255-61 Jl '46
Autoscaler. il R Sci Instr 17:312 Ag '46
Design of beta-ray and gamma-ray Geiger-Müller counters. W. Good and others. il diags R Sci Instr 17:262-5 Jl '46
Electronics improves industrial process control; electronic potentiometers and X-ray spectrometry. D. M. Considine and D. P. Eckman. il diags Chem Ind 58:785-7 My '46; Same. Steel 118:114-16+ My 20 '46
Experimental arrangement for the measurement of small time intervals between the discharges of Geiger-Müller counters. B. Rossi and N. Nereson. diags R Sci Instr 17:65-71 F '46
Geiger counter used in powder metallurgy. E. S. Kopecki. il diags Iron Age 157:48-51 F 28 '46
Geiger-counter X-ray spectrometer; abstract. M. T. Farinacci and others. Chem & Met Eng 53:254+ Je '46
Metastable state of 22 microseconds in Ta^{181}. S. DeBenedetti and F. K. McGowan. diag Phys R 70:569 O 1 '46
Small mica window Geiger-Müller counter for measurements of radioactive isotopes in vivo. E. Strajman. diags R Sci Instr 17: 232-4 Je '46
Thickness measurement of thin coatings by X-ray absorption. H. Friedman and L. S. Birks. R Sci Instr 17:99-101 Mr '46

Power supply

Simple battery operated high voltage supply. L. E. Williams. diag R Sci Instr 17:296-7 Ag '46

GEIGY company
House of Geigy. Rayon 27:207 Ap '46

GEISSE, John H.
Geisse heads new plane rental service. Aviation N 6:16 S 9 '46

GELATIN
Aluminum and chromium as gelatin hardeners. H. L. Baumbach and H. E. Gausman, bibliog diag Soc Motion Picture Eng J 47:22-54 Jl '46
Gelatin grades affect slashing of rayon yarns. H. B. Sweatt. il Textile World 96:141+ Mr '46
Hydrolysis of peptide linkages in the preparation of gelatin. W. M. Ames. bibliog Soc Chem Ind J 64:242-3 S '45
Method for immunological and chemical investigations of body fluids by means of purified gelatin. O. Kanner. Science 104:253-4 S 13 '46

GELATIN printing process. See Collotype

GELATION
Gel lacquer technique for protective coating. C. J. Malm and H. L. Smith, jr. bibliog il Ind & Eng Chem 38:937-41 S '46
How sugars affect dispersibility of pectins in gel powders. C. W. Woodmansee and others. bibliog il Food Ind 18:356-7 Mr '46
Napalm. L. F. Fieser and others. il diag Ind & Eng Chem 38.768-73 Ag '46
Photogelation of rubber sols in the absence of accelerators. R. Buckingham and G. V. Planer. diag Soc Chem Ind J 65:6-8 Ja '46
Rubber photogelling agents. H. P. Stevens. bibliog Soc Chem Ind J 64:135-8, 312-15 My, N '45
Sweet potato gels; something new. G. L. Baker and C. W. Woodmansee. il Food Ind 18:196-7 F '46

GELSEMINE
Alkaloids of gelsemium sempervirens. W. G. C. Forsyth, S. F. Marrian and T. S. Stevens. Chem Soc J p579-82 S '45

GELSEMIUM sempervirens
Alkaloids of gelsemium sempervirens. W. G. C. Forsyth, S. F. Marrian and T. S. Stevens. Chem Soc J p579-82 S '45

GEMS
Dictionary of gems and gemology; including ornamental, decorative and curio stones. R. M. Shipley and others. 2d ed 258p $5.50 Gemological institute of America, 541 South Alexandria av, Los Angeles 5 '45
See also
Rubies

GENERAL American transportation corporation
Stocks for 1946 re-investment. Mag of Wall St 77.330 D 22 '45

GENERAL aniline and film corporation
General aniline technologists confer. Chem & Eng N 24:924 Ap 10 '46
New frontiers. F. Adams. Barron's 25:11+ D 17 '45
U.S. control hurts General Aniline. Barron's 26.6 N 11 '46

GENERAL cable corporation
Annual report. Comm & Fin Chr 163:1726 Ap 1 '46
Recapitalization plan. Comm & Fin Chr 163: 2725-6 My 20 '46

GENERAL electric company
G.E. monopoly? antitrust case in Trenton may fix competitive pattern for light bulb industry. Bsns W p21-2+ Mr 16 '46
G.E. revolution; sweeping changes in production, distribution, expansion into new fields. Bsns W p44+ N 10 '45
Industrial group on the campus plan; Electronics park. il Arch Rec 98:116-17 N '45
Loans and scholarships under General Electric's $200,000 Employee's education foundation. Chem & Met Eng N 24:1422 My 25 '46
Nuclear research in General Electric. C. G. Suits. bibliog Edison Elec Inst Bul 14:213-16 Je '46
Postwar evolution of General Electric. H. Owen. Mag of Wall St 77:268-70+ D 8 '45
See also
Nela Park, Cleveland

GENERAL foods corporation
Shortages limit sales. Barron's 26:6 Je 3 '46
Stocks for defensive investment. Mag of Wall St 79:88 O 26 '46

GENERAL instrument corporation
Stock offered. Comm & Fin Chr 163:1726-7 Ap 1 '46

GENERAL insurance company of America
Branch office committee of local agents replies to executive of General insurance co. G. R. Michelsen. Weekly Underw 154:674+ Mr 16 '46; Same cond. Nat Underw 50:5 Mr 14 '46
Defends branch office plan in New York city. W. L. Miller. Nat Underw 50:3 F 28; 17 Mr 21 '46

GENERAL mills, inc.
Blue print for growth. J. Turner. il map Am Bsns 16:8-9+ S '46
New irons in fire; General Mills diversifies. Bsns W p76+ Ag 10 '46
Study in far-sighted management. C. F. Morgan. il Mag of Wall St 79:30-1+ O 12 '46

GENERAL motors corporation
Annual report. Comm & Fin Chr 163:1864 Ap 8 '46
Change of plans; General Motors may enlarge facilities for parts manufacture. Bsns W p36+ Je 15 '46
Fact-finding board reports on General Motors dispute. Comm & Fin Chr 163:292-3 Ja 17 '46
G.M. asks advice; professors study labor relations. Bsns W p87 Ag 17 '46
GM cancels $5,000,000 worth of ads; many media, agencies, printers affected. Ptr Ink 213:55+ D 7 '45
G.M. case delayed; strike advertising is issue in Detroit NLRB hearings. Bsns W p72+ F 9 '46
G.M. job shop; sets up foundry division. Bsns W p49-50+ Jl 27 '46
G.M. peace terms short of union goal. Bsns W p17 Mr 16 '46
G.M. powder keg. Bsns W p108 N 17 '45
General Motors presents demands on unions; Truman names GM fact-finding board. Comm & Fin Chr 162:3053 D 20 '45
G.M. sells direct. Bsns W p88+ Ag 24 '46
Security disturbing investors. H. S. Coffin. Mag of Wall St 78:780 S 28 '46
Sells $125,000,000 notes privately. Comm & Fin Chr 164:682 Ag 5 '46
Spotlights on the General Motors strike. L. Westrate; H. W. Anderson. Automotive & Aviation Ind 94:17-19+ Ap 1 '46
Study of managerial policies and organization of General Motors contained in book by Peter F. Drucker. Steel 118:75 My 13 '46
Tax credits will cut industry's 1946 losses, but leave no prop for next year. Barron's 26:1 S 23 '46
Tax law cushions strike's impact on General Motors. Bsns W p16 D 1 '45
What they say about fact-finding; statements by Board, General Motors and U.A.W. Comm & Fin Chr 163:50-1, 53 Ja 3 '46
Why GM production is only half of '41 rate. C. E. Wilson. Automotive & Aviation Ind 95: 17+ O 1 '46
Why GM rejected claims of government agencies on 25 per cent wage increases. Automotive & Aviation Ind 93:36+ N 15 '45
With collective bargaining established union's next step is management control. L. Westrate. Automotive & Aviation Ind 93:17+ D 1 '45

GENERAL motors medical conference
Ninth General motors medical conference, Rochester, New York, July 29 to August 2. Ind Med 15:565-89 O '46

GENERAL motors technical center
General motors technical center to unite science with its application. il Arch Rec 98: 98-103 N '45

GENERAL panel corporation
Stocks offered. Comm & Fin Chr 163:779 F 11 '46

GENERAL printing ink corporation
Adds new lines. Barron's 25:9 N 12 '45

GENERAL products corporation of New Jersey
Stock offered. Comm & Fin Chr 163:1727 Ap 1 '46

GENERAL public utilities corporation
End to Hopson's labyrinth; debut of General Public Utilities as top company in what remains of Associated gas & electric system. Bsns W p68+ D 8 '45
Listing of common stock; name to be changed from Associated gas and electric co. Comm & Fin Chr 163:192-3 Ja 14 '46
Organization. Comm & Fin Chr 163:310 Ja 21 '46
Position as of Jan. 1, 1946. A. F. Tegen. Comm & Fin Chr 163:1092+ F 28 '46
Profit rising. Barron's 26:7 O 28 '46
Strong new unit produced from old Associated Gas; soundly capitalized, General public utilities corp. can expect rising profits. M. Pescatello. Barron's 26:9+ Mr 25 '46

GENERAL reinsurance corporation
Mellon indemnity corporation merges with General reinsurance corporation of New York. Weekly Underw 153:1121+ N 17 '45

GENERAL tire and rubber company
Babies converted; General Tire's war plants turn to auto accessories and plumbing fixtures. il Bsns W p54-5 F 16 '46
General Tire on the loose; growth and diversification. il Fortune 34:112-19+ Jl '46
Investment securities for capital building. Mag of Wall St 78:148-9 My 11 '46

GENES
High frequency radiation and the gene. G. W. Beadle. Chem & Eng N 24:1366-71 My 25 '46
Theory and nomenclature of the Hr blood factors. A. S. Wiener. bibliog Science 102: 479-82 N 9 '45

GENESEE river
Blasting river ice prevents spring floods. C. Dintruff. il Explosives Eng 24:13-15 Ja '46

GENETICS
Conference on genetics and social behavior at Roscoe B. Jackson memorial laboratory. Science 104:420 N 1 '46

GENETICS society of America
Meeting, St Louis, March 28-30. Science 103: 516 Ap 26 '46

GENEVA steel company
Cash for Geneva? Bsns W p18-19 My 11 '46
Department of justice to pass on U.S. steel bid for Geneva steel works. K. Rannells. Iron Age 157:92 My 30 '46
Geneva gets set. Bsns W p20 Jl 6 '46
Geneva mill sale approved on Coast. Steel 118: 94 Je 3 '46
Geneva Steel disposal hearing. Iron Age 156: 116-19 N 15 '45; Steel 117:92-3 N 12 '45
Justice department approves sale of Geneva plant to U.S. Steel. Iron Age 157:111 Je 20 '46
Justice department may reopen Geneva bidding. Bsns W p22 Je 15 '46
McKee co. analyzes Geneva Steel markets for RFC. L. W. Moffett. il Iron Age 156: 112-15 N 15 '45
McKee survey on Geneva fairly optimistic. Steel 117:91-3 N 19 '45
RFC asks bids for Geneva plant. Steel 117: 53-4+ D 24 '45; Iron Age 156:109 D 20 '45
U.S. Steel given good chance to get Geneva steel works. K. Rannells. il Iron Age 157: 116-17 My 9 '46
U.S. Steel's Geneva bid supported. Steel 118: 100 My 20 '46
Utah steel plant sale is approved. Steel 118: 68 Je 24 '46
WAA brightens Big Steel's Geneva hopes. Bsns W p20 Je 1 '46

GENEVA stop
Application of pure mathematics to the solution of Geneva ratios. R. W. Jones. il diag Soc Motion Picture Eng J 47:55-62 Jl '46

GENTH, Frederick Augustus, 1820-1893
F. A. Genth, chemist, mineralogist, collector. W. M. Myers and S. Zerfoss. bibliog(102 titles) por Franklin Inst J 241:341-54 My '46

GENTIOBIOSE
Constitutional synthesis of cellobiose and gentiobiose. V. E. Gilbert, F. Smith and M. Stacey. Chem Soc J p622-5 Jl '46

GEOCHEMISTRY
New laboratory of applied geophysics and geochemistry, the Pennsylvania state college. Science 104:422 N 1 '46
See also
Rocks, Igneous

GEODESY
Shoran surveys by army demonstrate accuracy. C. I. Aslakson. Civil Eng 16:297 Jl '46
See also
Triangulation

GEOGRAPHY
Study and teaching
Geography at Japanese imperial universities. R. C. Klove. Science 104:394-5 O 25 '46

GEOGRAPHY, Medical. See Medical geography

GEOLOGICAL maps
Glacial map of North America; pt. 2, bibliography and explanatory notes. R. F. Flint. 2 maps Geol Soc Special Pa no 60:1-37 '45
Glacial map of North America; publication of Geological society of America. R. F. Flint. Science 103:627 My 17 '46

GEOLOGICAL research
Preliminary observations on geological use of aerial photographs. F. A. Melton. diags Am Assn Pet Geologists Bul 29:1756-65 D '45
Study of experimentally deformed rocks. E. B. Knopf. Science 103:99-103 Ja 25 '46

GEOLOGICAL societies
Sociedade brasileira de geologia founded. Science 103:140 F 1 '46

GEOLOGICAL society of America
Annual meeting, 58th, Pittsburgh, Dec. 27-29. Science 102:609-10 D 14 '45
Proceedings volume for 1945. Geol Soc Proc 1945:1-339, pl 1-14 Je '46

GEOLOGICAL survey. See United States—Geological survey

GEOLOGICAL surveys
Report of committee on geological surveys for 1944-1945. Am Cer Soc Bul 25:10-13 Ja 15 '46
See also
Canada—Geological survey
United States—Geological survey

GEOLOGISTS
Geologists' place in service. P. H. Price. Am Assn Pet Geologists Bul 30:1115-22 Jl '46
Science legislation and geology. C. Croneis. Am Assn Pet Geologists Bul 30:1104-14 Jl '46
Veterans' retraining program in geology. W. H. Bradley. Science 103:177 F 8 '46
Wartime dependence on foreign minerals. A. M. Bateman. Econ Geol 41:308-27 Je '46

GEOLOGISTS, Petroleum
Facing forward. E. Holman. Am Assn Pet Geologists Bul 30:1099-1103 Jl '46
Directories
American association of petroleum geologists membership list. Am Assn Pet Geologists Bul 30:361-454 Mr '46

GEOLOGY
Abstracts and index (July-December); papers before Geological society of America and other societies. Geol Soc Bul 56:1143-1225 pt 2 D '45
Cotangent ruler for simplifying the graphic solution of problems in structural geology. W. S. White. Econ Geol 41:539-45 Ag '46
Geology of aggregate deposits. J. A. Allan. diag Roads & Bridges 84:66-7+ O '46
Grain roundness, a valuable geologic tool. G. Rittenhouse. bibliog diags Am Assn Pet Geologists Bul 30:1192-7 Jl '46
See also
Coal—Geology
Continental shelf
Coral reefs and islands
Faults (geology)
Geophysics
Glacial geology
Metasomatism
Mines and mineral resources
Mounds (geology)
Ore deposits
Paleogeography
Paleontology
Petroleum—Geology
Polygon formations (geology)
Ripples, Desert
Rocks
Rocks, Igneous

GEOLOGY—See also—*Continued*

Sand
Schists
Sedimentation and deposition
Shale
Terraces (geology)
Volcanoes
Water, Underground

Bibliography

Bibliography and index of geology exclusive of North America, v 10, 1943-1944. J. M. Nickles, M. Siegrist and E. Tatge. 203p Geological society of America, 419 W. 117th st, New York 27 '46

Bibliography of North American geology, 1942 and 1943. E. M. Thom. 2 pts, pt. 1, Bibliography; pt. 2, Index. U S Geol S Bul 949:1-460 '45; in 1v pa 70c Supt. of doc.

Directory of geological material in North America. J. V. Howell and A. I. Levorsen. Am Assn Pet Geologists Bul 30:1321-1432 pt 2 Ag '46

Study and teaching

Survey of college students majoring in geology; chart. A. I. Levorsen. Am Assn Pet Geologists Bul 30:730 My '46

Terminology

Cryopedology; study of frozen ground and intensive frost-action with suggestions on nomenclature. K. Bryan. bibliog map diags Am J Sci 244:622-42 S '46

Geological terminology in classification of oil and gas accumulations. I. O. Brod. bibliog diags Am Assn Pet Geologists Bul 29: 1738-55 D '45

Suggestion for naming multiple sands. R. E. Dickerson and H. W. Straley, 3d. Am Assn Pet Geologists Bul 30:115-17 Ja '46

Alabama

Pre-Selma upper cretaceous stratigraphy of western Alabama. W. H. Monroe and others. map diags Am Assn Pet Geologists Bul 30:187-212 F '46

Vick formation of pre-Tuscaloosa age of Alabama coastal plain. L. C. Conant. bibliog map Am Assn Pet Geologists Bul 30:711-15 My '46

Alaska

Geology and associated mineral deposits of some ultrabasic rock bodies in southeastern Alaska. G. C. Kennedy and M. S. Walton, jr. bibliog maps U S Geol S Bul 947-D:65-84, pl 19-22; pa 10c Supt. of doc. '46

Recent investigations by United States geological survey of petroleum possibilities in Alaska. J. C. Reed. il 4pls maps Am Assn Pet Geologists Bul 30:1433-43 S '46

Alberta

Cretaceous stratigraphy of Vermilion area. A. W. Nauss. bibliog map diags Am Assn Pet Geologists Bul 29:1605-29 N '45

Appalachian region

Appalachian drainage and the highland border sediments of the Newark series. C. W. Carlston. bibliog map Geol Soc Bul 57: 997-1031, fold map (pl 1) pl 2-3 N '46

Arizona

Emplacement of the Uncle Sam porphyry, Tombstone district. J. Gilluly. bibliog maps Am J Sci 243:643-66, pl 1-2 D '45

Structural geology of the Dragoon mountains, Arizona. D. J. Cederstrom. bibliog map Am J Sci 244:601-21, pl 1 S '46

Bermuda

Preglacial history of Bermuda. H. B. Moore and D. M. Moore. bibliog Geol Soc Bul 57: 207-22, pl 1-2 F '46

Brazil

Beryl-tantalite pegmatites of northeastern Brazil. W. D. Johnston, jr. bibliog il maps diags Geol Soc Bul 56:1015-69, pl 1-5 N '45

California

Crystalline rocks of southern California. W. J. Miller. bibliog Geol Soc Bul 57:457-540, pl 1-7 My '46

Geology and paleontology of Palos Verdes Hills, California. W. P. Woodring and others. U S Geol S Professional Pa 207:1-145, pl 1-37 bibliog(p3-8); pa $1.50 Supt. of doc. '46

Geomorphology of the middle Kern River basin, southern Sierra Nevada. R. W. Webb. bibliog maps Geol Soc Bul 57:355-82, pl 1-7 Ap '46

Igneous and metamorphic rocks of the southwestern part of the Ramona quadrangle, San Diego county. R. Merriam. bibliog map diags Geol Soc Bul 57:223-60, pl 1-2 Mr '46

Knoxville series in the California mesozoic. F. M. Anderson. Geol Soc Bul 56:909-1014, pl 1-15 bibliog(p993-8) O '45

Mineralogy of late upper cretaceous, paleocene, and eocene sandstones of Los Banos district, west border of San Joaquin valley. S. N. Daviess. bibliog map diag Am Assn Pet Geologists Bul 30:63-83 Ja '46

Miocene conglomerates of Puente and San Jose Hills, California. A. O. Woodford and others. bibliog il maps diags Am Assn Pet Geologists Bul 30:514-60, pl 1-2 Ap '46

Carpathian Mountain region

Oil fields of Carpathian region. R. P. Walters. maps Am Assn Pet Geologists Bul 30:319-36 Mr '46

Colorado

Correlation of paleozoic rocks across Las Animas arch in Baca, Las Animas, and Otero counties, Colorado. J. C. Maher. map diag Am Assn Pet Geologists Bul 30:1756-63 O '46

Geology of the Climax ore body. J. W. Vanderwilt and R. U. King. maps Min & Met 27:299-302 Je '46

Gramp's field, Archuleta county, Colorado. W. A. Waldschmidt. Am Assn Pet Geologists Bul 30:561-80, pl 1-4 Ap '46

States and epochs of mineralization in the San Juan mountains, Colorado, as shown at the Dunmore mine, Ouray county, Colorado. V. C. Kelley and C. Silver. bibliog il maps diags Econ Geol 41:139-59 Mr '46

Stratigraphy of the Golden-Morrison area, Jefferson county, Colorado. L. W. LeRoy. il diags Colorado School of Mines [Golden] Quarterly 41 no 2:1-115, pl 1-11 bibliog(p113-15) Ap '46

Structural development of Las Animas arch, Lincoln, Cheyenne, and Kiowa counties, J. C. Maher. map diags Am Assn Pet Geologists Bul 29:1663-7 N '45

Structure of the White River plateau near Glenwood Springs, Colorado. W. C. Macquown, jr. bibliog map diags Geol Soc Bul 56:877-92, pl 1-3 O '45

East Indies

Geology of oil basins of East Indian archipelago. H. M. Schuppli. map diag Am Assn Pet Geologists Bul 30:1-22 Ja '46

Ecuador

Geology of the Guayaquil estuary, Ecuador. G. Sheppard. 5pls diags Inst Pet J 32:492-511 bibliog(p511); Discussion. 512-14 Ag '46

Europe

Standard of the European Jurassic. W. J. Arkell. Geol Soc Bul 57:1-34 bibliog(p30-4) Ja '46

France

Petroleum geology of Aquitaine basin, France. A. J. Eardley. bibliog maps Am Assn Pet Geologists Bul 30:1517-45 S '46

Germany

Status of German oil fields. F. Reeves. bibliog maps diags Am Assn Pet Geologists Bul 30:1546-84 S '46

Great Britain

Geological occurrence of oil in United Kingdom with reference to present exploratory operations. H. R. Lovely. fold chart maps Am Assn Pet Geologists Bul 30:1444-1516 S '46

Gulf Coast region

Small mounds of the Gulf coastal plain. R. S. Dietz. Science 102:596-7 D 7 '45

Hawaiian Islands

Lithification of pleistocene clay at Kahuku Point, Oahu. R. W. Chapman. bibliog map Geol Soc Bul 57:985-95, pl 1-2 N '46

GEOLOGY—*Continued*

Illinois

Program and research laboratories. M. M. Leighton. Science 104:188-90 Ag 23 '46

Rosiclare-Fredonia contact in and adjacent to Hardin and Pope counties. F. E. Tippie. il diags map Am Assn Pet Geologists Bul 29:1654-63 N '45

Stone deposits of Illinois. il map Rock Prod 48:80-2 O '45

India

Symposium on age of the saline formation of the Salt range, India. R. V. V. Anderson. Am J Sci 244:140-2 F '46

Indiana

New Albany shale. G. Campbell. bibliog maps Geol Soc Bul 57:829-56 S '46

Kansas

Buried pre-Cambrian hills in northeastern Barton county, central Kansas. R. F. Wolters. maps fold pl Am Assn Pet Geologists Bul 30:660-710 My '46

Geology and ground-water resources of Grant, Haskell, and Stevens counties, Kansas. T. G. McLaughlin and H. A. Stoltenberg. State Geological Survey of Kansas [Lawrence] Bul 61:1-221, fold maps (pl 1-3) pl 4-12 bibliog(p213-17) '46

Kinderhook dolomite of Sedgwick county, Kansas. W. A. Ver Wiebe. diags Am Assn Pet Geologists Bul 30:1747-55 O '46

Review of studies of pleistocene deposits in Kansas. J. C. Frye. bibliog(111 titles) map Am J Sci 244:403-16 Je '46

Siluro-Devonian strata in central Kansas. H. Taylor. 4 pls maps diags Am Assn Pet Geologists Bul 30:1221-54 Ag '46

Kentucky

New Albany shale. G. Campbell. bibliog Geol Soc Bul 57:857-75 pl 1 S '46

Massachusetts

Gneiss dome at Shelburne Falls. R. Balk. bibliog map diags Geol Soc Bul 57:125-59, pl 1-7 F '46

Mexico

Geology of a part of the lower Conchos valley, Chihuahua, Mexico. R. E. King and W. S. Adkins. bibliog map Geol Soc Bul 57:275-94, pl 1-4 Mr '46

Some applications of structural geology to mining in the Pachuca-Real del Monte area, Pachuca silver district. C. L. Thornburg. diags Econ Geol 40:283-97 Je '45; Discussion. E. Wisser. 41:77-86 Ja '46

Stratigraphy near Caborca, northwest Sonora, Mexico. G. A. Cooper and A. R. V. Arellano. bibliog map Am Assn Pet Geologists Bul 30:606-11 Ap '46

Michigan

Recent contributions to the geology of the Michigan copper district. T. M. Broderick and others. bibliog maps diags Econ Geol 41:675-725 N '46

Mississippi

Salt in the Mississippi salt basin; abstract. C. W. Alexander. Oil & Gas J 45:42-3 Je 1 '46

Missouri

Missouri, an in between state; both old and new rock products' deposits found. H. E. Swanson and N. C. Rockwood. flow sheet il maps Rock Prod 49:96-104+ O '46

Montana

Dating sedimentation, vulcanism, and orogeny in Beartooth Mountain region, Montana, by heavy minerals. M. H. Stow. bibliog map Geol Soc Bul 57:675-85, fold pl 1 Jl '46

Ellis, Amsden, and Big Snowy group, Judith. fold maps map Am Assn Pet Geologists Bul 30:1294-1305 Ag '46

Origin and mechanics of the thrust faults adjacent to the Bearpaw mountains, Montana. F. Reeves. bibliog map diags Geol Soc Bul 57:1033-47, pl 1 N '46

Nebraska

Boice shale, new Mississippian subsurface formation in southeast Nebraska. E. C. Reed. Am Assn Pet Geologists Bul 30:348-9 Mr '46

New Guinea

Fineness of gold, with special reference to the Morobe goldfield. N. H. Fisher. bibliog il maps diag Econ Geol 40:449-95 N '45

New Hampshire

Geology of the Mt Washington quadrangle. M. P. Billings and others. bibliog fold map Geol Soc Bul 57:261-73 Mr '46

Petrography and radioactivity of four paleozoic magma series in New Hampshire. M. P. Billings and N. B. Keevil. bibliog maps Geol Soc Bul 57:797-828 S '46

Structure and metamorphism of the Bellows Falls quadrangle of New Hampshire and Vermont. F. C. Kruger. bibliog fold map Geol Soc Bul 57:161-205, pl 1-2 F '46

New Mexico

Algae reef in cap rock of Ogallala formation on Llano Estacado plateau, New Mexico and Texas. W. A. Price and others. 4pls map Am Assn Pet Geologists Bul 30:1742-6 O '46

Future oil possibilities of New Mexico. R. L. Bates. map diag Oil & Gas J 44:52-4+ F 2 '46

McCartys basalt flow, Valencia county, New Mexico R. L. Nichols. bibliog maps diags Geol Soc Bul 57:1049-86, pl 1-8 N '46

Stratigraphy and oil-producing zones of the pre-San Andres formations of Southeastern New Mexico. R. E. King. bibliog New Mexico School of Mines, State Bur of Mines and Mineral Resources (Socorro) Bul 23: 1-34, pl 1-3 '45 (pa 50c)

Tertiary and quaternary geology of the lower Rio Puerco area, New Mexico. H. E. Wright, jr. bibliog fold maps diags Geol Soc Bul 57:383-456, pl 1-10 My '46

New York (state)

Buried channel of the St Lawrence river. A. E. Wilson. maps Am J Sci 244:557-62, pl 1 Ag '46

Cambrian and Ordovician geology of the Catskill quadrangle, by R. Ruedemann; discussion by G. H. Chadwick. bibliog Am J Sci 244:584-94 Ag '46

New Zealand

Landslides and their relation to engineering in the Dunedin district, New Zealand. W. N. Benson. bibliog maps plans diags Econ Geol 41:328-47 Je '46

North America

Bibliography

Bibliography of North American geology, 1942 and 1943. E. M. Thom. 2 pts, pt. 1, Bibliography; pt. 2, Index. U S Geol S Bul 949:1-460 '45; in 1v pa 70c Supt. of doc.

Glacial map of North America; pt. 2, bibliography and explanatory notes. R. F. Flint. 2 maps Geol Soc Special Pa no 60:1-37 '45

North Dakota

Bibliography

Bibliography of the geology and natural resources of North Dakota, 1814-1944. C. E. Budge. Bul 1:1-214 N.D. Research Foundation, Bismarck, N.D. '46

Northwest Territories, Canada

Some recent geological data on the Yellowknife area. C. Riley. maps Can Min J 67: 708-9 Jl '46

Ontario

Hardrock porphyry of Little Long Lac. J. A. Reid. Econ Geol 40:509-16 D '45

Operations and plants of International nickel company of Canada; geology. il map Can Min J 67:322-31 My '46

Report on gold belts in the Little Long Lac Sturgeon River district. A. E. Tyson. bibliog maps Can Min J 66:839-50 D '45

Survey of groundwater resources; wells and springs in southern Ontario. A. K. Watt. map Water & Sewage 84:60-5+ Ap '46

GEOLOGY—*Continued*

Oregon

Stratigraphy of upper Nehalem River basin, northwestern Oregon. W. C. Warren and H. Norbisrath. bibliog maps Am Assn Pet Geologists Bul 30:213-37 F '46

Pennsylvania

Continental-marine Mississippian relations in northern Pennsylvania. B. Willard. bibliog map Geol Soc Bul 57:781-95, pl 1-2 S '46

Taconic sequence in Pennsylvania. G. W. Stose. bibliog maps Am J Sci 244:665-96 O '46

Peru

Geological investigations around Lake Titicaca. N. D. Newell. map Am J Sci 244:357-66 My '46

Geological reconnaissance in southeastern Peru. V. Oppenheim. bibliog il maps Am Assn Pet Geologists Bul 30:254-64 F '46

Preliminary note on geologic studies of the Pacific slope in southern Peru. W. F. Jenks. Am J Sci 244:367-72 My '46

Quebec

Cambrian and early Ordovician stratigraphy of the lower St Lawrence valley. F. Rasetti. bibliog map diags Geol Soc Bul 57:687-705, pl 1-2 Jl '46

Region of the North shore of the St Lawrence. J. Claveau. bibliog il maps Can Min J 67:625-33 Je '46

South America

Tectonic framework of northwestern South America. F. E. von Estorff. bibliog maps Am Assn Pet Geologists Bul 30:581-90 Ap '46

Switzerland

Absolute pollen chronology in Switzerland; review of paper by M. Welten. Am J Sci 244:442-7 Je '46

Tennessee

Foundation of Hales Bar dam. J. W. Frink. bibliog il map diags Econ Geol 41:576-97 S '46

Lower middle Ordovician of southwest Virginia and northeast Tennessee. C. E. Prouty. bibliog maps diags Am Assn Pet Geologists Bul 30:1140-91 Jl '46

New Albany shale. G. Campbell. bibliog maps Geol Soc Bul 57.880-900, pl 1 S '46

Texas

Algae reefs in cap rock of Ogallala formation on Llano Estacado plateau, New Mexico and Texas. W. A. Price and others. 4pls map Am Assn Pet Geologists Bul 30:1742-6 O '46

Alunite at Woodbine-Eagle Ford contact in northeastern Texas. L. W. Stephenson. il Am Assn Pet Geologists Bul 30:1764-70 O '46

Balcones, Luling, and Mexia fault zones in Texas. A. W. Weeks. bibliog map Am Assn Pet Geologists Bul 29:1733-7 D '45

East Texas Geological society field trip, December 1-2, 1945. C. L. Moody. Am Assn Pet Geologists Bul 30:276-7 F '46

Geology of Katy field, Waller, Harris, and Fort Bend counties. A. P. Allison and others. maps Am Assn Pet Geologists Bul 30:157-80 F '46

Lower Pennsylvanian terminology in central Texas. R. C. Spivey and T. G. Roberts. bibliog Am Assn Pet Geologists Bul 30:181-6 F '46

Oakville, Cuero, and Goliad formations of Texas coastal plain between Brazos river and Rio Grande. A. W. Weeks. bibliog il Am Assn Pet Geologists Bul 29:1721-32 D '45

Permian Pease River group of Texas. R. Roth. bibliog maps Geol Soc Bul 56:893-907, pl 1-8 O '45

Permian Word formation; its faunal and stratigraphic correlatives. R. L. Clifton. bibliog Am Assn Pet Geologists Bul 29:1766-76 D '45

Quaternary deposits of Texas coastal plain between Brazos river and Rio Grande. A. W. Weeks. bibliog il diags maps Am Assn Pet Geologists Bul 29:1693-1720 D '45

Stratigraphy of Waller and Harris counties. R. L. Beckelhymer. bibliog diags Am Assn Pet Geologists Bul 30:52-62 Ja '46

United States

Smithsonian: pioneer in American geology. R. S. Bassler. Science 104:125-9 Ag 9 '46

Utah

Geology of part of the Pavant range, Millard county, Utah. G. B. Maxey. bibliog fold map Am J Sci 244:324-56 My '46

Late mesozoic and early cenozoic history of central Utah E. M. Spieker. bibliog maps diags U S Geol S Professional Pa 205-D:117-61, pl 18-25; pa 15c Supt. of doc. '46

Late paleozoic and early mesozoic stratigraphy of Uinta mountains, Utah. H. D. Thomas and M. L. Krueger. bibliog il map diags Am Assn Pet Geologists Bul 30: 1255-93 Ag '46

White Horse alunite deposits, Marysvale, Utah M. E. Willard and P. D. Proctor. il maps diags Econ Geol 41:619-43 S '46

Venezuela

Geology of Maracaibo basin, Venezuela. F. A. Sutton. bibliog maps diags Am Assn Pet Geologists Bul 30:1621-1741, fold map(pl 1) pl 2-9 O '46

Vermont

Northern end of the Taconic thrust sheet in western Vermont. E. P. Kaiser. bibliog fold pl map Geol Soc Bul 56:1079-98 D '45

Structure and metamorphism of the Bellows Falls quadrangle of New Hampshire and Vermont. F. C. Kruger. bibliog fold map Geol Soc Bul 57:161-205, pl 1-2 F '46

Virginia

Lower middle Ordovician of southwest Virginia and northeast Tennessee. C. E. Prouty. bibliog maps diags Am Assn Pet Geologists Bul 30:1140-91 Jl '46

Lower middle Ordovician stratigraphy of the Shenandoah valley. B. N. Cooper and G. A. Cooper. bibliog Geol Soc Bul 57:35-113, pl 1-3 Ja '46

Metamorphism along the Pulaski fault in the Appalachian valley of Virginia. B. N. Cooper. bibliog pl map Am J Sci 244:95-104 F '46

Structure of Lick mountains. G. W. Stose. maps diags Am J Sci 244:189-99 Mr '46

Washington (state)

Spilite and manganese problems of the Olympic peninsula, Washington. C. F. Park, jr. bibliog map Am J Sci 244:305-23, pl 1-4 My '46

Wyoming

Geology of the northwestern Wind River mountains, Wyoming. C. L. Baker. bibliog map Geol Soc Bul 57:565-96, fold map (pl 1) pl 2-11 Je '46

GEOLOGY, Economic

Economic geology. J. M. Boutwell. Econ Geol 40:431-48 N '45

Hydrology in relation to economic geology. O. E. Meinzer. Econ Geol 41:1-12 Ja '46

GEOLOGY, Military

Geologists' place in service. P. H. Price. Am Assn Pet Geologists Bul 30:1115-22 Jl '46

GEOLOGY, Stratigraphic

Geology of a part of the lower Conchos valley, Chihuahua, Mexico. R. E. King and W. S. Adkins. bibliog map Geol Soc Bul 57:275-94, pl 1-4 Mr '46

Quimbys mill, new member of Platteville formation, upper Mississippi valley. A. F. Agnew and A. V. Heyl, jr. diag Am Assn Pet Geologists Bul 30:1585-7 S '46

Stratigraphy near Caborca, northwest Sonora, Mexico. G. A. Cooper and A. R. V. Arellano. bibliog map Am Assn Pet Geologists Bul 30:606-11 Ap '46

Stratigraphy of the Golden-Morrison area, Jefferson county, Colorado. L. W. LeRoy. il diags Colorado School of Mines [Golden] Quarterly 41 no 2:1-115, pl 1-11 bibliog (p113-15) Ap '46 (pa $1.50)

Structural development of Las Animas arch, Lincoln, Cheyenne, and Kiowa counties, Colorado. J. C. Maher. map diags Am Assn Pet Geologists Bul 29:1663-7 N '45

GEOLOGY, Stratigraphic—*Continued*
Tertiary and quaternary geology of the lower Rio Puerco area, New Mexico. H. E. Wright, jr. bibliog fold maps diags Geol Soc Bul 57:383-456, pl 1-10 My '46

Cambrian

Cambrian and early Ordovician stratigraphy of the lower St Lawrence valley. F. Rasetti. bibliog map diags Geol Soc Bul 57: 687-705, pl 1-2 Jl '46
Cambrian and Ordovician geology of the Catskill quadrangle, by R. Ruedemann; discussion by G. H. Chadwick. bibliog Am J Sci 244:584-94 Ag '46

Cenozoic

Late mesozoic and early cenozoic history of central Utah E. M. Spieker. bibliog maps diags U S Geol S Professional Pa 205-D: 117-61, pl 18-25; pa 15c Supt. of doc. '46
Stratigraphy of Waller and Harris counties, Texas. R. L. Beckelhymer. bibliog Am Assn Pet Geologists Bul 30:52-62 Ja '46

Cretaceous

Cretaceous stratigraphy of Vermilion area, Alberta, Canada. A. W. Nauss. bibliog map diags Am Assn Pet Geologists Bul 29:1605-29 N '45
Dating sedimentation, vulcanism, and orogeny in Beartooth Mountain region, Montana, by heavy minerals. M. H. Stow. bibliog map Geol Soc Bul 57:675-85, fold pl 1 Jl '46
Pre-Selma upper cretaceous stratigraphy of western Alabama. W. H. Monroe and others. map diags Am Assn Pet Geologists Bul 30:187-212 F '46
Vick formation of pre-Tuscaloosa age of Alabama coastal plain. L. C. Conant. bibliog map Am Assn Pet Geologists Bul 30:711-15 My '46

Jurassic

Ellis, Amsden, and Big Snowy group, Judith Basin, Montana. P. T. Walton. bibliog fold maps map Am Assn Pet Geologists Bul 30:1294-1305 Ag '46
Knoxville series in the California mesozoic. F. M. Anderson. Geol Soc Bul 56:909-1014, pl 1-15 bibliog(p993-8) O '45
Late paleozoic and early mesozoic stratigraphy of Uinta mountains, Utah. H. D. Thomas and M. L. Krueger. bibliog il map diags Am Assn Pet Geologists Bul 30:1255-93 Ag '46
Standard of the European Jurassic. W. J. Arkell. bibliog Geol Soc Bul 57:1-34 bibliog(p30-4) Ja '46

Mesozoic

Late mesozoic and early cenozoic history of central Utah. E. M. Spieker. bibliog maps diags U S Geol S Professional Pa 205-D:117-61, pl 18-25; pa 15c Supt. of doc. '46

Miocene

Miocene conglomerates of Puente and San Jose Hills, California. A. O. Woodford and others. bibliog il maps diags Am Assn Pet Geologists Bul 30:514-60, pl 1-2 Ap '46

Mississippian

Continental-marine Mississippian relations in northern Pennsylvania. B. Willard. bibliog map Geol Soc Bul 57:781-95, pl 1-2 S '46

Ordovician

Cambrian and early Ordovician stratigraphy of the lower St Lawrence valley. F. Rasetti. bibliog map diags Geol Soc Bul 57: 687-705, pl 1-2 Jl '46
Cambrian and Ordovician geology of the Catskill quadrangle, by R. Ruedemann; discussion by G. H. Chadwick. bibliog Am J Sci 244:584-94 Ag '46
Lower middle Ordovician of southwest Virginia and northeast Tennessee. C. E. Prouty. bibliog maps diags Am Assn Pet Geologists Bul 30:1140-91 Jl '46
Lower middle Ordovician stratigraphy of the Shenandoah valley, Virginia. B. N. Cooper and G. A. Cooper. bibliog Geol Soc Bul 57: 35-113, pl 1-3 Ja '46
Taconic sequence in Pennsylvania. G. W. Stose. bibliog maps Am J Sci 244:665-96 O '46

Paleozoic

Correlation of paleozoic rocks across Las Animas arch in Baca, Las Animas, and Otero counties, Colorado. J. C. Maher. map diag Am Assn Pet Geologists Bul 30:1756-63 O '46
Petrography and radioactivity of four paleozoic magma series in New Hampshire. M. P. Billings and N. B. Keevil. bibliog maps Geol Soc Bul 57:797-828 S '46

Pennsylvanian

Lower Pennsylvanian terminology in central Texas. R. C. Spivey and T. G. Roberts. bibliog Am Assn Pet Geologists Bul 30: 181-6 F '46
Pennsylvanian geology of a part of the southern Appalachian coal field. H. R. Wanless. (Memoir 13) 162p, 40 pls bibliog(p156-8) Geological soc. of America, 419 W. 117th st, New York '46

Permian

Late paleozoic and early mesozoic stratigraphy of Uinta mountains, Utah. H. D. Thomas and M. L. Krueger. bibliog il map diags Am Assn Pet Geologists Bul 30:1255-93 Ag '46
Permian Pease River group of Texas. R. Roth. bibliog maps Geol Soc Bul 56:893-907, pl 1-8 O '45
Permian Word formation; its faunal and stratigraphic correlatives, Texas. R. L. Clifton. bibliog Am Assn Pet Geologists Bul 29:1766-76 D '45

Pleistocene

Lithification of pleistocene clay at Kahuku Point, Oahu. R. W. Chapman. bibliog map Geol Soc Bul 57:985-95, pl 1-2 N '46
Review of studies of pleistocene deposits in Kansas. J. C. Frye. bibliog(111 titles) map Am J Sci 244:403-16 Je '46

Pre-Cambrian

Buried pre-Cambrian hills in northeastern Barton county, central Kansas. R. F. Walters. maps fold pl Am Assn Pet Geologists Bul 30:660-710 My '46

Quaternary

Quaternary deposits of Texas coastal plain between Brazos river and Rio Grande. A. W. Weeks. bibliog il diags maps Am Assn Pet Geologists Bul 29:1693-1720 D '45

Silurian

Siluro-Devonian strata in central Kansas. H. Taylor. 4 pls maps diags Am Assn Pet Geologists Bul 30:1221-54 Ag '46

Tertiary

Geology of oil basins of East Indian archipelago. H. M. Schuppli. map diag Am Assn Pet Geologists Bul 30:1-22 Ja '46
Oakville, Cuero, and Goliad formations of Texas coastal plain between Brazos river and Rio Grande. A. W. Weeks. bibliog il Am Assn Pet Geologists Bul 29:1721-32 D '45
Stratigraphy of upper Nehalem River basin, northwestern Oregon. W. C. Warren and H. Norbisrath. bibliog maps Am Assn Pet Geologists Bul 30:213-37 F '46

Triassic

Appalachian drainage and the highland border sediments of the Newark series. C. W. Carlston. bibliog map Geol Soc Bul 57:997-1031, fold map(pl 1) pl 2-3 N '46
Derivatives of the triassic diabases of Pennsylvania. W. H. Tomlinson. il Econ Geol 40:526-36 D '45

GEOMAGNETISM. See Magnetism, Terrestrial

GEOMETRIC mean
Calculating the geometric mean from a large amount of data. Z. Szatrowski. Am Stat Assn J 41:218-20 Je '46

GEOMETRY
See also
Triangles

GEOMETRY, Analytic
Further notes on analytic geometry. S. B. Folk. J Eng Educ 36:376-7 Ja '46

GEON. See Vinyl chloride

GEOPATHOLOGY. See Medical geography

GEOPATHOLOGY (term)
Geopathology or ethnopathology? H. Lieker. Science 103:694 Je 7 '46

GEOPHYSICAL instruments
Geophysical prospecting equipment. D. Sheffet. il diags Electronics 18:116-23 D '45

GEOPHYSICISTS
Geophysical activities in 1945 and the geophysicists' part in the war. C. A. Heiland. il Min & Met 27:109-14 F '46

GEOPHYSICS
Nature of the asthenosphere. R. A. Daly. bibliog Geol Soc Bul 57:707-26 Ag '46
Oil migration. J. Frost. bibliog Inst Pet J 31:486-93 D '45
Recent results in submarine geophysics. M. Ewing and others. bibliog diags Geol Soc Bul 57:909-34, fold map(pl 1) pl 2-12 O '46
Strength of the earth. M. K. Hubbert. bibliog map Am Assn Pet Geologists Bul 29: 1630-53 N '45
Study of fault determinations by geophysical methods in the fluorspar areas of western Kentucky. F. W. Lee and S. J. Hemberger. bibliog 36pls U S Bur Mines Rep of Invest 3889:1-27 '46
Terrestrial dynamics; abstract. B. Willis. Pet Eng 17:100 D '45
Use of rock norms in geophysical investigations. R. A. Daly. bibliog Am J Sci 244:697-709 O '46

See also
Auroras
Earth pressure
Magnetism, Terrestrial
Meteorology
Petroleum—Prospecting—Geophysical methods
Prospecting—Geophysical methods
Rocks, Igneous
Sedimentation and deposition

Bibliography
Geophysical abstracts 122, July-September 1945. V. Skitsky, comp. U S Bur Mines Information Circ 7349:1-49 '46
Geophysical abstracts 123, October-December 1945; with an index to abstracts 120-123. V. Skitsky, comp. U S Bur Mines Information Circ 7355:1-78 '46

GEORGE Westinghouse educational foundation. See Westinghouse, George, educational foundation

GEORGIA power company
Federal barrier; Georgia firm applies to FPC. Bsns W p20 S 7 '46

GEORGIA school of technology
Plans for Georgia tech textile school. H. A. Dickert. Am Dyestuff Rep 35:153-6+ Mr 25 '46

GERANAMIDES
Rearrangements of aldoximes into amides with Raney nickel; stereoisomeric geranamides. A. G. Caldwell and E. R. H. Jones. Chem Soc J p599-601 Jl '46

GERANIAL. See Citral

GERANIOL
Geraniol esters; abstract. U. N. Guha Roy and M. N. Goswami. Soap & San Chem 21: 69 D '45

GERMAN language
Dictionaries
German-English science dictionary. L. De Vries. 2d ed rev & enl 558p $4.50 McGraw-Hill book co, New York '46

GERMANIUM
American research on germanium; important commercial uses found. W. Bull. il Chem Age (Lond) 55:531-3 N 2 '46
Crystal rectifiers. W. E. Stephens. diags Electronics 19:112-19 Jl '46
Germanium crystal diodes. E. C. Cornelius. bibliog il diags Electronics 19:118-23 F '46
Secondary emission from germanium, boron, and silicon. L. R. Koller and J. S. Burgess. Phys R 70:571 O 1 '46
Technology of germanium. R. I. Jaffee and others. bibliog il diag Electrochem Soc Trans 89(preprint 18):209-21 '46

GERMANIUM compounds
Rearrangements in compounds of carbon, silicon, germanium and tin containing halogens, isocyanate and thiocyanate. G. S. Forbes and H. H. Anderson. bibliog Am Chem Soc J 67:1911-14 N '45

GERMANY
Economic problem of Germany; abstract. E. Hamburger and A. Johnson. Comm & Fin Chr 163.3354+ Je 20 '46
Economics of fear. M. J. Bonn. Ann Am Acad 246:130-42 Jl '46
Experiences with the control council in Germany. C. A. Powel. Elec Eng 65:306-9 Jl '46
Germany and the reconstruction of western Europe. M. A. Heilperin. Comm & Fin Chr 164:741+ Ag 8 '46
Loss of Ruhr would keep Germany begging from U.S. J. Hirsch. Barron's 26:11 My 13 '46
Postwar treatment of Germany. H. Morgenthau, jr. Ann Am Acad 246:125-9 Jl '46
Safety report, Germany. E. R. Grannis. il Nat Safety N 53:18-19+ My '46
U.S. economic policy toward Germany; by Secretary of state Byrnes. Comm & Fin Chr 162:3049+ D 20 '45

See also
Banks and banking—Germany
Census—Germany
Ceramic industries—Germany
Coal mines and mining—Germany
Communication and traffic—Germany
Dairying—Germany
Electric engineering—Germany
Electricity supply—Germany
Food industry and trade—Germany
Food supply—Germany
Investments, Foreign—Germany
Labor and laboring classes—Germany
Metal trade—Germany
Metal working industries—Germany
Metallurgical plants—Germany
Munitions industry—Germany
Paper industry and trade—Germany
Paper mills—Germany
Patents—Germany
Petroleum industry and trade—Germany
Physics—Germany
Publishing—Germany
Rayon industry—Germany
Rubber industry and trade—Germany
Textile industry—Germany
Trade unions—Germany
World war, 1939-1945—Germany

Air force
Luftwaffe data at Wright field; documentary record of the German air force. il Aero Digest 52:99 Ja '46

Allied military government
Aims toward Germany widely divergent. Comm & Fin Chr 164:1377+ S 12 '46
Allied Council restricts German metal output. J. D. Wilson. Eng & Min J 147:70-4 My '46
Britain, France and Germany. Economist 151:161-2 Ag 3 '46
British-U.S. marriage in Germany; merger of zones. Comm & Fin Chr 164:1783+ O 10 '46
De Forest replaces Cisler as German utilities head. Elec World News ed 124:5 D 15 '45
Divided Germany. Economist 150:163-4 F 2 '46
Divided Reich. Economist 150:785-7 My 18 '46
Four power relations in Berlin. Comm & Fin Chr 164:1653 O 3 '46
Future of German industry; Priestley medal address. R. Adams. Chem & Eng N 24: 2486-9 S 25 '46
Future of Germany. A. W. Dulles. Comm & Fin Chr 163:375+ Ja 24 '46
German arsenal; production of armaments in Soviet zone. Economist 151:326-7 Ag 31 '46
German crisis. Economist 150:527-32 Ap 6 '46
German zones. Economist 150:338-9 Mr 2 '46
Germany; the first year since Potsdam. Nat City Bank p104-7 S '46
Horsetrading settling future of German metals industry in four power discussions. J. R. Hight. Iron Age 157:86+ Ap 18 '46
Is a German compromise possible? Economist 151:83-4 Jl 20 '46

GERMANY—Allied military government—*Continued*
Overwhelming majority approves European and Japanese occupation; Gallup poll. Iron Age 158:115 S 26 '46
Progress on implementing Potsdam economic provisions; interview with Brig. General William H. Draper, jr. H. M. Bratter. Comm & Fin Chr 164:1267+ S 5 '46
Public criticizes handling of German occupation; Gallup poll. Iron Age 157:117 Je 20 '46
Socialism for Germany. Economist 151:649-50 O 26 '46
We'll just never learn! Aero Digest 52:23+ Ap '46

American zone

American occupation policies in Germany. J. J. McCloy. Comm & Fin Chr 162:2921+ D 13 '45
American price control in Germany. H. Bratter. il Banking 39:42-4 N '46
Fortune survey; our occupation policy. Fortune 32:303+ D '45

British zone

Germany faces the winter. Economist 151: 406-10 S 14 '46

French zone

French zone. Economist 150:755 My 11 '46

Russian zone

East of the Elbe; Russian policy. Economist 149:591-2 O 27 '45
German bishops' letter criticizing conditions in Soviet occupied Germany withdrawn. Comm & Fin Chr 163:2416 My 2 '46
Good cooperation between Russians and American technical intelligence teams in Russian-occupied Germany. R. B. MacMullin. Chem & Eng N 24:1070 Ap 25 '46
Inside Russian occupied Germany. K. Brandt. Comm & Fin Chr 164:478+ Jl 25 '46
Land reform in the Russian zone. Economist 149:634 N 3 '45
Russian military government at work. Economist 150:377-8, 417-18, 456-7 Mr 9-23 '46; Same (pt. 1) Iron Age 157:105+ Mr 28 '46

Army

Equipment and supplies

German electronic equipment; exhibition. Elec R (Lond) 138:429 Mr 15 '46
Night vision with electronic infrared equipment; German systems. il diags Electronics 19:192+ Je '46

Medical and sanitary affairs

Enemy water supply equipment. C. W. Karstens. il Am Water Works Assn J 38: 959-64 Ag '46

Ordnance and ordnance stores

Reports on German military vehicles. il diags Automotive & Aviation Ind 94:26-9+ Ap 1 '46; S A E J 54:sup17-19+ Ap '46
Technical wartime development in German ground vehicles; abstracts of papers. il diags S A E J 54:sup20-32 Je '46

Transport service

German army transport; detailed study and analysis of captured enemy vehicles. il diags Automobile Eng 35:387-97, 471-81, 515-25 O-D '45

Commerce

Enemy trade; what's ahead? il Bsns W p113-14 O 5 '46
Germany's prewar trade with world; with tables giving principal exports and imports, annual 1936-38, and first 6 months of 1939. For Comm W 22:3-5 F 2 '46
Trading with the enemy. Fortune 34:215-16 Jl '46
Where Germany traded in 1938. For Comm W 22:21 F 2 '46

Defenses

Germany's island fortresses. maps Engineer 180:433-5; 181:354-5 N 30 '45, Ap 19 '46

Economic conditions

German economic situation. H. M. Bratter. Comm & Fin Chr 164:1645+ O 3 '46
German economy must be revived. L. D. Clay. Comm & Fin Chr 164:1455+ S 19 '46
Germany faces the winter. Economist 151: 406-10 S 14 '46
Germany in 1945. Economist 150:sup10 Mr 23 '46
Important changes instituted in German economy. H. M. Bratter. Comm & Fin Chr 164:1453+ S 19 '46
New start in Germany. Fortune 34:3 S '46
State of German economy today in the American zone of occupation. B. Price. For Comm W 22:19 Ja 12 '46

Economic history

Business under German inflation, 1914-1923. L. von Mises. Comm & Fin Chr 163:1213+ Mr 7 '46
Germany was badly run. J. K. Galbraith. il Fortune 32:173-9+ D '45

Economic policy

German contracting in occupied Europe. A. L. Horniker. Harvard Bsns R 25 no 1:74-91 [O] '46
Germany's economic unity. Economist 150: 917-18 Je 8 '46

Economic relations

Economic unity of western Europe; forced change of Germany from industrial to agricultural country harmful. W. F. Hauhart. Comm & Fin Chr 163:3197+ Je 13 '46

Industries and resources

America's stake in the export-potential of the Ruhr. P. Wohl. Barron's 25:14 D 24 '45
Excess German plants going for reparations. J. R. Hight. Iron Age 157:118-19 F 14 '46
FEA recommends elimination of German synthetic-fuel industry and limitation of petroleum imports. Oil & Gas J 44:155-6 D 29 '45
Forgotten incentive; German government's policy with respect to taxation and depreciation schedules. Bsns W p119 D 8 '45
Future levels of German industrial employment. J. A. Flexner. Mo Labor R 62:895-903 Je '46
Future of German industry; Priestley medal address. R. Adams. Chem & Eng N 24:2486-9 S 25 '46
German industrial plants available for allocation on reparation account. For Comm W 22:38-9 Ja 12; 23:53 My 18; 24:6-7+ Jl 20; 39 Ag 24; 25:40-1 O 12 '46
German industrial techniques made available through Technical industrial intelligence branch, OJCS. Electronics 19:200+ Jl '46
German industry is taking a beating. W. J. Hargest. il map Am Mach 90:113-21 F 14 '46
German production level in U.S. zone rising slowly. J. R. Hight. Iron Age 157:100-2 F 28 '46
Germany; a year of defeat. Bsns W p105-6+ My 11 '46
Industrial fate of Germany. Bsns W p109 Ap 6 '46
Industrial improvisation. Economist 150:417-18 Mr 16 '46
Level of German industry. Engineer 181:322-3 Ap 5 '46
More Nazi data; processes, chemicals, and products used by Germans. Bsns W p68+ Mr 30 '46
Outlines permanent control plan for German industry; Foreign economic administration. D. Ansboro. Iron Age 157:197 Ja 3 '46
Scientific cleanup; U.S. sale of reproductions of enemy technical documents. Bsns W p19 My 18 '46
Weak Germany? drastic FEA proposals for deindustrialization. Bsns W p19-22 Ja 5 '46

Nazi movement

Big business and the Nazi party in Germany. A. Schweitzer. bibliog J Bsns 19:1-24, 99-126 Ja-Ap '46

Politics and government

Elections in Germany. Economist 151:612-13 O 19 '46
Government for Germany? Economist 149: 851-2 D 15 '45
Party fusion in Germany. Economist 150:662-4 Ap 27 '46; Same. Iron Age 157:127+ My 9 '46

GERMANY—*Continued*

Reparations

Allocation of reparation deliveries from Germany; Polish-Soviet agreement. For Comm W 25:37 O 19 '46

Breakdown of reparations. M. J. Bonn. Comm & Fin Chr 164:1373+ S 12 '46

German industrial plants available for allocation on reparation account. For Comm W 22:38-9 Ja 12; 23:53 My 18; 24:6-7+ Jl 20; 39 Ag 24; 25:40-1 O 12 '46

German reparations; program's status now. A. Tollin. il map For Comm W 24:3-7+ Jl 20 '46

Reparation settlement. M. J. Bonn. Comm & Fin Chr 163:1927+ Ap 11 '46

Reparations plan. Economist 150:529-32 Ap 6 '46

Reparations quotas. Economist 149:935-6 D 29 '45

Sweden and allies go over the books. H. M. Bratter. Comm & Fin Chr 163:3065+ Je 6 '46

GERMICIDES. See Disinfection and disinfectants

GERMINATION

Effect of DDT, sulphur and lethane dusts on germination of sugar-beet and onion pollens. E. Artschwager. Science 102:482 N 9 '45

Effect of penicillin on seed germination. W. J. Smith. Science 104:411-13 N 1 '46

Penicillin action on the germination of seeds. D. F. Ribeiro. Science 104:18 Jl 5 '46

GERSTUNG, Robert E. 1915-

Erstwhile service station man's gallantry won Congressional medal and Silver star. por Nat Pet N 37:49 N 28 '45

GHADIALI, Dinshah Pestanji Framji, 1873-

FDA challenged. Bsns W p40 Je 22 '46

GIANNINI, Amadeo Peter, 1870-

Portrait. Bsns W p73 O 26 '46

GIBBS-DONNAN theorem

Determination of the activities of several coexisting ions by the Gibbs-Donnan equilibrium without the use of specific electrodes. K. Sollner. bibliog Am Chem Soc J 68:156 Ja '46

GIBSON Island conferences. See American association for the advancement of science

GIFT tax

Community property estate tax cases; Wiener and Rompel decisions analyzed; what of gift tax? W. L. Nossaman. Trusts & Estates 82:221-4 F '46

State and federal taxation, 1944-1945. W. L. Nossaman. Trusts & Estates 82:47-54 Ja '46

Valuation of pledged property for gift-tax purposes. J Account 80:480-1 D '45

GIFT wrapping. See Department stores—Gift wrapping

GIFTS

Huge '47 ad budgets for luxury gifts predicted in battle for consumer dollar; perfume and cosmetics, jewelry, candy, flowers. N. Kelne. Ptr Ink 216:69+ Ag 30 '46

Packages for scientific workers in Europe. Chem & Eng N 24:918 Ap 10 '46

Store with a specialty; giftware of methyl methacrylate. il Mod Plastics 23:128-9 Mr '46

See also

Christmas gifts

Department stores—Gift wrapping

GIFTS (law)

Bank deposit to credit of donee not subject of gift. Banking Law J 63:242-4 Mr '46

Estate taxes; taxing transfers in contemplation of death. J Account 81:237-8 Mr '46

Evidence did not warrant gift of shares of stock to daughter. Banking Law J 63:219-36 Mr '46

Failure of delivery of stock to donee renders payment gift invalid. Banking Law J 62: 977-9 D '45

No interference of gift in joint bank account with no survivorship provision. Banking Law J 63:239-42 Mr '46

Prudent gifts. J Account 80:482-3 D '45

U.S. postal savings certificates and war savings bonds may be subject of valid gift inter-vivos. Banking Law J 63:133-6 F '46

See also

Gift tax

GILBERT, Harvey Nicholas, 1889-

Awarded Schoellkopf medal. por Chem & Eng N 24:1668-70 Je 25 '46

Schoellkopf medal to Gilbert. por(cover) Chem & Eng N 24.1177 My 10 '46

GILBERT islands

Coral reefs in the Gilbert, Marshall, and Caroline islands. L. E. Nugent, jr. bibliog maps Geol Soc Bul 57:735-79, pl 1-2 Ag '46

GILL, Corrington Calhoun, 1898-1946

Sketch. H. B. Myers. Am Stat Assn J 41:393-4 S '46

GILLETTE safety razor company

Topping old output peaks. Barron's 26:7 Je 3 '46

GILLIGAN, Joseph

Three men on paper plates. por Fortune 33: 149-52+ F '46

GILMAN, Henry, 1893-

ACS candidates for 1947. por Chem & Eng N 24:2745 O 25 '46

GILMORE, Charles Whitney, 1874-1945

Memorial. G. E. Lewis. bibliog pors(pl 6) Geol Soc Proc 1945:235-43 Je '46

GILSONITE

Develop gilsonite as binder for plastics. Bsns W p67 Ja 12 '46

GIMBEL brothers, inc.

Just one question: will it sell? il Bsns W p68-70 My 11 '46

GIN poles

Methods of using and placing gin poles. H. B. McDermid. diags Power Pl Eng 50:100-2 Jl '46

GIRDERS

Chart determines economic depth of plate girders. B. L. Parker. Eng N 137:186 Ag 8 '46

Observations on the behavior of aluminum alloy test girders. R. L. Moore. bibliog il diags Am Soc C E Proc 72:729-48 Je '46

One way to repair a heavy wood girder. C. A. Lee. diags Chem & Met Eng 52:119 D '45

Reinforced concrete crane girder supported on brick pedestal. D. R. Cervin. diags Am Concrete Inst J 18:91-2 S '46

Structural model testing. O. W. Loudenslager. bibliog il diags S A E J 54:18-25 Ja '46

Temperature effects being studied on large welded girders. L. Grower. il Eng N 137: 502-3 O 17 '46

Torsion in steel spandrel girders. J. E. Lothers. diags Am Soc C E Proc 72:307-21 Mr '46; Discussion. 72:906-8, 1199-200 Je, O '46

Welded girder bridge is 1,500 ft. long; structure at St Rose, Quebec. D. B. Armstrong. il diag Eng N 136:698-701 My 2 '46

GIROUX, Carl Hunting, 1890-

War department honors Carl H. Giroux with medal. por(cover) Elec World News ed 126: 4 S 21 '46

GLACIAL epochs

Thermodynamics of an ice age; the cause and sequence of glaciation. G. N. Lewis. bibliog Science 104:43-7 Jl 19 '46

GLACIAL geology

Eurasian continental glacier of the late pleistocene. W. H. Hobbs. bibliog map Science 104:105-6 Ag 2 '46

Glacial map of North America; publication of Geological society of America. R. F. Flint. Science 103:627 My 17 '46

Ice-contacts and the melting of ice below a water level. J. H. Cook. bibliog 2pl map Am J Sci 244:502-12 Jl '46

See also

Moraines

Bibliography

Glacial map of North America; pt. 2, bibliography and explanatory notes. R. F. Flint. 2 maps Geol Soc Special Pa no 60:1-37 '45

GLACIERS

L'accumulation de l'eau dans les glaciers. J. Duclaux. Génie Civil 123:100 Ap 15 '46

GLACIERS—*Continued*
Thermodynamics of an ice age; the cause and sequence of glaciation. G. N. Lewis. bibliog Science 104:43-7 Jl 19 '46

GLARE
Discomfort glare and angular distance of glare-source. M. Luckiesh and S. K. Guth. Illum Eng 41:485-92 Je '46
Footcandles at the eye, as a measure of glare. P. Moon and D. E. Spencer. Illum Eng 41:180-1 F '46
Relation between illumination and vision. C. L. Crouch. bibliog diags Illum Eng 40:769-83 N '45

GLASS, Carter, 1858-1946
Sketch. Comm & Fin Chr 163:2922 My 30 '46

GLASS
Abstracts of ACS convention papers. Cer Ind 46:67-84 Je '46
Adhesion to glass. W. A. Weyl. bibliog Glass Ind 26:557-60+ D '45
Anti-icing and anti-fogging coated glass. Air Transport 4:69 S '46
Changes of density of silicate glasses resulting from changes of composition. K. Sun and M. L. Huggins. bibliog Am Cer Soc J 29:232-4 Ag 1 '46
Comparison of effect of TiO_2 and PbO on refractive index of glasses. W. Colbert. diags Am Cer Soc J 29:45-7 F 1 '46
Correction factor for surface tension of glass by drop-weight method. A. D. Prater and A. E. Badger. Glass Ind 27:339+ Jl '46
Corrosion resistance of glass; abstract. M. S. Tarnopol and A. E. Junge. Chem Ind 57: 1112 D '45
Effect of ultraviolet light on glass containing silver. A. E. Badger and F. A. Hummel. Phys R 68:231 N 1 '45
Energy additivity in oxygen-containing crystals and glasses. M. L. Huggins and K. Sun. bibliog J Phys Chem 50:319-28 Jl '46
Fluorescence and photochemistry of glass. W. A. Weyl. Glass Ind 27:395-7 Ag '46
Glass-forming substances. K. Sun. bibliog(47 references) Glass Ind 27:552-4+ N '46
Machining glass; use of diamond tools; abstract. P. Grodzinski. Materials & Methods 24:460+ Ag '46
Metallurgical aspects of X ray tube manufacture. M. J. Zunick. bibliog il diags Iron Age 157:56-9 Ap 11 '46; Same. Glass Ind 27:238-41+ My '46
New apparatus for determination of coefficient of expansion, transformation point, and softening point of glass. S. Lindroth. il diags Am Cer Soc Bul 24:450-1 D 15 '45
Representation of density and optical properties of ternary silicate glass systems. K. Sun and others. bibliog Am Cer Soc J 29: 59-65 Mr 1 '46
Solarization of manganese-bearing glass at higher temperatures. R. L. Collin and A. E. Badger. Phys R 70:437 S 1 '46
Some resources of ceramic research. R. M. King. Am Cer Soc Bul 25:288-91 Ag 15 '46
Species density analysis of silicate glass structure. J. S. Lukesh. Science 104:199-201 Ag 30 '46
Stress-optical coefficient of glasses. Glass Ind 26:567 D '45
Studies on glass; heats of solution of crystalline and glassy glucose; heat of mutarotation of α-glucose. R. D. Rowe and G. S. Parks. diag J Chem Phys 14:383-8 Je '46
Use of color and fluorescence indicators for determining the structure of glasses. W. A. Weyl. J Ap Phys 17:628-39 Jl '46
Viscosity of glass as affected by dissolved gases. W. A. Graff and A. E. Badger. Phys R 70:220 Ag 1 '46

See also
Enamel and enameling
Glass manufacture
Glassware
Insurance, Plate glass
Stained glass
Windows

also American ceramic society—Glass division

Aluminum content
Container glass of high alumina content; translated digests from German. Glass Ind 27:293+ Je '46

Analysis
Notes on silicate analysis; elimination of excess hydrofluoric acid. B. B. Osthaus. Am Cer Soc J 29:114-15 Ap 1 '46

Color
Solarization of manganese-bearing glass at higher temperatures. R. L. Collin and A. E. Badger. Phys R 70:437 S 1 '46

See also
Glass, Colored

Defects
Glass composition and density changes. R. M. Elliott. Am Cer Soc J 28:303-5 N 1 '45; Abstract. Glass Ind 27:80+ F '46

Durability
Electrode function (pH response) of potash-silica glasses. D. Hubbard. bibliog J Res Nat Bur Stand 37:223-8 O '46
Hygroscopicity and electrode function (pH response) of glasses as a measure of serviceability. D. Hubbard. bibliog J Res Nat Bur Stand 36:511-20 Je '46
Hygroscopicity of optical glasses as an indicator of serviceability. D. Hubbard. bibliog J Res Nat Bur Stand 36:365-75 Ap '46
Resistance of plate glass to alkaline solutions. M. S. Tarnopol and A. E. Junge. Am Cer Soc J 29:36-9 F 1 '46

Elasticity
Determination of the elastic and viscous properties of glass at temperatures below the annealing range. G. O. Jones. Glass Ind 27:88+ F '46

Electric properties
Dielectric properties of glasses. Cer Ind 46:55 My '46
Dielectric properties of glasses at ultra-high frequencies and their relation to composition. L. Navias and R. L. Green. bibliog diag Am Cer Soc J 29:267-76 O 1 '46; Abstract. Cer Ind 46:68+ Je '46
Glass useful as insulating medium in electrical condensers for radio circuits; three Corning patents. Glass Ind 27:135 Mr '46
Use of liquid dimethylsilicones to produce water-repellent surfaces on glass-insulator bodies. O. K. Johannson and J. J. Torok. bibliog il Inst Radio Eng Proc 34:296-302 My '46

Expansion and contraction
Relation between inelastic deformability and thermal expansion of glass in its annealing range. A. Q. Tool. bibliog Am Cer Soc J 29:240-53 S 1 '46; Same. J Res Nat Bur Stand 37:73-90 Ag '46

Fluorescence
Effect of iron on fluorescence in glass. L. Thorington and others. bibliog Am Cer Soc J 29:151-8 Je 1 '46

Hardness
Effect of composition on Knoop hardness of glass; abstract. A. E. Pavlish and I. Mockrin. il Glass Ind 27:288+ Je '46

Heat transmission
Transmission of solar radiation through flat glass under summer conditions. G. V. Parmelee. bibliog diags Heating-Piping 17: 562-73; Discussion. 573-6 O-N '45

Homogeneity
Factors affecting the degree of homogeneity of glass. F. V. Tooley and R. L. Tiede. il diag Am Cer Soc J 27:42-5 F '44; 29:197-9 Jl 1 '46; Abstract. Glass Ind 25:222 My '44

Iron content
Effect of iron on fluorescence in glass. L. Thorington and others. bibliog Am Cer Soc J 29:151-8 Je 1 '46

Joining to metal
Adhesion to glass. W. A. Weyl. bibliog Glass Ind 26:557-60+ D '45

GLASS—Joining to metal—*Continued*
Fusing steel to glass; new process. Machine Design 17:110 N '45
Metal glass seals; Kovar type alloy; abstract. G. D. Redston and J. E. Stanworth. Materials & Methods 24:170 Jl '46
Metallurgical aspects of X ray tube manufacture. M. J. Zunick. bibliog il diags Iron Age 157:56-9 Ap 11 '46
R-f soldering of metal-to-glass seals. R. A. Ammon. il diag Electronics 19:120-1 Mr '46
Sealing glass to metal invented by R. L. Taylor and assigned to Bell telephone laboratories. Glass Ind 27:296+ Je '46
Stresses in cylindrical glass-metal seals with glass inside. A. W. Hull. diags J Ap Phys 17:685-7 Ag '46
Symposium on glass-to-metal seals; American ceramic society meeting. Glass Ind 27:520+ O '46
Theory and practice of glass-metal seals. A. J. Monack. bibliog il diags Glass Ind 27: 389-94+, 446-9+, 502-4+, 556-9+ Ag-N '46
Welding of glass to metal. E. M. S. Wood. il Glass Ind 27:24+ Ja '46

Light transmission

Coated glass; application of chemicals increases efficiency of lenses and creates transparent mirrors. il Bsns W p50 Mr 2 '46
Comparison of effect of TiO_2 and PbO on light absorption of some colored glasses. W. Colbert. diags Am Cer Soc J 29:40-5 F 1 '46
Exact theoretical treatment of reflection-reducing optical coatings. R. L. Mooney. bibliog Opt Soc Am J 35:574-83 S '45
Experimental and theoretical results in two-layer low reflecting coatings for glass. P. King and L. B. Lockhart. Opt Soc Am J 36:513-17 S '46
Improving the light transmission of Fourcault glass; abstract. E. Shapiro and M. P. Orlova. Am Cer Soc J 29(Cer A[25]):80 My 1 '46
Reflection-control techniques developed by American optical company. il Am Cer Soc Bul 25:172 My 15 '46

Manganese contest

Solarization of manganese-bearing glass at higher temperatures. R. L. Collin and A. E. Badger. Phys R 70:437 S 1 '46

Manufacture

See Glass manufacture

Strength

Determination of the elastic and viscous properties of glass at temperatures below the annealing range. G. O. Jones. Glass Ind 27:88+ F '46
Effect of water on the strength of glass. T. C. Baker and F. W. Preston. J Ap Phys 17:179-88 Mr '46
Fatigue modulus of glass. J. L. Glathart and F. W. Preston. bibliog J Ap Phys 17: 189-95 Mr '46
Fatigue of glass under static loads. T. C. Baker and F. W. Preston. J Ap Phys 17: 170-8 Mr '46
Mechanical strength of glass. W. A. Weyl. Glass Ind 27:17-21+, 74-6+, 126-9+ bibliog(p155-6) Ja-Mr '46
Mechanism of brittle rupture in glass. J. B. Murgatroyd. Glass Ind 27:72+ F '46
Resistance of glass to thermal stresses. O. H. Clark. bibliog Am Cer Soc J 29:133-8 My 1 '46
Strength of glass fibres. J. B. Murgatroyd. Glass Ind 27:69-71 F '46
Wide range static strength testing apparatus for glass rods. T. C. Baker and F. W. Preston. il diags J Ap Phys 17:162-70 Mr '46

Surface

Aging of glass surfaces. A. H. Pfund. diag Opt Soc Am J 36:95-9 F '46
Latent milling marks on glass. F. S. Jones. il Am Cer Soc J 29:108-14 Ap 1 '46; Discussion. S. F. Cox. 29:231 Ag 1 '46
Nonfogging glass; windshield free from icing. il Bsns W p58+ Ag 10 '46
Reflection control; coatings applied easily to glass and other materials. il Sci Am 174: 222 My '46
Use of liquid dimethylsilicones to produce water-repellent surfaces on glass-insulator bodies. O. K. Johannson and J. J. Torok. bibliog il Inst Radio Eng Proc 34:296-302 My '46

Temperature effect

Relation between inelastic deformability and thermal expansion of glass in its annealing range. A. Q. Tool. bibliog Am Cer Soc J 29:240-53 S 1 '46; Same. J Res Nat Bur Stand 37:73-90 Ag '46

See also
Glass, Heat absorbing
Glass, Heat resisting

Terminology

Glass division committee develops proposed standardized glass definitions. Glass Ind 27: 404 Ag '46

Testing

Effect of water on the strength of glass. T. C. Baker and F. W. Preston. J Ap Phys 17:179-88 Mr '46
Fatigue modulus of glass. J. L. Glathart and F. W. Preston. bibliog J Ap Phys 17:189-95 Mr '46
Fatigue of glass under static loads. T. C. Baker and F. W. Preston. J Ap Phys 17: 170-8 Mr '46
Glass composition and density changes. R. M. Elliott. Am Cer Soc J 28:303-5 N 1 '45; Abstract. Glass Ind 27:80+ F '46
Roughness tests of glass. Gen Elec R 49:67 Mr '46
Study of factors of technique in glass density determinations by sink-float method; abstracts. R. D. Duff. Cer Ind 46:70+ Je '46; Glass Ind 27:286-7 Je '46
Symposium on glass density, American ceramic society meeting. Glass Ind 27:499+ O '46
Wide range static strength testing apparatus for glass rods. T. C. Baker and F. W. Preston. il diags J Ap Phys 17:162-70 Mr '46

Ultraviolet rays transmission

Glass composition which will completely absorb ultraviolet radiations; patent. Glass Ind 27:560 N '46
Solarization caused by alkali substance in glass. H. C. Rentschler. il Cer Ind 45:76 D '45
Ultraviolet transmitting glasses for mercury vapor lamps; abstract. M. E. Nordberg. Glass Ind 27:312 Je '46

Uranium content

Effect of iron on fluorescence in glass. L. Thorington and others. bibliog Am Cer Soc J 29:151-8 Je 1 '46

Uses

Some uses of glass as an engineering material. C. F. Lindsay. bibliog il Materials & Methods 23:1284-8 My '46

Water absorption

Electrode function (pH response) of potash-silica glasses. D. Hubbard. bibliog J Res Nat Bur Stand 37:223-8 O '46

GLASS, Colored

Color and solarization of glasses containing combinations of coloring oxides. L. V. Gagin and others. Glass Ind 27:500-1+ O '46
Colored glasses; a review of a monograph by W. A. Weyl. N. J. Kreidl. Glass Ind 25:262-3, 405-6; 26:235-8, 375+; 27:450-1+ Je, S '44; My, Ag '45, S '46
Colored glasses; abstracts. W. A. Weyl. Am Cer Soc Bul 23 (Cer A [23]):71 Ap 15 '44; 24 (Cer A [24]):7 Ja 15 '45; Am Cer Soc J 29 (Cer A [25]):78 My 1 '46
Colorimetry in the glass industry; abstract. J. G. Holmes. Light & Lighting 38:178 D '45
Comparison of effect of TiO_2 and PbO on light absorption of some colored glasses. W. Colbert. diags Am Cer Soc J 29:40-5 F 1 '46
Fine glass fibers for intense colors; patent. Glass Ind 27:135+ Mr '46
Observation of gold particles in glass with the electron microscope. G. S. Bachman and others. bibliog il Glass Ind 27:399+ Ag '46

GLASS, Colored—*Continued*
Specification of railroad signal colors and glasses. K. S. Gibson and others. bibliog diags Opt Soc Am J 35:772-95 D '45; Same. J Res Nat Bur Stand 36:1-30 Ja '46
Unusual colors produced by uranium in glasses. W. Colbert and N. J. Kreidl. diags Opt Soc Am J 35:731-5 N '45
See also
Stained glass

GLASS, Effect of alkalies on
Resistance of plate glass to alkaline solutions. M. S. Tarnopol and A. E. Junge. Am Cer Soc J 29:36-9 F 1 '46; Abstract. Glass Ind 27:191 Ap '46

GLASS, Heat absorbing
Heat absorbing glass transmits light with high efficiency. il Sci Am 174:172-3 Ap '46
Heat-screening glass. il Bsns W p56 D 22 '45
Russian heat intercepting glass. N. V. Golubeva and I. M. Prok. Glass Ind 27:77+ F '46

GLASS, Heat resisting
Resistance of glass to thermal stresses. O. H. Clark. bibliog Am Cer Soc J 29:133-8 My 1 '46

GLASS, Laminated
Coated glass eliminates icing and fogging. il Product Eng 17:153 N '46
Planes of glass? Bsns W p56 N 10 '45
See also
Glass, Safety

Testing
High speed rain abrasion of glass cloth laminates. R. M. Robertson, R. J. Lobisser and R. E. Stein. il diag Ind & Eng Chem 38:590-1 Je '46

GLASS, Molten
Effect of molybdenum and other oxides on surface tension of silicate melts and on properties of refractories and abrasives. C. R. Amberg. bibliog diag Am Cer Soc J 29:87-93 Ap 1 '46
New method developed for processing wire and strip in molten glass; cleaning ferrous metal coated with lead. J. J. Caugherty. diags Steel 114:102-4+ Je 18 '44; Abstract. Cer Ind 47:61-2 Jl '46
Studies in the distribution of temperature through molten glasses in a tank. R. Halle and W. E. S. Turner. Glass Ind 26:521+; 27:136 N '45, Mr '46; Abstract. Am Cer Soc J 29 (Cer A[25]):124 Jl 1 '46

GLASS, Opal
Composition for making opal glass; patent. Glass Ind 27:135 Mr '46
Stirring device for mixing glass as it comes from continuous tank; patent. diag Glass Ind 27:133 Mr '46

GLASS, Optical
Coated lenses; quarter-wave anti-reflection coatings. il Consumers Res Bul 17:17-20 My '46
Effect of chemical composition on refractive index and Abbe value for ternary silicate glass systems. M. L. Huggins and others. Am Cer Soc J 29:159-61 Je 1 '46
Experimental and theoretical results in two-layer low reflecting coatings for glass. P. King and L. B. Lockhart. Opt Soc Am J 36:513-17 S '46
Optical glass in Germany. Glass Ind 27:562+ N '46

Manufacture
Annealing kiln for optical glass; patent. diag Glass Ind 27:296 Je '46
Attack on refractory clay pots by optical glasses. W. H. Parsons and H. Insley. bibliog J Res Nat Bur Stand 36:31-45, pl 1-15 Ja '46
Bausch & Lomb achieved enormous optical production in wartime. L. J. Sullivan. il Glass Ind 27:291+ Je '46
Germany's optical glass industry. H. Helfer. il Cer Ind 46:56-7 Mr '46
Latent milling marks on glass. F. S. Jones. il Am Cer Soc J 29:108-14 Ap 1 '46; Abstract. Glass Ind 27:403 Ag '46
Optical glass in war. H. Chance. Engineering 162:343, 366 O 11-18 '46; Same cond. Engineer 182:305-7 O 4 '46
Patent for making optical glass assigned to Bausch & Lomb optical company by Walter A. Fraser. Glass Ind 27:506 O '46
Slip casting of clay pots for the manufacture of optical glass at the National bureau of standards. R. A. Heindl and others. bibliog il diag U S Nat Bur Stand Circ C452: 1-20; pa 10c Supt. of doc. '46; Same. Glass Ind 27:177-81+ Ap '46

Testing
Hygroscopicity and electrode function (pH response) of glasses as a measure of serviceability. D. Hubbard. bibliog J Res Nat Bur Stand 36:511-20 Je '46
Hygroscopicity of optical glasses as an indicator of serviceability. D. Hubbard. bibliog J Res Nat Bur Stand 36:365-75 Ap '46

GLASS, Powdered
Sintered glass. E. G. Dorgelo. il Glass Ind 27: 347-8+ Jl '46
Sintered glass disks. A. D. Mack. il Science 103:21-2 Ja 4 '46

GLASS, Safety
Improved laminated safety glass. Engineering 162:380 O 18 '46
Polyvinyl butyral, its use in laminated safety glass. Chem Age (Lond) 55:354 S 21 '46
Shock-resistant safety lenses. C. D. Oughton. il Glass Ind 27:121-4+ Mr '46

GLASS, Stained. See Stained glass

GLASS, Structural
Architectural glass; abstract. B. G. Koldaev. Am Cer Soc J 29 (Cer A [25]):77 My 1 '46
Progress, 1926-1946; glass in modern home design. il Am Bld 68:121 O '46
See also
Glass, Laminated
Glass construction

GLASS blocks
How to adapt glass block for bathroom use. il plan diags Am Bld 68:123 F '46
How to use glass block in the bath. il plans diags Am Bld 67:96-7 D '45
Light with privacy for commercial structures; use of glass block. il Am Bld 68:70-1 Ja '46
Number of glass block for various openings; tabulation. Brick & Clay Rec 109:25 O '46
Process of making cellular blocks; patent. diag Glass Ind 27:351 Jl '46

GLASS blowing and working
Glass tubing. R. E. Threfall. Engineering 161:222-3 Mr 8 '46
Manufacture and repair of glass laboratory apparatus. W. N. Epler. il Pet Refiner 25: 113-15 My '46

GLASS construction
Trend in bank buildings; glass used for structural and decorative purposes. il Banking 38:40-1+ D '45

GLASS container industry
Court acts in glass case; Frank C. Kniffen to determine royalties of Hartford-Empire co. Bsns W p21 My 25 '46
Expectations for glass container export market. Glass Ind 27:237+ My '46
Glass container manufacturers institute 1st semi-annual meeting, Miami. Glass Ind 27: 22-3+ Ja '46
Glass containers in Canada and Middle America. C. C. Gartland. il For Comm W 21:6-7+ D 1 '45
Glass industry in transition. Bsns W p79-80 O 12 '46
Glass trust suit filed against Hartford-Empire et al. Bsns W p34 Mr 16 '46
Warehousing today's extra glass container production. il Cer Ind 46:65-7 My '46

Great Britain
Glass container shortage in Great Britain is critical. T. C. Sutcliffe. il Glass Ind 27:185 Ap '46

GLASS container manufacturers institute
First semi-annual meeting, Miami. Glass Ind 27:22-3+ Ja '46
First semi-annual reports. Cer Ind 46:74 Ja '46

GLASS containers
Changes in distilled water stored in glass ampoules; abstract. A. L. Hinson and others. Cer Ind 46:72 Je '46
Coffee packaging; Owens-Illinois improved glass jar. Bsns W p58+ Ag 31 '46

GLASS containers—*Continued*
Coffees designed for modern living. il Mod Packaging 19:122-3+ D '45
Container glass of high alumina content; translated digests from German. Glass Ind 27:293+ Je '46
New glass package for coffee; new jar, new resealing closure, new vacuumizing machine. il Mod Packaging 19:108-11 Ap '46
Nitrocellulose coating protects glass containers. Mod Plastics 23:200 Je '46
Sterile dispenser for dried human blood cells. il Mod Packaging 19:159 Mr '46

See also
Carboys

Manufacture

Foster-Forbes modernizes it's batch handling. F. R. Motsch. il Glass Ind 27:233-6+ My '46
Owens-Illinois modern Waco plant. il Cer Ind 46:58-60 Mr '46
Ware faults in glass containers. diags Cer Ind 46:68+ My; 47:64+ Jl; 59 Ag; 78+ S; 60 O '46

Transportation

Proposed shipping carton rules threaten glass industry. Glass Ind 27:398+ Ag '46

GLASS electrodes. See Electrodes, Glass

GLASS fabrics
Coating; an answer to the surplus glass fabric problem. M. W. Cerf. il Textile Col 68:20-1+ Ap '46
Doron armor; achievement and a promise in plastics. E. C. Fetter. il Chem & Met Eng 53:154-7 F '46
Fiberglas hopes for bigger role in textiles' future. Textile Col 67:166-7 D '45
Fireproof fabrics for ship draperies and decoration. il Marine Eng 50:272 N '45
German insulating material overcoming the mica shortage. Chem Age (Lond) 53:597-8 D 22 '45
High speed rain abrasion of glass cloth laminates. R. M. Robertson, R. J. Lobisser and R. E. Stein. il diag Ind & Eng Chem 38:590-1 Je '46
Plastic molds for electronic vulcanizing; resin-impregnated glass fiber fabric molds. il Mod Plastics 23:142-5 Jl '46
Vinyl bags for low-pressure molding. il Mod Plastics 23:133-4 F '46

See also
Glass, Laminated
Plastic materials, Laminated—Glass reinforcement

Advertising

Stockholders prove potential customers; Duplan glass cloth. Ptr Ink 216:54 S 6 '46

GLASS factories
Ball brothers' rebuilt number 1 factory stresses fire protection. L. Augburn. il Glass Ind 27:549-51+ N '46
Foster-Forbes modernizes it's batch handling. F. R. Motsch. il Glass Ind 27:233-6+ My '46
Owens-Illinois modern Waco plant. il Cer Ind 46:58-60 Mr '46

See also
Glass manufacture

Employees

Glass contract. Bsns W p95 Jl 27 '46
Glass strike. Bsns W p106+ D 1 '45
Service training program at Hartford-Empire. Glass Ind 27:343-4 Jl '46

Equipment

Glass fibre matting conveyor. J. A. Oates. il plans Mech Handling 33:145-9 Mr '46
More progress with better equipment; illustration with text. Cer Ind 46:58-9 My '46

Power

Modernization of power plant produces high fuel savings; Rossford, Ohio, plant of Libbey-Owens-Ford glass company. W. E. Hopkins. flow diag il Power Pl Eng 49:66-8 O '45

Safety measures

Accident prevention in the small glass plant. E. W. Fair. Glass Ind 27:73+ F '46
Find out why? glass factory roof collapse averted. F. A. Linke. Safety Eng 91:58-9 Mr '46

GLASS fibers
About Mr Moody, who is putting new ideas into mattresses. il Sales Management 57: 63-4 N 1 '46
Acoustical ceiling treatment employs simple installation of fiberglas. il diag Arch Forum 84:184 My '46
All fiberglass roof. il Sheet Metal Worker 37: 51 Jl '46
Artificial legs must be light, strong, well fitted. L. Daly. il Mod Plastics 23:112-14 Ag '46
Cement plant generator failures cut by fiberglas insulation. il Concrete (mill sec) 53: 142 N '45
Data on low-pressure laminating resins, fold charts Mod Plastics 23:144-5 Je; 146-7 Jl '46
Desalting of petroleum by use of fiberglas packing. T. A. Burtis and C. G. Kirkbride. bibliog flow diag Am Inst Chem Eng Trans 42:413-37 Je '46; Abstracts, Chem & Met Eng 53:258+ Ap '46; Nat Pet N 38 pt 2: R492+ Jl 3 '46; Discussion. Am Inst Chem Eng Trans 42:438-9 Je '46
Desalting of petroleum with fiberglas packing. C. G. Kirkbride. flow diag Pet Refiner 25:95-103 Jl '46
Discussion of the acoustical properties of fiberglas. W. M. Rees and R. B. Taylor. Soc Motion Picture Eng J 46:52-63 Ja '46
Distilling efficiency improved; fiberglas tower packing. Franklin Inst J 240:396 N '45
Fiberglas converts for peace. il Chem & Eng N 24:2070-1 Ag 10 '46
Fiberglas hopes for bigger role in textiles' future. Textile Col 67:166-7 D '45
Fiberglas misused; surplus flare-shade material used as lining for wearing apparel. Bsns W p69-70 Ja 12 '46
Fiberglas sales props show industrials jig-time way to insulate water heaters. il Sales Management 56:41 Ap 15 '46
Fiberglas tower packing helps Atlantic engineers speed production of high octane gasoline. Franklin Inst J 240:432 N '45
Fibreglass; its manufacture and uses. A. M. Robertson. Chem & Ind p138-9, 146-7 Mr 30-Ap 6 '46
Fibrous glass in the power plant. H. R. Hogendobler. il Power Pl Eng 50:88-90+ Jl '46
Fracture cast knitted of glass and plastic; abstract. R. Anderson and H. R. Erickson. Franklin Inst J 241:312-13 Ap '46
Glass fibre matting conveyor. J. A. Oates. il plans Mech Handling 33:145-9 Mr '46
Impregnated glass substitute for mica as insulation between commutator segments. Elec World 125:83-4 F 2 '46
Improvements in manufacture of glass filaments invented by L. Simison and Ed Fletcher. diag Glass Ind 27:506-7 O '46
Manufacture of fibreglass. il Engineering 160: 371-4, 376 N 9 '45
Milled glass fibers improve paper, plastics, abrasives, and paint. Sci Am 174:34-5 Ja '46
New uses for fiberglas material. R. H. Oppermann. Franklin Inst J 241:22 Ja '46
Patent assigned to the Linde air products company. diag Glass Ind 27:452 S '46
Plastic bands and slabs reinforced with glass fibers, abstract. A. K. Burov. Glass Ind 27:294+ Je '46
Products in paper, plastics, abrasives, and paint fields are improved by the incorporation of new fiberglas milled fibers; abstract. Franklin Inst J 241:457-8 Je '46
Resin bonded glass fiber fly-rod. A. M. Howald. il Mod Plastics 23:124-5 F '46
Soundproofing with plastics; resin impregnated glass fiber. il Mod Plastics 23:117 Jl '46
Superfine glass fibers. il Chem & Eng N 23: 2128 N 25 '45; Rayon 26:594 N '45
Thermal-expansion stresses in reinforced plastics; polystyrene and aluminum oxide; phenol-formaldehyde resin and glass fibers; plywood, etc. P. S. Turner. J Res Nat Bur Stand 37:239-50 O '46
Use of fibrous glass in underground pipe protection; abstract. J. A. Grand and S. M. Peek. Nat Pet N 38 pt 2:R453 Je 5 '46

GLASS fibers—*Continued*
What's new. T. P. Reynolds. il Dom Comm 34:67-73 O '46

See also Plastic materials, Laminated—Glass reinforcement

Advertising

How Fiberglas tells to sell; promotes warm air heating and air conditioning. W. R. Northlich. Ind Marketing 31:37-8+ Ag '46; Same. il Ptr Ink 216:36-8 Ag 23 '46

GLASS flow
Flow lines in a continuous melting glass furnace as determined by cobalt oxide and pictured on color photographs. V. W. Lenz. il diag Am Cer Soc J 29:8-15 Ja 1 '46
Flow of glass in tank furnaces; papers of Bishop and Lenz. Glass Ind 27:352+ Jl '46
Glass flow and tank design. diags Cer Ind 45:68-9 D '45; 46:94 Ap '46

GLASS furnaces
Anchor Hocking lehr loader or stacker; patent. diag(p102) Glass Ind 27:79 F '46
Flow lines in a continuous melting glass furnace as determined by cobalt oxide and pictured on color photographs. V. W. Lenz. il diag Am Cer Soc J 29:8-15 Ja 1 '46
Hartford-Empire batch feeding apparatus; patent. diag Glass Ind 26:564 D '45
Reversing regenerative furnaces, as applied to the glass industry. J. R. Green. diags Cer Ind 46:56-9 F '46
Soviets develop new refractory material for glass furnaces; Thermomullite. For Comm W 24:33 S 28 '46
Town gas in the glass industry. R. J. Bradshaw. Gas J (Lond) 246:636+ N 7 '45

See also
Glass pots
Glass tanks

Control

Automatic control for the glass industry. H. Ziebolz. diags Cer Ind 45:70+ D '45

Patents

Stirring device for mixing glass as it comes from continuous tank. diag Glass Ind 27:133 Mr '46

GLASS lining
A. O. Smith corporation, adventurer in the field of ceramics. il Am Cer Soc Bul 25: 169-72 My 15 '46
Phosphoric acid vs. materials of chemical plant construction; glass-lined steel. O. I. Chormann. Chem & Met Eng 53:226+ Jl '46
Stresses in cylindrical glass-metal seals with glass inside. A. W. Hull. diags J Ap Phys 17:685-7 Ag '46

GLASS machinery

Patents

Continuous chain forming machine patent. diag Glass Ind 26:565 D '45
Corning double glazed cell forming machine; patent. diag Glass Ind 27:243 My '46
Device for cooling the suction molds of an Owens machine. diags Glass Ind 27:400-1 Ag '46
Device for transferring ware, such as tumblers, from a blowing machine to a burn-off machine. diag Glass Ind 27:561+ N '46
Glass feeder shears invented by W. C. Weber. diag Glass Ind 27:350 Jl '46
Inventions and inventors; a summary of recently issued patents of interest to the glass industry. diags Glass Ind 27:25-7+ Ja '46 [cont monthly]
Lehr stacker. diag Glass Ind 27:561 N '46
Machine for heating glass, sealing electric lamps, granted to Ernest Greetham, London. diags Glass Ind 27:507+ O '46
Machine for making lamp bulbs; Alien property custodian patent. diags Glass Ind 27: 452 S '46
Machine for sealing ampoules; patent. diag Glass Ind 27:507 O '46
Owens brick sealing machine. diag Glass Ind 27:400-1 Ag '46
Owens-Corning fiber machine. diag Glass Ind 27:295 Je '46
Patent assigned to the Linde air products company. diag Glass Ind 27:452 S '46
Patent no. 2,398,465 assigned to S & Z manufacturing company by Samuelson and Zappia; forming machine. diag Glass Ind 27: 242 My '46
Preston forming machine; patent. diag Glass Ind 27:295 Je '46
Westinghouse manufacture of electric light bulbs. diag Glass Ind 27:133-4 Mr '46

GLASS manufacture
Flat glass plant stresses control; St Paul plant of Ford motor co; illustrations with text. Cer Ind 47:56-8 Ag '46
Flow lines in a continuous melting glass furnace as determined by cobalt oxide and pictured on color photographs. V. W. Lenz. il diag Am Cer Soc J 29:8-15 Ja 1 '46
Glass batches; recipes. Cer Ind 46:138+ Ja '46
Glass for lamps; making components for standard metal filament types. il Elec R (Lond) 138:479-84 Mr 29 '46
Heavy chemical industry in 1945; glass manufacture. P. Parrish. il diag Chem Age (Lond) 54:37-40 Ja 12 '46
Importance of gas in glass making pointed out to Federal power commission. Glass Ind 27:193 Ap '46
Important data can be obtained from study of German glass plants. H. L. Dillingham. Glass Ind 26:563 D '45
Influence of batch mixing time and batch grain size on homogeneity of a soda-lime-silica glass. F. V. Tooley and R. L. Tiede. Am Cer Soc J 29:197-9 Jl 1 '46
Method for measuring fining time of glass. A. K. Lyle. il diags Am Cer Soc J 28:282-7 O 1 '45; Abstract. Glass Ind 27:80 F '46
Relation between inelastic deformability and thermal expansion of glass in its annealing range. A. Q. Tool. bibliog Am Cer Soc J 29:240-53 S 1 '46; Same. J Res Nat Bur Stand 37:73-90 Ag '46
Schematic drawing showing manufacture of Pennvernon window glass at the Pittsburgh (Pa.) plate glass co. Cer Ind 46:60 F '46
Should there be a final automatic check on glass batch correctness. il diags Cer Ind 45:64+ N '45
Town gas in the glass industry. R. J. Bradshaw. Gas J (Lond) 246:636+ N 7 '45; Discussion. 246:678 N 14 '45

See also
Glass, Optical—Manufacture
Glass factories
Glass furnaces
Glass machinery
Glass tanks
Glassware—Manufacture

Patents

Glass useful as insulating medium in electrical condensers for radio circuits; three Corning patents. Glass Ind 27:135 Mr '46
Inventions and inventors; a summary of recently issued patents of interest to the glass industry. diags Glass Ind 27:25-7+ Ja '46 [cont monthly]
Tempering of sheet glass. diags Glass Ind 27: 350-1 Jl '46
Wright patent on a method of refining glass. diag Glass Ind 26:565 D '45

Study and teaching

Proposed five-year option in glass engineering and technology at Ohio state university. Glass Ind 27:186 Ap '46

GLASS melting
Apparatus for making silica glass; patent. H. J. Nachod. diag Glass Ind 27:296+ Je '46
Dielectric melting of glass in France; abstract. M. Descarsin. Glass Ind 27:184+ Ap '46
Glassmelting in laboratory electric furnaces; abstract. W. A. Hedden and others. Cer Ind 46:74 Je '46
Speeding up glass melting. A. Dietzel. Glass Ind 27:345+ Jl '46

See also
Glass, Molten
Glass flow

GLASS pots
Attack on refractory clay pots by optical glasses. W. H. Parsons and H. Insley. bibliog J Res Nat Bur Stand 36:31-45, pl 1-15 Ja '46

GLASS pots—*Continued*
It worked with saggers, why not with glass pots; adding talc to glass pot batches. il Cer Ind 47:74+ S '46; Same. Brick & Clay Rec 109:56+ O '46
Slip casting of clay pots for the manufacture of optical glass at the National bureau of standards. R. A. Heindl and others. bibliog il diag U S Nat Bur Stand Circ C452: 1-20; pa 10c Supt. of doc. '46; Same. Glass Ind 27:177-81+ Ap '46

GLASS reinforcement of plastics. See Plastic materials, Laminated—Glass reinforcement

GLASS research
Dielectric properties of glasses at ultra-high frequencies and their relation to composition. L. Navias and R. L. Green. bibliog diag Am Cer Soc J 29:267-76 O 1 '46
Influence of batch mixing time and batch grain size on homogeneity of a soda-lime-silica glass. F. V. Tooley and R. L. Tiede. Am Cer Soc J 29:197-9 Jl 1 '46

GLASS sculpture
Glass, a miracle medium for artistic expression. I. F. Pogue. il Cer Ind 46:62 F '46

GLASS tanks
Effect of steelwork on heat loss through glass tank bottoms. H. T. Smyth. diags Am Cer Soc J 29:31-6 F 1 '46
Expand use of basic refractories in glass tanks. il Cer Ind 45:67-8 N '45; Same. Brick & Clay Rec 107:61-2 N '45
Flow of glass in tank furnaces; papers of Bishop and Lenz. Glass Ind 27:352+ Jl '46
Glass flow and tank design. diags Cer Ind 45:68-9 D '45; 46:94 Ap '46
Insulation of continuous glass tanks and other glass making equipment; abstract. W. R. Kerr. Glass Ind 27:287 Je '46
Method for measuring fining time of glass. A. K. Lyle. il diags Am Cer Soc J 28: 282-7 O 1 '45; Abstract. Glass Ind 27:80 F '46

GLASS trade
Glass products on the business horizon. J. V. Sherman. Barron's 26:5 F 18 '46
How local market analysis helps distributor sales; Libbey-Owens-Ford research. G. H. Kent. Ind Marketing 31:57+ Jl; 47+ Ag '46

Advertising

Case histories of business-paper advertising campaigns; selling product designers ideas and services; Corning Glass. il Ptr Ink 215: 46 My 17 '46
$5,000 annual ad budget revived a dying business; Imperial glass corp. E. M. Housman. il Ptr Ink 216:33-4 Jl 19 '46

Law

New law suits in the glass industry. L. T. Parker. Cer Ind 46:96-8+ Ap '46

Statistics

Census bureau resumes release of glass industry data. Glass Ind 27:132+ Mr '46
Statistics on glass manufacture, 1941 and first half of 1942; tabulation. Cer Ind 46:61 F '46

Czechoslovakia

Glass industries in Czechoslovakia. Glass Ind 27:187 Ap '46

Germany

Germany's optical glass industry. H. Helfer. il Cer Ind 46:56-7 Mr '46
Optical glass in Germany. Glass Ind 27:562+ N '46
Status report on the German ceramic, glass and refractories industries in the U.S. zone of occupation. J. M. Warde. maps Am Cer Soc Bul 25:321-32 S 15 '46

Lebanon

Glass production and trade. For Comm W 21: 37 N 17 '45

Nicaragua

Imports into Nicaragua. For Comm W 21:29 D 1 '45

Syria

Glass production and trade. For Comm W 21: 37 N 17 '45

United States

Check rein on glass makers' growth. Barron's 26:6 O 28 '46
Flat glass industry files answer to anti-trust suit. Glass Ind 27:292+ Je '46

GLASS tubing
Glass tubing. R. E. Threfall. Engineering 161:222-3 Mr 8 '46; Abstracts. Chem Age (Lond) 54:211-12 F 23 '46; Chem & Ind p107-8 Mr 9 '46
Mechanism for reshaping either the internal or external surfaces of glass tubes; patent. diag Glass Ind 27:148 Mr '46

Manufacture

British tube drawing machine; patent. diag Glass Ind 27:188 Ap '46
Danner tube forming machine. diags Glass Ind 27:25-6 Ja '46

GLASS tumblers. See Tumblers, Glass

GLASSER, Harold, 1905-
Appointed as Treasury head of Monetary research division. por Comm & Fin Chr 164:1146 Ag 29 '46

GLASSINE
Glassine, its improved packaging properties. C. W. Hoffman and E. G. Penn. il Mod Packaging 19:136-9 N '45
Suitability of yellow birch for glassine paper manufacture. J. A. Feola and C. E. Libby. bibliog il diag Paper Tr J 123:64-72 S 26 '46

GLASSWARE
Women vote on china and glassware. Cer Ind 47:49 Jl '46

See also
Glass containers
Glass tubing
Tumblers, Glass

Manufacture

Anchor Hocking lehr loader or stacker; patent. diag(p102) Glass Ind 27:79 F '46
Surface chemistry of glass molds; improvements in gray iron molds or methods of using them. W. E. Thrun and H. K. McGrath. bibliog Glass Ind 27:340-2+ Jl '46
Viscosity and working characteristics of glasses. Glass Ind 27:245 My '46

See also
Glass blowing and working
Glass containers—Manufacture

Transportation

Shipping glass damage-free; bonded-block method of loading. il diags Cer Ind 47:56+ O '46

GLASSWARE, Laboratory
Use of sulfuric acid-dichromate mixture in cleaning glassware. R. J. Henry and E. C. Smith. Science 104:426-7 N 1 '46

GLAZES
Borosilicate glass containing columbium and tantalum for use as a low fusing enamel for application to glass; patent. Glass Ind 27:189 Ap '46
Effect of composition on properties of cone 11 zirconium silicate-opacified glazes. R. R. Danielson. bibliog Am Cer Soc J 29:282-7 O 1 '46
Effect of molybdenum and other oxides on surface tension of silicate melts and on properties of refractories and abrasives. C. R. Amberg. bibliog diag Am Cer Soc J 29:87-93 Ap 1 '46
Investigations on crazing. L. Mattyasovszky-Zsolnay. bibliog Am Cer Soc J 29:200-4 Jl 1 '46
Lead replacements in dinnerware glazes. H. J. Orlowski and J. Marquis. il Am Cer Soc J 28:343-57 D 1 '45; Same. Ohio State Univ Eng Exp Sta Bul 125:1-58 '46
Leadless and colored fritted glazes. C. W. Parmelee. Cer Ind 45:84+ N '45
Low fusing enamels for application to glass; patent. Glass Ind 27:188 Ap '46
Overglaze decorating. il Cer Ind 45:92+ D '45
Porcelain glazes. C. W. Parmelee. bibliog Cer Ind 46:120+ Ap; 76+ My; 76+ Jl '46
Pottery glazes; recipes. Cer Ind 46:150+ Ja '46
Quick review of the latest kinks used in salt glazing. il diag Brick & Clay Rec 109:44-5 Ag '46
Raw lead glazes. C. W. Parmelee. bibliog Cer Ind 45:86+ D '45; 46:78+ F; 76+ Mr '46
Reproduction of Temmoku glazes; abstract. W. J. Sutton and M. Negoro. Cer Ind 46:60 Je '46

GLAZES—*Continued*
Steatite glazes. L. E. Thiess. il Am Cer Soc J 29:84-6 Mr 1 '46
Use of soda feldspar in whiteware bodies. G. A. Loomis and A. R. Blackburn. bibliog il Am Cer Soc J 29:48-57 F 1 '46
See also
Engobes
Slips (ceramics)
Terra sigillata
Testing
Wear-testing ceramic finishes; Taber abraser tests enamel, glaze, and glass surfaces. il Cer Ind 47:72 S '46
GLENVIEW, Illinois
See also
Housing—Glenview, Illinois
GLIDDEN, William Roy, 1889-
Sketch. por Civil Eng 15:570 D '45
GLIDERS
Aerodynamics of glider flight. W. Z. Stepniewski. bibliog diags Aero Digest 51:56-8+ O 1 '45; 52:58-60+ F; 53:82-4+ S '46
Auxiliary engine enables glider to take off without tow; Bumblebee. il Aero Digest 51:126 D 15 '45
British wing glider received calmly here. il Aviation N 5:9-10 Je 24 '46
Chanute calls a conference; early glider experiments. J. Hettich. Aero Digest 52:28+ Mr '46
Design development of Horten flying wings. diags Aviation 45:65-8 Ag '46
Design requirements for pickup aircraft; glider pick-up. A. B. Schultz. il diags S A E J 54:11-16 Ja '46
Glider freight; air force veterans launch first licensed U.S. glider cargo service. il Bsns W p38+ My 4 '46
Here's Bumblebee, powered-soarer. il Aviation 44:185 D '45
Montgomery and the birds. J. Hettich. Aero Digest 52:40+ Ja '46
Motorless flight. A. Klemin. il Sci Am 174: 17-19 Ja '46
N.Y. glider firm organized to service soaring sportsmen. Aviation N 5:17 Je 24 '46
Renewal of interest in gliding. il Aero Digest 53:58+ O '46
Rocket boost forecast for lightplane use; and to lift gliders and sailplanes up to soaring altitudes. il Aviation N 5:25 Je 17 '46
Soaring comes of age. P. A. Schweizer. Aero Digest 52:34-5 F '46
Transport efficiency of aerial trains; airplane towing a number of gliders. P. Shih. il Aero Digest 51:69-70+ D 1 '45
Utility glider. Sci Am 175:122 S '46
Will gliders close South America's transport gap? G. M. Galster. il Aviation 45:42-3 Jl '46
Testing
Bowlus testing new powered glider. il Aviation N 4:8 N 19 '45
Determination of ground effect from tests of a glider in towed flight. J. W. Wetmore and L. I. Turner, jr. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:295-307 '41
GLIOTOXIN
Reversible inactivation of gliotoxin by thiols. C. J. Cavallito, J. H. Bailey and W. F. Warner. Am Chem Soc J 68:715 Ap '46
GLOBES, Astronomical
Globe computer, new avigation aid. R. A. Bleier. il Aero Digest 52:87+ Ja '46
GLOBULINS
Engineering technique commercializes human blood fractionation. J. R. Callaham. flow diag il Chem & Met Eng 53:101-3 Je '46
Mixed monolayers of β-lactoglobulin and lauryl sulfate. H. B. Bull. Am Chem Soc J 68:747-8 My '46
Monolayers of β-lactoglobulin; film molecular weight. H. B. Bull. Am Chem Soc J 68:745-7 My '46
Osmotic pressure of β-lactoglobulin solutions. H. B. Bull and B. T. Currie. bibliog diag Am Chem Soc J 68:742-5 My '46
Peptic digestion of human gamma globulin. W. B. Bridgman. bibliog Am Chem Soc J 68:857-61 My '46
Splitting of human gamma globulin antibodies by papain and bromelin. M. L. Petermann. bibliog Am Chem Soc J 68:106-13 Ja '46
Studies on protein denaturation; electrophoretic study kinetics at neutrality of heat denaturation of β-lactoglobulin. D. R. Briggs and R. Hull. bibliog Am Chem Soc J 67:2007-14 N '45
GLOSS
Cooperative study of gloss measurements. Paint Oil & Chem R 108:106 N 1 '45
GLOSS meters
Cooperative study of gloss measurements. Paint Oil & Chem R 108:106 N 1 '45
Glossmeter for smoothness comparisons of machine-finished surfaces. R. S. Hunter. pl diag J Res Nat Bur Stand 36:385-91 Ap '46; Same. il Opt Soc Am J 36:178-81 Mr '46
GLOVES
Glove shortage. Bsns W p63 Ag 24 '46
GLOVES, Rubber
Care of rubber gloves. Safety Eng 92:53 Ag '46
GLOVES, Safety
Care of safety gloves. Safety Eng 91:64 F '46
Handle with gloves; arc welding electrode holder, source of danger. il Safety Eng 91: 18 F '46
Protection for hands and arms. Nat Safety N 53:62+ Mr '46
Solvent-resistant gloves. D. F. Hayes. il Safety Eng 91:67-9 Je '46
GLUCO-*gulo*-heptitol
3,5-Benzylidene and 3,5-methylene acetals of gluco-*gulo*-heptitol. R. M. Hann, A. T. Ness and C. S. Hudson. bibliog Am Chem Soc J 68:1769-74 S '46
GLUCONIC acid
Oxidation of galacturonic acid and of 5-keto-gluconic acid in alkaline solution. H. S. Isbell and N. B. Holt. bibliog J Res Nat Bur Stand 35:433-8 N '45
GLUCOSAN
New anhydride of D-glucose; D-glucosan <1,4>β<1,6>. R. J. Dimler, H. A. Davis and G. E. Hilbert. Am Chem Soc J 68:1377-80 Jl '46
See also
Levoglucosan
GLUCOSE
Allyl ethers of carbohydrates; ethers of glucose and galactose. E. A. Talley, M. D. Vale and E. Yanovsky. bibliog Am Chem Soc J 67:2037-9 N '45
Blood sugar level following intravenous glucose in rheumatoid arthritis. J. E. Flynn and O. J. Irish. bibliog Science 104:344-6 O 11 '46
Comparison between certain reactions of the aloins and those of glucose. J. H. Gardner. bibliog Am Chem Soc J 67:2111-12 D '45
Effect of alloxan on the in vitro formation of glucose by the liver. A. Canzanelli and others. bibliog Science 104:223 S 6 '46
Formation of 5-hydroxymethylfurfural from D-glucose in aqueous solution. B. L. Scallet and J. H. Gardner. bibliog Am Chem Soc J 67:1934-5 N '45
Isolation and structure of an enzymatically synthesized crystalline disaccharide D-glucosido-D-ketoxyloside. W. Z. Hassid and others. bibliog Am Chem Soc J 68:1465-7 Ag '46
New anhydride of D-glucose; D-glucosan <1,4>β<1,6>. R. J. Dimler, H. A. Davis and G. E. Hilbert. Am Chem Soc J 68:1377-80 Jl '46
Studies on glass; heats of solution of crystalline and glassy glucose, heat of mutarotation of α-glucose. R. D. Rowe and G. S. Parks. diag J Chem Phys 14:383-8 Je '46
Study of the behavior of dextrose sodium chloride in hydrochloric acid solutions. L. D. Ough and G. T. Peckham, jr. bibliog Am Chem Soc J 68:136-7 Ja '46
Sugar interconversion under reducing conditions. M. L. Wolfrom and others. bibliog Am Chem Soc J 68:122-6, 578-80, 1443-8 Ja, Ap, Ag '46

GLUCOSE phosphates
Midwest award to the Coris; address for the medalists; isolation and synthesis of phosphorylase. C. F. Cori. bibliog Chem & Eng N 24:895-6 Ap 10 '46

GLUCOSIDES
β-Glycoside formation in plants from absorbed chemicals. L. P. Miller. Science 103: 458 Ap 12 '46

GLUCOSIDOKETOXYLOSIDE
Isolation and structure of an enzymatically synthesized crystalline disaccharide D-glucosido-D-ketoxyloside. W. Z. Hassid and others. bibliog Am Chem Soc J 68:1465-7 Ag '46

GLUCO*TAGATO*OCTOSE
D-gluco-L-*tagato*-octose. M. L. Wolfrom and A. Thompson. bibliog Am Chem Soc J 68: 1453-5 Ag '46

GLUE
Electronic heating in the furniture industry. E. S. Winlund. il diags Electronics 19:108-13 My '46

Fortified glues resist tropical conditions. Sci Am 174:203 My '46

Gap-filling glue. il Sci Am 175:79 Ag '46

Glue-line stresses in laminated wood. A. G. H. Dietz and others. diags A S M E Trans 68:329-35 My '46

Glued unit loads cut breakage of bottled goods. C. W. Braden. il Mod Packaging 19:118-20+ Ja '46

Hygroscopicity of softened glue composition. W. C. Griffin. bibliog Ind & Eng Chem 37:1126-30 N '45

Joints in a jiffy; electronic heating. J. Markus. il diags Sci Am 174:245-8 Je '46

Liquid urea resin glue. Chem Eng 53:145 Ag '46

New applications of glue in the automotive field. H. B. Sweatt. Automotive & Aviation Ind 93:25+ D 1 '45

Properties of animal glue. H. B. Sweatt. J Chem Educ 23:192-4 Ap '46

See also
Adhesives
Mucilage

Analysis

Phenolic resin glue line as found in yellow birch plywood. C. A. Farrow, D. H. Hamly and E. A. Smith. bibliog il Ind & Eng Chem Anal ed 18:307-10 My '46

Testing

Peanut-meal plywood glue. R. S. Burnett and E. D. Parker. bibliog A S M E Trans 68: 751-6 O '46

GLUTAMINE
Chemical characteristics and physiological rôles of glutamine. R. M. Archibald. bibliog(309 references) Chem R 37:161-208 O '45

Glutamine from rye grass. G. J. Raleigh. Science 103:206 F 15 '46

GLUTATHIONE
Effect of some sulfhydryl-containing substances on the toxicity of an organic mercurial compound. W. K. Long and A. Farah. bibliog Science 104:220-1 S 6 '46

GLYCERIDES
Segregation of linseed oil glycerides by chromatography; abstract. F. T. Walker. Paint Oil & Chem R 108:9-10 N 29 '45

Synthesis of a homologous series of optically active normal aliphatic α-monoglycerides (L-series). E. Baer and H. O. L. Fischer. bibliog Am Chem Soc J 67:2031-7 N '45

X-ray investigation of glycerides; diffraction analysis of 1-monoarachidin (1-monoeicosanoate). S. S. Sidhu and B. F. Daubert. Am Chem Soc J 68:1975-6 O '46

X-ray investigation of glycerides; diffraction analyses of symmetrical monoöleyl-disaturated triglycerides. L. J. Filer, jr. and others. bibliog Am Chem Soc J 68:167-71 F '46

X-ray investigation of glycerides; diffraction analyses of synthetic triacid triglycerides. L. J. Filer, jr. and others. bibliog Am Chem Soc J 67:2085-9 D '45

GLYCERIN
Aqueous solutions of alcohols as confining liquids for gas analysis; solubility of carbon dioxide. K. A. Kobe and G. E. Mason. Ind & Eng Chem Anal ed 18:78-9 Ja '46

Esterification of fatty acids with glycerol. N. Ivanoff. Chem & Met Eng 53:270 Mr '46

Glycerine as essential raw material of the paint industry; alkyd resins. G. Leffingwell and M. A. Lesser. bibliog Paint Oil & Chem R 109:14+ O 3 '46

Glycerine as used in aviation. G. Leffingwell and M. A. Lesser. bibliog il Aero Digest 51:97+ D 1 '45

Glycerine in metal treatment. G. Leffingwell and M. A. Lesser. bibliog il Materials & Methods 22:1432-4 N '45

Glycerine increases its textile uses. G. Leffingwell and M. A. Lesser. bibliog Rayon 27:262-4 My '46

Glycerine outlook. L. Pasternak. Soap & San Chem 22:39-41 Jl '46

Glycerine; role in construction equipment maintenance shops. G. Leffingwell. Roads & Sts 89:114-15 Mr '46

Glycerine use in metal coatings; patent. W. W. Hamel. Iron Age 158:67 O 10 '46

Historical development of textile glycerine applications. W. J. Pickett. Rayon 27:374 Jl '46

Hygroscopicity of softened glue composition. W. C. Griffin. bibliog Ind & Eng Chem 37:1126-30 N '45

Ionization constant of acetic acid in 50% glycerol-water solution of 0 to 90°. H. S. Harned and F. H. M. Nestler. Am Chem Soc J 68:966-7 Je '46

Penicillin development; glycerine as source of carbon. Chem Age (Lond) 54:505 My 4 '46

Some new applications for glycerine in the over-all rubber field. G. Leffingwell and M. A. Lesser. bibliog Rubber Age 60:69-70 O '46

Standard potential of the cell, $H_2|HCl(m)|AgCl\text{-}Ag$, in 50% glycerol-water solution from 0-90°. H. S. Harned and F. H. M. Nestler. bibliog Am Chem Soc J 68:665-6 Ap '46

Syntheses of glycerol and propylene glycol from propylene, and ethylene glycol from ethylene. D. M. Newitt and P. S. Mene. Chem Soc J p97-100 F '46

Why nothing takes the place of glycerin. J Chem Educ 23:139 Mr '46

Manufacture

Glycerine by hydrogenation; abstract. P. J. Leaper. Chem & Met Eng 53:208 Mr '46

GLYCERIN, Substitutes for
Corpolin compares its qualities to those of glycerin. Paper Tr J 122:136+ Je 20 '46

GLYCERIN dichlorohydrin
Activated glycerol dichlorohydrin; new colorimetric reagent for vitamin A. A. E. Sobel and H. Werbin. Ind & Eng Chem Anal ed 18:570-3 S '46

GLYCINE
Effect of sodium chloride upon the first ionization of glycine. E. J. King. bibliog Am Chem Soc J 67:2178-82 D '45

GLYCOGEN
Midwest award to the Coris; address for the medalists; isolation and synthesis of phosphorylase. C. F. Cori. bibliog Chem & Eng N 24:895-6 Ap 10 '46

GLYCOL
Foaming volume and foam stability. S. Ross. bibliog J Phys Chem 50:391-401 S '46

Glycol esters from aldehydes. F. J. Villani and F. F. Nord. bibliog Am Chem Soc J 68:1674-5 Ag '46

Influence of polar compounds on hydrated calcium silicate and GR-S vulcanizates. F. W. Gage. Rubber Age 58:343-6+ D '45

Kinetics of exchange reactions; influence of solvent and molecular structure. L. J. le Roux and others. Chem Soc J p586-8 S '45

Lac-glycol esters; their preparation, properties, and use. Chem Age (Lond) 53:619-20 D 29 '45

New glycol dehydration plant reduces gas dew point 50°. il Nat Pet N 38 pt 2:R421-2 Je 5 '46

GLYCOL—*Continued*
Standard potentials of hydrogen-silver-silver chloride cells in ethylene glycol solutions at 25°. S. B. Knight, J. F. Masi and D. Roesel. bibliog Am Chem Soc J 68:661-5 Ap '46
Syntheses of glycerol and propylene glycol from propylene, and ethylene glycol from ethylene. D. M. Newitt and P. S. Mene. Chem Soc J p97-100 F '46

Analysis

Determination of ethers and esters of ethylene glycol; modified alkoxyl analysis. P. W. Morgan. bibliog diag Ind & Eng Chem Anal ed 18:500-4 Ag '46
Determination of 1,2-propylene glycol in ethylene glycol. R. C. Reinke and E. N. Luce. bibliog Ind & Eng Chem Anal ed 18:244-5 Ap '46

GLYCOLS
Dipole moment of carbowax 4000. W. J. Svirbely and J. J. Lander. bibliog Am Chem Soc J 67:2189-90 D '45
Researches on acetylenic compounds; the preparation of acetylenic ketones by oxidation of acetylenic carbinols and glycols. K. Bowden and others. Chem Soc J p39-45 Ja '46
Simple vaporizing device for the attainment of bactericidal concentrations of glycol vapors in air. T. N. Harris and J. Stokes, jr. bibliog diag Science 104:423-5 N 1 '46
Studies of 1,3-dienes; stereoisomerism of bromides and glycols derived from 2,3-dimethyl-1-3-butadiene. O. J. Sweeting and J. R. Johnson. bibliog Am Chem Soc J 68: 1057-61 Je '46

See also
Butylene glycol

GLYCOSYLATION
Glycosylation of hydrocarbons by means of the Grignard reagent. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67: 1972-7 N '45
Reaction of aromatic hydrocarbons with polyacetylglycosyl derivatives of hydrocarbons. C. D. Hurd and W. A. Bonner. Am Chem Soc J 67:1977-9 N '45

GLYOXALINE. See Imidazole

GNEISS
Gneiss dome at Shelburne Falls, Massachusetts. R. Balk. bibliog map diags Geol Soc Bul 57:125-59, pl 1-7 F '46

GOATS' milk. See Milk, Goats'

GOATSKIN
Hair-sheep skins and goatskins from Brazil. B. B. Mackay. il For Comm W 22:6+ Mr 16 '46

GOBLE, John E.
Triple play; from Perry to Cox to Goble. por Bsns W p30 Ag 10 '46

GOBLIN engine. See Gas turbines, Aircraft

GODDARD, Robert Hutchings, 1882-1945
Sketch. G. E. Pendray. Science 102:521-3 N 23 '45

GOGGLES
Clothes make the man safe. R. W. Bonifield. il Safety Eng 91:14-15 Je '46
Eye protection on the make; making welders' goggle lenses and plates. il Safety Eng 91: 22-3+ Je '46
New eye safety program; eye accident statistics. il Safety Eng 91:47-8+ Mr '46
Protection for the eyes and face. il Nat Safety N 53:27-8+ Mr '46
Shock-resistant safety lenses. C. D. Oughton. il Glass Ind 27:121-4+ Mr '46

GOLD
Beach and river sands of the coastal region of southwest Oregon with particular reference to black sands. W. H. Twenhofel. fold map Am J Sci 244:114-39, pl 1-4 F '46
Gold, 1945. Eng & Min J 147:71-3 F '46
Gold sales as an anti-inflationary device. R. F. Mikesell. R Econ Stat 28:105-8 My '46
Humic acids and true organic acids as solvents of minerals. W. G. Fetzer. bibliog Econ Geol 41:47-56 Ja '46
Observation of gold particles in glass with the electron microscope. G. S. Bachman and others. bibliog il Glass Ind 27:399+ Ag '46
Slow neutron cross sections of indium, gold, silver, antimony, lithium, and mercury as measured with a neutron beam spectrometer. W. W. Havens, jr. and J. Rainwater. bibliog Phys R 70:154-73 Ag 1 '46
Welding precious metals. F. W. Meyers, jr. il Iron Age 158:59-62 Ag 22 '46
What "atomic" gold might do; synthesis at low cost would rock world's business, government. F. Pick. Barron's 26:3+ Mr 11 '46

See also
Gold as money
Gold metallurgy
Gold mines and mining
Gold ores

Analysis

Method for determining small amounts of gold, and its use in ascertaining the thickness of electrodeposited gold coatings. W. S. Clabaugh. diag J Res Nat Bur Stand 35:119-27 F '46

Prices

Bullion prices and the gold-silver ratio, 1929-45. D. H. Leavens. R Econ Stat 28:160-4 Ag '46
Gold and silver cost government nothing. E. H. Neary. Comm & Fin Chr 164:893 Ag 15 '46

GOLD alloys
Thermodynamic studies of dilute solutions in molten binary alloys. J. A. Yanko and others. bibliog diags Electrochem Soc Trans 89 (preprint 13):151-65 '46

GOLD as money
Economic and political consequences of Lord Keynes' theories. P. Cortney. Comm & Fin Chr 161:617+, 713+ F 8, 15 '45; Discussion. W. Craven-Ellis. 164:68+ Jl 4 '46; Reply. 164:111 Jl 4 '46
Free gold market essential to economic stabilization. J. D. Mooney. Comm & Fin Chr 164:1261+ S 5 '46
Gold as an investment. M. Palyi. Comm & Fin Chr 163:957+ F 21 '46
Gold coin standard for U.S.? Engle bill. W. E. Spahr. Comm & Fin Chr 162:2699+ D 6 '45
Monetary future of gold; its role under the old gold standard and under plan set up by the International monetary fund. C. O. Hardy. il Dun's R 54:21-4+ My '46
Needed; a free gold market for stability. J. D. Mooney. Comm & Fin Chr 164:1779+ O 10 '46
Note containing provision for payment in gold coin of United States not void. Banking Law J 62:883-90 N '45
Streamlining the gold-coin standard. W. E. Spahr. Comm & Fin Chr 163.2353+ My 2 '46
Wants gold restored to people. E. H. Neary. Comm & Fin Chr 164:2386 N 7 '46
What makes inconvertible Federal reserve currency work. Lin Lin. Comm & Fin Chr 164:482+ Jl 25 '46

France

Devaluation of the French franc and gold transfers. Fed Res Bul 32:871-3 Ag '46

Great Britain

Britain's gold reserve. P. Einzig. Comm & Fin Chr 163:3213 Je 13 '46

GOLD compounds
Crystal structure of tribromo(trimethylphosphine)gold. M. F. Perutz and O. Weisz. Chem Soc J p438-42 Je '46
Synthesis of some organic compounds of gold. C. W. Denko and A. K. Anderson. Am Chem Soc J 67:2241 D '45

GOLD dredging
Fineness of gold, with special reference to the Morobe goldfield, New Guinea. N. H. Fisher. bibliog il maps diag Econ Geol 40: 449-95 N '45
Gold dredging in California; has played important part in flood control; has increased value of marginal farm lands. H. A. Sawin. il Min Cong J 32:61-4 Ag '46
Gold dredging in New Zealand. Can Min J 66:875 D '45

GOLD metallurgy
Concentrator duplicates panning motion. il Eng & Min J 147:78 Ja '46

GOLD metallurgy—*Continued*
Hydro-electric power and Ontario gold mining. R. E. Foster. Can Min J 67:256-8 Ap '46
Matachewan consolidated mines. D. C. McLaren. flow sheet il Can Min J 67:702-7 Jl '46
Omega gold mine. D. C. McLaren. il diag Can Min J 67:947-50 O '46
Young-Davidson mine; milling procedure. D. C. McLaren. flow sheet il diags Can Min J 67:175-83 Mr '46

GOLD mines and mining
Fineness of gold, with special reference to the Morobe goldfield; New Guinea; with comparison of gold deposits in other areas. N. H. Fisher. bibliog il maps diag Econ Geol 40:449-95, 537-63 N-D '45
Gold mining enters the post-war era. M. E. Shoup. il Min Cong J 32:51-4 F '46
Gold, 1945. Eng & Min J 147:71-3 F '46

Finance

New capital will help the gold miner. H. L. Hazen. Eng & Min J 146:100-1 N '45
Rising costs hit gold-mining profits. B. Ravits. Barron's 26:6 Jl 15 '46

Placer mining

Colorado placer mining. H. W. C. Prommel. il Min Cong J 31:24-31 D '45
Untested Colombian basin may hold large gold placer. J. F. Troutman. il maps Eng & Min J 147:82-3 My '46
See also
Gold dredging

Securities

Gold as an investment; mining shares offer double hedge. M. Palyi. Comm & Fin Chr 163:957+ F 21 '46
It's a gold mine; but SEC, eying prospectus and registration statement of Canadian concern, has doubts. Bsns W p66-8 F 16 '46
See also Benguet consolidated mining company

Alaska

Alaska-Juneau; scarecrow for investors; fate of big mine clouds territory's development. E. A. Herron. Barron's 26:3 S 16 '46

Australia

Revival of gold mining in Australia. For Comm W 22:30 F 23 '46

British Columbia

Review of mining in British Columbia in 1945. F. H. Stephens. il Can Min J 67:84-8 F '46

California

Gold dredging in California; has played important part in flood control; has increased value of marginal farm lands. H. A. Sawin. il Min Cong J 32:61-4 Ag '46

Canada

Gold camp at Yellowknife, Northwest Territories. map Bsns W p112 Ap 6 '46
Trail breakers of Canada's golden pre-Cambria. B. MacGregor. Can Min J 67:13-19 Ja '46

Colombia

Untested Colombian basin may hold large gold placer. J. F. Troutman. il maps Eng & Min J 147:82-3 My '46

Colorado

Colorado placer mining. H. W. C. Prommel. il Min Cong J 31:24-31 D '45
Cripple Creek increases production; Carlton tunnel drained untouched blocks of ground. M. Geddes and K. Geddes. il Min Cong J 32:25-8 Ag '46

Gold Coast, Africa

Ashanti goldfields corporation, limited; Bibiani (1927), limited; annual general meetings. Economist 150:727-8 My 4 '46

Manitoba

Mining in Manitoba in 1945. J. P. de Wet. Can Min J 67:97-100 F '46

Nevada

When dynamite came to the Comstock. C. S. Landis. il Explosives Eng 24:75-6+ My '46

New Guinea

Fineness of gold, with special reference to the Morobe goldfield. N. H. Fisher. bibliog il maps diag Econ Geol 40:449-95, 537-63 N-D '45

New Zealand

Gold dredging in New Zealand. Can Min J 66:875 D '15

Nicaragua

La Luz takes it by air; case history of an airborne gold mine. il Air Transport 4: 38-9 N '46

Northwest territories, Canada

Golden trail to Yellowknife. C. H. Vivian. il maps Comp Air Mag 51:230-6 S '46
Some recent geological data on the Yellowknife area. C. Riley. maps Can Min J 67: 708-9 Jl '46

Ontario

Hardrock porphyry of Little Long Lac. J. A. Reid. Econ Geol 40:509-16 D '45
Hydro-electric power and Ontario gold mining. R. E. Foster. bibliog map Can Min J 67:155-68, 253-8, 634-9, 720-5, 788-95, 867-74, 957-9 Mr-Ap, Je-O '46
Matachewan consolidated mines. D. C. McLaren. flow sheet il plans diags Can Min J 67:693-707 Jl '16
Omega gold mine. D. C. McLaren. il diag Can Min J 67:941-50 O '46
Ontario annual review, 1945. J. C. Browning. il Can Min J 67:101-6 F '46
Report on gold belts in the Little Long Lac Sturgeon River district. A. E. Tyson. bibliog maps Can Min J 66:839-50 D '45
Re-timbering no.6 shaft; McIntyre Porcupine mines; with cost data. K. O'Donnell. diags Can Min J 67:215-8 Ap '46
Young-Davidson mine. D. C. McLaren. flow sheet il plans diags Can Min J 67:5-12, 175-83 Ja, Mr '46

Philippine Islands

Post war outlook for Philippine gold mines. W. F. Boericke. Can Min J 67:774-6 Ag '46
See also Benguet consolidated mining company

Quebec

Off peak pumping and hoisting at Powell Rouyn mines. D. S. Johnson and W. H. Burns. il Can Min J 66:781-3 N '45
Quebec annual review, 1945. J. C. Browning. il Can Min J 67:107-11 F '46
Wasa Lake inclined shaft. il diags Can Min J 67:951-2 O '46

South Africa

Fever reading; South African gold speculation. map Bsns W p105 Ap 27 '46
Gold! a startling borehole yield gives South Africa a wild boom. H. Solow. il maps Fortune 34:105-17 O '46
South African gold mining costs. J. Lyons. il Mag of Wall St 78:24-5 Ap 13 '46
See also
Gold mines and mining—Transvaal

Transvaal

City deep, limited, Crown mines, limited; annual meetings. Economist 150:863-4 My 25 '46
Consolidated Main Reef mines and estate; Modderfontein East; Blyvooruitzicht gold mining company; annual meetings. Economist 149:765-6 N 24 '45
East Geduld mines, and others; ordinary general meetings. Economist 150:1025-6 Je 22 '46
General mining and finance corporation, limited, forty-sixth ordinary general meeting, Johannesburg. G. Albu. Economist 151: 30 Jl 6 '46
Kaffir conspectus. Economist 150:304-6 F 23 '46
New Modderfontein gold mining company, limited, annual general meeting. Economist 149:810 D 1 '45
Rand mines, limited, St Helena gold mines, limited. Economist 150:905-6 Je 1 '46

GOLD mines and mining—Transvaal—*Cont.*
Threadless detachable bits as used on Witwatersrand. P. A. Creewel diags Eng & Min J 147:78-80 Jl '46

GOLD ores
Fineness of gold, with special reference to the Morobe goldfield, New Guinea. N. H. Fisher. bibliog il maps diag Econ Geol 40:149-95, 537-63 N-D '45

Report on gold belts in the Little Long Lac Sturgeon River district. A. E. Tyson. bibliog maps Can Min J 66:839-50 D '45

GOLD plating
Method for determining small amounts of gold, and its use in ascertaining the thickness of electrodeposited gold coatings. W. S. Clabaugh. diag J Res Nat Bur Stand 36:119-27 F '46

GOLD reserves. See Gold as money

GOLD standard. See Gold as money

GOLDBERG, Bertrand, 1913-
Portfolio of work. por Arch Forum 84:107-15 Mr '46

GOLDBERG, Herbert E.
Journal award for 1945. G. E. Matthews. por Soc Motion Picture Eng J 46:1-3 Ja '46

GOLDEN, Clinton Strong, 1888-
Two C.I.O. steel leaders break tradition. por Bsns W p75 Jl 13 '46

GOLDEN Gate bridge. See San Francisco Bay bridges

GOLDEN Hind press
Golden Hind press. G. C. Compton. il Inland Ptr 116:42-4 O '45

GOLDSMITH, Alfred Norton, 1889-
Sketch. por Inst Radio Eng Proc 34:623 S '46

GOLEM, George C. W. 1883-
Power personalities. por Power 90:609 S '46

GOLF balls
Better golf balls. Bsns W p44 Mr 2 '46

GOMBERG reaction
Mechanism of the Gomberg reaction. H. H. Hodgson. bibliog Soc Dyers & Col J 62:199-202 Jl '46

GOMEZ, Rodrigo, 1897-
Executive director of the International monetary fund. por Comm & Fin Chr 164:202 Jl 11 '46

GONIOMETERS
Parafocusing properties of microcrystalline powder layers in X-ray diffraction applied to the design of X-ray goniometers. J. C. M. Brentano. bibliog il diags J Ap Phys 17: 420-34 Je '46

GOOD will (in business)
Goodwill of publishing company. J Account 80:298-9 N '45

Goodwill value of public accounting practice. J Account 81:516 Je '46

Promoting good will. W. A. Howell. il Mag of Wall St 77:535 F 2 '46

GOODIER, James Norman, 1905-
George Westinghouse award. por J Eng Educ 37:5-6 S '46

GOODLASS wall and lead industries, limited
Statement by the chairman. C. Cookson. Economist 151:113 Jl 20 '46

GOODPASTURE, Ernest William, 1886-
Recipient of Passano foundation award. Science 103:621 My 17 '46

GOODRICH, B. F., chemical company
Philosophy of the semiworks plant. F. K. Schoenfeld. Chem & Eng N 24:1674 Je 25 '46

GOODRICH, B. F., company
New research laboratories. Science 103:140 F 1 '46

GOODYEAR aircraft company
Global carrier? worldwide service, using rigid-type airships, is suggested. Bsns W p36+ Ja 5 '46

GOODYEAR tire and rubber company
Goodyear announces peacetime debut of $2,000 Wingfoot home. J. C. Thomas. il plan Sales Management 55:138-9+ N 15 '45

Goodyear appointments; products development, etc. il India Rubber World 114:697-8+ Ag '46

Goodyear financing likely. Barron's 26:6 S 2 '46

Goodyear's office service methods; concentrates activities and types of work in one big office operating department. il Am Bsns 16:14-18+ My '46

GORT, Godfrey
Science museum honors inventor; Godfrey Gort receives certificate of merit for grade crossing protective device. C. C. Thomas. Roads & Bridges 84:88+ My '46

GOSSYPOL
Analysis
Estimation of gossypol in cottonseed meal and cottonseed meats. F. H. Smith. bibliog Ind & Eng Chem Anal ed 18:43-5, 658 Ja, O '46

Spectrophotometric method for estimating gossypol in crude cottonseed oil. F. H. Smith. bibliog Ind & Eng Chem Anal ed 18:41-3 Ja '46

GOULD, Beatrice Blakmar
Portrait. Bsns W p47 S 28 '46

GOULD, Charles Bruce, 1898-
Portrait. Bsns W p47 S 28 '46

GOULD, Ira A.
Awarded Borden co. 1946 prize. por Oil Paint & Drug Rep 149:3 Mr 25 '46

GOVERNMENT accounting
Federal government accounting; appropriation bill for Interior. J Account 81:5-6 Ja '46

Proposal for simplification of cash accounting in the federal government. F. N. Fine. J Account 80:348-52 N '45

Today's needs: production and confidence. S. J. Broad. Dun's R 54:14+ Mr '46

Types and scope of audits of public vouchers. E. E. Naylor. bibliog J Account 81: 404-16 My '46

See also
Municipal accounting
Post exchanges—Accounting

GOVERNMENT advertising
Booklet pictures South Africa as land of opportunity. Ptr Ink 214:64+ Ja 11 '46

British government to spend $9,400,000 on advertising. Ptr Ink 215:140 My 17 '46

See also
Recruiting campaigns
State advertising

GOVERNMENT aid to business
Government-guaranteed loans to British industry; Control of investment bill. P. Einzig. Comm & Fin Chr 163:517+ Ja 31 '46

Government's role in full production. H. A. Wallace. Comm & Fin Chr 162:2700+ D 6 '45; Excerpts. Factory Management 104: 270+ F '46

Program for the Department of commerce; interview with H. A. Wallace. L. Velie. il Dun's R 53:14-17+ O '45

See also
Contracts, Government—Finance
Export trade—Government aid
Information service, Government
Loans, Bank—Guaranty
Reconstruction finance corporation
Subsidies
United States—Commerce, Department of
United States—International trade, Office of

GOVERNMENT aid to science. See Science and state

GOVERNMENT bank deposits. See Bank deposits, Government

GOVERNMENT bonds. See Bonds, Government

GOVERNMENT buildings. See Public buildings

GOVERNMENT checks. See Checks, Government

GOVERNMENT competition with business
Eliminating competition by subsidy; comparable basis needed for government-owned business. P. M. Brown. Trusts & Estates 82:281-2 Mr '46; Same. Edison Elec Inst Bul 14:106+ Ap '46

Government competition with private shipping lines proposed; bill would authorize government-owned Alaska railroad to operate vessels. Marine Eng 51:136 F '46

GOVERNMENT competition with business— *Continued*
Tax exemption threatens national economy. C. W. Kellogg. Edison Elec Inst Bul 14:5-6+ Ja '46

GOVERNMENT corporations
Children of crises. Fortune 33:227 Ja '46
Chilean state electrification. D. Santa Maria. J Land & Pub Util Econ 21:365-70 N '45
Cost of extra-ordinary government; Byrd-Butler bill. H. Butler. Comm & Fin Chr 162:3132+ D 27 '45
Federal corporation control bill signed. Comm & Fin Chr 162:3163 D 27 '45
Fourth branch of government faces control by Congress. C. H. Grattan. Barron's 25:3+ N 12 '45
NAM charges government firms cost taxpayers additional $2 billion. Steel 119:81 Jl 15 '46
National concern; a new commercial entity in Czechoslovakia. For Comm W 25:13-15 O 5 '46
Should government-owned utilities be taxed? TVA and REA coöperatives. B. C. McCabe. Pub Util 37:333-42 Mr 14 '46
Uncle Sam moves in on business. E. von Hofmannsthal. Barron's 25:15 D 10 '45

See also
Federal deposit insurance corporation
Home owners loan corporation
Reconstruction finance corporation

Accounting

Audit report of Federal prison industries, inc; excerpts. J Account 82:87-90 Jl '46
Commercial and governmental audits; report prepared by Senator Fulbright to accompany HR 3660, to provide for financial control of government corporations. J Account 81:173-5 F '46

GOVERNMENT employees
Curb on U.P.W.A.; Congress putting riders on appropriation bills. Bsns W p91-2 Je 22 '46
Double campaign; drives to organize governmental workers. Bsns W p80-1 My 4 '46
Employe plans for professional advancement; Rhode Island chapter International association of public employment services library. A. Crawley. Special Lib 37:14-17 Ja '46
Government collective agreement with civil servants in Saskatchewan. Mo Labor R 61:972-3 N '45
Government employees' organizations appraised. Civil Eng 16:352 Ag '46
Greater safety for federal workers; Interdepartmental safety council program. Nat Safety N 53:28 My '46
Industrial mental hygiene program for federal employees. J. W. Cronin and others. Pub Health Rep 60:1323-36 N 9 '45
Nondiscrimination in the federal services. J. A. Davis. bibliog Ann Am Acad 244:65-74 Mr '46
Remington Rand runs tabulating school for government employes. Sales Management 56:100 Mr 15 '46
Senator Byrd criticizes personnel increase in government. Comm & Fin Chr 164:2075+ O 24 '46
Uncle Sam's payroll; civilian employment of executive branch of federal government, by departments and agencies, for Oct. and Nov. 1945. Credit & Fin Management 48:5 F '46 [cont monthly]
U.S. payroll up. Bsns W p25-6+ S 7 '46

See also
Civil service
Municipal employees
War agencies employees protective association

Salaries and wages

Equal pay for women workers. M. L. Plunkett. Mo Labor R 63:380-9 S '46
Salary trends in federal employment. J. W. Mitchell and F. L. Christman. Mo Labor R 62:374-85 Mr '46
Washington ponders Bretton Woods salaries. H. M. Bratter. Comm & Fin Chr 164:202+ Jl 11 '46

GOVERNMENT expenditures
Cost of extra-ordinary government. H. Butler. Comm & Fin Chr 162:3132+ D 27 '45
Foreign transactions of the U.S. government, 1940-1945; statement by Office of international trade operations. For Comm W 21:11+ D 15 '45; Comm & Fin Chr 162:2803 D 6 '45
Monetary theory of deficit spending. C. Warburton. bibliog R Econ Stat 27:74-84 My '45; Discussion and reply. 28:90-4 My '46
Prospective cost of government in United States during 1947-1951. A. S. Pouchot. Comm & Fin Chr 162:2707+ D 6 '45
Renovated capitalism; deficit spending. M. V. Jones. J Bsns 18 pt 2:4-7 O '45
Truman urges strict economy and high taxes. Comm & Fin Chr 164:398 Jl 18 '46
Uncle Sam's payroll; civilian employment of executive branch of federal government by departments and agencies, for Oct. and Nov. 1945. Credit & Fin Management 48:5 F '46 [cont monthly]
War period foreign transactions of the United States government. G. L. Bach. Survey of Cur Bsns 26:7-15+ Mr '46

See also
Budget—United States
Finance
Municipal finance
Public works—Federal loans and grants
State finance
Taxation
United States—Appropriations and expenditures
War finance

GOVERNMENT information service. See Information service, Government

GOVERNMENT investigations
War profiteering. J. M. Mead. Comm & Fin Chr 164:1139+ Ag 29 '46

See also
Gas, Natural—Government investigation
Petroleum industry and trade—United States—Anti-trust suit

GOVERNMENT liability
Court rules on liability of government when character of vessel is changed. East Underw 47:30 F 22 '46
Government now may be sued as any private litigant; Federal tort claims act. Nat Underw 50:31 O 3 '46

See also
Municipal liability
State liability

GOVERNMENT libraries
Library division of the Office of the publication board. J. Orne. Special Lib 37:203-9 S '46

See also
Federal home loan bank administration—Operating analysis library
Libraries, State
Library of Congress
Social security board—Library
United States—Price administration, Office of—Library

GOVERNMENT loans and grants
Socialized credit via free government capital and tax exemption. H. Friend. Comm & Fin Chr 164:1265+ S 5 '46

See also
Public works—Federal loans and grants
Reconstruction finance corporation
Rural electrification administration

GOVERNMENT loans to industry
Government loans to business. H. T. Bodman. Comm & Fin Chr 164:611+ Ag 1 '46
Loans for small businesses in France. Mo Labor R 62:401 Mr '46

GOVERNMENT officials. See Public officers

GOVERNMENT ownership
Bed of Procrustes? Economist 149:668-9 N 10 '45
British transport's rôle in nationalization. O. R. Hobson. Pub Util 38:25-7 Jl 4 '46
Czech restitution; U.S. firms affected by its nationalization decrees. il Bsns W p102+ F 2 '46
Empire communications. Electrician 135:517 N 9 '45
Europe turns left; trend toward nationalization of key industries; iron and steel production expected to rise throughout 1946. V. Delport. il Steel 118:344-5+ Ja 7 '46
French take over coal mines, set up method of payment to owners. Iron Age 157:132+ Je 27 '46

GOVERNMENT ownership—*Continued*
Gas industry's verdict on nationalization. Gas J (Lond) 248:353-6+ Ag 28 '46
Great Britain looks at her gas industry. Pub Util 38:493-9 O 10 '46
Has socialism failed in Australia? K. Murdoch. Pub Util 37:311-12 F 28 '46
Nationalisation issues. Economist 149:567-8 O 20 '45
Nationalization of British mines to be paid for in government stock issue. J. R. Hight. Iron Age 157:90+ Ja 10 '46
Nationalisation of Cable and wireless, ltd. Economist 149:686-7 N 10 '45
Private enterprise fights to keep flying; Australia. H. B. Fletcher. Aviation 45:40-1+ Ja '46
Private enterprise in socialist Britain; Labor party unwilling to let much of economy be really free. C. H. Grattan. Barron's 26:11+ My 20 '46
Representation in management as decreed by the government of France. Personnel J 24: 260-4 Ja '46
Significance of public ownership of utilities. J. A. Whitlow. Pub Util 38:149-56, 218-25 Ag 1-15 '46
Some compensation problems. Economist 149: 798-800 D 1 '45
State as manager. Economist 149:831-2 D 8 '45
State capitalism in practice. Economist 149: 912-13 D 22 '45
State control in eastern Europe; compromise between Soviet and capitalistic systems reflected in all industries. J. Joesten. Barron's 26:15+ Ja 7 '46
State ownership and liquidation. Economist 150:1013-14 Je 22 '46
Waverley association of gas managers; presidential address. H. Robinson. Gas J (Lond) 248:27-8 Jl 3 '46
What the factory worker really thinks. Factory Management 104:81-8 Ja '46

See also
Banks and banking—Government ownership
Electric utilities—Government ownership
Government competition with business
Government corporations
Hydroelectric plants—Government ownership

GOVERNMENT paper. See Paper, Government

GOVERNMENT plants. See Industrial demobilization—Government plants

GOVERNMENT printing office. See United States—Government printing office

GOVERNMENT property. See United States—Government property

GOVERNMENT publications
Data available from other Department of interior agencies. R. M. Lawrence and L. A. Monroe. il maps Chem Ind 58:582-5+ Ap '46

Bibliography
Bureau of foreign and domestic commerce; information sources for chemical market research. R. M. Lawrence. bibliog il Chem Ind 58:62-5+ Ja '46
Data published by Department of commerce; monthly list by subject. Dom Comm 34:42-5+ Je '46 [cont monthly]
Federal power commission and National resources planning board. R. M. Lawrence and L. A. Monroe. Chem Ind 58:967-9 Je '46
Foreign technical publications; with selected publications of national governments of interest in chemical research. F. Harden. J Chem Educ 23:489-94 O '46
New guides and aids to public documents, 1944. J. K. Wilcox. Special Lib 36:474-8 D '45
Official war publications, guide to state, federal, and Canadian publications. J. K. Wilcox. v9 236p $2 Bur. of public administration, Univ. of California, Berkeley '45
Services and publications of the Bureau of the census. R. M. Lawrence. il Chem Ind 58:252-5+ F '46
Services and publications of the Federal reserve system, S.E.C. and Treasury department. W. C. Chadbourne. il Chem Ind 59: 663-8 O '46
Services and publications of the U.S. Bureau of labor statistics. R. M. Lawrence. il Chem Ind 59:487-92 S '46
Services and publications of the U.S. Bureau of mines. R. M. Lawrence. Chem Ind 58: 429-32+, 596-7 Mr-Ap '46
Services and publications of the U.S. Department of agriculture. R. M. Lawrence. il map Chem Ind 59:75-80+ Jl '46
Services and publications of the U.S. Tariff commission. R. M. Lawrence. Chem Ind 58:795-800+ My '46

GOVERNMENT publicity
New blood at the British council. Economist 150:958-9 Je 15 '46

GOVERNMENT purchasing. See Purchasing, Government

GOVERNMENT regulation of industry
Antistrike bill would change nature of plant seizure. Bsns W p5 Je 1 '46
Bureaucratic investment control; Control of investment bill. A. M. Sakolski. Comm & Fin Chr 163:329+ F 14 '46
Ceiling on corporate profits; effects of OPA formula basing profits on net worth. H. F. Travis. Mag of Wall St 78:14-15+ Ap 13 '46
Controlled versus uncontrolled economy. B. B. Smith. Comm & Fin Chr 164:2265+ O 31 '46
Democracy or dictatorship in business and government. J. C. O'Mahoney. il Dun's R 54:11-14+ Ap '46
For more profitable debate. Fortune 30:147 Jl '44; Same. Advanced Management 10:138+ D '45
Forecasts government actions; address before Investment bankers association. L. Saltonstall. Comm & Fin Chr 162:2725+ D 6 '45
Forensic accounting, its place in today's economy. M. E. Peloubet. J Account 81: 458-62 Je '46
Government in business. G. V. McLaughlin. Comm & Fin Chr 164:2075+ O 24 '46
Industrial profits in a Bowles market. J. L. Beals. Barron's 26:3+ Mr 18 '46
Let's make a free America tick. E. T. Weir. il Factory Management 104:97-9 Ag '46
Planned Britain; labor regime's tightening controls over business and finance. Bsns W p68+ Mr 16 '46
Renovated capitalism; revitalizing business competition. M. V. Jones. J Bsns 18 pt 2: 24-36 O '45
Seizure worry; Allis-Chalmers strike. Bsns W p37 Je 15 '46
Shadows of government controls. P. H. Nystrom. Comm & Fin Chr 162:2323+ N 15 '45
State vs. customers; present steel situation. E. M. Voorhees. Comm & Fin Chr 163:2914+ My 30 '46
Supreme court and business planning. A. A. Ballantine. Harvard Bsns R 24 no2:151-63 [Ja] '46
Wage-price formula, will it work? with appraisals of effects on earnings of leading industries. W. Gates. il Mag of Wall St 77:686-8+ Mr 16 '46
Without seizures; strikes in farm equipment plants aren't an emergency. Bsns W p85-6 Ag 17 '46

See also
Commercial policy
Commodity control
Electric utilities—Regulation
Export trade—Regulation
Federal trade commission
Food laws and legislation
Government ownership
Industry and state
Insurance companies—Regulation
Interstate commerce commission
Labor laws and legislation
Montgomery Ward and company—Government seizure
Moving picture industry—Regulation
National war labor board
Prices—Regulation
Railroads and state
Rent—Laws and regulations
Trade marks
Trusts, Industrial—Law
Wages—Regulation

GOVERNMENT research
Engineers and scientists in government service; hiring and rating of technical talent in Naval ordnance laboratory. R. D. Bennett. Elec Eng 64:383-6 N '45

GOVERNMENT research—*Continued*
Government plans for research in Canada. L. Gray. Pulp & Pa of Can (Convention no) 47:178-9 [F] '46
President Truman appoints Presidential research board. Science 104:418 N 1 '46; Comm & Fin Chr 164:2136 O 24 '46
Presidential research board to coordinate Nation's work. Oil Paint & Drug Rep 150: 3 O 21 '46
Quartermaster research program offers attractive careers to scientists. J. S. Jacobs. Rayon 27:533-6 O '46 (to be cont)
Research, industry and government. B. K. Brown. Pet Refiner 24:181+ N '45
Science dons a uniform; basic research passing into hands of army and navy. Bsns W p19-22+ S 14 '46
Scientific information from enemy sources and government-sponsored research. J. C. Green. Chem & Eng N 24:1795-9 Jl 10 '46
Scientific research board set by Truman. Nat Pet N 38:46 O 23 '46
Significance of expanding government industrial research program. N. T. Carruthers. Mag of Wall St 77:319+ D 22 '45
See also
Naval research
also United States—War department—Research and development division

GOVERNMENT seizure of plants. See Government regulation of industry; Montgomery Ward and company—Government seizure

GOVERNMENT seizure of truck lines. See Motor truck lines—Government operation

GOVERNMENT services, inc
New park policy? Government services, inc., as manager of public recreation area at Fontana dam, N.C. il Bsns W p32+ Je 1 '46

GOVERNMENT statistics
Census of production; recommendations for collection of information. Economist 149: 685-6 N 10 '45
Juggling government statistics. A. T. Court. Comm & Fin Chr 164:1645+ O 3 '46
New foreign-trade transport statistics. J. E. Ely. For Comm W 21:8-9+ N 24 '45
Statistical light. Economist 150:261-2 F 16 '46
Statistical materials collected by the War production board. D. Novick. R Econ Stat 28:131-4 Ag '46
Terms federal data misleading; area of pressure-group political statistics will be enlarged. L. P. Ayres. Comm & Fin Chr 163: 2269+ Ap 25 '46
World trade statistics released from censor; basic tables maintained by International trade unit, Bureau of foreign and domestic commerce; countries and years, and commodities for which statistics are available. P. Wiers. For Comm W 21:5+ D 8 '45
See also
Census
Great Britain—Statistics

GOVERNORS (machinery)
Carbon-pile speed governor. C. T. Button. diags Elec Eng 65:Trans 4-7 Ja '46
Electro-hydraulic control incorporated in Chrysler, DeSoto transmissions. il diags Automotive & Aviation Ind 94:22-5 Mr 1 '46
Electrohydraulic control of Diesel-electric drives. C. B. Lewis and M. A. Edwards. il diags Mech Eng 68:953-5 N '46
Governor for variable-ratio transmission used in developmental 400-cycle electric system for large aircraft. P. F. Desch and others. il diags Elec Eng 65:Trans 194-8 Ap '46
How can I correct this engine governor? diags Power 90:332-3+ My '46
Mechanical devices for automatically governing speed; drawings. Product Eng 17:288-9 Ap '46
Steam turbines; governing. diags Power 89: 814-19 D '45
Stops oil leaks in pump governor. S. M. Elonka. diag Power 90:329 My '46

GOVERNORS, Gas. See Gas governors

GRABAU, Amadeus William, 1870-1946
Appreciation. H. W. Shimer. Am J Sci 244: 735-6 O '46
Word from China regarding last years of Prof. A. W. Grabau. Science 103:690 Je 7 '46

GRACE, J. P. jr
Portrait. Bsns W p38 My 25 '46

GRADE crossings
Grade separations will not solve growing crossing menace; programs of warning and protection. A. Benesch. il Ry Age 121:596-7 O 12 '46
Science museum honors inventor; Godfrey Gort receives certificate of merit for grade crossing protective device. C. C. Thomas. il Roads & Bridges 84:88+ My '46
Time lost at railroad grade crossings; abstract. R. B. Brooks. Eng N 137:54 Jl 11 '46

GRADE marks
Pack-coding avoids grief; code mark should be changed to indicate every change in processing and in quality or origin of the raw materials. M. Morgentime. il Food Ind 18:1014-15+ Jl '46

GRADERS, Road. See Road making machinery

GRADHELM (term)
Coil systems for producing transverse and longitudinal magnetic gradients. G. H. Shortley and A. May. diags J Ap Phys 16: 841-3 D '45

GRADING (earthwork)
9½ million yard airport grading job moves into second year; Kanawha County airport, Charleston, W. Va. H. J. McKeever. il Roads & Sts 89:71-6 Ja '46
See also
Roads—Grading

GRADUATE students
Education of graduate students. J. D. Loconti. Chem & Eng N 24:2620-1 O 10 '46
See also
Engineering colleges—Graduate work

GRADUATES. See College graduates; Engineering graduates

GRAFFTEY-SMITH, Anthony Paul
Alternate executive director of the International monetary fund for the United Kingdom. por Comm & Fin Chr 164:2105 O 24 '46

GRAFTING (surgery)
Grafts of free muscle transplants upon the myocardium. M. Weinstein and B. G. Shafiroff. Science 104:410-11 N 1 '46

GRAHAM, Virgil Miller, 1902-
Sketch. por Inst Radio Eng Proc 34 [Waves & Electrons 1]:163 Ap '46

GRAHAM-PAIGE motors corporation
Bad bargain; Graham-Paige writes off Warren City mfg. investment. Bsns W p44+ My 25 '46
Debentures offered. Comm & Fin Chr 163: 2292 Ap 29 '46

GRAIN
All-electric farm; grain drying by electricity at St Helens. T. S. Parkinson and G. L. Tomlinson. il Elec R (Lond) 138:51-3 Ja 11 '46
Bumper feed grain crops. Barron's 26:8 Jl 15 '46
Bumper grain crop assured. Bsns W p19 Ag 17 '46
Electric grain drying; farm at Bampton, Oxfordshire. il Elec R (Lond) 139:463-4 S 20 '46
Golden flood; U.S. grain harvest reaches toward an all-time record. Bsns W p21 Ag 24 '46
Record grain crops spell end of shortages and restrictions on use. Barron's 26:5 Jl 29 '46
Weather the key to world food crisis; three-year series of droughts brings threat of grain shortages to millions of people. R. Wayland. Barron's 26:6 F 25 '46
See also
Corn
Flour
Rice
Rye
Wheat

Prices
Changes in subsidies and price ceilings for livestock and grain announced. Comm & Fin Chr 163:1264 Mr 7 '46

Transportation
Facts on grain movement. W. C. Kendall. Ry Age 120:584 Mr 16 '46

GRAIN—Transportation—*Continued*
Washington acts in grain car shortage. Ry Age 120:520+ Mr 9 '46
Western roads' grain revenues down. Barron's 26:7 Je 24 '46
See also
Railroads—Rates—Grain
GRAIN elevators
Engineer looks at Argentina; granary at Bahia Blanca. R. Hammond. il Engineer 182:48-9+ Jl 19 '46
GRAIN handling
Air loading simplifies bulk shipments; brewer's trucks transfer grain from rail siding to plant bins. il diags Food Ind 18: 870-1 Je '46
Pattern for a grain chute. O. W. Kothe. diags Sheet Metal Worker 37:48+ Mr '46
Suggested device for emptying grain bins. diags Elec World 125:128+ Je 22 '46
See also
Grain elevators
GRAIN size. See Metallography; Particles
GRAIN storage
See also
Grain elevators
Granaries
GRAIN trade
Cargill, inc., sues; charges Chicago board of trade with antitrust violation. Bsns W p57-8 Je 1 '46
Grain crisis. Nat City Bank p58-9 My '46
Grain to Europe. Bsns W p28+ D 15 '45
How save grain? Bsns W p18 Ap 6 '46
Impact of grain restrictions on various industries. G. W. Mathis. Mag of Wall St 78:26-8+ Ap 13 '46
Price controls on grain products kept by maintaining artificial shortages despite bumper crops. Barron's 26:5+ S 9 '46
Price floors, not ceilings, main concern of grain trade as supplies grow. Barron's 26:5 Ag 19 '46
Rye corner hearings get started. H. M. Bratter. Comm & Fin Chr 162:3005+ D 20 '45
Tempest in a pit; Chicago board of trade furor over rules and grain ceilings. Bsns W p42+ Je 15 '46
Argentina
Engineer looks at Argentina. R. Hammond. maps Engineer 182:27-9, 48-9+ Jl 12-19 '46
Australia
Production, exports, and imports. For Comm W 23:29 Ap 13 '46
Belgium
Cereal production and stocks, Belgium. For Comm W 22:26 F 9 '46
Greece
Area planted to grains and yield in Greece in 1933-37 and 1945. For Comm W 22:35 Ja 19 '46
Grain production, consumption, and imports. For Comm W 23:40 Je 1 '46
GRAININESS (photography)
Photographic granularity and graininess. L. A. Jones and G. C. Higgins. bibliog il diags Opt Soc Am J 35:435-57; 36:203-27 Jl '45, Ap '46
GRAMICIDIN
Analysis
Micro-Kjeldahl determination of nitrogen in gramicidin and tryptophan; comparison of Gunning-Arnold-Dyer and Friedrich methods. L. M. White and G. E. Secor. bibliog Ind & Eng Chem Anal ed 18:457-8 Jl '46
GRAMMAR
Grammar furnishes building code for simplicity in construction of good sentences. E. N. Teall. Inland Ptr 117:41-2 Jl '46
GRANARIES
Grain storage bin construction details, plans diags Brick & Clay Rec 109:27-8 O '46
Steel silos for grain. Engineering 162:247 S 13 '46
GRAND CENTRAL terminal. See New York (city)—Railroads
GRAND COULEE dam. See Columbia river—Grand Coulee dam
GRAND RAPIDS, Michigan
Commemorate airline inaugural. il Aero Digest 53:41+ O '46
GRANDSTANDS
For safe grandstands and tents; new American standard. il Ind Stand 17:219-21 S '46
GRANITE
Pebbles and mill liners produced by Harris granite quarries co. H. E. Swanson. il Rock Prod 49:78+ F '46
GRANITEVILLE company
Celebrates its centenary. il Manuf Rec 114: 45+ D '45
GRANT, W. T., company
Vertical growth. il Bsns W p58+ S 14 '46
GRANTS-in-aid
Frederick Gardner Cottrell special grants-in-aid for postwar research. Science 104:33-4 Jl 12 '46
Research corporation announces recipients of grants-in-aid. Mech Eng 68:492 My '46
GRANULAR materials
Correction factor for specific gravity and volume differences in fragment analysis. F. Chayes. Econ Geol 41:749-60 N '46
Dielectric heating of granular materials; aluminum and silicon oxides. P. W. Schutz and E. K. McMahon. bibliog diags Ind & Eng Chem 38:179-84 F '46
Fluid flow through granular materials; abstract. A. R. Morcom. Chem & Ind p142 Mr 30 '46
Material or heat transfer between a granular solid and flowing fluid; present status of the theory. E. W. Thiele. bibliog Ind & Eng Chem 38:646-50 Je '46
Practical petroleum engineering; fluid flow; graphic solutions of design problems; flow through granular beds. P. Buthod and B. W. Whiteley. Oil & Gas J 44:74-6 Ja 5 '46
Properties of granular and monocrystalline ammonium nitrate. W. H. Ross, J. Y. Yee and S. B. Hendricks. bibliog il Ind & Eng Chem 37:1079-83 N '45
Some physical properties of activated bauxite. H. Heinemann, K. A. Krieger and W. S. W. McCarter. bibliog Ind & Eng Chem 38:839-42 Ag '46
Study of coarse-graded base-course materials. E. A. Willis. il Pub Roads 24:239-43 Jl '46; Same. Roads & Bridges 84:75-6+ N '46
See also
Abrasives
Cement
Ceramic materials
Concrete—Aggregate
Metal powders
Powders
Rock products
Sand
Soils
Testing
Rapid moisture testing of granular material. J. H. Jupe. il diag Electronics 19:180+ My '46
GRANULARITY
Photographic granularity and graininess. L. A. Jones and G. C. Higgins. bibliog il diags Opt Soc Am J 35:435-57; 36:203-27 Jl '45, Ap '46
GRANULOCYTOPENIA
Granulocytopenia and anemia in rats fed diets of low casein content. A. Kornberg and others. bibliog Science 103:646-8 My 24 '46
GRAPEFRUIT juice
Freezing point data sheets and cooling curves. Food Ind 18:1036 Jl '46
Nutritive value of canned foods; factors affecting ascorbic acid content of canned grapefruit and orange juices. F. C. Lamb. bibliog Ind & Eng Chem 38:860-4 Ag '46
GRAPES
Grapes unloaded mechanically. Z. Halperin. il diag Food Ind 18:331 Mr '46
How tartrates are recovered from winery wastes. Z. Halperin. flow sheet il Food Ind 17:1181-2+, 1291+ O-N '45
GRAPESEED oil
Das traubenkernöl und die weintraubentreşter-verwertung. H. Fiedler. bibliog Die Chemie 55:137-41 Ap 25 '42; Abstract (Grape-seed oil). Paint Oil & Chem R 109: 18+ Mr 7 '46

GRAPESEEDS
Epépineuse de marcs de raisin système C. Coq. Génie Civil 123:194 Jl 15 '46

GRAPHIC arts
Bibliography
Graphic arts summary. Published monthly by Research library, Printing industry of America, 719 15th st, NW Washington 5, D.C.

GRAPHIC arts center. See New York (city)—Graphic arts center (proposed)

GRAPHIC arts victory committee
Graphic arts contribution to war effort reported: activities in associations' hands. Ptr Ink 214:92 Ja 4 '46
G.A.V.C. disbands after outstanding record in promotion of war effort. Inland Ptr 116: 64 Mr '46

GRAPHIC methods
Aids to computation in spectrophotometric analysis of binary mixtures; illustrative data for benzene-toluene mixtures. M. Fred and F. W. Porsche. diags Ind & Eng Chem Anal ed 18:603-4 O '46
Calculating cement raw mix blending graphically. C. J. Knickerbocker. Rock Prod 49: 77 Mr '46
Calculating voltage drop in industrial a.c. circuits. L. H. Gussow. Elec World 125: 60-3 Ja 5 '46
Calculation of bearing capacities of footings by circular arcs. P. Andersen. diags Eng N 136:866-8 My 30 '46
Circles of stress and strain compared. J. C. Rathbun. Eng N 137:376-9 S 19 '46
Column stress by successive deflections; graphic and analytical studies. L. T. Wyly. diags Eng N 135:660-3 N 15 '45
Cotangent ruler for simplifying the graphic solution of problems in structural geology. W. S. White. Econ Geol 41:539-45 Ag '46
Drawing tangents and normals to plane curves. G. F. H. Harker. diags Engineering 161:209-11 Mr 1 '46
Efficient turnaround results from using graphical method to allocate man-hours; Eastern states petroleum co. Pet Processing 1:98-9 O '46
Gas enriching value of oils; graphic method of evaluation. S. P. Cauley and E. B. Delgass. Am Gas Assn Mo 27:494-9 N '45
Graphical calculation of backwater eliminates solution by trial. F. F. Escoffier. Eng N 136:981 Je 27 '46
Graphical determination of heat transfer film coefficient for Freon-113. B. F. Raber and F. W. Hutchinson. Heat & Ven 43:79-81 Je '46
Graphical determination of heat transfer film coefficient for liquid Freon-21. B. F. Raber and F. W. Hutchinson. Heat & Ven 43: 62-4 Ap '46
Graphical determination of heat transfer film coefficient for liquid Freon-22. B. F. Raber and F. W. Hutchinson. Heat & Ven 43:80-3 My '46
Graphical determination of heat transfer film coefficient for liquid Freon-114. B. F. Raber and F. W. Hutchinson. Heat & Ven 43: 74-6 Jl '46
Graphical determination of unshielded-thermocouple thermal correction. W. M. Rohsenow. bibliog A S M E Trans 68:195-8 Ap '46
Graphical form for applying the Rosin and Rammler equation to the size distribution of broken coal. W. S. Landers and W. T. Reid. bibliog U S Bur Mines Information Circ 7346:1-5 '46
Graphical method for analyzing hydraulic pump and motor data. O. E. Teichmann. diag Product Eng 17:230-5 Mr '46
Graphical method for determining maximum flow in systems using centrifugal pumps. B. C. Phenix, jr. diags Oil & Gas J 45:72-4+ N 2 '46
Graphical method for determining particle trajectories. W. E. Parkins and E. C. Crittenden, jr. J Ap Phys 17:447-9 Je '46
Graphical method of determining pressure distribution in two-dimensional flow. R. T. Jones and D. Cohen. bibliog diags U S Nat Advisory Com for Aeronautics 1941:313-19 '42
Graphical prediction of water flooding intakes. S. T. Yuster. Pennsylvania State College Mineral Industries Exp Sta Bul 41:65-79 '46
Graphical solution for flood routing problems. H. M. Cheng. Civil Eng 16:126-8 Mr '46
Graphical solutions of statistical problems; applications and Probability graph paper. F. Levi. Engineer 182:338-40, 362-4 O 18-25 '46
Graphs aid in visualizing new production programs. M. H. Smith. Factory Management 104:93-6 Ap '46
How management uses graphic charts as a business barometer to control costs. J. L. Shafer. Am Bsns 16:14-15+ Ag '46
Methods of making piping flexibility analyses; graphical method. M. J. Fish. diags Heating-Piping 18:83-8 S '46
Minimum attenuation in waveguides. E. N. Phillips. diags Electronics 19:137-9 Ja '46
Molecular weight distribution data on high polymers; graphical representation. R. F. Boyer. bibliog(52 references) Ind & Eng Chem Anal ed 18:342-8 Je '46
New method of graphical representation. A. L. Bloomfield. Inst Chem Eng Trans 20: 72-8 '42
Practical petroleum engineering; fluid flow; graphic solutions of design problems (cont). P. Buthod and B. W. Whiteley. charts Oil & Gas J 44:76-7+ D 1; 92-3+ D 8; 112-14 D 15; 70-2 D 22; 305-8 D 29 '45; 74-6 Ja 5 '46
Representation of the vapour-liquid equilibrium relation by means of a new graphical method. A. L. Bloomfield. Inst Chem Eng Trans 20:78-92 bibliog(p92); Discussion. 92-6 '42
Some applications of field plotting. E. O. Willoughby. diags Inst E E J 93 pt 3:275-93 bibliog(p291) Jl '46
Symmetrical components; graphical introduction. B. J. Prigmore. diags Elec R (Lond) 139:567-8 O 11 '46
See also
Control charts
Curve plotting
Nomography

GRAPHIC statics
Moments computed graphically by Australian method. A. J. Keeble. Eng N 136:294-6 F 21 '46

GRAPHITE
Black Donald graphite. D. C. McLaren. flow sheet il plan Can Min J 66:763-72 N '45
Carbon-graphite mechanical parts. F. F. Ruhl. il diag Steel 118:108-10+ My 20 '46
Effect of surface finish and wall thickness on the operating temperature of graphite radio-tube anodes. L. L. Winter and H. G. MacPherson. il diag Inst Radio Eng Proc 33:834-7 D '45
Equilibrium of iron-carbon alloys with mixtures of CO-CO_2 and CH_4-H_2. R. P. Smith. bibliog Am Chem Soc J 68:1163-75 Jl '46
Graphite molds for casting Jominy bars. P. M. Sanders. diag Metal Prog 50:91 Jl '46
Hard chromium plating directly on carbon and graphite. R. S. Herwig. il Materials & Methods 22:1751-3 D '45
Impervious graphite exchangers and coolers. W. L. Nelson. il Oil & Gas J 45:89 S 28 '46
Mining and milling operations of the Southwestern graphite co., Burnet county, Texas; with cost data. A. B. Needham. U S Bur Mines Information Circ 7339:1-9 '46
Purity requirements of nucleonics materials. R. L. Doan. Chem & Eng N 24:1907-9 Jl 25 '46
Rectification of high temperature salt baths; use of graphite rod. R. S. Burpo, jr. il Materials & Methods 24:109-11 Jl '46
Standard SAE steels and steels sintered from electrolytic iron powder and graphite; table. P. Schwarzkopf. Product Eng 17:126 F '46
Surfaces of solids; a first- and a second-order phase change in the adsorbed film of *n*-heptane on graphite. G. Jura and others. bibliog J Chem Phys 14:344-7 My '46
Surfaces of solids; adsorbed films of water and normal heptane on the surface of graphite. W. D. Harkins, G. Jura and E. H. Loeser. bibliog Am Chem Soc J 68:554-7 Ap '46

GRAPHITE—*Continued*
Use of graphite for reboiling soft melt heats. R. R. Fayles. Blast F & Steel Pl 34:sup 52+ Ap '46
Use of graphite in iron powder compacts; abstract. E. S. Glauch. Iron Age 157:78-9 Je 20 '46
Use of Mexican graphite lowers open hearth melting costs. R. J. Zemanek. il Blast F & Steel Pl 34:100-4 Ja '46
See also
Cast iron—Graphitization
Advertising
Industrial advertiser designs catalog so it can be used 6 ways; Joseph Dixon crucible company. il Ptr Ink 216:38-9 Jl 5 '46

GRAPHITE crucibles. See Crucibles

GRAPHITIZATION of iron. See Cast iron—Graphitization

GRAPHITIZATION of piping. See Piping (power plants)—Graphitization

GRASSES
Carpeting ranges; cattle grazing lands will get new covering. Bsns W p36+ Mr 30 '46

GRASSES, Dried
Storage
Effect of storage on carotene of plant extracts. A. R. Kemmerer and G. S. Fraps. bibliog Ind & Eng Chem 38:457-8 Ap '46

GRASSHOPPERS
Inter-American group plans war on locusts. Oil Paint & Drug Rep 150:48 O 14 '46

GRATES
Grate bars can be repaired by welding. N. E. Smith. il Heat & Ven 43:83 My '46
Lockheed hydraulic drive for rotary grate. il Gas J (Lond) 247:185 Ja 30 '46
See also
Locomotive grates

GRATINGS, Diffraction. See Diffraction gratings

GRAVEL
Concrete-making qualities of grit gravel. F. F. Bartel. Concrete 54:20+ O '46
Different gravels and sands in three water sheds in Missouri. H. E. Swanson and N. C. Rockwood. map Rock Prod 49:101-2 O '46
Louisiana; sand and gravel producers legacy. H. E. Swanson and N. C. Rockwood. il Rock Prod 49:82-5 Jl '46
Mississippi; sand and gravel predominates as a construction aggregate. H. W. Swanson and N. C. Rockwood. il maps Rock Prod 49:133-8+ Ag '46
Ohio states highway department practices in the use of gravel in bituminous mixtures; abstract. F. M. Williams. Rock Prod 49:81-2 F '46
Sand and gravel deposits, Iowa. H. E. Swanson and N. C. Rockwood. il Rock Prod 49: 82-3 S '46
Sand and gravel from river deposits; Oklahoma. N. C. Rockwood and H. E. Swanson. il Rock Prod 49:95-7 F '46
Sand and gravel in Illinois. il map Rock Prod 48:84-5 O '45
Stepped-up gravel production for road program in Antrim county, Michigan. il Roads & Sts 88:64-6 D '45
See also
Concrete—Aggregate

GRAVEL handling
Cleaner product, more capacity; J. K. Davison & brothers modernizes dredge. il Rock Prod 48:88-9+ N '45
Heavy equipment handles backfill at Sullivan. J. B. Huttl. il diag Eng & Min J 147:70-1 Jl '46
Portable gravel-washing and screening machine. il Engineer 181:518-19 Je 7 '46
Storage bins for granular materials. F. Clayton. il Mech Handling 33:60-1 Ja '46

GRAVEL plants. See Sand and gravel plants

GRAVEL roads. See Roads, Gravel

GRAVIMETRIC analysis
Determination of copper in cast iron and steels with quinaldic acid. J. F. Flagg and D. W. Vanas. bibliog Ind & Eng Chem Anal ed 18:436-8 Jl '46
Determination of rubber hydrocarbon by a gravimetric rubber bromide method. C. O. Willits, M. L. Swain and C. L. Ogg. bibliog Ind & Eng Chem Anal ed 18:439-42 Jl '46
Determination of tungsten and columbium in stainless steels. C. M. Johnson. Iron Age 157:66-8 Ap 11 '46
Hexamethylenetetramine in separations of titanium and columbium. K. W. Traub. Ind & Eng Chem Anal ed 18:122-4 F '46
Molecular weight and mercaptan content of mixtures of primary mercaptans; gravimetric determination. H. A. Laitinen, A. S. O'Brien and J. S. Nelson. Ind & Eng Chem Anal ed 18:471-2 Ag '46
Precipitation of platinum metals by organic monosulfides; determination of platinum with thiophenol and rhodium with thiobarbituric acid. J. E. Currah and others. bibliog Ind & Eng Chem Anal ed 18:120-2 F '46

GRAVING docks. See Dry docks

GRAVITATION
Classical theory of electromagnetism and gravitation; special theory. H. C. Corben. Phys R 69:225-34 Mr 1 '46

GRAVITOMETERS
Recording gravitometers in accounting for propane-butane production. K. B. Barnes. il Oil & Gas J 44:103-4 Ja 12 '46
Simple hydrostatic gravitometer for rapid determination of the specific gravity of liquids. W. Seaman and J. J. Hugonet. bibliog il Ind & Eng Chem Anal ed 18:141-4 F '46

GRAVITY
Presentation of Penrose medal; citation by C. R. Longwell; response by Dr Meinesz. Geol Soc Proc 1945:121-7 Je '46

GRAVITY, Specific. See Specific gravity

GRAY
Conservative, dignified, formal gray. G. J. Church. il Inland Ptr 118:42 O '46
Standardization of color finishes for machinery and equipment. D. L. Hadley and C. B. Ryder. diag Steel 118:121-2+ Ja 28 '46

GRAY iron. See Cast iron

GRAY iron founders' society
Annual meeting, 17th, Chicago, Oct. 23-24. Foundry 73:95-9, 135-6+ D '45; Steel 117: 76 O 29 '45; Iron Age 156:172+ N 15 '45
Annual meeting, 18th, Cincinnati, Oct. 22-23. Steel 119:48 O 28 '46

GRAYSON-ROBINSON stores, inc.
New stores lift Grayson-Robinson sales. Barron's 26:7 S 30 '46
Stocks offered. Comm & Fin Chr 163:1284 Mr 11 '46

GREASE
Purification of sewage grease in Africa; abstract. H. Wilson. Pub Works 77:28 Ja '46
See also
Lubricating greases
Sewage disposal—Grease and oil removal
Shoe grease
Analysis
Improved device for decomposition of grease. R. W. Tarara. diag Ind & Eng Chem Anal ed 18:68 Ja '46

GREASEPROOF paper. See Paper, Greaseproof

GREAT American industries, inc.
Strength in union. Bsns W p63-4 Mr 30 '46

GREAT Atlantic and Pacific tea company
A. & P. aftermath. Bsns W p18 O 5 '46
A.&P. experiment; tests with frozen foods. Bsns W p57-8+ Ag 24 '46
A. & P. shares some secrets; testimony in antitrust action. Bsns W p78+ Ap 6 '46
Custom baking; Jane Parker shops in A.&P. stores. Bsns W p74+ Jl 27 '46
Sellers' warning; court decision signal to many integrated setups. Bsns W p18 S 28 '46

GREAT BRITAIN

See also
Accounting—Great Britain
Aeronautics, Commercial—Great Britain
Aeronautics, Military—Great Britain
Agricultural machinery industry—Great Britain
Airlines—Great Britain
Airplanes, Military—Great Britain
Coal trade—Great Britain
Coke industry—Great Britain
Cotton trade—Great Britain
Electricity supply—Great Britain
Finance—Great Britain
Industry and state—Great Britain
Labor and laboring classes—Great Britain
Patent laws and legislation—Great Britain
Public utilities—Great Britain
Steel industry and trade—Great Britain
Textile industry—Great Britain
Trade unions—Great Britain
Wages—Great Britain
Wool trade—Great Britain
World war, 1939-1945—Great Britain

Air force

Mobile crane for the Royal air force. il diags Engineering 160:444-6, 448 N 30 '45

Armed services

Pay, allowances, etc.

Military family allowances in the United States, Canada, and Great Britain, 1945. M. T. Waggaman. Mo Labor R 63:94-7 Jl '46

Army

Army in council. Economist 151:361-2 S 7 '46; Same. Iron Age 158:119, 171-2 S 26 '46

Education

Future army technicians; electrical training for boys at Arborfield school. Electrician 136:1312 My 17 '46

Royal engineers

Power activities in 21 army group. T. G. Martin. il map plan diag Electrician 137: 508-12, 576-81 Ag 23-30 '46

Bibliography

British civilization and institutions; a book list; comp. by the British council. 75p pa $1 American lib. assn, 520 N. Michigan av, Chicago 11 '46

Colonies

British colonial development. P. Einzig. Comm & Fin Chr 164:1140+ Ag 29 '46
Colonial development. Economist 149:932-3 D 29 '45
Colonial development program calls for allocation of £120,000,000. For Comm W 22:26-7 F 23 '46
Colonial publicity. Economist 150:918-19 Je 8 '46
Outlook for the colonies. Economist 151:46-7 Jl 13 '46
Science and the British colonies. Science 104: 297-9 S 27 '46

See also
Kenya colony
Malayan Union

Commerce

Anglo-American financial agreement; British white paper concerning financial position of the United Kingdom. Fed Res Bul 32:20-7 Ja '46
Britain sacrificed export trade at U.S. behest; proposed loan is good business. W. L. Batt. Comm & Fin Chr 163:2829+ My 23 '46
Britain's program progresses; export-import relationship shown by charts. For Comm W 24:13 Jl 13 '46
British exports jump sharply. Bsns W p113-14+ Mr 30 '46
British loan and American foreign trade. W. L. Clayton. il Dun's R 54:11-15+ My '46
British loan; what it means to American business. Mag of Wall St 78:261-3 Je 8 '46
Consequences. Economist 149:897-9 D 22 '45
Estimated 1946 United Kingdom requirements for commodities produced in the United States by major commodity groups; tabulation. For Comm W 22:43 Mr 23 '46
Export targets. Economist 150:380-2, 461-2, 496-7, 600-1, 643-5, Mr 9, 23-30, Ap 13-20 '46
Goods for world consumers. Economist 150: 643-5 Ap 20 '46
Import and export price index. Economist 150:652 Ap 20 '46
Influence of price on exports. Engineer 181: 406-7 My 3 '46
Iron and steel lead Britain to export goal; other export targets. W. H. Millgate. Barron's 26:7 Jl 15 '46
Recovery in exports. Economist 151:181-2 Ag 3 '46
Statistical background. Economist 149:874-5 D 15 '45
Trade conditions in Great Britain. D. C. Bliss, jr. Comm & Fin Chr 163:1687+ Mr 28 '46
United Kingdom and postwar international trade. Fed Res Bul 32:1-13 Ja '46
U.K. overseas trade, imports and exports for the six months ended June 30, 1946, compared with the same period of 1945, and one-half of 1938. Economist 151:157 Jl 27 '46
United Kingdom overseas trade, imports and exports in 1945 compared with 1944 and 1938. Economist 150:398 Mr 9 '46
United Kingdom overseas trade; value of imports and exports for the four months ended April 30, 1946, compared with the same period of 1945, and one-third of the total for 1938; tabulation. Economist 150: 870 My 25 '46 [revised monthly]
World prosperity and the British balance of payments. R. Hinshaw and L. A. Metzler. R Econ Stat 27:156-70 N '45

Commercial policy

Anglo-Swiss financial arrangements and the sterling agreements. Economist 150:421-2 Mr 16 '46
Blocked sterling balances; origin and operation; relation to the U.S. Index 25 no 4:86-97 [D] '45
Britain has alternative to U.S. aid; greater productivity of British workers as source for creating exports to pay debts. H. Heinemann. Comm & Fin Chr 162:2325+ N 15 '45
Britain to reduce exchange controls. P. Einzig. Comm & Fin Chr 163:121+ Ja 10 '46
British Empire preference aids U.S. exports. T. P. McCarthy. Barron's 25:3+ D 3 '45
British loan terms aid world trade; oil equipment exports to rise. H. D. Ralph. map Oil & Gas J 45:122-3 Jl 27 '46
British violate loan agreement in British-Canadian wheat agreement. A. Andresen. Comm & Fin Chr 164:741+ Ag 8 '46
Congressmen disillusioned on British loan. J. P. Wolcott. Comm & Fin Chr 162:2452+ N 22 '45
Explaining Britain. D. L. Gill. Bsns W p119 D 15; 119 D 22 '45
Export-minded. Bsns W p110+ Je 8 '46
Export plan. Economist 149:620-1 N 3 '45
Foreign trade developments; aid to Britain. Burroughs Clearing House 30:28+ N '45
Future of the sterling area. D. F. Heathcrington. Comm & Fin Chr 163:7+ Ja 3 '46
Have lend-gift but get quid pro quo; attacks British commercial and colonial policy. R. R. McCormick. Comm & Fin Chr 162:2449+ N 22 '45
Important economic agreements; Britain is not making one-sided pacts. J. Kingsley. Comm & Fin Chr 164:2341+ N 7 '46
International trade struggle: Great Britain and Latin America; Washington agreement does not solve commercial problems. R. Schueller. Comm & Fin Chr 162:3009+ D 20 '45
Is British export drive overdone? P. Einzig. Comm & Fin Chr 164:2079+ O 24 '46
Meaning of Britain's trade agreements with Europe. V. L. Horoth. Mag of Wall St 77: 199-200+ N 24 '45
No free London exchange dealings. P. Einzig. Comm & Fin Chr 163:1640+ Mr 28 '46
Our stake in Britain's economy. W. L. Batt. Comm & Fin Chr 162:2571+ N 29 '45
Will Great Britain adopt a multilateral trade system? W. F. Hauhart. Comm & Fin Chr 163:241+ Ja 17 '46
World trade not obstructed by local socialism; Britain will push international trade aims. H. Dalton. Comm & Fin Chr 164:1780+ O 10 '46

GREAT BRITAIN—*Continued*

Constitutional law

Human rights in England and the United States. W. D. Lewis. Ann Am Acad 243:60-6 Ja '46

Cultural relations

Scientific work of the British council. Chem Age (Lond) 53:555-7 D 15 '45

United States

British science in America; British mission in Washington. A. King. Chem Age (Lond) 54:92-3 Ja 19 '46

Science and Anglo-American relations. W. P. Cohoe. Chem & Ind p271-5 Jl 20 '46; Same cond. Chem & Eng N 24:1792-4 Jl 10 '46; Abstract. Can Chem & Process Ind 30:92 S '46

Symposium, Links with the U.S.A. R. H Heindel and others. Assn of Sp Lib & Inf Bur Proc 1945:25-46; Discussion. 46-9

Defenses

Defence policy. Economist 149:707-8 N 17 '45

Defence white paper. Economist 150:329 Mr 2 '46

Machinery of defence. Economist 151:569-70 O 12 '46

Diplomatic and consular service

Ambassadors extraordinary. Economist 150: 206-7 F 9 '46

Economic conditions

Britain faces economic test. Bsns W p85-6 F 9 '46

Britain faces peace. H. Morrison. Comm & Fin Chr 163:244+ Ja 17 '46

Britain's economic position one year after V-J day; statement at press conference. H. Morrison. Comm & Fin Chr 164:2385+ N 7 '46

Business abroad. Fortune 33:230 My '46

Controlling inflation in Britain. N. Crump. Comm & Fin Chr 163:3213+ Je 13 '46

Economic outlook. Economist 150:993-4 Je 22 '46

Golden autumn; shortage of consumer goods. Economist 151:550+ O 5 '46

Impact of the war on civilian consumption. Economist 149:637-44 N 3 '45

Maintenance of full employment after the transition period; a comparison of the problem in the United States and the United Kingdom. M. Kalecki. Int Labour R 52:449-64 N '45

News by countries. For Comm W 23:31-3 Je 8; 35-7+ Je 22 '46

Preliminary stages of transition in Britain; a summary of third-quarter developments. G. B. Cooper. il For Comm W 21:3-6 D 22 '45

Prospects in Britain. H. F. Johnson, jr. Adv & Sell 38:66 N '45

Reconversion reviewed. Economist 150:933-5 Je 8 '46

Strength through misery is the key to Britain's first winter of peace. G. Burck. il Fortune 33:92-103+ F '46

U.S. and Britain; an economic contrast. Bsns W p49 Mr 30 '46

Economic policy

Accelerated British nationalization. P. Einzig. Comm & Fin Chr 163:709+ F 7 '46

Borrowing control and guarantees bill inquisition. Economist 150:465 Mr 23 '46

Britain's inflation controls. F. B. Makin. Banking 38:123-4 F '46

British industries to be withdrawn from essential work orders at the end of three months from Feb. 15, 1946. Economist 150: 316 F 23 '46

Bureaucratic investment control; Control of investment bill. A. M. Sakolski. Comm & Fin Chr 163:829+ F 14 '46

Controlled investment in Britain. F. B. Makin. Barron's 26:14 Mr 11 '46

English socialism. C. S. Slocombe. Personnel J 24:207-20 D '45

Government-guaranteed loans to British industry; Control of investment bill. P. Einzig. Comm & Fin Chr 163:517+ Ja 31 '46

Investment under a socialist government. H. Wincott. Comm & Fin Chr 163:1341+ Mr 14 '46

Planned Britain; labor regime's tightening controls over business and finance. Bsns W p68+ Mr 16 '46

Production drive. Economist 150:362-3 Mr 9 '46

Second thoughts on British white paper on employment policy. J. Jewkes. Comm & Fin Chr 163:3197+ Je 13 '46

Socialism in Britain; what now? W. A. Berridge and R. R. Berridge. il Dun's R 54:16-20+ Ja '46

Unplanned investment; Investment control and guarantees bill. Economist 150:123-4, 221-2, 384 Ja 26, F 9, Mr 9 '46

Economic relations

Britain as lender. P. Einzig. Comm & Fin Chr 163:829+ F 14 '46

Loan to Britain restores economic dead-center. N. Crump. Comm & Fin Chr 164:747+ Ag 8 '46

Loan to Britain; what it means to American business. Bsns W p43-55 Mr 30 '46 [reprint 20c]

Argentina

Anglo-Argentine agreement; sterling balances, meat and railways. Economist 151: 460-1 S 21 '46

British seek funding of sterling balances on interest free basis in Argentine negotiations. P. Einzig. Comm & Fin Chr 164: 1262+ S 5 '46

Executive departments

Filing practice in the civil service. K. S. Jefferies. J Doc 2:8-16 Je '46

Foreign relations

Foreign audit. Economist 150:322-4 Mr 2 '46

Egypt

Egypt's dilemma. Economist 151:364-6 S 7 '46

Exodus from Egypt. Economist 150:737-8 My 11 '46

Near East

Middle Eastern currents. Economist 151:178+ Ag 3 '46

Russia

Operation was successful; duel between Mr Bevin and Mr Vyshinsky. Economist 150: 201-2 F 9 '46

United States

Anglo-American cooperation a bulwark for peace; radio address. Earl of Halifax. Comm & Fin Chr 163:2643+ My 16 '46

Anglo-American friction and cooperation. Earl of Halifax. Comm & Fin Chr 163:1690+ Mr 28 '46

Factors in Anglo-American cooperation; address before Pilgrims of the United States, New York city. Earl of Halifax. Comm & Fin Chr 163:2218+ Ap 25 '46

Westward look. Economist 150:281-2 F 23 '46

Industrial health research board

Present work of the Industrial health research board of Great Britain. R. Schilling. bibliog Ind Med 15:121+ F '46

Industries and resources

Britain reconverts. Fortune 32:245-6+ D '45

Britain's new census of production. Factory Management 104:274+ F '46

British issue report on reconversion. J. R. Hight. Iron Age 156:78+ D 27 '45

Converting industries for peacetime tasks; Britain's industrial machine is changing gear. C. M. Weir. Factory Management 104: 284+ Mr '46

Data for planning; British government will survey distribution. Bsns W p110+ Ap 20 '46

How Britain's labor government aids small plants. S. A. Tucker. il map Factory Management 104:158-61 Je '46

Industrial reorganisation plans in Great Britain. Int Labour R 52:508-11 N '45

Location of industry; British experience and programs. D. F. Heatherington. il For Comm W 23:3-5+ My 4; 12-14+ My 11 '46

Natural products of the empire. J. L. Simonsen and others. Chem Age (Lond) 54:727-9; 55:13 Je 29, Jl 6 '46

GREAT BRITAIN—Industries and resources—*Continued*
New-style census; Britain preparing for annual collection of production data. Bsns W p114 D 15 '45
Strength through misery is the key to Britain's first winter of peace. G. Burck. il Fortune 33:92-103+ F '46
Trade conditions in Great Britain. D. C. Bliss, jr. Comm & Fin Chr 163:1687+ Mr 28 '46
Tripartite working parties for industries. Textile Inst J 36:P161-3 O '45

Labor and national service, Ministry of
Appointments department. Economist 151:613-14 O 19 '46

National physical laboratory, Teddington
High-voltage research at the National physical laboratory. R. Davis. il diags Inst E E J 93 pt 1:177-86 Ap '46; Same abr. Engineer 180:412-13, 435-6 N 23-30 '45; Abstract. Electrician 135:573-5 N 23 '45
National physical laboratory. il Engineer 181: 590-1 Je 28 '46
Work of the N.P.L.; exhibition and demonstration of equipment. Electrician 136:1673 Je 21 '46

Navy
Honk Kong dockyard; reminiscences of a British naval engineer. E. C. Smith. il map Engineering 161:577-9, 601-3 Je 21-28 '46
Royal naval damage control school. il Engineer 180:478-80 D 14 '45
Royal navy at the outbreak of war; discussion of paper by S. V. Goodall. Engineer 181:363 Ap 19 '46
Technical achievements in the navy. il Engineer 181:14-16, 28-9 Ja 4-11 '46

Parliament
What kind of MPs? Economist 150:84-5 Ja 19 '46

Politics and government
British imperialism is a spook. J. C. Smuts. Comm & Fin Chr 164:2341+ N 7 '46
Government machine; comments on Sir John Anderson's Romanes lecture. Economist 150:830-1 My 25 '46
Mechanism of consultation between the United Kingdom and the Dominions. Economist 150:787-8 My 18 '46
See also
Labor party (Great Britain)

Statistics
Britain's new post-war economic guide; Monthly digest of statistics. N. Crump. Am Stat Assn J 41:171-2 Je '46
Census of distribution. Economist 150:498-9 Mr 30 '46
Census of production; recommendations for collection of information. Economist 149: 685-6 N 10 '45
Commercial history and review of 1945. Economist 150:sup1-16 Mr 23 '46
New guide to Britain's economy; Monthly digest of statistics. Chem Age (Lond) 54: 253-4 Mr 9 '46
Statistical light. Economist 150:261-2 F 16 '46

GREAT LAKES fisheries. See Fisheries

GREAT men
Most admired leaders; Gallup poll. Iron Age 157:107, 150 Je 27 '46

GREAT northern railway
Bonds offered. Comm & Fin Chr 163:1565, 1865 Mr 25, Ap 8 '46
Great Northern hauls war freight; mountain operations on western lines aided by use of Diesel-electrics. il map Ry Age 120:440-3 Mr 2 '46
Great Northern's average interest rate reduced to 3.4 per cent. il map Ry Age 120: 634-8 Mr 23 '46

GREAT PLAINS region
See also
Irrigation—Great Plains region

GREAVES-WALKER, Arthur Frederick, 1881-
Arthur Frederick Greaves-Walker. bibliog(75 titles) pors Am Cer Soc Bul 25:315-20 S 15 '46

GREECE
Greek reconstruction problems. Economist 151:56, 99, 180, 219 Jl 13-20, Ag 3-10 '46
See also
Mines and mineral resources—Greece
Tobacco industry and trade—Greece

Economic conditions
Economic problems of Greece. C. Diamantopoulos. Comm & Fin Chr 163:1344+ Mr 14 '46
News by countries. For Comm W 23:30 My 18; 24:33 Jl 13; 24 Ag 3; 16 Ag 31; 25:15-16 N 2 '46

German occupation
Inflation of the cost of living and wages in Greece during the German occupation. S. Agapitides. Int Labour R 52:643-51 D '45

Politics and government
Civil war in Greece. Economist 151:585+ O 12 '46
Greece before the plebiscite. Economist 151: 338 Ag 31 '46
Greece elections. Economist 150:495, 542-3, 586 Mr 30-Ap 13 '46

GREECE, Ancient
See also
Chemistry—Greece, Ancient

GREEN, Frederick W., 1877-
F. W. Green made Cotton Belt chief. por Ry Age 121:728 N 2 '46

GREEN, John, 1896-
C.I.O.'s Green. por Fortune 32:267-8+ D '45
Shipyard schism; J. Green's union backs him 3-to-1 in factional fight. Bsns W p97 Ja 19 '46

GREEN, William, 1873-
What William Green and Ira Mosher think; Factory asked nine questions. Factory Management 104:86 Mr '46

GREEN
That second color works wonders! G. J. Church. il Inland Ptr 117:48 Jl '46
Use of a constant-hue flickering filter to distinguish poor imitation from real green foliage. W. A. Shurcliff and E. I. Stearns. il Opt Soc Am J 36:478-80 Ag '46
See also
Viridine green

GREENAWALT process
Borings sintered by Greenawalt machine. Iron Age 156:50 D 20 '45

GREENE, F. A.
Tribute. por Chem & Ind p375 D 1 '45

GREENHOUSES

Heating and ventilation
Condensation problem in greenhouses. diags Dom Eng 167:129-30 Ja '46
Gas fuels Lacy nurseries. C. Thompson. il Gas Age 98:27-8 Ag 8 '46
Greenhouse heating calculations. Heat & Ven 43:78-9 F '46
Polyethylene tubing in the greenhouse; electric heating of seed boxes, hot beds and frames; Tenatherm. il diags Mod Plastics 23:108-9 Ag '46
Should we use units for heating a greenhouse? il Heating-Piping 18:94-7 Je '46

GREENLEE automatic transfer machine
Transfer machine uses 152 tools; manufacture of refrigerator-compressor bodies. il diags Am Mach 90:116-18 Jl 4 '46

GREEN'S ready-built homes, inc
Stocks offered. Comm & Fin Chr 164:1594 S 30 '46

GREENWICH royal observatory
Report of the astronomer royal for year ended April 30, 1945. Engineering 160:500-1, 522 D 14-21 '45
Royal observatory; annual report of the Astronomer Royal; year ended April 30, 1946. Engineering 162:293, 316 S 27-O 4 '46

GREENWOOD, Charles Ernest
James T. Coatsworth succeeds C. E. Greenwood as EEI commercial director. por Edison Elec Inst Bul 14:112+ Ap '46

GREETING card industry
Smash-hit press party: news sense and showmanship make it. A. B. Ecke. il Sales Management 56:48+ Ja 1 '46

GREETING card industry—*Continued*

Advertising

14 rules assure success of new small-space advertiser; Norcross greeting cards. il Ptr Ink 217:49 O 18 '46

Make your dealer calendar work; Gartner & Bender, greeting cards. il Ptr Ink 216:45 S 13 '46

GREETING cards

Testing

Research through Kodachrome eyes; pretesting greeting card design with slide films. R. J. Bender. Ptr Ink 215:96+ My 17 '46

GREGORY, Edmund Bristol, 1882-

Portrait. Bsns W p36 Ja 26 '46

War surplus sales rise steeply in biggest U.S. bargain headache. por Sales Management 56:105-6+ Mr 1 '46

GREYHOUND corporation

Greyhound starts a new lap. Bsns W p52-4+ Je 8 '46

Lets Greyhound keep Florida motor lines; I.C.C. approves acquisition of control. Ry Age 121:698-9 O 26 '46

No fact finding; one Greyhound bus group signs with union. Bsns W p96+ D 22 '45

GREYHOUNDS

Greyhounds as an export commodity for Eire. For Comm W 24:37 Jl 20 '46

GRIEVANCES. See Labor disputes

GRIFFIN, Georgia

Industries

From bombs to beauty; Wynne precision company handmade costume pins resembling fish lures. J. Mebane. il Manuf Rec 115:39+ My '46

GRIGNARD reagents

Action of Grignard reagents; replacement of the oxygen atoms of ketones by two hydrocarbon radicals by the action of Grignard reagents. A. Schönberg and W. Asker. Chem Soc J p609-10 Jl '46

Action of Grignard reagents upon β,β,β-triphenylpropionitrile; stability of the triphenylethyl grouping. R. L. Garner and L. Hellerman. Am Chem Soc J 68:823-5 My '46

Allylic rearrangements; further studies related to the nature of the butenyl Grignard reagent. W. G. Young and J. D. Roberts. bibliog Am Chem Soc J 68:1472-5 Ag '46

Allylic rearrangements; some addition reactions of butenylmagnesium bromide. W. G. Young and J. D. Roberts. bibliog Am Chem Soc J 68:649-52 Ap '46

Applications of the 1,4-addition of Grignard reagents to α,β-unsaturated acid derivatives; synthesis of compounds related to hexestrol. S. Wawzonek. bibliog Am Chem Soc J 68:1157-9 Jl '46

Competition of acetate and chloride functions of tetraacetylglucosyl chloride for Grignard reagents. W. A. Bonner. Am Chem Soc J 68:1711 S '46

Equilibrium composition of certain Grignard reagents in *n*-butyl ether. G. H. Coleman and J. W. Brooks. bibliog Am Chem Soc J 68:1620-1 Ag '46

Glycosylation of hydrocarbons by means of the Grignard reagent. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67:1972-7 N '45

Preparation of some tertiary alcohols by the addition of organic acids to Grignard reagents. R. C. Huston and D. L. Bailey. bibliog Am Chem Soc J 68:1382-3 Jl '46

Researches on acetylenic compounds; αβ-acetylenic hydroxy-acids. L. J. Haynes and E. R. H. Jones. Chem Soc J p503-6 Je '46

Structure of benzene; preparation of deuterated benzenes by the Grignard reaction; mono- and 1 : 4-di-deuterobenzene. L. H. P. Weldon and C. L. Wilson. diags Chem Soc J p235-9 Ap '46

Vinyl alcohols; reduction of hindered diaryl ketenes by the Grignard reagent. R. C. Fuson and others. bibliog Am Chem Soc J 67:1937-9 N '45

GRINDING

Abrasive belt grinding. il diags Steel 119:78-81+ Jl 29; 128-30+ Ag 5 '46

Belted blower removes grinding dust. W. D. Waddington. diag Am Mach 90:143-4 S 26 '46

Cam grinding on a cylindrical grinder. F. Zagar. il Mach 52:180-1 F '46

Can grinding be standardized? symposium. L. Fogel and others. il Textile World 96: 116-17+ Je '46

Centerless plunge-grinding by controlled cycle. il diags Iron Age 157:70-1 Ja 10 '46

Developments in plunge-cut centreless grinding. Engineering 161:21 Ja 4 '46

Disk holds short springs for grinding with speed and safety. G. W. Hazen. il Am Mach 89:140 D 20 '45

Finishing spur gears for aircraft engines. S. Cornell. il diags Iron Age 156:46-8 D 27 '45

Fixture holds eight tools for multiple grinding. C. F. Naas. il Am Mach 89:144 N 22 '45

Grinding dovetail serrations on aircraft turbine buckets. G. V. Keller. il diag Mach 53:146-52 O '46

Grinding fixture removes teats from lathe parts. J. S. Curtiss. diags Am Mach 90:137 Ap 25 '46

Grinding gages for circular form tools. J. J. Meadows. diags Iron Age 157:59-60 Mr 21 '46

Grinding hardened steel precision gears. E. A. Koether. il Materials & Methods 22: 1754-8 D '45

Grinding lathe tools to eliminate chatter. C. W. Christiansen. diags Mach 52:174-6 My '46

Grinding operations on stellite and Hastelloy products; illustrations with text. Mach 53: 148-9 S '46

Grinding precision tools. H. J. Chamberland. il Steel 119:126+ O 7 '46

Imperfections of grinding finishes. L. E. Paine. Materials & Methods 22:1468 N '45

Mandrel limits ground-hole accuracy. F. C. Victory. diags Am Mach 90:93 Ja 3 '46

Microscope gages small dimensions during grinding. J. E. McElwee. diags Am Mach 90:142 S 26 '46

Milling-cutter design for continuous production; grinding technique. A. A. Schwartz. il diags Mech Eng 68:608-10 Jl '46; Abstract. Mach 52:179 F '46

Modern flat surface grinding practice. J. C. Arndt and W. S. Hallowell. il Mach 52: 168-72 My; 158-63 Je; 169-73 Jl; 53:158-65 S; 160-6 O '46

Precision grinding. R. S. Burpo, jr. il diags Materials & Methods 24:921-36 O '46

Radius grinding attachment. il Engineer 182: 219 S 6 '46

Reversed grinders for master cams. C. A. Sheffield. il Materials & Methods 22:1468 N '45

Rounding effect in centerless grinding. A. H. Dall. diags Mech Eng 68:325-9 Ap '46

Should aircraft engine gears be ground? abstract. E. A. Koether. Metal Prog 49:654+ Mr '46

Smart tool engineering speeds up production grinding. W. G. Johnson. il Steel 118:84-5+ F 25 '46

Some considerations in internal grinding. diags Mach 52:172 Je '46; Same. Mech Eng 68:741 Ag '46

Stone surface conditioning in a miniature grinder. S. A. Collicutt. Pulp & Pa of Can 47:95-8 Jl '46

Tap-grinding attachment. il Engineering 162: 211 Ag 30 '46

Taper form grinding of piston skirts. il diags Iron Age 158:56-7 O 17 '46

See also
Grinding machines
Lubrication and lubricants (cutting and grinding)

GRINDING machines

Arter rotary surface grinders. il Mach 52: 204B Ja '46

Automatic centreless plunge grinding. Engineering 161:283 Mr 22 '46

Backing-up roll of roll grinder floats on oil film. Mach 52:187 F '46

Belt grinding, one of the later developments in the grinding field. W. A. Papworth. il Mach 52:155-60 D '45

Blake flute grinder. il Mach 53:221 N '46

GRINDING machines—*Continued*
Blake long-taper tap grinder grinds relief with small wheels. il Am Mach 89:150 N 22 '45; Mach 52:210 D '45
Car wheel grinder has increased capacity. il Ry Mech Eng 119:614 D '45
Centreless plunge grinding. Engineer 181:379 Ap 26 '46
Churchill centreless grinder. il Engineer 181: 413 My 3 '46
Cincinnati Filmatic grinder does center type work on small diameters. il Am Mach 90:162 S 26 '46; Automotive & Aviation Ind 95:40 O 1 '46; Mach 53:199 O '46
Cincinnati grinders modernizes line of plain precision grinders. il Am Mach 90:162+ Ap 11 '46
Cincinnati grinding machine is hydraulically operated il diags Product Eng 17:96-7 Ag '46
Cincinnati hydraulic universal grinding machines equipped with new headstock. il Mach 52:198 F '46
Cincinnati light postwar grinders. il Steel 118:121 Ap 29 '46
Cosa profile grinding machine. il Mach 52: 204 Ag '46
DoAll hydraulically controlled finish grinder. il Steel 119:86 Ag 26 '46
Grand Rapids hydraulic grinder provides for universal setup. il Am Mach 90:136 Ja 3 '46
Hager carbide tool grinder. il Steel 118:140 My 20 '46
Hammond machinery builds grinders for carbide tools, diamond finishing. il Am Mach 90:161 N 7 '46
Herbert automatic milling-cutter grinding machine. il Engineering 161:523 My 31 '46
Herbert face cutter grinder. il Automobile Eng 36:262-3 Je '46
High-amplification gage and internal grinder hold tolerances to millionths of an inch; airplane fuel injection device; Eclipse-Bendix plant. il Steel 118:116 Ap 8 '46
Inspection on jig-boring and jig-grinding machines. J. R. Moore. il charts Mach 52: 160-5 Ap '46
Jig-boring and jig-grinding machines promote interchangeability in toolmaking. J. R. Moore. il Mach 52:163-6 Mr '46
Jones and Shipman centre cone grinding machine. il Engineer 181:571 Je 21 '46
Jones and Shipman rotary surface-grinding machine. il Engineer 180:447 N 30 '45; Engineering 160:532 D 28 '45
Jones and Shipman twist-drill grinding machine. il Engineering 162:152 Ag 16 '46; Engineer 182:108 Ag 2 '46
Jones hydraulic cylindrical grinder. il Engineer 181:392 Ap 26 '46
Landis Diesel engine crankshaft grinder uses two motors to drive crankshaft. il diags Product Eng 17:456-7 Je '46
Landis hydraulic crankpin grinder for heavy Diesel-engine crankshafts. il Mach 52:197 Ja '46; Steel 118:122 My 13 '46
Machine tool design responds to needs of industry; how machining operations will be affected. il diags Am Mach 90:119-22 Mr 28 '46
Modern flat surface grinding practice. J. C. Arndt and W. S. Hallowell. il Mach 53:158-65 S '46
New equipment. il Iron Age 158:77-8 S 12 '46
Newall hydraulically-operated cylindrical grinder. il Engineer 182:239 S 13 '46
Newall 10-in. cylindrical grinding machine. il Engineering 161:248 Mr 15 '46
Newton radius-link grinders. il Am Mach 89: 150 D 20 '45; Mach 52:194 Ja '46
Optical grinding machine. Mech Eng 68:981 N '46
Porter-Cable's marketing campaign solves problem of new product promotion; wet belt machines. W. F. Schleicher. il Ind Marketing 30:48-9+ D '45
Precision blade-grinding fixture built from scrap materials. C. Weslow. il Am Mach 89:139 N 22 '45
Precision grinding. R. S. Burpo, jr. il diags Materials & Methods 24:921-36 O '46
Scrivener centreless grinding machines. il diags Automobile Eng 36:68-70 F '46
Scrivener piston-grinding machine. il diag Engineering 162:186 Ag 23 '46; Engineer 182:152 Ag 16 '46
Sheffield annular form grinder uses crush-dressing principle. il Am Mach 90:162 O 10 '46
Sheffield templet grinder with electronic control. il Mach 52:192 Mr '46; Iron Age 157: 54 Mr 28 '46; Steel 118:109+ Mr 18 '46; Am Mach 90.168 Ap 11 '46
Simple method of duplicating cam surfaces on a surface grinding machine. F. L. Keller. diags Mach 52:194 Jl '16
Some characteristics of standard plain grinding machines; engineering file facts. R. S. Burpo, jr. comp. Materials & Methods 24: 945 O '46
Telescope mirror grinding and polishing machine of the vertical-spindle, hand-lever type. H. Paul. il Sci Am 173:381-2 D '45
Thompson Truforming grinder with wheel-forming crusher rolls. il Mach 52:203-4 Ap '46

See also
Grinding wheels

Advertising

Co-ordinated campaign for new product; case history of Thompson truform grinders. E. H. Mook. il Ptr Ink 215:42-3+ Ap 26 '46

Bearings

Hydrauto bearing for grinding machines. il diags Engineering 160:492-3 D 14 '45

Control

Electronics and precision grinding machines; development of Churchill machine tool company. il Engineer 182:300-1 O 4 '46

GRINDING wheels
How to mount grinding wheels properly; illustrated instructions. Power 90:267 Ap '46; Same. Ind Stand 17:207-8 Ag '46
How to select the correct grinding wheel. R. B. Fair. il Iron Age 158:41-5 O 31; 64-6 N 7 '46
Profile-forming device for surface grinding wheel. F. S. Mann. diag Mach 53:193 O '46
Smart tool engineering speeds up production grinding. W. G. Johnson. il Steel 118:84-5+ F 25 '46
Strength of bond an important factor in grinding wheels. H. H. LaVercombe. Materials & Methods 23:1625 Je '46
Surface grinding with cylinder and segmental wheels. J. C. Arndt and W. S. Hallowell. il diags Mach 52:158-63 Je '46
Surface grinding with periphery of straight wheels. J. C. Arndt and W. S. Hallowell. il Mach 52:169-73 Jl '46
Vitrified-bonded diamond grinding wheels. il Am Cer Soc Bul 25:92-3 Mr 15 '46

Advertising

Q and A type copy builds industrial prestige; case history of Dayton grinding wheels. E. H. Mook. Ptr Ink 213:126 D 7 '45

Safety measures

How to use grinding wheels. Safety Eng 92: 55 Jl '46

Standards

Standard marking system for grinding wheels. Engineer 182:11 Jl 5 '46
Standardisation of grinding-wheel markings. Engineering 162:269 S 20 '46

Storage

Proper storage of grinding wheels. F. D. Hart, jr. il Materials & Methods 24:949 O '46

Truing

Combination grinding wheel dresser. J. R. Moore. il diags Machine Design 18:101-5 S '46
Crush-dressing of grinding wheels. R. Y. Moss. il Mech Eng 68:885-8 O '46
Flat form contours; new crush grinder. il diags Steel 118:86+ Ap 22 '46
Grinding wheel crusher roll life extended. il Iron Age 157:69 My 9 '46
Moore Panto-Crush wheel-dresser. il Mach 53:197-8 O '46; Am Mach 90:161 O 10 '46
New crush-dressing applications. C. Linxweiler. il diags Mach 52:143-50 Ja '46

GRINDING wheels—Truing—*Continued*
Production experience proves economy of crush grinding. C. J. Linxweiler and R. Y. Moss. il diag Iron Age 158:31-8 Ag 29 '46
Selection of industrial diamonds, particularly for the dressing of grinding wheels. S. Booth. il Aero Digest 52:96+ Ja '46
Sine bar vise dresses surface grinding wheels. W. Dimitruk. diags Am Mach 90:144 Ap 11 '46
Substitution of lower-quality industrial diamonds in diamond dresser tools. H. Whittaker. il A S M E Trans 68:35-45 Ja '46
Thread grinding with crush-dressed and diamond-dressed wheels. E. V. Flanders. Mach 53.200-2 N '46
Using diamonds for the crush-forming of grinding wheels. H. L. Strauss, jr. diags Mach 52:179 Ja '46

GRIT blasting. See Metal cleaning

GROCERY manufacturers of America
Annual meeting, 37th, New York, Nov. 7-9. Sales Management 55:112+ D 1 '45

GROCERY stores
IGA stores to sell many new items; all supplies needed for kitchen, dining room, and bathroom. J. Garth. il Am Bsns 16:14-15+ O '46
Los Angeles food markets cash in on vest pocket drug stores; systematized as to stock, display, service and replacements; HandySpots. il Sales Management 57:132+ N 1 '46
One-stop supermarkets; with tabulation of independent grocers, sales of nonfood commodities. Bsns W p70+ Jl 27 '46
What to expect in tomorrow's grocery stores. C. W. Dipman. Adv & Sell 39:101+ Ja '46

See also
Food stores
Market stores

GROCERY trade
Aid to retailers; Smart & Final, Los Angeles wholesale food company, expands business. Bsns W p73 O 12 '46
Card system controls fleet inspections; National tea co. Food Ind 18:1032-3 Jl '46
Forced tie-in grocery sales continue. B. Tolk. Ptr Ink 216:91+ Ag 23 '46
Grocery jobber cuts competitive odds for papa and mama stores; Smart & Final co. J. H. Collins. il Sales Management 57:126+ Jl 1 '46
Home inventory survey gives advertised brands increased preference; tenth study by Cleveland press. Ptr Ink 215:102+ My 3 '46
Independent grocer; report no. 2. Ptr Ink 216:128 Ag 16 '46
Inventory of grocery products found in 401 consumers' pantries. Ptr Ink 214:108 Mr 8 '46
Planned interviews; key to successful selection of sales trainees; General Foods' method. R. H. Moulton. Ptr Ink 215:40-1+ My 3 '46
What to expect in tomorrow's grocery stores. C. W. Dipman. Adv & Sell 39:101+ Ja '46

See also
Canned food
Chain stores
Coffee trade
Food brokers
Food industry and trade
Great Atlantic and Pacific tea company
Independent grocers alliance of America
Market stores
Voluntary chain systems

Advertising
Intensive point-of-sale promotion pays; vegetable dehydration industry sales test in Grand Rapids grocery stores. B. Stanton. Ptr Ink 214:57 Ja 4 '46
Presenting the case for cooperative advertising. S. Apt. il Adv & Sell 38:38+ D '45
Product expenditures of newspaper advertisers in 1945; miscellaneous groceries. Ptr Ink 215:62+ My 3 '46

Finance
Grocery Midas; Cummings' success with unorthodox price policy. Bsns W p80+ F 23 '46

Periodicals
Important purposes of association magazines. W. D. Hadeler. Ptr Ink 213:148 N 16 '45

Statistics
Food sales charted. Bsns W p70 My 11 '46
Wholesale grocery territories; food group store sales show increases; P.I. market explorations. W. P. Burn. map Ptr Ink 216:37-40 Ag 2 '46

GROOVING
Drill jig for producing semicircular groove. diags Mach 52:184 My '46
Expanding-blade tool makes grooves for snap rings. J. Budnick. diags Am Mach 90:128 Jl 4 '46
Machining a deep narrow circular groove. D. P. Armstrong. diags Am Mach 90:140 Ap 11 '46

GROUND-fault neutralizer. See Petersen earth coil

GROUNDNUTS. See Peanuts

GROUNDS and faults. See Electric distribution—Grounds and faults

GROUP insurance. See Insurance, Group

GROUP medicine. See Medical service—Group and prepayment plans

GROUTING
Dry packing and grouting of substructure salvages 90-year-old Montreal bridge. il Eng N 136:32-4 Ja 10 '46
Foundation treatment. L. A. Schmidt, jr. il diags Am Water Works Assn J 38:1170-8 O '46
Grouting auxiliary assures foundation. diag Pet Refiner 25:136 My '46
Setting heavy machinery on concrete bases; grouting mixtures. R. R. Kaufman. Am Concrete Inst J 17:721-4 Je '46

GROWTH
Growth and aging problems in agriculture. S. Brody. Science 104:307-12 O 4 '46
Relative growth in a phylogenetic series and in an ontogenetic series of one of its members. S. W. Gray. bibliog Am J Sci 244:792-807 N '46

GROWTH inhibiting substances
Plant growth regulators. Science 103:469 Ap 19 '46

GROWTH promoting substances
Flower formation in the pineapple plant as controlled by 2,4-D and naphthaleneacetic acid. J. van Overbeek. Science 102:621 D 14 '45
Status of plant-growth substances and herbicides in 1945. F. A. Gilbert. bibliog(175 titles) Chem R 39:199-218 O '46

See also
Auxins
Colchicine

GUADELOUPE

Economic policy
Guadeloupe considers new measures to maintain economic balance. For Comm W 22:25 Mr 2 '46

GUAIACOL
Chloroacetylation of guaiacol. A. A. Goldberg and H. S. Turner. Chem Soc J p111-13 F '46
Pyridinium analogs of the pressor amines; the guaiacol series. B. Riegel and H. Wittcoff. bibliog Am Chem Soc J 68:1913-17 O '46

GUAM
Bridge structure in Guam defies bombs. R. Cutter. il Civil Eng 16:461 O '46

See also
Water supply—Guam

GUANIDYL group
Reaction of formaldehyde with proteins; participation of the guanidyl groups and evidence of crosslinking. H. Fraenkel-Conrat and H. S. Olcott. bibliog Am Chem Soc J 68:34-7 Ja '46

GUAR
Use of guar in paper manufacture. B. W. Rowland. il Paper Ind 27:1398+ D '45; Same. Pulp & Pa of Can 47:79-83 Je '46; Abstract. Paper Tr J 121:38+ D 20 '45

GUARANTY. See Suretyship and guaranty

GUARANTY of bank loans. See Loans, Bank—Guaranty

GUARANTY of earnings. See Wage payment plans—Guaranty of earnings

GUARANTY of products
Guarantees; they can be simple or elaborate. il Ptr Ink 215:43-6 My 10 '46
Performance guarantees; applying theory of probability. E. T. Norris. Inst E E J 93 pt 2:140-5 Ap '46

GUARANTY trust company of New York
Report to stockholders. E. W. Stetson. Comm & Fin Chr 163:292 Ja 17 '46

GUARD rails
Get guard rail conscious. H. F. Barney. il Safety Eng 91:42+ F '46

GUATEMALA
See also
Banking law—Guatemala
Money—Guatemala

Economic conditions
Latin America's economy as world conflict ended. For Comm W 24:52-3 Jl 13 '46
News by countries. For Comm W 23:28-9 My 25; 21-2 Je 29; 24:28-9 Jl 20; 17-18 Ag 24; 24 S 21; 25:31 O 19 '46

GUAYULE
Evaluation of blends of guayule and GR-S rubbers. F. E. Clark and W. F. L. Place. bibliog Ind & Eng Chem 38:1026-33 O '46
High pressure process for guayule separation. J. M. Cummings and R. L. Chubb. il diags Chem Eng 53:125-7 S '46
Methods of applying certain antioxidants to guayule crude rubber for preservation during storage. H. Tint and J. M. Cumming. il India Rubber World 113:509-12+ Ja '46
Rapid estimation of rubber in guayule latex dispersions. R. T. Whittenberger and B. A. Brice. bibliog Ind & Eng Chem Anal ed 18: 209-10 Mr '46
Recent advances in guayule growing. A. C. Hildreth. il India Rubber World 114:55-9 Ap '46

Analysis
Determination of nitrogen, phosphorus, potassium, calcium, and magnesium in plant tissue; semimicro wet-digestion method for large numbers of samples. O. J. Kelley, A. S. Hunter and A. J. Sterges. bibliog diag Ind & Eng Chem Anal ed 18:319-22 My '46

GUELPH, Ontario
Water supply
Accounting under city council; methods at Guelph, Ont. H. S. Nicklin. Water & Sewage 84:118+ Ap '46

GUERIN process. See Sheet metal work

GUGGENHEIM, John Simon, memorial foundation
Science awards. Science 102:582-3 D 7 '45

GUIANA, British. See British Guiana

GUIDED missiles. See Bombs, Flying

GUILLET, Léon, 1873-1946
Sketch. Génie Civil 123:163 Je 15 '46

GULF Coast
See also
Geology—Gulf Coast region

GULF oil corporation
Potentials in Gulf Oil. H. S. Coffin. il Mag of Wall St 77:332-4+ D 22 '45

GULF public service company
Common stock offered. Comm & Fin Chr 163: 71 Ja 7 '46

GULF states utilities, inc.
Bonds offered. Comm & Fin Chr 164:8 Jl 1 '46

GUM. See Chewing gum

GUM arabic
Coatings for deep-etch offset. C. F. King. Inland Ptr 117:45-8 Ap '46
Solutions for deep-etch platemaking. F. King. Inland Ptr 117:55-8 S '46

GUM tragacanth
Chemistry of gum tragacanth. S. P. James and F. Smith. Chem Soc J p739-51 N '45

GUMS and resins
Determination of Vinsol resin in portland cement. L. Bean and R. B. Peppler. bibliog Rock Prod 49:71-3+ Jl '46
Effect of heat on portland cements containing Vinsol resin. L. Bean and A. Litvin. Am Soc T M Proc 45:766-70 '45
Effect of use of blended cements and Vinsol resin-treated cements on durability of concrete. W. F. Kellermann. Am Concrete Inst J 17:681-7 Je '46
Evaluation of resins; symposium in London. Chem Age (Lond) 53:613-17 D 29 '45
Heat-reactive hydrocarbon resins and oils; abstract. W. J. Sparks and J. D. Garber. Oil Paint & Drug Rep 148:42-3 N 12 '45
Non-oxidizing resins for pressure-sensitive tapes. India Rubber World 113:671 F '46
Resin impregnation of catfaces; effect of new methods of turpentining upon the resin content of slash pine. H. Skolnik and A. G. Snow, jr. Paper Tr J 122:52-3 Mr 21 '46
Testing of portland cements containing interground Vinsol resin. R. L. Blaine and others. Am Soc T M Proc 45:732-52 bibliog(p752); Discussion. 753-65 '45
Viscosity of pine gum. W. J. Runckel and I. E. Knapp. bibliog il Ind & Eng Chem 38: 555-6 My '46
See also
Chicle
Coal—Resin content
Ester gums
Gum tragacanth
Mesquite gum
Naval stores
Resinous products

Statistics
Gums; import trends, 1943-1945; graph. For Comm W 23:39 My 18 '46

GUN cameras. See Airplanes, Military—Gun cameras

GUN metal
Leaded gun-metal for pressure castings. F. Hudson. il diags Engineer 178:291-2, 311-12, 331-2 O 13-27 '44; Excerpts. Engineering 158:286 O 13 '46; Abstract. Metal Prog 50: 522+ S '46

GUN sights
Electronic night sight; target illuminated by infrared light; combination orthicon and cathod-ray tube with built-in electron multiplier converts reflected light into visible image. il diag Electronics 19:95 Je '46
Navy's gyro gunsight. il diag Comp Air Mag 50:328-9 D '45
Navy's gyro gunsight equipped with Resistoflex compar. il Marine Eng 50:232 D '45
See also
Guns, Aircraft—Sights

GUN turrets, Airplane. See Airplanes, Military—Gun turrets

GUNITE
Building a smokestack in reverse order. il Comp Air Mag 51:193-4 Jl '46
Gunite tunnel lining test reveals difficulties in application. il Eng N 135:579 N 1 '45; Discussion. L. J. Sullivan. 136:143 Ja 24 '46
Shooting concrete into walls cuts lumber use and labor costs. il diags Eng N 137:48-50 Jl 11 '46

GUNNERY
Waller flexible gunnery trainer. F. Waller. il plan diags Soc Motion Picture Eng J 47:73-87 Jl '46

GUNNISON homes, inc.
Mass distribution of prefabricated homes on the way; Gunnison plans dealer for every town of 9,000 and over. E. J. Dever, jr. il Ptr Ink 214:23-5+ Ja 11 '46

GUNS
See also
Revolvers
Rifles

Manufacture
Compressed air at Winchester Arms. il Comp Air Mag 51:94-7 Ap '46
Cutting an increasing twist in gun rifling. G. Tonn. diags Mach 53:176-8 S '46

GUNS (ordnance)
Recoilless guns. Tech R 48:418 My '46
See also
Compressed air guns
Machine guns
Naval guns

GUNS (ordnance)—*Continued*

Manufacture

Centrifugal casting of steel in wartime Germany. C. W. Briggs. il diags Foundry 74: 96-7+ O '46

Foundry research at Watertown arsenal; adoption of centrifugal casting process in gun barrel production. W. G. Gude. il Foundry 73:104-6+ D '45

GUNS, Aircraft

Aircraft armament. G. C. Gentry. il J Ap Phys 16:771-3 D '45

Aircraft machine gun fires 50 percent faster. il Product Eng 17:151 F '46

All-electric gun charging. W. C. Rohn. il diags Elec Eng 65:Trans 1-4 Ja '46

Armament for jet-propelled bombardment airplanes. R. A. Averitt. Aeronautical Eng R 5:5-8 F '46

Design planning and scheduling in complex computer development; gunfire control device for aircraft. A. F. Wild. il Product Eng 16:817-20 D '45

Special alloys for gun synchronizer; KR-Monel and Hiperco. H. C. Roters. il Metal Prog 50:89 Jl '46

Sights

Powerful new gunery system for final blow against Japs. Franklin Inst J 241:388-90 My '46

GUNS, Industrial

Remington develops new industrial gun; used to break up clinker rings in cement kilns; other uses. il Concrete (mill sec) 54:118 My '46

GUTT, Camille, 1884-

General manager of the International monetary fund. por Comm & Fin Chr 163:2658 My 16 '46

GUTTERS

Design and capacity of gutter inlets. N. W. Conner. Pub Works 77:36 Jl '46

Shoulder gutters check airfield erosion. H. A. Scott. il diags Eng N 135:732-4 N 29 '45

GUVACINE

Piperidine derivatives; the preparation of 1-benzoyl-3-carbethoxy-4-piperidone; a synthesis of guvacine. S. M. McElvain and G. Stork. bibliog Am Chem Soc J 68:1049-53 Je '46

GUYOTS (term)

Drowned ancient islands of the Pacific basin. H. H. Hess. Am J Sci 244:772 N '46

GWYNNE bill. See Limitation of actions

GYMNASIUMS

Physical education building, New York state college for teachers, Albany. il plans Arch Rec 98:86 D '45

GYPSUM

Basic character of plaster; abstract. J. F. Offut and C. M. Lambe. Cer Ind 46:92 Je '46

Gypsum in war and peace; abstract. J. F. Havard. Rock Prod 48:130+ D '45

Gypsum production up; 1945 compared with 1944. Rock Prod 49:75 Ap '46

Working of plaster; abstract. E. Schleede. Cer Ind 46:92+ Je '46

See also

National gypsum company
Plaster of Paris

GYPSUM mines and mining

Gypsum mine mechanization. E. R. Cushing. il diags Rock Prod 49:68-70+ Jl; 92-7 Ag '46

GYPSUM products

Effect of water contents on the strength of calcium sulphate plaster products. H. Andrews. Soc Chem Ind J 65:125-8 My '46

Gypsum industry will receive 11,000 tons of liner monthly. Paper Tr J 122:10 My 9 '46

Lightweight fire-protection for steel; vermiculite-gypsum plaster. diags Arch Rec 100: 124-5 O '46

See also

National gypsum company

GYRO compass

High-frequency two-phase induction motor for gyro compass. il Engineer 180:472 D 7 '45; Engineering 161:81 Ja 25 '46; Elec R (Lond) 138:91 Ja 18 '46

GYROSCOPE

Behavior of a freely pivoted disk. A. B. Field. diags Elec Eng 65:142-4 Mr '46

Development of the torpedo; Obry torpedo gyroscope. P. Bethell. il diags Engineering 160:301-3 O 19 '45

Navy's gyro gunsight. il diag Comp Air Mag 50:328-9 D '45

H

HABBAKUK project

Icebergs as ships; artificial reinforced icebergs as aircraft carriers or seadromes; Habbakuk project. Engineer 181:517-18 Je 7 '46

HABEAS corpus

Writ of habeas corpus. C. E. Wyzanski, jr. Ann Am Acad 243:101-6 Ja '46

See also

Amparo (writ)—Mexico

HACKWORTH, Werter S. 1896-

Section hand to president of Nashville, Chattanooga & St Louis. por Ry Age 120: 511-12 Mr 9 '46

HAERTLEIN, Albert, 1895-

Sketch. por Civil Eng 15:570 D '45

HAFNIUM

Analysis

Fractional separation of hafnium and zirconium by means of triethylphosphate. H. H. Willard and H. Freund. bibliog Ind & Eng Chem Anal ed 18:195-7 Mr '46

HAGEN, Frederick John, 1876-1946

Sketch. por Inland Ptr 116:80 F '46

HAIL insurance. See Insurance, Hail

HAIR, Removal of

Thioglycolic acid rides the waves. A. Addleston. bibliog il Chem Ind 58:414-15+ Mr '46

HAIR preparations

Look at some hair tonics, and Barbo compound; a dye. Consumers Res Bul 17:19-20 Je '46

HAIRDRESSING

Permanent wave kits

See Permanent wave kits

HAITI

Economic conditions

Latin America's economy as world conflict ended. For Comm W 24:58 Jl 13 '46

News by countries. For Comm W 24:18-19 Ag 24; 25 S 21; 25:32 O 19 '46

HALEAKALA mountain

Contribution to the petrography of Haleakala volcano, Hawaii. G. A. MacDonald and H. A. Powers. bibliog map Geol Soc Bul 57: 115-23 Ja '46

HALES Bar dam. See Dams—Foundations

HALFTONE process. See Photoengraving

HALIDES

Syntheses in the pyrazine series; the preparation and properties of the pyrazyl halides. A. E. Erickson and P. E. Spoerri. bibliog Am Chem Soc J 68:400-2 Mr '46

Synthesis of amino acids from ethyl acetamidomalonate and ethyl acetamidocyanoacetate; the use of primary halides. N. F. Albertson. bibliog Am Chem Soc J 68:450-3 Mr '46

Ullmann synthesis of biaryls. P. E. Fanta. bibliog(271 references) Chem R 38:139-96 F '46

See also

Alkyl halides
Amino halides
Bromides
Chlorides
Fluorides
Grignard reagents
Neopentyl halides
Vinyl halides

HALIDES—*Continued*

Analysis

Amperometric titration of chloride, bromide, and iodide using the rotating platinum electrode. H. A. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:355-8 Je '46

Amperometric titration of mixtures of halides using the rotating platinum electrode. H. A. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:358-9 Je '46

HALIFAX, Nova Scotia

Water supply

Dramatic war years at Halifax; how allied navies and 100% increase in population were supplied with water from a broken-down plant. H. W. L. Doane. il map Water & Sewage 84:55-9+ Ap '46; Same. Am Water Works Assn J 38:799-807 Jl '46

HALITE. See Salt

HALITOIDS. See Abalones

HALL, Fitzgerald, 1889-1946
Sketch. por Ry Age 120:369 F 16 '46

HALLANAN, Walter Simms, 1890-
Sketch. H. Ridder. por Nat Pet N 38:36-8+ Jl 3 '46

HALLEN'S equation. See Radio antennas

HALLOYSITE
Les gisements de terres décolorantes de Périgord. Génie Civil 123:146 Je 1 '46

Illite, montmorillonite, halloysite, and volcanic ash as whiteware body ingredients. L. Mattyasovszky-Zsolnay. Am Cer Soc J 29:254-60 S 1 '46

HALOGEN compounds
Action of bases on organic halogen compounds; the action of the lithium salts of aliphatic amines on some organic halogen compounds. C. H. Horning and F. W. Bergstrom. bibliog Am Chem Soc J 67:2110-11 D '45

Action of bases on organic halogen compounds; the reaction of potassium amide with the naphthyl halides. R. S. Urner and F. W. Bergstrom. Am Chem Soc J 67:2108-9 D '45

Catalytic hydrogenolysis of halogen compounds. R. Baltzly and A. P. Phillips. Am Chem Soc J 68:261-5 F '46

Kinetics of the reaction of sodium 2-haloethanesulfonates with aqueous alkali. E. F. Landau, W. F. Whitmore and P. Doty. bibliog Am Chem Soc J 68:816-19 My '46

Rearrangement in the reaction of α-halogenonaphthalenes with lithium diethylamide. H. Gilman and others. bibliog Am Chem Soc J 67:2106-8 D '45

Rearrangements in compounds of carbon, silicon, germanium and tin containing halogens, isocyanate and thiocyanate. G. S. Forbes and H. H. Anderson. bibliog Am Chem Soc J 67:1911-14 N '45

Recent Russian work on corrosion; chemical apparatus and halogen compounds. T. A. Adjemyan. Chem Age (Lond) 54:5-8 Ja 5 '46

2,4,5-Triphenyl-3-furyllithium and 3,4,6-triphenyl-2-pyridyllithium. H. Gilman and D. S. Melstrom. bibliog Am Chem Soc J 68: 103-4 Ja '46

See also
Bromine compounds
Chlorine compounds
Fluorine compounds
Grignard reagents
Halides
Iodine compounds
Sandmeyer reaction

HALOGENATION
Effect of electrolytically released halogens on an absolute methyl alcohol solution of cinnamic acid. R. Leininger and L. A. Pasiut. bibliog Electrochem Soc Trans 88 (preprint 31):367-70 '45

Esters of halogenated aminobenzoic acids. M. Rubin and others. bibliog Am Chem Soc J 68:623-4 Ap '46

Kinetics of halogen addition to unsaturated compounds; bromine addition in carbon tetrachloride, chlorobenzene, and chloroform. P. B. D. de la Mare, R. A. Scott and P. W. Robertson. Chem Soc J p509-12 Ag '45

Kinetics of halogen addition to unsaturated compounds; nitrocinnamic acids. I. Hartman and P. W. Robertson. Chem Soc J p891-3 D '45

Kinetics of halogen addition to unsaturated compounds; αβ-unsaturated aldehydes. P. B. D. de la Mare and P. W. Robertson. Chem Soc J p888-91 D '45

Kinetics of the halogenation of acetone in alkaline solutions. R. P. Bell and H. C. Longuet-Higgins. Chem Soc J p636-8 Jl '46

Rubber, polyisoprenes and allied compounds; the formation of dialkyl sulphide dihalides and its bearing on the problem of determining the unsaturation of vulcanised rubber. G. F. Bloomfield. Soc Chem Ind J 64: 274-8 O '45

HALOGENS
Modifying the viscosity of sulfur. R. Fanelli. bibliog il diag Ind & Eng Chem 38:39-43 Ja '46

Reaction of ketones with halogens and thiourea. R. M. Dodson and L. C. King. bibliog Am Chem Soc J 67:2242-3 D '45

See also
Bromine
Chlorine
Fluorine
Iodine

HALSEY, Stuart and company
Broker censured. Bsns W p70+ N 17 '45
NASD exonerates Halsey, Stuart & co. Comm & Fin Chr 163:841+ F 14 '46

HAM
How to make canned ham and sweet potatoes. W. W. Bailey. il Food Ind 18:678-80+ My '46

Analysis

Nutritive value of canned foods; comparison of vitamin values obtained by different methods of assay. N. B. Guerrant, M. G. Vavich and O. B. Fardig. bibliog Ind & Eng Chem Anal ed 17:710-13 N '45

HAMBURG, Germany
Hamburg's future. Economist 150:1038-9 Je 29 '46

Recovery in evidence at Germany's port of Hamburg. For Comm W 24:12 Ag 31 '46

Harbor

Port of Hamburg to-day. il Engineer 180:339-42 N 2 '45

HAMBURGERS, Canned. See Canned meat

HAMMER, Victor
Victor Hammer, master printer, has created and cut a new uncial type design. P. Standard. il Inland Ptr 116:57-8 Mr '46

HAMMERMILL paper company
Securities offered. Comm & Fin Chr 162:2042 D 17 '45

HAMMERS, Drop
Half-century of forging; Erie foundry co's development of forging hammers. il Steel 118:107+ My 27 '46

Large panel beating drop hammer. il Engineer 181:481 My 24 '46

Vibrationless hammer. il Steel 119:115 Jl 22 '46

HAMMERS, Electric. See Electric hammers

HAMMERS, Steam. See Steam hammers

HAMSTERS
Hamster sexually mature at twenty-eight days of age. R. M. Selle. Science 102:485 N 9 '45

HANCOCK, John M. 1883-
Portrait. Bsns W p76 F 16 '46

HAND
Treatment of injuries to the hand, with particular reference to nerve and tendon repair. M. L. Mason. Ind Med 15:323-5 My '46

HAND lotions. See Lotions

HAND-made paper. See Paper, Hand-made

HANDICAPPED
Arrested tuberculous are safe workers. Nat Safety N 53:134 Ja '46

Code on badge prevents misplacement of handicapped workers; Walter Kidde & company. il Factory Management 103:127-8 D '45

Handicapped shown on job in Mutual Alliance film. il Nat Underw 50:24 O 3 '46

Hire the handicapped. G. B. Erskine. Fortune 34:22 N '46

HANDICAPPED—*Continued*
Hope for the one-eyed; eye surgeon offers encouraging facts. P. Duke-Elder. Nat Safety N 53:22+ F '46
One hand, one car, one voice. C. C. Fracker. Personnel J 24:296-9 F '46
Physical capacity for work. Nat Safety N 53: 40 My '46
Physically exceptional; impaired workers are no employment problem. J. V. Grimaldi. Safety Eng 91:46+ Ja '46; Same. Mech Eng 68:349-50 Ap '46
Physically impaired worker in industry. R. L. Brown and R. L. C. Butsch. Ind Med 15: 188-92 Mr '46
Placing the handicapped. B. Hanman. Nat Safety N 54:103-6+ bibliog(p156) O '46; Same. Ind Med 15:597-604 O '46
Productivity of the handicapped; discussion at 10th annual meeting of the Industrial hygiene foundation. Ind Med 15:298-9 Ap '46
Selective placement; job analysis in employment of handicapped. Nat Safety N 52:95-7 O '45
Study of handicaps in industry. S. G. Ohlhausen. Ind Med 15:105-9 F '46
See also
Blind
Deaf
Disabled—Rehabilitation
Epileptics—Employment

HANDICRAFT
China's handicrafts may play important part in country's postwar exports. S. O. Wolcott. il For Comm W 22:5-8+ Ja 5 '46
Handicraft situation in Florence, Italy. For Comm W 21:29 D 1 '45
Make-it-yourself kit seeks market among Nation's hobbyists. il Sales Management 55:82 D 15 '45
Peruvian government to continue manual-industries development. For Comm W 24:31 Jl 27 '46
Turns skills of mountain folk into branded hooked rug business. il Sales Management 55:156+ N 15 '45

HANDLES, Plastic
Changing styles in iron handles. J. H. DuBois. il Mod Plastics 23:85-8 My '46

HANDLING, Mechanical. See Mechanical handling

HANDLING of materials. See Material handling

HANDWHEELS
Ideal torques for handwheels and knobs. A. Raines and J. H. Rosenbloom. il Machine Design 18:145-8 Ag '46

HANFORD engineer works
G.E. moves into Hanford. il Bsns W p17-18 Ag 31 '46

HANGARS
Aero Digest's 1946 sampler chart of standardized aircraft hangars. il Aero Digest 53: 67-70+ Jl '46
Airport fire losses estimated $38,000,000. N.F.P.A. states. Weekly Underw 154:526 F 23 '46; Excerpt. Nat Underw 50:39 Mr 14 '46
All-steel hangars for lightplanes. il Aero Digest 51:55 D 15 '45
Cantilevered concrete trusses provide open working areas in hangar; Caquot hangar at the Santos Dumont airport in Rio de Janeiro. A. J. Boase. il plans diags Eng N 136:850-5 My 30 '46
Engineers report destruction of navy hangars due to unprecedented wind load; abstract. Franklin Inst J 242:62 Jl '46
Plastic roof hangars made for lightplanes. Aviation N 6:17 Jl 29 '46
Pre-cut T-hangar put on market. Aviation N 4:16 N 19 '45
Private hangars built by Pittsburgh firm. Aviation N 4:20 N 19 '45
Rental charges for hangars. J. W. Rowe. Aero Digest 53:71+ Jl '46
T-type personal hangars. J. F. Woerner. il plan diags Aero Digest 53:44-5+ S '46
Timber hangar's collapse in Florida hurricane investigated. D. E. Carberry. il map plan Civil Eng 16:387-90 S '46
Unique hangar built for army test work; to permit largest army aircraft to be tested at extreme temperatures. il diag Eng N 137:28-32 Jl 11 '46
Winds beyond design assumptions wrecked Navy's timber hangars; inquiry into hurricane damage at Richmond, Fla. il Eng N 137:22 Jl 11 '46

Heating and ventilation
Floor-heating in hangar design; General Electric test hangar, Schenectady, N.Y. il diags Arch Rec 100:120-1 S '46
Radiant heating built into concrete hangar; General Electric flight test laboratory. F. R. MacLeay. il Civil Eng 16:444-5 O '46
Radiant heating for an aircraft hangar. J. L. Ottenheimer. il Eng N 137:254-5 Ag 22 '46

HANGARS, Portable
Simple portable hangar. diag Engineer 180: 331-2 O 26 '45

HANLON-BUCHANAN companies
Warren Petroleum's purchase of Hanlon companies combines two leaders in natural gasoline industry. E. Lamm. il Nat Pet N 38:22+ Je 5 '46

HANNAH, Charles C. d. 1946
Sketch. por Nat Underw 50:1+ Ja 24 '46

HANRAHAN, Edmond M. 1906-
Gotham to SEC. por Bsns W p74 Jl 20 '46

HANSJERGEN, Henry Ferdinand
White-collar man. il pors Fortune 33:124-7+ Je '46

HANSON, Frank Blair, 1886-1945
Sketch. F. O. Schmitt. Science 103:143 F 1 '46

HAPTENS
Effect of choline chloride on the Kahn flocculation reaction. E. Volkin and others. bibliog Am Chem Soc J 67:2210-12 D '45
Reactions of antiserum homologous to the *p*-azophenyltrimethylammonium group. D. Pressman and others. Am Chem Soc J 68: 250-5 F '46

HARBOLITE
Harbolite; a carbonaceous hydrocarbon. C. E. Tasman. Am Assn Pet Geologists Bul 30:1051-2 Je '46

HARBORS
Fire-control radar MPG-1; designed to enable coast artillery to hit maneuvering PT boats; control of harbor traffic in peacetime. H. A. Straus and others. il diags Electronics 18:92-7 D '45; 19:110-17 Ja; 140-7 Mr '46
Model experiments carried out in connection with Mulberry harbour; summary and discussion. F. H. Todd. Engineer 181:400 My 3 '46; Engineering 161:473 My 17 '46
Les travaux d'agrandissement du port de Marseille. J. Thomas. il map diags Génie Civil 123:185-8 Jl 15 '46
See also
Dry docks
Estuaries
Jetties
Ports
also subdivision Harbor under names of cities, e.g. Capetown, South Africa—Harbor; Cherbourg—Harbor; Hamburg, Germany—Harbor; Manila—Harbor

Argentina
Harbor trouble; Argentina's muddy ports. il map Bsns W p113 N 24 '45

HARD facing
Facing the facts about hard-facing. Roads & Sts 89:115-16 Mr '46
Hard-facing grader blades. W. W. Mills. il diags Roads & Sts 89:117-19 Jl '46
Hard-facing pugmill augers. il Concrete (mill sec) 54:122 Je '46
Hard facing work positioner; illustrations with text. diags Iron Age 157:79 Ap 4 '46
Hard surfacing machine parts by welding increases their life 3 to 30 times. C. J. Long and T. C. Rich. Brick & Clay Rec 109:62+ S '46
Hard-surfacing methods. K. Rose. Materials & Methods 22:1459 N '45
Hard surfacing; prolonging life of equipment; Petoskey portland cement co. il Rock Prod 49:66-7 My '46
Increased resistance to wear achieved by hard facing; inspection cages. il Steel 117: 148 N 12 '45
Lincoln improved electrodes for hard facing. Welding J 25:274 Mr '46

HARD facing—*Continued*
Modern hard-facing methods. A. R. Lytle. il diag Welding J 24:1155-65 D '45; Same cond. Machine Design 18:131-6 My '46
Shielded-arc electrodes handle hard-facing jobs. Am Mach 90:158 F 28 '46
Streamlined hard-facing by the spray-weld and powder-weld processes. C. J. Long and T. E. Rich. il Welding J 25:744-5 Ag '46

HARD facing alloys. See Alloys, Hard facing

HARD of hearing. See Deaf

HARDENING
Age hardening copper-manganese-nickel alloys. R. S. Dean and others. il Am Soc for Metals Trans 34:481-502 bibliog(p502); Discussion. 502-4 '45
Physical properties and temper-hardening characteristics of copper-nickel-manganese alloys; abstracts and discussion. M. Cook and W. O. Alexander. Engineer 182:296-7 O 4 '46; Engineering 162:330 O 4 '46
Plastic strain in isotropic strain-hardening material. H. W. Swift. diags Engineering 162:381-4 O 18 '46
Precipitation hardening range of new alloy No. 720 wide. Steel 117:182 N 19 '45
Pre-stressing rotating disks used in turbines and compressors. H. Dobkin. diags Steel 118:104-6+ Je 3 '46
Strain hardening under combined stresses. W. Prager. bibliog J Ap Phys 16:837-40 D '45
Study of work-hardening and reannealing of iron. M. Balicki. diags Iron & Steel Inst J 151:181-224, bibliog(71 titles, p221-3) no 1 '45
Work hardened surfaces of fatigue specimens. F. C. Hull and H. R. Welton. il Metal Prog 48:1287-8 D '45

See also
Case hardening
Steel, Hardening of

HARDESTY, Shortridge, 1884-
Sketch. por Civil Eng 15:569 D '45

HARDIN, John R. 1860-1945
Sketch. por East Underw 46:49 D 14 '45; Nat Underw (Life ed) 49:2+ D 14 '45

HARDNESS
Comparative hardness tables; Rockwell, scleroscope, and Brinnell. Aviation 45:107 Ag '46
Vickers, Rockwell and Brinell hardness values for various materials and alloys; fold chart. J. T. Agnew. Purdue univ. eng. exp. sta, Lafayette, Ind. '46

Testing

Applications of Eberbach microhardness tester. H. E. Bernhardt. bibliog il Steel 118:92-4+ F 25 '46
Electronic hardness testing. Mech Eng 68: 982 N '46
Magnetic hardness tester for gaging hardness of small ferrous metal parts. Mech Eng 68:sup41 Mr '46
Magnetic method for diamond hardness measurements. Iron Age 156:65 N 29 '45
Nitriding of aircraft steels; depth hardness data covering several aircraft steels not commonly considered nitriding grades. P. A. Haythorne. bibliog il Iron Age 157:44-8 Ja 31 '46
Portable hardness tester. il Steel 118:127 F 25 '46
Rockwell hardness correction factors; engineering file facts. D. Wallace. Materials & Methods 23:471, 473 F '46
Sources of error in diamond-pyramid hardness measurements. W. N. Hindley. il Engineering 161:286-7 Mr 22 '46; Abstract. Metal Prog 49:610+ Mr '46

See also
Brinell hardness test

HARDWARE
For Yale & Towne, a modern merchandising package. il Mod Packaging 19:103-9+ Je '46
Progress, 1926-1946; hardware. il Am Bld 68: 134-6 O '46
Research guides new Yale & Towne packaging. M. Johnson. il Ind Marketing 31:45-6+ Jl '46
What a good package should do; check list based on requirements for new Yale hardware packages. C. J. Swan. il Ptr Ink 215: 37-9 Je 21 '46
Yale & Towne discard mousy dress for hardware; repackage entire line. T. Armstrong. il Sales Management 57:45-6+ Jl 1 '46

See also
Bolts and nuts
Hinges
Tools

HARDWARE industry and trade
Hardware short. Bsns W p38+ S 28 '46
New building to cut handling costs; Hibbard, Spencer, Bartlett & company, wholesale hardware one-story plant. E. Whitmore il Am Bsns 16:18-20 Je '46

Advertising

Uses retail techniques in building a catalog; 10 improvements by Yale & Towne. il Ptr Ink 216:84+ S 13 '46
Yale & Towne modernizes aged-in-wood catalog. il Sales Management 57:85 S 15 '46

HARDY, Charles Oscar, 1884-
Savant booster. por Bsns W p32 S 21 '46

HARL, Maple Talbot, 1893-
Sketch. por Banking 38:48+ Ja '46; Burroughs Clearing House 30:3 Ja '46

HARMONIC analyzers
La détermination des coefficients des harmoniques d'un phénomène vibratoire; le nouvel analyseur harmonique Harvey-Amsler. A. Tenot. il diags Génie Civil 123: 229-32 S 1 '46

HARMONICA
Plastic music. Fortune 33:208 Mr '46

HARMONICS (electric waves)
Calculation of intermodulation products by means of a difference table. A. Bloch. Inst E E J 93 pt 3:211-16 My '46
Differential leakage of a fractional-slot winding. M. M. Liwschitz. bibliog diag Elec Eng 65:Trans 314-20 My '46
Inductive co-ordination aspects of rectifier installations. bibliog diags Elec Eng 65: Trans 417-36 Jl '46
Reduced harmonic voltage across rectifiers. M. Osnos. diag Electronics 19:248+ F '46

See also
Multivibrators

HARRIMAN, Edward Roland Noel, 1895-
Portrait. Bsns W p53 O 26 '46

HARRIMAN, William Averell, 1891-
Changes in Commerce dept. few; appointment of Averell Harriman as secretary. por Steel 119:36 S 30 '46
Harriman appointment pleases almost everybody. por Bsns W p7 S 28 '46
New Secretary of commerce. Comm & Fin Chr 164:1547 S 26 '46

HARRIMAN memorial medals for safety
Annual Harriman award ceremonies. Ry Age 120:1273-4 Je 29 '46

HARRINGTON, Arthur William, 1888-
Sketch. por Civil Eng 15:568 D '45

HARRIS, David Edward, 1879-
Harris given the McGraw award. por Elec West 96:92+ Ja '46; Excerpts. Elec World News ed 125:9 Ja 12 '46

HARRIS, Milton, 1906-
Awarded Olney medal. por Rayon 27:13 Ja '46
Awarded Olney medal. por Textile Col 68:31 F '46
Milton Harris to receive Olney medal. Am Dyestuff Rep 34:502 D 3 '45
Olney medalist, the man. L. A. Olney. por Am Dyestuff Rep 35:100-2 F 25 '46
Olney medalist, the scientist. H. A. Neville. Am Dyestuff Rep 35:99-100 F 25 '46
Portrait. Am Dyestuff Rep 34:532 D 17 '45

HARRODS, London
Harrods for everything. il Fortune 33:230 Je '46

HARTFORD, Connecticut

Sewerage

Tunneled sewer avoids traffic snarls. il Eng N 137:437-8 O 3 '46

HARTFORD-EMPIRE company
Annual report. Glass Ind 27:125 Mr '46

HARVARD business school. See Harvard university—Graduate school of business administration

HARVARD university
Achievements of Harvard's Electro-acoustic laboratory. il Electronics 19:312+ Mr '46; Abstracts. Am Cer Soc Bul 25:118 Mr 15 '46; Mech Eng 68:352-4 Ap '46; Franklin Inst J 241:386-8 My '46
Education of planners at Harvard university. G. H. Perkins. J Land & Pub Util Econ 21:311-13 N '45
New applied science department at Harvard. il R Sci Instr 17:167-8 Ap '46
Nuclear physics and chemistry at Harvard university. Science 102:472-3 N 9 '45

Arnold arboretum
See Arnold arboretum

Computation laboratory
Computation laboratory of Harvard university. il R Sci Instr 17:320 Ag '46

Department of social relations
New Department of social relations. Science 103:393 Mr 29 '46

Graduate school of business administration
Science vs. tailor, Harvard laboratory reports on men's wear. Bsns W p41 F 16 '46

Libraries
Lamont gives $1,500,000 for Harvard library. Comm & Fin Chr 162:2580 N 29 '45

HARVESTING machinery
Cockshutt one man self-propelled combine of welded steel construction. il Product Eng 17:276-8 Ap '46

HARWOOD manufacturing company
Pajamas and the ego. Fortune 34:140 Ag '46

HASTELLOY. See Nickel alloys

HASTIE, William Henry, 1904-
Inaugurated as Virgin Islands governor. Comm & Fin Chr 163:2830 My 23 '46

HASTINGS, Edgar Morton
Nominated for president. por Civil Eng 16: 507 N '46

HAT boxes
Advertising
Tie-in with Conover models draws spotlight to new style luggage. Ptr Ink 217:78 O 25 '46

HATCH covers
Metalumber aluminum for hatch covers; hollow interlocking extrusions reinforced and filled with noncombustible insulation. Marine Eng 51:148 My '46
New hatch cover; rolling pontoon type. H. Prehn. plans diag Marine Eng 51:127-8 Ap '46
Simple welding fixtures boost output of hatch covers by 50 percent. il Marine Eng 51:144-5 F '46

HATFIELD, William Herbert, 1882-1943
Dr W. H. Hatfield's services to metallurgy. G. B. Waterhouse. Engineering 161:461 My 17 '46; Abstract. Engineer 181:424-5 My 10 '46

HATS
Hats and the man; headwear sales. Bsns W p25-6+ Ap 27 '46
Make-your-own hat premium offer on coffee sales swamps I.G.A. H. R. Gerhard. il Sales Management 56:68+ Ap 15 '46

Advertising
Research showed this industry its sales-limiting factors; hat association will strive for multiple sales. E. J. Cunningham. il Ptr Ink 215:35-6+ My 17 '46

Manufacture
Copper hoods and ducts solve hatter's problem; removing steam used in treating felt. il Sheet Metal Worker 37:49+ S '46
Men's hats in straight-line production. il plan Factory Management 104:92-3 Ag '46

HATS, Safety
Ingenious devices reflect interest in mine safety. E. Runehjelm. il diags Eng & Min J 147:77 S '46
Protecting the head. il Nat Safety N 53:29 Mr '46

HATS, Straw. See Straw hats

HAULAGE
See also
Cableways
Conveying machinery
Electric trucks, Industrial
Loading and unloading
Mine haulage
Motor trucks
Tractors
Trucks

HAULAWAYS. See Automobiles—Transportation

HAUPT, Ira, and company
SEC suspends Ira Haupt & co. Comm & Fin Chr 164:1017 Ag 22 '46

HAVEG
Phosphoric acid vs. materials of chemical plant construction; Haveg. P. L. McWhorter, jr. Chem Eng 53:208+ S '46

HAWAIIAN ISLANDS
How about a small business in Hawaii? S. C. Saunders. il Dom Comm 34:15-16+ Ja '46
Isles in transition. Bsns W p44-5 Ag 17 '46
See also
Haleakala mountain
Real estate business—Hawaiian Islands
Sugar workers—Hawaiian Islands
World war, 1939-1945—Hawaiian Islands

HAY drying
Forced air dries hay; abstract. A. T. Hendrix. Heat & Ven 42:98 D '45
Hay drier a profit maker for both farmer and utility. C. Jerrings. il Elec World 125: 50-1 Mr 30 '46
Notes on design of mow hay driers. A. A. Pfingsten. Elec World 126:112+ Jl 20 '46

HAY fever
Pollen in the air. A. C. Stern. il diag Heat & Ven 42:63-6 N '45

HAYES, Elizabeth Omega, 1912-
Dr Betty scores victory in railroad feud. por Bsns W p108 D 1 '45

HAYES manufacturing corporation
SEC drops stop-order action; findings and opinion. Comm & Fin Chr 164:1083-4 Ag 26 '46

HEAD
Protection
Protection for the eyes and face. il Nat Safety N 53:27-8+ Mr '46
See also
Hats, Safety

HEADING machines
Dies for cold headers. H. H. Palmer. il Materials & Methods 24:646-50 S '46
Production processes; their influence on design; cold heading. R. W. Bolz. il diags Machine Design 18:119-24 Jl '46

HEADLINES, Advertising. See Advertising copy—Headlines

HEALTH, Industrial. See Hygiene, Industrial

HEALTH, Public. See Public health

HEALTH and accident underwriters conference
Annual meeting, 45th, Cincinnati, May 20-23. Nat Underw (H. & A. conference no) 50: 3+ My 24 '46; East Underw 47:36-48 My 24 '46; Spectator (Life ed) 153:28-9+ Je '46; Spectator (Property ed) 11:16+ Je 13 '46
Approve title change at Cincinnati parley. Nat Underw (H. & A. conference no) 50:3+ My 24 '46
Conference legislative leaders; list by states. Weekly Underw 155:962 O 19 '46
Conference standing committees for 1946. East Underw 47:36 Ja 11 '46
H. & A. committees. East Underw 47:38 O 18 '46
Mid-year meeting, Chicago, Feb. 5-6. East Underw 47:38 F 15 '46; Nat Underw 50: 23+ F 14 '46; Spectator (Property ed) 11: 18+ F 14 '46; Weekly Underw 154:456+ F 16 '46

HEALTH centers
Health center; adaptation of physical plants to service concepts. J. W. Mountin and A. Hoenack. plans Pub Health Rep 61:1369-79 S 20 '46

HEALTH centers—*Continued*
Health center for Maspeth and Forest Hills sections of Long Island. il map plans Arch Forum 83:104-5 N '45
Health centers for Greece. Arch Forum 85: 10 Ag '46

HEALTH departments. See Public health departments

HEALTH education
Health education in the public health program. M. Derryberry. Pub Health Rep 60: 1394-1402 N 23 '45

See also
Public health—Study and teaching

HEALTH examinations. See Physical examinations

HEALTH insurance. See Insurance, Health

HEALTH workers. See Public health workers

HEARING
Auditory perception. J. D. Goodell and B. M. H. Michel. bibliog diag Electronics 19:142-8 Jl '46
Conservation of hearing. Nat Safety N 53:190 Mr '46
Effects of amplitude distortion upon the intelligibility of speech. J. C. R. Licklider. Acoustical Soc Am J 18:429-34 O '46
Effects of ear protective devices on the intelligibility of speech in noise. K. D. Kryster. il Acoustical Soc Am J 18:413-17 O '46
Intelligibility of bands of speech in noise. J. P. Egan and F. M. Wiener. Acoustical Soc Am J 18:435-41 O '46
Masking of speech by sine waves, square waves, and regular and modulated pulses. S. S. Stevens and others. diags Acoustical Soc Am J 18:418-24 O '46
Physics and physiology of acoustic trauma. L. Rüedi and W. Furrer. il Acoustical Soc Am J 18:409-12 O '46
Present state of knowledge concerning normal and impaired hearing; abstract. H. Davis. Acoustical Soc Am J 17:358-9 Ap '46
Pressure distribution in the auditory canal in a progressive sound field. F. M. Wiener and D. A. Ross. il Acoustical Soc Am J 18: 401-8 O '46

See also
Hearing aids, Mechanical
Noise
Sound

Testing

Monitored live-voice as a test of auditory acuity. R. Carhart. bibliog Acoustical Soc Am J 17:339-49 Ap '46
New methods of testing degree of deafness. Science 103:448-9 Ap 12 '46

HEARING aids, Mechanical
Comments on code for measurement of performance of hearing aids. E. Gerjuoy. Acoustical Soc Am J 18:503-4 O '46
Development of midget earphones for military use. H. A. Pearson and others. il diags Acoustical Soc Am J 18:348-54 O '46
Earrings that act as hearing aids. il Mod Plastics 23:120-2 Je '46
Large demand for hearing aids, United Kingdom. For Comm W 22:40 Ja 19 '46
Printed electronic circuits; technique for printing wiring on steatite chassis block with silver solution; for pocket radios, personal telephones, miniature hearing aids, meteorological instruments, etc. C. Brunetti and A. S. Khouri. il diag Electronics 19:104-8 Ap '46

Prices

Hearing aid prices are increasing. Consumers Res Bul 18:12-13 Jl '46

HEARN department stores, Inc.
Stock offered. Comm & Fin Chr 163:2157 Ap 22 '46

HEART
Alterations in the cardiac conduction mechanism in experimental thiamine deficiency. W. D. King and W. H. Sebrell. bibliog Pub Health Rep 61:410-14, pl 1-2 Mr 22 '46
Cardiac failure in cattle on vitamin E-free rations as revealed by electrocardiograms. T. W. Gullickson and C. E. Calverley. bibliog Science 104:312-13 O 4 '46
Electrocardiographic alterations in adult rats as a result of acute thiamine deficiency. J. M. Hundley and W. H. Sebrell. bibliog Pub Health Rep 61:847-56, pl 1-5 Je 14 '46
Grafts of free muscle transplants upon the myocardium. M. Winstein and E. G. Shafiroff. Science 104:410-11 N 1 '46
Pressure-volume relation for cylindrical tubes with elastomeric walls; the human aorta. A. L. King. bibliog J Ap Phys 17:501-5 Je '46
Systolic effect by sulfhydryl reagents. R. Mendez. Science 104:5-6 Jl 5 '46

See also
Electrokymograph

Diseases

Cardiovascular impairments in the industrial worker. W. F. Connell. Ind Med 15:442-4 Jl '46
Coronary occlusion in industry; a study of eighty-four cases with reference to subsequent employability; abstract. E. B. Levine and E. Phillips. J Ind Hygiene 27: supl59 O '45
Greater attention to emotions of the sick advised as heart disease disability curb; abstract. E. Weiss. Weekly Underw 154: 1636 Je 22 '46
Heart disease and tuberculosis. Pub Health Rep 61:1425-6 O 4 '46
Prophylaxis against mercury-induced ventricular fibrillation; abstract. B. N. Craver. Ind Med 15:485 Ag '46
Traumatic rupture of cardiac valve. H. G. S. Van Raalte. il Ind Med 15:436-8 Jl '46
Ventricular fibrillation induced by hydrocarbons and epinephrine. M. B. Chenoweth. bibliog il J Ind Hygiene 28:151-8 Jl '46

Examination

Value of highly touted heart tester is doubted; electrokymograph. Nat Underw (Life ed) 50:8 Ag 16 '46

HEAT
Historic researches; specific, latent, and atom heat. Engineer 180:452-4, 476-7 D 7-14 '45
Optimum water requirements vs. mean temperature difference in single shell pass; multitube pass condensers and coolers. J. Meisler. bibliog diags Am Inst Chem Eng Trans 42:553-66 Je '46
Some reflections on the cause of heat and cold; tribute to Mihâilo Vasilievich Lomonósov. A. J. Shneiderov. Science 103:487 Ap 19 '46
Thermal and acoustic effects attending absorption of microwaves by gases. W. D. Hershberger and others. bibliog il RCA R 7:422-31 S '46
Value of heat with special reference to the heat pump. O. Faber. il diags Inst Mech Eng J & Proc 154:144-63 bibliog(p162-3) S '46; Same cond. Engineer 179:339-40, 358-60 Ap 27-My 4 '45; Discussion. Inst Mech Eng J & Proc 154:163-78 S '46; Engineer 179:336-8 Ap 27 '45

See also
Calorimeters and calorimetry
Electric heating
Expansion (heat)
Heating
Insulation (heat)
Specific heat
Steam
Temperature
Thermochemistry
Thermodynamics
Thermoelectricity
Waste heat

HEAT-capacity. See Specific heat

HEAT conduction
Accommodation coefficients for heat conduction between gas and bright platinum, for nine gases between 80° K (or their boiling points) and 380° K. E. R. Grilly and others. bibliog J Chem Phys 14:435-40 Jl '46

HEAT conductivity
Effect of moisture on thermal conductivity of limerock concrete. M. Tyner. bibliog il diags Am Concrete Inst J 18:9-18 S '46
Improved hot wire cell for accurate measurements of thermal conductivities of gases over a wide temperature range; results with air between 87° and 350°K. W. J. Taylor and H. L. Johnston. bibliog diag J Chem Phys 14:219-33 Ap '46

HEAT conductivity—*Continued*
Initiates program to determine values of thermal conductivity; committee on research of American society of heating & ventilating engineers. Iron Age 157:160-1 My 23 '46
Mean temperatures in thermal conductivity measurements. L. W. Phillips and H. A. Robinson. Refrig Eng 51:43-5 Ja '46
Measurement of thermal conductivity of nonmetallic solids. G. L. Hall and I. B. Prettyman. India Rubber World 113:222+ N '45
Thermal conductivities of eight common gases between 80° and 380°K. H. L. Johnston and E. R. Grilly. bibliog J Chem Phys 14:233-8 Ap '46
Thermal conductivity, expansion and specific heat of insulators at extremely low temperatures. G. B. Wilkes. il diags Refrig Eng 52:37-42 bibliog(p42); Discussion. 42+ Jl '46
Thermal conductivity method of gas analysis. C. C. Minter. il diags J Chem Educ 23:237-9 My '46
Thermal conductivity of insulating materials at low mean temperatures. F. B. Rowley and others. il Refrig Eng 50:541-4 D '45; Discussion. 51:47+ Ja '46
Thermal conductivity of natural gas. W. L. Nelson. Oil & Gas J 45:83 O 12 '46

See also
Heat transmission
Textile fabrics—Heat transmission

HEAT convection
Forced convection heat transfer coefficients along a flat surface. G. V. Parmelee and R. G. Huebscher. il diags Heating-Piping 18:112-16 My '46
Free heat convection through enclosed plane gas layers. M. Jakob. A S M E Trans 68:189-93 bibliog(p193); Discussion. 193-4 Ap '46
Heat emission from flat surfaces to air by natural convection; chart; reference data. Heat & Ven 43:90a-90b Je; 72a-72b Jl '46
Infra-red versus convection heating. C. C. Eeles. Am Gas Assn Proc 1945:189-97; Same. Am Gas Assn Mo 27:281-6 Je '45; Same cond. Gas J (Lond) 246:339+, 375 S 5-12 '45
Nomographic solution for heat dissipated by free convection. J. P. C. McMath. Elec World 126:120 S 14 '46

HEAT cramps
Hot weather hygiene. Nat Safety N 53:178+ Mr '46

HEAT engines
Theory of heat engines. B. Lloyd-Evans. Engineering 162:232 S 6 '46

See also
Diesel engines
Gas engines
Gas turbines
Steam engines
Thermodynamics

HEAT exchangers
Alco air-cooled heat exchanger. il diag Diesel Power 23:1474 D '45
Capillary tube heat exchangers. R. H. Swart. diags Refrig Eng 52:221-4+ S '46
Chart for shell and tube heat exchangers. L. H. Cook and R. Tolman. Chem & Met Eng 53:128 Mr '46
Chemical cleaning takes the bull work out of scale removal. E. W. Feller and G. F. Williams. bibliog il diags Power 90:586-90, *659-62 S-O '46
Development and application of heated wings. M. Tribus. bibliog il diags S A E J 54:261-9+ Je '46
Disk extended surfaces for high heat-absorption rates. G. E. Tate and J. Cartinhour. bibliog diags A S M E Trans 67:687-92 N '45
Effect of heat loss on the performance of exchangers with interconnected walls. P. R. Trumpler. diags A S M E Trans 68:487-91; Discussion. 491-2 Jl '46
Efficiency of extended surface. K. A. Gardner. bibliog il diags A S M E Trans 67:621-8; Discussion. 628-31 N '45
Equipment advances 1944-45; heat exchange. J. R. Miller. Chem Ind 57:855-6 N '45
Equivalent diameter of annuli. W. L. Nelson. diags Oil & Gas J 44:85 Mr 9 '46
Exchanger design. W. L. Nelson. diags Oil & Gas J 45:117-18 Jl 20 '46
Exchanger tubes. W. L. Nelson. Oil & Gas J 44:113 Mr 23 '46
Exchanger types; shell and tube bundle. W. L. Nelson. diags Oil & Gas J 44:111 F 9 '46
Fin-tube exchanger units. W. L. Nelson. Oil & Gas J 45:127 Je 29 '46
Fouling factors; crude oil and water; heat-transfer surfaces. W. L. Nelson. Oil & Gas J 45:141 My 25 '46
Fouling factors; oil products. W. L. Nelson. Oil & Gas J 45:95 Je 1 '46
General correlation of friction factors for various types of surfaces in crossflow. A. Y. Gunter and W. A. Shaw. bibliog diags A S M E Trans 67:643-56; Discussion. 656-60 N '45
Heat duty of exchangers. W. L. Nelson. Oil & Gas J 44:299 Ja 26 '46
Heat exchanger installation pointers. Paper Ind 27:1092 O '45
Heat rates outside tubes. W. L. Nelson. Oil & Gas J 45:123-4 My 11 '46
Heat transfer and friction of water in an annular space. F. G. Carpenter and others. bibliog diags Am Inst Chem Eng Trans 42:165-87 Ap '46
Heat transfer and pressure loss in small commercial shell-and-finned-tube heat exchangers. R. M. Armstrong. il diags A S M E Trans 67:675-81 N '45
Heat transfer through tubes with integral spiral fins. D. L. Katz and others. il diags A S M E Trans 67:665-73; Discussion. 673-4 N '45
How big an exchanger? W. L. Nelson. Oil & Gas J 44:111 D 8 '45
Impervious graphite exchangers and coolers. W. L. Nelson. il Oil & Gas J 45:89 S 28 '46
Influence of tube shape on heat transfer coefficients in air to air heat exchangers. F. H. Green and L. S. King. bibliog il diag A S M E Trans 68:115-22 F '46; Abstract. Elec World 125:59 Ja 5 '46
Optimum water requirements vs. mean temperature difference in single shell pass; multitube pass condensers and coolers. J. Meisler. bibliog diags Am Inst Chem Eng Trans 42:553-66 Je '46
Over-all transfer rates. W. L. Nelson. Oil & Gas J 45:105 Je 8 '46
Press-temp boiler feed cycle. I. J. Karassik. diags Power Pl Eng 50:110-11 S '46
Pressure drop through tube bundle and tube side. W. L. Nelson. Oil & Gas J 45:137 Je 15; 129-30 Je 22 '46
Shell and tube passes in exchangers. W. L. Nelson. diags Oil & Gas J 44:99 Ja 19 '46
Shells and baffles. W. L. Nelson. diag Oil & Gas J 44:93 Mr 9 '46
Sizing job-made liquid-vapor heat exchangers; charts; reference data. W. Parkerson. Heat & Ven 42:98a-98b D '45
Standard exchanger tubing; tabulated. W. L. Nelson. Oil & Gas J 44:137 Ap 6 '46
Surface required for exchangers. W. L. Nelson. Oil & Gas J 44:145 Ap 27 '46
Temperature difference in exchangers. W. L. Nelson. diag Oil & Gas J 44:91 D 22 '45
Transfer rates inside tubes. W. L. Nelson. Oil & Gas J 44:139 My 4 '46
Tube spacing in finned-tube banks; gas coolers for industrial use. S. L. Jameson. diags A S M E Trans 67:633-42 N '45
Tubing without troubles; electronic sleuth; Probolog. V. Zeluff. il Sci Am 175:108-10 S '46
Types of exchangers; double pipe. W. L. Nelson. diags Oil & Gas J 44:129 F 16 '46
Velocity in shell of exchanger. W. L. Nelson. bibliog diags Oil & Gas J 44:62+ F 2 '46
Velocity in shells of exchangers; with chart. W. L. Nelson. Oil & Gas J 44:165-6 Ap 20 '46

See also
Condensers (steam)

Manufacture
Heat exchanger for Electrolux gas refrigerator. G. E. Stedman. il Steel 118:88-90+ Je 10 '46

HEAT exchangers—*Continued*

Testing

Heat transfer and pressure drop of liquids in double-pipe fin-tube exchangers. B. De Lorenzo and E. D. Anderson. bibliog il diags A S M E Trans 67:697-702 N '45

Heat-transfer coefficients and other data on individual serrated-finned surface. E. A. Schryber. il diag A S M E Trans 67:683-6 N '45

Testing heat exchanger tubing. il Electronics 19:174+ Ag '46

Tests heat-exchange coils with air pressure. D. H. Bergman. diags Power 90:403 Je '46

HEAT insulation. See Insulation (heat)

HEAT of combustion. See Combustion, Heat of

HEAT of dilution. See Dilution, Heat of

HEAT of hydrogenation. See Hydrogenation, Heat of

HEAT of solution. See Solution, Heat of

HEAT of vaporization. See Vaporization, Heat of

HEAT of wetting. See Wetting, Heat of

HEAT pump

Experience with a heat-pump system; building of United illuminating company; with cost data. E. H. Walton and C. A. Williams. flow diag Elec Eng 63:361; 64:421-2 O '44, N '45

Heat pump as an electric heating and cooling unit; abstract. J. M. Barry. Heat & Ven 43.91 Jl '46

Heat pump; installation of Bell company, Basel, Switzerland. diag Mech Eng 68:458 My '46

Heat pump report and program. P. Sporn. Elec World 125:55-6 Ap 27 '46

Heat pump; some Swiss installations. B. Wood. il diags Elec R (Lond) 138:675-8 My 3 '46

Heat pump water heater shows promise; possibility of combination of water heating and refrigeration. F. M. Reed. Elec World 125:96-7 F 16 '46

Industrial applications of the heat pump. P. Sporn and others. diags Chem & Met Eng 53:98-100+ Je '46

Norwich heat pump. J. A. Sumner. il diag Electrician 136:877-80 Ap 5 '46

Norwich heat pump; experimental plant. J. A. Sumner. il diag Elec R (Lond) 138:678-81 My 3 '46; Discussion. 138:726, 805 My 10, 24 '46

Program to unite utilities in reverse cycle tryouts. Heat & Ven 43:104 S '46

Progress in reverse cycle heating. M. M. Smith. il Edison Elec Inst Bul 14:160-2 My '46

Recovery of waste heat with heat pumps. C. E. Simpson. diags Pulp & Pa of Can (Convention no) 47:135-8+ [F] '46; Excerpts. Paper Ind 27:1714-15 F '46

Space heating with heat pumps; abstract. A. Ostertag. Elec World 125:89 Je 22 '46

Using the reverse cycle for heating, conditioning. G. E. Clancy. il diags Heating-Piping 18:90-3 Ap; 82-5 Je; 84-6 Ag '46

Utilities sponsor research to develop use of heat pump. Pub Util 37:513-14 Ap 11 '46

Value of heat with special reference to the heat pump. O. Faber. il diags Inst Mech Eng J & Proc 154:144-63 bibliog(p162-3) S '46; Same cond. Engineer 179:339-40, 358-60 Ap 27-My 4 '45; Abstract. Mech Eng 979-81 N '46; Discussion. Inst Mech Eng J & Proc 154:163-78 S '46; Engineer 179:336-8, 373 Ap 27, My 11 '45

HEAT radiation

Effect of steelwork on heat loss through glass tank bottoms. H. T. Smyth. diags Am Cer Soc J 29:31-6 F 1 '46

Flame radiation measuring instrument. E. M. Yard. bibliog il diags Electronics 19:102-4 N '46

Heat emission by radiation; tables and chart; reference data. Heat & Ven 43:72a-72b My '46

Heat emission from flat surfaces to air by radiation and convection; chart; reference data. Heat & Ven 43:72a-72b Jl '46

Physiological response of subjects exposed to high effective temperatures and elevated mean radiant temperatures, such as those in ships' engine rooms. C. M. Humphreys and others. Heating-Piping 18:101-6 Mr '46

Shielding of thermocouples from the effects of radiation. G. V. Parmelee and R. G. Huebscher. diags Heating-Piping 18:144-6 F '46

See also

Heating—Panel system

HEAT resisting alloys. See Alloys, Heat resisting

HEAT resisting glass. See Glass, Heat resisting

HEAT resisting materials

Heat and chemical resistant plastic; Teflon. il Materials & Methods 23:1571-3 Je '46

High heat-resistant finishes (250°-800° F.) a progress report. Paint Oil & Chem R 108: 140-1 N 1 '45

New coatings and applications expand use of porcelain enamel. il Steel 119:154+ N 11 '46

See also

Alloys, Heat resisting
Glass, Heat resisting
Insulation (heat)
Refractory materials
Silicones
Steel, Heat resisting
Teflon

HEAT storage

Heat storage losses in steam boilers, and savings attained by use of steam generators. J. G. Coutant. il diag Am Gas J 164:18-19 Ap '46

House heating by thermal storage. H. C. Bender and L. L. Wartes. il diags Elec West 95:73-5 N '45

Improved floor construction for radiant heating systems. J. E. Peterson. diag Heating-Piping 18:73-6 Jl '46

See also

Heat pump
Steam accumulators

HEAT stroke

Heat disease; abstract. Nat Safety N 52:104 O '45

HEAT transmission

Accuracy of lumping in an electric circuit representing heat flow in cylindrical and spherical bodies. V. Paschkis and M. P. Heisler. bibliog diag J Ap Phys 17:246-54 Ap '46

Boiling and condensing film coefficients for water and normal hexane. D. L. Katz and others. flow sheet il Pet Refiner 25:93-6 S '46

Cooling characteristics of steel- and aluminum-finned cylinder barrels for in-line air-cooled engines. M. Piry. il diags S A E J 53:630-9 N '45

Correlation of cooling data from an air-cooled cylinder and several multicylinder engines. B. Pinkel and H. H. Ellerbrock, jr. bibliog il U S Nat Advisory Com for Aeronautics 1940:59-83 '41

Current central heating research; studies of heat transfer. R. C. Weast and J. A. Morse. diags Am Gas J 164:21-3 Mr '46

Disk extended surfaces for high heat-absorption rates. G. E. Tate and J. Cartinhour. bibliog diags A S M E Trans 67:687-92 N '45

Effect of steelwork on heat loss through glass tank bottoms. H. T. Smyth. diags Am Cer Soc J 29:31-6 F 1 '46

Effect of turbulence promoters on heat transfer coefficients for water flowing in horizontal tubes. L. G. Seigel. bibliog il diags Heating-Piping 18:111-14 Je '46

Heat flow pattern in radiant heat panels. R. G. Vanderweil. diags Heat & Ven 43:73-7 My '46

Heat-flux pattern in fin tubes under radiation. A. R. Mumford and E. M. Powell. diags A S M E Trans 67:693-5 N '45

Heat losses through wetted walls. E. C. Willey. plan diags Heating-Piping 18:103-6 Je '46

Heat transfer. G. T. Skaperdas. bibliog(75 references) Ind & Eng Chem 38:10-11+ Ja '46

HEAT transmission—*Continued*
Heat transfer and friction of water in an annular space. F. G. Carpenter and others. bibliog diags Am Inst Chem Eng Trans 42: 165-87 Ap; Discussion. 42:1015-20 O-D '46
Heat transfer and pressure drop of liquids in double-pipe fin-tube exchangers. B. De Lorenzo and E. D. Anderson. bibliog il diags A S M E Trans 67:697-702 N '45
Heat transfer and pressure loss in small commercial shell-and-finned-tube heat exchangers. R. M. Armstrong. il diags A S M E Trans 67:675-81 N '45
Heat transfer from a baffled-finned cylinder to air. A. W. Lemmon, jr. and others. bibliog il diags A S M E Trans 67:601-10; Discussion. 610-12 N '45
Heat transfer to liquids boiling under pressure. M. T. Cichelli and C. F. Bonilla. bibliog Am Inst Chem Eng Trans 41:755-87 D '45
Heat transmission in coils. J. A. Storrow. bibliog diags Soc Chem Ind J 64:322-6 D '45
Heat transmission of various types of concrete masonry walls; tabulation. Brick & Clay Rec 109:24 O '46
Icing problems and the thermal anti-icing system. F. L. Boeke and R. A. Paselk. bibliog diags J Aeronautical Sci 13:485-97 S '46
Influence of an interior coating of aluminum paper on internal thermal conditions and heat economy. R. J. Lorenzi and others. Heating-Piping 18:109-14 Ap '46
Material or heat transfer between a granular solid and flowing fluid; present status of the theory. E. W. Thiele. bibliog Ind & Eng Chem 38:646-50 Je '46
Method of estimating the Prandtl number of liquids. K. G. Denbigh. Soc Chem Ind J 65:61-3 F '46
Panel heat flow and its design considerations. R. C. Vanderweil. plans Heat & Ven 43: 63-8 Je '46
Problem of cooling an air-cooled cylinder on an aircraft engine. M. J. Brevoort and U. T. Joyner. bibliog diags U S Nat Advisory Com for Aeronautics 1941:267-81 '42
Simultaneous transfer of heat and material in scrubbers. P. Ferencz. Can Chem & Process Ind 30:47-9 Ag '46
Thermal engineer's view of an arc furnace; survey of some heat problems in arc furnaces. V. Paschkis. diag Electrochem Soc Trans 88 (preprint 20):211-18 '45
Transferring heat. S. R. Lewis. Heating-Piping 18:92-3 O '46
Tube spacing in finned-tube banks; gas coolers for industrial use. S. L. Jameson. diags A S M E Trans 67:633-42 N '45

See also
Glass—Heat transmission
Heat conductivity
Heat convection
Heat exchangers
Heat radiation
Insulation (heat)
Textile fabrics—Heat transmission

Electric analogies

Electrical analogy method for investigation of transient heat flow problems. diags Glass Ind 27:290+ Je '46
Electrical geometrical analogue for complex heat flow. C. F. Kayan. diags A S M E Trans 67:713-16; Discussion. 716-18 N '45
Electrical solution of thermal problems. F. G. Willey. il diag Electronics 19:190+ Ag '46
Solving complex problems by electrical analogy. G. D. McCann and H. E. Criner. il diags Machine Design 18:131-2+ F '46
Temperature patterns and heat transfer for a wall containing a submerged metal member. C. F. Kayan. bibliog diags Refrig Eng 51:533-7+ Je '46; Discussion. 52:143+ Ag '46
Variable heat flow in steel. R. Jackson and others. diags Iron & Steel Inst J 150:211-67, pl 23-4 bibliog(p267); Discussion. 267-8 no 2 '44

Tables, calculations, etc.

Calculation of temperature distribution in catalytic converters. L. M. Grossman. bibliog Am Inst Chem Eng Trans 42:535-51 Je '46
Cooling and heating rates of plates, cylinders and spheres. V. Paschkis. bibliog diag Welding J 25:sup497-502 S '46
Development and application of heated wings. M. Tribus. bibliog il diags S A E J 54:261-9+ Je '46
Effect of heat loss on the performance of exchangers with interconnected walls. P. R. Trumpler. diags A S M E Trans 68:487-91; Discussion. 491-2 Jl '46
Efficiency of extended surface. K. A. Gardner. bibliog il diags A S M E Trans 67: 621-8; Discussion. 628-31 N '45
Fin-tube exchanger units. W. L. Nelson. Oil & Gas J 45:127 Je 29 '46
Forced convection heat transfer coefficients along a flat surface. G. V. Parmelee and R. G. Huebscher. il diags Heating-Piping 18:112-16 My '46
General correlation of friction factors for various types of surfaces in crossflow. A. Y. Gunter and W. A. Shaw. bibliog diags A S M E Trans 67:643-56; Discussion. 656-60 N '45
Graphical determination of heat transfer film coefficient for liquid Freon-21. B. F. Raber and F. W. Hutchinson. Heat & Ven 43:62-4 Ap '46
Graphical determination of heat transfer film coefficient for liquid Freon-22. B. F. Raber and F. W. Hutchinson. Heat & Ven 43:80-3 My '46
Graphical determination of heat transfer film coefficient for Freon-113. B. F. Raber and F. W. Hutchinson. Heat & Ven 43:79-81 Je '46
Graphical determination of heat transfer film coefficient for liquid Freon-114. B. F. Raber and F. W. Hutchinson. Heat & Ven 43: 74-6 Jl '46
Graphical determination of unshielded-thermocouple thermal correction. W. M. Rohsenow. bibliog A S M E Trans 68:195-8 Ap '46
Heat emission from flat surfaces to air by natural convection; chart; reference data. Heat & Ven 43:90a-90b Je '46
Heat gains and losses from air ducts; reference data. C. H. Kilpatrick. charts Heat & Ven 43:90a-90b F '46
Heat rates outside tubes. W. L. Nelson. Oil & Gas J 45:123-4 My 11 '46
Heat transfer and diffusion problems in cooling and dehumidifying air with extended surfaces. T. Hafsten. bibliog Refrig Eng 50:431-7 N '45
Heat transfer calculations for paper machines. A. E. Montgomery. diag Paper Tr J 123:29-32 O 3 '46
Heat-transfer coefficients and other data on individual serrated-finned surface. E. A. Schryber. il diag A S M E Trans 67:683-6 N '45
Heat transfer coefficients for pipe and wire. I. J. Hooks and F. Kerze, jr. Chem & Met Eng 52:117 N '45
Heat transfer coefficients in surface condensers. R. S. Silver. Engineering 161:505-6 My 31 '46
Heat transfer from a cylindrical surface to air in parallel flow with and without unheated starting sections. M. Jakob and W. M. Dow. bibliog diags A S M E Trans 68:123-34 F '46
Heat transfer in an evaporative condenser. E. G. Thomsen. Refrig Eng 51:425-31 bibliog(p430) My '46
Heat transfer in annuli. C. Y. Chen and others. bibliog diags A S M E Trans 68:99-106 F '46
Heat transfer in the locomotive boiler. L. H. Fry. bibliog diags A S M E Trans 68: 107-13 F '46; Discussion. 68:565-7 Jl '46
Heat transfer through tubes with integral spiral fins. D. L. Katz and others. il diags A S M E Trans 67:665-73; Discussion. 673-4 N '45
Influence of tube shape on heat-transfer coefficients in air to air heat exchangers. F. H. Green and L. S. King. bibliog il diag A S M E Trans 68:115-22 F '46
Local coefficients of heat transfer for air flowing around a finned cylinder. W. H. McAdams and others. bibliog il diags A S M E Trans 67:613-20 N '45
Logographs; charts for graphic solution of equations in heat transmission. R. S. Tour. A S M E Trans 68:143-9 F '46

HEAT transmission—Tables, calculations, etc. —*Continued*
Method of analyzing finned coil heat transfer performance. C. M. Ashley. bibliog Refrig Eng 51:529-32+ Je '46
Nomograph for calculation of over-all heat transfer coefficients. H. J. Garber and W. Licht, jr. Ind & Eng Chem 38:757-9 Jl '46
Numerical methods for transient heat flow. G. M. Dusinberre. bibliog A S M E Trans 67:703-10; Discussion. 710-12 N '45
Over-all transfer rates. W. L. Nelson. Oil & Gas J 45:105 Je 8 '46
Periodic heat flow; composite walls or roofs. C. O. Mackey and L. T. Wright, jr. Heating-Piping 18:107-10 Je '46
Rate of temperature change in short-length round timbers. J. D. MacLean. A S M E Trans 68:1-16 bibliog(p 14) Ja '46
Rational basis for solar heating analysis. F. W. Hutchinson and W. P. Chapman. diag Heating-Piping 18:109-17 Jl '46
Selection of cooling coils. G. K. Marshall. il diags Heat & Ven 42:82-7 N '45
Single-equation design procedure for radiant panel systems. F. W. Hutchinson. Heating-Piping 17:637-42 D '45; Correction. 18:123 Ja '46; Abstract. Heat & Ven 43:80-1 Mr '46
Temperature time distribution in rectangular bars. W. M. Rohsenow and others. bibliog A S M E Trans 68:135-41 F '46
Temperature uniformity in heating-up processes. M. P. Heisler. A S M E Trans 68: 493-500; Discussion. 500-2 Jl '46
Thermal accommodation coefficients. M. L. Wiedmann and P. R. Trumpler. bibliog il A S M E Trans 68:57-64 Ja '46
Transfer rates inside tubes. W. L. Nelson. Oil & Gas J 44:139 My 4 '46
Variable heat flow in steel. R. Jackson and others. diags Iron & Steel Inst J 150:211-67, pl 23-4 bibliog(p267) no 2 '44; Abstract. Metal Prog 49:150+ Ja '46; Discussion. Iron & Steel Inst J 150:267-8 no 2 '44

HEAT treating furnaces. See Electric furnaces, Heat treating; Furnaces, Heat treating

HEAT treatment
Aging heat treatments of 75S aluminum. F. R. Kostoch. Iron Age 158:49 Ag 15 '46
Ar' reaction in some iron-cobalt-tungsten alloys and the same modified with chromium. W. P. Sykes. il Am Soc for Metals Trans 34:415-24 '45
Automatic machines use gas to heat-treat parts. F. Maud. il diags Am Mach 90:101-6 S 26 '46
British practice in heat treatment of wrought aluminum alloys; abstract. E. R. Yarham. Materials & Methods 23:1090+ Ap '46
Control of internal stresses in heat-treated aluminium alloy parts; abstracts and discussion. L. E. Benson. Engineer 182:281-2 S 27 '46; Engineering 162:306 S 27 '46
Corrosion of steel salt-bath pots by molten alkali nitrates, used for heat treatment of duralumin. R. J. Box and B. A. Middleton. Engineering 160:523-4, 543 D 21-28 '45; Same. Iron & Steel Inst J 151:71-8 no 1 '45
Effect of water vapor on magnesium alloys during heat treatment. R. F. Thomson and others. il Metal Prog 50:67-71 Jl '46
Fabricating high-strength aluminum alloys. R. A. Miller and M. E. Tatman. Iron Age 156:40-4 D 27 '45
German practice in solution heat treatment of rolled aluminum alloys. W. Lott. il Materials & Methods 23:429-31 F '46
Grain shape and grain growth. D. Harker and E. R. Parker. il diags Am Soc for Metals Trans 34:156-95; Discussion. 195-201 '45
Heat treating aluminum. G. W. Birdsall; O. L. Mitchell. il Steel 119:98-9+ Ag 19; 78-9+ Ag 26; 102-4+ S 2; 118-20+ S 9; 103-4+ S 16 '46
Heat treating aluminum alloys; abstract. W. D. Robertson. Materials & Methods 23:230+ Ja '46
Heat treating and heating, 1945. T. C. Du Mond. il Materials & Methods 23:130-4 Ja '46
Heat treating beryllium copper for peak performance. H. G. Williams. bibliog il Iron Age 156:58-64 D 6 '45
Heat treating, forming and welding 75S Alclad. M. Raskin. il diags Iron Age 156:66-71 D 6; 59-61 D 13 '45
Heat treating magnesium castings. il Gas Age 96:20 D 27 '45
Heat treatment and endurance limit of cast iron; abstract. T. E. Eagan. Materials & Methods 23:1358+ My '46
Heat treatment of aluminum; abstract. E. Carrington. Materials & Methods 24:706 S '46
Heat treatment of semi-conductors and contact rectification. B. Serin. bibliog diag Phys R 69:357-62 Ap 1 '46
High speed heating with gas provides heat treat tool. C. W. Eigenbrot. il diag Materials & Methods 23:1313-16 My '46
High temperature oxidation in aluminum alloy forgings. L. J. Barker. il Iron Age 157: 60-4 My 9 '46
Improved treatments of aluminum alloys. M. E. Tatman. il Metal Prog 49:323-7 F '46
Insuring dimensional accuracy through heat treating. H. Dobkin. diags Steel 118:90-1+ F 18 '46
Larger induction heating coils meet small-lot requirements; brazing and heat-treating. G. V. Bate. il diags Am Mach 89:91-4 D 6 '45
New equipment; heat treat. il Iron Age 156: 78-80 N 15 '45
Pearlitic malleable cast iron; abstract. R. W. Lindsay and J. E. Atherton, jr. Materials & Methods 22:1824+ D '45
Precision casting heat-treatable copper-base alloys; microstructures. H. Rosenthal and others. il Iron Age 158:48-54 S 19 '46
Precision quenching. il Sci Am 173:274-6 N '45
Properties of sintered iron-copper powders. F. C. Kelley. diag Iron Age 158:59-60 Ag 15 '46
Some physical properties of mica; effects of heat treatments on thickness, opacity, and color. P. Hidnert and G. Dickson. J Res Nat Bur Stand 35:344-50 O '45
Superheating in magnesium-base alloys. F. A. Fox and E. Lardner. il diags Engineering 159:438-40, 478-80 Je 1, 15 '45; Abstract. Metal Prog 49:598+ Mr '46
Surface preparation of aluminum alloy sheet for spot welding. R. A. Wyant and others. bibliog Welding J 25:sup65-76 F '46
Tensile elastic properties of typical stainless steels and nonferrous metals as affected by plastic deformation and by heat treatment. D. J. McAdam, jr. and R. W. Mebs. il diags U S Nat Advisory Com for Aeronautics 1940:309-86 bibliog(p356-7) '41
War turns a page in metal processing; heat-treating. flow diag il Am Mach 90:93-7 Ja 31 '46
What to expect of high strength aluminum alloys. R. A. Miller and M. E. Tatman. Automotive & Aviation Ind 93:18-21+ D 15 '45

See also
Case hardening
Electric furnaces, Heat treating
Furnaces, Heat treating
Steel, Heat treatment of
Tempering

HEATERS
Coal-electric house unit; complete heating and cooking services. il Elec R (Lond) 138:536 Ap 5 '46
Give the unit a chance; importance of location. A. C. Bartlett. diags Dom Eng 168: 123-4 S '46
Locating unit heater thermostats. T. W. Reynolds. diag Heat & Ven 43:69 Je '46
Pebble heater; new heat transfer unit for industry. C. L. Norton, jr. il diags Am Cer Soc J 29:187-93 Jl 1 '46; Same. Chem & Met Eng 53:116-19 Jl '46
Proposed convector standards. A. J. Nesbitt. Dom Eng 168:125+ O '46
Should we use units for heating a greenhouse? il Heating-Piping 18:94-7 Je '46
Study of several coal-fired magazine-feed space heaters. R. C. Cross and H. N. Ostborg. il diags Heating-Piping 18:130-7 Ja '46; Discussion. 18:122-3+ Mr '46
Unit heating vs. radiant heating. M. J. Druse. Power Pl Eng 50:102 O '46; Same. il Heating-Piping 18:80-1 Je '46

See also
Electric heaters
Gas heaters
Gas water heaters
Hot water heaters
Steam heaters
Steam water heaters

HEATING

Air we live in. S. R. Lewis. Heating-Piping 18:98-9 Je '46

Anthracite institute's simpli-fire room designed for low cost house construction. il plans diag Dom Eng 168:151+ S '46

Application of high temperature liquid as a heat or energy transfer medium for domestic and industrial uses. O. O. Oaks. il diags Heating-Piping 18:119-23 Ja '46; Excerpts. Mech Eng 68:457 My '46; Abstract. Gas Age 97:40+ F 21 '46

Coal economy and housing. P. Schiller. Elec R (Lond) 138:801-4 My 24 '46

Comfort problem in northern India. W. C. Thoburn. il map diags Heating-Piping 18: 120-5 S '46

Economics of domestic heating; coal's superiority. B. R. Gebhart. il Min Cong J 32: 32 Je '46

Engineer, physiologist and psychologist are involved in heating, conditioning. B. von H. Gilmer. il diag Heating-Piping 18:77-9 Je '46

Gas and warm air: study of heating and fuel planned for veterans' housing. map Heat & Ven 43:105 O '46

Heat in the home: Egerton report. Economist 150:126-7 Ja 26 '46

Heating and air conditioning applications with the forward curve blade fan. il Dom Eng 167:154-5 F '46

Heating of dwellings. Elec R (Lond) 138: 123-4 Ja 25 '46

Heating systems and equipment for today's house. il plans diags Arch Forum 85:130-2 Jl '46

Heating the home; a combined solid fuel and electric development. G. Harrison. Electrician 135:661 D 14 '45

Home-heating tests will be conducted in typical, family-size house. Sci Am 175:128 S '46

Housing and heating conference highlights at Pennsylvania State College. Sheet Metal Worker 36:78-9 D '45

Liquid heat powers domestic utilities; Pierce foundation proves practicability of a single energy-source for the house. il diags Arch Forum 84:212-14 Ap '46

New heating room cuts building costs for basementless houses. il plan Sheet Metal Worker 37:94 S '46

Norwich heat pump. J. A. Sumner. il diag Electrician 136:877-80 Ap 5 '46

Norwich heat pump; experimental plant. J. A. Sumner. il diag Elec R (Lond) 138:678-81 My 3 '46

Progress in reverse cycle heating. M. M. Smith. il Edison Elec Inst Bul 14:160-2 My '46

Results of heating survey. R. E. Ferry. Sheet Metal Worker 37:64+ Ag '46; Same abr. Dom Eng 168:88+ Jl '46

Selecting the right fan for heating and ventilating. N. P. Runge. Dom Eng 167:148+ Ja '46

Using the reverse cycle for heating, conditioning. G. E. Clancy. il diags Heating-Piping 18:90-3 Ap; 82-5 Je; 84-6 Ag '46

Veterans' heating and fuel preferences. Sheet Metal Worker 37:60+ O '46; Dom Eng 168: 150 O '46

What's ahead in house heating? R. K. Thulman. il diags Arch Rec 98:123-8 D '45

See also

Air conditioning
Boilers, Heating
Building—Heating aspects
Electric heating
Fuel
Furnaces, Warm air
Gas heating
Heaters
Heating from central stations
Hot water heating
Insulation (heat)
Mechanical equipment of buildings
Oil burners
Oil fuel
Solar heating
Steam heating
Ventilation
Walks, Concrete—Heating

also subdivision Heating and ventilation under special subjects, e.g.

Airplanes
Apartment houses
Churches
Factories
Moving picture theaters
Office buildings
School buildings

Bibliography

Index to reference data, sheets 1 to 308. Heat & Ven 43:91-3 Ja '46

Reprints of ASHVE papers; list. Heating-Piping 18:123-9 Jl '46

Control

All-weather test penthouse; testing heating and ventilating controls; bungalow built on the roof of the Minneapolis-Honeywell regulator co. il Sheet Metal Worker 37:111-12+ Ja '46

Efficient automatic heating of multiple occupancy buildings. W. R. Miller. Sheet Metal Worker 37:56+ Mr '46

Sleeping car heat regulators. il Ry Age 120: 1276 Je 29 '46

Split system utilized in heating new lab of Benjamin electric mfg. company. il Dom Eng 168:133 Ag '46

Cost

Electrifying miners' homes; costs compared with low-priced fuel. C. R. Taylor. Elec R (Lond) 138:135-6 Ja 25 '46

Heat cost comparison chart; thousand B.t.u.'s for one cent when using electrical energy, manufactured gas, natural gas, steam, or oil; data sheet. Factory Management 104: 164 Mr '46

Panel system

Air conditioning and panel heat give top comfort in new planes. il diags Dom Eng 168:134-5+ Ag '46

Here are practical tips on radiant heating. S. R. Lewis. il Heating-Piping 18:100-1 F '46

Improved floor construction for radiant heating systems. J. E. Peterson. diag Heating-Piping 18:73-6 Jl '46; Discussion. 18:98 S '46

Industrial radiant heating pays its way. il Factory Management 104:110-13 Jl '46

Panel heating. il Consumers Res Bul 16:9-14 N '45

Panel heating areas; equivalent areas for floor, wall and ceiling panels; data sheet. F. W. Hutchinson. Heating-Piping 18:107-8 Jl '46

Radiant heat keeps loading area free of snow; circulation of hot anti-freeze liquid. J. Montagnes. il Factory Management 104: 106-7 Ag '46

Radiant heating. il Sci Am 175:30 Jl '46

Radiant heating. T. N. Adlam. Heating-Piping 18:104-5 Ap '46

Radiant heating; floor, wall, or ceiling? F. W. Hutchinson. il Heating-Piping 18:77-80 Mr '46; Discussion. 18:107-8 Ap; 92-3 Jl '46

Single-equation design procedure for radiant panel systems. F. W. Hutchinson. Heating-Piping 17:637-42 D '45; Correction 18:123 Ja '46; Abstract. Heat & Ven 43:80-1 Mr '46

Split heating system; electrical laboratory employs both radiant and warm air types. il Heat & Ven 43:110 O '46

Surface Combustion radiant heating for air liners. il Sheet Metal Worker 37:80 Jl '46

Unit heating vs. radiant heating. M. J. Druse. Power Pl Eng 50:102 O '46; Same. il Heating-Piping 18:80-1 Je '46

See also

Hot water heating—Panel system

Bibliography

Radiant heating; partial bibliography of articles an radiant heating in Heating and ventilating through 1945. Heat & Ven 43:100 F '46

Specifications

Simplified procedure for specification writing. G. W. Campbell. il Heating-Piping 18:86-9 Ap '46

Standards

New British report suggests background, top-up heating. C. Tasker. il Heating-Piping 18: 89-92 S '46

Tables, calculations, etc.

Comfort bonus of insulation. il Heat & Ven 43:89-92 Ap '46

Degree days (65F base) for recent heating seasons, 1941-1946; reference data. Heat & Ven 43:94a-94b O '46

HEATING—Tables, calculations, etc.—*Cont.*
Heat cost comparison chart; thousand B.t.u.'s for one cent when using electrical energy, manufactured gas, natural gas, steam, or oil; data sheet. Factory Management 104: 164 Mr '46
Heat gain from winter sunshine in the U.S. il map Heat & Ven 43:63-6 Mr '46
Heating requirements for small rooms; chart. B. Maddock. Power Pl Eng 49:124 O '45
Inside wall surface temperatures; chart; reference data. Heat & Ven 42:88a-88b N '45

Terminology

Definitions of terms used in heating, ventilating and air conditioning, reference data. Heat & Ven 43:94a-94b Ag; 88a-88b S '46

HEATING, Electric. See Electric heating

HEATING, Industrial
Enameling steel cleaned by heating to 900° F. F. W. Rozene. diags Cer Ind 46:63-4 F '46
Frictional heat speeds welding, bonding, and molding of plastics. C. A. Breskin. il Sci Am 174:20-2 Ja '46
Heat treating and heating, 1945. T. C. Du Mond. il Materials & Methods 23:130-4 Ja '46
How to select and maintain thermostats. C. W. Wood. il Factory Management 104:152-6 Mr '46
Kraft digester circulating and indirect heating systems. J. M. Wilcox. Paper Tr J 122: 53-4 My 23 '46; Same cond. Paper Ind 28: 434+ Je '46
Machine tools for heating. E. L. Cady. il Sci Am 175:69-71 Ag '46
Pebble heater; a new heat-transfer apparatus. C. L. Norton, jr. il diags Am Cer Soc J 29:187-93 Jl 1 '46; Same. Chem & Met Eng 53:116-19 Jl '46
Pebbles heat gas. Bsns W p72 Ag 24 '46
Rate of temperature change in short-length round timbers. J. D. MacLean. A S M E Trans 68:1-16 bibliog(p 14) Ja '46
Safety code for welding, burning and heating; Norfolk navy shipyard, Portsmouth, Va. il Safety Eng 91:22+ F '46
Temperature uniformity in heating-up processes. M. P. Heisler. A S M E Trans 68: 493-500; Discussion. 500-2 Jl '46

See also
Drying
Drying apparatus
Electric heating, Industrial
Foundry practice
Furnaces, Heating
Gas heating, Industrial
Heat treatment
Hot water heating, Industrial
Infrared rays—Industrial heating
Metallurgy
Oil fuel
Oil heating
Open hearth process
Oxyacetylene flame
Paint—Drying
Paper drying
Singeing (textiles)
Steam plants—Process steam
Steel, Heat treatment of
Welding

HEATING, Warm air
Attics getting the heaters. il Sheet Metal Worker 37:80 O '46
Automatic heating trouble shooting. Sheet Metal Worker 37:78-9 F '46
How to heat lobbies. T. W. Reynolds. plans diags Heat & Ven 43:69-72 Ag '46
Indiana sheet metal and warm-air heating contractors' association annual meeting. Indianapolis, Feb. 4-5. Sheet Metal Worker 37:72+ Mr '46
New electric heater circulates warm air by jet principle; Electro-Jet heaters. diags Am Bld 68:114 S '46
Novel features in heating solar home; warm-air system employing under-floor tile. il diag Sheet Metal Worker 36:64+ N '45; Same. Mech Eng 68:360 Ap '46
Olson brothers' experience with Moduflow. il Sheet Metal Worker 37:64+ F '46
Plant-designed system solves forge-shop heating problems; Wyman-Gordon co. C. J. Lloyd il diags Power 90:252-4+ Ap '46
Refinements in a modern winter air conditioning system. il plans Sheet Metal Worker 36:60+ D '45
Separate heating units for four-family apartments. il plans Sheet Metal Worker 37:54+ Ag '46
Split heating system; electrical laboratory employs both radiant and warm air types. il Heat & Ven 43:110 O '46
Warm air everywhere; installation in the home of John Steinbeck. il Sheet Metal Worker 37:86+ O '46
Warm-air heating a large garage. il Sheet Metal Worker 37:68+ Ap '46
Warm-air heating in multiple housing; Harrison homes project, Peoria, Ill. il Sheet Metal Worker 37:114+ Ja '46

Study and teaching

Syracuse short-course a success. Sheet Metal Worker 37:85-6 My '46

HEATING contracts
It's the law; suits involving heating contractors in 1945. L. T. Parker. Heat & Ven 43:79-82 Ag '46

HEATING equipment
Complete heat service unit; burning gas and solid fuel. il Gas J (Lond) 247:185 Ja 30 '46
Cooperative merchandising program; how producers, manufacturers, wholesalers and retailers of St Paul are promoting sale of coal fired equipment. il Sheet Metal Worker 37:131-2+ Ja '46
Extra dollars from heating extras; survey usually points out faults in existing plants. A. Rose. il Sheet Metal Worker 37:58+ S '46
Progress, 1926-1946; heating; air conditioning; automatic controls and equipment. il diag Am Bld 68:122-6 O '46
Safety in plumbing and heating; standards to eliminate hazards in planning, building or remodeling homes. il Dom Eng 166:131+ N '45

See also
Heat pump

Manufacture

Putting production control to work; National radiator co. J. A. Coltrin. il Iron Age 157: 40-3 My 16 '46

HEATING from central stations
District heating. R. O. Kapp. Engineering 161:140-1 F 8 '46; Same. Gas J (Lond) 247: 267-9 F 13 '46; Same cond. Engineer 180: 534-5 D 28 '45; Abstract. Elec R (Lond) 137: 779 N 30 '45
District heating. T. H. Wood. il plan diags Inst Mech Eng J & Proc 154:219-23 S '46
District heating in practice; report by Building research board; abstracts. Electrician 137:989 O 11 '46; Elec R (Lond) 139:576 O 11 '46
District heating in relation to housing schemes. D. V. H. Smith. Electrician 135: 478 N 2 '45
District heating; real answer to competition? il Coal Age 51:66-70 Mr '46
How shall I prepare load-distribution chart, central-heating plant? diags Power 90:259-60+ Ap '46
Individual and district heating systems; with cost data. D. V. H. Smith. Engineer 181: 251-2 Mr 15 '46; Abstract. Gas J (Lond) 247:767 My 8 '46
Institution of gas engineers district heating committee; report. Gas J (Lond) 246:848+, 888+, 933+; 247:33-4 D 12 '45-Ja 2 '46
Maintenance methods at Parkchester. J. A. Dondero. il plan Heat & Ven 43:53-6 My '46
National district heating association, 37th annual meeting, Virginia Beach. Power 90: 456 Jl '46; Heating-Piping 18:100-4 Jl '46
Provision of heat by an electricity supply undertaking. R. A. S. Thwaites. bibliog Engineer 182:30-1 Jl 12 '46; Same cond. il Electrician 136:1739-42 Je 28 '46. Abstracts. Elec R (Lond) 138:1003-4 Je 28 '46; Engineering 162:30 Jl 12 '46; Discussion. Elec R (Lond) 139:14-15 Jl 5 '46; Engineering 162: 30-1 Jl 12 '46; Electrician 137:31-3 Jl 5 '46
Well-planned pipe tunnels aid efficient central plant heating; ducts containing heating, water and electric services. S. R. Lewis. Heating-Piping 18:82-3 Jl '46

See also Electric plants (central stations) —Steam distribution

HEATING from central stations—*Continued*

Cost

Institution of gas engineers district heating committee first report; gas and electricity costs compared. Gas J (Lond) 246:933+; 247:33-4 D 26 '45-Ja 2 '46

HEATING furnaces. See Furnaces, Heating

HEATING industry

Around the country with the contractor-dealer. il Dom Eng 166:120-8 N '45

Book, the know how, the wholesale establishment. K. W. Woodbury. il Sheet Metal Worker 37:96-7+ Ja '46

Build an organization to build a business; Kenyon heating and appliance company. il Dom Eng 168:154-5+ S '46

Five contractor-dealers talk about their business. il Dom Eng 166:132+ D '45

How platform practice is polishing Williamson Heater sales presentations. D. L. Bicknell Sales Management 57:46+ S 15 '46

Ideal sheet metal shop management; Colonial heating service, Madison, Wis. il Sheet Metal Worker 36:71-2 N '45

Is this your first try at merchandising? here are some basic ideas. il Dom Eng 167:100-1+ Mr '46

Jobber setup gives Trane access to huge neglected market; residence building, smaller construction and repair jobs. il Sales Management 57:62+ O 1 '46

1946 prospects; views of representatives of the industry. Sheet Metal Worker 37:87-91+ Ja '46

Our industry's place in the home building plan. Dom Eng 167:94-5 Mr '46

Prizes, Domestic Engineering merchandising contest. il Dom Eng 166:110-17 N; 110-15 D '45; 167:116-19+ Ja '46

Radiant heat can be sold; showroom of Thomas J. Killian. diag Dom Eng 167:112+ Ja '46

Your next letterhead. il Dom Eng 168:116-17 S '46

Advertising

Advertise for business; various mediums and methods. il Dom Eng 167:106-11+ Mr '46

Seven-point program for introducing a new product; Minneapolis-Honeywell two-year campaign on Moduflow pulls inquiries. H. E. Green. il Ptr Ink 214:24-5+ Mr 8 '46

Directories

Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. Sheet Metal Worker 37:173-90 Ja '46

1946 directory of heating, piping, and air conditioning equipment for industrial, commercial, institutional and public buildings; classified by products, trade names and manufacturers' addresses. Heating-Piping 18:265-366 Ja '46

Exhibitions

Cooperative merchandising program; how producers, manufacturers, wholesalers and retailers of St Paul are promoting sale of coal fired equipment. il Sheet Metal Worker 37:131-2+ Ja '46

Records

Well planned forms prove their worth; forms for plumbing and heating contractor-dealers. il Dom Eng 167:114-15+ F '46

Remodeling

Improving old steam heating systems. Dom Eng 168:102-3+ Ag '46

HEATING pipes

120 water heaters meet space heating needs of big radiant installation; A. O. Smith corp. C. W. Colby. il Heating-Piping 18:69-73 S '46

Tables, calculations, etc.

Pipe sizing charts for hot water systems. Heat & Ven 43:58-62 Mr '46

HEATING, piping and air conditioning contractors national association

Annual meeting, 57th, Atlantic City, May 22-25. Dom Eng 167:136-8 Je; 168:96-7 Jl '46; Heating-Piping 18:74-6 Je; 105-6 Jl '46

Objectives, etc. Refrig Eng 52:310 O '46

HEATING research

American society of heating and ventilating engineers, committee on research annual report, 1945. Heating-Piping 18:137-43 F '46

Current central heating research. R. C. Weast and J. A. Morse. diags Am Gas J 164:21-4+ Mr '46

Forced convection heat transfer coefficients along a flat surface. G. V. Parmelee and R. G. Huebscher. il diag Heating-Piping 18:112-16 My '46

Heat losses through wetted walls. E. C. Willey. plan diags Heating-Piping 18:103-6 Je '46

Influence of an interior coating of aluminum paper on internal thermal conditions and heat economy. R. J. Lorenzi and others. Heating-Piping 18:109-14 Ap '46

New research residence on grounds of University of Illinois. il Sheet Metal Worker 37:86 Jl '46; Heat & Ven 43:106 Ag '46

Periodic heat flow; composite walls or roofs. C. O. Mackey and L. T. Wright, jr. Heating-Piping 18:107-10 Je '46

Solar house; research progress report. F. W. Hutchinson. il Heat & Ven 43:53-7 Mr '46

Study of radiant baseboard heating in the I=B=R research home; a report of an investigation in cooperation with the Institute of boiler and radiator manufacturers. A. P. Kratz and W. S. Harris. il plans diags Ill U Eng Exp Sta Bul 358:1-30 '45 (pa 35c); Same cond. Heating-Piping 18:138-42 Ja '46; Abstract. Heat & Ven 42:80-2 O '45

HEAVISIDE, Oliver

Oliver Heaviside; humorist. C. M. Herbert. Franklin Inst J 241:435-40 Je '46

HEDGING

Can inflation be controlled today? E. A. Krauss. il Mag of Wall St 77:193-5+ N 24 '45

Capital building in a period of inflation. J. Durand. il Mag of Wall St 78:647, 705, 767; 79:39 Ag 31-O 12 '46

Gold as an investment; mining shares offer double hedge. M. Palyi. Comm & Fin Chr 163:957+ F 21 '46

Hedging against inflation. J. D. Gill. Comm & Fin Chr 163:2216+ Ap 25 '46

How would bank stocks meet inflation? J. W. Wooster, jr. Banking 38:47+ Ap '46

Investment defense against government fiscal policies. H. Owen. Mag of Wall St 78:130-2+ My 11 '46

HEENAN and Froude, limited

Statement by the chairman at 43d ordinary general meeting. A. P. Good. Economist 150:30-1 Ja 5 '46

HEILBRON, Sir Ian Morris, 1886-

Priestley medal won by Heilbron. por Oil Paint & Drug Rep 149:7 Ap 8 '46

Sir Ian Heilbron, Priestley medalist, 1946. R. Robinson. por Chem & Eng N 24:1034-5 Ap 25 '46

HEINZ, H. J., company

Preferred and common stock publicly offered. Comm & Fin Chr 164:1870-1 O 14 '46

What of H. J. Heinz company? G. W. Mathis. Mag of Wall St 79:144-5+ N 9 '46

HEITLER'S theory

Reaction of radiation on electron scattering and Heitler's theory of radiation damping. H. A. Bethe and J. R. Oppenheimer. Phys R 70:451-8 O 1 '46

HELICAL gearing. See Gearing, Spiral

HELICOPTERS

Airfoil theory for rotary wing aircraft. R. Isaacs. J Aeronautical Sci 13:218-20 Ap '46

Analysis of helicopter drive problems. M. Di Giovanni. diag Aero Digest 51:58-60+ D 1 '45

Army 'copters Los Angeles mail test. map Aviation N 5:28 Je 24; 28 Jl 15; 36 Ag 5 '46

Aviation's directory of aircraft and helicopter manufacturers. Aviation 45:143 F '46

Aviation's 1946 yearbook; American and foreign planes; brief descriptions and illustrations. Aviation 45:139-41 F '46

Demonstrate new Firestone helicopter. Aviation N 6:15 S 9 '46

Design and flight characteristics of the Flettner F1-282 helicopter. il diags Aviation 45:60-4 Je '46

HELICOPTERS—*Continued*
Designer of the model H-2 discusses helicopters. F. Landgraf. il Aero Digest 51: 56-7+ D 1 '45; Abstract. S A E J 54:sup36 Je '46
Detailed magnetometer surveys quickly made from helicopters. il Min & Met 27:474 S '46
Doman-Frazier reveals new 'copter projects. il Aviation 45:86 Jl '46
Employ helicopter for geophysical surveying. Eng & Min J 147:90 Ag '46
Engine design for the helicopter. il Aero Digest 52:57+ F '46
Flapping characteristics of rigid rotor blades. R. W. Allen. diag J Aeronautical Sci 13: 183-6 Ap '46
Fourteenth annual meeting of the Institute of the aeronautical sciences; review of technical papers. il Aeronautical Eng R 5: 16-17 Ap '46
Gains in helicopter utility. F. A. Erickson. Aero Digest 52:51+ Ja '46
General requirements for helicopter engines; abstracts. C. T. Doman. il S A E J 54: sup37 Je '46; Automotive & Aviation Ind 95:44+ Ag 1 '46
Ground vibrations of helicopters. M. L. Deutsch. bibliog J Aeronautical Sci 13:223-8+ My '46
Helicopter engineering (cont). A. Klemin. il map Aero Digest 51:55+ D 1 '45; 52:49+ Ja; 55+ F; 73+ Mr; 73+ Ap; 75+ My; 73+ Je; 53:103+ Jl; 69+ Ag; 77+ S; 79+ O '46
Helicopter performance. R. L. Lichten. J Aeronautical Sci 13:353-63 bibliog(p362) Jl '46
Helicopter; significant aeronautical development; abstract. B. W. Sznycer. S A E J 54:sup36 Je '46
Helicopter stability and control. J. G. Ray. il Aero Digest 51:61+ D 1 '45
Helicopter stability with Young's lifting rotor. B. Kelley. il diags S A E J 53:685-90 D '45
Helicopters in civil aviation. A. Klemin. il Sci Am 174:65-7 F '46
Helicopters may link Chicago suburbs. Bsns W p46 Jl 27 '46
Improvements urged in 'copter controls; abstract. J. L. Baker. Aviation N 5:20 My 20 '46
Kellett developing 10-place transport 'copter. il Aviation 45:82 S '46
Lightweight G&A XR-9B is AAF's newest 'copter. il Aviation 45:99 My '46; Same. Mech Eng 68:646-7 Jl '46
McDonnell, Navy unveil first twin-engine helicopter to fly. Aviation N 6:9+ S 2 '46
Method for the stress analysis of helicopter blades. D. O. Dommasch. diags J Aeronautical Sci 13:195-203 Ap '46; Discussion. W. Z Stepniewski. 13:409-10 Ag '46
Nazis developing 16-ton 'copter, adjustable king at war's end. B. Stubblefield. diags Aviation N 4:11-12 N 26 '45
New hoppicopter tested. Aviation N 6:14 Ag 19 '46
New rotor plane tested at Reading. il Aviation N 6:11 O 28 '46
Novel helicopter readied for tests; Roteron corp. builds one-place craft. S. Bangs. il Aviation N 5:28-9 Ja 28 '46
One-place co-axial 'copter completed by Roteron. il Aviation 45:53 Mr '46
Outlook for the helicopter. I. Sikorsky. Aero Digest 52:50 Ja '46
Post office declares helicopter practical for transporting mail. CAA J 7:115 S 15 '46
Practical engineering of rotary wing aircraft. P. H. Stanley. bibliog il diags Aviation 45: 55-65 Jl; 76-82 Ag; 67-70 S; 74-7 O '46
Principles of rotary wing aircraft. A. Klemin. il diags Aero Digest 49:80-3+ Ap 1; 77-80+ My 1; 82-8+ Je 1; 50 80-2+ Jl 1; 87-8+ Ag 1; 83-4+ S 1; 51:50-3+ N 1 '45; 52: 52-3+ Ja '46
Railroad-helicopter coordination? R. B. James. Aero Digest 53:105 Jl '46
Rapid development of 'copters seen. Aviation N 5:10 Mr 25 '46
R.I. firm develops two new utility 'copters; Helicopter engineering & construction corp. il Aviation 45:91 Je '46
Rotary wing miscellany. il Aero Digest 52: 56+ F; 74-5 Mr; 76-7+ My; 53:104+ Jl; 78-9+ S '46
Roteron XM-1 helicopter. il Aero Digest 53:86 Ag '46
Russians have new-type helicopter; Omega. For Comm W 22:34 Ja 5 '46
Simplified operation claimed for XR-9B. Aviation N 5:8 Ap 1 '46
Simplified theoretical method of determining the characteristics of a lifting rotor in forward flight. F. J. Bailey, jr. bibliog diags U S Nat Advisory Com for Aeronautics 1941:209-26 '42
Test of helicopters asked in Los Angeles. Aviation N 5:39 Ja 21 '46
Three diverse 'copters make first flights; McDonnell, Firestone, and Bendix craft. il Aviation 45:85 O '46
Tri-rotor helicopter designed for spraying. il Aviation N 6:20 Ag 12 '46
Twin engine 'copter developed by Kellett. diags Aviation N 6:8-9 Jl 22 '46
Two-bladed rotor by Young. il diags Aero Digest 52:74-5+ Ap '46
Use of Nazi helicopter designs believed under study in U.S. Aviation N 4:23 D 3 '45
XR-9B; army's new helicopter. il Aeronautical Eng R 5:123+ My '46
XR-9B, commercial version. il diags Aero Digest 53:80-1+ O '46

Accidents
S-51 in accident. Aero Digest 53:79+ S '46

Cost of operation
Helicopter transport economy. F. N. Piasecki. diag Aero Digest 52:74-5+ Je '46

Gearing
Drive systems for helicopters. W. H. Pearson. il diag Aero Digest 53:70-1+ Ag '46

Specifications
Aviation's helicopter specifications; tabulation. Aviation 45:142 F '46

HELIGOLAND
British test bomb damage in destroying Heligoland structure. il Eng N 137:438 O 3 '46
Germany's island fortresses. map Engineer 181:354-5 Ap 19 '46

HELIOS (term)
Measurement of helios with a barrier-layer cell. Y. G. Hurd. diags Illum Eng 41:306-11 Ap '46

HELIOTHERAPY
Measurement of ultraviolet radiation useful in heliotherapy. W. W. Coblentz. il Opt Soc Am J 36:72-6 F '46

HELIUM
Bureau of mines helium production sets record. Min & Met 27:439 Ag '46
Extending compressed-air operations with helium-oxygen air; reduces physiological hazards. il Eng N 137:118-19 Jl 25 '46
Gas locator for high-vacuum systems; application of the mass spectrometer. il Electronics 19:158 Je '46
Helium cryostat. S. C. Collins. flow diag Phys R 70:98 Jl 1 '46
Helium production reviewed in Bureau of mines report. Chem & Eng N 24:473 F 25 '46
Helium tracer studies in the Elk Hills, California field. E. M. Frost, jr. 8pls U S Bur Mines Rep of Invest 3897:1-6 '46; Abstract. Oil & Gas J 45:107+ Ag 10 '46
Leak detection by mass spectrometry. il diag Chem Ind 58:413 Mr '46
Mightiest nothing. L. Nordyke. il Sci Am 173:364-6 D '45
Properties and uses of helium (including a comprehensive bibliography, 1933-45). H. P. Wheeler, jr. 2pls U S Bur Mines Information Circ 7344:1-66 bibliog(p19-66) '46
Report of Petroleum and natural-gas division, fiscal year 1944. R. A. Cattell and others. U S Bur Mines Information Circ 7358:28 '46
Two of country's four plants produce helium in Texas. il Manuf Rec 115:40-1+ Ap '46
U.S. produces record quantity of helium. il Pet Eng 17:146+ My '46

Analysis
Determination of helium group gases in natural gases and in the atmosphere. G. H. Cady and H. P. Cady. bibliog diags Ind & Eng Chem Anal ed 17:760-6 D '45

HELIUM—Analysis—*Continued*
Improved apparatus and procedure for the determination of helium in natural gas. E. M. Frost, jr. 7pls U S Bur Mines Rep of Invest 3899:1-16 '46

Bibliography

Properties and uses of helium (including a comprehensive bibliography, 1933-45). H. P. Wheeler, jr. 2pls U S Bur Mines Information Circ 7344:1-66 bibliog(p19-66) '46

Isotopes

Activity of N^{16} and He^6. H. S. Sommers, jr. and R. Sherr. bibliog Phys R 69:29-30 Ja 1 '46
Atmospheric helium three and radiocarbon from cosmic radiation. W. F. Libby. bibliog Phys R 69:671-2 Je 1 '46
Calculation of the binding energies of H^3 and He^4 with a new potential. M. Wang. Phys R 70:492-4 O 1 '46
Magnetic moments of H^3 and He^3. R. G. Sachs and J. Schwinger. Phys R 70:41-3 Jl 1 '46
Proposal of a method for the separation of He^3 from He^4. J. Franck. Phys R 70:561 O 1 '46

Transportation

High pressure pipe lines transport valuable helium. J. J. Reynolds. il diags Oil & Gas J 45:84-6+ O 12 '46

HELIUM, Liquid
Anomalous behaviour of liquid helium II. S. A. Weissman. bibliog diag J Chem Educ 23:223-6 My '46
Heat of vaporization of helium II below 1.5° K. J. E. Haggenmacher. Phys R 69:242-3 Mr 1 '46
Physical properties of liquid helium. C. W. Hewlett. diags Gen Elec R 49:42-7 Jl '46
Second sound in liquid helium II. C. T. Lane and others. Phys R 70:431-2 S 1 '46
Temperatures near the absolute zero; adiabatic demagnetization of paramagnetic salts. C. W. Hewlett. diag Gen Elec R 49:7-10 My '46
Transfer phenomena and indeterminancy. J. G. Daunt and K. Mendelssohn. bibliog Phys R 69:126 F 1 '46

HELLSTROM, Carl R.
Smith & Wesson, president. por Bsns W p66 O 5 '46

HELMINTHOSPORIUM
New helminthosporium blight of oats. F. Meehan and H. C. Murphy. Science 104:413-14 N 1 '46

HELP wanted ads. See Employment systems—Advertising aids

HELSTEIN, Ralph
Portrait. Bsns W p83 Je 15 '46
President, United packinghouse workers, C.I.O. por Fortune 34:149 N '46

HEMATITE
Dust control in hematite mining. B. D. Tebbens and I. R. Tabershaw. bibliog J Ind Hygiene 28:100-6 My '46
New Canadian ore deposit has high iron content. il map Steel 118:102 F 25 '46
States and epochs of mineralization in the San Juan mountains, Colorado, as shown at the Dunmore mine, Ouray county, Colorado. V. C. Kelley and C. Silver. bibliog il maps diags Econ Geol 41:139-59 Mr '46

HEMICELLULOSE
Chlorite holocellulose, its fractionation and bearing on summative wood analysis and on studies on the hemicelluloses. L. E. Wise and others. bibliog Paper Tr J 122:35-43 Ja 10 '46
Hemicelluloses; their significance in pulping; abstract. G. Jayme. Paper Ind 28:446 Je '46
Importance of hemicellulose in wood pulp. R. Vincent. bibliog Paper Tr J 122:53-7 Ja 24 '46
Preliminary study of the polyuronide hemicellulose of phormium tenax (N.Z. flax). R. J. McIlroy, G. S. Holmes and R. P. Mauger. Chem Soc J p796-9 N '45

Analysis

Hemicelluloses of wood pulps; abstract. F. J. Greenane. Paper Ind 27:1428 D '45

HEMISPHERIC insurance conference
Aims of Hemispheric conference. Weekly Underw 154:669+ Mr 16 '46; Same cond. Nat Underw (Life ed) 50:32 Mr 15 '46; Same cond. Nat Underw 50:4 Mr 14 '46
British viewpoint of Hemispheric insurance conference. East Underw 47:15 Ag 2 '46
Committee from 16 nations to plan for future Hemispheric conferences. East Underw 47:20+ My 24 '46; Nat Underw 50:21+ My 23 '46
Hemispheric insurance conference number; with Spanish and English versions of proceedings. Weekly Underw 154:1175-86, 1259+ My 11-18 '46
Impressive atmosphere at hemisphere rally; closer insurance ties promoted in western world. Nat Underw 50:4+ My 16 '46; Same. Nat Underw (Life ed) 50:1+ My 17 '46
Meeting, New York, May 14-17. East Underw 47:1+ My 17; 5+ My 24 '46; Nat Underw (Life ed) 50:2+, 4+ My 24 '46; Spectator (Property ed) 11:10-13 My 23 '46; Spectator (Life ed) 153:18-21+ Je '46; Spectator (Property ed) 11:10-13+ My 23 '46

HEMISPHERICAL houses. See Fuller houses, inc

HEMLOCK
Fibrous holocellulose from softwoods. E. L. Lovell. bibliog il Ind & Eng Chem 37:1034-7 N '45

HEMOGLOBIN
Effect of β-pyracin and the lactobacillus casei factor upon hemoglobin regeneration following hemorrhage. M. L. Scott and others. Science 103:303-4 Mr 8 '46
Fractionation of proteins by electrophoresis-convection. L. E. Nielsen and J. G. Kirkwood. diags Am Chem Soc J 68:181-5 F '46
Inactive (non-oxygen-combining) hemoglobin in the blood of ophidia and dogs. J. L. Prado. Science 103:406 Mr 29 '46
Methionine and isoleucine content of mammalian hemoglobins; its significance for nutritional and metabolic studies. E. Brand and J. Grantham. bibliog Am Chem Soc J 68:724 Ap '46

HEMORRHAGE
Effect of β-pyracin and the lactobacillus casei factor upon hemoglobin regeneration following hemorrhage. M. L. Scott and others. Science 103:303-4 Mr 8 '46

HEMP
German chemical industries; unretted flax and hemp as a textile fiber. Chem & Met Eng 52:186+ D '45
Hemp menace; vast expansion of acreage threat of increased traffic in narcotic. Bsns W p48+ Ja 12 '46

See also
Manila hemp
Sisal hemp

Testing

Effect of weathering on rotproofed cordage. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 35:218+ My 6 '46

HENDERSON, Arthur H.
Vice president of American international underwriters for the Philippines. por East Underw 47:29 O 18 '46

HENDERSON, Yelvien Ewart, 1877-1945
Sketch. A. D. Welch. Science 104:285-6 S 27 '46

HENS. See Poultry

HEPARIN
Antagonism between heparin and plasma trypsin. M. Rocha e Silva and S. O. Andrade. bibliog Science 102:670 D 28 '45
Heparin of pig tissue. W. C. Risser. bibliog Am Chem Soc J 68:341-2 F '46
Uronic acid component of heparin. M. L. Wolfrom and F. A. H. Rice. Am Chem Soc J 68:532 Mr '46

HEPATITIS, Infectious. See Jaundice

HEPTANE
Boiling points of three isomeric heptanes. F. S. Fawcett. diag Ind & Eng Chem 38:338-40 Mr '46
Conversion of *n*-heptane to isobutane; metal-aluminum chloride catalysts. O. Grummitt, E. N. Case and C. V. Mitchell. bibliog Ind & Eng Chem 38:141-4 F '46

HEPTANE—*Continued*
Extractive distillation of hydrocarbon mixtures in a packed column. R. S. Dicks and C. S. Carlson. bibliog il diag Am Inst Chem Eng Trans 41:789-803 D '45
First-order change which involves the vaporization in two dimensions of *n*-heptane on the surface of silver. G. Jura and others. J Chem Phys 13:535-6 N '45
Normal heptane as a reference fuel in measuring antiknock quality of gasoline. H. M. Trimble and A. W. Suderman. Oil & Gas J 45:66+ N 2 '46
Petroleum provides new hydrocarbons for the chemical industry. C. C. Crawford. il Chem Ind 59:469-73 S '46
Pure hydrocarbons from petroleum; composition and separation of a straight-run heptane fraction by the Distex process. J. Griswold and C. F. Van Berg. flow diag il diag Ind & Eng Chem 38:170-7 F '46
Surfaces of solids; a first- and a second-order phase change in the adsorbed film of *n*-heptane on graphite. G. Jura and others. bibliog J Chem Phys 14:344-7 My '46
Surfaces of solids; adsorbed films of water and normal heptane on the surface of graphite. W. D. Harkins, G. Jura and E. H. Loeser. bibliog Am Chem Soc J 68:554-7 Ap '46
Surfaces of solids; first-order phase changes of adsorbed films on the surfaces of solids: the film of *n*-heptane on ferric oxide. G. Jura and others. bibliog J Chem Phys 14: 117-23 Mr '46

HEPTYL methoxymethylquinolinol. See Endochin

HERBARIUMS
Present status of foreign herbaria and museums. F. R. Fosberg and W. W. Diehl. Science 103:282-3 Mr 1 '46
Recent additions to the Dudley herbarium. I. L. Wiggins. Science 103:459 Ap 12 '46

HERBICIDES. See Weeds—Control

HERCULES (airplane). See Airplanes, Freight

HERCULES powder company
Annual report. Comm & Fin Chr 163:903 F 18 '46
Did we or didn't we get our ad budget approved? T. Marvin. il Ind Marketing 31: 70+ Mr '46
Hercules postwar program. Chem & Eng N 23:1972 N 10 '45
Hercules transition quick from war to peace; naval stores plants in the South. il Manuf Rec 114:48-9+ N '45
Price rises to lift Hercules Powder net. Barron's 26:6 N 4 '46

Laboratories
Hercules plans new plastics laboratory. Elec World 124:228 D 8 '45; Chem & Eng N 23: 2100 N 25 '45

HEREDITY
See also
Genes

HERNIA
Compensable hernia; problems in the average state. W. L. Ritter. bibliog Ind Med 15:5-8 Ja '46
Deaths from hernia; abstract. W. E. Obetz. Ind Med 15:208 Mr '46
Hernias and miners. W. Schweisheimer. Can Min J 67:875-6 S '46
Hernias and serious injuries in Maritime Commission shipyards with reference to preplacement examinations; abstract. C. M. McGill. J Ind Hygiene 28:sup38-9 Mr '46

HERRICK, Horace T.
New agriculture post. por Oil Paint & Drug Rep 149:3 Ja 28 '46

HERRING
British experiment with methods of freezing herring. Refrig Eng 50:472 N '45
Herring freezing; refrigeration plant for storing surplus fish. il Elec R (Lond) 137:925-7 D 28 '45
How to retard rancidity in salt-cured fish. R. E. Silver. il Food Ind 17:1454-6+ D '45

HERTY, Charles Holmes, jr., 1896-
Sketch. E. C. McDowell, jr. por Metal Prog 49:342-4 F '46

HERTY medal
Herty medal awarded to Lazier. Chem & Eng N 24:1384 My 25 '46

HERZBERG reagent
Application of the Herzberg stain to nitrated cotton and nitrated paper fibres. A. Mackie. Chem & Ind p373-4 O 12 '46

HESPERIDIN
Purification of hesperidin with formamide. D. E. Pritchett and H. E. Merchant. Am Chem Soc J 68:2108-9 O '46

HESSE, Curtis Julian, 1905-1945
Memorial. F. E. Turner. bibliog por(pl 7) Geol Soc Proc 1945:245-7 Je '46

HETEROCHROMOUS photometry. See Photometry

HETEROCYCLIC compounds
Application of the Hofmann reaction to the synthesis of heterocyclic compounds; synthesis of 3-alkyl-2 : 4-diketo-1 : 2 : 3 : 4-tetrahydroquinazolines from *N*-alkylphthalamides. F. S. Spring and J. C. Woods. Chem Soc J p625-8 S '45
Color and constitution; absorption of unsymmetrical carbocyanines. L. G. S. Brooker, R. H. Sprague and H. W. J. Cressman. Am Chem Soc J 67:1889-93 N '45
Color and constitution; interpretation of absorptions of dyes containing heterocyclic nuclei of different basicities. L. G. S. Brooker and others. Am Chem Soc J 67: 1875-89 N '45
Heterocyclic amines with antihistaminic activity. C. P. Huttrer and others. bibliog Am Chem Soc J 68:1999-2002 O '46
Heterocyclic basic compounds; 8-[3-(3'-aminopropylamino) - propylamino] - 6 methoxyquinoline. H. S. Mosher. Am Chem Soc J 68:1565-8 Ag '46
Heterocyclic basic compounds; basically-substituted isoalloxazine derivatives. R. R. Adams, C. A. Weisel and H. S. Mosher. bibliog Am Chem Soc J 68:883-7 My '46
Heterocyclic basic compounds; 3,6-dichloro-9-(1-methyl-4-diethylaminobutyl)-aminoacridine. D P. Spalding and others. bibliog Am Chem Soc J 68:1596-8 Ag '46
New syntheses of heterocyclic compounds; 3-azaphenthiazines. V. A. Petrow and E. L. Rewald. Chem Soc J p591-3 S '45
New syntheses of heterocyclic compounds; Schmidt rearrangement of 1 : 3-dimethyl-2-azafluorenone. V. A. Petrow. Chem Soc J p200-3, 888-91 Mr, O '46
New syntheses of heterocyclic compounds; triazafluorenes and azaphenazines from 4-chloro-3 : 5-dinitropyridine. V. A. Petrow and J. Saper. Chem Soc J p588-91 Jl '46
Some quaternary ammonium salts of heterocyclic bases. J. L. Hartwell and S. R. L. Kornberg. bibliog Am Chem Soc J 68:868-70, 1131-3 My-Je '46
Synthesis of antimalarials; the synthesis of certain quinacrine analogs having N-heterocyclic groups in the α-position of the side chain. M. S. Bloom, D. S. Breslow and C. R. Hauser. bibliog Am Chem Soc J 67: 2206-8 D '45
See also
Cinnoline
Cyclic compounds

HEVEA latex. See Rubber latex

HEXACHLOROBENZENE
Hexachlorobenzene from phthalic anhydride. M. N. Dvornikoff, D. G. Sheets and F. B. Zienty. Am Chem Soc J 68:142 Ja '46

HEXACHLOROCYCLOHEXANE
Benzene hexachloride. Chem & Eng N 24:830 Mr 25 '46
Chemistry of benzene hexachloride and its insecticidal properties. G. R. Chamlin. J Chem Educ 23:283-4 Je '46
Insecticide toxicity studies; experimental results on the comparative toxicity of benzene hexachloride, DDT and pyrethrum. W. A. Gersdorff and E. R. McGovran. Soap & San Chem 21:117+ N '45
Roach powder tests; sodium fluoride, pyrethrum, DDT and the gamma isomer of benzene hexachloride. E. R. McGovran and P. G. Piquett. Soap & San Chem 22:157+ Ag '46
Tests in the United States of new British insecticide, Science 103:527 Ap 26 '46

HEXADECANE
Behavior of sodium stearate with cetane and water. R. D. Vold and J. M. Philipson. bibliog J Phys Chem 50:39-53 Ja '46

HEXAMETHYLBENZENE
Action of methanol on phenol in the presence of alumina; formation of anisole, methylated phenols, and hexamethylbenzene. N. M. Cullinane and S. J. Chard. diag Chem Soc J p821-3 N '45
Heats of solution of hexamethylbenzene, cetyl alcohol, and dicetyl in related liquids; heats of fusion by an extrapolation process. G. S. Parks and R. D. Rowe. bibliog J Chem Phys 14:507-10 S '46

HEXAMETHYLENETETRAMINE
German chemical industries. Chem & Met Eng 53:218 Ja '46
Hexamethylenetetramine in separations of titanium and columbium. K. W. Traub. Ind & Eng Chem Anal ed 18:122-4 F '46

HEXANE
Boiling and condensing film coefficients for water and normal hexane. D. L. Katz and others. flow sheet il Pet Refiner 25:93-6 S '46
Hexane used as solvent for soybean oil extraction. R. E. Greenfield. il Oil & Gas J 44:101-2 F 9 '46
Liquid-phase isomerization of normal paraffins using a fluid salt catalyst. S. H. McAllister and others. bibliog flow diag il Am Inst Chem Eng Trans 42:33-52; Discussion. 53 F '46
Low-temperature thermal data on the five isomeric hexanes. D. R. Douslin and H. M. Huffman. bibliog Am Chem Soc J 68:1704-8 S '46
Modern refining processes; isomerization of normally liquid hydrocarbons. G. Armistead, jr. diag Oil & Gas J 45:93-4+ S 28 '46
Pure hydrocarbons from petroleum; separation of straight-run fractions by Distex process. J. Griswold and others. bibliog flow diags Ind & Eng Chem 38:65-70 Ja '46
Vapor pressures and saturated liquid and vapor densities of the isomeric hexanes. W. S. Kay. bibliog diag Am Chem Soc J 68: 1336-9 Jl '46
Viscosities and densities of solvent-vegetable oil mixtures. F. C. Magne and E. L. Skau. bibliog diags Ind & Eng Chem 37:1097-1101 N '45

HEXANOLAMINE caprylate
Hexanolamine caprylate and diisopropylamine caprylate as colloidal electrolytes. E. Gonick. Am Chem Soc J 68:177-81 F '46

HEXANOLAMINE oleate
Diffraction of X-rays by aqueous solutions of hexanolamine oleate. S. Ross and J. W. McBain. bibliog Am Chem Soc J 68:296-9 F '46
Diffraction of X-rays by sodium oleate and hexanolamine oleate. S. Ross and J. W. McBain. bibliog Am Chem Soc J 68:547-50 Ap '46
Isotropic and anisotropic liquid phases in the system hexanolamine oleate-water. E. Gonick and J. W. McBain. Am Chem Soc J 68:683-5 Ap '46

HEXESTROL
Applications of the 1,4-addition of Grignard reagents to α,β-unsaturated acid derivatives; synthesis of compounds related to hexestrol. S. Wawzonek. bibliog Am Chem Soc J 68: 1157-9 Jl '46
Preparation of new derivatives of diethylstilbestrol and hexestrol by the Claisen rearrangement. E. Kaiser and J. J. Svarz. Am Chem Soc J 68:636-8 Ap '46
Synthetic estrogens and the relation between their structure and their activity. U. V. Solmssen. Chem R 37:486-95, 590 D '45
Ultraviolet absorption spectra of allyl and propenyl substituted derivatives of diethylstilbestrol and hexestrol. E. Kaiser and V. L. Koenig. bibliog Am Chem Soc J 68:740-2 My '46

HEXITOLS
Hexitol anhydrides. S. Soltzberg; R. C. Hockett and others. bibliog Am Chem Soc J 68:919-21, 927-41 Je '46

HEXYLAMMONIUM chloride
Solubilities of hexyl- and dodecylammonium chloride in various dilutions of aqueous ethanol. A. W. Ralston and C. W. Hoerr. bibliog Am Chem Soc J 68:851-4 My '46

HEXYNE
Studies in the polyene series; condensation of the C_{14}-aldehyde [3-(2′ : 6′ : 6′-trimethyl-*cyclo*hexenyl)-1-methylcrotonaldehyde] with 1-hexyne and 2-methoxyhex-3-en-5-yne. J. Cymerman and others. Chem Soc J p500-3 Je '46

HEYDEN chemical corporation
Plans big expansion. Barron's 26:14 Mr 18 '46

HIBBS, Ben, 1901-
Portrait. Bsns W p48 S 28 '46

HICKEY, Henry J.
Multi-fuel motor; Hickey motor for Greyhound air-conditioning unit. Bsns W p44+ Ap 20 '46

HIDES and skins
Blames hide shortage on OPA; Weekly bulletin of leather and shoe news. Comm & Fin Chr 164:1010+ Ag 22 '46
End of meat shortage will leave hides, shoes scarce. Barron's 26:5 O 21 '46
Exports from Argentina during 1945. For Comm W 23:44 My 25 '46
Increasing production of hides in the United States. Barron's 26:7 F 18 '46
Pulling wool by the use of enzymes; Arazym NSL. Am Dyestuff Rep 35:257-8 My 20 '46
Rubber-like condition of the fibers of animal skin; abstract. D. J. Lloyd and M. Garrod. Am Dyestuff Rep 35:453 S 23 '46
See also
Fur — Sheepskin
Leather — Tanning
Rabbit skins

HIGDON, Harry John, 1897-
Gallery; keeper of the Flame. E. J. Ryan. por Adv & Sell 39:184+ Ja '46

HIGGINS, Andrew Jackson, 1886-
Higgins adamant; shipbuilder continues his liquidation program. Bsns W p102+ N 17 '45
Higgins balks; closes three plants when negotiations with A.F.L. deadlock. Bsns W p105-6+ N 10 '45
Higgins housing; enameled sheet panels and Thermo-Con cement. por Bsns W p20-1 F 23 '46

HIGGINS, incorporated
Higgins builds ships, tugs, plans small boat, house and trailer output at New Orleans. il diag Manuf Rec 115:40-1+ Je '46
Higgins cashing in; new corporation, publicly owned, will take over sizable part of boat-building empire. Bsns W p80+ Ja 12 '46
Higgins leases war plant in Louisiana. Bsns W p22 Ap 6 '46
Higgins on a snag. Bsns W p21-2+ F 16 '46
Higgins terms revealed. Bsns W p35 F 9 '46
Stock offered. Comm & Fin Chr 163:1728 Ap 1 '46
Ultima Thule; with revisions. Bsns W p119 Mr 30 '46
World's largest marketer of boats peacetime ambition. Ptr Ink 214:103+ Mr 1 '46

HIGGINS industries, inc.
Higgins election; NLRB sets employee vote on A.F.L., C.I.O., or no union. Bsns W p104 Ja 12 '46
Higgins reopens. Bsns W p104 D 8 '45
Higgins unionized; workers' reject open-shop. Bsns W p78+ F 9 '46

HIGH buildings
Postwar New York skyscraper; office building for Standard oil company of New Jersey. il plans Arch Forum 84:91-3 My '46

HIGH frequency electric furnaces. See Electric furnaces, High frequency

HIGH frequency heating. See Electric heating, Industrial—High frequency heating

HIGH pressure. See Pressure

HIGH school buildings. See School buildings

HIGH school students
Aviation schooling in New York. F. W. Butterfield. il Aero Digest 53:26-7+ Ag '46

HIGH school students—*Continued*
High school students enlisted in Missouri airmarking program. A. McSurely. Aviation N 5:12 Mr 18 '46

Employment

Student workers in New York state. Mo Labor R 61:996-7 N '45

HIGH schools, Rural
Training rural youth for farm and other occupations. S. Johnson. Mo Labor R 62:79-80 Ja '46

HIGH voltages
Army-navy precipitation-static project; high-voltage characteristics of aircraft in flight. R. Gunn and J. P. Parker. bibliog il Inst Radio Eng Proc 34:241-7 My '46
D. c. transmission actively contemplated in Europe; Paris High tension conference; abstracts of papers. Elec World 126:49-50 Ag 31 '46
German H.V. practice. Elec R (Lond) 138: 343-4 Mr 1 '46
High voltage ignitron rectifiers and inverters for railroad service. J. L. Boyer and C. G. Hagensick. bibliog diags Elec Eng 65:Trans 463-70 Jl '46
High-voltage impregnated pressure cable. il diags Engineer 182:330-1 O 11 '46; Electrician 137:991-3 O 11 '46; Elec R (Lond) 139:577-9 O 11 '46
High voltage line; power transmission tests to be made by American gas & electric service corp. il Bsns W p48+ Ja 5 '46
High-voltage radiography; 1 and 2 million-volt equipment permits examination of steel sections up to 12 in. thick. D. Goodman. il diags Iron Age 157:58-61 F 21 '46
High-voltage rectified power supply using fractional-mu radio-frequency oscillator. R. L. Freeman and R. C. Hergenrother. diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:145W-7W Mr '46
High-voltage research at the National physical laboratory. R. Davis. il diags Inst E E J 93 pt 1:177-86 Ap '46; Same abr. Engineer 180:412-13, 435-6 N 23-30 '45; Abstract. Electrician 135:573-5 N 23 '45
New peak in electric power; high-voltage transmission experimental power line. P. Sporn. Nat Safety N 54:110 Jl '46
Peak voltages induced by accelerated flux reversal in reactor cores operating above saturation density. T. Specht and E. C. Wentz. bibliog il diags Elec Eng 65:Trans 254-62 My '46
Stabilized d-c high-voltage supply, using rectified high frequency; electron diffraction instrument. A. M. Gurewitsch and P. C. Noble. il diags Gen Elec R 48:46-52 D '45
Two-million volt industrial radiography. L. Cardenas. il Iron Age 157:52-5 Je 13 '46
Westinghouse tests ultra high voltage power transmission; abstract. P. Sporn. Iron Age 157:136-8 Ja 10 '46

See also
Lightning, Artificial

HIGHER education. See Education, Higher

HIGHWAY accidents. See Automobile accidents

HIGHWAY administration
American association of state highway officials annual meeting, Oklahoma City, Jan. 29-Feb. 1. Eng N 136:253-4, 358-60 F 14, Mr 7 '46; Roads & Sts 89:72-4+ Mr '46
Girding for the big postwar task. T. H. MacDonald. Roads & Sts 89:88-91 F '46
Joint cooperative committee, Associated general contractors of America and American association of state highway officials, meeting, Salt Lake City, June 10. Roads & Sts 89:97-8+ Jl '46
Mississippi Valley conference of state highway departments 37th annual meeting, Chicago, March 15-16. Eng N 136:446-7 Mr 28 '46
Municipal roads in northern Ontario. D. A. Gorrie. il Roads & Bridges 84:109+ Mr '46
New Jersey steps out; freeway and parkway program. H. K. Glidden. il Roads & Sts 89: 80-4 Jl '46
PRA changes made; abstract. T. H. MacDonald. Concrete 54:3-4 Mr '46

HIGHWAY contracts. See Roads—Contracts

HIGHWAY departments
Directory of provincial highway officials; organization charts, provincial highways departments; Canada. Roads & Bridges 84: 131-9 Je '46
Virginia looks ahead; 40th anniversary of highway department. R. P. Ellison. Roads & Sts 89:79 S '46

See also
Radio telephone—Highway department uses

Buildings

Highway maintenance station plan and operating rules. plan Pub Works 77:17 Ag '46
Missouri's postwar maintenance building program. R. M. Whitton. il Roads & Sts 88: 108-9 N '45

Employees

Construction inspectors get one-day preseason briefing; Connecticut highway department meeting. D. T. Robinson. Roads & Sts 89:95 Je '46
Rebuild engineering manpower; highway department personnel, training, salaries, roadbuilding costs. C. M. Upham. map Roads & Sts 89:77-9+ Ja '46

Equipment

Michigan County experience with under-body blades. A. L. Burridge. il Roads & Sts 89: 101 Ja '46
Nevada highway compaction tests. il Roads and Sts 89:72-3+ Jl '46
Novel driver and puller for snow fence posts. il diag Roads & Sts 89:84 S '46

Laboratories

Research laboratory to improve county and township roads. J. N. Allan. il Roads & Bridges 84:110+ Mr '46

Records

What price maintenance cost data? E. L. Worthington. Roads & Sts 89:90+ Ja '46

Shops

Colorado already has modern shops. il plans Roads & Sts 88:112 N '45
Glycerine; role in construction equipment maintenance shops. G. Leffingwell. Roads & Sts 89:114-15 Mr '46
Planning a county storage and repair shop. M. J. Roidt. plan Pub Works 76:18 D '45
Shop-built equipment aids in studying highway paints. il Eng N 137:602 O 31 '46

HIGHWAY engineering
Better engineering recommended to President's highway conference. Civil Eng 16: 242-4 Je '46
Canadian good roads association, annual meeting, Quebec, April 2-4. Roads & Bridges 84:59-72+ Ap '46
Completing the dual highway between Toronto and Oshawa. il map Roads & Bridges 84:57-60+ S '46
Congestion relief on N.J. highway promised by overpassing a traffic circle. il Roads & Sts 89:80-2+ Je '46
Controlled-access highways. J. D. Millar. il Roads & Bridges 84:55-8+ Jl '46
Design of roadbeds. I. B. Mullis. bibliog Am Soc C E Proc 71:413-32 Ap '45; Discussion. 71:1307-10, 1375-8, 1561-4; 72:510-22 O-D '45, Ap '46
Design of Wilbur Cross parkway bridges. J. F. Willis. il map diags Eng N 136:792-7 My 16 '46
Dual-type, controlled-access highway from Toronto to Barrie; variety of earthmoving equipment used. il maps Roads & Bridges 84:41-52+ Jl '46
Elastic-limit basis for designing highway substructures in clay soil. H. C. Porter. diag Eng N 136:1002-3 Je 27 '46
Engineering's part in eliminating the highway traffic toll; preliminary report of Committee on engineering of President's highway safety conference. Roads & Sts 89:80-3 My '46
Highway plans for 1946. il diags plans Eng N 136:35-71 Ja 10 '46
Illinois rebuilds U.S. highway 66. il map Eng N 136:52-7 Ja 10 '46

HIGHWAY engineering—*Continued*
Mexico's highways being extended and improved. H. J. McKeever. il Roads & Sts 89:78-83 Mr '46
Road safety engineering factors; excerpt from report submitted to President Truman's highway safety conference. G. Gilchrist. Roads & Bridges 84:73-6+ O '46
Tennessee rebuilds road to serve bomb plant; highway connecting Knoxville and Clinton works. il Eng N 136:152 Ja 31 '46
Vertical sand drains for accelerating and controlling ground settlement. H. J. McKeever. il Roads & Sts 89:72-8 Ag '46

See also
Bridge design
Bridges
Expressways
Highway research
Pavements
Roads
Roads—Grading
Snow removal
Streets
Traffic engineering

Bibliography

Highway and airport digest. plans diag Pub Works 77:48+ Ja; 48-50+ F; 46+ Mr; 59-60+ Ap; 40+ My; 49-52+ Je; 58+ Jl; 52-4 Ag; 48+ S; 52+ O; 51-4 D '46

Safety measures

Barricades and warning devices for highway construction work. plans diags Nat Safety N 53:32-5 Ap '46
Safety in road building. L. W. Hagerup. il Roads & Sts 89:100+ S '46

Study and teaching

ARBA giving enlarged inter-American training program. Roads & Sts 89:87+ My '46

Tables, calculations, etc.

Mathematical examination of the highway transition spiral. J. O. Eichler and H. W. Eves. Am Soc C E Proc 71:657-72 bibliog(p670-2) My '45; Discussion. bibliog 71: 1443-66, 1545-50; 72:547-56 N-D '45, Ap '46
Urban highway improvement is urgent need. H. A. Macdonald. il Roads & Bridges 83: 69-70+ D '45

HIGHWAY engineers
Conferences of Ontario highway department engineers. Roads & Bridges 84:112-15+ Mr '46
Rebuild engineering manpower; highway department personnel, training, salaries, roadbuilding costs. C. M. Upham. map Roads & Sts 89:77-9+ Ja '46

Latin America

ARBA giving enlarged inter-American training program. Roads & Sts 89:87+ My '46

HIGHWAY finance. See Roads—Finance

HIGHWAY law
Access rights legislation required for freeway construction. J. M. Devers. Eng N 137: 249 Ag 22 '46
Highway access limitations raise legal questions. Pub Works 76:22 N '45
New right of way laws needed in many states. J. M. Devers. Roads & Sts 89:103+ S '46
Unusual accident not responsibility of road bureaus, Jersey court rules; suit over plunge of bus from Passaic River bridge. Eng N 136:249 F 14 '46

See also
Automobile laws and regulations
Motor trucks—Laws and regulations

HIGHWAY officials
Western association of state highway officials, meeting, Salt Lake City, June 10-12. Roads & Sts 89:95-8+ Jl '46

Directories

Directory of municipal road officials in Canadian cities, towns, counties, and townships. Roads & Bridges 84:169-78+ Je '46
Directory of provincial highway officials; organization charts, provincial highways departments; Canada. Roads & Bridges 84: 131-9 Je '46

HIGHWAY postal service. See Postal service, Highway

HIGHWAY research
Co-operative research in the road emulsion industry by the technical sub-committee of the Road emulsion and cold bituminous roads association. E. R. Hatt and W. R. Peard. il diags Soc Chem Ind J 64:243-53 S '45
Highway research board 25th annual meeting, Oklahoma City, Jan. 25-28. Eng N 136:165-6, 549-50 F 7, Ap 18 '46; Roads & Sts 89:78-82 Ap '46
Outline of prospective highway research in Kentucky. L. E. Gregg. Roads & Sts 89: 86-8 Ja '46
Physical properties of road aggregates as affecting road performance. B. H. Knight. bibliog Soc Chem Ind J 64:254-9 S '45
Research plans in specific states. Roads & Sts 89:82-4+ Ap '46
Test for determining the effect of water on bituminous mixtures. J. T. Pauls and H. M. Rex. bibliog il Pub Roads 24:115-29 Jl '45; Excerpts. Pub Works 76:27-8 D '45

See also
Highway departments—Laboratories

HIGHWAY sidewalks. See Sidewalks, Highway

HIGHWAY transportation
L'avenir des transports et de l'automobile; la politique française de la route. P. Prévost. Génie Civil 123:147-8 Je 1 '46
Big road program; army working with roads administration for system big enough to handle all rail traffic in case of war. E. H. Lastayo. il Ry Age 119:1055 D 29 '45
Co-ordination of road and rail freight transport. Engineer 182:87 Jl 26 '46
Highway transportation congress; abstracts of papers. Automotive & Aviation Ind 95: 26-7+ O 15 '46
Highway users map program for future; National highway transportation congress. Ry Age 121:575+ O 5 '46
National highway users' conference, Washington. Eng N 137:419 O 3 '46
Place of highways in our future transportation system. C. H. Sells. Roads & Bridges 84:47-8 Je '46
Postwar highway transportation problems; abstract. F. C. Horner. S A E J 54:sup50-1 Je '46
Review of highway transport; passenger carrier group; statistical tables. Automotive & Aviation Ind 94:86 Mr 15 '46
Review of highway transport; trucks, tractors and trailers; statistical tables. Automotive & Aviation Ind 94:84-5 Mr 15 '46
Transportation congress asks ban on diversion of highway use taxes. Nat Pet N 38:42 O 2 '46

See also
Motor bus lines
Motor trucks and roads
Motor trucks in freight service
Railroads—Motor vehicle auxiliaries
Road traffic
Roads
Street traffic

History

Five decades of commercial road transport. E. S. Shrapnell-Smith. Engineering 161:309, 331, 341, 365-6, 462-3, 548-9, 571-2, 604-5 Mr 29-Ap 19, My 17, Je 7-14, 28 '46

HIGHWAYS. See Roads

HILL, George Washington, 1884-1946
George Washington Hill as I knew him. W. L. Day. por Adv & Sell 39:43+ O '46
Gone; one of advertising's great teachers. Ptr Ink 217:156 O 4 '46
Great exponent of advertising. por Ptr Ink 216:49+ S 20 '46

HILLINGTON, Scotland
How Britain's labor government aids small plants. S. A. Tucker. il map Factory Management 104:158-61 Je '46

HILLSIDE architecture
Designed for a mountain view; house in Denver. il plans diags Am Bld 68:56-9 Ag '46
For a hill on San Francisco bay. il plans Arch Rec 100:84-7 O '46
Hillside house near Chagrin Falls, Ohio. il map plans Arch Forum 83:132-3 N '45
Hilltop house too close to the sky; residence near San Francisco. il plans Arch Rec 100: 92-5 S '46

HILLSIDE architecture—*Continued*
House in Piedmont, Calif. fitted to steeply sloping site. il plans Arch Forum 84:117-23 Je '46
House in Seattle, Wash., designed for privacy from neighbors and separation of living-working quarters. il plans Arch Forum 85:110-11 O '46
Steep site, small budget. il plans Arch Rec 99:96-7 F '46
Three-level house on a sloping lot. il plans Arch Forum 85:96 Ag '46
Two hillside houses for opposite lot conditions. il plans Arch Forum 84:88-90 My '46
Weekend house on steep rural slope in Mt. Pleasant, N.Y. il plans Arch Forum 83:92-3 D '45

HINDUS. See East Indians

HINGES
Hinges fabricated by welding. C. H. Buckmaster. il diag Iron Age 157:64 F 21 '46
Selecting a hinge or latch design for plastic parts. il diags Mod Plastics 23:174-7 Ap '46

HINRICHS, Albert Ford, 1899-
Why Hinrichs resigned from Labor department; letter of resignation. Comm & Fin Chr 164:255 Jl 11 '46

HIPERCO. See Iron alloys—Cobalt alloys

HISPANIC AMERICA. See Latin America

HISTAMINE
Heterocyclic amines with antihistaminic activity. C. P. Huttrer and others. bibliog Am Chem Soc J 68:1999-2002 O '46

HISTIDINE
Analysis
Chromatography in the separation and determination of the basic amino acids. M. S. Bergdoll and D. M. Doty. bibliog Ind & Eng Chem Anal ed 18:600-3 O '46

HISTONES
See also
Thymonucleohistone

HISTOPLASMIN
Geographic differences in sensitivity to histoplasmin among student nurses. C. E. Palmer. maps Pub Health Rep 61:475-87 Ap 5 '46
Some epidemiological aspects of sensitivity to histoplasmin and tuberculin. M. L. Furcolow and others. bibliog Pub Health Rep 61: 1132-44 Ag 2 '46
Studies of the role of fungi in pulmonary disease; cross reactions of histoplasmin. C. W. Emmons and others. Pub Health Rep 60:1383-94 N 23 '45

HITLER, Adolf, 1889-1945
Germany was badly run. J. K. Galbraith. por Fortune 32:173-9+ D '45

HOBBING machines
Muir hobbing machines. il Automobile Eng 36:168-9 Ap '46
See also
Gear cutting machines

HOBBS, Philip B.
New N.A.L.U. president. por Nat Underw (Life ed) Daily ed 50:5 S 13 '46

HOBBS, William Julius
Portrait. Bsns W p31 My 25 '46

HOBBS bill. See Labor laws and legislation—United States

HOBBY rooms. See Recreation rooms

HOE, R., and company
Hoe's plan may bring dividends soon. Barron's 26:7 O 14 '46

HOFFMAN, Frederick Ludwig, 1865-1946
Sketch. East Underw 47:24 Mr 1 '46
Sketch. W. F. Willcox. Am Stat Assn J 41: 240-1 Je '46

HOFFMAN radio corporation
Stock offered. Comm & Fin Chr 163:3418 Je 24 '46

HOFFMANN-LA ROCHE, inc.
Research laboratory. il plans Arch Rec 98: 104-11 N '45

HOFMANN reaction
Application of the Hofmann reaction to the synthesis of heterocyclic compounds; synthesis of 3-alkyl-2 : 4-diketo-1 : 2 : 3 : 4-tetrahydroquinazolines from *N*-alkylphthalamides. F. S. Spring and J. C. Woods. Chem Soc J p625-8 S '45

HOGS. See Swine

HOISTING
Blocks and tackle. diags Roads & Sts 89:117 Mr '46
Rigging guide for hoisting transformers. A. W. Chewning. il diag Elec World 125:98 Mr 2; 118, 128 Mr 16 '46
Simple hoist, made of parts on hand, cut cost of concrete job. H. B. McDermid. diag Factory Management 103:166 N '45
Safety measures
Army safety requirements for ropes, cables and chains. Pub Works 77:32 F '46
Handling materials. Nat Safety N 53:109-10+ Mr '46
Hoist hooks, old and new. A. MacPhedron. diags Safety Eng 90:69 N '45; Same. Power Pl Eng 50:103 Mr '46
Hoisting chains; safety aspects. il Nat Safety N 53:110+ Mr '46
Keeping chains on the job. O. A. Bamberger. il Nat Safety N 52:34-6+ D '45
Safe use of lifting slings; reference book sheet. il Am Mach 89:145, 147 N 22 '45
See also
Mine hoisting—Safety measures

HOISTING machinery
A.C.E. mobile hoisting unit. il Mech Handling 33:305-6 My '46
Bucket elevator for coal and ash handling. W. G. Hudson. il diags Power Pl Eng 50: 68-71 F '46
Demountable hoist for manhole tanks. il diags Elec World 126:148+ S 28 '46
Development of the motor vehicle hoist. W. J. Roberts. il diags Mech Handling 33: 364-71+ Je '46
Handling materials with tongs, grips and grapples. J. E. Hyler. il Mech Handling 33:288-96, 357-63+ My-Je '46
Hoists and rollers lighten the handling load; American propeller corporation; illustrations with text. Factory Management 103: 94-6 D '45
Hydraulic hoisting used in proposed rotary rig. N. Williams. il Oil & Gas J 45:148 My 18 '46
Light metals in hoisting equipment; abstract. A. G. Arend. Product Eng 17:116 S '46
Loop-type bucket elevator handles delicate parts. il Steel 119:110+ S 2 '46
Modern materials-handling methods; hoists. H. S. Wharen. diags Am Mach 90:110-12 Je 20 '46
Novel bulkhead pick-up device eliminates need for diver at Montgomery island and Emsworth dams. W. E. Sidney. il Eng N 136:117 Ja 24 '46
Tangyes worm blocks. il Mech Handling 33: 308 My '46
Unorthodox deck-edge elevators in service. Elec Eng 64:400 N '45
Welding industries ltd. hoist for builders. il Mech Handling 32:651-3 N '45
See also
Conveying machinery
Cranes, derricks, etc.
Mine hoisting
Control
Better communication aids hoist operation. diag Nat Safety N 52:126 N '45

HOISTING machinery, Electric
Guarded trolleys required; safety device for traveling cranes and monorail hoists. il Elec West 95:94-5 D '45
Hoisting engine hoists itself; removal from gas holder. H. B. McDermid. diag Power Pl Eng 50:104 O '46
Improved marine hoist drive operates from alternating-current circuits. il diag Marine Eng 50:212 N '45
See also
Mine hoisting, Electric
Winches, Electric

HOLDEN, Roy Jay, 1870-1945
Memorial. H. M. Robinson. por Am Assn Pet Geologists Bul 30:464-7 Mr '46

HOLDING companies
Developments in holding company integration. O. Ely. Pub Util 38:103-5 Jl 18 '46
Public utility holding company under federal regulation. R. A. Finlayson. bibliog J Bsns 19 pt 2:1-41 Jl '46
Utilities integration program speeds up. O. Ely. Comm & Fin Chr 163:2909+ My 30 '46
Utility refinancing drags. Bsns W p64+ O 19 '46

See also
Banks and banking—Holding companies

also names of companies, e.g.
American power and light company
Associated gas and electric system
Columbia gas and electric corporation
Commonwealth and southern corporation
Engineers public service company
General public utilities corporation

Laws and regulations

Blow to utilities; Supreme court's ruling in North American case indicates death sentence will be upheld. Bsns W p16 Ap 6 '46
Death sentence clause of Public utility holding company act upheld by Supreme court. Comm & Fin Chr 163:1838 Ap 4 '46
Durable doghouse; Holding company act insured against amendment. Bsns W p19 Ap 20 '46
Hearings resumed on Holding company act. Pub Util 37:506-13 Ap 11 '46
Highlights of integration programs for leading utility holding companies. J. M. Gordon. Mag of Wall St 78:350+ Je 22 '46
Holding company and other acts should be revised. E. Friedman. Pub Util 37:267-81 F 28 '46
House committee hears SEC viewpoint on holding company act. Pub Util 37:113-19 Ja 17 '46
House committee hears utility men on Holding company act. Pub Util 36:849-58 D 20 '45
Integration provisions of Holding company act sustained by Supreme court. Pub Util 37:588 Ap 25 '46
Part of Holding company act ruled constitutional. Elec World News ed 125:3-4 Ap 6 '46
Plans to obey death sentence reviewed. W. Andrews. Barron's 26:9+ Ap 8 '46
Property acquisition barred by size limitation on systems; case of American gas and electric company. Pub Util 37:867-8 Je 20 '46
Revamping of Holding company act advocated. Elec World News ed 125:5 F 9; 5 F 23 '46
Revising the Holding company act. L. H. Boren. Comm & Fin Chr 162:2709+ D 6 '45
Supreme court decision in North American co. case; analysis includes outline of powers of Congress in interstate commerce. J. Simpson. Am Gas J 165:44-6 Jl '46
'35 holding company act heard by Supreme court. Elec World 124:91-2 N 24 '45
Utility goodwill; holding companies suggest relaxation in strict regulation. Bsns W p28+ F 16 '46
Wanted: a new federal policy on utilities. E. M. Friedman. Comm & Fin Chr 163:242+ Ja 17 '46

See also
Electric utilities—Non-profit corporations

Securities

Integration program enters new phase; rights of junior security holders may be restored. O. Ely. Pub Util 36:779-80 D 6 '45
Low-priced utilities reappraised; with statistical data on leading utility holding companies. E. A. Barnes. il Mag of Wall St 77:203-5+ N 24 '45
Market rise bringing changes in utilities' plans; Standard gas & electric co.; Commonwealth & southern corp.; Northern states power co. of Delaware. W. Andrews. Barron's 25:5 N 19 '45
Recasting status of utility holding companies with death sentence upheld. E. A. Barnes. il Mag of Wall St 78:73-5+ Ap 27 '46
Retiring noncallable securities of holding companies. O. Ely. Pub Util 37:112 Ja 17 '46
SEC holds call premium warranted by market worth; retirement of bonds. O. Ely. Pub Util 36:780-4 D 6 '45
Stock market break and holding company integration plans. E. R. Abrams. Comm & Fin Chr 164:2202+ O 31 '46
Utility holding company senior securities get better treatment in SEC plans. Barron's 25:1 N 12 '45
Utility preferreds below turn-in value. Barron's 26:6 O 14 '46

HOLDING devices
Standardized airframe assembly fixtures; German practices. L. Worley. diags Aviation 45:60-1 O '46
Upsetting tubular members simplified by special grippers. L. R. Pistoles. il diags Iron Age 158:42-8 Ag 15 '46

HOLDING devices (machine work)
Design of fixtures for projection welding; Lockheed aircraft corp. M. L. Ochieano. diags Iron Age 157:55-6 My 2 '46
Hard facing work positioner; illustrations with text. diags Iron Age 157:79 Ap 4 '46
Power brushing fixtures. G. O. Rowland. il diags Steel 118:120+ Ja 28 '46
Simple welding fixtures boost output of hatch covers by 50 percent. il Marine Eng 51: 144-5 F '46
Tube-welding fixtures allow for distortion; engine-mount assemblies and support bays for navy PV-2. E. H. Farmer. il Am Mach 89:122-4 D 6 '45

See also
Arbors and mandrels
Manipulators, Welding

HOLIDAY (periodical)
Curtis' Holiday format prompted by expected recreation, travel upswing. il Ptr Ink 214: 116 F 22 '46
Holiday cashes dreams for dollars. il Sales Management 56:137-8+ Je 15 '46

HOLIDAYS

See also
Bank holidays
Vacations

HOLLAND, Maurice, 1891-
Honored by Industrial research institute. Chem & Met Eng 53:166 Mr '46

HOLLANDER, A., and son, inc.
To enter new fur field; dressing and dyeing shearling sheep into mouton. Barron's 25: 14 D 31 '45

HOLLINGSWORTH and Whitney company
Stocks offered. Comm & Fin Chr 163:1728 Ap 1 '46

HOLLYWOOD, California

See also
Trade unions—Hollywood, California

Rapid transit

Hollywood had trackless trolleys long before Arbuckle and Eldean. Mass Transportation 42:295 Jl '46

HOLMES, Major Edward, 1882-1946
Sketch. por Am Cer Soc Bul 25:206 My 15 '46

HOLMES, John, 1891-
President of Swift & co. por(cover) Bsns W p8 S 21 '46

HOLMES safety association
Renew Holmes awards after five years. Coal Age 51:174+ My '46

HOLMSTROM, J. E.
Modified Holmstrom system of documentation; Moore's loose-leaf filing system. A. G. Clement and R. H. S. Robertson. J Doc 1: 217-21 Mr '46

HOLOCELLULOSE
Chlorite holocellulose, its fractionation and bearing on summative wood analysis and on studies on the hemicelluloses. L. E. Wise and others. bibliog Paper Tr J 122: 35-43 Ja 10 '46
Fibrous holocellulose from softwoods. E. L. Lovell. bibliog il Ind & Eng Chem 37:1034-7 N '45
Refined neutral sulphite semichemical pulps from Douglas fir. H. E. Peterson and others. il Paper Tr J 121:37-42 Jl 12 '45; Same cond. Paper Ind 27:1418-20 D '45

HOLT, Edwin Bissell, 1873-1946
Sketch. D. Katz. Science 103:612 My 17 '46

HOMAN, Paul Thomas, 1893-
Search for economists delays Council. por Bsns W p7 S 21 '46

HOME builders, National association of. See National association of home builders

HOME economics
Home economists now moving further into sales development; Hotpoint institute trains company and distributor salesmen in use-value. R. W. Turnbull. il Ptr Ink 214:26-7+ F 1 '46
See also
Domestic finance

Study and teaching
Four-semester program in chemistry for home economics students. R. D. Cool. bibliog J Chem Educ 22:603-6 D '45
See also Washington (state) university—Home economics building

HOME economics departments
How and why many a company can use a home economist. K. Fisher. Ptr Ink 215:62+ Ap 26 '46

HOME economists. See Home economics departments

HOME furnishing. See Household products industries

HOME furnishings style council
Hundreds of firms pool efforts to take confusion out of color. il Sales Management 56:51+ F 1 '46
Standardized color card of home furnishings branch; aid in sale of textiles for the home. il Textile World 95:121 D '45

HOME life insurance company of New York
Psychological research helps in picking men; results of study by Psychological corporation. Nat Underw (Life ed) 49:1+ N 9 '45

HOME office life underwriters association
Annual meeting, New York. Nat Underw (Life ed) 49:1+ D 14 '45

HOME office underwriters, Institute of. See Institute of home office underwriters

HOME owners' loan corporation
HOLC's profit. Arch Forum 84:9 My '46
Liquidation of HOLC assured without loss to govt. J. H. Fahey. Comm & Fin Chr 163:2243 Ap 25 '46

HOME ownership
Better homes clinic of Medina, Ohio, started by Savings deposit bank company. il Banking 38:76+ N '45
Effect of wartime housing shortages on home ownership. H. Humes and B. Schiro. Mo Labor R 62:560-6 Ap '46
Home plans and planners; bank-sponsored clubs and institutes. Banking 38:56 F '46
Home worth having; program of Home planners' institute of Bridgeport, Conn. il Banking 38:61-2+ D '45
Insecure owners; do too many Americans own homes? Arch Forum 84:9 My '46
Mr Blandings builds his castle; simple $15,000 house; or, Oil for the seven lamps of architecture in four acts. E. Hodgins. Fortune 33:138-43+ Ap '46; Same. Arch Forum 84: 118-21 My '46
New homes for veterans. J. E. Cummings. il Mag of Wall St 77:534 F 2 '46
No rent worries. N. M. Giffen, jr. il Mag of Wall St 78:466+ Jl 20 '46
Plan before you buy. J. E. Cummings. Mag of Wall St 77:716+ Mr 16 '46
Prospects for homes learn values thru Home planner's institute, New Orleans. Sales Management 57:48 Ag 15 '46
Purchasing a building lot. A. C. Blum. Mag of Wall St 77:468 Ja 19 '46
Shall we build now or wait? D. G. Carter. il Consumers Res Bul 17:5-7 My '46
What Clevelanders expect to buy with their home-building money; the Cleveland Press survey. J. H. Barr. Sales Management 56: 102+ F 1 '46
What home builders want; highlights of surveys to Curtis publishing company and Architectural forum. H. B. Smith. il Banking 38:74-5+ N '45
What prospective home owners want today; summary of findings of surveys by national consumer magazines. Am Bld 68:68-73+ S '46
Your home as an investment. A. C. Blum. Mag of Wall St 77:152+, 214+, 280+ N 10-D 8 '45
See also
Housing, Cooperative

Finance
Banker, builder, merchant tie-up; how new homes can be merchandised through co-operation. il Banking 38:64-5 Mr '46
Banking procedure; G.I. home loans; California bank, Los Angeles. M. Donnelly. il Burroughs Clearing House 30:17-19+ Je '46
Buying a home. E. M. Fisher. Am Inst Banking Bul 28:5-6+ Ja '46
Construction loans. G. F. Christie. Banking Law J 63:374-5 My '46
First aid for the housing problem; Bank of America's program for veterans. E. Burke. Burroughs Clearing House 30:24-6+ Ap '46
G.I. home loan. N. M. Giffen, jr. il Mag of Wall St 77:781+; 78:37+, 97+, 160+, 225+, 286+, 346+ Mr 30-Je 22 '46
Home loans to veterans. M. Kane. Banking 38:63 My '46
Home purchasing power. N. M. Giffen, jr. Mag of Wall St 78:406+ Jl 6 '46
Importance of insulation; a means of reducing purchaser's carrying charges. W. Royce. Banking 38:69 Je '46
Progress, 1926-1946; financing; mortgages, interest rates, terms. il Am Bld 68:94-5 O '46
Six plans for lending money on homes; California bank of Los Angeles. E. H. Sink. il Bankers Mo 63:273-5 Je '46
$6,000 GI house; Cleveland trust company finances low cost veterans' houses in suburban Painesville. M. C. Faught. il plan Banking 39:33-5 Ag '46
Subsidy for veterans' homes. J. E. Cummings. il Mag of Wall St 77:594 F 16 '46

HOMER, Arthur Bartlett
Homer for Grace. por Fortune 33:176 Mr '46

HOMESTEADS
See also
Subsistence homesteads

HOMOANDROSTANE
Reconversion of D-homoandrostane compounds into derivatives of androstane. D. A. Prins and C. W. Shoppee. Chem Soc J p494-9 Je '46

HOMODESTHIOBIOTIN
Synthesis of homodesthiobiotin and related compounds. H. McKennis, jr. and V. du Vigneaud. bibliog Am Chem Soc J 68:832-5 My '46

HOMOGENIZATION
New fields for homogenizing; processing metals one among many, Marco co. tests. il Bsns W p48-50 Ja 19 '46

HONDURAS

Economic conditions
Latin America's economy as world conflict ended. For Comm W 24:53 Jl 13 '46
News by countries. For Comm W 21:19-21 D 15 '45

HONG KONG, China
Hongkong as a Crown colony. Economist 151: 628 O 19 '46
Hong Kong begins anew; rehabilitation of trade and commerce. J. Stenhouse and M. Wiener. il map For Comm W 22:3-5+ Mr 16 '46
Hong Kong dockyard; reminiscences of a British naval engineer. E. C. Smith. il map Engineering 161:577-9, 601-3 Je 21-28 '46

HONG KONG, China—*Continued*

Commerce

Hongkong revives. Economist 151:260-1 Ag 17 '46

Hong Kong's trade role. C. H. Boehringer. il For Comm W 21:8-9+ N 10 '45

Total values of Hong Kong's imports and exports, by countries and by commodity groups for the first 3 months of 1946; tabulations. For Comm W 23:26 Je 29 '46

Economic conditions

Hong Kong today; good business prospects, poor accommodations. For Comm W 25:14 O 5 '46

News by countries. For Comm W 22:27 Mr 30; 23:22-6 Je 29; 24:25-7 S 21 '46

HONGKONG and Shanghai banking corporation

Statement of the chairman. A. Morse. Economist 151:353 Ag 31 '46

HONING

Abrasive sticks in plastic wedges facilitate automatic bore sizing. il diag Product Eng 17:100-1 S '46

Clean coolant aids honing; Barnesdril magnetic coolant separator. W. Baumbeck. il Iron Age 157:58-9 F 28 '46

Honing for precision and production. L. S. Martz. il Steel 118:112-13+ Je 17 '46

Honing techniques; abstract. L. S. Martz and D. T. Peden. Materials & Methods 24:464+ Ag '46

Latest developments in honing techniques; abstracts. L. S. Martz and D. T. Peden. il S A E J 54:sup25-6 Mr '46; Automotive & Aviation Ind 94:39 F 1 '46

HONOLULU

See also
Airports—Honolulu

Water supply

Honolulu looks to its future water supply. Pub Works 76:53 N '45

HOOBLER, Icie Gertrude Macy, 1893-

Garvan medal. por(cover) Chem & Eng N 24: 2606 O 10 '46

Women's award in chemistry. por Chem & Eng N 24:2458 S 25 '46

HOOD, Benjamin Mifflin, 1877-1946

Sketch. por Am Cer Soc Bul 25:242 Je 15 '46

HOOKER, John S. 1910-

Temporary secretary of the world bank. Comm & Fin Chr 163:2355 My 2 '46

HOOKER, Samuel Cox, 1864-1935

Hooker's researches on lapachol in relation to new developments in the field of chemotherapy; abstract. H. Heymann. Chem & Eng N 24:1381 My 25 '46

HOOKS

Hoist hooks, old and new. A. MacPhedron. diags Safety Eng 90:69 N '45; Same. Power Pl Eng 50:103 Mr '46

HOOSAC tunnel. See Tunnels and tunneling —Hoosac tunnel

HOPKINS, Claude C. 1866-1932

My life in advertising; reprint of autobiography. por Adv & Sell 39:41-8 F; 41-8 Mr; 41-8 Ap; 49-56 My; 49-56 Je; 49-56 Jl '46

HOPS

Big imports of German hops rumored. Barron's 26:9 Ja 14 '46

Canadian hops situation. For Comm W 21:40 N 10 '45

Hops situation in Australia. For Comm W 25:21 N 2 '46

Imports of hops into Mexico, 1940-1945. For Comm W 22:20 Mr 16 '46

Market for hops in Switzerland. For Comm W 21:25-6 D 8 '45

HOPSON, Howard Colwell

End to Hopson's labyrinth; debut of General Public Utilities as top company in what remains of Associated gas & electric system. Bsns W p68+ D 8 '45

Through the wringer with A.G. & E. pors Fortune 32:164-8+ D '45

HORADIAM method. See Mining methods

HORMEL, George A., company

Guaranteed pay faces a crisis; pace-setting plans at Hormel and Procter & Gamble. Bsns W p92+ O 19 '46

HORMEL institute, Austin, Minnesota

Research projects. Science 103:529 Ap 26 '46

HORMONES

Dipole moments of steroids. W. D. Kumler. Am Chem Soc J 67:1901-6 N '45

Effects of sex hormones on the copulatory behavior of senile white rats. R. S. Minnick and C. J. Warden. Science 103:749-50 Je 28 '46

Sex hormonal action and chemical constitution. F. W. Schueler. bibliog Science 103: 221-3 F 22 '46

Sex hormones in legal battle; synthetic production processes. Bsns W p46+ D 22 '45

Studies on pituitary lactogenic hormone; reactions with ketene. Choh Hao Li and A. Kalman. bibliog il Am Chem Soc J 68:285-7 F '46

See also
Estrogens

HORMONES, Plant

Some heterocyclic acetic acids in plant hormone tests. H. Gilman and S. Avakian. Am Chem Soc J 68:2104-5 O '46

HORNE, Robert Stevenson, 1871-1940

Chemistry, metallurgy and empire; first memorial lecture. S. Robson. Chem & Ind p162-5, 170-3 Ap 20-27 '46

HORNE, Roman L. 1901-

Temporary secretary of the International monetary fund. Comm & Fin Chr 163:2221 Ap 25 '46

HORNER, Wesley Winans, 1883-

Sketch. por Civil Eng 16:75-6 F '46

HORNS

Directional characteristics of a free-edge disk mounted in a flat baffle or in a parabolic horn. F. H. Slaymaker and others. il diags Acoustical Soc Am J 18:355-70 O '46

Generalized plane wave horn theory. V. Salmon. bibliog diags Acoustical Soc Am J 17:199-211 Ja '46

High quality loudspeaker of small dimensions. P. W. Klipsch. bibliog diags Acoustical Soc Am J 17:254-8 Ja '46

New family of horns. V. Salmon. diags Acoustical Soc Am J 17:212-18 Ja '46

HORSE meat

Horsemeat plant, Quaker oats co. unit at Marion, Ohio. Bsns W p33-4 Mr 30 '46

HORSE racing

See also
Race tracks

HORSEPLAY. See Practical jokes

HORSEPOWER

Horsepower chart for lathe cuts; reference book sheet. N. B. Archer. Am Mach 90: 145, 147 S 12 '46

Horsepower ratings for silent chain drives. Mach 52:168-71 Mr '46

HORSES

Observation on the red cell content of the blood of the thoroughbred horse. J. Macleod and E. Ponder. Science 103:73 Ja 18 '46

Diseases

Complement-fixing and neutralizing antibodies against Japanese B virus in the sera of Okinawan horses. H. L. Hodes and others. Science 103:357-9 Mr 22 '46

HORSESHOES

Automatic horseshoe manufacture. H. Stieglitz. il Metal Prog 50:302 Ag '46

Electronic smithy makes horseshoes. Electronics 19:170 O '46

HORTICULTURAL science, American society for. See American society for horticultural science

HORTICULTURE

See also
Plants—Soilless culture

HORTON, George Terry, 1873-1945

Memoir. L. McDonald. por Western Soc E J 50:140-2 S '45

HOSE

Flexible hose assemblies for industrial use. R. W. Phillips. il Product Eng 16:880-3 D '45

HOSE—*Continued*
How to coil welding hose to prevent kinks; illustrated instructions. Power 90:485 Jl '46

See also
Air brake hose
Fire hose

Manufacture

Fifty-foot lightbeam controls rotating mandrel; making heavy hose at Hewitt rubber corporation. il Electronics 19:164 Ap '46
Finished hose conveyor. E. Weller. il diags Mech Handling 33:273-6 My '46

Testing

Do you weld? then test your hose lines often this easy way. diag Dom Eng 166.129+ N '45
Flame test room permits testing of hose used on military aircraft. il Steel 117:128 D 10 '45
Scissors-type clamps test hose and fittings. il Am Mach 89:125 D 6 '45

HOSE, Plastic
Extruded hose and shelf edging; polyvinyl chloride garden hose and cellulose acetate butyrate shelf edging. il Mod Plastics 23: 89 My '46

HOSE couplings
Flexible hose assemblies for industrial use. R. W. Phillips. il Product Eng 16:880-3 D '45

HOSIERY
Gusset improves stocking appeal. il Bsns W p84 D 15 '45
Scott & Williams introduces new nylon stocking of the future. il Rayon 27:31 Ja '46
Seam-free nylon stockings. il Rayon 27:476 S '46

See also
Dyes and dyeing—Hosiery

Manufacture

Dyeing machine used for preboarding; nylon hosiery. M. J. Hoffman. il Textile World 96: 156 My '46
Five M's (men, management, materials, machines and mistakes) influence hosiery production. J. A. Crumley. diags Textile World 95:135+ D '45
Mill diversifies with 400-needle machines. O. B. Graham. il Textile World 96:125+ Jl '46
Proper handling of nylon produces more uniform hose. il Textile World 96:131+ Je '46
Single-end sizing of nylon; with particular reference to full-fashioned hosiery. Rayon 27:82-3 F '46 (to be cont)
Suggestions for the manufacture of nylon seamless hosiery. Rayon 27:83 F '46
Valuable suggestions for nylon full-fashioned hosiery manufacture. il Rayon 26:639-43 D '45
Versatile layout used by Georgia mill for knit work socks. il Textile World 96:105+ Ja '46

Standards

Better fit aim of hosiery measuring device. W. P. Seem il Textile World 96:149+ S '46
Hosiery size and fitting standards utilize new device; with tables. W. P. Seem. il Textile World 96:125+ Mr '46

HOSIERY boxes
Back to nylons; redesigned hosiery boxes. il Mod Packaging 19:125 F '46

HOSIERY dyeing. See Dyes and dyeing—Hosiery

HOSIERY machines
Mill diversifies with 400-needle machines. O. B. Graham. il Textile World 96:125+ Jl '46

Advertising

Machinery manufacturer builds acceptance for end product; hosiery machine for seamless nylons. E. M. Housman. il Ptr Ink 215: 42-4 Je 21 '46

HOSIERY mills
Munsingwear plant exclusively for seamless nylons. il Textile World 96:151 S '46

Air conditioning

Nylon weather achieved by refrigerated air conditioning; Hudson hosiery mills. C. M. Bowden. il Textile World 96:116-17 My '46
Try air conditioning in the boarding room. J. W. Hughes. il Textile World 95:131+ N '45

Electric equipment

Electricity and hosiery; Working party report. Electrician 137:785-6 S 20 '46
Stocking making; electrical methods. il Elec R (Lond) 139:113-15 Jl 19 '46

Lighting

Lighting and colour in industry; exhibition at Wolsey, ltd. il Electrician 136:1437-8 My 31 '46; Elec R (Lond) 138:853 My 31 '46

Management

Production-control system aids hosiery finishing; Chester H. Roth, inc. il Textile World 96:108-9 Ja '46
Specialization cuts costs in packing and shipping hose. J. W. Hughes. il Textile World 96:145+ F '46
Style simplification ups knitting production; Spalding knitting mills. E. D. White. il Textile World 96:111+ Ag '46

HOSIERY stores
Gotham hosiery shop, New York city. il plan Arch Forum 84:121 F '46

HOSIERY trade
Balm for shoppers; Commerce dept. figures on scarce-goods exports. Bsns W p88 F 23 '46
Cut in nylons. Bsns W p54+ S 28 '46
Each selected distributor must sell his quota; Jamison plan for war-baby product. C. J. Swan. il Ptr Ink 215:33-4+ My 31 '46
$8,000,000,000 textile industry: is it ripe for brand name promotion? J. C. Cumming. Sales Management 56:161-3 F 15 '46
Hosiery industry departure; Hudson co., building own retail outlets. Bsns W p81-2+ Ja 26 '46
Hosiery makers' plight. Bsns W p58+ F 9 '46
Nylons cheaper. Bsns W p78+ N 24 '45
Nylons in flight; big shipment to Mexico. Bsns W p20 Mr 30 '46
Nylons still short. Bsns W p90 Ja 12 '46
Sheerer nylons. Bsns W p82+ Ap 27 '46
This package has to educate women to new way of buying; Cannon mills pre-sealed purse-size packages of hosiery. E. J. Cunningham. il Ptr Ink 214:23-4 F 15 '46
Women's hosiery supplies reduced. Survey of Cur Bsns 26:3-4 Mr '46

Advertising

Here's an ad that got results; Kayser will sell nylons to men only. il Adv & Sell 39: 182+ My '46
Hosiery ad doesn't feature pretty legs. il Ptr Ink 215:78 Je 14 '46
P.O. bans retail ad for nylon sale; rules customer drawing a lottery. il Ptr Ink 213: 55+ D 7 '45

Great Britain

Future of the British fully-fashioned hosiery industry. Textile Inst J 37:P12-18 Ja '46
Recipe for hosiery; with summary of Working party report and selected statistics. Economist 151:461-3, 475 S 21 '46

HOSPITAL housing projects. See Housing projects, Hospital

HOSPITAL kitchens. See Kitchens, Hospital

HOSPITAL laboratories. See Medical laboratories

HOSPITAL laundries. See Laundries, Hospital

HOSPITAL libraries
Approach of the librarian to the neuropsychiatric patient in an army general hospital. J. J. Michaels. Special Lib 37:180-3 Jl-Ag '46
Bibliotherapy and the librarian. M. M. Kinney. bibliog Special Lib 37:175-80 Jl-Ag '46
Hospital library accommodation. C. E. A. Bedwell. diag Assn of Sp Lib & Inf Bur Proc 1945:77-81; Discussion. 80
New microfilm projector for disabled persons. L. Moholy. Assn of Sp Lib & Inf Bur Proc 1945:82-3; Discussion. 83-4
What, why and when is a hospital librarian. L. R. Bruce. Special Lib 37:171-5 Jl-Ag '46

HOSPITAL ships
Fire protection on hospital ship. Frances Y. Slanger. il Marine Eng 51:122-4 Ag '46
Liner Republic becomes hospital ship. il Marine Eng 51:142-4 Ja '46

HOSPITALIZATION (group plan). See Medical service—Group and prepayment plans

HOSPITALIZATION insurance. See Insurance, Hospitalization

HOSPITALS
Area charts for acute general hospitals; time-saver standards. Arch Rec 100:126+ Ag '46
Notes on hospital planning; from Hospital facilities section, U.S. Public health service; building types study. flow charts il diags Arch Rec 100:101-16 Ag '46
Welded frame for a 16-story building; hospital at Hartford, Conn. A. E. Poole and L. F. Booth. il diags Eng N 137:577-9 O 31 '46

See also
Clinics
Hospital ships
New York (city)—Hospitals
Tuberculosis—Hospitals and sanatoriums

Costs
Hospital costs up; rate increase ordered for Michigan Blue cross. Bsns W p32+ Ap 13 '46

Designs and plans
Advanced small-city hospital; proposed general hospital, Waterloo, Iowa. il plans Arch Rec 100:70-5 Ag '46
Elements of the general hospital; offices, laboratories, morgues, X-ray rooms, obstetrical suites, physical therapy suites, emergency suites; service and outpatient departments. il plans Arch Rec 99:72-90 Je; 100:76-90 Jl '46
Hospital for Shanghai. il plans diag Arch Forum 85:11 Ag '46
Medical and surgical building, Craig colony, Sonyea, New York. il plans Arch Rec 98: 84-5 D '45
Memorial hospital, Beverly Hills, Calif. il map plans Arch Forum 83:106-9 N '45
Navy's general hospital in Houston. il Arch Forum 85:130-1 O '46

Electric equipment
Hospital electrification; Queen Elizabeth hospital, Edgbaston, Birmingham. il Elec R (Lond) 139:245-9 Ag 16 '46
Hospital installations; badly equipped operating theatres; abstract. W. R. F. Brown. Elec R (Lond) 138:321 Mr 1 '46

Employees
Conditions of hospital personnel in Great Britain. Int Labour R 53:238-40 Mr-Ap '46
Control of occupational tuberculosis in hospitals. L. Brahdy. J Ind Hygiene 27:234-7 O '45

Equipment
Intermediate pressures; types of steam installations in commercial, industrial, institutional buildings; hospital sterilizer equipment. diags Dom Eng 167:128+ Ap '46
Surplus property purchase procedure; instructions to eligible public health claimants. Am Water Works Assn J 38:371-5 Mr '46

Federal aid
Allotments made for 5-year hospital program. Eng N 137:412 S 26 '46

Finance
Perpetuate management control with insurance; Bay Ridge Hospital of Brooklyn. H. W. Baird. Nat Underw (Life ed) 50:2+ Ag 16 '46

Law
Legislation on hospital surveys, construction, and licensing considered by state legislatures in 1945. M. M. Guerin. Pub Health Rep 60:1519-39 D 21 '45
Liability of charitable hospitals; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12:30-2 Ag 22 '46

Operating rooms
Operating suites; view and floor plans. Arch Rec 99:84-7 Je '46

Records
Simplified payroll system cuts costs in Pontiac state hospital. L. I. Scott. Am Bsns 16:16-17+ Mr '46

Redevelopment work
Hospital plans; Chicago slums scheduled for redevelopment under program sponsored by Michael Reese hospital. il plans Arch Forum 85:87-101, 104 S '46

HOSPITALS, Industrial
Operations and plants of International nickel company of Canada; medical care. il plan Can Min J 67:512-14 My '46
Today's health program; Permanente plan. C. Kuh. bibliog Safety Eng 90:71-2+ N '45

HOSPITALS, Military
Approach of the librarian to the neuropsychiatric patient in an army general hospital. J. J. Michaels. Special Lib 37:180-3 Jl-Ag '46
Heidelberg military hospital; Melbourne, Australia. il plans Arch Rec 100:76-80 Ag '46
Pacific hospitals built of sheet steel. il diags Eng N 135:729-31 N 29 '45

HOSPITALS, Naval and marine
Navy and industry help amputees back to work. il Factory Management 104:128-32 F '46
Navy builds hospitals; illustrations. Arch Forum 84:134 Mr '46
Navy's general hospital in Houston. il plans Arch Forum 85:130-1 O '46

HOSPITALS, Psychiatric
Approach of the librarian to the neuropsychiatric patient in an army general hospital. J. J. Michaels. Special Lib 37:180-3 Jl-Ag '46
Conclusions concerning psychiatric training and clinics; standards for psychiatric hospitals. Pub Health Rep 61:946-9 Je 28 '46
Medical and surgical building, Hudson River state hospital, Poughkeepsie, New York. il plan Arch Rec 98:93 D '45

HOT beds. See Hotbeds

HOT boxes. See Cars—Bearings

HOT plates
Domestic gas cookers; design of the hotplate. E. W. Dunning. diags Gas J (Lond) 247: 594+ Ap 10 '46; Discussion. 247:645+ Ap 17 '46

HOT plates, Electric
Electric hot plate made from steel stampings. il plan diag Product Eng 17:367 My '46

HOT springs
La distribution d'eau thermominérale de Dax (Landes). map Génie Civil 123:50-1 F 15 '46

HOT water heaters
Unit heaters; steam and hot water types. J. E. York. il diags Heat & Ven 43:68-78 Ap '46

HOT water heating
Effect of turbulence promoters on heat transfer coefficients for water flowing in horizontal tubes. L. G. Seigel. bibliog il diags Heating-Piping 18:111-14 Je '46
House heating by thermal storage. H. C. Bender and L. L. Wartes. il diags Elec West 95:73-5 N '45
Individual and district heating systems; with cost data. D. V. H. Smith. Engineer 181: 251-2 Mr 15 '46
Note on corrosion; effect on sectional hot-water boilers. W. Percival and J. J. Aggio. Chem Age (Lond) 53:564 D 15 '45
Proposed convector standards. A. J. Nesbitt. Dom Eng 168:125+ O '46
Space heating with heat pumps; abstract. A. Ostertag. Elec World 125:89 Je 22 '46

See also
Hot water heaters
Walks, Concrete—Heating

Control
Controling radiant heat. J. A. Cutler. il Dom Eng 167:145+ Je '46; Same Power Pl Eng 50:114-16 O '46; Same abr. Heat & Ven 43: 81-2 Jl '46

HOT water heating—*Continued*

Panel system

Baseboard radiant heat. F. R. Brophy. il Dom Eng 168:94-5 Jl; 150+ Ag '46

Biggest radiant panel job is fired by 120 individual water heaters; A. O. Smith corp. il plan diags Dom Eng 168:110-15+ S '46; Am Gas Assn Mo 28:368-9 S '46; Gas Age 98:33-4 S 5 '46; Heat & Ven 43:59-61 S '46; Power 90:739-41 N '46

Contractor makes a show of panel heating. il plans diags Dom Eng 166:148-50 D '45

Control of radiant heating systems. J. A. Cutler. diag Power Pl Eng 50:114-16 O '46; Same. Dom Eng 167:145+ Je '46; Same abr. Heat & Ven 43:81-2 Jl '46

Features panel heat in ad for garage help. il Dom Eng 167:158+ Ap '46

Floor-heating in hangar design; General Electric test hangar, Schenectady, N.Y. il diags Arch Rec 100:120-1 S '46

Forty miles of piping used in new plant's radiant heating system; A. O. Smith corp. il Steel 119:112-13+ S 23 '46

Gas heated small homes using radiant heating. plan Am Gas J 164:46 Je '46

Heat flow pattern in radiant heat panels. R. G. Vanderweil. diags Heat & Ven 43: 73-7 My '46

History and introduction to modern methods of radiant heating. R. G. Vanderweil. il Dom Eng 167:104-7+ Ja '46

How radiant heating maintains the body in healthful comfort. T. N. Adlam. diags Power 90:539-40 Ag '46

Install radiant heat in West Virginia rail station. il Eng N 137:144 Ag 1 '46

Installation techniques for radiant heating. il diags Dom Eng 167:96-9+ Je '46

Latest in radiant heating; new A. O. Smith corporation plant at Kankakee, Ill. il Factory Management 104:88-9 S '46

Length of pipe for radiant heating coils. Heat & Ven 43:82 F '46

Meet some new developments in station design; radiant heating. P. Wollstadt. il plans Nat Pet N 38:38+ O 16 '46

Milestone in radiant heating; A. O. Smith corporation's new plant. il Bsns W p66+ Ag 17 '46

New Bank of England has panel heating. il Dom Eng 167:118-20 F '46

New showroom is radiant heated; shop of W. M. Scott. il Dom Eng 167:139+ My '46

120 water heaters meet space heating needs of big radiant installation; A. O. Smith corp. C. W. Colby. il Heating-Piping 18: 69-73 S '46

Panel heat flow and its design considerations. R. C. Vanderweil. plans Heat & Ven 43:63-8 Je '46

Panel heating installation; Omaha masonic home for boys. il Dom Eng 167:150 Mr '46

Panel heating, its advantages, installation and cost. R. Bruen. il Dom Eng 166:106-8+ D '45

Pittsburgh builder develops basementless house project; will feature radiant heat. il plan Am Bld 68:90-1 Jl '46

Radiant heat can be sold; showroom of Thomas J. Killian. diag Dom Eng 167:112+ Ja '46

Radiant heated chickens; panel heating in chicken house; with cost data. il Dom Eng 168:164-5 O '46

Radiant heating built into concrete hangar. F. R. MacLeay. il Civil Eng 16:444-5 O '46

Radiant heating by reinforced concrete; question examined whether embedment of warm water pipes in structural concrete would endanger integrity of concrete. J. R. Nichols. Am Concrete Inst J 17:513-16 Ap '46

Radiant heating discussed at meeting of Heating, piping and air conditioning contractors national association. Heating-Piping 18:74-6 Je; 105-6 Jl '46

Radiant heating for an aircraft hangar. J. L. Ottenheimer. il Eng N 137:254-5 Ag 22 '46

Radiant heating for commercial buildings. il Am Bld 68:102-3 Mr '46

Radiant heating for modern construction. C. A. Hawk, jr. il Power 90:307-9+ My '46

Radiant heating, hot subject; abstracts of various papers. il Heating-Piping 18:89-92 F '46

Radiant heating is practical. il diags Dom Eng 167:108-11+ Ja '46

Radiant heating; modern layouts. il Dom Eng 167:100-3+ F '46

Radiant heating under hardwood floor. il Heat & Ven 43:88 Ap '46

Showroom floor sells panel heat; Automatic gas heating company. il Dom Eng 168:132 Jl '46

Study of radiant baseboard heating in the I=B=R research home; a report of an investigation in cooperation with the Institute of boiler and radiator manufacturers. A. P. Kratz and W. S. Harris. il plans diags Ill U Eng Exp Sta Bul 358:1-30 '45 (pa 35c); Same cond. Heating-Piping 18:138-42 Ja '46; Abstracts. Dom Eng 166:156-7 O '45; Heat & Ven 42:80-2 O '45

World's largest radiant heating system is installed in A. O. Smith corporation's Kankakee (Ill.) plant. il plan Arch Forum 85:184-5 O '46

Tables, calculations, etc.

Greenhouse heating calculations. Heat & Ven 43:78-9 F '46

Pipe sizing charts for hot water systems. Heat & Ven 43:58-62 Mr '46

HOT water heating, Industrial

Supertherm heating system for paper mill process. S. Senko. il diag Paper Tr J 123: 175-8 O 10 '46

HOT water supply

Automatic water heating, utilizing subbituminous coal. V. F. Parry and others. 6pls U S Bur Mines Rep of Invest 3890:1-11 '46

Codes of practice; electrically-driven pumps for hot-water services. Electrician 136:1244 My 10 '46

Domestic heating services. E. A. Pinto. Elec R (Lond) 139:269-71 Ag 16 '46

Domestic water heating. G. V. Radford. Elec R (Lond) 137:595-6 O 26 '45

Domestic water heating; combination of solid-fuel fire with electric immersion element; abstract. R. Grierson and F. Jackson. Elec R (Lond) 138:412 Mr 15 '46; Discussions. Elec R (Lond) 138:449-50 Mr 22 '46; Electrician 136:742-4 Mr 22 '46

Electrical devices aid hot water supply; Newark Evening News building. diag Elec World 125:113 My 11 '46

German methods of heating water for domestic use. H. L. Anthony. il diags Am Water Works Assn J 38:1021-5 S '46

Get a load of this! selling increased use of hot water. G. M. Rohde, jr. il Am Gas Assn Mo 28:15-18 Ja '46

Heat pump water heater shows promise; possibility of combination of water heating and refrigeration. F. M. Reed. Elec World 125:96-7 F 16 '46

Hot water for the automatic washer. C. A. Thorp and R. A. Siskin. il diags Am Gas Assn Mo 28:308-10 Jl-Ag '46

Hot water for washers; surveys show requirements. Heat & Ven 43:102-3 Ja '46

Large volume water heating; how to select and install correct types of systems for specific purposes. M. B. Mackay. Am Gas J 164:37-41+ Ja; 21-6 F; 35-9+ Mr; 20-1, 52 Ap; 39-43+ My; 40-2 Je; 165:39-41+ Jl; 31-3 Ag; 27-9 S; 55-8 O '46 (to be cont)

Pointers on a better hot-water system. diags Power 90:700-3+ O '46

When cold water lines ran hot; engineer's experience in locating cause for this trouble in an office building. J. J. Woolfenden. Heat & Ven 43:92-3 F '46

See also

Electric water heaters
Gas water heaters
Steam water heaters

HOT water tanks

Care of hot water tanks and heating coils. Power Pl Eng 50:97 Ap '46

Corrosion of galvanized hot water storage tanks. J. M. Bialosky. bibliog Am Water Works Assn J 38:1012-17; Discussion. O. Rice. 1017-20 S '46

Failures of domestic hot water storage tanks. C. P. Hoover. bibliog il Am Water Works Assn J 38:1005-11 S '46

Some people say that low pressure boilers and tanks are harmless! il Locomotive 46:35-41 Ap '46

HOT water tanks—*Continued*
Symposium on domestic water storage tanks. Water & Sewage Works 93:300 Ag '46

Explosions

Two killed; eleven injured by explosion of uninsured hot water tank in school. il Locomotive 46:8-9 Ja '46

Testing

Vigilant inspection keeps unfired pressure vessels safe. W. E. Rossnagel. diags Power 90:453-5 Jl '46

HOTBEDS, Electric
Early salad crops; useful off-peak load. A. D. Johnson. Elec R (Lond) 137:955-6 D 28 '45
Electricity in horticulture. Elec R (Lond) 137: 815-17 D 7 '45
Polyethylene tubing in the greenhouse; electric heating of seed boxes, hot beds and frames; Tenatherm. il diags Mod Plastics 23:108-9 Ag '46

HOTELS
Brazil's wonder hotel and casino. A. J. Boase. il diags Eng N 136:24-8, 112-16 Ja 10, 24 '46
Brick, terra cotta used in hotel. il Brick & Clay Rec 108:25 My '46
Crest of hotel boom ahead; hotel king Hilton launches first new real estate stock since depression. il Arch Forum 85:8 Jl '46
Hilton adds hotel. Bsns W p86+ D 15 '45
Hotel-office building, Miami Beach; combination design reflects trend toward year-round use of Florida hotels. il plans diag Arch Forum 83:144-6 N '45
New hotels soon? Bsns W p32+ Mr 2 '46
Pattern for selling hotels, restaurants and other institutions. C. D. Murphy. Ptr Ink 213:92+ N 23 '45
Prospects for the hotel industry. M. K. Tate. il Dom Comm 34:19-20+ Mr '46
Resist post-war overexpansion, hotel industry leaders warn. Comm & Fin Chr 163: 966+ F 21 '46
Sorry, no rooms. Bsns W p19-20 F 2 '46
What's ahead for the hotel industry? D. J. Jacobson. il Harvard Bsns R 24 no 3:339-55 [Ap] '46
See also
Restaurants
also subdivision Hotels, restaurants, etc. under names of cities, e.g. Chicago—Hotels, restaurants, etc.

Advertising

Hotel ad makes G.I. dream come true. Ptr Ink 213:62 D 7 '45

Designs and plans

Caracas, Venezuela: Avila hotel; views and floor plans. Arch Forum 84:113-16 Je '46
Desert hotel, Las Vegas, Nevada; luxurious plan segregates functions of big resort hotel and gambling casino. il map plans Arch Forum 83:142-3 N '45
Jaragua hotel; Ciudad Trujillo, Dominican Republic. il plans Arch Forum 85:117-20 S '46

Employees

Increase of 25 to 40% in hotel workers pay under new contract. Comm & Fin Chr 163: 15 Ja 3 '46

Equipment

Commercial uses for gas. W. Johnson and W. F. Moore. Gas J (Lond) 248:190-2+, 233-4 Jl 31-Ag 7 '46

Finance

Hotel profits vulnerable despite war boom; minimum wage bill could wipe out most of industry's earnings. P. A. Johnston. Barron's 26:11+ Ap 22 '46

Fires and fire protection

Chicagoans stunned by La Salle fire; shocked by heavy loss of life in big fireproof structure. Nat Underw (Life ed) 50:3 Je 7 '46; Nat Underw 50:1+ Je 6 '46
Cook county inspection bureau puts out La Salle hotel fire study. Nat Underw 50:3+ Ag 8 '46
Double warning; hotel disasters dramatize the nation's spiraling fire losses. il Bsns W p16-17 Je 15 '46
Hotel fires; fireproof construction proves no guarantee against big loss of life. il Arch Forum 85:14 Jl '46
Hotel fires stir fire prevention efforts. Spectator (Property ed) 11:27 Je 27 '46
Lessons from hotel fires. A. M. Baltzer. il Nat Safety N 54:22-3+ Ag '46
National Board ideas on reducing hotel hazards. Nat Underw 50:14 Je 20 '46
Second bad hotel fire in week brings more deaths; loss on La Salle hotel; Dubuque death toll. il Nat Underw 50:3+ Je 13 '46
Special hazards of hotels; instructions of National Board will guide fire preventionists. Weekly Underw 154:1529+ Je 15 '46
Structural improvements essential. T. A. Fleming. East Underw 47:20 Je 28 '46

Insurance requirements

Hotel experience bad before recent catastrophes. Nat Underw 50:25 Je 13 '46
Innkeepers' liability policy. Rough Notes 88: 65 N '45

Laws and regulations

Hotel keeper has burden to prove fire was caused without his fault. East Underw 47:24 Ap 12 '46
Liability of innkeeper; court rules on difference between a hotel guest and roomer or boarder in hotel. East Underw 47:24 Ag 30 '46

Management

Chichi in Chicago; Ernie Byfield has scored at the Sherman and the Ambassadors east and west. il Fortune 33:146-9+ Je '46

Securities

Hotel stocks. Comm & Fin Chr 164:1018 Ag 22 '46
Hotel Waldorf-Astoria common stock. Comm & Fin Chr 164:208 Jl 11 '46
Investigate before you invest in hotel securities. A. S. Kleeman. Comm & Fin Chr 163:1635+ Mr 28 '46

Stationery

Idea department. G. J. Church. il Inland Ptr 118:64 O '46

Chile

Chile and Peru planning many new tourist hotels. For Comm W 24:12-13 Jl 6 '46
Chile plans hotel chain for northern provinces. For Comm W 21:21 D 15 '45

Mexico

American equipment sought by three Mexican hotels. For Comm W 23:17 Ap 27 '46

Norway

New hotels for Norway. For Comm W 24:14 Ag 24 '46

Panama

Plans for Hotel Panama available soon. For Comm W 24:25 Ag 24 '46

Peru

Chile and Peru planning many new tourist hotels. For Comm W 24:12-13 Jl 6 '46

Venezuela

Venezuela planning many new tourist hotels. For Comm W 24:18 Ag 24 '46

HOTT, Melvin B.
On the trail to new ventures. por Bsns W p29 Ag 10 '46

HOUDAILLE-HERSHEY corporation
Annual report. Comm & Fin Chr 163:3136 Je 10 '46

HOUDRANE
Paraffin hydrocarbon; Houdrane. Chem & Met Eng 53:146+ Ap '46; Abstract. Chem Age (Lond) 54:265 Mr 9 '46

HOUDRY process
Combustion-gas turbine in the Houdry process. J. E. Evans and R. C. Lassiat. bibliog il diag Pet Refiner 24:135-40 N '45; Same cond. Power Pl Eng 50:118+ Mr '46
Complete Houdry case inspection during regular catalyst change; use of Tubescope. W. C. Uhl. il Pet Processing 1:65-6 S '46

HOUDRY process—*Continued*
Control of reactions in Houdry salt system; abstract. J. Alexander, jr. and S. G. Hindin. Pet Processing 1:148 O '46
Houdry process. flow chart il Oil & Gas J 44:142-4 Mr 30 '46
Improved design of Houdry reactor results in higher gasoline output. R. C. Lassiat and C. H. Thayer. flow diag diags Oil & Gas J 45:84+ Ag 3 '46; Same. Pet Eng 17:82+ S '46; Same. Pet Refiner 25:127-30 S '46; Same cond. Pet Processing 1:37+ S '46
Motor-operated valves on Sun Houdry unit in continuous service since 1937. F. R. Staley. il Oil & Gas J 44:215+ Mr 30 '46

HOURS of business. See Banks and banking —Hours of business; Retail trade—Hours of business; Staggered hours

HOURS of labor
Average working week in the two World wars. Int Labour R 52:695-7 D '45
Hours of work and earnings in aviation occupations; air lines, fixed-base operators and Civil aeronautics administration. H. Wood and others. Mo Labor R 63:186-94 Ag '46
War and postwar wages, prices, and hours, 1914-23 and 1939-44. W. Bowden. Mo Labor R 61:621-3, 875-80 O-N '45

Five day week
Butchers balk; union refuses swing shift to enable Monday closings. Bsns W p28+ Je 8 '46
Five-day weeks in retail stores. G. H. Arris. Am Bsns 16:19+ My '46
Retailers ponder 5-day week. Bsns W p77-8 Ja 19 '46

Law
Fair labor standards act clarified. Mo Labor R 63:249-55 Ag '46

Shift schedules
Five-day, 40-hour work schedule. C. W. Parks. Power Pl Eng 50:106+ Mr '46; Discussion. 50:108 My; 102+ Je; 102 Jl; 103 S '46
Three-shift schedule; data sheet. M. W. Garland. Heating-Piping 18:103-4 S '46

Statistics
Annual averages of earnings and hours, 1944 and 1945. Mo Labor R 63:311-14 Ag '46
Hours and earnings in the United Kingdom, January 1945. Mo Labor R 61:999-1002 N '45
How labor has fared; hourly and weekly earnings and hours worked per week, by years, 1899-1945, by months, 1941-1945; tabulations and charts. Automotive & Aviation Ind 94:68-70 Mr 15 '46
Union wages and hours in the baking industry, July 1, 1945. J. P. Corkery and A. V. Simi. Mo Labor R 62:451-7 Mr '46; Same, with additional data. U S Bur Labor Statistics Bul 871:1-64; pa 15c Supt. of doc. '46
Union wages and hours in the building trades, July 1, 1945. J. P. Corkery and H. M. Abowitz. Mo Labor R 62:276-89 F '46; Same with additional data. U S Bur Labor Statistics Bul 862:1-70; pa 15c Supt. of doc. '46
Union wages and hours in the printing trades, July 1, 1945. D. H. Gerrish and H. M. Abowitz. Mo Labor R 62:631-42 Ap '46; Same, with additional data. U S Bur Labor statistics Bul 872:1-15; pa 10c Supt. of doc. '46
Union wages and hours of motortruck drivers and helpers, July 1, 1945. D. Gerrish and others. Mo Labor R 62:104-12 Ja '46; Same, with additional tabulations. (Union scale of wages and hours, by cities, p8-42). U S Bur Labor Statistics Bul 874:1-42; pa 10c Supt. of doc. '46
Wage structure in machine-tool industry, January 1945. D. L. Helm and T. P. Kanninen. Mo Labor R 62:933-44 Je '46

HOUSE decoration
How to kindle a spark in the eye of a home furnishings buyer. H. J. Siesel. il Sales Management 56:147+ F 15 '46
Why a career in retailing home furnishings? M. Lammert, 3d. J Retailing 21:129-30 D '45
Your home in plastics. il Sci Am 173:338-40 D '45
See also
Color in house decoration

HOUSE drainage. See Drainage, House

HOUSE flies. See Flies; Fly sprays and repellents

HOUSE lighting
Lighting performance recommendations for portable and installed residence luminaires. diags Illum Eng 41:521-48 Jl '46
Newer light sources used in post-war home; Slimline and Circline incandescent lamps. il Elec World 125:122 Ap 27 '46
Planned lighting adds decorative quality to the homes you build. il Am Bld 68:108+ Ja '46

Bibliography
Current articles on lighting. Published in monthly numbers of Illuminating engineering

HOUSE models. See Architectural models

HOUSE numbering
House numbering made easy; revolution counter on bicycle wheel attached to automobile. F. H. Meier. il Elec World 124:84 D 22 '45

HOUSE organs
Beardsley & Piper's 3-way campaign; publications, house organ and mail advertising to foundries. S. P. Owen. il Ind Marketing 31:59+ Jl '46
Christmas issue of your house organ. Ptr Ink 217:70+ O 11 '46
External house organ interests varied outlets; merchandises consumer and trade advertising; Pepperell news sheet. R. Webster. il Ptr Ink 216:45-7 Jl 5 '46
460 companies plan 25% increase in new publications; 57 per cent to be external, 28 per cent internal and 15 per cent combining both features. Ind Marketing 30:84 D '45
Gamble's American gazette circulation hits 3,500,000. il Sales Management 57:99+ O 1 '46
House organ sells full line in firm where salesmen are specialists; Bakelite Review. M. Zwilling. Sales Management 57:95-6+ Jl 1 '46
How to increase reader interest in company publications. R. W. Anderson. il Ind Marketing 31:32-3 Ap; 55-6+ My '46
Little bible for the average business man; Coca-Cola's Red barrel. il Sales Management 56:144+ Je 1 '46
More external house organs predicted for 1946. Ptr Ink 214:120 Ja 25 '46
Petroleum research develops new products and wider markets for the Texas company; Beacon laboratories, house organ, booklets. il diags Ind Marketing 31:44-5+ Mr '46
Production clinic. E. G. Thomssen. Soap & San Chem 22:75+ My '46
Simple method proves readers like technical house organ; Foote mineral co. uses humorous approach and easy-to-mark reply card. J. N. Johnston. Ptr Ink 216:43 Ag 16 '46

Advertising
Promote your house organ to stimulate interest; Superdraulic corporation's Hydraulic progress. L. A. Clark. Ptr Ink 217:49 O 25 '46

HOUSE organs, Employees. See Employees' magazines

HOUSEFLIES. See Flies

HOUSEHOLD appliances. See Domestic appliances; Electric apparatus and appliances, Domestic; Gas appliances, Domestic

HOUSEHOLD furniture insurance. See Insurance, Household furniture

HOUSEHOLD pests
Do's and don'ts in household insecticide application. il Soap & San Chem 22:134-5 Ap '46

HOUSEHOLD products
Color in shock-resistant materials. il Mod Plastics 23:128-9 F '46

HOUSEHOLD products industries
Builder plans home merchandising service in Buffalo, N. Y.; converts residential structure into headquarters. il plans Am Bld 68:104-5 Je '46
Housewares back. Bsns W p36 Ja 12 '46
Hundreds of firms pool efforts to take confusion out of color. il Sales Management 56: 51+ F 1 '46
Northeastern halves number of dealers in search for lower sales costs. A. Ullman. il Sales Management 57:50+ O 1 '46
Opportunities to organize for long-term effective selling. J. G. Neukom. Advanced Management 11:93-6+ S '46
Ownership of household equipment in relation to income and size of community. Mo Labor R 61:1219-21 D '45
Plans that make a business grow; Ekco products company. E. Whitmore. il Am Bsns 16:8-10+ F '46
Rug training course bids retailers sell in terms of room problems; sponsored by Institute of carpet manufacturers. T. Armstrong. il Sales Management 56:116+ F 1 '46
Sales training for retailers can be simple, and fun; three booklets of Crosley corp. F. Kammann. il Ptr Ink 215:54+ Je 7 '46
Why does one dealer succeed where another fails? answer: training; American central manufacturing co. creates kitchen specialists. C. F. Hastings. il Sales Management 57:44-6+ O 15 '46

See also
Electric apparatus and appliances, Domestic
Furniture industry and trade
Ironing machines
Kitchens—Equipment
Washing machines

Advertising
How to kindle a spark in the eye of a home furnishings buyer. H. J. Siesel. il Sales Management 56:147+ F 15 '46
More advertising, point-of-purchase emphasis for home furnishings this year. Ptr Ink 214: 96 Ja 11 '46

See also
Washing machines—Advertising

Exhibitions
Save now and buy later; First national bank of Portland, Oregon, stages home appliance show. R. O'Neill; comp. il Banking 39:47+ N '46

HOUSEHOLD workers. See Servants

HOUSES
All-gas Quonset huts to help solve housing shortage. il Gas Age 97:15+ My 16 '46
Bungalows from wooden grain bins. il Bsns W p48 Mr 23 '46
Extruded terra cotta being used for first time on outside walls of home. il plans Brick & Clay Rec 108:34 Ap '46
Guides to improved framed walls for houses. A. D. Freas. diags Eng N 137:519-22 O 17 '46
Johnsons plan 100 homes for veterans in Memphis, Tenn. il plans Am Bld 67:94+ N '45
New houses; some like aluminum, some hay. il Bsns W p31 Jl 20 '46
New ideas for building advanced to hasten end of housing crisis. il Eng N 137:534-6 O 17 '46
Solar house; research progress report. F. W. Hutchinson. il Heat & Ven 43:53-7 Mr '46
Three magazines help Mr & Mrs America design their homes-of-tomorrow. il Sales Management 56:88-90 F 1 '46
Today's house. il map plans diags Arch Forum 85:97-144+ Jl '46

See also
Apartment houses
Architecture, Domestic
Brick houses
Bungalows
Concrete houses
Cottages
Country houses
Home ownership
Housing
Log cabins
Ranch houses
Steel houses
Suburban homes
Week-end houses

Mechanical equipment
All-metal, compact one-wall unit kitchen combining refrigerator, stove and sink with storage space. il plans Am Bld 68:102 S '46
Application of high temperature liquid as a heat or energy transfer medium for domestic and industrial uses. O. O. Oaks. il diags Heating-Piping 18:119-23 Ja '46; Excerpts. Mech Eng 68:457 My '46; Abstract. Gas Age 97:40+ F 21 '46
Building products review and preview. il Am Bld 68:92-4+ F '46
Centralized plumbing for multi-family buildings in Beaumont, Tex. war housing project. il plans diags Arch Forum 85:137 Jl '46
Equipment: heating, kitchen, bathroom, and plumbing. il plans diags Arch Forum 85:130-3 Jl '46
First prefabricated kitchen-bath-laundry appears in Canada. il Arch Forum 84:171 Ja '46
Fritz B. Burns $75,000 postwar research house. il plan Am Bld 68:76-87 Ap '46
Heart of the home of tomorrow; Ingersoll utility unit. il plans diags Am Bld 68:98-101+ F '46
Home utility unit; kitchen, laundry and bath planned around mechanical core containing heating, plumbing and electrical services. plan Arch Forum 83:190 D '45; Product Eng 17:109 F '46; il Heat & Ven 43:94-5 F '46
House equipment packaged; Borg-Warner's Ingersoll consolidates all utilities in a unit. il plans diags Arch Forum 84:81-96 F '46
Liquid heat powers domestic utilities; Pierce foundation proves practicability of a single energy-source for the house. il diags Arch Forum 84:212-14 Ap '46
Progress, 1926-1946; kitchens, laundries. il Am Bld 68:130-3 O '46
$75,000 showcase on a glamorous Los Angeles lot features new equipment and 100 ideas for living. il plans diags Arch Forum 84: 98-104 Mr '46
Show place like home; exhibition house, Los Angeles. il plans diags Arch Rec 99:90-9 Ap '46
Tomorrow's house and gadgetry. il Bsns W p18 Mr 9 '46
World's fair of demonstration homes at Ingersoll village, Kalamazoo, Mich.; living showroom of the utility unit. il plans Am Bld 68:88-93 S '46

HOUSES, Concrete. See Concrete houses

HOUSES, Demountable
Houses by the carload to help relieve the veterans' housing shortage. il Sheet Metal Worker 37:34+ Mr '46
Housing sale; exhibit of temporary homes to show conversion possibilities. il Bsns W p46+ D 29 '45

HOUSES, Model
Aluminum ducts in model home. il plans diag Sheet Metal Worker 37:56+ My '46
Ceramics play major role in showcase house. il Cer Ind 47:41 Jl '46
Fritz B. Burns $75,000 postwar research house. il plan Am Bld 68:76-87 Ap '46
From experiment to achievement; Radiation ltd. sponsors two experimental houses. il Gas J (Lond) 246:677 N 14 '45
Homes America wants; Good Housekeeping's department store exhibit of model homes. il plans diags Am Bld 67:76-81 D '45
House equipment packaged; Borg-Warner's Ingersoll consolidates all utilities in a unit; tries it out in model houses in Kalamazoo, Mich. il plans diags Arch Forum 84: 81-96 F '46
House of ideas features cavity masonry walls. il plan Brick & Clay Rec 109:26 O '46
Los Angeles post war house. il Dom Eng 167: 92-4+ My; 168:90-3+ Jl '46
Modern homes exhibition. Engineering 161: 332 Ap 5 '46
$75,000 showcase on a glamorous Los Angeles lot features new equipment and 100 ideas for living. il plans diags Arch Forum 84:98-104 Mr '46
Show place like home; exhibition house, Los Angeles. il plans diags Arch Rec 99:90-9 Ap '46
Trying it on the public; postwar house of Fritz Burns. il Elec West 96:94-5 Ap '46

HOUSES, Model—*Continued*
World's fair of demonstration homes at Ingersoll village, Kalamazoo, Mich.; living showroom of the utility unit. il plans Am Bld 68:88-93 S '46

See also
Electric industries—Model home exhibits
Gas industry—Model home exhibits

HOUSES, Portable
Goodyear announces peacetime debut of $2,000 Wingfoot home. J. C. Thomas. il plan Sales Management 55:138-9+ N 15 '45

HOUSES, Prefabricated
Advantages of partial prefabrication. il Arch Forum 85:141 Jl '46
Aircraft housing deal moves toward action; Goodyear, Taylorcraft, Consolidated entering aluminum prefab field. B. Stubblefield. Aviation N 6:11 O 21 '46
Aircraft industry will make aluminum houses for veterans. B. Stubblefield. il Aviation N 6:7 S 2 '46
Aluminum-plastic panels aim at $3,000 prefab house. il plan Arch Forum 84:7 Je '46
Aluminum prefab house placed on exhibit. il diag Eng N 137:479 O 10 '46
Commercial model of hemispherical house unveiled; Fuller house. il plan Bsns W p46 Mr 23 '46; Eng N 136:444-5 Mr 28 '46; diags Heat & Ven 43:100-1 Ap '46
Co-op prefab; Atlanta veterans combine to build; U.S. homes, inc. il plan Arch Forum 85:16+ S '46
Department store subdivision contains eight preassembled houses; John Wanamaker. il plans Arch Forum 84:7 F '46
Design, materials and methods combined in new type house; Fuller houses, inc. J. Anthony. il plans Iron Age 157:106-7 Mr 28 '46
8,000 lb. house; Fuller's four room, two bath unit is made of plane materials by plane mechanics. il plans Arch Forum 84:129-36 Ap '46
Equipment developed for mass production of precast concrete houses; Tournalayer casts fourroom concrete house, lifts carries and lowers house onto its permanent site. il Eng N 136:711-14 My 2 '46
Expedite delivery of prefab supplies. Eng N 136:397 Mr 21 '46
French prefabs. il plan diags Arch Forum 85: 137 Ag '46
Fuller's house has better than even chance of upsetting the building industry. il Fortune 33:166-72+ Ap '46
Gimbels has houses. Fortune 33:260+ Ap '46
Guaranteed-market contract placed for 10,000 steel houses. Steel 119:76 O 21 '46
Hemispherical house. il plan Mech Eng 68: 459-60 My '46
Higgins housing; enameled sheet panels and Thermo-Con cement. Bsns W p20-1 F 23 '46
Higgins sees a land of porcelain enamel steel houses. C. T. Post. Iron Age 157:110-11 Mr 7 '46
Honeycomb house displayed by Lincoln brothers, Marion, Va; aluminum panels with paper-plastic core. Bsns W p66-8+ My 25 '46
Houses built to last a century; Thermo-Namel system of construction. Barron's 26:5 N 11 '46
Houses off the line; Burns and Kaiser throw the switch. il plan Arch Forum 85:10 O '46
Industrializing shelter; the Fuller house. il plan diags Arch Rec 99:118-20+ My '46
List of the country's manufacturers of prefabricated homes. Steel 118:61+ Ja 14 '46
Low cost prefab, HomeOla. il Arch Forum 84:170 Ja '46
La maison économique construite en sandwich. diags Génie Civil 123:25-6 Ja 15 '46
Les maisons préfabriquées américaines utilisées en France. plan Génie Civil 123:131 My 15 '46
Making aluminium houses; electrical aids to large-scale flow production. il Elec R (Lond) 138:975-7 Je 21 '46
Mass distribution of prefabricated homes on the way; Gunnison plans dealer for every town of 9,000 and over. E. J. Dever, jr. il Ptr Ink 214:23-5+ Ja 11 '46
Mass output of low-cost houses starts; Shelter industries inc. Steel 118:78 Mr 11 '46
NHA plans metal houses. Steel 119:94 S 9 '46
New ideas for building advanced to hasten end of housing crisis. il Eng N 137:534-6 O 17 '46
New market for gas, fabricated homes. P. Lance. Gas Age 96:19 D 27 '45
No. 1 need in pre-fab home business, good dealers in the right spots; Gunnison unity-of-action plan. il Sales Management 57: 122+ Jl 15 '46
Outlook for prefabricated homes. W. T. Webb. il Dom Comm 34:11-13 Je '46
Packaged houses; ready-to-erect units of steel and aluminum. il Steel 119:86+ Ag 12 '46
Pattern for prefab controls; NHA agreement with HomeOla. il Bsns W p48 O 12 '46
Plastic-aluminum houses. il Mech Eng 68: 898 O '46
Porcelain-enameled steel houses to be Higgins' chief postwar project. il Steel 118: 119 Mr 4 '46
Possible market in Manila for prefabricated houses. For Comm W 21:53 N 10 '45
Prefab battle in Larchmont. il Arch Forum 84:12 My '46
Prefab contracts wait; likely signees include Harman, of Philadelphia. il plan Arch Forum 85:8 O '46
Prefab target; Antonin Raymond duplicates Japanese workers houses for U.S. army. il diag Arch Forum 84:11 Ja '46
Prefab test; M.I.T. housing experiment. il Bsns W p44 N 17 '45
Pre-fabricated homes; solution to veterans' housing needs. J. E. Cummings. il Mag of Wall St 77:653+ Mr 2 '46
Prefabricated housing combines steel and clay; British housing; illustrations with text. Iron Age 158:105 S 5 '46
Prefabrication in Great Britain. il plans diags Arch Forum 83:172-4+ D '45
Prefabrication in neighboring Canada. il Am Bld 68:68-9 Jl '46
Prefabrication is still young. R. Porter. il Banking 38:59-60+ Mr '46
Prefabrication; reaching big-business status. il Arch Forum 84:137-42 Ap '46
Prefabrication today; with list of principal manufacturers. il Am Bld 68:76-85+ Je '46
Prefabricator acquires facilities for manufacturing 4000 homes a year; Adirondack log cabin company's Patchogue, Long Island, plant. il Am Bld 68:106 Jl '46
Prefabricators' poll indicates a yearly capacity of 150,000. Iron Age 157:166+ F 7 '46
Pre-fabricators set to win a share in the building boom. P. Fredericks. Barron's 26:3 F 4 '46
Prefabs shown in city department stores. il plans Arch Rec 99:10 Mr '46
Pros and cons of prefabricated housing. A. C. Blum. il Mag of Wall St 77:344+ D 22 '45
Real estate loans are made when homes are found; we found the homes; Naperville, Ill. National bank. L. H. Clemens. il Bankers Mo 63:502-4 O '46
Shelter homes, inc., offers prefab built around mechanical core. il plans Arch Forum 84:11 Je '46
Shop-built houses for sale, f.o.b. mill. il Eng N 136:250-1 F 14 '46
Standardization and prefabrication aid building program in Russia. il Ind Stand 17:46 F '46
Wall Street backs prefab; Anchorage homes launches venture. il Arch Forum 83:10 D '45
What Great Britain is doing. il Am Bld 68:120 Ag '46
Where is prefabrication? il Fortune 33:126-31+ Ap '46
Wiring for prefabricated houses. il Electrician 136:675-6 Mr 15 '46
Wiring synchronized with home production; Precision-built homes; Barrett & Hilp. il Elec West 97:60-1 Jl '46

See also
Steel houses
also Prefabricated home manufacturers institute

HOUSES, Remodeled
Garages made into small apartments. il plans Am Bld 67:88+ D '45
House in Washington, D.C.; features of modern living obtained without offending traditional Georgetown. il plans Arch Forum 83:89-91 D '45
Old cottage becomes veteran's castle. il plan Am Bld 68:99-101 Ap '46
Our industry has a big role in the new FHA program; remodel for veterans. Dom Eng 167:104-5+ Ap '46
Rehabilitation of old homes in blighted areas will help relieve housing shortages. il Am Bld 68:98-9 Ja '46
Relieving the home shortage by modernizing. il Am Bld 67:75+ D '45
Remodeled farmhouse solves a priority and scarcity problem in Oregon. il plans Arch Forum 84:86-7 My '46
See also
Apartment houses, Remodeled

HOUSES, Row
Attached houses for veterans in a new self-contained community; Flushing, Long Island. il plans Am Bld 68:80-1 S '46
Bungalow apartments; answer to the veterans' housing problem. il plans Am Bld 68: 82-3 Jl '46
Expansible row house adaptable to minimum lot conditions in New York suburbs. il plans Arch Forum 85:106-8 Jl '46
Inexpensive housing for veterans; Oakcrest estates, Flushing, N.Y. il plans Arch Rec 100:98 S '46
Rental row houses, Washington, D.C. il plans Arch Forum 85:88-9 Ag '46
Row houses for suburban block. il plans Arch Rec 99:83 My '46

HOUSES, Steel. See Steel houses

HOUSES, Week-end. See Week-end houses

HOUSING
Converting barracks into livable homes for emergency housing. C. C. Roth. il Eng N 136:702-4 My 2 '46
Filtering down and the elimination of substandard housing. R. U. Ratcliff. J Land & Pub Util Econ 21:322-30 N '45
Housing and heating conference highlights at Pennsylvania State College. Sheet Metal Worker 36:78-9 D '45
Look homeward, housing! V. De Mars. il plan Arch Rec 99:86-9 Ap '46
Measuring the quality of urban housing environment; a new appraisal technique. A. A. Solow. map J Land & Pub Util Econ 22:282-93 Ag '46
Shall we build now or wait? D. G. Carter. il Consumers Res Bul 17:5-7 My '46
Use of metals in postwar homes may rise to ten tons per unit. C. W. Farrier. Steel 118: 60-1 Ja 14 '46
See also
Building—Cost
City planning
Company towns
Federal housing administration
Housing laws
Housing projects
Negroes—Housing
Rent
Slums

Bibliography
Program and exhibit materials on postwar housing; pamphlets and audio-visual aids. H. L. Norris. Special Lib 37:6-9 Ja '46

Costs
Construction accounts for 69 percent of public housing cost in New York city; tabulation. Eng N 136:558-9 Ap 18 '46
Cost index for standard house in 47 cities; 1939-1945. Eng N 136:617 Ap 18 '46
Cost of temporary war housing developed by FPHA. Eng N 136:985 Je 27 '46
High cost of land development. F. W. Marlow. Am Bld 68:152+ Mr '46
Housing construction cost study sets up new yardsticks for comparison; study by committee appointed by New York city housing authority. Eng N 136:552-6 Ap 18 '46
Housing faces rising costs. Bsns W p15-16 Jl 27 '46
Index of small house costs, revised; 1935-1945; cost index for standard house in 47 cities; 1939-1945. Eng N 136:615, 617 Ap 18 '46
You'd better add 50%; why the $8,000 house of 1939 costs $12,000 in 1946. diags Fortune 33:110-13 Ap '46

Finance
Subsidies test housing czar. Bsns W p15 My 18 '46

Hygienic aspects
How does housing affect health? M. A. Pond. bibliog Pub Health Rep 61:665-72 My 10 '46
Measuring the quality of urban housing environment; a new appraisal technique. A. A. Solow. map J Land & Pub Util Econ 22: 282-93 Ag '46

Negroes
See Negroes—Housing

Belgium
Housing and reconstruction. A. Puissant. Ann Am Acad 247:103-6 S '46

Boston
Waiting for the law; Boston's public housing project. Bsns W p39 Je 1 '46

Brooklyn, New York
Highway's homeless; oppose Brooklyn-Queens connecting highway. M. Schuyler and L. Dunne. Arch Forum 85:46+ S '46

Canada
Canada consolidates housing controls. Eng N 136:155 Ja 31 '46
Canada's housing shortage. Fortune 33:228 Ap '46
Housing conditions in Canada. Mo Labor R 62:233-4 F '46
Stone is style in Vancouver, British Columbia; victory housing program. B. L. Johnson. il plans diags Am Bld 67:88-93 N '45

Canton, Massachusetts
Housing starts at home; Deutschmann's plan for Canton veterans. Bsns W p50 O 19 '46

Chicago
Hospital plans; Chicago slums scheduled for redevelopment under program sponsored by Michael Reese hospital. il plans Arch Forum 85:87-101, 104 S '46
Housing goals; Chicago measures its need and says we will. H. E. Kincaid. Am Bld 68:112-14+ Ap '46
What can be done about traffic congestion? city planning, zoning, and housing. H. E. Kincaid. il map Civil Eng 16:262-4 Je '46

Czechoslovakia
Czechoslovak authorities planning to tackle Prague's acute housing problem. For Comm W 24:15 S 7 '46

Detroit
Teamwork in Detroit to provide low-cost homes. Arch Forum 83:16 D '45

Finland
Finland gears to meet construction needs. W. W. Hill. For Comm W 24:6+ Ag 3 '46

France
Temporary housing measures in France. Mo Labor R 62:234-6 F '46

Glenview, Illinois
Co-op houses; group of Chicago families combine their efforts and pool design ideas in a harmonious setting for suburban living. il plans Arch Forum 84:89-95 Ja '46

Great Britain
Britain approves 12 types of permanent housing construction for government subsidy. il Eng N 137:546 O 24 '46
Britain's new-type house contest. For Comm W 23:30 Ap 13 '46
British housing drive gets under way despite shortages in material. Iron Age 157: 188-90 Ap 4 '46
British progress; virtually socialized housebuilding makes less headway than promised. il Arch Forum 84:20+ My '46
British set drive for steel house. Iron Age 157:76 My 30 '46

HOUSING—Great Britain—*Continued*
Briton constructs novel permanent dwellings. il Iron Age 156:121 D 6 '45
Building logistics. Economist 151:510-12 S 28 '46
Bulk purchase for housing. Economist 149: 800-1 D 1 '45
Cost of housing. Economist 149:590-1 O 27 '45
Emergency housing; existing military installations could provide stop-gap shelter for Britain's bombed out citizenry. il plans Arch Forum 84:110-12 F '46
Government's credit; squatters' crisis. Economist 151:443-4 S 21 '46
Housing decisions. Economist 151:2-4 Jl 6 '46
Housing progress report. Economist 150:327-8 Mr 2 '46
How the British are preparing to attack their two big building problems; houses-in-a-hurry and planned use of land. D. Rosenman. Arch Forum 83:127-8+ D '45
Labor tackles British housing. Fortune 33: 225-6+ Ap '46
Labor's way. Arch Forum 83:12 D '45
Prefabrication in Great Britain. il plans diags Arch Forum 83:172-4+ D '45
Socialization in housing, Great Britain and the United States. R. Tough and R. G. Weintraub. J Land & Pub Util Econ 22: 273-81 Ag '46

Houston, Texas

Efficiency units; industrial housing. il plans Arch Rec 99:86-7 My '46

Indianapolis

Kesslerwood; 35-acre development. A. V. Hansen. il plans Am Bld 67:69-74 D '45; 68:66-9 Ja '46

London

Operation squatter; England invents a tactic. il Arch Forum 85:14 O '46

London, Ontario

Sanitary regulations disregarded in housing program. R. W. Garrett. Water & Sewage 83:82+ N '45

Los Angeles

Landlords arise. Bsns W p21-2+ D 1 '45

Manila

Possible market in Manila for prefabricated houses. For Comm W 21:53 N 10 '45

Netherlands

Holland's housing needs; Dutch tackle big task. F. M. Coston. il For Comm W 25:6-7+ O 19 '46
Netherlands rebuilds its houses. Eng N 136: 844 My 30 '46

New York (city)

Construction accounts for 69 percent of public housing cost in New York city; tabulation. Eng N 136:558-9 Ap 18 '46
Drive aimed at slums. Bsns W p41 D 8 '45
Housing construction cost study sets up new yardsticks for comparison; study by committee appointed by New York city housing authority. Eng N 136:552-6 Ap 18 '46
Housing racket. Bsns W p71-3 My 25 '46
New York builds homes for city's war veterans; temporary shelters moved from Georgia. il Eng N 136:380 Mr 14 '46
Sales tax rebuilding; Council plan would raze all New York's slums in ten years. Arch Forum 84:12 Ja '46
Temporary housing suggested for New York. Arch Rec 98:170 N '45

New Zealand

Two apartment houses in Wellington. il plans Arch Forum 85:69-72 Ag '46

Norway

Norway fears housing rationing. For Comm W 23:22 My 11 '46
Norway's program of residential rebuilding. O. E. Heskin. il For Comm W 22:8+ Mr 2 '46

Philadelphia

Low-cost homes. Bsns W p36 Ag 10 '46

Portland, Oregon

Work started on 500 G.I. homes; Portland, Ore. builders launch big project. il plans Am Bld 68:103-5 Ap '46

Richmond, Indiana

Richmond's way; small city licks housing shortage by community-wide effort. il Arch Forum 85:16+ Jl '46

Rochester, Minnesota

Homestead addition; small home development. il plans Am Bld 68:88-9 Jl '46

Rochester, New York

Banks build; eight Rochester banks find way to supply low-rent housing for veterans. Arch Forum 84:16 Mr '46
More than talk about GI housing; banks organize Rochester civic homes, inc. E. B. Milliman. il plan Banking 38:60-1 My '46
Providing rental housing for G. I.'s; project sponsored by banks. H. V. Odle. il plan Burroughs Clearing House 30:18-19+ Jl '46

Russia

Russia's housing misery. Fortune 33:225 Ap '46
Standardization and prefabrication aid building program in Russia. il Ind Stand 17:46 F '46

Seattle

Wedgwood; western homes planned for the new era; designs, with blueprints. il Am Bld 68:102-10 F; 82-5 Mr '46

Springfield, Massachusetts

All-gas Quonset huts to help solve housing shortage. il Gas Age 97:15+ My 16 '46

Sweden

Swedish housing and the cycle. Fortune 33:225 Ap '46

Switzerland

Housing subsidies in Switzerland. D. M. Sells. Mo Labor R 62:236 F '46

United States

Administration of veterans' housing priorities. J. B. Blandford, jr. Comm & Fin Chr 163:255+ Ja 17 '46
Administration's housing program; statement by the President; report of Federal housing expediter. Comm & Fin Chr 163: 877+ F 14 '46
Answers to seven pertinent questions on operation of Veterans housing program order 1. W. Wyatt. Concrete 54:22+ Je '46
Building industry's part in low cost housing. A. Schindler. Comm & Fin Chr 162:3005+ D 20 '45
Building materials requirements and production capacity, 1946; tabulation. Eng N 136: 521 Ap 11 '46
Building prospects paced by large deferred demand. W. C. Bober. Barron's 25:3 N 26 '45
Case for rental housing; symposium. il Arch Rec 99:67-76 My '46
CPA sets up reconversion housing program to provide priorities for veterans' homes. Am Bld 68:128 F '46
Desperate housing shortage reflected by classifieds. W. R. Bruner. Ptr Ink 213:66 D 7 '45
Digest of new program to build 2,700,000 houses in 1946-1947. Brick & Clay Rec 108: 28 Ja '46
Effect of wartime housing shortages on home ownership. H. Humes and B. Schiro. Mo Labor R 62:560-6 Ap '46
Elapsed time in residential construction. J. Tourin. Mo Labor R 63:346-54 S '46
Far-reaching plan to increase housing construction. W. W. Wyatt. Eng N 136:257 F 14 '46
Federal housing program. H. E. Jordan. Am Water Works Assn J 38:750-4 Je '46
Fortune survey; housing shortage, what to do about it, housing market. Fortune 33:266+ Ap '46; Same. Arch Forum 84:180-1+ Ap '46
Houses for veterans? Housing expediter Wyatt's program. Banking 38:66+ Mr '46

HOUSING—United States—*Continued*
Houses in the air; Expediter Wyatt's plans. Bsns W p25-6 F 16 '46
Housing construction policy; continued rent control on old houses, rent freedom on new buildings needed. Barron's 25:12 D 10 '45
Housing crisis. il Arch Forum 83:5-7 D '45
Housing expediter Wyatt tackles housing problem. Arch Rec 99:7 Mr '46
Housing order will shrink engineering construction. D. D. King. Civil Eng 16:239-40 Je '46
Housing outlook. Bsns W p55-6+ Ap 6 '46
Housing; prewar and war homebuilding; postwar problems and programs. Index 26 no 1:1-12 [Mr] '46
Housing problem; OWMR six-point program appears to be best. Bsns W p21-2+ N 10 '45
Housing program ignores worst bottlenecks. H. S. Taylor and R. Masiello. Barron's 26:3+ My 6 '46
Housing program moves ahead despite lack of definite federal legislation. Eng N 136:815+ My 23 '46
Housing prospects analyzed in light of material needs. Eng N 136:393+ Mr 21 '46
Housing shortage; causes and effects. S. J. Dennis. il Dun's R 54:11-14+ Je '46
Housing speedup. Bsns W p36+ S 7 '46
Housing study issued by National housing agency. Arch Rec 98:138 D '45
Housing's white knight; Catherine Bauer. il Arch Forum 84:116-19, 146+ Mr '46
Hurry-up for home building. Bsns W p15 D 22 '45
It's a matter of record; facts concerning alleged national housing emergency. Am Bld 68:87+ S '46
Large-scale construction techniques called for by housing program. W. W. Wyatt. Civil Eng 16:438 O '46
Main factors in housing shortage. F. H. Ecker. Comm & Fin Chr 163:123+ Ja 10 '46
Men for the job; housing boss Wyatt names his key men. Arch Forum 84:8-9 Ap '46
Mr Wyatt builds his castle. Fortune 34:3 Jl '46
Mr Wyatt's shortage; how the housing expediter hopes to end it. il Fortune 33:104-9+ Ap '46
National association of home builders, annual meeting, Chicago, Feb. 25-28. Concrete 54:6-8 Ap '46
NHA more exacting than military in wartime. G. A. Browning. Barron's 26:3 O 7 '46
Nation's home builders tell Sergeant Brown the truth; open letter. F. W. Cortright. Am Bld 68:84-5 Jl '46
Opportunity for engineers and contractors in housing program. K. Smith. Civil Eng 16:391 S '46
Pattern for prefab controls; NHA agreement with HomeOla. il Bsns W p48 O 12 '46
Pattern of expenditures for nonfarm residential repair and maintenance. F. J. Stephan and J. J. W. Palmer. il map U S Bur For & Dom Com, Economic Ser 55:1-67; pa 20c Supt. of doc. '46
President names Wilson Wyatt housing expediter; Snyder report on nation's no. 1 problem gets action. Am Bld 68:101 Ja '46
Producers council answers the veterans housing plan. Dom Eng 167:134+ Mr '46
Progress and planning under Housing act. W. W. Wyatt. Comm & Fin Chr 163:3211+ Je 13 '46
Promise of the shortage. il Fortune 33:101-3 Ap '46
Rebuild America. B. J. Hovde. Comm & Fin Chr 163:1541+ Mr 21 '46
Relationship between condition of dwellings and rentals, by race. C. K. Robinson. bibliog J Land & Pub Util Econ 22:296-302 Ag 46
Rental housing under FHA. R. M. Foley. il Banking 39:79+ S '46
Review of the Wyatt housing program for clay products manufacturers. Brick & Clay Rec 108:38 Ja '46
Sees serious housing shortage. C. Bowles. Comm & Fin Chr 162:2601 N 29 '45
Snyder reports severe housing shortage; President appoints housing expediter in Office of war mobilization and reconversion. Comm & Fin Chr 162:3051+ D 20 '45
Socialization in housing, Great Britain and the United States. R. Tough and R. G. Weintraub. J Land & Pub Util Econ 22:273-81 Ag '46
Some common interests of the home builders and the electrical industry. F. W. Cortright. Edison Elec Inst Bul 14:163-4+ My '46
State of the Nation's housing; statistical tables. Arch Forum 84:16 Je '46
Statement to President Truman by NAHB emergency committee. F. W. Cortright. Am Bld 68:37+ F '46
States spur postwar housing programs. B. Jones. Barron's 26:9 Mr 4 '46
Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. Iron Age 157:288G-288H Ja 3 '46
Sweat-equity housing; owner completion protects vets and mortgagees, simplifies builders' role; banker's plan in Cleveland; builder's plan in Denver. il Arch Forum 85:8 Ag '46
To place home construction under priority control. Eng N 135:831+ D 20 '45
Truman would have government control over residential construction. Comm & Fin Chr 162:3053 D 20 '45
2,700,000 houses to start by 1947; Wyatt offers bold plan. Arch Forum 84:6-7 Mr '46
Uncle Sam worries over housing. Arch Rec 99:7+ F '46
Unfinished homes: a problem for Congress. il Bsns W p22 D 1 '45
U.S. housing need for 1955; chart. Arch Forum 84:8 Ja '46
Veterans don't want Wyatt's houses; ex-servicemen are seeking flats, suburbs cool to inrush of GI's. H. S. Taylor and R. Masiello. Barron's 26:3+ My 13 '46
What is wrong with the housing industry. J. V. Sherman. Barron's 26:3 Ap 29 '46
What lies ahead in the home building field? W. K. Divers. Comm & Fin Chr 163:2513+ My 9 '46
Will the American builder meet the 1946 housing goal? H. B. Byer. Am Bld 68:65-7 Jl '46
Wyatt asks ceilings on building lots. Bsns W p7 F 2 '46
Wyatt program; with organization chart. Arch Forum 84:94-7 Ap '46
Wyatt takes over. il Arch Forum 84:5-6 F '46

Defense workers
Building a city from scratch; Clinton engineer works. E. A. Wende. il Eng N 135:815-18 D 13 '45
Cost of temporary war housing developed by FPHA. Eng N 136:985 Je 27 '46

Venezuela
Venezuela receives U.S. technical aid in construction of 40,000 low-cost houses. For Comm W 23:42 Je 15 '46

Washington, D.C.
Washington redevelopment; new law may erase slums. Arch Forum 85:12 S '46

HOUSING, Cooperative
Co-op houses; group of Chicago families combine their efforts and pool design ideas in a harmonious setting for suburban living. il plans Arch Forum 84:89-95 Ja '46
Co-op prefab; Atlanta veterans combine to build; U.S. homes, inc. il plan Arch Forum 85:16+ S '46
Organization and management of cooperative and mutual housing associations. U S Bur Labor Statistics Bul 858:1-65; pa 20c Supt. of doc. '46 [Revision of bul. no. 608]
Return to co-ops. Bsns W p41 Ag 24 '46
Six veterans adopt basic plan; co-op scheme cuts house costs; four houses in group effort. il plans Arch Rec 99:91-8 Je '46

See also
Housing projects,
Trade union

HOUSING finance
Banks in housing; Rochester group launches nonprofit corporation to build 152 rental units. Bsns W p70-1 Ap 27 '46
Financing urban redevelopment. M. C. Lubar. J Land & Pub Util Econ 22:151-62 My '46

HOUSING finance—*Continued*
Housing subsidies in Switzerland. D. M. Sells. Mo Labor R 62:236 F '46
Legislation needed for urban redevelopment in blighted areas. M. C. Lubar. il Civil Eng 16:245-8 Je '46
Public housing; snare and delusion. G. L. Bliss. Comm & Fin Chr 163:1927+ Ap 11 '46
Subsidy and housing. C. Abrams. J Land & Pub Util Econ 22:131-9 My '46

See also
Building—Finance
Federal housing administration
Home ownership—Finance
Housing, Cooperative

HOUSING laws
Financing urban redevelopment. M. C. Lubar. J Land & Pub Util Econ 22:151-62 My '46
Legislation needed for urban redevelopment in blighted areas. M. C. Lubar. il Civil Eng 16:245-8 Je '46
New housing regulations; with text. Sheet Metal Worker 37:49-53+ Ap '46
Socialization in housing, Great Britain and the United States. R. Tough and R. G. Weintraub. J Land & Pub Util Econ 22:273-81 Ag '46

Great Britain

Cost of housing. Economist 150:203-4 F 9 '46
Housing policy; Housing (financial and miscellaneous provisions) bill. Economist 150: 365-6 Mr 9 '46

Netherlands

Rent control in the Netherlands. J. F. Van Wickel. Mo Labor R 62:70 Ja '46

United States

A.B.A. presents its case on the general housing bill. Banking 38:70+ Ja '46
Assails mortgage interest reduction bill; testimony on Wagner-Ellender-Taft bill; abstracts. L. W. Douglas. Nat Underw (Life ed) 49:1+ D 21 '45; Weekly Underw 153: 1453+ D 22 '45
Bomb or bulwark? Wagner-Ellender-Taft bill. Arch Forum 83:8 D '45
Dangers seen in federal Wagner-Ellender-Taft housing bill. L. D. Meredith. Weekly Underw 153:1362-3 D 8 '45; Abstract. Nat Underw (Life ed) 49:4 D 14 '45
Housing pressure; administration will push modified Patman bill. Bsns W p17-18 Ja 12 '46
Housing subsidy bill passed. Comm & Fin Chr 163:2833 My 23 '46
Objections to housing agency proposed in President's reorganization plan. Banking 39:61+ Jl '46
Political housing, a route to inflation; Wagner-Ellender-Taft bill. T. S. Holden. Arch Rec 100:90-3 O '46
President signs housing measure granting subsidies to manufacturers. Eng N 136:832 My 30 '46
Public housing supported; Wagner-Ellender-Taft bill. P. M. Klutznick. Weekly Underw 153:1358+ D 8 '45
Report of Federal reserve board on pending legislation on housing. Fed Res Bul 32:236-9 Mr '46
Review and study of the new Wagner-Ellender-Taft bill. Am Bld 68:90-2+ Ja '46
Senate bill making NHA permanent, establishing policy, forwarded to House. Eng N 136:693 My 2 '46
Veterans' emergency housing act, 1946. Mo Labor R 63:92-3 Jl '46
Wagner-Ellender bill will not answer present housing crisis. L. E. Mahan. Comm & Fin Chr 162:2927 D 13 '45
Wagner-Ellender-Taft housing bill takes Washington spotlight. Arch Rec 99:7+ Ja '46

HOUSING projects
Attached houses for veterans in a new self-contained community; Flushing, Long Island. il plans Am Bld 68:80-1 S '46
Banks in housing; Rochester group launches nonprofit corporation to build 152 rental units. Bsns W p70-1 Ap 27 '46
Big Dave Bohannon; operative builder by the California method. il Fortune 33:144-7+ Ap '46
Cardinal lane; small houses for today's market; Henderson, Ky. il plans Am Bld 68: 60-1 Jl '46
Chicago builder completes prewar building program; Scarsdale estates. il plans Am Bld 68:64-7 Ag '46
Developer's houses; South Bend builder Place & co. combines many cost-cutting techniques. il plans Arch Forum 85:142-4+ Jl '46
40 houses of contemporary design are built for New York veterans in Roslyn, L.I. il plan Arch Forum 85:112-13 O '46
42,000 piles driven on project; Stuyvesant Town, Metropolitan Life's housing project. il diags Arch Rec 100:121 Ag '46
Garden apartments in Union, N.J. are first under FHA's revived Title VI; Stuyvesant Town. plans diag Arch Forum 85:7 Ag '46
Home building, 1926-1946; Gross-Morton, Long Island; Wm. Joern & Sons, Chicago; Stanley Long, Seattle. il plans Am Bld 68: 86-91 O '46
Home building really under way in Belleville, N.J.; one-family, four-bedroom units in variations of one basic floor plan. il plans Am Bld 68:114-17 F '46
Homestead addition; small home development, Rochester, Minn. il plans Am Bld 68: 88-9 Jl '46
Housing dream; John Hancock insurance co. project in Boston. Bsns W p50 O 12 '46
How to order a city; Metropolitan Life makes housing pay. il Fortune 33:132-7+ Ap '46; Discussion. 33:10 My '46
Kesslerwood; 35-acre development in Indianapolis. A. V. Hansen. il plans Am Bld 67:69-74 D '45; 68:66-9 Ja '46
Legislation needed for urban redevelopment in blighted areas. M. C. Lubar. il Civil Eng 16:245-8 Je '46
Look homeward, housing! V. De Mars. il plan Arch Rec 99:86-9 Ap '46
Maintenance methods at Parkchester. J. A. Dondero. il plan Heat & Ven 43:53-6 My '46
175 standardized houses in Houston spotlight trend to modern design. il plans Arch Forum 85:120-1 O '46
Putting quality and individuality into a street of medium-priced homes; seven-house project in Ann Arbor, Mich. il plans Am Bld 68:94-7 S '46
Rental housing. il plans Arch Rec 99:77-90 My '46
Utility promotes home-building project in western Pennsylvania. il Elec World 126:75 Ag 17 '46
Vacuum mats aid in speeding veterans' precast concrete houses; with cost data; Whitemarsh village. il diags Concrete 54: 31-4+ S '46
Wedgwood; western homes planned for the new era in Seattle; designs, with blueprints. il Am Bld 68:102-10 F; 82-5 Mr '46
Work started on 500 G.I. homes; Portland, Ore. builders launch big project. il plans Am Bld 68:103-5 Ap '46

HOUSING projects, College
Barracks go to school to ease house shortage. il Eng N 137:553 O 24 '46
Emergency jetty for a scholastic storm. il Bsns W p20 Je 22 '46
Illinois Tech replans 16 city blocks. il Arch Forum 85:102-3 S '46
No palaces on veterans' royal road to learning. Bsns W p22 Mr 16 '46
Trailers ease Colorado university housing. Eng N 136:92 Ja 17 '46
Veterans return to new freedom gas homes; project at Vanderbilt university. E. E. Bryan. il plan Gas Age 98:33+ Ag 22 '46
Westgate; shelter for vets, headache for M.I.T. il Bsns W p38 Mr 16 '46

HOUSING projects, Company
Coal valleys boom; miners are becoming home owners. il Arch Forum 84:16+ Je '46

See also
Company towns
Mining towns

HOUSING projects, Cooperative. See Housing, Cooperative

HOUSING projects, Government
Eden liquidated; Arthurdale plants sold; tenants buying homes. il Bsns W p22+ Jl 27 '46

HOUSING projects, Government—*Continued*
Socialization in housing, Great Britain and the United States. R. Tough and R. G. Weintraub. J Land & Pub Util Econ 22: 273-81 Ag '46
Two apartment houses in Wellington, N.Z. il plans Arch Forum 85:69-72 Ag '46

HOUSING projects, Hospital
Michael Reese hospital builds a housing project in Chicago; with financial analysis. il plans Arch Forum 85:98-101, 104 S '46

HOUSING projects, Municipal
Financing urban redevelopment. M. C. Lubar. J Land & Pub Util Econ 22:151-62 My '46
Waiting for the law; Boston's public housing project. Bsns W p39 Je 1 '46

HOUSING projects, Trade union
Collective bargaining; Cleveland's first union-sponsored neighborhood development. Arch Forum 83:28+ D '45
Union housing; Textile workers union of America project at Front Royal, Virginia. Bsns W p106+ F 16 '46

HOUSING research
New home research center to help solve building problems; University of Illinois. il Am Bld 68:67 My '46
Proceedings of the University of Wisconsin conference on social and economic research in housing. G. E. Howard; R. U. Ratcliff. Land & Pub Util Econ 22:91-116 F '46
Relationship between condition of dwellings and rentals, by race. C. K. Robinson. bibliog J Land & Pub Util Econ 22:296-302 Ag '46

HOUSING surveys
Fortune survey; housing shortage, what to do about it, housing market. Fortune 33:266+ Ap '46; Same. Arch Forum 84:180-1+ Ap '46
Housing; a Printers' Ink marketing exploration. W. P. Burn. map Ptr Ink 217:49-52 O 4 '46
Measuring the quality of urban housing environment; a new appraisal technique. A. A. Solow. map J Land & Pub Util Econ 22:282-93 Ag '46
Nationwide look at the under-$10,000 house; Forum survey. il plans Arch Forum 84: 103-9 Ap '46
What home builders want; highlights of surveys by Curtis publishing company and Architectural forum. H. B. Smith. il Banking 38:74-5+ N '45
What prospective home owners want today; summary of findings of surveys by national consumer magazines. Am Bld 68:68-73+ S '46

HOUSTON, Texas
Industries
Houston's prospects good for holding wartime expansion. J. A. Mabry. il Manuf Rec 115:40-1+ F '46

HOUSTON oil field material company
Preferred stock offered. Comm & Fin Chr 162:2393 N 19 '45

HOUZE, Roger Joseph, 1890-1945
Sketch. por Am Cer Soc Bul 24:441 N 15 '45

HOVING, Walter, 1897-
Portrait. Bsns W p76 D 29 '45

HOVING corporation
Hoving's first; another period of retail store amalgamation foreseen. Bsns W p79 Je 8 '46

HOWARD stores corporation
Newcomers on the stock exchange. W. A. Howell. Mag of Wall St 78:782 S 28 '46
Stocks offered. Comm & Fin Chr 162:2942-3 D 17 '45

HOWE, Harrison Estell, 1881-1942
Chemist, author, editor. W. J. Murphy. Chem & Eng N 24:464-7 F 25 '46

HOYT, Samuel Leslie, 1888-
1945 Adams lecturer. por Welding J 24:1179 D '45

HUBER, Solomon
Sketch. C. Axman. por East Underw 47:20 pt 2 O 4 '46

HUDSON, Claude Silbert, 1881-
Hudson to be honored by Sugar chemistry and technology division, por Chem & Eng N 23:2065 N 25 '45

HUDSON and Manhattan railroad
H. & M. railroad under water. diag Bsns W p75-6+ Jl 6 '46
Short lines also; acceptance of national rail settlement. Bsns W p92+ Je 29 '46

HUDSON FALLS, New York
Hudson Falls meets scum, head on! J. A. Fitzgerald. Water Works & Sewerage 92: 366 D '45

HUDSON motor car company
Stock sold. Comm & Fin Chr 163:3418 Je 24 '46

HUDSON river tunnels
H. & M. railroad under water. diag Bsns W p75-6+ Jl 6 '46

HUERKAMP, Edward C.
Gets McGraw '46 manufacturers medal. por (cover) Elec World News ed 126:7 N 2 '46

HUGHES, Albert William, 1891-
Portrait. Bsns W p78 Ap 27 '46

HUGHES, George, 1865-1945
Sketch. por Engineer 180:349 N 2 '45

HUGHES, Howard, 1905-
Sketch. por Mag of Wall St 78:703+ S 14 '46

HUIE, Irving V. A. 1890-
Sketch. por Civil Eng 15:569-70 D '45

HULL, Cordell, 1871-
Awarded Nobel peace prize. Comm & Fin Chr 162:2379 N 15 '45

HUMAN rights. See Natural law

HUMANITIES
Humanistic-social overhauling. C. J. Freund. J Eng Educ 36:284-91 bibliog(p289-91) D '45
Opinion on the training of teachers in the humanities. S. R. Price. J Eng Educ 37:79-95 S '46
Report on humanistic social studies in engineering education. H. P. Hammond; R. M. Boarts and J. C. Hodges. J Eng Educ 36:338-51 Ja '46
Scientific values of the humanities in the premedical program. D. Stetten, jr. J Chem Educ 23:336-7 Jl '46
See also American society for engineering education—Humanistic-social division

HUMBLE oil and refining company
Thumbnail stock appraisal. Mag of Wall St 78:274 Je 8 '46

HUMIC acids
Humic acids and true organic acids as solvents of minerals. W. G. Fetzer. bibliog Econ Geol 41:47-56 Ja '46

HUMIDITY
Absorption and humidification. H. C. Carlson. bibliog Ind & Eng Chem 38:14-15+ Ja '46
Adjust offset platemaking technique to the weather. H. A. Beechem. Inland Ptr 117: 67 Jl '46
Air conditioning map is provided by psych chart. Heating-Piping 17:532-4 O-N '45
Determining the moisture equilibrium curves of hygroscopic materials. W. A. Wink. il diag Ind & Eng Chem Anal ed 18:251-2 Ap '46
Effect of temperature and humidity on mechanical properties of molded cellulose acetate. W. E. Welch and others. Mod Plastics 23:159-64+ Ag '46
Formation of ionized water films on dielectrics under conditions of high humidity. R. F. Field. J Ap Phys 17:318-25 My '46
Homemade high humidity cabinet designed to fit inside an electric refrigerator. J. D. Malcolmson. il Paper Ind 27:1247 N '45
Humidity measurements in presence of water-soluble salts. G. C. Williams and R. O. Schmitt. Ind & Eng Chem 38:967-74 S '46
Instrumentation studies; penetration of papers by water vapor; a controlled relative humidity cabinet. il diags Paper Tr J 122:41-6 F 21 '46
Meteorology and high altitude aviation. G. M. B. Dobson and A. W. Brewer. diags Roy Aeronautical Soc J 50:787-806; Discussion. 806-10 O '46
Methods for measuring humidity and an automatic dew point recorder are considered. R. H. Munch. il Ind & Eng Chem 38:sup79-80 O '46

HUMIDITY—*Continued*
New psychrometric chart; with examples of problems solved by its use. E. P. Palmatier and D. D. Wile. diags Refrig Eng 52:31-6, 74, insert Jl '46; Discussion. 52:141-2+ Ag '46
Psychrometric determination of absolute humidity at elevated pressures. W. M. Rohsenow. bibliog Refrig Eng 51:423-4; Discussion. 424+ My '46
Psychrometric instrumentation; American society of heating and ventilating engineers, committee report. bibliog Heating-Piping 18:101-6 O '46
Recorder-controller for temperature and humidity. V. D. Hauck and others. il diags Electronics 19:96-9 S '46
See also
Dehumidifiers
Hygrometers
HUMPHREY, George Magoffin, 1890-
Chairman of Business advisory council of Dept. of commerce. por(cover) Bsns W p8 Ap 20 '46
HUNGARY
Hungary; a test case. Economist 150:996-8 Je 22 '46
Economic conditions
Hungary's new currency likely to follow old. H. Lehrman. Barron's 26:3-4 Ag 19 '46
News by countries. For Comm W 24:19 Ag 10 '46
Economic policy
New economic legislation. For Comm W 21: 26 N 17; 21 D 8 '45
HUNT foods, inc.
Sales likely to rise 150%. Barron's 26:6 Jl 1 '46
Stocks offered. Comm & Fin Chr 163:1729 Ap 1 '46
HUPP corporation (formerly Hupp motor car corporation)
Hupp's Knudsen. Bsns W p50 Je 29 '46
HURRICANES
Major United States hurricanes, 1900-1944; table. Weekly Underw 155:79 Jl 13 '46
Post-storm rehabilitation of distribution system. P. J. Carlin. il Elec World 126:70-3 O 12 '46
Spotting hurricanes and thunderstorms by radar. S. R. Winters. il Radio N 35:45+ Mr '46
Timber hangar's collapse in Florida hurricane investigated. D. E. Carberry. il map plan Civil Eng 16:387-90 S '46
Wind losses in 1945. S. D. Flora. il Rough Notes 89:15-16 Mr '46
Winds beyond design assumptions wrecked Navy's timber hangars; inquiry into hurricane damage at Richmond, Fla. il Eng N 137:22 Jl 11 '46
HUSBAND and wife
Partnership cases; Supreme court action upon Tower and Lusthaus. F. E. Seidman. J Account 81:503 Je '46
Payee of note not precluded from recovery against maker (wife) of note where proceeds are given to husband. Banking Law J 63: 537-41 Jl '46
Trust company acting improperly as executor and guardian of joint owners of savings account; husband and wife. Banking Law J 62:763-5 O '45
Wife entitled to recover her share of joint accounts on ground of unjust enrichment where husband withdraws all funds. Banking Law J 63:498-501 Je '46
See also
Community property
HUSBANDS, Sam Henry, 1891-
Portrait. Bsns W p76 My 18 '46
HUTCHESON, William Levi, 1874-
Boss carpenter; Big Bill Hutcheson rules all those who work with wood. pors Fortune 33:118-23+ Ap '46; Same without il. Arch Forum 84:110-11+ Ap '46
HYALURONIDASES
Hyaluronidase inhibition by sodium salicylate in rheumatic fever. F. Guerra. bibliog Science 103:686-7 Je 7 '46
Mechanism of hyaluronidase action in skin. O. Hechter. Science 104:409-10 N 1 '46
HYAMINE 1622
New odorless disinfectant. J. A. Goldberg. Safety Eng 92:59-61 Jl '46
HYAMINE 3258
Tropicalization; mildew proofing. Mech Eng 68:256-7 Mr '46
HYATT, John Wesley, award
John Wesley Hyatt award. Mod Plastics 23: 113 My '46
HYBRID corn. See Corn
HYCAR. See Rubber, Artificial
HYDANTOINS
1-Acetyl-5,5-dimethylhydantoin. M. R. Salmon and A. Z. Kozlowski. Am Chem Soc J 67:2270-1 D '45
Alkaline hydrolysis of fluorenone-spirohydantoin. G. H. Harris, B. R. Harriman and K. W. Wheeler. bibliog Am Chem Soc J 68:846-8 My '46
Quinaldil, quinaldoin and diquinolylhydantoin. F. Linsker and R. L. Evans. Am Chem Soc J 68:947-8 Je '46
HYDRANTS
Hydrant over main saves space. il Eng N 136:869 My 30 '46
New hydrant assembly conserves space. S. C. McKee. il Civil Eng 16:265 Je '46
Rapid emergency method of thawing hydrants with sulfuric acid. E. E. Jacobson. Water & Sewage Works 93:R42 Ap '46
Testing
Hydrant-flow and pipe condition tests. S. Keith. il N E Water Works Assn J 60:68-82 Mr '46
HYDRATES
Hot water bath prevents hydrate formation at pressure controls. il Pet Refiner 25: 142+ Ja '46
See also
Gas, Natural—Hydrates
HYDRATION
Nature of the variable hydration of precipitated barium sulfate. G. Walton and G. H. Walden, jr. bibliog Am Chem Soc J 68:1750-3 S '46
HYDRATORS, Lime
Lime hydrating systems. G. R. Lacy. diags Rock Prod 49:68-70 S '46
HYDRAULIC accumulators
Research and development of aircraft accumulators; abstracts. K. C. Monroe. Automotive & Aviation Ind 94:64+ Ja 15 '46; il S A E J 54:sup28-9 F '46
HYDRAULIC brakes. See Brakes, Hydraulic
HYDRAULIC control
Automotive hydraulic steering mechanism assists driver and eliminates road shock. il Product Eng 17:285 Ap '46
Axial-piston design fluid motor is built by Denison engineering. il Am Mach 90:174 N 7 '46
Hydraulic lift control quadrant made of stamped parts. il diags Product Eng 17: [no 7] 105 Jl '46
Hydraulic link protects press. D. A. Rogers. il diag Machine Design 18:118 Ap '46
Lockheed hydraulic drive for rotary grate. il Gas J (Lond) 247:185 Ja 30 '46
Maximum clamping at minimum cost; hydraulically actuated fixtures. F. R. Swanson. il diag Am Mach 90:93-6 Ag 1 '46
New developments in combination controls. J. W. Kelly. il diags A S M E Trans 68: 701-6 O '46
Pneumatic power and control; where they fit; comparison with hydraulic; cost data. R. E. Becker. il diags Machine Design 18: 107-12 Ap '46
Servo-operated steam valve control for marine use. diag Engineer 180:515 D 21 '45
Sperry hydraulic control units. il Marine Eng 51:135 My '46
Wadkin electro-hydraulic cross-cut saw. il Engineer 181:527-8 Je 7 '46
HYDRAULIC conveying
Discussion of hydraulic materials transportation. F. B. Allen. Mech Eng 67:825-6 D '45
What the power engineer needs to know about the hydraulic conveyor. W. G. Hudson. il Power Pl Eng 50:74-5 Mr '46

HYDRAULIC engineering
Coaster gate and handling equipment for river outlet conduits in Shasta dam. J. E. Warnock and H. J. Pound. il diags A S M E Trans 68:199-206 Ap '46
New project for stabilizing and deepening lower Mississippi river. C. Senour. maps Am Soc C E Proc 72:145-58 F '46; Discussion. 72:1020-2 S '46
Relief wells for dams and levees. T. A. Middlebrooks and W. H. Jervis. diags Am Soc C E Proc 72:781-98 Je '46; Discussion. 72: 1165-72 O '46

See also
Aqueducts
Artesian wells
Bridges—Foundations and piers
Caissons
Channels
Cofferdams
Dams
Dikes (engineering)
Drainage
Flood control
Gates, Hydraulic
Harbors
Hydraulic machinery
Hydraulic models
Hydraulic transmission
Hydraulics
Hydrodynamics
Hydroelectric plants
Irrigation
Jetties
Levees
Piers
Pumping
Pumping machinery
Pumping stations
Pumps
Reservoirs
Sand traps
Shore protection
Siphons
Spillways
Stream measurement
Tidal power
Water flow
Water supply engineering
Waterworks
Wells

Study and teaching

Hydraulics courses important in the civil engineering curriculum. H. A. Thomas, jr. Civil Eng 16:111-12 Mr '46; Discussion. D. Johnstone. 16:267-9 Je '46

Tables, calculations, etc.

Better method of representing and studying water-turbine performance. R. A. Sutherland. A S M E Trans 68:675-82; Discussion. 682-6 O '46
Dams on porous media; experimental data on uplift forces; electric-analogy method. M. A. Selim. bibliog diags Am Soc C E Proc 71:1518-35 D '45
Determination of pressures within a siphon spillway. I. M. Nelidov. Am Soc C E Proc 71:297-306 Mr '45; Discussion. il diags 71: 1537-44 D '45
Flood flow formulas. H. B. Kinnison. Boston Soc C E J 33:1-19; Discussion (Applications of Kinnison-Colby flood formulas). B. L. Bigwood. 3 fold pls 20-8 Ja '46
Graphical solution for flood routing problems. H. M. Cheng. Civil Eng 16:126-8 Mr '46
Percolation under aprons of irrigation works. S. Leliavsky. diags Engineer 181:328-30, 352-3, 375-7 Ap 12-26 '46
Rotary-pump theory. W. E. Wilson. bibliog(46 titles) diags A S M E Trans 68: 371-84 My '46
Variable flow in level channels solved by simple chart. G. G. Commons and L. B. Griffith. bibliog diag Eng N 137:442-4 O 3 '46

HYDRAULIC filling
Wellpoints in a pumped-sand fill facilitate outfall sewer construction. il diags Eng N 137:238-40 Ag 22 '46

HYDRAULIC gates. See Gates, Hydraulic

HYDRAULIC jacks
Tractor jack combines hydraulic power and ingenuity to ease job. il Sci Am 174:222 My '46

HYDRAULIC laboratories
Hydraulic laboratory established, to be known as the Rocky Mountain hydraulic laboratory. map Civil Eng 16:41 Ja '46

HYDRAULIC machinery
Adjustable metering pistons; patent assigned to Nathan mfg. co. diag Machine Design 18:168+ F '46
Cincinnati 16-in. Hydro-Tel built in 3 different styles. il Am Mach 90:160 O 24 '46
Eliminates machine distortions in hydraulic cylinder arrangements; patent assigned to Heald machine co. diag Machine Design 18:172 Ja '46
Graphical method for analyzing hydraulic pump and motor data. O. E. Teichmann. diag Product Eng 17:230-5 Mr '46
Hydraulic nipple crusher is safe, speeds up removal of fittings from salvage flanges. B. I. Bell. il Nat Pet N 38 pt 2:R338 My 1 '46
Hydraulic oils for industrial equipment. J. C. Van Gundy. il Mach 52:158-66 Ag '46
Hydraulic strippers facilitate drawing of thin shells. H. F. Hild. il diags Mach 52:147-53 D '45
New complete line of Logan Rotocast hydraulic cylinders. Mech Eng 67:sup41 D '45
Newall hydraulically-operated cylindrical grinder. il Engineer 182:239 S 13 '46
Superdraulic high pressure hydraulic pump. il Iron Age 157:80-1 F 7 '46; Mach 52:228 Ap '46
Tangyes 25-ton universal testing machine. il diags Engineering 162:81 Jl 26 '46
Twin ellipses provide unique pump action; Superdraulic pump. A. H. Allen. il Machine Design 18:141-2+ Mr '46
Valves, piping and design data for control of hydraulic systems. V. M. Weltzien. il diags Product Eng 17:86-9 O '46

See also
Airplanes—Hydraulic equipment
Archimedean screw
Hydraulic presses
Hydraulic transmission
Pumps
Turbines
Valves, Hydraulic

Cavitation

Cavitation criteria shown photographically; stroboscopic pictures of turbine runners. il Elec World 125:133 Ap 13 '46
Cavitation in pumps. R. W. Angus. il diags Water & Sewage Works 93:125-8 Ap '46
Efficiency and cavitation of fluid machines. H. H. Anderson. bibliog Engineering 162: 334-5 O 4 '46

Design

Design of hydraulic systems. H. Field, jr. diags Product Eng 16:22-6, 100-4, 196-201, 265-9, 344-5, 409-11, 485-9, 546-51, 614-17, 746-9; 17:163-4 Ja-S, N '45, F '46

HYDRAULIC mining

See also
Gold dredging

HYDRAULIC models
Correction of tailwater erosion at Prairie du Sac dam. C. N. Ward and H. J. Hunt. il Am Soc C E Proc 72:1077-89 O '46
Direction-indicating velocity tube. W. S. Hamilton. il Civil Eng 16:265-7 Je '46
Model and prototype studies on unique spillway; Fontana dam. A. J. Peterka. il diags Civil Eng 16:249-51 Je '46; Discussion. 16: 359, 461-2 Ag, O '46
Model study of Brown canyon debris barrier. K. J. Bermel and R. L. Sanks. il map diag Am Soc C E Proc 72:613-28 My '46; Discussion. 72:1325-6 N '46
Prototype verifies hydraulic model tests; stilling basins of the Miami conservancy district. E. W. Lane and J. D. Lee. il diags Civil Eng 15:556-7 D '45

HYDRAULIC oils. See Hydraulic transmission

HYDRAULIC presses
Denison packaged hydraulic power assemblies. il Mach 52:202 F '46
Electronic melting furnace facilitates injection molding of steel. S. M. Milanowski. il diags Steel 118:86-7+ My 27 '46
Forging with closed dies in hydraulic presses. C. W. Hinman. il Mach 52:176-8 F '46
Hydraulic control, positive stop, characterize Reliance 45-ton press. il diag Am Mach 90: 133 Ja 3 '46
Hydraulic press forms large and intricate shapes; fast. il diags Brick & Clay Rec 109: 56+ Ag '46
Hydropress blanks boiler plate; Caterpillar tractor co. W. J. Kamp. il diags Am Mach 90:99-101 Mr 14 '46
Hy-Mac press with continuous dial feed and automatic work ejector. il Mach 52:201 D '45
Modern direct-hydraulic system. F. H. Towler. diags Inst Mech Eng J & Proc 154: 178-89, pl 1-4 S '46; Same cond. Engineer 179:397-400, 415-17 My 18-25 '45; Discussion. Inst Mech Eng J & Proc 154:189-208 S '46; Engineer 179:394-5 My 18 '45
New equipment. il Iron Age 156:62-4 D 27 '45

HYDRAULIC presses—*Continued*
New equipment; stamping and forming presses. il Iron Age 157:81-6 My 9 '46
Obtains squeeze with hydraulic booster; molding press. J. H. McCormick. il diags Machine Design 18:119-20 Ap '46
Oilgear press for assembling camshaft bushings in motor block. il Mach 53:227 N '46
Petroleum in plastics processing. il Sci Am 173:294-6 N '45
Sizing shock absorber housings; hydraulic press with automatic indexing fixture made by Colonial broach co. il Steel 118:114 Ap 8 '46
Steel can be Guerinned too; Douglas aircraft rubber-shrinks corrosion-resistant steel with plastic dies and pressure plates. il Am Mach 90:102-3 Ag 1 '46
World's largest hydraulic presses constructed by United engineering & foundry co. il Steel 117:130+ D 3 '45

HYDRAULIC pressure devices
Resistance-seam-welded sacks used as hydraulic presses; for testing welds of dissimilar metals; other uses. R. T. Gillette. il diags Gen Elec R 49:7-10 Jl '46; Same. Welding J 25:847-50 S '46

HYDRAULIC rams
Concrete pipe jacked under a railroad. il Eng N 137:299-301 S 5 '46
Development of the motor vehicle hoist. W. J. Roberts. il diags Mech Handling 33:364-71+ Je '46

HYDRAULIC research
Cavitation in hydraulic structures; a symposium. J. K. Vennard and others. bibliog il diags Am Soc C E Proc 71:1000-68 S '45; Correction. 71:1571 D '45; Discussion. bibliog 72:419-22, 563-8, 705-16, 867-80 Mr-Je '46
Experiments on effective uplift area in gravity dams. S. Leliavsky. bibliog il diags Am Soc C E Proc 71:1474-1517 D '45; Discussion. 72:889-900 Je '46
Flow in a channel of definite roughness. R. W. Powell. bibliog il diag Am Soc C E Proc 70:1521-44 D '44; Discussion. 71:948-53, 1259-62; 72:245-8 Je, O '45, F '46
Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. bibliog 71:1141-7, 1415-24; 72:857-63 S, N '45, Je '46
Prototype verifies hydraulic model tests; stilling basins of the Miami conservancy district. E. W. Lane and J. D. Lee. il diags Civil Eng 15:556-7 D '45

HYDRAULIC transmission
American hydraulic duplicating lathe. il Mach 53:182-3 S '46; Ry Mech Eng 120:494-5 S '46
Brad Foote hydrostatic clutch or speed control unit. il diag Automotive & Aviation Ind 94:52+ Ja 15 '46; Machine Design 17:109-10 D '45; Product Eng 17:22 Ja '46; Diesel Power 24:320-1+ Mr '46; Mech Eng 68:261-2 Mr '46
Cincinnati grinding machine is hydraulically operated. il diags Product Eng 17:96-7 Ag '46
Construction and operation of the White hydro torque transmission. R. Brunken. il diags Automotive & Aviation Ind 94:18-20+ Mr 1 '46
Controlled clutching licks high breakaway torques; utilization of centrifugal force with mercury as hydraulic medium. H. J. Zimmermann. il diags Machine Design 18:137-41 Jl '46
Dowty live line hydraulic system. il diag Mech Handling 32:636-8 N '45
Electro-hydraulic control incorporated in Chrysler, DeSoto transmissions. il diags Automotive & Aviation Ind 94:22-5 Mr 1 '46
German aircraft hydraulic systems and their components. R. H. Davies. diags S A E J 54:418-35 Ag '46
Hydraulic actuator; patent assigned to North American aviation, inc. diag Machine Design 17:174 D '45
Hydraulic circuit in bending machines. E. J. DeWitt and H. S. Nachman. diag Mach 52: 149-51 Je '46
Hydraulic hoisting used in proposed rotary rig. N. Williams. il Oil & Gas J 45:148 My 18 '46
Hydraulic operation of engine hood, window and other car facilities. S. B. McLeod. il diag Automotive & Aviation Ind 94:32-3 Ap 15 '46
Hydraulic power; design and construction principles in small, radial-type plunger pump. A. H. Allen. il Steel 118:134+ Mr 4 '46
Hydraulic power for farm machinery; abstract. L. R. Twyman. Machine Design 18: 174 Ja '46
Hydraulic torque converters and couplings. N. A. D'Arcy, jr. il Pet Eng 17:68+ N '45
Hydraulic transmission performance; abstract. A. H. Deimel. S A E J 54:sup38 Jl '46
Hydraulic transmissions. il diags Diesel Power 23:1324-9+ N '45
Hydraulic tubing design. B. J. McCabe. diags Aero Digest 52:95-6+ Je '46
Machine hydraulics. A. H. Dall. il diags Machine Design 18:43-8 Ap; 111-14 Je; 125-8 Ag; 87-90 O '46
Oil specialties data released by army, navy; development of better hydraulic oils, recoil oils and other special oils. Oil Paint & Drug Rep 150:7+ S 16 '46
Present-day motor drives and other electrical equipment for machine tools; comparison with hydraulic drives. G. A. Caldwell. Mach 52:166-7 Je '46
Pressure feedback retains feel of load in hydraulic power boost. il diags Product Eng 17:96-7 N '46
Selecting operating pressures for hydraulic systems. H. Field, jr. Product Eng 17:163-4 F '46
Special machine utilizes combination drives; milling machine to produce cutter bits for the Reed roller bit co. F. J. Kampmeier. il diags Machine Design 18:101-6 Ap '46
Transmissions giving uninterrupted acceleration. P. M. Heldt. il diags S A E J 54:330-8+ Jl '46
Trends in automotive transmissions. C. Carmichael. il diags Machine Design 18:127-32 Ap; 141-5 My '46

See also
Airplanes—Hydraulic equipment
Hydraulic control

HYDRAULIC valves. See Valves, Hydraulic

HYDRAULICS
Competency of moving water to transport debris. C. Nevin. bibliog Geol Soc Bul 57: 651-74, fold pl 1 Jl '46
Some points on hydraulics in the program for adequate piping. L. H. Kessler. il Dom Eng 167:110-13+ Je; 168:88-91+ Ag; 118-19+ S '46

See also
Cavitation
Floods
Flow meters
Fluids
Hydraulic engineering
Hydrodynamics
Liquids
Nozzles
Siphons
Silt
Stream measurement
Water flow
Waves
Wells

Electric analogies

Dams on porous media; experimental data on uplift forces; electric-analogy method. M. A. Selim. bibliog diags Am Soc C E Proc 71:1518-35 D '45; Discussion. G. V. Richards. 72:1019 S '46

Tables, calculations, etc.

Calcul des chambres d'équilibre à section constante par la méthode aux différences finies. L. Escande. Génie Civil 123:275-7 O 15 '46
Compact tables for Manning's formulas simplify hydraulic computations. L. E. Holder. Eng N 136:408-9 Mr 21 '46
Flow and depth in trapezoidal channels; with nomograph. P. M. Albert. Water Works & Sewerage 92:350-1 N '45
Flow in a channel of definite roughness. R. W. Powell. bibliog il diag Am Soc C E Proc 70:1521-44 D '44; Discussion. 71:948-53, 1259-62; 72:245-8 Je, O '45, F '46
Flow of liquids through vertical circular orifices and triangular weirs. F. W. Greve. il diag Purdue Univ Eng Exp Sta, Research Ser 95:1-67 '45 (pa 50c)

HYDRAULICS—Tables, calculations, etc.—*Continued*
Frictional pressure loss nomogram. J. R. Ernst. Engineer 182:5-6, supp Jl 5 '46
Graphical calculation of backwater eliminates solution by trial. F. F. Escoffier. Eng N 136:981 Je 27 '46
Hazen-Williams hydraulic slide rule; instructions for its use. Water & Sewage Works 93:255-6 Je '46
Hydraulics for the practical water works man. R. W. Angus. il diags Water & Sewage Works 93:261-6, 295-8, 335-8, 426-9, 491-3 Jl-S, N-D '46 (to be cont)
Internal pressure chart; safe working hydraulic pressures for round steel tubes. Steel 119:144-5 Ag 5 '46
Leakage in capillary seals of hydraulic valves and pumps. P. G. Exline. Product Eng 17: 290-6 Ap '46
Méthodes nouvelles pour le calcul des chambres d'équilibre. L. Escande. Génie Civil 123:188-90 Jl 15 '46

HYDRAZIDES
Isolation of aldonic acid lactones through their hydrazides. A. Thompson and M. L. Wolfrom. bibliog Am Chem Soc J 68:1509-10 Ag '46

HYDRAZINE
Photochemical investigations; the photolysis of unsymmetrical dimethylhydrazine. J. D. Overman and E. O. Wiig. Am Chem Soc J 68:320-1 F '46

HYDRAZINE hydrate
Hydrazine hydrate; war baby or new chemical intermediate? first German plant for its production. flow chart Chem Ind 58:424-5 Mr '46
Process of manufacture. Chem & Met Eng 53:212 Ja '46

HYDRAZOIC acid
Reaction of hydroxylamine-O-sulfonic acid with ketones. J. K. Sanford and others. bibliog Am Chem Soc J 67:1941-3 N '45
Synthesis of cardiazole (pentamethylenetetrazole) by the action of hydrazoic acid on *cyclo*hexanone. N. B. Chapman, H. McComble and B. C. Saunders. Chem Soc J p929 D '45

HYDRAZONES
Absorption spectra of some 2,4-dinitrophenylhydrazones. J. D. Roberts and C. Green. bibliog Am Chem Soc J 68:214-16 F '46
Acetylation of D-mannose phenylhydrazone. M. L. Wolfrom and M. G. Blair. bibliog Am Chem Soc J 68:2110-11 O '46
Studies in light absorption; 2 : 4-dinitrophenylhydrazones. E. A. Braude and E. R. H. Jones. Chem Soc J p498-503 Ag '45

HYDRIDES
Structure of some electron-deficient molecules. H. C. Longuet-Higgins. Chem Soc J p139-43 F '46
Symposium on hydrides. Chem & Eng N 24: 2472-3 S 25 '46
Volatile hydrides of toxicological importance. S. E. Webster. bibliog(60 titles) il J Ind Hygiene 28:167-82 S '46

HYDROBROMIC acid
Isomerization of alkanes; effect of olefins upon the isomerization of *n*-butane in the presence of aluminum halide;—hydrogen halide catalyst. H. Pines and R. C. Wackher. bibliog diags Am Chem Soc J 68:595-9 Ap '46

HYDROCARBONS
Assembly and calibration of a density balance for liquid hydrocarbons. A. F. Forziati and others. diags J Res Nat Bur Stand 35:513-19 D '45
Basic petroleum chemistry for refinery employes: naming hydrocarbons. J. J. Stadtherr. bibliog Pet Refiner 25:152-4 Ap '46
Calculation of specific dispersion of pure hydrocarbons and petroleum fractions. M. R. Lipkin and C. C. Martin. bibliog Ind & Eng Chem Anal ed 18:433-6 Jl '46
Catalytic conversion of hydrocarbons; catalytic promoting effect of antimony tetroxide in the aromatization of hydrocarbons with a chromia-alumina catalyst. F. E. Fisher and others. bibliog diag Ind & Eng Chem 38:61-4 Ja '46
Catalytic cracking of pure hydrocarbons; aromatics and comparison of hydrocarbon classes. B. S. Greensfelder, H. H. Voge and G. M. Good. bibliog Ind & Eng Chem 37:1168-76 D '45
Catalytic cracking of pure hydrocarbons; cracking of naphthenes. B. S. Greensfelder and H. H. Voge. bibliog Ind & Eng Chem 37:1038-43 N '45
Catalytic cracking of pure hydrocarbons; secondary reactions of olefins; isomerization, hydrogen transfer, polymerization, and aromatization. H. H. Voge, G. M. Good and B. S. Greensfelder. Ind & Eng Chem 38: 1033-40 O '46
Catalytic gasification of higher hydrocarbons. C. H. Riesz and others. bibliog diags Am Gas Assn Mo 28:159-64+ Ap '46
Catalytic synthesis of hydrocarbons and oxygenated compounds from ketene and its relation to the Fischer-Tropsch synthesis. B. R. Warner, M. J. Derrig and C. W. Montgomery. bibliog Am Chem Soc J 68: 1615-17 Ag '46
Chemicals from lighter hydrocarbons. J. E. Bludworth. Pet Refiner 25:102-5 My '46
Compressibility of liquid hydrocarbons. E. W. Jacobson and others. bibliog Oil & Gas J 44: 109-10 Mr 23 '46
Condensation of aliphatic alcohols with aryl hydrocarbons in the presence of chlorosulfonic acid. W. H. C. Rueggeberg, M. L. Cushing and W. A. Cook. bibliog Am Chem Soc J 68:191-2 F '46
Conductometric investigation of electrolytic solutions in hydrocarbons. A. Gement. bibliog J Chem Phys 14:424-34 Jl '46
Design and operation of a light hydrocarbon distillation drier; abstract. G. C. Gester, jr. flow diag Pet Processing 1:90 O '46
Desulfurization of petroleum hydrocarbons. R. M. Reed. bibliog flow chart il Oil & Gas J 44:219-20+ Mr 30 '46
Determination of the boiling range of chlorinated hydrocarbons. D. Williams. Ind & Eng Chem Anal ed 18:157-60 Mr '46
Development of windowed cell; natural gas well study by U.S. Bureau of mines; equipment for observing hydrocarbon phases under variable pressures. C. K. Eilerts and others. bibliog il diags Am Gas Assn Mo 28:435-40 O '46
Digest of United States patents on alkylation of hydrocarbons. H. Heinemann, comp. Pet Refiner 25:166+ F '46
Digest of United States patents on dehydrogenation of hydrocarbons. H. Heinemann, comp. Pet Refiner 25:210+ S '46
Digest of United States patents on hydrogenation of hydrocarbons and carbon monoxide. H. Heinemann, comp. Pet Refiner 25:168+ Ja '46
Digest of United States patents on isomerization of hydrocarbons. H. Heinemann, comp. Pet Refiner 24:208+ N '45; 25:200+ My '46
Digest of United States patents on polymerization of hydrocarbons. H. Heinemann, comp. Pet Refiner 25:212+ Je '46
Digest of United States patents on refining of hydrocarbons. H. Heinemann, comp. Pet Refiner 24:172+ D '45
Effect of added components on the relative volatility of two binary mixtures. O. L. Updike, jr. and others. bibliog Am Inst Chem Eng Trans 41:717-36 D '45
Effect of hydrocarbon bacteria on racemic mixtures of hydrocarbons. J. Turkevich and L. A. Hiller, jr. Am Chem Soc J 68:530-1 Mr '46
Equation relating density, refractive index, and molecular weight for paraffins and naphthenes. M. R. Lipkin and C. C. Martin. bibliog Ind & Eng Chem Anal ed 18:380-2 Je '46
Extractive distillation of hydrocarbon mixtures in a packed column. R. S. Dicks and C. S. Carlson. bibliog il diag Am Inst Chem Eng Trans 41:789-803 D '45
Extractive distillation; separation of C_4 hydrocarbons using furfural. J. Happel and others. bibliog diags Am Inst Chem Eng Trans 42:189-214 Ap '46
Formation of hydrocarbons from fatty acids by alpha-particle bombardment. C. W. Sheppard and W. L. Whitehead. bibliog il diags Am Assn Pet Geologists Bul 30:32-51 Ja '46

HYDROCARBONS—*Continued*

Further investigations of polarity in hydrocarbons possessing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:244-7 F '46

Heat-reactive hydrocarbon resins and oils; abstract. W. J. Sparks and J. D. Garber. Oil Paint & Drug Rep 148:42-3 N 12 '45

Heats, equilibrium constants, and free energies of formation of the acetylene hydrocarbons through the pentynes, to 1,500° K. D. D. Wagman and others. bibliog J Res Nat Bur Stand 35:467-96 D '45

Heats, equilibrium constants and free energies of formation of the alkylbenzenes. W. J. Taylor and others. bibliog J Res Nat Bur Stand 37:95-122 Ag '46

Heats, equilibrium constants and free energies of formation of the monoolefin hydrocarbons. J. E. Kilpatrick and others. bibliog J Res Nat Bur Stand 36:559-612 Je '46

Heats of combustion and air required to burn hydrocarbons; tabulation. Oil & Gas J 44: B104 sec 2 Mr 30 '46

Heats of combustion and formation at 25° C of the alkylbenzenes through $C_{16}H_{14}$, and of the higher normal monoalkylbenzenes. E. J. Prosen and others. bibliog J Res Nat Bur Stand 36:455-61 My '46

Heats of combustion of four cyclopentane and five cyclohexane hydrocarbons. W. H. Johnson and others. bibliog J Res Nat Bur Stand 36:463-8 My '46

Heats of formation and combustion of the normal alkylcyclopentanes and cyclohexanes and the increment per CH_2 group for several homologous series of hydrocarbons. E. J. Prosen and others. bibliog J Res Nat Bur Stand 37:51-6 Jl '46

Heats of formation, hydrogenation, and combustion of the monoolefin hydrocarbons through the hexenes, and of the higher 1-alkenes, in the gaseous state at 25° C. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 36:269-75 Mr '46

High molecular weight hydrocarbons; eicosane, 1-phenyleicosane and 3-ethyloctadecane. K. W. Sherk, M. V. Augur and M. D. Soffer. bibliog Am Chem Soc J 67:2239-40 D '45

Higher hydrocarbons; the Wolff-Kishner reaction. F. C. Whitmore and others. bibliog Am Chem Soc J 67:2059-61 D '45

Hydrocarbon azeotropes of benzene. R. F. Marshner and W. P. Cropper. bibliog Ind & Eng Chem 38:262-8 Mr '46

Hydrocarbon thermodynamics. W. C. Edmister. bibliog Pet Eng 17:79-83 Mr; 130+ Ap; 211+ My '46

Hydrogen by the steam-hydrocarbon process. il Chem & Met Eng 53:122-3 My '46

Hypersorption process for separation of light gases. C. Berg. il diags Am Inst Chem Eng Trans 42:665-79; Discussion. 679-80 Ag '46

Influence of structure on the oxidation reactivity of hydrocarbons. P. George and A. Robertson. Inst Pet J 32:400-7 Jl '46

Life of a cobalt catalyst for the synthesis of hydrocarbons at atmospheric pressure. C. C. Hall and S. L. Smith. bibliog il diag Soc Chem Ind J 65:128-36 My '46

Low temperature processing of light hydrocarbons. A. W. Pratt and N. L. Foskett. il diag Am Inst Chem Eng Trans 42:149-61; Discussion. 161-3 F '46

Mechanism of contact conversions of hydrocarbons on a vanadium catalyst; dehydrogenation of 6-membered rings; abstract. A. F. Plate and G. A. Tarasov. Chem & Met Eng 53:268 Jl '46

Metastable ions formed by electron impact in hydrocarbon gases. J. A. Hipple and others. bibliog diag Phys R 69:347-56 Ap 1 '46

Method for predicting phase equilibrium constants. C. G. Kirkbride. bibliog Pet Refiner 24:97-104 D '45

Modern refining processes; isomerization of normally liquid hydrocarbons. G. Armistead, jr. diag Oil & Gas J 45:93-4+ S 28 '46

Molecular weights of viscous hydrocarbon oils; correlation of density with viscosities. A. E. Hirschler. bibliog Inst Pet J 32:133-61 Mr '46

Mollier diagram for hydrocarbons. Oil & Gas J 44:109 F 9 '46

Multicomponent fractionation design method. W. C. Edmister. bibliog il diag Am Inst Chem Eng Trans 42:15-32 F '46

New plant will provide pattern for synthetic-liquid fuels industry. F. R. Staley. flow diag il Oil & Gas J 44:118+ Ap 27 '46

New synthetic lubricants from natural or other hydrocarbon gases. J. C. Kratzer and others. il Nat Pet N 38 pt 2:R135-6+ F 6 '46; Same, with additional il. Pet Refiner 25:127-38 F '46; Same. S A E J 54: 228-37 My '46

Newly developed process secures pure hydrocarbons from petroleum; Distex process. flow diags Nat Pet N 38 pt 2:R283-4 Ap 3 '46

Nonbenzenoid hydrocarbons in recycle benzene. J. R. Anderson, A. S. Jones and C. J. Engelder. Ind & Eng Chem 37:1052-3 N '45

Petroleum provides new hydrocarbons for the chemical industry. C. C. Crawford. il Chem Ind 59:469-73 S '46

Phase equilibria in hydrocarbon systems; *n*-butane—decane system in the condensed region. H. H. Reamer, B. H. Sage and W. N. Lacey. bibliog diag Ind & Eng Chem 38:986-9 O '46

Phase relations of hydrocarbon-water systems; abstract. J. J. McKetta, jr. and D. L. Katz. Oil & Gas J 45:97 O 5 '46

Physical properties and chemical constitution; aliphatic hydrocarbons. A. I. Vogel. Chem Soc J p133-9 F '46

Pure hydrocarbons from petroleum; composition and separation of a straight-run heptane fraction by the Distex process. J. Griswold and C. F. Van Berg. flow diag il diag Ind & Eng Chem 38:170-7 F '46

Pure hydrocarbons from petroleum; separation of straight-run fractions by Distex process. J. Griswold and others. bibliog flow diags Ind & Eng Chem 38:65-70 Ja '46

Purification and properties of 29 paraffin, 4 alkylcyclopentane, 10 alkylcyclohexane, and 8 alkylbenzene hydrocarbons. A. F. Forziati and others. bibliog J Res Nat Bur Stand 36:129-36 F '46

Purification, purity and freezing points of 31 hydrocarbons of the API-NBS series. A. R. Glasgow, jr. and others. bibliog J Res Nat Bur Stand 37:141-5 Ag '46

Rates of decomposition of hydrocarbons in destructive hydrogenation; abstract. A. V. Lozovoi and S. A. Senyavin. Chem & Met Eng 53:272 Je '46

Reactions of aliphatic hydrocarbons with sulfur; production of olefins, diolefins, and thiophene. H. E. Rasmussen, R. C. Hansford and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:376-82 Ap '46

Reactions of sulfur dioxide with unsaturated hydrocarbons. O. Grummitt and A. Ardis. bibliog il J Chem Educ 23:73-7 F '46

Redwood products as inhibitors of oxidation in petroleum hydrocarbons. H. F. Lewis and others. bibliog il Ind & Eng Chem 37: 988-90, 1108-11 O-N '45

Review of the mechanism of the oxidation of liquid hydrocarbons. P. George and A. Robertson. bibliog Inst Pet J 32:382-91 Jl '46

Rubber Reserve issues Safety manual for copolymer plant laboratories. Chem & Eng N 24:1805-8 Jl 10 '46

Scattering of electrons by hydrocarbon films. J. Karle. diags J Chem Phys 14:297-305 My '46

Simplified design for precise fractionation of light hydrocarbons. F. H. Stone. flow diag il Pet Refiner 25:124-8 Ap '46

Solid solutions in hydrocarbon systems. J. W. Tooke and J. G. Aston. Am Chem Soc J 67: 2275-6 D '45

Solubility of water in alcohol-hydrocarbon mixtures. C. B. Kretschmer and R. Wiebe. bibliog Ind & Eng Chem 37:1130-2 N '45

Solvents in the paint industry; coal tar hydrocarbons. R. B. Pollak. bibliog Paint Oil & Chem R 109:10+ F 21 '46

Solvents in the paint industry; the chlorinated hydrocarbons. R. B. Pollak. bibliog Paint Oil & Chem R 109:12+ Ap 4 '46

Spectrophotometric studies on solubilization of hydrocarbons. W. Heller and H. B. Klevens. J Chem Phys 14:567 S '46

HYDROCARBONS—*Continued*
Swelling of rubber; swelling behaviour of vulcanized natural rubber and GR-S in mixtures of hydrocarbons. F. S. Rostler and K. S. Rostler. bibliog Rubber Age 60: 57-68 O '46
Synthine process. J. C. Lane and B. H. Weil. bibliog and patent list (341 references) il diags Pet Refiner 25:87-98 Ag; 97-108 S; 109-20 O '46 (to be cont)
Temperature-density relation for gasoline-range hydrocarbons. J. Griswold and J. Chew. bibliog Ind & Eng Chem 38:364-7 Ap '46
Theoretical evaluation of normal frequencies of vibration of the isomeric octanes. C. O. Ahonen. J Chem Phys 14.625-36 O '46
Vapor-liquid equilibria in phenol-hydrocarbon systems. H. G. Drickamer and others. bibliog(p603) diags Am Inst Chem Eng Trans 41:555-605 O '45
Vapor-liquid equilibria of binary hydrocarbon systems. J. M. Harrison and L. Berg. Ind & Eng Chem 38:117-20 Ja '46
Vapor pressure nomograph for non-branched paraffinic hydrocarbons. E. Berl. Chem & Met Eng 53:166 F '46
Vapor pressures of hydrocarbon mixtures. Oil & Gas J 44:131 F 16 '46
Viscosities of pure hydrocarbons. J. M. Geist and M. R. Cannon. bibliog diags Ind & Eng Chem Anal ed 18:611-13 O '46
Wolff-Kishner reaction at atmospheric pressure. C. H. Herr, F. C. Whitmore and R. W. Schiessler. bibliog Am Chem Soc J 67:2061-3 D '45

See also
Acetylene
Benzene
Butadiene
Butane
Coal tar products
Fischer-Tropsch process
Heptane
Isoprene
Naphthalene
Olefins
Paraffins
Petroleum
Propane
Styrene
Terpenes
Toluene

Analysis

Analysis for naphthene ring in mixtures of paraffins and naphthenes. M. R. Lipkin, C. C. Martin and S. S. Kurtz, jr. bibliog Ind & Eng Chem Anal ed 18:376-80 Je '46
Analysis of multicomponent mixtures of hydrocarbons in the liquid phase by means of infra-red absorption spectroscopy. D. L. Fry and others. il J Ap Phys 17:150-61 Mr '46
Analyzing complex chemicals by infrared spectroscopy; abstract. W. D. Seyfried and S. H. Hastings. Can Chem & Process Ind 30:104 O '46
Applications of the mass spectrometer to refinery process control. W. S. Young. bibliog il diag Nat Pet N 38 pt 2:R212-14+ Mr 6 '46
Computer for solving linear simultaneous equations. C. E. Berry and others. bibliog il diags J Ap Phys 17:262-72 Ap '46
Determination of aromatics, naphthenes, and paraffins by refractometric methods. R. M. Gooding, N. G. Adams and H. T. Rall. bibliog Ind & Eng Chem Anal ed 18:2-13 Ja '46
Determination of basic nitrogen in hydrocarbon feed stocks. L. Donn and H. Levin. diags Ind & Eng Chem Anal ed 18:593-5 O '46
Determination of conjugated diolefins with chloromaleic anhydride. S. T. Putnam, M. L. Moss and R. T. Hall. bibliog diags Ind & Eng Chem Anal ed 18:628-30 O '46
Determination of organic peroxides in hydrocarbons. E. M. Tanner and T. F. Brown. bibliog Inst Pet J 32:341-50 Je '46
Determination of rubber hydrocarbon by a gravimetric rubber bromide method. C. O. Willits, M. L. Swain and C. L. Ogg. bibliog Ind & Eng Chem Anal ed 18:439-42 Jl '46
Determination of small amounts of aromatic hydrocarbons in aqueous solutions. H. E. Morris, R. B. Stiles and W. H. Lane. bibliog Ind & Eng Chem Anal ed 18:294 My '46
Determination of the purity of hydrocarbons by measurement of freezing points. A. R. Glasgow, jr. and others. bibliog diags J Res Nat Bur Stand 35:355-73 N '45
Fingerprinting hydrocarbons and compounds. il Pet Refiner 25:115-18 Jl '46
Lamp method for determination of hydrogen in liquid organic compounds. S. G. Hindin and A. V. Grosse. diag Ind & Eng Chem Anal ed 17:767-9 D '45
Mass spectrometer as an analytical tool. A. K. Brewer. il Min & Met 27:207-9 Ap '46
Observations on the Fujiwara reactions as a test for chlorinated hydrocarbons. F. J. Webb and others. bibliog J Ind Hygiene 27: 249-55 N '45
Photoelectric Raman spectrograph for quantitative analysis. D. H. Rank and R. V. Wiegand. bibliog il diags Opt Soc Am J 36:325-34 Je '46
Physics research division broadens its activities; Universal oil products company. G. M. Webb and others. layout plan Pet Eng 17:61-2+ S; 18:224+ O '46; Same cond. Pet Processing 1:44+ S '46
Preparation of synthetic samples of low-boiling hydrocarbons. R. H. Busey, G. L. Barthauer and A. V. Metler. diags Ind & Eng Chem Anal ed 18:407-11 Jl '46
Proposed method of test for total olefinic and aromatic hydrocarbons in gasoline. il diags Am Soc T M Proc 45:247-52 '45
Spectroscopic analysis; application of the ultra-violet absorption method to the analysis of mixtures containing aromatic hydrocarbons. R. R. Gordon and H. Powell. pl Inst Pet J 31:428-49 N '45
Spectroscopic analysis in the petroleum industry. F. Gill and R. R. Gordon. diags Pet Refiner 25:141-7 Je '46
System of characterization of pure hydrocarbons; refractometric analysis as a key to the evaluation of structure. R. T. Wendland. bibliog J Chem Educ 23:3-15 Ja '46
Westvaco halogenated hydrocarbon analyzer. il R Sci Instr 17:312-13 Ag '46

Physiological effect

Chemical health hazards in modern petroleum refining. R. G. Benson and P. M. Van Arsdell. bibliog il Oil & Gas J 45:95-7+ Ag 17 '46
Ventricular fibrillation induced by hydrocarbons and epinephrine. M. B. Chenoweth. bibliog il J Ind Hygiene 28:151-8 Jl '46

Standards

Pure hydrocarbons; story of API project 46. R. L. Demmerle. il Chem & Eng N 24: 2020-8 Ag 10 '46
Purification and sealing in vacuum of National bureau of standards standard samples of hydrocarbons. B. J. Mair and others. bibliog pl diag J Res Nat Bur Stand 37:229-38 O '46

HYDROCARBONS, Aromatic
Aromatics from petroleum; Catarole process. map Chem Age (Lond) 55:405-6, 433-5 O 5-12 '46; Same cond. Pet Eng 18:119+ O '46
Boiling point relations among mononuclear aromatics. N. Corbin, M. Alexander and G. Egloff. bibliog il Ind & Eng Chem 38: 156-9 F '46
Catalytic cracking of pure hydrocarbons; aromatics and comparison of hydrocarbon classes. B. S. Greensfelder, H. H. Voge and G. M. Good. bibliog Ind & Eng Chem 37: 1168-76 D '45
Catalytic dehydrogenation of polycyclic naphthenes. A. V. Grosse, J. M. Mavity and W. J. Mattox. bibliog Ind & Eng Chem 38:1041-5 O '46
Cooperative distillation tests. Am Soc T M Proc 45:340-7 '45
Determination of small amounts of aromatic hydrocarbons in aqueous solutions. H. E. Morris, R. B. Stiles and W. H. Lane. bibliog Ind & Eng Chem Anal ed 18:294 My '46
Glycosylation of hydrocarbons by means of the Grignard reagent. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67: 1972-7 N '45
Mechanism of condensation of the anhydrides of mono- and di-substituted succinic acids with aromatic hydrocarbons under the conditions of the Friedel-Crafts reaction. M. A. Saboor. Chem Soc J p922-5 D '45

HYDROCARBONS, Aromatic—*Continued*
Molecular volumes of mononuclear aromatic hydrocarbons. N. Corbin, M. Alexander and G. Egloff. bibliog Ind & Eng Chem 38:610-11 Je '46
Monomercuration of aromatic hydrocarbons. A. J. Barduhn, K. A. Kobe and T. F. Doumani. bibliog il diag Ind & Eng Chem 38: 247-50 Mr '46
New catalytic process for aromatics announced; Catarole process. Oil & Gas J 45:155 O 19 '46
Principles of reactor design; pyrolytic dealkylation and concentration of aromatics. C. O. Reiser and K. M. Watson. diags Nat Pet N 38 pt 2:R260+ Ap 3 '46
Purification and physical constants of aromatic hydrocarbons. L. C. Gibbons and others. Am Chem Soc J 68:1130-1 Je '46
Reaction of aromatic hydrocarbons with polyacetylglycosyl derivatives of hydrocarbons. C. D. Hurd and W. A. Bonner. Am Chem Soc J 67:1977-9 N '45
Solvents in the paint industry; aromatic petroleum thinners. R. B. Pollak. Paint Oil & Chem R 109:9-10+ Ja 24 '46
Some factors influencing the ultraviolet absorption spectra of polynuclear aromatic compounds; a general survey. R. N. Jones. bibliog Am Chem Soc J 67:2127-50 D '45
Some factors influencing the ultraviolet absorption spectra of polynuclear aromatic compounds; the spectra of aryl carbinols and polybenzfluorenes. R. N. Jones. Am Chem Soc J 67:2021-7 N '45
Spectroscopic analysis; application of the ultra-violet absorption method to the analysis of mixtures containing aromatic hydrocarbons. R. R. Gordon and H. Powell. pl Inst Pet J 31:428-49 N '45

See also
Benzene
Naphthalene

HYDROCHLORIC acid
Activity of hydrochloric acid in solutions of 1-*n*-dodecanesulfonic acid. H. F. Walton. Am Chem Soc J 68:1182-4 Jl '46
Chemical cleaning takes the bull work out of scale removal. E. W. Feller and G. F. Williams. bibliog il diags Power 90:586-90, 659-62 S-O '46
Combination of acids employed in pickling process. E. W. Mulcahy. diags Steel 118: 122-4 Ap 15 '46
Hydrochloric (muriatic) acid solutions; tabulated information. W. L. Nelson. Oil & Gas J 44:189 F 23 '46
Hydrogen gas explosion damages condenser-turbine; believed caused by reaction between clean iron and hydrochloric acid. E. D. St John. il Elec World 125:98-9 F 16 '46
Isomerization of alkanes; effect of olefins upon the isomerization of *n*-butane in the presence of aluminum halide-hydrogen halide catalyst. H. Pines and R. C. Wackher. bibliog diags Am Chem Soc J 68:595-9 Ap '46
Nomograph for partial pressure of hydrochloric acid. E. Berl and G. A. Sterbutzel. Chem & Met Eng 53:117 Ap '46
Reaction rate of hydrogen chloride and sulfide with steel. C. F. Prutton, D. Turnbull and G. Dlouhy. bibliog diag Ind & Eng Chem 37:1092-7 N '45
Repairs to steam turbine unit following hydrogen explosion; caused by use of hydrochloric acid for scale removal. E. D. St. John. il diags Power Pl Eng 50:64-8 Mr '46
Resisting hydrochloric acid; with list of materials. W. L. Nelson. Oil & Gas J 44: 155 Ap 20 '46
Stability of the methoxyl groups in methylated hydrochloric acid spruce lignin. F. E. Brauns. bibliog Am Chem Soc J 68:1721-4 S '46
Standard potential of the cell, $H_2|HCl(m)|AgCl\text{-}Ag$, in 50% glycerol-water solution from 0-90°. H. S. Harned and F. H. M. Nestler. bibliog Am Chem Soc J 68:665-6 Ap '46
Standard potentials of hydrogen-silver-silver chloride cells in ethylene glycol solutions at 25°. S. B. Knight, J. F. Masi and D. Roesel. bibliog Am Chem Soc J 68:661-5 Ap '46
Studies on hydrogen cyanide; the action of hydrogen chloride on methyl cyanide. L. E. Hinkel and G. J. Treharne. Chem Soc J p866-7 D '45
Study of the behavior of dextrose sodium chloride in hydrochloric acid solutions. L. D. Ough and G. T. Peckham, jr. bibliog Am Chem Soc J 68:136-7 Ja '46

HYDROCINCHONINE
Conversion of hydroquinidine into hydrocinchonine and of cupreine into cinchonidine. H. King. Chem Soc J p523-4 Je '46

HYDROCOL process. See Gasoline, Natural—Manufacture—Hydrocol process

HYDROCOUMARIN
Reaction between quinones and metallic enolates; second paper on bromotrimethylquinone and sodio malonic esters. L. I. Smith and P. F. Wiley. il Am Chem Soc J 68:887-93 My '46

HYDROCYANIC acid
Calcium cyanide solutions as constant sources of hydrogen cyanide gas for animal experiments. W. A. Robbie and P. J. Leinfelder. bibliog diags J Ind Hygiene 27:269-74 N '45
Self-broadening in the 14μ band of HCN. H. M. Foley. Phys R 69:628-31 Je 1 '46
Studies on hydrogen cyanide; the action of hydrogen chloride on methyl cyanide. L. E. Hinkel and G. J. Treharne. Chem Soc J p866-7 D '45
Therapeutic and prophylactic effect of methemoglobinemia in inhalation poisoning by hydrogen cyanide and cyanogen chloride. B. Jandorf and O. Bodansky. bibliog J Ind Hygiene 28:125-32 Jl '46

HYDRODYNAMICS
Application of basic data on planing surfaces to the design of flying-boat hulls. W. S. Diehl. diags U S Nat Advisory Com for Aeronautics 1940:287-93 '41
Calculated effect of various hydrodynamic and aerodynamic factors on the take-off of a large flying boat. R. E. Olson and J. M. Allison. bibliog diags U S Nat Advisory Com for Aeronautics 1940:497-512 '41
Direction-indicating velocity tube. W. S. Hamilton. il Civil Eng 16:265-7 Je '46
Effect of obstructions in tidal estuaries. A. M. Binnie. Engineering 161:241-2 Mr 15 '46
Fluid dynamics. W. W. Kraft. bibliog Ind & Eng Chem 38:6-7+ Ja '46
Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. bibliog 71:1141-7, 1415-24; 72:857-63 S, N '45, Je '46
Percolation under aprons of irrigation works. S. Leliavsky. diags Engineer 181:328-30, 352-3, 375-7 Ap 12-26 '46
Radio-controlled dynamic model augments hydrodynamic research. E. G. Stout. il Aviation 45:171-3 F '46
Statistical hypotheses in stellar dynamics. H. Jehle. Phys R 70:538-55 O 1 '46
Transient performance of propellers and ships during backing and reversal. R. Rüdonberg. bibliog diags Franklin Inst J 240:193-227, 347-78 S, N '45
Virtual masses of rectangular plates and parallelepipeds in water. Y. Yu. diag J Ap Phys 16:724-9 N '45

See also
Aerodynamics
Ship resistance
Viscosity
Waves

Electric analogies
Extending the application of electric analogy in oil reservoir studies; abstract. H. Schaefer. Oil & Gas J 45:90 O 5 '46

HYDROELECTRIC plants
Hydroelectric development of the Saint Lawrence river. G. H. Giroux. il map Elec Eng 65:495-8 N '46
Operations and plants of International nickel company of Canada; power. il Can Min J 67:464-7 My '46
Utilities have slim chance for plants at army dams. Elec World 126:63 Ag 31 '46

See also
Colorado river—Boulder Dam project
Columbia river—Grand Coulee dam
Tennessee Valley project

HYDROELECTRIC plants—*Continued*

Auxiliary plants

Protection of powerhouse auxiliaries. diags Elec Eng 65:Trans 746-51 N '46

Combination with steam plants

Control of load, frequency, and time of interconnected systems. C. K. Duff. bibliog il diags Elec Eng 64:Trans 778-86 N '45

Tennessee Valley authority and the war. il diag Engineer 181:306-8 Ap 5 '46

Construction

L'Aigle dam, France. il map plan diags Engineer 181:556-9, 578-80 Je 21-28 '46

Cost

Allatoona dam and powerhouse, Georgia; unit prices. Eng N 137:126+ Jl 25 '46

Davis dam and power plant, Arizona-Nevada; unit prices. Eng N 136:sup174+ F 7 '46

SPA hydro program, summary and fallacies; steam and hydro costs compared. map Elec World 125:60-3 Mr 30 '46

Wolf Creek dam and powerhouse substructure, Cumberland river, Kentucky; unit prices. Eng N 136:504 Ap 4 '46

Damage from boulders

Penstocks and power house damaged as result of falling boulder. diag Eng N 136: 934 Je 13 '46

Design

Bridge Canyon dam, bigger than Boulder; power plant to be enclosed in concrete dam. il map diag Power Pl Eng 49:80-1 O '45

Design of hydroelectric stations; Tennessee Valley project. G. P. Palo and C. R. Marks, 3d. plans diags Am Soc C E Proc 71:1209-23 O '45; Discussion. 71:1567-70; 72:881-4 D '45, Je '46

Hydroelectric power plants. A. H. Frampton. il plans diags Elec Eng 65:151-9 Ap '46

Méthodes nouvelles pour le calcul des chambres d'équilibre. L. Escande. Génie Civil 123:188-90 Jl 15 '46

Equipment

Design of mechanical auxiliaries for TVA hydroelectric plants. H. J. Petersen. il diags A S M E Trans 68:663-72 O '46; Same abr. Power Pl Eng 50:82-3+ Ag; 134 S; 128 O; 113 D '46; 51:107 Ja; 124 F; 116 Mr '47; Discussion. A S M E Trans 68:672-3 O '46

4,370,000-kva short-circuit tests on Grand Coulee 230-kv bus. W. H. Clagett and W. M. Leeds. il diags Elec Eng 65:Trans 729-35 N '46

Kentucky dam on the Tennessee river. H. Wiersema. il map plan diags Engineering 161:385-8, 396, 433-6, 444 Ap 26, My 10 '46

Primary supplies; generation and supply-exchange scheme in north Wales. il Elec R (Lond) 137:849-51 D 14 '45

Seven years' operating experience at Bonneville hydroelectric plant. il diags Power 90: 146-50 Mr '46

Technique of electrical and hydraulic testing of hydroelectric units. G. D. Floyd and J. J. Traill. bibliog il Elec Eng 65:Trans 163-9 Mr '46

See also
Turbines

Finance

New power fields opened by low interest rates; abstract. L. F. Harza. Eng N 136:823 My 23 '46

Toronto hydro-electric system; annual report. Electrician 137:516 Ag 23 '46

Government ownership

Agencies eye power companies' bids for army projects. Pub Util 38:421-3 S 26 '46

Authority threat; proposed legislation for establishment of regional authorities in major river valleys of United States. R. Carr. Elec West 96:77-80 Ap '46

Cheap power. M. W. Straus and others. Pub Util 37:437-40 Mr 28 '46

Cheap power, let's understand it. J. J. Deuel. Elec West 96:55-7 Mr '46

Government power; status of federal and state power development, existing and contemplated; tabulation. Elec World 125:132-3 Ja 19 '46

Hydroelectric projects constructed and operated by government agencies; tabulation. Power 90:385 Je '46

Ickes releases statement on federal power policy. Elec World News ed 125:3-4 Ja 12 '46

Interior officials talk power at National reclamation association meeting. W. W. Gardner and others. Pub Util 38:612-14 N 7 '46

Location and capacity of government hydro projects; map. Power 90:390 Je '46

Public benefits through using existing facilities for marketing power from government dams. R. L. Carr. Edison Elec Inst Bul 14:195-8 Je '46; Same cond. Elec West 97:63-5 Ag '46

Public power inroads told in utility annual reports. Pub Util 37:851-6 Je 20 '46

Public power pendulum in the Pacific Northwest. J. Dierdorff. Pub Util 37:483-91 Ap 11 '46

Straus wants lower interest on reclamation power. Pub Util 38:480-1 O 10 '46

Vast electric power empire disclosed in Interior's latest annual report. Pub Util 37: 440-5 Mr 28 '46

See also
Bonneville power administration

Heating and ventilation

Design of mechanical auxiliaries for TVA hydroelectric plants. H. J. Petersen. il A S M E Trans 68:670-1 O '46; Same. Power Pl Eng 50:128+ O '46

Maintenance and repair

Adequate routine maintenance keeps hydroelectric generators on the job; Shawinigan water & power company. L. B. Stirling. il diags Power 90:617-19 S '46

Fighting wear on hydro works; Southern California Edison co. facilities in Sierra Nevada mountains. il Elec West 96:101-3 Je '46

Storage type

Add firm hydro capacity with pump-storage plan; Wisconsin public service corp. C. E. Kohlhepp and V. A. Thiemann. map Elec World 126:84-6 S 28 '46

Pumped-storage plant at Palü generating station. diags Engineering 161:536 Je 7 '46

Storage reservoir capacity on the Wisconsin river to be doubled. M. W. Kyler. map Civil Eng 16:455-6 O '46

Supervisory systems

Supervisory control of 30,000-kva hydroelectric plant. C. W. Bohner and A. P. Maness. il map plan diag Elec Eng 65: Trans 337-42 Je '46

Arizona

Central Arizona requires California steam power to supply hydro deficit. Elec World News ed 125:7 Je 15 '46

Arkansas

Arkansas utility firm seeks power rights at federal dam. Elec World News ed 126:5 Ag 10 '46

Canada

Canadian power situation. Engineering 161: 134 F 8 '46

Canadian water power; review of activities in 1945. Elec R (Lond) 138:372 Mr 8 '46

Hydroelectric projects built or on order in 1941-46; tabulation. F. A. Annett, comp. Power 90:386-9 Je '46

In the war years U.S. and Canada added 7,000,000 hp of hydroelectric capacity. Power 90:384 Je '46

Water power in Canada. Electrician 136:274 F 1 '46

Chile

Chile accelerates hydro projects. Eng N 136: 211 F 7 '46

China

China plans an unprecedented dam for power, irrigation and navigation on the Yangtze river. il map Eng N 136:310-11 F 28 '46

HYDROELECTRIC plants—China—*Continued*
China plans huge hydroelectric plant. il Concrete 54:6-8 Je '46; Excerpts. Power 90: 610-11 S '46
China to build biggest dam; irrigation and hydroelectric power development; Yangtze Valley. il map Comp Air Mag 51:107-9 Ap '46

Colorado
Colorado and Big Thompson rivers scheme. il plan diags Engineer 182:224-7 S 13 '46

Egypt
Egyptian hydroelectric station at Aswan dam; abstract. Mech Eng 68:829 S '46

France
Le barrage de Saint-Étienne-Cantalès sur la Cère (Cantal). map plan diags Génie Civil 123:98 Ap 15 '46
French engineers build dam with spillway over the powerhouse. il plan diag Eng N 137:182-3 Ag 8 '46
Gonflement d'une conduite forcée métallique noyées dans une masse de béton indéfinie. il diags Génie Civil 123:27 Ja 15 '46
Hydro-electricity in France. Electrician 136: 539 Mr 1 '46
Hydro-electricity in France. M. Poirier. Electrician 137:311-12 Ag 2 '46
L'Aigle dam, France. il map plan diags Engineer 181:556-9, 578-80 Je 21-28 '46

Georgia
Georgia power seeks license to build hydro project at army engineers' site. Elec World 126:65 Ag 31 '46

Idaho
Anderson Ranch dam. il map Engineer 180: 408-9, 430-2 N 23-30 '45
Idaho power co. will add hydro units at two places. C. J. Strike. Elec World News ed 125:7 Je 29 '46

India
Hyderabad hydro developments. Electrician 135:626 D 7 '45
Indian hydro projects. Electrician 137:118 Jl 12 '46
Post-war planning in India; Punjab hydroelectric scheme. Engineer 181:474 My 24 '46
River valley planning in India; the Damodar. M. R. Goodall. diag J Land & Pub Util Econ 21:371-5 N '45

Ireland
Exploitation of water power in Ireland; abstract. J. A. O'Riordan. Elec R (Lond) 138: 309 F 22 '46

Kentucky
Kentucky dam on the Tennessee river. H. Wiersema. il maps plan diags Engineering 161:337-9, 348, 385-8, 396, 433-6, 444 Ap 12, 26, My 10 '46

Missouri valley
Missouri River plan. Comp Air Mag 51:168 Je '46
$2 billion program begun on Missouri River basin. Eng N 136:527+ Ap 18 '46

North Carolina
Nantahala turbine. J. P. Growdon and others. il layout plan diags A S M E Trans 68: 687-96; Discussion. 696-700 O '46

Northwestern states
Northwest power pool reservoir operation. E. N. Peterson. map Elec World 125:48-51 F 2; 100-3 F 16 '46
Operating program of Northwest power pool. E. N. Peterson. map Elec World 126:44-8 Ag 31 '46
Public power pendulum in the Pacific Northwest. J. Dierdorff. Pub Util 37:483-91 Ap 11 '46

Ontario
Moving sticky mud with drag equipment; tail race below DeCew Falls powerhouse. il Eng N 137:587-90 O 31 '46
Paper mill and power project planned in northern Ontario. map Eng N 136:429 Mr 21 '46
Plan $50 million Ontario hydro plant. Eng N 135:757 D 6 '45

Quebec
Power to burn. W. M. Goodwin. il map Comp Air Mag 51:90-3, 130-3 Ap-My '46

Russia
USSR plan includes new hydro power plants. Power 90:498a Jl '46
Urals; present center of Soviet industrial power. E. Bouianovsky. il map For Comm W 23:3-5+ Je 22 '46

Scotland
L'aménagement hydro-électrique des monts Grampians (Écosse). il diag map Génie Civil 123:105-7 My 1 '46
Hydro-electric development in the Highlands. A. E. MacColl. Engineering 160:467 D 7 '45; Abstract. Electrician 135:612 N 30 '45
Hydro-electricity in Scotland. Electrician 137: 54 Jl 5 '46
Mullardoch-Fasnakyle-Affric hydro-electric scheme. Engineer 182:284 S 27 '46; Elec R (Lond) 139:498 S 27 '46
North of Scotland no. 7 hydro-electric scheme. map Engineer 182:355 O 18 '46
Report on hydro-electrical engineering in Scotland; abstract A. A. Fulton. Electrician 137:801-2 S 20 '46
Scottish hydro-electric projects. Elec R (Lond) 137:719 N 16 '45

Southwestern states
SPA hydro program, summary and fallacies; steam and hydro costs compared. map Elec World 125:60-3 Mr 30 '46

Sweden
Water power in Sweden. Electrician 135:594 N 30 '45

Switzerland
Le projet d'aménagement hydro-électrique du cours supérieur de la Reuss, dans le val d'Urseren (Suisse). J. Dumas. il maps diags Génie Civil 123:33-6 F 1 '46
Les projets de développement de la production d'énergie hydro-électrique en Suisse. C. Jaeger. Génie Civil 123:222 Ag 15 '46
Pumped-storage plant at Palü generating station. diags Engineering 161:536 Je 7 '46
Les récents développements de la production d'énergie électrique en Suisse; l'usine hydro-électrique de Verbois sur le Rhône. C. Jaeger. il map plan diags Génie Civil 123:69-71 Mr 15 '46
Swiss hydro-electric scheme. Elec R (Lond) 138:566 Ap 12 '46
Switzerland plans power expansion. map Power 90:599+ S '46
L'usine hydro-électrique de la Dixence à Chandoline près de Sion (Valais, Suisse). P. Calfas. il plan diags Génie Civil 123: 241-4 S 15 '46
L'usine hydro-électrique de Lucendro sur le Tessin (Suisse). C. Jaeger. Génie Civil 123: 147 Je 1 '46
L'usine hydro-électrique de Mörel sur le haut-Rhone (Suisse). C. Jaeger. Génie Civil 123:129-30 My 15 '46
L'usine hydro-électrique de Rupperswil-Auenstein, sur l'Aar (Unterwald, Suisse). C. Jaeger. il diags Génie Civil 123:169-70 Jl 1 '46

Tasmania
Hydro-electricity in Tasmania. Electrician 136:227 Ja 25 '46

Tennessee valley
Design of hydroelectric stations; Tennessee Valley project. G. P. Palo and C. R. Marks, 3d. plans diags Am Soc C E Proc 71:1209-23 O '45; Discussion. 71:1567-70; 72:881-4 D '45, Je '46
Tennessee Valley authority and the war. il diags map Engineer 181:190-1, 214-16, 236-9, 260-2, 282-4, 306-8 Mr 1-Ap 5 '46

United States
Hydroelectric projects built or on order in 1941-46; tabulation. F. A. Annett, comp. Power 90:386-9 Je '46

HYDROELECTRIC plants—United States— *Continued*
In the war years U.S. and Canada added 7,000,000 hp of hydroelectric capacity. Power 90:384 Je '46
Status of major projects, 1946. il Eng N 136:234-5 F 7 '46

Vermont

Development of Vermont hydro a benefit to state; proposed plant at Wilder. Elec World News ed 124:7 D 1 '45

Wales

Primary supplies; generation and supply-exchange scheme in north Wales. il Elec R (Lond) 137:849-54 D 14 '45

Wisconsin

Add firm hydro capacity with pump-storage plan; Wisconsin public service corp. C. E. Kohlhepp and V. A. Thiemann. map Elec World 126:84-6 S 28 '46
Correction of tailwater erosion at Prairie du Sac dam. C. N. Ward. and H. J. Hunt. il Am Soc C E Proc 72:1077-89 O '46
Floods harnessed. Bsns W p28 Ap 13 '46
Huge reservoir will raise Wisconsin hydro capacity. Elec World News ed 125:7 Ap 6 '46
Storage reservoir capacity on the Wisconsin river to be doubled. M. W. Kyler. map Civil Eng 16:455-6 O '46

HYDROELECTRIC plants, Cooperative
FPC conducting hearing on first Iowa hydro plea. Elec World News ed 126:6 O 5 '46

HYDROELECTRIC power
Hydro-electric power and Ontario gold mining. R. E. Foster. bibliog map Can Min J 67:155-68, 253-8, 634-9, 720-5, 788-95, 867-74, 957-9 Mr-Ap, Je-O '46
Modern electroalchemy; hydroelectric power for electrochemical industries of eastern Canada. W. M. Goodwin. il Comp Air Mag 51:130-3 My '46

See also
Bonneville power administration
Colorado river—Boulder Dam project
Hydroelectric plants
St Lawrence waterway and power project
Tidal power

HYDROFLUORIC acid
Corrosion by hydrofluoric acid. W. Z. Friend and H. O. Teeple. bibliog flow sheet il Oil & Gas J 44:87+ Mr 16 '46
Corrosion in hydrofluoric acid alkylation. M. E. Holmberg and F. A. Prange. il diag Ind & Eng Chem 37:1030-3 N '45
Corrosion in hydrofluoric acid alkylation. F. A. Prange and R. A. Findlay. il Pet Refiner 25:85-8 Mr '46
Corrosion limits metals that can be used for construction of HF alkylation units. il Nat Pet N 38 pt 2:R618+ Ag 7 '46
Dipole moment of hydrogen fluoride and the ionic character of bonds. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68: 171-3 F '46
Economic and successful operation obtained at HF alkylation plant; Sinclair refining co.'s Corpus Christi refinery. J. A. Scott and R. M. Cooper. flow diags Oil & Gas J 44:204+ Mr 30 '46
Experiences in the commercial application of the hydrogen fluoride alkylation process. E. M. Skinner. flow sheet Am Inst Chem Eng Trans 41:647-70 D '45; Discussion. 42:467-70 Je '46
HF alkylation process. flow chart il Oil & Gas J 44:153-5 Mr 30 '46
Hydrogen fluoride-paraffin systems; significance of liquid-phase equilibria in the hydrogen fluoride alkylation process. E. B. Butler, C. B. Miles and C. S. Kuhn, jr. diags Ind & Eng Chem 38:147-55 F '46
Notes on silicate analysis; elimination of excess hydrofluoric acid. B. B. Osthaus. Am Cer Soc J 29:114-15 Ap 1 '46
Numerous improvements in HF alkylation will cut costs and reduce losses. W. B. Shanley and H. J. Nebeck. flow charts Oil & Gas J 44:94-6+ D 1 '45
Preparation of carbamyl fluorides by the action of anhydrous hydrogen fluoride on *iso*cyanates. G. D. Buckley, H. A. Piggott and A. J. E. Welch. Chem Soc J p864-5 D '45
Preparation of DDT using hydrogen fluoride as the condensing agent. J. H. Simons and others. Am Chem Soc J 68:1613-15 Ag '46
Rotary gauge indicates hydrofluoric acid level in process vessel. il diag Pet Refiner 25:138+ Jl '46

Analysis

Analysis of hydrofluoric-nitric acid stainless steel pickling bath. W. E. McKee and W. F. Hamilton. bibliog Ind & Eng Chem Anal ed 17:310-12 My '45; Same. Metal Finishing 43:332-3+ Ag '45; Abstract. Steel 118:110-12 Je 10 '46

HYDROFORMING process. See Gasoline—Manufacture

HYDROGEN
Anomalous reaction between ammonia and 9-chlorofluorene; substitution of the labile hydrogen in fluorene derivatives. L. A. Pinck and G. E. Hilbert. bibliog Am Chem Soc J 68:377-80 Mr '46
Associating effect of the hydrogen atom; the N-H-N bond; the structure and tautomerism of cyanamides. L. Hunter and H. A. Rees. Chem Soc J p617-21 S '45
Carbon-hydrogen ratio of catalytically cracked distillate fuel oils. S. P. Cauley and E. B. Delgass. bibliog Oil & Gas J 45:166-9 Jl 27 '46
Catalytic cracking of pure hydrocarbons; secondary reactions of olefins; isomerization, hydrogen transfer, polymerization, and aromatization. H. H. Voge, G. M. Good and B. S. Greensfelder. Ind & Eng Chem 38:1033-10 O '46
Dispersion of the velocity and anomalous absorption of sound in hydrogen. E. S. Stewart. bibliog Phys R 69:632-40 Je 1 '46
Exchange of hydrogen and chlorine between bicyclo(2,2,1)heptane and *t*-butyl chloride. L. Schmerling. bibliog Am Chem Soc J 68: 195-6 F '46
Explosionproof heaters for hydrogen house at meteorological station. R. L. Ives. il diags Heating-Piping 18:83-4 O '46
Hydrogen gas explosion damages condenser-turbine; believed caused by reaction between clean iron and hydrochloric acid. E. D. St John. il Elec World 125:98-9 F 16 '46
Kinetics of OH radicals as determined by their absorption spectrum; attempt to trace OH radicals in the thermal hydrogen-oxygen reaction. O. Oldenberg and others. bibliog J Chem Phys 14:16-18 Ja '46
Mercury-sensitized reaction between hydrogen and nitrous oxide. H. A. Taylor and N. Zwiebel. bibliog J Chem Phys 14:539-43 S '46
Mesohydric tautomerism. L. Hunter. Chem Soc J p806-9 N '45
Nature of the N-H bond in the porphyrins. J. G. Erdman and A. H. Corwin. bibliog Am Chem Soc J 68:1885-9 O '46
Neutron scattering in ortho- and parahydrogen and the range of nuclear forces. C. S. Wu and others. Phys R 69:286 Mr 1 '46
Reaction of an aluminium-magnesium alloy with water vapour, and the absorption of hydrogen. R. Eborall and C. E. Ransley. il diag Engineering 161:428-32, 438-9 My 3-10 '46; Discussion. 161:305 Mr 29 '46; Engineer 181:309 Ap 5 '46
Repairs to steam turbine unit following hydrogen explosion; caused by use of hydrochloric acid for scale removal. E. D. St. John. il diags Power Pl Eng 50:64-8 Mr '46
Structure of benzene; hydrogen exchange reactions with benzene derivatives; preparation of 1 : 3 : 5-tri-, 1 : 2 : 4 : 5-tetra-, and penta-deuterobenzene. A. P. Best and C. L. Wilson. Chem Soc J p239-43 Ap '46
Synthesis of methanol from carbon dioxide and hydrogen over copper-alumina catalysts; mechanism of reaction. V. N. Ipatieff and G. S. Monroe. Am Chem Soc J 67:2168-71 D '45
Vapor-liquid equilibria in three hydrogen-paraffin systems. M. R. Dean and J. W. Tooke. bibliog diag Ind & Eng Chem 38: 389-93 Ap '46

Analysis

Application of the vacuum-fusion method to the determination of the oxygen, hydrogen, and nitrogen contents of non-ferrous metals, alloys, and powders. H. A. Sloman. Engineering 160:385, 404-5, 419-20 N 9-23 '45

HYDROGEN—Analysis—*Continued*
Determination of active hydrogen. E. A. Braude and E. S. Stern. diag Chem Soc J p404-6 My '46
Determination of hydrogen in highly fluorinated carbon compounds. W. H. Pearlson, T. J. Brice and J. H. Simons. diag Ind & Eng Chem Anal ed 18:330-1 My '46
Lamp method for determination of hydrogen in liquid organic compounds. S. G. Hindin and A. V. Grosse. diag Ind & Eng Chem Anal ed 17:767-9 D '45
Oxygen-hydrogen indicator; Deoxo indicator. il R Sci Instr 17:244 Je '46
Radioactive studies; analytical procedure for measurement of radioactive hydrogen (tritium). F. C. Henriques, jr. and C. Margnetti. bibliog diag Ind & Eng Chem Anal ed 18:420-2 Jl '46
Study of Millin technique for determination of carbon and hydrogen in coal. R. J. Grace and A. W. Gauger. bibliog il diag Ind & Eng Chem Anal ed 18:563-5 S '46

Atomic hydrogen

Reaction of hydrogen atoms with acetone. G. M. Harris and E. W. R. Steacie. J Chem Phys 13:554-9 D '45
Reaction of hydrogen atoms with dimethyl mercury. G. M. Harris and E. W. R. Steacie. bibliog J Chem Phys 13:559-62 D '45

Industrial application

Hydrogen cooling; its applications to large alternators. R. Davis. Elec R (Lond) 138: 27-9 Ja 4 '46
Hydrogen thyratron; abstract. H. Heins. diag Product Eng 17:319 Ap '46
Hydrogen thyratrons. H. Heins. il diags Electronics 19:96-102 Jl '46

See also
Electric welding, Arc
—Hydrogen process

Isotopes

See also
Deuterium
Tritium

Manufacture

Canned hydrogen; cannisters of calcium hydride, which reacts with water to produce hydrogen gas. il Sci Am 174:64 F '46
Hydrogen by the steam-hydrocarbon process. il Chem & Met Eng 53:122-3 My '46
Hydrogen; Hygirtol plant for production of high-purity hydrogen from hydrocarbons and steam; pictured flow sheet. Chem & Met Eng 53:162-5 My '46
New plant will provide pattern for synthetic-liquid fuels industry. F. R. Staley. flow diag il Oil & Gas J 44:118+ Ap 27 '46
Present-day hydrogen manufacturing processes. R. M. Reed. flow diags il Am Inst Chem Eng Trans 42:379-99 Ap '46; Same. Pet Refiner 25:99-108 Ag '46; Discussion. Am Inst Chem Eng Trans 42:399-401, 759-60 Ap, Ag '46
Uncatalyzed reaction of natural gas and steam. A. S. Gordon. bibliog diag Ind & Eng Chem 38:718-20 Jl '46

HYDROGEN azide. See Hydrazoic acid

HYDROGEN chloride. See Hydrochloric acid

HYDROGEN fluoride. See Hydrofluoric acid

HYDROGEN halides
Acetylene polymer from silent discharge; reactions with hydrogen halides. G. Glockler and A. E. Walz. diag Electrochem Soc Trans 88 (preprint 14):151-60 '45

HYDROGEN ion concentration
Aluminum and chromium as gelatin hardeners. H. L. Baumbach and H. E. Gausman. bibliog diag Soc Motion Picture Eng J 47: 22-54 Jl '46
Application of equilibrium pH to recirculating cooling water systems. A. G. D. Emerson. Soc Chem Ind J 64:335-9 D '45
Arrangement for multiple pH determinations. M. D. Reeves. il diags Ind & Eng Chem Anal ed 18:336-7 My '46
Combination of wool protein with heavy metal salts as a function of pH. K. S. LaFleur. bibliog il Am Dyestuff Rep 35: 383-6+ Ag 12 '46
Continous indicating pH meter-line operated. F. Paully. il Am Dyestuff Rep 35:193+ Ap 22 '46
Determination of the pH of saturation of magnesium hydroxide. J. W. Ryznar, J. Green and M. G. Winterstein. bibliog diag Ind & Eng Chem 38.1057-61 O '46
Determination of the pH of water. F. R. McCrumb. Water Works & Sewerage 92:344 N '45
Disposal of petroleum refinery waste; chemicals present in escaping wastes can damage waters for many uses. W. B. Hart. bibliog Nat Pet N 38 pt 2:R512-14+ Jl 3 '46
Dissociation constant, solubility, and the *p*H value of the solvent. H. A. Krebs and J. C. Speakman. Chem Soc J p593-5 S '45
Effect of pH on fungistatic activity of dinitro-*o*-cresol. P. W. Brian. bibliog Soc Chem Ind J 64:315 N '45
Effect of pH on hydrolysis rate of chloroacetic acid. L. F. Berhenke and E. C. Britton. bibliog Ind & Eng Chem 38:544-6 My '46
Effect of sodium chloride on the apparent ionization constant of boric acid and the pH values of borate solutions. G. G. Manov and others. bibliog J Res Nat Bur Stand 36:543-58 Je '46
Effect of temperature on the pH of natural waters. W. F. Langelier. chart Am Water Works Assn J 38:179-85 F '46
Electrode function (pH response) of potash-silica glasses. D. Hubbard. bibliog J Res Nat Bur Stand 37:223-8 O '46
Electronics improves industrial process control; recording polarograph, high vacuum and pH measurement. D. M. Considine and D. P. Eckman. il diags Chem Ind 58:982-4 Je '46
First dissociation constant of *o*-phthalic acid and related pH values of phthalate buffers from 0° to 60° C. W. J. Hamer and others. bibliog J Res Nat Bur Stand 35:539-64 D '45
pH; a brief review. W. R. Kenny. il Rayon 27:201-3 Ap '46
*p*H control in dyeing processes. E. I. Noble. Soc Dyers & Col J 61:328-33 D '45
pH standards at various temperatures; aqueous solutions of acid potassium phthalate. W. J. Hamer and others. bibliog J Res Nat Bur Stand 36:47-62 Ja '46
Hygroscopicity and electrode function (pH response) of glasses as a measure of serviceability. D. Hubbard. bibliog J Res Nat Bur Stand 36:511-20 Je '46
Influence of pH and temperature on the survival of coliforms and enteric pathogens when exposed to chloramine. C. T. Butterfield and E. Wattie. bibliog diags Pub Health Rep 61:157-92 F 8 '46; Abstract. Water & Sewage 84:30+ Je '46
Meaning of pH control. Paper Ind 27:1565 Ja '46
Measurement and calculation of hydrogen ion concentrations in saline acetate and phosphate buffers. D. I. Hitchcock and R. Peters. bibliog Am Chem Soc J 68:1753-5 S '46
Reaction vessel for maintaining constant pH by continuous electrometric titration during sodium amalgam reductions. N. Sperber and D. R. Briggs. diag Ind & Eng Chem Anal ed 18:74-5 Ja '46
Second dissociation content of *o*-phthalic acid and related pH values of phthalate buffers from 0° to 60° C. W. J. Hamer and S. F. Acree. bibliog J Res Nat Bur Stand 35:381-416 N '45
Standard buffer solutions. Franklin Inst J 242:146 Ag '46

See also
Buffer mixtures

HYDROGEN peroxide
Anomalous behavior of some oxidizing agents. R. K. McAlpine. J Chem Educ 23:301-5 Je '46
Chemical propellants; analytical studies and characteristics of the system hydrogen peroxide-permanganate. F. Bellinger and others. bibliog diag Ind & Eng Chem 38:627-30 Je '46
Chemical propellants; corrosion and stability studies. F. Bellinger and others. bibliog il diags Ind & Eng Chem 38:310-20 Mr '46

HYDROGEN peroxide—*Continued*
Chemical propellants; system hydrogen peroxide-permanganate. F. Bellinger and others. il diags Ind & Eng Chem 38:160-9 F '46
Destruction of pyrogens by hydrogen peroxide. D. H. Campbell and A. Cherkin. bibliog Science 102:535-6 N 23 '45
Formation of hydrogen peroxide during the oxidation of reduced vat dyes. W. Atherton and H. A. Turner. bibliog diag Soc Dyers & Col J 62:108-14 Ap '46
Great increase in strength. Chem Age (Lond) 54:401 Ap 13 '46
High density bleaching of mechanical pulp with hydrogen peroxide. R. L. McEwen. diag Paper Tr J 122:49-53 Ap 25 '46
High test hydrogen peroxide. Chem & Met Eng 53:141 My '46
Hydrogen peroxide now industrially available in concentrated form. Sci Am 174:121 Mr '46
Hydroxylation and epoxidation of some 1-olefins with per-acids. D. Swern, G. N. Billen and J. T. Scanlan. bibliog Am Chem Soc J 68:1504-7 Ag '46
Microbiological synthesis of riboflavin; a theory concerning its inhibition. A. Leviton. diag Am Chem Soc J 68:835-40 My '46
O—O bond energy in hydrogen peroxide. G. Glockler and G. Matlack. J Chem Phys 14: 504-5 Ag '46
Peroxide bleaching of mechanical pulps; influence of bacteria and enzymes. J. S. Reichert and others. bibliog Paper Tr J 122:37-40 Ja '31; 54-8 My 16 '46; Same abr(pt 2) Paper Ind 28:124+ Ap '46
Rate of oxidation of thiodiglycol and triethylamine by hydrogen peroxide. S. D. Ross. Am Chem Soc J 68:1484-5 Ag '46
Studies in the detoxication of catalyst poisons; the use of various oxidising agents for the detoxication of cystein. E. B. Maxted. Chem Soc J p763-6 N '45

Manufacture

Axis manufacture of hydrogen peroxide. R. A. Cooley. il flow sheets diag Chem Ind 58: 967-61 Je '46
Hydrogen peroxide production through 2-ethyl anthraquinone; abstract. W. G. Gormley. Chem & Met Eng 53:208+ Ap '46
90% hydrogen peroxide; commercial production. Chem Ind 58:82+ Ja '46
Production of hydrogen peroxide in Germany; abstract. H. A. Liebhafsky; W. G. Gormley. Chem & Met Eng 53:208+ Mr '46

HYDROGEN sulfide
Ammonia and hydrogen sulphide from gas; abstract. A. Samtleben. Chem & Met Eng 53:280 F '46
Asymmetric rotor; punched-card methods of constructing band spectra. G. W. King, P. C. Cross and G. B. Thomas. bibliog J Chem Phys 14:35-42 Ja '46
Desulfurization of petroleum hydrocarbons. R. M. Reed. bibliog flow chart il Oil & Gas J 44:219-20+ Mr 30 '46
Effect of hydrogen sulphide on coefficient for orifice gas meters. F. K. Beach. bibliog Pet Eng 17:230+ Mr '46
Hydrogen sulfide from sulfur dioxide and methane. S. W. Walker. bibliog flow sheet Ind & Eng Chem 38:906-12 S '46
Hydrogen sulfide removed from cracking-plant gases. il Pet Refiner 25:121-2 O '46
Inhibition of sulphate-reducing bacteria by dyestuffs; practical applications in cable storage tanks and gas holders. T. H. Rogers. Soc Chem Ind J 64:292-5 O '45
Modifying the viscosity of sulfur. R. Fanelli. bibliog il diag Ind & Eng Chem 38:39-43 Ja '46
Preparation of an active absorbent of hydrogen sulphide from waste oxide of iron. H. K. Whalley. diag Soc Chem Ind J 65:217-24 Ag '46
Reaction rate of hydrogen chloride and sulfide with steel. C. F. Prutton, D. Turnbull and G. Dlouhy. bibliog diag Ind & Eng Chem 37:1092-7 N '45
Removal of hydrogen sulphide from fuel gases. G. U. Hopton and R. H. Griffith. Gas J (Lond) 246:809-10+, 845 D 5-12 '45; Discussion, 247:69+ Ja 9 '46
Treatment of sulphate-reducing bacteria in a flour mill. E. C. Barton-Wright. Soc Chem Ind J 64:295 O '45

Analysis

Simultaneous determination of hydrogen sulfide and carbon dioxide in a continuous gas stream. C. L. Blohm and F. C. Riesenfeld. bibliog diag Ind & Eng Chem Anal ed 18: 373-6 Je '46

HYDROGEN sulfide, Liquid
Conductance of iodine in liquid hydrogen sulfide. E. E. Lineken. bibliog diag Am Chem Soc J 68:1966-8 O '46
Preparation of liquid hydrogen sulphide. G. O. Thacker and F. R. Whitt. diags Chem & Ind p333 S 7 '46

HYDROGENATION
Cycle stocks from catalytic cracking; hydrogenation and desulfurization. C. L. Brown, A. Voorhies, jr. and W. M. Smith. bibliog il diag Ind & Eng Chem 38:136-40 F '46
Digest of United States patents on hydrogenation of hydrocarbons and carbon monoxide. H. Heinemann, comp. Pet Refiner 25:168+ Ja '46
Experiments relating to the synthesis of patulin; a study of hydrogenated γ-pyrones. J. Attenburrow and others. Chem Soc J p571-7 S '45
Hirst to head hydrogenation plant to be established by U.S. Bureau of mines. Coal Age 51:132+ Ja '46
Hydrogenation of compounds containing divalent sulfur. R. Mozingo and others. bibliog Am Chem Soc J 67:2092-5 D '45
Hydrogenation of dinitriles in liquid methylamine. B. S. Biggs and W. S. Bishop. bibliog Ind & Eng Chem 38:1084-6 O '46
Preparation of *t*-butylamine by the low-pressure hydrogenation of 2,2-dimethylethylenimine. K. N. Campbell, A. H. Sommers and B. K. Campbell. Am Chem Soc J 68:110 Ja '46
Rates of decomposition of hydrocarbons in destructive hydrogenation; abstract. A. V. Lozovoi and S. A. Senyavin. Chem & Met Eng 53:272 Je '46
Reduction by dissolving metals. A. J. Birch. Chem Soc J p809-13 N '45
Removal of sulphur compounds from town gas by catalytic hydrogenation. E. B. Maxted and J. J. Priestley. il diags Gas J (Lond) 247:471-2+ 515-16, 556-7, 593 Mr 20-Ap 10 '46
Studies in the detoxication of catalyst poisons; the detoxication of cystein with metallic per-acids. E. B. Maxted and A. Marsden. Chem Soc J p766-8 N '45
Studies in the detoxication of catalyst poisons; the use of various oxidising agents for the detoxication of cystein. E. B. Maxted. Chem Soc J p763-6 N '45
1,2,3,4-Tetrahydro-2-methoxynaphthalene. H. A. Arbit. bibliog Am Chem Soc J 68:1662 Ag '46
Use of simple hydrogenation to reduce unsaturation of cracked naphthas; abstract. A. Voorhies, jr. and others. Oil & Gas J 45:60 S 14 '46

See also
Dehydrogenation
Fischer-Tropsch process

HYDROGENATION, Heat of
Heats of formation, hydrogenation, and combustion of the monoolefin hydrocarbons through the hexenes, and of the higher 1-alkenes, in the gaseous state at 25° C. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 36:269-75 Mr '46

HYDROGENOLYSIS
Catalytic hydrogenolysis of halogen compounds. R. Baltzly and A. P. Phillips. Am Chem Soc J 68:261-5 F '46
Catalytic hydrogenolysis of nitrate esters. L. P. Kuhn. Am Chem Soc J 68:1761-2 S '46
Hydrogenolysis of steroid thioacetals with modified Raney nickel catalyst. S. Bernstein and L. Dorfman. Am Chem Soc J 68: 1152-3 Jl '46

HYDROGRAPHIC office. See United States—Hydrographic office

HYDROGRAPHIC surveying
Developments in hydrographical apparatus. il diags Engineering 162:313 O 4 '46
Method of plotting fixes on a hydrographic survey. G. F. Nechwort. Civil Eng 16:73 F '46
Position determination by shoran in hydrographic surveying. H. W. Hemple. diag Civil Eng 16:295-6 Jl '46
See also
Sounding

HYDROLOGY. See Water

HYDROLYSIS
Alkaline hydrolysis of and effect of heat on ribonucleic acid. C. A. Zittle. bibliog Franklin Inst J 242:221-7 S '46
Alkaline hydrolysis of fluorenone-spirohydantoin. G. H. Harris, B. R. Harriman and K. W. Wheeler. bibliog Am Chem Soc J 68:846-8 My '46
Allylic chlorides; catalytic hydrolysis and characterization of 1,3-dichloropropene. L. F. Hatch and G. B. Roberts. bibliog Am Chem Soc J 68:1196-8 Jl '46
Application of the principle of the concentration cell to kinetic studies; hydrolysis of *t*-butyl chloride in 95% water-5% acetone solution. C. G. Swain and S. D. Ross. diag Am Chem Soc J 68:658-61 Ap '46
Carbohydrate phosphoric esters; the alkaline hydrolysis of α-methylglucopyranoside-6-phosphate, methylglucofuranoside-3-phosphates and *iso*-propylidene glucofuranose-3- and -6-phosphates. E. E. Percival and E. G. V. Percival. Chem Soc J p874-6 D '45
Constitution of damson gum; hydrolysis products from methylated damson gum. E. L. Hirst and J. K. N. Jones. Chem Soc J p506-12 Je '46
Effect of pH on hydrolysis rate of chloroacetic acid. L. F. Berhenke and E. C. Britton. bibliog Ind & Eng Chem 38:544-6 My '46
Enzymes hydrolyzing ribo- and desoxyribonucleic acids. C. A. Zittle. bibliog Franklin Inst J 241.379-81 My '46
Fermentation of Douglas fir hydrolyzate by S. cerevisiae. E. E. Harris and others. Ind & Eng Chem 38:896-904 S '46
Heterogeneous acid and acid-salt hydrolysis of secondary cellulose acetate. R. N. Haward and T. White. Soc Chem Ind J 65: 63-4 F '46
L'hydrolyse des lies de vin en vue d'en extraire le tartre. A. Baouman. Génie Civil 123:173-4 Jl 1 '46
Hydrolysis and catalytic oxidation of cellulosic materials; determination of structural components of cotton linters. R. F. Nickerson and J. A. Habrle. bibliog il Ind & Eng Chem 37:1115-18 N '45
Hydrolysis and catalytic oxidation of cellulosic materials; structural components of various cellulosic materials. R. F. Nickerson and J. A. Habrle. Ind & Eng Chem 38:299-301 Mr '46
Hydrolysis and isomerization of chlorotoluenes to *m*-cresol. R. N. Shreve and C. J. Marsel. bibliog diags Ind & Eng Chem 38:254-61 Mr '46
Hydrolysis of diphenyldichlorosilane. C. A. Burkhard. Am Chem Soc J 67:2173-4 D '45
Hydrolysis of peptide linkages in the preparation of gelatin. W. M. Ames. bibliog Soc Chem Ind J 64:242-3 S '45
Hydrolysis rates of the three butadiene monochlorohydrins. R. G. Kadesch. bibliog Am Chem Soc J 68:46-8 Ja '46
Lime hydrolysis of soybean protein; foaming properties of the hydrolyzate. J. M. Perri, jr and F. Hazel. bibliog diags Ind & Eng Chem 38:549-54 My '46
Mechanism of the hydrolysis of chlorine. J. C. Morris. Am Chem Soc J 68:1692-4 S '46
Methylpolysiloxanes. W. Patnode and D. F. Wilcock. bibliog Am Chem Soc J 68:358-63 Mr '46
Observations on the rare earths; hydrolysis studies upon yttrium and certain rare earth(III) sulfate solutions at 25° C. T. Moeller. bibliog J Phys Chem 50:242-50 My '46
Preparation and hydrolysis of manganese carbide (Mn_3C). W. R. Myers and W. P. Fishel. bibliog Am Chem Soc J 67:1962-4 N '45
Production of 2,3-butanediol from acid-hydrolyzed starch. G. E. Ward, O. G. Pettijohn and R. D. Coghill. bibliog Ind & Eng Chem 37:1189-94 D '45
Protein hydrolysates; flavor ingredients for foods; acid digestion of casein, corn or wheat gluten. L. A. Hall. flow sheet il Food Ind 18:681-4+ My '46
2-Tolylpyrrolines and the rearrangement and hydrolysis of aryl cyclopropyl ketimines. J. B. Cloke and others. bibliog Am Chem Soc J 67:2155-8 D '45

HYDROLYZATES. See Proteins

HYDROMECHANICS
See also
Fluids
Hydraulic engineering
Hydraulics
Hydrodynamics
Hydrostatics
Viscosity

HYDROMETALLURGY
Study of certain factors in the hydrometallurgy and electrodeposition of cobalt. F. K. Shelton and others. bibliog U S Bur Mines Rep of Invest 3832:1-43 '45

HYDROMETERS
Fineness test of molding sand; pipette and hydrometer methods. M. Price and A. I. Krynitsky. bibliog 2pl J Res Nat Bur Stand 36:521-41 Je '46

HYDROPEROXIDES. See Peroxides

HYDROPHONE
Sonar for submarines; used for underwater listening. R. S. Lanier and C. R. Sawyer. il diags Electronics 19:99-103 Ap '46
Sonobuoy; reveals the presence of submerged submarines to patrol ships and planes. il diags Electronics 19:154-5 Ap '46

HYDROPONICS. See Plants—Soilless culture

HYDROQUINIDINE
Conversion of hydroquinidine into hydrocinchonine and of cupreine into cinchonidine. H. King. Chem Soc J p523-4 Je '46

HYDROQUINONE
Production of hydroquinone in Germany. Chem & Eng N 24:956 Ap 10 '46
Relation between the oxidation-reduction potentials of quinones and the resonance energies of quinones and of hydroquinones. E. Berliner. bibliog Am Chem Soc J 68:49-51 Ja '46

Analysis
Assay of hydroquinone; comparison of the iodometric and cerometric titrations. I. M. Kolthoff and T. S. Lee. bibliog Ind & Eng Chem Anal ed 18:452 Jl '46

HYDROSTATICS
Effect of hydrostatic pressure on plastic flow under shearing stress. P. W. Bridgman. diag J Ap Phys 17:692-8 Ag '46
Experiments on effective uplift area in gravity dams. S. Leliavsky. bibliog il diags Am Soc C E Proc 71:1474-1517 D '45; Discussion. 72.889-900 Je '46
Recent work in the field of high pressures; miscellaneous mechanical effects of hydrostatic pressure. P. W. Bridgman. bibliog Rs Mod Phys 18:55-9 Ja '46
Stress conditions for the failure of saturated concrete and rock. K. Terzaghi. diags Am Soc T M Proc 45:777-92 bibliog(p791-2); Discussion. 793-801 '45

HYDROTROPIC solutions. See Solution (chemistry)

HYDROXYACETOPHENONE
Preparation of N-substituted 1-(*p*-hydroxyphenyl)-2-aminoethanols. J. R. Corrigan, M. Langerman and M. L. Moore. bibliog Am Chem Soc J 67:1894-6 N '45
Reactions of acetophenols with iodine and pyridine and the preparation of hydroxybenzoic acids. L. C. King, M. McWhirter and D. M. Barton. Am Chem Soc J 67: 2089-92 D '45

HYDROXYACRIDINE
Absorption spectra of acridines; the hydroxyacridines. A. Albert and L. N. Short. Chem Soc J p760-3 N '45

HYDROXYALKYLATION. See Alkylation

HYDROXYBENZOIC acid
Action of formaldehyde on *m*-hydroxybenzoic acid. C. A. Buehler and others. Am Chem Soc J 68:574-7 Ap '46

Reactions of acetophenols with iodine and pyridine and the preparation of hydroxybenzoic acids. L. C. King, M. McWhirter and D. M. Barton. Am Chem Soc J 67:2089-92 D '45

Ultraviolet spectra and dissociation constants of *p*-hydroxybenzoic acid, methyl, ethyl, *n*-butyl, and benzyl *p*-hydroxybenzoate and potassium *p*-phenolsulfonate. E. E. Sager and others. bibliog J Res Nat Bur Stand 35:521-38 D '45

HYDROXYBENZOQUINOLINE
Bucherer reaction on 5-hydroxybenzo(f) quinoline. R. F. Coles and C. S. Hamilton. Am Chem Soc J 68:1595-6 Ag '46

HYDROXYBENZOYL-benzoic acid
Preparation of 2-(4-hydroxybenzoyl)-benzoic acid. M. H. Hubacher. bibliog Am Chem Soc J 68:718-19 Ap '46

HYDROXYBUTANONE. See Acetoin

HYDROXYCARBETHOXYMETHYL thiophene
Acylation of 4-hydroxy-3-carbethoxy-2-methylthiophen. J. H. Beynon and A. B. A. Jansen. Chem Soc J p600-1 S '45

HYDROXYCHALCONES
Flavanones and related compounds; preparation of polyhydroxychalcones and -flavanones. T. A. Geissman and R. O. Clinton. bibliog Am Chem Soc J 68:697-700 Ap '46

HYDROXYCINNOLINE
Cinnolines; preparation of 4-hydroxycinnolines, and the mechanism of cinnoline syntheses. K. Schofield and J. C. E. Simpson. Chem Soc J p520-4 Ag '45

HYDROXYCINNOLINE carboxylic acid
Cinnolines; reaction between pyridine, acetic anhydride, and 4-hydroxycinnoline-3-carboxylic acid. K. Schofield and J. C. E. Simpson. Chem Soc J p472-9 Je '46

HYDROXY compounds
Chromatography of sugars and related polyhydroxy compounds. B. W. Lew, M. L. Wolfrom and R. M. Goepp, jr. bibliog Am Chem Soc J 68:1449-53 Ag '46

Experiments on the interaction of hydroxy compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases. W. Gerrard and M. J. Richmond. Chem Soc J p848-57 D '45

Influence of polar compounds on hydrated calcium silicate and GR-S vulcanizates. F. W. Gage. Rubber Age 58:343-6+ D '45

Researches on acetylenic compounds; αβ-acetylenic hydroxy-acids. L. J. Haynes and E. R. H. Jones. Chem Soc J p503-6 Je '46

HYDROXYDEHYDROABIETATE
Methylation of methyl 6-hydroxydehydroabietate. H. H. Zeiss. Am Chem Soc J 67:2054 N '45

HYDROXYDIMETHOXYCINNOLINE acetic acid
Cinnolines; derivatives of 4-hydroxy-6 : 7-dimethoxycinnoline-3-acetic acid. J. C. E. Simpson. Chem Soc J p480-1 Je '46

HYDROXYDIMETHYLBUTYROLACTONE
Resolution of racemic α-hydroxy-β,β-dimethyl-γ-butyrolactone. R. Beutel and M. Tishler. Am Chem Soc J 68:1463-5 Ag '46

HYDROXYETHOXYNITROQUINOLINE
Two 6-β-hydroxyethoxy-8-diethylaminoalkylaminoquinolines. M. S. Morgan and L. H. Cretcher. bibliog Am Chem Soc J 68:781-4 My '46

HYDROXYETHYLCELLULOSE

Analysis

Determination of ethers and esters of ethylene glycol; modified alkoxyl analysis. P. W. Morgan. bibliog diag Ind & Eng Chem Anal ed 18:500-4 Ag '46

HYDROXYFLAVANONE
Flavanones and related compounds; preparation of polyhydroxychalcones and -flavanones. T. A. Geissman and R. O. Clinton. bibliog Am Chem Soc J 68:697-700 Ap '46

Flavanones and related compounds; the colored reduction products of polyhydroxyflavanones. T. A. Geissman and R. O. Clinton. bibliog Am Chem Soc J 68:700-6 Ap '46

HYDROXYMETHYLCHRYSENE
Dienone—phenol rearrangement applied to chrysene derivatives; the synthesis of 3-hydroxy-1-methylchrysene and related compounds. A. L. Wilds and C. Djerassi. bibliog Am Chem Soc J 68:1715-19 S '46

HYDROXYMETHYLFURFURAL
Formation of 5-hydroxymethylfurfural from D-glucose in aqueous solution. B. L. Scallet and J. H. Gardner. bibliog Am Chem Soc J 67:1934-5 N '45

HYDROXYPHENYL aminoethanol
Preparation of N-substituted 1-(*p*-hydroxyphenyl)-2-aminoethanols. J. R. Corrigan, M. Langerman and M. L. Moore. bibliog Am Chem Soc J 67:1894-6 N '45

HYDROXYPHENYLCYCLOHEXANE carboxylic acid
4-(*p*-Hydroxyphenyl)-cyclohexanecarboxylic acid and derivatives. W. S. Johnson, C. D. Gutsche and R. D. Offenhauer. Am Chem Soc J 68:1648-50 Ag '46

HYDROXYQUINOLINE
Experiments on the synthesis of 4-hydroxy- and 4-chloroquinolines from β-anilinopropionic acids. R. C. Elderfield and others. Am Chem Soc J 68:1259-63 Jl '46

Synthesis of 4-hydroxyquinolines. C. C. Price and others. bibliog Am Chem Soc J 68:1204-8, 1251-9, 1279-83 Jl '46

HYDROXYVALERALDEHYDE
Preparation of dihydropyran, δ-hydroxyvaleraldehyde and 1,5-pentanediol from tetrahydrofurfuryl alcohol. L. E. Schniepp and H. H. Geller. bibliog Am Chem Soc J 68:1646-8 Ag '46

HYDROXYL ion
Kinetics of the reaction of hydroxyl ion with the meso and racemic di-*p*-toluenesulfonates of butylene glycol-2,3. F. C. Foster and L. P. Hammett. bibliog Am Chem Soc J 68:1736-41 S '46

HYDROXYLAMINE
Comparative estimations of carbonyl and carboxyl groups in chromium trioxide and hypochlorous acid oxycelluloses and oxyxylans. B. Meesook and C. B. Purves. bibliog Paper Tr J 123:35-42 O 31 '46

HYDROXYLAMINE sulfonic acid
Reaction of hydroxylamine-O-sulfonic acid with ketones. J. K. Sanford and others. bibliog Am Chem Soc J 67:1941-3 N '45

Salts and esters of hydroxylamine-O-sulfonic acid. R. N. Keller and P. A. S. Smith. bibliog Am Chem Soc J 68:899-902 My '46

HYDROXYLATION
Hydroxylation and epoxidation of some 1-olefins with per-acids. D. Swern, G. N. Billen and J. T. Scanlan. bibliog Am Chem Soc J 68:1504-7 Ag '46

HYGIENE

See also
Air pollution
Diet
Disinfection and disinfectants
Food
Health centers
Housing—Hygienic aspects
Hydrocarbons—Physiological effect
Nutrition
Physical examinations
Public health
Sanitation
Sickness
Temperature—Physiological effect
Ventilation
Water pollution
Water purification
Water supply

HYGIENE, Industrial
Age factor in disabling morbidity, 1940-44; experience of the Boston Edison company. W. M. Gafafer. Pub Health Rep 60:1447-62 D 7 '45

Army industrial medical program at a port of embarkation. J. S. Felton. il plans diag Ind Med 15:854+ N '45

Buyer, beware! role of purchasing department in industrial health maintenance. A. H. Phelps. Safety Eng 90:66-7 D '45

Carbon tetrachloride; use in broaching operations; health hazard. R. H. Avery and L. Davis. Nat Safety N 52:89+ O '45

HYGIENE, Industrial—*Continued*
Case studies show need of supply air in plant ventilation. J. B. Skinner and W. M. Pierce. il plan diag Heat & Ven 43:57-61 My '46
Control occupational hazards through industrial hygiene. N. V. Hendricks. il Chem & Met Eng 53:124-5+ Ja '46
Controlled industrial sanitation, a precision tool for industrial hygiene. M. H. Solworth. Ind Med 14:969-73 D '45
Cooperative plan for the development of a small plant health and industrial hygiene program in New York city; with cost data. N. Millman and others. Ind Med 15:371-5; Discussion. 375-6 Je '46
Coordination of official industrial hygiene program with other agencies; Washington (state); with text of agreement. L. M. Farner. Ind Med 15:381-3 Je '46
Danger in the air; germicidal lamp installation by E. W. Rose company. il Safety Eng 91:10-11 My '46
Division of industrial hygiene (Indiana) annual report, year ended June 30, 1945. Ind Med 14:917-19 N '45
Doctor discusses foundries. J. E. Mullen. Foundry 74:109+ Mr '46
Evaluation of a chest X-ray resurvey of an industrial plant. M. Kramer and others. Pub Health Rep 61:990-1001 Jl 5 '46
Expansion of industrial hygiene programs in official agencies. J. G. Townsend. Ind Med 15:423-5 Jl '46
Foremen as health managers; International business machines corp. C. F. Burris. Safety Eng 90:68-70 D '45
Good health for industry; Industrial hygiene foundation holds 10th annual meeting. W. R. Bradley. Chem & Eng N 24:34-8 Ja 10 '46
Health aspects of aluminum ponton work. F. E. Rieke. bibliog Ind Med 14:896-7+ N '45
Hygiene program banishes work disease; American can company. L. V. Taylor. il Safety Eng 92:66-7 Ag '46
Illness in industry. C. F. Long. Ind Med 14: 840-1 N '45
Industrial dermatitis. Safety Eng 91:78-9 Ja '46
Industrial environment. R. A. Kehoe. Ind Med 15:510-11 S '46
Industrial health conference; highlights of proceedings of annual meetings of industrial physicians and surgeons, hygienists, nurses, and dentists, Chicago, April 7-14, 1946. Ind Med 15:472-91 Ag '46
Industrial health; highlights in the fields of industrial medicine, hygiene and nursing. F. S. Mallette, comp. Published in monthly numbers of National safety news
Industrial health in small plants. G. S. Everts. Ind Med 14:958-60 D '45
Job evaluation and the heating, ventilating, and air conditioning engineer. R. M. McGrath. il Heating-Piping 18:84-7 Jl '46
Law and industrial health. T. C. Waters. Safety Eng 91:72-3 Ja '46
Manufacturers health clinic; abstract. L. M. Petrie. Ind Med 15:74+ Ja '46
Medical and environmental control of health hazards in aircraft assembly plants. E. B. Ley and F. J. Vintinner. bibliog il Ind Med 14:779-87 O '45
Mercury vapor exposure in the mercury thermometer industry. H. Heimann and K. L. Dennis. Heating-Piping 18:110 Je '46
National conference on industrial health, Chicago, April 8-13, 1946. Ind Med 15:268-72 Ap '46
Plant survey on industrial hygiene. J. C. Radcliffe. il Safety Eng 92:62-5 Jl '46
Present work of the Industrial health research board of Great Britain. R. Schilling. bibliog Ind Med 15:121+ F '46
Radium dial painting control methods. F. J. Willard, jr. il Ind Med 15:170-2 F '46
Radium dial painting; medical status of workers. I. R. Tabershaw. bibliog J Ind Hygiene 28:212-16 S '46
Regional industrial hygiene conference, abstracts of papers at Five-state meeting, Philadelphia, Sept. 25-26. Ind Med 14:842-9 N '45
Relation of the ventilation engineer to industrial hygiene. H. G. Dyktor. Heating-Piping 17:559-61 O-N '45
Safe use of rubber cements. Heating-Piping 18:107 Ag '46
Save your breath; industrial poisons absorbed by respiration. L. Greenburg and S. Moskowitz. il Safety Eng 92:14-16+ Ag; 42-4+ S '46
Sickness absenteeism among industrial workers, third and fourth quarters of 1945. W. M. Gafafer. Pub Health Rep 61:1095-9 Jl 26 '46
Tighter defense against occupational disease; supply and maintenance centers operated under the ATSC. il Factory Management 103:124-6 N '45
Value of industrial health to labor. J. A. Phillips. Ind Med 14:798 O '45
What are the sources of outside help for health protection in industry? W. P. Shepard. Ind Med 15:521-2 S '46
Why industrial health? Safety Eng 92:49 S '46

See also
Atomic bombs—Manufacture—Hygienic aspects
Dental service, Industrial
Diseases, Industrial
Dust removal
Electric welding, Arc—Hygienic aspects
Eye—Examination
Factories—Cleanliness
Factories—Lighting
Factory sanitation
Fatigue
Hydrocarbons—Physiological effect
Lavatories
Lead poisoning
Lunchrooms and cafeterias, Employees'
Medical service, Industrial
Mental hygiene, Industrial
Miners—Diseases and hygiene
Noise
Nurses and nursing, Industrial
Physical examinations
Poisons, Industrial
Safety devices and measures
Solvents—Physiological effect
Temperature—Physiological effect
Trade unions—Health service
Welding—Hygienic aspects

also Institute for occupational health research; New Jersey—Industrial health, Bureau of; New York (state)—Industrial hygiene and safety standards, Division of

Study and teaching
Department of industrial health, Manchester university, Manchester, England. Ind Med 14:797 O '45
Division of industrial hygiene, University of Colorado, School of medicine and hospitals; its functions and activities. F. R. Ingram. il Ind Med 14:932-5 N '45
Teaching industrial hygiene in the Department of public health and preventive medicine. D. O'Hara. Ind Med 14:993-4 D '45

New Zealand
Industrial hygiene in New Zealand. J. M. Davidson. Ind Med 15:226+ Mr '46

HYGIENE, Rural
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; extent of immunization against smallpox, diphtheria, and typhoid fever. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 61:97-109 Ja 25 '46
Public health program for rural areas. F. D. Mott. Pub Health Rep 61:589-98 Ap 26 '46

HYGRADE food products corporation
One man's meat. il Fortune 33:96-9+ My '46

HYGROMETERS
New instrument determines total vapor in atmosphere; spectroscopic hygrometer. N. B. Foster. il Eng N 135:681 N 15 '45

HYGROSCOPICITY
Determining the moisture equilibrium curves of hygroscopic materials. W. A. Wink. il diag Ind & Eng Chem Anal ed 18:251-2 Ap '46

HYGROSCOPICITY—*Continued*
Hygroscopicity and electrode function (pH response) of glasses as a measure of serviceability. D. Hubbard. bibliog J Res Nat Bur Stand 36:511-20 Je '46

Hygroscopicity of optical glasses as an indicator of serviceability. D. Hubbard. bibliog J Res Nat Bur Stand 36:365-75 Ap '46

Hygroscopicity of softened glue composition. W. C. Griffin. bibliog Ind & Eng Chem 37: 1126-30 N '45

Properties of granular and monocrystalline ammonium nitrate. W. H. Ross, J. Y. Yee and S. B. Hendricks. bibliog il Ind & Eng Chem 37:1079-83 N '45

HYMENOPTERA
Haploidy as a factor in the polymorphic differentiation of the hymenoptera. S. E. Flanders. bibliog Science 103:555-6 My 3 '46

HYODESOXYCHOLIC acid
Degradation of hyodesoxycholic acid. R. B. Moffett and others. bibliog Am Chem Soc J 68:1857-60 S '46

HYPERCONJUGATION. See Conjugation (chemistry)

HYPERSENSITIZING (term)
Hypersensitizing and latensification; a preliminary survey. S. E. Sheppard and others. bibliog Franklin Inst J 240:439-68 D '45

HYPERTENSIN
Inactivation of hypertensin. E. Cruz-Coke. Science 104:86 Jl 26 '46

HYPNOTICS
Some basic barbituric acid derivatives. J. H. Gardner, F. H. Bopp and R. F. Prindle. Am Chem Soc J 68:585 Ap '46

Some 5-*spiro*thiazolidiones. E. R. H. Jones, F. A. Robinson and M. N. Strachan. Chem Soc J p91-2 F '46

See also
Barbiturates

HYPOCHLORITES
Acid catalysis in the formation of chloroamides from hypochlorous acid; *N*-chlorination by hypochlorite ions and by acyl hypochlorites. R. P. Mauger and F. G. Soper. Chem Soc J p71-5 F '46

HYPOCHLOROUS acid
Acid catalysis in the formation of chloroamides from hypochlorous acid; *N*-chlorination by hypochlorite ions and by acyl hypochlorites. R. P. Mauger and F. G. Soper. Chem Soc J p71-5 F '46

Comparative estimations of carbonyl and carboxyl groups in chromium trioxide and hypochlorous acid oxycelluloses and oxyxylans. B. Meesook and C. B. Purves. bibliog Paper Tr J 123:35-42 O 31 '46

HYPODERMIC syringes
Injection molded hypodermic for penicillin. il Mod Plastics 23:117 Je '46

HYPOID gearing. See Gearing, Hypoid

HYPOPARATYPES (term)
Hypoparatypes. H. M. Smith. Science 104: 331 O 4 '46

HYPOXIA. See Anoxemia

HYSTERESIS
B-H curve tracer for magnetic-recording wire. T. H. Long and G. D. McMullen. il diag Elec Eng 65:Trans 146-9 Mr '46

Oscillation hysteresis in grid detectors. E. E. Zepler. diags Wireless Eng 23:222-7 Ag '46

HYSTERESIS (mechanics)
Application of the torsional hysteresis test to tires. H. Wakeham and E. Honold. diags India Rubber World 113:377-81 D '45

Hysteresis and methods for its measurement in rubber-like materials. J. H. Dillon and S. D. Gehman. bibliog il diags India Rubber World 115:61-8+, 217-22 O-N '46

Hysteresis and related elastic properties of tire cords. H. Wakeham and E. Honold. bibliog il J Ap Phys 17:698-711 Ag '46

HYSTERESIS in adsorption. See Adsorption

HYTRON radio and electronics corporation
Common stock offered. Comm & Fin Chr 163: 2854 My 27 '46

I

ICE
Germicidal ices; abstract. H. L. A. Tarr. Food Ind 18:1644+ O '46

See also
Airplanes—Ice protection
Electric lines—Ice problem
Glacial geology
Ice on rivers, lakes, etc.
Railroads—Ice supply
Roads—Ice control
Streets—Ice control
Walks, Concrete—Heating

Manufacture

Manufacture of ice by indirect evaporation. G. Holman. Power Pl Eng 50:94-6 Je '46

ICE, Reinforced
Icebergs as ships; artificial reinforced icebergs as aircraft carriers or seadromes; Habbakuk project. Engineer 181:517-18 Je 7 '46

ICE contacts
Ice-contacts and the melting of ice below a water level. J. H. Cook. bibliog 2pl map Am J Sci 244:502-12 Jl '46

ICE containers
Deep drawn laminates; ice saver buckets; Andover Kent, new process. il Mod Plastics 23:100-2 Mr '46

ICE cream

Analysis

Use of an ion-exchange resin in determination of traces of copper with special reference to powdered and fluid milk. H. A. Cranston and J. B. Thompson. Ind & Eng Chem Anal ed 18:323-6 My '46

ICE cream industry
Will future salesmen be pilots, too? Bond corp., Portland, Ore., studies costs of experimental 9,000-mile sales trip. Sales Management 57:96 O 1 '46

Advertising

Ice cream makers seek billion gallon market by 1955. il Sales Management 57:123 Jl 1 '46

ICE crushers
Durability counts in kitchen equipment; Dazey ice crusher and fruit juicer. il Mod Plastics 24:99 S '46

ICE industry and trade

Advertising

Association campaign to create new uses for its product; advertising ice to promote vegetable display idea. E. M. Housman. il Ptr Ink 214:28-30 F 15 '46

ICE on rivers, lakes, etc.
Air bubbles save ducks; compressed air prevents ice formation on lagoon in Milwaukee's Juneau park. il Comp Air Mag 51:46 F '46

Blasting river ice prevents spring floods. C. Dintruff. il Explosives Eng 24:13-15 Ja '46

Thrust exerted by expanding ice sheet. E. Rose. bibliog Am Soc C E Proc 72:571-85 My '46

ICE patrol service
Coast guard begins ice patrol. il Marine Eng 51:125-6 Mr '46

ICE plants
See also
Cold storage warehouses

ICE rinks. See Skating rinks

ICEBERGS
See also
Ice patrol service

ICELAND
See also
Cooperation—Iceland
Fish trade—Iceland

ICELAND spar. See Calcite

ICHTHYOLOGISTS and herpetologists, American society of. See American society of ichthyologists and herpetologists

ICKES, Harold Le Claire, 1874-
Bitter dispute over oil matters precipitates Ickes' resignation. H. D. Ralph. Oil & Gas J 44:108 F 23 '46
Eyes on Interior; Ickes' exit. Bsns W p17-19 F 23 '46
Resigns from Truman cabinet. Comm & Fin Chr 163:1006 F 21 '46
Text of Ickes' letter of resignation to President Truman. Nat Pet N 38:38+ F 20 '46

ICONOMETER
Theory of the space-eikonometer. K. N. Ogle. bibliog il diag Opt Soc Am J 36:20-32 Ja '46

ICONOSCOPE
Flying torpedo with an electric eye; written in April, 1934. V. K. Zworykin. diags RCA R 7:293-302 S '46

IDAHO
See also
Hydroelectric plants—Idaho

IDEAS in business
About Mr Moody, who is putting new ideas into mattresses. il Sales Management 57:63-4 N 1 '46
Beware! there may be trouble in ideas. A. W. Gray. Adv & Sell 39:77-8+ Ja '46
800 jobs from one sales idea; Texas tanning & manufacturing company. R. McDaniel. il Am Bsns 16:12-13+ S '46
Have you an idea bank? H. J. Ashe. il Inland Ptr 116:36 Mr '46
How to get ideas accepted by men higher up; ten checking points for the man who finds ways to improve the business. R. H. Walton. Ptr Ink 213:30 D 21 '45
Little man, what is your big idea? imagination could save new businesses that fail. J. D. Woolf. Adv & Sell 39:60+ Mr '46

IDENTIFICATION
See also
Banks and banking—Identification rules

IDITOL
Hexitol anhydrides; 1,4,3,6-dianhydro-L-iditol and the structures of isomannide and isosorbide. H. G. Fletcher, jr. and R. M. Goepp, jr. Am Chem Soc J 68:939-41 Je '46

IDLEWILD airport. See Airports—New York (city)

IGNEOUS rocks. See Rocks, Igneous

IGNITION
Limits of inflammability and ignition temperatures of naphthalene. G. W. Jones and G. S. Scott. bibliog U S Bur Mines Rep of Invest 3881:1-5, pl 1 '46
See also
Airplane engines—Ignition
Diesel engines—Ignition
Flame propagation
Inflammable mixtures

IGNITRON
Application and performance of electronic exciters for large a-c generators. H. A. P. Langstaff and others. il diags Elec Eng 65: Trans 246-53 My '46
Betatron pulsing system has many industrial applications. I. Paul and T. J. Wang. il diags Electronics 19:156-60 Ja '46
Electronic exciter for 81,250-kva. turbo-alternator. H. A. P. Langstaff and R. F. Lawrence. il diags Elec World 125:88-91 Mr 16 '46
Electronic exciter for large generators. W. R. Farley and C. R. Marcum. diags Power Pl Eng 50:68-70 Ap '46
Excitation, control and cooling of ignitron tubes. C. C. Herskind and E. J. Remscheid. diags Elec Eng 65:Trans 632-5 O '46
400-ampere sealed ignitron. H. C. Steiner and H. N. Price. bibliog il diags Elec Eng 65:Trans 680-5 O '46
Fundamentals of electron tubes. R. B. Immel. il diags Power Pl Eng 49:116+ D '45
High voltage ignitron rectifiers and inverters for railroad service. J. L. Boyer and C. G. Hagensick. bibliog diags Elec Eng 65:Trans 463-70 Jl '46; Excerpts. Ry Mech Eng 120: 322-3 Je '46
Rectifier capacity. C. C. Herskind and H. C. Steiner. diags Elec Eng 65:Trans 667-70 O '46
What you should know about industrial electronics; mercury-pool tubes. diags Am Mach 90:138 Mr 14 '46

IHRIGIZING
Silicon-impregnated steels. H. K. Ihrig. il Iron Age 157:73-9 Ap 4 '46

ILKOVIC equation
Fundamental studies with the dropping mercury electrode; empirical modification of the Ilkovic equation. J. J. Lingane and B. A. Loveridge. bibliog Am Chem Soc J 68: 395-7 Mr '46

ILLINOIS
See also
Geology—Illinois
Petroleum—Illinois
Roads—Illinois
Wages—Illinois

Geological survey
Program and research laboratories. M. M. Leighton. Science 104:188-90 Ag 23 '46

Industries and resources
Design for living, Illinois style sees hope for future in huge surplus war plant. il Bsns W p17-18 O 26 '46

ILLINOIS bankers association
Issue policy declaration. Comm & Fin Chr 163:2830 My 23 '46

ILLINOIS bankers life assurance company
Policyholder group wins 3rd Illinois Bankers round; state supreme court decides against Martin, Sawyer estates. Nat Underw (Life ed) 50:3+ My 31 '46

ILLINOIS central railroad
Makes exchange offer to holders of underlying bonds. Comm & Fin Chr 163:2580 My 13 '46
Stocks with leverage possibilities. Mag of Wall St 78:393 Jl 6 '46

ILLINOIS institute of technology
Replans 16 city blocks. il Arch Forum 85:102-3 S '46

ILLINOIS national casualty company
Ernest Palmer's order of 13 years ago knocked out; court orders Illinois national casualty stock returned to Reiter. Nat Underw 50:26+ Mr 14 '46

ILLINOIS power company
Common dividends in sight. Barron's 26:1+ Ap 22 '46
Common dividends near. Barron's 26:6 S 30 '46
Financial news. O. Ely. Pub Util 38:36-7 Jl 4 '46
Securities offered. Comm & Fin Chr 163:2854 My 27 '46
To cut debt. Barron's 26:6 F 11 '46

ILLINOIS terminal railroad
Bonds and stocks offered. Comm & Fin Chr 162:2943 D 17 '45

ILLINOIS university
Illinois U. airport is commissioned. il Aviation N 4:12 N 19 '45
Open University of Illinois airport. il Aero Digest 51:65 D 15 '45
Training of nonacademic employees; University of Illinois. D. E. Dickason. Personnel J 25:62-6 Je '46

ILLINOIS zinc company
Stocks with leverage possibilities. Mag of Wall St 78:395+ Jl 6 '46

ILLITE
Illite, montmorillonite, halloysite, and volcanic ash as whiteware body ingredients. L. Mattyasovszky-Zsolnay. Am Cer Soc J 29: 254-60 S 1 '46

ILLIUM G
Phosphoric acid vs. materials of chemical plant construction. T. E. Johnson. Chem & Met Eng 53:221 Jl '46

ILLUMINATING engineering society
Annual report of the general secretary, 1944-1945. L. E. Tayler. il map Illum Eng 40: 863-900 D '45
Internationalization of Illuminating engineering society should encourage formation of chapters in South and Central America. W. A. Feuillan, jr. Illum Eng 41:182-3 F '46
Report of the I.E.S. committee on progress. bibliog il diags Illum Eng 40:901-48 D '45

ILLUMINATING engineering society, London
Annual meeting, London, May 14-17. Elec R (Lond) 138:773-4, 821-2 My 17-24 '46; Electrician 136:1296-7, 1385-8 My 17-24 '46; Engineering 161:501 My 24 '46; Light & Lighting 39:76-96 My '46

ILLUSTRATION of books
Claytoons reach out for new markets in merchandise lines; Mother Goose Claytoon-illustrated; next step may be Claytoon-character dolls, etc. il Sales Management 55:79 N 15 '45

ILMENITE
Notes on the ilmenite deposit at Piney River, Virginia. D. M. Davidson and others. bibliog il maps Econ Geol 41:738-48 N '46
Thermodynamic properties of ilmenite and selective reduction of iron in ilmenite. C. H. Shomate and others. bibliog U S Bur Mines Rep of Invest 3864:1-19, pl 1-2 '46

IMAGE Orthicon. See Television cameras

IMIDAZOLE
Glyoxalines; the bromination of 2-phenyl-4-benzal-5-glyoxalidone. D. L. Williams and A. R. Ronzio. Am Chem Soc J 68:647-9 Ap '46
Reactions of phenanthraquinone with aromatic aldehydes and ammonia in alkaline media. E. A. Steck and A. R. Day. bibliog Am Chem Soc J 68:771-2 My '46

IMIDAZOLIDINE
Investigation of some coloured iminazolidines derived from theobromine. A. R. Todd and N. Whittaker. Chem Soc J p628-33 Jl '46

IMIDAZOLIDINE propionic acid
α-Isopropyl-5-methyl-2-oxo-4-imidazolidine-propionic acid, a structural isomer of desthiobiotin. G. B. Brown and M. F. Ferger. bibliog Am Chem Soc J 68:1507-8 Ag '46

IMIDAZOLIDOTHIOPHENE
Derivatives of 2'-keto-3,4-imidazolidothiophene. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:2252-5 D '45

IMINAZOLIDINE. See Imidazolidine

IMINES
2-Tolylpyrrolines and the rearrangement and hydrolysis of aryl cyclopropyl ketimines. J. B. Cloke and others. bibliog Am Chem Soc J 67:2155-8 D '45

IMMER, Forrest Rhinehart, 1899-1946
Sketch. H. K. Hayes. Science 103:751 Je 28 '46
Sketch. E. L. LeClerg. Am Stat Assn J 41: 242-3 Je '46

IMMERSION heating. See Gas heating, Industrial

IMMIGRATION and emigration
Interaction of migration policies and world economy; basic considerations that need to be weighed. G. L. Warren. For Comm W 22:19 Mr 23 '46
See also
Stowaways

Brazil
Brazil's new immigration and colonization law. For Comm W 22:24 F 2 '46

Great Britain
Migration policy. Economist 151:241-2 Ag 17 '46

Ireland
Anglo-Irish labour movements. Economist 151: 547-8 O 5 '46
Castles in Eire. Economist 151:18 Jl 6 '46

Mexico
Conditions for admission of immigrants during 1946. For Comm W 21:45-6 D 22 '45

United States
Immigration and emigration, 1944-45. Mo Labor R 62:644-6 Ap '46
President eases immigration of refugees. Comm & Fin Chr 163:55 Ja 3 '46

IMMIGRATION law
See also
Stowaways

IMMUNITY
Aging of tissues; necessity for research. W. D. MacNider. Science 104:405-6 N 1 '46
Chemoprophylaxis of experimental influenza infections in eggs. R. H. Green and others. Pub Health Rep 61:1401-3 S 27 '46
Diphtheria incidence and trends in relation to artificial immunization, with some comparative data for scarlet fever. S. D. Collins. bibliog(35 titles) Pub Health Rep 61: 203-40 F 15 '46
Physical, chemical and immunological properties of phosphorylated crystalline horse serum albumin. M. Mayer and M. Heidelberger. bibliog Am Chem Soc J 68:18-25 Ja '46
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; extent of immunization against smallpox, diphtheria, and typhoid fever. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 61:97-109 Ja 25 '46
See also
Antigens and antibodies — Toxins and antitoxins
Complement fixation — Vaccines
Infectious diseases

IMPACT
Cast-to-size impact specimens for aluminum sand casting alloys. R. A. Quadt. il Am Soc T M Proc 45:705-10 '45
Impact resistance of welded stainless. J. G. Henderson. bibliog Steel 118:94+ My 13 '46
Impact strength of arc-welded joints in aircraft steel. H. O. Klinke. il Welding J 23: sup633-4 D '44; Same. Aero Digest 52:82-3 Je '46
Impact stress in elastic bodies calculated by the energy method. M. F. Spotts. bibliog diags Product Eng 17:200-4 Mr '46
Observations on the impact strength of alloy steels hardened from cyanide baths. S. M. Lenhoff and L. F. Roth. il Metal Prog 49: 960-7 My '46
Relation between the impact and flexural tests for molded plastics. L. E. Welch and H. M. Quackenbos, jr. bibliog il diags A S M E Trans 68:547-56 Jl '46
Significance of impact-test data in design of engineering structures. D. F. Windenburg. il diag Product Eng 17:81-3 S '46
Single-blow impact test for cast iron. A. B. Everest and others. il diags Engineering 161:117-20 F 1 '46; Abstract. Metal Prog 48:1354+ D '45

IMPEDANCE
Aerial resistance and cable impedance. G. W. O. Howe. Wireless Eng 23:65-6 Mr '46
Characteristic impedance of balanced lines. P. J. Sutro. Electronics 19:150 Jl '46
Characteristic impedance of lines; balanced two-wire line, air spaced; chart. N. Marchand. Elec World 125:96 F 2 '46
Characteristic impedance of lines; chart. K. Zimmermann. Elec World 126:92 O 26; 126 N 9; 102 N 23; 122 D 7; 82 D 21 '46
Conjugate-image impedances. S. Roberts. bibliog diags Inst Radio Eng Proc 34:198-204 Ap '46
High impedance pulse voltmeter. D. E. Howes. diag R Sci Instr 16:322 N '45
Impedance-admittance conversion chart. R. C. Paine. Electronics 19:162 Ja '46
Impedance nomograph. G. J. Wheeler. Electronics 19:186 S '46
Measured impedance of cylindrical dipoles. D. D. King. il diags J Ap Phys 17:844-52 O '46
Measurement of carrier circuit impedances. W. H. Blackmeyer. il diags Elec World 126: 49-51 Ag 3 '46
Per-unit impedances of synchronous machines. A. W. Rankin. bibliog diag Elec Eng 64:Trans 569-73, 839-41 Ag, D '45
Shunt and series sections of transmission line for impedance matching. C. T. Tai. diags J Ap Phys 17:44-50 Ja '46
Simplifications in the consideration of mutual effects between half-wave dipoles in collinear and parallel orientations. K. J. Affanasiev. Inst Radio Eng Proc 34:635-8 S '46
VHF impedance measurements. D. S. Henry. il diags Electronics 18:156-9 D '45
Variation on the gain formula for feedback amplifiers for a certain driving-impedance configuration. T. W. Winternitz. diags Inst Radio Eng Proc 34:639-41 S '46

IMPEDANCE—*Continued*
What is the best way of measuring unbalanced impedances above 10,000 ohms, above 1,000 cycles per second? diag Electrician 137:392 Ag 9 '46

IMPEDANCE boundary condition. See Boundary value problems

IMPERIAL chemical industries, limited
Big British combine's achievements and ambitions. For Comm W 24:12-13+ S 28 '46
Fuel position and exports; Lord McGowan's warning: I.C.I. expansion plans. Lord McGowan. Chem Age (Lond) 54:547-9 My 18 '46
I.C.I.'s Tees-Side project; chemicals from coal or oil. map Chem Age (Lond) 53:563 D 15 '45; Same cond. Chem & Ind p391 D 15 '45
Large expansion program for its dyestuffs division. Chem & Met Eng 53:182+ Je '46
Nineteenth ordinary general meeting, London. Economist 150:861 My 25 '46

IMPERIAL college of science and technology, South Kensington, England
Centenary celebrations. Chem Age (Lond) 53: 417-19 N 3 '45; Chem & Ind p340-1 N 3 '45
Centenary exhibits at the Imperial college. il Engineer 180:320-2, 344 O 26-N 2 '45
Centenary of the Imperial college. il Engineering 160:356-7, 413-17, 437-40, 461-2, 472 N 2, 23, 30-D 7 '45
History. Engineering 160:353-4 N 2 '45
Imperial college's celebrations; electric engineering and research. Elec R (Lond) 137: 592 O 26 '45; Electrician 135:428 O 26 '45

IMPERIAL tobacco company of Great Britain and Ireland
Statement by the chairman. Lord Dulverton. Economist 150:354 Mr 2 '46

IMPERIALISM
British imperialism is a spook. J. C. Smuts. Comm & Fin Chr 164:2341+ N 7 '46

IMPORTS
Channels for trading abroad. C. Cloyes and E. F. Becker. (Economic ser. no. 52) 24p Office of international trade, Dept. of commerce bldg, Washington 25, D.C. '46
Foreign-trade prospects for the veteran today. W. S. Thomas and others. il For Comm W 23:3-5+ Je 29 '46
Importance of importing; to achieve world-trade success, we must buy more from abroad. P. Wiers. For Comm W 22:3-4+ Ja 5 '46; Same. Comm & Fin Chr 163:374+ Ja 24 '46
New guide spells out techniques of trading; review of CED's International trade handbook. C. Cloyes. For Comm W 24:25+ Jl 13 '46
OPA statement on prices and control of imported commodities. For Comm W 25:26 O 5 '46
Recent imports. Oil Paint & Drug Rep 149: 4+ Mr 11 '46
We must increasingly emphasize imports if we wish to see a proper balance restored in the world. J. H. Williams. For Comm W 21:25 N 10 '45
We need to remove the traditional fears relative to imports. A. E. Taylor. For Comm W 22:21 F 16 '46
Westinghouse bazaar; International division, general-importing business. Fortune 33: 162+ Je '46
With imports near 15 year high; what it means to U.S. business. H. M. Tremaine. il Mag of Wall St 78:681-3+ S 14 '46
World prices and American imports. Nat City Bank p83 Jl '46

See also
Commerce
Free trade and protection
Tariff

Statistics
Foreign import statistics for U.S. exporters. For Comm W 23:23 My 18 '46
New foreign-trade transport statistics. J. E. Ely. For Comm W 21:8-9+ N 24 '45
U.S. foreign trade in first half of 1945. il For Comm W 21:5-7+ N 10 '45
United States trade; exports and imports, 1945 and Jan. 1946-date; graphs. For Comm W 23:7 Je 15 '46 [cont monthly]

IMPREGNATION, Artificial
Artificially sired cattle. Bsns W p46+ N 24 '45

IMPRESSION molding. See Molding

IN-Service courses, Credit for. See Credits, School and college

INCENDIARISM. See Arson

INCENDIARY bombs. See Bombs, Incendiary

INCENTIVE pay. See Wage payment plans

INCENTIVES in industry
Best incentives for salesmen in a competitive market; do not over emphasize the importance of financial incentives. B. R. Canfield. Adv & Sell 39:53-4+ O '46
Carrot and the stick. Economist 150:1033-5 Je 29 '46; Excerpts. Trusts & Estates 83: 126-7 Ag '46
Direct incentives for labor the key to industrial peace. W. G. Lightbowne. Comm & Fin Chr 163:724+ F 7 '46
Incentive plan for spinners increases production and pay. F. E. Cleyn. il Textile World 96:107 Jl '46
Multiple factors in foreman incentives. C. W. Lytle. Factory Management 104:278+ Je '46
Problem of incentive in industry. S. W. Hyde. Engineering 162:101-2, 124-5 Ag 2-9 '46
Putting incentive to work for mining progress. il Coal Age 51:64-7 Ja '46
Stores turn to incentive plans. Bsns W p76+ Je 29 '46
Wartime unity of purpose; object lessons for administration and management. C. L. Richey. Advanced Management 11:62-9 Je '46

See also
Bonus system
Employees as stockholders
Profit sharing
Wage payment plans

INCH, Maude Elizabeth
Secretary of the Insurance society of New York. por Weekly Underw 154:1449 Je 1 '46

INCINERATORS, Refuse. See Refuse incinerators

INCINERATORS, Sewage. See Sewage incinerators

INCOME
Annual family and occupational earnings of residents of two Negro housing projects in Atlanta, 1937-44. A. L. Ritter. Mo Labor R 61:1061-73 D '45
City-family composition in relation to income, 1941 and 1944. L. A. Epstein and A. S. Ritter. Mo Labor R 62:175-80 F '46
Relationship between consumers' expenditures, savings, and disposable income. W. S. Woytinsky. R Econ Stat 28:1-12 F '46

See also
Farm income
Profit
Salaries
Wages

Statistics
Average annual income in U.S.; Department of commerce statement. Comm & Fin Chr 164:1182, 1307 Ag 29, S 5 '46
Changing economic status of chemists, 1926-1943. R. W. French. bibliog Chem & Eng N 24:1649-55 Je 25 '46
City families earn more money; graph. Bsns W p68 Je 1 '46
Economy in war and transition; national income and national product. Survey of Cur Bsns 26:4-9 F '46
Income, consumption, and savings. Survey of Cur Bsns 26:5-7+ My '46
Income payments, by states; Winston-Smith yardstick. Bsns W p83 F 23 '46
Income payments to individuals, 1940-1945; chart. Survey of Cur Bsns 25:3 N '45
Measures of national income and product; abstract. Trusts & Estates 83:125 Ag '46
National incomes; League of nations Statistical yearbook estimates. Economist 149: 607-8 O 27 '45
National survey of liquid assets distribution according to income. H. H. Villard. Fed Res Bul 32:716-22 Jl '46
New peak in income. Bsns W p48 S 7 '46
Postwar national income; appraisal of criticisms of the Brookings Institution estimate. J. Mayer and others. R Econ Stat 27:189-91 N '45

INCOME—Statistics—*Continued*
Proportion of national income assigned to labor, small business, corporations, etc. 1929-1945; tabulation. Pub Util 37:300 F 28 '46
Retail sales and consumer income since VJ-day. L. J. Paradiso. Survey of Cur Bsns 26:10-17+ O '46
Sales Management 1946 survey of buying power; estimates of population, total retail sales, sales by three major store groups, effective buying income, gross and net, gross farm income, wholesale sales, sales-advertising controls for the Nation, sections, states, counties and cities. il maps Sales Management 56:19-412 My 10 '46; Correction. 56:112 Je 15 '46
Sensitivity of state income payments to nation's total. C. Winston and M. A. Smith. Survey of Cur Bsns 26:6-9+ Ja '46
State income payments in 1945; with tabulations for selected years, 1929-1945, giving income by states and regions and by type of payment. C. F. Schwartz and R. E. Graham, jr. maps Survey of Cur Bsns 26: 11-22 Ag '46; Excerpts. Dom Comm 34: 17-22 S '46
U.S. income reaches all-time high; a P.I. market exploration. W. P. Burn. map Ptr Ink 217:45-8 N 1 '46
Wages and salaries, employment, and average annual earnings per full-time employee in private industries, 1942-45; tabulation. Survey of Cur Bsns 26:32 O '46
Wages and salaries, employment and average annual earnings per full-time employee in private industries, 1943-44; tabulation. Survey of Cur Bsns 25:23 N '45

Great Britain

Money and income. Economist 150:712-14 My 4 '46
National income, 1938-1945. Economist 150: 589-94 Ap 13 '46
Professional income. Economist 150:404-6 Mr 16 '46

Ireland

Irish national income. Economist 150:419 Mr 16 '46

United States

Barometric chart of United States economy, 1900-1945; ratios of national income to government debt. Automotive & Aviation Ind 94:72 Mr 15 '46
Depressions hit top and bottom incomes hardest; abstract. H. Mendershausen. Comm & Fin Chr 164:81+ Jl 4 '46
Economy in war and transition; national income and national product. Survey of Cur Bsns 26:4-9 F '46
Incomes maintained at high levels. Fed Res Bul 31:1186-7 D '45
Postwar national income; appraisal of criticisms of the Brookings Institution estimate, by J. Mayer and others; Postwar output at full employment: a rebuttal, by R. S. Tucker; Brookings and Tucker estimates: further comments, by E. E. Hagen; Postwar output in the United States at full employment, by L. H. Bean. R Econ Stat 27:189-203 N '45
Sensitivity of state income payments to nation's total. C. Winston and M. A. Smith. Survey of Cur Bsns 26:6-9+ Ja '46

INCOME statements
Accounting for expenses and losses allocable to income of the war period. C. G. Blough. J Account 80:338-41 N '45; Same cond. Management R 35:64-6 F '46
Authoritative financial accounting. G. O. May. J Account 82:102-19 Ag '46
Case against administrative expenses in inventory. J. N. Harris. J Account 82:32-6 Jl '46
Charges in lieu of taxes; Securities and exchange commission's opinion. J Account 81:176-81 F '46
Net income for the year. G. O. May and H. T. Chamberlain. J Account 81:363-71 My '46
Statements of recast war-period income and related problems. W. H. Whitney. J Account 81:377-83 My '46
Tax reductions in statements of income. J Account 81:127-9 F '46

INCOME tax
Taxation of community property; joint ownership and other problems. W. L. Nossaman. Trusts & Estates 83:161-5 Ag '46

See also
Corporations—Taxation
Excess profits tax

Accounting

Accounting for construction of building on leased land. J Account 80:396-7 N '45
Accounting for containers for tax purposes. W. C. Butscher. J Account 81:133-7 F '46
Advances for traveling expenses; official text. J Account 81:87; Editorial comment. 4-5 Ja '46
Amortization of bond premium in tax returns of banks. O. E. Fischer. J Account 81:476-8 Je '46
Charges in lieu of taxes; income taxes as utility operating expenses, even though neither paid nor payable. R. E. Stromberg. Pub Util 37:685-8 My 23 '46
Charges in lieu of taxes; Securities and exchange commission's opinion. J Account 81:176-81 F '46
Comments on accounting for war costs and losses. W. W. Nissley. J Account 81:107-14 F '46
Computation of taxes for interim-report purposes. J Account 81:158-60 F '46
Computing certain expense items based on net income after taxes. S. Kessler. J Account 82:431-2 N '46
Deductibility of investors' expenses under section 23 (a) (2) of the Internal revenue code. P. D. Seghers. J Account 81:130-2 F '46
Dividend credit. E. Everett and O. H. Schmillon. J Account 82:244-5 S '46
Missouri supreme court upholds negligence suit against accountants; North American co. stock involved. Nat Underw 49:24 N 15 '45
National conference of lawyers and certified public accountants. D. F. Maxwell and W. Charles. J Account 81:120-6 F '46
Needed: a sensible depreciation policy for machine tools and other production equipment. B. Finney. Am Mach 90:111-18 Ap 25 '46
Recent developments in accounting for income tax provisions. W. J. Crawford. N A C A Bul 27:755-64 My 1 '46
SEC on accounting for income taxes. J Account 81:1-3 Ja '46
Some aspects of railroad depreciation accounting for income tax purposes; abstract. R. C. Staebner. Ry Age 120:1255 Je 29 '46
Some income tax problems of security traders. J. P. Allison. J Account 82:230-42 S '46
Tax consequences of sale of corporate stock; negligence of public accountants. J Account 80:494-5 D '45
Tax funds provided by accrual systems. C. L. Tewksbury and others. Bankers Mo 62: 504-6 N '45
Tax reductions in statements of income. J Account 81:127-9 F '46

See also
Income tax—Deductions

Capital gains tax

How to minimize this year's taxes; study of security portfolios essential. H. L. Blackburn. Mag of Wall St 77:191-2+ N 24 '45
Tax considerations in security transactions. D. Smith. Comm & Fin Chr 162:2874+ D 13 '45
Tax information please! W. A. Howell. Mag of Wall St 79:148-9+, 204-5+ N 9-23 '46
Tax saving opportunities. G. Y. Billard. Comm & Fin Chr 162:2583+ N 29 '45
Tax saving opportunities in market. L. H. Bradshaw. Comm & Fin Chr 164:1657+ O 3 '46
When is real estate held for the production of income used in the trade or business of the taxpayer? J. Dane. J Account 81:505-6 Je '46

INCOME tax—Capital gains tax—*Continued*

Deductions

Amortization of costs of war facilities. T. W. Graske. il Dun's R 54:19-22+ Jl '46
Bad debts and your income tax. H. J. Ashe. Inland Ptr 116:42-3 N '45
Bonus computations. J. F. Traver. J Account 81:206-13 Mr '46
Buyer who pays taxes on New York real estate assessed before his purchase may deduct them from gross income in his federal income tax return. Banking 38:102 Mr '46
Deductibility of litigation expenses. R. N. Golub. J Account 80:407-9 N '45
Depreciation; report of the tax committee of the American mining congress. Min Cong J 32:48-51 Ja '46
Employe trust funds help to reduce taxes. A. Gray. Inland Ptr 116:78-9 D '45-Ja '46
Ending of amortization period as provided in section 124 (d) (1) of the Internal revenue code. J. D. Nunan, jr. J Account 81:181-4 F '46
Flowers' children; traveling expenses while away from home in pursuit of a trade or business. J Account 82:243 S '46
Income tax saving facts for radio dealers. H. J. Ashe. Radio N 36:58+ N '46
Interest paid in advance on borrowed money not deductible until notes paid where taxpayer on cash basis. Banking Law J 63:541-2 Jl '46
New tax law: what to do now to save taxes. H. K. Marks. Adv & Sell 38:39+ D '45
Nontrade or nonbusiness deductions. L. A. Diamond. J Account 81:503-4 Je '46
Possibilities for excess-profits tax relief by elimination of abnormal base-period deductions. R. S. Bock. J Account 81:397-403 My '46
Provisions of income tax law and regulations affecting owners of oil and gas properties. F. T. Terry. J Account 81:217-26 Mr '46; Discussion (Taxation of oil and gas properties; depletion allowance). 82:333-4 O '46
Reasonable salaries. E. N. Griswold. J Account 82:69-70 Jl '46
Salary and interest disallowances under section 24 (c); recent cases and developments. S. A. Gutkin and D. Beck. J Account 81: 291-9 Ap '46
Salesmen may deduct many business costs; gifts to customers, business entertainment, as well as costs of using a car in sales work. H. J. Ashe. Inland Ptr 116:69-70 O '45
Take advantage of tax deductions. A. C. Kiechlin. Inland Ptr 116:51-2 N '45
Tax benefit rule. C. W. Tye. bibliog J Account 82:68-9 Jl '46
Tax reduction by carry-backs and carry-overs; summary of present legislation. J. H. Landman. J Account 81:282-5 Ap '46
Traveling expenses while away from home; abstract. J Account 82:422-4 N '46

Australia

Uniform income tax in Australia. Economist 150:1007-8 Je 22 '46

Canada

Canadian income taxes to be lowered. Comm & Fin Chr 164:216 Jl 11 '46
Income tax changes proposed in budget. For Comm W 24:18-20 Jl 20 '46

Great Britain

Building and plant allowances; new income-tax concessions. Chem Age (Lond) 54:162 F 9 '46
Modern income tax. Economist 150:21-2, 61-2, 101-2, 140-3 Ja 5-26 '46
Patents and income tax; explanatory notes by the Board of inland revenue. Chem Age (Lond) 54:705-6+ Je 22 '46
Professional income. Economist 150:404-6 Mr 16 '46

United States

Bedford case; stockholders exchange in reorganization. J Account 81:236 Mr '46
Carry-back provisions of federal income-tax laws. J Account 81:250-1 Mr '46
Dobson rule and tax administration. N. D. Cann. bibliog J Account 82:401-13 N '46
Federal income tax, 1946. Spectator (Life ed) 153:51-4 N '45
Federal taxation in the United States; history of existing tax system and Proposals for revision. Index 26 no 2:25-39 [Je] '46; Same (pt 2, Proposals for revision). Comm & Fin Chr 164:209+ Jl 11 '46
Fraud cases in the federal income tax law. I. Kalish and S. S. Mandell. J Account 82: 305-13 O '46
How new tax law affects company operations. J. K. Lasser. il Dun's R 54:15-22 Mr '46
Income taxation of foreign corporations. A. R. Cowan. Comm & Fin Chr 164:483+ Jl 25 '46
Income vs. tax; investment yield after income tax. Life Ins Courant 50:428-9 S '45; Revised tables. 51:26 Ja '46
New tax law: what to do now to save taxes. H. K. Marks. Adv & Sell 38:39+ D '45
Phases of tax administration. N. D. Cann. Am Gas Assn Mo 28:445-7+ O '46
Problems of income tax administration. H. B. Fernald. J Account 80:342-7 N '45
Progress toward income tax equality. B. C. McCabe. Edison Elec Inst Bul 14:241-3+ Jl '46
Provisions of income tax law and regulations affecting owners of oil and gas properties. F. T. Terry. J Account 81:217-26 Mr '46
Tax reporting of traveling expenses. East Underw 47:31 Ja 11 '46
Tax saving due; Internal revenue bureau will accept Oklahoma community property law. Bsns W p27 Ja 5 '46
United States taxation of citizens in Philippines. For Comm W 23:23 Je 8 '46
When does a dividend become income? G. G. Tyler. bibliog J Account 80:353-7 N '45

See also
Excess profits tax

Decisions

Doctrine of Clifford case defined by new regulations. Trusts & Estates 82:225-6 F '46
Effect of section 126 on business-liquidation agreements. E. T. Roehner. bibliog J Account 80:364-8 N '45
Family partnerships since the Tower and Lusthaus decisions. G. Simons. J Account 82:130-5 Ag '46
Proceeds taxation; new ruling as to instalment options. J. V. Bloys. East Underw 47:136+ pt 2 O 4 '46

INCOME tax, State

State income taxes ready to start upward. B. Jones. Barron's 26:9 O 14 '46

INCORPORATED municipal electrical association

Annual meeting, Blackpool, June 24-28. Elec R (Lond) 138:999-1005; 139:3-15 Je 28-Jl 5 '46; Electrician 136:1726-52; 137:28-40 Je 28-Jl 5 '46; Engineering 162:5-6, 30-1 Jl 5-12 '46

Annual report. Electrician 136:1654 Je 21 '46

INCUBATORS

Poultry house heating. il Elec R (Lond) 137: 623 N 2 '45

INCUBATORS, Bacteriological

Providing incubator space; Kansas City water laboratory. H. W. Poston. il diag Water & Sewage Works 93:184-5 My '46

INDANTHRONE

Colour and structure of indigo, indanthrone, and similar compounds discussed from the standpoint of modern resonance theory. H. H. Hodgson. bibliog Soc Dyers & Col J 62:176+ Je '46

INDEPENDENT citizens committee of the arts, sciences and professions

Should chemists support ICCASP? yes! by M. Dole; no! by D. L. Tabern. Chem & Eng N 24:2770-1+ O 25 '46

INDEPENDENT grocers alliance of America

IGA stores to sell many new items; all supplies needed for kitchen, dining room, and bathroom. J. Garth. il Am Bsns 16:14-15+ O '46

Supermarkets plus; retail store members of the Independent Grocers Alliance plan to diversify. Bsns W p69-70+ O 12 '46

INDEPENDENT insurers, National association of. See National association of independent insurers

INDEPENDENT natural gas association of America
Annual meeting, 1st, Houston, Jan. 28. Am Gas J 164:42-3 Mr '46

INDEPENDENT petroleum association of America
Annual meeting, Fort Worth, Oct. 28-30. Oil & Gas J 45:37-8+ N 2 '46

INDEPENDENT steel workers' alliance. See Company unions

INDEX, Thumb. See Thumb index

INDEX numbers (economics)
American appraisal company construction cost trend index, 1914-1945. Eng N 136:571 Ap 18 '46
Barron's business index revised. Barron's 26:6 Ja 21 '46
Building and construction cost indexes compared, 1913-1945. Eng N 136:567 Ap 18 '46
Cost of living index. Economist 151:51 Jl 13 '46
ENR construction and building cost indexes; 1903-1945. fold chart Eng N 136:566 Ap 18 '46
Generalized ideal index-number formula. I. H. Siegel. Am Stat Assn J 40:520-3 D '45
Historical note on the purchasing power concept, and index numbers; William Fleetwood's, Chronicon preciosum, 1707. W. F. Ferger. Am Stat Assn J 41:53-7 Mr '46
Import and export price index. Economist 150:652 Ap 20 '46
Index numbers and analysis of gross profit variation as a management tool. C. F. Axelson. J Account 81:463-5 Je '46
Index of consumers' prices in large cities, October 1945. Mo Labor R 61:1222-5 D '45 [cont monthly]
Index protest; British ponder modernization of basis for figuring living costs. Bsns W p114+ O 26 '46
Inflation? which index do you use? Bsns W p18 Jl 27 '46
Periodical statistics of cost of living, wages, unemployment, employment and hours of work; explanatory notes. Int Labour R 53: 117-27 Ja-F '46
Revised index of department store stocks; with monthly figures for the United States and for the twelve federal reserve districts, 1919-April 1946. R. Youngdahl and J. O. Bergelin. Fed Res Bul 32:588-612 Je '46
Selected business indicators, 1940-45; summary table. Survey of Cur Bsns 26:32 F '46
Statement on federal reserve index of industrial production by Director of Division of research and statistics. Fed Res Bul 32:472-3 My '46
See also
Stocks—Price indexes and averages

Regional indexes
Regional trade barometers, adjusted for seasonal variation; measures of consumer buying; annual figures, 1935-1945 and monthly figures, Jan. 1944-Dec. 1945. L. D. H. Weld, comp. Dun's Stat R 10:11 Mr '46

INDEXES
Granger's index to poetry and recitations; supplement, 1938-1944. E. Granger. 415p $10 Columbia univ. press, New York '45
See also
Periodicals—Indexes

INDEXING
Better titles, more effective publication. O. A. Stevens. Science 104:179-80 Ag 23 '46
Indexing and filing of correspondence in the laboratories of J. Lyons & co. ltd. M. Shaw. J Doc 2:17-20 Je '46
Indexing union contracts. M. Hoag. Special Lib 37:106-10 Ap '46; Discussion. C. D. Gull. 37:223 S '46
Modified Holmstrom system of documentation; Moore's loose-leaf filing system. A. G. Clement and R. H. S. Robertson. il J Doc 1:217-21 Mr '46
Punch cards for indexing scientific data. C. F. Bailey and others. bibliog Science 104: 181 Ag 23 '46
Punched card method for the bibliography, abstracting, and indexing of chemical literature. C. D. Gull. il J Chem Educ 23:500-7 O '46

INDEXING (machine work)
Accurate, inexpensive indexing mechanism; patent assigned to Pennsylvania manufacturing co. diag Machine Design 17:163 N '45
Automatic work-indexing device for milling machine; slotting commutators for small electric motors. E. Lay. diags Mach 53: 215-16 N '46
Auto-pneumatic indexing drill jig. il diag Engineer 181:427 My 10 '46
High-speed index is silent; patent assigned to Gleason works. diag Machine Design 18:170 F '46
Indexing head for continuous precision link boring. W. Wolff. il diags Am Mach 90: 145 Ap 11 '46
Simple indexing device for fixtures. diags Mach 52:184 My '46
See also
Dividing machines

INDIA
United nations and India. E. Asirvatham. Ann Am Acad 246:55-63 Jl '46
See also
Air conditioning—India
Architecture—India
Damodar river, India
East Indians (in South Africa)
Electricity supply—India
Iron industry and trade—India
Labor and laboring classes—India
Labor laws and legislation—India
Steel industry and trade—India
Trade unions—India

Armed forces
War-service gratuities in India. Mo Labor R 61:1151 D '45

Commerce
Balance of payments, United States and India, 1942-1945. For Comm W 24:18 S 7 '46
India as an American export market. S. Chandrasekhar. Comm & Fin Chr 162:2450+ N 22 '45
India in international trade. P. C. Mittra. Comm & Fin Chr 164:748+ Ag 8 '46
Indian delegation to China aims to stimulate trade. For Comm W 23:37 Ap 6 '46
India's market for industrial goods. A. Moore. Barron's 26:11 Jl 1 '46
Trade between India and the United States; with tables showing U S exports and imports, 1938 and 1941-1945. G. A. Witherow. For Comm W 24:12+ Jl 20 '46

Economic conditions
India in 1945. Economist 150:sup8 Mr 23 '46
India's preoccupations under postwar impacts. D. A. Kearns-Preston. il For Comm W 22:9-11+ Ja 5 '46

Economic policy
India strikes at black market. Economist 150: 105 Ja 19 '46
India's problem; industrial and agricultural planning. D. A. Kearns-Preston. il For Comm W 24:8-11+ Jl 20 '46
Will India's economy be Balkanised? Economist 151:137 Jl 27 '46

Industries and resources
India maps economic growth. Bsns W p113-14 O 26 '46
Jute; vitally essential product in world trade; India's monopoly fiber. M. E. Poole. il For Comm W 22:6-11+ Ja 26 '46

Politics and government
Black flags in India. Economist 151:363-4 S 7 '46
India at the polls. Economist 150:339 Mr 2 '46
Indian crossroads. map Economist 150:828-9 My 25 '46
Mission to India. Economist 150:443-4 Mr 23 '46

INDIA rubber world (periodical)
Editorial advisory board; sketches and portraits. India Rubber World 114:821-3 S '46

INDIANA
Sanitary affairs
Services of new State health department branches. L. E. Burney. Am Water Works Assn J 38:1046-50 S '46

INDIANA—Sanitary affairs—*Continued*
Stream pollution control in Indiana. R. B. Wiley. Am Water Works Assn J 38:1041-5 S '46

INDIANA associated telephone corporation
Securities offered. Comm & Fin Chr 162:2643 D 3 '45

INDIANA service corporation
Recapitalization plan filed. Comm & Fin Chr 162:2272 N 12 '45

INDIANA steel products company
Debentures offered. Comm & Fin Chr 163:72 Ja 7 '46

INDIANAPOLIS
Rapid transit
Intervention of Office of price administration in Indianapolis fare increase. Mass Transportation 42:27-9 Ja '46
Sewerage
Sludge lagooning. D. E. Bloodgood. il plan diag Water & Sewage Works 93:344-8 S '46
Water supply
Design and construction of Geist reservoir. C. Allen. il map plan diags Am Water Works Assn J 37:1318-40 D '45

INDIANAPOLIS power and light company
Preferred and common stock offered. Comm & Fin Chr 163:2580-1 My 13 '46

INDIANAPOLIS union railway
Bonds offered. Comm & Fin Chr 163:3419 Je 24 '46

INDIANS of India. See East Indians (in South Africa)

INDIANS of North America
Health and hygiene
Experience with BCG vaccine in the control of tuberculosis among North American Indians. J. D. Aronson and C. E. Palmer. Pub Health Rep 61:802-20 Je 7 '46
Industries
Indians' mark; code of standards for jewelry and curios. il Bsns W p31 Ag 24 '46

INDIANS of South America
Chile
Fireland tribes of Chile. A. Lipschutz. Science 104:256 S 13 '46

INDICATION of origin. See Marks of origin

INDICATORS
Interrupted-screw indicator attachment sets boring tools. A. F. Scoblic. diags Am Mach 90:124-5 Ja 3 '46

INDICATORS (for internal combustion engines)
Improved electronic engine indicator. A. H. B. Walker. il diags Engineering 162:361-4 O 18 '46
Pressure-time curves in electronic observation of engines. W. F. Brown. il diags Electronics 19:168+ F '46

INDICATORS and test papers
Indicator properties of derivatives of 4'-nitrophenylazo-1-naphthol. K. H. Ferber. bibliog Ind & Eng Chem Anal ed 18:631-2 O '46

INDIGO
Colour and structure of indigo, indanthrone, and similar compounds discussed from the standpoint of modern resonance theory. H. H. Hodgson. bibliog Soc Dyers & Col J 62: 176+ Je '46

INDIUM
Experiments with a slow neutron velocity spectrometer. R. F. Bacher and others. plans diag Phys R 69:443-51 My 1 '46
Indium; latest element to have achieved recognition of its important and commercially adaptable qualities; abstract. W. S. Murray. Mech Eng 68:43 Ja '46
Metal acquiring industrial significance. Mach 52:151 Je '46
Obscure alloying metals grew 50 years during the war. J. V. Sherman. Barron's 26:13 Ja 14 '46
Slow neutron cross sections of indium, gold, silver, antimony, lithium, and mercury as measured with a neutron beam spectrometer. W. W. Havens, jr. and J. Rainwater. bibliog Phys R 70:154-73 Ag 1 '46

INDIUM alloys
Binary alloys of indium and tin. C. G. Fink and others. Electrochem Soc Trans 88 (preprint 15):161-73 '45
Indium; latest element to have achieved recognition of its important and commercially adaptable qualities; abstract. W. S. Murray. Mech Eng 68:43 Ja '46

INDIUM plating
Indium bearings highly successful; silver-lead-indium combination. Aviation N 5:16 Ap 15 '46

INDIVIDUALISM
Personal responsibility in an age of power and collectivism. H. W. Stoke. il Tech R 48:347-8+ Ap '46
Some elements of the American character; present-day for greater religion, idealism, patriotism, and individualism. J. F. Kennedy. Comm & Fin Chr 164:201+ Jl 11 '46
State control versus self-control. J. F. Dulles. Comm & Fin Chr 163:3474+ Je 27 '46

INDO-CHINA, French
See also
Rubber industry and trade—Indo-China, French

INDOLE
Improved syntheses of indole-3-aldehyde. A. C. Shabica and others. bibliog Am Chem Soc J 68:1156-7 Jl '46
Syntheses in the indole series; derivatives of β-keto-β-3-indolylpropionic acid. J. W. Baker. Chem Soc J p461-3 Je '46

INDOLYLMAGNESIUM iodide
Syntheses in the indole series; derivatives of β-keto-β-3-indolylpropionic acid. J. W. Baker. Chem Soc J p461-3 Je '46

INDOLYLPROPIONIC acid
Syntheses in the indole series; derivatives of β-keto-β-3-indolylpropionic acid. J. W. Baker. Chem Soc J p461-3 Je '46

INDOOR climate institute. See Air conditioning industries

INDOPHENOL
Determination of ascorbic acid; application of the indophenol-xylene extraction method to determination in large numbers of tomato and tomato juice samples. W. L. Nelson and G. F. Somers. bibliog diag Ind & Eng Chem Anal ed 17:754-6 D '45

INDORSEMENT
Holder of note precluded from recovery against three of five indorsers of note. Banking Law J 62:967-70 D '45
Indorser liable where implied waiver of notice of presentment and dishonor of note. Banking Law J 63:635-42 S '46
See also
Checks—Indorsement

INDUCTANCE
Formulas for the inductance of coaxial busses comprised of square tubular conductors. H. P. Messinger and T. J. Higgins. bibliog diags Elec Eng 65:Trans 328-36 Je '46
Mutual inductance of concentric coils; nomograph. T. C. Blow. Electronics 19:138 N '46
Self-inductance of a toroidal coil without iron. H. B. Dwight. Elec Eng 64:Trans 805-6 N '45
System of graphing capacities and inductances. A. S. Runciman. Elec Eng 65:300 Je '46
What you should know about industrial electronics; inductance. il Am Mach 90:154 Je 20; 124 Jl 4 '46
See also
Mutual inductance

INDUCTANCE coils
How to design coils for induction heating. F. W. Curtis. diags Am Mach 90:75-8 Ja 31 '46

INDUCTION coils
Power loss in electromagnetic screens. C. F. Davidson and others. Wireless Eng 23:8-15 Ja '46; Discussion. C. A. Siocos. 23:202 Jl '46

INDUCTION heating, High frequency. See Electric heating, Industrial—High frequency heating

INDUCTION motors. See Electric motors, Induction

INDUCTIVE interference. See Electric lines—Inductive interference

INDUSTRIAL accidents. See Accidents, Industrial

INDUSTRIAL advertising. See Advertising, Industrial

INDUSTRIAL airplanes. See Airplanes, Industrial

INDUSTRIAL arbitration. See Arbitration, Industrial

INDUSTRIAL arts

See also

Agriculture
Architecture
Building
Ceramics
Chemical engineering
Chemistry, Technical
Clay products
Design
Dyes and dyeing
Electric engineering
Engineering
Factories
Foundry practice
Glass manufacture
Industrial research
Inventions
Machine shop practice
Machine shops
Machinery
Manufactures
Mechanical engineering
Metal work
Metallurgy
Paint
Paper making
Patents
Photography
Plumbing
Pottery
Printing
Production
Rubber
Shipbuilding
Soap
Tanning
Technology
Textile industry
Weaving

INDUSTRIAL bridges. See Bridges, Industrial

INDUSTRIAL brushes. See Brushes, Industrial

INDUSTRIAL buildings

Boston distributor in new headquarters; Herrick & co. il Sheet Metal Worker 36:80+ N '45

Construction for atomic bomb production. il map plan diags Eng N 135:778-822 D 13 '45

Industrial plant buildings; twelfth annual special section. il Factory Management 104: B41-B124 pt 2 Ap '46

Its own medicine; lighting new Portland building of General electric supply corp. il Elec West 96:124-5 F '46

Largest of the atom-bomb plants; gaseous diffusion plant, Clinton engineer works. J. F. Hogerton. il Eng N 135:800-3 D 13 '45

New office and service building for Geo. W. Crothers, Caterpillar's Ontario distributors. il Roads & Bridges 84:124-6 F '46

Research and manufacture combined under one roof; Johns-Manville corp. research center. il plan diag Arch Rec 98:112-13 N '45

See also

Chemical plants
Factories
Foundries
Interstate commerce center, New York
Machine shops
Metallurgical plants
Munition factories
Office buildings, Industrial
Petroleum refineries
Printing offices
Store buildings
Warehouses

INDUSTRIAL chaplains. See Chaplains, Industrial

INDUSTRIAL cooling. See Cooling, Industrial

INDUSTRIAL cooperation

API agricultural development committee's coordination program. E. Lamm. il Nat Pet N 38:5 Je 19 '46

Dealers combine to stem loss of customers; permanent exhibit and advertising tell story of solid fuels in Twin Cities. V. J. Dallaire. il Ptr Ink 214:90+ Mr 8 '46

Oil industry competitors unite to do the impossible; story of PIWC. Nat Pet N 37:19-20+ N 14 '45

Philosophy of cooperative research. C. B. Veal. S A E J 54:358-65 Jl '46; Excerpts. Machine Design 18:176 Ag '46

See also

Petroleum engineering committees
Trade associations

INDUSTRIAL councils

Joint committees in Belgium. Int Labour R 53:81-2 Ja-F '46

Joint industrial councils law of Belgium, 1945. Mo Labor R 61:1169-70 D '45

INDUSTRIAL demobilization

Boom antidote? measures that will aid our war-swollen communities. Bsns W p44+ F 23 '46

Britain reconverts. Fortune 32:245-6+ D '45

British industries to be withdrawn from essential work orders at the end of three months from Feb. 15, 1946. Economist 150: 316 F 23 '46

CPA attacks the bottlenecks. Bsns W p15-17 D 8 '45

Conversion plans in regional areas; Department of commerce study, maps Dom Comm 33:15-20 D '45; 34:24-8+ Ja '46

Converting industries for peacetime tasks; Britain's industrial machine is changing gear. C. M. Weir. Factory Management 104:284+ Mr '46

Excess capacity vs. expansion; six industries. J. D. C. Weldon. Mag of Wall St 78:622-3+ Ag 31 '46

Five financial aids in restoring peacetime business. S. H. Apfel. Dun's R 54:16-20+ My '46

Government in helper role during reconversion. S. E. Cohen. Ind Marketing 30:33-4 O '45

How long will scarcities last? H. Owen. Mag of Wall St 77:506-7+ F 2 '46

Industrial production; first quarter trends and outlook. Survey of Cur Bsns 26:5-7 Ap '46

National reconversion policies and developments. A. E. Taylor. Comm & Fin Chr 163:3483+ Je 27 '46

Places blame for reconversion snags; failure of Congress to enact program for full production and full employment; radio address. H. S. Truman. Comm & Fin Chr 163:122+ Ja 10 '46

Price control and reconversion; statement before House Banking and currency committee and Detroit address. J. W. Snyder. Comm & Fin Chr 163:1085+ F 28 '46

Production trends; durable and nondurable goods. Survey of Cur Bsns 25:3-6 D '45

Reconversion delays unduly stressed; comment on report of Director of war mobilization. H. S. Truman. Comm & Fin Chr 164: 338+ Jl 18 '46

Reconversion in New England. Mo Labor R 63:1-25 Jl '46

Reconversion progress. Survey of Cur Bsns 25:1-3 N '45

Reconversion reviewed. Economist 150:933-5 Je 8 '46

Sees slow reconversion progress; Guaranty trust company. Comm & Fin Chr 163:11+ Ja 3 '46

Seven surprises in our economic picture; abstract. S. H. Slichter. Management R 34: 464-6 D '45

Seventh report to the President, the Senate and the House of representatives by the Director of War mobilization and reconversion, July 1, 1946. 69p Bur. of special services, Bur. of the budget, 1400 Pennsylvania av, NW, Washington 25, D.C. '46

Some bottlenecks of reconversion. A. Wiley. Foundry 73:97+ D '45

Stimulating peacetime employment; summary of principal problems. S. H. Slichter. il Dun's R 53:11-13+ O '45

Truman cites Snyder production report as challenging skepticism. Comm & Fin Chr 163:1981+ Ap 11 '46

Truman on reconversion progress; press and radio conference. Comm & Fin Chr 162:2715 D 6 '45

What's holding back reconversion? Factory Management 103:320+ D '45

Where do we stand now? J. D. C. Weldon. il Mag of Wall St 77:624-6+ Mr 2 '46

Workers' experiences during first phase of reconversion. N. Weinberg. Mo Labor R 62: 707-17 My '46; Same, with additional data showing effect of incomplete coverage on findings. U S Bur Labor Statistics Bul 876: 1-18; pa 10c Supt. of doc. '46

Government plants

Big plant a-going; Dodge, Chicago, facilities draw bids from Tucker corp. and Consolidated Grocery. Bsns W p19-20 Je 8 '46

Chemical plants built for war should be maintained for postwar usefulness. C. O. Brown. Ind & Eng Chem 37:sup85-6 N '45

INDUSTRIAL demobilization—Government plants—*Continued*
Chemical surplus; SPA has 26 plants for disposal. Bsns W p42+ D 1 '45
Disposing of surplus shipyards; report of Surplus property administration. Marine Eng 51:93-101 Mr '46
Government realizes 70 per cent return on disposal of war plants. il Steel 117:74 D 17 '45
Government surplus plants to be adapted to private needs. Chem & Met Eng 53:114 Ap '46
Industry proving poor market for war surplus aircraft plants. Aviation N 5:16 F 25 '46
International Harvester buys government plant at Melrose, Ill. Steel 117:111 D 3 '45
No. 1 landlord; disposal of surplus war plants through rental, rather than sale. Bsns W p19-20 Je 1 '46
$1,070,681,381 in surplus plants sold or leased by R.F.C. Am Mach 90:144f-144i F 28 '46
Plant shared; multiple tenancy plan test in Birmingham. Bsns W p39 Ja 5 '46
Problems posed by surplus mines, mills, and smelters. R. H. Ramsey. il Eng & Min J 147:65-70 Ja '46
Shipyard sold: Walsh-Kaiser shipyard to city of Providence. Bsns W p31 D 15 '45
Surplus property administration reports on chemical plants. il Chem & Eng N 24:48-50 Ja 10 '46
Surplus war plants sold; list. Steel 117:60-1 D 24 '45
287 RFC plants sold or leased. Bsns W p18 D 22 '45
What's happened to the avgas plants? Pet Processing 1:9+ S '46
See also
Geneva steel company

INDUSTRIAL diamonds. See Diamonds, Industrial

INDUSTRIAL dispensaries. See Dispensaries, Industrial

INDUSTRIAL economists. See Economists, Industrial

INDUSTRIAL editors' association of Chicago
Industrial editors speak-up confidentially in one-day clinic. R. Newcomb. il Ind Marketing 31:41-2+ F '46

INDUSTRIAL education
Coordinated program for preparation of engineering technicians. E. E. Ericson. J Eng Educ 37:162-7 O '46
Scandinavian craftsmen, technological students, coming to United States. For Comm W 23:18 Je 22 '46
Why educate the unskilled? P. Dunsheath. Textile Inst J 37:P444-9 S '46
See also
Apprentices
Corporation schools
Employees, Training of
Engineering education
School shops
Technical education
Textile education
Vocational education

Cooperative plan
Selecting and training application engineers for gas air conditioning. G. E. May. Gas Age 98:34-5+ Ag 22 '46; Same abr. Am Gas J 165:15-17 Ag '46
Skilled help for construction; apprentice training program at Atlanta. C. Griffin and H. M. Crawford. il Eng N 137:426-8 O 3 '46
Training in electrical industries; University of California's experience with war training program. C. F. Dalziel and others. Elec Eng 65:310-16 Jl '46
University-industry training plan of International harvester co; abstract. A. C. Seyfarth. Trusts & Estates 82:232 F '46
See also
Engineering education—Cooperative plan
Vocational education—Cooperative plan

China
Technical training in China. Int Labour R 53:94-5 Ja-F '46

Louisiana
Keeping abreast of the mechanical times; auto clinics conducted by Louisiana State department of education. il Bus Transportation 25:58-60 Ag '46

INDUSTRIAL engineering
Fact finding in distribution. F. B. Turck, jr. Mech Eng 68:550-2 Je '46
Industrial engineering. W. F. Durand. Ind Med 15:520-1 S '46
I.M.S. time and motion study clinic poses management engineering hints. Am Mach 89:148j N 22 '45
Installing a methods program. H. B. Maynard. Advanced Management 11:57-61 Je '46
Job evaluation and the heating, ventilating, and air conditioning engineer. R. M. McGrath. il Heating-Piping 18:84-7 Jl '46
Professional industrial engineering. D. Shybekay. Western Soc E J 50:154-7 D '45
Research for top management. J. P. Kottcamp. Mech Eng 68:803-6 S '46
Union interest in engineering techniques. W. Gomberg. Harvard Bsns R 24 no 3:356-65 [Ap] '46
See also
Engineering departments
Engineering economics
Industrial management
Time study

Study and teaching
Britain is training management engineers. Factory Management 104:326+ F '46
Teaching of quality control to engineers. L. E. Simon. bibliog J Eng Educ 37:111-16 O '46

INDUSTRIAL engineers
Engineer and management. L. H. Hill. Western Soc E J 51:25-30 Mr '46; Same. Elec Eng 65:322-5 Jl '46

INDUSTRIAL films. See Moving pictures in industry

INDUSTRIAL guns. See Guns, Industrial

INDUSTRIAL health research board. See Great Britain—Industrial health research board

INDUSTRIAL heating. See Electric heating, Industrial; Gas heating, Industrial; Heating, Industrial; Infrared rays—Industrial heating

INDUSTRIAL hospitals. See Hospitals, Industrial

INDUSTRIAL hygiene. See Hygiene, Industrial

INDUSTRIAL hygiene foundation
Annual meeting, 10th, Pittsburgh, Nov. 14-15. Chem & Eng N 24:34-8 Ja 10 '46; Ind Med 15:23-37 Ja '46

INDUSTRIAL insurance. See Insurance, Industrial

INDUSTRIAL insurers conference
Annual meeting, 36th, Nashville, Tenn. Nat Underw (Life ed) 49:1+ D 7; 14-18 D 14 '45; Weekly Underw 153:1365 D 8 '45
Annual meeting, 37th, Biloxi, Miss. Nat Underw (Life ed) 50:22-8 My 17 '46

INDUSTRIAL lighting. See Lighting, Industrial

INDUSTRIAL location. See Location in industry

INDUSTRIAL locomotives. See Locomotives, Industrial

INDUSTRIAL management
One unused tool of management. J. M. Hancock. Factory Management 103:270+ N '45
Planned execution; the issue of scientific management. H. S. Person. Advanced Management 10:131-8 D '45
Should engineering concerns be managed by engineers? Electrician 135:508 N 9 '45
Staff functions and finance in expanding manufacturing companies. J. O. Knowles. Inst E E J 93 pt 1:74-8 F '46
What's new in production and management. J. K. Louden. Factory Management 103: 250+ D '45
See also
Business management
Coal mines and mining—Management
Company towns
Efficiency, Industrial
Employees' representation in management
Employment management
Employment systems

INDUSTRIAL management—See also—*Cont.*
Engineering departments
Factory management
Foremen
Foundry management
Gas companies—Management
Hygiene, Industrial
Industrial relations
Inspection
Insurance, Business
Inventories
Job analysis
Machine shop management
Machinery, Replacement of
Mine management
Motion study
Office management
Planning
Public relations
Purchasing
Purchasing departments
Railroads—Management
Standardization
Suggestion systems
Time study
Wage payment plans

INDUSTRIAL market
Check list to help you introduce your new industrial products. U S Bur For & Dom Com, Economic Ser 53:1-26; pa 10c Supt. of doc. '46
Expanded sales and advertising activities planned for 1946. Ind Marketing 31:23-4+ Ja '46
Firms that will make and sell new products. il Sales Management 55:106+ D 15 '45
From industrial advertising to industrial buying and vice versa. J. Barrington. Ind Marketing 30:57-8+ O '45
How local market analysis helps distributor sales; Libbey-Owens-Ford research. G. H. Kent. Ind Marketing 31:57+ Jl; 47+ Ag '46
How Pennsalt trains and controls to achieve standard work patterns. T. Armstrong. il Sales Management 57:110-12+ O 1 '46
How RCA unearthed 50,000 leads for post-war sales to industry. H. L. Edsall. il Sales Management 56:42-4 My 20 '46
Industrial market research in relation to advertising. F. Juraschek. il Ind Marketing 31:45-6+ F; 47-8 Mr; 47+ Ap '46
Industry's trend; selling through distributors; Mill & Factory's survey. H. Conover. Ind Marketing 31:39-40+ S '46
Jobber setup gives Trane access to huge neglected market; residence building, smaller construction and repair jobs. il Sales Management 57:62+ O 1 '46
Mill & Factory surveys selling through industrial distributors. Ptr Ink 216:63-4 S 13 '46
New marketing era is coming for the industrial salesman. E. J. Benge. Ind Marketing 31:31+ Mr '46
Outline of market research procedures for industrial products. W. Alderson. Ind Marketing 30:46+ N '45
Problems in planning distribution channels for industrial goods. J. A. Proven. Ind Marketing 31:43+ S; 38+ O; 51-2+ N '46
Production planning and marketing for profit. D. R. G. Cowan. Ind Marketing 30:62+ D '45
Road show to demonstrate industrial electrification; "productive power" theme of huge exhibit to be staged in 75 cities by Westinghouse. H. R. Roberts. il Sales Management 57:104-6 O 1 '46
Tangible aids for establishing distributive organizations. E. McSweeney. map Ind Marketing 31:31-2+ Ag '46
Unearthing and measuring markets for new industrial products; preliminary mail questionnaires. R. L. Edsall. Ptr Ink 214:56+ F 1 '46
Use caution when comparing post-war industrial markets with pre-war statistics. A. H. Dix. Ptr Ink 216:48+ Jl 5 '46
Use of mail questionnaires in industrial market research. J. C. Spurr. il Ind Marketing 31:47-8+ Jl '46
What the composite industrial customer has to say about the efforts of salesmen and advertisers. C. S. Wilkinson. Ind Marketing 30:92+ D '45

See also
Advertising, Industrial
Equipment industries
Farm market

Bibliography
Industrial marketing as discussed today. M. E. Hunt and S. M. Price, comps. (Business literature v. 18, no. 7) p37-40 Business library, Newark public lib, Newark, N.J. Mr '46

INDUSTRIAL medicine. See Medical service, Industrial

INDUSTRIAL mobilization
Committees to be set up to plan industry mobilization for war. Steel 119:84-5 O 7 '46
Mobilization of aircraft industry; planning to maintain it in state of readiness for war. J. C. Ward, jr. Mech Eng 68:871-4 O '46

INDUSTRIAL museums
See also
Crane museum, Dalton, Massachusetts

INDUSTRIAL nursing. See Nurses and nursing, Industrial

INDUSTRIAL office buildings. See Office buildings, Industrial

INDUSTRIAL packaging engineers association of America
1946 industrial packaging exposition, Chicago, April 24-26. Mod Packaging 19:137-8+ My '46

INDUSTRIAL painting. See Painting, Industrial

INDUSTRIAL pensions. See Pensions, Industrial

INDUSTRIAL photography. See Photography—Industrial applications

INDUSTRIAL physicians and surgeons, American association of. See American association of industrial physicians and surgeons

INDUSTRIAL poisons. See Poisons, Industrial

INDUSTRIAL psychology. See Psychology, Industrial

INDUSTRIAL quality control (periodical)
Industrial quality control; reviews. Am Stat Assn J 41:111-15 Mr '46

INDUSTRIAL rayon corporation
Revolution in rayon; a continuous process for viscose yarn. il Fortune 34:100-7+ S '46

INDUSTRIAL real estate management
Industrial real estate management; abstract. R. F. Jones, jr. Management R 34:470-1 D '45

INDUSTRIAL reconversion. See Industrial demobilization

INDUSTRIAL relations
Analyses of labor relations. C. S. Slocombe; P. J. Clarey. Personnel J 24:202-27 D '45
Arbitration as a business tool. R. E. Swart. il Dun's R 54:23-5+ Mr '46
Blueprint for sound labor-management policies. H. Ford, 2d. Iron Age 158:84+ S 26 '46
Challenge of human engineering. H. Ford, 2d. Comm & Fin Chr 163:377+ Ja 24 '46; Same. Advanced Management 11:48-51 Je '46; Same cond. Automotive & Aviation Ind 94: 39+ Ja 15 '46; Abstract. Mach 52:182-3 F '46
Coal industry and its personnel relations. J. J. Foster. Min & Met 26:599-600 D '45
Collective bargaining more likely to reduce industrial strife than legislation; abstract. W. M. Leiserson. Bus Transportation 24: 47-9 D '45
Community-plant relations director in every plant city. G. H. Allen. Ptr Ink 215:48+ Je 14 '46
Conquer fear and have industrial peace. L. B. Schwellenbach. Comm & Fin Chr 162: 3014+ D 20 '45
Crisis in employee relations; four factors. O. C. Cool. il Food Ind 18:7-8+ Ja '46; Same. Chem Ind 58:58-9+ Ja '46
Direct incentives for labor the key to industrial peace. W. G. Lightbowne. Comm & Fin Chr 163:724+ F 7 '46
Economics of collective bargaining. E. P. Schmidt. Comm & Fin Chr 163:1496+ Mr 21 '46
Employee-employer relations; Canadian manufacturers' association statement. Trusts & Estates 83:221 S '46
Executive poll shows human relations to be prime responsibility. Iron Age 158:153-4 S 19 '46
Ford employs new strategy; negotiations with C.I.O.'s U.A.W. Bsns W p96+ D 8 '45
Fortune survey; how does organized labor rate today, what is to be done, what is proper during a strike, should labor play politics? Fortune 34:5-6+ N '46

INDUSTRIAL relations—*Continued*

Fortune survey; management and labor. Fortune 33:221-2 Ja '46

Fruitful errors of Elton Mayo, who proposes to management and labor a social basis for industrial peace. il Fortune 34:180-3+ N '46

G.M. asks advice; professors study labor relations. Bsns W p87 Ag 17 '46

Guide to better relations with employees; review of Social problems of an industrial civilization, by E. Mayo. C. W. Meyer. Ry Age 120:682 Mr 30 '46

Henry Ford II's Mr Bugas. Fortune 34:146+ Jl '46

Here are broad working plans; transit labor relations program. R. N. Graham. Mass Transportation 42:369, 386 S '46

How faulty public relations slow up advertising; need of building up employees' good will. W. H. Foster. Ptr Ink 214:81-2 Mr 8 '46

How labor and management stand on current issues. Factory Management 104:87 Mr '46

How to achieve full labor-management cooperation. C. S. Golden. Advanced Management 11:21-4 Mr '46

How workers and management stand on labor controls. Factory Management 104:82-8 Jl '46

Human relations in industry. S. A. Lewisohn. Comm & Fin Chr 163:2133+ Ap 18 '46; Same. Advanced Management 11:97-100+ S '46

Impact of war on post-war labor relations; value of collective bargaining patterns established by the War labor board. J. Shister. il Dun's R 53:18-20+ O '45

Industrial relations. Economist 151:43-4, 124-5, 204-5 Jl 13, 27, Ag 10 '46

Industrial relations. L. Ruthenburg. Am Gas J 165:11-14 Ag '46

Industrial relations charter for the Americas; third Regional labor conference of American countries. H. S. Roberts. Mo Labor R 62:907-11 Je '46

Industrial relations; frustrated and perverted. E. P. Schmidt. Comm & Fin Chr 164:1925+ O 17 '46

Industrial relations in Switzerland, 1938-44. Mo Labor R 61:1175-7 D '45

Industrial relations in the waxed paper industry; abstract. P. J. Massey. Paper Ind 28:282-4 My '46

Industry's isolation ward. M. Dodge. il Sales Management 57:37-40 S 1 '46

Industry's missing ingredient. C. W. Ruth. Ind Marketing 31:35-6 Jl '46; Excerpts. Pub Util 38:309-11 Ag 29 '46

Is management as blind as labor? J. W. DeVine. Inland Ptr 117:63-4 Ap '46

Labor inflation. L. Wolman. Comm & Fin Chr 163:369+ Ja 24 '46

Labor outlook for the business period ahead. W. C. Hanson. Mag of Wall St 79:13-15+ O 12 '46

Labor peace. C. Robinson. Cer Ind 47:64 S '46

Labor policy that works; American stove co. T. Boardman. il Am Gas Assn Mo 28:441 O '46

Labor problem as I see it. F. Rising. il Factory Management 104:90-4 Ja '46

Labor relation trends. N. C. Rockwood. Rock Prod 49:79+ O '46

Labor relations. M. M. Shipman and P. E. Anderson. Oil Paint & Drug Rep 149:7+ Je 17 '46 [cont weekly]

Labor situation. il Fortune 34:121-7+ N '46

Labor strategy from now on. P. T. Sheldrick. il Mag of Wall St 78:499-500+ Ag 3 '46

Labor's cause. Fortune 34:2-4 N '46

Labor's crisis, but management's opportunity. W. Williams. Factory Management 104:72-4 Ap '46

Labor's dilemma. L. K. Johnson. Personnel J 25:114-20 O '46

Labor's place in the economy. A. W. Zelomek. Comm & Fin Chr 163:710+ F 7 '46

Let's burn up the little black books. L. B. Case. Ptr Ink 213:166 D 7 '45

Let's take the lead in giving workers economic facts. Factory Management 104:124-9 Je '46

Letters to employees build better relations; abstract. M. C. Monroe. Management R 34:481-2 D '45

Management-employee relations. C. A. Massey. Pulp & Pa of Can 47:33-6 F '46

Management must initiate, not abdicate. L. H. Hill. Eng & Min J 146:82-6 D '45

Management program of industrial relations. C. E. French. Comm & Fin Chr 163:3533+ Je 27 '46

Management-union struggle to attain employee goodwill. D. B. Straus. Comm & Fin Chr 164:1845, 1853 O 10 '46

Management view on labor relations. W. White. Ry Age 121:713-15 N 2 '46

Management's future in labor relations. G. L. Hostetter. Comm & Fin Chr 164:1651+ O 3 '46; Discussion. W. G. Lightbowne. Comm & Fin Chr 164:1846 O 10 '46

Management's right to manage; comments on the Westinghouse strike. G. A. Price. Pub Util 38:304-6 Ag 29 '46

Menace of rising unit costs. H. H. Rogge. Comm & Fin Chr 164:2338+ N 7 '46

Mine boss; what's on his mind re his job and future. W. H. Kushnick. Coal Age 51: 83-5 S '46

Mr industrial manager, here's your chance. W. Williams. Factory Management 104:139-41 Jl '46

Must labor and management fight? summary of survey of top management and labor leaders made by Nejelski & company. J. M. Golden and others. Advanced Management 11:70-3 Je '46

New York state school of industrial and labor relations. Mo Labor R 62:423 Mr '46

Opportunity for advertising to promote better employe relations. W. F. Rockwell. Ind Marketing 31:62+ Ap '46

Path to peace in industrial disputes. A. Schindler. Comm & Fin Chr 163:3533+ Je 27 '46

Post-war labor trends; abstract. H. K. Breckenridge. Elec World 125:89 Je 8 '46

Proceedings of the personnel and industrial relations conference at Purdue university, May 13-14, 1946. F. L. Cason, comp. Purdue Univ, Eng Ext Dept, Ext Ser 59:1-93 '46

Professor in error; review of Yale labor and management center report, Mutual survival: the goal of unions and management, by E. W. Bakke. C. S. Slocombe. Personnel J 25:161-6 N '46

Public interest transcendent factor in settlement of labor-management disputes; address at New York school of industrial and labor relations, Ithaca, N.Y. T. E. Dewey. Comm & Fin Chr 162:2331+ N 15 '45

Public is fed up with the union mess. W. Williams. il Factory Management 104:97-100 Ja '46

Report of Industrial relations committee of the Waxed paper institute. Paper Ind 28: 856+ S '46

Road to better labor relations. F. Rising. Comm & Fin Chr 163:3203+ Je 13 '46

Role of organized industry in labor relations. W. Mitchell, jr. il Dun's R 54:9-11+ S '46

Sampling workers' opinions. J. W. Irwin. Dun's R 53:32+ N '45

Sees solution of labor problems by giving a square deal. R. W. Arrington. Textile Col 68:18+ F '46

Shall labor bargain with government or employers? W. Williams. Factory Management 104:108-9 F '46

Shut up, Clarence! Local 110, Textile workers union of America and American velvet co. Fortune 34:188+ N '46

Sound industrial relations for sound industrial progress. L. Ruthenburg. Gas Age 97: 19-21+ Ja 10 '46; Excerpts. Am Gas J 164: 24 Ja '46; Mach 52:169-70 Ja '46

State legislation on labor relations and discrimination in employment, 1945. R. S. Spitz. Mo Labor R 61:984-91 N '45

Steinkraus and labor management. Fortune 33:194+ My '46

Strategies of union negotiations; abstract. S Steinman. Management R 35:376-8 S '46

Subject index of the library of Industrial relations section, Princeton university. H. C. Benjamin, ed. rev ed 46p pa 75c Industrial relations section, Dept. of economics and social institutions, Princeton university, Princeton, New Jersey '45

INDUSTRIAL relations—*Continued*

Third conference of American states members of the International labour organisation, Mexico City, April 1946. Int Labour R 53:317-39 My-Je '46

Thirty years of labor peace; Standard oil company (New Jersey) unique relationship with its workers. il Fortune 34:166-71 N '46

Toledo's new move toward industrial peace. Factory Management 104:142-6 S '46

Trends in industrial relations. J. C. Cameron. Pulp & Pa of Can 47:71-2+ Ap '46

Trends in industrial relations. F. R. Rauch. Am Gas Assn Mo 28:259-60+ Je '46

Trends in industrial relations. D. R. Richberg. Comm & Fin Chr 164:1536+ S 26 '46

Two-way information flow pays off; Thompson Products formula for outstanding employee-employer relationship. Factory Management 104:108-12 My '46

Unionist's plan for production with freedom. E. T. Cheyfitz. Factory Management 104: 298+ F '46

Wanted; mature managers. B. M. Selekman. Harvard Bsns R 24 no2:228-44 [Ja] '46

Wanted: new labor relations pattern. E. Whitmore. il Am Bsns 15:8-9+ N; 10-11+ D '45

Wants a new labor-management conference; group of engineers, economists, and others issue letter to President Truman. Comm & Fin Chr 164:534 Jl 25 '46

Wartime methods of labour-management consultation in the United States and Great Britain. Int Labour R 52:309-34 O '45

Ways to industrial peace. D. R. Richberg. Comm & Fin Chr 163:1090+ F 28 '46

We've got to have new thinking in management and labor. H. W. Steinkraus. Factory Management 104:97-9 Je '46

What I see ahead in labor relations. L. B. Schwellenbach. Factory Management 103: 88-91 N '45

What railroad employees think about the railroad industry; results of survey. Ry Age 120:445-56, 617-28 Mr 2, 23 '46; Same abr. Ry Mech Eng 120:167-79 Ap '46

What's behind to-day's labor struggle. P. T. Sheldrick. il Mag of Wall St 77:323-5+ D 22 '45

What's new in production and management. J. K. Louden. Factory Management 103: 250+ D '45

Who owns the job; industry or labor? L. H. Haney. Comm & Fin Chr 163:2651+ My 16 '46

Why the public is confused by the labor situation. W. Williams. Factory Management 104:95-6 Mr '46

Working philosophy of human relations. S. N. Stevens. Power Pl Eng 50:71+ O '46

You may never have a strike, but. Management R 35:46-8 F '46

See also

Arbitration, Industrial
Building trades—Labor conditions
Collective bargaining
Company towns
Employees
Employees, Reports to
Employees representation in management
Employment management
Labor and laboring classes
Labor disputes
National war labor board
Open and closed shop
Profit sharing
Psychology, Industrial
Safety devices and measures
Strikes
Suggestion systems
Trade agreements
Trade unions
Unemployment
United States—Conciliation service
Wage payment plans
Wages—Regulation
Welfare work in industry

Labor-management conference, 1945

First experiment in peacetime mobilization. F. Smith. Adv & Sell 38:46+ N '45

Labor conference becalmed. Bsns W p15 N 17 '45

Labor-management conferees fail to reach accord on basic issues. Steel 117:92+ D 10 '45

Labor-management conferees seek ways to minimize disputes. Steel 117:89-90 N 12 '45

Labor-management conference on industrial relations. Mo Labor R 62:37-43 Ja '46

Labor-management parley ends without decision. Comm & Fin Chr 162:2793+ D 6 '45

Management's program for labor relations. Factory Management 104:250+ Ja '46

National labor-management conference in the United States, Washington, D.C. Nov. 5-30, 1945. Int Labour R 52:673-6 D '45

Proposals on collective bargaining. Comm & Fin Chr 162:2464+ N 22 '45

Significance of Labor-management conference; Guaranty trust co. of New York. Comm & Fin Chr 162:2613 N 29 '45

Strike law next? Bsns W p104+ N 24 '45

Strikes put Truman on spot. Bsns W p98+ D 1 '45

Why the Washington conference failed. L. H. Hill. il Factory Management 104:100-3 Ja '46

INDUSTRIAL research

Alliance of industry and scientific research in Great Britain. B. J. A. Bard. Science 103:6-8 Ja 4 '46

Are research scientists people? F. W. Godwin. Power Pl Eng 49:69+ N '45

Birthplace of the future; research facilities to handle designing and engineering problems for the small manufacturer will be offered by technological research center. il Mod Plastics 23:214 D '45

British government backs research. For Comm W 23:20 Ap 20 '46

British industrial research. Chem Age (Lond) 54:719-20 Je 29 '46

British Thomson-Houston research; recent laboratory work. Chem Age (Lond) 54:191 F 16 '46

Canadian manufacturers' association recognizes importance of research. Can Chem & Process Ind 30:33-7+ Je '46

Control of industrial research. Management R 34:471-4 D '45

Co-operative research; government support for associations. H. Morrison. Elec R (Lond) 137:721 N 16 '45

Custom tailored product research, a four-way tool for management; Textile research department of American viscose corp. il Sales Management 56:42-5 F 15 '46

Departments without names. E. L. Cady. il Sci Am 175:157-9 O '46

Economics of research; justification of industrial research lies in the betterment of man's lot. R. Presgrave. Can Chem & Process Ind 30:61-3 O '46

Engineering evolution from war to a peacetime world. L. Sillcox. Mech Eng 68:101-6+ F '46; Same abr. J Eng Educ 36:1-10 F '46

Establish a research department; abstract. M. H. Arveson. Chem & Met Eng 53:274+ My '46

Expanding research; abstract. H. N. Davis. Sci Am 173:303 N '45

Federation of British industries stresses need of scientific manpower. For Comm W 23: 26 Je 1 '46

Ford research center announced. Chem & Eng N 24:1680 Je 25 '46

Group of companies to sponsor gas turbine research at M.I.T. Sales Management 55:46 N 15 '45

Importance of scientific research in the post-war era. G. R. Harrison. Science 103:125-8 F 1 '46

Industrial research; abstract. F. Oederlin. Mech Eng 68:456 My '46

Industrial research and the accountant. N. A. Shepard. N A C A Bul 27:955-66 Je 1 '46

Industrial research is basic to America's postwar progress. R. O. Stith. il Ind Marketing 30:44-6+ D '45

Industrial research pattern of the United States. H. Vagtborg. Chem & Eng N 23: 1943-5+ N 10 '45

Industrial sales research ammunition via the library. K. E. Ettinger. Ind Marketing 31: 31+ Ap '46

Industrial scientific research with particular reference to exports; Mather lecture. W. H. Glover. Textile Inst J 37:P94-103 My '46

Industrial trends set the pattern for research. R. P. Soule. Chem & Met Eng 53:124-6+ Jl '46

Industrial view of research trends. M. L. Tainter. Science 103:95-9 Ja 25 '46

Industry and research; conference, London, March 27-28. Engineer 181:312-14 Ap 5 '46

INDUSTRIAL research—*Continued*
Industry and research; extracts from the papers at conference of Federation of British industries. Chem & Ind p147-8, 154-6 Ap 6-13 '46
Industry and research; F.B.I. two-day conference in London. Chem Age (Lond) 54: 363-4 Ap 6 '46; Electrician 136:811-12 Mr 29 '46; Elec R (Lond) 138:492 Mr 29 '46
Investing in science for the future. W. R. Maclaurin. il diags Tech R 48:423-6+ My '46
Management of the well developed research program. L. W. Bass. Chem & Met Eng 53:127+ Jl '46
Midwest research institute catalyzes new industry in mid-America. E. C. Fetter. Chem Eng 53:101-3 Ag '46
Motivation in research. W. B. Wiegand. Chem & Eng N 24.2772-3 O 25 '46
Need for research coordination. G. E. Hopkins. Chem & Eng N 24:1903+ Jl 25 '46
Neglected aspect of research; preliminary library research. T. Coulson. Franklin Inst J 241:187-93 Mr '46
New series of research positions designed by Technical division of Rayon department of E. I. du Pont de Nemours & co. Science 103:141 F 1 '46
Organizing industrial research. il Diesel Power 24:316-17+ Mr '46
Outlook for industrial research. C. A. Hochwalt. Chem & Eng N 24:2183 Ag 25 '46
Patent policies for sponsored research. R. A. Morgen. J Eng Educ 36:618-20 Je '46
Petroleum research develops new products and wider markets for the Texas company; Beacon laboratories, house organ, booklets. il diags Ind Marketing 31:44-5+ Mr '46
Philosophy of cooperative research. C. B. Veal. S A E J 54:358-65 Jl '46
Predicts shortage of industrial research workers. M. Holland. Comm & Fin Chr 163:135 Ja 10 '46
Research administration; a profession. G. E. Hopkins. Rayon 27:172, 537-9 Ap, O '46
Research for small business. il Sci Am 173: 346-8 D '45
Research for top management. J. P. Kottcamp. Mech Eng 68:803-6 S '46
Research in production, by International harvester co. Bsns W p52 F 23 '46
Research program for smaller concerns; with cost data. W. Dietz. il Steel 118:112+ My 27 '46
Research program to fit the budget of small industry; abstract. H. L. Smith. Chem & Met Eng 53:128-9 Jl '46
Research progress at Midwest research institute; abstract of first annual report. H. Vagtborg. il Chem & Eng N 24:1183-91 My 10 '46
Research supported by industry through scholarships, fellowships, and grants. C. Hull and M. Timms. Chem & Eng N 24: 2346-58 S 10 '46
Researches of Mellon institute, 1945-1946. il Chem & Eng N 24:906-15 Ap 10 '46
Science's contribution to higher wages. H. S. Coffin. il Mag of Wall St 79:146-7+ N 9 '46
Size of the technical research budget. Paper Ind 27:1885 Mr '46
Small business and its relationship to research activity. A. B. Ward. Pulp & Pa of Can 46:1007-8 D '45
Statistical approach in industrial research. A. Lesser, jr. bibliog Iron Age 158:50-5 Ag 22 '46
Thoughts on industrial research; abstract and discussion. C. C. Paterson. Gas J (Lond) 246:844-5 D 12 '45
Timken's proving ground for advanced manufacturing practices. J. Geschelin. il Automotive & Aviation Ind 95:24-8+ Ag 1 '46
$250,000 for traveling fellowships; Mond nickel co. W. Griffiths. Metal Prog 50: 481-3 S '46
Whither industrial research. bibliog Chem Age (Lond) 54:137-8 F 2 '46

See also
Agricultural research
Aluminum research
Automobile research
Cement research
Chemical research
Concrete research
Corrosion research
Cotton research
Electric research
Engineering research
Foundry research
Gas research
Laboratories
Market research
Metallurgical research
Paper research
Petroleum research
Plastics research
Railroad research
Rubber research
Scientific research
Steel research
Textile research
Welding research
Wood research

also Armour research foundation; Chattanooga university—Industrial research institute; Pacific research foundation; Southern research institute; Wichita industrial research foundation

Accounting

Control of research and development costs. R. H. Robnett. N A C A Bul 27:1095-1109 Jl 15 '46

INDUSTRIAL research institute
Elects officers. Oil Paint & Drug Rep 149: 4 Je 24 '46
Maurice Holland honored. Chem & Met Eng 53:166 Mr '46

INDUSTRIAL research institute, Chattanooga. See Chattanooga university—Industrial research institute

INDUSTRIAL sand association, National. See National industrial sand association

INDUSTRIAL schools. See Reformatories

INDUSTRIAL statistics
Automotive and aviation industries, 1946 statistical issue. Automotive & Aviation Ind 94:65-99, 120-1 Mr 15 '46
Estimated durable goods expenditures, 1939-45. D. P. Warner and A. R. Koch. Fed Res Bul 32:967-73 S '46; Correction. 32:1113 O '46
Industries of origin and of destination for goods and services, 1939; tabulation. W. Leontief. Dun's R 54:24-5 F '46
Industry and statistics; recommendations of Census of production committee. Electrician 135:463 N 2 '45
Industry strives for peacetime footing; with charts, tables, etc. Steel 118:254-61 Ja 7 '46
Plant and equipment expenditures of United States business. I. Friend and L. J. Paradiso. Survey of Cur Bsns 26:17-19 Ja '46
Statistical materials collected by the War production board. D. Novick. R Econ Stat 28:131-4 Ag '46
Why output per man-hour must go up. il Factory Management 104:82-7 Ag '46

See also
Employment—Statistics
Manufactures—Statistics
Market statistics
Production—Statistics
Wages—Statistics

also subdivision Statistics under names of industries, e.g. Petroleum industry and trade—Statistics

Bibliography

Facts for industry; list of publications; index of products covered. 44p U.S. Bur. of the census, Dept. of commerce, Washington 25, D.C. '46

INDUSTRIAL towns. See Company towns

INDUSTRIAL tractors. See Tractors, Industrial

INDUSTRIAL traffic departments. See Traffic departments, Industrial

INDUSTRIAL trusts. See Trusts, Industrial

INDUSTRIAL union of marine and shipbuilding workers of America
Shipyard schism; John Green's union backs him 3-to-1 in factional fight. Bsns W p97 Ja 19 '46

INDUSTRIAL waste. See Trade waste

INDUSTRIES. See Industry

INDUSTRIES, Location of. See Factories—Location; Industry—Decentralization; Location in industry

INDUSTRY
After reconversion, selling faces its biggest job; results of C.E.D. marketing committee and related facts summarized. A. Haring. il Dun's R 54:21-6+ Ja '46
American industry under accelerating competition. W. Gates. il Mag of Wall St 77: 564-7 F 16 '46

INDUSTRY—*Continued*

Bill of rights and obligations for industry. S. P. Farwell. Factory Management 103: 238+ D '45

Broader fields for engineers in industry. J. P. Kottcamp. Factory Management 104: 276+ F '46

Challenge to America, get to work! A. J. Lord. Factory Management 104:276+ Mr '46

Economics of industrial interdependence. W. Leontief. il Dun's R 54:22-6+ F '46

Excess capacity vs. expansion; six industries. J. D. C. Weldon. Mag of Wall St 78: 622-3+ Ag 31 '46

Growth vs. apathy; prospects of various industries. H. M. Tremaine. il Mag of Wall St 78:207-9+ My 25 '46

How industry can make friends for itself. H. Parkes. Ry Age 119:1053-4 D 29 '45

Industrial trends in 1946. C. C. Concannon and others. il Dom Comm 34:4-8+ Ja '46

Industrial way of life. P. Meadows. il Tech R 48:285-8+ Mr '46

Influence of advances in other industries on textile printing and finishing. R. J. Hannay. Soc Dyers & Col J 62:173-5 Je '46

Report of first annual Industrial-agricultural week at Kansas state college. A. L. Pugsley. J Eng Educ 36:502-11 Ap '46

Significant changes in plant expansion program. H. M. Tremaine. Mag of Wall St 79:11-12+ O 12 '46

Some observations on world industrialization. M. L. Cooke. bibliog Mech Eng 68:406-10+ My '46

Which industries offer best prospects for 1946. G. W. Mathis. il Mag of Wall St 77:440-3+ Ja 19 '46

See also

Business
Cities and towns—Industries
Corporations
Diversification in industry
Efficiency, Industrial
Factories
Government regulation of industry
Handicraft
Industrial market and other headings beginning Industrial
Labor and laboring classes
Location in industry
Manufactures
Moving pictures in industry
Planning
Production
Specialization in industry
Standardization
Trade associations
Unemployment

also names of industries, e.g.

Ceramic industries
Chemical industries
Dairying
Gas industry
Iron industry and trade
Mineral industries
Moving picture industry
Oil industries
Petroleum industry and trade
Plastic industries
Pottery industry
Printing trade
Steel industry and trade
Textile industry

also subdivision Industries and resources under names of countries, e.g. Germany—Industries and resources; Great Britain—Industries and resources; Russia—Industries and resources

Classification

Management statistics in war contract renegotiation; war production industry classification. N. C. Parkin. Am Stat Assn J 40:516-19 D '45

Decentralization

Branch plant trend in industry; abstract. G. W. Parker. Management R 35:76-8 Mr '46

How Britain's labor government aids small plants. S. A. Tucker. il map Factory Management 104:158-61 Je '46

How to keep your product alive, your management alert? decentralization! J. A. Murphy. il Sales Management 57:50+ N 1 '46

Implications of decentralization. R. J. Cordiner. Factory Management 103:252+ N '45

Local interest helps absentee ownership; New Castle, Ind. gets acquainted with out of town managers. J. F. Sembower. Am Bsns 16:30 O '46

Plants move nearer workers; Rochester branches in nearby small towns. Bsns W p19 O 19 '46

What's behind today's trend toward decentralization. J. A. Murphy. il Sales Management 57:37-9 O 1; 50+ O 15 '46

Why industry should decentralize; abstract. J. A. Krug. Management R 35:40 F '46

INDUSTRY and state

Out for facts; labor's revised view of plant seizures by government. Bsns W p98-100 D 8 '45

See also

Commercial policy
Economic planning
Economic policy
Government aid to business
Government competition with business
Government ownership
Government regulation of industry
Industrial demobilization
Labor laws and legislation
Public utilities
Railroads and state
Right to labor
Tariff
Taxation
Wages—Regulation

Argentina

Argentina's new deal means full state control. W. P. Schuck. Barron's 26:3 Je 17 '46

Australia

Has socialism failed in Australia? K. Murdoch. Pub Util 37:311-12 F 28 '46

Europe

State control in eastern Europe; compromise between Soviet and capitalistic systems reflected in all industries. J. Joesten. Barron's 26:15+ Ja 7 '46

State trading in Europe; its status and prospects. H. Chalmers. For Comm W 21:3-4+ N 10 '45

France

Nationalization of insurance companies and coal mines in France voted. Comm & Fin Chr 163:2417 My 2 '46

La responsabilité de l'État législateur. A. Mestre. Génie Civil 123:156-7 Je 15 '46

See also

Labor and laboring classes—France

Germany

Big business and the Nazi party in Germany. A. Schweitzer. bibliog J Bsns 19:1-24, 99-126 Ja-Ap '46

Great Britain

Bed of Procrustes? Economist 149:668-9 N 10 '45

British business men's dilemma. P. Einzig. Comm & Fin Chr 163:1781+ Ap 4 '46

British government moves to control textile industry. A. W. Williams. Textile World 95:149+ N '45

Industry and the government. Engineer 182: 378 O 25 '46

Industry and the House; twelve months' parliamentary retrospect. F. J. Erroll. Elec R (Lond) 139:527-8 O 4 '46

Nationalisation issues. Economist 149:567-8 O 20 '45

Organization of industry. W. Mitchell, jr. il Dun's R 54:15-17+ Je '46

Private enterprise in socialist Britain; Labor party unwilling to let much of economy be really free. C. H. Grattan. Barron's 26:11+ My 20 '46

Schedule of nationalization. P. Einzig. Comm & Fin Chr 162:2449+ N 22 '45

Some compensation problems. Economist 149: 798-800 D 1 '45

State as manager. Economist 149:831-2 D 8 '45

State capitalism in practice. Economist 149: 912-13 D 22 '45

State control in industry. Engineer 180:347 N 2 '45

Poland

Nationalization laws. For Comm W 22:27+ F 2 '46

Poland nationalizes basic industries. Comm & Fin Chr 163:181 Ja 10 '46

United States

Changing thoughts in mid-stream; socialistic trend a challenge to businessmen. B. H. Wooten. Trusts & Estates 81:367 N '45

INDUSTRY and state—United States—*Cont.*
Democracy or dictatorship in business and government. J. C. O'Mahoney. il Dun's R 54:11-14+ Ap '46
Hundred and forty million partners; trend toward more central government and less individual freedom. W. E. Spahr. Comm & Fin Chr 163:830+ F 14 '46
Leadership and American business. R. W. Gallagher. Gas Age 96:56-7+ N 15 '45
Management's responsibility to itself; NAM policy to save private enterprise. W. B. Weisenburger. Comm & Fin Chr 162:3169+ D 27 '45
Some problems facing industry. L. R. Clausen. Comm & Fin Chr 162:2449+ N 22 '45
Today's needs: production and confidence. S. J. Broad. il Dun's R 54:11-14+ Mr '46

INERTIA, Moments of. See Moments of inertia

INFANT mortality
Statistics
Negro mortality; the birth rate and infant and maternal mortality. M. Gover. bibliog Pub Health Rep 61:1529-38 O 25 '46

INFANTILE paralysis
Effect of environmental temperature on mouse susceptibility to poliomyelitis virus. D. F. Holtman. Science 103:137-8 F 1 '46
Effect of thiouracil and thyroactive substances on mouse susceptibility to poliomyelitis virus. D. F. Holtman. Science 104: 50-1 Jl 19 '46
Failure of poliomyelitis virus to grow in certain protozoa of sewage. C. A. Evans and K. L. Osterud. Science 104:51-3 Jl 19 '46
Florida polio cases; tabulation. M. B. Byrne. Dom Eng 168:100-1 S '46
Florida polio study. M. Byrne. il Dom Eng 168:118-19 O '46
Further research on poliomyelitis. E. W. Piszczek. Water & Sewage 83:9 D '45
Inactivation of partially purified poliomyelitis virus in water by chlorination. S. G. Lensen and others. bibliog Am Water Works Assn J 38:1069-77 S '46
Incidence of poliomyelitis in the United States in 1945. C. C. Dauer. bibliog map Pub Health Rep 61:915-21 Je 21 '46
New ASSE research project; polio by back-siphonage. il Dom Eng 168:82 Ag '46
New polio insurance policy pays up to $5,000 for medical care. Weekly Underw 155:577 S 7 '46
Polio program becomes greatest joint effort ever undertaken by plumbing industry. il Dom Eng 168:96-8+ S '46
Polio program gets action in Miami. il Dom Eng 167:102-4 Je '46
Primer on the polio program; American society of sanitary engineering. Dom Eng 168:95 S; 117 O '46
Proof of polio in water. J. A. Toomey, W. S. Takacs and H. M. Weaver. Dom Eng 168: 82-3 Jl '46
Spinal cord circulation in poliomyelitis. N. Nelson. Science 104:49-50 Jl 19 '46
Studies on the chemotherapy of experimental virus infections; the effect of certain organic arsenicals on the course of experimental murine poliomyelitis. D. W. McKinstry and E. H. Reading. bibliog Franklin Inst J 240:422-9 N '45

Statistics
Incidence of poliomyelitis and its crippling effects, as recorded in family surveys. S. D. Collins. bibliog Pub Health Rep 61:327-55 Mr 8 '46
Industrial control chart applied to the study of epidemics. W. H. Rich and M. C. Terry. bibliog Pub Health Rep 61:1501-11 O 18 '46
Polio incidence for 1st quarters of 1946 and 1945; tabulation. Dom Eng 167:102 My '46

INFANTS
Heir conditioner; air conditioned crib. Heating-Piping 18:80 Mr '46

INFANTS, Newborn
Treatment of severe erythroblastosis by simultaneous removal and replacement of the blood of the newborn infant. H. Wallerstein. Science 103:583-4 My 10 '46

INFANTS' clothing
See also
Diapers
Pants, Infants'

INFANTS' food
Baby foods industry matures. A. J. Mullen. il Dom Comm 34:30-2 Je '46
Canned meat for baby. Bsns W p84 Je 8 '46
H. J. Heinz, Tracy, Calif plant processes baby food in one continuous operation. il plan Arch Forum 85:99 O '46

INFANTS' pants. See Pants, Infants'

INFANTS' supplies
Butler for baby; new service provides home delivery of food, soap, oil, etc. il Bsns W p54+ O 5 '46

INFANTS' toilet seats. See Toilet seats, Infant's

INFANTS' toys
Baby toys must be tough. il Mod Plastics 23: 95 Je '46

INFECTION
Use and abuse of radiographs in the diagnosis of mouth infection. E. H. Thomas. Ind Med 15:9-13 Ja '46

INFECTIOUS diseases
United States Public health service communicable disease center. J. M. Andrews. Pub Health Rep 61:1203-10 Ag 16 '46
See also
Chemotherapy
Dysentery
Epidemics
Infantile paralysis
Influenza
Leprosy
Malaria
Meningitis
Pneumonia
Psittacosis
Tsutsugamushi disease
Tuberculosis
Tularemia
Typhoid fever
Typhus fever
Viruses

Statistics
Cerebrospinal meningitis; a chronological record of reported cases and deaths. M. Gover and G. Jackson. bibliog Pub Health Rep 61:433-50 Mr 29 '46
Diphtheria incidence and trends in relation to artificial immunization, with some comparative data for scarlet fever. S. D. Collins. bibliog(35 titles) Pub Health Rep 61: 203-40 F 15 '46
Malaria; numbers of cases reported by the state health officers in 1945 as compared with similar data for the years 1939-44. B. C. Hampton. Pub Health Rep 61:679-83 My 10 '46
Notifiable diseases, fourth quarter 1945. Pub Health Rep 61:390-4 Mr 15 '46
Notifiable diseases, first quarter, 1946. Pub Health Rep 61:836-40 Je 7 '46
Notifiable diseases, second quarter, 1946. Pub Health Rep 61:1356-60 S 13 '46
Notifiable diseases prevalence of certain important communicable diseases, by states, 1944. (Public health rep supp 190) 14p U.S. Public health service, Washington; pa 5c Supt. of doc. '46
See also
Infantile paralysis—Statistics
Tuberculosis—Statistics

INFECTIOUS hepatitis. See Jaundice

INFLAMMABLE liquids
Ethyl ether (diethyl oxide); hazards and precautions. bibliog Nat Safety N 54:39-40+ Jl '46
Explosion hazards of dusts, gases and vapors. Nat Safety N 53:144+ Mr '46
German chemical industries; new liquid incendiary agent. Chem & Met Eng 52:184+ D '45
Limits of inflammability and ignition temperatures of naphthalene. G. W. Jones and G. S. Scott. bibliog U S Bur Mines Rep of Invest 3881:1-5, pl 1 '46

INFLAMMABLE materials
Chlorates; hazards and precautions. Nat Safety N 52:38+ N '45
Electrical equipment for hazardous locations. il Nat Safety N 53:30-1+ Ja '46
Evaluation of fabrics as to their flammability; presented by New York section. il Am Dyestuff Rep 35:20-5 Ja 14 '46

INFLAMMABLE materials—*Continued*
Flammability testing of fabrics; abstracts. C. W. Dorn. il Textile World 96:131 Ja '46; Rayon 27.79-80 F '46
Naplam. L. F. Fieser and others. il diag Ind & Eng Chem 38:768-73 Ag '46
New process fire hazards. T. A. Fleming. il Safety Eng 92:18-19+ Ag '46
Operating instructions and test procedure for A.A.T.C C. flammability tester tentative test method. il Am Dyestuff Rep 35:230-2 My 6 '46
Plasticizers and the flammability of nitrocellulose lacquers; abstract. A. Kraus. Paint Oil & Chem R 109:40 Ag 8 '46
Solvents in the paint industry. R. B. Pollak. Paint Oil & Chem R 108:14+ O 4 '45

See also
Magnesium—Fire hazards
Plastic materials—Fire hazards

INFLAMMABLE mixtures
Are so-called safety solvents really safe? Safety Eng 91:52 F '46
Chemicals that cause trouble; toxic, irritating and flammable substances create safety and health problems in manufacture of electric lamps and electronic tubes. A. Korbelak. Nat Safety N 53:37-8+ My '46
Combustible gas alarm. il Power Pl Eng 50: 116 F '46
Explosion hazards of dusts, gases and vapors. Nat Safety N 53:144+ Mr '46
Extinction of gasoline flames by inert gases. G. W. Jones and W. R. Gilliland. U S Bur Mines Rep of Invest 3871:1-14, pl 1-3 '46
Gaseous and dust explosions. S. G. Lipsett. Can Chem & Process Ind 30:41-6+ Mr '46
Inflammability of natural gas; effect of pressure upon the limits. G. W. Jones and R. E. Kennedy. U S Bur Mines Rep of Invest 3798:1-13, pl 1-4 '45; Same cond. Oil & Gas J 44:78-80+ N 10 '45
Lower flammability limits of methylchlorosilanes. E. W. Balis and H. A. Liebhafsky. il diags Ind & Eng Chem 38:583-5 Je '46
Present era in combustion. D. T. A. Townend. bibliog il Chem & Ind p348-50 N 10 '45
Rubber Reserve issues Safety manual for copolymer plant laboratories. Chem & Eng N 24:1805-8 Jl 10 '46

See also
Dust explosions

INFLAMMATION
Presence and significance of a leukopenic factor in inflammatory exudates. V. Menkin. bibliog Science 103:648-9 My 24 '46

INFLATION (finance)
Administration's anti-inflation program. Comm & Fin Chr 164:1133+ Ag 29 '46
Agent speaks out about inflation. E. T. Golden. Life Ins Courant 51:222-3 My '46
ABA has anti-inflation program. Comm & Fin Chr 163:2414 My 2 '46
Bowles links fiscal and monetary policies to inflation control; letter to New York Times. Comm & Fin Chr 164:204+ Jl 11 '46
Britain's inflation controls. F. B. Makin. Banking 38:123-4 F '46
Burying inflation bugaboo. A. M. Sakolski. Comm & Fin Chr 164:335+ Jl 18 '46
Business under German inflation, 1914-1923. L. von Mises. Comm & Fin Chr 163:1213+ Mr 7 '46
Can free competition prevent inflation? symposium. I. Mosher and others. Comm & Fin Chr 164:1138+ Ag 29 '46
Can inflation be controlled today? E. A. Krauss. il Mag of Wall St 77:193-5+ N 24 '45
Can our inflation be stopped? E. M. Zimmermann. Comm & Fin Chr 163:3199+ Je 13 '46
Central bank policy as an inflation curb. A. Sproul. Comm & Fin Chr 163:714+ F 7 '46
C E D offers preventives of inflation. Comm & Fin Chr 163:1689 Mr 28 '46
CIO's guide to fight inflation. Comm & Fin Chr 164:489+ Jl 25 '46
Commodity prices and inflation in the year ahead. A. W. Zelomek. Comm & Fin Chr 163:2911+ My 30 '46
Contests NAM views on inflation. M. S. Eccles. Comm & Fin Chr 163:1632+ Mr 28 '46
Control of inflation. W. W. Aldrich. Comm & Fin Chr 163:2501+ My 9 '46
Controlling inflation in Britain. N. Crump. Comm & Fin Chr 163:3213+ Je 13 '46
Credit and fiscal policy in inflation. G. B. Roberts. Comm & Fin Chr 163:2781+ My 23 '46; Same abr. Nat City Bank p54-7 My '46
Debt policy and banking policy. H. C. Simons. R Econ Stat 28:85-9 My '46
Declining interest rates and inflation. J. J. O'Leary. Comm & Fin Chr 163:1494+ Mr 21 '46
Economic laws must be observed by all nations to avoid inflation; report to Economic and social council of UN. W. W. Aldrich. Comm & Fin Chr 164:1012+ Ag 22 '46
Economists see end of price inflation in 1947; F. W. Dodge survey. Comm & Fin Chr 164: 2081+ O 24 '46
Effect of large bank deposits and currency on inflation. R. Rodgers. Comm & Fin Chr 163: 2353+ My 2 '46
Elusive dream of full production. M. Palyi. Comm & Fin Chr 163:517+ Ja 31 '46
European experiences with price control. L. von Mises. Comm & Fin Chr 162:3001+ D 20 '45
Expanded money supply and economic activity H. P. Wald. Survey of Cur Bsns 26:8-15 My '46; Abstract. Dom Comm 34:4-6 Je '46
Fiscal policy to fight inflation; statement on national policy issued by Committee for economic development. Comm & Fin Chr 164:1540+ S 26 '46; Same. Credit & Fin Management 48:4+ O '46
Free gold market essential to economic stabilization. J. D. Mooney. Comm & Fin Chr 164:1261+ S 5 '46
Full production and sound fiscal policy can prevent inflation. S. M. Foster. Comm & Fin Chr 162:3131+ D 27 '45; Same. Spectator (Life ed) 153:16-19 Ja '46; Same. Weekly Underw 154:98-9 Ja 5 '46; Same. Life Ins Courant 51:10-12 Ja '46; Same cond. Nat Underw (Life ed) 49:3+ D 28 '45; Excerpts. East Underw 46:3 D 28 '45
Global inflation. Bsns W p17-18 F 16 '46
Gold sales as an anti-inflationary device. R. F. Mikesell. R Econ Stat 28:105-8 My '46
Handling debt and inflation problems. A. G. Lanston. Comm & Fin Chr 163:2506+ My 9 '46
Have we lost fight for stabilization. W. C. Hanson. Mag of Wall St 79:124-6+ N 9 '46
Hedging against inflation. J. D. Gill. Comm & Fin Chr 163:2216+ Ap 25 '46
Holding the line: 1946 version. Bsns W p17 Ap 13 '46
How much inflation ahead? W. Gates. il Mag of Wall St 78:321-3+ Je 22 '46
Increased production and inflation. W. S. Salant. Comm & Fin Chr 163:961+ F 21 '46
Inflation and interest rates. F. Lutz. Comm & Fin Chr 163:3055+ Je 6 '46
Inflation and interest rates. M. Nadler. Comm & Fin Chr 163:1342+ Mr 14 '46; Excerpt. Banking Law J 63:380-2 My '46
Inflation and the utilities. H. G. Guthmann. Am Gas Assn Mo 28:195-8+ My '46
Inflation approaching peak. A. H. Temple. Comm & Fin Chr 164:2069+ O 24 '46
Inflation around the world. H. Bratter. Banking 39:52-5 S '46
Inflation in the stock market. E. Schram. Comm & Fin Chr 163:243+ Ja 17 '46
Inflation is your business. H. F. Byrd. Banking 38:33-5 D '45
Inflation outlook. J. Backman. Trusts & Estates 82:6-8 Ja '46
Inflation outlook. R. R. Wason. Comm & Fin Chr 163:1632+ Mr 28 '46
Inflation, price control and taxation. H. L. Lutz. Comm & Fin Chr 164:1262+ S 5 '46
Inflation psychology. M. Palyi. Comm & Fin Chr 163:241+ Ja 17 '46
Inflation psychology taking hold; interview with Richard V. Gilbert. H. M. Bratter. Comm & Fin Chr 162:2571+ N 29 '45
Inflation under price controls. A. H. Temple. Comm & Fin Chr 163:1631+ Mr 28 '46
Inflation with jerks. M. Palyi. Comm & Fin Chr 164:1529+ S 26 '46
Inflationary danger in federal borrowing from reserve banks; direct sale of government securities. B. B. Hickenlooper. Comm & Fin Chr 162:3004+ D 20 '45

INFLATION (finance)—*Continued*
Inflationary forces and the FRB. M. S. Eccles. Comm & Fin Chr 164:2201+ O 31 '46
Inflationary menace of government credit activities. F. C. Rathje. Comm & Fin Chr 163:3055+ Je 6 '46
Inflationary pressures. C. A. Dauten and A. G. Vieth. Comm & Fin Chr 164:2334+ N 7 '46
Inflationary tug-of-war; protecting government bond investors while preventing credit inflation. C. A. Sienkiewicz. Trusts & Estates 82:455-7 My '46
Interest rates and inflation. L. A. Hahn. Comm & Fin Chr 162:3129+ D 27 '45
Lays inflation to cheap money policy. C. Adams. Comm & Fin Chr 164:1933+ O 17 '46
Let's stop inflation now; OPA a failure. R. R. Wason. Comm & Fin Chr 164:755+ Ag 8 '46
Life insurance companies urge common sense by people & government in combating inflation. Comm & Fin Chr 164:806 Ag 8 '46
Majority view mounting prices as inevitable; Gallup poll. Iron Age 158:103 Ag 22 '46
Measuring inflation. Economist 151:220-2 Ag 10 '46
Menace of inflation. I. Wright. Comm & Fin Chr 163:837+ F 14 '46
Monetary causes of inflation are worldwide; report to International chamber of commerce; abstract. Comm & Fin Chr 163:3478 Je 27 '46
Monetary inflation and the public utility industry. H. G. Guthmann. Edison Elec Inst Bul 14:143-6 My '46
National debt and inflation. G. M. Owlett. Comm & Fin Chr 163:1215+ Mr 7 '46
National debts vs. monetary inflation. W. Chamberlain. Comm & Fin Chr 164:1926+ O 17 '46
Our monetary problems. M. S. Szymczak. Comm & Fin Chr 163:2349+ My 2 '46
Pathology of inflation. T. French. Comm & Fin Chr 164:1008+ Ag 22 '46
Post-war money supply and commodity prices. R. Warren. Comm & Fin Chr 163: 519+ Ja 31 '46
Preventives of inflation; statement before House Banking and currency committee. M. S. Eccles. Comm & Fin Chr 163:1085+ F 28 '46
Price control and control of inflation. E. M. H. Lloyd. R Econ Stat 27:149-55 N '45
Price control and inflation; statement before Senate Banking and currency committee. F. M. Vinson. Comm & Fin Chr 163:2508+ My 9 '46
Price controls to combat inflation; statement before House Banking and currency committee. C. Bowles. Comm & Fin Chr 163: 957+ F 21 '46
Price trends. M. Palyi. Comm & Fin Chr 163:2069+ Ap 18 '46
Problems for the water works manufacturer. W. F. Rockwell. Am Water Works Assn J 38:999-1004 S '46
Production as a cure for inflation. Bsns W p100 Jl 13 '46
Production, money supply and inflation. A. M. Sakolski. Comm & Fin Chr 163:2213+ Ap 25 '46
Production vs. monetary controls as inflation curbs. D. W. Matthews. Comm & Fin Chr 163:3199+ Je 13 '46
Program for inflation control. T. Taylor. Comm & Fin Chr 164:204+ Jl 11 '46
Progress of hold-the-line order; government war control administrators report to president. C. Bowles and others. Comm & Fin Chr 163:1927+ Ap 11 '46
Prospects of transition inflation. C. O. Hardy. Comm & Fin Chr 164:199+ Jl 11 '46
Public names inflation prime problem facing nation; Gallup poll. Iron Age 158:101 Ag 15 '46
Risk of inflation. Economist 150:827-8 My 25 '46
Secondary inflation. M. Palyi. Comm & Fin Chr 164:65+ Jl 4 '46
Self-propelled boom financing. M. Palyi. Comm & Fin Chr 163:3053+ Je 6 '46
Speaking of booby traps; OPA inflationary. H. L. Lutz. Comm & Fin Chr 164:197+ Jl 11 '46
Stable economy. M. A. Linton. Spectator (Life ed) 153:20-1+ Ja '46; Abstracts. Nat Underw (Life ed) 49:7-8 D 21 '45; Weekly Underw 153:1432 D 15 '45
Still evading inflation control. J. Backman. Trusts & Estates 82:262-4 Mr '46
Stock market and inflation. E. Schram. Comm & Fin Chr 163:709+ F 7 '46
Threat of inflation. S. H. Slichter. Comm & Fin Chr 163:2349+ My 2 '46
Trend of inflation can be stopped. O. J. Arnold. Nat Underw (Life ed) 50:13 Mr 22 '46
Warns of severe inflation. T. I. Parkinson. Comm & Fin Chr 163:1133+ F 28 '46
What are appropriate monetary measures? A. A. Potter. Comm & Fin Chr 163:3470+ Je 27 '46
What to do about inflation trend. P. H. Nystrom. Comm & Fin Chr 164:1533+ S 26 '46
World inflation or deflation. A. W. Zelomek. Comm & Fin Chr 164:1375+ S 12 '46

See also
Deflation (finance)
Hedging

Bibliography
Inflation and its control. Cleveland Pub Lib Business Information Bur v 17, no2:4-8 Je '46

INFLUENZA
Antibacterial action of penicillin, penicillin X, and streptomycin on hemophilus influenzae. W. L. Hewitt and M. Pittman. bibliog Pub Health Rep 61:768-78 My 31 '46
Biochemical studies on influenza virus. W. M. Stanley. Chem & Eng N 24:755-8 Mr 25 '46
Chemoprophylaxis of experimental influenza infections in eggs. R. H. Green and others. Pub Health Rep 61:1401-3 S 27 '46
Demonstration of influenza virus, type B, in a recent outbreak of upper respiratory infection. M. M. Sigel and others. bibliog Science 102:646 D 21 '45
Flu immunity? results obtained by army. Bsns W p20 Ja 19 '46
Influence of streptomycin on type b. haemophilus influenzae. H. E. Alexander and G. Leidy. bibliog Science 104:101-2 Ag 2 '46
Influenza vaccinations free to Home Life people. Weekly Underw 155:963 O 19 '46
Influenza vaccine. Science 102:sup10 N 23 '45
Isolation of type A influenza virus in recent epidemic in Chicago area. G. F. Foster and H. J. Shaughnessy. Science 104:208 Ag 30 '46
Relation between epidemics of acute bacterial pneumonia and influenza. bibliog Science 102:561-3 N 30 '45

INFORMATION service
Britannica readers ask about safety; Library research service. Nat Safety N 54:30 Ag '46
Data for flyers; manual for commercial pilots and private expands. Bsns W p44+ Jl 27 '46
Information service as an essential in the progress of science. J. D. Bernal. Assn of Sp Lib & Inf Bur Proc 1945:20-4

See also
Business information

INFORMATION service, Government
Business can use the census. P. M. Hauser. Ptr Ink 214:45-6+ Ja 25 '46
Canada's new Technical information service. F. E. Lathe. il For Comm W 25:8-9+ O 5 '46
Federal power commission and National resources planning board. R. M. Lawrence and L. A. Monroe. Chem Ind 58:967-9 Je '46
Scientific information from enemy sources and government-sponsored research. J. C. Green. Chem & Eng N 24:1795-9 Jl 10 '46
Services and publications of the Bureau of the census. R. M. Lawrence. il Chem Ind 58:252-5+ F '46
Services and publications of the Federal reserve system, S.E.C. and Treasury department. W. C. Chadbourne. bibliog il Chem Ind 59:663-8 O '46
Services and publications of the U.S. Bureau of labor statistics. R. M. Lawrence. il Chem Ind 59:487-92 S '46

INFORMATION service, Government—*Cont.*
Services and publications of the U.S. Department of agriculture. R. M. Lawrence. il map Chem Ind 59:75-80+ Jl '46
Services and publications of the U.S. Tariff commission. R. M. Lawrence. Chem Ind 58:795-800+ My '46
See also
British information services
United States—Foreign and domestic commerce, Bureau of
United States—International trade, Office of
United States information libraries
INFORMATION service, State
New York state sets up bureau of information. Ptr Ink 214:74 F 22 '46
INFRARED rays
Color stability of olive drab infra-red-reflecting camouflage finishes. E. E. Jukkola and R. Cohen. bibliog il Ind & Eng Chem 38: 927-30 S '46
Decay in brightness of infra-red sensitive phosphors. R. T. Ellickson and W. L. Parker. diags Phys R 70:290-9 S 1 '46
Development of infra-red sensitive phosphors. B. O'Brien. bibliog Opt Soc Am J 36:369-71 Jl '46
Effect of absorption on decay of infra-red sensitive phosphors. R. T. Ellickson and W. L. Parker. Phys R 69:534 My 1 '46
Electronic night sight; target illuminated by infrared light; combination orthicon and cathode-ray tube with built-in electron multiplier converts reflected light into visible image. il diag Electronics 19:95 Je '46
Eyes in the night; German infra-red searchlight and American super-conducting bolometer. Bsns W p52 Mr 16 '46
Fast superconducting bolometer. D. H. Andrews and others. il diags Opt Soc Am J 36:518-24 S '46
High temperature sodium chloride to glass vacuum seal for infra-red cells. G. L. Simard and J. Steger. R Sci Instr 17:156-7 Ap '46
Infra-red electron telescope aided Navy's invisible operations. il Product Eng 17:147 Ag '46
Infrared image tube. G. A. Morton and L. E. Flory. il diags Electronics 19:112-14 S '46
Infrared image tube and its military applications. G. A. Morton and L. E. Flory. il diags RCA R 7:385-413 S '46
Infra-red sensitive phosphors. F. Urbach and others. Opt Soc Am J 36:372-81 Jl '46
Invisible light aids marksman; locating enemy at night by means of infrared light beam and electronically operated telescopic sight. il diag Radio N 35:35+ Je '46
Light storage in infra-red sensitive phosphors. R. T. Ellickson. Opt Soc Am J 36:501-2 S '46
Light sum of phosphors under thermal and infra-red stimulation. R. T. Ellickson. diags Opt Soc Am J 36:264-9 My '46
Near infra-red transmitting filters. E. R. Blout and others. Opt Soc Am J 36:460-4 Ag '46
Night vision with electronic infrared equipment; German systems. il diags Electronics 19:192+ Je '46
Plastic filters for the visible and near infra-red regions. J. H. Shenk and others. Opt Soc Am J 36:569-75 O '46
Preparation and characteristics of zinc sulfide phosphors sensitive to infra-red. G. R. Fonda. diag Opt Soc Am J 36:382-9 Jl '46
Proceedings of the O.S.A.; session on detection of infra-red radiation. Opt Soc Am J 36:353-6 Je '46
Proceedings of the O.S.A.; session on infra-red-sensitive phosphors. Opt Soc Am J 36: 351-3 Je '46
Radioactive infrared detector; metascope. il Electronics 19:142+ O '46
Recording infra-red analyzers for butadiene and styrene plant streams. N. Wright and L. W. Herscher. il diags Opt Soc Am J 36:195-202 Ap '46
Silver crystal; new optical material to find applications in infrared production devices. il Bsns W p56+ Ap 13 '46

Industrial applications
Sight at night. V. Zeluff. il diag Sci Am 175:21-3 Jl '46

Industrial heating
Automatic baking doubles production per man-hour; Raymersion infrared electric oven at factory of Trumbull electric mfg. co. il diag Elec World 125:100+ Ap 27 '46
Battery plates dried with infrared lamps. E. Jirik and A. J. McIlwraith. il Elec World 126:150+ S 14 '46
Cloth printing speeded by infrared drying aids. il Textile World 96:125 Ja '46
Cuts drying time from days to minutes; infrared electric oven; Wiremold co. il Elec World 126:108+ O 26 '46
Dry trailer bodies in ten minutes with infrared radiation. P. R. Smith and A. L. Potter. il Elec World 126:130 O 12 '46
Drying clayware with infrared radiation. L. H. Hepner. il Am Cer Soc Bul 24:415-17 N 15 '45
Drying industrial finishes on metals. H. R. Clauser. il Materials & Methods 24:910-14 O '46
Dyeing textiles; drying and moisture control. K. S. Laurie. Elec R (Lond) 137:819-20 D 7 '45
Finishing plant uses infrared on rayon. il diag Textile World 96:117 Ap '46
Incorporation of an infrared dryer into a continuous casting system; abstract. H. Hoare. Cer Ind 46:54 My '46
Infra-red burn-in oven is outstanding new product for photoengraving plates. il Inland Ptr 116:63 O '45
Infrared dries pottery before firing. P. H. Krupp. il Elec World 125:96 Mr 30 '46
Infrared drying in the ceramic industry; abstract. C. L. Bullock. Brick & Clay Rec 108:50 My '46
Infra-red heating; equipment used in the aircraft industry. il Electrician 135:680 D 14 '45
Infra-red lamp heating equipment in the aircraft industry. il Mech Handling 33:75-7 F '46; Electrician 135:680 D 14 '45; Automobile Eng 36:133-4 Mr '46
Infra-red lamps speed insulation drying. M. A. Myers. il Power 90:47 Ja '46
Infrared looks at the ceramic industry; abstract. I. J. Barber. Cer Ind 46:96 Je '46
Infrared nearly triples poster output; Bentley poster print. D. O. Bergy. il Elec World 124:168+ N 10 '45
Infrared removes floor covering. il Bus Transportation 25:65 Jl '46
Infrared; suppliers, plant operators answer questions. il Cer Ind 46:102+ Ap '46
Infrared unit speeds beverage carrier drying; Coca Cola bottling co. il Elec World 125: 106 F 2 '46
Infra-red versus convection heating. C. C. Eeles. Am Gas Assn Proc 1945:189-97; Same. Am Gas Assn Mo 27:281-6 Je '45; Same cond. Gas J (Lond) 246:339+, 375 S 5-12 '45
Metal finishing with infra-red heat; White motor company. J. Parina, jr. il Steel 118: 94-6+ Mr 11 '46
Preheating without preforming. il Mod Plastics 23:148-50 Je '46
Le séchage par les rayons infra-rouges au moyen de tubes radiants chauffés au gaz de ville. R. Duchêne. il diag Génie Civil 123:84-5 Ap 1 '46

Lamps
Cesium vapor lamps. N. C. Beese. diag Opt Soc Am J 36:555-60 O '46
Infrared, warm friend for the farmer; milk house heating; other uses. J. H. Van Aernam. il Elec World 125:49 Ap 27 '46
Modulated arc lamp; caesium vapor lamp for modulated infrared-ray communication. il Electronics 19:150+ N '46
INGALLS shipbuilding corporation
From ships to locomotives; Ingalls shipbuilding corp. converts part of Pascagoula yards to production of Diesel electrics. Bsns W p54 N 10 '45
INGLIS, Edward S. 1885-1946
Sketch. por Nat Underw 50:12+ S 26 '46
INGOTS, Steel. See Steel ingots

INGRAM, Louis, 1870-1941
Sketch. Am Cer Soc Bul 24:444 D 15 '45

INHERITANCE and succession
See also
Executors and administrators
Inheritance tax
Wills

INHERITANCE tax
Changes in accounting and tax apportionment; new Virginia legislation analyzed. L. B. Gunn. Trusts & Estates 83:190-1 Ag '46
Estate planning; the rôle of the accountant. E. N. Polisher. J Account 82:140-7 Ag '46
Estate taxation; premium test; case of Whittemore v. Kraemer. Spectator (Life ed) 153:6-9+ Mr '46
Estate taxes; taxing transfers in contemplation of death. J Account 81:237-8 Mr '46
Federal estate tax. E. A. Muller. Mag of Wall St 78:285 Je 8 '46
Need for liquid assets to pay estate taxes prompting small firms to favor merger offers. E. A. R. Germain. Comm & Fin Chr 164:200+ Jl 11 '46
New Hallock regulations; standards set for taxability of transfers taking effect at death. L. B. Brown. Trusts & Estates 83:227-32 S '46
Put end to 50-50 split of proceeds for estate tax. Nat Underw (Life ed) 49:1 D 14 '45
State and federal taxation, 1944-1945. W. L. Nossaman. Trusts & Estates 82:47-54 Ja '46
Taxation of community property. Spectator (Life ed) 153:32-3+ Ja '46
Visual tax planning; graphs show tax consequences of gifts and trusts. O. O. Marquardt. Trusts & Estates 82:492-500 My '46

Canada
Assign succession duties to Dominion? Trusts & Estates 81:397 N '45

INHIBITORS
Inhibition of myrcene polymerization during storage. W. J. Runckel and L. A. Goldblatt. bibliog Ind & Eng Chem 38:749-51 Jl '46
See also
Corrosion and anti-corrosives—Patents

INITIALS
Initials; their use and misuse. J. M. Secrest. il Ptr Ink 217:54-5 O 18 '46

INJUNCTIONS
Pittsburgh enjoins power strikers; injunction dissolved. R. N. Larkin. Elec World 126: 114-15, 119-20 S 28 '46
Union law bites union. Bsns W p100 D 22 '45

INJURIES (law). See Personal injuries

INJURIES, Industrial. See Accidents, Industrial

INJURIES from electricity. See Electricity, Injuries from

INK
Bleeding of breadwrapper inks. E. F. Carman. bibliog Paper Ind 27:1367+ D '45
Development of quick-drying writing inks. W. B. Reynolds. bibliog Chem & Eng N 24:916-18 Ap 10 '46
Evaluation of resins; symposium in London. Chem Age (Lond) 53:613-17 D 29 '45
Imports of writing ink into Brazil, 1937-1945. For Comm W 23:47 Je 22 '46
Inks for rubber. Sci Am 175:227 N '46
Lessons from a failure; how a printer profited from experience. Pulp & Pa of Can 46: 920 N '45
Livering of printing inks; abstract. R. Nitschke. Paint Oil & Chem R 109:46 Ag 22 '46
Measuring coverage and film thickness of printing ink and paint films. R. Buchdahl and M. F. Polglase. Ind & Eng Chem Anal ed 18:115-17 F '46
Mechanism of the ink penetration tests. W. S. Wilson. Paper Ind 28:438-9 Je '46
Modified pen and ink sizing test. B. W. Smith. Paper Tr J 120:134+ F 22 '45; Same abr. Paper Ind 27:1415-16 D '45
Offset prevention methods and the overprinting of gold and silver inks. Inland Ptr 116:75-6 D '45-Ja '46
Printing ink makers meet. Chem & Eng N 24:2776 O 25 '46
Printing ink makers seek linseed substitute. Oil Paint & Drug Rep 150:3+ O 28 '46
Review of the literature relating to printability and allied subjects, 1944-1945. S. M. Chapman. bibliog Pulp & Pa of Can (Convention no) 47:267-73 [F] '46
Speed of penetration of printing ink into paper. A. Voet and J. S. Brand. bibliog diag Paper Tr J 122:34-9 Je 13 '46; Same abr. Paper Ind 28:428+ Je '46
Thirty-second annual convention of National association of printing ink makers. Oil Paint & Drug Rep 150:7+ S 30 '46
Writing ink; chemical process industry which tripled its output during wartime. R. S. Casey. bibliog flow sheet il Chem Ind 58: 246-9 F '46

INLAND marine insurance. See Insurance, Inland marine

INLAND marine underwriters association
Annual meeting, Skytop, Pa, May 20. East Underw 47:34 My 24 '46; Spectator (Property ed) 11:22-4 My 23 '46

INLAND steel company
Inland Steel operated at 103.2% of capacity in 1945. W. Sykes. Blast F & Steel Pl 34: 611 My '46

INLAND waterways corporation
Barge problem. Bsns W p28+ S 21 '46
Federal barge lines lost $845,234 in '45. Ry Age 121:614 O 12 '46
Wallace would sell federal barge line. Ry Age 120:1231-2 Je 22 '46

INMAN, Mary, 1905-
Too good to be true; Imitation food display company; Mary Inman's studio. L. H. Singer. il Adv & Sell 38:93 D '45

INOSITOL
Lipotropic properties of inositol. C. H. Best and others. bibliog Science 103:12-13 Ja 4 '46

INQUIRIES
Jig-time routine for turning out pat replies to inquiries; Mutual life insurance company of New York receives over 12,000 letters every month; answers 92% within three days. C. B. Reeves. Sales Management 56:90+ Je 15 '46
Three cardinal rules for answering business inquiries. C. A. Emley. Ptr Ink 214: 105-6+ Mr 22 '46
What's become of advertising follow-through? H. Helm. Ptr Ink 216:29-31 Ag 23 '46
See also
Advertising—Inquiries
Advertising, Industrial—Inquiries

INSANE, Criminal and dangerous
Statistical study of 500 psychopathic prisoners; Medical center for federal prisoners, Springfield, Mo. H. Cason and M. J. Pescor. bibliog Pub Health Rep 61:557-74 Ap 19 '46

INSECT cages, Plastic
Plastic cages for insects. M. D. Young and R. W. Burgess. il Science 104:375 O 18 '46

INSECT repellents
Effect of storage on insect repellents. H. A. Jones and others. Soap & San Chem 22: 151+ O '46
Insect repellents; intensive research broadens market. C. A. Setterstrom. il Chem Ind 59: 474-5 S '46
Orlando scientists develop new insect repellents. Franklin Inst J 240:437-8 N '45
Some new compounds as possible insect repellents. M. S. Newman, B. J. Magerlein and W. B. Wheatley. Am Chem Soc J 68:2112-15 O '46
Two new effective insect repellents, NMRI-201 and NMRI-448. L. A. Jachowski, jr. and M. Pijoan. Science 104:266-9 S 20 '46

Rating
Insect repellents. il Consumers Res Bul 18: 21-4 O '46

INSECTICIDE and disinfectant manufacturers, National association of. See National association of insecticide and disinfectant manufacturers

INSECTICIDES
Aerosol insecticides. Consumers Res Bul 18: 9-11 S '46
Aerosol marketing. R. E. Ditsler. Soap & San Chem 22:131+ Jl '46

INSECTICIDES—*Continued*
Aerosol toxicity; effect of the nonvolatile content of a DDT aerosol on mortality of houseflies. J. H. Fales and others. Soap & San Chem 22:157-8 Je '46
Chemical nature of the insecticidal principle in mamey seed. M. A. Jones and H. K. Plank. Am Chem Soc J 67:2266-7 D '45
Chemical studies on insecticides; abstract. H. Martin. Chem & Ind p341-2 N 3 '45
Chemistry of benzene hexachloride and its insecticidal properties. G. R. Chamlin. J Chem Educ 23:283-4 Je '46
Comparative toxicity of thiourea to four mutants of drosophila melanogaster. E. D. Goldsmith and M. H. Harnly. bibliog Science 103:649-51 My 24 '46
Control of housefly breeding in partly digested sewage sludge; experiments with various larvicides. T. A. Olson and R. G. Dahms. Pub Works 77:24+ My '46
Costa Rica's new insecticide; Segurol 80-33. For Comm W 24:32 S 28 '46
Deodorized petroleum base oils. B. I. Scoggin and others. diags Soap & San Chem 22:149+ Ap '46
Do's and don'ts in household insecticide application. il Soap & San Chem 22:134-5 Ap '46
Effect of DDT, sulphur and lethane dusts on germination of sugar-beet and onion pollens. E. Artschwager. Science 102:482 N 9 '45
Evaluation of liquefied-gas aerosol formulations. L. D. Goodhue. Soap & San Chem 22:133+ F '46
Food plant sanitation is not just a chore. M. E. Parker. il Food Ind 18:332-6 Mr '46
German insecticide effective against aphids; hexaethyl tetraphosphate. Chem & Eng N 24:1954 Jl 25 '46
German pesticide work told in U.S. reports. Oil Paint & Drug Rep 148:7+ D 10 '45
Insecticide, disinfectant makers discuss marketing problems. Oil Paint & Drug Rep 148: 7+ D 10 '45
Insecticide research developments told; abstract. P. N. Annand. Oil Paint & Drug Rep 149:7 F 25 '46
Insecticide substitute developed by Japan. Oil Paint & Drug Rep 150:7 Ag 19 '46
Insecticide toxicity studies; experimental results on the comparative toxicity of benzene hexachloride, DDT and pyrethrum. W. A. Gersdorff and E. R. McGovran. Soap & San Chem 21:117+ N '45
Insecticides. J. B. Skaptason. Chem Ind 59: 272 Ag '46
Insecticides and insects; abstracts. H. L. Haller. Chem & Met Eng 53:262+ Mr '46; Sci Am 174:268 Je '46
Insecticides, fungicides roll in U.S. economy emphasized. Oil Paint & Drug Rep 150:5+ S 9 '46
Mass murder introduces Sherwin-Williams' Pestroy, DDT product. E. C. Helfrick. il Sales Management 57:60+ O 15 '46
Nemeses for gardener's foes. Barron's 26:9 Je 3 '46
New agricultural chemicals combat pests and improve crops. E. D. Witman. il Chem Ind 58:590-1 Ap '46
New chemical method for combating the apple weevil (anthonomus pomorum L.); abstract. R. Bouchet. Chem & Met Eng 53: 292 My '46
New German insecticides. L. B. Kilgore. il Soap & San Chem 21:138-9+ D '45; 22:122-4 F; 122-5+ Mr '46
New super-insecticide; Velsicol 1068. Bsns W p52 Mr 2 '46
Petroleum industry research helps agriculture to minimize crop losses; Union oil company laboratory to study control of insects, fungi, and bacteria. R. Sneddon. il Pet Eng 17:77-8+ Je '46
Progress in drugs, fine chemicals and biological products during 1945. G. C. Green. Chem Age (Lond) 54:229-30 Mr 2 '46; Discussion. F. N. Pickett. 54:281-2 Mr 16 '46
Release data on German insecticides. bibliog Soap & San Chem 21:137+ D '45
Sabadilla insecticide development. Soap & San Chem 22:135+ S '46
Science and transportation combine to save the South's peanut crop; Kryocide delivered by plane. il Manuf Rec 115:47+ O '46
Some recent developments in insecticides; abstract. H. D. Tate. Food Ind 18:780+ My '46
Specific poisons; progress shown in discovery and synthesis. R. E. Slade. il Can Chem & Process Ind 30:29-31+ Ja '46
Sprayers for dispensing concentrated insecticides. H. O. Shroeder and A. W. Lindquist. il diags Soap & San Chem 22:149-51+ Je '46
Toxicity of aerosols to house flies. E. R. McGovran and J. H. Fales. Soap & San Chem 22:127-9 S '46
USDA advises on aerosols. Soap & San Chem 21:131+ N '45
Velsicol 1068. Soap & San Chem 22:149+ S '46

See also
DDT
Fly sprays and repellents
Insect repellents
Methyl bromide
Pyrethrum
Rotenone
Tetrachlorodiphenylethane

Advertising
Newspaper campaign raises insecticide sales. il Ptr Ink 213:138-9 N 16 '45

Analysis
Determination of DDT; a review of analytical methods for the determination of DDT in the technical and pure compounds and in various insecticides, by total chlorine procedures. C. G. Donovan. Soap & San Chem 22:165+ Je '46

Color
Colors for chemical compounds. H. F. Herrmann. Soap & San Chem 22:137+ F '46

Law
Crossbones bill; seeks modernization of controls over economic poisons. Bsns W p38+ F 23 '46
Economic poisons legislation follows federal drug pattern. Oil Paint & Drug Rep 148: 3+ D 3 '45
Insecticide act and its enforcement. W. G. Reed. Soap & San Chem 22:119+ Ja '46
Insecticide bill hearing gets diverse views. Oil Paint & Drug Rep 149:3+ F 11 '46

Patents
Decide thiocyanate patent; Heckert patent case. Soap & San Chem 22:169 Ag '46

Physiological effect
Toxicology of insecticides and fungicides; abstract. D. O. Hamblin. Chem & Eng N 24: 2622 O 10 '46

Rating
Aerosols; a second report. il Consumers Res Bul 18:11-12 O '46

Storage
Insecticidal aerosols; stability in storage studied by accelerated aging tests. A. Hazen and L. D. Goodhue. bibliog Soap & San Chem 22:151+ Ag '46

Testing
Accelerated aging test for insecticidal aerosols containing DDT. L. D. Goodhue and W. R. Ballinger. diag Ind & Eng Chem Anal ed 18:131-2 F '46
Aerosol formulation; laboratory tests with pyrethrum and DDT aerosols against the common malaria mosquito and the housefly. A. W. Lindquist and others. il Soap & San Chem 22:135+ My '46
Determination of pyrethrins deterioration; solubility in dichlorodifluoromethane. W. A. Gersdorff and W. F. Berthel. Soap & San Chem 22:155+ O '46
Evaluating pyrethrum extract; a comparison of chemical and biological methods. W. F. Barthel and others. bibliog Soap & San Chem 22:129+ Mr '46
German insecticide evaluation. L. B. Kilgore. il Soap & San Chem 22:122-5+ Mr '46
Insecticidal cords; generating smoke by burning cords impregnated with DDT or other toxic materials. D. E. Pearsall and P. P. Wallace. Soap & San Chem 22:139+ O '46
Modifications of the liquid roach method. F. O. Hazard. Soap & San Chem 21:159+ D '45

INSECTICIDES—Testing—*Continued*
Reports on tests of new insecticides; abstract. F. C. Bishopp. Soap & San Chem 22:181 O '46
Roach powder tests; sodium fluoride, pyrethrum, DDT and the gamma isomer of benzene hexachloride. E. R. McGovran and P. G. Piquett. Soap & San Chem 22:157+ Ag '46
Testing of roach sprays. Soap & San Chem 22:145+ Jl '46

INSECTS
Colour vision in insects; abstract. D. R. Ilse. Light & Lighting 38:139 O '45
Continuous anesthesia for insects. C. M. Williams. diag Science 103:57 Ja 11 '46

Sound production

See Sound production by insects

INSECTS, Injurious and beneficial
Control of forest insects. E. Ménard. Pulp & Pa of Can 47:100-1 Jl '46
Insecticides and insects; abstract. H. L. Haller. Chem & Met Eng 53:262+ Mr '46
Protective value of asphalt-laminated paper against insects; abstract. H. L. Sweetman and A. I. Bourne. Paper Ind 27:1428 D '45

See also
Cockroaches
Food—Insect infestation
Insecticides
Lice
Lygus
Mosquitoes
Moths
Paper—Insect resistance

INSIDER trading. See Stocks—Insider trading

INSOLATION
See also
Solar heating

INSPECTION
Electronic inspection. V. Zeluff. il Sci Am 174:59-61 F '46
How inspection helps make better process equipment. W. A. Miller and G. E. Kopetz. flow sheets Chem Ind 59:652-5+ O '46
Inspection in the small plant; Steelcraft engineering co. J. H. Bryant. il Steel 117: 118-19+ D 3 '45
Inspection of water works materials. H. A. Price. il Am Water Works Assn J 38:472-9 Ap '46
Inspection on jig-boring and jig-grinding machines. J. R. Moore. il Mach 52:160-5 Ap '46
Lot by lot inspection. A. L. Atherton. Materials & Methods 22:1792 D '45
Materials inspection in aircraft. R. B. Faurote. Materials & Methods 23:194 Ja '46
Nondestructive tests cut costs. il Bsns W p50+ Jl 6 '46
Prescriptions for better inspection; abstract. Management R 35:280-1 Jl '46
Statistical methods in quality control; charts for go-and-no-go inspection. Elec Eng 64: 401-2 N '45
Supersonic inspection of materials. H. R. Clauser. il diags Materials & Methods 24: 379-84 Ag '46
Testing and inspection, 1945. H. A. Knight. il Materials & Methods 23:145-50 Ja '46
33d annual review number; inspection, layout, and testing equipment. il Am Mach 90:166-76 Ja 17 '46
Two-part inspection form means lower upkeep costs; Ryan aeronautical corporation, San Diego. D. H. Palmer. il Factory Management 104:100-1 Je '46
Why we need better inspection on construction. W. D. Bigler. Eng N 136:127-9 Ja 24 '46

See also
Bridge inspection
Car inspection
Electric inspection
Factory inspection
Gages
Magnetic testing
Mine inspection
also subdivision Inspection under special subjects, e.g.
Bottled goods

INSPECTION cars. See Cars, Inspection

INSTALMENT buyers' policies. See Insurance, Group life—Instalment buyers' policies

INSTALMENT plan
Airplanes on time; financing purchases of private craft. Bsns W p39 Jl 27 '46
Consumer credit trends. A. A. Friedrich. Banking 38:45+ Ap; 49+ My; 49+ Je; 39: 43+ Jl; 43+ Ag; 53+ O; 46+ N '46
Is time credit a villain? points cited in favor of installment sales. O. C. Lorenz. Credit & Fin Management 48:26-7 Mr '46
Pendulum swings to credit. Bsns W p80+ My 18 '46
Recent changes in consumer credit. Fed Res Bul 32:567-72 Je '46
Will instalment terms change? competition may bring about new plans. C. E. Wolfinger. Credit & Fin Management 48:21-2 My '46

See also
Loans, Bank—Instalment payment
Sales, Conditional

Accounting

Simplified plan aids installment buying; Sun electric corporation uses master Ditto copy. J. Turner. il Am Bsns 16:18-19+ Ag '46

Finance

Bankloan plan for dealer financing; American trust company, San Francisco. E. Burke. il Burroughs Clearing House 30:20-2+ Ja '46
Banks expanding instalment credit; Review of Chicago Federal reserve bank. Comm & Fin Chr 164:753+ Ag 8 '46
Chase bank offers appliance financing plan. Gas Age 96:31-2+ N 1 '45; Same. Pub Util 36:790-2 D 6 '45; Same cond. Am Gas J 163:54 N '45; Same cond. Burroughs Clearing House 30:6-7 N '45
Commercial bank installment credit plans. C. W. Phelps. Comm & Fin Chr 162:2704, 2754-60 D 6 '45; Abstract. Banking Law J 63:1-5 Ja '46
Commercial banks enter instalment finance field; National sales finance plan. Comm & Fin Chr 162:2463 N 22 '45
Consumer instalment credit for banks limited. C. W. Phelps. Barron's 25:13+ N 12 '45
Facing facts on consumer credit. C. M. Flora. Comm & Fin Chr 162:3011+ D 20 '45
Fifty billion dollars is the target for bank financing of consumers. G. S. Jones, jr. il Bankers Mo 62:551-4 D '45
Financing appliances for dealers; Security-first national bank of Los Angeles. Banking 38:75-6 Mr '46
Home equipment credit plans. L. J. Asterita. Banking 38:44-5+ D '45
How banks have handled installment loans with success. C. W. Phelps. il Bankers Mo 63:11-15 Ja '46
Instalment plan. Life Ins Courant 51:276-8+ Je '46
Know your consumer credit costs; find out how your outlets handle credit. O. C. Lorenz. Credit & Fin Management 48:11-13 Ag '46
National sales finance plan operative. Comm & Fin Chr 162:2618 N 29 '45
Nebraska bankers association urges installment loans. Bankers Mo 62:583-4 D '45
Sales finance plan; 1,100 banks joined to facilitate financing of appliances. W. B. Hall. Burroughs Clearing House 30:17-19+ F '46
12,000 banks and 56 gypsies. Fortune 33:209-10 My '46
We must make it easy to buy. H. W. Nichols. Am Gas Assn Mo 28:396-7 S '46

See also
Banks and banking—Automobile purchase financing
Finance companies

Periodicals

Time sales financing. Published monthly by American finance conference, 160 N. La Salle st, Chicago 1 '46

Regulation

Consumer banking institute seeks repeal of Reserve board's Regulation W. Comm & Fin Chr 164:1701 O 3 '46
Consumer credit; amendment no. 19 to Regulation W. Fed Res Bul 31:1197 D '45
Limitation advised on installment credit; Economics bureau of Northwestern national life insurance company. Weekly Underw 153:1292 D 1 '45

INSTALMENT plan—Regulation—*Continued*
More restrictions on instalment credit; Federal Reserve makes changes in Regulation W. Comm & Fin Chr 164:891 Ag 15 '46
No ground for permanent regulation of consumers credit. M. R. Bone. Comm & Fin Chr 164:1180 Ag 29 '46
One-half of U.S. families can't buy durable goods and Regulation W makes recourse to installment buying more difficult. C. M. Wright. Ptr Ink 217:92+ O 18 '46
Relaxation of Regulation W. Burroughs Clearing House 30:32 Ag '46
Remove instalment credit restrictions; repeal of Regulation W. J. P. Wolcott. Comm & Fin Chr 164:752+ Ag 8 '46
States tighten reins on instalment selling. B. Jones. Barron's 25:15 N 26 '45
Suspension of license and consent injunction; case of Motor city credit jewelry co. Fed Res Bul 32:249-51 Mr '46

Statistics

Consumer credit statistics; annual 1929-1945; monthly 1945-Feb. 1946; revised statistics. Fed Res Bul 32:383, 432-4 Ap '46
Retail credit survey, 1945. Fed Res Bul 32: 581-7 Je '46

INSTALMENT premiums. See Insurance, Fire —Instalment premiums

INSTANT coffee. See Coffee, Soluble

INSTITUTE for occupational health research
New non-profit corporation. Ind Med 14: sup18+ O '45

INSTITUTE for research in clinical and child psychology
Institute for research in child psychology reorganized. Science 103:530 Ap 26 '46

INSTITUTE for the study of metals. See Chicago university—Institute for the study of metals

INSTITUTE of air transportation, inc.
Air institute may absorb cargo group; asks faster DC-3's. il Air Transport 4:74 Je '46
Annual meeting, 1st, New York, April 15. Air Transport 4:79 My '46; Aviation N 5:24 Ap 15 '46
Demand for CAA, CAB regulation highlights non-scheduled meeting. Aviation N 5:16-18 Ap 22 '46
Nine uncertificated operators organize to promote business. Aviation N 5:23-4 Mr 18 '46; Bsns W p36 Mr 16 '46

INSTITUTE of atomic research. See Iowa State college of agriculture and mechanic arts—Institute of atomic research

INSTITUTE of biology (proposed)
Biologists meeting to consider establishment of an Institute of biology, St Louis, March 28. Science 103:516 Ap 26 '46

INSTITUTE of British foundrymen
Annual meeting, Birmingham, June 19-21. Foundry 74:97+ Ag '46

INSTITUTE of ceramic engineers
President's report. T. A. Klinefelter. Am Cer Soc Bul 25:299-300 Ag 15 '46

INSTITUTE of cooking and heating appliance manufacturers
Annual meeting, 13th, Cincinnati, Dec. 3-5. Cer Ind 45:61 D '45

INSTITUTE of food technologists
Annual conference, 6th, Buffalo, March 17-20. Food Ind 18:663-6+ My '46; Chem & Eng N 24:1058-60 Ap 25 '46
Professional society of food technologists. Refrig Eng 50:545+ D '45

INSTITUTE of fuel
Annual luncheon, London, Oct. 17. Gas J (Lond) 246:560-1 O 24 '45
Annual reception, London, Oct. 9. Gas J (Lond) 248:678 O 23 '46

INSTITUTE of home office underwriters
Annual meeting, Chicago, Nov. 19-21. East Underw 46:3 N 23 '45; Nat Underw (Life ed) 49:4, 24 N 23 '45; Weekly Underw 153: 1230 N 24 '45
Annual meeting, Edgewater Park, Miss. Oct. 9-11. East Underw 47:18-19 O 11 '46; Nat Underw (Life ed) 50:1+ O 11 '46

INSTITUTE of industrial research, Syracuse, New York
Institute of industrial research at Syracuse. Chem & Eng N 24:846 Mr 25 '46

INSTITUTE of life insurance
Annual meeting, New York. East Underw 46: 36 D 14 '45; Nat Underw (Life ed) 49:1+ D 14 '45; Spectator (Life ed) 153:12-14 D '45; Weekly Underw 153:1437, 1438 D 15 '45
Institute takes over cooperative program of Life insurance companies in America. East Underw 47:1 My 10 '46; Nat Underw (Life ed) 50.6 My 17 '46
New board members. East Underw 46:5 D 21 '45

INSTITUTE of metals
Annual autumn meeting, 38th, London, Sept. 10-11. Engineer 182:250-1, 281-3, 295-7 S 20-O 4 '46; Engineering 162:281, 305-7, 329-30 S 20-O 4 '46
Annual meeting, London, March 13-14. Engineer 181:263-4, 284-6, 309-10 Mr 22-Ap 5 '46; Engineering 161:259, 280-1, 305 Mr 15-29 '46

INSTITUTE of paper chemistry. See Lawrence college—Institute of paper chemistry

INSTITUTE of petroleum
Annual report, 31st, 1944. Inst Pet J 32:45-54 Ja '46

INSTITUTE of polymer research
Summer laboratory clinics, 1946. Science 104: 12 Jl 5 '46

INSTITUTE of radio engineers
Address of retiring president. W. L. Everitt. Inst Radio Eng Proc 34 [Waves & Electrons 1]:195-7 Ap '46
Fall meeting, Rochester, Nov. 12-13. Electronics 19:222+ Ja '46
Organization chart and map showing boundaries of sections. Inst Radio Eng Proc 34 [Waves & Electrons 1]:insert [46Wa] Ja '46
Our new home. R. A. Heising. il Inst Radio Eng Proc 34 [Waves & Electrons 1]:78W-9W F '46
Report of the secretary, 1945. H. Pratt. Inst Radio Eng Proc 34:461-5 Jl '46
Winter technical meeting, New York, Jan. 23-26. Inst Radio Eng Proc 34 [Waves & Electrons 1]:149W-53W Mr '46; Electronics 19:92-108 Mr '46

Canadian council

Historical background of the Canadian council of the Institute of radio engineers. R. A. Hackbusch. Inst Radio Eng Proc 34 [Waves & Electrons 1]:54W-5W F '46

INSTITUTE of radio engineers proceedings (periodical)
Preparation and publication of I.R.E. papers. H. M. Stote. Inst Radio Eng Proc 34 [Waves & Electrons 1]:5W-9W Ja '46

INSTITUTE of refrigeration
First organization for advancement of mechanical refrigeration; A.S.R.E. announces affiliation with British society. Refrig Eng 51:414-15 My '46

INSTITUTE of scrap iron and steel
Annual meeting, 18th, Chicago. Steel 118:92-3 Ja 28 '46

INSTITUTE of the aeronautical sciences
Annual meeting, 14th, New York, Jan. 29-31. Aviation 45:42-3 Mr '46; Aeronautical Eng R 5:39-47+ Mr '46
Annual meeting, 14th, New York, Jan. 29-31; review of technical papers. il diags Aeronautical Eng R 5:5-25 Ap '46
Annual summer meeting, Los Angeles. Aeronautical Eng R 5:6-7 Ag '46
Honors night victory dinner, New York, Jan. 28. Aeronautical Eng R 5:20-32+ Mr '46
Institute honors and awards. Aeronautical Eng R 5:19-22 F '46
IAS lightplane meeting. Aero Digest 53:39+ S '46
National air transport meeting, 3d, Washington, D.C. Oct. 25. Aeronautical Eng R 4: 25+ D '45
New York building of the Institute. il Aeronautical Eng R 5:19-27 My '46

INSTITUTION of chemical engineers
Annual meeting, 24th, London, April 12; election of officers; president's address. Chem Age (Lond) 54:423-6 Ap 20 '46

INSTITUTION of electrical engineers
Annual report. Elec R (Lond) 138:728 My 10 '46; Electrician 136.1234 My 10 '46

INSTITUTION of electrical engineers—*Cont.*
I.E.E. centre chairmen; biographies. Elec R Lond 139:365, 455-6 S 6, 20 '46
Report of the Council for the year 1945-46. Inst E E J 93 pt 1:205-30 My '46

INSTITUTION of gas engineers
Annual meeting, 83d, London, June 4-6. Gas J (Lond) 247:961-5; 248:25-6, 68, 118+ Je 12, Jl 3-17 '46
Autumn research meeting, 11th, London. Gas J (Lond) 246:802-4+ D 5 '45
Presidential address. C. M. Croft. Gas J (Lond) 247:924-6 Je 5 '46
Report of the chairmen's technical committee, 1944-45. Gas J (Lond) 246:758-60 N 28 '45

INSTITUTION of mechanical engineers
Annual meeting, 99th, March 22. Engineer 181:289-90 Mr 29 '46 (to be cont); Engineering 161:306-8 Mr 29 '46
Annual report. Engineer 181:291-3 Mr 29 '46

INSTITUTION of metallurgists
Inaugural meeting. Chem Age (Lond) 53:517 D 1 '45

INSTITUTION of naval architects
Annual meeting, London, April 10. Engineer 181:334, 363-5, 385-7, 399-401, 421-4 Ap 12-My 10 '46; Engineering 161:352-3, 376-7, 402-3, 425-6, 449-50, 473-5, 498-9, 520-2, 532-3 Ap 12-Je 7 '46

INSTITUTIONAL market
Pattern for selling hotels, restaurants and other institutions. C. D. Murphy. Ptr Ink 213:92+ N 23 '45
School market indicated need for many products. J. Jackson. Dom Comm 34:47-9 S '46

INSTRUCTION cars. See Cars, Instruction

INSTRUCTION in use of product
Remington Rand runs tabulating school for government employes. Sales Management 56:100 Mr 15 '46
War-born techniques in training manuals; methods used in 18 instruction books produced by the Sharples corporation for the navy. W. D. Lindsey. il Ptr Ink 214:24-5+ F 8 '46

INSTRUCTION manuals
Company manuals promote good will and coordination in the chemical industry. W. von Pechmann. Ind & Eng Chem 37:sup103-4 N '45
Coordinated maintenance manuals. K. Cook. il diags Bus Transportation 25:86-90 Je '46
Perhaps you can use a technical manual; spreading technical information not covered by catalogs, sales pamphlets, etc. F. Stalnaker. il Ptr Ink 214:34+ Mr 15 '46
War-born techniques in training manuals; methods used in 18 instruction books produced by the Sharples corporation for the navy. W. D. Lindsey. il Ptr Ink 214:24-5+ F 8 '46
Working formula for technical manuals; design specialists revamped literature. G. Cushing. il diag Ind Marketing 31:44+ S '46

INSTRUCTIONS
Combined drawing and instruction sheet. G. Cavern. Am Mach 90:111 O 24 '46
How to get your ideas across. J. F. Blair. Am Bsns 15:8-9+ D '45

See also
Employees' manuals
Safety instructions and training

INSTRUMENT dials. See Dials, Instrument

INSTRUMENT society of America
First annual conference, Pittsburgh, Sept. 16. Chem & Eng N 24:2610-11 O 10 '46; Ind & Eng Chem 38:sup 79-80 N '46
Instrument society of America sponsors education in the field of instrumentation. R. H. Munch. Ind & Eng Chem 38:sup77-8 F '46

INSTRUMENTS
Automatic instruments. F. Smith. Chem Age (Lond) 53:391-2 O 27 '45
Current developments in instrumentation in analysis. R. H. Müller. Ind & Eng Chem Anal ed 18:sup21-2 Ja '46 [cont monthly]
Design of instrument-air-supply system for the process industry. W. C. Ludi. diag Pet Refiner 25:94-8 O '46; Abstract. Power 90:763 N '46
Equipment advances 1944-45; instrumentation and process control. O. E. Barstow. il diag Chem Ind 57:860-1 N '45
Experience with instruments and control equipment for 2000-psi boiler at Somerset station of Montaup electric company. W. D. Bissell and E. B. Powell. il diags A S M E Trans 68:453-66 My '46; Excerpts. Power Pl Eng 50:83-4+ Ja '46
First national meeting of I.I.R. division marks milestone in A.S.M.E. growth. Mech Eng 68:1013-15 N '46
Instrument society holds conference. Chem & Eng N 24:2610-11 O 10 '46
Instrumentation and process control, 1945. H. A. Knight. Materials & Methods 23:151-2 Ja '46
Instrumentation and techniques used in testing gas turbines at Annapolis. C. F. Kottcamp. Marine Eng 51:120-1 My '46
Instrumentation in analysis. R. H. Müller. Ind & Eng Chem Anal ed 18:sup29-30 Mr '46
Instrumentation in pulp and paper mills. J. N. Franklin. il plan Paper Tr J 123:56-62 Jl 18 '46
Instrumentation of soaking pits. J. P. Vollrath. diags Blast F & Steel Pl 33:1391-3 N '45
Instrumentation studies; determination of the bonding strength of paper. il diags Paper Tr J 123:24+ O 31; 24+ N 7 '46
Instrumentation studies; penetration of papers by water vapor. bibliog il diags Paper Tr J 116:11-15 Ap 8; 10-13 Je 10; 16-19 Je 17; 117:12-15 Jl 1 '43; 118:23-31 Ja 13 '44; 121:68+ S 27; 33-42 O 18 '45; 122:35-44 Ja 3; 37-42 F 7; 41-6 F 21 '46
Instrumenting the fractionator for a catalytic cracking unit. flow diag Pet Processing 1:52-4 S '46
Instruments for testing aircraft. il Engineering 160:396-7 N 16 '45
Instruments in the analytical laboratory; past, present and future. C. L. Wilson. il diag Chem Age (Lond) 54:445-9 Ap 27 '46
New equipment; shop and laboratory instruments. il Iron Age 157:61-4 My 16 '46
New equipment; testing and measuring instruments. il Iron Age 158:71-4 O 17 '46
Permanent storage of delicate war equipment and instruments. Mach 52:187 D '45
Review of power and mechanical equipment; meters, controls and instruments. il diags Power 89:886-92 Mid-D '45
Revised gear-blank tolerances cut costs. K. E. Bauerle. diags Am Mach 89:132-5 N 22 '45
Selection and application of refinery instruments. A. Krieg. il plan diags Pet Eng 17:120+ Ja; 74+ F; 93-4+ Mr; 164+ Ap; 108+ My; 120+ Je; 64+ Jl; 114+ Ag '46
Selection, installation and maintenance of refinery process control instruments. E. Bainbridge. diags Pet Refiner 25:101-8 Mr; 155-60 Ap '46
Texas A. & M. holds first short course on instrumentation. R. B. Tuttle. Oil & Gas J 45:67+ S 14 '46
Two instrumentation texts by Taylor instrument companies are reviewed. R. H. Munch. Ind & Eng Chem 38:sup77-8 Ag '46
2000-psi forced-circulation boiler at the Somerset station of Montaup electric co.; experience with instruments and control equipment. W. D. Bissell and E. B. Powell. il diag Power Pl Eng 50:83-4+ Ja '46
Watch and instrument threads; tables; reference book sheet. Am Mach 90:155+ My 23 '46
Well-chosen alarm and shutdown instruments guard life and equipment. C. S. Beard. il diags Power 90:310-13, 366-7 My-Je '46

See also
Aeronautic instruments
Balances
Control equipment
Dynamometers
Electric instruments
Integrators
Magnetic instruments
Measuring instruments
Medical instruments and apparatus
Nautical instruments
Optical instruments
Radio instruments
Radio meteorographs

INSTRUMENTS—See also—*Continued*
Recording instruments
Scientific apparatus and instruments
Stroboscopic instruments
Surgical instruments and apparatus
Taylor instrument companies

Exhibitions

North-east coast exhibition of engineering inspection and scientific equipment. il Engineer 181:175-7 F 22 '46

Maintenance and repair

Classroom plus on-the-job training pays its way in instrument course; Baton Rouge refinery. D. P. Thornton, jr. il Pet Processing 1:136-9 O '46

How to organize instrument maintenance and repair department. A. Krieg. il Nat Pet N 38 pt 2:R113+ F 6 '46

One boss for the instruments; special division of Baytown plant of Humble handles installation, maintenance and repair. D. P. Thornton, jr. il Nat Pet N 38 pt 2:R329-32 My 1 '46

Selection and application of refinery instruments; instrument department. A. Krieg. plan Pet Eng 17:64+ Jl; 114+ Ag '46

Manufacture

Practical precision in miniature; Hamilton Watch, American Bosch, and Kollsman Instrument reveal secrets involved in drilling 0.004-in. holes and tapping 0.008-in. ones. H. S. Wharen. il diags Am Mach 90:103-7 My 23 '46

Scope of maintenance function unusually broad here; Kollsman instrument division of Square D. company. J. E. Hitlin. il Factory Management 104:152-5 S '46

Study and teaching

Servomechanisms courses; their pedagogic value. D. P. Campbell. J Eng Educ 36:426-33 Mr '46

INSTRUMENTS, Aeronautic. See Aeronautic instruments

INSTRUMENTS, Measuring. See Measuring instruments

INSTRUMENTS, Negotiable. See Negotiable instruments

INSTRUMENTS, Recording. See Recording instruments

INSULATING bushings. See Bushings, Insulating

INSULATING cotton. See Cotton, Insulating

INSULATING materials

Cement plant generator failures cut by fiberglas insulation. il Concrete (mill sec) 53: 142 N '45

Electrical insulating materials; a symposium. W. C. Goggin and others. il diags Ind & Eng Chem 38:1090-129 N '46

Electrical insulating materials; power factor-temperature characteristics and dielectric constant (S.I.C.); tabulation. Elec World 125:126 F 16 '46

Factors which influence serial cable design and operation; discharge current of Okoprene; abstract. R. J. Wiseman. diag Elec World 124:112 N 24; 88 D 22 '45

German insulating material overcoming the mica shortage. Chem Age (Lond) 53:597-8 D 22 '45

German synthetic insulation for wire and cable. India Rubber World 113:219-21+ N '45

Impregnated glass substitute for mica as insulation between commutator segments. Elec World 125:83-4 F 2 '46

Inside of electrical machines. R. H. Robinson. il diags Electrician 136:1085-8, 1239-43, 1371-4, 1515-18, 1659-63; 137:41-4, 169-72, 314-17, 447-50, 586-9, 787-91, 925-8, 1055-9 Ap 26, My 10, 24, Je 7, 21, Jl 5, 19, Ag 2, 16, 30, S 20, O 4, 18 '46

Melamine glass-cloth laminates properties and machinability. P. C. Fuller. il Product Eng 17:142-5 F '46

Mica and micanite. W. B. Robertshaw. Inst E E J 92 pt 1:415 N '45

Mineral-insulated metal-sheathed conductors. F. W. Tomlinson and H. M. Wright. il Inst E E J 93 pt 2:325-35 Ag '46; Abstracts. Electrician 135:674 D 14 '45; Engineering 161:31 Ja 11 '46; Discussion. Inst E E J 93 pt 2:336-40; 94 pt 2:84-91 Ag '46, F '47; Electrician 135:708-10 D 21 '45; Elec R (Lond) 137: 936-7 D 28 '45

Modern switchgear. R. N. Buttrey. il Electrician 137:236-40, 457-60 Jl 26, Ag 16 '46

New dielectric and insulating materials in radio engineering; discussion. Engineering 161:571 Je 14 '46; Electrician 136:1519-20 Je 7 '46; Engineer 181:519 Je 7 '46

New electrical materials. A. E. L. Jervis. bibliog il Electrician 137:383-6, 793-7, Ag 9, S 20 '46

Plastic material for protection and insulation. il Gen Elec R 49:48 S '46

Plastic tubing insulation for anodizing tank. W. G. Nutzel. Elec World 126:112 S 14 '46

Plastics and the electrical industry. P. R. S. Gibson. bibliog il diags Electrician 137:443-5, 517-20, 582-5, 649-52 Ag 16-S 6 '46

Promise of synthetics as wire and cable insulations. R. B. McKinley. Elec World 124: 52-5 D 22 '45

Recent developments in dielectric materials. W. Jackson. Engineer 182:344 O 18 '46

Review of plastic materials; with tabulated physical and electrical properties, trade names, manufacturers, etc. H. L. Brouse. bibliog Inst Radio Eng Proc 33:825-34 D '45

Silicone insulation. C. E. Kilbourne. il Machine Design 18:109-13 Ag '46

Silicone insulation for high temperatures. Mach 52:173 Je '46

Survey of ceramic insulating materials. J. Gingold. Cer Ind 46:72+ Mr '46

See also
Cotton, Insulating
Glass—Electric properties
Glass fibers
Insulating oil
Mica
Paper, Insulating
Polythene
Resinous products—Insulating materials
Steatite
Varnish, Insulating

Standards

A.S.T.M. standards on electrical insulating materials (with related information); specifications methods of testing. 545p il diags pa $3.25 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '45 [issued annually]

Recommendations affecting standards on electrical insulating materials. diags Am Soc T M Proc 45:283-91 '45

Testing

A.S.T.M. standards on electrical insulating materials (with related information); specifications methods of testing. 545p il diags pa $3.25 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '45 [issued annually]

Proposed methods of testing askarels. diags Am Soc T M Proc 45:292-301 '45

Q-meter for dielectric measurements on polyethylene and other plastics at frequencies up to 50 megacycles. A. P. Wangsgard and T. Hazen. il diags Electrochem Soc Trans 90 (preprint 11):177-91 '46

Report of Committee D-9 on electrical insulating materials. Am Soc T M Proc 45: 275-82 '45

See also
Insulating oil—Testing

INSULATING oil

Advantages of systematic insulation testing studied; Doble engineering co. conference. Elec World News ed 125:7 F 9 '46

Conductometric investigation of electrolytic solutions in hydrocarbons. A. Gemant. bibliog J Chem Phys 14:424-34 Jl '46

Contribution of the E.R.A. to international research on transformer oils. P. W. L. Gossling and A. C. Michie. Inst Pet J 32: 356-64 Jl '46

Influence of the concentration and mobility of ions on dielectric loss of insulating oils. Bun Po Kang. bibliog Elec Eng 65:Trans 403-7 Jl '46

Insulating oils reclaimed by triple filtration. diag Elec World 125:138 My 25 '46

INSULATING oil—*Continued*
Observations of a supply engineer; transformer oil acidity on rural lines. A. Kelso. diags Inst E E J 93 pt 1:84-6 F '46; Abstract. Elec R (Lond) 137:585 O 26 '45
Purification of insulating oils; Hopkinson centrifugal purifier. diag Electrician 136: 1095-6 Ap 26 '46
La régénération des huiles usagées; ses techniques; ses possibilités en France. P. Sturnemann. Chimie & Ind 55:96-105 F '46
Research on transformer oils; abstracts of papers at meeting of the Institute of petroleum. Engineering 161:379-80 Ap 19 '46
Symposium on transformer oils. bibliog diags Inst Pet J 32:356-433; Discussion. 434-64 Jl '46
Temperature rise of water-cooled power transformers. J. R. Meador. Elec Eng 65: Trans 18-21 Ja '46; Same. Gen Elec R 49: 55-9 Ap '46
Thermal characteristics of transformers. V. M. Montsinger. Gen Elec R 49:31-40 My; 32-6 Jl '46

Manufacture

Some developments in the refining of transformer oils J. C. Wood-Mallock. bibliog Inst Pet J 32:365-81 Jl '46

Testing

Insulation tests of induction regulators. J. C. Parker. Elec World 126:68-9 Jl 20 '46
Oil testing. C. H. Pike. bibliog il Elec R (Lond) 138:10-13 Ja 4 '46
Oxidation testing of transformer oils. W. G. Horsch. bibliog Elec World 126:54-7 Ag 3; 72-4 Ag 17; 56-9 Ag 31 '46
Oxidation tests for transformer oil. A. A. Pollitt. Inst Pet J 32:414-23 Jl '46
Report on results of questionnaire to utilities relating to tests on transformer oil in service. Am Soc T M Proc 45:302-9, fold pl 5 '45
Sludge test for transformer oils. C. H. Barton. Inst Pet J 32:408-13 Jl '46
Sludging value of transformer oil; influence of condenser water temperature. P. W. L. Gossling and J. Romney. diag Inst Pet J 32:424-33 Jl '46

INSULATING tape
Inside of electrical machines. R. H. Robinson. il diags Electrician 136:1659-63 Je 21 '46

INSULATING varnish. See Varnish, Insulating

INSULATION (electric)
Behavior of red fir poles for 11-kv lines under electrical stress due to insulator failure. W. Lethersich. Inst E E J 93 pt 2:387-93 Ag '46
Co-ordination of insulation and spacing of transmission line conductors. W. W. Lewis. bibliog diags Elec Eng 65:690-4 O '46
Dielectric heat used in molding insulation for transformers. W. C. Sealey. il diag Elec World 126:88 Jl 20 '46
Dielectric strength and protection of modern dry-type air-cooled transformers. P. L. Bellaschi and E. Beck. il diags Elec Eng 64:Trans 759-63 N '45
Factors affecting insulation resistance of large d-c machines. J. S. Johnson and C. Weil. Elec Eng 65:Trans 705-10 N '46
Faster varnishing; Zanderoll process for coating of armatures and stators. il Bsns W p58-9 D 8 '45
Fibrous glass in the power plant. H. R. Hogendobler. il Power Pl Eng 50:88-90+ Jl '46
High-voltage research at the National physical laboratory; insulation of a transmission system. R. Davis. diags Engineer 180:412-13 N 23 '45; Same. Inst E E J 93 pt 1: 182-4 Ap '46
How to identify insulator position on electrical supply lines. diags Elec World 126:98 Jl 20 '46
Insulation of molded pulp; development of a fiber-molding process; General electric company. Comp Air Mag 51:51 F '46
Methods of removing the insulating film from Formex wire. E. J. Flynn and G. W. Young. il Gen Elec R 49:8-15 Je '46
Protection of industrial plants against insulation breakdown and consequential damages. H. R. Vaughan. bibliog diags Elec Eng 65:Trans 592-6 Ag-S '46
Strain insulator balls reclaimed at less than $0.08 each. R. S. Pierce. il Elec World 125: 108 Mr 16 '46
Strain insulator effect in substation span sags. J. R. Stover. Elec World 126:62-3 Jl 6 '46
Use of liquid dimethylsilicones to produce water-repellent surfaces on glass-insulator bodies. O. K. Johannson and J. J. Torok. bibliog il Inst Radio Eng Proc 34: 296-302 My '46

See also
Dielectrics
Electric resistance
Insulating materials
Insulating oil
Potheads

Testing

Comparison of mineral pigments in GR-S. R. E. Morris and others. il diag Rubber Age 58:331-7 D '45
High voltage d-c testing of rubber insulated wire. W. N. Eddy and W. D. Fenn. Elec Eng 65:Trans 576-8 Ag-S '46
How to megger large multi-section pin type insulators. J. Lezotte. il diag Elec World 126:76 Ag 31 '46
Insulation resistance; Forrest test set. J. M. Goodall. il diag Electrician 136:407-9 F 15 '46
Insulation tests may be misleading. J. B. Mullins. Power 90:622 S '46
Insulation tests of induction regulators. J. C. Parker. Elec World 126:68-9 Jl 20 '46
Measuring d.c. insulation resistance and capacitance. L. H. Hutchins, jr. il diags Elec World 126:64-5 Jl 6 '46
Meter insulation tester has safety feature. F. H. Rogers. il Elec World 126:89 Jl 20 '46
Suspension insulators tested by simple, low-cost set-up. P. M. Ross. il diag Elec World 124:120-1 N 10 '45
Thermal characteristics of transformers. V. M. Montsinger. Gen Elec R 49:32-5 Ap '46

INSULATION (heat)
Arena floor is insulated with mascrete; Boston arena. C. Stiles. il Concrete 54:22-3 Ap '46
Care and upkeep of heat insulation. U. W. Smith. il Power Pl Eng 49:87-9 D '45
Check insulation for better fuel utilization; U.S. Bureau of mines quiz sheet. Heating-Piping 18:105-6 My '46
Check your insulation for better fuel utilization. Heating-Piping 18:94-5 Ap '46
Comfort bonus of insulation. il Heat & Ven 43:89-92 Ap '46
Corkboard insulation. diag Marine Eng 51: 134 My '46
Economics of insulation. F. B. Rowley and R. C. Jordan. plan charts Dom Eng 167: 140-3 Ja '46
Effect of moisture on thermal conductivity of limerock concrete. M. Tyner. bibliog il diags Am Concrete Inst J 18:9-18 S '46
Fibrous glass in the power plant. H. R. Hogendobler. il Power Pl Eng 50:88-90+ Jl '46
Heat and ventilation in the design of dairy stables. J. L. Strahan. il diags Heat & Ven 43:81-8 Ja '46
Importance of insulation; a means of reducing purchaser's carrying charges. W. Royce. Banking 38:69 Je '46
Influence of an interior coating of aluminum paper on internal thermal conditions and heat economy. R. J. Lorenzi and others. Heating-Piping 18:109-14 Ap '46
Insulating window; multi-glazed with sealed inter-pane space. il Sci Am 175:130 S '46
Insulation in the portland cement industry; rotary cement kilns. R. A. Witschey. diags Am Cer Soc Bul 25:49-51 F 15 '46
Insulation of continuous glass tanks and other glassmaking equipment; abstracts. W. R. Kerr. Cer Ind 46:76+ Je '46; Glass Ind 27:287 Je '46
Keeping the heat in; magnesia, mixed with asbestos fibers. il Sci Am 174:122+ Mr '46
Lightweight fiberglas insulation. il Ry Age 121:98 Jl 20 '46
New A.S.H.V.E. program to provide more accurate and dependable values of thermal conductivity for insulating materials. Mech Eng 68:570 Je '46
New lightweight insulating material; Foamboard. Comp Air Mag 51:141 My '46

INSULATION (heat)—*Continued*
Paper machine dryer head insulation. J. T. MacDonald. Pulp & Pa of Can 47:85-6 Ag '46
Pittsburgh Plate develops new type double-glazed windows. il Cer Ind 47:55 Ag '46
Portland contractor builds uniquely successful insulation business. il Am Bld 68.82-3 Ag '46
Preventing wasteful heat losses with pipe and boiler insulation. il Dom Eng 168:134-5+ Jl '46
Principles of house insulation. J. A. Hill. il Elec West 95:76-8 N '45
Reducing heat loads in industrial air conditioning; manufacture of vacuum tubes; RCA Victor division of Radio corporation of America. L. R. St Onge. il diags Refrig Eng 51:35-8; Discussion. 38+ Ja '46
Reflective insulation under wooden floors. Heat & Ven 43:75 Je '46
Roof insulation application; thermal insulation switched to outside of concrete vault to avoid internal condensation. il diags Arch Forum 84:169 Ja '46
Service test of cotton-insulated car. il Ry Mech Eng 120:420-1 Ag '46
Styrofoam, new thermal insulation. O. R. McIntire and D. W. McCuaig. il Refrig Eng 52:217-20+ S '46
Surfacing techniques for thermal insulation on hot and cold pipes and ducts. E. T. Cope. il diags Heating-Piping 17:513-18 O-N '45
Swedish insulant offers useful properties; Isoflex, corrugated foils of cellulose acetate. T. M. Elfving. il diag Refrig Eng 52: 311-13 O '46
Tank insulation job that will pay for itself in two years; Flintkote asphalt tanks. A. W. Kalkhoff. il Factory Management 104: 107 S '46
Thermal insulations in industry; development of magnesia insulation. Paper Ind 28:96 Ap '46
28 ways to use insulating board. il diags Am Bld 68:92-3 My '46
Unique hangar built for army test work; to permit largest army aircraft to be tested at extreme temperatures. il diag Eng N 137:28-32 Jl 11 '46

See also
Building—Heating aspects
Fire brick
Glass, Heat absorbing
Glass fibers
Mineral wool
Refractory materials
Steam pipe coverings

Testing

Initiates program to determine values of thermal conductivity; committee on research of American society of heating & ventilating engineers. Iron Age 157:160-1 My 23 '46
Thermal conductivity, expansion and specific heat of insulators at extremely low temperatures. G. B. Wilkes. il diags Refrig Eng 52:37-42 bibliog(p42); Discussion. 42+ Jl '46
Thermal conductivity of insulating materials at low mean temperatures. F. B. Rowley and others. il Refrig Eng 50:541-4 D '45; Discussion. 51:47+ Ja '46

INSULIN
Antibacterial activity of protamine zinc insulin. C. H. Bollenback and S. W. Fox. Science 103:445-6 Ap 12 '46
Fibrous modification of insulin; the heat precipitate of insulin. D. F. Waugh. bibliog il Am Chem Soc J 68:247-50 F '46

INSURABLE interest
Clarification needed in insurable interest laws. R. H. Hollenberg. Nat Underw (Life ed) 49:6+ D 21 '45
Colliery's victory over West Virginia school board reversed. Nat Underw 49:8 D 20 '45
Insurable interest of assignees. D. C. Davis. Nat Underw (Life ed) 49:3+ D 14 '45
Texas insurable interest rule applies even though policy taken out in Michigan; divorced wife as named beneficiary. Nat Underw (Life ed) 49:8 D 21 '45
West Virginia colliery pursues school board litigation. Nat Underw 50:4 Ja 17 '46
What constitutes insurable interest? J. D. Renn. Nat Underw (Life ed) 50:5+ O 11 '46

INSURANCE
Half century of insurance progress; address before Hemispheric conference. S. S. Huebner. East Underw 47:12-13 My 17 '46; Excerpt [English and Spanish]. Weekly Underw 154:1272-3+ My 18 '46
Insurance speaks universal language; address at Hemispheric conference. [English and Spanish versions]. H. Brown. Weekly Underw 154:1279-80 My 18 '46
Is insurance competitive? C. G. Hale. Spectator (Property ed) 11:10-11+ Je 27 '46
Perspectives and horizons; review of the year. C. G. Hale. Spectator (Life ed) 153: 10-14+ Ja '46; Same. Spectator (Property ed) 11:10-15 Ja 10 '46
Report to NAIC. J. M. McCormack. East Underw 46:18+ D 7 '45; Abstract. Nat Underw 49:5+ D 6 '45; Same. Nat Underw (Life ed) 49:3+ D 7 '45
U.S. Chamber declares its policy on many insurance questions. East Underw 47:1+, 25 Je 21 '46; Excerpts. Nat Underw 50:2 Je 20 '46; Nat Underw (Life ed) 50:2 Ag 2 '46
Unprecedented growth ahead. J. W. Randall. East Underw 46:4 N 30 '45; Same. Weekly Underw 153:1249+ D 1 '45
What's ahead in coverages; abstract. P. H. Williams. Management R 34:452-4 N '45

See also
Atomic bombs—Insurance aspects
Benefit societies
Building—Insurance aspects
Contracts, Government—Insurance aspects
Finance companies—Insurance selling
Insurance companies and other subjects beginning Insurance
Pension trusts
Surplus products—Insurance aspects
War damage corporation

also subdivision Insurance requirements under various subjects, e.g.
Banks and banking
Department stores
Farmers
Hotels
Plastic industries
Vending machines
Wool trade

also American management association—Insurance division; Chamber of commerce of the United States—Insurance department

Accounting

Audit of insurance. S. Chan and J. S. Miller. J Account 80:444-8 D '45; Abstracts. East Underw 47:33 F 22 '46; Management R 35: 136-7 Ap '46

Adjustment of claims

Adjusting key to public relations; abstracts. F. Van Orman. Nat Underw 50:26+ Je 13 '46; East Underw 47:37 Je 14 '46
Agents can help stop unfair settlements. H. D. Combs. Nat Underw 50:34 My 16 '46
Agents told how they can help make loss adjustments build good will. J. B. Quisenberry. East Underw 47:28 N 1 '46; Abstract. Nat Underw 50:2 O 31 '46
Analyzes terms, good and bad faith; liability beyond policy limits. R. A. Smith. East Underw 46:34 D 21 '45
Black market costs do not figure in value. Nat Underw 50:26 O 3 '46
Declaratory judgments; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:32-3 Ap 25 '46
Delayed notice of loss or accident; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:30-1 D 6 '45
Explaining policy coverage helps to avoid unsatisfactory adjustments. F. E. Tidwell. East Underw 46:18 N 30 '45
Fraud and mistake in insurance contracts; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:30-1 N 22 '45
Greatest public relations opportunity lies in revision of loss adjustments. H. Brown. East Underw 46:24 N 16 '45
How agent can make adjuster's job simpler. N. Fullington. East Underw 47:30+ S 27 '46
Messages of current practical significance at N.A.I.A. adjusting panel. H. N. Fullington and others. Nat Underw 50:18+ S 26 '46
Public relations and claim men. D. Porter. Weekly Underw 155:444-5 Ag 24 '46
Questions and answers in the adjusting field. C. W. Tierney. Nat Underw 50:4+ Jl 11 '46

INSURANCE—Adjustment of claims—*Cont.*
Review of 1945 insurance decisions. L. T. Parker. Rough Notes 89:17-18 F '46
Review of some recent insurance law suits. L. T. Parker. East Underw 47:3+ Ag 30 '46
Strive to rid field of causes of friction with public; abstracts. H. D. Combs. Nat Underw 50:16 Ja 24 '46; East Underw 47:38 F 22 '46

See also
Insurance adjusters
International claim association
National association of independent insurance adjusters

also subdivision Adjustment of claims under special subjects, e.g. Insurance, Fire—Adjustment of claims

Loan receipts

Loan receipt is held valid and not subterfuge by insurance company. East Underw 47:34 Je 14 '46

Advertising

How to improve trade press. R. E. Richman. East Underw 47:24 My 24 '46
Increased use of comic technique in insurance ads. Nat Underw (Life ed) 50:13 My 3 '46
Points on insurance advertising. E. R. Hurd, jr. Nat Underw 49:12 N 22 '45
What money means to a woman. B. Kidd. Ptr Ink 215:37-8+ My 17; 61+ My 24 '46

See also
Insurance, Casualty—Advertising
Insurance, Fire—Advertising
Insurance, Life—Advertising
Insurance advertising conference
Insurance agents—Advertising
Insurance companies—Advertising

Bibliography

Digest of insurance literature; index of articles in current periodicals. W. Hay, comp. Weekly Underw 154:536 F 23 '46 [cont weekly]
Insurance, miscellaneous types. (Business literature v. 18, no. 10) p45-6 Business library, Newark public lib, Newark, N.J. Je '46

Binders

Agent's authority to bind orally held the custom in New Hampshire. East Underw 47:34 O 11 '46
Reliance on general custom wins for plaintiff in New Hampshire case; agent's oral binder. Nat Underw 49:35 D 13 '45

Cancellation

See also
Insurance, Fire—Cancellation

Claims

See Insurance—Adjustment of claims

Coinsurance

Allyn warns about cost construction; Connecticut commissioner urges property owners to protect increased values. Weekly Underw 154:11 Ja 5 '46
Examples of coinsurance penalties; tabulation. Rough Notes 89:38 Mr '46
Penalty in co-insurance is created by inflation. Inland Ptr 116:68 O '45

See also
Insurance, Fire—Coinsurance

Collecting of premiums

See Insurance—Premiums, Payment of

Coverage

North America agents back all-risk moves; installment selling views; ideas on auto and aviation coverage. East Underw 47:30 Jl 5 '46
Package policy has much to recommend it. W. M. Sidebotham. Weekly Underw 154:30-1+ Ja 5 '46
Spectator insurance survey-register; new system devised by T. A. Riley. Spectator (Property ed) 12:14-17+ S 12 '46

Credit aspects

Credit aspects of insurance; questions and answers presented at New York forum. S. Romolo and others. Credit & Fin Management 48:23-4+ Ja '46
Credit men in key spot to ask more insurance. H. E. Taylor. Nat Underw 50:5 O 24 '46
Insurance forum for credit men, New York credit men's association. J. S. Daniel. East Underw 46:90+ D 14 '45
Series of bulletins prepared for credit men by scope and program committee of NACM insurance group. East Underw 47:36 F 15 '46

Direct selling

Cross-counter insurance pays off; Liberty Mutual expands retail selling. B. Moore. il Sales Management 56:45-6+ Ap 1 '46

Employees' insurance

Abbott laboratories medical care. Ind Med 15:sup38+ F '46
Modern employee protection plan. Management R 35:101 Mr '46
Pension, disability changes in Bell Telephone plans. East Underw 47:15 Mr 15 '46

See also
Insurance, Group—Employees' insurance
Insurance, Health—Employees insurance
Insurance, Life—Employees' insurance
Pension trusts
Pensions, Industrial

Fraudulent statements

See also
Insurance, Life—Fraudulent statements

Government policies

Comprehensive insurance rating plan met needs of government. G. E. Peterson. East Underw 46:84 D 14 '45
N.A.I.A. seeks to keep navy ships store cover at local level. Nat Underw 50.3+ N 7 '46

See also
Contracts, Government—Insurance aspects

Hemispheric conference

See Hemispheric insurance conference

International aspects

Chamber insurance group eyes foreign questions; Latin American coverage matters and another hemispheric rally considered. Nat Underw 50:21+ S 19 '46; Same abr. Nat Underw (Life ed) 50:2 S 20 '46
Italian insurance debated in Paris; competitive gains sought. East Underw 47:16 Ag 16 '46
Make war on international insurance curbs. W. Willoughby. Nat Underw 50:4 Jl 25 '46

See also
Hemispheric insurance conference
Insurance, Life—International aspects
Insurance companies—Foreign branches (in the United States)
Insurance companies—Foreign business
United States—International trade, Office of—Insurance division

Law

See Insurance agents—Law; Insurance law

Losses

Manhattan Company building insured for plane crash. Nat Underw 50:1+ My 23 '46
Western Adjustment '45 loss record tells sad story. Nat Underw 50:2+ Ja 31 '46
Worst commercial airline crash; Overseas Airline liability on 31 passengers is under Warsaw convention. Nat Underw 50:25 O 10 '46

Mail order selling

Ex-partners feud; mail-order insurance. Bsns W p32 Jl 13 '46

INSURANCE—Mail order selling—*Continued*
Mail order transaction comprises doing business in South Carolina, U.S. court holds. Nat Underw (Life ed) 50:22 Mr 22 '46; Same. Nat Underw 50:22 Jl 11 '46

Mathematics

Mortality: people and property. H. M. Gault. Spectator (Life ed) 153:19-23+ My; 25-7+ Je; 154:30-2+ Jl '46

See also
Insurance, Life—Mathematics

Periodicals

Analysis of insurance trade press. M. Divver. East Underw 46:6 N 16 '45

See also
Insurance, Life—Periodicals

Policies

Insurance to value; all policies should be reviewed now. Credit & Fin Management 48:11 O '46

Package policy has much to recommend it. W. M. Sidebotham. Weekly Underw 154:30-1+ Ja 5 '46

Polio insurance; athletes' accident coverage. Bsns W p41 O 12 '46

Special all-risk policy developed for contact lenses. Nat Underw 50:6 N 7 '46

Time element endorsement

See also
Insurance, Use and occupancy—Time element endorsement

Premium financing

Chase national bank enters premium loan field in New York. East Underw 47:30 Ap 19 '46

Premiums, Payment of

Initiates budget plan for family insurance; Employers' group action. East Underw 46:36 N 16 '45

Resolved: a good collection system next year. R. J. Layton. Rough Notes 88:26+ D '45

Premiums, Recovery of

See also
Insurance, Fire—Premiums, Recovery of

Preventive work

Booklet On guard tells how insurance helped to protect U.S. industry; work of National bureau for industrial protection. East Underw 47:21 Mr 8 '46

Protection committee holds final meeting; national government aided by safeguarding of industrial property. H. V. Smith. East Underw 47:20 Mr 29 '46; Excerpt. Nat Underw 50:12 Mr 28 '46

Stock co. executives in highway safety conference called by President Truman. East Underw 47:32 Mr 29 '46

Prospects

Successful telephone prospecting. A. M. O'Connell. Nat Underw 49:13 N 22 '45

Torrent of names keeps this agency clicking. A. M. O'Connell. Nat Underw 50:17+ S 19 '46

Wage earners deserve more sales attention. W. L. Ferguson. Weekly Underw 154:1144+ My 4 '46; Abstract. Nat Underw 50:11 My 2 '46

See also
Insurance, Accident—Prospects
Insurance, Fire—Prospects
Insurance, Life—Prospects

Public attitude

Public's opinion of insurance industry; abstracts. R. G. Engelsman. East Underw 47:8 Je 21 '46; Nat Underw (Life ed) 50:2+ Je 21 '46

What's wrong with insurance. W. W. Clement. Spectator (Property ed) 12:14-15 Jl 11 '46

Purchasing

Buyer tells requirements in selection of insurers. W. B. McIlhinney. Nat Underw 49:28 N 15 '45

Buyers' forum. Spectator (Property ed) 11:26-7+ N 22; 38 D 20 '45

California city, Monrovia, surveyed potentials; study revealed possibilities of additional insurance premiums in postwar era. H. J. Ashe. Spectator (Property ed) 11:26-7 F 28 '46

Collier's survey of insurance shows interesting facts. Nat Underw 50:16 My 2 '46

Insurance forum for credit men, New York credit men's association. J. S. Daniel. East Underw 46:90+ D 14 '45

Insurance from desk of buyers. R. S. Bass. Weekly Underw 153:1265-8+ D 1 '45; Excerpts. Management R 35:67-8 F '46; Abstract. Nat Underw 49:1 N 22 '45

Large insurance buyer outlines duties of his position. L. H. Wiggers. East Underw 47:28 My 17 '46

N.A.I.A. seeks to keep navy ships store cover at local level. Nat Underw 50:3+ N 7 '46

Producer is worth what he costs, buyer testifies. W. J. Wiley. Nat Underw 50:3+ F 21 '46

Special rating basis for big risks vital; large buyers won't pay standard premium. E. L. Clark. Nat Underw 50:19+ Je 27 '46

Stresses learning value of small losses. J. H. Burlingame, jr. Nat Underw 49:4 N 22 '45

Takes business to task for attitude toward public; buyers' viewpoint; abstracts. K. C. Bell. Nat Underw 50:1+ O 31 '46; East Underw 47:22+ N 1 '46

See also
Insurance, Fire—Purchasing
Insurance, Life—Purchasing
Risk research institute

Rates

Advocates new minimum control bill; would relieve independents from rate filing or approval. A. D. Cronin. East Underw 47:31+ N 8 '46

Agents ask to express views on rating laws. R. Thompson. East Underw 47:23 Ag 30 '46

All-industry bills give government control, Risk research committee reports. Weekly Underw 154:1668 Je 29 '46; Same. Comm & Fin Chr 164:138 Jl 4 '46

All-industry bills run into opposition on Pacific coast. Weekly Underw 155:717+ S 28 '46

All-industry committee's rating bill supported at Massachusetts hearing. Weekly Underw 154:739+ Mr 23 '46

All-industry group votes for filing subject to subsequent disapproval. Nat Underw 49:3 D 20 '45

Answers arguments of commissioners' rate bill dissenters. S. B. Thompson. Nat Underw 50:13+ S 5 '46

Answers critics of all-industry bills. C. M. Smith. Nat Underw 50:28 O 24 '46

Assails Berge's conception of rate making. F. C. Beazley. Nat Underw 50:2+ Ag 15 '46

Attacks prior rate approval laws. E. C. Stone. East Underw 46:32+ D 7 '45; Abstract. Nat Underw 49:27 D 6 '45

Backs rate competition; Public law 15 not designed to authorize establishment of rigid, non-competitive rate structure. M. M. Gorman. East Underw 47:21 N 1 '46; Excerpts. Nat Underw 50:1+ O 31 '46; Weekly Underw 155:1115+ N 9 '46

Brands Stone plan as nonsense; easy deviation pattern would cause destructive competition. C. M. Smith. Nat Underw 50:1+ My 30 '46

Commends all-industry bills. C. S. Rosensweig. East Underw 47:38 N 8 '46

Commissioners see state supervision in a stronger position than before; problem of rate approval. East Underw 46:52+ D 14 '45

Commissioners take action on rate legislation; proffer committee bills as guide to states. Nat Underw 49:1+ D 13 '45; Same abr. Nat Underw (Life ed) 49:2+ D 14 '45

Competition in rates asked in Rhode Island. W. E. Powers. East Underw 47:27 F 1 '46

INSURANCE—Rates—*Continued*
Constructive rating suggestion; address before Tennessee association of insurance agents. E. C. Stone. Weekly Underw 155: 948+ O 19 '46
Discusses new rate laws; tells Bar association regulations must preserve rights of carriers. R. E. Dineen. Weekly Underw 153:1456 D 22 '45; Same. East Underw 46:34 D 21 '45; Same abr. Spectator (Property ed) 11:26 D 20 '45; Abstract. Nat Underw 49:5+ D 20 '45
Expense regulation; power of the state to regulate and supervise expense portion of rate dollar. H. Justice. Weekly Underw 154: 1115+ My 4 '46
Favors freedom for states in rating; address before Missouri association of insurance agents. E. C. Stone. East Underw 47:45+ S 13 '46
Flays proposed state rating bills; address before St Louis agents. E. W. Sawyer. East Underw 47:31+ O 4 '46
Foes of model bills seek special privilege. W. P. Welsh. Nat Underw 50:3+ N 7 '46; Discussion. 50:6 N 14 '46
Independent Insurers wrestle with rating bills; shy away from all-industry program at Chicago convention. Nat Underw 50:7-8+ O 17 '46
Individual rate filing under new laws is problem; question of justifying own rates. G. L. Reichert. Nat Underw 50:31+ My 16 '46
Introduce new element in all industry bill; text of section 11. Nat Underw 50:1 My 23 '46
Kentucky rate law passed unanimously. Nat Underw 50:21 Mr 28 '46
Making satisfactory rate legislation; Boston address; abstracts. D. C. Bowersock. Weekly Underw 155:1101+ N 9 '46; East Underw 47:18+ N 8 '46
Model bills scorched by Boston speakers at town meeting sponsored by Boston Board to prepare for legislation. D. B. Bowersock and others. Nat Underw 50:31+ N 7 '46
NAIA state directors approve all-industry committee bills as patterns for state legislation. East Underw 47:28 S 27 '46; Weekly Underw 155:722+ S 28 '46
National Board's legislative report may be solution of rating problem. C. F. J. Harrington. Weekly Underw 155:995+ O 26 '46
New all industry rating measures offered in Massachusetts. Nat Underw 50:21+ Mr 21 '46
New era of rate regulation; addresses at A.M.A. insurance meeting. R. E. Dineen; E. C. Stone. East Underw 47:20+ Mr 15 '46
Nothing in new rating laws adverse to interests of local agents. A. W. Perkins. Weekly Underw 154:1649+ Je 29 '46
Offers new rating proposal to remove unfair competitive advantage; address before Kansas association of insurance agents. E. C. Stone. East Underw 47:40 O 11 '46
Offers rating principles; would not scrap AIC bills. C. C. Hewitt. East Underw 47:19 N 8 '46
Opposes rating bills as now framed; Chicago address. E. W. Sawyer. Nat Underw 50:5+ S 26 '46
Proposed minimum is dead and buried; address, before Union league club, Chicago; abstracts. E. W. Sawyer. East Underw 47: 35 N 1 '46; Weekly Underw 155:1052+ N 2 '46; Nat Underw 50:4+ O 31 '46
Rate bill is passed in Mississippi. Nat Underw 50:19 Ap 11 '46
Rate regulation needs more study; abstracts. E. C. Stone. East Underw 47:31-2 F 1 '46; Nat Underw 50:17+ Ja 31 '46
Rating bills snipers scored; abstracts. R. E. Dineen. Nat Underw 50:6 Ag 29 '46; Weekly Underw 155:470+ Ag 31 '46
Replies to critics of all-industry-commissioners' bills; Chicago address. R. E. Dineen. East Underw 47:21-2 O 18 '46; Same cond. Nat Underw 50:1+ O 17 '46; Excerpts. Weekly Underw 155:931+ O 19 '46
Reviews efforts to prepare satisfactory rating laws; abstracts. C. F. J. Harrington. East Underw 47:20+ My 3 '46; Nat Underw 50:19+ Ap 25 '46; Weekly Underw 154:1053+ Ap 27 '46
Special rating basis for big risks vital; large buyers won't pay standard premium. E. L. Clark. Nat Underw 50:19+ Je 27 '46
Urges laws which simply call for adequate rates; raps both approval and disapproval ideas. E. C. Stone. Nat Underw 50:19+ Ap 18 '46
Urges new type rate law; address before Michigan association of insurance agents. E. C. Stone. Nat Underw 50:6 F 14 '46
Views on rate approval laws; Philadelphia address. E. C. Stone. East Underw 47:39-40 My 10 '46
Warns producers of squeeze in rigid rating laws. H. E. Moore. Nat Underw 50:1+ Mr 28 '46
What's ahead of us? Pittsburgh address. E. C. Stone. Weekly Underw 154:770-2 Mr 23 '46
Why regulate insurance rates? F. J. Maryott. Weekly Underw 155:1063-5, 1124-7, 1184-5 N 2-16 '46; Abstract. Nat Underw 50:19+ O 31 '46

Rating bureaus

See also
Insurance, Fire—Rating bureaus
Towner rating bureau

Reinsurance

Argentina sets up reinsurance bank like Chile, Brazil. Nat Underw 50:36 Je 6 '46; Same Nat Underw (Life ed) 50:4 Je 7 '46
Backs reinsurance under free enterprise system; address before Hemispheric conference. R. C. Chapin. East Underw 47:20 My 17 '46
British insurance prospects. W. Juul. Nat Underw 49:19-20+ D 27 '45; Same. Nat Underw (Life ed) 50:2+ Ja 4 '46
How Argentine reinsurance monopoly will operate. Nat Underw (Life ed) 50:24 Je 21 '46; Same. Nat Underw 50:8, 14 Je 20 '46
New York clarifies its call for reinsurance data. Nat Underw 50:4 F 21 '46
New York rules on personal floater and multiple line reinsurance. Weekly Underw 154:1424 Je 1 '46
Principles of reinsurance accounting and statistics. J. Raywid. Nat Underw 49:4 D 27 '45
Reinsurance, one world; international aspects. L. M. Simon. Weekly Underw 154:1516-18; 155:139-42 Je 8, Jl 20 '46
Reinsurance placers are loaded with big volume and work multiplies. Nat Underw 50:29 N 7 '46
Reinsurance review. Nat Underw 49:15-23 D 27 '45
Share reinsurance and various types of excess cover analyzed. J. A. Cathcart, jr. Nat Underw 49.16+ D 27 '45
Sharing the risks; General Reinsurance-Mellon merger may loosen foreign grip on business. Bsns W p69-70+ N 24 '45
Substitute for reinsurance; share loss ratios on large risks rather than swap the business itself. W. N. Titcomb. Nat Underw 49:6 N 29 '45; Discussion. 49:15+ D 27 '45
Wide distribution of reinsurance sought. V. Ortega. East Underw 47:31+ My 17 '46

See also subdivision Reinsurance under special subjects, e.g. Insurance, Fire—Reinsurance

Self insurance

See also
Insurance, Fire—Self insurance
Insurance, Workmen's compensation—Self insurance

Social aspects

Contributions of insurance; address before Hemispheric conference. J. W. Randall. East Underw 47:35+ My 17 '46; Excerpts [English and Spanish]. Weekly Underw 154:1259-60+ My 18 '46

Statistics

Wartime analysis method may aid insurance companies; cuts data needed for spot-checking by about 50%; sequential analysis. Nat Underw 50:9 Ja 10 '46; Same. Nat Underw (Life ed) 50:8 F 22 '46

INSURANCE—*Continued*

Study and teaching

Conference method of teaching. C. J. Crobaugh. Weekly Underw 154:152+ Ja 12 '46

Grass roots survey of insurance education launched under sponsorship of Insurance institute of America. Nat Underw 50:25 Mr 14 '46; East Underw 47:24 Mr 15 '46; Nat Underw (Life ed) 50:3+ Mr 15 '46

Huebner foundation to give fellowships. East Underw 47:12 Ja 25 '46

Insurance library association of Boston offering two courses. East Underw 47:21 Ap 26 '46

New York insurance society school has more than 100 instructors. East Underw 47:42+ S 27 '46

Standard of Detroit group plans educational program; to conduct school at home office for employes and agents. East Underw 46: 32 N 23 '45

See also
Insurance, Life—Agents—Training
Insurance agents—Training
also subdivision Study and teaching under various insurance headings, e.g. Insurance, Life—Study and teaching
also American association of university teachers of insurance; American institute for property and liability underwriters; Insurance institute of America

Taxation

See also
Insurance, Life—Taxation
Insurance companies—Taxation

Terminology

See also
Underwriter (term)

Valuation of property

Black market costs do not figure in value. Nat Underw 50:26 O 3 '46

Problems for insured in valuing personal property. Nat Underw 50:8 S 5 '46

See also
Insurance, Fire—Valuation of property

Wholesale insurance

Prudential writes group insurance for groups of less than 50 lives. Life Ins Courant 51: 244-5 My '46; Nat Underw (Life ed) 50: 7+ Mr 29 '46

See also
Insurance, Accident—Wholesale insurance
Insurance, Life—Wholesale insurance

Canada

Association of superintendents of insurance of Canada meeting, Quebec. East Underw 46:5 N 23 '45

Germany

Insurance in Germany today. E. C. Steefel. East Underw 47:19 Je 28; 22 Jl 5 '46

Great Britain

British insurance. Economist 151:501-2+ S 28 '46

British insurance prospects; labor government no menace to freedom of action. W. Juul. Nat Underw 49:19-20+ D 27 '45; Same. Nat Underw (Life ed) 50:2+ Ja 4 '46

Views of London market. J. N. Gilbert. Nat Underw 49:21+ D 27 '45

New York (state)

Annual message to legislature. T. E. Dewey. Weekly Underw 154:145+ Ja 12 '46

Report to Legislature tells of present steps to improve regulation. R. E. Dineen. East Underw 47:1+ F 22 '46; Abstracts. Nat Underw 50:19+ F 21 '46; Spectator (Property ed) 11:24 F 28 '46; Weekly Underw 154:497+ F 23 '46

See also
Insurance law—New York (state)

Norway

Insurance in Norway during the occupation. J. Vemmestad. Nat Underw 49:8 N 8 '45

Philippine Islands

Mickey Mouse cash still bedevils Manila insurers; claims under policies paid for in Japanese occupation currency. Nat Underw 50:12 N 7 '46; Same. Nat Underw (Life ed) 50:2+ N 8 '46

Saskatchewan

Covers public institutions; Saskatchewan government insurance office demands insurance with grants. East Underw 47:25 Ag 9 '46

Saskatchewan insurance office forces rates down; government plan assailed. East Underw 47:18 Ag 2 '46

South Africa

Observations on South African practices. A. Kahn. Nat Underw 50.21 Jl 11 '46

Southern states

Underwriting results in South in 1945. M. R. McGruder. Weekly Underw 154:16+ Ja 5 '46

Sweden

Swedish insurance man visits companies here; Nils B. Frick; work of Public relations department, Swedish insurance association. East Underw 47:6 S 27 '46

INSURANCE, Accident

A. & H. bureau enunciates position on regulation; treats policy provisions and advertising; claim practices, rates. Nat Underw 50:23+ My 2 '46; Same. Nat Underw (Life ed) 50:2+ My 3 '46

A. & H. conference ends civilian war pool. East Underw 46:29 N 23 '45; Same cond. Nat Underw 49:22 N 29 '45

A. & H. discussion before Hemispheric meeting. P. H. Rogers. East Underw 47:46 My 17 '46

A. & H. outlook in reconversion era. W. L. Clapp. East Underw 46:102+ D 14 '45

A. & H. regulatory bill without rate control offered; Conference submits comprehensive legislation to all-industry group. Nat Underw 50:27+ O 24 '46; Nat Underw (Life ed) 50:2+ O 25 '46; East Underw 47:31+ O 25 '46; Weekly Underw 155:1005+ O 26 '46

A.&H. survey by U.S. chamber sent to 463 companies. East Underw 47:34 S 20 '46

Accident business is stringently regulated; requirements of different states. Weekly Underw 155.793+ O 5 '46

Accident-health not bad boy of insurance; refutes prevalent misconception; abstracts. H. R. Gordon. Nat Underw (H. & A. conference no) 50:4+ My 24 '46; East Underw 47:39+ My 24 '46

Action on controversial A. & H. issues deferred by commissioners committees and H. & A. conference. Nat Underw 50:23+ F 14 '46; Same cond. Nat Underw (Life ed) 50:4-5 F 15 '46

Bright future for accident-health; abstracts. H. R. Gordon. Nat Underw 50:24 Ap 4 '46; East Underw 47:28+ Ap 5 '46

Four biggest A. & H. problems ahead. J. F. Follmann. East Underw 47:48 S 27 '46

Legal aspects of accident and health regulation. V. S. Cohen. East Underw 47:34 N 8 '46; Abstract. Nat Underw 50:35+ N 7 '46; Same. Nat Underw (Life ed) 50:3 N 8 '46

1945 banner year for accident insurance. R. J. Wetterlund. Weekly Underw 154:80-1+ Ja 5 '46

Railroad A. & H. line hard hit by federal law; passage of Crosser bill expected to eliminate 80% of that coverage. Nat Underw 50:15 Ag 1 '46; Same. Nat Underw (Life ed) 50:4 Ag 2 '46

Study how to supplement Crosser bill benefits; insurers of R. R. employes see some salvage possibilities. Nat Underw 50:17+ Ag 8 '46; Same. Nat Underw (Life ed) 50:3+ Ag 9 '46

Three major A. & H. problems; address at annual meeting of Conference; abstracts. R. J. Wetterlund. East Underw 47:38+ My 24 '46; Weekly Underw 154:1372+ My 25 '46

INSURANCE, Accident—*Continued*
Uniformity of regulation essential to A. & H. insurance development. J. F. Follmann, jr. East Underw 47:30 Jl 26 '46
Urges that A. & H. line be divorced from casualty insurance. C. W. Young. East Underw 47:37+ My 24 '46
Urges uniform regulatory pattern for the A. & H. industry. J. F. Follmann, jr. East Underw 47:35-6 O 4 '46
Views voiced at A. & H. forum of Bureau of personal accident & health underwriters. Nat Underw (Life ed) 50:6 Mr 8 '46; Weekly Underw 154:708-9 Mr 16 '46

See also
Insurance, Disability
Insurance, Liability
Insurance, Life—Disability provisions
Insurance, Workmen's compensation
also Bureau of personal accident and health underwriters; Health and accident underwriters conference; National association of accident and health underwriters

Accounting

A. & H. men renew opposition to statistical call. Nat Underw 50:19+ O 17 '46
Require A. & H. loss ratio breakdown by policy types; zone 4 commissioners also want examination manual prepared. Nat Underw 50:21 Mr 21 '46; Same. Nat Underw (Life ed) 50:4 Mr 22 '46
Sparks fly at hearing on A. & H. experience call; N.A.I.C. group at Chicago hears blast against zone 4 move. Nat Underw 50:23+ My 2 '46; Same. Nat Underw (Life ed) 50:1+ My 3 '46
Statistics hard to obtain; accident and health men confer with zone 4 commissioners about request. Weekly Underw 155:65+ Jl 13 '46

Adjustment of claims

Assured may get policy by any name he wishes; North American Accident vs. H. H. Canady. Nat Underw 49:18 N 15 '45
Question of battle death as accident. E. Woodward. Nat Underw 49:37 D 20 '45; Same. Nat Underw (Life ed) 49:13 D 21 '45

Agency management

National association of accident and health underwriters agency management session. C. W. Cameron and others. East Underw 47:34 F 1 '46; Same cond. Nat Underw 50:17 Ja 31 '46

Agents

Accident and health selling suggestions that have proven their worth. M. C. Laughman. Weekly Underw 155:96 Jl 13 '46
Accident insurance best approach to prospects. J. P. Murphy. Nat Underw 49:15 D 13 '45
Chides agents for A. & H. neglect. C. C. Washburn. East Underw 46:36 N 16 '45; Same cond. Nat Underw 49:32 N 15 '45
Era of prosperity for insurance is indicated. W. L. Baldwin. Weekly Underw 154:1624 Je 22 '46
Form advisory board for A. & H. examinations in New York state. Weekly Underw 155:447 Ag 24 '46; Same. East Underw 47:28 Ag 23 '46
Getting right type of recruits into A. & H. production. B. A. Hedges. Weekly Underw 154:400-1 F 9 '46
Sales hints that have aided in developing accident and health business. M. Jones. Weekly Underw 155:42-3 Jl 6 '46
Sales suggestions to accident insurance men that have proven their value. G. W. Kemper. Weekly Underw 155:159-61, 217 Jl 20-27 '46; Excerpts. East Underw 47:30+ Je 21 '46
Salesmanship ideas. F. B. Von Harten. Weekly Underw 154:898-9 Ap 6 '46
Veterans as prospects for accident protection and as insurance men. D. S. Walker. Weekly Underw 154:586-7 Mr 2 '46

Sales conventions

A. & H. meetings in N.Y. helpful to producers; given by Security mutual life of Binghamton. East Underw 46:32 N 9 '45
Chicago A. & H. forum told of sales ideas that click; G. Neale and others. Nat Underw 50:18+ O 24 '46; Same. Nat Underw (Life ed) 50:19+ O 25 '46
How A.&H. salesmen can improve production; Kansas City sales congress. Nat Underw 49:25 N 15 '45
Oklahoma A.&H. men hold sales congress; discuss making more money. East Underw 47:32 Ja 4 '46
St Louis A. & H. congress stimulating. East Underw 47:32 Ap 5 '46
Underwriting forum proves popular feature of A. & H. Bureau meeting; abstracts. P. Rogers and others. Nat Underw 50:26+ O 10 '46; Nat Underw (Life ed) 50:17+ O 25 '46; East Underw 47:38+ O 11 '46

Training

Accident training program of Continental Casualty proves fine success. Weekly Underw 154:956+ Ap 13 '46

Aviation risks

Aviation accident insurance offers excellent prospects for the future. W. T. Hammer. East Underw 46:34 N 30 '45
Aviation coverage called third major A. & H. development. D. Smith. Nat Underw 50:18 Ja 31 '46
Aviation underwriting observations. J. E. Hoskins. East Underw 47:24+ pt 2 O 4 '46
Broader air coverage announced by Indemnity insurance co. of North America. Weekly Underw 154:175 Ja 12 '46
Continental Casualty's universal commercial aviation cover has attractive features. Weekly Underw 154:402 F 9 '46
Liberalization of air travel coverage announced by Bureau companies. Weekly Underw 154:1311 My 18 '46
Opportunities in aviation accident insurance. E. H. Marshall. Nat Underw (Auto & aviation no) 50:12+ Ap 19 '46
Policy machines for air accident now in use; Insurograph. Nat Underw 50:32 O 3 '46
Slot machine policy; Associated aviation underwriters originates, dispenses policies; experiment at New York terminal. East Underw 47:37 O 25 '46

Finance

Accident and health insurance in 1945 by states, hospitalization plans included; tabulation. Spectator (Life ed) 154:58 S '46; Same. Spectator (Property ed) 12:24 O 10 '46
Accident and health insurance survey. R. H. Blanchard. Spectator (Life ed) 153:26-9+ Ja '46; Same abr. Spectator (Property ed) 11:10-14+ F 14 '46; Abstracts. East Underw 46:27+ D 28 '45; Nat Underw 49: 25-6 D 27 '45; Nat Underw (Life ed) 49: 3+ D 28 '45; Weekly Underw 153:1505+ D 29 '45
A. & H. net premiums for 1945 compared with 1944 for 39 companies. East Underw 47:44 Mr 1 '46
Loss ratios, expenses, acquisition; second A & H survey. R. H. Blanchard. Nat Underw 50:32+ N 7 '46; Same. Nat Underw (Life ed) 50:2+ N 8 '46
Loss ratios, 1938-1942, accident and health insurance; tabulations. R. H. Blanchard. Spectator (Property ed) 11:17 Ja 24 '46

Losses

Fallacies about A. & H. loss ratios; abstracts. H. R. Gordon. Weekly Underw 155:545 S 7 '46; Nat Underw 50:14 S 5 '46; Nat Underw (Life ed) 50:16 S 6 '46

Policies

Accidental means is widely interpreted in New York state; abstracts. G. S. Van Schaick. East Underw 47:1+ O 18 '46; Nat Underw (Life ed) 50:16 O 18 '46
Athletes' policies; United Pacific and Teachers' insurance companies issue same basic accident policy for teams. East Underw 47: 38 O 18 '46
Athletic team cover popular. Nat Underw 50:28 O 3 '46; Same. Nat Underw (Life ed) 50:20 O 4 '46
Feature blanket accident policies to protect amateur sports teams; medical reimbursement coverages. East Underw 47:27 Ag 23 '46

INSURANCE, Accident—Policies—*Continued*
Plain talk on regulation of accident and health insurance; Standard provisions law. J. F. Follmann, jr. East Underw 47:40 Ap 12 '46
Recommendations of Underwriting committee of Health and accident underwriters conference. Weekly Underw 154:1497 Je 8 '46
Special purpose accident policies. E. A. Muller. Mag of Wall St 78:405+, 465+, 525+, 704+ Jl 6-20, Ag 3, S 14 '46
Text of proposed revision of A. & H. policy guide. Nat Underw 50:28 My 2 '46; Same. Nat Underw (Life ed) 50:2+ My 3 '46
Two additional policies placed on market by Continental Casualty. Weekly Underw 154: 469 F 16 '46
When is policy effective? W. C. Butterfield. Rough Notes 89:52 Mr '46

Prospects

Veterans as prospects for accident protection. D. S. Walker. Weekly Underw 154: 586-7 Mr 2 '46

Rates

A. & H. rate measure. C. F. J. Harrington. East Underw 47:32 O 4 '46
Decries efforts to burden A. & H. with compulsory rate laws. C. C. Fraizer. East Underw 47:41+ My 24 '46
H. & A. Conference opposes rate fixing. East Underw 47:37+ O 11 '46; Nat Underw (Life ed) 50:1 O 11 '46; Nat Underw 50:25 O 10 '46

Risks

Complete answers in application help correct home office accident underwriter. R. K. Dunn. Weekly Underw 154:1677-8 Je 29 '46

See also
Insurance, Accident—Aviation risks
Insurance, Accident—Substandard risks
Insurance, Accident—Travel risks

Statistics

Ranking position in net premiums written on individual accident and health policies for 1945 and comparisons 1942-1944; tabulation by company. Spectator (Property ed) 12: 21-3 O 10 '46
Recent trends in group casualty production; with tabulations showing rank of leading producers of group A.&H. L. S. McCombs. Spectator (Life ed) 154:60-6 S '46
U.S. growth of health and accident insurance, 1920-1944; chart. Spectator (Life ed) 153:39 N '45; Same. Rough Notes 88:46 D '45

Substandard risks

Few companies experiment on sub-standard plans. T. L. Anderson. East Underw 47:46 My 24 '46
Impaired A. & H. risks; war disabilities; abstracts. A. A. Wills, jr. East Underw 47:10 O 4 '46; Nat Underw 50:25 O 3 '46; Nat Underw (Life ed) 50:4 O 4 '46

Travel risks

Continental broadens trip accident policy; world-wide in its scope. East Underw 47: 32 Jl 12 '46; Weekly Underw 155:95 Jl 13 '46

Wholesale insurance

Forbes promulgates new definition of wholesale or franchise insurance for Michigan. Nat Underw 49:28 D 27 '45; Weekly Underw 154:94 Ja 5 '46
Michigan ban on franchise, wholesale plans withdrawn. Nat Underw 50:15 Ag 1 '46
Michigan outlaws wholesale or franchise A. & H. Nat Underw 49:22 D 13 '45; Same. Nat Underw (Life ed) 49:22 D 14 '45

California

New technique needed to write A. & H. under new California law. W. E. Mast. Nat Underw 50:29 Mr 28 '46

Great Britain

Premiums and prices. Economist 151:506 S 28 '46

Michigan

CIO union official seeks A. & H. co. probe. East Underw 47:30 Ag 9 '46; Same cond. Nat Underw 50:17 Ag 8 '46
Forbes declines to conduct Michigan A. & H. probe. East Underw 47:25 Ag 23 '46; Nat Underw 50:15 Ag 22 '46; Nat Underw (Life ed) 50:7 Ag 23 '46

INSURANCE, Accounts receivable
Safeguarding the records of your client's business. R. A. Algire. Rough Notes 89:18 S '46

INSURANCE, Agricultural
Government tobacco cover to be extended in Connecticut. Weekly Underw 153:1322 D 8 '45; Same cond. Nat Underw 49:38 D 6 '45
NAIA report asks that federal crop insurance be self-supporting. East Underw 47:22 Je 28 '46; Same. Nat Underw 50:3+ Je 27 '46
North Carolina farmer not yet insurance minded. J. E. Mann. Nat Underw 50:10 My 16 '46

See also
Federal crop insurance corporation
Insurance, Corn
Insurance, Cotton
Insurance, Fire—Farm policies
Insurance, Hail
Insurance, Live stock

INSURANCE, Airport public and property damage liability
Liability protection of public airports considered essential coverage. Weekly Underw 155:393 Ag 17 '46

INSURANCE, Art
Art exhibits insured; National Union and British cover American collection; English paintings insured in Britain. East Underw 47:16 S 6 '46
Fine arts loading cut 50%; 10% free floater cover given. Nat Underw 49:3 N 29 '45
Fine arts policy. Rough Notes 89:62 Jl '46
Fine arts rate, coverage changes made by IMUA member companies. East Underw 46: 27 N 30 '45; Same abr. Weekly Underw 153: 1276 D 1 '45
Insurance protects display of Metropolitan museum treasures covered by fine arts policy. W. Hay. il Weekly Underw 154:1054 Ap 27 '46

INSURANCE, Automobile
Auto business shows a few signs of improvement. Nat Underw 50:40 O 24 '46
Auto commissions at minimum level; lauds classification plan. A. E. Spottke. Nat Underw 49:19+ D 13 '45
Auto insurers ponder accident prevention setup. Nat Underw 50:3+ Ag 15 '46
Auto line in the red for some time to come. A. E. Spottke. East Underw 47:29+ Ap 19 '46
Automobile and aviation insurance number. Nat Underw (Auto & aviation no) 50:1-10, 22-33 Ap 19 '46
Chicago's vet cabbies charge insurance graft. Nat Underw 50:24 Ap 4 '46
Cover on autos going abroad; several firms will take such business; theft is big hazard. Nat Underw 50:17 Ag 15 '46
Fire-marine company automobile premiums increased last year; collision losses continue major problem. East Underw 47:1+ Ja 11 '46
Form American motor club with agent tieup; middlewestern setup with Indianapolis headquarters follows agent. Nat Underw 50:2 Ag 29 '46
Mileage change, youthful driver charge advocated. R. I. Catlin. Nat Underw 50:23+ Mr 7 '46
Outlook in compensation and auto lines. G. Geyer. Nat Underw 50:18+ Ag 29 '46
Question of hour; are autoists now paying their way? Nat Underw 50:9 Ag 29 '46
Questions and answers in NAIA course on automobile insurance. East Underw 47:38 Ap 19 '46
Review of auto situation today. R. Tuchbreiter. Nat Underw 50:15 F 28 '46
Upholds auto classification rates; new policy will cover buyer's every need under safety laws; favors consumer research. A. E. Spottke. East Underw 46:29+ N 30 '45; Excerpts. Nat Underw 49:19+ N 29 '45
Wartime casualty developments; automobile liability insurance. J. C. O'Connor. Rough Notes 88:15-17 D '45

See also
Insurance, Motor cycle
Insurance, Motor truck
National automobile underwriters association

INSURANCE, Automobile—*Continued*

Adjustment of claims

Assured's consent that unlicensed laborer use truck on farm not permission to drive on highway. Weekly Underw 154:1391 My 25 '46

Auto verdicts echo inflation. A. Whitfield. Nat Underw 50:21+ O 31 '46; Correction. 50:23 N 21 '46

Automobile claims; abstracts. A. C. Welsh. East Underw 47:32+ S 27 '46; Nat Underw 50:32 S 26 '46

Automobile comprehensive coverage; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:38-40 Ja 10 '46 [Reprinted from Mr 9 '44 p26-7]

Automobile insured gets bargain today; insurers discharge obligations at big sacrifice. K. O. Force. Nat Underw (Auto & aviation no) 50:4 Ap 19 '46

Automobile liability policy covers liability of cab company for wanton assault of passenger. Weekly Underw 155:115 Jl 13 '46

Automobile omnibus clause; garage exception; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:50-2 Je 13 '46

Claim men must be ready for new problems and trends. F. Coleman. Nat Underw 49:38 D 20 '45

Collision insurance; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12: 34-5 Ag 8 '46

Collision insurer held proper but not necessary party in insured's action vs. third party. Weekly Underw 154:1247 My 11 '46

Collision with bridge and not tire blowout held actual cause of loss. East Underw 47: 23 S 6 '46

Comprehensive policy does not cover damage due to collision with bridge abutment following blowout of tire. Weekly Underw 155: 407 Ag 17 '46

Custody of vehicle concealed from insurer; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12:40-2 S 12 '46

Denial of receipt of cancellation notice makes proper mailing of notice jury question. Weekly Underw 154:983 Ap 13 '46

Failure to forward summons; company notified by telephone; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12: 34-6 Jl 25 '46

Garage customer held negligent in leaving auto with key outside. East Underw 47:30 Je 7 '46

Hobbs orders insurers to ignore OPA prices in auto loss adjustments in Kansas. Nat Underw 50:27 Ag 29 '46

Liability insurer owes duty of good faith in conducting negotiations for settlement of claims against assured. Weekly Underw 155: 782-3+ S 28 '46

Loses fight to void policy on issue of control; Government employees insurance co. vs. Powell. Nat Underw 50:22 Ag 29 '46

Loss contribution issue is won by Buckeye Union. Nat Underw 50:21 Ag 29 '46

Minor negligently causing mother's death cannot share amount recovered by deceased's administrator in action against him. Weekly Underw 154:785 Mr 23 '46

Overlapping coverage as between fire companies and casualty companies. S. Greenhill. Weekly Underw 154:202+ Ja 19 '46; Same cond. East Underw 47:1+ Ja 18 '46

Policy had half hour to go at time of accident; standard time governs. Nat Underw 50:19 Ag 15 '46

Pro-rating of losses in the event of duplicate insurance under the standard auto policy. M. W. Blackby. Weekly Underw 154:890-1 Ap 6 '46; Discussion. W. U. Westcott. 154: 1114 My 4 '46

Recovery under automobile fire policy not controlled by ceiling price fixed by Office of price administration. Weekly Underw 154:599 Mr 2 '46

Reliance on representations of adjuster necessary to warrant recovery for fraud in obtaining release. Weekly Underw 154:417 F 9 '46

Smashup with telephone pole held wind loss. Nat Underw 50:24 S 5 '46

Sole ownership and OPA price ceilings on cars factors in suit. East Underw 47:27 S 6 '46

Strive to stop buying claims for price of deductible; friction between property damage liability insurers and collision insurers. Nat Underw 50:25 O 10 '46

Suit to enforce judgment obtained against insured not dismissable for uncertainty of amount of insurer's liability. Weekly Underw 153:1442 D 15 '45

See also
Insurance, Automobile—Theft claims

Agents

Lumbermen's Mutual explains new auto farm agency plan. Nat Underw 50:26 Ap 18 '46

Motor dealers to appeal McCormack's decision on license applications; Motor insurance corp. of New York involved. Weekly Underw 153:1198; 154:1015 N 24 '45, Ap 20 '46

Selling bodily injury and property damage higher limits. R. B. Parman and others. Rough Notes 89:22-4 Mr '46

Assigned risks

Assigned risk plans and underwriting questions; adequate classification needed. A. E. Spottke. Nat Underw (Auto & aviation no) 50:1 Ap 19 '46

British Columbia assigned risk plan. il Spectator (Property ed) 11:10-13 Ja 24 '46

Must justify auto risk assignments in Illinois. Nat Underw 50:20 Ja 3 '46

Nebraska assigned risk plan for disabled car drivers. East Underw 47:27 Ja 25 '46

Washington assigned risk plan broadened to take in all risks unable to procure insurance through normal channels. Nat Underw 50:26 Je 13 '46

Cancellation

Denial of receipt of cancellation notice makes proper mailing of notice jury question. Weekly Underw 154:983 Ap 13 '46

Coverage

Automobile claims; relationship to development of coverage; abstracts. A. C. Welsh. East Underw 47:32+ S 27 '46; Nat Underw 50:32 S 26 '46

North America has full Mexican cover. Nat Underw 50:17 Jl 4 '46; Weekly Underw 155:41 Jl 6 '46

Dealers' policies

Parting with car to prospective purchaser not theft under policy. East Underw 47:29 Ag 9 '46

Finance

Automobile premiums and losses of stock casualty, stock full cover, mutual, reciprocal and Lloyds companies, 1945; with comparisons for 1943 and 1944; tabulation by company. Nat Underw (Auto & aviation no) 50:27-32 Ap 19 '46; Correction. Nat Underw 50:16 My 2; 20 My 9 '46

Automobile premiums and losses of stock fire companies in 1945 and 1944; tabulation by company. Nat Underw (Auto & aviation no) 50:22, 33 Ap 19 '46

Automobile premiums of fire and stock casualty companies 1942-1945. East Underw 47: 27-8, 30-2, 34-8 My 3 '46

Countrywide production for auto liability and auto property damage and factors in states results for auto liability and auto property damage in 1945; tabulations. Spectator (Property ed) 12:36+ O 10 '46

New York makes study of 1945 auto casualty experience; tabulation. Nat Underw 50:24-5 Jl 4 '46

1945 auto volume of stock casualty companies show 15.5% increase; countrywide net premium writings of carriers operating in N.Y. state; with comparisons 1942-1945. East Underw 47:34-8 My 3 '46

1945 automobile income higher; with tabulation by company. East Underw 47:32 Mr 15 '46

Ranking of company groups in point of auto premiums written, 1944 and 1945. Nat Underw (Auto & aviation no) 50:25-6 Ap 19 '46

INSURANCE, Automobile—*Continued*

Financed automobiles

Ask insurers to write financed auto business; American finance conference calls for higher collision rates. Nat Underw 49:3+ N 29 '45

Bank-agent plan must slash red tape. O. R. Carlson. Nat Underw 50:4 Je 13 '46

Bank and agent auto financing; Midland national bank and trust company of Minneapolis. A. Ueland. il Burroughs Clearing House 30:20-2+ D '45

Bankers split on bank-agent plan's value; argue merits of direct and indirect auto financing at Chicago. F. G. Anger and W. W. McCarthy. Nat Underw 50:1+ F 28 '46

Better business bureau launches fight against pack; condemns practice of lumping finance and insurance charges. Nat Underw 50:4 Ag 29 '46

California ruling on car buying in force; facts regarding coverage must be given in written statement. Weekly Underw 155:299 Ag 10 '46

Canadian financing company offers agents plan to hold auto risks. East Underw 47:21 Ap 5 '46

Cleveland agents, dealers and finance men form pact in automobile field. Nat Underw 50:8 O 24 '46; Weekly Underw 155:1080 N 2 '46

Control of insurance by auto dealers hit; California to act where dealers use coercion. East Underw 47:32 S 13 '46

Dealers' reactions to bank-agent auto plans. G. F. Alcott. Nat Underw 49:32 N 15 '45

Errors, omissions auto coverage for banks authorized by NAUA. Nat Underw 49:5 N 8 '45

Finance risks closely controlled under Missouri order; new Connecticut regulations for insuring financed cars. Nat Underw 50: 15 May 23 '46

Financed auto accounts; N A I A committee report; abstracts. East Underw 47:26 O 4 '46; Weekly Underw 155:732 S 28 '46

Financed transactions; Commissioner Gibbs of Texas explains department attitude. Weekly Underw 155:620 S 14 '46

Hodges amends North Carolina ruling; provides for furnishing insurance certificates in connection with financed autos. East Underw 47:22 Ag 2 '46

How bank and agent auto plan is operating successfully. C. J. Schoen. East Underw 47:30 My 10 '46

Insurance warning issued to car buyers by Better business bureau of St Louis. Weekly Underw 155:158 Jl 20 '46

Missouri department warns against violating auto finance rules. East Underw 47:23 My 31 '46

Morris plan bankers assn. debates rival plans; dealer vs. direct route aired at Chicago. Nat Underw 50:3 Ap 4 '46

New Pennsylvania regulations on insurance on financed automobiles. East Underw 46: 22 N 30 '45

New York department calls hearing on financing rule; with text. Weekly Underw 155:479 Ag 31 '46; Same. East Underw 47:24 Ag 30 '46

One new way; bank and agent plan. Rough Notes 89:24-5 Mr '46

Ontario bank-agent plan; Union acceptance corp. finances business developed by agents. East Underw 47:22 Je 21 '46

Optimistic on bank-agent auto plan. W. Meiss. East Underw 47:29 O 25 '46

Oregon agents body hits dealer commission split. Nat Underw 50:2 Mr 21 '46

Place of auto dealer in finance plans. F. W. Doremus. Rough Notes 89:42+ F '46

Producers ask stronger financed car provisions at New York dept. hearing. East Underw 47:30 S 20 '46

Realistic and timely view of bank and agent auto plan. G. D. Newton. East Underw 47: 3+ pt 2 Je 28 '46

Seek more specific rule on financed car certificates; N.Y. dept. unconvinced dealers may sell insurance. Nat Underw 50:1 S 19 '46

700 banks in California ready to support bank-agent auto plan. W. D. Conel. East Underw 46:19 N 23 '45

Tactics of auto finance companies. C. G. Hallowell. East Underw 47:26 Ag 30 '46

Financial responsibility laws

Auto sales exceed expectations in Maryland; agents deluged. Nat Underw 50:19 Ja 10 '46

Hopes dampened for accident report revision in Illinois. Nat Underw 50:31 Mr 14 '46

Insurance lack costs N.Y. drivers $1,066,889 deposits; financial responsibility law operations for 1945. Nat Underw 50:17+ Jl 11 '46

Must work to keep business sold by automobile laws. I. J. Maurer. Nat Underw 49: 32 N 15 '45

New Illinois auto sales continue at good clip after Jan. 1; estimate 50% of motorists in state now insured. Nat Underw 50:19-20 Ja 17 '46

Opposes compulsory auto bill in Kentucky. C. A. Nuetzel. East Underw 47:42 Mr 15 '46

Sells car, doesn't get new one; insurer must pay for accident in borrowed car; New Hampshire case. Nat Underw 50:16 Ag 22 '46

Starts unsatisfied fund; province of Prince Edward Island enacts unsatisfied judgement plan by licensing drivers. East Underw 47:35 Jl 5 '46

Strict financial responsibility law in Manitoba now; non-admitted carriers out. Nat Underw 49:37 D 20 '45

See also

Automobile laws and regulations—Financial responsibility laws

Garage owners' and dealers' liability policies

Liability protection for garage keepers. C. A. Buck. Rough Notes 89:32, 64-7 O '46

Guest liability

Turning point in Michigan law spells automobile claim cost hike; overruling doctrine of imputed negligence. Nat Underw 50:32 Ja 10 '46

Policies

Automobile liability insurance; medical payments insurance. Spectator (Property ed) 12:26-7 Ag 22 '46

Automobile liability policy. A. J. Hall. il map Rough Notes 89:19-21+ Mr '46

Errors and omissions endorsement

Errors, omissions auto coverage for banks authorized by NAUA. Nat Underw 49:5 N 8 '45

Term policies

Auto B.I. and P.D. term policy to come up in fall. Nat Underw 50:25 Jl 11 '46; East Underw 47:28 Jl 12 '46

N.Y. state agents urge 15-month term policy. East Underw 47:28 Ag 2 '46

Preventive work

Safety will be chief auto insurance problem of next five years. G. L. Kerr. il Nat Underw (Auto & aviation no) 50:3+ Ap 19 '46

Standard Accident gives award to safe drivers. East Underw 46:33 D 28 '45

Rates

Agents strongly support company program in Kansas. Nat Underw 49:20 N 29 '45

Auto collision rates increased generally by National automobile underwriters association. East Underw 47:39 Mr 22 '46; Nat Underw 50:1+ Mr 21 '46; Rough Notes 89: 17 Ap '46

Auto insurance snafu in Virginia; effects of change to classification plan. Nat Underw 50:21 Ja 3 '46

Auto rate boost extended to New Jersey, Maryland and Oklahoma. Nat Underw 50:19 Ag 15 '46

Auto rate increase problems. B. Woodhams. Nat Underw 50:23 Ap 4 '46

Auto rates restored to level of pre-war. East Underw 47:26 My 31 '46; Same cond. Weekly Underw 154:1433 Je 1 '46

Auto rates up. Bsns W p29-30 Jl 13 '46

Auto rates up; collision premiums rise. Bsns W p74 Mr 23 '46

INSURANCE, Automobile—Rates—*Continued*
Automobile liability rating factors. A. E. Spottke. Weekly Underw 154:84-5+ Ja 5 '46
Classification rates, rate adequacy present problems of underwriters. A. E. Spottke. East Underw 47:29 S 6 '46
Collision rates up, fire-theft down, in North Carolina. Nat Underw 50:5 Je 13 '46
Concerned over auto rate situation. R. I. Catlin. East Underw 47:25+ Mr 8 '46
Dineen approves higher motor car rates. Weekly Underw 155:5+ Jl 6 '46; Nat Underw 50:17 Jl 4 '46
Drop 80% collision in Illinois, Kansas. Nat Underw 50:6 Ap 18 '46
Garage liability, medical payments rules revised; medical cover now open to all classes; other manual changes. Nat Underw 50:19+ Ap 18 '46
Hodges approves new auto cover tariffs in North Carolina. Weekly Underw 153:1507 D 29 '45
Knowlton turns down classification rates; one standard rate for New Hampshire. East Underw 46:31 N 23 '45; Same cond. Nat Underw 49:17 N 22 '45
Make strong plea for Kansas rate hike at hearing. Nat Underw 50:17+ Ag 29 '46
Maryland approves auto liability rate increases. Weekly Underw 155:469+ Ag 31 '46
Massachusetts compulsory rates to revert to 1941 basis. Nat Underw 49:31 N 15 '45
Massachusetts holds public discussion on automobile insurance rates. Weekly Underw 153:1194+ N 24 '45
New auto rate classes effective in Virginia Jan. 1. Nat Underw 49:28 D 6 '45
New bodily injury and property damage rates for commercial cars announced by National bureau of casualty and surety underwriters. East Underw 47:37+ Mr 15 '46; Nat Underw 50:25+ Mr 14 '46
N.J. auto rates increased. East Underw 47:32 Ag 16 '46
New rating plan for dealer and garage risks. East Underw 47:30 Ap 19 '46
New York insurance department's decision on gasoline rating credits. Weekly Underw 153:1148 N 17 '45
Okla. auto rates raised. East Underw 47:31 Ag 16 '46
Producers not satisfied with private passenger car automobile rates in New York. East Underw 46:34 N 9 '45
Reconversion in field of automobile bodily injury and property damage. W. H. Brewster. Weekly Underw 154:1022+ Ap 20 '46
Sharp auto rate increases ordered in Texas May 1. Nat Underw 50:11 Mr 28 '46
Suggests new rating approach. A. O. Graven. Nat Underw (Auto & aviation no) 50:8 Ap 19 '46
Texas shudders over motor car record; insurance commissioner tells car drivers they make insurance rates. J. P. Gibbs. Weekly Underw 155:237+ Ag 3 '46

Reinsurance
Reinsurers examine effect of higher auto B.I. claims; inflationary conditions may have changed basis of excess coverage. Nat Underw 50:18 Ag 29 '46
Reinsurers need boost in rate or in excess table. J. A. Cathcart, jr. Nat Underw 50:20 O 17 '46

Risks
Cannot refuse Negro risks; Nebraska insurance department rules color not grounds for refusing auto liability property damage policies. East Underw 47:40 Mr 29 '46
Every third car held defective; survey of police chiefs makes evident difficult task of underwriters. Weekly Underw 155:297+ Ag 10 '46
General of Seattle drastically curbs collision business. Nat Underw 50:4 F 14 '46; East Underw 47:27 F 15 '46

See also
Insurance, Automobile—Assigned risks

State policies
Michigan to cover state-owned cars. Spectator (Property ed) 11:35 N 22 '45

Statistics
Asks state officials to give blessing to N.A.U.A. plan; explains statistical reporting program in auto field. W. D. Hall. Nat Underw 49:5+ D 6 '45
New plan for handling experience; N.A.U.A. method would be quicker, more accurate. W. D. Hall. Nat Underw (Auto & aviation no) 50:2+ Ap 19 '46

Study and teaching
Automobile fire and theft queries. A. H. Clarke. East Underw 47:24 Jl 26 '46

Theft claims
Parting with car to prospective purchaser not theft under policy. East Underw 47:29 Ag 9 '46
Proof of taker's intent to permanently deprive insured of automobile necessary for recovery on theft policy. Weekly Underw 155: 227 Jl 27 '46
Rhode Island court construes theft as contained in auto policy. East Underw 47:23 Ag 16 '46
Simpler bond plan is suggested in auto recoveries in New York. F. Leuci. Nat Underw 50:15 O 17 '46
Theft policy covers mechanic's unauthorized use of car entrusted to employer for repairs. Weekly Underw 155:347 Ag 10 '46
Unauthorized taking of stored car for alleged purpose of taking friends home covered by policy insuring against theft. Weekly Underw 154:186 Ja 12 '46

British Columbia
British Columbia assigned risk plan. il Spectator (Property ed) 11:10-13 Ja 24 '46

Canada
Annual conference of Canadian sup'ts; assigned risk plans, garage mechanic liability and trailer exclusion clauses discussed. East Underw 47:31 S 20 '46
Automobile coverage favored by Canadians; survey of Institute of public opinion announces 75% want compulsory liability for car owners. East Underw 47:54 My 24 '46

Great Britain
Britain's method of handling uninsured motorists. J. B. Welson. East Underw 47:21 Ap 12 '46

Mexico
Clears up false Mexican cover ideas. P. Benbrook. Weekly Underw 155:981+ O 26 '46; Excerpts. East Underw 47:33 O 25 '46; Nat Underw 50:27, 34 O 24 '46
Handling claims on tourists in Mexico looms as problem. Nat Underw 50:22 S 12 '46
Mexican co. enters Texas to cover tourists' autos while in Mexico. East Underw 47:34 Ag 16 '46
North America has full Mexican cover. Nat Underw 50:17 Jl 4 '46; Weekly Underw 155: 41 Jl 6 '46

Ontario
Ontario bank-agent plan; Union acceptance corp. finances business developed by agents. East Underw 47:22 Je 21 '46

Saskatchewan
Benefits paid under Saskatchewan auto insurance act create interest. F. Jordan. East Underw 47:34 Ag 9 '46
Government auto coverage planned. Nat Underw 50:27 Mr 7 '46
Limited benefits under Saskatchewan auto accident act. East Underw 47:38 Jl 5 '46
New government auto insurance scheme in Saskatchewan. F. J. Jordan. East Underw 47:30 Ap 5 '46
Points warning in Saskatchewan law; extend medical payments or state will. J. C. O'Connor. Nat Underw 50:15 S 19 '46
Saskatchewan auto insurance in balance; other provinces in Canada may refuse to recognize its liability policies if introduced. East Underw 47:37 F 22 '46
Socialist province takes over auto insurance. H. H. Kritzwiser. Barron's 26:16 Ap 29 '46

INSURANCE, Automobile—*Continued*

Texas

Texas shudders over motor car record; insurance commissioner tells car drivers they make insurance rates. J. P. Gibbs. Weekly Underw 155:237+ Ag 3 '46

Virginia

Most Virginia motors covered for liability. G. A. Bowles. Weekly Underw 155:382 Ag 17 '46

INSURANCE, Aviation

Admitted liability aircraft coverage. Spectator (Property ed) 11:30 My 9 '46

Airborne freight due for wonderful future development; insurance opportunities. W. H. Rodda. Weekly Underw 154:1626 Je 22 '46

Aircraft liability cover insures against law liability; some pertinent features. G. W. Orr. Weekly Underw 154:1148 My 4 '46

Aircraft owners and pilots ass'n places with Lloyd's; personal accident, hull, P. L., P. D. and passenger liability provided under master policies. East Underw 47:35 Je 14 '46; Nat Underw 50:17+ Je 27 '46

Aircraft thefts now federal offense; may cut losses. Nat Underw 49:18 N 15 '45

Army liaison flying accident rate; Office of flying safety study. East Underw 46:26+ D 14 '45; Abstract. Nat Underw 49:25 N 8 '45

Automobile and aviation insurance number. Nat Underw (Auto & aviation no) 50:12-16 Ap 19 '46

Aviation insurance. G. L. Lloyd and others. il Rough Notes 89:19-24+ Jl '46

Aviation insurance. J. S. Rowland. East Underw 47:44 S 27 '46

Aviation insurance coverage widening. Aviation N 5:8 F 25 '46

Broadened aviation writing facilities announced by North America. Weekly Underw 155:185+ Jl 27 '46

Buyers learn who, what and why of aviation insurance. F. S. Wilson. Weekly Underw 154:1499 Je 8 '46

Compare notes on aviation insurance practices at Hemispheric conference; foreign delegates impressed by U. S. pooling facilities; scope of coverage in Mexico and Brazil. A. Worner; J. Roos. East Underw 47:53 My 24 '46

Contract carriers discover some new insurance problems. Air Transport 4:84 Ap '46

Entire field covered in Washington aviation panel. S. J. Stapp and others. Nat Underw 50:18 Ag 22 '46

Favorable and unfavorable factors in aircraft cover. W. H. Rodda. Nat Underw 50:43 O 24 '46

GI training bill is aviation sales aid. Nat Underw 50:8 Je 20 '46

It'll pay you to promote lightplane insurance. R. L. Templeton. Aviation 45:82-3 F; 86+ My '46

Learning from losses in aviation. H. W. Talbot. Rough Notes 89:30+ S '46

Lloyd's of London aviation group cover for AOPA members disturbing producing agents. J. S. Rowland. Weekly Underw 154: 1618 Je 22 '46; Same cond.' Nat Underw 50:4 Ja 20 '46

Lloyd's of London offers AOPA members aviation coverage. A. McSurely. Aviation N 5:15 Je 3 '46

Local agents showing increased interest in aviation; N.A.I.A. committee report. Weekly Underw 155:764 S 28 '46

North America offers full aviation cover. Nat Underw 50:3 Jl 25 '46; East Underw 47:30 Ag 2 '46

Pleads for understanding of aviation insurance problems; effect of legislative situation. J. J. Magrath. East Underw 46:35 N 16 '45

Post-war aviation outlook. A. J. Smith. East Underw 46:55+ D 14 '45

Potential value of radar in air. Nat Underw 50:3 Jl 11 '46

Private plane insurance policies which producers may now develop. E. J. Sealy. East Underw 47:27 Je 28 '46

Report no passenger cover on charter plane killing 27 in Virginia. Nat Underw 50:21 My 23 '46

Sees pools continuing to dominate airlines market. F. S. Wilson. Nat Underw 50:3 My 23 '46

Sources of aviation insurance. il Rough Notes 89:32+ F '46

Stabilization in aviation insurance; interview with R. Chambers. A. Krows. Aero Digest 52:26-7+ Ap '46

Thefts of planes, parts becoming insurance problem. Nat Underw 50:8 S 26 '46

See also

Airlines—Insurance requirements
Insurance, Accident—Aviation risks
Insurance, Airport public and property damage liability
Insurance, Life—Aviation risks

Adjustment of claims

Air liability claims; abstracts. G. W. Orr. Nat Underw 50:26+ Mr 7 '46; East Underw 47:42 Mr 29 '46

Differences in trial of aviation accident cases. F. A. Betts and others. Nat Underw 50:19 O 24 '46

Handling aviation claims presents factors different from automobile. G. W. Orr. Weekly Underw 155:44 Jl 6 '46

Agents

Analyze and understand market to get business. E. J. Quick. Nat Underw (Auto & aviation no) 50:15 Ap 19 '46

Aviation insurance to be big line. N. Volk. East Underw 47:35 Ap 19 '46

Aviation insurance to be regular part of salesmen's kit. W. H. Rodda. Nat Underw 50:19 My 2 '46

Aviation terms explained at local agents' meeting. J. S. Rowland. Weekly Underw 154:1380 My 25 '46

Facts regarding plane underwriting of value to local agents. W. H. Rodda. Weekly Underw 154:1676 Je 29 '46

Flying salesmen win favor by new approach; Laclede agency, in St Louis, employs five fliers with success. Weekly Underw 155:84 Jl 13 '46

Local agent's position in aviation expansion ahead. G. D. Holcomb. Nat Underw 50:20 Ap 25 '46

Necessity for exercising judgment in aviation insurance underwriting; abstracts. D. D. M. Scarritt. Weekly Underw 154:1439+ Je 1 '46; East Underw 47:25 My 31 '46

Non-scheduled airlines improve as premium source. Nat Underw 50:13 Ag 15 '46

Pioneering aviation field. C. Scheinert. Rough Notes 89:30+ Mr '46

Producing aircraft insurance business; production suggestions prepared by United States aviation underwriters. Spectator (Property ed) 11:34-5 My 23 '46

Real place for individual agent in aviation field. D. A. Bolton. Nat Underw 50:17 My 23 '46

Try little known lines. J. C. Conklin, jr. Rough Notes 89:45 Ag '46

Urges producers to become more interested in aviation writing. E. L. Stephenson. Weekly Underw 154:1317+ My 18 '46

Finance

Aircraft experience for 1945; tabulation. Nat Underw 50:21 Mr 7; 18 Mr 14; 16 Mr 21 '46

1945 air premiums drop $832,000; New York department tabulations. Nat Underw 50:15 O 17 '46

1941-45 aviation results released by N.Y. dept. East Underw 47:42 O 11 '46

Financed airplanes

C.I.T. credit corp. issues all risk aviation cover. Nat Underw 50:15 Jl 25 '46

Finance company air move may awaken agents. Nat Underw 50:16 Ag 1 '46

Largest sales finance group enters lightplane market; Universal CIT credit corp. W. Kroger. Aviation N 6:14 Jl 29 '46

Suggests agents use bank and auto plan for aircraft. W. H. Rodda. Nat Underw 50:8 My 23 '46

Policies

Aircraft hull insurance. Spectator (Property ed) 11:34-5 My 23 '46

INSURANCE, Aviation—Policies—*Continued*
New aircraft liability policy introduced by Newhouse and Sayre, and Employers' group. Weekly Underw 154:345 F 2 '46; Spectator (Property ed) 11:29 F 14 '46
See also
Insurance, Accident— Aviation risks
Insurance, Life— Aviation risks

Rates
Aero cuts rates on liability as much as 50%. Nat Underw 49:18+ N 22 '45
Aero insurance underwriters cuts premiums as much as 50%. Aviation N 4:19 D 3 '45
Air cover liability rates substantially reduced. Weekly Underw 154:176 Ja 12 '46
Aviation hull rates reduced on Ercoupes. East Underw 47:24 Ja 11 '46
Fear rate war reductions may be costly for aviation. Nat Underw 50:13 F 28 '46
New formula for rating aircraft risks by Aero insurance underwriters. Weekly Underw 154:588 Mr 2 '46; Nat Underw 50:4 F 28 '46
Question of rate stabilization. G. L. Lloyd. Weekly Underw 154:18+ Ja 5 '46

Great Britain
Aviation and insurance. Economist 151:507 S 28 '46

Mexico
Aviation cover in Mexico has some peculiarities. Nat Underw (Auto & aviation no) 50:15+ Ap 19 '46

INSURANCE, Bailees' customers
Event of 1945 for loss men is overlapping pact; main interest centers on principle VII of agreement. Nat Underw 50:1+ Ja 3 '46
Form pact on overlapping cover adjustments; National Board and I.M.U.A. agreement. Nat Underw 49:1+ D 27 '45; Same cond. East Underw 46:19+ D 28 '45; Same cond. Spectator (Property ed) 11:32-3 Ja 10 '46; Excerpt, Weekly Underw 153:1508 D 29 '45
Inland marine-fire adjusting setup working; losses involving bailee and the 10% off premises feature. Nat Underw 50:10 O 3 '46
Loss adjustment problems under bailee insurance; abstracts. B. Cotton. East Underw 47:36 O 11 '46; Nat Underw 50:13+ O 10 '46
Mixed reactions to fire, marine loss agreement. Nat Underw 50:3 Ja 10 '46
Primary liability where overlapping coverage is involved. E. I. Taylor. East Underw 47: 20+ N 8 '46
See also
Insurance, Furriers' customers

INSURANCE, Boiler
Boiler insurers study retrospective; feel high-low plan is necessary in rate control age. Nat Underw 50:24 O 3 '46
Residence boiler insurance forms. Spectator (Property ed) 12·64-6 O 10 '46
Why it pays to be residence boiler insurance minded. F. H. Williams. il Rough Notes 88: 36 D '45
See also
Insurance, Power plant

INSURANCE, Builders' risk
Builders' risk forms; abstracts. W. C. Daniels. Nat Underw 50:36+ S 26 '46; East Underw 47:17+ O 4 '46
Don't overlook the new builders. C. A. Meriwether. Rough Notes 89:32 Je '46
Get up to date on builders risk. Rough Notes 88:19-21 D '45
How loan agencies view builders risk. J. H. Magee. Rough Notes 88:22-3 D '45
Prospecting for builders risk. G. T. Bowler. Rough Notes 88:21 D '45
Some answers to builders risk objections. F. L. Dunn. Rough Notes 89:32 Ja '46
Writing builders risk in the large agency. A. C. Keith. Rough Notes 88:23 D '45

INSURANCE, Burglary
Burglary lines are very active. Nat Underw 50:21 Ja 31 '46
Crime increase makes underwriting difficult, Standard Accident warns. Weekly Underw 155:90 Jl 13 '46
Crime wave not causing poor burglary experience. Nat Underw 49:21 D 13 '45
Examination questions and answers in NAIA burglary-glass course. Weekly Underw 154: 952 Ap 13 '46
Four package burglary opportunities. H. A. Houston. Rough Notes 89:28+ Ag '46
Hold N.Y. hearing on burglary rates. Nat Underw 50:13 Ag 8 '46
Inflation and shortages cost burglary insurers. Nat Underw 50:20 My 9 '46
Residence theft premiums raised $3 per policy; paymaster broad form policy introduced, other manual changes. Nat Underw 50:13+ F 28 '46
Sale value of burglary-robbery contracts. H. A. Houston. Nat Underw 50:15 Je 20 '46
See also
Insurance, Fur
Insurance, Theft

INSURANCE, Business
Business insurance is New York Association panel topic. O. Bethea and others. East Underw 47:6 Ap 19 '46
Business insurance viewed open field in years ahead. A. V. Youngman. Weekly Underw 154:106 Ja 5 '46
Business life insurance. Rough Notes 89:48-50 F '46
Business mortality exceeds that of men, denoting need for key man coverage. E. I. Rappaport. Weekly Underw 154:52-4 sec 2 My 11 '46
Business retirement opportunities. Life Ins Courant 51:380 Ag '46
Contractors need sound advice on insurance. Nat Underw (Life ed) 50:23 F 15 '46
Insurance in business situations. M. H. Hamilton and others. East Underw 47:13 N 1 '46
Key man cover held prime business need; abstracts. D. B. Fluegelman. Weekly Underw 155:566 S 7 '46; Nat Underw (Life ed) 50:24 S 20 '46; Management R 35:398-9 S '46
Key man insurance. A. J. Raumann. Spectator (Life ed) 153:29-30+ My '46; Same cond. East Underw 47:3+ Ap 5 '46; Same cond. Weekly Underw 154:56-9 sec 2 My 11 '46
Key-man opportunities. Life Ins Courant 51: 226-9 My '46
Life insurance; vital factor in a small business. E. A. Muller. Mag of Wall St 77:654+ Mr 2 '46
Michigan leaders body ponders pension and business covers. G. E. Lackey and others. Nat Underw (Life ed) 50:3 My 10 '46
Pension plans for key men; employment contracts supplemented by insurance offer advantages. P. F. Millett. Trusts & Estates 83: 345-8, 524-7 O-N '46
Potent new sales argument for key man cover; Treasury penalizes accumulations of corporation surpluses. A. S. Potwin. Nat Underw (Life ed) 50:1 Je 28 '46
Selling business cover. R. W. Wilkinson. Nat Underw (Life ed) 50:5-6 My 10 '46
Simplicity called vital in presenting business insurance; abstracts. B. S. Collins. Nat Underw (Life ed) 50:3+ F 15 '46; Trusts & Estates 82:389-93 Ap '46
Sole proprietor is sole prop of his business. G. L. Grimm. Nat Underw (Life ed) 49: 12 N 23 '45
Why key man insurance. E. A. Muller. Mag of Wall St 77:533+ F 2 '46

Partnership interest
Partnership. H. R. Schultz. Weekly Underw 155:576-7 S 7 '46; Excerpts. Nat Underw (Life ed) 50:24 S 27 '46
Partnership insurance. G. B. Gordon. East Underw 47:13 F 8 '46
Partnership opportunities. Life Ins Courant 51:279-81 Je '46
Why not more small business cases? F. P. McGuire. East Underw 47:76-7+ pt 2 O 4 '46

Stock liquidation agreements
Close corporation opportunities. Life Ins Courant 51:330-1 Jl '46
Employees trust for stock purchase. Trusts & Estates 83:60-1 Jl '46
Financing of stock retirements; abstracts. J. Kellam. Weekly Underw 155:570 S 7 '46; Nat Underw (Life ed) 50:8 S 20 '46
Perpetuate management control with insurance; Bay Ridge Hospital of Brooklyn. H. W. Baird. Nat Underw (Life ed) 50:2+ Ag 16 '46

INSURANCE, Business—Stock liquidation agreements—*Continued*
Stock purchase agreements. A. Hirst. East Underw 47:10 Mr 8 '46
Use of insurance in liquidating businesses. G. B. Gordon. Weekly Underw 153:1430 D 15 '45; Same abr. Nat Underw (Life ed) 49: 27 D 21 '45

INSURANCE, Business interruption. See Insurance, Use and occupancy

INSURANCE, Camera
Phoenix will insure cameras at bomb test; all risks cover written. East Underw 47:22 My 31 '46

INSURANCE, Casualty
Casualty future is bright. L. M. Dunathan. Nat Underw 50:24 Ap 11 '46
Casualty horizons still bright. B. Rush, jr. Nat Underw 50:17+ Ag 29 '46
Casualty underwriting trends of 1945 and the outlook. T. Y. Beams. East Underw 46:88+ D 14 '45
Developments in casualty insurance; address at ABA Cincinnati meeting; abstracts. J. S. Hamilton, jr. East Underw 46:36+ D 21 '45; Nat Underw 49:19, 36 D 20 '45
Fire and casualty conference at Ohio state university. Nat Underw 50:1+ Ap 25 '46
Leaders in casualty-surety field forecast little profit for 1946. J. S. Daniel. East Underw 47:28-9+ Ag 16 '46
NAIA casualty committee report. East Underw 47:26+ S 27 '46; Same cond. Nat Underw 50:54-5 S 26 '46
1945 difficult for casualty companies. E. C. Stone. Weekly Underw 154:68+ Ja 5 '46
Observations regarding various aspects of fire, auto and casualty lines. A. L. Ham. Weekly Underw 154:930+ Ap 13 '46
Selling technique required today; abstracts. H. P. Stellwagen. Nat Underw 50:23+ Mr 7 '46; East Underw 47:26 Mr 8 '46; Weekly Underw 154:697+ Mr 16 '46
Stock casualty companies in fine state for post-war era. R. Tuchbreiter. East Underw 47:29+ F 15 '46
Wartime casualty developments. J. C. O'Connor. Rough Notes 88:15-17+ D '45
Where the big casualty gains came from. J. D. Hall. Rough Notes 89:17-18 Ja '46

See also
Insurance, Accident
Insurance, Automobile
Insurance, Aviation
Insurance, Boiler
Insurance, Burglary
Insurance, Hail
Insurance, Liability
Insurance, Motor truck
Insurance, Plate glass
Insurance, Power plant
Insurance, Surety and fidelity
Insurance, Theft
Insurance, Tornado
Insurance, Valuable papers
Insurance, Workmen's compensation

also Association of casualty and surety executives; Casualty actuarial society

Advertising

Post-war insurance advertising trends. W. L. Clapp. East Underw 47:8+ pt 2 Je 28 '46

Agents

Building a sound insurance business; abstracts. R. A. Duffus. East Underw 47:33 Ap 19 '46; Nat Underw 50:15 Ap 18 '46
Coverages and forms; accent on production. H. P. Stellwagen. Spectator (Property ed) 12:30-1 Jl 11 '46
Many points of interest in agents' casualty forum of N.A.I.A. at Cincinnati. Nat Underw 50:13 Je 27 '46

See also
National association of casualty and surety agents

Camp fees refund policies

Camp fees refund cover excites much interest. Nat Underw 50:22 My 23 '46
Camp fees refund cover is uneasy line in final days due to polio record. Nat Underw 50:17 Ag 22 '46

Coverage

See also
Insurance, Casualty—Camp fees refund policies

Finance

Aggregates of stock casualty, surety and miscellaneous companies and of mutual casualty companies for 1945; with underwriting and investment profit and loss exhibit; tables. Spectator (Property ed) 12:30-2+ O 10 '46
Best & co. analyzes mid-year statements of 50 casualty companies; tabulation. East Underw 47:29 Ag 30 '46
California net premiums and paid losses in 1945; casualty leaders. Nat Underw 50:3+ Mr 21; 27 Mr 28; 32 Ap 4 '46
Casualty companies surging ahead; with tabulation and graph for 1940-1945. Spectator (Property ed) 11:9 Ap 25 '46
Casualty experience exhibit for year ended Dec. 31, 1945; tabulation. Nat Underw 50: 16+ Jl 4 '46
Casualty year recorded by Argus chart. Nat Underw 50:25 My 2 '46
Comparative financial and operating results of stock casualty companies for year ending Dec. 31, 1945 and 1944; tabulation by company. Spectator (Property ed) 11:16 F 28; 20 Mr 14 '46
Country-wide underwriting results 1941-45 of companies licensed in New York state; tabulations. East Underw 47:6-7+, 10+ pt 2 Je 28 '46
Financial growth of stock casualty insurance companies, 1936-1945; tabulation. Spectator (Property ed) 12:42 O 10 '46
Fleet underwriting results for 1945 offer composite, multiple line picture; with tabulation. Spectator (Property ed) 11:12-15+ Ap 11 '46
Illinois casualty business for 1945; with tabulations. Spectator (Property ed) 11:20 Je 13 '46
Illinois net premiums and paid losses in 1945; casualty leaders. Nat Underw 50:23-5 Mr 28; 32 Ap 4 '46
Indiana net premiums and paid losses in 1945. Nat Underw 50:22+ Je 6; 18 Jl 11 '46
Investment outlook for fire and casualty insurance stocks; with earnings position of representative companies. P. Dobbs. il Mag of Wall St 78:390-2+ Jl 6 '46
Iowa net premiums and paid losses in 1945; casualty leaders. Nat Underw 50:21-2 Ap 18 '46; Nat Underw 50:20 Ap 25 '46
Kansas net premiums and paid losses in 1945. Nat Underw 50:21-3 Je 20 '46
Maryland net premiums and paid losses in 1945. Nat Underw 50:21-2 Ap 25 '46
Michigan casualty net premiums and paid losses in 1945; casualty leaders. Nat Underw 50:25-7 Mr 28; 14 Ap 4 '46
Michigan results in casualty lines for 1945; with tabulations. Spectator (Property ed) 11:9 Ap 11 '46
Minnesota net premiums and paid losses in 1945; casualty leaders. Nat Underw 50:4 Ap 4; 22 Ap 11 '46
Missouri net premiums and paid losses in 1945; casualty leaders. Nat Underw 50:21-2 Ap 4; 22 Ap 11 '46
New Jersey casualty-surety writings during 1945. East Underw 47:34-6+ Mr 29 '46
New Jersey net premiums and paid losses in 1945; casualty leaders. Nat Underw 50:22-3 Mr 28; 14 Ap 4 '46
New York net premiums and paid losses in 1945; casualty leaders. Nat Underw 50: 28+ Mr 14; 16 Mr 21 '46
News of the casualty companies; figures from annual statements. Nat Underw 50:37-40 F 14; 24-6 F 21; 17-20 F 28; 34-7 Mr 7; 41-2 Mr 14; 29-30 Mr 21; 33 Mr 28 '46
1945 casualty results for New York; tabulations. Spectator (Property ed) 12:8-9 Jl 11 '46
1945 casualty-surety results of all companies for New York state; tabulation. East Underw 47:14+ pt 2 Je 28 '46; Correction. 47:34 Jl 19 '46
1945 premiums and losses by states; casualty, surety and miscellaneous lines; tabulations Spectator (Property ed) 12:9-13 S 12 '46
Ohio net premiums and paid losses in 1945. Nat Underw 50:19-20 My 30 '46
Pennsylvania net premiums and paid losses in 1945; casualty leaders. Nat Underw 50:22+ Mr 21; 28 Mr 28 '46

INSURANCE, Casualty—Finance—*Continued*
Premium gain in casualty field 8.5%, Argus chart finds; grand total of writings in 1945 was $2,167,393,820. Nat Underw 50:23+ My 2 '46
Premiums written by New York admitted stock carriers $928,074,461 in 1945; National Bureau figures. Weekly Underw 154:1670 Je 29 '46; Same. East Underw 47:28+ Je 28 '46; Same cond. Nat Underw 50:5 Je 27 '46
Texas net premiums and paid losses in 1945. Nat Underw 50:26+ My 2 '46
Underwriting and investment profits and losses in 1944; 100 leading stock casualty and surety companies; tabulation. Spectator (Property ed) 11:28-9 N 22 '45
Underwriting and investment profits and losses of 100 casualty, surety and miscellaneous companies, 1935-1944; tabulation. Spectator (Property ed) 11:16-17 D 20 '45
Underwriting and investment profits and losses of 100 leading stock casualty, surety and miscellaneous companies for 1945, and for the decade 1936-1945; tabulations. Spectator (Property ed) 11:10+ Je 13 '46
Underwriting results for fire and casualty lines analyzed by Standard and Poor's, inc. Weekly Underw 154:1660+ Je 29 '46
Wisconsin net premiums and paid losses in 1945; casualty leaders. Nat Underw 50:21-2 Ap 11 '46; Nat Underw 50:20 Ap 18 '46

Losses

Losses and adjustment expenses for all stock casualty companies; graph. Spectator (Property ed) 12:18 O 10 '46

Policies

3-D policy is stop gap against competition. J. H. King. Rough Notes 89:62-3 Ap '46
What's in CDDD prize package. F. G. Packwood and others. Rough Notes 88:19-24 N '45

Preventive work

Accident prevention went to war; work of National conservation bureau and Center for safety education. J. H. Harvey. East Underw 46:92+ D 14 '45
Highway safety campaign of Casualty executives' association wins favorable comment. Weekly Underw 155:1076 N 2 '46
Outdoor safety films of Aetna affiliated companies. East Underw 47:37 N 1 '46
Pedestrian problem baffling one to solve; addresses before New York safety conference. T. N. Boate and J. V. Grimaldi. Weekly Underw 154:1018 Ap 20 '46
Pennsylvania publishers in traffic accident drive; Association of casualty and surety executives cooperating. East Underw 47:48 S 13 '46
Results of insurance research. F. Lang. East Underw 47:35+ Ap 12 '46; Same cond. Nat Underw 50:19+ Ap 11 '46
Three new motion pictures in drive on losses released by Aetna affiliated companies. Weekly Underw 155:756 S 28 '46

Purchasing

Buyers' views on what's wrong. W. W. Clement. East Underw 47:35+ Je 14 '46

Rates

Agreement reached on rating bills by NAIC and industry committees. East Underw 47:16+ My 31 '46
Casualty rate bill hit in NAIC session. Nat Underw 50:25+ Je 13 '46
Commissioners bring out rating bills of own. Nat Underw 49:3+ D 6 '45
Commissioners debate casualty-surety bill. East Underw 46:34 D 7 '45
Commissioners hear fire-casualty views on rating proposals. East Underw 46:1+ D 7 '45
Comprehensive insurance rating plan met needs of government. G. E. Peterson. East Underw 46:84 D 14 '45
NAIC, all-industry committee approve both rating bills. East Underw 47:1+ Je 21 '46
Rating bill pact is now all but sealed; industry and Commissioners group in almost complete agreement. Nat Underw 50:1+ My 30 '46
Text of casualty-surety regulatory bill of all-industry committee. East Underw 47:28-9+ Ja 11 '46; Same. Spectator (Property ed) 11:18-20+ Ja 10 '46; Same abr. Nat Underw 50:19+ Ja 3 '46
Text of fire and casualty bills presented by NAIC committee on rates and rating organizations with memorandum explaining various provisions. East Underw 46:19+ D 7 '45

Reinsurance

Casualty reinsurance profit not quite up to '44 level. Nat Underw 49:18+ D 27 '45

Statistics

Casualty insurance in the United States in 1945; tabulation by company. Spectator (Property ed) 11:12-14 My 9 '46
Division of premiums written in 1945 by stock and mutual casualty companies and by stock and mutual fire companies; charts. Spectator (Property ed) 12:26 O 10 '46
Stock casualty insurers ranked by assets, premiums. Nat Underw 50:20 Ap 4 '46

See also
Insurance, Casualty—Finance

Study and teaching

Questions and answers on which Connecticut exams are based. East Underw 47:31 Jl 26 '46

Terminology

Dictionary of insurance terms. 59p Employers mutual liability insurance company of Wisconsin, Wausau '46

Latin America

Casualty operations in the two Americas compared; casualty section meeting of Hemispheric conference. Nat Underw 50:21+ My 23 '46; East Underw 47:54 My 24 '46

INSURANCE, Cold storage locker
Coverage of food in lockers allowed in District of Columbia. East Underw 47:24 Ap 5 '46
Frozen food lockers promise good market for insurance. Nat Underw 50:12 O 24 '46
Insuring frozen food lockers. K. J. Bidwell. Rough Notes 89:28 My '46

INSURANCE, Compulsory
Method of making actuarial estimates for a compulsory health insurance system; such as that proposed for California. P. A. Dodd. Am Stat Assn J 41:58-69 Mr '46
Monopolistic state A. & H. plans assailed; compulsory disability benefit systems. W. A. Milliman; G. E. Bigge. Nat Underw 50:19+ O 17 '46; Same. Nat Underw (Life ed) 50:1+ O 18 '46
Offensive urged in meeting state health cover threat. R. W. Smith. Nat Underw 49:19 D 13 '45; Same. Nat Underw (Life ed) 49:14+ D 14 '45
Pattern of compulsory health insurance; systems in foreign countries. E. W. Wilson. Weekly Underw 155:344-6 Ag 10 '46

See also
Insurance, Automobile—Financial responsibility laws
Insurance, Social

INSURANCE, Contractors' equipment floater
General contractor needs inland marine equipment floater; abstracts. U. M. Lelli. East Underw 47:41 S 27 '46; Nat Underw 50:7 S 26 '46

INSURANCE, Contractors' property damage liability. See Insurance, Manufacturers' and contractors' property damage liability

INSURANCE, Contractors' public liability
Alcan engineer's premium base includes employes on civil service status. Nat Underw 49:28 N 22 '45

INSURANCE, Corn
Insurance experience on corn crop in Iowa analyzed. Nat Underw 50:4 Ja 3 '46

INSURANCE, Cotton
How cotton is insured. R. B. Berkeley and E. R. Schoen. il Rough Notes 89:26+ S '46
Losses cut cotton cover facilities. Nat Underw 50:14 Mr 14 '46
Risk on new cotton crop great. Nat Underw 50:2 Ag 8 '46

INSURANCE, Cotton—*Continued*
Selling crop insurance to farmers. H. Severson. Banking 39:59-60 S '46

INSURANCE, Credit
Rider protects bankers in commercial paper against credit hazards. Spectator (Property ed) 11:30-1 Mr 28 '46
Security aids in selling; subordination agreements; credit insurance. C. B. Everberg. Credit & Fin Management 48:11-14+ My '46; Discussion. J. E. Beahn. 48:12-13+ Jl '46
Why and wherefore of credit insurance. G. E. Caldwell. Weekly Underw 153:1482-4+ D 22 '45

INSURANCE, Crop. See Insurance, Agricultural

INSURANCE, Deferred payment
Installment sales floater. H. O. Molitor. Nat Underw 50:9 S 19 '46
Installment sales floaters. G. A. Hunt. Rough Notes 89:38 Je '46
Retail installment sales floater. Spectator (Property ed) 12:31 Jl 25 '46
Rhode Island agents ask investigation of finance-insurer combinations. Nat Underw 49:5 N 15 '45

See also
Insurance, Automobile—Financed automobiles
Insurance, Aviation—Financed airplanes

INSURANCE, Dentists' liability. See Insurance, Malpractice liability

INSURANCE, Depreciation
Depreciation cover approved in District of Columbia; broad demolition and increased construction cost cover also O.K.'d. Nat Underw 50:16 F 7 '46
Depreciation insurance form. Rough Notes 89:69-70 F '46
Green light to Pennsylvania replacement cost endorsement. Nat Underw 50:8 O 10 '46
Lloyds brings out new depreciation cover form. Nat Underw 50:2 Ag 30 '46
Massachusetts gives rules for replacement covers. East Underw 47:16 Ag 23 '46; Same cond. Nat Underw 50:25 Ag 29 '46
Michigan rejects replacement rider; Commissioner holds any plan avoiding factor of depreciation would lead to incendiary fires. East Underw 47:20 Je 7 '46; Same cond. Nat Underw 50:1 My 30 '46
Pacific Board authorizes cover of depreciation. Nat Underw 49:3 N 15 '45
Replacement cost cover in Canada. Nat Underw 49:16 N 8 '45

INSURANCE, Disability
California plan is illuminated; questions on unemployment compensation disability procedure. P. Merrick. Nat Underw 50:20+ Je 20 '46; Same. Nat Underw (Life ed) 50:8 Je 28 '46
Employer best equipped to avoid abuses in disability insurance. W. A. Milliman Weekly Underw 155:1016 O 26 '46
Greater attention to emotions of the sick advised as heart disease disability curb. E. Weiss. Weekly Underw 154:1636 Je 22 '46
Insured's refusal to submit to physical examination constitutes bar to maintenance of action for disability benefits. Weekly Underw 154:1163 My 4 '46
Monopolistic state A. & H. plans assailed; compulsory disability benefit systems. W. A. Milliman; G. E. Bigge. Nat Underw 50:19+ O 17 '46; Same. Nat Underw (Life ed) 50:1+ O 18 '46
New York bill sets up disability fund for disabled workers. East Underw 47:34 Mr 8 '46
Payment of disability benefits for several years does not foreclose insurer from questioning permanency of disability. Weekly Underw 154:1637 Je 22 '46
Urges agents to wake up to California compulsory compensation disability act potentialities. W. S. French. Nat Underw 50:37 O 24 '46; Same. Nat Underw (Life ed) 50:31 O 25 '46

See also
Insurance, Accident
Insurance, Health
Insurance, Life—Disability provisions

INSURANCE, Dog
Dog and cat hospitalization insurance ruling in Ohio. East Underw 47:15 Ag 2 '46
Dog insurance. Rough Notes 88:60 D '45

INSURANCE, Druggists' liability
Travelers has new druggists' policy. Nat Underw 50:44 N 7 '46

INSURANCE, Elevator
Insurer suing as subrogee of assured has burden of showing assured free from concurrent negligence. Weekly Underw 155:1091 N 2 '46

INSURANCE, Employers' liability
Employee held in course of employment while on employer's premises for purpose of driving fellow employee home. Weekly Underw 154:847 Mr 30 '46

See also
Insurance, Workmen's compensation

INSURANCE, Explosion
Rate cuts urged for explosion and sprinkler leakage by New York department. Nat Underw 50:4+ My 9 '46

See also
Insurance, Boiler

INSURANCE, Export credit
Export insurance bill explained to exporters. H. Edelsberg. Weekly Underw 154:516-17 F 23 '46
Export insurance provided by proposed new division of Export-import bank. Weekly Underw 154:264 Ja 26 '46
Foreign credit insurance; with text of proposed Export insurance act. P. J. Gray. Credit & Fin Management 48:4-6 Jl '46

Canada
Canadian export credit insurance. R. W. Rinden. il For Comm W 21:6-7+ N 24 '45
Export credits insurance act amended. For Comm W 24:33-4 Ag 17 '46
Export credits insurance corporation. maps Spectator (Property ed) 11:10-14 N 22 '45

INSURANCE, Extra expense
Additional living expense cover needed in these days of high costs. K. J. Heindel. East Underw 47:22 Ag 23 '46
Local agents neglecting U. & O. and extra expense insurance. A. C. Knox. Weekly Underw 154:306+ F 2 '46

INSURANCE, Fidelity. See Insurance, Surety and fidelity

INSURANCE, Fine arts. See Insurance, Art

INSURANCE, Fire
Adequate insurance program for home owners. Spectator (Property ed) 11:35 N 8 '45
Answers to questions in NAIA fire insurance course examination. East Underw 46:24 D 28 '45; Same. Spectator (Property ed) 11:28-9 D 20 '45; Same. Weekly Underw 153:1394+ D 15 '45
Appraiser criticizes definitions of depreciation and insurable value. R. W. Stevens. Nat Underw 50:17 S 19 '46
Burning out of business; it's difficult to recover from a fire. F. Williams. Credit & Fin Management 48:37 My '46
Dangers of underinsurance. J. J. Conway and G. Maggini. Nat Underw 50:10 My 2 '46
Dineen urges insurance to value in Department notice. Nat Underw 50:13 Mr 7 '46
Fire and casualty conference at Ohio state university. Nat Underw 50:1+ Ap 25 '46
Fire companies' subrogation tempo has stepped up. Nat Underw 50:14+ N 7 '46
Fire insurance and U.S. Supreme court decision. S. L. Carpenter, jr. Rough Notes 89:38+ F '46
Fire insurance companies organized or retired during 1945. Spectator (Property ed) 11:22 F 28 '46
Fire insurance industry facing crisis. J. F. Crafts. Weekly Underw 154:12+ Ja 5 '46
Fire insurance laws, taxes and fees; data on insurance statutes in 1945-46 edition. Spectator (Property ed) 11:16-17 Ja 10 '46
Fire insurance management holds the key to progress. C. F. Rupprecht. Spectator (Property ed) 11:10-14+ N 8; 10-14+ D 6 '45

INSURANCE, Fire—*Continued*

Flames and inflation. G. H. Rylander. Paper Ind 28:984 O '46

Greater public service fire insurance aim; address at National Board meeting; abstracts. F. A. Christensen. Weekly Underw 154: 1341+ My 25 '46; East Underw 47:1+ My 24 '46

Higher fire losses delay reconversion; warns of under-insurance dangers. G. G. Traver. East Underw 47:20 Ap 26 '46

Homeowners urged to protect risks; replacement is most difficult now. East Underw 47.25 Jl 26 '46

Keeping pace with values. Rough Notes 89:30 Mr '46

Lively discussion at AMA meeting on ways of fixing insurance values. East Underw 47: 21+ Mr 15 '46

NAIA fire and allied lines committee report; abstracts. East Underw 47:28 O 4 '46; Weekly Underw 155:724+ S 28 '46

National Board suggestions for methods to combat under-insurance. Nat Underw 50:12 F 28 '46; East Underw 47:21 F 22 '46

New public interest in insurance being met; expanded public relations campaign of National Board reaching entire business; abstracts. E Ewing. East Underw 47:1+ My 3 '46; Weekly Underw 154:1113+ My 4 '46; Nat Underw 50:1 My 2 '46

Pacific Board's new setup is signed. Nat Underw 50:4 Jl 18 '46

Publicity as substitute for policing; value of territorial organizations. W. R. McCain. Nat Underw 50:1+ Ja 3 '46

Reconversion problems of the insurance industry. E. Elwell. Nat Underw 50:8 Mr 14 '46

Seek to save rudiments of Chicago Board; agents committee strongly advocates company inclusion on modified basis. Nat Underw 50:1+ Jl 18 '46

Study problems of mixed membership; future of boards with company and agent makeup is clouded. Nat Underw 50:12 My 16 '46

Under-insurance talk; problems of owners. A. L. Kirkpatrick. East Underw 47:33 My 10 '46

Under-insurance vital matter that local agents fail to stress. G. G. Traver. Weekly Underw 154:435+ F 16 '46; Same abr. East Underw 47:1+ F 15 '46

W.U.A. gets reports from loss and forms committees at Asheville, N.C., meeting. Nat Underw 50:2 S 19 '46

What does the fire future hold? C. T. Hubbard. Rough Notes 89:15-16+ Ja '46

What would it cost to rebuild your property today? expiring policies should be increased to cover today's values. Rough Notes 89: 28 Ja; 30 Ap; 28 Jl; 30 O '46

Why agents should re-check property values; with chart showing percentage increase, 1939 and 1945, for eight cities. Weekly Underw 154:999 Ap 20 '46

See also

Arson
Insurance, Accounts receivable
Insurance, Builders' risk
Insurance, Cotton
Insurance, Forest
Insurance, Leasehold
Insurance, Marine
Insurance, Use and occupancy
Salvage (fires)

also Factory insurance association; Fire underwriters association of the Pacific; Insurance board of Cleveland; National board of fire underwriters; New York state association of supervising and adjusting fire insurance agents; Newark fire insurance company; Pacific fire insurance company

Adjustment of claims

Adjuster views replacement trend; emphasizes increasing importance of labor cost. C. C. Oakes. Nat Underw 50:4 Ag 22 '46

Assured recovers even though vacancy permit on theater expired. Nat Underw 49:17 N 8 '45

Colliery's victory over West Virginia school board reversed. Nat Underw 49:8 D 20 '45

Court defines adequate roof under terms of windstorm insurance risk in fire policy. East Underw 47:23 Ag 23 '46

Delivery of goods in relation to fire insurance; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:34-6 Je 27 '46

Good will big factor in loss adjustments. R. G. Osgood. Weekly Underw 154:1606+ Je 22 '46; Excerpt. East Underw 47:31 Je 14 '46

Insurers lose Tennessee decision; property insured as seasonal dwelling but used as clubhouse. Nat Underw 49:13 D 27 '45

Life tenant taking fire policy entitled to entire proceeds to exclusion of remaindermen. Weekly Underw 154:239 Ja 19 '46

Policies neither taken or rejected held effective; oral contract to renew binding on insurers. Nat Underw 49:13 D 27 '45

West Virginia colliery pursues school board litigation. Nat Underw 50:4 Ja 17 '46

Windstorm damage; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12: 34-6 Jl 11 '46

Advertising

New radio program for National Board. East Underw 47:20 O 18; 20 O 25 '46

Agency management

Field supervision of fire insurance. C. F. Rupprecht. Spectator (Property ed) 11:10-14+ F 28 '46

Agents

Advises agent to specialize in one type of cover. A. M. O'Connell. Nat Underw 50:7 Je 27 '46

Marketing problem for agents becomes acute. Nat Underw 50:2 Ag 8 '46

Successfully uses phone to speed campaign on underinsurance. W. W. Hargert. East Underw 47:23 Ag 23 '46

Binders

See Insurance—Binders

Cancellation

Cancellation by post office receipt is upheld. Nat Underw 50:3 Je 20 '46

Fire policy dividend not applied to premium to keep risk in force. East Underw 47:23 Ag 30 '46

Texas cracks down on pro rata cancellation. East Underw 47:17 Ja 11 '46

Classification of risks

Accord obtained on fire classifications; report of NAIC committee. East Underw 47:16 My 31 '46; Weekly Underw 154:1412 Je 1 '46; Nat Underw 50:4 My 23; 11 My 30 '46

Accountants give tips on 100 classification. Nat Underw 50:2 Ja 17 '46

Agreement foreseen on fire classifications. R. E. Dineen. East Underw 47:22 Ap 12 '46

Arkansas ready for 100 class plan. Nat Underw 49:4 D 27 '45

Classification plan termed great advance. W. E. Mallalieu. Weekly Underw 154:429+ F 16 '46

Classification system awaits Dineen's action. Weekly Underw 153:1123 N 17 '45; Same abr. East Underw 46:20 N 16 '45

Commissioners defer classification action; commend work of fire companies; N. Y. dept. conducting intensive nationwide study. East Underw 46:18+ D 7 '45

National Board adopts revised classification. East Underw 46:20+ D 21 '45; Same abr. Weekly Underw 153:1460-1 D 22 '45

N.Y. will study classification plan before approving; Dineen's position. Nat Underw 49:5 N 15 '45

Officials withhold OK on new classification plan at NAIC meeting. Nat Underw 49:3 D 6 '45

Revised classification system approved by National Board. East Underw 46:30 N 16 '45

Coinsurance

Agent, customer must understand coinsurance clause. Nat Underw 50:19 F 7 '46

Coverage

See also

Insurance, Fire—Off premises coverage
Insurance, Fire—Policies—Extended coverage endorsements

Errors and omissions policies

Errors and omissions form attached to fire or windstorm policies. Rough Notes 88:66 N '45

INSURANCE, Fire—Errors and omissions policies—*Continued*
Errors and omissions insurance essential to lending institutions. East Underw 47:24 Ja 11 '46

Extended coverage

See Insurance, Fire—Policies—Extended coverage endorsements

Farm policies

Farm experts are just agents who know the farm policy; analysis of farm property form no. 66. Rough Notes 89:20+ Ag '46
Farm insurers eschew the buy more campaign. Nat Underw 50:6 My 2 '46
Farm property form no. 64. Rough Notes 89:74 O '46
Farm underwriting hazards. A. B. Potts. Weekly Underw 155:524 S 7 '46

Finance

Aggregates of stock and mutual fire companies for 1945. Spectator (Property ed) 12:10-11, 13 S 26 '46
Alaska; business transacted from Jan. 1, 1943, to Dec. 31, 1944; tabulation by company. Spectator (Property ed) 11:36 D 6 '45
Chicago fire premiums for year ending June 30, 1946 and comparisons, 1944-1945; tabulation by company. Nat Underw 50:8-10 Ag 22 '46
Chicago 1945 premiums up 12½%. Nat Underw 50:11 My 16 '46
Comparative financial and operating results of stock fire companies for year ending Dec. 31, 1945 and 1944; tabulation by company. Spectator (Property ed) 11:17 F 28 '46; Correction. 11:48 Mr 14 '46
Consolidated analysis of semi-annual statements of America fore companies. F. L. Brokaw. East Underw 47:21+ Ag 9 '46
Earnings trend of stock fire companies over the past 20 years. E. A. Van Deusen. Comm & Fin Chr 163:22 Ja 3 '46
Financial growth of stock fire insurance companies, 1936-1945; tabulation. Spectator (Property ed) 12:40 O 10 '46
Fire company experience in 1945 by lines; tabulation. Nat Underw 50:5 F 14; 2 F 21; 3 F 28; 21 Mr 7; 6 Mr 14; 2 Mr 21 '46
Fire company 1945 statement figures; tabulation. Nat Underw 50:5 F 14; 2 F 21; 12 F 28; 15 Mr 7; 6 Mr 14; 2 Mr 21 '46
Fire company premiums 7.1% higher in 1945. Nat Underw 50:1+ Mr 28 '46
Fire insurance by states; summary of miscellaneous lines for year ending Dec. 31, 1945. Spectator (Property ed) 12:9-14 Ag 22 '46
Fire insurance in the United States in 1945; tabulation by company. Spectator (Property ed) 11:14-19 Ap 25 '46
Fire insurance stocks; change in market prices. 1944 and 1945. E. A. Van Deusen. Comm & Fin Chr 163:256 Ja 17 '46
Fire insurance underwriting results for 1945. H. A. Fischer. Spectator (Property ed) 11:7+ Mr 28 '46
Fleet underwriting results for 1945 offer composite, multiple line picture; with tabulation. Spectator (Property ed) 11:12-15+ Ap 11 '46
Illinois 1945 fire premiums; tabulation. Nat Underw 50:15+ Ap 11 '46
Investment outlook for fire and casualty insurance stocks; with earnings position of representative companies. P. Dobbs. il Mag of Wall St 78:390-2+ Jl 6 '46
Iowa 1945 fire company premiums up $2,291,805. Nat Underw 50:10 My 9 '46
Market performance of 21 high grade fire insurance stocks, 1942-1945. E. A. Van Deusen. Comm & Fin Chr 163:3068+ Je 6 '46
Mutual fire companies' 1945 figures; tabulation. Nat Underw 50:2 Ja 24; 10 Ja 31; 17 F 14; 3 F 21; 2 F 28; 12 Mr 7; 14 Mr 14 '46
Nation-wide fire insurance net premiums and losses paid in 1945; tabulation by company. East Underw 47:25 Mr 15 '46
Net investment income of 25 stock fire insurance companies, 1939 and 1945 compared. E. A. Van Deusen. Comm & Fin Chr 163:2802 My 23 '46
Net investment income per share for 33 fire insurance companies, 1939-1944. E. A. Van Deusen. Comm & Fin Chr 162:3018 D 20 '45
Net premiums and loss figures for 1945 on fire specialty lines; with tabulation by company. East Underw 47:1+ Mr 15 '46
New Jersey premiums and incurred losses of fire-marine companies; tabulation by company. East Underw 47:22 Mr 22 '46
New York City fire premiums for 1945 show 3.7 increase. Nat Underw 50:4 Mr 21 '46
New York dept. makes analysis of fire insurance year; tabulation by company. Nat Underw 50:1+ Ag 29 '46
New York report of Royal-Liverpool group. East Underw 47:18 F 8 '46
New York State fire insurance net premiums-losses paid during 1945; tabulation by company. East Underw 47:30 Mr 15 '46
New York State fire premiums, losses and tax data; tabulation by company. Nat Underw 50:16-17 Mr 7 '46
New York State standard fire classification report, 1944; tabulation. Spectator (Property ed) 11:16-19 D 6 '45
1944 and 1945 experience of fire insurance companies; country-wide and New York earned premiums and incurred losses; tabulation. East Underw 47:17 Ag 30 '46
Proportions of premiums written, selected years, 1874-1945; tabulation. Spectator (Property ed) 12.28+ O 10 '46
Royal-Liverpool group premiums totaled $54,132,113 last year. East Underw 47:20 F 22 '46
Stock fire 1945 experience by lines from Argus fire charts. Nat Underw 50:2-4 Mr 28 '46
Surplus, unearned premium reserves and liquidating values for 25 representative stock fire insurance companies for Dec. 31, 1945, compared with Dec. 31, 1939. E. A. Van Deusen. Comm & Fin Chr 163:2516 My 9 '46
30 leading fire stocks; ratio of market to liquidating values as of Dec. 31, 1945. E. A. Van Deusen. Comm & Fin Chr 164:358 Jl 18 '46
Underwriting and investment profits and losses in 1944; record of 100 leading stock fire insurance companies; tabulation. Spectator (Property ed) 11.42-3 D 20 '45
Underwriting and investment profits and losses in 1945; record of 100 leading stock fire insurance companies; tabulation. Spectator (Property ed) 11:14-15 Je 27 '46
Underwriting and investment profits and losses of 100 leading fire companies, 1936-1945; tabulation. Spectator (Property ed) 12:46-7 O 10 '46
Underwriting results for fire and casualty lines analyzed by Standard and Poor's, inc. Weekly Underw 154:1660+ Je 29 '46

General cover contract

See Insurance, Fire—Multiple location policies

Instalment premiums

Five-year installment plan approved in Arkansas. Nat Underw 50:8 My 16 '46
New York department puts OK on North America plan. Nat Underw 50:8 Ap 4 '46; East Underw 47:30 Ap 12 '46
Virginia agents oppose North America's installment plan. Nat Underw 50:2 Jl 25 '46; Same abr. East Underw 47:22 Jl 26 '46

Iron safe clause

See Insurance, Fire—Policies—Iron safe clause

Losses

Companies pay $161,920 on Empire State fire loss. Nat Underw 49:5 N 29 '45
Losses and adjustment expenses for all stock fire companies; graph. Spectator (Property ed) 12:18 O 10 '46
Second bad hotel fire in week brings more death; loss on La Salle hotel; Dubuque death toll. il Nat Underw 50:3+ Je 13 '46
South Carolina mill fire loss estimated at 3 to 4 millions. East Underw 47:1+ Ag 9 '46
What causes farm fires? losses reported from insurance company claim files. il Rough Notes 89:25 Ag '46

Mortgagee interest

Arkansas high court affirms borrower's right to secure cover. Nat Underw 49:6 N 22 '45

INSURANCE, Fire—Mortgagee interest—*Cont.*
Insurers lose Tennessee decision; property insured as seasonal dwelling but used as clubhouse. Nat Underw 49:13 D 27 '45
Mortgage will not cut recovery under 1943 policy. P. Heineke. Nat Underw 50:12 Mr 14 '46
Mortgagee not entitled to return premium on cancellation of fire policy containing standard mortgagee clause. Weekly Underw 155:827 O 5 '46
New York court holds mortgagee not entitled to returned premiums. East Underw 47:26 Je 28 '46

Multiple location policies

Fire insurance reporting forms. Spectator (Property ed) 11:38-9 Ap 11 '46
Large risks need special rate treatment. E. W. Sawyer. Nat Underw 50:3 Mr 7 '46
Multiple location problem. H. E. Moore. Nat Underw 50:1+ Mr 28 '46
Questions and answers on reporting forms. Nat Underw 50:17 Mr 28 '46
Questions on reporting fire forms answered by the Fire association group of Philadelphia. East Underw 47:22 Ap 26 '46
Reporting fire forms. A. B. Smillie and others. Rough Notes 89:22-7 O '46
Single state average rate reporting form no. 1, monthly average; multiple location reporting form with premium adjustment. Rough Notes 89:69-70 S '46
Single state reporting form A monthly average; attaches to fire or windstorm policies. Rough Notes 89:70 Ap '46
Single state reporting form; attaches to fire or windstorm insurance policies; form A, monthly average. Rough Notes 89:73 O '46
What reporting forms are. G. W. Keck. il Rough Notes 89.21-2+ O; 34+ N; 30+ D '46

Municipal policies

City self-insurance plan fallacies pointed out. C. A. Ashley. Nat Underw 50:3 Ja 10 '46
Municipal self-insurance is debated in Canada. East Underw 47:22 Ag 30 '46

Off premises coverage

Eastern Loss group adopts temporary plan on 10% option; applies to extension of coverage on or off the premises. Nat Underw 50: 1+ Ap 25 '46
Event of 1945 for loss men is overlapping pact; main interest centers on principle VII of agreement. Nat Underw 50:1+ Ja 3 '46
Form pact on overlapping cover adjustments; National Board and I.M.U.A. agreement. Nat Underw 49:1+ D 27 '45; Same cond. East Underw 46:19+ D 28 '45; Same cond. Spectator (Property ed) 11:32-3 Ja 10 '46; Excerpt. Weekly Underw 153:1508 D 29 '45
How to report losses under off-premises feature. W. E. Mallalieu. Nat Underw 49:13 N 8 '45
Inland marine-fire adjusting setup working; losses involving bailee and the 10% off premises feature. Nat Underw 50:10 O 3 '46
Mixed reactions to fire, marine loss agreement. Nat Underw 50:3 Ja 10 '46
Primary liability where overlapping coverage is involved. E. I. Taylor. East Underw 47: 20+ N 8 '46

Participating policies

First National drops deviated rates for participating plan. Nat Underw 50:2 F 28 '46

Policies

Dwelling and contents form (no. 49); for use with either fire or windstorm policies and extended coverage. Rough Notes 89:63 Ag '46
Kansas fire policy to be interpreted by agreement. Nat Underw 50:3 Ja 3 '46
Legal problems inherent in New York standard policy. G. D. Vail, jr. East Underw 47:20+ N 1 '46; Abstract. Nat Underw 50: 7 O 31 '46
Mortgages will not cut recovery under 1943 policy. P. Heineke. Nat Underw 50:12 Mr 14 '46
New dwelling and contents form. Rough Notes 89:18+ Mr '46; Discussion. 89:60-1 My '46
New York fire policy effective in Oklahoma Jan. 1. East Underw 46:28 D 7 '45
Revised dwelling form, new U. & O. forms in Ohio; extended coverage for dwelling risks and several rules changed. Nat Underw 50:3+ F 14 '46
Standardizing daily report form points to policy face revisions. Nat Underw 50:1 Ag 1 '46
Texas fire policy; variations from New York (1943) form. Rough Notes 89:61 Ja '46

See also
Insurance, Fire—Errors and omissions policies
Insurance, Fire—Farm policies
Insurance, Fire—Multiple location policies
Insurance, Fire—Municipal policies
Insurance, Fire—Participating policies
Insurance, Fire—State policies

Extended coverage endorsements

North America extends wave damage insurance to Massachusetts and Rhode Island. East Underw 47:20 Jl 5 '46
Strikes! strikes! strikes! how to cover this hazard; riot and civil commotion policy compared with extended coverage. Rough Notes 89:18+ Ja '46
Why all mortgagors should have extended coverage. L. W. Taylor. East Underw 46: 24 N 23 '45
Windstorm definition questioned after Saginaw ice loss. L. W. Smith. Nat Underw 50:2 Ag 1 '46

Iron safe clause

Inventory-iron safe clause. Rough Notes 89: 70 S '46
Virginia discontinues iron safe clause. East Underw 47:17 S 6 '46

Term policies

Iowa department rules on delayed premium plans. East Underw 47:24 Jl 19 '46; Same cond. Nat Underw 50:2 Jl 18 '46
Premium reserve procedure on new term setup varied; Iowa first state to rule definitely for one-year basis. Nat Underw 50: 1+ Jl 25 '46

Policy dividends

General insurance company, Seattle, reduces dividends from 20% to 15%. H. K. Dent. Nat Underw 49:3+ N 15 '45

Premium financing

Banks hope for profit on volume under 2.67% deal. Nat Underw 50:4 Je 20 '46

Premiums, Payment of

Champions five year plan. O. J. Bailey. Nat Underw 50:40 O 24 '46
Fire policy dividend not applied to premium to keep risk in force. East Underw 47:23 Ag 30 '46
Five-year installment plan approved in Arkansas. Nat Underw 50:8 My 16 '46
Iowa department rules on delayed premium plans. East Underw 47:24 Jl 19 '46; Same cond. Nat Underw 50:2 Jl 18 '46
Michigan disapproves term deviation. Nat Underw 49:3 N 22 '45
New plan approved by Indiana; 5-year annual installment plan of Rhode Island insurance co. Weekly Underw 153:1507 D 29 '45
New York department puts OK on North America plan. Nat Underw 50:8 Ap 4 '46; East Underw 47:30 Ap 12 '46
Premium reserve procedure on new term setup varied; Iowa first state to rule definitely for one-year basis. Nat Underw 50: 1+ Jl 25 '46

Premiums, Recovery of

Mortgagee not entitled to return premium on cancellation of fire policy containing standard mortgagee clause. Weekly Underw 155:827 O 5 '46
New York court holds mortgagee not entitled to returned premiums. East Underw 47:26 Je 28 '46

Preventive work

Call for greater penalty in rate for fire hazards; Risk research institute fire prevention meeting. W. J. Fitzsimons and others. Nat Underw 50:2 O 10 '46

INSURANCE, Fire—Preventive work—*Cont.*
Committee on aviation and airport fire protection formed by NFPA. East Underw 47: 31 N 1 '46
Fire prevention activities by local agents profitable. C. H. Mahn. Nat Underw 50:17 Je 6 '46
Fire protection institute formed; educational program backed by Fire extinguisher manufacturers association. East Underw 47:22 Jl 19 '46
How fire industry helped in global war effort. G. H. Duxbury. East Underw 46:56-7 D 14 '45
New booklet, Fires that never happened, tells how insurance aided armed services during war. East Underw 47:26 Jl 26 '46; Same. Weekly Underw 155:185+ Jl 27 '46
Railroad insurance association issues 1946 fire prevention week poster; aids railroads to cut losses. East Underw 47:28 O 11 '46
Reports many activities; impressive record set by Western actuarial bureau prevention unit. R. E. Vernor. Nat Underw 50:2 Ag 22 '46
St Louis agents find hazards; accomplish effective inspection work in assisting fire department. Weekly Underw 154:1589+ Je 22 '46
Swedish fire chief Sven Sonnenberg on tour of U.S. for special study. Nat Underw 49:3 D 27 '45

See also
National fire waste council
Underwriters laboratories

Prospects

Cash in on home building boom. Rough Notes 88:24 D '45

Purchasing

FSA borrowers may place own insurance. East Underw 46:30 D 21 '45; Same. Spectator (Property ed) 11:18 D 20 '45

Rates

Agreement reached on rating bills by NAIC and industry committees. East Underw 47:16+ My 31 '46
Commissioners bring out rating bills of own. Nat Underw 49:3+ D 6 '45
Commissioners hear fire-casualty views on rating proposals. East Underw 46:1+ D 7 '45
Companies pleased with decision in District of Columbia setting aside rate cut; with extracts from testimony. East Underw 47: 21 Jl 5 '46
Companies put up stout fight against District of Columbia rate cut order; permanent injunction is sought against Superintendent Jordan. Nat Underw 50:3 F 28 '46; Same abr. East Underw 47:22 Mr 1 '46
Companies victorious in District of Columbia rate case. Weekly Underw 154:1651 Je 29 '46; Nat Underw 50:2 Jl 4 '46
Companies win stay of District of Columbia rate order; position of North America injects confusing element in case. Nat Underw 50:6+ Mr 28 '46
Defense plant corporation deal may stir things up; 10% rate reduction issue. Spectator (Property ed) 11:8 N 8 '45
Department examines N.Y. cooperatives' rate making setup. Nat Underw 50:4 F 21 '46
District of Columbia fire rate cuts stand; Jordan sets expense factor at 43.50%; delays extended cover cut. East Underw 47:24 F 8 '46; Nat Underw 50:3+ F 7 '46
District of Columbia fire rates cut. East Underw 46:26 N 30 '45
District of Columbia rate case hearings. Nat Underw 50:5+ Je 13 '46; Nat Underw 50:1+ Je 20 '46
Fight District of Columbia rate reduction order at hearing. Nat Underw 49:6+ D 20; 3+ D 27 '45; 50:6 Ja 17; 3+ Ja 24 '46
Fire insurance rating procedure. R. W. Hukill. Nat Underw 50:34 S 12 '46
Fire rates may advance with new tenancy. C. C. Dominge. il Spectator (Property ed) 11:10-13 Mr 28 '46
Large risks need special rate treatment. E. W. Sawyer. Nat Underw 50:3 Mr 7 '46
May appeal District of Columbia rate cut order. Nat Underw 49:15 N 8 '45
NAIC, all-industry committee approve both rating bills. East Underw 47:1+ Je 21 '46
Nationalized rating proposed at Commissioners' committee meeting. Weekly Underw 155:591 S 14 '46
North America hits present opposition to District of Columbia rate order. East Underw 47:1+ Ap 12 '46; Same abr. Nat Underw 50:3 Ap 11 '46; Same abr. Weekly Underw 154: 925+ Ap 13 '46
North Carolina fire rates reduced. East Underw 47:29 Je 7 '46
Oklahoma fire rates cut; extended cover up. East Underw 46:28 D 7 '45; Nat Underw 49:4 N 29 '45
Plaintiff companies' position in District of Columbia rate case. East Underw 47:19+ Ap 19 '46
Rate cuts urged for explosion and sprinkler leakage by New York department. Nat Underw 50:4+ My 9 '46
Rating bill pact is now all but sealed; industry and Commissioners group in almost complete agreement. Nat Underw 50:1+ My 30 '46
Rational rates for fire insurance; address before American management association. E. F. Gallagher. Weekly Underw 154:1207-9, 1621-3; 155:253-4 My 11, Je 22, Ag 3 '46; Excerpt. East Underw 47:24 Mr 15 '46
Seek to halt any insurer from using lower District of Columbia rates. Nat Underw 50:1 Mr 21 '46
Special rates on industry basis not justified. E. F. Gallagher. Nat Underw 50:3 Jl 18 '46
Stock fire groups plan to abandon nationwide rating; bureaus will make all rates. Nat Underw 50:3 S 12 '46
Suggests states conform to pattern in laws. C. S. Whitner. East Underw 46:18+ N 9 '45; Abstract. Nat Underw 49:13 N 8 '45
Texas dwelling rates reduced, other changes. Nat Underw 49:11 N 29 '45
Text of fire and casualty bills presented by NAIC committee on rates and rating organizations with memorandum explaining various provisions. East Underw 46:19+ D 7 '45
Text of fire and marine insurance measure drafted by commissioners. East Underw 46: 52+ D 14 '45
Text of fire rating bill of all-industry group. Nat Underw 50:1+ Ja 3 '46; Same. East Underw 47:1+ Ja 4 '46
Urges rate cooperation only on loss data; expense, profit would be added competitively to pure premium; address before North Carolina agents. E. C. Stone. Nat Underw 50:8 My 16 '46
Urges rate uniformity. H. W. Nason. Nat Underw 50:4 Mr 14 '46
Wipe out 10% rate cut for properties leased by RFC; statement by Factory insurance association. Nat Underw 49:1 D 13 '45

Rating bureaus

Bureaus in the fire insurance business. E. F. Gallagher. Rough Notes 89:15-16+ Jl '46
Nationalized rating proposed at Commissioners' committee meeting. Weekly Underw 155:591 S 14 '46
New England rating association announces rate and rule changes. East Underw 47:18 Ja 4 '46
North America wins tussle with new Maryland bureau. Nat Underw 50:4 My 16 '46
State rating and review bureaus set up in Maryland. Nat Underw 50:10 Mr 28 '46
Stock fire groups plan to abandon nationwide rating; bureaus will make all rates. Nat Underw 50:3 S 12 '46

Reinsurance

Fire reinsurance record in 1945 even worse than year before. Nat Underw 49:15 D 27 '45

Reserves

Premium reserve procedure on new term setup varied; Iowa first state to rule definitely for one-year basis. Nat Underw 50: 1+ Jl 25 '46

Risks

National Board reports on plastics fire hazards. Nat Underw 50:3 Jl 11 '46

INSURANCE, Fire—Risks—*Continued*
New York state standard fire classification report, 1944; tabulation. Spectator (Property ed) 11:16-19 D 6 '45
Pipeless furnace hazards. M. E. Bulske. Rough Notes 89:34 Ja '46
Ways for examiners to aid production. E. E. Vogt. Nat Underw 50:3 Ja 24 '46
See also
Insurance, Fire—Sugar risks
Insurance, Fire—Whisky risks
Insurance, Fire—Tobacco risks

Self insurance

City self-insurance plan fallacies pointed out. C. A. Ashley. Nat Underw 50:8 Ja 10 '46
Municipal self-insurance is debated in Canada. East Underw 47:22 Ag 30 '46

State policies

Limit Michigan private cover to two categories. Nat Underw 50:24 F 28 '46
Michigan passes bill for insurance on liquor stocks. East Underw 47:34 Mr 15 '46
State not liable for fire set by inmate escaped from institution. East Underw 47:27 O 25 '46
Washington state discontinuing much insurance. Nat Underw 49:30 N 22 '45

Statistics

Division of premiums written in 1945 by stock and mutual casualty companies and by stock and mutual fire companies; charts. Spectator (Property ed) 12:26 O 10 '46
1945 standing of leading insurers on assets, premiums; with comparisons, 1936-1944. Nat Underw 50:3+ Mr 14 '46

Study and teaching

Connecticut fire insurance questions and answers. East Underw 47:17 Jl 26 '46

Sugar risks

Demand jumps for sugar cover. Nat Underw 50:34 O 3 '46

Taxation

U.S. Chamber backs share-tax plan; Grand Rapids' mayor wants cities to get part of premium levy. Nat Underw 50:3 Ja 17 '46

Tobacco risks

Back amended tobacco form; Kentucky fire underwriters approve form for writing leaf tobacco on loose leaf floors. East Underw 47:20 Ap 19 '46

Valuation of property

Amount of insurance on goods in storage doesn't limit negligence claim. Nat Underw 50.2 Jl 18 '46
Condition is the true estimate of insurance depreciation. R. W. Stevens. Nat Underw 50:17 Je 13 '46
Field men engaged in appraisals more than ever. Nat Underw 50:9 Ag 29 '46
Method of property valuation for Missouri buyers. G. A. Colburn. Nat Underw 50:12 Ap 4 '46
Valuation summary at Chicago insurance day session. B. F. Bills and others. Nat Underw 50:7 My 30 '46
Values baffling to insurance men at present time; scarcity of expert craftsmen and material causes prices to soar. Nat Underw 50:3 Ja 3 '46

Whisky risks

New market value clause for whisky adopted by I.U.B. Nat Underw 50:3 Jl 25 '46
Whiskey insurance heavy; difficulties foreseen in providing sufficient coverage for large volume of new liquor. East Underw 46:23 N 23 '45
Whisky insurance market stimulated. Weekly Underw 155:255 Ag 3 '46

Arkansas

Loss ratio 39.96% on fire lines; rerating of entire state planned by Bureau in starting card system. Nat Underw 50:6 Ap 18 '46

Canada

Fire profit outlook in Canada held poor. F. Jordan. East Underw 47:18 Jl 26 '46
Municipal self-insurance is debated in Canada. East Underw 47:22 Ag 30 '46

Great Britain

Premiums and prices. Economist 151:506 S 28 '46

Massachusetts

Raters call attention to Massachusetts law change relating to insurance against expenses actually incurred in repairing or replacing property. Weekly Underw 155:7 Jl 6 '46

Missouri

State gets Missouri unclaimed premiums; insurance department pays over excess funds involved in famous rate case. Weekly Underw 155:420 Ag 24 '46; Nat Underw 50:10 Ag 22 '46

New York (state)

Fire endorsement changes by New York fire insurance exchange. Spectator (Property ed) 11:35 D 6 '45
Fire insurance rate and form changes made in New York state. East Underw 47:30 Je 14 '46
N.Y. Exchange votes to purge its rules; reverses former position. East Underw 47:20+ Ag 9 '46; Same cond. Nat Underw 50:1 Ag 8 '46
New York fire insurance exchange reviews vote on separation rule. East Underw 47:1+ Ag 2 '46

Puerto Rico

Standard fire policy asked by Puerto Rico. L. J. Noa. Weekly Underw 155:597 S 14 '46

Sweden

Extend services; innovations introduced by Swedish carriers. Weekly Underw 154:162 Ja 12 '46
London Review discusses new Swedish rates. Nat Underw 50:13 Ap 18 '46

Washington (state)

Washington state discontinuing much insurance. Nat Underw 49:30 N 22 '45

INSURANCE, Forest

Reinsurance

Oregon forest fire assn. sues Lloyds on forest fire suppression cost. Nat Underw 50:27 Jl 18 '46

INSURANCE, Forgery
Forgery claims. S. Maurice. East Underw 47:36 N 1 '46; Same. Weekly Underw 155:1130-1+ N 9 '46; Same cond. Nat Underw 50:26 N 7 '46
Surety association of America announces forged securities change. Weekly Underw 154:1435 Je 1 '46
See also
Bankers' blanket bond

INSURANCE, Franchise (term)
Commissioner Forbes defines franchise plan; writing made illegal in Michigan. Weekly Underw 154:94 Ja 5 '46
Companies may not push new franchise definition. Nat Underw 50:20 Ag 1 '46
Franchise definition. H. R. Gordon. East Underw 46:34 D 7 '45
Franchise definition pondered by N.A.I.C. A. & H. committee. Nat Underw 49:27+ D 6 '45; Same. Nat Underw (Life ed) 49:2+ D 7 '45
Proposed franchise definition in A. & H. is revised. Nat Underw 50:15+ Ja 24 '46; Same. Nat Underw (Life ed) 50:4 Ja 25 '46
Revise franchise definition. East Underw 47:48 My 24 '46

INSURANCE, Fraternal. See Benefit societies

INSURANCE, Fur
Engineers drive against hazards of fur risks. Weekly Underw 154:1212 My 11 '46
Fur floater policy, world wide. Rough Notes 89:73 Mr '46
Treat for mathematicians; formula tells cheapest rate schedule in calculating fur premium of jewelry-fur floater. C. Markel. Nat Underw 50:4 N 7 '46

INSURANCE, Furriers' customers
Furriers' customers basic policy; furriers' customers certification endorsement. Rough Notes 89:69 Ap '46
Furriers customers contract form and rate revisions. E. G. Engelbert. East Underw 47:27 Jl 12 '46
Furriers customers contract revised, rates up. Nat Underw 50:1 F 21 '46
Furriers' customers custody rider; furriers' customers legal liability endorsement. Rough Notes 89:69 My '46
Goods damaged in storage; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12:30-2 O 24 '46

INSURANCE, Garage owners'. See Insurance, Automobile—Garage owners' and dealers' liability policies

INSURANCE, Group
Aggregate group insurance statistics; survey by Life insurance association of America. Nat Underw 50:27 S 19 '46; Same. Nat Underw (Life ed) 50:20 S 20 '46; Same abr. Weekly Underw 155:696 S 21 '46
Buyer urges group plan improvements; abstracts. R. M. Prince. Nat Underw 50:32 My 16 '46; Nat Underw (Life ed) 50:5 My 17 '46; East Underw 47:37+ My 17 '46; Rough Notes 89:38 Jl '46
California group case put up to department; raises trade group issue; Occidental and Pacific Mutual ask insurance commissioner for interpretation of law in case. East Underw 47:6 Je 21 '46
Fear "fictitious fleet" problem in group field; possibility of extension of underwriting to fantastic limits. Nat Underw 49:17 N 22 '45; Same. Nat Underw (Life ed) 49:12A N 23 '45
Garrison turns down trade association for groups; acts on producers' organization's objections to Merchants & Manufacturers cover. East Underw 47:4 Jl 19 '46; Nat Underw 50:25 Jl 18 '46; Nat Underw (Life ed) 50:9 Jl 19 '46
Group business on the upsurge. Nat Underw (Life ed) 50:1+ Je 21 '46
Group cover still far from saturation point. Nat Underw 50:19+ Jl 18 '46; Same. Nat Underw (Life ed) 50:1 Jl 19 '46
Group problems reviewed. C. R. Cleaver and others. Nat Underw (H. & A. conference no) 50:3+ My 24 '46
Group ranking as of Dec. 31, 1945; tabulation. Life Ins Courant 51:199 Ap '46
Group reflects general unfavorable trends. Nat Underw (Life ed) 50:8 O 4 '46
Key man protection plan; Continental Casualty moves to provide adequate accident and sickness group cover to leaders. East Underw 46:28 D 28 '45
Many by-products for agent in group insurance. J. G. Phillips. Nat Underw (Life ed) 50:27 F 1 '46; Same cond. Nat Underw 50:15 Ja 31 '46
Mass merchandising. L. W. Sechtman. Spectator (Life ed) 153:24+ Ja '46
Massachusetts Mutual plans for writing group. Nat Underw (Life ed) 50:4 Je 28 '46
Modern group trends require producers to keep in touch with developments; address before H & A Conference. C. R. Cleaver. Weekly Underw 154:1378-9 My 25 '46
No magic formula for group A. & H. prospecting. Nat Underw 50:18 Ag 1 '46; Same. Nat Underw (Life ed) 50:14 Ag 9 '46
Opinion requested on group proposal ruling; act on California issue; Occidental Life and Pacific Mutual ask interpretation of term trade association. East Underw 47:10 S 6 '46
Predicts group writing gains. T. I. Parkinson. East Underw 47:7 Ja 18 '46; Same. Weekly Underw 154:232 Ja 19 '46; Same cond. Nat Underw (Life ed) 50:3 Ja 18 '46
Recent trends in group casualty production; with tabulations showing rank of leading producers of group A.&H. L. S. McCombs. Spectator (Life ed) 154:60-6 S '46

See also
Insurance—Employees' insurance
Insurance—Wholesale insurance
Insurance, Accident—Wholesale insurance
Insurance, Hospitalization

Employees' insurance
Broker arranges hospital plan for dairy group; Pure milk association. Nat Underw 50:16 Ja 24 '46; Same. Nat Underw (Life ed) 50:8 Ja 25 '46
Brokers tell how bank retirement plans programs of three banks vary; Towers, Perrin, Forster & Crosby. East Underw 47:9 Ap 26 '46
Buyer urges group plan improvements; abstracts. R. M. Prince. Nat Underw 50:32 My 16 '46; Nat Underw (Life ed) 50:5 My 17 '46; East Underw 47:37+ My 17 '46
Eastman Kodak extends group insurance program. Weekly Underw 155:572 S 7 '46
Employe benefit plan of Bristol-Myers co. East Underw 47:13 Ja 11 '46; Same cond. Nat Underw (Life ed) 50:5 Ja 11 '46; Same cond. Nat Underw 50:20 Ja 10 '46
Employee retirement plans. R. A. Hohaus. East Underw 47:15 Jl 5 '46
$5,000,000 group policy for Paramount pictures. Weekly Underw 154:230 Ja 19 '46
Insurance program for bank employes; Connecticut commissioner approves retirement group benefits. Nat Underw (Life ed) 50:4 Mr 22 '46; Same. East Underw 47:1+ Mr 22 '46
Operations and plants of International nickel company of Canada; group insurance. Can Min J 67:519-20 My '46
Phoenix Mutual rounds agent protection program by group life and health coverages. Weekly Underw 155:964 O 19 '46
Princeton's non-academic workers to get pensions; Prudential underwrites non-contributory group annuity. Weekly Underw 155:102 Jl 13 '46
Use of home office materials and techniques in closing and solicitation of an employe benefit plan. O. N. Robertson. East Underw 47:10 Ag 16 '46

INSURANCE, Group life
Commissioners report agreement on main group life definitions. East Underw 46:32+ D 14 '45
Debate how big to make new pants for group line; N.A.L.U. takes strong stand for tight fit at commissioners session. Nat Underw (Life ed) 50:1+ F 15 '46
Draft of revised definition and standard provisions released by Allyn of Connecticut. Nat Underw (Life ed) 50:11+ My 24 '46
Equitable refunds on men in service; firms get back 82% of group payments after death claims. Weekly Underw 155:99 Jl 13 '46
Equitable writes unusual group case; solicitors of Buckeye Union agencies offered coverage. Nat Underw (Life ed) 50:4 Mr 15 '46; Same. Nat Underw 50:26 Mr 14 '46
Expanded group life threat to American agency system; abstracts. J. E. Rutherford. East Underw 47:13 Mr 22 '46; Nat Underw (Life ed) 50:2+ Mr 22 '46
50 correspondent banks now under St Louis bank's cover. Nat Underw (Life ed) 50:8 Mr 8 '46
Group cover tax points. G. J. Laikin. Nat Underw (Life ed) 49:3 N 30 '45
Group definition and standard provisions adopted; set 45-days as conversion period and for free cover. Nat Underw (Life ed) 50:1+ Je 21 '46
Group definition law in New Jersey. Nat Underw (Life ed) 50:11 Mr 22 '46
Group definition proposal attacked by some in N.A.I.C. J. M. McCormack and others. Nat Underw (Life ed) 50:1+ Je 14 '46
Group insurance meets the need. D. N. Warters. East Underw 47:32+ pt 2 O 4 '46
Group insurance problems; abstracts. G. W. Fitzhugh. Weekly Underw 153:1100 N 10 '45; Nat Underw (Life ed) 49:2 N 9 '45; Nat Underw 49:26 N 8 '45
Group life contracts greatest on record; 43,000 organizations insured. Weekly Underw 154: 1158 My 4 '46; Same cond. Nat Underw (Life ed) 50:3 Ap 26 '46
Group limits up to commissioners; abstracts. W. E. Allyn. East Underw 47:10 Mr 15 '46; Nat Underw (Life ed) 50:2+ Mr 15 '46
Liberalization of Michigan group law anticipated. East Underw 47:4 My 17 '46
Michigan school districts can't pay group premiums. Nat Underw (Life ed) 50:19 Ag 16 '46

INSURANCE, Group life—*Continued*

NALU presents suggestions on group life insurance definition. Spectator (Life ed) 153:56-7+ Mr '46; Abstract. East Underw 47:12 F 15 '46

Occidental Life extends group life coverage to dependents of insured employes. East Underw 46:5 N 23 '45

Proposed changes in group life definition; memoranda presented at N.A.I.C. mid-year meeting by L.I.A. East Underw 46:3+ D 7 '45; Excerpt. Nat Underw (Life ed) 49: 3 D 7 '45

Recovering sharply, group returns to all-time peak; pre-war levels exceeded by 60%; 25 billion in force. Nat Underw (Life ed) 50:2 Ag 2 '46

Sharp debate over proposed limits in model group bill; NAIC committee hears discussions on standard provisions. Nat Underw (Life ed) 50:4 My 3 '46

Three group legislative proposals of L.I.A. analyzed. A. Pike, jr. Nat Underw (Life ed) 49:2+ D 14 '45

Why 1946 is record breaking group insurance year. M. A. Gulick. East Underw 47:32+ pt 2 O 4 '46

See also

Insurance, Life—Wholesale insurance

War agencies employees protective association

Adjustment of claims

Conversion privilege in group policy construed in Illinois case; Christofferson vs. General Motors. Nat Underw (Life ed) 50:24 Ag 9 '46

Employment record competent but not conclusive evidence of termination of coverage under group life policy. Weekly Underw 154:537 F 23 '46

Group conversion issue is won by Sun Life. Nat Underw (Life ed) 50:9 Je 21 '46

Instalment buyers' policies

Consumer credit cover lively field. Nat Underw (Life ed) 50:4 Ag 16 '46

INSURANCE, Hail

Estimate $10,140,500 hail loss in Texas. East Underw 47:18 Je 7 '46

Gloom hits Texas in wake of May winds; Midwest hail and wind losses high. Nat Underw 50:4 Je 6 '46

Hail cover follows farmer to new location even though home is unchanged. Nat Underw 50:6 N 7 '46

Hail cover offers agent a good in with farmers. C. A. Dawson. Nat Underw 50:9+ S 19 '46

Hail coverage held profitable for agents. C. A. Dawson. East Underw 47:17 Ag 30 '46

Hail experience for 1945; tabulation. Nat Underw 50:21 Mr 7; 18 Mr 14; 16 Mr 21 '46

'46 hail record promises to be best in history. Nat Underw 50:4 Ag 29 '46

1946 may be best hail year ever. Nat Underw 50:3 O 3 '46

San Antonio loss. Nat Underw 50:1 My 30; 3 Jl 25 '46

Texas hail storm may cost insurers $2½ million. Nat Underw 50:1 My 23 '46

35,000 hail claims from Texas storms. East Underw 47:20 Jl 26 '46

INSURANCE, Health

A. & H. bureau enunciates position on regulation; treats policy provisions and advertising; claim practices, rates. Nat Underw 50:23+ My 2 '46; Same. Nat Underw (Life ed) 50:2+ My 3 '46

A. & H. regulatory bill without rate control offered; Conference submits comprehensive legislation to all-industry group. Nat Underw 50:27+ O 24 '46; Nat Underw (Life ed) 50:2+ O 25 '46; East Underw 47:31+ O 25 '46; Weekly Underw 155:1005+ O 26 '46

Accident-health not bad boy of insurance; refutes prevalent misconception. H. R. Gordon. Nat Underw (H. & A. conference no) 50:4+ My 24 '46

Company support of medical association plans termed imperative. T. V. McDavitt. Nat Underw 50:29 N 7 '46

Compulsory health insurance favored by committee of United States Senate. Weekly Underw 155:212+, 276 Jl 27-Ag 3 '46; Abstract. Nat Underw 50:16 Jl 25 '46; Same. Nat Underw (Life ed) 50:7 Jl 26 '46

Compulsory health plan as threat to free enterprise. R. J. Wetterlund. East Underw 47:10 O 11 '46

Compulsory sickness insurance legislation in the states, 1939-44. A. Stucke. Pub Health Rep 60:1551-64 D 28 '45

Health plans may become charges on industry; states debate insurance against wage losses from any cause. B. Jones. Barron's 26:9 My 13 '46

Legal aspects of accident and health regulation. V. S. Cohen. East Underw 47:34 N 8 '46; Abstract. Nat Underw 50:35+ N 7 '46; Same. Nat Underw (Life ed) 50:3 N 8 '46

Medical care plan not expected to hinder sales; Health insurance plan of greater New York. Nat Underw 50:24 Ag 8 '46; Same. Nat Underw (Life ed) 50:2 Ag 9 '46

1946 trends point to increased emphasis on cash sickness plans. B. Jones. East Underw 47:45 My 17 '46

Offensive urged in meeting state health cover threat. R. W. Smith. Nat Underw 49:19 D 13 '45; Same. Nat Underw (Life ed) 49:14+ D 14 '45

Pattern of compulsory health insurance; systems in foreign countries. E. W. Wilson. Weekly Underw 155:344-6 Ag 10 '46

Social security board for compulsory sickness cover. Nat Underw (Life ed) 50:4 Jl 19 '46; Same abr. Nat Underw 50:22 Jl 18 '46

State and national health plans. E. H. O'Connor. East Underw 46:33 D 7 '45; Same. Spectator (Life ed) 153:31+ Ja '46

Study how to supplement Crosser bill benefits; insurers of R. R. employes see some salvage possibilities. Nat Underw 50:17+ Ag 8 '46; Same. Nat Underw (Life ed) 50:3+ Ag 9 '46

Uniformity of regulation essential to A. & H. insurance development. J. F. Follmann, jr. East Underw 47:30 Jl 26 '46

Views voiced at A. & H. forum of Bureau of personal accident and health underwriters. Nat Underw (Life ed) 50:6 Mr 8 '46; Weekly Underw 154:708-9 Mr 16 '46

See also

Insurance, Accident
Insurance, Disability
Insurance, Hospitalization
Insurance, Medical expense
Medical service—Group and prepayment plans

also Bureau of personal accident and health underwriters; Health and accident underwriters conference; National association of accident and health underwriters

Accounting

Require A. & H. loss ratio breakdown by policy types; zone 4 commissioners also want examination manual prepared. Nat Underw 50:21 Mr 21 '46; Same. Nat Underw (Life ed) 50:4 Mr 22 '46

Sparks fly at hearing on A. & H. experience call; N.A.I.C. group at Chicago hears blast against zone 4 move. Nat Underw 50:23+ My 2 '46; Nat Underw (Life ed) 50:1+ My 3 '46

Employees' insurance

Collective bargaining in health; question of sick leave with pay, and health and hospital coverage. A. Fletcher. Min & Met 27: 552-3 N '46

Finance

Accident and health insurance in 1945 by states, hospitalization plans included; tabulation. Spectator (Life ed) 154:58 S '46; Same. Spectator (Property ed) 12:24 O 10 '46

Accident and health insurance survey. R. H. Blanchard. Spectator (Life ed) 153:26-9+ Ja '46; Same abr. Spectator (Property ed) 11:10-14+ F 14 '46; Abstracts. East Underw 46:27+ D 28 '45; Nat Underw 49:25-6 D 27 '45; Nat Underw (Life ed) 49:3+ D 28 '45; Weekly Underw 153:1505+ D 29 '46

A. & H. net premiums for 1945 compared with 1944 for 39 companies. East Underw 47:44 Mr 1 '46

Loss ratios, expenses, acquisition; second A & H survey. R. H. Blanchard. Nat Underw 50:32+ N 7 '46; Same. Nat Underw (Life ed) 50:2+ N 8 '46

INSURANCE, Health—Finance—*Continued*
Loss ratios, 1938-1942, accident and health insurance; tabulations. R. H. Blanchard. Spectator (Property ed) 11:17 Ja 24 '46
Method of making actuarial estimates for a compulsory health insurance system; such as that proposed for California. P. A. Dodd. Am Stat Assn J 41:58-69 Mr '46

Legislation, Proposed

American Legion health action. A. H. Scolten. Weekly Underw 155:767 S 28 '46
Appraisal of national health insurance program; abstracts. W. A. Milliman. East Underw 47:37 Ap 26 '46; East Underw 47:6 My 3 '46; Nat Underw 50:19+ Ap 25 '46; Nat Underw (Life ed) 50:1+ Ap 26 '46
Assail U.S. hospital measure, Wagner-Murray-Dingell bill. J. H. Hayes and others. Nat Underw (Life ed) 50:6 My 17 '46
Chamber of commerce opposes health scheme; bad effects that would result from government's compulsory plan outlined to Senate committee. Weekly Underw 154:1616 Je 22 '46
Chamber of commerce opposes Truman's health plan. East Underw 46:30 N 30 '45
Citizen and her senators; Dr Wilson badgered for giving facts on health costs. Barron's 26:7 Je 10 '46
Congressmen now know of public reaction to Wagner-Murray-Dingell bill; activities of National A. & H. association. W. B. Cornett. East Underw 47:34 Je 28 '46
Doctors reveal Wagner bill as attempt to socialize medicine in book, Compulsion, the key to collectivism. East Underw 47:38 O 18 '46; Same cond. Nat Underw (Life ed) 50:8 S 27 '46
Government control threat to physicians. W. Hale. Weekly Underw 154:1149 My 4 '46
Hazards of compulsory health insurance; enormous prospective costs of political medicine not well understood. E. W. Wilson. Barron's 26:3 Ap 8 '46
Health bill opponents call scheme Hitlerish. S. V. Mead. Weekly Underw 153:1419 D 15 '45
Health law stimulus for business. M. L. Alberts. Weekly Underw 155:575 S 7 '46
Inferior care predicted under government proposal; criticism of Wagner-Murray-Dingell bill. J. E. Bryan. Weekly Underw 154:1318 My 18 '46
Labor insurance leader testifies; Union Casualty head willing to sacrifice company for health bill. A. B. Lewis. Nat Underw 50:15 Je 20 '46; Same. Nat Underw (Life ed) 50:2 Je 21 '46
Medical society of New York county opposes federal health bill. East Underw 47:33+ Ap 26 '46
National health bill slowly dying; Wagner-Murray-Dingell bill. Weekly Underw 155:65+ Jl 13 '46
New strategy employed in health cover bill; revenue provisions left out so new committees get measure. Nat Underw 49:19+ N 29 '45; Same. Nat Underw (Life ed) 49:1+ N 30 '45
Public health insurance; public's opinion as to how program should be carried out; Gallup poll. Iron Age 157:91+ My 30 '46
Public tax for federal health bill may be $6,000,000,000 annually. J. D. Dingell. Weekly Underw 153:1485 D 22 '45
Scores attempt to impose collectivism. M. Fishbein. Nat Underw (Life ed) 50:33+ O 25 '46
Taft substitute for Wagner-Murray-Dingell bill would aid medical plans. Nat Underw 50:19 My 9 '46; Same. Nat Underw (Life ed) 50:1 My 10 '46
Takes stand on Truman proposals; New York academy of medicine. Nat Underw 50:22 Ja 10 '46; Same. Nat Underw (Life ed) 50:2 Ja 11 '46
Truman health program; little fear of immediate enactment. Nat Underw 49:17+ N 22 '45; Same abr. Nat Underw (Life ed) 49:1 N 23 '45
Truman proposes five-point health plan to Congress; program features prepayment of medical costs through compulsory health insurance. East Underw 46:1+ N 23 '45; Same cond. Weekly Underw 153:1189+ N 24 '45
U.S. health cover boosters take rap at private plans; hearings on administration's health program bill. Nat Underw 50:25 Ap 4 '46; Same. Nat Underw (Life ed) 50:4 Ap 5 '46
Wagner bill costs; Omaha address. E. H. O'Connor. East Underw 47:52 My 24 '46

Policies

Plain talk on regulation of accident and health insurance; Standard provisions law. J. F. Follman, jr. East Underw 47:40 Ap 12 '46
When is policy effective? W. C. Butterfield. Rough Notes 89:52 Mr '46

Statistics

Ranking position in net premiums written on individual accident and health policies for 1945 and comparisons 1942-1944; tabulation by company. Spectator (Property ed) 12:21-3 O 10 '46
Recent trends in group casualty production; with tabulations showing rank of leading producers of group A.&H. L. S. McCombs. Spectator (Life ed) 154:60-6 S '46

California

Accept challenge of California health act. H. H. Leavey. Nat Underw 50:20 Ap 11 '46; Same. Nat Underw (Life ed) 50:2+ Ap 12 '46
California doctors plan big ad campaign for voluntary health cover. E. Clancy. Nat Underw 50:43 Mr 14 '46; Same. Nat Underw (Life ed) 50:22 Mr 15 '46
Cash sickness plan passes California Senate; may prove sales aid. Nat Underw 50:19+ F 21 '46; Same. Nat Underw (Life ed) 50:1+ F 22 '46
Cash sickness plans of two states; comments on Rhode Island and California measures. E. W. Wilson. East Underw 47:40 Je 14 '46
Health plan instituted for California farm bureau federation. East Underw 47:34 O 25 '46; Same abr. Nat Underw 50:37 O 24 '46; Same abr. Nat Underw (Life ed) 50:31 O 25 '46
New California fund law reviewed. C. R. Cleaver and others. Nat Underw (H. & A. conference no) 50:3+ My 24 '46
New technique needed to write A. & H. under new California law. W. E. Mast. Nat Underw 50:29 Mr 28 '46
Reports on health plan; asks state group clinics; solons' interim committee favors postponement or abandonment of compulsory health insurance. East Underw 47:32 Jl 19 '46
Social security board won't release California reserve funds; compulsory health plan won't go into effect until 1947. Nat Underw 50:19 Ap 18 '46; Same. Nat Underw (Life ed) 50:2 Ap 19 '46
Urges agents to wake up to California compulsory compensation disability act potentialities. W. S. French. Nat Underw 50:37 O 24 '46; Same. Nat Underw (Life ed) 50:31 O 25 '46

New Jersey

Cash sickness bill debated in New Jersey. A. Pike, jr. Nat Underw 50:30 Mr 14 '46; Same. Nat Underw 50:4 Mr 15 '46

New York (state)

Health insurance bill in New York will cost $254,000,000 annually; Corcoran-Farbstein bill. Weekly Underw 154:278 Ja 26 '46
Health insurance plan for New York in Corcoran-Farbstein bill. East Underw 47:32 Ja 18 '46
N.Y. commission against action now on medical care. Nat Underw 50:17 F 21 '46; Same. Nat Underw (Life ed) 50:2 F 22 '46
Turn thumbs down on compulsory program; New York health plan shelved; majority of Commission finds cost too dear. East Underw 47:35 F 22 '46

Rhode Island

Cash sickness plans of two states; comments on Rhode Island and California measures. E. W. Wilson. East Underw 47:40 Je 14 '46

INSURANCE, Health—Rhode Island—*Cont.*
It pays to be sick in Rhode Island, legislative commission hears. Weekly Underw 154: 774 Mr 23 '46
Recent developments in Rhode Island cash sickness benefits. W. D. Macdonald. Mo Labor R 63:21-5 Jl '46
Solvency of Rhode Island cash sickness fund is questioned by legislator. T. P. McHugh. Weekly Underw 154:995+ Ap 20 '46
Urges clarification of Rhode Island sickness law; Medical journal editorial. East Underw 47:44 Mr 1 '46
Weaknesses of Rhode Island sickness benefit plan; abstracts. A. Pike, jr. East Underw 46:29+ N 23 '45; Nat Underw 49:43 N 15 '45; Nat Underw (Life ed) 49:9 N 16 '45

Saskatchewan
Government health service scheme explained by Premier. Weekly Underw 155:625 S 14 '46

Wisconsin
Medical society of Milwaukee county units to compete in Wisconsin. Nat Underw 49: 30 D 6 '45

INSURANCE, Hospitalization
Accident and health insurance in 1945 by states, hospitalization plans included; tabulation. Spectator (Life ed) 154:58 S '46; Same. Spectator (Property ed) 12:24 O 10 '46
Approve health service; Michigan association to provide hospital benefits. Weekly Underw 155:814 O 5 '46
Blue Cross rift; seventeen hospitals quit Michigan hospital service. Bsns W p32+ Ja 19 '46
Broker arranges hospital plan for dairy group; Pure milk association. Nat Underw 50:16 Ja 24 '46; Same. Nat Underw (Life ed) 50:8 Ja 25 '46
Catholic hospitals in Michigan to quit Blue cross. Nat Underw 50:18 Ag 15 '46; Same. Nat Underw (Life ed) 50:17 Ag 16 '46
Commissioners change contingency reserve formula in hospital field. Nat Underw 50:24 Je 20 '46; Same. Nat Underw (Life ed) 50:18 Je 21 '46
Detroit A.&H. group takes fight on Blue Cross issues to participating hospitals. Nat Underw 50:23 O 31 '46; Same. Nat Underw (Life ed) 50:23 N 1 '46
Form hospitalization insurer in Michigan; Health service assn. Nat Underw 50:42 S 12 '46
Future of Blue cross plans. J. A. Durgom. Weekly Underw 154:1231+ My 11 '46
Hospital costs up; rate increase ordered for Michigan Blue cross. Bsns W p32+ Ap 13 '46
Hospital insurance committee of H. & A. Underwriters keeps pace with latest trends. East Underw 47:45+ My 24 '46
Hospital insurance trends from producer's standpoint. W. Washburn. East Underw 47:33+ pt 2 Je 28 '46
Hospital-medical cover a must. J. M. McCormack. Nat Underw 50:13 F 28 '46; Same. Nat Underw (Life ed) 50:22 Mr 1 '46
Michigan Blue cross blasts stand of secessionists. Nat Underw 50:11 Ja 24 '46; Same. Nat Underw (Life ed) 50:8 Ja 25 '46
Michigan Blue cross directed to raise rates 35.8%; Forbes finds organization ran in red last year. Nat Underw 50:21 Mr 28 '46
No exodus; withdrawal from Michigan Blue cross halted. Bsns W p22 F 9 '46
Origin and development of group hospitalization in the United States, 1890-1940. J. T. Richardson. Mo U Studies v 20, no 3:1-101 bibliog(p91-3) '45 (pa $1.25)
Pennsylvania Blue cross plan proves popular. Weekly Underw 155:1139 N 9 '46
Promote Blue cross integration on national basis. Nat Underw 50:32 Mr 28 '46; Same. Nat Underw (Life ed) 50:6 Mr 29 '46
Seeks broader Blue Cross cover, guaranty fund. L. H. Pink. Nat Underw 50:24 F 7 '46; Same. Nat Underw (Life ed) 50:3 F 8 '46
Views of Commissioners committee regarding group hospitalization developments. Weekly Underw 155:97 Jl 13 '46
See also
Insurance, Medical expense

Adjustment of claims
Rules on policy liability after Blue cross payment; Rhode Island superior bench finds in favor of insurance company. Weekly Underw 153:1480 D 22 '45

INSURANCE, Household furniture
New protected dwelling form in Washington. Nat Underw 50:31 Je 20 '46

INSURANCE, Industrial
Standard valuation laws; effects on industrial underwriting. A. N. Guertin. East Underw 46:3+ N 30 '45; Excerpts. Nat Underw (Life ed) 49:3+ N 30 '45; Weekly Underw 153:1296 D 1 '45
See also
Industrial insurers conference

Adjustment of claims
Person paying premiums on industrial policy entitled to first lien on policy proceeds to amount of premiums paid. Weekly Underw 155:285 Ag 3 '46

Agents
Prudential endorses union in letter to debit men. Nat Underw (Life ed) 50:2 Jl 12 '46
Unions moving to organize debit men in South. Nat Underw (Life ed) 50:3 Je 7 '46

Pensions
Prudential debit men get generous retirement plan. Nat Underw (Life ed) 50:2 Jl 5 '46

Salaries and commissions
Albany hearing on collect commissions in monthly premium; Metropolitan, Prudential and Hancock positions on bill proposing increase. East Underw 47:1+ Mr 1 '46
Back pay issue; case of Washington National and Progressive amalgamated agents union. Nat Underw 49:10 D 20 '45
Companies differ on New York monthly premium bill. Nat Underw (Life ed) 50:6 Mr 8 '46
Union wins retroactive pay increase dispute; agents of Metropolitan Life. Nat Underw (Life ed) 50:5 Je 21 '46

Women agents
Future of women on debits viewed. Nat Underw (Life ed) 50:4 Ja 4 '46

Finance
Industrial ranking Dec. 31, 1945; tabulation. Life Ins Courant 51:199 Ap '46

Policies
Commonwealth Life writes industrial policies under Guertin provisions. Weekly Underw 155:338 Ag 10 '46

Risks
Closer selection of industrial risks needed. W. H. Lockey and others. Nat Underw (Life ed) 49:12C N 23 '45
More care in industrial risk selection urged. W. E. Stovall. Weekly Underw 153: 1226 N 24 '45

Statistics
Life insurance by states, industrial; 1944 and comparisons; tabulation. Spectator (Life ed) 153.21+ N '45
Life insurance by states, industrial; 1945 and comparisons; tabulation. Spectator (Life ed) 154:35 S '46

Tables
Actuarial tables for industrial companies; work of ALC. East Underw 47:16 N 1 '46; Nat Underw (Life ed) 50:18 N 1 '46

INSURANCE, Infantile paralysis
New polio insurance policy pays up to $5,000 for medical care. Weekly Underw 155:577 S 7 '46
Polio insurance. Bsns W p41 O 12 '46
United Benefit adds polio insurance policy. Life Ins Courant 51:474 O '46

INSURANCE, Inland marine
Definition of inland marine coverage; abstract. J. A. Dodd, jr. Rough Notes 89:56 Je '46

INSURANCE, Inland marine—*Continued*
Developments reviewed. H. L. Wayne. Weekly Underw 154:1422-3+ Je 1 '46
How inland marine lines build good will; abstracts. C. R. Conklin. Weekly Underw 155: 743+, 868-9 S 28, O 12 '46; Nat Underw 50: 50, 52-3 S 26 '46
Inland marine lines will show moderate gains in premiums; losses not excessive. East Underw 46:1+ D 21 '45
Inland marine looking ahead. F. S. Bankhardt. Weekly Underw 154:610+ Mr 9 '46; Same abr. East Underw 47:16+ Mr 8 '46; Abstract. Nat Underw 50:2 Mr 7 '46
Inland marine playing big role; some problems to be solved. F. B. McBride. Weekly Underw 154:1204+ My 11 '46; Abstract. Nat Underw 50:8+ My 9 '46
Inland marine questions prove of interest at A.M.A. conference meeting. O. A. Ogden. Weekly Underw 154:684+ Mr 16 '46

See also
Insurance, Art
Insurance, Bailees' customers
Insurance, Camera
Insurance, Cold storage locker
Insurance, Contractors' equipment floater
Insurance, Fur
Insurance, Furriers' customers
Insurance, Jewelers' block
Insurance, Motor truck contents
Insurance, Registered mail
Insurance, Tourist baggage
also Inland marine underwriters association

Adjustment of claims

Event of 1945 for loss men is overlapping pact; main interest centers on principle VII of agreement. Nat Underw 50:1+ Ja 3 '46
Form pact on overlapping cover adjustments; National Board and I.M.U.A. agreement. Nat Underw 49:1+ D 27 '45; Same cond. East Underw 46:19+ D 28 '45; Same cond. Spectator (Property ed) 11:32-3 Ja 10 '46; Excerpt. Weekly Underw 153:1508 D 29 '45
Mixed reactions to fire, marine loss agreement. Nat Underw 50:3 Ja 10 '46
Watcher stationed outside locked car fails to satisfy attendance warranty in salesman's floater. Nat Underw 50:4 N 7 '46

Finance

How the company groups stand on inland marine income in 1945; tabulations. East Underw 47:33+ Mr 22 '46
Inland marine lines show premium gains for first half year. East Underw 47:1+ Je 28 '46
Inland marine premium writings for 1945; with tabulation by company. East Underw 47:29+ Mr 22 '46
Inland marine premiums-losses for 1945; tabulation by company. East Underw 47:37-8 Mr 22 '46

Losses

Guggenheim loss may be $1 million. Nat Underw 50:5 F 7 '46

Policies

Installment sales floaters. G. A. Hunt. Rough Notes 89:38 Je '46
Neon sign policy. Spectator (Property ed) 12:31 Jl 11 '46
Wool growers' and buyers' policy. Spectator (Property ed) 11:28 D 20 '45

Dealers' policies

Property held under floor plan may be covered under inland marine policy in New York. Weekly Underw 155:28+ Jl 6 '46; Same cond. East Underw 47:20 Jl 5 '46; Same cond. Nat Underw 50:2 Jl 4 '46

Personal property floater

Accentuate the positive in your sales approach. J. F. Danaher. Spectator (Property ed) 11:28-9 Ap 25 '46
Agents can increase volume with P.P.F. sales. E. Carroll. Nat Underw 50:15 Ap 25 '46
Appraisal form increases agency's P.P.F. business. W. A. Schaefer. Nat Underw 50: 13 Ap 11 '46
Buffalo uses disappearing deductible with P.P.F. Nat Underw 50:6 Jl 18 '46
Compare PPF, residence burglary. J. James; W. V. Drew. Nat Underw 50:21 O 10 '46
Fireman's Fund now using more detailed P.P.F. blank. Nat Underw 50:3 Jl 18 '46
How to get greater premium exposure on P.P.F; abstracts. M. V. Campbell. Nat Underw 50:19 S 5 '46; Weekly Underw 155: 540 S 7 '46; East Underw 47:22 S 6 '46
Inland marine and property floater coverages and adjustments. F. D. Hawkins. Weekly Underw 155:481+ Ag 31 '46
Insurers strike to get higher premiums on P.P.F.; leading company imposes stern conditions as alternative to rate increase. Nat Underw 50:2+ Ap 25 '46
May write PPF in Massachusetts after January 1. Weekly Underw 153:1405 D 15 '45
New Canadian inland underwriters conference on PPF to start January 1. East Underw 46:1+ N 16 '45
New York now adopts flexible attitude; Dineen relaxes Appleton rule. Weekly Underw 153:1474 D 22 '45; East Underw 46:33 D 21 '45; Nat Underw 49:23+ D 20 '45
New York rules on personal floater. Weekly Underw 154:1424 Je 1 '46
Personal property floater endorsements. Rough Notes 89:70 S '46
Personal property floater policy. T. A. Holloran and others. Rough Notes 89:19-24 Ap '46
Personal property floater policy; questions and answers. Spectator (Property ed) 11: 28-9 Ap 25 '46
P.P.F. vexations are increasing. Nat Underw 50:4 Ag 1 '46
Reviews problems of P.P.F. K. L. Daniels. Nat Underw 50:13 Ag 29 '46
Why I like to sell property floater policies. J. B. Murphy. Rough Notes 88:50-1 D '45

Scheduled property floater

Outboard motor and/or boat form O; attaches to scheduled property floater. Rough Notes 89:69 S '46
Scheduled property floaters are good door openers. G. D. Daugharty. Rough Notes 88:46 N '45
Surveyor's instruments. Rough Notes 89:59-60 Mr '46

Rates

Fire Association loses appeal to N.Y. department on PPF; no claims endorsement at issue. Nat Underw 50:3 Ja 24 '46; Weekly Underw 154:253 Ja 26 '46
Insurers strike to get higher premiums on P.P.F.; leading company imposes stern conditions as alternative to rate increase. Nat Underw 50:2+ Ap 25 '46
New York Insurance department decision on "credit for no claim" matter. Weekly Underw 154:320+ F 2 '46; Same abr. East Underw 47:24 F 1 '46

New York (state)

Plan for filing inland marine statistics issued by N.Y. Dept. East Underw 46:78 D 14 '45; Same abr. Weekly Underw 153:1275+ D 1 '45

INSURANCE, Jewelers' block
All-risk bargain for jewelers. H. Gund. il Rough Notes 89:17-18+ Jl '46
Court relieves assured of providing full details in jewelers' block loss. East Underw 47:28 O 18 '46; Nat Underw 50:32 N 14 '46

INSURANCE, Leasehold
Leasehold interest readily sold now. G. H. Martin. East Underw 47:22 O 25 '46

INSURANCE, Liability
Liability exposures. C. R. Parsons. Nat Underw 50:19 Mr 7 '46

See also
Insurance, Airport public and property damage liability
Insurance, Automobile
Insurance, Contractors' public liability
Insurance, Druggists' liability
Insurance, Elevator
Insurance, Employers' liability
Insurance, Malpractice liability
Insurance, Manufacturers' and contractors' property damage liability
Insurance, Morticians' liability
Insurance, Motor truck
Insurance, Products liability
Insurance, Warehousemen's liability
Insurance, Workmen's compensation

INSURANCE, Liability—*Continued*

Adjustment of claims

Cooperation clause not violated by assured's failure to attend trial where notice returned due to removal. Weekly Underw 155: 1037 O 26 '46

Declaratory judgments in liability insurance cases. D. J. Kadyk. Weekly Underw 155:578 S 7 '46

Principle of estoppel; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:36-7 D 20 '45 [reprinted from Spectator Ag 17 '44 p28-30]

Farm policies

Farmers and city farm-owners are liability prospects. D. P. Ely. Rough Notes 89:21-2+ Ag '46

Fred Clemans and his $2,100 smudge pots; value of farm liability insurance. Rough Notes 89:24 Ag '46

Policies

Broad form liability cover answer to demand for improved protection. E. Uhler. East Underw 47:29+ O 25 '46

Comprehensive liability bridges many loopholes. Spectator (Property ed) 11:34-5 D 6 '45

Comprehensive personal liability policy. Rough Notes 89:77-8 Je '46

Comprehensive personal liability policy. E. A. Bergstrom and others. il Rough Notes 89: 19-24 My '46

Comprehensive personal liability policy; questions and answers on recent revisions. Spectator (Property ed) 12:30 Jl 11 '46

Innkeepers' liability policy. Rough Notes 88: 65 N '45

Losses under comprehensive general liability. J. A. Bronner. Rough Notes 89:17-18+ Mr '46

Personal liability provisions revised. Spectator (Property ed) 11:20-1 F 28 '46; East Underw 47:39+ Mr 15 '46; Weekly Underw 154:670+ Mr 16 '46; Nat Underw 50:33 Mr 14 '46

Rates

National Bureau drops some sales taxes from liability premium bases. Nat Underw 49: 36 D 6 '45

INSURANCE, Libel

Libel insurance. Bsns W p61-2 Je 8 '46

INSURANCE, Life

Applause from the applauded; Broadway stars believe in insurance. R. Rhodes. il Spectator (Life ed) (Endorsement no) 153:6-9+ D '45

Brisk demand expected among foreigners for life insurance in U. S. companies. Weekly Underw 153:1426 D 15 '45

Crucial period in life insurance. P. B. Hobbs. Nat Underw (Life ed) 50:1+ N 8 '46

Endorsement of life insurance; presidents, civic leaders, armed forces, stars of stage and screen, etc. il Spectator (Life ed) (Endorsement no) 153:5-9, 14-31, 40-101 D '45

Endorsement of life insurance; presidents, civic leaders, business executives, college presidents, etc. Spectator (Life ed) (Endorsement no 1946-1947) 154:5-15, 24-33, 36-46+ 1946

Flays complacency of life leadership; abstracts. P. B. McHaney. Nat Underw (Life ed) 50:2 Mr 22 '46; East Underw 47:7 Mr 22 '46

Great market for life insurance. J. A. McLain. East Underw 47:3 Ap 5 '46

H.O. underwriting status as it looks near end of year. W. H. Dallas. East Underw 46:1+ D 14 '45

How companies absorb economic shocks. M. J. Cleary. East Underw 47:1+ Ja 11 '46

Important issues face executives; some declare it is time to take broader view of responsibility. Nat Underw (Life ed) 50:19 Ag 30 '46

Insurance creed. J. A. Lloyd. Nat Underw (Life ed) 50:3 F 8 '46

Insurance faces public gaze with confidence. C. Adams; abstracts. Nat Underw (Life ed) 49:4 N 16 '45; East Underw 46:3 N 16 '45

Insurance most cooperative of businesses. L. A. Lincoln. East Underw 47:3 My 31 '46

Jig-time routine for turning out pat replies to inquiries; Mutual life insurance company of New York receives over 12,000 letters every month; answers 92% within three days. C. B. Reeves. Sales Management 56: 90+ Je 15 '46

Let's take the offensive; encroachment of government into field of life insurance. P. B. McHaney. Spectator (Life ed) 154:17-19+ Jl '46

Life insurance and the family. W. E. Hays and others. East Underw 47:15+ pt 2 O 4 '46

Life insurance faces great future. J. L. Howard. Weekly Underw 154:112-14 Ja 5 '46

Life insurance review of 1945. C. C. Klocksin. Weekly Underw 154:108-11 Ja 5 '46; Same. Nat Underw (Life ed) 49:2+ D 28 '45; Same. Spectator (Life ed) 153:6-9+ Ja '46; Same. Life Ins Courant 51:14-17 Ja '46; Excerpts. East Underw 46:3 D 28 '45

Life insurance supports basis of democracy. H. J. Syphus. Weekly Underw 155:644-5+ S 14 '46

Low level social security payments must be supplemented by private insurance. L. B. Breneman. Weekly Underw 154:44-5 sec 2 My 11 '46

Nation's problems are paramount; problems of the trade are secondary. C. Adams. Nat Underw (Life ed) 50:1+ Jl 12 '46

Opportunity and responsibility. A. E. Patterson. Spectator (Life ed) 153:28-32 F '46

Organization, executive capacity and progress. H. A. Hopf. Advanced Management 11:34-47, 69 Je '46

Outlook for 1946. J. A. McLain. Comm & Fin Chr 163:570+ Ja 31 '46

Paradox of life insurance; competitive business cooperative; sketches about principal life associations. L. A. Lincoln and others. East Underw 47:11-13, 36+ pt 2 O 4 '46

Predicts 1946 best year since 1930; address at Penn Mutual Murray Bay conference; abstracts. J. A. Stevenson. Nat Underw (Life ed) 50:4+ Jl 5 '46; East Underw 47:3 Jl 5 '46

Production momentum a puzzle; life volume gains less important than sound dollar value or better investment return. P. F. Clark. East Underw 47:3+ F 15 '46

Prospects for 1946; abstracts. C. Adams. Nat Underw (Life ed) 50:3+ Ja 11 '46; East Underw 47:10 Ja 11 '46

Public's security consciousness is insurance asset. Nat Underw (Life ed) 50:1 Mr 29 '46

Search for economic security. M. Nadler. Comm & Fin Chr 163:2075+ Ap 18 '46

Seven reasons for optimistic view; address before Philadelphia life underwriters association. J. A. McLain. Nat Underw (Life ed) 50:21 F 8 '46

Solving life's common problems. F. Toops. East Underw 46:13 N 30 '45

Take it from here; radio stars endorse life insurance. R. Rhodes. Spectator (Life ed) (Endorsement no 1946-1947) 154:38-41 1946

Upsurge a tribute to insurance and agents. J. A. Stevenson. East Underw 47:9 Mr 22 '46

Urges rate credits for periodic checkups; makes other forecasts in lecture at C.L.U. institute. S. S. Huebner. Nat Underw (Life ed) 50:1 Jl 5 '46

See also

Annuities
Benefit societies
Insurance, Business
Insurance, Group life
Insurance, Industrial
Insurance, Military and naval service
Insurance trusts
Military service—Insurance aspects
Mortality
Savings banks—Insurance selling

also American institute of actuaries; American life convention; Connecticut mutual life insurance company; Illinois bankers life assurance company; Institute of life insurance; John Hancock mutual life insurance company; Life insurance agency management association; Life insurance company of Virginia; Metropolitan life insurance company; Prudential insurance company of America

Adjustment of claims

Common disaster law and life insurance. J. D. Cranny. Life Ins Courant 51:408-13 S '46

INSURANCE, Life—Adjustment of claims—*Continued*
Disability benefits not limited where time due to appendectomy not increased by incidental removal of tumor. Weekly Underw 154:1043 Ap 20 '46
Down to cases. L. A. Burke. Spectator (Life ed) 153:82 N '45 [cont monthly]
Electrocuted in illegal still room; no recovery; Waters vs. National L. & A. Nat Underw (Life ed) 50:14 Ag 9 '46
Half pint of liquor in car doesn't invalidate cover. Nat Underw (Life ed) 50:24 Ag 9 '46
Insurer wins case turning on conditional delivery. Nat Underw (Life ed) 50:9 Ag 30 '46
Repeated acceptance of past due assessments by benefit association waiver of by-laws provision for suspension. Weekly Underw 154:1103 Ap 27 '46

See also
Insurance, Life—First year claims
Insurance, Life—War death claims
Insurance, Life—Suicide death claims

Advertising

Ad that tells a story; examples from cooperative campaign of Canadian life insurance companies. C. Bradley. il Ptr Ink 215:103 Ap 19 '46
Equitable Society cited; radio program's contribution to good citizenship qualities of nation's youth commended. East Underw 47:15 O 25 '46
Family happiness campaign to be launched; life insurance companies and their agents to start advertising new money management and security theme. East Underw 47:3 Ag 23 '46; Same cond. Nat Underw (Life ed) 50:1+ Ag 23 '46; Excerpt. Weekly Underw 155:453 Ag 24 '46
Institute produces motion picture film; Search for security. il East Underw 47:10 Ag 30 '46; Same cond. Nat Underw (Life ed) 50:1 Ag 30 '46
Institute's advertising getting good reaction. Nat Underw (Life ed) 50:7 O 4 '46
Insurance treat for comic book addicts. Nat Underw (Life ed) 50:9 O 18 '46; East Underw 47:12 O 18 '46
LAA award winners. East Underw 47:4 N 1 '46; Nat Underw (Life ed) 50:11 N 1 '46
Life Advertisers awards. Nat Underw (Life ed) 49:29 N 16 '45
Life companies' individual advertising in magazines of national circulation. C. C. Robinson. East Underw 47:22 pt 2 O 4 '46
Life insurance campaigns. Sales Management 56:155 Ja 15 '46
Mail plans unearth thousands of leads for insurance men. Sales Management 56:74 F 15 '46
Metropolitan on radio in experimental spot broadcasts. Weekly Underw 154:900 Ap 6 '46
Prudential radio plan. H. M. Kennedy. East Underw 46:16 N 16 '45
Radio advertising discussed at LAA meeting. W. S. Hedges and others. East Underw 46:16-17 N 16 '45
Search for security; Institute of life insurance visualizes history of insurance in new film. il Spectator (Life ed) 154:22-3 S '46
Women and insurance advertising. B. Kidd. Ptr Ink 215:61+ My 24 '46

See also
Life insurance advertisers association

Agency management

Agency compensation questions. E. M. McConney and R. C. Guest. Nat Underw (Life ed) 49:2+ N 16 '45; Excerpts (G.A.'s pay). Life Ins Courant 50.554-8 D '45; Abstract. East Underw 46:10+ N 16 '45
Agency management clinic held by Los Angeles managers association. East Underw 47:16 Je 14 '46
Agency operations immature. M. Boyd. East Underw 47:8 O 18 '46
Agency's operations should all be integrated; abstracts. O. Bethea. Nat Underw (Life ed) 50:4 F 15 '46; East Underw 47:13 F 22 '46
Chicago management conference views. East Underw 47:4 My 3 '46; Nat Underw (Life ed) 50:3+ My 3 '46
Chicago managers tell views at Peoria sales congress. H. W. Persons; E. M. Schwemm. Nat Underw (Life ed) 50:8+ N 8 '46
Experimentation in the agency field. J. A. Fulton. East Underw 47:7 O 11 '46; Same cond. Nat Underw (Life ed) 50:26 O 11 '46
Factors making for success in business. L. W. S. Chapman. Weekly Underw 153:1167-8 N 17 '45; Same cond. Nat Underw (Life ed) 49:6 N 16 '45
Getting future agency heads poses big problem. Nat Underw (Life ed) 50:2 S 6 '46
Guiding principles statement draft submitted to field by N.A.L.U.; implemented by proposed model life agents' qualification act. Nat Underw (Life ed) Daily ed 50:7+ S 11 '46
How can managers raise men's average production. C. J. Zimmerman. Nat Underw (Life ed) Daily ed 50:6+ S 12 '46
Life salesmen find pay-off in outside influences. E. M. Schwemm. Nat Underw (Life ed) Daily ed 50:16+ S 12 '46
Morale building. L. E. Malone and others. Nat Underw (Life ed) 50:22-3 Ap 5 '46
Mutual Life alters agency operation. R. Hull. Weekly Underw 153:1121+ N 17 '45; Excerpts. East Underw 46:11 N 23 '45
N.A.L.U. agents' compensation group reports at annual meeting. Nat Underw (Life ed) Daily ed 50:18+ S 11 '46
NALU general agents and managers section meeting. East Underw 47:11 S 13 '46
Persistency underwriting. W. M. Bell. Nat Underw (Life ed) 49:2 D 21 '45
Rebuilding of manpower is big task ahead. J. E. Scholefield; abstracts. Nat Underw (Life ed) 49:10 N 16 '45; Weekly Underw 153:1166 N 17 '45
School days for managers; L.I.A.M.A. course treats job's many facets. Nat Underw (Life ed) 50:5 Ag 9 '46
Sound sales contests are worthwhile. L. L. Lifshey. Weekly Underw 153:1175 N 17 '45
Surveys great agency issues of hour. J. M. Holcombe, jr. Nat Underw 49:2+ N 23 '45

See also
Life insurance agency management association

Agency managers

Agency compensation questions. E. M. McConney and R. C. Guest. Nat Underw (Life ed) 49:2+ N 16 '45; Excerpts (G.A.'s pay). Life Ins Courant 50:554-8 D '45; Abstract. East Underw 46:10+ N 16 '45

Agents

Agents' attitude shown in survey; for better training, more security; Institute of life insurance. East Underw 46:8-10 D 7 '45; Same. Spectator (Life ed) 153:10-11+ D '45; Same. Weekly Underw 153:1366-8 D 8 '45; Same cond. Nat Underw (Life ed) 49:1+ D 7 '45
Atomic bomb city's top agent; Howard Hooper of Oak Ridge, Tenn. R. E. Gehman. East Underw 46:18 D 14 '45
Best sellers; cross section of the field of life insurance sales literature. K. W. Mathus. il Spectator (Life ed) 154:10-13+ Jl; 6-9+ Ag '46
Better selling tomorrow. S. G. Hale. Spectator (Life ed) 153:16-17+ Je '46
Blind agent in Cleveland has excellent sales record; Mitchell Darling. Nat Underw (Life ed) Daily ed 50:26 S 13 '46
Blueprint for sales success. J. L. McMillen. Spectator (Life ed) 154:14-18 Ag '46
California agent advises casualty agents to add life insurance. Nat Underw 50:18 Ja 3 '46
Devotes self to legislative work; Charles F. Axelson. por Nat Underw (Life ed) 49:10 D 21 '45
Equitable finds its top producers join more clubs than do less successful ones. Weekly Underw 154:976 Ap 13 '46
Five avenues of opportunity. C. A. Egenolf. Nat Underw (Life ed) Daily ed 50:25+ S 11 '46
Gold book of life insurance selling. East Underw 47:11-152 pt 2 O 4 '46

INSURANCE, Life—Agents—*Continued*
Information: application; statistics for everyday use; how they can help you sell more. K. H. Mathus. Spectator (Life ed) 153:6-9+ N '45
It's news when they say it; how the agent can make use of endorsements and quotations in his sales talk. K. H. Mathus. il Spectator (Life ed) (Endorsement no) 153:14-17 D '45
Keep up with business or fail. R. W. Frank. Nat Underw (Life ed) 50:19 Ja 11 '46
Let's talk about inflation. M. L. Lane. Rough Notes 89:54-6 Mr '46
Life agent is a one man business. R. Pitcher. Nat Underw (Life ed) 50:11 Mr 29 '46
Life insurance in action. G. A. Hatzes. il Spectator (Life ed) 153:8-11 F '46
Life insurance in action. A. D. Lynn. Spectator (Life ed) 154:20-3+ Jl '46
Million dollar round table at French Lick Springs, Ind. East Underw 47:3+ S 6 '46; Nat Underw (Life ed) 50:1+ S 13 '46
Million dollar round table list. Nat Underw (Life ed) 50:11+ Ag 23 '46
NALU million dollar round table forum at Cleveland. East Underw 47:11+ S 20 '46
Opportunities in life insurance profession. J. S. Thompson. East Underw 47:4+ Ap 19 '46
Other side of selling. M. L. Lane. Rough Notes 89:46-8 My '46
Phonefficiency. E. N. Bivens. Spectator (Life ed) 154:55-7 Ag '46
Practical prestige builders. L. Sinton. il Spectator (Life ed) 153:12-15+ Je '46
Problems facing career agents. J. E. Rutherford. il Spectator (Life ed) 153:17-21 Ap '46
Production quotas of agents. D. G. Johnson. Nat Underw (Life ed) 50:23 Mr 15 '46
Programming tips. O. Bethea. Nat Underw (Life ed) 49:9 N 9 '45
Qualities of good agent are told by psychologist. F. A. Replogle. Nat Underw (Life ed) 50:11 Mr 8 '46
Quality award held great new movement. L. J. F. Doolin. Weekly Underw 153:1165+ N 17 '45
Radio points the way; giving information gets business. M. L. Lane. Rough Notes 89:52-4 O '46
Ratio of new interviews to old is vital to agent. G. B. Dorr. Nat Underw (Life ed) 50:11 Ap 19 '46
Rules for national quality award are revised. Nat Underw (Life ed) Daily ed 50:22 S 11 '46
Should think and act in terms of security. J. J. McCloy. Nat Underw (Life ed) Daily ed 50:40-4 S 12 '46; Excerpt. East Underw 47:8 S 20 '46
Single-need selling. G. E. Odell and others. Nat Underw (Life ed) 50:2 Ap 5 '46
Story of Julie Ort; hope essential to success. M. L. Lane. Rough Notes 89:40-1+ Ag '46
Success has basic rules. R. H. Denny. Nat Underw (Life ed) 50:3 S 27 '46
Ten essentials in sales success. A. L. Dern. Nat Underw (Life ed) 49:23 N 23 '45
Test for agent to score himself on sales ability. H. W. Schenke. Nat Underw (Life ed) 50.21 My 17 '46
Today's trends. J. W. Fox. East Underw 47:13 O 4 '46
Top producers tell of sales methods. C. Ackiss and others. Nat Underw (Life ed) Daily ed 50:7+ S 12 '46
Use organized planning to promote sales. H. Kuhn. East Underw 47:11 Mr 22 '46
Veterans' slant on life insurance selling career. C. J. Zimmerman. Nat Underw (Life ed) 49:1 N 16 '45
Visual sales aids. T. W. Foley. Spectator (Life ed) 154:24-5 Jl '46; Excerpts. East Underw 47:15 Ja 18 '46
What constitutes a good agent? H. W. Schenke. East Underw 47:146 pt 2 O 4 '46
Why you sell insurance. F. A. McMaster. East Underw 47:16 S 13 '46
Wild or cultivated? problem of building a lasting market. G. W. Hoffman. East Underw 47:74+ pt 2 O 4 '46
Women at work for you. M. F. Stone. Spectator (Life ed) 154:25+ Ag '46
Would put all agents under Social security. J. C. Benson. East Underw 47:9 Ap 12 '46
Writes million his first year; how he did it. G. A. Hollman. Nat Underw (Life ed) 49:23 N 9 '45
You can sell ideas with pictures. P. Troth. East Underw 47:132+ pt 2 O 4 '46

See also
Insurance, Life—Prospects
Trust companies—Life underwriters' cooperation

also Life underwriters association of the city of New York; National association of life underwriters

Approach
Buyer must qualify to own life insurance. W. R. Hoefflin. Weekly Underw 154:32-3 sec 2 My 11 '46
Deflation proof selling. H. C. Rose. East Underw 47:14 Je 7 '46
$8,000 a year from four interviews a week. D. H. Stimpson. Spectator (Life ed) 153:6-8+ D '45
Life insurance agent as an educator in social security. G. P. Spahn. East Underw 47:16+ pt 2 O 4 '46
More sales for you in 1946; simple life insurance versus stock investments chart proves powerful business producer. Spectator (Life ed) 153:15+ F '46
New sales twists on old principles. V. J. Johntry; C. B. Wilkinson. Nat Underw (Life ed) 50:10 N 8 '46
Retirement income sales talk. G. W. Isgrig. Spectator (Life ed) 153:12-15 My '46
Selling the average case. H. R. Kuhn. Spectator (Life ed) 154:26-9+ Jl '46
Selling to strangers is simple when you use the unit savings approach. K. S. Smith. il Spectator (Life ed) 154:22-4+ Ag '46
Social security benefit data practical approach to life insurance programming; with chart. L. H. Fletcher. Weekly Underw 154:47 sec 2 My 11 '46
Social security know-how seen as top sales lever. H. F. McHale. Nat Underw (Life ed) 50:18 O 25 '46
Some suggestions for meeting objections. W. M. Jacobi. East Underw 47:94 pt 2 O 4 '46
Telephone, mail approaches. E. N. Bivens; G. E. Speakman. Nat Underw (Life ed) 50:7+ Jl 5 '46

Commissions
Agency compensation questions. E. M. McConney and R. C. Guest. Nat Underw (Life ed) 49:2+ N 16 '45; Abstract. East Underw 46:10+ N 16 '45; Excerpts (Agent's pay). Life Ins Courant 51.18-21 Ja '46
Agent loses suit for commissions under 1908 contract that was given up for Nylic agency agreement. Nat Underw (Life ed) 49:10 N 16 '45
Management responsible for agents' income. L. S. Morrison; abstracts. Nat Underw (Life ed) 49:4 N 9 '45; East Underw 46:9 N 23 '45
Mutual Benefit's new compensation and pension plans. East Underw 47:4 O 18 '46; Nat Underw (Life ed) 50:1+ O 18 '46
N.A.L.U. agents' compensation group reports at annual meeting. Nat Underw (Life ed) Daily ed 50:18+ S 11 '46
N.Y. sends to all associations views on agents' compensation; local body thinks entire system of payment should be reviewed and revised. East Underw 47:1+ Jl 12 '46
Northwestern Mutual has new contract for agents. Nat Underw (Life ed) 50:1 N 8 '46; Weekly Underw 155:1151 N 9 '46

See also
Insurance, Industrial—Agents—Salaries and commissions
Insurance, Life—Agents—Salaries

Company relations
Agent asks selection men for quicker underwriting decisions, more sympathy. D. S. Walker. Nat Underw (Life ed) 49:4 N 23 '45; Same cond. Weekly Underw 153:1226 N 24 '45
Company policies must be clearly defined. B. N. Woodson. Nat Underw (Life ed) 50:4 S 27 '46

INSURANCE, Life—Agents—Company relations—*Continued*
Job satisfaction survey yields dividends; agents satisfied with Nylic pay program. D. Dowell. Weekly Underw 153:1234-5 N 24 '45
Mail plans unearth thousands of leads for insurance men. Sales Management 56:74 F 15 '46
Mutual Life alters agency operation. R. Hull. Weekly Underw 153:1121+ N 17 '45; Excerpts. East Underw 46:11 N 23 '45
Phoenix Mutual rounds agent protection program by group life and health coverages. Weekly Underw 155:964 O 19 '46
Results of Sun Life agency program. J. A. McAllister. Nat Underw (Life ed) 49:11 N 23 '45
Tomorrow's agent in the smaller company. A. B. Olson. East Underw 46:11 N 23 '45

Conventions

Illinois association of life underwriters, annual meeting, Chicago. East Underw 47:4+ My 3 '46
Missouri association of life underwriters annual meeting, St Louis. Nat Underw (Life ed) 50:4 My 31 '46
New York state association of life underwriters annual meeting, Syracuse. Nat Underw (Life ed) 50:3+ My 17 '46
Ohio association of life underwriters annual meeting, Cincinnati. Nat Underw (Life ed) 50:1+ My 17 '46
Texas association of life underwriters annual meeting, Corpus Christi. Nat Underw (Life ed) 50:2+ Je 14 '46
Vermont state life underwriters association annual meeting. East Underw 47:14 Jl 5 '46

Legal status

Agent's earnings disqualify him for SS benefits; held employe and not independent contractor. Nat Underw (Life ed) 50:2 Ja 11 '46
NLRB complaint terms ordinary agent employe; Phoenix Mutual charged with unfair labor practice. Nat Underw (Life ed) 50:3+ Je 28 '46
Position of commission agent outlined in NALU social security report. East Underw 47:3+ S 20 '46; Nat Underw (Life ed) Daily ed 50:10+ S 11 '46

Letters to prospects

Check list of holiday sales letter ideas. H. D. Shaw. Nat Underw (Life ed) 49:31 N 16 '45
Debate on gifts with direct mail. J. H. Rader and others. East Underw 46:15 N 23 '45
Definite prospect system results in better business; direct mail methods. F. H. White. Nat Underw (Life ed) Daily ed 50:7+ S 13 '46
Making direct mail click. G. E. Speakman. East Underw 47:4 Jl 5 '46

Pensions

Connecticut General's new field benefit program. J. L. Cole. East Underw 47:10 My 17 '46
Mutual Benefit's new compensation and pension plans. East Underw 47:4 O 18 '46; Nat Underw (Life ed) 50:1+ O 18 '46
Position of commission agent outlined in NALU social security report. East Underw 47:3+ S 20 '46; Nat Underw (Life ed) Daily ed 50:10+ S 11 '46

Reemployment

Insurance men home from war services tell of their peacetime sales experiences. East Underw 47:70-1+ pt 2 O 4 '46
Nearly 50,000 veterans now in life insurance. Weekly Underw 155:278 Ag 3 '46; Same cond. Nat Underw (Life ed) 50:9 Ag 2 '46
New York Life veteran agents set records. Weekly Underw 154:723 Mr 16 '46; Same cond. Nat Underw (Life ed) 50:11 Mr 15 '46
30,000 veterans work in life insurance now. Weekly Underw 154:842 Mr 30 '46; Same cond. Nat Underw (Life ed) 50:9 Mr 29 '46
Veteran returns to Metropolitan. E. J. Nofer, jr. Life Ins Courant 51:112-15 Mr '46

Salaries

Agents' salary plan of Home life of New York. Nat Underw (Life ed) 50:23 Mr 29 '46
Base salary plan receiving wide attention now; companies and veterans shop before making connections. Nat Underw (Life ed) 50:3 Ja 4 '46
Developing plans for agents salaries. L. S. Morrison. Weekly Underw 153:1176 N 17 '45
Incentive salary plan successful at Home Life. Weekly Underw 155:820 O 5 '46
Retroactive pay not barred by sections of N.Y. state law; union agents test law. East Underw 47:1+ Ag 9 '46

Sales conventions

Aetna Life conventions of Regionnaires, Mackinac Island, Mich.; Bretton Woods, N.H. East Underw 47:1+ Jl 5; 3 Jl 12 '46
Chicago congress colorful blend of fact, inspiration. Nat Underw (Life ed) 50:1+ My 3 '46
Columbus congress develops wealth of material. Nat Underw (Life ed) 50:11 My 3 '46
Equitable of Iowa four-day meeting held at Chateau Frontenac, Quebec; thirty-fourth annual production clubs convention. East Underw 47:6+ Jl 5 '46; Nat Underw (Life ed) 50:3+ Jl 5 '46
General agency leaders of John Hancock, meeting, Swampscott, Mass. East Underw 47:1+ S 20 '46; Nat Underw (Life ed) 50:6+ S 20 '46
Home Life victory conference, Atlantic City, Sept. 19-20. East Underw 47:3+ O 4 '46
Illinois producers tell how they get business; Life underwriters association of Peoria. Nat Underw (Life ed) 49:23 N 23 '45
John Hancock district agency leaders meet at Swampscott, Mass. East Underw 47:10 O 18 '46; Nat Underw (Life ed) 50:4 O 18 '46
Massachusetts Mutual field leaders convention, Saranac Lake, N.Y. East Underw 47:3-4 Je 21 '46; Nat Underw (Life ed) 50:2+ Je 28 '46
Mutual Benefit Life national field convention, Chicago. East Underw 47:3-4+ O 18 '46; Nat Underw (Life ed) 50:3+ O 18 '46
Mutual Life fieldmen's conference, New York. East Underw 47:3+ Ag 2 '46; Nat Underw (Life ed) 50:1+ Ag 2 '46
N.A.L.U. mid-year sales congress affords agents top fare. Nat Underw (Life ed) 50:8+ Mr 22 '46
New England sales Congress, Boston, March 21. East Underw 47:3+ Mr 29 '46
New sales slants given at Connecticut meeting. Nat Underw (Life ed) 50:2+ Ap 26 '46
New York City association's 26th annual sales congress. East Underw 47:6-7 Mr 15 '46; Nat Underw (Life ed) 50:12+ Mr 15; 3+ Mr 22 '46
Northwestern Mutual fieldmen hold annual meeting at Milwaukee. East Underw 47:3-4+ Jl 26 '46; Nat Underw (Life ed) 50:3 Jl 26 '46
Northwestern Mutual Life eastern regional meeting, New York. East Underw 47:1, 4+ Ja 11 '46; Nat Underw (Life ed) 50:1+ Ja 11 '46
Penn Mutual field leaders meet at Murray Bay, Canada. East Underw 47:3-5+ Jl 5 '46; Nat Underw (Life ed) 50:1+ Jl 5 '46
Sales congress of Life underwriters association of Los Angeles. East Underw 47:13 Ap 19 '46; Nat Underw (Life ed) 50:1+ Ap 19 '46
Sales ideas plentiful at Detroit sales congress. Nat Underw (Life ed) 50:12-13 Ap 5 '46
Selling in America is best, theme of Peoria congress. Nat Underw (Life ed) 50:9 N 8 '46
Wisconsin congress sales talks prove of practical value. Nat Underw (Life ed) 50:8 My 31 '46

Selection

Advocates that insurers make market analysis; wants determination of number of agents needed in each locality. C. D. Connell. Nat Underw (Life ed) 50:1+ F 8 '46
Agencies build strength through strict selection. Nat Underw (Life ed) 50:13 O 4 '46
Agencies recruit older salesmen. Nat Underw (Life ed) 50:8 Ap 5 '46

INSURANCE, Life—Agents—Selection—*Cont.*
Agent recruiting curb up to companies; report of N.A.L.U. committee on agency practices. Weekly Underw 154:712 Mr 16 '46
Base salary plan receiving wide attention now; companies and veterans shop before making connections. Nat Underw (Life ed) 50:3 Ja 4 '46
Canadian study of new agents; Sun Life's requirements. J. A. McAllister. East Underw 46:11 N 23 '45; Same cond. Nat Underw (Life ed) 49:11 N 23 '45
Dangers in over-training, over-selection. J. A. McCamus. Nat Underw (Life ed) 50:18 O 11 '46
How Northwestern Mutual recruits salesmen by direct mail. Sales Management 56:106+ My 20 '46
Problems posed for companies in post-war. C. B. Reeves. East Underw 46:15 N 23 '45
Psychological research helps in picking men; Home Life study. Nat Underw (Life ed) 49: 1+ N 9 '45
Rebuilding of manpower is big task ahead. J. E. Scholefield. Nat Underw (Life ed) 49:10 N 16 '45
Recruiting service men. C. Lamb. Nat Underw (Life ed) 49:5 N 23 '45

Service

Average policy more than doubled by programming. A. F. Priebe. East Underw 47:17 pt 2 O 4 '46
Brevity and simplicity in analysis pays off. J. O. Todd. East Underw 47:3+ S 6 '46; Abstract. Nat Underw (Life ed) 50:3 S 6 '46
Clients versus policyholders. T. R. Nagle. Spectator (Life ed) 153:15-17 D '45
Contribution of the life agent to your community. il Spectator (Life ed) (Endorsement no) 153:12-13 D '45
Programming of estates. J. W. Craig. East Underw 47:57+ pt 2 O 4 '46
Short form analysis; abstracts. F. B. Falkstein. East Underw 47:3+ S 6 '46; Nat Underw (Life ed) 50:6 S 6 '46
Simple programming. E. T. Golden. East Underw 47:6+ S 6 '46; Abstract. Nat Underw (Life ed) 50:4 S 6 '46

Training

Dangers in over-training, over-selection. J. A. McCamus. Nat Underw (Life ed) 50:18 O 11 '46
Getting new men into production. W. F. Szwed. and others. Nat Underw (Life ed) 49:4 D 7 '45
Management attitude; Life insurance agency management association guide for training under G.I. bill. Spectator (Life ed) 153:32-3+ Mr '46; Same abr. Nat Underw (Life ed) 50:8+ F 22 '46
Map nation-wide intermediate training program. Nat Underw (Life ed) 50:1 O 25 '46; East Underw 47:13 O 25 '46
New on-the-job limits are not retroactive. Nat Underw 50:20 Ag 22 '46; Nat Underw (Life ed) 50:3+ Ag 23 '46
199 Mutual agents complete first leg of training plan. Nat Underw (Life ed) 50:7 O 18 '46
Passing judgement; training-on-the-job program. H. D. Josephson. Spectator (Life ed) 153:11+ My '46
Plans Metropolitan uses in training new men. W. W. Hartshorn. Nat Underw (Life ed) Daily ed 50:6+ S 12 '46
Proper training held needed for producers. J. R. Adams. Weekly Underw 153:1287 D 1 '45; Same cond. Nat Underw (Life ed) 49:8 N 16 '45
Revision of veterans on-the-job training required under law. East Underw 47:1+ Ag 23 '46; Same. Weekly Underw 155:417+ Ag 24 '46
Sales success plan prepared for new men by Loyal Protective. East Underw 46:8 N 30 '45
Training gadget makes chalk dust passé. Nat Underw (Life ed) 50:6 N 8 '46
Urges insurers to enroll veterans in training on job. B. A. Hedges. Nat Underw (Life ed) 49:12B N 23 '45; Same. Nat Underw 49: 20+ D 13 '45
What the life insurance business can learn from army training. J. L. Moss. East Underw 47:86-7 pt 2 O 4 '46

Women agents

Lillian Joseph is leading Home Life underwriter. por Weekly Underw 154:234 Ja 19 '46
New high for women's quarter million round table. Nat Underw (Life ed) 50:9 Jl 12 '46; East Underw 47:9 Jl 12 '46
Post-war women's market. M. F. Barber and E. Shuler. East Underw 47:46+ pt 2 O 4 '46
That little difference! H. R. Kuhn. Spectator (Life ed) 153:24-5, 47 F '46
Woman achieves rank in million-dollar class; Addy A. Chandler. Weekly Underw 154: 1040 Ap 20 '46
Women in insurance sales field after experiences in war services. M. S. Eberly. East Underw 47:108 pt 2 O 4 '46
Women's quarter million group at all-time high. Nat Underw (Life ed) Daily ed 50:11+ S 11 '46
Women's session big hit at NALU convention. Nat Underw (Life ed) Daily ed 50: 20 S 12 '46

Agents' wives

Counsel for agents' wives. P. C. Lewis. Nat Underw (Life ed) 50:11 Jl 19 '46
Talks to fieldmen's wives. W. P. Worthington. East Underw 47:3+ O 4 '46

Annuities

See Annuities

Applications

Agent surveys his declined business. M. M. Cohen. East Underw 47:7 Jl 19 '46
Applicants declined and accepted in 1945. Weekly Underw 154:23 sec 2 My 11 '46

Aviation risks

Air passenger travel now regarded as standard life risk; survey by Institute of life insurance. Weekly Underw 153:1224 N 24 '45; Same cond. Nat Underw (Life ed) 49:12C N 23 '45
Air risks: 1946. Bsns W p82+ Ja 12 '46
Air travel; fast growth expected in next few years in passenger transport. Life Ins Courant 51:82 F '46
Air travel, foreign travel reviewed. R. L. Cizek; A. D. McElheran. Nat Underw (Life ed) 49:18 N 23 '45
Atlantic Life new rules and rates for aviation. East Underw 47:6 Ag 30 '46
Aviation; analysis of underwriting and of exclusion clauses; tabulation by company. Life Ins Courant 51:83 F '46
Aviation clause developments; current underwriting considerations in that and war clause traced. D. I. Parker. Weekly Underw 153:1196+ N 24 '45
Aviation clauses; summary of aviation underwriting practices and analysis of typical aviation clauses; tabulation by company. Life Ins Courant 51:122-4 Mr '46
Aviation underwriting; recent trends. Life Ins Courant 51:184-5, 234-6, 287-8, 333-4 Ap-Jl '46
Broader aviation cover for Connecticut Mutual. Weekly Underw 153:1424 D 15 '45
Connecticut General adopts new schedule of rates and limits for aviation coverage. Spectator (Life ed) 154:42-4 O '46; Excerpt. Nat Underw (Life ed) 50:15 Ag 23 '46
Death from bullet in plane that is saved not covered. Nat Underw (Life ed) 50:20 Ag 23 '46
Death of insured while riding in airplane held admitted by insurer's tender of policy reserve. Weekly Underw 153:1375 D 8 '45
Death of passenger in collision of airplanes not result from aeronautic flight within exception of policy. Weekly Underw 155:1157 N 9 '46
Drowning when plane is forced down in water not under aviation clause. Nat Underw 50:20 Je 20 '46; Same. Nat Underw (Life ed) 50:6 Je 21 '46
Equitable Society cuts rates on aviation risks. Weekly Underw 153:1424 D 15 '45
Fidelity Mutual aviation ratings. East Underw 47:3+ O 25 '46
Great activity in air calls for covering risk. W. O. Menge. Nat Underw (Life ed) 49:2+ D 7 '45

INSURANCE, Life—Aviation risks—*Cont.*
Liberalized underwriting practices of life companies to benefit private flyers. Weekly Underw 154:833 Mr 30 '46; Same abr. East Underw 47:6 Ap 5 '46
Life insurance for Americans on the wing; tabulation summary, showing practices of 104 companies in 1945, 1940 and 1935. Spectator (Life ed) 153:28-9 Ap '46; Same cond (1945 data only). Nat Underw (Life ed) 50:7-8 Ap 19 '46
Massachusetts Mutual aviation risks. East Underw 47:9 N 8 '46
Minnesota air rider illegal; Fidelity Mutual must pay face of policy in pilot's death. Nat Underw (Life ed) 50:1 Ja 4; 4 Ja 11 '46
New York city court rules on policy provision excepting aeronautics risk. East Underw 46:9 N 30 '45
Recent changes; war and aviation clauses; summary of actions taken by companies. Life Ins Courant 50:436-9, 482-6, 524-7, 574-6+ S-D '45
Some aviation underwriting observations. J. E. Hoskins. East Underw 47:24+ pt 2 O 4 '46
Special safety factors to secure favorable insurance coverage for all air-minded executives. G. R. Wilson. Weekly Underw 155: 275+ Ag 3 '46
Suggests premium rates to cover extra air risks. J. E. Hoskins. Weekly Underw 153: 1420 D 15 '45
Summary of actions so far on war and aviation provisions; with tabulation by company. Life Ins Courant 50:523 N '45
Views on air pilot underwriting. J. B. Maclean. Nat Underw (Life ed) 49:8 N 23 '45
War is over as regards war clauses. P. E. Price. Nat Underw 50:30 Mr 28 '46; Same. Nat Underw (Life ed) 50:13 Mr 29 '46

Beneficiaries

See Insurance, Life—Policy beneficiaries

Bibliography

Life insurance. (Business literature v. 18, no. 9) p43-4 Business library, Newark public lib, Newark, N.J. Ap '46

Biography

Government service by insurance men; sketches. pors East Underw 47:64-8 pt 2 O 4 '46
We have with us today; some interesting personalities in the life insurance business, their careers and backgrounds. pors East Underw 46:14-16 D 14 '45

Business beneficiaries

See Insurance, Business

Cancellation

Cancellation authorized where insured knew agent incorrectly transcribed answers to health questions in application. Weekly Underw 154:1691 Je 29 '46
Failure to join beneficiary as party defendant within contestable period not bar to cancellation suit. Weekly Underw 155: 918 O 12 '46

Children's policies

Few companies are issuing single premium juvenile. Nat Underw (Life ed) 50:17 Ap 12 '46
Guardian now prepared to issue juvenile forms. Nat Underw (Life ed) 50:9 Ap 19 '46
Juvenile greatest field today. E. M. Schwemm. Nat Underw (Life ed) 50:24 Ap 19 '46
Juvenile insurance has immense potentialities. C. T. Yates; D. B. Alport. Nat Underw (Life ed) 50:4 O 11 '46
Juvenile opportunities; with chart showing companies' minima, maxima, and full benefit. Life Ins Courant 51:466-7 O '46
Juvenile policies in New York. R. Rosenquist. Nat Underw (Life ed) 50:6 Mr 22 '46
Juvenile sales increase; purchases in 1945 at record volume. East Underw 47:9 My 3 '46
Life insurance for children. G. C. Henley. East Underw 47:15+ pt 2 O 4 '46
Life insurance for the younger generation. E. A. Muller. il Mag of Wall St 78:586+ Ag 17 '46
Your boys and girls; planning by parents for life insurance in earliest years. P. A. McDonnell. Spectator (Life ed) (Endorsement no 1946-1947) 154:34-5 1946

See also
Insurance, Life—
Educational endowment policies

Claims

See Insurance, Life—Adjustment of claims; Insurance, Life—First year claims; Insurance, Life—Suicide death claims; Insurance, Life—War death claims

Cost

Average annual net cost history of ordinary life policies issued in 1925 per $1,000. P. A. Reddy. Spectator (Life ed) 153:38-9 N '45
Average annual net cost history of ordinary life policies issued in 1926 per $1,000. J. Horan. Spectator (Life ed) 154:46-7 S '46
Business of life insurance; cost and selling price. M. Gelles. Life Ins Courant 51:68-9+ F '46
Cost of income; with tabulation by company showing average yearly payment (premiums less dividends, 20-year basis) for ordinary life (age 35) sufficient to provide $10 monthly life income (10 years certain) to a woman aged 35. Life Ins Courant 51:424-5 S '46
Cost of retiring; with tabulation by company showing average yearly payment (premiums less dividends, 20 years at current scale) for ordinary life, age 35, sufficient to provide $10 monthly life income (10 years certain) from cash value at male age 65. Life Ins Courant 51:468-9 O '46
Current costs; tables of average costs, based on present dividend scales, rates, and values, for ordinary life type policies. Life Ins Courant 51:282-5 Je '46
Insurance hit by housing bill; costs for life protection will be boosted; abstracts. L. W. Douglas. Weekly Underw 153:1453+ D 22 '45; Nat Underw (Life ed) 49:1+ D 21 '45
Insurance yields; single-premium insurance as an investment; cost of protection. Life Ins Courant 50:568-70 D '45
20-year histories; actual dividend histories of life insurance policies issued in 1926; average yearly payments; net costs. Life Ins Courant 51:382-4 Ag '46
Will the Guertin laws increase the cost of life insurance? J. B. Maclean. East Underw 47:98 pt 2 O 4 '46

Disability provisions

Disability benefits not limited where time due to appendectomy not increased by incidental removal of tumor. Weekly Underw 154:1043 Ap 20 '46
Disability gives profit in 1945 for companies licensed in New York state; tabulations. Nat Underw (Life ed) 50:35-6 Mr 15 '46
War and air terms in disability forms. R. Rosenquist. Nat Underw (Life ed) 50:6 Jl 12 '46

Double indemnity provisions

Death from injuries sustained in affray provoked by insured not due to accidental means. Weekly Underw 154:1579 Je 15 '46
Death of passenger in collision of airplanes not result from aeronautic flight within exception of policy. Weekly Underw 155:1157 N 9 '46
Discoloration of skin prior to death by sunstroke not visible wound within double indemnity coverage. Weekly Underw 154:290 Ja 26 '46
Imminence of natural death doesn't bar recovery for accidental death. Nat Underw (Life ed) 50:21 Mr 29 '46
Insurer loses double indemnity suit in Illinois case; Custer vs. Lincoln National. Nat Underw (Life ed) 50:8 Ag 30 '46
1945 double indemnity figures for companies licensed in New York state; tabulations. Nat Underw (Life ed) 50:35-6 Mr 15 '46
Pearl Harbor death held murder, not war casualty. Nat Underw (Life ed) 49:12 D 7 '45

INSURANCE, Life—Double indemnity provisions—*Continued*
Presumption of accidental death arises from evidence of death by unexplained violent external means. Weekly Underw 154:1451 Je 1 '46
Violation of law as defense in fatal injury; insurer's liability. East Underw 46:12 N 30 '45
War clause doesn't bar double indemnity for auto death in U.S. Nat Underw (Life ed) 50:9 Ja 25 '46

Economic aspects
Agent speaks out about inflation. E. T. Golden. Life Ins Courant 51:222-3 My '46
Economic seminar of New York chapter, CLU. East Underw 47:8 Ap 19 '46; Nat Underw (Life ed) 50:2 Ap 19 '46
Economic trends augur well for insurance sales. D. Dowell. Nat Underw (Life ed) 50:30+ O 11 '46; Same cond. East Underw 47:8 O 11 '46
Economist discusses effect of changes on life insurance. M. Jacobstein. Nat Underw (Life ed) 50:4 Mr 1 '46
Effects of low interest; government money policy has triple adverse effect on policyholders. C. Adams. East Underw 47:3-4 Ap 12 '46
Handling of public debt favorable to gain in life sales. A. J. McAndless. Weekly Underw 154:1628 Je 22 '46
History of living costs; problems of protection and retirement. Life Ins Courant 51: 272+ Je '46
Industry now in the midst of weighty problems. E. H. Hahne. Nat Underw (Life ed) Daily ed 50:7+ S 13 '46
Insurers and cheap money. Economist 151: 501-2 S 28 '46
Life companies' anti-inflation campaign wins American public relations association award. Weekly Underw 154:912 Ap 6 '46; Nat Underw (Life ed) 50:4 Ap 5 '46
Life insurance and business cycles. D. B. Woodward. East Underw 47:14+ pt 2 O 4 '46
Life insurance and inflation. T. I. Parkinson. Comm & Fin Chr 164:349 Jl 18 '46
Pendulum swings too far; why Standard life of Indiana cut out monthly and quarterly premium business. H. V. Wade. Life Ins Courant 51:322-3 Jl '46
Raps harmful notions before ALC; warns against inflation and urges government solvency. C. Adams. Weekly Underw 155: 837+ O 12 '46; Excerpts. Comm & Fin Chr 164:1933+ O 17 '46
Stable economy. M. A. Linton. Spectator (Life ed) 153:20-1+ Ja '46; Same abr. Weekly Underw 153:1432 D 15 '45; Same cond. Nat Underw (Life ed) 49:7-8 D 21 '45
True life insurance, a permanent program; inflationary problem. S. S. Huebner. East Underw 47:130 pt 2 O 4 '46
Warns of severe inflation. T. I. Parkinson. Comm & Fin Chr 163:1133+ F 28 '46
Your cost of living; what is it doing to your life insurance? Life Ins Courant 51:270-1 Je '46

Educational endowment policies
College education thru life insurance. E. A. Muller. Mag of Wall St 78:646+ Ag 31 '46
Manhattan Life's new educational policy; after college years payments coverage may be continued at low cost. Weekly Underw 155:219 Jl 27 '46

Employees' insurance
Pension plan provided for farm employes. Nat Underw (Life ed) 50:8 Ja 11 '46

Endowment policies
Endowment policy payments increase; 1945 and comparisons; chart. Nat Underw (Life ed) 50:6 My 10 '46
Endowment policy settlement options. E. A. Muller. Mag of Wall St 78:226 My 25 '46
Frowns on use of insurance for bequest purposes. P. Shepherd. Nat Underw (Life ed) 50:1 O 11 '46

Estate protection
Building an insurance estate. E. A. Muller. Mag of Wall St 78:98 Ap 27 '46
Building security for the professional man through insurance. E. A. Muller. Mag of Wall St 77:279+ D 8 '45
Coordinating insurance and general estate; suggested will and trust provisions relating to life insurance. B. M. Becker. Trusts & Estates 83:33-6 Jl '46
Exposition of errors in estate planning demonstrates value of expert's services. J. N. Sokohl. Weekly Underw 154:36-8 sec 2 My 11 '46
Insurance preserves financial health. H. R. Kuhn. Weekly Underw 154:30-1 sec 2 My 11 '46
Little time spent in conserving estates; value of graphic estate plan. L. R. Futia; E. J. Ellis. East Underw 47:11 Ap 5 '46
Objectives of estate planning. H. T. Powers. Trusts & Estates 82.561-6; 83:139-42 Je, Ag '46
Obstacles to estate creation. J. S. Myrick. Comm & Fin Chr 163:3534 Je 27 '46; Same cond. Trusts & Estates 83:169-70 Ag '46; Excerpt. East Underw 47.9 Je 14 '46
Presentation of estate planning; play given at Penn Mutual Murray Bay conference. East Underw 47:150+ pt 2 O 4 '46
Principles of tax absorption; a reappraisal. V. A. Miletti. Trusts & Estates 83:233-5 S '46
Programming with trust officer's aid. M. D. Conklin. Nat Underw (Life ed) 49:31 N 16 '45
Selling the idea of estate planning. Spectator (Life ed) 153:16-18 My '46
Service in funding estate tax is agent's duty. H. T. Wright. Nat Underw (Life ed) 49: 23 N 9 '45
Should take view of estate's whole picture. C. H. Huffard. East Underw 46:5 N 30 '45
Some trends in art of estate planning. M. A. Shattuck. Comm & Fin Chr 163:2075+ Ap 18 '46; Excerpts. Weekly Underw 154: 967 Ap 13 '46; East Underw 47:8 Ap 19 '46
Technique in estate analysis work. W. B. Hardy. Nat Underw (Life ed) 50:4 O 25 '46
Techniques of estate planning. W. N. Watson. East Underw 47:60+ pt 2 O 4 '46
Tips on estate planning. C. L. Post and others. Nat Underw (Life ed) 50:6 Ap 12 '46
Trust officers recognize part of insurance in estate planning. F. W. Ohmes. East Underw 47:56 pt 2 O 4 '46
Vast field in covering tax demands. R. F. Spindell. Nat Underw (Life ed) 50:16C Mr 22 '46

See also
Estate planning
Insurance trusts

Family income policies
Mutual life of New York makes important change in family income. Nat Underw (Life ed) 49:18 N 30 '45
Travelers has $15 family plan. Nat Underw (Life ed) 50.18 Jl 12 '46; Life Ins Courant 51:389 Ag '46

Farm property
Farm loan picture bright; nearly all property sold. G. E. Rogers. Nat Underw (Life ed) 50:15 My 10 '46

Farmers as prospects
Farmers' market. O. W. Reed. East Underw 47:148 pt 2 O 4 '46
Farmers now good prospects. H. R. Sharlach. Nat Underw (Life ed) 50:11 My 3 '46
Low pressure selling to farmers mistake. D. C. Mieher. Nat Underw (Life ed) 49:25 D 21 '45
Sells inland empire ranchers; Roy F. Alexander. E. Dickson. East Underw 47:48 pt 2 O 4 '46

Finance
Absolute and relative growth of life insurance assets, 1920-1945; graphs. Nat Underw (Life ed) 50:22 My 24 '46
Annual statements hit all-time highs; excerpts from company reports. Spectator (Life ed) 153:12-18+ Mr '46
Business of life insurance; cost and selling price. M. Gelles. Life Ins Courant 51:68-9+ F '46

INSURANCE, Life—Finance—*Continued*
Company ranking in 1945 shown by ordinary in force, paid policyholders, total income, premium income, insurance gained, insurance written, assets, group in force. Nat Underw (Life ed) 50:14-15 My 31 '46
Comparative interest rates shown, funds left with company; tabulation by company. Nat Underw (Life ed) 49:25 D 7 '45
Continental assurance company; non-par rates, settlement options; dividend scale revised. Life Ins Courant 51:129-30 Mr '46
Effect of interest used for calculating policy values on net costs; tabulation. Spectator (Life ed) 154:44 S '46
Effect of interest used for calculating policy values on net costs; tabulation. J. Horan. Spectator (Life ed) 153:40+ N '45
Equiowa changes to CSO, 2½ per cent reserve basis. Life Ins Courant 51:131-3 Mr '46
Equitable of Iowa revision in rates, dividends, cash values. Nat Underw (Life ed) 50:22-3 Mr 8 '46
Fidelity Mutual adopts 2.5 per cent reserve basis; policies, figures completely revised. Life Ins Courant 51:37-9 Ja '46
Figures from Dec. 31, 1945, statements; tabulation by company. Nat Underw (Life ed) 50:8 Ja 25; 4 F 1; 24 F 8; 2 F 15; 2 F 22; 2 Mr 1; 18 Mr 8; 25 Mr 15; 24 Mr 22 '46
Gain and loss exhibit as of Dec. 31, 1944; tabulation by company. Spectator (Life ed) 153:28 N '45
How each dollar of total life insurance income was used in 1944; tabulation by company. Spectator (Life ed) 153:16-17 N '45
How each dollar of total life insurance income was used in 1945; tabulation by company. Spectator (Life ed) 154:30-1 S '46
How the 1945 life insurance income dollar was used; chart. Nat Underw (Life ed) 50: 14 O 11 '46
Life insurance aggregates for the year ended December 31, 1945; with tabulation. Spectator (Life ed) 153:32-3 My '46
Life insurance aggregates, 1945; tabulation. T. J. V. Cullen. Spectator (Life ed) 154: 34-5+ Ag '46
Life insurance and annuity business for the years 1935-1945; tabulation. Life Ins Courant 51:246 My '46
Life insurance and government debt. G. W. Smith. Life Ins Courant 50:560-3 D '45; Abstracts. Nat Underw (Life ed) 49:2+ N 5 '45; East Underw 46:3 N 9 '45
Life insurance companies business of 1945 and condition December 31, 1945 tabulation. Weekly Underw 154:79-83 sec 2 My 11 '46
Many policy changes by Fidelity Mutual; goes on 2½% reserve basis. East Underw 46:15 D 7 '45
Massachusetts Mutual; dividends, interest to be revised; new scale effective June 1. Life Ins Courant 51:190-1 Ap '46
Minnesota Mutual adopts American experience 2½ per cent reserve basis. Life Ins Courant 51:291-3 Je '46
Mutual Benefit goes on CSO 1941 mortality table and 2¼ per cent interest. Spectator (Life ed) 153:90-1+ N '45
New England Mutual's president comments on current trends. G. W. Smith. Nat Underw 47:3 F 22 '46
New York state 1945 results, new business and in force, federal income taxes; tabulation by company. Nat Underw (Life ed) 50:4 Mr 8 '46
1944 business, ordinary, group and industrial for Idaho, Louisiana, Mississippi, Puerto Rico and West Virginia. Life Ins Courant 50:588-9 D '45
1944 business, ordinary, group and industrial for Missouri, New Hampshire, South Carolina and Tennessee; tabulation. Life Ins Courant 50:536-7 N '45
1945 and 1946 rates of interest payable compared; dividends left to accumulate; interest payable under settlement options; tabulation by company. Spectator (Life ed) 153:63 Ap '46
1945 business, ordinary, group and industrial for Arizona, Arkansas, Connecticut, Louisiana, Michigan, Nebraska, New Hampshire, New Jersey, New Mexico, Utah, Washington and Wisconsin; tabulation. Life Ins Courant 51:299-305 Je '46
1945 business, ordinary, group and industrial for Delaware, Georgia, Nevada and Tennessee. Life Ins Courant 51:436-8 S '46
1945 business, ordinary, group and industrial for Florida, Kentucky, North Dakota and Oregon. Life Ins Courant 51:350-1 Jl '46
1945 business, ordinary, group and industrial for Indiana, Iowa, Maine, Massachusetts, Rhode Island, South Dakota, Vermont, Virginia. Life Ins Courant 51:252-5 My '46
1945 business, ordinary, group and industrial for Kansas and Minnesota. Life Ins Courant 51:393 Ag '46
1945 new business and in force for California, North Dakota and Rhode Island. Nat Underw (Life ed) 50:20 Ap 19 '46
1945 new business and in force for Delaware. Nat Underw (Life ed) 50:8 Jl 19 '46
1945 new business and in force for Illinois, New Mexico and Wisconsin. Nat Underw (Life ed) 50:18 Ap 12 '46
1945 new business and in force for Indiana. Nat Underw (Life ed) 50:8 Je 7 '46
1945 record in Iowa, Minnesota and Missouri. Nat Underw (Life ed) 50:24-5 Ap 5 '46
1945 record in Michigan, New Jersey and Pennsylvania. Nat Underw (Life ed) 50:23-4 Mr 22 '46
1945 record in Ohio, new business and in force. Nat Underw (Life ed) 50:6 My 31 '46
1945 results and comparison with 1944, new business and in force; tabulation by company. Nat Underw (Life ed) 50:1 Ja 11; 11 Ja 18; 17 Ja 25; 3 F 1 '46
1945 statements abound in plus signs. Nat Underw (Life ed) 50:1+ F 1; 7-9 F 8; 2 F 15; 3 F 22; 24 Mr 1; 3 Mr 8; 2 Mr 15 '46
Northwestern Mutual revised dividend scale for 1946; gross interest rate to be 3%. Life Ins Courant 50:580-1 D '45
Ordinary business as of Dec. 31, 1945 and 1944; tabulation by company. Life Ins Courant 51.147 Mr '46
Ordinary, group and industrial ranking as of Dec. 31, 1945; tabulation. Life Ins Courant 51:198-9 Ap '46
Prudential new dividend scale for 1946; interest rates also revised. Life Ins Courant 51:90-3 F '46
Rank of leading life insurance companies on January 1, 1946 by insurance in force, new business paid for, premium income, total income, payments to policyholders, total expenditures, admitted assets and surplus funds. Weekly Underw 154:1239-41 My 11 '46
Results of operations of life insurance companies, as of Dec. 31, 1944 and 1945; tabulation. Spectator (Life ed) 153:65 F; 10-11 Mr '46
Six months results of ordinary operations (excluding group) during first half of 1946 compared with first halves of 1945 and 1944; tabulation by company. Life Ins Courant 51:391 Ag '46
Tap surplus $91 million in '45 for annuities; disability gives profit; double indemnity figures; tabulations. Nat Underw (Life ed) 50:35-6 Mr 15 '46
U.S. government life figures as of Dec. 31, 1945. Nat Underw (Life ed) 50:14 N 3 '46

See also
Insurance, Life—Investments

First year claims

First year claims, 1945 of Mutual Benefit; tabulation. Life Ins Courant 51:347 Jl '46
Life companies paid 32,200 first-year death claims for $23,510,000 in 1945; with case histories. Weekly Underw 154:3-8+ sec 2 My 11 '46

Fraudulent promotion

Fraternal agents indicted by U. S. in alleged fraud; policies issued to army inductees. Nat Underw (Life ed) 49:26 D 21 '45

Fraudulent statements

Cancellation authorized where insured knew agent incorrectly transcribed answers to health questions in application. Weekly Underw 154:1691 Je 29 '46
Failure to join beneficiary as party defendant within contestable period not bar to cancellation suit. Weekly Underw 155: 918 O 12 '46

INSURANCE, Life—Fraudulent statements— *Continued*
Insured participates in agents fraud by concealing knowledge obtained by reading copy of application in policy. Weekly Underw 152:1111 N 10 '45
Misrepresentation by applicant as ground for rescission of life policy. J. A. Gerber. Weekly Underw 154:980-2 Ap 13 '46
Return of premiums actually paid ordered where in excess of amount payable under age adjustment clause. Weekly Underw 154: 359 F 2 '46

Health conservation service

Motion picture, by Metropolitan Life, will aid teachers in health drive. Weekly Underw 155:1082 N 2 '46; East Underw 47:16 N 1 '46

History

Century of American life insurance; a history of the Mutual life insurance company of New York, 1843-1943. S. B. Clough. 402p $4.50 Columbia univ. press, 2960 Broadway, New York 27 '46; Review. East Underw 47:3 Ap 19 '46; Weekly Underw 154:1342 My 25 '46
Connecticut Mutual's 100th anniversary celebration. East Underw 47:3-5+ Je 28 '46

Income plan

See Insurance, Life—Policy settlement

Income policies

See Insurance, Life—Family income policies

International aspects

Swiss-German insurance litigation brings up issue of liability of head offices for foreign operations. Weekly Underw 154:1652+ Je 29 '46

Investment value

Deferred compensation under executive employment contracts. H. S. Koster. Trusts & Estates 83:149-50 Ag '46
Insurance as investment for business woman. E. A. Muller. Mag of Wall St 77:213+ N 24 '45
Insurance yields; single-premium insurance as an investment. Life Ins Courant 50:568-70 D '45
Investment factors of single premium life insurance. H. S. Koster. East Underw 47:6 Jl 12 '46; Same. Trusts & Estates 82:584-5 Je '46
Investment yields; simple graph method eliminates thumbing thru interest tables. Life Ins Courant 50:520-1 N '45
Learning from "cauliflower industry"; annuities or retirement income policies are good investments for prize fighters and other big earners. M. L. Lane. Rough Notes 88:48-50 D '45
Life insurance; a safe place for your money; with chart showing comparative investment value of life insurance and stocks for the period, 1929-1945. Spectator (Life ed) (Endorsement no) 153:51-4 D '45
Life insurance for the younger generation. E. A. Muller. il Mag of Wall St 78:586+ Ag 17 '46
Life insurance gives protection against money's loss of value due to inflation. T. N. Whitehurst. Weekly Underw 154:40-1 sec 2 My 11 '46
More sales for you in 1946; simple life insurance versus stock investments chart proves powerful business producer. Spectator (Life ed) 153:15+ F '46
More with my money. M. L. Lane. Rough Notes 89:40-1+ Jl '46
Need of a larger income for family security; role of life insurance. T. C. Bolton. East Underw 47:78+ pt 2 O 4 '46
Policy yields. Life Ins Courant 51:118-20 Mr '46
Yield on savings vs. retirement annuity. Life Ins Courant 51:72-3 F '46

Investments

Advises caution in extending investment limits. G. L. Neel. Weekly Underw 153: 1225 N 24 '45
Aspects of investment problem today. R. C. Grant. East Underw 47:5+ My 24 '46
Beneficial effect of life companies' investments on nation's economy is far-reaching. K. H. Fisk. East Underw 47:30+ pt 2 O 4 '46
Bill would permit New York companies to buy real estate. Nat Underw (Life ed) 50 2 Mr 1 '46
Broadening investment opportunity for life carriers before District of Columbia committee. Weekly Underw 153:1191+ N 24 '45
Common stocks are seen as sound investment. R. A. Campbell. Nat Underw (Life ed) 49:32-3 D 7 '45
Common stocks for life insurance companies. B. H. Smith. Comm & Fin Chr 164:1926+ O 17 '46; Abstract. Nat Underw (Life ed) 50:28 O 11 '46
Declining interest rates. F. J. McDiarmid. Life Ins Courant 51:368-71 Ag '46; Excerpts. East Underw 47:8 Je 14 '46; Nat Underw (Life ed) 50:1 Je 14 '46
Distribution of life insurance assets since 1900; tabulation. Spectator (Life ed) 153: 26 N '45
Distribution of life insurance assets since 1900; tabulation. Spectator (Life ed) 154: 40 S '46
Earning rate on life insurance funds at 3.07%; drops to new low in 1945. East Underw 47: 13 Je 28 '46; Same cond. Nat Underw (Life ed) 50:1 My 31 '46
Effect of interest used for calculating policy values on net costs; tabulation. Spectator (Life ed) 154:44 S '46
Effect of interest used for calculating policy values on net costs; tabulation. J. Horan. Spectator (Life ed) 153:40+ N '45
Effect of preferred stock plan under present and proposed methods; chart. Nat Underw (Life ed) 49:8 N 30 '45
Eight companies join in General Motors loan. East Underw 47:10 Ag 9 '46
Enrich investment men's policy making background; seminar at University of Indiana. Nat Underw (Life ed) 50:1+ Jl 26 '46
Equitable turns down 3 low interest, long-term issues; view of some large oil and industrial security offerings. T. I. Parkinson. East Underw 47:1+ My 17 '46
GI loans meet with disfavor, A.L.C. group finds; investment questions dominate discussion at Greensboro gathering. Nat Underw (Life ed) 50:2+ My 24 '46
Insurers favor bill to ward off railroad receiverships; S. 1253. Nat Underw (Life ed) 50:9 Ja 18 '46
Insurers scan possibilities in world Bank bonds; may not be eligible under N.Y. law. Nat Underw (Life ed) 50:1+ Ap 12 '46
Interest rate drop of .4% in five months causes shock; investment and yield problems dominate discussion at A.L.C. parley. Nat Underw (Life ed) 50:1+ Ap 12 '46
Interest rate picture. G. L. Harrison. East Underw 47:5 Ap 19 '46
Investment opportunities for life insurance funds. S. C. Davis. Comm & Fin Chr 163: 710+ F 7 '46; Same cond. Weekly Underw 154:415-16, 655-7 F 9, Mr 9 '46; Excerpts. East Underw 47:1+ F 8 '46; Nat Underw (Life ed) 50:1+ F 8 '46
Investment problems of the next decade. L. D. Meredith. il Spectator (Life ed) 153: 24-8 My '46; Same. Life Ins Courant 51:218-21 My '46; Excerpts. Nat Underw (Life ed) 50:1+ Ap 26 '46; Weekly Underw 154:1096 Ap 27 '46
Investment research projects of ALC committee. P. E. Fisher. Nat Underw (Life ed) 49:6 N 9 '45
Investment total at mid-year compared with year before; with tabulation by type of security. Weekly Underw 155:571 S 7 '46
Liberalized investment bill signed by Missouri governor. Nat Underw (Life ed) 49: 11 N 9 '45
Life companies aiding business, home financing. East Underw 47:17 N 1 '46
Life companies stock holdings near billion; analysis of midyear reports. East Underw 47:12 Ag 30 '46; Same. Nat Underw (Life ed) 50:1 Ag 30 '46
Life companies to invest in smaller principal sums; abstracts. E. Fitzgerald. Nat Underw (Life ed) 50:4 My 10 '46; East Underw 47:8 My 3 '46

INSURANCE, Life—Investments—*Continued*
Life firms non-governmental investments up 45 per cent but holdings off for year. Weekly Underw 154:644 Mr 9 '46; Same cond. Nat Underw (Life ed) 50:2 Mr 1 '46
Life insurance and government debt. G. W. Smith. Life Ins Courant 50:560-3 D '45; Abstracts. Nat Underw (Life ed) 49:2+ N 5 '45; East Underw 46:3 N 9 '45
Low interest rates and public welfare. T. I. Parkinson. Comm & Fin Chr 162:2321+ N 15 '45
Mortality saving offsets low interest. A. T. MacLean. Nat Underw (Life ed) 50:3+ Ap 5 '46
National Life reports good F.H.A. loan record. L. D. Meredith. Weekly Underw 153:1227 N 24 '45
Nearly billion in new mortgages purchased in 1945. Nat Underw (Life ed) 50:1 Ja 4 '46
New peak in life insurance policyholders' funds at work in national economy; 1945 and comparisons; chart. Nat Underw (Life ed) 50:14 My 10 '46
New York bill passes permitting investment of 3% of assets in income properties. Nat Underw (Life ed) 50:21 Mr 29 '46
Penn Mutual's policy in making loans to industry. W. W. Bodine. East Underw 47:1+ N 1 '46
Pioneering must be done in investment field. W. M. Guthrie. Nat Underw (Life ed) 50: 1, 13 My 10 '46
Potent industry delegation visits new Secretary of treasury. Nat Underw (Life ed) 50:1 S 20 '46
Prudential inaugurates north New Jersey farm lending; sets up Boise loan branch. Weekly Underw 155:502 Ag 31 '46; Same abr. East Underw 47:6 Ag 30 '46
Rate of interest earned on mean invested funds by one hundred life insurance companies from 1925-1944; tabulation. Spectator (Life ed) 153:42-3 N '45
Rate of interest earned on mean invested funds by one hundred life insurance companies from 1926 to 1945, inclusive; tabulation. Spectator (Life ed) 154:42-3 S '46
Resist inflationary pressure in mortgage lending. Nat Underw (Life ed) 50:4 Ag 2 '46
Reviews chief developments before Life Association meeting, abstracts. D. E. Satterfield, jr. Weekly Underw 154:1234+ My 11 '46; East Underw 47:5+ My 10 '46; Nat Underw (Life ed) 50:1+ My 10 '46
Share-the-bonds plan is eyed for anti-trust angles; life companies' absence as competitive bidders seen as key. Nat Underw (Life ed) 50:1+ N 1 '46
Stocks for life insurance investments. T. W. Phelps. Comm & Fin Chr 164:483+ Jl 25 '46; Abstract. Nat Underw (Life ed) 50:2+ Jl 26 '46
Suggests safeguards in preferred issues. J. H. Clark. Nat Underw (Life ed) 50:2+ O 18 '46
Survey shows that real estate is more stable than common stocks. L. T. Smith. Nat Underw (Life ed) 50:14 O 25 '46
Urge new basis for valuation of preferred stocks; life men ask that N.A.I.C. offset drastic value shifts. G. N. Emory. Nat Underw (Life ed) 50:3+ My 24 '46
Urges 5% investment law of Connecticut-Wisconsin type. R. L. Hogg. Nat Underw (Life ed) 49:6 N 30 '45
Wants preferred stocks to broaden life insurance investments; Life insurance investment research committee. Comm & Fin Chr 162:2477 N 22 '45; Same. Nat Underw (Life ed) 49:3 N 23 '45; Same cond. East Underw 46:5 N 23 '45; Same cond. Weekly Underw 153:1236 N 24 '45
Warns of overconfidence as to investments. F. J. Travers. Nat Underw (Life ed) 50: 23+ My 17 '46
Wide fluctuation in real estate possible. F. J. Eberle. East Underw 47:13 My 31 '46
Wider range of Prudential mortgage loans. P. Bestor. East Underw 47:3 Mr 15 '46

See also
Insurance, Life—Farm property
Insurance, Life—Real estate operations

Lapses and surrenders
Company may consider change in status of insured in determining insurability on application for reinstatement. Weekly Underw 154:485 F 16 '46
Insurability clause in reinstatements. J. R. Crabbe. East Underw 46:15 D 21 '45
Must reinstate policies surrendered while insane; Wodell vs. John Hancock. Nat Underw (Life ed) 50:5 Jl 26 '46
Policies lapsed and surrendered voluntarily, 1943-1945. Weekly Underw 154:62 sec 2 My 11 '46
Policy lapses increase in last half of 1945. Weekly Underw 155:654 S 14 '46
Practical tips on reinstatement procedure. D. B. Semans. Nat Underw (Life ed) 50:8 O 11 '46
Ratio of surrenders and lapses for insurers licensed in New York in 1945; tabulation. Nat Underw (Life ed) 50:25 Mr 15 '46
Terminations by surrender and lapse, 1925 to 1944; tabulation by company. Spectator (Life ed) 153:36 N '45
Terminations by surrender and lapse, 1926 to 1945; tabulations. Spectator (Life ed) 154:52 S '46

See also
Insurance, Life—Policies—Non-forfeiture benefits

Lawyers' cooperation
Adopt plan for national agent-lawyer council at N.A.L.U. convention. Nat Underw (Life ed) Daily ed 50:30 S 13 '46
N.A.L.U. report on cooperation with attorneys. Nat Underw (Life ed) Daily ed 50:10+ S 11 '46

Legal departments

See also
Association of life insurance counsel

Mathematics
Business of life insurance; cost and selling price. M. Gelles. Life Ins Courant 51:68-9+ F '46
Calms fears as to CSO margins; compensating factors of lower interest assumptions and increased loadings. R. Boissard. Nat Underw (Life ed) 50:21+ O 11 '46
Equivalent incomes; how life insurance works. Life Ins Courant 51:420-2 S '46
Level incomes; with charts showing approximate figures for all options except life income options. Life Ins Courant 51:461-3 O '46
Monthly withdrawals; how will compound interest affect the monthly payments? Life Ins Courant 51:376-8 Ag '46
Mortality: people and property. H. M. Gault. Spectator (Life ed) 153:19-23+ My; 25-7+ Je; 154:30-2+ Jl '46
Policy yields. Life Ins Courant 51:118-20 Mr '46
Short-cut graph. Life Ins Courant 51:74 F '46

See also
Insurance, Life—Tables

Medical departments

See also
Association of life insurance medical directors of America

Medical examinations

See also
Insurance, Life—Risks

Medical research
Dieuaide directs Life medical research fund. Nat Underw (Life ed) 50:9 Mr 29 '46
Life insurance medical research fund. Science 104:81 Jl 26 '46
Life insurance medical research fund. F. G. Blake. Science 102:640 D 21 '45
Life insurance medical research fund. F. R. Dieuaide. East Underw 47:140+ pt 2 O 4 '46
Life insurance medical research fund awards. Science 104:392 O 25 '46

INSURANCE, Life—Medical research—*Cont.*
Medical fund makes awards. Nat Underw (Life ed) 50:9 Je 21 '46; Weekly Underw 154:1627 Je 22 '46
Medical research fund grants aid to schools for research on cardiovascular diseases. Weekly Underw 153:1487 D 22 '45; Same cond. Nat Underw (Life ed) 49:25 D 21 '45
Medical research fund makes first report on project grants. East Underw 47:1 Mr 8 '46; Nat Underw (Life ed) 50:1 Mr 8 '46
Value of Medical research fund. E. M. Landis. Nat Underw (Life ed) 50:27 O 11 '46

Mortality statistics
See Mortality—Statistics

Mortgage redemption policies
Guardian adds mortgage protection plan. Life Ins Courant 51:426 S '46
Kansas City Life issues new policy. East Underw 47:16 O 11 '46
Mortgage insurance advantages R. R. Pfau. Weekly Underw 154:64-5 sec 2 My 11 '46
National Vermont new mortgage policy rates shown. Nat Underw (Life ed) 50:9 My 31 '46

Mortgagee interest
Mortgagee now strives to erase the mortal risk. L. D. Meredith. Nat Underw (Life ed) 49:12 N 23 '45

Periodicals
C.L.U. society to publish quarterly journal. Nat Underw (Life ed) 50:17 S 6 '46

Policies
Change of plan; analysis of provisions and practices on changes in policy plan; tabulation by company. Life Ins Courant 50:573 D '45
Fidelity Mutual adopts 2.5 per cent reserve basis; policies, figures completely revised. Life Ins Courant 51:37-9 Ja '46
Fidelity Mutual's low rate life policy. Spectator (Life ed) 153:60+ F '46
Many policy changes by Fidelity Mutual; goes on 2 ½% reserve basis. East Underw 46: 15 D 7 '45
Sun life of England, not Canada, is the company with atom bomb rider. Nat Underw (Life ed) 50:9 Mr 8 '46
When does life insurance become endowment? converting life insurance into annuity. E. A. Muller. Mag of Wall St 77:467 Ja 19 '46

See also
Insurance, Life—Children's policies
Insurance, Life—Disability provisions
Insurance, Life—Double indemnity provisions
Insurance, Life—Educational endowment policies
Insurance, Life—Endowment policies
Insurance, Life—Family income policies
Insurance, Life—Veterans' policies
Insurance, Life—War risks

Non-forfeiture benefits
Commissioners turn down plea to aid simplification of policy wording. Nat Underw (Life ed) 50:1, 11 Je 21 '46
Confused situation on Guertin bill. East Underw 47:3 Ap 12 '46
Guertin law problems. W. J. Cameron and others. Nat Underw (Life ed) 49:3+ N 16 '45
Landmark in uniform legislation; standard non-forfeiture and valuation laws. A. N. Guertin. Spectator (Life ed) 153:16-19+ F '46; Excerpts. East Underw 47:5 Ja 25 '46; Nat Underw (Life ed) 50:2+ F 8 '46
New York Guertin bill exceptions are pondered by N.A.I.C. committee. Nat Underw (Life ed) 50:1+ F 15 '46
Non-forfeiture and valuation laws program highly enlightened legislation; abstracts. G. A. Bowles. Weekly Underw 154:1445 Je 1 '46; East Underw 47:1+ My 24 '46
State actuaries frown on Guertin law amendment, Nat Underw (Life ed) 50:8 Ag 2 '46
Streamlined security for Americans; observations on status of standard non-forfeiture and valuation legislation. E. W. Marshall. Spectator (Life ed) 153:22-4 Je '46; Same. Life Ins Courant 51:266-9 Je '46; Abstracts. Nat Underw (Life ed) 50:3+ My 24 '46; East Underw 47:3 My 24 '46
Underwriting under standard valuation laws. A. N. Guertin. East Underw 46:3+ N 30 '45

Term policies
Five-year preliminary term feature is barred in Missouri; values are recalculated. Nat Underw (Life ed) 50:4 Ap 19 '46
Mutual Benefit adds 5 year term plan. Life Ins Courant 51:472 O '46; Nat Underw (Life ed) 50:15 S 6 '46
Plan to sell term insurance by vending machine. Nat Underw (Life ed) 50:4 S 6 '46
Special purpose life insurance; term insurance. E. A. Muller. il Mag of Wall St 78: 345+ Je 22 '46

Policy assignment
Bank can't take from policy proceeds more than amount of personal note. Nat Underw (Life ed) 50:6 Ag 30 '46
Insurable interest of assignees. D. C. Davis. Nat Underw (Life ed) 49:3+ D 14 '45

Policy beneficiaries
Decision for divorcee; separation agreement not forfeiture of wife's right as beneficiary. Nat Underw (Life ed) 50:5 Jl 19 '46
Divorce doesn't kill beneficiary designation; Iowa case. Nat Underw (Life ed) 49:22 N 30 '45; Weekly Underw 154:135 Ja 5 '46
Divorced wife receiving alimony held qualified to receive proceeds of benefit certificate as dependent. Weekly Underw 153:1239 N 24 '45
Effect of change of beneficiary where insurance company did not attach acknowledgments of change to policies. East Underw 46:11 N 30 '45
FDIC entitled to proceeds of insurance paid out of embezzled bank funds. Banking Law J 63:312-17 Ap '46
Payment of premiums by original beneficiary does not affect right of insured to make change. Weekly Underw 154:659 Mr 9 '46
Proceeds problem in community property; Hardin v. Volunteer Life. R. W. Malone. East Underw 47:8+ N 8 '46
Texas insurable interest rule applies even though policy taken out in Michigan; divorced wife as named beneficiary. Nat Underw (Life ed) 49:8 D 21 '45

Policy dividends
Application of policyholders' dividends during 1944; tabulation by company. Spectator (Life ed) 153.30 N '45
Application of policyholders' dividends during 1945; tabulation. Spectator (Life ed) 154:48 S '46
Canada Life introduces new dividend scale; new regular and special dividends. Life Ins Courant 51:386-7 Ag '46
Canada Life's new dividend plan. Nat Underw (Life ed) 50:18 Je 28 '46
Columbus Mutual dividend scale for 1946 on 3 per cent policies; interest reduced. Life Ins Courant 50:527 N '45
Comparisons; dividend exhibits for 1936 and actual dividend histories; tabulation by company. Life Ins Courant 51:335-8 Jl '46
Connecticut Mutual's 10 and 20 year illustrated dividend scale; 10 and 20 year actual dividend histories; tabulations. Spectator (Life ed) 153:63 F '46
Disposition of dividends on life insurance policies. H. S. Koster. Trusts & Estates 83:59 Jl '46
Dividend paid in shoes to insured living in Greece. Nat Underw (Life ed) 50:3 Mr 1 '46
Dividend paid policyholders in 1945 totaled $466,100,000. Weekly Underw 154:1094 Ap 27 '46; Same cond. Nat Underw (Life ed) 50:5 Ap 26 '46
Dividend scales for 1946 for Northwestern Mutual and other companies. Life Ins Courant 50:578, 580-3 D '45

INSURANCE, Life—Policy dividends—*Cont.*
Equitable, N.Y., dividend scale continued for 1946; slight changes in extra dividends. Life Ins Courant 51:189 Ap '46
Fidelity Mutual new dividend scale for 1946. Life Ins Courant 51.85 F '46
Increased dividend scale of Sun life of Canada. Nat Underw (Life ed) 50:18 F 15 '46
Massachusetts Mutual; dividends, interest to be revised; new scale effective June 1. Life Ins Courant 51:190-1 Ap '46
Massachusetts Mutual new dividend scale; Metropolitan's new dividend scale. Nat Underw (Life ed) 50:26, 28 Ap 5 '46
Metropolitan dividends actually payable during new dividend year. Life Ins Courant 51:242-3 My '46
Metropolitan increase in ordinary dividend scale averages over 10 per cent. Life Ins Courant 51:192-3 Ap '46
Mutual Benefit new dividend scale for 1946; gross interest rates revised. Life Ins Courant 51:42-3 Ja '46
1945 and 1946 rates of interest payable compared; dividends left to accumulate; interest payable under settlement options; tabulation by company. Spectator (Life ed) 153:63 Ap '46
Prudential new dividend scale for 1946; interest rates also revised. Life Ins Courant 51:90-3 F '46
Prudential's new 1946 dividend scale. Nat Underw (Life ed) 50:21 Ja 18 '46
Summary of 1946 dividend and interest payment action; tabulation by company. Nat Underw (Life ed) 50:24 Mr 8 '46; Correction. 50:21 Mr 22 '46
Sun Life, Canada; dividend scale increased; interest rate continued. Life Ins Courant 51:140-1 Mr '46
20-year histories; actual dividend histories of life insurance policies issued in 1926; average yearly payments; net costs. Life Ins Courant 51:382-4 Ag '46

Policy holders

Policyholders' relations committee; company procedures in dealings with insured and public to be studied. L. A. Lincoln. East Underw 47:3 Jl 19 '46
Prominent life payments in 1945; lists by occupation, by state and by town. Nat Underw (Life ed) 50:14+ sec 2 My 24 '46

See also
Insurance, Life—
First year claims

Policy loans

Are policy loans too costly? Bsns W p66+ Ag 31 '46
Commissioner Allyn gives position on policy loan interest rates. East Underw 47:6 Ag 16 '46
Companies examine policy loan rates; cross section of opinion by chief executives. Weekly Underw 155:332 Ag 10 '46
Life insurance policy loans increase. Comm & Fin Chr 163:883 F 14 '46; Same cond. Nat Underw (Life ed) 50:1 Ja 25 '46
Loan rate on government life policies cut to 4%. Weekly Underw 155:280 Ag 3 '46
Mutual Life move on interest rates studied from all angles. Nat Underw (Life ed) 50: 1+ Ag 16 '46
Mutual Life reduces interest rates on policy loans. East Underw 47:3+ Ag 2 '46; Nat Underw (Life ed) 50:1+ Ag 2 '46
Mutual Life to aid policy loan repayment. Weekly Underw 155:823 O 5 '46
Policy loan interest rate changes announced; Mutual Life makes sliding scale apply to entire loan; National Guardian Life adopts rate descending to 3%. Nat Underw (Life ed) 50:6 O 4 '46
Policy loan interest rate views discussed in company letters. J. S. Thompson; R. R. Lounsbury. East Underw 47:1+ Ag 16 '46
Policy loan trend in amount and in point of interest charge; with tabulation by company showing percentage of loans to gross assets. R. Rosenquist. Nat Underw (Life ed) 50:2 Ag 30 '46
Policy loans; companies' practices and policy provisions; tabulation. Life Ins Courant 51: 33 Ja '46
Reduction of interest rates on policy loans; company presidents express views. M. B. Brainard and others. Spectator (Life ed) 154:10-15+ S; 16-24+ O '46
Reduction of interest rates on policy loans; good business and policyholder relations L. W. Douglas. Spectator (Life ed) 154:16-21+ S '46
Usury decision reversed in N.Y.; Guerin vs. New York Life. Nat Underw (Life ed) 50:6 Je 21 '46, East Underw 47:7 Je 21 '46
Views on cutting rates for policy loans. W. G. Southern. Nat Underw (Life ed) 50:6 Ag 23 '46

See also
Insurance, Life—
Premium loans

Policy reserve (term)

Renaming policy reserve. B. R. Nueske. Nat Underw (Life ed) 50:7 F 15 '46
Tackles policy reserve definition problem. F. M. Hope. Nat Underw (Life ed) 50:6+ Mr 1 '46

Policy settlement

Beneficiary and judgment debtor protected even with right of withdrawal; Genessee valley trust co. vs. Hanna Glazer. Nat Underw (Life ed) 50:6 Mr 15 '46
Beneficiary's right to life policy proceeds; brief for New York state association of life underwriters in case of Genesee valley trust company vs. Hannah Glazer. A. Hirst. Weekly Underw 153:1371-4+ D 8 '45; Excerpts. East Underw 46:15 S 28 '45; Nat Underw (Life ed) 49:2+ S 28 '45
Comparative interest rates shown, funds left with company; tabulation by company. Nat Underw (Life ed) 49:25 D 7 '45
Continued income plans continue to be popular; reached new high of $543,000,000 in 1945. Weekly Underw 154:1158 My 4 '46
Deferred gift of life insurance proceeds; a tax danger. H. S. Koster. Trusts & Estates 83:249-51 S '46
Double estate tax on settlement methods. H. S. Koster. Trusts & Estates 81:387-8 N '45
Endowment policy settlement options. E. A. Muller. Mag of Wall St 78:226 My 25 '46
Equivalent incomes; how life insurance works. Life Ins Courant 51:420-2 S '46
Insurance options for trustees; greater liberality in company practices urged for beneficiaries' interests. W. C. Fennimam: Trusts & Estates 82:577-80 Je '46
Level incomes; with charts showing approximate figures for all options except life income options. Life Ins Courant 51:461-3 O '46
Marked advantages of life insurance settlement options. E. A. Muller. Mag of Wall St 77:782+ Mr 30 '46
Monthly withdrawals; how will compound interest affect the monthly payments? Life Ins Courant 51:376-8 Ag '46
New peak in income use of life insurance benefits; chart. Nat Underw (Life ed) 50:13 My 3 '46
1945 and 1946 rates of interest payable compared; dividends left to accumulate; interest payable under settlement options; tabulation by company. Spectator (Life ed) 153:63 Ap '46
Suggests use of life income option to produce substantial gain in benefits. E. T. Golden. Weekly Underw 155:572 S 7 '46
Testamentary aspects of life insurance contracts. D. Olson. Life Ins Courant 51:166-72 Ap '46
Trend of use of optional modes of settlements in 1930, 1940 and 1944; tabulation. Spectator (Life ed) 153:41 N '45
Trend of use of optional modes of settlements in 1930, 1940 and 1945; tabulation. Spectator (Life ed) 154:45 S '46

Unclaimed policies

N.Y. Supreme court makes decision on abandoned property; act unconstitutional for policies written by foreign companies outside of this state. East Underw 47:1+ O 4 '46
Ready to argue suit on unclaimed funds law in N.Y.; foreign insurers fear double liability if statutes multiply. Nat Underw (Life ed) 50:3+ Jl 12 '46

INSURANCE, Life—Policy settlement—Unclaimed policies—*Continued*
Right of state to escheat life policies argued; foreign insurers buck N.Y. statute in court. Nat Underw (Life ed) 50:3+ Ag 2 '46; East Underw 47:4+ Ag 2 '46
Victory as to outstate unclaimed funds in New York decision. Nat Underw (Life ed) 50:5 O 4 '46

Policy valuation

CSO and AE cash value comparisons; tabulation. R. E. Dineen. Nat Underw (Life ed) 50:36 O 11 '46
Confused situation on Guertin bill. East Underw 47:3 Ap 12 '46
Guertin law problems. W. J. Cameron and others. Nat Underw (Life ed) 49:3+ N 16 '45
Landmark in uniform legislation; standard non-forfeiture and valuation laws. A. N. Guertin. Spectator (Life ed) 153:16-19+ F '46; Excerpts. East Underw 47:5 Ja 25 '46; Nat Underw (Life ed) 50:2+ F 8 '46
New York Guertin bill exceptions are pondered by N.A.I.C. committee. Nat Underw (Life ed) 50:1+ F 15 '46
Non-forfeiture and valuation laws program highly enlightened legislation; abstracts. G. A. Bowles. Weekly Underw 154:1445 Je 1 '46; East Underw 47:1+ My 24 '46
State actuaries frown on Guertin law amendment. Nat Underw (Life ed) 50:8 Ag 2 '46
Streamlined security for Americans; observations on status of standard non-forfeiture and valuation legislation. E. W. Marshall. Spectator (Life ed) 153:22-4 Je '46; Same. Life Ins Courant 51:266-9 Je '46; Abstracts. Nat Underw (Life ed) 50:3+ My 24 '46; East Underw 47:3 My 24 '46; Weekly Underw 154:1386 My 25 '46
Underwriting under standard valuation laws. A. N. Guertin. East Underw 46:3+ N 30 '45

Premium loans

Premium loans. Life Ins Courant 51:32 Ja '46

Premiums, Payment of

Pendulum swings too far; why Standard life of Indiana cut out monthly and quarterly premium business. H. V. Wade. Life Ins Courant 51:322-3 Jl '46

See also
Insurance, Life—Premium loans

Prospects

About prospecting. M. L. Lane. Rough Notes 89:42-4 Ja '46
Appraisal of today's market for life insurance. R. I. Mehr. East Underw 47:124+ pt 2 O 4 '46
As old as the hills; tradesmen with whom you deal constitute wonderful group of prospects. Rough Notes 88:42-4 N '45
Check list of holiday sales letter ideas. H. D. Shaw. Nat Underw (Life ed) 49:31 N 16 '45
Contractors need sound advice on insurance. Nat Underw (Life ed) 50:23 F 15 '46
How to build up prospects in strange town. E. D. Twyman and others. Nat Underw (Life ed) 50:11+ N 8 '46
John Hancock leaders tell of plans that have clicked. W. Parr and others. Nat Underw (Life ed) 50:10-11+ S 20 '46
Kentucky Derby; specializing on retirement income sales. M. L. Lane. Rough Notes 89:50-2 Je '46
Learning from "cauliflower industry"; annuities or retirement income policies are good investments for prize fighters and other big earners. M. L. Lane. Rough Notes 88:48-50 D '45
Many fine prospects pointed out. A. H. Greenspahn. Nat Underw (Life ed) 50:10 Ap 19 '46
Millions of families have higher incomes; greater opportunities for selling insurance. E. C. Andersen and others. East Underw 47:5+ Je 28 '46
Natural prospecting is selling friends. T. W. Foley. East Underw 47:14 Mr 15 '46
Point system for evaluating prospects. A. J. Raumann. Spectator (Life ed) 153:26-7+ F '46
Professional market. J. D. Finlayson. Life Ins Courant 51:450-5 O '46; Same cond. East Underw 47:18+ pt 2 O 4 '46; Same cond. Nat Underw (Life ed) Daily ed 50: 7+ S 13 '46
Reference contacts are best. G. J. Richards. Nat Underw (Life ed) 50:2 O 18 '46
Referred leads best. S. Hayes. East Underw 47:62 pt 2 O 4 '46

See also
Insurance, Life—Farmers as prospects
Insurance, Life—Women as prospects

Public attitude

British, American attitude toward life insurance compared by London Review. Nat Underw (Life ed) 50:5 Ag 30 '46
Program of Institute of life insurance calls for analysis of public attitude. H. J. Johnson. Weekly Underw 153:1437 D 15 '45
Typical America hails insurance protection; cross-section of opinion of citizens of Bennington, Vt. W. E. Roesch. Spectator (Life ed) (Endorsement no 1946-1947) 154:16-23 1946

Purchasing

Collier's male readers answer insurance quiz. East Underw 47:11 My 3 '46; Nat Underw (Life ed) 50:3 My 3 '46
Distills buyer's views. P. Shepherd. Nat Underw (Life ed) 50:3 O 11 '46
Explains present unprecedented production gains. C. O. Fischer. East Underw 47:3 Je 21 '46
Life insurance premiums at $5.5 billions; annual rates are 3.3% of national income. Weekly Underw 155:775 S 28 '46; Same cond. Nat Underw (Life ed) 50:1 S 27 '46
Record life insurance expansion held sure; computation based by Northwestern on income study. Weekly Underw 154:414 F 9 '46; Same abr. Nat Underw (Life ed) 50:5 F 8 '46; Same abr. East Underw 47:10 F 8 '46
There has never been a better time to sell life insurance. C. O. Fischer. East Underw 47:134+ pt 2 O 4 '46
Who bought life insurance in 1944; what kind and for how much. Spectator (Life ed) 153: 18 N '45
Who bought life insurance in 1945, what kind and for how much; tabulations. Spectator (Life ed) 154:32-3 S '46
Women take out $3 billion of life insurance in 1945. Nat Underw (Life ed) 50:21 Mr 29 '46

Rates

Equitable of Iowa revision in rates. Nat Underw (Life ed) 50:22 Mr 8 '46
Northwestern Mutual Life's new rates. Nat Underw (Life ed) 49:20-1 D 14 '45
Uniform occupational rating list urged, C. Young. Weekly Underw 155:906-7 O 12 '46

Real estate operations

Apartment building ahead; life insurance money may move into Missouri, but is blocked in Michigan. Arch Forum 84:24+ Ap '46
Big investors buying actively. il Arch Forum 84:8 F '46
California-Western to build houses for resale. Weekly Underw 154:406 F 9 '46; Nat Underw (Life ed) 50:2 F 8 '46
Companies plan in year $150 million in housing. Nat Underw (Life ed) 50:6 Ag 2 '46
Continental assurance company announces housing project in Illinois. Nat Underw (Life ed) 50:6 Mr 15 '46
Equitable plans Bronx housing. Nat Underw (Life ed) 50:5 Ap 26 '46; East Underw 47:1 Ap 26 '46
Examples of rental housing being built by life insurance companies; illustrations with text. Nat Underw (Life ed) 50:28 O 4 '46
Houses for sale; Continental assurance of Chicago, builds private homes for resale in Elgin, Ill. il Life Ins Courant 51:372 Ag '46
Housing dream; John Hancock project in Boston. Bsns W p50 O 12 '46
Housing is small insurers' relief from low interest. Nat Underw (Life ed) 50:4 Ag 2 '46

INSURANCE, Life—Real estate operations— *Continued*
Housing project investment surveyed; abstracts. C. F. Lewis and others. East Underw 47:9 O 11 '46; Nat Underw (Life ed) 50:25+ O 11 '46; Weekly Underw 155:966-7 O 19 '46
Housing projects as investments for life companies; Metropolitan Life's experience. F. W. Ecker. East Underw 47:3+ Ja 18 '46; Excerpts. Nat Underw (Life ed) 49:2 N 5 '45; Weekly Underw 153:1098 N 10 '45
How to order a city; Metropolitan Life makes housing pay. il Fortune 33:132-7+ Ap '46; Discussion. 33:10 My '46
John Hancock plans garden community in suburban Boston. il East Underw 47:7 Ja 18 '46; Nat Underw (Life ed) 50:3 Ja 18 '46; Weekly Underw 154:230 Ja 19 '46
John Hancock to invest in housing projects. Nat Underw (Life ed) 50:9 Ja 11 '46
Metropolitan to put up N.Y. building under new investment law; 19-story structure for Crowell-Collier pub. co. and N.Y. bank. East Underw 47:1 Ag 2 '46
Mutual Life to finance 800 unit housing in New York city. Weekly Underw 155:1028 O 26 '46
New York Life enters housing field; site in Queens. Nat Underw (Life ed) 50:6 Mr 29 '46
Preview of Hancock village of John Hancock Mutual; illustration. Nat Underw (Life ed) 50:21 S 20 '46
Prudential hunts real estate. il Bsns W p62+ Ja 5 '46
Prudential to build South Chicago dwellings. Nat Underw (Life ed) 50:4 Ap 12 '46
Suburban housing; John Hancock's plans for garden village in suburban Boston. il Spectator (Life ed) 153:23+ F '46

Reinstatement

See Insurance, Life—Lapses and surrenders

Reserves

Equiowa changes to CSO, 2½ per cent reserve basis. Life Ins Courant 51:131-3 Mr '46
Minnesota Mutual adopts American experience 2½ per cent reserve basis. Life Ins Courant 51:291-3 Je '46
U.S. Life will adopt 3% reserve basis. East Underw 46:11 D 21 '45

Risks

Agent asks selection men for quicker underwriting decisions, more sympathy. D. S. Walker. Nat Underw (Life ed) 49:4 N 23 '45; Same cond. Weekly Underw 153:1226 N 24 '45
Agent surveys his declined business. M. M. Cohen. East Underw 47:7 Jl 19 '46
Comments on home office underwriting. P. Shepherd. East Underw 47:9 Ja 18 '46; Same cond. Nat Underw (Life ed) 50:1+ Ja 18 '46
Communicable disease epidemics once made frightful ravages. L. I. Dublin. East Underw 47:14+ pt 2 O 4 '46
Female life better risk; longevity improving at faster than male rate. C. L. O'Brien. Weekly Underw 155:908-10 O 12 '46; Excerpts. East Underw 47:7 O 4 '46; Nat Underw (Life ed) 50:2 O 11 '46
Home office underwriting after year of peacetime conditions. A. P. Morton. East Underw 47:26 pt 2 O 4 '46
Impairment in risk appraisal. H. W. Dingman. Nat Underw (Life ed) 49:2 N 30 '45
Life insurance rejected in 1944; map. Spectator (Life ed) 153:43 N '45
Life insurance rejected in 1945; map. Spectator (Life ed) 154:43 S '46
Little change in occupational hazards; probable effect of industrial developments. M. Pitler. Nat Underw (Life ed) 49:3+ N 23 '45; Abstract. East Underw 46:3 N 23 '45
Medical Directors briefed on latest developments at New York meeting. Nat Underw (Life ed) 50:1+ N 1 '46; East Underw 47:10 N 1 '46
No underwriting change in cafe men's risks; companies give their views. East Underw 47:30 Ja 4 '46
Risk appraisal. H. Dingman. 824p $10 National underwriter co, Cincinnati '46
Selection will be of growing importance; mortality savings to have greater weight. R. T. Sexton. East Underw 46:3 N 23 '45; Same cond. Weekly Underw 153:1230 N 24 '45
Tropical diseases outlook. R. C. Voss. East Underw 47:18 O 11 '46
Veterans' insurability. J. H. Ready. East Underw 46:3 N 23 '45
Why mortality has declined in last decade. D. B. Cragin. East Underw 47:28 pt 2 O 4 '46

See also
Insurance, Life—Aviation risks
Insurance, Life—Substandard risks
Insurance, Life—Travel risks
Insurance, Life—War risks
also Home office life underwriters association

Social aspects

Apply social test to life insurance. A. J. McAndless; abstracts. Nat Underw (Life ed) 49:1+ N 9 '45; East Underw 46:11+ N 16 '45
Insurance as a force in future of the country; abstracts. M. J. Cleary. East Underw 47:3-4+ Jl 26 '46; Nat Underw (Life ed) 50:2+ Jl 26 '46
Shun insurance abuses; social aspects must guide in life protection. P. Shepherd. Weekly Underw 155:912-13 O 12 '46
Social responsibility of insurance; criticizes idea of selective market. H. J. Johnson. Weekly Underw 153:1238 N 24 '45; Same cond. Nat Underw (Life ed) 49:10 N 16 '45

Statistics

Benefit payments gain in 1945. Weekly Underw 154:589 Mr 2 '46; Nat Underw (Life ed) 50:2 Mr 1 '46
Company ranking in 1945 shown by ordinary in force, paid policyholders, total income, premium income, insurance gained, insurance written, assets, group in force. Nat Underw (Life ed) 50:14-15 My 31 '46
Death benefits continue to climb; names of insured and statistics. Nat Underw (Life ed) 50:5-54 sec 2 My 24 '46
Equitable Society reports increase in life insurance sales to men 20 to 29. Weekly Underw 154:1631 Je 22 '46
50% increase in new life insurance in first six months. Nat Underw (Life ed) 50:2+ Je 28 '46
Life in force totals over $154 billion; now 71 million policyholders; average family has $4,500 insurance. Nat Underw (Life ed) 50:1 Ja 4 '46
Life insurance death benefits by states, ordinary, group and industrial, 1945. Weekly Underw 154:43 sec 2 My 11 '46
Life insurance growth during second World war; chart. Life Ins Courant 51:98 F '46
Life insurance owned per family, by states. Weekly Underw 155:1148 N 9 '46
Life insurance up 35% in war to new record. H. J. Johnson. East Underw 47:17 Mr 29 '46; Same abr. Comm & Fin Chr 163:300 Ja 17 '46
'45 sales up 4.9%; with monthly figures, 1943-1945. Nat Underw (Life ed) 50:1 F 1 '46
Ordinary life insurance sales by states in 1945. Weekly Underw 154:60 sec 2 My 11 '46
Ordinary sales in 1945 up 13%, Research Bureau finds. Nat Underw (Life ed) 50:4-5 F 8 '46
Payments, credits top 1945 premiums; 83.2 cents of income dollar returned, total reaches $5½ billion. Nat Underw (Life ed) 50:3 Je 28 '46; Same. Comm & Fin Chr 164:142 Jl 4 '46
Policy size; companies ranked by policy size. Life Ins Courant 51:341-2 Jl '46
Premiums for life insurance protection in relation to U.S. national income; graph. Nat Underw (Life ed) 50:12 O 4 '46
Rank of leading life insurance companies on January 1, 1946 by insurance in force, new business paid for, premium income, total income, payments to policyholders, total expenditures, admitted assets and surplus funds. Weekly Underw 154:1239-41 My 11 '46

INSURANCE, Life—Statistics—*Continued*
Ranking of life companies by in force; tabulation. Nat Underw (Life ed) 50:2-3 Mr 29 '46
Spectator, statistical issue. Spectator (Life ed) 153:4-44 N '45
Spectator, statistical issue. Spectator (Life ed) 154:6-9, 24-38+ S '46
Total ordinary life insurance sales, 1945; tabulation. Life Ins Courant 51:248 My '46
Where life insurance companies find business best; graphs. Sales Management 56: 76 My 10 '46

See also
Insurance, Life—Finance
Insurance, Life—First year claims
Insurance, Life—War death claims

Study and teaching

CLU study is not theoretical; provides basic knowledge. W. E. Barton. East Underw 47:14 Ag 9 '46
C. L. U. veterans training under G.I. bill. D. McCahan. Weekly Underw 154:121+ Ja 5 '46
First C.L.U. institute surpasses expectations. Nat Underw (Life ed) 50:1+ Jl 5 '46
Five universities to give life insurance marketing courses. East Underw 47:1+ Ag 30 '46; Nat Underw (Life ed) 50:1+ Ag 30 '46
Insurance training course of Veterans' administration may reach 30,000. H. C. Hallam. Nat Underw (Life ed) 50:3+ O 18 '46
Marketing course at Purdue working well; abstracts. R. C. Johnson. East Underw 47: 12 F 22 '46; Nat Underw (Life ed) 50:2+ F 22 '46
Purdue to drop life marketing courses; will go to another college. East Underw 47:4 Jl 12 '46; Nat Underw (Life ed) 50:2 Jl 12 '46
Purdue university marketing school results. A. R. Jaqua. Nat Underw (Life ed) 50:4 F 8 '46
Speakers for CLU institute at Storrs, Conn. pors East Underw 47:3 Je 14 '46
Train Hancock war vets in administration. East Underw 47:4 F 15 '46

See also
Insurance, Life—Agents—Training
also American college of life underwriters

Substandard risks

Connecticut General now writing diabetics. Nat Underw (Life ed) 50:15 Ag 16 '46; East Underw 47:4 Ag 16 '46
Expansion is found in substandard field. Nat Underw (Life ed) 50:2 Ag 9 '46
Few substandard life risks written in Venezuela; abstracts. E Michalup. Weekly Underw 154:1446 Je 1 '46; Nat Underw (Life ed) 50:10 My 17 '46
Jolly fat man fortunate to be insured on any basis. Life Ins Courant 50:518-19 N '45
Lincoln National now will consider diabetics. Nat Underw (Life ed) 50:6 O 11 '46
Tell fat man why he is poor risk. Nat Underw (Life ed) 50:22 Ag 9 '46

Suicide death claims

Calls for realistic court attitude toward suicide. P. M. Henry. Nat Underw (Life ed) 50:22 O 11 '46

Tables

Attacks use of inadequate mortality table by fraternal societies. J. M. McCormack. Nat Underw (Life ed) 49:7 D 7 '45
Calms fears as to CSO margins; compensating factors of lower interest assumptions and increased loadings. R. Boissard. Nat Underw (Life ed) 50:21+ O 11 '46
CSO and AE cash value comparisons; tabulation. R. E. Dineen. Nat Underw (Life ed) 50:36 O 11 '46
Cost of income; with tabulation by company showing average yearly payment (premiums less dividends, 20-year basis) for ordinary life (age 35) sufficient to provide $10 monthly life income (10 years certain) to a woman aged 35. Life Ins Courant 51:424-5 S '46
Cost of retiring; with tabulation by company showing average yearly payment (premiums less dividends, 20 years at current scale) for ordinary life, age 35, sufficient to provide $10 monthly life income (10 years certain) from cash value at male age 65. Life Ins Courant 51:468-9 O '46
Current costs; tables of average costs, based on present dividend scales, rates, and values, for ordinary life type policies. Life Ins Courant 51:282-5 Je '46
Early and modern mortality tables; new tables reflect greater longevity. Spectator (Life ed) 153:94 N '45
Equivalent incomes; how life insurance works. Life Ins Courant 51:420-2 S '46
Level incomes; with charts showing approximate figures for all options except life income options. Life Ins Courant 51:461-3 O '46
Mutual Benefit goes on CSO 1941 mortality table and 2 ¼ per cent interest. Spectator (Life ed) 153:90-1+ N '45

Tax deductions

Non-resident New York taxpayers denied premium exemption. Nat Underw (Life ed) 50:11 My 17 '46

Taxation

Deferred gift of life insurance proceeds; a tax danger. H. S. Koster. Trusts & Estates 83:249-51 S '46
Double estate tax on settlement methods. H. K. Koster. Trusts & Estates 81:387-8 N '45
Estate taxation; premium test; case of Whittemore v. Kraemer. Spectator (Life ed) 153:6-9+ Mr '46
Group cover tax points. G. J. Laikin. Nat Underw (Life ed) 49:3 N 30 '45
How proceeds taxation has been modified. J. C. Benson. Nat Underw (Life ed) Daily ed 50:23 S 11 '46
Kentucky again rules annuities taxable; court of appeals reaffirms. East Underw 46:5 D 7 '45
Life premium tax collected by states equal to $2 billion in protection. R. Olson. Nat Underw (Life ed) 49:3+ N 16 '45
N.A.L.U. warned to avoid antagonizing U.S. Treasury by Chicago association of life underwriters. Nat Underw (Life ed) 50:7 F 1 '46
No tax on proceeds when beneficiary elects option; Treasury goes whole way in income tax exemption. Nat Underw (Life ed) 50:1 My 24 '46
Pension trust taxation from employee's viewpoint F. J. Amer. Trusts & Estates 83:65-73 Jl '46
Postwar taxation. Spectator (Life ed) (Endorsement no) 153:34-8 D '45
Proceeds taxation; new ruling as to instalment options. J. V. Bloys. East Underw 47:136+ pt 2 O 4 '46
Put end to 50-50 split of proceeds for estate tax. Nat Underw (Life ed) 49:1 D 14 '45
Recent tax decisions. Spectator (Life ed) 153: 20-2 F; 30-2+ Je; 154:14-16 Jl; 12-15 O '46
Reporting tax information at source places heavy burden on companies; abstracts. J. J. Magovern, jr. Nat Underw (Life ed) 49:4 D 14 '45; East Underw 46:45 D 14 '45
Tax trend threatens concept of property; report of ABA Trust division. East Underw 47:1+ F 1 '46
Taxation of community property. Spectator (Life ed) 153:32-3+ Ja '46
Treasury, insurance men fail to agree on pension-group insurance tax basis. H. C. Hallam. Nat Underw (Life ed) 50:2 O 25 '46
Trust beneficiary taxed on income used to pay premium. Nat Underw (Life ed) 50:6 F 22 '46
Urges new national view; effect of federal taxation upon life insurance. M. A. Shuttuck. Nat Underw (Life ed) Daily ed 50: 32+ S 13 '46

Taxation problems

Vast field in covering tax demands. R. F. Spindell. Nat Underw (Life ed) 50:16C Mr 22 '46

Travel risks

Air travel, foreign travel reviewed. R. L. Cizek; A. D. McElheran. Nat Underw (Life ed) 49:18 N 23 '45

INSURANCE, Life—Travel risks—*Continued*
World air travel now has life coverage; liberalization by many companies since pre-war period shown in survey by Institute of life insurance. East Underw 46:6 N 30 '45

Trust company cooperation

New business through close relations between agents and trust officers. N. B. Maddox. East Underw 47:100 pt 2 O 4 '46
Programming with trust officer's aid. M. D. Conklin. Nat Underw (Life ed) 49:31 N 16 '45
Trust officer gives important suggestions. G. T. Stephenson. Nat Underw (Life ed) 50:11 Ap 12 '46
Trust officers recognize part of insurance in estate planning. F. W. Ohmes. East Underw 47:56 pt 2 O 4 '46

See also
Trust companies—
Life underwriters' cooperation

Twisting

Commissioner Duel on warpath against NSLI twisters. Nat Underw (Life ed) 50:2 Mr 1 '46
Preventing twisting of NSLI; editorial. Nat Underw (Life ed) 50:20 My 17 '46

Unclaimed policies

See Insurance, Life—Policy settlement—Unclaimed policies

Veterans' policies

Veterans and their insurance; survey by American legion magazine. W. H. Hackett. il Spectator (Life ed) 153:6-10+ My '46

War death claims

Casualties of both World wars compared; Penn Mutual's experience. J. A. Stevenson. East Underw 47.1+ Ja 18 '46
Equitable refunds on men in service; firms get back 82% of group payments after death claims. Weekly Underw 155:99 Jl 13 '46
Life insurance war claims; chart. Spectator (Life ed) 153:54 N '45
Must pay back death proceeds when assured turns up as war prisoner. Nat Underw (Life ed) 50:11 F 22 '46
U.S. army and navy cooperation with private life insurance companies. C. Axman. East Underw 46:6+ D 14 '45
Urges payment of full war claims retroactively. K. H. Easley. Nat Underw (Life ed) 49:6 N 23 '45
War claim payments total $290 million on 243,700 deaths. Nat Underw (Life ed) 50:3 Mr 1 '46
War claims paid by life insurance companies. Comm & Fin Chr 163:1988; 164:2387 Ap 11, N 7 '46

War risks

Advocates permanent abandonment of war clause. K. H. Easley. Nat Underw (Life ed) 49:6 N 23 '45; Excerpt. Weekly Underw 153:1231 N 24 '45
Atom bomb situation brings about trying insurance angle. R. Churchill. Weekly Underw 155:887 O 12 '46
Atomic bomb and the war clause. A. Pedoe. Weekly Underw 155:916-17 O 12 '46; Excerpt. East Underw 47:11 S 27 '46
Aviation clause developments; current underwriting considerations in that and war clause traced. D. I. Parker. Weekly Underw 153:1196+ N 24 '45
Life insurance through the wars. D. J. Reidy. il East Underw 47:14+ pt 2 O 4 '46
Life policy contracts should be issued without restrictions. J. B. Maclean. Weekly Underw 153:1297 D 1 '45
Premium charges reduced for seamen's insurance. Weekly Underw 153.1081 N 10 '45
Question of battle death as accident. E. Woodward. Nat Underw 49:37 D 20 '45; Same. Nat Underw (Life ed) 49:13 D 21 '45
Recent changes; war and aviation clauses; summary of actions taken by companies. Life Ins Courant 50:436-9, 482-6, 524-7, 574-6+ S-D '45
Summary of actions so far on war and aviation provisions; with tabulation by company. Life Ins Courant 50:523 N '45
Underwriting military risks now and in future poses some problems. J. H. Ready and others. Nat Underw (Life ed) 49:9 N 23 '45
War and air terms in disability forms. R. Rosenquist. Nat Underw (Life ed) 50:6 Jl 12 '46
War clause doesn't bar double indemnity for auto death in U.S. Nat Underw (Life ed) 50:9 Ja 25 '46
War is over as regards war clauses. P. E. Price. Nat Underw 50:30 Mr 28 '46; Same. Nat Underw (Life ed) 50:13 Mr 29 '46

Wholesale insurance

Connecticut General now has 25 lives group minimum. East Underw 47:13 Ag 2 '46
John Hancock cuts group life limit to 25 lives. Weekly Underw 156:219 Jl 27 '46; East Underw Jl 26 '46

Women agents

See Insurance, Life—Agents—Women agents

Women as prospects

Cherchez la femme! greatest potential market of the future. B. Jones. il Spectator (Life ed) 153:6-7+ F '46
Insurance as an investment for the business woman. E. A. Muller. Mag of Wall St 77: 213+ N 24 '45
Ladies are heavy buyers, too. Spectator (Life ed) (Endorsement no 1946-1947) 154:12-13 1946
Post-war women's market. M. F. Barber and E. Shuler. East Underw 47:46+ pt 2 O 4 '46
Woman market so large it cannot be ignored. M. F. Barber. Nat Underw (Life ed) 50: 9 Mr 1 '46
Women are increasing buyers of insurance. M. R. Taylor. East Underw 47:17 Je 14 '46
Women are most rapidly expanding market for insurance; abstracts. D. B. Woodward. Nat Underw (Life ed) 50:11 Ag 2 '46; East Underw 47:8+ Ag 2 '46
Women as policy buyers are more important. B. Jones. Nat Underw (Life ed) 50:6 F 1 '46
Women work to live; see problems realistically; will buy insurance recognizing its necessity. B. Jones. East Underw 47:3 Ap 5 '46

Women's attitude

Reality of women's influence. M. S. Eberly. Nat Underw (Life ed) Daily ed 50:20-1 S 13 '46
Women and insurance advertising. B. Kidd. Ptr Ink 215:61+ My 24 '46
Women sampled on views on life insurance by Woman's home companion. Nat Underw (Life ed) 50:11 S 13 '46

Canada

Insurance companies loaning to Canadian government of wartime key personnel. East Underw 46:3-4+ D 14 '45
Life insurance does a job in Canada. J. D. Buchanan. Spectator (Life ed) 153:22-3+ Ja '46
1945 business, ordinary, group, industrial; tabulation. Life Ins Courant 51:250 My '46

China

Life insurance in China. G. D. Litchfield. Nat Underw (Life ed) 50:19 Ag 30 '46

Cuba

La Hemisferica, compania de seguros de vida, Havana. Spectator (Life ed) 154:29+ O '46

Denmark

Life insurance in Denmark; how agents are trained and compensated and how field is supervised. H. Poulsen. East Underw 47:5 N 8 '46

Far East

U.S. Life officials back from trip to Orient; insurance being written in Philippines and Hongkong; not in Shanghai. East Underw 47:4 Ag 9 '46

Germany

Attempt to keep western German companies alive. Nat Underw (Life ed) 50:4 Je 21 '46
German life insurance in American zone of occupation; Review of London. East Underw 47:3+ Ag 16 '46

INSURANCE, Life—*Continued*

Great Britain

British, American attitude toward life insurance compared by London Review. Nat Underw (Life ed) 50:5 Ag 30 '46

Equity and law life assurance society; National mutual life assurance society; Scottish life assurance company, limited; annual meetings. Economist 150:507+ Mr 30 '46

Great Britain's life business gains in 1945. East Underw 47:13 Je 28 '46; Same. Nat Underw (Life ed) 50:3 Je 28 '46

New ordinary life insurance in 1945; with figures for 1938 and 1944. Economist 150: 235 F 9 '46

Refuge assurance company, limited; Britannic assurance company, limited; ordinary general meetings. Economist 150:556-7 Ap 6 '46

Standard life assurance company; annual general meeting, Edinburgh. Economist 150: 654 Ap 20 '46

Sun life assurance society; Scottish provident institution; annual general meetings. Economist 150:392-3 Mr 9 '46

Hawaiian Islands

Hawaii production figures for 1944. Nat Underw (Life ed) 49:10 D 21 '45

Manitoba

1945 business, ordinary, group, industrial; tabulation. Life Ins Courant 51:250 My '46

New Brunswick, Canada

1945 business, ordinary, group and industrial; tabulation. Life Ins Courant 51:303 Je '46

New York (city)

How life insurance helps New York city. W. E. Schneider and G. W. Paulsen. East Underw 47:138+ pt 2 O 4 '46

Norway

Insurance in Norway during the occupation. J. Vemmestad. Nat Underw (Life ed) 50:18 Ja 4 '46

Puerto Rico

1945 business; tabulation. Life Ins Courant 51:302 Je '46

Quebec

1945 business, ordinary, group, industrial; tabulation. Life Ins Courant 51:251 My '46

Saskatchewan

1945 business, ordinary, group and industrial; tabulation. Life Ins Courant 51:305 Je '46

Sweden

Swedish executives give glimpse of operations there. Y. Lunden; C.-O. Segerdahl. Nat Underw (Life ed) 50:10 S 27 '46

Texas

Why Texas is being courted so aggressively. Nat Underw (Life ed) 50:3 S 6 '46

Venezuela

Views on tropical risks; abstracts. E. Michalup. Nat Underw (Life ed) 50:10 My 17 '46; Weekly Underw 154:1446 Je 1 '46

INSURANCE, Live stock

Appeal for cover on range cattle. Nat Underw 50:6 F 7 '46

Experience on range cattle good; may bring lower rates. Nat Underw 50:4 Mr 7 '46

Policy void when insured gave no notice of additional mortgages. East Underw 47:34 Mr 15 '46

INSURANCE, Machinery

See also
Insurance, Power plant

INSURANCE, Malpractice liability

Dentist and the law. H. D. Combs. Rough Notes 89:26+ Jl '46

Liability of doctors in malpractice actions. W. F. Martin. Nat Underw 50:31+ O 24 '46

INSURANCE, Manufacturers' and contractors' property damage liability

Property damage bond demand causes problem in Chicago. Nat Underw 49:22 N 22 '45

INSURANCE, Marine

Asks proper government attitude. W. D. Winter. Weekly Underw 155:1071 N 2 '46

Barry bill aims to enlarge share of American marine companies in world business. Weekly Underw 154:519 F 23 '46

Congestions, delays and improper packing among worries of marine underwriters; developments of year. Weekly Underw 154:166-7 Ja 12 '46

Cover on exports financed by U.S. is live issue. Nat Underw 49:47 N 15 '45

Export-import bank meets marine men half way. Nat Underw 50:10 Mr 21 '46

Hemispheric Conference marine discussion group. Spectator (Property ed) 11:36 My 23; 22 Je 13 '46

Legal position of marine insurance in U.S. to federal laws. F. B. Zeller. East Underw 47:28 N 8 '46

Limit coverage on Philippine shipments. Nat Underw 50:31 Ap 25 '46

Marine insurance developments discussed at Hemispheric conference. East Underw 47:19 My 17 '46

Marine men see expanding possibilities. E. R. King. Weekly Underw 154:59 Ja 5 '46

Marine underwriters watch developments in shipping strikes. East Underw 47:1+ S 13 '46

Maritime commission requirements in ship sales are revised. Weekly Underw 155:806 O 5 '46; Nat Underw 50:32 O 3 '46

Ocean marine cargo prospects may be found miles from any body of water. C. E. Holloway. Weekly Underw 155:946 O 19 '46

Operation of American marine syndicates. W. D. Winter. Weekly Underw 154:1484+ Je 8 '46

Problems now facing American hull underwriters; abstracts. P. Chubb. East Underw 47:30 F 22 '46; Weekly Underw 154:452-3 F 16 '46

Rules coast trade ships, sold to foreigners, lose their status; abandonment of vessel to underwriter upon payment of total marine loss constitutes sale. Weekly Underw 153:1080-1 N 10 '45

64 C-3 ships come into marine insurance market. Nat Underw 50:7 Ag 29 '46

State department causes change in hull insurance rules; sale of merchant ships to foreign purchasers on credit. Nat Underw 50:2 O 17 '46

Surplus ship sales have estimated $12 million premiums. Nat Underw 50:8 O 31 '46

U.S. ship sales to boost hull cover. Nat Underw 50:8 Ap 25 '46

World trade outlook by American public needed; marine insurance future depends on international viewpoint. W. D. Winter. East Underw 47:1+ N 8 '46

See also
Insurance, Inland marine
Insurance, Motor boat
also International marine insurance union

Adjustment of claims

Appellate term rules on marine principle in case of Providence Washington insurance company vs. West. Weekly Underw 154:517 F 23 '46

Binder issued after loss is known; does not prevent suit on insurance; loss of requisitioned ships. East Underw 46:32 D 21 '45

Court of appeal affirms decision in Priam case. Weekly Underw 155:148 Jl 20 '46

Damage to cans by moisture held not covered under insurance policy. East Underw 46:26 D 28 '45

Insufficient packing annoys underwriters; dispute reaches British court. Weekly Underw 155:314 Ag 10 '46

Odd insurance angles in American Farmer incident. Nat Underw 50:3+ Ag 8 '46

Agents

Many unusual risks written in day's work under marine coverage. K. W. Stuer. Weekly Underw 154:328+ F 2 '46

Marine insurance opportunities for local agents. W. J. Mitchell. East Underw 47:28 Ap 12 '46; Same cond. Nat Underw 50:13 Ap 4 '46

INSURANCE, Marine—*Continued*

Finance

Marine experience for 1945; tabulation. Nat Underw 50:43 Mr 7; 48 Mr 14; 36 Mr 21 '46

New Jersey premiums and incurred losses of fire-marine companies; tabulation by company. East Underw 47:22 Mr 22 '46

Ocean marine premiums decline; with tabulation by company. East Underw 47:32+ Mr 15 '46

Royal-Liverpool group premiums totaled $54,132,113 last year. East Underw 47:20 F 22 '46

Underwriting experience of carriers for different marine lines in 1945; tabulation by company. Weekly Underw 154:753+ Mr 23 '46

Losses

New upsurge of marine losses in Far Eastern trade. Nat Underw 50:6 Mr 28 '46

See also

Insurance, Marine—
Theft losses

Policies

American institute cargo clauses. Spectator (Property ed) 11:38-9 Mr 14 '46

New F. C. & S. clause. Spectator (Property ed) 11:34 N 8 '45

Ocean cargo insurance basic policy, with import-export endorsements. Rough Notes 88:65-6 D '45

Rates

London rate cuts peril U.S. profit on ocean marine. Nat Underw 50:3 Je 27 '46

Seek marine rate cut for radar on merchant ships; owners point to reduction of collision hazard to result. Nat Underw 50:3 Jl 11 '46

Surcharging marine cargo rates topic now discussed by British underwriters. Weekly Underw 155:262 Ag 3 '46

Text of fire and marine insurance measure drafted by commissioners. East Underw 46: 52+ D 14 '45

Underquoting of hull risks hit; cooperation of world markets asked. D. King-Page. East Underw 47:27 Ja 11 '46

Underwriting principles for 1946 Great Lakes season issued by Syndicate. Weekly Underw 154:1009+ Ap 20 '46

Risks

All merchant ships will be radar equipped within ten years; effects on insurance. A. Barnes and others. Weekly Underw 155: 144 Jl 20 '46

Theft losses

Port theft group engages full-time investigators to fight cargo losses. Nat Underw 50:3 O 10 '46

Waterfront theft loss $1,500,000 in one year; Bureau for suppression of theft and pilferage in New York. Weekly Underw 154: 1011+ Ap 20 '46

War risks

Cargo war risk cover rises; mines take 38 ships since war end; civil strife a factor. Nat Underw 50:3 Mr 7 '46

Cargo war risks rates reduced. Weekly Underw 154:165 Ja 12 '46

Ocean cargo war risk insurance policy. Rough Notes 89:61 Ja '46

Values insured under war risk cover exceed those during war. Nat Underw 50:29 N 7 '46

France

French authorities seek national marine market. Weekly Underw 153:1338 D 8 '45

Great Britain

Address at annual meeting of Institute of London underwriters. C. E. P. Taylor. Weekly Underw 154:448+ F 16 '46; Summary. Economist 150:190 F 2 '46

Annual report of Liverpool underwriters association. East Underw 47:1+ F 8 '46

British marine insurance, under new bill, may now come under 1909 act. Weekly Underw 153:1402+ D 15 '45

Government marine insurance profits. Economist 150:900 Je 1 '46

Value of keeping accurate underwriting statistics again being urged. Weekly Underw 153:1082-3 N 10 '45

Greece

Greek insurance indemnities for lost vessels. For Comm W 23:43 My 11 '46

Ontario

Passage expected of marine insurance bill by Ontario legislature. East Underw 47:1+ Mr 29 '46

INSURANCE, Medical expense

Aims of medical insurance; competition between non-profit plans and insurance is healthful and should be friendly. L. H. Pink. East Underw 47:32, 35 Je 7 '46

Athletic team cover popular. Nat Underw 50:28 O 3 '46; Same. Nat Underw (Life ed) 50:20 O 4 '46

California plan for medical, hospital cover. Nat Underw 50:61 S 26 '46; Same. Nat Underw (Life ed) 50:16 S 27 '46

Continental sports policies cover 14 team activities. Nat Underw 50:23 Je 20 '46

Cooperative plans reviewed at medical session; hope is expressed that they can forestall compulsory bills; abstracts. H. R. Gordon and others. Nat Underw (H. & A. conference no) 50:7+ My 24 '46; East Underw 47:27+ My 31 '46

Feature blanket accident policies to protect amateur sports teams; medical reimbursement coverages. East Underw 47:27 Ag 23 '46

Five companies offer low-cost medical plan in California. East Underw 47:36 Ap 26 '46; Same cond. Nat Underw 50:19 Ap 25 '46; Same cond. Nat Underw (Life ed) 50:1 Ap 26 '46

Hospital-medical cover a must. J. M. McCormack. Nat Underw 50:13 F 28 '46; Same. Nat Underw (Life ed) 50:22 Mr 1 '46

John Hancock now writing medical expense insurance. East Underw 47:8 Ag 9 '46; Nat Underw (Life ed) 50:16 Ag 9 '46

Launch Indiana medical co.; Mutual medical insurance, inc. East Underw 47:30 Ag 30 '46

Medical care insurance expansion predicted. H. R. Gordon. Weekly Underw 155:559 S 7 '46

Organize new carrier as answer to Wagner-Murray-Dingell bill; InsurOmedic life insurance co. Weekly Underw 154:1232 My 11 '46; East Underw 47:44 My 10 '46

Public health insurance; public's opinion as to how program should be carried out; Gallup poll. Iron Age 157:91+ My 30 '46

INSURANCE, Military and naval service

Advertisement advises veterans to hold NSLI; appears in 300 newspapers. East Underw 47: 11 Jl 12 '46

Advises veterans on National Service Life. A. Mosby. Weekly Underw 154:16 sec 2 My 11 '46

Asks Congress to liberalize provisions of NSL. O. N. Bradley. Nat Underw (Life ed) 50:7 Mr 8 '46

Bill liberalizing NSLI provisions becomes law. Nat Underw (Life ed) 50:1 Ag 9 '46; East Underw 47:8 Ag 16 '46; Weekly Underw 155:339+ Ag 10 '46

Burden of helping conserve NSLI falls hard on debit men. C. W. Cox. Nat Underw (Life ed) 50:10 Mr 15 '46

Call-me-mister boys; advice on G.I. life insurance. M. L. Lane. Rough Notes 89:40-2 Ap '46

Commissioner Duel of Wisconsin on warpath against NSLI twisters. Nat Underw (Life ed) 50:2 Mr 1 '46

Continuing N.S.L.I. aid to veterans urged by N.A.L.U. Weekly Underw 154:720 Mr 16 '46

Continuous decline in NSLI coverage concern to nation. A. E. Patterson. East Underw 47:1+ Ap 19 '46

Contributes billboards to NSLI cause; Provident Life & Accident uses outdoor advertising. Nat Underw (Life ed) 50:5 O 11 '46

Coverage for the peace-time army; editorial. Nat Underw (Life ed) 50:12 Ap 12 '46

INSURANCE, Military and naval service— *Continued*
Don't give up your government life insurance! J. F. Fenske. Management R 35:23-5 Ja '46
Future of National service life insurance. H. W. Breining. Life Ins Courant 51:62-4 F '46
Gigantic calculating task involved; NSLI dividends. Nat Underw (Life ed) 50:3 N 8 '46
Government life insurance of discharged veterans. A. E. Patterson. East Underw 47:6 Ja 25 '46; Same cond. Nat Underw (Life ed) 50:11 Ja 25 '46
Home office-field coordination seen as high NSLI lapse rate counter-measure. C. J. Zimmerman. Nat Underw (Life ed) 50:4 Ag 23 '46; Same abr. East Underw 47:8 Ag 16 '46
How army is presenting NSLI to men at discharge. H. C. Hallam. Nat Underw (Life ed) 49:1+ N 30 '45
Ideas on serving ex-GIs and getting new business. G. Moody. Nat Underw (Life ed) 50: 8 Ag 2 '46
Indemnity rather than insurance for peacetime army is sought by N.A.L.U. D. F. Barnes and others. Nat Underw (Life ed) 50:9 N 1 '46
Issues government intrusion warning; favors opposition to federal proposal on life insurance for armed services trainees in peace times. C. D. Connell. Weekly Underw 154: 797+ Mr 30 '46
Johnson-Rankin bill to ease N.S.L.I. provisions believed due to pass soon. D. F. Barnes. Nat Underw (Life ed) 50:6 Mr 15 '46
Letters to New York Sun give some reasons why servicemen drop National service life insurance. Weekly Underw 153:1542 D 29 '45
NSLI a bargain for veterans. W. E. Allyn. East Underw 47:6 Ap 26 '46
NSLI cash values; 20 year endowment, endowment age 60, endowment age 65; tabulations. Nat Underw (Life ed) 50:18 O 18 '46
NSLI premium rates for endowment forms; tabulation. Nat Underw (Life ed) 50:18 N 1 '46
National service life insurance raises its sights. V. W. Summers. East Underw 47: 82-3 pt 2 O 4 '46
One of three veterans being discharged hold on to government life insurance. A. E. Patterson. Weekly Underw 153:1436 D 15 '45
Pertinent data on conversion to 20 payment life NSLI; with tabulations. Nat Underw (Life ed) 50:19 Jl 26 '46
Pleads for better NSLI conservation. C. J. Zimmerman. Nat Underw (Life ed) 50:12 F 22 '46
Praises N.S.L.I. aid. O. N. Bradley. Nat Underw (Life ed) Daily ed 50:16+ S 13 '46
Preventing twisting of NSLI; editorial. Nat Underw (Life ed) 50:20 My 17 '46
Senate rewrites NSLI bill. Nat Underw (Life ed) 50:8 Jl 19 '46
Service to veterans on NSLI also beneficial to agents; Chicago seminar. D. F. Barnes and others. Nat Underw (Life ed) 49:2+ N 23 '45
Some advantages of NSLI as agents sees it. C. B. Carman. East Underw 47:15 My 24 '46
Survey year's efforts to help veterans keep NSLI; committee on veterans' affairs of N.A.L.U. Nat Underw (Life ed) Daily ed 50:46-8 S 11 '46
Sweeping NSLI legislative changes. O. N. Bradley. Nat Underw (Life ed) 49:4+ D 21 '45; Same abr. Spectator (Life ed) 153:15+ Ja '46
Terminal leave act insurance provisions; provides payment of NSLI. East Underw 47:4 Ag 9 '46
That NSLI policy. C. A. Zoller, jr. Nat Underw (Life ed) 50:7 S 27 '46
30% now carry NSL to private life. Nat Underw (Life ed) 50:6 Mr 1 '46
Veterans administration publishes NSLI disability rates, partial provisions. Nat Underw (Life ed) 50:14 Ag 23 '46
Veterans and their insurance; survey by American legion magazine. W. H. Hackett. il Spectator (Life ed) 153:6-10+ My '46
Why keep your National service life insurance. E. A. Muller. Mag of Wall St 79:38 O 12 '46
Why veterans dropped so much of their GI insurance. A. E. Patterson. East Underw 47:8 O 11 '46

Adjustment of claims

Side agreement on NSLI proceeds held valid. Nat Underw (Life ed) 50:7 My 3 '46

INSURANCE, Mortgage
Plan to insure payments of mortgages if mortgagor is unemployed. Nat Underw 49: 25 N 29 '45; Same. Nat Underw (Life ed) 49:4 N 30 '45

See also
Insurance, Life—Mortgage redemption policies
Insurance, Life—Mortgagee interest

INSURANCE, Morticians' liability
Funeral directors and cemetery malpractice liability. East Underw 47:38 Je 7 '46

INSURANCE, Motor boat
Boat and yacht insurance. B. G. Brown and others. il Rough Notes 89:21-6+ Je '46
Outboard motor and/or boat form O. Rough Notes 89:69 S '46
Pleasure craft liability risks; protection and indemnity and Longshoremen's and harbor workers' compensation act. E. N. Muller, jr. il Spectator (Property ed) 12:10-14+ Jl 25 '46
See big yacht season, but poor loss ratio. Nat Underw 50:3 Je 27 '46
Yacht and motorboat insurance season under way. R. B. Mulholland; C. W. Hobbs. East Underw 47:21+ Je 14 '46
Yacht insurance. Spectator (Property ed) 11: 46-7 Je 13 '46
Yacht insurance policy: fire and bodily injury and property damage; protection and indemnity insurance. Rough Notes 89:61 Jl '46
Yacht insurance seen in consistent demand; end of war brings about revival of popular sport. Weekly Underw 154:1010+ Ap 20 '46; Same abr. East Underw 47:27 Ap 5 '46

INSURANCE, Motor cycle
Motorcycles are more plentiful, less insurable. Nat Underw 50:9 Ag 29 '46

INSURANCE, Motor truck
Motor truck writing; abstracts. A. E. Spottke. Weekly Underw 155:689+ S 21 '46; East Underw 47:43 S 27 '46
New bodily injury and property damage rates for commercial cars announced by National bureau of casualty and surety underwriters. East Underw 47:37+. Mr 15 '46; Nat Underw 50:25+ Mr 14 '46
Reconversion in field of automobile bodily injury and property damage. W. H. Brewster. Weekly Underw 154:1022+ Ap 20 '46
Seek to change commercial car classification plan in New York. Nat Underw 50:26 Ja 31 '46
Truck group counsels against shopping around; session at Chicago. Nat Underw 50:17+ Ag 15 '46

Adjustment of claims

Actual cash values recoverable on tractor, trailer collision loss. East Underw 47:26 Jl 19 '46
Truck driver insured under omnibus clause though permitting hitch-hiker to ride in violation of rules of employer. Weekly Underw 155:459 Ag 24 '46

INSURANCE, Motor truck contents
Care, caution and courtesy; reducing losses through advertising. L. H. Waldman. il Rough Notes 89:26+ My '46
Cargo hijackings are worry to management. W. W. Clement. Weekly Underw 155:198 Jl 27 '46
Fear N.Y. strike will ruin more trucking lines; would add liability under ICC endorsements to already bad record. Nat Underw 50:1 O 10 '46
Liabilities, responsibilities of motor carriers told. C. R. Conklin. Nat Underw 49:4+ N 8 '45; Discussion. 49:4 N 29 '45
Police helpless to curb cargo thefts; four specific prevention activities recommended. J. Seide. Weekly Underw 154:1486-7 Je 8 '46

INSURANCE, Motor truck contents—*Cont.*
Protection of trucks at terminals essential to hold down hijacking. J. Seide. East Underw 47:28 F 1 '46
Reconversion snags add to worries of truck insurers. Nat Underw 49:19 N 8 '45
Report major crime wave; truck cargo losses in Philadelphia show big increase; claim tide rising generally. Weekly Underw 153: 1077+ N 10 '45
Steps taken to reduce motor truck cargo losses. F. B. McBride. East Underw 47:36 My 10 '46
Strive to get long haul cargo on acceptable basis. Nat Underw (Auto & aviation no) 50:6+ Ap 19 '46
Truck cargo coverage stands at cross-roads. J. H. Donica. Weekly Underw 154:329 F 2 '46
Truck cargo losses add up to huge total. Weekly Underw 154:1364 My 25 '46
Truck cargo risks loss ratio continues to rise. W. M. Mortimer. Weekly Underw 154: 1141 My 4 '46
Truck cargo trends during 1945. J. Seide. Weekly Underw 154:62-3+ Ja 5 '46
Truck leaders plead for cargo cover; American trucking association men confer with underwriters. Nat Underw 50:4+ F 7 '46
Trucker's coverage is not enough, buyers are told. J. Rogers, jr. Nat Underw 50:6 My 30 '46
Underwriters responsibility to prevent cargo losses. F. A. Roff. Weekly Underw 154:886+ Ap 6 '46
Underwriters to battle truck cargo losses; safety measures. A. C. Bennett. Weekly Underw 153:1469 D 22 '45
Unique service given by Transit surveys, inc. Weekly Underw 154:391 F 9 '46

Adjustment of claims

Failure of carrier to deliver package at destination does not warrant inference of theft. Weekly Underw 153:1178 N 17 '45; East Underw 46:28 N 9 '45

INSURANCE, Multiple location. See Insurance, Fire—Multiple location policies

INSURANCE, Mutual
Aggregates of stock casualty, surety and miscellaneous companies and of mutual casualty companies for 1945; with underwriting and investment profit and loss exhibit; tables. Spectator (Property ed) 12:30-2+ O 10 '46
Country-wide underwriting results 1941-45 of companies licensed in New York state; tabulation. East Underw 47:10+ pt 2 Je 28 '46
Factory Mutuals 1945 figures show strong year. Nat Underw 50:3 F 21 '46
Michigan rejects replacement rider; Commissioner holds any plan avoiding factor of depreciation would lead to incendiary fires. East Underw 47:20 Je 7 '46; Same cond. Nat Underw 50:1 My 30 '46
Mutual fire companies' 1945 figures; tabulation. Nat Underw 50:2 Ja 24; 10 Ja 31; 17 F 14; 3 F 21; 2 F 28; 12 Mr 7; 14 Mr 14 '46
Mutual insurance agents assn. of New England annual conference, Boston. Nat Underw 50:3+ O 10 '46
Mutual leader optimistic that problems facing business will be solved. H. G. Kemper. Weekly Underw 154:170+ Ja 12 '46
Rating bureau for mutuals suggested at Mutual fire insurance engineers meeting. Nat Underw 50:4+ My 2 '46
South Carolina mill fire loss estimated at 3 to 4 millions; may prove largest ever incurred by factory mutual system. East Underw 47:1+ Ag 9 '46
Voids contracts of mutuals as ultra vires; Erie, Pa, school district hit; insurers exceeded charter powers. Nat Underw 49:6 N 15 '45
Wisconsin federation of mutual insurance companies annual convention, Milwaukee. Nat Underw 50:3+ O 31 '46

See also
National association of mutual insurance agents

Statistics

Division of premiums written in 1945 by stock and mutual casualty companies and by stock and mutual fire companies; charts. Spectator (Property ed) 12.26 O 10 '46

INSURANCE, Parcel post

See also
Insurance, Registered mail

INSURANCE, Partnership. See Insurance, Business—Partnership interest

INSURANCE, Plate glass
Comprehensive glass policy and endorsements. Rough Notes 89:63-4 Ag '46
Examination questions and answers in NAIA burglary-glass course. Weekly Underw 154: 952 Ap 13 '46
New markets in new glasses. R. G. Bauer, jr. il Rough Notes 89:30+ Je '46
Plate-glass coverage broad and simple. Weekly Underw 154:957 Ap 13 '46
Post-war trends in merchandising field as seen by New York Glass Bureau. J. W. Marden. East Underw 47:44 My 17 '46

Losses

Glass insurance paid; typical losses. Rough Notes 88:53-4 N '45

Neon sign policy

Neon sign policy. Spectator (Property ed) 12: 31 Jl 11 '46

Rates

Adverse glass results cause advance in rates. Weekly Underw 155:1073 N 2 '46; Same cond. Nat Underw 50.21 O 31 '46
Glass rate revision announced by Bureau. Weekly Underw 155:269 Ag 3 '46; East Underw 47:30 Ag 9 '46; Nat Underw 50:17 Ag 8 '46

INSURANCE, Power plant
Boiler and machinery insurance. R. Williams and others. il Rough Notes 89:19-25 S '46
Boiler and machinery questions and answers; Educational division of NAIA. Spectator (Property ed) 11:34-5 N 8 '45; Same. Weekly Underw 153:1086+ N 10 '45
Boiler insurers study retrospective; feel high-low plan is necessary in rate control age. Nat Underw 50:24 O 3 '46
Power plant insurance. W. Strauss. Weekly Underw 154:1026-8, 1313-16, 1566-7 Ap 20, My 18, Je 15 '46
Reach stalemate on steam turbine mishap definition; utility companies want changes; insurers insist policy meets needs. Nat Underw 50:23+ F 14 '46
Valuable pointers on boiler and machinery cover. W. T. Meyler. Nat Underw 50:15+ O 31 '46
What is new in boiler and machinery insurance. D. L. Royer. Weekly Underw 154:184-5 Ja 12 '46; Same cond. Nat Underw 50:20 Ja 10 '46

INSURANCE, Products liability
How to protect yourself against lawsuits when products fail. J. H. Bibby. Sales Management 56:93-4+ Je 1 '46
Need for product liability insurance. Spectator (Property ed) 12:30-1 Ag 8 '46
Needs for products liability insurance. J. M. Downey. East Underw 47:31 Je 28 '46

Completed operations coverage

Completed operations and products liability soon to present excellent field. S. B. Mason. Nat Underw 50:26 Ja 31 '46

INSURANCE, Public liability. See Insurance, Liability

INSURANCE, Radio maintenance
New type of radio insurance sold in Vancouver, B.C.; created in radio repair shop; provides maintenance service on annual fee basis. East Underw 47:28 Ja 25 '46

INSURANCE, Rain
Outside event rain cover sales boom. Nat Underw 50:16 O 24 '46
Pin-pointing the weather. A. Haden. map Spectator (Property ed) 12:15+ O 24 '46

INSURANCE, Reciprocal
Bay State hears reciprocals; Insurance commissioner Harrington opposes some features of admission bill. Weekly Underw 154:857+ Ap 6 '46

INSURANCE, Reciprocal—*Continued*
Fight new move in Massachusetts to license reciprocals. Nat Underw 50:10 F 21 '46

INSURANCE, Registered mail
Emphasize registered mail insurance now; abstracts. W. A. Schroder. Spectator (Property ed) 11:30-1 Je 27 '46; East Underw 47:26 S 6 '46
Registered mail. H. K. Horan. Rough Notes 89:46 Jl '46

INSURANCE, Rent
New Illinois rent form allows full amount. Nat Underw 50:4 Jl 25 '46
Rent and rental value forms. Rough Notes 89:78 Je '46
Rent, leasehold interest, U.&O. lines readily sold now. G. H. Martin. East Underw 47: 21+ O 25 '46

INSURANCE, Residence and outside theft. See Insurance, Theft

INSURANCE, Riot and civil commotion

Strike coverage

Strikes! strikes! strikes! how to cover this hazard; riot and civil commotion policy compared with extended coverage. Rough Notes 89:18+ Ja '46

INSURANCE, Robbery. See Insurance, Burglary; Insurance, Theft

INSURANCE, Self. See Insurance, Fire—Self insurance; Insurance, Workmen's compensation—Self insurance

INSURANCE, Sickness. See Insurance, Health

INSURANCE, Social
Compulsory sickness insurance legislation in the states, 1939-44. A. Stucke. Pub Health Rep 60:1551-64 D 28 '45
1944-1945 programs for postwar social security and medical care. E. E. Witte. R Econ Stat 27:171-88 N '45

See also
Insurance, Health
Insurance, State
Insurance, Unemployment
Old age pensions

Cost

Social security taxes. G. Hirschfeld. Spectator (Life ed) 154:6-9+ Jl '46

Finance

Economic and fiscal effects of social insurance. E. J. Swan. Comm & Fin Chr 164:1309+ S 5 '46
Effect of the war on old-age and survivors' insurance in the United States. Int Labour R 52:701-4 D '45
Federal trust fund investments; analysis by Research department of Federal reserve bank of New York. Comm & Fin Chr 164: 752+ Ag 8 '46
Social security taxes. G. Hirschfeld. Spectator (Life ed) 154:6-9+ Jl '46

Australia

Australian social insurance legislation, 1944-45 Mo Labor R 62:65-6 Ja '46

Belgium

Social security in Belgium. H. Fuss. Ann Am Acad 247:117-24 S '46
Social security program; employers' view. M. Van der Rest. Ann Am Acad 247:125-7 S '46

Canada

Social security benefits must be based on sound economy. J. D. Buchanan. East Underw 47:3+ Je 7 '46

France

Social security in France. Int Labour R 52: 541-4 N '45
Social security reform in France. Int Labour R 53:106-11 Ja-F '46

Great Britain

Assumption D. Economist 150:161-2 F 2 '46
Britain's bill to cost $1,808,000,000 in year. Weekly Underw 155:273 Ag 3 '46
Cost of social services. Economist 150:490 Mr 30 '46
End of the poor law? National assistance bill. Economist 150:956-8 Je 15 '46
Fiscal impact of British social security. A. M. Sakolski. Comm & Fin Chr 163:1929+ Ap 11 '46
National insurance bill, a summary. Economist 150:165-7 F 2 '46
National insurance in committee. Economist 150:661-2 Ap 27 '46

Iceland

National insurance plan for Iceland. Int Labour R 53:258-62 Mr-Ap '46

Italy

Social security legislation in Italy, 1945-46. Mo Labor R 62:925-7 Je '46

United States

Actuaries discuss what to do about social insurance; present plan liberal in future but too scanty now; abstracts. W. R. Williamson and others. Nat Underw (Life ed) 50: 1+ My 31 '46; East Underw 47:13+ My 24 '46
Agent's earnings disqualify him for SS benefits; held employe and not independent contractor. Nat Underw (Life ed) 50:2 Ja 11 '46
Assail U. S. hospital measure, Wagner-Murray-Dingell bill. J. H. Hayes and others. Nat Underw (Life ed) 50:6 My 17 '46
Calhoun S S report is penetrating analysis. Nat Underw 50:23+ F 7 '46; Same. Nat Underw (Life ed) 50:1+ F 8 '46
Comprehensive social security. A. J. Altmeyer. Comm & Fin Chr 164:2083+ O 24 '46
Critique of Calhoun report thought provoking. Nat Underw 50:28 Mr 7 '46; Same. Nat Underw (Life ed) 50:16D Mr 22 '46
Effect of the war on old-age and survivors' insurance in the United States. Int Labour R 52:701-4 D '45
Expansion of social security. E. Schmidt. Comm & Fin Chr 163:1928+ Ap 11 '46
Final session of Congress accepts social legislation proposed in House. Weekly Underw 155:328 Ag 10 '46
Hearings on social security legislation. Nat Underw (Life ed) 50:1+ Mr 1 '46; Same abr. Nat Underw 50:13+ F 28 '46
High cost and favoritism in Crosser railroad social security bill. East Underw 47:3 Jl 19 '46
How social security can help the small businessman. A. J. Altmeyer. il Dom Comm 34:5-9 Mr '46
Life insurance has day at House SS hearing; Linton and Benson appear before Ways and means group. Nat Underw (Life ed) 50:1 Ap 5; 4+ Ap 12 '46; East Underw 47:1+ Ap 5 '46; Weekly Underw 154:906 Ap 6 '46
Low level social security payments must be supplemented by private insurance. L. B. Breneman. Weekly Underw 154:44-5 sec 2 My 11 '46
Old age insurance for small business man. H. A. Wallace. Comm & Fin Chr 163:1928+ Ap 11 '46
Opposes jump in security tax rate until need is shown. J. F. Finely. Weekly Underw 155: 902-3 O 12 '46
Position of commission agent outlined in NALU social security report. East Underw 47:3+ S 20 '46; Nat Underw (Life ed) Daily ed 50:10+ S 11 '46
Put up stout fight against new Crosser R.R. retirement bill. Nat Underw 50:22+ Jl 18; 15+ Jl 25 '46; Same. Nat Underw (Life ed) 50:2 Jl 19; 4-5 Jl 26 '46
Realism needed in social security situation. W. O. Ford. East Underw 47:45 Mr 1 '46
Security, social or anti-social? E. H. O'Connor. East Underw 47:29+ Mr 8 '46
Security vs. free enterprise. E. A. Krauss. Mag of Wall St 77:314-15+ D 22 '45
Social security amendment helps veterans' dependents. Nat Underw (Life ed) 50:10 O 4 '46
Social security and the agent. J. C. Benson. East Underw 47:6 My 31 '46
SS bill provides nest egg for state cash sickness plans; eight states could recover many millions paid as unemployment taxes. Nat Underw 50:17 Ag 8 '46; Same abr. Nat Underw (Life ed) 50:3+ Ag 9 '46
Social security board 10th annual report; abstract. Weekly Underw 154:432+ F 16 '46
Social security; Congress freezes tax. Bsns W p19-21 Jl 27 '46

INSURANCE, Social—United States—*Cont.*
Social security hearings will consider all-inclusive plan supported by taxes. Weekly Underw 154:249+ Ja 26 '46
Social security taxes. G. Hirschfeld. Spectator (Life ed) 154:6-9+ Jl '46
Social study covers 10-yr. range; House ways and means committee weighs proposal with war debt in mind. Weekly Underw 154:93 Ja 5 '46
Taft substitute for Wagner-Murray-Dingell bill would aid medical plans. Nat Underw 50:19 My 9 '46; Same. Nat Underw (Life ed) 50:1 My 10 '46
Truman repeats social security recommendations in his annual message. Nat Underw 50:16 Ja 24 '46; Same. Nat Underw (Life ed) 50:7 Ja 25 '46
Truman signs bill continuing security tax at 1%; changes in law. Comm & Fin Chr 164:1066 Ag 22 '46
Would put all agents under Social security. J. C. Benson. East Underw 47:9 Ap 12 '46

See also
Social security board

INSURANCE, Soldiers' and sailors'. See Insurance, Military and naval service

INSURANCE, Sprinkler leakage
New sprinkler leakage policy, form E. Spectator (Property ed) 11:24 Ja 24 '46
Rate cuts urged for explosion and sprinkler leakage by New York department. Nat Underw 50:4+ My 9 '46
Sprinkler leakage conference issues bulletin no. 2 and manual changes. East Underw 47:17 Ag 16 '46; Same. Weekly Underw 155:362+ Ag 17 '46
Sprinkler leakage policy. Rough Notes 89: 73-4 Mr '46
Sprinkler leakage policy is revised. East Underw 46:20+ D 21 '45; Nat Underw 49:4+ D 20 '45
Uninsured sprinkler hazards may lead to severe losses in profits. East Underw 47: 29 Mr 29 '46

INSURANCE, State
Canada's high subsidy of government annuities fails to take account of current interest yields or expense loading. R. L. Foster. East Underw 47:3+ Je 7 '46
Covers public institutions; Saskatchewan government insurance office demands insurance with grants. East Underw 47:25 Ag 9 '46
Find touch of blue sky in Federal reserve board's war bond-insurance idea. Nat Underw (Life ed) 50:1 Mr 1 '46
Government threats cannot be ignored; business must change to meet them. A. B. Kelly. Nat Underw 50:5 O 17 '46
Let's take the offensive; encroachment of government into field of life insurance. P. B. McHaney. Spectator (Life ed) 154:17-19+ Jl '46
Sale of annuities by Treasury suggested in Federal reserve study. East Underw 47:5 Mr 1 '46
Saskatchewan insurance office forces rates down; government plan assailed. East Underw 47:18 Ag 2 '46

See also
Insurance, Health—Rhode Island
Insurance, Military and naval service
Insurance, Social
Insurance, Unemployment
War damage corporation

INSURANCE, Surety and fidelity
Bond covers most of girl cashier's $12,819 embezzlement. Nat Underw 50:18 Ag 29 '46
Bond men should caution banks on service contracts. Nat Underw 50:34-5 Mr 28 '46
Corporate suretyship geared for reconversion. E. V. Roth. East Underw 47:41 Mr 15 '46
Examination questions and answers in bond course of Educational division, N.A.I.A. Weekly Underw 154:154+ Ja 12 '46; Same. Spectator (Property ed) 11:24-6 Ja 24 '46
Fidelity bonds covering plastic industry. V. Cullen. Weekly Underw 155:761-2 S 28 '46
Fidelity, surety '46 outlook. H. E. Moore. Nat Underw 50:20 F 21 '46
How to combat underinsurance in dishonesty line. R. S. Holmes. Nat Underw 50:20 My 9 '46
Inventory shortage claims present difficult problem. G. C. Bunge. Nat Underw 49:24+ D 20 '45
Leaders in casualty-surety field forecast little profit for 1946. J. S. Daniel. East Underw 47:28-9+ Ag 16 '46
Liability under fidelity bonds for losses caused to outsiders. T. H. Bivin. Weekly Underw 154:1565 Je 15 '46
More research needed in the bond business. D. Quinn. East Underw 47:5+ pt 2 Je 28 '46
New public relations plan in surety field. D. Porter. East Underw 47:44 My 17 '46
New Treasury list of surety qualifying limits, April 1946 and comparisons. Nat Underw 50: 31 My 16 '46
Premiums await insurance field as fraud boom result. Nat Underw 50:25 Ap 11 '46
Producers should make surveys now on modern dishonesty bond market. J. F. Eierman. East Underw 47:32+ pt 2 Je 28 '46
Seek bonds to protect motion picture distributors against loss on "percentage" pictures. Weekly Underw 154:629 Mr 9 '46; Nat Underw 50:39 Mr 7 '46
Surety companies did good wartime job. A. F. Lafrentz. Weekly Underw 154:72+ Ja 5 '46
Treasury department issues semi-annual list of acceptable sureties on federal bonds; figures for Oct. 1946; tabulation by states. East Underw 47:32 N 8 '46
Treasury shows sureties' new qualifying powers; figures for Oct. 1945, April 1946 and Oct. 1946; tabulation by companies. Nat Underw 50:31 N 7 '46
U.S. Treasury department issues new list of surety company writing powers as of April 1946; tabulation by states. East Underw 47: 35+ My 24 '46
Urges higher bond limits; abstracts. G. H. Fox. Nat Underw 50:22 S 19 '46; Weekly Underw 155:752 S 28 '46
Urges producers to sell adequate dishonesty protection. J. F. Eierman. East Underw 47: 27 Ag 30 '46

See also
Bankers' blanket bond
Insurance, Forgery
Surety association of America

Adjustment of claims
Bank not precluded from recovery on surety bond despite non-compliance with terms of bond. Banking Law J 63:776-9 O '46
Law of larceny. E. W. Fields. Weekly Underw 155:214-16, 390-1 Jl 27, Ag 17 '46; Same cond. Nat Underw 50:18+ Je 27 '46
Public relations and claim men. M. W. Lewis. Weekly Underw 153:1094 N 10 '45
Salesman absconds; cover not terminated by earlier overdraft of commissions; blanket position bond. Nat Underw 50:38 N 7 '46

Contract bonds
American Surety loses bankruptcy issue in U.S. high court; claims of unpaid material men take precedence over company's subrogation. Nat Underw 50:14 F 28 '46
Contract bond underwriting today and in future. C. C. Conlon. East Underw 47:27+ F 8 '46
Contractors' assn. director sees big future for bonds. C. Emerson. Nat Underw 49:25 N 8 '45
Cost-plus-fixed-fee (other than U.S.) bond rate set. Nat Underw 50:17 Ja 17 '46
Difficult public relations job to be faced when construction opens up. J. C. Brodsky. East Underw 47:12+ pt 2 Je 28 '46
Financial report of contractor not conclusive. G. Kiddoo. Nat Underw 50:31 Je 13 '46
Free riding in contract bond field is resented; architects make uncompensated use of judgment and knowledge of surety companies. Nat Underw 50:24 F 7 '46
Intensive sales program needed to develop private construction field. A. M. Clark. East Underw 47:12 pt 2 Je 28 '46
Latest in bonds for the new builder; performance and payment. Spectator (Property ed) 12:32-3 S 26 '46
Many opportunities now exist to develop contract bond business. J. A. Swearingen. East Underw 47:30 Je 28 '46
Performance bonds on city contracts fought in New York. Nat Underw 50:20 Ap 4 '46

INSURANCE, Surety and fidelity—Contract bonds—*Continued*
Raise price issue on construction suspended by war; sureties intensely interested in question arising in Chicago. Nat Underw 50:19 Jl 18 '46
Standard Accident features contract bonds as opportunity for lucrative business. East Underw 47:34 Ja 25 '46
Story of the big Shasta dam; twenty-two surety companies played important role in construction project. G. L. Stevick. il East Underw 46:82+ D 14 '45
Sureties now make bid to bond private building; new performance and payment bonds designed to win converts. A. Foster, jr. Nat Underw 50:17+ Ag 15 '46; Excerpts. Weekly Underw 155:386 Ag 17 '46
Urges more agents to go after contract bonds. P. A. Dow. Nat Underw 50:59+ S 26 '46
War rates for U.S. bonds withdrawn; many reductions. Nat Underw 50:31+ My 16 '46

Customs bonds
License, permit and custom house bond claims. C. C. Leary. Weekly Underw 154: 275-6 Ja 26 '46

Finance
Aggregates of stock casualty, surety and miscellaneous companies and of mutual casualty companies for 1945; with underwriting and investment profit and loss exhibit; tables. Spectator (Property ed) 12:30-2+ O 10 '46
Country-wide underwriting results 1941-45 of companies licensed in New York state; tabulations. East Underw 47:6-7+, 10+ pt 2 Je 28 '46
Fidelity and surety 1945 record of companies licensed in New York; tabulations. Nat Underw 50:19-20 Jl 18 '46
Fidelity experience results for 1945 are distorted; net premiums written swollen by introduction of term plan. Nat Underw 50:19 Ja 10 '46
New Jersey casualty-surety writings during 1945. East Underw 47:34-6+ Mr 29 '46
1945 casualty-surety results of all companies for New York state; tabulation. East Underw 47:14+ pt 2 Je 28 '46; Correction. 47.34 Jl 19 '46
1945 premiums and losses by states; casualty, surety and miscellaneous lines; tabulations. Spectator (Property ed) 12:9-13 S 12 '46
Underwriting and investment profits and losses in 1944; 100 leading stock casualty and surety companies; tabulation. Spectator (Property ed) 11:28-9 N 22 '45
Underwriting and investment profits and losses of 100 casualty, surety and miscellaneous companies, 1935-1944; tabulation. Spectator (Property ed) 11:16-17 D 20 '45
Underwriting and investment profits and losses of 100 leading stock casualty, surety and miscellaneous companies for 1945, and for the decade 1936-1945; tabulations. Spectator (Property ed) 11:10+ Je 13 '46

Guardian bonds
Termination of surety's liability on guardian's bond O. R. U. del Giudice. Weekly Underw 155:1012-14, 1253-5, 1309-10 O 26, N 23-30 '46

License and permit bonds
License, permit and custom house bond claims. C. C. Leary. Weekly Underw 154: 275-6 Ja 26 '46
New license permit bond rates in N.Y. Nat Underw 50:3 Je 20 '46

Losses
Embezzlement loss of million is uncovered in N.Y.; Mergenthaler linotype co. Nat Underw 50:31+ N 7 '46
Fidelity and surety losses going through unusual time. Nat Underw 50:28-9 F 14 '46
Fidelity losses on increase, sharp rise expected soon; war conditions and contract cancellation are principal reasons for claims. Nat Underw 49:21 N 29 '45
Thefts of scarce goods boosting fidelity losses. Nat Underw 50:21 O 24 '46

Lost security bonds
Lost instrument surety bond. Rough Notes 89:70 My '46

Policies
Bring out special bond form for small loan firms. Nat Underw 50.22 Ag 1 '46
Chicagoans seek more expeditious handling of 3D plan; surety men name committee to promote simplification of mechanics. Nat Underw 50:23+ F 7 '46
Comprehensive dishonesty protection. R. S. Goldkamp. Rough Notes 89:30+ Jl '46
Dishonesty, disappearance and destruction cover. Spectator (Property ed) 11:38-9 Mr 14 '46
Features of 3-D policy. R. S. Holmes. East Underw 47:38+ My 10 '46
Some sales features of 3-D policy. E. H. Kingsbury. Nat Underw 50:11 Ag 1 '46
Triple D package policy. Spectator (Property ed) 12:30-1 Jl 25 '46
What's in CDDD prize package. F. G. Packwood and others. Rough Notes 88:19-24 N '45

Preventive work
Loss prevention as applied to fidelity and surety business. A. F. Lafrentz. Weekly Underw 154:1436-7, 1492-3 Je 1-8 '46; Excerpts. East Underw 47:33 Je 7 '46; Nat Underw 50:17, 25 My 30 '46

Public officials bonds
Corporate bonds urged for state officials in Tennessee. Weekly Underw 153:1218 N 24 '45
Official bonds. P. P. Laing. Weekly Underw 155:494-6, 603-4, 804-5 Ag 31, S 21, O 5 '46
Sureties' woes on bond termination. T. L. Sedwick. Nat Underw 50:20 O 31 '46

Rates
Commissioners debate casualty-surety bill. East Underw 46:34 D 7 '45
Insurance department calls for lower N.Y. bond rates, scores practices. Nat Underw 49:36 D 6 '45; East Underw 46:38 D 7 '45
Text of casualty-surety regulatory bill of all-industry committee. East Underw 47:28-9+ Ja 11 '46; Same. Spectator (Property ed) 11: 18-20+ Ja 10 '46; Same abr. Nat Underw 50:19+ Ja 3 '46
Towner rating bureau draws N.Y. examiner's fire. H. A. Kahn. Nat Underw 49:21+ D 13 '45; Excerpts. East Underw 46:101 D 14 '45

INSURANCE, Theft
Compare PPF, residence burglary. J. James; W. V. Drew. Nat Underw 50:21 O 10 '46
Expect mysterious disappearance clause to stay. Nat Underw 50:24 O 3 '46
Family theft policy changes; NAIA committee favors mysterious disappearance elimination. East Underw 47:42 S 27 '46; Weekly Underw 155:760 S 28 '46
Indemnity of North America reforms theft cover; holds rates. Nat Underw 50:16 Ag 29 '46; East Underw 47:25 Ag 30 '46
Losses continue to climb on residence cover. Nat Underw 50:18 Jl 11 '46
New business from old customers; selling residence and outside theft. A. L. McMullen. Rough Notes 89:22-3 Ja '46
New personal theft policy announced by North America companies for Canadian usage. East Underw 47:34 Ja 4 '46
New rate plan for burglary coverage; would reduce inside, increase outside rate, and separate the two; losses cause concern. East Underw 47:28 Jl 26 '46
New rates for outside theft called too high; abstracts. A. H. Criddle. East Underw 47:50 S 13 '46; Nat Underw 50:38 S 12 '46
Personal theft policy changed by Indemnity insurance co. of North America. Weekly Underw 155:548 S 7 '46
Residence and outside theft; losses show need for higher values. Rough Notes 89:24 Ja '46
Residence and outside theft policy. L. R. Christman. il Rough Notes 89:19-21+ Ja '46
Residence and outside theft policy; questions and answers. Spectator (Property ed) 12: 36-7 S 12 '46
Residence-outside theft policy a good buy. G. R. Holden, jr. Nat Underw 50:19 Je 20 '46
Residence theft premiums raised $3 per policy. Nat Underw 50:13 F 28 '46

INSURANCE, Theft—*Continued*
Residence theft rates are now increased; premises and off premises cover separated; new rules on specific cover. Nat Underw 50:15+ Ag 22 '46; Same abr. Weekly Underw 155:443 Ag 24 '46; Same abr. East Underw 47:26+ Ag 16 '46
Residence theft rates going up; separation of premises and off premises cover likely countrywide. Nat Underw 50:17 Ag 1 '46
Residence theft rates still poser. Nat Underw 50:26 Mr 7 '46
Suspend burglary warranties in N.Y. on brokers' protest; National bureau withdraws loss, declination statement requirement. Nat Underw 50:25 O 10 '46
Theft insurance rates increased in New York. East Underw 47:25 Ag 30 '46; Same. Weekly Underw 155:488 Ag 31 '46; Same cond. Nat Underw 50:17 Ag 29 '46
Theft rates up in Missouri. East Underw 47: 28 Ag 30 '46
Underinsurance is big problem; residence and outside theft policies. J. J. Iago. Rough Notes 89:21-2 Ja '46

See also
Insurance, Automobile—Theft claims
Insurance, Burglary

INSURANCE, Tobacco. See Insurance, Agricultural; Insurance, Fire—Tobacco risks

INSURANCE, Tornado
How to improve the wind record. G. W. Roerink. Nat Underw 50:16 S 12 '46
$100 mandatory wind deductible ordered in Texas; remedy applied in lieu of rate increase. Nat Underw 50:1 S 5 '46; Same. East Underw 47:16 S 6 '46
Windstorm body told to revise certain practices; N.Y. Department releases report on Eastern tornado association. Nat Underw 50:3+ Ja 3 '46

Adjustment of claims
Adjustment of windstorm losses. R. G. Bachman. Weekly Underw 154:569-70+, 879-81; 1418-20; 155:24-6, 112-14+ Mr 2, Ap 6, Je 1, Jl 6-13 '46
Insured recovers as wind loss for damage done by flood; Pennsylvania Fire vs. Sikes. Nat Underw 50:4 My 9 '46
Texas trial court definition of windstorm upheld on appeal. East Underw 47:24 Jl 12 '46
Windstorm damage; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12: 34-6 Jl 11 '46

Losses
Gloom hits Texas in wake of May winds; Midwest hail and wind losses high. Nat Underw 50:4 Je 6 '46
Heavy flood, wind losses in Missouri and Illinois. Weekly Underw 155:526 S 7 '46
Minnesota tornado does $1 million damage in 2 towns. Nat Underw 50:2 Ag 22 '46

Rates
Mandatory wind deductible may be Texas solution; public hearing brings out sharp differences as to remedies. Nat Underw 50:1+ Ag 8 '46; Same abr. Weekly Underw 155:297+ Ag 10 '46
Proposals submitted to solve Texas windstorm writing situation. K. Murchison. Weekly Underw 155:392 Ag 17 '46; Same abr. East Underw 47:26 Ag 9 '46
Texans meet to juggle storm rate hot potato. Nat Underw 50:1 Jl 18 '46
Texas board considers rates for windstorm. East Underw 47:17 Ag 2 '46
Wind rates higher than extended coverage in Indiana. Nat Underw 50:1 F 28 '46

INSURANCE, Tourist baggage
Arkansas baggage floater case of interest. Nat Underw 50:21 F 14 '46

INSURANCE, Tuition fees. See Insurance, Use and occupancy—Tuition fee coverage

INSURANCE, Turkeys
Talking turkey insurance. E. A. Bystrom. il Rough Notes 89:34+ Mr '46

INSURANCE, Unemployment
Labor disputes and unemployment insurance. Management R 35:395-7 S '46
Pressure on idlers. Bsns W p26+ S 21 '46
SS bill provides nest egg for state cash sickness plans; eight states could recover many millions paid as unemployment taxes. Nat Underw 50:17 Ag 8 '46; Same abr. Nat Underw (Life ed) 50:3+ Ag 9 '46

Finance
Liberalizing trend threatens state unemployment reserves. B. Jones. Barron's 26:9 F 11 '46
State unemployment insurance taxes; controllable element of cost. B. W. Roberts. N A C A Bul 27.966-78 Je 1 '46

Belgium
Unemployment assistance and retraining program in Belgium. Mo Labor R 61:949-52 N '45

California
Unemployment compensation plan held inefficient in California. Steel 119:90 Jl 15 '46

Disability benefits
California plan is illuminated; questions on unemployment compensation disability procedure. P. Merrick. Nat Underw 50:20+ Je 20 '46; Same. Nat Underw (Life ed) 50:8 Je 28 '46
Cash disability benefits in California. H. D. Stecker. Mo Labor R 63:236-42 Ag '46
Dual payments are outlawed under California disability plan. Nat Underw 50:28 O 10 '46; Same. Nat Underw (Life ed) 50:3 O 11 '46
Shelley bill in California would establish system of disability benefit payments within the unemployment insurance act. Weekly Underw 154:197+ Ja 19 '46

See also
Insurance, Health—California

Michigan
When is a striker? Bsns W p106+ Mr 23 '46

New York (state)
Protection of veterans' unemployment benefits during work stoppages in New York. Mo Labor R 62:758 My '46

United States
Joint control; states to determine workers benefits, but U.S. controls pursestrings. Bsns W p104+ O 5 '46
Strike subsidies? New York City's agreement to aid men voluntarily idle. Bsns W p63-4+ F 9 '46; Same. Factory Management 104: 292+ Mr '46
Veteran unemployment insurance; government gives self-employed veterans a helping hand during first few months. H. J. Ashe. Inland Ptr 116:67-8 O '45

INSURANCE, Use and occupancy
After the fire, could you re-open? il Rough Notes 89:24 F '46
Agents pick flaws in new U. & O. plans at Chicago conference. Nat Underw 50:2 Je 27 '46
Back door is always open; tell mercantile and manufacturing prospects about business interruption insurance. E. L. Man. Rough Notes 89:22-3 F '46
Blanket U. & O. rule in Middle West drawing criticism. Nat Underw 50:2 F 28 '46
Broad market for use and occupancy in postwar years. East Underw 46:1+ D 14 '45
Business interruption form C, gross earnings (contribution) form for manufacturing or mining risks; for use with fire or windstorm, or combined fire and windstorm policies. Rough Notes 89:69 F '46
Business interruption protection should receive greater consideration from producers; Fireman's Fund. Weekly Underw 155:133+ Jl 20 '46
Gross earnings form strongly advocated; problems in the U.&O. field. H. C. Klein. East Underw 47:31+ S 13; 19-20 S 20 '46; Same cond. Nat Underw 50:5+ S 12 '46
Gross earnings manufacturing form on Pacific coast; similar to mercantile form; also approve premium adjustment. Nat Underw 49:4+ N 8 '45

INSURANCE, Use and occupancy—*Continued*
How to protect merchants' prospective earnings; business interruption, gross earnings form. C. A. Snow. Rough Notes 89:19-21+ F '46
Insurance buyers quiz. H. C. Klein. Spectator (Property ed) 11:30-1 Mr 28 '46
Insurance on business profits. M. H. Stans. J Account 82:120-9 Ag '46
Interruption cover; abstracts. P. M. Winchester. Weekly Underw 155:720+ S 28 '46; East Underw 47:30-1+ S 27 '46
Little call for reporting U. & O; average insured still looks for formula to avoid underinsurance. Nat Underw 50:1 Jl 25 '46
Local agents neglecting U. & O. and extra expense insurance. A. C. Knox. Weekly Underw 154:306+ F 2 '46
Mercantile U. & O. insurance. W. F. Kimball. East Underw 46:61+ D 14 '45
Middle West U. & O. forms revised, now generally uniform; per diem forms out, manufacturing gross earnings in. Nat Underw 50:1+ Ja 10 '46
New U. & O. form in New England; gross earnings form for manufacturers expected to spread. Nat Underw 49:1 D 27 '45
Pacific Board ends 12-month U. & O. shutdown limit. Nat Underw 50:3 F 28 '46
Refutes errors in bulletin of National retail dry goods association criticising U.&O. W. F. Kimball. Nat Underw 49:4+ N 15 '45
Rent, leasehold interest, U.&O. lines readily sold now. G. H. Martin. East Underw 47:22 O 25 '46
Revised dwelling form, new U. & O. forms in Ohio; extended coverage for dwelling risks and several rules changed. Nat Underw 50:3+ F 14 '46
Sell the banker first; value of business interruption insurance where prospect contemplates bank loan. W. A. Cavanaugh. Rough Notes 89:23 F '46
Under-insurance and material shortages face U. & O. field. East Underw 47:1+ Ap 26 '46
U. & O. issue arises again with new building order. Nat Underw 50:4 Ap 11 '46
U. & O. line is one lightly sold today. R. E. Farrer. Nat Underw 50:6 Je 20 '46
U. & O. losses more uncertain now than in war. A. T. Persson. Nat Underw 50:2+ Je 27 '46
U. & O. writing of future. H. C. Klein. Nat Underw 50:5 Mr 14 '46; Excerpts. East Underw 47:25 Mr 15 '46

Adjustment of claims

What's new in U & O adjustments? A. T. Persson. Rough Notes 89:17-18 S '46

Rates

S.E.U.A. OK's adjustable premium U. & O. form. Nat Underw 49:3 N 8 '45

Time element endorsement

Watching time element contracts in certain fields. Nat Underw 50:12 Mr 28 '46

Tuition fee coverage

Tuition fees insurance. T. H. Noll. Spectator (Property ed) 11:34-5 N 22 '45

INSURANCE, Valuable papers
Safeguarding the records of your client's business. R. A. Algire. Rough Notes 89:18 S '46

INSURANCE, War risk

See also
Insurance, Life—War risks
Insurance, Marine—War risks
Insurance, Military and naval service
War damage corporation

Canada

Canada's war risk insurance office. East Underw 46:59 D 14 '45

INSURANCE, Warehousemen's liability
Liability insurance for warehousemen. Spectator (Property ed) 11:28-9 F 14 '46

INSURANCE, Wave and tidal water. See Insurance, Fire—Policies—Extended coverage endorsements

INSURANCE, Weather. See Insurance, Hail; Insurance, Rain; Insurance, Tornado

INSURANCE, Windstorm. See Insurance, Tornado

INSURANCE, Workmen's compensation
Allied compensation insurance co. formed in Los Angeles. East Underw 46:37 N 9 '45
Compensation trends since V-J day. W. A. Sullivan and others. East Underw 47:31 Mr 29 '46; Nat Underw 50:21+ Mr 21 '46
Insurers are watching W.C., particularly occupational disease. Nat Underw 50:3 O 24 '46
Necessity of increased benefits; criticizes policy of rate reduction. R. Fondiller. Nat Underw 50:13 S 5 '46
Outlook in compensation and auto lines. G. Geyer. Nat Underw 50:18+ Ag 29 '46
See benefits in coal mine order. Nat Underw 50:18 Ag 29 '46

See also
Employers' liability
Workmen's compensation

Adjustment of claims

Compensation carrier held liable under employer's evidence that payments in amount of wages were mere donations. Weekly Underw 153:1298 D 1 '45
Complying employer has no right of appeal from award of Ohio industrial commission. Weekly Underw 155:663-5 S 14 '46
Death from heart disease not compensable in absence of proof of accident. Weekly Underw 154:1331 My 18 '46
Expediting compensation awards. R. N. Caverly. East Underw 46:30 N 30 '45
Inference based on disbelief of testimony of only witness to affray held sufficient to warrant award. Weekly Underw 155:579-81 S 7 '46
Over-liberal W.C. decisions peril jobs for impaired. B. E. Kuechle. Nat Underw 50: 39 N 7 '46
Statutory limitations for reopening compensation cases desirable. H. D. Sayer. East Underw 46:32 N 30 '45
Use of movies in combating claims; show workmen still claiming disability but working at other jobs. R. W. Schooley. Nat Underw 50:20 Ja 3 '46
Widow's claim barred where silicosis death occurred after expiration of year from last exposure. Weekly Underw 153:1495 D 22 '45

Agents

Workmen's compensation sales stressed by American Casualty. East Underw 47:34 Jl 5 '46

Commissions

N.J. mutual agents want rule amended; ask National Bureau for commissions on assigned compensation risks. East Underw 47: 28 Jl 19 '46

Finance

N.Y. department traces comp results in 1945; with tabulation by company. Nat Underw 50:17+ Jl 11 '46
35.08% saving for New York insurance group. Sheet Metal Worker 37:47+ F '46

Rates

Annual report as National council general manager; abstracts. W. F. Roeber. East Underw 46:81 D 14 '45; Nat Underw 49:21 D 13 '45
Base rates on compensation insurance for construction, April 1, 1946. Eng N 136:607 Ap 18 '46
Compensation rates up 19.9% in New Jersey. East Underw 46:30 N 23 '45
Compensation writers jolted in Minnesota; recommendations of rating bureau turned down by Board. Weekly Underw 154:74 Ja 5 '46
Denies Neel authority to govern excess rates; Indemnity of North America wins; Pennsylvania court holds excess for self-insurer is contract of loss indemnity. East Underw 47:31+ Je 7 '46
Dineen approves new compensation rates for N.Y. East Underw 47:33 Je 28 '46
Effect on rates of reconversion; report of manager of Compensation insurance rating board of New York. H. D. Sayer. East Underw 47:36-7 F 22 '46; Same cond. Nat Underw 50:24 F 7 '46

INSURANCE, Workmen's compensation—Rates—*Continued*
Explains application of New York premium discount provisions. H. D. Sayer. East Underw 47:42 My 17 '46
Garrison reserves comp. plan decision on four proposed rating plans for large workmen's compensation risks. East Underw 47:36+ Je 11 '46; Nat Underw 50:26 Je 13 '46
Interprets compensation rate changes in Texas. J. P. Gibbs. East Underw 47:30 Ja 18 '46
Martineau rules in favor of RFC in Darin & Armstrong controversy; comprehensive rating plan involved. East Underw 47:27+ Ja 25 '46
Missouri compensation rates up. East Underw 46:29 D 28 '45
New York dept. report hits retrospective rating plans. Nat Underw 50:17+ Ag 29 '46
North Carolina comp. rates advance. East Underw 47:46 O 11 '46
O.K. interstate writing in Texas; interstate rating is being pondered. Nat Underw 50:25 Ja 10 '46
Pursue payroll limitation quest; N.A.I.C. memorializes industry to find way to avoid swings. Nat Underw 50:19 Je 20 '46
Safety efforts bring reduced compensation rates; Constructors association of western Pennsylvania. Roads & Sts 89:90 Ag '46

Risks

Again appeals for disabled; nothing in workmen's compensation policy to hinder employment of veterans who have been hurt in service. J. D. Dorsett. Weekly Underw 155:125+ Jl 20 '46; Excerpts. Nat Underw 50:13 Jl 18 '46
Congressmen impressed by insurer's work; contribution on physically handicapped problem. C. D. Bridges. Nat Underw 49:25+ D 27 '45
Employment of veterans encouraged in Oklahoma. Nat Underw 50:21 Jl 25 '46
Handicapped safety record good; Casualty executives association continues drive to aid injured person. Weekly Underw 155:793+ O 5 '46
Workmen's compensation insurance no job bar to disabled veterans. J. D. Dorsett. Weekly Underw 155:38 Jl 6 '46; Same abr. East Underw 47:32 Jl 12 '46; Nat Underw 50:19 Jl 4 '46
Zurich companies publish declaration of attitude, with respect to employment of disabled. East Underw 47:30 Ja 4 '46; Same. Weekly Underw 153:1407 D 15 '45

Self insurance

Advocates stricter standards for self-insurers. C. M. Graham. Nat Underw 50:19 Ja 3 '46
New York can direct self-insurers on compensation excess placing. Spectator (Property ed) 11:18+ Je 13 '46
Self-insurers new comp rules in New York. Nat Underw 50:13 Ag 1 '46

California

Garrison reserves comp. plan decision on four proposed rating plans for large workmen's compensation risks. East Underw 47:36+ Je 14 '46; Nat Underw 50:26 Je 13 '46
National Automobile of Los Angeles would lose license for six months; deputy commissioner makes suspension demand. East Underw 47:30 Ja 18 '46
Trends in California workmen's compensation business, 1944-1945; tabulations. Spectator (Property ed) 12:8 Jl 25 '46

Great Britain

More insurance anomalies. Economist 150: 292 F 23 '46

Kentucky

Kentucky coal mine explosion points to need for new compensation law. A. W. Williams. East Underw 47:31 Ja 18 '46
Miners may force Kentucky mines to carry compensation. Nat Underw 50:20 Ja 10 '46
Minor children entitled to compensation as wholly dependent on deceased mother despite father's contribution to their support. Weekly Underw 155:511 Ag 31 '46

New Jersey

Compensation rating and inspection bureau annual report; abstract. East Underw 47:34 Je 7 '46

New York (state)

Dineen investigates compensation charges; Department receives complaints that payments for medical and laboratory services are made to unauthorized persons. East Underw 47:32 F 22 '46
Domestic servants' insurance offers new market. Weekly Underw 155:271 Ag 3 '46
Minimum salary compensation rule approved by New York department. Weekly Underw 154:1564 Je 15 '46
New York can direct self-insurers on compensation excess placing. Spectator (Property ed) 11:18+ Je 13 '46
New York dept. report hits retrospective rating plans. Nat Underw 50:17+ Ag 29 '46
Report of manager of Compensation insurance rating board of New York. H. D. Sayer. East Underw 47:36-7 F 22 '46; Same cond. Nat Underw 50:24 F 7 '46
Restricted coverage for N.Y. domestic servants H D. Sayer. East Underw 47:38 O 25 '46
Seeks to end fund discrimination. J. C. Stott. Weekly Underw 154:251+ Ja 26 '46
State fund director has not kept faith with New York agents. J. C. Stott. Weekly Underw 154:632+ Mr 9 '46; Same cond. East Underw 47:32 Mr 8 '46
Van Duzer bill prohibits solicitation by New York state fund. Weekly Underw 154:499 F 23 '46; East Underw 47:31 F 22 '46

Pennsylvania

Denies Neel authority to govern excess rates; Indemnity of North America wins; Pennsylvania court holds excess for self-insurer is contract of loss indemnity. East Underw 47:31+ Je 7 '46

Tennessee

Innocent party to bigamous marriage held dependent although not remarried after employee divorced first wife. Weekly Underw 154:727 Mr 16 '46

Texas

State can't control dividend pattern; Texas Supreme court holds department exceeded authority; Texas Employers case. Nat Underw 50:15 Ja 24 '46
Texas urged to adopt workmen's compensation interstate plan; insularity of procedure criticised at hearing at Austin. Nat Underw 50:20 Ja 3 '46

INSURANCE, Yacht. See Insurance, Motor boat

INSURANCE accountants' association
Annual meeting, 7th, Endicott, N.Y. East Underw 47:35 O 25 '46; Nat Underw 50:3+ O 17 '46

INSURANCE actuaries
Actuary as consultant. J. J. Smick. Nat Underw 49:24-5 N 22 '45
Changing times call for effective actuarial guidance; address at meeting of Actuarial society of America. E. W. Marshall. Nat Underw (Life ed) 49:1+ N 9 '45; Excerpts. East Underw 46:15 N 16 '45
Cite need of federal actuarial office. H. C. Hallam. Nat Underw (Life ed) 49:9-10 N 30 '45; Same abr. Nat Underw 49:21 N 29 '45
Hundreds have studied actuarial science at University of Michigan. W. Scott. East Underw 46:22+ D 14 '45
Launch recruiting program for actuaries. Nat Underw (Life ed) 50:2 N 1 '46
Rating law spread will mean greater need for actuaries. H. J. Ginsburgh. Nat Underw 49: 17+ N 22 '45

See also
Actuarial society of America
American institute of actuaries
Casualty actuarial society
International congress of actuaries

INSURANCE adjusters
Adjusting developments in 1945. J. J. Hermann. Weekly Underw 154:46-7 Ja 5 '46
Independent adjuster must walk taut rope. E. C. Niver. Nat Underw 50:12 O 10 '46

INSURANCE adjusters—*Continued*
Messages of current practical significance at N.A.I.A. adjusting panel. H. N. Fullington and others. Nat Underw 50:18+ S 26 '46
Public relations and claim men. D. Porter. Weekly Underw 155:444-5 Ag 24 '46
Public relations and claim men. M. W. Lewis. Weekly Underw 153:1094 N 10 '45
See also National association of independent insurance adjusters

INSURANCE advertising conference
Advertising Conference had active year. R. W. Smiley. Weekly Underw 154:23+ Ja 5 '46
Annual meeting, Atlantic City, Oct. 13-15. East Underw 47:1, 32, 36-7 O 18 '46; Nat Underw 50:1+ O 17 '46; Weekly Underw 155: 936+ O 19 '46
Spring meeting, Hershey, Pa. Nat Underw 50:9+ My 23 '46; Weekly Underw 154:1344+ My 25 '46; Spectator (Property ed) 11:20 My 23 '46

INSURANCE agents
Advice to young agents. L. C. Hilgemann. Nat Underw 49:33 D 27 '45
Agent is worthy of his hire. H. D. Combs. East Underw 47:37+ My 17 '46
Agents' opportunity. J. A. Diemand. Weekly Underw 154:1474+ Je 8 '46
Agents should insure their future. C. G. Hallowell. Weekly Underw 155:487+ Ag 31 '46
Beat depreciation in dollar value by making more and bigger sales. G. H. Knight. East Underw 47:30 Ag 23 '46
Boston insurance co. outlines program for producers to meet post-war conditions. Weekly Underw 154:508+ F 23 '46
Don't forget the "forgettery book"; sales ideas. M. L. Lane. East Underw 47:30+ pt 2 Je 28 '46
Five-point program for post-war production by agents. R. C. Dreher. East Underw 46: 22+ N 16 '45; Same. Weekly Underw 153: 1124+ N 17 '45; Same cond. Nat Underw 49: 25 N 15 '45
Future of insurance producers; intermediaries and their obligations under public law 15. H. E. Moore. East Underw 47:30+ My 17 '46
Future of the dollar; shrinkage in buying power offers opportunity to sell more insurance. W. B. Bailey. Rough Notes 89:28 Ap '46
Increase your profits with efficient policy writing. B. E. Wortman. Rough Notes 89: 18+ My '46
Insurance salesman must increase income to make up dollar depreciation. G. H. Knight. Weekly Underw 155:766 S 28 '46
Let us be vigilant; address before Indiana agents. C. I. Fisher. East Underw 46:20 D 7 '45; Same cond. Nat Underw 49:5 D 6 '45
More opportunity today than past 25 years. A. E. Redding. East Underw 47:38 S 20 '46
Questions which experts tackled at Indianapolis; pattern for peacetime selling. M. W. Mays. Nat Underw 49:19 D 6 '45
Six principles of sales. F. W. Potter. East Underw 47:40 Ap 26 '46
Tackles controversial topics in talk on inconsistent agents; address before Nebraska producers. C. I. Fisher. Weekly Underw 155:862-4+ O 12 '46; Same cond. East Underw 47:18+ S 20 '46; Abstract. Nat Underw 50:3 S 19 '46
Tells Virginia agents to cash in on opportunities. H. Brown. Nat Underw 50:8 Je 13 '46
Urges agents to protect the public. B. Rush, jr. East Underw 47:26 Ag 30 '46
W. Fred Kohler, ex-orchestra player, leading A. & H. man in his town. East Underw 47:34 Je 28 '46
Walter A. Schaefer, 25 years an agent, running for Congress in northern New Jersey. East Underw 47:29 My 31 '46
Watchtower vigil is recommended to agents. W. H. Bennett. Weekly Underw 155:678 S 21 '46
See also
Insurance associations
Insurance companies—Branch offices
Insurance brokers
also subdivision Agents under various forms of insurance, e.g. Insurance, Industrial—Agents; Insurance, Life—Agents
also American association of insurance general agents; National association of insurance agents; National association of mutual insurance agents

Accounting

How to keep from spending the company's money; commingling of funds. K. N. Burt. Rough Notes 89:38+ O '46; Correction. 89:38 N '46
Producers give views on commingling law at N.Y. hearing. East Underw 47:18+ S 20 '46; Nat Underw 50:1 S 19 '46
Queried on commingling; New York brokers and agents get licenses even if bank accounts are not separated; new ruling pending. East Underw 47:28 O 18 '46

Advertising

Advertising and sales ideas that work. W. H. Roddy. Nat Underw 50:21 Mr 14 '46
Advertising forum makes hit with Indiana agents. E. R. Hurd, jr. and others. Nat Underw 50:23+ O 24 '46
Advertising must be forceful message. E. R. Hurd, jr. East Underw 46:31 N 30 '45
Agency radio advertising. E. S. Anderson. Rough Notes 88:55 N '45
Blotters from his dog charm Bickel's clients. il Nat Underw (Life ed) 50:3+ Jl 19 '46
Building an agency by radio; J. Gordon Gaines agency, Akron, Ohio. H. M. Van Doren. Rough Notes 89:19-20 O '46
Care, caution and courtesy; reducing losses through advertising. L. H. Waldman. il Rough Notes 89:26+ My '46
Cartoons on gift tumblers build sales for New York broker. L. H. Waldman. Nat Underw 50:10 Ja 10 '46; Same. Nat Underw (Life ed) 50:9 Ap 26 '46
Cartoons pinch-hit for personal calls for Leo Waldman, New York city insurance broker. Nat Underw 50:6 N 7 '46; Correction. 50:10 N 14 '46
Direct mail cost in larger cities increasing, returns lower. C. T. Redfield and others. Nat Underw 50:30 O 24 '46; Same. Nat Underw (Life ed) 50:8 O 25 '46
How advertising boosts agency's sales. M. Van Doren. East Underw 47:22 My 31 '46
How to make mail advertising pay. J. W. Mason. Rough Notes 88:17-18 D '45
Multiple media seen key to insurance advertising. J. F. Sheldon. Nat Underw 50:12 My 23 '46
Operations inside agency which build success; effective agency advertising. O. Beling. Weekly Underw 153:1125+ N 17 '45
Personalize your advertising. D. Ross. Rough Notes 89:36+ Ag '46
Personalized blotter. O. C. Smith. Rough Notes 88:36+ N '45
Sales slogans of local agents cited by North America group. East Underw 47:30 Ap 26 '46
Some hints on direct mail for the small business; 15 years have taught insurance agency man lessons about copy, postage, calendars, blotters; Bowen company. H. S. Bowen. il Ptr Ink 214:28-30 Mr 29 '46; Same. Rough Notes 89:34+ Je '46; Excerpts. East Underw 47:46 My 10 '46; Nat Underw 50:13+ Je 27 '46
Why I believe in advertising. F. N. Winter. Rough Notes 88:30+ D '45

Agency management

Able general agents assured about future; nothing disturbing in present insurance picture. E. J. Dickey. Weekly Underw 154: 1117+ My 4 '46; Abstract. Nat Underw 50: 4 My 2 '46
Agency limitation rule relief up in Chicago; issue precipitated by contraction of company groups. Nat Underw 49:1 D 27 '45
Agency perpetuation. D. F. Giberson. East Underw 47:24+ My 17 '46
Agency planning and layout. il Rough Notes 89:30+ My; 40+ Je '46
Answers to ten questions decide if agency is losing ground. O. Beling. Weekly Underw 154:1308 My 18 '46
Coverage, service keys to public confidence; how general agents can help raise standards of producers. H. Brown. East Underw 47:14 My 3 '46

INSURANCE agents—Agency management—*Continued*
Cutting out call-backs; use of business reply card in soliciting small dwelling renewals. Rough Notes 89:34+ Jl '46
Destruction of correspondence; dailies of expired policies. Rough Notes 88:26 N '45
Do's and don'ts for new agents. Rough Notes 89:28 F '46
Expert knowledge and its use means success; abstracts. R. A. Duffus. Nat Underw 50:15 Ap 18 '46; East Underw 47:33 Ap 19 '46
Explains agency good will. W. H. Roddy. Nat Underw 50:27 My 16 '46
Four principles for local agency success. L. J. Ackerman. Nat Underw 50:12 O 24 '46
Hold first northern California agency management meeting. Nat Underw (Life ed) 50:3 Ag 30 '46
Management, selling tips. C. G. Hallowell. Nat Underw 50:4+ S 5 '46
Mergers within fleets worry general agents; problem of dependence on subsidiary units for connections. Nat Underw 49:6 N 15 '45
Multiple invoice billing. Rough Notes 89:28 S '46
N.A.I.A. forum on agency and sales management. O. Beling and others. Nat Underw 50:3 My 16 '46
Operations inside agency which build success. O. Beling. Weekly Underw 153:1125+ N 17 '45
Organization of a successful large agency; Detroit insurance agency. J. R. Gregory. Rough Notes 89:15-17+ F '46
Organization of a successful one-man agency. J. R. Gregory. il Rough Notes 89:15-17+ Ap '46
Pointers on how to increase agency income. W. H. Roddy. East Underw 47:26 Ap 19 '46
Recruiting and training clinic held in Los Angeles. K. Van Winkle and others. Nat Underw (Life ed) 50:7+ Je 28 '46
Re-organization of a successful medium-sized agency; Freese & Jefferson, Bloomington, Ill. Rough Notes 89:15-16+ S '46
Sid G. Spear sells insurance as he used to sell pianos. Rough Notes 88:34+ N '45
Small agency record keeping. R. J. Layton. il Rough Notes 89:26+ Ap '46
Time saved=premium dollars. S. J. McLaren, jr. Rough Notes 89:25 My '46
Tips on agency management; administration as important as sales. O. Beling. Nat Underw 50:18 S 19 '46
Urges general agents to cut down writing large gross lines. C. A. Craft. East Underw 47:19 My 3 '46; Same cond. Nat Underw 50: 6+ My 9 '46

Costs

What it costs to run an insurance agency; survey of insurance agency income, expense and financial standing. J. R. Gregory. Rough Notes 89:17-20+ Je; 15-18+ Ag; 28+ O '46

Agency system

Agency security. H. Brown. East Underw 47: 20+ My 10 '46
Agency system started going 138 years ago. Weekly Underw 154:203 Ja 19 '46; Same. Spectator (Property ed) 11:28 Ja 24 '46
Future of the American agency system; address before New England agents. H. Brown. Weekly Underw 155:34 Jl 6 '46
How agents can help to preserve agency system; address at N.A.I.A. convention; abstracts. D. C. Bowersock. Nat Underw 50: 25+ S 26 '46; East Underw 47:19+ S 27 '46; Weekly Underw 155:717+ S 28 '46
Importance of agency system offers challenge to safeguard its future. H. N. Mann. East Underw 47:18 Ag 30 '46
Industry's growth due to agency system. W. H. Bennett. Nat Underw 50:28+ S 26 '46
Nothing in new rating laws adverse to interests of local agents. A. W. Perkins. Weekly Underw 154:1649+ Je 29 '46
Problems facing career agents. J. E. Rutherford. il Spectator (Life ed) 153:17-21 Ap '46; Excerpt. East Underw 47:13 Ap 12 '46
Strong statement of faith in agency system. J. W. Randall. East Underw 47:33 Jl 26 '46

Collecting of premiums

See Insurance—Premiums, Payment of

Commissions

Agents' commission issue is linked to rate control; excess scale doomed. O. G. Jackson. Nat Underw 50:2 F 21; 6 Mr 28 '46; Same cond. Weekly Underw 154:497+ F 23 '46
Agents' compensation program outlined by NALU committee. Weekly Underw 154:718-19 Mr 16 '46
Attacks level commissions of accident and health. T. T. Wallace. Nat Underw (H. & A. conference no) 50:4 My 24 '46
Challenges supervisory curb on commission; takes exception to idea advanced by new Missouri superintendent. J. J. O'Toole. Nat Underw 50.2+ Mr 7 '46; Same abr. Weekly Underw 154:609+ Mr 9 '46
Commission control in rate regulation; address before Missouri association of insurance agents. O. G. Jackson. East Underw 47:1+ Ap 5 '46
Defends commission structure. J. C. Stott. East Underw 47:26 N 8 '46
Missouri agents inveigh against commission slashes at mid-year meeting. Nat Underw 50:1+ Ap 4 '46; Weekly Underw 154:857+ Ap 6 '46

See also

Insurance, Industrial—Agents—Salaries and commissions
Insurance, Life—Agents—Commissions
Insurance, Workmen's compensation—Agents—Commissions

Company relations

Agency limitation rule relief up in Chicago; issue precipitated by contraction of company groups. Nat Underw 49:1 D 27 '45
Asks closer cooperation from companies; opposes unilateral decisions. C. I. Fisher. East Underw 47:23 O 18 '46
How companies can improve relations with agents. R. M. L. Carson. East Underw 47:21+ My 10 '46
Indemnity company compiles agents' suggestions; would center production on specialty lines; want trained specialists to aid fieldmen and agents. East Underw 47:31 Ja 28 '46
NLRB complaint terms ordinary agent employe; Phoenix Mutual charged with unfair labor practice. Nat Underw (Life ed) 50:3+ Je 28 '46
Writing insurance direct not interference with agent's expirations upon insured's refusal to deal with agent. Weekly Underw 153:1546 D 29 '45

Conventions

Alabama association of insurance agents annual convention, Birmingham. Nat Underw 50:1+ S 19 '46
Arizona association of insurance agents annual meeting, Phoenix. Nat Underw 49:4 N 15 '45
Arkansas association of insurance agents annual convention, Hot Springs. Nat Underw 50:3 My 23 '46
California association of insurance agents annual convention, San Francisco. Nat Underw 50:3+ O 31 '46
California association of insurance agents annual meeting, Los Angeles. Nat Underw 49: 5+ N 15 '45
Colorado association of insurance agents annual meeting, Denver. Nat Underw 50:59+ S 26 '46
Connecticut association of insurance agents annual meeting, Hartford. Nat Underw 49: 31+ N 15 '45
Connecticut association of insurance agents annual meeting, New Haven. Nat Underw 50:6+ O 31 '46
Florida association of insurance agents annual meeting, Miami Beach. Nat Underw 50:2+ Je 27 '46
Georgia association of insurance agents annual meeting, Savannah. Nat Underw 50: 1+ Ag 15 '46
Illinois association of insurance agents annual convention, Peoria. Nat Underw 50: 13-16 S 19 '46
Illinois farm agents association conference, Peoria. Nat Underw 50:1+ Jl 4 '46

INSURANCE agents—Conventions—*Cont.*
Indiana association of insurance agents annual meeting, Indianapolis. Nat Underw 49:23-5 D 6 '45
Indiana association of insurance agents annual meeting, Indianapolis. Nat Underw 50: 23-4 O 24 '46
Iowa association of insurance agents annual convention, Cedar Rapids. Nat Underw 50: 17-19 S 19 '46
Iowa association of insurance agents annual meeting, Davenport. Nat Underw 49:28-9 N 15 '45
Kansas association of insurance agents annual convention, Topeka Nov 7-8. Nat Underw 49:20-4 N 15 '45
Kansas association of insurance agents annual convention, Wichita. Nat Underw 50: 17-20 O 10 '46
Kentucky association of insurance agents annual meeting, Louisville. Nat Underw 50:3+ O 24 '46
Louisiana association of insurance agents annual meeting, Monroe. Nat Underw 50:3+ My 2 '46
Maine association of insurance agents annual meeting, Poland Spring. Nat Underw 50:1+ O 24 '46
Maryland association of insurance agents annual convention, Baltimore. Nat Underw 49:3+ N 22 '45
Massachusetts association of insurance agents annual convention, Worcester. Nat Underw 50:10 O 24 '46
Michigan association of insurance agents annual meeting, Port Huron, Sept. 4-6. Nat Underw 50:29-31 S 12 '46
Minnesota association of insurance agents annual meeting, Hibbing. Nat Underw 50: 1+ S 5 '46
Mississippi association of insurance agents annual convention, Biloxi. Nat Underw 50: 6+ Je 13 '46; Weekly Underw 154:1538+ Je 15 '46
Mississippi association of insurance agents annual meeting, Jackson. Weekly Underw 153:1198 N 24 '45
Missouri association of insurance agents annual meeting, Kansas City. Nat Underw 50:6+ S 12 '46
Montana association of insurance agents annual convention, Butte. Nat Underw 50:2+ Ag 29 '46
Mutual insurance agents association of New England annual conference, Boston. Nat Underw 50:3+ O 10 '46
Nebraska association of insurance agents annual convention, Lincoln. Nat Underw 50: 5+ S 26 '46
New England associations of insurance agents convention, Poland Spring, Me. Nat Underw 50:1+ Jl 4 '46; Spectator (Property ed) 12:10-13+ Jl 11 '46
New Hampshire association of insurance agents annual meeting, Manchester Nov 9. Nat Underw 49:4+ N 15 '45
New Jersey association of insurance agents annual convention, Atlantic City, Oct. 17-18. East Underw 47:21+ O 25 '46; Nat Underw 50:1+ O 24 '46
New Jersey association of insurance agents annual meeting, Newark. East Underw 47: 1+ Ap 19 '46
New York state association of local agents annual meeting, 64th, Syracuse, May 5-8. East Underw 47:1+, 21-2+ My 10 '46; Spectator (Property ed) 11:10-11+ My 9 '46; Nat Underw 50:4+ My 9; 2+ My 16 '46
North Carolina association of insurance agents annual convention, Pinehurst. Nat Underw 50:2+ My 16 '46
Ohio association of insurance agents annual meeting, Columbus. Nat Underw 50:33+ S 12 '46
Ohio association of mutual insurance agents, annual convention, Akron. Nat Underw 50:2+ Ap 18 '46
Oklahoma association of insurance agents annual convention, Oklahoma City. Nat Underw 50:10+ Je 13 '46
Ontario insurance agents' association annual convention, Toronto, Oct. 3-4. East Underw 47:27 O 18 '46
Oregon association of insurance agents annual convention, Portland. Nat Underw 50: 1+ Ag 15 '46
Pennsylvania association of insurance agents annual meeting, Harrisburg. Nat Underw 50:5+ S 12 '46
Rhode Island association of insurance agents annual convention, Providence. Nat Underw 50:12 O 31 '46
Rhode Island association of insurance agents annual meeting, Providence. East Underw 46:22+ N 23 '45; Nat Underw 49:5+ N 15 '45
South Carolina association of insurance agents annual meeting, Charleston. Nat Underw 50:6 Je 13 '46
South Carolina association of insurance agents annual convention, Columbia. Nat Underw 49:3+ N 15 '45
Tennessee association of insurance agents annual meeting, Memphis. Nat Underw 50:19+ O 17 '46
Texas association of insurance agents, annual meeting, Austin. Nat Underw 50:3+ Ap 18 '46
Utah association of insurance agents annual meeting, Salt Lake City. Nat Underw 50: 3+ Ag 29 '46
Vermont association of insurance agents annual meeting, Fairlee. Nat Underw 50:5 S 12 '46
Virginia association of insurance agents annual meeting, Virginia Beach. Nat Underw 50:12 Je 13 '46; Weekly Underw 154:1558+ Je 15 '46
Washington association of insurance agents annual convention, Tacoma. Nat Underw 50.2+ Ag 22 '46
West Virginia assn. of insurance agents annual meeting, Clarksburg. Nat Underw 50: 15+ Jl 25 '46
Wisconsin association of insurance agents annual meeting, Milwaukee. Nat Underw 50: 12-14+ O 17 '46
Wyoming association of insurance agents annual meeting, Casper. Nat Underw 50:4+ S 12 '46

See also
Insurance, Life—Agents—Conventions

Fraudulent practice

Premium finance decision in N.Y.; insurer not liable for agents acting beyond scope of their authorization. Nat Underw 49:8 N 29 '45

Law

Agency partnership contracts. C. F. Merrell and C. J. Barnhill. Rough Notes 89:18+ Ap '46
Agent may work on salary basis; Schoonover v. Indiana insurance department. Spectator (Property ed) 12:26 Ag 8 '46
Argue commerce case in U.S. Supreme court; Robertson vs. California. Nat Underw 50: 1+ Ja 10 '46; Same. Nat Underw (Life ed) 50:1+ Ja 11 '46
Asks companies to tell stand on local boards. J. F. Van Vechten. Nat Underw 50:3+ My 23 '46
California files brief with high court in commerce case; Robertson vs. California; abstracts. Nat Underw 50:2+ Ja 3 '46; Nat Underw (Life ed) 50:3+ Ja 4 '46; East Underw 47:1+ Ja 4 '46
Commerce case arguments scanned for hints; Robertson vs. California. Nat Underw 50: 3+ Ja 17 '46; Same. Nat Underw (Life ed) 50:1+ Ja 18 '46
Commerce issue in California appeal to U.S. Supreme court; Robertson brief. Nat Underw 49:6 D 27 '45; Same. Nat Underw (Life ed) 49:8 D 28 '45
Derides obsolete license laws in Pennsylvania. C. A. Reid. Nat Underw 50:6 S 12 '46
Guiding principles statement draft submitted to field by N.A.L.U.; implemented by proposed model life agents' qualification act. Nat Underw (Life ed) Daily ed 50:7+ S 11 '46
High court upholds state licensing; Robertson vs. California decided in favor of state. Weekly Underw 154:1461+ Je 8 '46
Indiana ban on licensing salaried agents is voided; local agents assn. loses 11 year battle. Nat Underw 50:1 Jl 11 '46

INSURANCE agents—Law—*Continued*
Minnesota general agent wins issue over expirations; renewal commissions involved. Nat Underw 49:6 N 8 '45
Motor dealers to appeal McCormack's decision on license applications; Motor insurance corp. of New York involved. Weekly Underw 153:1198; 154:1015 N 24 '45, Ap 20 '46
NLRB report holds Phoenix Mutual violated labor act; terms ordinary agents employes; asks reinstatement for pair. Nat Underw (Life ed) 50:3+ Ag 16 '46
Oklahoma law permits licensing non-resident special agent. Weekly Underw 154:928 Ap 13 '46
Pennsylvania and Illinois departments reciprocal agreement. Weekly Underw 155: 127 Jl 20 '46
Producers give views on commingling law at N.Y. hearing. East Underw 47:18+ S 20 '46; Nat Underw 50:1 S 19 '46
Push unauthorized insurer curb at Portland meeting; model reciprocity law considered for adoption in additional states. Nat Underw 50:25 Je 13 '46; Same. Nat Underw (Life ed) 50:4 Je 14 '46
Questions of Justices on license issue in Robertson case. Weekly Underw 154:250+ Ja 26 '46
Reciprocal agreement on licensing producers is reached by N.Y. and Pa. East Underw 47:22 My 17 '46
Retroactive pay not barred by sections of N.Y. state law; union agents test law. East Underw 47:1+ Ag 9 '46
Review of 1945 insurance decisions. L. T. Parker. Rough Notes 89:17-18 F '46
Social security and the agent. J. C. Benson. East Underw 47:6 My 31 '46
State license regulations; survey by Illinois insurance department discloses what commonwealths require. Weekly Underw 154: 150-1+ Ja 12 '46
Sweeping victory for state regulation; Supreme court decision in Robertson vs. California. Nat Underw 50:1+ Je 6 '46; Same. Nat Underw (Life ed) 50:1+ Je 7 '46
Text of decision of U.S. Supreme court in Robertson vs. California. Nat Underw 50: 2+ Je 6 '46; Same. Nat Underw (Life ed) 50:2+ Je 7 '46
Vital issue involved in Robertson licensing case. W. H. Bennett. Weekly Underw 154: 1464+ Je 8 '46
Warns against strict qualification laws; abstracts. L. J. Kavanaugh. Nat Underw 50:6 S 26 '46; East Underw 47:45 S 27 '46
West Virginia non-resident brokers license issue; Frank Bell vs. A. J. Davis & co. Nat Underw 49:10 D 13 '45
Writing insurance direct not interference with agent's expirations upon insured's refusal to deal with agent. Weekly Underw 153:1546 D 29 '45
Written tests sought to qualify producers; N.A.I.A. agents qualification committee. Weekly Underw 155:728 S 28 '46

See also
Insurance, Life—Agents—Legal status
Insurance agents—Fraudulent practice

Letters to prospects
Direct mail letters at work. E. A. Buckley. il Rough Notes 89:15-16 My '46
Letter that produced a 30 percent return. il Rough Notes 89:26 F '46

Multiple line selling
California agent advises casualty agents to add life insurance. Nat Underw 50:18 Ja 3 '46
Chides agents for A. & H. neglect. C. C. Washburn. East Underw 46:36 N 16 '45
Envisions insurance clinic, covering all lines. W. G. Gastil. Nat Underw 49:4+ N 22 '45; Same. Nat Underw (Life ed) 49:10 N 23 '45
Unique Chicago life office, conducted by L. S. Broaddus, writes all insurance lines. Nat Underw (Life ed) 50:6 Je 28 '46
Urges local agents to add life insurance to their coverages. W. S. Vogel. East Underw 47:24 N 1 '46
Why life agent should sell accident and health insurance. J. R. Garrett. Weekly Underw 154:86-7 sec 2 My 11 '46

Part-time agents
Some real estate men turn to insurance sales. Nat Underw 50:40 O 24 '46

Public relations
Knowledge is agent's survival key. G. T. Warfield. Weekly Underw 153:1252 D 1 '45
Public attitude change noted. E. Ewing. Weekly Underw 155:932 O 19 '46
PR task never ends. A. Broughton. Nat Underw 50:8 S 12 '46

Records
Record of loss payments. M. Ott. Rough Notes 89:28 Je '46
Small agency record keeping. R. J. Layton. il Rough Notes 89:26+ Ap '46
Spectator insurance survey-register; new system devised by T. A. Riley. Spectator (Property ed) 12:14-17+ S 12 '46

Rural agents
Agent all-important in farm insurance. R. W. Carter. Nat Underw 49:25 D 6 '45
How to sell farmers. G. C. Cundiff and others. Rough Notes 89:19-24 Ag '46
Illinois farm agents association conference, Peoria. Nat Underw 50:1+ Jl 4 '46
Why farm insurers are denying selves income today. B. R. Walinder. Nat Underw 50:22 O 24 '46
Writing farm lines. B. R. Walinder. East Underw 47:25 My 17 '46

Sales conventions
Kansas City association third annual sales congress. East Underw 47:39+ My 3 '46
New sales ideas offered in Chicago insurance day panel. Nat Underw 50:3+ My 30 '46
Sales forum gives N.J. agents' meeting usable pointers for boosting earnings. W. Meiss and others. Nat Underw 50:5+ O 24 '46

Selection
Liberty Mutual's plan for finding and recruiting qualified salesmen. J. F. Morrison. Sales Management 57:154+ S 15 '46
Qualification law not enough; urges field men to appoint only career agents. J. C. Conklin. Nat Underw 50:5 N 7 '46
Selection of staff. D. T. Marantette. East Underw 47:24 My 17 '46

Service
Agent is worthy of his hire; serves fellow men; asset to community. H. D. Combs. Weekly Underw 154:1430-1+ Je 1 '46
Increased building costs provide greater public relations opportunity for agents. H. O'Loughlin. Weekly Underw 155:475-6 Ag 31 '46
Spectator insurance survey-register; new system devised by T. A. Riley. Spectator (Property ed) 12:14-17+ S 12 '46
Successful agents are those who give most to community. J. C. Stott. East Underw 47: 22 S 20 '46; Same. Weekly Underw 155:673+ S 21 '46

Training
Advances in agent training, GI bill setup. C. J. Zimmerman and others. Nat Underw (H. & A. conference no) 50:9+ My 24 '46
Agency building and the returned veteran. J. R. Gregory. Rough Notes 89:34+ My '46
Insurance slow to adopt on-the-job vet training. Nat Underw 50:2+ Ap 4 '46; Same. Nat Underw (Life ed) 50:3+ Ap 5 '46
Life insurance in Denmark; how agents are trained and compensated and how field is supervised. H. Poulsen. East Underw 47:5 N 8 '46
Michigan on-the-job training plan for veterans gets wide support. East Underw 46:22 D 28 '45
Training veterans under G. I. bill held sound. C. J. Zimmerman. Nat Underw (Life ed) 50:5+ My 31 '46

INSURANCE agents—Training—*Continued*
Veterans administration on-the-job training pushed in insurance; G.I. bill entitles vet to subsidies while training. Nat Underw 50:3+ Ja 31 '46; Same. Nat Underw (Life ed) 50.3+ F 1 '46

See also
Insurance—Study and teaching
Insurance, Accident—Agents—Training
Insurance, Life—Agents—Training

Unions

A.F.L. loses to C.I.O. in John Hancock issue. Nat Underw (Life ed) 49:2 N 9 '45
C.I.O. group asks union shop of Metropolitan. Nat Underw (Life ed) 50:10 F 8 '46
Metropolitan, CIO reach agreement. Nat Underw (Life ed) 50:2 Ap 12 '46
NLRB finds insurer influenced election; sets results aside; Ohio agents of Monumental Life. Nat Underw (Life ed) 50:3 Jl 12 '46
Prudential debit men get generous retirement plan; modified form of union shop. Nat Underw (Life ed) 50:2 Jl 5 '46
Prudential endorses union in letter to debit men. Nat Underw (Life ed) 50:2 Jl 12 '46
Union wins retroactive pay increase dispute; agents of Metropolitan Life. Nat Underw (Life ed) 50:5 Je 21 '46
Unions moving to organize debit men in South. Nat Underw (Life ed) 50:3 Je 7 '46
Western & Southern Life must bargain on state-wide basis, says NLRB. Nat Underw (Life ed) 50:24 F 15 '46

Women agents

See also
Insurance, Industrial—Agents—Women
Insurance, Life—Agents—Women

Netherlands

Struggle for power between agents and companies besets Dutch insurance. A. De Bruijn. Spectator (Property ed) 12:36-7 S 26 '46

Texas

Texas agents set to secede if dues of N.A.I.A. soar. Nat Underw 50:3+ Ap 18 '46

INSURANCE agents, National association of. See National association of insurance agents

INSURANCE associations
Data on local board rules issued by NAIA; commendable record cited. East Underw 47:20+ Jl 19 '46; Same. Nat Underw 50:2 Jl 18 '46; Same. Weekly Underw 155:125+ Jl 20 '46
New York ex-fieldmen hold annual meeting. East Underw 47.28+ My '24 46
Paradox of life insurance; competitive business cooperative; sketches about principal life associations, L. A. Lincoln and others. East Underw 47:11-13, 36+ pt 2 O 4 '46
Seek to save rudiments of Chicago Board; agents committee strongly advocates company inclusion on modified basis. Nat Underw 50:1+ Jl 18 '46
Study problems of mixed membership; future of boards with company and agent makeup is clouded. Nat Underw 50:12 My 16 '46
Value of a local insurance board. F. C. Coldridge. Rough Notes 89:17+ My '46
Warns against haste in changing board rules. H. Brown. Nat Underw 50:36 Je 6 '46

See also names of associations, e.g.
Factory insurance association
Federation of insurance counsel
Institute of life insurance
Insurance executives association
Insurance federation of Pennsylvania
National association of insurance agents
National Negro insurance association
Risk research institute

INSURANCE board of Cleveland
Century of public service. Weekly Underw 155:310-11+ Ag 10 '46
Cleveland salutes Insurance board at 100-year mark. Nat Underw 50:1+ Je 27 '46

INSURANCE brokers
Army booklet on insurance selling is published. Nat Underw 50:1+ Mr 7 '46; Same cond. Nat Underw (Life ed) 50:2 Mr 8 '46
George Geyer, leading figure in major insurance stock transactions. por East Underw 46.34 D 28 '45
Los Angeles to tax brokers, but not agents; brokers liable to new professional and business occupational tax. East Underw 47:20 Je 28 '46; Same cond. Nat Underw 50:31 Je 20 '46
Producer is worth what he costs, buyer testifies. W. J. Wiley. Nat Underw 50:3+ F 21 '46
Queried on commingling; New York brokers and agents get licenses even if bank accounts are not separated; new ruling pending. East Underw 47:28 O 18 '46

See also
National association of insurance brokers

Commissions

Robinson-Patman act menace to brokers; payment of commission outlawed, may force them to become agents. E. W. Sawyer. Nat Underw 50:4+ Ap 25 '46
Warns of commission control threat; some officials see rating bill as providing authority. C. F. J. Harrington. Nat Underw 50:17 Jl 4 '46

INSURANCE brokers, National association of. See National association of insurance brokers

INSURANCE brokers association of New York
Annual meeting, 48th, New York, April 23. Weekly Underw 154:1061+ Ap 27 '46

INSURANCE commissioners
Matzke retires from Nebraska department. por Weekly Underw 154:1591 Je 22 '46
Name Donald Dickey Oklahoma commissioner. Nat Underw 50:4 Ag 1 '46; Same. Nat Underw (Life ed) 50:2 Ag 2 '46
New Nebraska director: Donald R. Hodder. por Nat Underw (Life ed) 50:2 Jl 12 '46

See also
National association of insurance commissioners

INSURANCE commissioners, National association of. See National association of insurance commissioners

INSURANCE companies
Asks agents which pre-war helps should be resumed; Royal-Liverpool group, New York. Ptr Ink 214:54+ F 15 '46
Fire insurance companies organized or retired during 1945. Spectator (Property ed) 11:22 F 28 '46
Founders' fire & marine co. of Los Angeles formed. East Underw 47:20 Ap 19 '46; Nat Underw 50:4 Ap 18 '46
Morris plan insurance society changes name to Bankers security life insurance society. Weekly Underw 155:238 Ag 3 '46; Same cond. Nat Underw (Life ed) 50:15 Ag 2 '46
New companies organized in 1945; mergers, changes of control, etc. Weekly Underw 154: 130-1 Ja 5 '46

See also
Lloyd's, London
Mortgage conference of New York

Accounting

A. & H. men renew opposition to statistical call. Nat Underw 50:19+ O 17 '46
Accountants' panel discusses uniform accounting measure; adjustment and loss expenses found chief sources of non-uniformity. Nat Underw 50:1+ Ap 4 '46
Accountants to formulate expense listing practice; requirements of schedule M. Nat Underw 50:21 S 19 '46
Closer tab on expenses complicates accounting; refers to schedule M. G. R. Ladner. Nat Underw 50:6 O 17 '46
Combined fire-casualty statement form studied; Insurance accountants association covers much ground at fall parley. Nat Underw 50:3+ O 17 '46
Cost control studied from all angles by LOMA committees. East Underw 47:3+ S 27 '46
Dineen marshals his arguments for uniform accounting; vital in meeting federal scrutiny he tells N.Y. Legislature. Nat Underw 50:19+ F 21 '46

INSURANCE companies—Accounting—*Cont.*
Fire and casualty telescoped; proposed unified statement blank. T. F. Tarbell. Nat Underw 50:27+ O 24 '46; Excerpt. East Underw 47:35 O 25 '46
Fire and marine expense study announced by Commissioners' committee. Weekly Underw 154:1408+ Je 1 '46
Governor Dewey approves uniform accounts bill. East Underw 47:16 Ap 5 '46
L.O.M.A. cost ratio subcommittee report. Nat Underw (Life ed) 50:6 S 27 '46
New uniform accounts law in New York; abstracts. R. E. Dineen. East Underw 47:18+ Ap 19 '46; Nat Underw 50:2 Ap 18 '46; Nat Underw 50:2+ Ap 25 '46
New York accounting measure soon to be introduced. Nat Underw 50:5 F 7 '46
N.Y. clarifies its call for reinsurance data. Nat Underw 50:4 F 21 '46
New York department gathering data on company expenses. S. C. Davis. East Underw 47:18+ My 17 '46; Abstract. Nat Underw 50:6 My 23 '46
N.Y. Dept.'s intent eyed in uniform accounting measure. Nat Underw 50:2+ F 21 '46
Plan for filing inland marine statistics issued by N.Y. Dept. East Underw 46:78 D 14 '45; Same abr. Weekly Underw 153:1275+ D 1 '45
Practical expense analysis tips. W. H. Crawford. Nat Underw 50:10 My 16 '46
Principles of reinsurance accounting and statistics. J. Raywid. Nat Underw 49:4 D 27 '45
Traveling auditor's value. W. E. Wolfel. Nat Underw (Life ed) 50:11 S 27 '46
Uniform accounting measure in New York; text of bill. East Underw 47:20 F 22 '46
Urges sweeping revisions in statement blanks; form now is barrier to uniform accounting. L. W. Miles. Nat Underw 49:1+ N 22 '45
Urges uniform accounting. T. E. Dewey. Weekly Underw 154:145 Ja 12 '46

Advertising

Companies spent $352,325 for daily newspaper ads. Nat Underw 50:2 My 2 '46
What's the matter with insurance advertising? J. W. Mason. il Adv & Sell 39:74+ My '46

Branch offices

Branch office committee of local agents replies to executive of General insurance co. G. R. Michelsen. Weekly Underw 154:674+ Mr 16 '46; Abstract. Nat Underw 50:5 Mr 14 '46
Cross-counter insurance pays off; Liberty Mutual expands retail selling. B. Moore. il Sales Management 56:45-6+ Ap 1 '46
Defends branch office plan; General of Seattle terms N.Y. City agent middleman, general agent. W. L. Miller. Nat Underw 50:3 F 28; 17 Mr 21 '46
Insurance shops; Liberty Mutual experiment with ground-level stores. il Bsns W p44+ S 7 '46
Liberty Mutual's insurance store, Evanston, Illinois. il Am Bsns 16:19 Ja '46
N.A.I.A. branch office parley; abstracts. G. R. Michelsen and others. Nat Underw 50:42 S 26 '46; East Underw 47:41 S 27 '46
NAIA committee asks support on branch offices. East Underw 47:27 S 27 '46
Swiss-German insurance litigation brings up issue of liability of head offices for foreign operations. Weekly Underw 154:1652+ Je 29 '46
Traveling auditor's value. W. E. Wolfel. Nat Underw (Life ed) 50:11 S 27 '46

Consolidation

Mellon indemnity corporation merges with General reinsurance corporation of New York. Weekly Underw 153:1121+ N 17 '45
Paul Revere absorbs Massachusetts Protective. East Underw 47:1+ O 25 '46; Nat Underw 50:37 O 24 '46; Nat Underw (Life ed) 50:25 O 25 '46

Costs

Cost control studied from all angles by LOMA committees. East Underw 47:3+ S 27 '46
Life expense ratio up; 13.7 per cent figure for 1945 compares with 13.6 per cent during 1944. Weekly Underw 155:768 S 28 '46; Same cond. Nat Underw (Life ed) 50:1 S 27 '46
L.O.M.A. cost ratio subcommittee report. Nat Underw (Life ed) 50:6 S 27 '46
Need true death claim cost study; L.O.M.A. committee report. Nat Underw (Life ed) 50:11 S 27 '46
Profits, commissions are modest compared with other businesses. C. W. Smitheman. East Underw 47:21 Ap 26 '46
Survey cost control features; L.O.M.A. cost committee questionnaire. Nat Underw (Life ed) 50.10 S 27 '46

Direct selling

Liberty Mutual's insurance store, Evanston, Illinois. il Am Bsns 16:19 Ja '46

Employees

Asks insurance executives to fight inflationary moves for sake of their employes. C. Fennell. Nat Underw (Life ed) 50:8 Mr 8 '46
Bond quota exceeded; Life insurance division completes 638,000 sales for $122,000,000. Weekly Underw 153:1491 D 22 '45
Educational activities for non-sales employes are all but non-existent. J. A. McLain. Nat Underw 50:4 O 24 '46; Same. Nat Underw (Life ed) 50:6 O 25 '46
Equitable writes unusual group case; solicitors of Buckeye Union agencies offered coverage. Nat Underw (Life ed) 50:4 Mr 15 '46; Same. Nat Underw 50:26 Mr 14 '46
Higher salaries may save money for company; other personnel policies. A. A. Rydgren. Nat Underw (Life ed) 50:6 S 27 '46
Induction session for new Metropolitan Life employes. East Underw 47:4+ Je 14 '46
Influenza vaccinations free to Home Life people. Weekly Underw 155:963 O 19 '46
Living-cost rise brings actions on salary increases. Nat Underw 50:5 N 7 '46; Same. Nat Underw (Life ed) 50:3 N 8 '46
Management should not fear clerical unionization. H. E. Niles; L. Merrill. Nat Underw (Life ed) 49:11 N 16 '45
Mutual Life, New York, offers agents insurance; will cover life, A&H, hospital and surgical costs. Weekly Underw 155:280 Ag 3 '46
Mutual personnel director talks on employe efficiency. H. R. Bixler. Nat Underw (Life ed) 50:4 Ap 26 '46
New England Mutual dramatizes workday for its employes; more than 100 employes take part in presentations. il East Underw 47:1+ My 3 '46
New York companies victory bond sales. R. C. Johnson. East Underw 46:10 D 28 '45
Now every day is school day at Standard Accident. D. G. Baird. il Sales Management 56:139+ F 15 '46
Office help shortage still acute. H. T. Abrams. Nat Underw (Life ed) 50:8 Ap 12 '46
Personnel problems facing employers. J. W. Miller. Nat Underw 50:34 My 16 '46
Physical exams fall short in hiring new employees. Nat Underw (Life ed) 50:3 My 17 '46
Salary bonus for Lincoln National employes; retirement program liberalized; dividend in stock to be voted. Weekly Underw 155:1031 O 26 '46
Shortage of female help worse than in wartime. Nat Underw 50:10 O 10 '46; Same. Nat Underw (Life ed) 50:5 S 27 '46
Tells employes how Mutual Life operates; colored slides, charts explain surplus building, other safety factors; abstracts. L. W. Douglas. East Underw 47:8 Ap 12 '46; Nat Underw (Life ed) 50:2 Ap 12 '46
30,000 veterans work in life insurance now; constitute 12% of personnel; more women hired. Weekly Underw 154:842 Mr 30 '46; Same cond. Nat Underw (Life ed) 50:9 Mr 29 '46
Tips on personnel administration; abstracts. R. M. Green. Nat Underw (Life ed) 50:2+ My 17 '46; Weekly Underw 154:1326 My 18 '46

INSURANCE companies—Employees—*Cont.*
Train Hancock war vets in administration. East Underw 47:4 F 15 '46

Employees' pensions

Metropolitan gives annuity credits to employe veterans. Nat Underw (Life ed) 50:9 Ja 4 '46

Examination

Dineen lays down special probe procedure. Nat Underw 50:3 Je 27 '46; Same. Nat Underw (Life ed) 50:10 Je 28 '46
Fireworks galore on examinations issue at Portland. Nat Underw 50:3+ Je 20 '46; Same abr. Nat Underw (Life ed) 50:3+ Je 21 '46
Procedure set up for examining company pools; N.A.I.C. at Portland authorizes annual visitation. Nat Underw 50:2+ Je 20 '46
Zone 6 examination proposal adopted by N.A.I.C. on 6-months trial. Nat Underw 50:36 Je 13 '46; Same. Nat Underw (Life ed) 50:3 Je 14 '46

Finance

Aggregates of stock, fire and marine companies, mutual fire companies, 40 reciprocal, inter-insurers exchanges and Lloyds organizations for 1945. Spectator (Property ed) 12:10-13 S 26 '46
Argus chart reports on 1945 aggregate results. Nat Underw 50:1+ Mr 28 '46
Fleet underwriting results for 1945 offer a composite, multiple line picture; with tabulation. Spectator (Property ed) 11:12-15+ Ap 11 '46
Net premiums and loss figures for 1945 on fire specialty lines; with tabulation by company. East Underw 47:1+ Mr 15 '46
Record of premium production by states, 1939 and 1944; fire, casualty and surety, and life; tabulation. Spectator (Property ed) 11:20 O 25 '45; Revised table. 11:8 Ja 24 '46
Stock fire 1945 experience by lines from Argus fire charts. Nat Underw 50:2-4 Mr 28 '46
Underwriting and investment profits and losses of 100 casualty, surety and miscellaneous companies, 1935-1944; tabulation. Spectator (Property ed) 11:16-17 D 20 '45

See also names of companies, e.g. Connecticut mutual life insurance company; Metropolitan life insurance company

Foreign branches (in United States)

Alien property custodian tells of insurance wards. Nat Underw 50:16 O 24 '46

Foreign business

American expansion to foreign lands; multiple line underwriting is solution. East Underw 46:107 D 14 '45
American insurance abroad; abstracts. C. B. P. Carvalho. East Underw 47:44 Mr 15 '46; Weekly Underw 154:744-5+ Mr 23 '46
Backs standardization of definitions, rules at Hemispheric conference; abstracts. A. M. Cerne. East Underw 47:18 My 17 '46; Nat Underw 50:4 My 16 '46
Blacklist suspension may open up some new fields. Nat Underw 50:40 O 24 '46
Brisk demand expected among foreigners for life insurance in U.S. companies. Weekly Underw 153:1426 D 15 '45
Carrying ball into far corners of earth. F. L. Brokaw. Weekly Underw 154:6 Ja 5 '46
Dept. of commerce Insurance division chief, Jerome Sachs, starts series of conferences with insurance company executives. East Underw 47:1+ Mr 1 '46
Dept. of commerce to aid insurance expansion abroad. Nat Underw 50:1+ F 21 '46; Same abr. Nat Underw (Life ed) 50:2+ F 22 '46
Exporting British insurance. Economist 151: 502+ S 28 '46
Foreign expansion ahead. A. E. Gilbert. Nat Underw 49:2 D 27 '45
Foreign insurers; group in which British and Scotch capital predominates has weathered war well. Bsns W p78 D 8 '45
Insurance aim; U.S. companies want business in Latin America. Bsns W p46+ F 2 '46
Program of Insurance division of Office of international trade, Department of commerce. J. Sachs. Weekly Underw 155:958-9 O 19 '46
Swiss-German insurance litigation brings up issue of liability of head offices for foreign operations. Weekly Underw 154:1652+ Je 29 '46
Urges U.S. insurers to tackle problem of insuring U.S. tourists in Latin America. V. Lemmon. Nat Underw 49:42 N 15 '45

Forms, blanks, etc.

Ask more time for acting on blanks changes; five industry groups complain of retroactive procedure. Nat Underw 50:5+ Je 13 '46; Same. Nat Underw (Life ed) 50:2+ Je 14 '46
Blanks committee decides upon important changes. Nat Underw 50:3 My 2 '46
Fire and casualty telescoped; proposed unified statement blank. T. F. Tarbell. Nat Underw 50:27+ O 24 '46; Excerpt. East Underw 47:35 O 25 '46
New Michigan rules on modification of applications in home offices. Nat Underw 50: 20 O 31 '46; Same. Nat Underw (Life ed) 50:4 N 1 '46
Standardizing daily report form points to policy face revisions. Nat Underw 50:1 Ag 1 '46

Investments

California limitation on investments; ruling by Attorney general. Nat Underw 50:6 Ag 1 '46; Same. Nat Underw (Life ed) 50:13 Ag 2 '46

Valuation

Defer preferred stock valuation action; Commissioners group recommends oil production loan procedure. Nat Underw (Life ed) 50:3+ My 31 '46; East Underw 47:1+ My 31 '46; Weekly Underw 154:1403 Je 1 '46
Opposition hits stock gyration reserve proposal; attacked as impairing capacity, dividend-paying ability, general standing; hearing before NAIC committee. Nat Underw 50:4+ My 23 '46
Tighten yield test for amortizable bonds still further; N.A.I.C. action brings level of return close to ultimate goal. Nat Underw 50:4+ Je 13 '46; Same. Nat Underw (Life ed) 50:4+ Je 14 '46
Urge new basis for valuation of preferred stocks; life men ask that N.A.I.C. offset drastic value shifts. G. N. Emory. Nat Underw (Life ed) 50:3+ My 24 '46

Management

Aid to executive wisdom; review of Insurance as interstate commerce by E. W. Sawyer. C. G. Hale. Spectator (Property ed) 11:10-14 Mr 14 '46; Same. Spectator (Life ed) 153:6-8+ Ap '46
Directing company office systems full time job. R. A. Taylor. Nat Underw (Life ed) 50:4 S 27 '46
Fire insurance management holds the key to progress. C. F. Rupprecht. Spectator (Property ed) 11:10-14+ N 8; 10-14+ D 6 '45
Home office management. G. Edwards. East Underw 47:47 My 24 '46
Home office underwriting after year of peacetime conditions. A. P. Morton. East Underw 47:26 pt 2 O 4 '46
Insurance company office machines. N. H. Wilson. East Underw 46:34+ D 14 '45
Management progress in fifty years. R. M. Green. East Underw 47:3+ S 27 '46
Many problems confront company executives. Nat Underw 49:5+ N 29 '45
Organization, executive capacity and progress. H. A. Hopf. Advanced Management 11:34-47, 69 Je '46

See also Life office management association

Multiple line writing

American expansion to foreign lands; multiple line underwriting is solution; attack on N.Y.'s Appleton rule predicted. East Underw 46:107 D 14 '45
Appleton rule held arbitrary by mutuals. Weekly Underw 154:619 Mr 9 '46
Dineen bars request on Appleton rule; turns down fire mutuals. East Underw 47:16 Ja 11 '46

INSURANCE companies—Multiple line writing —*Continued*
Extend plan of classifying fire, marine, casualty; N.A.I.C. fire and marine committee. Nat Underw 49:28 D 6 '45
How industry would sort insurance lines; fire, marine and casualty classification. Nat Underw 49:3+ D 13 '45
Massachusetts multiple line law in effect Aug. 9. East Underw 47:32 Je 14 '46; Nat Underw 50:36 Je 13; 4 Je 27 '46
Multiple line bills hotly debated in New York. Nat Underw 50:4 Mr 7 '46
Multiple-line underwriting bills are introduced in New York state; with text. Spectator (Property ed) 11:34+ F 14 '46
Multiple powers proposals growing in acceptance; abstracts. J. S. Hamilton, jr. East Underw 46:36+ D 21 '45; Nat Underw 49:36 D 20 '45
Multiple recommendations asked by Diemand committee. Weekly Underw 154:378 F 9 '46
On the march to multiple line writing; abstracts. J. A. Diemand. Nat Underw 50:1+ Ja 31 '46; Weekly Underw 154:249+ Ja 26 '46; East Underw 47:18+ Ja 25 '46; Management R 35:102-3 Mr '46
Pleads cause of multiple line underwriting. S. B. Hopps. Nat Underw 50:5 Ap 4 '46
Recommendations made to commissioners by fire and marine committee; industry-wide classification plan; abstracts. Weekly Underw 153:1314+ D 8 '45; East Underw 46:18+ D 7 '45
Risk research institute presents multiple bills; New York measures based upon recommendations of Diemand committee. Weekly Underw 154:369+ F 9 '46; Same cond. East Underw 47:19 F 8 '46; Abstract. Nat Underw 50:3 F 7 '46

Officials

Barbour to retire as U.S. manager of Northern assurance co.; Patton succeeds to head post. East Underw 47:1+ Jl 12 '46
Brief review of events occurring in 1945; official changes; death roll. pors Weekly Underw 154:124-30, 131-4 Ja 5 '46
Changes in executive direction of Royal, Globe and Eagle indemnity companies. East Underw 47:28-9 Je 28 '46
Connecticut Mutual Life promotions. East Underw 47:3 O 25 '46
Culver chairman, Christensen America Fore president. Nat Underw 50:1+ Je 27 '46
Culver chairman; Christensen president; America Fore advances two chief executives. C. Axman. East Underw 47:17-18 Je 21 '46
Equitable Society head office changes. C. Axman. pors East Underw 47:3+ Mr 1 '46
Falk and Black made assistant U.S. managers Royal-Liverpool group. East Underw 46:1 D 28 '45
Hebert president, Cruttenden chairman of Springfield fire & marine. Nat Underw 50: 4+ Mr 14 '46
Home office promotions at Mutual Benefit. East Underw 47:3+ Ag 9 '46
McConney Bankers Life president; Nollen chairman. Nat Underw (Life ed) 50:1+ Ap 12 '46
Many promotions at State Mutual Life. pors East Underw 47:3+ F 22 '46
Mutual Benefit Life executive changes. pors East Underw 47:3-4 Ja 25 '46; Nat Underw (Life ed) 50:1+ Ja 25 '46
Prudential names three new second vice-presidents; new industrial division. pors Weekly Underw 153:1162 N 17 '45
Shanks Prudential president; D'Olier chairman. pors East Underw 47:3+ Ja 4 '46; Nat Underw (Life ed) 50:1+ Ja 4 '46

Public relations

Financial editor suggests life companies explain their operations to policyholders. L. Gould. Weekly Underw 154:964 Ap 13 '46
Industry acceptance basic in public relations. H. J. Johnson. Weekly Underw 152:1110 N 10 '45
Letters to policyholders vital in public relations. Nat Underw (Life ed) 50:11+ Jl 19 '46
New public interest in insurance being met; expanded public relations campaign of National Board reaching entire business; abstracts. E. Ewing. East Underw 47:1+ My 3 '46; Weekly Underw 154:1113+ My 4 '46; Nat Underw 50.1 My 2 '46
New public relations plan in surety field. D. Porter. East Underw 47:44 My 17 '46
Penn Mutual sets up policyowners bureau. East Underw 47:14 Je 28 '46
Public relations program of National Board made important progress during year. East Underw 47:17 My 31 '46
Public relations programs must be continuous and strong; Pittsburgh address. H. G. Helm. East Underw 47:20 Mr 8 '46; Excerpts. Nat Underw 50:13 Mr 7 '46
U.S. now public's potent spokesman; aspects of public relations. J. A. Diemand and G. G. Traver. Nat Underw 50:9+ My 16 '46
Urges trustee attitude to better serve public; abstracts. H. J. Johnson. Weekly Underw 154:1438 Je 1 '46; East Underw 47:9 My 24 '46
What a city editor thinks about insurance; business could be franker with newspapers in handling news; abstracts. C. V. Cefola. East Underw 47:4+ N 1 '46; Weekly Underw 155:1025 O 26 '46
What's wrong with insurance. W. W. Clement. Spectator (Property ed) 12:14-15 Jl 11 '46

Real estate operations

See also
Insurance, Life—Real estate operations

Receiverships

Detroit Life receivership dissolved after 10 years. East Underw 46:13 N 30 '45; Nat Underw (Life ed) 49:13 N 30 '45
Ernest Palmer's order of 13 years ago knocked out; court orders Illinois national casualty stock returned to Reiter. Nat Underw 50:26+ Mr 14 '46
Public officials honor General American for carrying out Missouri State promises. East Underw 47:3+ My 3 '46; Nat Underw (Life ed) 50:1+ My 3 '46
Receiver files report in Central Mutual case. Nat Underw 50:21+ Mr 28 '46
Trucker can't dodge Central Mutual levy; assessment of $9,280 against Iowa assured upheld by federal court. Nat Underw 50:26+ Mr 14 '46

Records

Insurance accountants urged to use punched card system. Nat Underw (Life ed) 50:7 My 17 '46
Micro-filming of insurance records. L. C. Wesender. East Underw 47:41 My 17 '46
Northwestern Mutual's microfilming; used in problems of file control, destruction of records and provision against catastrophe hazard; inventions of actuary E. G. Fassel. East Underw 47:16 Ap 12 '46
Penn Mutual develops new rating system; develops studies of business sold. East Underw 47:6 My 31 '46

Regulation

A. & H. bureau enunciates position on regulation; treats policy provisions and advertising; claim practices, rates. Nat Underw 50:23+ My 2 '46; Same. Nat Underw (Life ed) 50:2+ My 3 '46
A. & H. regulatory bill without rate control offered; Conference submits comprehensive legislation to all-industry group. Nat Underw 50:27+ O 24 '46; Nat Underw (Life ed) 50:2+ O 25 '46; East Underw 47:31+ O 25 '46; Weekly Underw 155:1005+ O 26 '46
Aid to executive wisdom; review of Insurance as interstate commerce by E. W. Sawyer. C. G. Hale. Spectator (Property ed) 11:10-14 Mr 14 '46; Same. Spectator (Life ed) 153:6-8+ Ap '46
All-industry bills scored by insurance buyers; position of Risk Research. East Underw 47:31 O 25 '46
All-industry group rejects Sawyer proposal. Nat Underw 50:1 O 31 '46; Same abr. Nat Underw (Life ed) 50:3 N 1 '46

INSURANCE companies—Regulation—*Cont.*

A.B.A. Insurance section committee report. Nat Underw 49:6 D 20 '45; Same. Nat Underw (Life ed) 49:5 D 21 '45

Answers critics of all-industry bills. C. M. Smith. Nat Underw 50:28 O 24 '46

Backs rate competition; Public law 15 not designed to authorize establishment of rigid, non-competitive rate structure. M. M. Gorman. East Underw 47:21 N 1 '46; Excerpts. Nat Underw 50:1+ O 31 '46; Weekly Underw 155:1115+ N 9 '46

Boston meeting takes industry bills apart. D. C. Bowersock and others. Weekly Underw 155:1058 N 2 '46

California Physicians Service not insurance; state Supreme court ruling. East Underw 47:46 S 27 '46

Challenge, opportunity in P. L. 15; address before Insurance brokers association of New York. E. W. Sawyer. East Underw 47:33 Ap 26 '46

Commissioners see state supervision in a stronger position than before; problem of rate approval. East Underw 46:52+ D 14 '45

Conflicts in making insurance federally O.K. T. C. Clark. Nat Underw (Life ed) 50:10 Mr 22 '46; Same abr. Nat Underw 50:8 Mr 21 '46

Demands halt in concentration of power in executive arm of government; abstracts. D. E. Satterfield. Weekly Underw 153:1440 D 15 '45; East Underw 46:5 D 21 '45

Developing regulation formula; all-industry committee has done excellent work to meet new requirements. E. M. Ackerman. Weekly Underw 154:799-800 Mr 30 '46

Discusses new rate laws; tells Bar association regulations must preserve rights of carriers. R. E. Dineen. Weekly Underw 153:1456 D 22 '45; Same. East Underw 46:34 D 21 '45; Same abr. Spectator (Property ed) 11:26 D 20 '45; Abstract. Nat Underw 49:5+ D 20 '45

Dual system of insurance control in Canada; abstracts. J. A. Tuck. East Underw 47: 9 O 11 '46; Nat Underw 50:12 O 10 '46; Same. Nat Underw (Life ed) 50:30 O 11 '46

Effect of Public law 15 on the insurance business; address before Vermont agents. E. C. Stone. Weekly Underw 154:1490+ Je 8 '46

Endorses regulatory proposals of insurance lawyers; gives General brokers association progress report. C. F. J. Harrington. East Underw 47:34 N 1 '46

Fear federal control in economy planning; resolution passed by Maryland agents. Weekly Underw 155:302 Ag 10 '46

Federal trade commission act. H. S. Redeker. East Underw 46:3+ N 9 '45

Federal trade commission urging TNEC program; prohibits interlocking directorships and affects directors; makes officials liable for violations. Weekly Underw 154:197+ Ja 19 '46

Finds significance in recent words of Justice Stone. F. J. Wright. Nat Underw (Life ed) 49:17 D 14 '45

Fire-casualty rate bills; abstracts. R. E. Dineen. Weekly Underw 155:470+ Ag 31 '46; East Underw 47:12 Ag 23 '46

Fire insurance and U.S. Supreme court decision. S. L Carpenter, jr. Rough Notes 89:38+ F '46

Free enterprise and insurance regulation; address before New England associations of insurance agents. W. Berge. Comm & Fin Chr 164:205+ Jl 11 '46; Same. Nat Underw 50:1+ Jl 4 '46; Same. Spectator (Life ed) 154:10-13+ Ag '46; Same abr. Nat Underw (Life ed) 50:3+ Jl 5 '46; Excerpts. Weekly Underw 154:1653+ Je 29 '46; Spectator (Property ed) 12:10-12 Jl 11 '46

Future regulation need not be too strict; abstracts. R. G. Heiner. East Underw 47:35 My 10 '46; Nat Underw 50:15+ My 9 '46

Georgia attorney general gives insurance legislative views. E. Cook. Nat Underw 50:3 Ag 8 '46

Government and the insurance business. J. C. O'Mahoney. Comm & Fin Chr 162:3007+ D 20 '45; Same abr. Weekly Underw 153:1309+ D 8 '45; Abstracts. East Underw 46:31+ D 7 '45; Nat Underw 49:4 D 6 '45; Nat Underw (Life ed) 49:6 D 7 '45

Hemispheric insurance conference stresses need for free enterprise; with text of Chilean resolution. T. Espinosa and J. Bande. East Underw 47:3 My 17 '46; Excerpt [English and Spanish]. Weekly Underw 154:1274 My 18 '46

Home rule should apply in state regulatory laws; address before Illinois and Nebraska agents. E. C. Stone. East Underw 47:44 S 27 '46

Insurance and anti-trust laws; address before Insurance law section, American bar association. W. Berge. Comm & Fin Chr 164:2341+ N 7 '46; Excerpts. East Underw 47:1+ N 1 '46; Nat Underw 50:1+ O 31 '46; Weekly Underw 155:1049+ N 2 '46

Insurance as interstate commerce. E. W. Sawyer. 169p $2.50 McGraw-Hill book co, 330 W. 42d st, New York 18 '45

Insurance has life and death stake in free economy; censure of growing bureaucracy. E. Cox. East Underw 47:12 S 6 '46

Insurance is interstate in fact; trend had already begun; sees good in self-analysis; annual SEUA report. C. S. Whitner. East Underw 47:24 My 31 '46

Insurers seek regulation by the states. Bsns W p19-20 O 26 '46

Is insurance competitive? C. G. Hale. Spectator (Property ed) 11:10-11+ Je 27 '46

Justice men answer categorically; clear up many points in three hour Atlantic City Q & A session. M. Gorman; W. Berge. Nat Underw 50:22, 30 O 31 '46

Legalistic-minded people are trying to establish visible police force within states. G. W. Carter. Weekly Underw 153:1317+ D 8 '45

McCarran surveys states' progress in PL 15 area. Nat Underw 50:3 Ag 29 '46; Same. Nat Underw (Life ed) 50:4 Ag 30 '46

Minimum regulation aids Rhode Island. C. I. Fisher. East Underw 47:26 N 8 '46

Minimum regulation views backed; presents buyers' attitude on many insurance problems. K. C. Bell. East Underw 47:22+ N 1 '46

Nationalized rating proposed at Commissioners' committee meeting; Meeting of all-industry committee at Syracuse. Weekly Underw 155:591+ S 14 '46

Need for maintaining state insurance control. D. E. Satterfield, jr. East Underw 47:14 S 13 '46; Same. Weekly Underw 155:648-9+ S 14 '46; Abstract. Nat Underw (Life ed) Daily ed 50:24 S 11 '46

New legal insurance environment. H. J. Ginsburgh. East Underw 46:28 N 23 '45

Opposes rating bills as now framed; Chicago address. E. W. Sawyer. Nat Underw 50:5+ S 26 '46

Paraphrase of Public law 15. D. E. Satterfield. Nat Underw 50:12 O 10 '46

Predictions as to court holdings; puts magnifying glass on PL 15. C. J. Cover. Nat Underw 50:2+ Ja 31 '46; Same. Nat Underw (Life ed) 50:2+ F 1 '46

Program for maintenance of state regulation. J. F. Van Vechten. East Underw 47:27 Mr 1 '46

Public law 15. E. W. Sawyer. Spectator (Life ed) 153:9-13+ Ap '46

Public law 15 challenge to insurance business; address before A.L.C. meeting. D. E. Satterfield, jr. East Underw 47:4 O 11 '46; Excerpt. Nat Underw 50:33 O 10 '46; Same. Nat Underw (Life ed) 50:22 O 11 '46

Public law 15 fraught with danger through laws which may hamstring freedom of action. E. L. Clark. East Underw 47:32 Je 28 '46

Public law 15 sized up; Pittsburgh insurance day program. E. C. Stone; E. W. Sawyer. East Underw 47:26+ Mr 8 '46

Publicity as substitute for policing. W. R. McCain. Nat Underw 50:1+ Ja 3 '46

Puts glass 8 years hence on S.E.U.A. decision and public law 15. F. G. Dickinson. Nat Underw 50:6 F 7 '46

Regimentation, public or private; address before St Louis agents; abstracts. E. W. Sawyer. East Underw 47:31+ O 4 '46; Nat Underw 50:1+ O 3 '46

Replies to critics of all-industry-commissioners' bills; Chicago address. R. E. Dineen. East Underw 47:21-2 O 18 '46; Same cond. Nat Underw 50:1+ O 17 '46; Excerpts. Weekly Underw 155:931+ O 19 '46

INSURANCE companies—Regulation—*Cont.*
Reviews year's legal changes at A L C meeting. B. Cox. East Underw 46:8 N 9 '45
Rights of states in two cases upheld by U.S. Supreme court; Prudential loses South Carolina premium tax case; California keeps licensing power. East Underw 47:1+ Je 7 '46; Weekly Underw 154:1461+ Je 8 '46
Robinson-Patman act suggestions approved by all-industry committee; proposals on brokerage commissions, anti-rebate and anti-discrimination laws. East Underw 47: 30 S 13 '46
Robinson-Patman report adopted by all-industry group at Syracuse meeting. Nat Underw 50:4 S 12 '46; Same. Nat Underw (Life ed) 50:4+ S 13 '46
Sees classical insurance era; decision in S.E.U.A. case may not be catastrophe. R. D. Williams. Weekly Underw 153:1189+ N 24 '45
Sherman act. F. V. Keesling. East Underw 46:14 N 9 '45
Sketches his idea of adequate legislation; address before Kansas agents. E. C. Stone. Nat Underw 50:17+ O 10 '46
Some federal rule sure. A. L. Kirkpatrick. Nat Underw 49:14 N 8 '45
State control spells loss of efficiency as well as freedom; address before Hemispheric conference. J. W. Randall. Nat Underw 50:14 My 16 '46; Same. Nat Underw (Life ed) 50:2 My 17 '46
State rate laws need not be uniform; address before Missouri agents. E. C. Stone. Nat Underw 50:37+ S 12 '46
Suggestions to meet public law no. 15; address before insurance section, American bar association; abstracts. E. W. Sawyer. Weekly Underw 153:1453+ D 22 '45; East Underw 46:35+ D 21 '45; Nat Underw 49:23+ D 20 '45; Nat Underw (Life ed) 49:4+ D 21 '45
Sweeping victory for state taxes and regulation; Supreme court decisions in Robertson vs. California and South Carolina Prudential case. Nat Underw 50:1+ Je 6 '46; Same. Nat Underw (Life ed) 50:1+ Je 7 '46
Threat of nationalization; address before New York state association of local agents. J. C. Stott. Weekly Underw 154:1173+ My 11 '46
Uniformity of regulation essential to A. & H. insurance development. J. F. Follmann, jr. East Underw 47:30 Jl 26 '46
Urges caution in regulatory laws; address before Ohio association of insurance agents; abstracts. E. W. Sawyer. East Underw 47: 43+ S 13 '46; Nat Underw 50:33 S 12 '46
Urges prompt action to clear boards and organizations of rules which may be illegal. E. C. Stone. East Underw 46:31 N 30 '45
Urges retailers to fight against all-industry rating bills. W. W. Clement. Nat Underw 50:3+ O 24 '46
Urges statutory provisions granting insurance powers be overhauled; address before American bar association; abstracts. R. H. Blanchard. Weekly Underw 153:1509+ D 29 '45; Nat Underw (Life ed) 49:3+ D 21 '45; East Underw 46:22 D 21 '45
Various aspects of commerce decision and law 15 discussed. E. C. Stone. Weekly Underw 155:69+ Jl 13 '46
Views on rate approval laws; Philadelphia address. E. C. Stone. East Underw 47:39-40 My 10 '46
Vigorous thought and action urged to solve problems. E. M. Allen. Weekly Underw 154: 1472 Je 8 '46; Same cond. East Underw 47: 31+ Je 7 '46
Ways to meet U.S. laws; address before North Carolina agents. J. A. Diemand. East Underw 47:34 My 10 '46
What's ahead of us? Pittsburgh address. E. C. Stone. Weekly Underw 154:705-7+, 770-2 Mr 16-23 '46
Why regulate insurance rates? F. J. Marryott. Weekly Underw 155:1063-5, 1124-7, 1184-5 N 2-16 '46; Abstract. Nat Underw 50:19+ O 31 '46
Will of Congress is controlling factor. M. Garrison. Nat Underw 50:10 O 31 '46
Your business and the law; address before Indiana association of insurance agents; abstracts. E. W. Sawyer. Rough Notes 89: 15-16+ N '46; East Underw 47:32 O 25 '46; Weekly Underw 155:983+ O 26 '46

See also
Insurance, Life—Investments

Reports

Annual report suggestions in booklet of Casualty executives association. Weekly Underw 154:301+, 311 F 2 '46
Plan for filing inland marine statistics issued by N.Y. Dept. East Underw 46.78 D 14 '45; Same abr. Weekly Underw 153:1275+ D 1 '45
Technique of getting out statement Jan. 1; Northwestern national life insurance co. Nat Underw (Life ed) 50:5 Ja 11 '46

Reserves

Commissioners change contingency reserve formula in hospital field. Nat Underw 50:24 Je 20 '46; Same. Nat Underw (Life ed) 50: 18 Je 21 '46
Contingency reserve plan to be weighed; commissioners to discuss idea of extending new N.Y. requirement. Nat Underw 50:1+ Ap 25 '46; Same. Nat Underw (Life ed) 50:1 Ap 26 '46
NAIC committee to consider reserves for security values; valuations subcommittee gets views of companies on possible mandatory reserves. East Underw 47:1+ My 31 '46

See also
Insurance, Life—Reserves

Securities

Attractive features in new Maryland Casualty stock issues. G. Geyer. Nat Underw 50:19 Ag 22 '46
Earnings trend of stock fire companies over the past 20 years. E. A. Van Deusen. Comm & Fin Chr 163:22 Ja 3 '46
Fire insurance stocks; change in market prices, 1944 and 1945. E. A. Van Deusen. Comm & Fin Chr 163:256 Ja 17 '46
Insurance stocks continue to lag far behind general market. F. L. Brokaw. Weekly Underw 154:6 Ja 5 '46
Investment outlook for fire and casualty insurance stocks; with earnings position of representative companies. P. Dobbs. il Mag of Wall St 78:390-2+ Jl 6 '46
Market performance of 21 high grade fire insurance stocks, 1942-1945. E. A. Van Deusen. Comm & Fin Chr 163:3068+ Je 6 '46
Net investment income per share for 33 fire insurance companies and ten casualty and surety companies, 1939-1944. E. A. Van Deusen. Comm & Fin Chr 162:3018 D 20 '45
Present situation in insurance industry. R. W. Babson. Nat Underw 50:12 F 14 '46
Requests British loan liquidation; Senator Moore lists insurance holdings pledged back in 1941. Weekly Underw 153:1404 D 15 '45
30 leading fire stocks; ratio of market to liquidating values as of Dec. 31, 1945. E. A. Van Deusen. Comm & Fin Chr 164:358 Jl 18 '46

Service

Booklet On guard tells how insurance helped to protect U.S. industry; work of National bureau for industrial protection. East Underw 47:21 Mr 8 '46
Family happiness campaign to be launched; life insurance companies and their agents to start advertising new money management and security theme. East Underw 47:3 Ag 23 '46; Same cond. Nat Underw (Life ed) 50:1+ Ag 23 '46; Excerpt. Weekly Underw 155:453 Ag 24 '46
Government service by insurance men; sketches. pors East Underw 47:64-8 pt 2 O 4 '46
Handicapped shown on job in Mutual Alliance film. il Nat Underw 50:24 O 3 '46
Hometown credit-savings plan launched; Fireman's Fund to aid banks and insurance agents. Weekly Underw 154:616-17 Mr 9 '46; Same. East Underw 47:1+ Mr 8 '46; Same cond. Burroughs Clearing House 30:13-14 Ap '46

INSURANCE companies—Service—*Continued*
How fire industry helped in global war effort. G. H. Duxbury. East Underw 46:56-7 D 14 '45
Insurance companies loaning to Canadian government of wartime key personnel. East Underw 46:3-4+ D 14 '45
Insurance industry record during war. W. Smith. East Underw 47:32 S 20 '46
National L. & A. provides AP facilities for Tennessee primary. il Nat Underw (Life ed) 50:20 Ag 16 '46

Size

Vice-presidents are startled by Truman speech at Washington college, Chestertown, Md.; reference to big insurance companies. Nat Underw 50:1 Je 6 '46; Same. Nat Underw (Life ed) 50:1 Je 7 '46

Statistics

Fifty-year record of premium growth for fire, casualty and life companies; graph. Spectator (Property ed) 12:44 O 10 '46
How big cities rank on premiums of their insurers; tabulations. Nat Underw 50:1+ O 24 '46; Same. Nat Underw (Life ed) 50:1+ O 25 '46; Correction. Nat Underw 50:10 O 31; 26 N 14 '46
Independent Insurers moving to formulate own statistical plan. East Underw 47:1+ O 4 '46
1945 standing of leading insurers on assets, premiums; with comparisons, 1936-1944. Nat Underw 50:3+ Mr 14 '46
Spectator, Property insurance review; statistical issue. Spectator (Property ed) 12: 9-47 O 10 '46
Spectator, statistical issue. Spectator (Life ed) 153:4-44 N '45
Spectator; statistical issue. Spectator (Life ed) 154:6-9, 24-38+ S '46

Taxation

Ask Supreme court to pass on retaliatory law; new question posed in American Indemnity Kansas tax appeal. Nat Underw 50:1+ F 28 '46; Same. Nat Underw (Life ed) 50:3 Mr 1 '46
Attorney general rules; South Dakota official issues opinion on life company taxes affecting New Jersey company. Weekly Underw 155:419 Ag 24 '46
Casualty insurers' federal tax payments listed for companies operating in New York; tabulation. Nat Underw 50:23 Mr 7 '46
Discriminatory tax doomed; address before Industrial insurers conference. J. M. Peebles. Nat Underw 49:2+ D 13 '45; Same. Nat Underw (Life ed) 49:15 D 14 '45
Fire insurance laws, taxes and fees; data on insurance statutes in 1945-46 edition. Spectator (Property ed) 11:16-17 Ja 10 '46
Guardian Life tests N. Y. catch-all premium tax law. Nat Underw 50:5 Ap 4 '46; Same. Nat Underw (Life ed) 50:1 Ap 5 '46
High court shows realization of tax issue importance; extends time for arguments in South Carolina Prudential case. Nat Underw (Life ed) 50:1+ Mr 15 '46; Same abr. Nat Underw 50:3+ Mr 14 '46
Income tax base of life companies cut 37% from '44. Nat Underw (Life ed) 50:1 Ja 4 '46
Indiana premium tax held valid. Nat Underw 49:1 D 27 '45; Same. Nat Underw (Life ed) 49:1 D 28 '45
Issues closely drawn in South Carolina tax arguments; Prudential case. Nat Underw 50:4 Ja 17 '46; Same. Nat Underw (Life ed) 46:2+ Ja 18 '46
Loss carry-back saves insurers little on taxes. P. D. Seghers. Nat Underw 50:2 O 24 '46
Nippert case fortifies Prudential's hand. J. V. Bloys. Nat Underw (Life ed) 50:3 Ap 19 '46
Oklahoma tax exemption plan held invalid but law as whole is sustained. Nat Underw 49:3 N 8 '45; Same. Nat Underw (Life ed) 49:3 N 9 '45
Premium tax snarl; abstract. C. W. Tye. Nat Underw 50:19 Ap 18 '46; Same. Nat Underw (Life ed) 50:1 Ap 19 '46
Prudential brief to high court in South Carolina tax case. Nat Underw 50:1+ Ja 10 '46; Same. Nat Underw (Life ed) 50:1+ Ja 11 '46
Reviews year's legal changes; state premium tax status. B. Cox. East Underw 46:8 N 9 '45
Right of South Carolina to tax premiums collected by out-of-state companies upheld in Prudential case. Weekly Underw 154: 1461+ Je 8 '46
Seven companies depart from Flemington, N.J. in controversy over taxes. East Underw 47:39 S 27 '46
State premium tax legislation and litigation. R. H. Kastner. East Underw 46:4 N 9 '45
Supreme court rehearing asked in Kansas tax cases; retaliatory law of state attacked by Aetna Fire and American Indemnity. Nat Underw 50:1 Ag 1 '46; Same. Nat Underw (Life ed) 50.3+ Ag 2 '46
Sweeping victory for state taxes and regulation; Supreme court decision in South Carolina Prudential case. Nat Underw 50:1+ Je 6 '46; Same. Nat Underw (Life ed) 50:1+ Je 7 '46
Taxes (including real estate taxes), life, fire and casualty, 1936-1945; chart. Spectator (Property ed) 12:9 O 10 '46
Test of municipal license taxes is looming; companies refusing to pay on basis of Nippert case. Nat Underw 50:19 Ap 4 '46; Same. Nat Underw (Life ed) 50:1 Ap 5 '46
Text of U.S. Supreme court decision in Prudential vs. Benjamin; South Carolina premium tax law upheld. Nat Underw 50: 3+ Je 6 '46; Same. Nat Underw (Life ed) 50:9-11+ Je 7 '46
Why Prudential fights tax discrimination of states. C. M. Shanks. East Underw 47:3 Mr 15 '46

See also
Benefit societies—Taxation

War service

See Insurance companies—Service

Argentina

Anxious over Peron decree; American underwriters, following study, see no ill effects. Weekly Underw 154:1664 Je 29 '46
Argentina sets up reinsurance bank like Chile, Brazil. Nat Underw 50:36 Je 6 '46; Same. Nat Underw (Life ed) 50:4 Je 7 '46
How Argentine reinsurance monopoly will operate. Nat Underw (Life ed) 50:24 Je 21 '46; Same. Nat Underw 50:8, 14 Je 20 '46

Austria

Austria's foreign insurance assets; twenty companies in 24 countries. Weekly Underw 155:142 Jl 20 '46

Canada

Dual system of insurance control in Canada; abstracts. J. A. Tuck. East Underw 47:9 O 11 '46; Nat Underw 50:12 O 10 '46; Same. Nat Underw (Life ed) 50:30 O 11 '46
May relax Canadian license requirements. R. B. Whitehead. East Underw 47:30 O 11 '46

China

Registration in China of foreign insurance companies. For Comm W 23:15 Ap 20; 22-3 Je 22 '46

Cuba

La Hemisferica, compania de seguros de vida, Havana. Spectator (Life ed) 154:29+ O '46

Europe

Day of meager insurance profits seen in Europe by London Review. Nat Underw 49: 8 N 15 '45
Penetration of European insurance by Axis. Nat Underw 49:18+ D 20 '45

France

France expropriates some French companies. Spectator (Property ed) 11:8 My 9 '46
Nationalization held injurious to France. G. Bouquet. Weekly Underw 155:297+ Ag 10 '46
Nationalization scheme voted by French Assembly. Weekly Underw 154:1073 Ap 27 '46

INSURANCE companies—*Continued*

Germany

Germans pay insurance premiums; how companies are operating. Weekly Underw 153: 1309+ D 8 '45

Insurance in Germany today. E. C. Steefel. East Underw 47:19 Je 28; 22 Jl 5 '46

U.S. interests eye disposal of German firms by neutrals. Nat Underw 50:4 Je 27 '46

Great Britain

British Assurance companies act of 1946. W. H. Hackett. Spectator (Property ed) 12: 10-14 Ag 8 '46

British government not to interfere with insurance. S. Cripps. Weekly Underw 153: 1336+ D 8 '45

British government's attitude; insurance will be given wide latitude for future development; statement by British insurance association. Weekly Underw 155:138 Jl 20 '46; Same abr. East Under 47:1+ Jl 19 '46

British insurance picture; with compensation cover socialized, casualty company turning to life. P. F. Scanlon. Nat Underw 50: 12 N 7 '46; Same. Nat Underw (Life ed) 50:7 N 8 '46

Competition in insurance makes conditions healthy; urges fighting nationalization. N. Bixby. Weekly Underw 153:1340 D 8 '45

Employers' liability assurance corporation, limited; Norwich union life insurance society; Norwich union fire insurance society; annual general meetings. Economist 150: 859-60 My 25 '46

Foreign insurers; group in which British and Scotch capital predominates has weathered war well. Bsns W p78 D 8 '45

Mercantile and general insurance company ordinary general meeting, London. Economist 149:576 O 20 '45

Nationalization not possible in England. C. D. Medley. Weekly Underw 154:1663 Je 29 '46

Phoenix assurance company, limited; annual general meeting. Economist 150:901 Je 1 '46

Regulation of insurance in England; assurance companies bill; editorial. Nat Underw 49:20 D 20 '45; Same. Nat Underw (Life ed) 49:14 D 21 '45

Royal exchange assurance; Alliance assurance company, limited; Guardian assurance company, limited; Scottish union and national insurance company; Caledonian assurance company; annual general meetings. Economist 150:771-3 My 11 '46

Royal insurance company, limited; statement by the chairman. P. R. England. Economist 150:859 My 25 '46

Sun insurance office limited; Commercial union assurance company, limited, annual general meetings. Economist 150:814-15 My 18 '46

United Kingdom provident institution; annual general meeting. Economist 150:510 Mr 30 '46

Why British insurers are not nationalized; address at annual meeting of London and Lancashire. F. P. Rutter. East Underw 47: 1+ Je 7 '46

Hawaiian Islands

1944 record in Hawaii; premiums and losses by lines. Nat Underw 49:42 D 20 '45

Italy

Italian insurance debated in Paris; competitive gains sought. East Underw 47:16 Ag 16 '46

Kentucky

Kentucky director declares unauthorized carriers create trouble in state. H. B. Wilson. Weekly Underw 153:1505+ D 29 '45

New York (state)

Report to Legislature tells of present steps to improve regulation. R. E. Dineen. East Underw 47:1+ F 22 '46; Abstracts. Spectator (Property ed) 11:24 F 28 '46; Weekly Underw 154:497+ F 23 '46

Philippine Islands

American foreign insurance association reopens Philippine offices. Weekly Underw 153:1136 N 17 '45

Sweden

90-year-old Skandia has three subsidiaries; combined assets total $125,000,000. East Underw 46:1+ N 9 '45

INSURANCE company buildings

Copper on landmark to be re-used; Metropolitan Tower's connecting bridge. il Sheet Metal Worker 37:53+ S '46

Federal Life & Casualty new home office in Detroit. il East Underw 47:38 N 1 '46

John Hancock to build new home office, Boston. il East Underw 46:3 D 21 '45; Same. Nat Underw (Life ed) 49:1+, 2 D 28 '45; Same abr. Weekly Underw 153:1538 D 29 '45

New John Hancock home office rests on 1,600 steel piles sunk in silt. East Underw 47:12 Ag 23 '46

New Midland Mutual home. il Nat Underw (Life ed) 50:2 O 11 '46

U.S. Life occupies new home office building at 84 William street. il East Underw 47:16 Jl 5 '46; Weekly Underw 155:49 Jl 6 '46

INSURANCE conventions

See also

Insurance, Life—Agents—Conventions

Insurance agents—Conventions

INSURANCE counsel, International association of. See International association of insurance counsel

INSURANCE departments

Details Pennsylvania department functions. G. L. Neel. Weekly Underw 153:1190+ N 24 '45

Ohio state insurance department; history and personnel. pors East Underw 46:30+ D 14 '45

Reorganize California insurance dep't. Nat Underw 50:26 Ag 29 '46; Same. Nat Underw (Life ed) 50:9 Ag 30 '46

INSURANCE economics society of America

Annual meeting, Chicago. East Underw 47: 29 F 15 '46; Nat Underw 50:18 F 7 '46

INSURANCE executives association

Business development office is abandoned; activities merged with IEA. East Underw 46: 28 D 21 '45; Same abr. Weekly Underw 153: 1458 D 22 '45

INSURANCE federation of New York

Annual meeting, New York, Dec. 5. East Underw 46:83+, 108 D 14 '45

INSURANCE federation of Pennsylvania

Meeting, Philadelphia. Nat Underw 50:3+ My 16 '46; Nat Underw (Life ed) 50:2+ My 17 '46

INSURANCE institute of America

Annual meeting, New York. East Underw 47:20+ O 25 '46

INSURANCE law

Casualty legal problems treated at American Bar's insurance sessions; automobile and aviation decisions analyzed; responsibility laws. E. C. Stone and others. East Underw 47:31+ N 8 '46

Comments on Guertin law confusion. J. R. Larus. East Underw 47:14 O 11 '46

Confused situation on Guertin bill. East Underw 47:3 Ap 12 '46

Delayed notice of loss or accident; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:30-1 D 6 '45

Fire insurance laws, taxes and fees; data on insurance statutes in 1945-46 edition. Spectator (Property ed) 11:16-17 Ja 10 '46

Fraud and mistake in insurance contracts; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:30-1 N 22 '45

Guertin law problems. W. J. Cameron and others. Nat Underw (Life ed) 49:3+ N 16 '45

Is life insurance attachable by creditors? E. A. Muller. Mag of Wall St 77:343+ D 22 '45

Landmark in uniform legislation; standard non-forfeiture and valuation laws. A. N. Guertin. Spectator (Life ed) 153:16-19+ F '46; Excerpts. East Underw 47:5 Ja 25 '46; Nat Underw (Life ed) 50:2+ F 8 '46

Minor's rights under insurance contracts. J. M. Peebles. East Underw 47:6 N 1 '46

Overlapping coverage as between fire companies and casualty companies. S. Greenhill. Weekly Underw 154:202+ Ja 19 '46; Same cond. East Underw 47:1+ Ja 18 '46

INSURANCE law—*Continued*

Plain talk on regulation of accident and health insurance; Standard provisions law. J. F. Follmann, jr. East Underw 47:40 Ap 12 '46

Review of 1945 insurance decisions. L. T. Parker. Rough Notes 89:17-18 F '46

Review of some recent insurance law suits. L. T. Parker. East Underw 47:3+ Ag 30 '46

Streamlined security for Americans; observations on status of standard non-forfeiture and valuation legislation. E. W. Marshall. Spectator (Life ed) 153:22-4 Je '46; Same. Life Ins Courant 51:266-9 Je '46; Abstracts. Nat Underw (Life ed) 50:3+ My 24 '46; East Underw 47:3 My 24 '46; Weekly Underw 154:1386 My 25 '46

Testamentary aspects of life insurance contracts. D. Olson. Life Ins Courant 51:166-72 Ap '46

Underwriting under standard valuation laws; address before Institute of home office underwriters. A. N. Guertin. East Underw 46: 3+ N 30 '45; Excerpts. Nat Underw (Life ed) 49:3+ N 30 '45

Urges prompt action to clear boards and organizations of rules which may be illegal. E. C. Stone. East Underw 46:31 N 30 '45

See also

Association of life insurance counsel
Insurable interest
Insurance, Automobile—Financial responsibility laws
Insurance agents—Law
Insurance companies—Regulation
International association of insurance counsel

Argentina

Anxious over Peron decree; American underwriters, following study, see no ill effects. Weekly Underw 154:1664 Je 29 '46

Argentine insurance decree. Economist 150: 1019-20 Je 22 '46

Protests Argentine decree; Foreign trade council tells State department insurance law is prejudicial to Americans. East Underw 47:31 Jl 5 '46

California

Argue commerce case in U.S. Supreme court; Robertson vs. California. Nat Underw 50:1+ Ja 10 '46; Same. Nat Underw (Life ed) 50: 1+ Ja 11 '46

California files brief with high court in commerce case; Robertson vs. California; abstracts. Nat Underw 50:2+ Ja 3 '46; Nat Underw (Life ed) 50:3+ Ja 4 '46; East Underw 47.1+ Ja 4 '46

Commerce case arguments scanned for hints; Robertson vs. California. Nat Underw 50: 3+ Ja 17 '46; Same. Nat Underw (Life ed) 50:1+ Ja 18 '46

Commerce issue in California appeal to U.S. Supreme court; Robertson brief. Nat Underw 49:6 D 27 '45; Same. Nat Underw (Life ed) 49:8 D 28 '45

High court upholds state licensing; Robertson vs. California decided in favor of state. Weekly Underw 154:1461+ Je 8 '46

Merchants & manufacturers assn. not eligible for group cover, Garrison of California says. Nat Underw 50·25 Jl 18 '46; Nat Underw (Life ed) 50:9 Jl 19 '46; East Underw 47:4 Jl 19 '46

Opinion requested on group proposal ruling; act on California issue; Occidental Life and Pacific Mutual ask interpretation of term trade association. East Underw 47:10 S 6 '46

Questions of Justices on license issue in Robertson case. Weekly Underw 154:250+ Ja 26 '46

Sweeping victory for state regulation; Supreme court decision in Robertson vs. California. Nat Underw 50:1+ Je 6 '46; Same. Nat Underw (Life ed) 50:1+ Je 7 '46

Text of decision of U.S. Supreme court in Robertson vs. California. Nat Underw 50: 2+ Je 6 '46; Same. Nat Underw (Life ed) 50:2+ Je 7 '46

Vital issue involved in Robertson licensing case. W. H. Bennett. Weekly Underw 154: 1464+ Je 8 '46

Canada

Canadian proposal seeks broad control of policy provisions; revisions in law sought. R. B. Whitehead. East Underw 47:1+ S 20 '46

Connecticut

Connecticut insurance conditions were carefully scrutinized last year. W. E. Allyn. Spectator (Property ed) 11:14-15 Ja 24 '46; Excerpt. Weekly Underw 154:251 Ja 26 '46

Great Britain

British Assurance companies act of 1946. W. H. Hackett. Spectator (Property ed) 12: 10-14 Ag 8 '46

British government's attitude; statement by British insurance association. Weekly Underw 155:138 Jl 20 '46; Same abr. East Underw 47:1+ Jl 19 '46; Excerpt. Nat Underw 50:25 Jl 18 '46

British marine insurance, under new bill, may now come under 1909 act. Weekly Underw 153:1402+ D 15 '45

Regulation of insurance in England; assurance companies bill; editorial. Nat Underw 49:20 D 20 '45; Same. Nat Underw (Life ed) 49: 14 D 21 '45

Illinois

Changes Illinois rule; right to sue not confined to state; Franklin Life case. Nat Underw 49:3 N 29 '45; Same. Nat Underw (Life ed) 49:8 N 30 '45

Kansas

Ask Supreme court to pass on retaliatory law; new question posed in American Indemnity Kansas tax appeal. Nat Underw 50:1+ F 28 '46; Same. Nat Underw (Life ed) 50:3 Mr 1 '46

Maine

Maine to test support for all-industry bills; revision of counter-signature law and excise tax statute proposed. Weekly Underw 155:417+ Ag 24 '46; East Underw 47:16+ Ag 23 '46

Massachusetts

All-industry committee's rating bill supported at Massachusetts hearing; non-assessable policy bill meets opposition. Weekly Underw 154:739+ Mr 23 '46

Attempt to repeal Guertin bill fails. Nat Underw (Life ed) 50:8 Ap 26 '46

Complete revision of Massachusetts insurance law urged; abstracts. C. F. J. Harrington. Weekly Underw 163:1312 D 8 '45; East Underw 46:31 D 21 '45

Harrington goes to bat against Guertin act repeal. Nat Underw (Life ed) 50:2 Ap 5 '46

Insurance law study proposed. Weekly Underw 154:1056 Ap 27 '46

New all industry rating measures offered in Massachusetts. Nat Underw 50:21+ Mr 21 '46

Michigan

Commissioner Forbes defines franchise plan; writing made illegal in Michigan. Weekly Underw 154:94 Ja 5 '46

Michigan ban on franchise, wholesale plans withdrawn. Nat Underw 50:15 Ag 1 '46

Michigan outlaws wholesale or franchise A. & H. Nat Underw 49:22 D 13 '45; Same. Nat Underw (Life ed) 49:22 D 14 '45

New Michigan rules on modification of applications in home offices. Nat Underw 50: 20 O 31 '46; Same. Nat Underw (Life ed) 50:4 N 1 '46

Mississippi

Rate bill passed in Mississippi. Nat Underw 50:19 Ap 11 '46

Nebraska

Nebraska legislative plans point the way; pattern shaping for compliance with requirements of Public law 15. Weekly Underw 155:469+ Ag 31 '46

New York (state)

Accidental means is widely interpreted in New York state; abstracts. G. S. Van Schaick. East Underw 47:1+ O 18 '46; Nat Underw (Life ed) 50:16 O 18 '46

Department bills in N.Y. legislature. East Underw 47:19+ F 1 '46

INSURANCE law—New York (state)—*Cont.*
Dineen bars request on Appleton rule; turns down fire mutuals. East Underw 47:16 Ja 11 '46
Dineen is star of hearing on N.Y. Guertin proposal. Nat Underw (Life ed) 50:2+ Mr 15 '46; East Underw 47:5 Mr 15 '46
Gives renewed support to Guertin legislation in N.Y. R. E. Dineen. Nat Underw (Life ed) 50:20+ O 11 '46; Same abr. East Underw 47:5 O 11 '46
Guardian Life tests N. Y. catch-all premium tax law. Nat Underw 50:5 Ap 4 '46; Same. Nat Underw (Life ed) 50:1 Ap 5 '46
Harris issues ruling on new N.Y. laws; rules on question of charter amendments to comply with property floater and reinsurance laws. East Underw 47:39 My 17 '46; Weekly Underw 154:1424 Je 1 '46
Much tension at New York hearing on Guertin bill; PM blast against measures furnishes ammunition to opponents. Nat Underw (Life ed) 50:1, 6 Mr 8 '46
Multiple-line underwriting bills are introduced in New York state; with text. Spectator (Property ed) 11:34+ F 14 '46
New business limitation suspended in New York. East Underw 47:8 S 13 '46; Nat Underw (Life ed) 50:1+ S 6 '46
New insurance boycott bill in New York state. Weekly Underw 154:621 Mr 9 '46
New uniform accounts law; abstracts. R. E. Dineen. East Underw 47:18+ Ap 19 '46; Nat Underw 50:2 Ap 18 '46; Nat Underw 50:2+ Ap 25 '46
New York department bills fare well at session now ending. Nat Underw 50:8 Mr 28 '46
New York Department sponsors Guertin bill with changes. Nat Underw (Life ed) 50:1 F 1 '46
New York Guertin bill exceptions are pondered by N.A.I.C. committee. Nat Underw (Life ed) 50:1+ F 15 '46
New York now adopts flexible attitude; Dineen relaxes Appleton rule. Weekly Underw 153: 1474 D 22 '45; East Underw 46:33 D 21 '45; Nat Underw 49:23+ D 20 '45
Report to Legislature tells of present steps to improve regulation. R. E. Dineen. East Underw 47:1+ F 22 '46; Abstracts. Nat Underw 50:19+ F 21 '46; Nat Underw (Life ed) 50:27 F 22 '46; Spectator (Property ed) 11:24 F 28 '46; Weekly Underw 154:497+ F 23 '46
Reviews legislative changes; abstracts. R. E. Dineen. East Underw 47:16+ Je 21 '46; Weekly Underw 154:1541+ Je 15 '46
Risk research institute presents multiple bills; New York measures based upon recommendations of Diemand committee. Weekly Underw 154:369+ F 9 '46; Same cond. East Underw 47:19 F 8 '46; Abstract. Nat Underw 50:3 F 7 '46
Six insurers got N.Y. OK to exceed new sales lid. Nat Underw (Life ed) 49:3 D 28 '45
State supervision hurt by junking of Guertin bill. Nat Underw (Life ed) 50:1 Mr 29 '46
Views on various New York department bills heard by insurance committee. Weekly Underw 154:612+ Mr 9 '46

Pennsylvania

New Pennsylvania regulations on insurance on financed automobiles. East Underw 46: 22 N 30 '45
Voids contracts of mutuals as ultra vires; Erie school district hit; insurers exceeded charter powers. Nat Underw 49:6 N 15 '45

Rhode Island

Competition in rates asked in Rhode Island. W. E. Powers. East Underw 47:27 F 1 '46
Rhode Island ready for new legislation; developments during year. C. I. Fisher. Weekly Underw 153:1126+ N 17 '45

South Carolina

Mail order transaction comprises doing business in South Carolina. U.S. court holds. Nat Underw (Life ed) 50:22 Mr 22 '46; Same. Nat Underw 50:22 Jl 11 '46
Text of U.S. Supreme court decision in Prudential vs. Benjamin; South Carolina premium tax law upheld. Nat Underw 50:3+ Je 6 '46; Same. Nat Underw (Life ed) 50: 9-11+ Je 7 '46

Switzerland

Swiss-German insurance litigation brings up issue of liability of head offices for foreign operations. Weekly Underw 154:1652+ Je 29 '46

Virginia

Virginia legislative action, agents advised of compensation and auto responsibility act changes; also city, county bond requirements. East Underw 47:36 Ap 12 '46

Washington (state)

Washington agents offer seven state code proposals. Nat Underw 50:26 F 28 '46

INSURANCE lawyers
Insurance lawyers must place public interest first; abstracts. R. H. Blanchard. East Underw 46:22 D 21 '45; Nat Underw 49:5+ D 20 '45; Weekly Underw 153:1509+ D 29 '45
Position of trial attorney in insurance. P. C. Sprinkle. Weekly Underw 155:547+ S 7 '46; Same cond. Nat Underw 50:41 S 12 '46; Same cond. Nat Underw (Life ed) 50:9 S 13 '46
Value lawyers as listening posts. E. C. Stone. Nat Underw 50:17 N 7 '46

INSURANCE libraries
See also
Social security board—Library
Special libraries association—Insurance group

INSURANCE research
Getting results through insurance research; abstracts. F. Lang. Comm & Fin Chr 163: 2269+ Ap 25 '46; Nat Underw 50:19+ Ap 11 '46; East Underw 47:35+ Ap 12 '46

INSURANCE society of New York
Annual meeting, June 20. East Underw 47:9 Je 28 '46
New York insurance society school has more than 100 instructors. East Underw 47:42+ S 27 '46

INSURANCE surveys
California city, Monrovia, surveyed potentials; study revealed possibilities of additional insurance premiums in postwar era. H. J. Ashe. Spectator (Property ed) 11: 26-7 F 28 '46
Collier's male readers answer insurance quiz. East Underw 47:11 My 3 '46; Nat Underw 50:16 My 2 '46; Nat Underw (Life ed) 50:3 My 3 '46

INSURANCE surveys, Agents'. See Insurance, Life—Agents—Service; Insurance agents—Service

INSURANCE trusts
Insurance options for trustees; greater liberality in company practices urged for beneficiaries' interests. W. C. Fenniman. Trusts & Estates 82:577-80 Je '46

INSURANCE women
Beatrice Jones of Guardian Life to retire; agency executive one of outstanding women in insurance field. East Underw 47:13 My 10 '46
Federation of New York state insurance women's clubs meeting, Rochester, Oct. 19. East Underw 47:26-7+ N 1 '46
How women can help build sound insurance business. J. C. Qualmann. East Underw 47:24 Je 28 '46
How women proved their mettle in conduct of agencies through wartime. East Underw 47:23+ pt 2 Je 28 '46
President of N.Y. women's league has been insurance broker for 14 years; Mrs Mary O. Bollman. East Underw 47:36 O 25 '46
See also
Insurance, Life—Agents—Women agents
National association of insurance women

INSURED mortgages. See Federal housing administration—Insured mortgage plan

INTAKES
Electric fish screen keeps intake clear. F. L. Reinmann. diag Elec World 125:149 Ap 13 '46
Hydraulic design of conduit intakes in dams. B. O. McCoy. diags Boston Soc C E J 33: 174-84 Jl '46

INTAKES—*Continued*
Unique propeller pump installation increases flow in gravity water tunnel at Washington, D.C. D. M. Radcliffe. il diag Eng N 136:724-6 My 2 '46
Water works intakes. C. B. Burdick. diags Am Water Works Assn J 38:315-25 Mr '46

INTEGRAL equations
Some integral equations of potential theory. H. Bateman. bibliog J Ap Phys 17:91-102 F '46

INTEGRALS
Table of the integral $\frac{2}{\pi}\int_0^\infty \frac{\tanh^{-1} t}{t}\,dt$. M. S. Corrington. RCA R 7:432-7 S '46

INTEGRATORS
Ball integrator averages sextant readings. R. F. Deimel and W. A. Black. il diag Machine Design 18:116-20 Mr '46
Current integrator. B. E. Watt. diags R Sci Instr 17:334-8 S '46
Cyclotron beam current integrator and recorder. E. A. Hamacher. diags R Sci Instr 17:364-8 O '46

INTELLECTUAL cooperation
Team work in research. C. H. Lander. diags Engineer 180:330-1, 353-5 O 26-N 2 '45; Same cond. Engineering 161:21-3, 33 Ja 4-11 '46

INTELLECTUAL property
Protection
Beware! there may be trouble in ideas. A. W. Gray. Adv & Sell 39:77-8+ Ja '46

INTERACTION chronograph
Method for evaluating supervisory personnel. E. D. Chapple and G. Donald, jr. Harvard Bsns R 24 no2:197-214 [Ja] '46

INTER-AMERICAN association of sanitary engineering
Inter-American sanitary group formed at Caracas meeting. Eng N 137:471+ O 10 '46

INTER-AMERICAN conference on agriculture
Third conference, Caracas, July 24-Aug. 7, 1945. Int Labour R 52:494-503 N '45

INTER-AMERICAN conference on social security
Second session of Permanent committee. Int Labour R 52:479-93 N '45

INTER-AMERICAN council of commerce and production
Inter-American Council to meet at Montevideo. C. J. Judkins. il For Comm W 23: 11+ My 11 '46

INTER-AMERICAN highway. See Pan American highway

INTER-AMERICAN juridical committee
Pan-American action for protection of human rights. C. G. Fenwick. Ann Am Acad 143:139-43 Ja '46

INTER-AMERICAN typhus conference
Meeting, Mexico city, Oct. 1945. Science 103:17 Ja 4 '46

INTERCHANGE of students. See Students, Interchange of

INTERCHANGEABLE mechanism
Carrier saved from disaster by interchangeable Diesel engine parts. Marine Eng 51: 131 Ap '46
Drafting-room practice, with respect to interchangeable components discussed at Ottawa conference on the unification of engineering standards. il diags Machine Design 18:133-6 F '46
Drawing office practice in relation to interchangeable components. C. A. Gladman. diags Inst Mech Eng J & Proc 152:Proc 388-401; Discussion. 401-18 Mr '46
Interchangeability is major design factor; Continental engines for powering personal planes. il Machine Design 18:114 Ja '46
Jig-boring and jig-grinding machines promote interchangeability in toolmaking. J. R. Moore. il Mach 52:163-6 Mr '46
Westinghouse announces new all-steel electric motor with new design; interchangeability of parts. il Iron Age 158:120 S 26 '46

INTERCOMMUNICATING systems
All-round cabinet replaces open-back model; Belfone Maestro unit for intercommunication. il Mod Plastics 24:121 S '46
Better communication aids hoist operation. diag Nat Safety N 52:126 N '45
Electronic intercom system helps coal tugboats conquer river fog. il Min Cong J 31:68 N '45
Infrasonic switching. A. Montani. diags Electronics 19:214+ Mr '46
Inter-communication system for power plants. L. A. Randall. il Power Pl Eng 50:86-8 Ag '46
Loud-speaker yard communication. il diag Ry Age 121:364-6 Ag 31 '46
Loud-speaking intercommunicating telephone; made by Dictograph Products. Consumers Res Bul 17:24-5 My '46
Plant truck traffic control with intercoms. il Electronics 19:160+ Jl '46
Truck dispatching by intercommunication system. il Steel 119:116 S 16 '46

INTERCONNECTION of electric plants. See Electric plants—Interconnection

INTERCULTURAL education
Intergroup education through the school curriculum. H. Taba and H. E. Wilson. bibliog Ann Am Acad 244:19-25 Mr '46
School administration and intercultural relations. T. Brameld and E. Fish. Ann Am Acad 244:26-33 Mr '46

INTERESSEN gemeinschaft farbenindustrie aktiengesellschaft
No revival for I.G. Farben. Chem Age (Lond) 54:327-8 Mr 30 '46
Reports on I.G. Farbenindustrie A.-G. Soc Dyers & Col J 62:152-4, 181-2 My-Je '46

INTEREST
Advances in short-term interest rates. Nat City Bank p89-91 Ag '46
Approaching end of declining interest rates. J. T. Madden. Comm & Fin Chr 163:2352+ My 2 '46
Borrowers have paid this bank 6% on loans as usual; Farmers national bank, Pennsburg, Pa. R. Stevenson. Bankers Mo 63: 178-9+ Ap '46
Cheap money in Britain. P. Einzig. Comm & Fin Chr 164:2340+ N 7 '46
Cheaper money in Britain. P. Einzig. Comm & Fin Chr 163:1926+ Ap 11 '46
Comments on Federal Reserve report; public is losing more than Treasury is saving by low interest rates. E. J. Schlesinger; E. C. Randolph. Comm & Fin Chr 164:71+ Jl 4 '46
Connecticut General's interest rate study. J. J. O'Leary. East Underw 47:3+ Mr 8 '46
Continued decline in interest rates. Nat City Bank p 16-18 F '46
Current interest rates must be maintained. A. G. Lanston. Comm & Fin Chr 162:3003+ D 20 '45
Dearer money; Federal reserve board moves to put a floor under interest rates. Bsns W p19 My 4 '46
Debt management and interest rates. J. H. Riddle. Comm & Fin Chr 163:517+ Ja 31 '46
Debt management and the controlled interest rate. A. G. Lanston. Comm & Fin Chr 163:1925+ Ap 11 '46; Correction. 163:2074 Ap 18 '46
Declining interest rates. F. J. McDiarmid. Life Ins Courant 51:368-71 Ag '46; Excerpts. East Underw 47:8 Je 14 '46; Nat Underw (Life ed) 50:1 Je 14 '46
Declining interest rates and inflation. J. J. O'Leary. Comm & Fin Chr 163:1494+ Mr 21 '46
Defends low rates. F. M. Vinson. Comm & Fin Chr 163:1788+ Ap 4 '46
Defends restriction on interest rates in New Jersey. L. B. Carey. Comm & Fin Chr 163:2652+ My 16 '46
Dwindling return on savings. Nat City Bank p68-71 Je '46; Same abr. Comm & Fin Chr 163:3063+ Je 6 '46
Effect of interest used for calculating policy values on net costs; tabulation. Spectator (Life ed) 154:44 S '46
Effect of interest used for calculating policy values on net costs; tabulation. J. Horan. Spectator (Life ed) 153:40+ N '45
Experience with reductions in the small-loan rate in Wisconsin. E. Shapiro. J Bsns 18: 209-18 O '45

INTEREST—*Continued*
Federal fiscal policy seen halting interest decline; signs indicate government authorities feel rates are low enough. Nat Underw (Life ed) 50:1 Je 7 '46
Foresees no rise in interest rates. J. T. Madden. Comm & Fin Chr 162:3003+ D 20 '45
Future of interest rates. R. C. Effinger. Comm & Fin Chr 163:2352+ My 2 '46
Future of interest rates. F. R. Macaulay. Comm & Fin Chr 163:123+ Ja 10 '46
Governments' fetish of easy money partly responsible for low investment interest rates. V. R. Smith. East Underw 47:9+ F 1 '46
Government's public benefit idea nonsense. T. I. Parkinson. Weekly Underw 155:521+ S 7 '46
How compound interest affects regular savings. Life Ins Courant 51:28-31 Ja '46
Inflation and interest rates. F. Lutz. Comm & Fin Chr 163:3055+ Je 6 '46
Inflation and interest rates. M. Nadler. Comm & Fin Chr 163:1342+ Mr 14 '46
Inflation, interest rates and investment policy. M. Shields. Comm & Fin Chr 164:1781+ O 10 '46
Insurers and cheap money. Economist 151: 501-2 S 28 '46
Interest on overdue accounts; plea for imposing this collection penalty. C. A. Colton. Credit & Fin Management 48:14-15 F '46
Interest rates and capital formation. H. G. Moulton. Comm & Fin Chr 163:3212+ Je 13 '46
Interest rates and commodity prices. Trusts & Estates 82:307 Mr '46
Interest rates and Federal reserve policy. J. H. Riddle. Comm & Fin Chr 164:2201+ O 31 '46
Interest rates and inflation. L. A. Hahn. Comm & Fin Chr 162:3129+ D 27 '45
Interest rates under inflationary conditions. B. W. Dempsey. Comm & Fin Chr 163:711+ F 7 '46
Investment and money market outlook. A. M. Pope. Comm & Fin Chr 163:1086+ F 28 '46 Same. Chem & Eng N 24:618-20 Mr 10 '46
Investment yields; simple graph method eliminates thumbing thru interest tables. Life Ins Courant 50:520-1 N '45
Is era of easy money ending? W. Gates. Mag of Wall St 78:198-9+ My 25 '46
Lays inflation to cheap money policy. C. Adams. Comm & Fin Chr 164:1933+ O 17 '46
Low interest rates and public welfare. T. I. Parkinson. Comm & Fin Chr 162:2321+ N 15 '45; Excerpt. Nat Underw (Life ed) 49:3 N 9 '45
Low interest will increase bank holdings of government bonds. J. S. Baker. Comm & Fin Chr 162:2875+ D 13 '45
Monthly savings; how compound interest affects savings which are made monthly. Life Ins Courant 51:326-9 Jl '46
Monthly withdrawals; how will compound interest affect the monthly payments? Life Ins Courant 51:376-8 Ag '46
No benefit from low interest rate. T. I. Parkinson. Comm & Fin Chr 164:1005+ Ag 22 '46
Open-market money rates in New York city, 1943-1945 average; monthly Dec. 1944-Dec. 1945; weekly Dec. 1945. Fed Res Bul 32: 60 Ja '46 [cont monthly]
Open-market rates: United Kingdom, Germany, Netherlands, Sweden and Switzerland, yearly Oct. 1929-Oct. 1944, monthly Nov. 1944-Oct. 1945. Fed Res Bul 32:101 Ja '46 [cont monthly]
Our loans are increasing and we get 5% and 6%. F. L. O'Hair. Bankers Mo 63:238 My '46
Outlook for interest rates. R. Rodgers. Comm & Fin Chr 163:123+ Ja 10 '46
Outlook for interest rates. J. W. Snyder. Trusts & Estates 83:362-4 O '46
Outlook for interest rates. M. S. Szymczak. Comm & Fin Chr 163:3341+ Je 20 '46
Outlook for interest rates. D. B. Woodward. Comm & Fin Chr 163:2351+ My 2 '46; Excerpt. Nat Underw (Life ed) 50:8 My 3 '46
Post-war money supply problem. A. G. Lanston. Comm & Fin Chr 163:371+ Ja 24 '46
Potential dangers of low money rates. Pub Util 37:503-5 Ap 11 '46
Problem of interest rate control. A. G. Lanston. Comm & Fin Chr 163:3055+ Je 6 '46
Rate of interest earned on mean invested funds by one hundred life insurance companies, 1925-1944; tabulation. Spectator (Life ed) 153:42-3 N '45
Rate of interest earned on mean invested funds by one hundred life insurance companies from 1926 to 1945, inclusive; tabulation. Spectator (Life ed) 154:42-3 S '46
Reappraisal of easy money policy. J. A. Howe. Comm & Fin Chr 163:1782+ Ap 4 '46
Regular withdrawals; ABC of compound interest and its effect upon income. Life Ins Courant 51:178-82 Ap '46
Towards cheaper money. Economist 149:601-2 O 27 '45
Trend of interest rates. R. Rodgers. Comm & Fin Chr 163:2638+ My 16 '46
Trend of interest rates. M. S. Rukeyser. Banking 39:40-1+ O '46
Trends in interest rates of U.S. Treasury securities; cut in British interest rates. Nat City Bank p124-5 N '45
Warns of falling interest rates. L. W. Douglas. Comm & Fin Chr 163:1397+ Mr 14 '46
What interest? simple vs. compound; nominal vs. effective. Life Ins Courant 51:230-2 My '46
What lies ahead in interest rates? M. L. Colean. Comm & Fin Chr 163:2513+ My 9 '46
What price cheap money? C. L. Benner. Comm & Fin Chr 163:2637+ My 16 '46
Will interest rates continue to decline? O. Ely. Pub Util 37:300-2 F 28 '46
Will interest rates increase? H. E. Underhill. Credit & Fin Management 48:18-20 Je '46
Yield on savings. Life Ins Courant 51:72-3 F '46

See also
Discount—Rates
Usury

INTERFACES
Analysis of the streaming potential method of measuring the potential at the interface between solids and liquids. L. A. Wood. bibliog Am Chem Soc J 68:432-7 Mr '46
Electrical potential at the interface between vitreous silica and solutions of barium chloride. L. A. Wood and L. B. Robinson. bibliog J Chem Phys 14:251-7 Ap '46
Measurement of the potential at the interface between vitreous silica and pure water. L. A. Wood. bibliog diag Am Chem Soc J 68:437-41 Mr '46
Note on the rigid multi-layer postulate of Eversole and Lahr. G. A. H. Elton. bibliog J Chem Phys 14:463 Jl '46
Studies of the interface of oxide coated cathodes. A. Fineman and A. Eisenstein. il diags J Ap Phys 17:663-8 Ag '46
Surface chemistry in relation to biology. E. K. Rideal. Can Chem & Process Ind 29:861-2+ D '45

See also
Electric double layer

INTERFACIAL tension
Interfacial tensions; abstract. A. Carroll. Soap & San Chem 22:77 Ag '46
Studies of sulfonates; some surface and interfacial tension measurements with aqueous solutions of certain alkanesulfonates. E. C. Lingafelter, O. L. Wheeler and H. V. Tartar. bibliog Am Chem Soc J 68:1490-3 Ag '46

INTERFEROMETERS
Theory of an efficient interference filter. R. L. Mooney. bibliog Opt Soc Am J 36:256-60 My '46

INTERFEROMETERS, Sonic
Variable path ultrasonic interferometer for the four megacycle region with some measurements on air, CO_2, and H_2. J. L. Stewart. bibliog diags R Sci Instr 17:59-65 F '46

INTERIOR decoration
Plastics simplify color matching; acrylics, vinyl sheets and polyester resins. il Mod Plastics 23:133-6 Ap '46

INTERIOR decoration—*Continued*
Symphonized children's store; Martin's children's store, Brooklyn. il plans Arch Rec 100:81-8 Ag '46

See also
Furniture
House decoration
Ship decoration

INTERLOCKING devices
Fan failure deenergizes underground power circuits. J. G. Pollock and R. R. Richart. il diags Coal Age 51:89-93 Ja '46

INTERLOCKING signals. See Railroads—Signals

INTERMETALLIC compounds
Intermetallic compounds $Mg_4Na_4Pb_3$. G. Calingaert, H. Shapiro and I. T. Krohn. Am Chem Soc J 68:520-1 Mr '46

INTERMITTENT mechanism. See Mechanical movements

INTERNAL check
Internal check in relation to cost. J. Pelej. N A C A Bul 28:20-39 S 1 '46

INTERNAL combustion engines
Bradford small industrial oil engine. il diag Engineer 181:528 Je 7 '46
Coventry Victor motor company small portable oil engine. il Engineer 182:354 O 18 '46
Coventry Victor small petrol engine. il Engineer 181:412 My 3 '46
Cromol crankshafts. il diags Automobile Eng 35:537-41 D '45
German army vehicle engines; abstract. M. A. Thorne. S A E J 54:sup20 Je '46
Internal-combustion engines in waterworks and sewage plants. A. M. Boehm. N E Water Works Assn J 60:27-31 Mr '46
Jack and Heintz lightweight motors built of large aluminum die castings. K. Rose. il Materials & Methods 24:83-6 Jl '46
Jack & Heintz new engine. il diag Machine Design 18:125-8 Jl '46
Multi-fuel motor; Hickey motor for Greyhound air-conditioning unit. Bsns W p44+ Ap 20 '46
New heat resisting metals for engines. R. K. Winkleblack. Automotive & Aviation Ind 95:40-4 O 15 '46
Nouveau moteur à deux temps sans admission du mélange gazeux dans le carter. diags Génie Civil 123:251 S 15 '46
Oil engine development and research; abstract. C. H. Bradbury. Am Water Works Assn J 38:444 Mr '46
Petter industrial petrol engines. il Engineering 161:139 F 8 '46
Piston rings in the war. D. M. Smith. diags S A E J 53:521-30 S '45; Same. Automobile Eng 36:29-35 Ja '46
Selection of internal-combustion engines for field use. J. Moon. Pet Eng 17:57-8 S '46

See also
Airplane engines
Automobile engines
Cylinders (engines, etc)
Diesel engines
Gas engines
Gas turbines
Indicators (for internal combustion engines)
Locomotives, Diesel
Motor bus engines
Motor cars (railroad)
Motor cycle engines
Motor truck engines

Advertising
Chrysler's horsepower with a pedigree is basic theme of new campaign for industrial engines. J. T. Condon. il Ind Marketing 31:40+ F '46

Air supply
Air cleaners for internal combustion engines. L. Silverman. il diags Heat & Ven 42:85-7 D '45; 43:74-7 Ja; 96-9 F '46

Bearings
Aluminum alloys for high duty engine bearings. H. Y. Hunsicker and L. W. Kempf. il Diesel Power 24:856-63 Jl '46
Bearing corrosion. H. H. Zuidema. bibliog Oil & Gas J 44:151+ F 23; 66+ Mr 2 '46
Durex-100 engine bearings. il Diesel Power 23:1367 N '45
Electroplated engine bearing developed by Cleveland Graphite. Iron Age 158:126 Jl 11 '46

Combustion research
Combustion in a precombustion-type Diesel engine. H. F. Bryan. il diags S A E J 54: 449-57; Discussion. 457 S '46
Combustion in the gas turbine. D. G. Shepherd. diags Engineer 181:268-9, 300-1 Mr 22-29 '46
Combustion studies of the Diesel engine. E. W. Landen. bibliog il diags S A E J 54: 270-82; Discussion. 282-8+ Je '46
Elimination of combustion knock. E. M. Barber and others. il diags Franklin Inst J 241:275-98 Ap '46
Flame speeds and energy considerations for explosions in a spherical bomb. E. F. Fiock and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:39-58 '41
Gasoline explosion pressures. M. S. Plesset and F. R. Gilmore. bibliog diag A S M E Trans 68.89-97 F '46
High-speed motion-picture study of normal combustion, knock and preignition in a spark-ignition engine. A. M. Rothrock and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:15-30 '42
Pressure combustion; Fery optical method for measuring temperature of fuels; abstract. J. G. Coutant. diags Mech Eng 68:254-5 Mr '46
Slow-motion study of injection and combustion of fuel in a Diesel engine. C. D. Miller. bibliog il diags S A E J 53:719-33; Discussion. 733-5 D '45

Cooling
Cooling water treatment for internal combustion engines; use of chromate. il Diesel Power 24:578-82 My '46
Engine fan has adjustable-pitch thermostatically controlled blades. il diags Product Eng 17:108 F '46
German radiators and oil cooler structures and facilities for manufacture; abstract. F. M. Young. diag S A E J 54:sup29-30 Je '46
Water injection in a spark-ignition engine. W. P. Green and C. A. Shreeve, jr. bibliog diag A S M E Trans 68:541-5 Jl '46

Design
Meteor tank engine. il diags Automobile Eng 36:235-45 Je '46
Radical engine design changes shop practices; Jack & Heintz precision industries. C. S. Ricker. il diags Am Mach 90:104-7 Jl 4 '46

Detonation
Blending octane numbers of 2:5-dimethylfuran. H. B. Nisbet. bibliog Inst Pet J 32: 162-6 Mr '46
Elimination of combustion knock. E. M. Barber and others. il diags Franklin Inst J 241:275-98 Ap '46

Exhaust
Cooling water quenches exhaust gas. G. M. Wilson. diags Power 90:326 [issue p106] My '46

Fuel
L'acétate d'éthyle comme carburant et apporteur d'indétonance pour les essences éthylées. H. Guinot and H. Augé. diag Chimie & Ind 55:167-73 Mr '46
Development of fuels and lubricants for army ground vehicles. N. L. Klein. Nat Pet N 38 pt 2:R92-4+ F 6 '46
Postwar internal-combustion engines and their fuels. T. B. Rendel. il diags S A E J 53:621-8; Discussion. 628-9+ N '45

See also
Airplane engines—Fuel
Automotive fuel
Diesel engines—Fuel
Gasoline

Fuel feeding
Injection system correctly meters gasoline to cylinders. il Steel 118:79 Ja 21 '46
S.U. petrol injection pump. il diags Automobile Eng 35:529-36 D '45

INTERNAL combustion engines—Fuel feeding —*Continued*

Ignition devices

Engine ignition faults, and a new method of diagnosis and location during running. F. R. F. Ramsay and W. Nethercot. il diag Engineer 181:542-3 Je 14 '46; Abstract. Engineering 161:417 My 3 '46; Discussion. Electrician 136:1162-4 My 3 '46

LaPointe-Plascomold unified engine ignition system. il diag Product Eng 17:99 Ag '46

Rectifiers for compressor engine ignition; high pressure gas line from Corpus Christi, Texas, to Cornwell, W. Va. Elec World 124: 71 N 24 '45

Scintilla's self-contained setup; producing ignition equipment and Diesel fuel injection systems. J. Geschelin. il Automotive & Aviation Ind 94:30-3+ My 1; 38-42+ My 15 '46

Knock testing engines

Standardized bouncing-pin contact springs speed adjustments for knock-test engines. Nat Pet N 38 pt 2:R257 Ap 3 '46

Lubrication

Additives improve engine lubricant; Permalube. il Steel 119:126 S 9 '46

Alloyed oils; chemical additives. A. B. Boehm. il Sci Am 174:167-9 Ap '46

API lube committee adopts revised definitions and names for crankcase oils. Nat Pet N 38:14 S 25 '46

Analysis of the lubrication between the piston rings and cylinder wall of a running engine. J. S. Courtney-Pratt and G. K. Tudor. Engineering 161:69-71 Ja 18 '46; Same cond. Engineer 180:469-71 D 7 '45; Discussion. 180:459-60, 480 D 7-14 '45

Basic requirements of lubricating oil maintenance. W. C. Bauer. Roads & Bridges 83: 136-41 N '45; Abstract. S A E J 53:sup 21+ D '45

Mechanical factors affecting ring gumming in petrol engines, with particular reference to the rating of lubricating oils. B. Pugh. Engineer 180:491-3 D 14 '45; Same. Engineering 161:93-4 Ja 25 '46; Discussion. Engineer 180:480-2 D 14 '45

Observations on oil control rings. F. Black. diags Pet Eng 17:55-6 Je '46

Maintenance and repair

Maintenance procedure in field for internal-combustion engines. L. Billington. il Pet Eng 17:74+ S '46

Manufacture

Acicular iron; castings used in Douglas stationary engines. il Automobile Eng 36: 171-2 Ap '46

Radical engine design changes shop practices; Jack & Heintz precision industries. C. S. Ricker. il diags Am Mach 90:104-7 Jl 4 '46

Safety measures

How to avoid injuries from gas engines. H. W. Boggess. il Oil & Gas J 45:107 My 11 '46

Specifications

American gasoline engines; tabulation. Automotive & Aviation Ind 94:132-9 Mr 15 '46

Automotive Diesel and other heavy oil engines; tabulations. Automotive & Aviation Ind 94:140-3 Mr 15 '46

Small gasoline power units; tabulation. Automotive & Aviation Ind 94:131 Mr 15 '46

Superchargers

Research on internal combustion prime movers, J. Calderwood. il diags Engineer 181: 428-9, 460-1, 483-5, 506-7 My 10-24 '46; Same. Engineering 162:69-71 Jl 19 '46

See also

Diesel engines—Superchargers

Temperature

Flame-temperature measurements in internal-combustion engines; theory, development, and calibration of an electro-optical pyrometer. O. A. Uyehara and others. bibliog il diags A S M E Trans 68:17-28; Discussion. 28-30 Ja '46

Reversed stress testing of piston materials at high temperatures to determine their usefulness. K. Wellinger and G. Staehli. diags Automotive & Aviation Ind 94:20-3+ F 15 '46

Testing

Engine ignition faults, and a new method of diagnosis and location during running. F. R. F. Ramsay and W. Nethercot. il diag Engineer 181:542-3 Je 14 '46

Gasoline gum tolerance of ordnance equipment. M. L. Alspaugh. il S A E J 54:289-95; Discussion. 295-6 Je '46

Valves

Installation and maintenance of internal combustion engine valves, seats, and guides. J. B. Creek. diags Pet Eng 17:238+ My '46

Spring loaded balls rotate engine valves. il diags Product Eng 17:457 Je '46

Valve facing alloy resists corrosion at high temperatures; Eatonite developed for facing internal combustion engine valves. V. C. Young. il Materials & Methods 22:1744-5 D '45

Vibration

Effects of torsional vibration. W. K. Wilson. bibliog Engineering 162:88-90 Jl 26 '46

INTERNAL combustion engines, Marine

Marine conversion of Allison V-1710 aircraft engine. il Automotive & Aviation Ind 94:31 Je 1 '46

Packard marine engine power output increased 50 per cent. diags Automotive & Aviation Ind 95:30-2+ Jl 1 '46

Petters small internal-combustion marine engines. il Engineering 161:537-8 Je 7 '46

Research on internal combustion prime movers. J. Calderwood. il diags Engineer 181: 428-9, 460-1, 483-5, 506-7, 525-6 My 10-Je 7 '46; Same. Engineering 162:69-71, 117-20 Jl 19, Ag 2 '46

Upsetting cylinder barrels; Tube turns. G. W. Birdsall. il diag Steel 117:52-6 D 31 '45

See also

Diesel engines, Marine — Internal combustion engines, Outboard

Design

Main propelling engine of naval armaments vessel Flintlock; diagrams. Engineer 182: 208 S 6 '46

Specifications

American gasoline engines; tabulation. Automotive & Aviation Ind 94:132-9 Mr 15 '46

INTERNAL combustion engines, Outboard

Die casting outboard motor parts; Johnson motors. H. Chase. il Iron Age 158:50-3 Ag 15 '46

Propulsion units bring flexibility of operation to many marine craft. il Sci Am 174: 78 F '46

INTERNAL friction. See Friction, Internal

INTERNAL revenue

See also

Excess profits tax — Taxation—United States
Income tax
Inheritance tax

INTERNATIONAL air transport association

IATA, league of airlines. J. C. Cooper. Air Transport 4:29-33 Ja '46

North Atlantic traffic conference opens. Aviation N 5:32 Mr 4 '46

INTERNATIONAL assembly of women

Women to organize international group. Comm & Fin Chr 163:1995 Ap 11 '46

INTERNATIONAL association of electrical inspectors

Rocky Mountain, Utah and Montana chapters, annual meetings. Elec West 96:84-6+ My '46

INTERNATIONAL association of electrical leagues

Annual meeting, 11th, New York, Oct. 2-4. Elec World 126:91 O 12 '46

INTERNATIONAL association of insurance counsel

Annual meeting, Wernersville, Pa. Sept. 4-6. East Underw 47:30+, 28 S 6 '46; Nat Underw 50:37+, 38 S 12 '46; Nat Underw (Life ed) 50:2+ S 13 '46; Weekly Underw 155:546, 617 S 7-14 '46

INTERNATIONAL association of machinists
Convention, 21st, New York, Oct. 29-Nov. 7. P. B. Liveright. Mo Labor R 62:55-60 Ja '46
End of an era? ouster of San Francisco I.A.M. leaders. Bsns W p107 Mr 30 '46
Fraternal strife. Bsns W p92-3 My 11 '46
Plenty at stake; San Francisco machinist strike. Bsns W p92-3 Mr 9 '46

INTERNATIONAL association of printing house craftsmen
Album of past presidents, 1919-1946; chronological history. Inland Ptr 117:63-72 S '46
Craftsmen meet in Montreal to discuss mutual problems. Inland Ptr 118:44-50 N '46

INTERNATIONAL association of public employment services
Library
Employe plans for professional advancement. A. Crawley. Special Lib 37:14-17 Ja '46

INTERNATIONAL balance of payments. See Balance of payments

INTERNATIONAL bank for reconstruction and development
Annual meeting of Boards of governors, Washington, D.C. Comm & Fin Chr 164: 1649, 1790 O 3-10 '46
Establishment of Bretton Woods institutions; with table showing voting power and subscriptions of member countries. Fed Res Bul 32:361-71 Ap '46; Excerpt. Comm & Fin Chr 163:2220+ Ap 25 '46
Eugene Meyer named head of world bank. Comm & Fin Chr 163:3058 Je 6 '46
Ex-imp and "fundnbank." H. Bratter. Banking 38:40-1 Je '46
Financing the International bank. H. C. Wallich. Harvard Bsns R 24 no2:164-82 [Ja] '46
First annual report to the Board of governors, September 20, 1946; text. Fed Res Bul 32:1132-9 O '46
International bank and fund. Nat City Bank p124-8 N '46
International bank and the investor. H. C. Wallich. Comm & Fin Chr 163:1213+ Mr 7 '46
International bank eyes U.S. dollars. Bsns W p17-18 N 2 '46
International fund and bank under organization. Comm & Fin Chr 163:3478+ Je 27 '46
International investment agencies' legal spheres. N. Ostroff. For Comm W 23:3+ Je 8 '46
Legal aspects of Bretton Woods agreements. C. P. Taft. Comm & Fin Chr 164:2207+ O 31 '46
Marketing of the world bank bonds. W. C. Louchheim, jr. Comm & Fin Chr 163: 1633+ Mr 28 '46
Officials of world bank; biographical sketches. Comm & Fin Chr 163:2355, 3067, 3236, 3475; 164:72, 756, 1267, 1651, 3216 My 2, Je 6-13, 27-Jl 4, Ag 8, S 5, O 3, D 19 '46
Organization meeting of International fund and bank. H. M. Bratter. Comm & Fin Chr 163:1088+ F 28 '46
Organizing the UN of world finance; Savannah meeting to organize the world bank and stabilization fund. N. P. Gregory. Burroughs Clearing House 30:18-19+ My '46
Roster of world bank and fund set up. Comm & Fin Chr 163:1787+ Ap 4 '46
Savannah meeting of International fund and bank. H. M. Bratter. Comm & Fin Chr 163:1341+, 1386, 1493+ 1634+ Mr 14-28 '46
Twin christening of world fund and bank. J. M. Keynes. Comm & Fin Chr 163:1343+ Mr 14 '46
U.S. delegates to Monetary fund and International bank organization meeting. Comm & Fin Chr 163:1263 Mr 7 '46
Washington ponders Bretton Woods salaries. H. M. Bratter. Comm & Fin Chr 164:202+ Jl 11 '46
Why the Soviet's absence from world bank and fund? C. Prince. Comm & Fin Chr 164: 2333+ N 7 '46
Will world bank work? V. L. Horoth. Mag of Wall St 77:510-11+ F 2 '46
World bank and fund. H. Bratter. il Banking 38:38-9+ Ap '46
World bank and its securities. J. W. Beyen. Comm & Fin Chr 164:1930+ O 17 '46
World bank faces crucial decisions. E. H. Weinwurm. Comm & Fin Chr 164:2082+ O 24 '46
World bank fixes member quotas. E. Meyer. Comm & Fin Chr 164:130 Jl 4 '46
World bank policies and foreign exchange problems. E. H. Weinwurm. Comm & Fin Chr 164:68+ Jl 4 '46
World bank should finance transportation equipment. E. H. Weinwurm. Comm & Fin Chr 163:3054+ Je 6 '46
World bank treasurer appointed; Crena de Iongh of Netherlands. Comm & Fin Chr 164:1547 S 26 '46
World bank's success dependent on credit policy. E. H. Weinwurm. Comm & Fin Chr 164:1006+ Ag 22 '46
World fund and bank; potent trade instruments. M. J. Wasserman. For Comm W 23:4-5+ My 18 '46
World fund and bank still dormant. H. M. Bratter. Comm & Fin Chr 164:743+ Ag 8 '46
Worldwide investment expected for world bank bonds. E. H. Weinwurm. Comm & Fin Chr 163:2354+ My 2 '46

INTERNATIONAL bill of rights
Content of an international bill of rights. C. E. Merriam. Ann Am Acad 243:11-17 Ja '46

INTERNATIONAL boycott. See Boycott, International

INTERNATIONAL brotherhood of teamsters, chauffeurs, warehousemen and helpers of America
Teamsters win stronghold. Bsns W p80+ Je 22 '46

INTERNATIONAL carbide syndicate
Carbide syndicate. Chem Age (Lond) 54:285 Mr 16 '46

INTERNATIONAL claim association
Annual meeting, Quebec, Sept. 9-11. East Underw 47:43+ S 13 '46; Weekly Underw 155:618-19 S 14 '46

INTERNATIONAL competition. See Competition, International

INTERNATIONAL conference on large high-tension electric systems
Abstracts of papers at Paris meeting. Elec R (Lond) 139:23-5 Jl 5 '46; Electrician 137: 389-91, 513-16, 590-2, 867-70 Ag 9, 23-30, S 27 '46
First post-war meeting held in Paris. Elec World News ed 126:10 Jl 27; Elec World 126: 49-50 Ag 31 '46

INTERNATIONAL conference on private law affecting air questions, 2d, Warsaw, 1929
Trends in aviation law; Warsaw convention involved. G. W. Orr. East Underw 46:36 D 21 '45; Abstract. Nat Underw 49:24+ D 20 '45

INTERNATIONAL conference on trade and employment
International conference on trade and employment proposed. Int Labour R 52:667-9 D '45
International trade conference making rapid progress. Comm & Fin Chr 164:2205+ O 31 '46
Trade argument. Economist 151:652-3 O 26 '46
Trade talks; the points at issue. Economist 151:630-1 O 19 '46

INTERNATIONAL conferences
See also
International conference on trade and employment
Moscow, 1945
Big three powers communique; text of foreign ministers Moscow statement. Comm & Fin Chr 163:52+ Ja 3 '46
Diplomatic balance sheet; Moscow conference. Economist 150:2-4 Ja 5 '46
Explains Moscow accord; radio address. J. F. Byrnes. Comm & Fin Chr 163:129+ Ja 10 '46
New pattern for world organization set at Moscow. P. Wohl. Barron's 25:5 D 31 '45
Paris, 1946
Agreement on peace conference greatest achievement; Senate address. T. Connally. Comm & Fin Chr 164:533+ Jl 25 '46

INTERNATIONAL conferences—Paris, 1946—*Continued*
Before the Paris conference. Economist 150: 626-7 Ap 20 '46; Same. Iron age 157:111+ My 2 '46
Byrnes reports on Paris meeting of Council of foreign ministers. Comm & Fin Chr 163: 2829+ My 23 '46
Byrnes reports progress; radio address; Vandenberg reports to Senate. Comm & Fin Chr 164:397+ Jl 18 '46
Vandenberg reports to Senate on Paris meeting. Comm & Fin Chr 163:2975 My 30 '46

INTERNATIONAL congress for applied mechanics
Meeting, 6th, Paris, France, Sept. 22-29. Science 104:349 O 11 '46

INTERNATIONAL congress of actuaries
Actuaries meeting in Brussels to discuss future Congress. East Underw 47:1+ S 27 '46

INTERNATIONAL cooperation
Case study in international organization. M. Katz. Harvard Bsns R 25 no 1:1-20 [O] '46
Cooperation for world's economic well-being; address at National foreign-trade convention. H. A. Wallace. For Comm W 21:3-4+ D 1 '45
International cooperation; goal of prosperity and peace. F. M. Vinson. Comm & Fin Chr 163:2921+ My 30 '46
International cooperation in scientific documentation. A. Seidell. Science 104:174-5 Ag 23 '46
International organizations fostering foreign trade. L. L. Lorwin. Comm & Fin Chr 164:2077+ O 24 '46; Same. il For Comm W 25:3-4+ O 26 '46
Latin America's food; "Servicios" aid advance. W. C. Brister. il For Comm W 23: 10-13+ My 25 '46
Organizing for peace and world trade; role of international agencies. Index 26 no 3: 49-57 [S] '46
Peace may require long series of international parleys. E. Kaskeline. Barron's 26:3 Je 3 '46
Principles of foreign mineral policy of the United States. C. K. Leith. il Min & Met 27:6-17 Ja '46
Science and Anglo-American relations. W. P. Cohoe. Chem & Ind p271-5 Jl 20 '46; Same cond. Chem & Eng N 24:1792-4 Jl 10 '46
Three barriers to world-wide economic teamwork. H. L. Jome. il Dun's R 54:10-14+ Ag '46
Trade and employment; the proposals submitted by United States for consideration by an international conference. Economist 149:869-73 D 15 '45
U.S. railway mission to Mexico. R. J. de Camp. il For Comm W 22:12-13+ F 23 '46

See also
Aeronautics commercial—International aspects
Anglo-American combined boards
Chinese students in the United States
Economic planning, International
Food and agriculture organization of the United nations
International federation
Money—International aspects
Pan Americanism
Peace
Reconstruction (World war, 1939-1945)
Scholarships and fellowships, International
Standards, International
United nations monetary and financial conference
World health organization

INTERNATIONAL council of scientific unions
To meet in general assembly in London on 22-24 July 1946. Science 103:428 Ap 5 '46

INTERNATIONAL electrotechnical commission
Electrotechnical commission to join new organization. E. C. Crittenden. Ind Stand 17:217 S '46

INTERNATIONAL federation
La fédération des nations évoluées, première étape vers un gouvernement mondial. P. Augustin-Normand. Génie Civil 123:194-5 Jl 15 '46
Freedom & union; journal of the world republic. Published monthly by Freedom & union, 700 9th st, NW Washington 1, D.C.

Bibliography
World organization; an annotated bibliography. H. Aufricht, ed. 6th rev ed 20p Woodrow Wilson Foundation, 45 E. 65th st, New York 21 '46

INTERNATIONAL finance. See Finance, International

INTERNATIONAL harvester company
Fowler McCormick; self-made man. il Fortune 34:110-15+ S '46
International Harvester buys government plant at Melrose, Ill. Steel 117:111 D 3 '45
I.H.C. expanding; purchase of Melrose Park plant from RFC. Bsns W p18-19 D 1 '45
International Harvester expands industrial power program. il Ind Marketing 31:35+ F '46
International Harvester launches prototype designs for 8,000 retail dealers. il plans Arch Forum 84:114-17 Ja '46
Patent grab bag; International harvester co. offers patents to all comers. Bsns W p28+ N 24 '45
Research in production. Bsns W p52 F 23 '46
300,000 parts packaged under one trademark. il plan Mod Packaging 19:94-9 Ja '46
University-industry training plan; abstract. A. C. Seyfarth. Trusts & Estates 82:232 F '46

INTERNATIONAL house, New Orleans. See New Orleans—International house

INTERNATIONAL journal of air affairs
Journal of air affairs. Bsns W p86 My 25 '46

INTERNATIONAL labor conference
Results of International labor conference, Paris, Oct. 15-Nov. 5, 1945. Mo Labor R 62:44-7 Ja '46
Twenty-seventh session of the International labour conference, Paris, October-November, 1945. Int Labour R 53:5-38 Ja-F '46

INTERNATIONAL labor organization
Full employment tops agenda of ILO's Steel committee. W. A. Lloyd. Iron Age 157:124-5 My 9 '46
I.L.O.; a going concern. C. Goodrich. Ann Am Acad 246:110-16 Jl '46
ILO in transition. Economist 149:679-80 N 10 '45
Maritime preparatory technical conference. Int Labour R 53:59-63 Ja-F '46
96th and 97th session of the governing body. Int Labour R 52:656-64 D '45

Coal mines committee
First session of the I.L.O. Coal mines committee. Int Labour R 53:200-7 Mr-Ap '46

Conference of American states, Mexico (city) 1946
Third conference. Int Labour R 53:317-39 My-Je '46

Inland transport committee
First session of the I.L.O. Inland transport committee. Int Labour R 53:207-14 Mr-Ap '46

Iron and steel committee
First meeting. Int Labour R 53:364-71 My-Je '46
Iron and steel committee meeting, Cleveland, April 23-29 Steel 118-63 Ap 29; 105-6+ My 6 '46

Metal trades committee
First meeting. Int Labour R 53:371-9 My-Je '46

INTERNATIONAL ladies' garment workers' union
Escalator scale; adjustments as living cost indexes change called for in St Louis garment contract. Bsns W p92 F 2 '46
Garment workers. il Fortune 34:172-9+ N '46
How one union uses its welfare funds. Bsns W p92 Je 8 '46
Philadelphia International ladies garment workers union health plan. J. A. Langbord and S. C. Stein. Ind Med 15:389-91 Je '46

INTERNATIONAL law
Historical background of international protection of human rights. E. Borchard. Ann Am Acad 243:112-17 Ja '46

INTERNATIONAL law—*Continued*
Nürnberg novelty; men guilty of crimes will be punished, but will law have been made? Fortune 32:140-1 D '45; Discussion. 33:10+ F '46
See also
International relations

INTERNATIONAL law, Private
See also
Claims

INTERNATIONAL longshoremen's and warehousemen's union
Bridges' strategy. Bsns W p94+ Ap 6 '46
Uneasy shoreline; Bridges' longshoremen put off strike. Bsns W p96+ Mr 30 '46

INTERNATIONAL longshoremen's association
Davis, arbitrator to settle stevedores' dispute. Bsns W p110+ N 17 '45

INTERNATIONAL marine insurance union
Annual meeting, Zurich, Sept. 24-26. Weekly Underw 155:1068-9+ N 2 '46; East Underw 47:30 N 8 '46

INTERNATIONAL minerals and chemical corporation
Annual report. Comm & Fin Chr 164:2018 O 21 '46
Sales rising fast. Barron's 26:7 N 11 '46

INTERNATIONAL monetary and financial problems, National advisory council on. See National advisory council on international monetary and financial problems

INTERNATIONAL monetary fund
Annual meeting of Boards of governors, Washington, D.C. Comm & Fin Chr 164: 1649+, 1790-1 O 3-10 '46
Annual report of the executive directors, September 1946; text. Fed Res Bul 32:1123-32 O '46; Same abr. Comm & Fin Chr 164: 2338+ N 7 '46
Establishment of Bretton Woods institutions; with table showing voting power and subscriptions of member countries. Fed Res Bul 32:361-71 Ap '46; Excerpt. Comm & Fin Chr 163:2220+ Ap 25 '46
Ex-imp and "fundnbank." H. Bratter. Banking 38:40-1 Je '46
International bank and fund. Nat City Bank p124-8 N '46
International fund and bank under organization. Comm & Fin Chr 163:3478+ Je 27 '46
International investment agencies' legal spheres. N. Ostroff. For Comm W 23:3+ Je 8 '46
Legal aspects of Bretton Woods agreements. C. P. Taft. Comm & Fin Chr 164:2207+ O 31 '46
Monetary future of gold; its role under the old gold standard and under plan set up by the International monetary fund. C. O. Hardy. il Dun's R 54:21-4+ My '46
New exchange rates; first task of International monetary fund. M. J. Wasserman. Comm & Fin Chr 164:878+ Ag 15 '46
Officials of fund; biographical sketches. Comm & Fin Chr 163:2221, 2510, 2658, 2792, 2915, 3067; 164:202, 344, 491, 902, 1031, 1147, 1267, 2105, 3216 Ap 25, My 9-Je 6, 20, Jl 11-25, Ag 15-S 5, O 24, D 19 '46
Organization meeting of International fund and bank. H. M. Bratter. Comm & Fin Chr 163:1088+ F 28 '46
Organizing the UN of world finance; Savannah meeting to organize the world bank and stabilization fund. N. P. Gregory. Burroughs Clearing House 30:18-19+ My '46
Roster of world bank and fund set up. Comm & Fin Chr 163:1787+ Ap 4 '46
Savannah meeting of International fund and bank. H. M. Bratter. Comm & Fin Chr 163:1341+, 1386, 1493+ 1634+ Mr 14-28 '46
Twin christening of world fund and bank. J. M. Keynes. Comm & Fin Chr 163:1343+ Mr 14 '46
Two conceptions of the International monetary fund. P. Bareau. Comm & Fin Chr 164:2210+ O 31 '46
U.S. delegates to Monetary fund and International bank organization meeting. Comm & Fin Chr 163:1263 Mr 7 '46
Washington ponders Bretton Woods salaries. H. M. Bratter. Comm & Fin Chr 164:202+ Jl 11 '46
Why the Soviet's absence from world bank and fund? C. Prince. Comm & Fin Chr 164: 2333+ N 7 '46
Will foreign exchange speculation cease? effects of International monetary fund. A. M. Sakolski. Comm & Fin Chr 163:3197+ Je 13 '46
World bank and fund. H. Bratter. Banking 38:38-9+ Ap '46
World fund and bank; potent trade instruments. M. J. Wasserman. For Comm W 23: 4-5+ My 18 '46
World fund and bank still dormant. H. M. Bratter. Comm & Fin Chr 164:743+ Ag 8 '46

INTERNATIONAL money. See Money, International

INTERNATIONAL nickel company of Canada
Annual report. Comm & Fin Chr 163:1567 Mr 25 '46
1945 reviewed. R. C. Stanley. Comm & Fin Chr 162:3192 D 31 '45
Operations and plants. flow sheets il maps plans diags Can Min J 67:309-556 My '46
Platinum price rise helps International Nickel. Barron's 26:6 S 9 '46

INTERNATIONAL paper company
Big changes in International Paper's capital. Barron's 26:1+ S 2 '46
Weighs senior stock cut. Barron's 26:6 Ap 1 '46

INTERNATIONAL railways of Central America
Dividend outlook. Barron's 26:8 Ap 22 '46

INTERNATIONAL relations
Anglo-U.S-Soviet relations. W. Churchill. Comm & Fin Chr 163:1542+ Mr 21 '46
Attitude of Americans toward Britain and Russia and of British toward Russia and U.S.; Gallup poll. Iron Age 158:113+ O 10 '46
Big three powers communique; text of foreign ministers Moscow statement. Comm & Fin Chr 163:52+ Ja 3 '46
Economic relationships between European countries. E. S. Mason. Comm & Fin Chr 162:2326+ N 15 '45
Effect of the atomic bomb on our civilization. A. W. Kramer. il Power Pl Eng 50: 85-8+ Mr '46
Explains Moscow accord; radio address. J. F. Byrnes. Comm & Fin Chr 163:129+ Ja 10 '46
Fleeting opportunity; relations between the great powers. Economist 151:481-2 S 28 '46; Same. Iron Age 158:111+ O 17 '46
Hollywood and international understanding. H. L. Hansen. Harvard Bsns R 25 no 1: 28-45 [O] '46
International relations in a scientific age. N. J. Padelford. il Tech R 48:561-4+ Jl '46
It isn't one world; it's two; division of nations into two blocs. Bsns W p17-19 My 25 '46
New pattern for world organization set at Moscow. P. Wohl. Barron's 25:5 D 31 '45
One world or two? Economist 150:825-6 My 25 '46; Same. Iron Age 157:121+ Je 6 '46
Sees solution of international problems. M. Winkler. Comm & Fin Chr 163:9 Ja 3 '46
Social composition of scientific power. I. Bowman. Chem & Eng N 24:1338-42 My 25 '46
Treasury for the free world. B. Baeburn, ed. 417p $3.50 Arco pub. co, 480 Lexington av, New York 17 '46
World economic recovery at stake in current political decisions. E. Lyons. Comm & Fin Chr 163:518+ Ja 31 '46
See also
Aeronautics, Commercial—International aspects
Commercial treaties and agreements
Economic planning, International
Financial treaties and agreements
International co-operation
Maritime law
Pan Americanism
Peace
Reconstruction (World war, 1939-1945)
Trading with the enemy
United nations
War
also subdivision Cultural relations, Economic relations, and Foreign relations under names of countries

INTERNATIONAL shoe company
Annual report. Comm & Fin Chr 163:311-12 Ja 21 '46

INTERNATIONAL standards. See Standards, International

INTERNATIONAL technical congress
International technical congress held in Paris, Sept. 16-21. Product Eng 17:159 N '46
International technical congress, Paris; abstracts of papers. Electrician 137:801-2 S 20 '46; Elec R (Lond) 139:465-6, 580 S 20, O 11 '46
International technical congress, Paris; resolution: world engineering conference formed. Mech Eng 68:977-8 N '46

INTERNATIONAL telephone and telegraph corporation
I.T.T. in Spain. Bsns W p98 Ag 3 '46
Public utility securities. Comm & Fin Chr 163:248 Ja 17 '46
Sells Argentine telephone system to Argentine government. Pub Util 38:424-5 S 26 '46

INTERNATIONAL trade, Office of. See United States—International trade, Office of

INTERNATIONAL trade and services association
World trade group formed in Washington. Oil Paint & Drug Rep 150:3 O 7 '46

INTERNATIONAL trade composition association
Annual convention, 26th, Chicago, Sept. 21-22. Inland Ptr 116:71-2 O '45
Annual convention, 27th, Atlantic City, Sept. 19-21. Inland Ptr 118:51-2 N '46

INTERNATIONAL trade operations, Office of. See United States—International trade operations, Office of

INTERNATIONAL trade organization (proposed)
Charter for world trade. Economist 151:509-10 S 28 '46
International trade barriers relaxation proposed by U.S. Oil Paint & Drug Rep 150: 3+ S 23 '46
International trade organization proposed; text of preliminary draft of charter. For Comm W 21:8-10+ D 29 '45
London trade conference new step toward I.T.O. J. W. Evans. For Comm W 25:3-4+ O 12 '46
Observations; world trade charter. A. W. May. Comm & Fin Chr 164:1533+ S 26 '46
Proposals concerning an International trade organisation. Int Labour R 52:668-9 D '45
U.S. suggests a charter for an International trade organization; with summary. For Comm W 24:14-15+ S 28 '46

INTERNATIONAL training administration
Foreign trainees acquire U.S. technical know-how. G. N. Butler. il For Comm W 24: 3-5+ S 28 '46

INTERNATIONAL trusteeships
International trusteeship system. A. N. Holcombe. Ann Am Acad 246:101-9 Jl '46

INTERNATIONAL trusts. See Trusts, Industrial—International trusts

INTERNATIONAL typographical union
Agency reaction spotty in Typos' request to respect Trenton struck work ad list. B. Tolk. Ptr Ink 216:120 S 6 '46
I.T.U. on warpath. Bsns W p96 Ag 10 '46
I.T.U. showdown in Chicago. Bsns W p92+ S 28 '46
I.T.U. strategy; Seattle newspaper strike. Bsns W p98 D 29 '45
Member voices his objections to the I.T.U I. C. Benvenue. Inland Ptr 116:53-4 F '46

INTERNATIONAL union of chemistry
International union of pure and applied chemistry. Chem & Ind p299-302 Ag 10 '46
Marston T. Bogert; president of IUC. Chem & Eng N 24:2029 Ag 10 '46
Rebuilding the Union. M. T. Bogert. Chem & Eng N 24:2608-9 O 10 '46

INTERNATIONAL union of operating engineers
Unique pact; pledges union to use influence for wage reduction in bad years. Bsns W p87 Je 22 '46

INTERNMENT camps. See Concentration camps

INTERPOLATION
Interpolation with the aid of a plot of first differences. G. S. Fulcher. J Ap Phys 17: 617-28 Jl '46

INTERREGIONAL highway plan. See Roads—United States—Interregional highway plan

INTERSERVICE radio propagation laboratory
Interservice radio propagation laboratory. Franklin Inst J 241:62-3 Ja '46

INTERSTATE commerce
Highway barriers. W. L. Chenery. Automotive & Aviation Ind 95:102+ O 15 '46
Hobbs bill signed. Comm & Fin Chr 164:399 Jl 18 '46
Legal aspects of the transportation of natural gas in interstate commerce. M. Newcomb. bibliog Pet Eng (Ref annual) 17:306+ Jl 1 '46
Problems of interstate natural gas pipe lines with respect to state and federal regulation. A. T. Shotwell. Gas Age 97:24-8+ F 21 '46
Road truce ends; strife between states over levies and restraints on trucking. Bsns W p36+ Ja 12 '46
Supreme court decision in North American co. case; analysis includes outline of powers of Congress in interstate commerce. J. Simpson. Am Gas J 165:44-6 Jl '46
Truman on spot; Hobbs labor regulation bill. Bsns W p98+ Je 29 '46

See also
Federal trade commission
Insurance companies—Regulation
Railroad law

INTERSTATE commerce center, New York
Interstate commerce center for downtown New York with spiral ramp for traffic. il plan Arch Forum 83:147-8 N '45

INTERSTATE commerce commission
Annual report, 59th. Ry Age 120:198-201 Ja 19 '46
Dangers to I.C.C. authority; regulation is threatened in anti-trust suits; abstract. E. A. Smith. Ry Age 120:328 F 9 '46
I.C.C. languor on rates. R. R. Young. Ry Age 121:511-12 S 28 '46
Investors share inaccurately reported; criticism of I.C.C. statistical practices. Ry Age 121:556-60 O 5 '46

Bureau of locomotive inspection

Annual report. Ry Mech Eng 120:113-16+ Mr '46; Same cond. Ry Age 120:325-7 F 9 '46
Fusion-welded locomotive boilers; Bureau of locomotive inspection rules. J. M. Hall. Ry Age 120:816-17 Ap 20 '46; Same. Mech Eng 68:624+ Jl '46

Bureau of safety

Bureau of safety reviews fiscal '45. Ry Age 120:250 Ja 26 '46

INTERSTATE compacts
Ohio River Valley water sanitation compact. F. H. Waring. map Civil Eng 16:195-6 My '46

See also
Interstate oil compact commission

INTERSTATE cooperation

See also
Interstate compacts

INTERSTATE oil compact commission
Compact commission's first statistical report compiled; permanent program awaits final OK. E. G. Dahlgren. Nat Pet N 38:41 Ap 3 '46
Quarterly meeting, Grand Rapids, Aug. 8-10. Nat Pet N 38:41+ Ag 14 '46; Oil & Gas J 45:66 Ag 17 '46
Quarterly meeting, Tulsa, April 11-13. Oil & Gas J 44:87-8 Ap 20 '46; Nat Pet N 38: 51 Ap 17 '46
Quarterly meeting, Wichita, Dec. 13-15. Oil & Gas J 44:48-50 D 22 '45; Nat Pet N 37:67-8 D 19 '45; Gas Age 97:37+ Ja 10 '46

INTERSTATE power company
Amended plan filed. Comm & Fin Chr 163: 2994 Je 3 '46
Summary of amended plan. Comm & Fin Chr 164:2196 O 28 '46

INTERVIEWING
Does the public know what the banks sell? bank use survey. Banking 38:33-5+ Je; 39: 44-5+ Jl '46

INTERVIEWING—*Continued*
Interviewing the interviewers; supervisor for advertising agency tells how crew is assembled and instructed for out-of-town consumer survey. D. Favini. Ptr Ink 214: 54+ Mr 8 '46
Metropolitan traffic surveys improved by home-interview method. D. L. Trueblood. il map Eng N 136:58-62 Ja 10 '46
Prospecting for more bank business; bank-use survey covering Medina, Ohio. Banking 39:33-5+ O '46
What is depth interviewing? Ptr Ink 214:36+ F 15 '46
See also
Employment systems—Interviews
INTRASTORE television. See Television advertising
INTRENCHED meanders. See Meanders
INVAR
Nondestructive analysis of a metallurgical unknown. S. Tour. Metal Prog 50:314 Ag '46
INVENTIONS
Awards to inventors; Royal Commission. Elec R (Lond) 139:419-20 S 13 '46
Can corporate research patent inventions? abstract. A. W. Deller. Chem & Met Eng 53:282+ Ap '46
Crosbys unearth products for pint-size firms to make and sell. il Sales Management 55: 85+ N 15 '45
Developing creative engineers. J. F. Young. Mech Eng 67:843-6 D '45
Frank Rieber, successful inventor. Fortune 33:160+ Je '46
Free enterprise endangered in bill to finance development of inventions, etc; the Fulbright bill. R. J. Dearborn. Comm & Fin Chr 163:1984 Ap 11 '46
How to disclose your invention for maximum legal protection. W. K. Rieber. diags Product Eng 17:428-9 My '46
Invention and patents. W. E. Burnand. Elec R (Lond) 137:687-8 N 9 '45
Inventions of scientists; the legal position of scientific discovery. S. Mittler. Chem Age (Lond) 53:592-4 D 22 '45
Processes must mature. E. L. Cady. il Sci Am 175:5-8 Jl '46
Translating inventions into marketable products. S. B. Barnard. Product Eng 17:484-6 Je '46
Wartime inventions aid production. E. S. Hallock. il Dom Comm 34:9-10 My '46
Why engineers should study history. S. R. Hamilton. Engineering 160:324-5 O 26 '45; Same cond. Engineer 180:346-7 N 2 '45
See also
Patents
INVENTIONS, Employees'
Company policy on employee patents; abstract. W. N. Dailey. Management R 34:479-80 D '45
Employer handling of patent problems. Paper Ind 27:1794 Mr '46
Patents; how to get them, use them and protect the rights they provide. B. W. Corrado. Am Mach 90:123-4 Je 6 '46
INVENTORIES
Book value of business inventories, Aug. and Dec. 1945 and Jan.-July 1946; tabulation. Survey of Cur Bsns 26:6 S '46
Goods on hand; the key to price stability; manufacturers', wholesaler, and department store inventories. Bsns W p86 Jl 20 '46
Inventories not dangerous, yet. il Bsns W p15 S 21 '46
Inventory-sales relationships. Survey of Cur Bsns 26:7-8+ Ap '46
One-girl system provides perpetual inventory; Federal manufacturing & engineering corporation. E. N. Reynolds. il Factory Management 103:94-6 N '45
Post-war role of business inventories. D. S. Wilson. Comm & Fin Chr 164:2204+ O 31 '46; Same. Survey of Cur Bsns 26:25-31 O '46
Supplementary methods of financing to provide working capital; inventory financing and accounts-receivable financing. R. L. Gordon. J Account 81:471-5 Je '46
See also
Production and sales, Coordination of
Accounting
Case against administrative expenses in inventory. J. N. Harris. J Account 82:32-6 Jl '46
Control of work in process inventories. E. K. Johnson. N A C A Bul 27:232-52 N 15 '45
Do we mistreat administrative expenses in inventory? J. S. Seidman. J Account 81:286-8 Ap '46; Discussion. H. E. Howell. 82: 77-8 Jl '46
Inventory pricing. M. H. Stans. J Account 81:98-106 F '46; Discussion. A. C. Littleton. 81:333-4 Ap '46
Taking physical inventories in chemical industry entails special problems. W. von Pechmann. Ind & Eng Chem 38:sup89-90 F '46
Taking the physical inventory. W. B. Atchison, jr. N A C A Bul 27:278-93 D 1 '45
Turning the spotlight on turnover. A. C. Kiechlin. Inland Ptr 116:73-4 N '45
Verification of inventories held by customer. J Account 81:337-8 Ap '46
Work in process inventory control. T. R. Elsman. N A C A Bul 28:14-19 S 1 '46
Credit aspects
Factor's lien financing. J. W. Olmsted. Banking 39:47+ Ag '46
Inventory in the balance sheet; are we to accept it at full face value? R. T. Allen. Credit & Fin Management 48:10-12 Ap '46
INVENTORIES, Retail. See Retail trade—Stock
INVENTORS
See also
Loomis, Alfred Lee
INVERTERS, Electric. See Electric inverters
INVESTMENT bankers association of America
Annual meeting, 34th, Chicago, Nov. 25-28. Comm & Fin Chr 162:2697+, 2719-33+ D 6 '45
IBA's economic program. C. S. Garland. Comm & Fin Chr 163:2643 My 16 '46
Program of education; work of education committee. J. H. Collins. Comm & Fin Chr 162:2577+ N 29 '45
INVESTMENT banking
Changing trends in investment banking. B. F. Feldman. Comm & Fin Chr 163:4+ Ja 3 '46
Has war increased investment capital? A. M. Sakolski. Comm & Fin Chr 163:5+ Ja 3 '46
Investment banker's dilemma. I. Wright. Comm & Fin Chr 162:2701+ D 6 '45
Some aspects of investment banking. E. A. MacDuffie. Comm & Fin Chr 164:1783+ O 10 '46
Unsettled investment banking problems. C. S. Garland. Comm & Fin Chr 164:1931+ O 17 '46
Whither trend of investment banking? A. W. Thorpe. Comm & Fin Chr 163:126+ Ja 10 '46
See also First Boston corporation; Investment bankers association of America
INVESTMENT companies
See also
Investment trusts
INVESTMENT molding. See Lost wax process
INVESTMENT trusts
Alleghany shift? Young-Kirby acquisition of interests in Central states electric corp. Bsns W p73-4 Mr 9 '46
Appointment of receiver of investment trust upheld where officers and trustees of trust are guilty of gross abuse of trust. Banking Law J 63:30-40 Ja '46
Department stores for securities; open-end investment company. Fortune 33:164+ Je '46
Diversiform dishonesty; defining fraud under the Investment company act. E. H. Cashion. Comm & Fin Chr 162:2460+ N 22 '45
Higher education is put to the test; Ecclyco, Smith college student project. Bsns W p82 Ja 12 '46
Investment company portfolios, third quarter; study by National association of investment companies. Comm & Fin Chr 162: 2575+ N 29 '45

INVESTMENT trusts—*Continued*
Investment trusts see worthy future in aviation securities. R. L. Hoadley. Aviation 45:53+ Ap '46
Mutual funds; some suggested resolutions for 1946. Comm & Fin Chr 163:20 Ja 3 '46
Portfolio changes of 33 leading open-end investment companies three months ended Sept. 30, 1946; tabulation. Barron's 26:9 O 28 '46
Portfolio changes of 33 leading open-end investment companies, six months ended June 30, 1946; tabulation. Barron's 26:9 Jl 22 '46
See also
Investors syndicate

Accounting

Examination of security transactions in investment trust audit. J Account 81:515-16 Je '46
Investors Syndicate's figure factory; accounting and office methods. J. Turner. il Am Bsns 16:12-15+ Ap '46

Finance

Investment company assets drop in third quarter; position September 30, 1946. W. J. Galligan. Barron's 26:8-9 O 28 '46
Investment funds' values increase during first quarter, extending four-year rise. W. J. Galligan. Barron's 26:8-9 Ap 22 '46
Investment units maintain common stock commitments; position June 30, 1946. Barron's 26:8-9 Jl 22 '46
Mutual investment funds' values sharply up; breakdown of eight-year gains. W. J. Galligan. Barron's 26:8 Ja 28 '46
Wants investment company profits paid as extra dividends; Securities Commissioners' committee on investment companies. Comm & Fin Chr 162:2610 N 29 '45

Securities

Declines in leverage investment company shares from 1946 highs range to 63%. L. Tomlinson. Barron's 26:11 N 11 '46
Investment company in 1945. H. Bullock. Comm & Fin Chr 162:2573+ N 29 '45
Records of 25 closed-end investment companies; more-favored stocks sell far above their 1937 highs. L. Tomlinson. Barron's 26:7+ Mr 4 '46

INVESTMENTS
Backlog investment securities. H. F. Travis. Mag of Wall St 77:576-7+ F 16 '46
Building an estate with common stocks. R. Pitman. Mag of Wall St 78:99+ Ap 27 '46
Capital building programs. J. Durand. il Mag of Wall St 78:587+, 647, 705, 767; 79:39 Ag 17-O 12 '46
Crucial period ahead for investors. D. D. Murphy. Comm & Fin Chr 164:1648+ O 3 '46
Developing an investment program. W. A. Howell. Mag of Wall St 77:345 D 22 '45
Eight special situations for profit, for income; companies in a position to forge ahead; thumbnail stock appraisals. Mag of Wall St 78:19-23 Ap 13 '46
Five selected stocks for 1946 re-investment. Mag of Wall St 77:329-31+ D 22 '45
Income vs. tax; investment yield after income tax. Life Ins Courant 50:428-9 S '45; Revised tables. 51:26 Ja '46
Inflation, interest rates and investment policy. M. Shields. Comm & Fin Chr 164:1781+ O 10 '46
Investment portfolio for the balance of the year. F. K. Dodge. Mag of Wall St 78:398-9+ Jl 6 '46
Investment test; Boston businessmen form group to investigate unproved enterprises. Bsns W p36 Ag 10 '46
Investor; key man to American industry. A. Wiley. Comm & Fin Chr 163:1690+ Mr 28 '46
Little investors. R. W. Babson. Comm & Fin Chr 163:757+ F 7 '46
Looking ahead five years. R. W. Babson. Comm & Fin Chr 164:347 Jl 18 '46
Market outlook and appropriate investment policy. W. F. Edwards. Comm & Fin Chr 163:1085+ F 28 '46
Mathematics of investment. G. C. Watt. J Account 82:211-13 S '46
Opportunities in securities of newly formed corporations. S. Frohlich. Comm & Fin Chr 164:340+ Jl 18 '46
Outlook for investment business in Canada. A. R. Duffield. Comm & Fin Chr 162:2718+ D 6 '45
Portfolio management in a changing world. R. D. Naess. Comm & Fin Chr 162:2698+ D 6 '45
Progressive stocks in changing markets; adapting growth factor to specific requirements. R. Fiske, jr. Trusts & Estates 83: 144+ Ag '46
Recommends diversified list of dividend-paying common stocks and victory bonds. R. W. Babson. Comm & Fin Chr 162:2462 N 22 '45
Significant shifts in investment trends; some effects of government fiscal policy. W. Gates. Mag of Wall St 77:627-8+ Mr 2 '46
Six investment securities for capital building. Mag of Wall St 78:148-50+ My 11 '46
Sources of business funds; selected statistics, 1930-44. C. C. Abbott. R Econ Stat 28: 135-45 Ag '46
Stable income in volatile market; investment policy for institutional funds. R. Fiske, jr. Trusts & Estates 82:381-2+ Ap '46
Statisticians pick 1946 favorites. Barron's 26:7 Ag 5 '46
Ten low-priced securities vs. ten high-priced securities. R. Carleson. Mag of Wall St 78: 455-7+ Jl 20 '46
Timely analysis of securities disturbing investors. H. S. Coffin. Mag of Wall St 78: 755-6+ S 28 '46
Unfashionable securities highlight widow's gains. W. J. Galligan. Barron's 26:11+ O 21 '46
Weeding-out weak spots in your investment portfolio. H. F. Travis. Mag of Wall St 79:25-7 O 12 '46
Widow's advisers differ on investment policy. W. J. Galligan. Barron's 26:3+ S 23 '46
See also
Banks and banking—Investments
Bonds
Brokers
Building and loan associations
Hedging
Insurance, Life—Investments
Interest
Investment banking
Investment trusts
Mortgages
Municipal bonds
Saving
Savings banks—Investments
Securities
Speculation
Stock exchange
Stockholders
Stocks
Trusts and trustees—Investments
also subdivision Securities under special headings, e.g. Mining industry and finance—Securities; Public utilities—Securities—Railroads—Securities

Accounting

Deductibility of investors' expenses under section 23 (a) (2) of the Internal revenue code. P. D. Seghers. J Account 81:130-2 F '46

Advertising

Investors' primer simplifies financial terms. Sales Management 56:86 Mr 1 '46

Bibliography

Dealer-broker investment recommendations and literature. Comm & Fin Chr 162:2330 N 15 '45 [cont in weekly Thursday numbers]

INVESTMENTS, Foreign
How foreign investors should be treated; League of nations publication makes recommendations to countries that seek import of capital. Comm & Fin Chr 163: 2787+ My 23 '46
New York stock exchange wants to encourage listing of foreign securities on its big board. Comm & Fin Chr 164:1580 S 26 '46
See also
Balance of payments
Branch factories, Foreign
Loans, Foreign
Petroleum industry and trade—United States—Foreign properties

Germany

Accord on Swiss held German assets; with text. Comm & Fin Chr 164:130-1 Jl 4 '46
German assets in Austria. Economist 151:168-9 Ag 3 '46

INVESTMENTS, Foreign—Germany—*Cont.*
German assets in Spain. Chem Age (Lond) 55:45-6 Jl 13 '46
German assets in Sweden. Economist 151:146 Jl 27 '46
German assets in Switzerland. Economist 150: 550, 835 Ap 6, My 25 '46
Sweden and allies go over the books. H. M. Bratter. Comm & Fin Chr 163:3065+ Je 6 '46
Sweden to free German assets to allies. J. H. Crider. Comm & Fin Chr 164:535 Jl 25 '46

Great Britain

British defaulted foreign bond holdings. P. Einzig. Comm & Fin Chr 163:1352+ Mr 14 '46
British government holdings of American securities. L. H. Bradshaw. Comm & Fin Chr 163:2217+ Ap 25 '46
City links with America. W. M. Dacey. Assn of Sp Lib & Inf Bur Proc 1945:39-40
Mission to Argentina; problems affecting the British-owned railways. Economist 150:1012-13 Je 22 '46
Mr Dalton adds fuel to the fire; holders of Japanese bonds. Economist 150.385 Mr 9 '46
World war II has reduced British holdings of American securities and investments about 50%. E. A. R. Germain. Comm & Fin Chr 164:480+ Jl 25 '46

Netherlands

Dumping of Dutch-owned U.S. stocks unlikely with other dollar sources available. W. F. T. Slee. Barron's 26:1+ O 14 '46
Dutch holdings in the U.S. Bsns W p109 O 19 '46
Dutch to liquidate their U.S. securities. J. van Galen. Comm & Fin Chr 164:1932 O 17 '46
Dutch to permit sale of dollar bonds. Barron's 26:6 O 28 '46
Holland's American investments. W. Slee. Comm & Fin Chr 164:65+ Jl 4 '46

See also
Investments, Foreign (in Netherlands)

United States

Aims of our foreign investment policy. O. H. Korican. Harvard Bsns R 24 no 4:498-511 [Jl] '46
America's future role in foreign lending. J. Hirsch. Comm & Fin Chr 163:3198+ Je 13 '46
Denial of U.S. foreign loans urged by foreign trade council as property safeguard by National foreign trade council. Comm & Fin Chr 163:3113 Je 6 '46
Foreign mining investments require government support. C. W. Wright. Eng & Min J 147:80-1+ Ap '46
Foreign opportunities attracting U.S. funds. A. J. Maser. Barron's 26:12 O 28 '46
Foreign trade, foreign investment, and American prosperity; review of International trade and domestic employment by C. B. Hoover, and House report no. 541, Postwar foreign economic policy of the United States. L. W. McKenzie, jr. Mech Eng 68: 816-17 S '46
Good record of European dollar bonds. M. Winkler. Comm & Fin Chr 164:493 Jl 25 '46
Investment and money market outlook. A. M. Pope. Comm & Fin Chr 163:1086+ F 28 '46; Same. Chem & Eng N 24:618-20 Mr 10 '46
Necessity for foreign investment. W. L. Thorp. Comm & Fin Chr 162:2452+ N 22 '45; Excerpt. For Comm W 21:15 D 8 '45
New York courts without jurisdiction to remove foreign resident trustee of foreign property. Banking Law J 63:665-8 S '46
Outlook for private foreign investments. H. B. McCoy. Comm & Fin Chr 163:1352+ Mr 14 '46
Reports on foreign bond situation. J. T. Madden. Comm & Fin Chr 163:3535 Je 27 '46
Russia's attitude toward American business; Socony Vacuum's Austrian properties. H. P. Rudinger. Comm & Fin Chr 164:1940 O 17 '46
SEC keeps stockholders from sharing investment opportunities. E. von Hofmannsthal. Barron's 26:5 Ap 8 '46
Short changing American investors in foreign corporations. E. Von Hofmannsthal. Barron's 25:13 D 17 '45
To encourage investment, Latin America must vitalize Inter-American conference resolutions. H. Bancroft. Eng & Min J 147: 52-7 Ja '46
U.S. holders may recover on Axis bonds. Barron's 26:6 N 11 '46
U.S. international investment position; figures for Dec. 1939, Sept. 1944 and Dec. 1945. Nat City Bank p41 Ap '46

INVESTMENTS, Foreign (in Austria)
New bonanzas in old Europe. K. G. von Fischer. Fortune 34:38+ Ag '46

INVESTMENTS, Foreign (in Denmark)
Special wartime controls to be removed from U.S.-owned assets in Denmark. For Comm W 24:20 Jl 6 '46

INVESTMENTS, Foreign (in Latin America)
Business below the border. Economist 150: 926-7 Je 8 '46
Opportunities in Latin America for U.S. and British investment. E. E. Freudenthal. Comm & Fin Chr 163:1786+ Ap 4 '46
To encourage investment, Latin America must vitalize Inter-American conference resolutions. H. Bancroft. Eng & Min J 147: 52-7 Ja '46

INVESTMENTS, Foreign (in Netherlands)
Holland invites American capital. W. T. Slee. Comm & Fin Chr 164:1134+ Ag 29 '46

INVESTMENTS, Foreign (in United States)
Aliens' U. S. holdings at peak. Bsns W p105 Mr 2 '46
British government holdings of American securities. L. H. Bradshaw. Comm & Fin Chr 163:2217+ Ap 25 '46
City links with America. W. M. Dacey. Assn of Sp Lib & Inf Bur Proc 1945:39-40
International capital transactions of the United States; net capital movement to United States since Jan. 2, 1935 by types and by countries. Fed Res Bul 32:91-6 Ja '46 [cont monthly]
Turn in tide of repatriation of foreign money from United States? R. Carleson. il Mag of Wall St 78:619-21+ Ag 31 '46
World war II has reduced British holdings of American securities and investments about 50%. E. A. R. Germain. Comm & Fin Chr 164:480+ Jl 25 '46

INVESTORS syndicate
Gamble's venture; control of Investors syndicate. Bsns W p72+ N 17 '45
Investors Syndicate's figure factory; accounting and office methods. J. Turner. il Am Bsns 16:12-15+ Ap '46

INVOICES
Work simplification, a case study of vouchers payable. J. D. Anderson. flow chart N A C A Bul 27:979-87 Je 1 '46

IODIDES
Kinetics of the pentavalent vanadium—iodide reaction; correlation with the induced catalysis of the oxygen—iodide reaction. J. B. Ramsey, E. L. Colichman and L. C. Pack. bibliog Am Chem Soc J 68:1695-8 S '46
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance; comparison of the rates of reaction of ethyl and *neo*pentyl bromides with inorganic iodides in acetone solution. I. Dostrovsky and E. D. Hughes. Chem Soc J p161-4 Mr '46
Persulphate-iodide reaction; specific effects of univalent and bivalent cations; activation energy of the reaction. W. J. Howells. Chem Soc J p203-6 Mr '46

IODIMETRY. See Iodometry

IODINATION
Improved methods for the preparation of the X-ray contrast media iodoxyl and diodone. R. H. Hackman and R. Lemberg. bibliog Soc Chem Ind J 65:204-5 Jl '46

IODINE
Conductance of iodine in liquid hydrogen sulfide. E. E. Lineken. bibliog diag Am Chem Soc J 68:1966-8 O '46

IODINE—*Continued*
Estimation of iodine color of starches and starch fractions. S. A. Watson and R. L. Whistler. bibliog Ind & Eng Chem Anal ed 18.75-6 Ja '46
Iodine as a cytological stain. F. B. Adamstone and A. B. Taylor. Science 104:111 Ag 2 '46
Mechanism of the therapeutic effect of iodine on the thyroid gland. E. De Robertis and W. W. Nowinski. bibliog Science 103:421 Ap 5 '46
Reaction velocity with large negative temperature coefficient; reaction between iodine and chlorine. J. H. Hildebrand. Am Chem Soc J 68:915 My '46
Reactions of acetophenols with iodine and pyridine and the preparation of hydroxybenzoic acids. L. C. King, M. McWhirter and D. M. Barton. Am Chem Soc J 67:2089-92 D '45
Reactions of acetophenone and iodine with some nitrogenous bases. L. C. King and M. McWhirter. bibliog Am Chem Soc J 68:717 Ap '46
Resonance spectrum of iodine. D. H. Rank. bibliog il Opt Soc Am J 36:239-41 Ap '46
Studies in chemotherapy; oxidation of 2-thiouracil and related compounds by iodine. W. H. Miller, R. O. Roblin, jr. and E. B. Astwood. bibliog Am Chem Soc J 67:2201-4 D '45

Isotopes

Disintegration of I^{128}. K. Siegbahn and N. Hole. bibliog Phys R 70:133-5 Ag 1 '46
Future of atomic energy; biological phase. W. E. Chamberlain. Chem & Eng N 24: 1352-6 My 25 '46; Abstract. Metal Prog 49: 1205-6 Je '46

IODINE compounds
In vitro action of monopyridine iodine (I) *p*-nitrobenzoate against ringworm fungi. J. Kleinberg and E. Meyer. Science 104:398-9 O 25 '46
Iodinated dialkylaminoalkyl pyridyl ethers. A. Burger and M. S. Bailey. Am Chem Soc J 68:520 Mr '46
Quinolines; some bz-iodo-3-methyl-4-(l'-methyl-4'-diethylaminobutylamino)-quinolines. E. A. Steck, L. L. Hallock and A. J. Holland. Am Chem Soc J 68:1241-3 Jl '46

See also
Iodination

IODINE number
Anomalous behavior of methyl 12-hydroxy-9,10-octadecenoates in rapid iodine number determinations. P. S. Skell and S. B. Radlove. bibliog Ind & Eng Chem Anal ed 18: 67-8 Ja '46

IODOCHLOROBIPHENYL
2-Iodo-4'-chlorobiphenyl. C. K. Bradsher and L. J. Wissow. bibliog Am Chem Soc J 68: 404-5 Mr '46

IODODIMETHYLPROPANE
Organo-silicon compounds; silicon analogs of neopentyl chloride and neopentyl iodide; the alpha silicon effect. F. C. Whitmore and L. H. Sommer. bibliog Am Chem Soc J 68: 481-4 Mr '46

IODOMETRY
Estimation of oxygen in inert oxygen-free atmospheres. E. H. Winslow and H. A. Liebhafsky. bibliog diag Ind & Eng Chem Anal ed 18:565-8 S '46
Iodometric method for the assay of penicillin preparations. J. F. Alicino. bibliog Ind & Eng Chem Anal ed 18:619-20 O '46
Iodometric method of analysis for organic peroxides. K. Nozaki. Ind & Eng Chem Anal ed 18:583 S '46
Iodimetric titrimetric determination of vitamin C; abstract. J. Adams, M. M. Acker and H. A. Frediani. Can Chem & Process Ind 30:83 Ap '46
Removal of peroxides from organic solvents. W. Dasler and C. D. Bauer. bibliog Ind & Eng Chem Anal ed 18:52-4 Ja '46

IODOPHOSPHONATES
Esters containing phosphorus; dialkyl iodophosphonates. H. McCombie, B. C. Saunders and G. J. Stacey. Chem Soc J p921-2 D '45

IODOSO compounds
Decomposition of phenyliodoso acetate. R. B. Sandin and W. B. McCormack. Am Chem Soc J 67:2051-2 N '45

IODOXYL
Improved methods for the preparation of the X-ray contrast media iodoxyl and diodone for visualisation of urinary tract. R. H. Hackman and R. Lemberg. bibliog Soc Chem Ind J 65:204-5 Jl '46

ION exchangers
Ion exchange. H. C. E. Johnson. il Sci Am 174:119-21 Mr '46
Ion exchange. H. F. Walton. bibliog diags J Chem Educ 23:454-8 S '46
Ion exchange process for extracting cinchona alkaloids. N. Applezweig and S. E. Ronzone. bibliog flow sheet il Ind & Eng Chem 38:576-9 Je '46
Semimicro ion-exchange column. N. Applezweig. diag Ind & Eng Chem Anal ed 18:82 Ja '46

See also
Base exchanging compounds
Bases (chemistry)

IONGH, D. Crena de, 1888-
World bank treasurer appointed. Comm & Fin Chr 164:1547 S 26 '46

IONIZATION, Electrolytic
Absorption spectra of acridines; steric interference with ionisation. D. P. Craig. Chem Soc J p534-7 Je '46
Dissociation constants of acetylacetone, ethyl acetoacetate and benzoylacetone. M. L. Eidinoff. bibliog Am Chem Soc J 67:2072-3 D '45
Dissociation constant, solubility, and the *pH* value of the solvent. H. A. Krebs and J. C. Speakman. Chem Soc J p593-5 S '45
Dissociation of strong electrolytes. O. Redlich. bibliog(154 references) Chem R 39: 333-56 O '46
Effect of sodium chloride upon the first ionization of glycine. E. J. King. bibliog Am Chem Soc J 67:2178-82 D '45
Electrolytic dissociation processes; the ionisation of a carbon-halogen bond by inorganic halides. F. Fairbrother. diag Chem Soc J p503-9 Ag '45
Electron affinity of amide radical and the chemical stability of metal-ammonia solutions. R. A. Ogg, jr. J Chem Phys 14:399-400 Je '46
First dissociation constant of *o*-phthalic acid and related pH values of phthalate buffers from 0° to 60° C. W. J. Hamer and others. bibliog J Res Nat Bur Stand 35:539-64 D '45
Ionization constant of acetic acid in 50% glycerol-water solution of 0 to 90°. H. S. Harned and F. H. M. Nestler. Am Chem Soc J 68:966-7 Je '46
Second dissociation constant of *o*-phthalic acid and related pH values of phthalate buffers from 0° to 60° C. W. J. Hamer and S. F. Acree. bibliog J Res Nat Bur Stand 35:381-416 N '45
Tautomeric equilibria in partially neutralized solutions of acetylacetone and benzoylacetone. M. L. Eidinoff. Am Chem Soc J 67:2073-5 D '45
Transference number of nickel in a nickel sulfate solution. C. J. B. Zitek and H. J. McDonald. bibliog diags Electrochem Soc Trans 89 (preprint 24):279-87 '46
Ultraviolet spectra and dissociation constants of *p*-hydroxybenzoic acid, methyl, ethyl, *n*-butyl, and benzyl *p*-hydroxybenzoate and potassium *p*-phenolsulfonate. E. E. Sager and others. bibliog diags J Res Nat Bur Stand 35:521-38 D '45
Variation of the transference numbers for calcium chloride in aqueous solution with temperature. A. G. Keenan and others. bibliog J Chem Phys 13:466-9 N '45

IONIZATION, Gaseous
Conduction and dispersion of ionized gases at high frequencies. H. Margenau. bibliog Phys R 69:508-13 My 1 '46
Energy distribution of electrons in high frequency gas discharges. T. Holstein. diag Phys R 70:367-84 S 1 '46
Fast neutron energy absorption in gases, walls, and tissue. P. C. Aebersold and G. A. Anslow. bibliog Phys R 69:1-21 Ja 1 '46
Initiation of discharge in arcs of the thyratron type. C. J. Mullin. bibliog diag Phys R 70:401-5 S 1 '46

IONIZATION, Gaseous—*Continued*
Ion sources for cyclotrons. M. S. Livingston. diags Rs Mod Phys 18:293-9 Jl '46
Ionization by fission fragments in nitrogen, argon, and xenon. N. O. Lassen. bibliog Phys R 68:230-1 N 1 '45
Ionization currents in non-uniform electric fields. P. L. Morton. bibliog diag Phys R 70:358-66 S 1 '46
Ionization of the atmosphere in the New York area before and after the Bikini atom bomb test. V. F. Hess and P. Luger. Phys R 70:564-5 O 1 '46
Metastable ions formed by electron impact in hydrocarbon gases. J. A. Hipple and others. bibliog diag Phys R 69:347-56 Ap 1 '46
Meteoric impact ionization observed on radar oscilloscopes. O P. Ferrell. bibliog Phys R 69:32-3 Ja 1 '46
Theory of ionization yield of radiations in different substances. U. Fano. bibliog Phys R 70:44-52 Jl 1 '46
Volt-ampere characteristics for the flow of ions or electrons between concentric cylinders in gases at atmospheric pressure. C. W. Rice. Phys R 70:228-9 Ag 1 '46

IONIZATION chambers
Experiments on the elastic single scattering of electrons by nuclei. R. J. Van de Graaff and others. bibliog diags Phys R 69:452-9 My 1 '46
Use of 6AK5 and 954 tubes in ionization chamber pulse amplifiers. V. L. Parsegian. R Sci Instr 17:39-40 Ja '46

IONIZATION gage
Alphatron announced by National research corp. il R Sci Instr 17:202 My '46
Application of the ion gage in high vacuum measurement. H. E. Van Valkenburg. il diags Gen Elec R 49:38-42 Je '46
Automatic ionization vacuum gauge and monitor. E. A. Hamacher. diags R Sci Instr 17:281 Jl '46
Calibration of ionization gauge for different gases. S. Dushman and A. H. Young. Phys R 68:278 D 1 '45
Frequency modulated oscillator for leak hunting in vacuum systems. W. M. Brubaker and V. Wouk. il diag R Sci Instr 17:97-8 Mr '46
Ionization gauge of simple construction. C. M. Fogel. bibliog diag Inst Radio Eng Proc 34:302-5 My '46
Measuring high vacuums with the thermal and ionization gauge. J. G. Seiter. il diag Paper Ind 28:813-15 S '46
National union radio corp. ionization gauge. R Sci Instr 16:381 D '45
Radium-type vacuum gage. G. L. Mellen. bibliog il diags Electronics 19:142-6 Ap '46

IONONE
Cyclization of pseudoionone by acidic reagents. E. E. Royals. bibliog Ind & Eng Chem 38:546-8 My '46

IONOSPHERE. See Atmosphere, Upper

IONS
Absorption spectra of the negative ions of two diaminotriphenylmethane dyes. B. M. Tolbert and G. E. K. Branch. Am Chem Soc J 68:815-19 F '46
Adsorption of strontium and barium ions and their exchange on hydrous ferric oxide. J. D. Kurbatov, J. L. Kulp and E. Mack, jr. Am Chem Soc J 67:1923-9 N '45
Binding of organic ions by proteins. I. M. Klotz, F. M. Walker and R. B. Pivan. bibliog Am Chem Soc J 68:1486-90 Ag '46
Contamination of precipitated barium sulfate by univalent cations. G. Walton and G. H. Walden, jr. bibliog Am Chem Soc J 68:1742-50 S '46
Cupric complex ions; absorption spectra and equilibria in the cupric-nitrite system. A. Kossiakoff and D. V. Sickman. Am Chem Soc J 68:442-4 Mr '46
Determination of the activities of several coexisting ions by the Gibbs-Donnan equilibrium without the use of specific electrodes. K. Sollner. bibliog Am Chem Soc J 68: 156 Ja '46
Influence of the concentration and mobility of ions on dielectric loss of insulating oils. Bun Po Kang. bibliog Elec Eng 65:Trans 403-7 Jl '46
Inner complex ions, a chelate species. H. A. Liebhafsky. bibliog J Chem Educ 23:341-2 Jl '46
Ion sources for cyclotrons. M. S. Livingston. diags Rs Mod Phys 18:293-9 Jl '46
New photographic emulsions showing improved tracks of ionizing particles. P. Demers. Phys R 70:86 Jl 1 '46
Paths of ions and electrons in non-uniform crossed electric and magnetic fields. N. D. Coggeshall. bibliog Phys R 70:270-80 S 1 '46
Stokes' law and the limiting conductance of organic ions. E. Gonick. diag J Phys Chem 50:291-300 Jl '46
Volt-ampere characteristics for the flow of ions or electrons between concentric cylinders in gases at atmospheric pressure. C. W. Rice. Phys R 70:228-9 Ag 1 '46

See also
Activity coefficients
Electrons
Hydrogen ion concentration
Ionization, Electrolytic
Ionization, Gaseous

Beams
Cyclotron beam current integrator and recorder. E. A. Hamacher. diags R Sci Instr 17:364-8 O '46
Device producing ion beams homogeneous as to mass and energy. J. Koch. diag Phys R 69:238 Mr 1 '46

Mobility
Concentration of ^{39}K and ^{41}K by balanced ion migration in a counterflowing electrolyte. A. K. Brewer and others. diags Science 104: 156-7 Ag 16 '46
Variation of the transference numbers for calcium chloride in aqueous solution with temperature. A. G. Keenan and others. bibliog J Chem Phys 13:466-9 N '45

IOPAX. See Iodoxyl

IOWA
See also
Agriculture—Iowa
Rock products industry—Iowa
Westphalia, Iowa

IOWA institute of hydraulic research
Iowa institute of hydraulic research. il plans diag map Univ of Iowa (Iowa City) Studies in Engineering Bul 30:1-80 '46 (pa 50c)

IOWA power and light company
Stock offered. Comm & Fin Chr 163:1029 F 25 '46

IOWA public service company
Securities offered. Comm & Fin Chr 164:9 Jl 1 '46

IOWA state college of agriculture and mechanic arts
Iowa state college engages in atomic bomb project. il Chem & Eng N 23:2076-7 N 25 '45

Institute of atomic research
Established. Science 103:16 Ja 4 '46

IRAN. See Persia

IRAQ
See also
Petroleum industry and trade—Iraq
Railroads—Iraq

Economic conditions
News by countries. For Comm W 23:30-1 Je 22 '46

IRELAND
Eire and Uno. Economist 151:261 Ag 17 '46
See also
Electricity supply—Ireland

Commerce
Irish trade, 1938 to 1944. Economist 150:378-9 Mr 9 '46

Economic conditions
Eire in 1945. Economist 150:sup7 Mr 23 '46
What progress in Eire? H. E. Hall. For Comm W 23:6-9 Ap 13 '46

IRELAND—*Continued*

Foreign relations

End to Irish isolationism? Economist 149: 683 N 10 '45

Industries and resources

Industrial development in Eire. Economist 150:844+ My 25 '46

IRON

Absorption of slow mesotrons in lead, iron, aluminum, and water. H. P. Koenig. diags Phys R 69:590-6 Je 1 '46

Adsorption of oxygen at low temperature and pressure on smooth iron. M. H. Armbruster and J. B. Austin. bibliog Am Chem Soc J 68:1347-54 Jl '46

Anaerobic corrosion of iron in soil; with particular consideration of soil redox potential as indicator of corrosiveness. R. L. Starkey and K. M. Wight. bibliog(203 titles) il diags Am Gas Assn Proc 1945:307-412

Determination of cobalt in high-cobalt products; separation from iron by phosphate. R. S. Young and A. J. Hall. bibliog Ind & Eng Chem Anal ed 18:262-4 Ap '46

Determination of hydroperoxides in rubber and synthetic polymers. H. A. Laitinen and J. S. Nelson. bibliog Ind & Eng Chem Anal ed 18:422-5 Jl '46

Effect of composition and environment on corrosion of iron and steel. C. P. Larrabee. Marine Eng 51:134-5 F '46

Effect of iron on fluorescence in glass. L. Thorington and others. bibliog Am Cer Soc J 29:151-8 Je 1 '46

Effect of the iron content of cupro-nickel on its corrosion and resistance in sea water. A. W. Tracy and R. L. Hungerford. il Am Soc T M Proc 45:591-612; Discussion. 613-17 '45

Enrichment of rice with synthetic vitamins and iron. M. F. Furter and others. bibliog il diag Ind & Eng Chem 38:486-93 My '46

Equilibrium of iron-carbon alloys with mixtures of CO-CO_2 and CH_4-H_2. R. P. Smith. bibliog Am Chem Soc J 68:1163-75 Jl '46

Filter paper collection of cadmium and iron fumes in air. L. Silverman and C. Valenzuela. J Ind Hygiene 28:107-11 My '46

Iron concentrations in cholinesterase preparations. R. D. Barnard. Science 104:331 O 4 '46

Isolation of the protective film on passive iron. C. W. Gibby and D. Dickinson. il diag Chem & Ind p227-8 Je 15 '46

Magnetisation of polycrystalline iron and iron-silicon alloys. G. C. Richer. bibliog Iron & Steel Inst J 150:93-142 no 2 '44

Microscopical examination of samples of lead-bearing and lead-free steels and ingot irons. T. H. Schofield. bibliog Iron & Steel Inst J 151:277-80, pl 31-2; Discussion. 294-9 no 1 '45

System iron-oxygen; equilibrium and thermodynamics of liquid oxide and other phases. L. S. Darken and R. W. Gurry. bibliog il Am Chem Soc J 68:798-816 My '46

Transmission of velocity-selected neutrons through magnetized iron. E. M. Fryer. bibliog diags Phys R 70:235-44 S 1 '46

Use of cupola iron in the open hearth. W. H. Steinheider. Blast F & Steel Pl 33: 1384+ N '45

See also

Blast furnaces
Cast iron
Chilled iron
Corrosion and anti-corrosives
Foundry practice
Iron, Powdered
Iron, Sponge
Iron alloys
Iron founding
Iron metallurgy
Iron ores
Iron works
Pig iron

Analysis

Colorimetric determination of iron in the presence of large concentrations of copper and nickel. R. H. Greenburg. Ind & Eng Chem Anal ed 18:255-7 Ap '46

Conductometric titrations with organic reagents; determination of copper with cupferron, and iron with sulfosalicylic acid. J. F. Corwin and H. V. Moyer. bibliog Ind & Eng Chem Anal ed 18:302-4 My '46

Destruction of organic matter in blood fibrin and chromacized medical catgut by wet oxidation; determination of iron in blood and of chromium in sutures. G. F. Smith. bibliog Ind & Eng Chem Anal ed 18:257-9 Ap '46

Differential reduction of iron and tin. A. C. Simon and others. Ind & Eng Chem Anal ed 18:496-7 Ag '46

Entrainment of cobalt and sulfur in iron separations. E. T. Pinkney, R. Dick and R. S. Young. bibliog Am Chem Soc J 68: 1126-8 Je '46

Mercurous perchlorate as a volumetric reagent for iron. W. Pugh. Chem Soc J p588-9 S '45

Method for the determination of iron in welding fume samples. R. G. Keenan and B. L. Minderman. bibliog J Ind Hygiene 28:32-6 Mr '46

Rapid photometric determination of iron and copper in red phosphorus. J. A. Brabson and others. bibliog Ind & Eng Chem Anal ed 18:554-6 S '46

Rapid photometric determination of iron in aluminum alloys. M. S. Pepi. bibliog Ind & Eng Chem Anal ed 18:111-12 F '46

Rapid specific-gravity method for estimating the iron content of Birmingham, Ala. red ores. I. L. Feld and others. 2pls U S Bur Mines Rep of Invest 3838:1-6 '46

Recent developments in analytical chemistry; volumetric estimation of iron. Chem Age (Lond) 53:507 D 1 '45

Bibliography

Review of iron and steel literature for 1945. E. H. McClelland. Blast F & Steel Pl 34: 244-9 F '46 [reprinted with additions by Carnegie Library of Pittsburgh]

Survey of literature on the manufacture and properties of iron and steel, and kindred subjects. Iron & Steel Inst J 150:1A-170A no 2 '44

Survey of literature on the manufacture and properties of iron and steel, and kindred subjects. Iron & Steel Inst J 151:1A-161A no 1 '45

Desulfurization

See Iron—Sulfur content

Metallography

Ar' reaction in some iron-cobalt-tungsten alloys and the same modified with chromium. W. P. Sykes. il Am Soc for Metals Trans 34:415-24 '45

Cleavage structures of iron-silicon alloys. C. A. Zapffe and M. Clogg, jr. il Am Soc for Metals Trans 34:108-41 bibliog(p140-1); Discussion. 141-2 '45

Fractography. J. E. Hurst and R. V. Riley. il Metal Prog 49:96-7 Ja '46

Further note on the microstructure of high silicon acid-resisting iron. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 151:105-7, pl 7-8; Discussion. 107-8 no 1 '45

Heat tinting cast iron for microscopic examination; engineering file facts. Materials & Methods 23:1053 Ap '46

Pearlitic malleable cast iron; abstract. R. W. Lindsay and J. E. Atherton, jr. Materials & Methods 22:1824+ D '45

Practical method of selecting the correct type of cast iron; use of photomicrographs. K. R. Geist and W. A. Hambley. bibliog il Iron Age 158:64-70 O 17; 58-64 O 24 '46

Stability of iron carbide. L. Crome. il Foundry 74:90-1+ S '46

Tessellated stresses. F. László. diags Iron & Steel Inst J 147:173-99 no 1; 148:137-59 no 2 '43; 150:183-207 no 2 '44; 152:207-28 no 2 '45; Discussion. 150:207-9 no 2 '44

See also

Cast iron—Graphitization

Prices

Average monthly quotations in 1945. Steel 118: 352 Ja 7 '46

Iron and steel prices. Engineer 182:153 Ag 16 '46

Protection

Diffusion layers of chromium for protection of iron; abstract. N. C. Gorbunov. Chem & Met Eng 53:270 Mr '46

IRON—*Continued*

Sulfur content

Desulphurizing cupola iron for openhearth use; abstract. W. H. Steinheider. Iron Age 157:68 My 2 '46

Desulphurizing cupola iron with soda ash. C. G. Hummon. Blast F & Steel Pl 33:1331-4 N '45

Testing

Study of work-hardening and reannealing of iron. M. Balicki. diags Iron & Steel Inst J 151:181-224, bibliog(71 titles, p221-3) no 1 '45

IRON, Molten

Pyrometry of liquid iron and steel; abstract. H. T. Clark. Materials & Methods 23: 1376+ My '46

Testing

Rapid test for fluidity measurement. G. B. Taylor. il diags Iron Age 157:62-3 Ap 11 '46

IRON, Powdered

Carbursintering of iron powders. A. S. Margolies. bibliog il Iron Age 157:60-3 F 28 '46

Cemented steels are perfected. il Bsns W p50+ My 25 '46

Cemented steels; infiltration of molten low melting metal into steel powder compact; development of American electro metal corp. E. S. Kopecki. il diags Iron Age 157: 50-4 My 2 '46

Cemented steels, new high-strength powder metallurgy product. F. P. Peters. il diags Materials & Methods 23:987-91 Ap '46

Designing powder metal parts; Moraine products division, General motors corp. diags Steel 118:108-10+ Je 3 '46

Duplex metal produced by new powder-metallurgy technique; Sinteel G. Sci Am 174:209 My '46

Effects of pressure and temperature on iron powder compacts. C. O. Heath, jr. and J. D. Stetkewicz. il Metal Prog 48:73-6 Jl '45; Discussion. F. C. Kelley. 49:100-2 Ja '46

Electrolytic iron plant to be built in Tacoma. Chem & Met Eng 53:186 Ap '46

German iron and nickel powders made by the carbonyl process. T. P. Colclough. Iron Age 157:48-9 F 21 '46; Abstract. Metal Prog 50:332+ Ag '46

Iron-cored loop receiving aerial. R. E. Burgess. bibliog Wireless Eng 23:172-8 Je '46

Iron powder cores and coils. H. W. Jaderholm. Inst Radio Eng Proc 33:904 D '45

Manufacture of ferrous metal powder parts; pictorial story photographed by F. M. Demarest; text by P. Schwarzkopf and C. G. Goetzel. Metal Prog 49:539-47 Mr '46

Manufacture of iron powder in Germany. D. D. Howat. Chem Age (Lond) 55:193-4 Ag 17 '46

Powder metallurgy of iron; correlated abstract. Materials & Methods 23:224+ Ja '46

Powdered iron cores for use in high frequency magnetic applications and other electronic purposes. C. T. Martowicz. bibliog il Steel 118:146-8+ Ap 1 '46

Production of electrolytic iron powder. H. V. Trask. flow sheet il Metal Prog 50:279-82 Ag '46

Properties of sintered iron-copper powders. F. C Kelley. diag Iron Age 158:57-60 Ag 15 '46

Standard SAE steels and steels sintered from electrolytic iron powder and graphite; table. P. Schwarzkopf. Product Eng 17:126 F '46

Swedish sponge iron powder now available at lower prices. J. Anthony. il Iron Age 158: 114 S 26 '46

Use of graphite in iron powder compacts; abstract. E. S. Glauch. Iron Age 157:78-9 Je 20 '46

IRON, Sponge

Domestic sponge iron compares favorably with Swedish product. Steel 117:95 N 19 '45

Evaluation of some binders for use in pelletizing slimes; work on sponge iron. T. A. Klinefelter. U S Bur Mines Rep of Invest 3846:1-13 '46

Manufacture of sponge iron in periodic brick kilns. K. M. Smith and S. E. Burton. U S Bur Mines Rep of Invest 3841:1-38, pl 1-9 '45

Producing sponge iron in a rotary kiln; pilot plant operated by Bureau of mines. T. L. Johnston. flow sheet il Steel 117:128-9+ N 12 '45

Sponge-iron experiments at Longview, Tex. W. E. Brown. 22pls U S Bur Mines Rep of Invest 3925:1-58 '46

Swedish sponge iron powder now available at lower prices. J. Anthony. il Iron Age 158: 114 S 26 '46

IRON alloys

Copper as an alloy in iron and steel. G. K. Manning and P. C. Rosenthal. il Min & Met 26:601-5 D '45

Cromol crankshafts. il diags Automobile Eng 35:537-41 D '45

Oxide films formed on alloys at moderate temperatures; electron diffraction and electron microscope study. E. A. Gulbransen, R. T. Phelps and J. W. Hickman. bibliog il Ind & Eng Chem Anal ed 18:640-52 O '46

Sigma phase; abstract. F. B. Foley. Metal Prog 49:1224+ Je '46

Steels and irons, 1945. F. P. Peters. il Materials & Methods 23:86-9 Ja '46

See also

Ferroalloys
Permalloy
Steel
Steel alloys

Analysis

Identification of ferro-alloys. T. R. Cunningham. Blast F & Steel Pl 34:1003-4 Ag '46

Carbon alloys

Equilibrium of iron-carbon alloys with mixtures of CO-CO_2 and CH_4-H_2. R. P. Smith. bibliog Am Chem Soc J 68:1163-75 Jl '46

Cobalt alloys

Special alloys for gun synchronizer; KR-Monel and Hiperco. H. C. Roters. il Metal Prog 50:89 Jl '46

Cobalt tungsten alloys

Ar' reaction in some iron-cobalt-tungsten alloys and the same modified with chromium. W. P. Sykes. il Am Soc for Metals Trans 34:415-24 '45

Manganese alloys

Iron-manganese alloys; abstract. R. S. Dean and others. Steel 118:130 Ja 28 '46

See also

Ferromanganese
Spiegeleisen

Nickel alloys

Ni span; characteristics and uses of three recently developed age-hardenable iron-nickel-titanium alloys. W. A. Mudge and A. M. Talbot. bibliog Iron Age 157:66-70 Ap 25 '46

Some high nickel alloy irons; seven types of high nickel and nickel copper alloys, known as Ni-Resist. F. G. Sefing. il Product Eng 17:92-6 F '46

See also

Invar

Nickel chromium alloys

Abrasion-resistant alloy reduces milling costs; Ni-Hard. K. A. Delonge. il Eng & Min J 147:60-2 O '46

Nickel cobalt alloys

Metal glass seals; Kovar type alloy; abstract. G. D. Redston and J. E. Stanworth. Materials & Methods 24:170 Jl '46

Silicon alloys

Cleavage structures of iron-silicon alloys. C. A. Zapffe and M. Clogg, jr. il Am Soc for Metals Trans 34:108-41 bibliog(p140-1); Discussion. 141-2 '45

Further note on the microstructure of high-silicon acid-resisting iron. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 151:105-7, pl 7-8; Discussion. 107-8 no 1 '45

Magnetisation of polycrystalline iron and iron-silicon alloys. G. C. Richer. bibliog Iron & Steel Inst J 150:93-142 no 2 '44

Phosphoric acid vs. materials of chemical plant construction; high-silicon iron. R. M. Shields. Chem Eng 53:212+ S '46

IRON and steel committee. See International labor organization—Iron and steel committee

IRON and steel institute
Annual meeting, 77th, London, May 1-2. Engineer 181:432-4, 445-7, 467-8, 491-3 My 10-31 '46; Engineering 161:424, 448-9, 472-3, 496-8 My 3-24 '46
Autumn general meeting, London, Nov. 22-23. Engineering 160:453-4, 476-7 N 30-D 7 '45; Engineer 180:441-3, 464-5 N 30-D 7 '45

IRON bacteria
Precipitation of ferric hydrate by iron bacteria. R. L. Starkey. bibliog Science 102: 532-3 N 23 '45

IRON carbide
Stability of iron carbide. L. Crome. il Foundry 74:90-1+ S '46

IRON carbonyl
German iron and nickel powders made by the carbonyl process. T. P. Colclough. Iron Age 157:48-9 F 21 '46; Abstract. Metal Prog 50:332+ Ag '46

IRON chlorides
Computing coagulant requirements in sludge conditioning. A. L. Genter. bibliog Am Soc C E Proc 71:307-30 Mr '45; Discussion. 71: 926-8, 1289-94, 1559-60 Je, O, D '45
Interpretation of the Sandmeyer reaction; the formation of complex salts between aryl diazonium chlorides and ferric chloride of general formula, $R\cdot\overset{+}{N_2}\}FeCl_4^-$, and the decomposition of *p*-nitrobenzenediazonium chloride by ferrous salts. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p819-21 N '45
Iron salts as coagulants. J. E. Kerslake and others. bibliog Am Water Works Assn J 38:1161-9 O '46

IRON compounds
Influence of compounds of iron upon oxidation reactions. H. A. Turner. bibliog Soc Dyers & Col J 61:255-8 O '45
Temperatures of zero conductance and infinite viscosity of some negatively charged colloidal systems; ferric vanadate, molybdate, tungstate, borate, arsenate, and phosphate. S. P. Mushran and S. Prakash. J Phys Chem 50:251-6 My '46

See also
Ferrocyanides

IRON cyanides. See Ferrocyanides; Potassium ferricyanide

IRON dust
Collectors catch cast iron dust; Detroit Diesel engine division, General motors corporation. R. A. Shaw. il Am Mach 90:103 Jl 4 '46

IRON founding
Analysis of the gray iron casting industry. Foundry 74:96+ Ag '46
Army industrial college looks at gray iron. Foundry 74:103+ Je '46
Beating the coke shortage. Foundry 74:77+ N '46
Casts threading dies in new gray iron foundry; Reed manufacturing co. il Foundry 74:166+ N '46
Cleaning costs in a small gray iron foundry. A. E. Grover. Foundry 74:83+ N '46
Controlling gray iron quality. J. E. Linabury. Foundry 74:90+ F '46
Coremaking practice is chief malleable topic; American foundrymen's association. Foundry 74:152+ Jl '46
Correction of foundry waste. A. J. Edgar. il Foundry 74:94-5+ O '46
Cupola melting of cast iron. D. J. Reese. il Foundry 74:92-3+ Jl '46
Cylinder liners; manufacturing methods of Harold Andrews grinding co. il diags Automobile Eng 36:149-51 Ap '46
Developments in gray iron and malleable. G. Vennerholm. il Metal Prog 49:1163-8 Je '46
Developments in the malleable iron industry. C. F. Joseph. Foundry 74:105+ Jl '46
Elimination of casting defects. G. Johnstone, jr. il Foundry 74:76-8+ Ag; 92-5+ S '46
Employment in ironfounding. Economist 151: 270 Ag 17 '46
Ford's foundry expansion and modernization program. A. H. Allen. Foundry 74:124+ Ja '46
Foundry progress. J. Albin. il Iron Age 157: 142-5+ Ja 3 '46
Foundry research at American cast iron pipe co. E. Bremer. il Foundry 74:96-9+ Jl '46
Foundry uses cupola and direct metal; cast iron engine bed; Bethlehem steel company. P. Dwyer. il Foundry 74:104-7+ F '46
Gray iron acceptance broadens. T. Barlow. il Foundry 74:70-5+ Ja '46
Gray iron foundry conditioning. C. W. Schwenn. il Foundry 74:104-8+ Je '46
Gray iron inoculation theories. H. W. Lownie, jr. Iron Age 157:56-60 My 16 '46
Gray iron shop course; American foundrymen's association. Foundry 74:142+ Jl '46
Increases malleable iron capacity; Albion malleable iron co. P. Dwyer. il plan Foundry 74:90-3+ Mr '46
Making cast iron ingot molds; Bethlehem steel co. P. Dwyer. il Foundry 74:84-6+ Ap '46
Malleable founders society, meeting, Atlantic City, Sept. 20. Foundry 74:92+ N '46
Malleable industry improves plant facilities. C. H. Lorig. il Foundry 74:92-7+ Ja '46
Mechanize bathtub foundry; Richmond radiator co. P. Dwyer. il plan diag Foundry 74: 68-73+ N '46
Navy yard revamps foundry. P. Dwyer. il Foundry 74:112-15+ O '46
Permanent mold gray iron castings. E. C. Hoenicke. il Materials & Methods 24:901-4 O '46
Preventing gray iron surface roughness. E. V. Somers. il Foundry 74:84-7+ Mr '46
Producing cast iron rolls; Bethlehem steel co. P. Dwyer. il Foundry 74:92-3+ Ag '46
Rapid test for fluidity measurement. G. B. Taylor. il diags Iron Age 157:62-3 Ap 11 '46
Reducing cleaning shop costs; Meehanite metal corp. H. A. Reece. il diag Foundry 74:140+ O '46
Sand reclamation for the ferrous foundry. E. C. Jeter. il Foundry 74:86-9+ Ag '46
Tellurium corewashes; abstract. J. O. Vadeboncoeur. Iron Age 157:73 F 14 '46
Waste elimination is price ceiling answer. A. J. Edgar. Iron Age 157:118-21 My 30 '46

See also
Cast iron
Chilled iron
Cupola furnaces
Foundry practice
Molds (for casting)
Pig iron

History
Age of green and dry sand molding. J. E. Hurst. Foundry 74:97+ F '46

IRON hydrates
Precipitation of ferric hydrate by iron bacteria. R. L. Starkey. bibliog Science 102: 532-3 N 23 '45

IRON hydroxide
Oxidation of cellulose by sodium hypochlorite in presence of ferrous hydroxide. G. M. Nabar and H. A. Turner. diag Soc Dyers & Col J 61:258-63 O '45
Photographic development by ferrous iron in alkaline solution. T. H. James. Am Chem Soc J 67:1908-11 N '45

IRON in the body
Ferritin; its properties and significance for iron metabolism. S. Granick. bibliog il Chem R 38:379-403 Je '46
Iron-binding component in human blood plasma. A. L. Schade and L. Caroline. bibliog Science 104:340-1 O 11 '46
Protein apoferritin and ferritin in iron feeding and absorption. S. Granick. Science 103: 107 Ja 25 '46

IRON industry and trade

See also
Cast iron
Iron mines and mining
Iron works
Pig iron
Rolling mills
Steel industry and trade

Statistics
Iron and steel exports maintained high yearly average in war years. Steel 119:48 Jl 29 '46
Ore and coal; present and future prospects. W. A. Lloyd. il Iron Age 157:146-9+ Ja 3 '46

See also
Foundries—Statistics
Iron ores—Statistics
Steel industry and trade—Statistics

IRON industry and trade—*Continued*

Belgium

Iron and steel production of Belgium, 1940-44. For Comm W 21:33 N 24 '45

France

French iron and steel industry staging slow recovery. J. R. Hight. Iron Age 157:86+ Ja 17 '46

Great Britain

Change in distribution of British ore output. J. R. Hight. Iron Age 157:108-10 Mr 21 '46

India

India's iron and steel foreign trade declines during wartime period. Iron Age 156: 160 D 6 '45

Japan

Rise and fall of Japanese industrial empire. E. Brewin. map Iron Age 158:114-25 O 17 '46

IRON metallurgy

Basic principles of cupola operation. R. A. Clark. diags Foundry 74:102+ Je '46

Beneficiation of iron ore draws continued attention. E. W. Davis. il Eng & Min J 147:108-10 F '46

Blast furnace process and means of control. T. L. Joseph. bibliog il diags Blast F & Steel Pl 34:709-14, 855-60+ Je-Jl '46

Considerations on blast-furnace practice. T. P. Colclough. Iron & Steel Inst J 150:359-74 no 2 '44; Same cond. Blast F & Steel Pl 33.1101-5, 1253-7 S-O '45

Determining rates of deoxidation of iron oxide materials in reducing gases; loss-in-weight method. E. P. Barrett and C. E. Wood. diags Ind & Eng Chem Anal ed 18:285-6 My '46

Effect of sized and nodulized Mesabi iron ores on blast furnace performance. H. F. Dobscha. Blast F & Steel Pl 34:979-85 Ag '46

Ferrous metallurgy in Russia; recent work on cast iron and alloy steels. W. G. Cass. Chem Age (Lond) 55:407-10 O 5 '46

Ferrous production metallurgy; review of 1945. H. K. Work and H. B. Emerick. il Min & Met 27:86-8 F '46

Late developments in the beneficiation of Lake Superior iron ores. G. J. Holt. flow sheets il diags Blast F & Steel Pl 34:77-84 Ja '46

Mesabi taconite sinter costs set at $6. Iron Age 156:174-8 D 13 '45

Principles of iron ore beneficiation and their effects on blast furnace operation. C. E. Agnew. il diag Steel 117:124+ N 26; 134+ D 3; 122-4+ D 10; 125+ D 17 '45

Recent experiences in sintering. B. Hessle. Iron Age 157:51 Mr 7 '46

Sinters economize blast furnace operation. il Iron Age 156:62-3 N 29 '45

Small-scale tests of selective reduction of iron in titaniferous iron ores. R. J. O'Dea. U S Bur Mines Rep of Invest 3886:1-19 '46

Smelting low-grade ores by the Krupp-Renn process. diags Iron Age 157:70-5 My 9 '46

System for preparing ore at the Minnequa works of the Colorado fuel and iron corporation. R. R. Williams, jr. il plan Blast F & Steel Pl 34:108-14 Ja '46

Thermodynamic properties of ilmenite and selective reduction of iron in ilmenite. C. H. Shomate and others. bibliog U S Bur Mines Rep of Invest 3864:1-19, pl 1-2 '46

Titanium-stabilized iron for enameling. E. Wainer. bibliog il Am Cer Soc Bul 25:248-59 Jl 15 '46

See also

Blast furnaces
Cast iron
Foundry practice
Iron, Sponge
Iron alloys
Iron founding
Iron works
Pig iron
Sintering
Slag
Steel metallurgy

Bibliography

Metallurgical research program of the Bureau of mines relating to iron and steel. R. S. Dean. U S Bur Mines Rep of Invest 3920: 1-17 '46

Electrometallurgy

Production of electrolytic iron powder. H. V. Trask. flow sheet il Metal Prog 50:279-82 Ag '46

IRON miners

Pickands Mather & company honors Danube mine employees; Bovey, Minnesota, iron-ore operation wins the Sentinels of safety trophy. il Explosives Eng 24:20-1 Ja '46

IRON mines and mining

Dust control in hematite mining. B. D. Tebbens and I. R. Tabershaw. bibliog J Ind Hygiene 28:100-6 My '46

Fusion-piercing, new way of making blast holes. il diag Eng & Min J 147:63 O '46

California

Kaiser purchases Eagle mountain iron mine in southern California. Steel 118:78 My 27 '46

Canada

See also

Iron ores—Canada

Lake Superior region

Iron country a year after the war. A. H. Hubbell. il Eng & Min J 147:70-3 O '46

Sinking large-diameter drill holes Lake Superior district underground iron mines. E. W. Johnson and F. E. Cash. bibliog 10pls U S Bur Mines Information Circ 7354:1-21 '46

Storage of explosives in underground mines of the Lake Superior district. F. E. Cash. 9pls U S Bur Mines Information Circ 7343: 1-9 '46

Underground Lake iron ore costs must come down. J. F. Wolff. diags Eng & Min J 147: 70-4 Ap '46

Michigan

New drilling technique on Marquette range. S. A. Tyler. Eng & Min J 147:119-21 F '46

Sublevel stoping with delayed filling; Hiawatha mine at Iron River. G. A. Koehler. il Eng & Min J 147:121+ F '46

Vulcan mines discontinue operations. A. H. Trestrail. il Explosives Eng 23:256 N '45

Minnesota

Combined lift and length feature Charleson conveyor. V. K. Taipale. il Eng & Min J 147:81-3 Jl '46

Iron ore dilemma; wasting Mesabi. il map Fortune 32:128-37+ D '45

Making low grade iron ore pay. A. J. Wiseley. il Min Cong J 32:22-4+ Ag '46

United States

Iron ore; progress in facilities, operating methods and equipment. V. D. Johnston. il Min Cong J 32:37-41 F '46

Ore and coal; present and future prospects. W. A. Lloyd. il Iron Age 157:146-9+ Ja 3 '46

IRON ores

Iron ore in the Americas; with map. Fortune 32:138-9 D '45

Principles of iron ore beneficiation and their effects on blast furnace operation. C. E. Agnew. il diag Steel 117:124+ N 26; 134+ D 3; 122-4+ D 10; 125+ D 17 '45

Raw materials for steel making. Steel 119:124-5 S 23 '46

System for preparing ore at the Minnequa works of the Colorado fuel and iron corporation. R. R. Williams, jr. il plan Blast F & Steel Pl 34:108-14 Ja '46

See also

Chromite
Hematite
Ilmenite
Iron mines and mining
Magnetite
Taconite

Prices

Lake Superior iron ores, 1914-1945; tabulation. Iron Age 157:224 Ja 3 '46

Statistics

Iron ore review for 1945. M. D. Harbaugh. il Blast F & Steel Pl 34:69-76 Ja '46

Transportation

Canadian national railways builds large ore dock at Port Arthur, Ont. il diag Ry Age 120:235-8 Ja 26 '46

IRON ores—Transportation—*Continued*
Erie railroad modernizes ore handling facilities. il Steel 118:114-16+ My 13 '46
Lake volume lags. Bsns W p36 O 12 '46
Ore carrier S. S. Venore. H. F. Robinson and E. P. Worthen. flow diag il plans diags Marine Eng 51:116-31; Discussion. 145-7+ Ja '46
Shipments of Lake Superior iron ores from upper lake ports for the season of 1945 as compiled by the Lake Superior iron ore association; tabulation. Blast F & Steel Pl 34:120 Ja '46

Alabama

Exploration of tailing ponds in the Russellville, Ala., brown-ore district. A. Brown. 7pls U S Bur Mines Rep of Invest 3894:1-31 bibliog(p24) '46
Rapid specific-gravity method for estimating the iron content of Birmingham red ores. I. L. Feld and others. 2pls U S Bur Mines Rep of Invest 3838:1-6 '46

Brazil

Hanna co. to explore undeveloped deposits of high grade ore. Iron Age 157:115 Je 6 '46

Canada

Canada exports iron ore. L. D. Huntoon. map Iron Age 157:56-7 F 21 '46

China

Mineral resources of China. V. C. Juan. bibliog map Econ Geol 41:424-33 pt 2 Je '46

Lake Superior region

Lake Superior iron ore reserves; abstract. G. W. Hewitt. Steel 119:90+ O 28 '46
Late developments in the beneficiation of Lake Superior iron ores. G. J. Holt. flow sheets il diags Blast F & Steel Pl 34:77-84 Ja '46
Shipments of Lake Superior iron ores from upper lake ports for the season of 1945 as compiled by the Lake Superior iron ore association; tabulation. Blast F & Steel Pl 34:120 Ja '46

Minnesota

Can research save Mesabi? il diag Bsns W p19-21 My 11 '46
Effect of sized and nodulized Mesabi iron ores on blast furnace performance. H. F. Dobscha. Blast F & Steel Pl 34:979-85 Ag '46; Abstract. Steel 118:137 Je 3 '46
Iron ore dilemma; wasting Mesabi. il map Fortune 32:128-37+ D '45
Magnetic reconnaissance in north-central Minnesota in 1945. E. Y. Dougherty and E. F. Fitzhugh, jr. 10pls U S Bur Mines Rep of Invest 3919:1-7 '46
Minnesota iron ore survey. R. R. Sayers. Blast F & Steel Pl 34:1297 O '46
Nation can continue to draw major portion of iron ore requirements from Mesabi range; abstract. E. W. Davis. Steel 119:82-3+ O 7 '46

Missouri

Exploration of Silver Hollow, Newbauer, and Coleman iron deposits, Franklin and Crawford counties. K. L. Kreamalmyer. 4pls U S Bur Mines Rep of Invest 3870:1-10 '46

New York (state)

Titaniferous magnetite deposits of the Lake Sanford area, New York. R. C. Stephenson. bibliog pls fold maps diags (New York State museum bul. 340) 95p Univ. of the State of New York, Albany '45

Ontario

New Canadian ore deposit has high iron content. il map Steel 118:102 F 25 '46
Westland expedites possible sources of high grade iron ore. Iron Age 157:134+ Ap 11 '46

Oregon

Ferruginous bauxite deposits in northwestern Oregon. F. W. Libbey and others. bibliog il map Econ Geol 41:246-65 My '46

United States

Small-scale tests of selective reduction of iron in titaniferous iron ores. R. J. O'Dea. U S Bur Mines Rep of Invest 3886:1-19 '46
Status of basic metal reserves. il Chem Ind 58:806+ My '46

Wyoming

Exploration of the Shanton iron-ore property, Albany county, Wyo. E. Frey. 4pls U S Bur Mines Rep of Invest 3918:1-5 '46

IRON oxalate
Photographic development by ferrous iron in alkaline solution. T. H. James. Am Chem Soc J 67:1908-11 N '45

IRON oxides
Adsorption of strontium and barium ions and their exchange on hydrous ferric oxide. J. D. Kurbatov, J. L. Kulp and E. Mack, jr. Am Chem Soc J 67:1923-9 N '45
Catalytic properties of the products of the solid phase reaction between barium carbonate and ferric oxide. M. Erchak, jr. and R. Ward. Am Chem Soc J 68:2093-6 O '46
Commercial prospects of spent oxide. C. Irwin. Gas J (Lond) 246:675 N 14 '45; Discussion. P. Parrish. 246:755 N 28 '44
Determining rates of deoxidation of iron oxide materials in reducing gases; loss-in-weight method. E. P. Barrett and C. E. Wood. diags Ind & Eng Chem Anal ed 18:285-6 My '46
Effect of sodium silicates on iron oxide surfaces. F. Hazel. bibliog J Phys Chem 49: 520-37 N '45
Interconversion of iron oxides and sulphides. R. H. Griffith and A. R. Morcom. diag Chem Soc J p786-90 N '45
Natural and synthetic iron oxides in linseed oil primers; abstract. Paint Oil & Chem R 109:30 Mr 21 '46
Oxide films formed on alloys at moderate temperatures; electron diffraction and electron microscope study. E. A. Gulbransen, R. T. Phelps and J. W. Hickman. bibliog il Ind & Eng Chem Anal ed 18:640-52 O '46
Preparation of an active absorbent of hydrogen sulphide from waste oxide of iron. H. K. Whalley. diag Soc Chem Ind J 65:217-24 Ag '46
Radioactivation of colloidal gamma ferric oxide. M. Blau and others. bibliog diag Science 103:744-8 Je 28 '46
Reaction between ferric oxide and barium carbonate in the solid phase; identification of phases by X-ray diffraction. M. Erchak, jr., I. Fankuchen and R. Ward. bibliog pl Am Chem Soc J 68:2085-93 O '46
Removal of hydrogen sulphide from fuel gases. G. U. Hopton and R. H. Griffith. Gas J (Lond) 246:809-10+, 845 D 5-12 '45; Discussion. 247:69+ Ja 9 '46
Report on studies of ternary system CaO-C_5A_3-C_2F; quaternary system CaO-C_5A_3-C_2F-C_2S; quaternary system as modified by 5% magnesia. M. A. Swayze. bibliog pl Am J Sci 244:1-30, 65-94 Ja-F '46
Rust determination in presence of steel; preferential solvent and its application. F. Gibadlo. bibliog Iron Age 157:58-9 Ap 18 '46
Sorption of vapours by ferric oxide gel. D. W. Broad and A. G. Foster. Chem Soc J p446-50 Je '46
Studies in the distribution of temperature through molten glass in a tank melting furnace. R. Halle and W. E. S. Turner. Glass Ind 27:136 Mr '46
Surfaces of solids; first-order phase changes of adsorbed films on the surfaces of solids: the film of *n*-heptane on ferric oxide. G. Jura and others. bibliog J Chem Phys 14: 117-23 Mr '46
System iron-oxygen; equilibrium and thermodynamics of liquid oxide and other phases. L. S. Darken and R. W. Gurry. bibliog il Am Chem Soc J 68:798-816 My '46
X-ray diffraction and magnetic studies of unreduced ferric oxide Fischer-Tropsch catalysts. L. J. E. Hofer, W. C. Peebles and W. E. Dieter. bibliog Am Chem Soc J 68:1953-6 O '46

See also
Conchilites
Hematite
Magnetite

Analysis

Determining ferric oxide in clay and limestone. R. A. Loveland. Rock Prod 49:109 Ja '46

IRON plating
Precision seamless tubing by electrodeposition; Ekko process of United States rubber co. J. Albin. il diags Iron Age 157:54-8 Ja 10 '46

IRON powder. See Iron, Powdered

IRON research
Gray iron progress through research. H. F. Taylor. Foundry 74:106+ Ap '46
Sponge-iron experiments at Longview, Tex. W. E. Brown. 22pls U S Bur Mines Rep of Invest 3925:1-58 '46

IRON sulfates
Coagulation with ferric salts; with particular reference to ferric sulphate. J. B. Nickel. Water & Sewage Works 93:147-8 Ap '46; Same. Am Water Works Assn J 38:755-60 Je '46
Iron salts as coagulants. J. E. Kerslake and others. bibliog Am Water Works Assn J 38.1161-9 O '46
Jar test for determining the chemical dosage of coagulants; abstract. J. B. Nickel. Water Works & Sewerage 92:336 N '45
Relation of enameling iron preparation and accessory conditions to copperhead-type defects. W. H. Pfeiffer and R. S. Sheldon. Am Cer Soc J 29:235-9 S 1 '46

IRON sulfides
Interconversion of iron oxides and sulphides. R. H. Griffith and A. R. Morcom. diag Chem Soc J p786-90 N '45
Role of sulphur bacteria in the formation of the so-called sedimentary copper ores and pyritic ore bodies. C. Schouten. il Econ Geol 41:517-38 Ag '46

IRON titanate
Heat capacities at low temperatures of the metatitanates of iron, calcium and magnesium. C. H. Shomate. bibliog Am Chem Soc J 68:964-6 Je '46
High-temperature heat contents of the metatitanates of calcium, iron and magnesium. B. F. Naylor and O. A. Cook. bibliog Am Chem Soc J 68:1003-5 Je '46

IRON work, Decorative

Advertising
Mail order can build national distribution even for ironwork; Hinderer iron works caters to architects who influence purchases of consumers. D. Markstein. Ptr Ink 216:50 Ag 2 '46

IRON workers

Canada
Union status in collective agreements in the iron and steel industry, Canada, 1945. Mo Labor R 62:424 Mr '46

IRON works
Boiler house at the Perry furnace plant of Interlake iron corporation. W. B. Clemmitt. il Blast F & Steel Pl 34:602+ My '46
See also
Foundries

Norway
Norway plans large electro-iron works. For Comm W 23:37 My 4 '46

IRONING machines
Why every Hurley salesman must learn to iron a shirt. J. R. Hurley. il Sales Management 56:37-40 Mr 1 '46

IRONRITE ironer company
Stock offered. Comm & Fin Chr 162:2394 N 19 '45

IRONS, Electric. See Electric irons

IRRADIATION
Chemical forms assumed by C^{14} produced by neutron irradiation of nitrogenous substances. P. E. Yankwich and others. bibliog J Chem Phys 14:131-40 Mr '46
Circulation in sanitary ventilation by bactericidal irradiation of air. W. F. Wells. bibliog diags Franklin Inst J 240:379-95 N '45
Influence of irradiation on the measurement of impulse voltages with sphere-gaps. J. M. Meek. Inst E E J 93 pt 2:97-110 bibliog(p109-10) Ap '46; Abstracts and discussions. Electrician 135:608-10 N 30 '45; Elec R (Lond) 137:778-9 N 30 '45; Discussion. Inst E E J 93 pt 2:110-15 Ap '46

IRREVERSIBLE processes
Irreversibility in the theoretical regenerative steam cycle. R. E. Hansen. A S M E Trans 67:557-60 O '45; Discussion. flow diag 68: 267-70 Ap '46

IRRIGATION
Irrigation warfare renewed; dispute over U.S. limitation on size of tracts eligible for water. Bsns W p19-20 N 17 '45
Percolation under aprons of irrigation works. S. L. Leliavsky. diags Engineer 181:328-30, 352-3, 375-7 Ap 12-26 '46
Preferred treatment advocated for reclamation funds. J. W. Haw. il Civil Eng 16: 335-8 Ag '46
Sand traps designed for streams with heavy bed loads. H. A. Burt. plan diags Civil Eng 16:357 Ag '46

Cost
Bids received on several flood control and irrigation projects for early start. Eng N 136:749+ My 9 '46
Construction of check structure, All-American canal; unit prices. Eng N 135:sup82 D 27 '45
Earthwork and structures Deschutes project, Oregon; unit prices. Eng N 135:750 N 29 '45
Earthwork and structures, Mirage Flats project, Nebraska; unit prices. Eng N 135: sup82 D 27 '45
Pumping plant and earthwork, Milk River project, Montana; unit prices. Eng N 135: 824 D 13 '45
Steel pipe line and concrete structures, Provo River project, Utah; unit prices. Eng N 136:439 Mr 21 '46

Arizona
Major irrigation scheme for Arizona made subject of U.S.B.R. report. Eng N 135:633 N 8 '45

Bolivia
Bolivia building irrigation works. Eng N 136: 215 F 7 '46
Bolivia's Angostura dam should spur farm yields. C. B. Welch. For Comm W 25:9+ O 12 '46

California
Improved trimming and paving equipment used on the Coachella canal. C. S. Hale. il Eng N 137:595-7 O 31 '46
See also
Central Valley project, California

China
China plans an unprecedented dam for power, irrigation and navigation on the Yangtze river. il map Eng N 136:310-11 F 28 '46
China to build biggest dam; irrigation and hydroelectric power development, Yangtze valley. il map Comp Air Mag 51:107-9 Ap '46
Reclamation Bureau engineers to aid huge China power, irrigation project; Yangtze River project. map Eng N 135:771 D 13 '45

Colorado
Colorado and Big Thompson rivers scheme. il map plan diags Engineer 182:183-5, 203-5, 224-7, 246-8 Ag 30-S 20 '46

Egypt
Power plant for Esna barrage. il Electrician 136:1173-4 My 3 '46

Great Plains region
More water for the Great Plains. A. W. Emerson. il Concrete 54:2-5 Je '46

Idaho
Anderson Ranch dam. il map Engineer 180: 408-9, 430-2 N 23-30 '45

India
Hyderabad hydro developments. Electrician 135:626 D 7 '45

Lebanon
Irrigation problems in the Levant states. map Engineering 160:345-6 N 2 '45

IRRIGATION—*Continued*

Mexico

Seven-mile El Mirador tunnel in Mexico. il Eng N 137:158-60 Ag 8 '46

Missouri valley

Missouri River basin development; coordinated plan as approved by Congress. D. B. Freeman. il Civil Eng 16:258-9 Je '46
Missouri River plan. Comp Air Mag 51:168 Je '46

Northwestern states

Big diggings; Grand Coulee's irrigation adjunct. il map Bsns W p21 My 18 '46
Irrigation needs for Northwest estimated. L. McAllister. il map Civil Eng 16:353-5 Ag '46

Oklahoma

Canal lined with stabilized earth; Altus project. W. S. Byrne. il Eng N 136:410-12 Mr 21 '46

Oregon

Flume crosses canyon on a rigid frame; aqueduct crossing, Crooked river, Oregon. il diags Eng N 137:448-9 O 3 '46
Foundation displacements along the Malheur River siphon as effected by swelling shales. R. C. Mielenz and C. J. Okeson. il map Econ Geol 41:266-81 My '46

Palestine

Jordan Valley project hinges on peace. Eng N 136:753 My 9 '46

Syria

Irrigation problems in the Levant states. map Engineering 160:345-6 N 2 '45

Transjordan

Jordan Valley irrigation in Transjordan. M. G. Ionides. maps Engineering 162:241-3 S 13 '46

United States

Status of major projects, 1946. il Eng N 136: 234-5 F 7 '46

Uruguay

Uruguayan irrigation works has multiple purpose use. Eng N 135:877 D 27 '45

Washington (state)

Columbia basin program started. il Comp Air Mag 51:246-7 S '46
Columbia basin project starts this year. F. A. Banks. map diags Eng N 136:780-2 My 16 '46
Grand Coulee pumps, 1600 cfs each. diags Power Pl Eng 50:76-7 Mr '46

Western states

Expanding reclamation program; harnessing western rivers for irrigation, power production, flood control, and other purposes; with cost data. K. Markwell. il Civil Eng 16:207-9 My '46
Future of resource engineering. K. Markwell. il Civil Eng 16:53-6 F '46

IRRIGATION, Overhead

Automatic rainmaker; provides water by overhead sprays when soil requires more moisture; abstract. R. W. Newton. il Mech Eng 68:901-2 O '46

IRRIGATION canals

Canal lined with stabilized earth; Altus project in Oklahoma. W. S. Byrne. il Eng N 136:410-12 Mr 21 '46
Construction of check structure, All-American canal; unit prices. Eng N 135:sup82 D 27 '45
Control of aquatic weeds; Benoclor. il Soap & San Chem 21:35-7 N '45
Improved trimming and paving equipment used on the Coachella canal. C. S. Hale. il Eng N 137:595-7 O 31 '46
Repair lining of Roza irrigation canal; illustrations with text. Eng N 137:24 Jl 11 '46

IRRIGATION water

Grand Coulee pumps, 1600 cfs each. diags Power Pl Eng 50:76-7 Mr '46
Snow surveys forecast irrigation water supply. R. A. Work. il Civil Eng 16:342-3 Ag '46; Discussion. F. Paget. 16:463 O '46
Utilization of ground-water storage in stream system development. H. Conkling. maps Am Soc C E Proc 71:33-62 bibliog(p60-2) Ja '45; Discussion. bibliog 71:351-7, 563-78, 761-8, 902-7, 1128-40; 72:227-32 Mr-Je, S '45, F '46

ISANO oil

Isano, an oil for varnish. Paint Oil & Chem R 108:9 N 29 '45

ISATIN

Colorimetric determination of less than 0.001% S as thiophen in pure benzoles. K. H. V. French. Soc Chem Ind J 65:15-18 Ja '46

ISHIHARA test. See Color blindness

ISLANDS of the Pacific

Eustatic shore lines in the Pacific. H. T. Stearns. bibliog Geol Soc Bul 56:1071-7, pl 1-2 N '45
Our sterile policy toward the conquered Pacific islands. R. H. Wels. Comm & Fin Chr 164:344+ Jl 18 '46

See also
Water supply—Islands of the Pacific

Industries and resources

Resource development in the Pacific mandated islands. E. C. Weitzell. bibliog J Land & Pub Util Econ 22:199-212 Ag '46

Japanese mandate

Resource development in the Pacific mandated islands. E. C. Weitzell. bibliog J Land & Pub Util Econ 22:199-212 Ag '46

ISOALLOXAZINE

Heterocyclic basic compounds; basically-substituted isoalloxazine derivatives. R. R. Adams, C. A. Weisel and H. S. Mosher. bibliog Am Chem Soc J 68:883-7 My '46
Preparation of riboflavin; synthesis of alloxazines and isoalloxazines. M. Tishler, J. W. Wellman and K. Ladenburg. bibliog Am Chem Soc J 67:2165-8 D '45
Structure and antimalarial activity; *iso*alloxazines, quinoxalines, and quinoxalo-*cyclo*pentadienes. D. M. Hall and E. E. Turner. Chem Soc J p699-702 O '45

ISOAMYL alcohol

Active amyl-isoamyl alcohol system; vapor-liquid equilibrium at 760 mm. pressure. E. R. Hafslund and C. L. Lovell. bibliog il Ind & Eng Chem 38:556-9 My '46

ISOAMYLENE, Beta. See Trimethylethylene

ISOBUTANE

Alkylation of isoparaffins; application of the carbonium-ion theory. F. G. Ciapetta. bibliog Ind & Eng Chem 37:1210-16 D '45
Alkylation of paraffins in the presence of homogeneous catalysts; synthesis of neohexane and triptane. A. A. O'Kelly and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:462-7 My '46
Conversion of *n*-heptane to isobutane; metal-aluminum chloride catalysts. O. Grummitt, E. N. Case and C. V. Mitchell. bibliog Ind & Eng Chem 38:141-4 F '46
Extractive distillation; separation of C_4 hydrocarbons using furfural. J. Happel and others. bibliog diags Am Inst Chem Eng Trans 42:189-214 Ap '46
Hydrogen fluoride-paraffin systems; significance of liquid-phase equilibria in the hydrogen fluoride alkylation process. E. B. Butler, C. B. Miles and C. S. Kuhn, jr. diags Ind & Eng Chem 38:147-55 F '46
Isomate process. J. E. Swearingen, R. D. Geckler and C. W. Nysewander. diags Am Inst Chem Eng Trans 42:573-91 bibliog(p591) Ag '46; Same cond. flow sheet flow diag il Pet Processing 1:140+ O '46; Discussion. Am Inst Chem Eng Trans 42: 592-3 Ag '46
Isomerization of light hydrocarbons. S. F. Perry. flow plans Am Inst Chem Eng Trans 42:639-46 Ag '46
Mechanism of catalyzed alkylation of isobutane with olefins. M. H. Gorin, C. S. Kuhn, jr. and C. B. Miles. bibliog Ind & Eng Chem 38:795-9 Ag '46
Mechanism of the alkylation of paraffins; alkylation of isobutane with propene, 1-butene and 2-butene. L. Schmerling. bibliog Am Chem Soc J 68:275-81 F '46

ISOBUTANE—*Continued*
Shell vapor-phase isomerization process for the production of isobutane. H. A. Cheney and C. L. Raymond. bibliog flow diag il Am Inst Chem Eng Trans 42:595-609 Ag '46
Vapor-liquid equilibria in three hydrogen-paraffin systems. M. R. Dean and J. W. Tooke. bibliog diag Ind & Eng Chem 38: 389-93 Ap '46

Analysis

Rapid test for isobutane (+) fractions in natural gasoline plant absorber residue gases. G. M. Liljenstein and W. M. Schaufelberger. diags Pet Eng (Ref annual) 16: 231+ Jl 1 '45; Same. Pet Refiner 25:129-34 Ap '46; Same abr. Oil & Gas J 43:96+ D 16 '44

ISOBUTENE
Inter-polymerization of isobutene and 2-methyl-2-butene using an alumina-silica catalyst; composition of the hydrogenated nonenes. G. C. Johnson and F. S. Fawcett. bibliog Am Chem Soc J 68:1416-19 Ag '46
Mercury photo-sensitized reactions of isobutene. H. E. Gunning and E. W. R. Steacie. J Chem Phys 14:544-51 S '46

ISOBUTYL alcohol
Systems containing isobutanol and tetrachloroethane; liquid-vapor and liquid-liquid equilibria. R. H. Fritzsche and D. L. Stockton. bibliog diags Ind & Eng Chem 38: 737-40 Jl '46

ISOBUTYLENE
Dehydroisomerization of *n*-butane. H. S. Bloch and R. E. Schaad. bibliog Ind & Eng Chem 38:144-7 F '46
Steric strain in compounds with tertiary butyl groups; steric strain in polyisobutylene. H. C. Brown and G. K. Barbaras. J Chem Phys 14:114 F '46

ISOCYANATES
Preparation of carbamyl fluorides by the action of anhydrous hydrogen fluoride on *iso*cyanates. G. D. Buckley, H. A. Piggott and A. J. E. Welch. Chem Soc J p864-5 D '45
Rearrangements in compounds of carbon, silicon, germanium and tin containing halogens, isocyanate and thiocyanate. G. S. Forbes and H. H. Anderson. bibliog Am Chem Soc J 67:1911-14 N '45
Water resistance of proteins; improvement through chemical modification. H. S. Olcott and H. Fraenkel-Conrat. bibliog Ind & Eng Chem 38:104-6 Ja '46

ISOCYTOSINE
Ultraviolet absorption spectra of cytosine and isocytosine. M. M. Stimson and M. A. Reuter. bibliog Am Chem Soc J 67:2191-3 D '45

ISOHEPTANE
Process development and production of isohexane and isoheptane as aviation fuel components. S. F. Birch and others. diags Inst Pet J 32:167-99; Discussion. 200-5 Ap '46

ISOHEXANE
Process development and production of isohexane and isoheptane as aviation fuel components. S. F. Birch and others. diags Inst Pet J 32:167-99; Discussion. 200-5 Ap '46

ISOLATIONISM (United States). See United States—Foreign relations

ISOLEUCINE
Frenching response of tobacco seedlings to isoleucine. R. A. Steinberg. Science 103: 329-30 Mr 15 '46
Methionine and isoleucine content of mammalian hemoglobins; its significance for nutritional and metabolic studies. E. Brand and J. Grantham. bibliog Am Chem Soc J 68:724 Ap '46

ISOMANNIDE
Hexitol anhydrides; 1,4,3,6-dianhydro-L-iditol and the structures of isomannide and isosorbide. H. G. Fletcher, jr. and R. M. Goepp, jr. Am Chem Soc J 68:939-41 Je '46
Hexitol anhydrides; the preparation and proof of structure 1,5,3,6-dianhydromannitol (neomannide); the structure of isomannide. R. C. Hockett and E. L. Sheffield. bibliog Am Chem Soc J 68:937-9 Je '46
Hexitol anhydrides; the structures of the anhydromannitols of Brigl and Grüner; the structure of isomannide. R. C. Hockett and others. bibliog Am Chem Soc J 68:930-5 Je '46

ISOMERISM
Geometrically isomeric piperazine derivatives containing two quaternary nitrogen atoms. W. E. Hanby and H. N. Rydon. Chem Soc J p833-5 N '45
Preparation and chromoisomerism of 4 : 5-dinitro-1-naphthylamine, and some perimidines and perinones from 4-chloro- and 4-bromo-1 : 8-naphthylenediamine. H. H. Hodgson and D. E. Hathway. Chem Soc J p543-5 Ag '45
Separation of diastereoisomers by adsorption from the vapor phase. D. L. Isom and H. Hunt. J Phys Chem 50:28-32 Ja '46
Studies of 1,3-dienes; stereoisomerism of bromides and glycols derived from 2,3-dimethyl-1,3-butadiene. O. J. Sweeting and J. R. Johnson. bibliog Am Chem Soc J 68:1057-61 Je '46

ISOMERIZATION
Catalytic cracking of pure hydrocarbons; secondary reactions of olens; isomerization, hydrogen transfer, polymerization, and aromatization. H. H. Voge, G. M. Good and B. S. Greensfelder. Ind & Eng Chem 38: 1033-40 O '46
Catalytic isomerization of vegetable oils; evaluation of oils in bodying, varnishes and alkyd resins. L. B. Falkenburg and others. bibliog il Ind & Eng Chem 38:1002-9 O '46
Catalytic isomerization of vegetable oils; nickel catalysts. S. B. Radlove and others. bibliog flow sheet diag Ind & Eng Chem 38:997-1002 O '46
Continuous thermal isomerization of α-pinene in the liquid phase. T. R. Savich and L. A. Goldblatt. bibliog diag Am Chem Soc J 67: 2027-31 N '45
Dehydroisomerization of *n*-butane. H. S. Bloch and R. E. Schaad. bibliog Ind & Eng Chem 38:144-7 F '46
Digest of United States patents on isomerization of hydrocarbons. H. Heinemann, comp. Pet Refiner 24:208+ N '45; 25:200+ My '46
Effect of side reactions on experimental isomerization equilibria. J. R. Bates. Am Chem Soc J 68:511-13 Mr '46
Fundamentals of isomerization for operators. J. S. Finger. flow diag Pet Refiner 25:105-10 Ja '46
Heats, equilibrium constants and free energies of formation of the alkylbenzenes; free energies and equilibria of isomerization. W. J. Taylor and others. J Res Nat Bur Stand 37:115-18 Ag '46
Hydrolysis and isomerization of chlorotoluenes to *m*-cresol. R. N. Shreve and C. J. Marsel. bibliog diags Ind & Eng Chem 38:254-61 Mr '46
Impurities catalyze isomerization; abstract. H. Pines and R. C. Wackher. Chem & Met Eng 53:258 Je '46
Isomate process. J. E. Swearingen, R. D. Geckler and C. W. Nysewander. diags Am Inst Chem Eng Trans 42:573-91 bibliog(p591) Ag '46; Same cond. flow sheet flow diag il Pet Processing 1:140+ O '46; Discussion. Am Inst Chem Eng Trans 42: 592-3 Ag '46
Isomerization accompanying alkylation; reaction of cycloheptanol and cycloheptene with benzene; synthesis of cycloheptylbenzene. H. Pines, A. Edeleanu and V. N. Ipatieff. bibliog Am Chem Soc J 67:2193-6 D '45
Isomerization equilibria among the *n*-butenes. H. H. Voge and N. C. May. bibliog Am Chem Soc J 68:550-3 Ap '46
Isomerization of alkanes; effect of olefins upon the isomerization of *n*-butane in the presence of aluminum halide; hydrogen halide catalyst. H. Pines and R. C. Wackher. bibliog diags Am Chem Soc J 68:595-9 Ap '46
Isomerization of alkanes; effect of oxygen upon the isomerization of *n*-butane and *n*-pentane in the presence of aluminum bromide and aluminum chloride. H. Pines and R. C. Wackher. diag Am Chem Soc J 68:599-605 Ap '46.

ISOMERIZATION—*Continued*

Isomerization of alkanes; the water-aluminum halide reaction and isomerization of *n*-butane with the reaction product. R. C. Wackher and H. Pines. Am Chem Soc J 68:1642-6 Ag '46

Isomerization of alkyl phosphites; the synthesis of phosphonoacetic and phosphonomalonic esters. G. M. Kosolapoff. Am Chem Soc J 68:1103-5 Je '46

Isomerization of alkyl phosphites; the synthesis of some alkaryl phosphonic acids and esters. G. M. Kosolapoff. Am Chem Soc J 67:2259-60 D '45

Isomerization of *n*-butane catalyzed by aluminum bromide; effect of oxygen and other promoters on the reaction. A. G. Oblad and M. H. Gorin. bibliog Ind & Eng Chem 38: 822-8 Ag '46

Isomerization of light hydrocarbons. S. F. Perry. flow plans Am Inst Chem Eng Trans 42:639-46 Ag '46

Isomerization process. flow charts il Oil & Gas J 44:159-61 Mr 30 '46

Isomerisation studies; effect of magnesium bromide. Chem Age (Lond) 53:572 D 15 '45

Kinetics and mechanism of the isomerization of cyclopropane. E. S. Corner and R. N. Pease. bibliog Am Chem Soc J 67:2067-71 D '45

Liquid-phase isomerization of normal paraffins using a fluid salt catalyst. S. H. McAllister and others. bibliog flow diag il Am Inst Chem Eng Trans 42:33-52; Discussion. 53 F '46

Mechanism of paraffin isomerization. H. S. Bloch, H. Pines and L. Schmerling. Am Chem Soc J 68:153 Ja '46

Mercury photosensitized reactions of 1-butene and 2-butene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 14:581-5 O '46

Modern refining processes; isomerization of normally liquid hydrocarbons. G. Armistead, jr. diag Oil & Gas J 45:93-4+ S 28; 80+ O 5 '46

Octane rating improvement of olefinic gasolines by isomerization. L. Berg, G. L. Sumner, jr. and C. W. Montgomery. bibliog diag Ind & Eng Chem 38:734-7 Jl '46

Shell vapor-phase isomerization process for the production of isobutane. H. A. Cheney and C. L. Raymond. bibliog flow diag il Am Inst Chem Eng Trans 42:595-609 Ag '46

60 per cent yield in liquid-phase isomerization of pentane. L. S. Galstaun. flow diag il Oil & Gas J 44:56-9+ Ja 5 '46

Studies in the terpene series; method for the determination of rings in bicyclic dihydroterpenes; isomerization of pinane in the presence of dilute aqueous salt solutions. V. N. Ipatieff and H. Pines. Am Chem Soc J 67:1931-4 N '45

ISOMERS

Determination of geometric isomer composition by methoxymercuration; oleic and elaidic esters. T. Connor and G. F. Wright. bibliog Am Chem Soc J 68:256-8 F '46

ISOMETRIC drawings

Wizard sales tool takes the pain out of big-money purchases; Liquid Carbonic invented isometric drawings for selling soda fountain equipment. R. Crane. il Sales Management 56:37-9 Ap 1 '46

ISOMORPHISM

Tabulated diffraction data for tetragonal isomorphs. L. K. Frevel, H. W. Rinn and H. C. Anderson. bibliog Ind & Eng Chem Anal ed 18:83-93 F '46

ISOOCTANE

Vapor-liquid equilibria in phenol-hydrocarbon systems. H. G. Drickamer and others. bibliog(p603) diags Am Inst Chem Eng Trans 41:555-605 O '45

Vapor-liquid equilibria in three hydrogen-paraffin systems. M. R. Dean and J. W. Tooke. bibliog diag Ind & Eng Chem 38: 389-93 Ap '46

ISOPARAFFINS

Alkylation of isoparaffins; application of the carbonium-ion theory. F. G. Ciapetta. bibliog Ind & Eng Chem 37:1210-16 D '45

Alkylation of paraffins in the presence of homogeneous catalysts; synthesis of neohexane and triptane. A. A. O'Kelly and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:462-7 My '46

German wartime aviation fuels largely made by hydrogenation of coal. il Oil & Gas J 44:92-3+ F 16 '46

Isomate process. J. E. Swearingen, R. D. Geckler and C. W. Nysewander. diags Am Inst Chem Eng Trans 42:573-91 bibliog(p591) Ag '46; Same cond. flow sheet flow diag il Pet Processing 1:140+ O '46; Discussion. Am Inst Chem Eng Trans 42: 592-3 Ag '46

Iso-paraffin synthesis; wartime research by Kaiser Wilhelm institute für kohlenforschung on Fischer-Tropsch synthesis; abstract. D. R. Dewey. Chem & Met Eng 53:206+ Ap '46

New version of Fischer-Tropsch reaction gives 90% yields of iso-paraffins. V. Haensel. Nat Pet N 37 pt 2:R955-6 D 5 '45

Thoria-alumina catalyst best for isoparaffin synthesis, zinc oxide is less efficient, for use in the Fischer-Tropsch reaction. il Oil & Gas J 44:86+ Ja 19 '46

ISOPENTANE

Isomerization of light hydrocarbons. S. F. Perry. flow plans Am Inst Chem Eng Trans 42:639-46 Ag '46

ISOPRENE

Chemical derivatives of synthetic isoprene rubbers. J. D. D'Ianni and others. bibliog Ind & Eng Chem 38:1171-81 N '46

Correlation of tensile strength with brittle points of vulcanized diene polymers. A. M. Borders and R. D. Juve. bibliog Ind & Eng Chem 38:1066-70 O '46

Course of autoxidation reactions in polyisoprenes and allied compounds; double bond movement during the autoxidation of a mono-olefin. E. H. Farmer and D. A. Sutton. Chem Soc J p10-13 Ja '46

Mercury photosensitized reactions of propylene and isoprene. H. E. Gunning and E. W. R. Steacie. J Chem Phys 14:57-61 F '46

Production of isoprene from turpentine derivatives. B. L. Davis, L. A. Goldblatt and S. Palkin. bibliog diags Ind & Eng Chem 38:53-7 Ja '46

Reaction of methyl radicals with butadiene and isoprene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 14:534-5 S '46

Analysis

Determination of conjugated diolefins with chloromaleic anhydride. S. T. Putnam, M. L. Moss and R. T. Hall. bibliog diags Ind & Eng Chem Anal ed 18:628-30 O '46

ISOPROPANOL. See Isopropyl alcohol

ISOPROPYLADIPIC acid

Carbonyl constituents of eucalyptus oils; constitution of phellandral; *d*-, *l*-, and *dl*-β-*iso*propyladipic acids. G. Burger and A. K. Macbeth. Chem Soc J p145-7 Mr '46

ISOPROPYL alcohol

Isopropyl alcohol in cotton wax determination. J. H. Kettering. Ind & Eng Chem Anal ed 18:275 Ap '46

Solubility and density isotherms; potassium and ammonium nitrates in isopropanol solutions. A. R. Thompson and M. C. Molstad. bibliog Ind & Eng Chem 37:1244-8 D '45

Solvents face difficult expansion problems. J. G. Park. il Chem & Met Eng 53:116-18 My '46

Wartime uses told. Oil aPint & Drug Rep 150:58 Ag 12 '46

ISOPROPYLIDENE glycerol

Use of calcium carbide in the synthesis of isopropylidene glycerol. M. M. Maglio and C. A. Burger. Am Chem Soc J 68:529 Mr '46

ISOPROPYL metacresol. See Thymol

ISOPROPYLATION

Catalytic isopropylation of *o*-dichlorobenzene. G. Vermillion and M. A. Hill. Am Chem Soc J 67:2209 D '45

ISOQUINOLINE

Arsenicals in the isoquinoline series. B. Elpern and C. S. Hamilton. bibliog Am Chem Soc J 68:1436-8 Ag '46

Synthesis of 3-methyl*iso*quinolines. G. R. Clemo and J. H. Turnbull. Chem Soc J p533-5 Ag '45

ISOQUINOLINE—*Continued*
Synthetic antimalarials; some 1-(4-diethylamino-1-methylbutylamino)-isoquinolines. N. L. Drake and R. M. Peck. Am Chem Soc J 68:1309 Jl '46

ISOSORBIDE
Hexitol anhydrides; 1,4,3,6-dianhydro-L-iditol and the structures of isomannide and isosorbide. H. G. Fletcher, jr. and R. M. Goepp, jr. Am Chem Soc J 68:939-41 Je '46
Hexitol anhydrides; the structure of isosorbide, a crystalline dianhydrosorbitol. R. C. Hockett and others. bibliog Am Chem Soc J 68:927-30 Je '46

ISOTHERMS, Adsorption. See Adsorption

ISOTOPES
Atomic byproducts for medicinal research. Oil Paint & Drug Rep 149:5+ Je 17 '46
Availability of radioactive isotopes; announcement from headquarters, Manhattan project, Washington, D.C. Science 103:697-705 Je 14 '46
Concentration of ^{39}K and ^{41}K by balanced ion migration in a counterflowing electrolyte. A. K. Brewer and others. diags Science 104:156-7 Ag 16 '46
Corrected tables of radioactive isotopes and their properties. R Sci Instr 17:348-51 S '46
Determination of total body water and solids with isotopes. F. D. Moore. bibliog Science 104:157-60 Ag 16 '46
Distribution of radio-isotopes. R Sci Instr 17:315-17 Ag '46
Fast neutron resonance with nitrogen. F. A. Valente and H. I. Zagor. Phys R 69:55-9 F 1 '46
Future of atomic energy; biological phase. W. E. Chamberlain. Chem & Eng N 24: 1352-6 My 25 '46; Abstract. Metal Prog 49: 1205-6 Je '46
Future of atomic energy; chemical phase. H. S. Taylor. Chem & Eng N 24:1360-2 My 25 '46; Abstract. Metal Prog 49:1207-8 Je '46
Helpful isotopes. Bsns W p31-2 Ag 31 '46
Isotope effect and the ratio rule. W. F. Edgell. bibliog J Chem Phys 13:539-46 D '45
Isotope separation by thermal diffusion: the cylindrical case. W. H. Furry and R. C. Jones. bibliog Phys R 69:459-71 My 1 '46
Isotopes priced; Manhattan district to make shipments of radioactive elements for research work. Bsns W p63 Jl 20 '46
Isotopic constitution of tellurium, silicon, tungsten, molybdenum, and bromine. D. Williams and P. Yuster. bibliog Phys R 69:556-67 Je 1 '46
Micro-analysis of mixtures (amino acids) in the form of isotopic derivatives. A. S. Keston, S. Udenfriend and R. K. Cannan. bibliog Am Chem Soc J 68:1390 Jl '46
Neutron, the intermediate or compound nucleus, and the atomic bomb. W. D. Harkins. il diag Science 103:289-302 Mr 8 '46
Operation Welfare; radioactive chemicals for research now available. il Chem Ind 59:64-7 Jl '46
Peaceful atoms; Manhattan district makes variety of radioactive isotopes. il Bsns W p17 Je 15 '46
Performance of a hot wire Clusius and Dickel column. R. Simon. bibliog Phys R 69:596-603 Je 1 '46
Radioactive studies; utilization of the radioactive isotope dilution procedures for special types of chemical problems; quantitative determination of the three individual components of mixtures of dibenzyl sulfide, sulfoxide, and sulfone as an illustrative example. F. C. Henriques, jr. and C. Margnetti. bibliog Ind & Eng Chem Anal ed 18:476-8 Ag '46
Separation of isotopes by thermal diffusion. R. C. Jones and W. H. Furry. bibliog Rs Mod Phys 18:151-224 Ap '46
Small mica window Geiger-Müller counter for measurements of radioactive isotopes in vivo. E. Strajman. diags R Sci Instr 17: 232-4 Je '46
Synthesis by nuclear recoil. A. F. Reid. Phys R 69:530 My 1 '46

See also subdivision Isotopes under names of elements, e.g. Chlorine—Isotopes; Sulfur—Isotopes

ITALIAN literature

Bibliography
European imprints for the war years received in the Library of Congress and other federal libraries; pt. 1, Italian imprints, 1940-1945. 345p G. E. Stechert & co, 31 E. 10th st, New York 3 '46

ITALY
After the crisis in Italy. Economist 150:98-9 Ja 19 '46

See also
Automobile industry and trade—Italy
Food supply—Italy
Labor and laboring classes—Italy
Machinery industry—Italy
Paper industry and trade—Italy
Petroleum industry and trade—Italy
Sulfur industry and trade—Italy
Textile industry—Italy
Tobacco industry and trade—Italy

Bibliography
Special collections in England of use for Italian studies. W. O. Hassall. J Doc 1:63-71 S '45

Colonies

See also
Tripolitania

Commerce
Italy makes a start toward a trade comeback. R. P. Crawford. Barron's 26:15 Mr 18 '46
Italy's foreign trade since the armistice. P. Wiers. il For Comm W 23:14-15+ Je 1 '46
Italy's future import requirements. A. Giordano. Comm & Fin Chr 164:2077+ O 24 '46
Italy's trade growing. Bsns W p114 Mr 16 '46

United States
Outlook for trade with Italy. A. Bossi. Comm & Fin Chr 163:3210+ Je 13 '46

Commercial policy
National trade conference promotes free trade. For Comm W 23:31 Je 22 '46
Summary of regulations on private trade with other countries. For Comm W 23:32-3 Ap 27; 27-9 Je 29 '46

Economic conditions
Armistice Italy. Economist 149:669-70 N 10 '45
Conditions in the Genoa area in November 1945. For Comm W 21:24 D 29 '45
Crisis in Italy. Economist 149:752-3 N 24 '45
European letter. J. R. Hight. Iron Age 158: 76+ Ag 29 '46
In tragedy's aftermath Italy looks to future; statement by Association of Italian joint stock companies. il For Comm W 23:3-5+ Je 1 '46
Italian economy. Economist 151:377-8 S 7 '46
Italy's economic outlook. A. Giordano. Comm & Fin Chr 164:605+ Ag 1 '46
News by countries. For Comm W 23:26-7 Je 29 '46
Rome airgram reveals Italy's recent trends. il For Comm W 23:6-7+ Je 1 '46
UNRRA's work in Italy helps make wheels turn. il For Comm W 23:16-17+ Je 1 '46

Economic policy
Control of industrial initiatives and the establishment of a Central industrial commission. For Comm W 24:17 Ag 31 '46

Foreign relations

United States
U.S. and Italy formulate accord. Comm & Fin Chr 162:3052 D 20 '45

Industries and resources
Italian industrial revival. Economist 150:536 Ap 6 '46

Politics and government
Italian municipal elections. Economist 150: 641 Ap 20 '46
Italian parties. Economist 150:298 F 23 '46
Italy's choice. Economist 150:886, 1005-6; 151: 17 Je 1, 22, Jl 6 '46

IVES, Charles E.
Journal award for 1945. G. E. Matthews. por Soc Motion Picture Eng J 46:1-3 Ja '46

IVES medal
Dr W. W. Coblentz, Ives medalist for 1945. bibliog(412 titles) Opt Soc Am J 36:61-71 F '46

IZOD, Edwin Gilbert, 1876-1946
Sketch. Engineering 162:354 O 11 '46

J

JABLONEC, Czechoslovakia
Czechoslovakia's Gablonz-ware industry is active again. For Comm W 22:23 F 9 '46

JACK and Heintz precision industries, Inc.
Common stock offered. Comm & Fin Chr 164:557 Jl 29 '46

Foy from Chrysler: new equation in Jahco. Bsns W p18 Je 1 '46

Jahco converts, with New York group in control. Bsns W p18-19 Ap 27 '46

Jahco's future. Bsns W p54 Ja 5 '46

JACKS, Automobile
Automobile jacks. diag Consumers Res Bul 17:23-4 My '46

JACKSON, Andrew, 1767-1845
Economic fumbling in the tale of Jackson's attack on Bank of U.S.; review of Age of Jackson, by A. M. Schlesinger, jr. B. Hammond. Comm & Fin Chr 164:890+ Ag 15 '46

JACKSON, Samuel Dillon, 1895-
Spokesman for the commodity exchanges. por Fortune 33:196 My '46

JACKSON, William Kenneth, 1886-
To succeed Eric Johnston as president of the Chamber of commerce of the United States. por(cover) Bsns W p8 My 4 '46

JACOBSEN, Alfred
Amerada plays them close to the chest. por Fortune 33:128-32+ Ja '46

JAMAICA

Economic conditions

News by countries. For Comm W 21:15-27 D 8 '45

JAMAICA, New York

Water supply

Survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:247-54 F '46

JAMAICANS
Wartime utilization of Jamaicans in United States industrial establishments. G. E. Sadler. Mo Labor R 61:848-57 N '45

JANESVILLE, Wisconsin
Urban fringe studies of two Wisconsin cities; a summary. R. B. Andrews. J Land & Pub Util Econ 21:375-82 N '45

JANET, Pierre, 1859-
Portrait. Fortune 34:251 N '46

JAPAN

See also

Banks and banking—Japan
Biology—Japan
Chemical industries—Japan
Coal mines and mining—Japan
Electric utilities—Japan
Iron industry and trade—Japan
Munitions industry—Japan
Paper industry and trade—Japan
Rayon industry—Japan
Scientists—Japan
Silk trade—Japan
Steel industry and trade—Japan
Textile industry—Japan
World war, 1939-1945—Japan

American occupation

Fortune survey; our occupation policy. Fortune 32:303+ D '45

Japan; economic phases of occupation program. E. M. Crane. il For Comm W 23:3-5+ Ap 13 '46

Japan under control. Economist 151:202-3 Ag 10 '46

MacArthur reports on Japan occupation. Comm & Fin Chr 164:1851 O 10 '46

Mission to Tokyo. K. T. Compton. Tech R 48:99-102+ D '45

Occupation policy in Japan. Economist 150:82-4 Ja 19 '46

Overwhelming majority approves European and Japanese occupation; Gallup poll. Iron Age 158:115 S 26 '46

Postwar treatment of Japan. M. T. Bennett. Ann Am Acad 246:117-24 Jl '46

Army

Equipment and supplies

Japanese magnetrons. M. Hobbs. il Electronics 19:114-15 My '46

Medical and sanitary affairs

Enemy water supply equipment. C. W. Karstens. il Am Water Works Assn J 38:965-8 Ag '46

Commerce

Enemy trade; what's ahead? il Bsns W p113-14 O 5 '46

Japanese trade. Bsns W p108 Mr 2 '46

Japan's export vacuum; who can now fill it? F. F. Miller. il For Comm W 22:7-12+ F 16 '46

Trading with the enemy. Fortune 34:215-16 Jl '46

U.S. trade with Japan; new plans announced. For Comm W 22:12+ Mr 23 '46

Constitution

New Japanese constitution announced. Comm & Fin Chr 163:1708 Mr 28 '46

Economic conditions

Japan's road back. il map Fortune 33:124-31 Mr '46

Economic policy

MacArthur the trust buster. Bsns W p113-14+ D 1 '45

Industries and resources

Engineers committee reveals plan for Jap industrial disarmament. K. Rannells. Iron Age 157:142+ Je 27 '46

EJC outlines plan for industrial disarmament of Japan. Min & Met 27:446 Ag '46

How Japan expanded her industries; abstract. M. T. Bennett. Chem & Met Eng 53:272+ Ap '46

Japan's devastated industrial centers. W. Willoughby. il For Comm W 22:3-4+ Ja 26 '46

Japan's road back. il map Fortune 33:124-31 Mr '46

Natural resources of Japan. H. G. Schenck. Science 104:34-5 Jl 12 '46

Plan for industrial disarmament of Japan submitted by U.S. engineers. Am Mach 90:144 Jl 4 '46; Eng N 136:947+ Je 20 '46; Steel 118:74 Je 24 '46

Program for industrial disarmament of Japan proposed by Engineers joint council. A. Wagner. Civil Eng 16:292-3 Jl '46

Report indicates some production gains in Jap industrial works. Iron Age 157:148+ Je 6 '46

Rugged recovery period facing Land of Rising Sun. il Steel 118:68-71 Je 10 '46

Reparations

Reparations from Japan. Economist 149:779-80 D 1 '45

JAPANESE in Canada
Japanese in Canada. Economist 151:671 O 26 '46

JAPANESE in the United States
Japanese agriculture on the Pacific coast. A. Poli and W. M. Engstrand. map J Land & Pub Util Econ 21:352-64 N '45

JAPANESE mandated islands. See Islands of the Pacific—Japanese mandate

JAUNDICE
Homologous serum jaundice; experimental inactivation of etiologic agent in serum by ultraviolet irradiation. J. W. Oliphant and A. Hollaender. Pub Health Rep 61:598-602, pl 1 Ap 26 '46

Infectious hepatitis. R. F. Feemster. N E Water Works Assn J 60:32-40; Discussion. 40-2 Mr '46

JAVA

Economic conditions

Stocktaking in Java. Economist 150:585-6 Ap 13 '46

JEANNERET-GRIS, Charles Édouard. See Le Corbusier

JEEPS. See Motor vehicles

JEFFERS, William Martin, 1876-
Will retire as president of the Union Pacific. por Ry Age 119:1056 D 29 '45

JEFFRIES, Zay, 1888-
John Fritz medalist. C. H. Mathewson. Min & Met 27:222 Ap '46

JENKS, William Jackson, 1870-
N. & W. names Jenks chairman; Robert H. Smith now president. por Ry Age 120:1140 Je 8 '46

JENSEN, Holger, 1875-
Career in safety work. por Safety Eng 91: 50-1 Ap '46

JERSEY central power and light company
Bonds and stock offered. Comm & Fin Chr 163:3137 Je 10 '46

JERSEY cloth
Mill gives operating hints on new circular knit machines; Supreme's new MJ model produces cotton jersey. G. J. Speizman. il diags Textile World 96:108-9 Je '46

JESUS CHRIST
Art
Face of Christ; a portfolio of his image through the ages. il Fortune 33:133-44 Ja '46

JET propulsion
See also
Rocket propulsion

JET propulsion of aircraft
Air research demonstration; General electric company's new Flight test center. il Mech Eng 68:737-8 Ag '46
Aircraft acoustical problems and possible solutions. K. R. Jackman. bibliog il diags Aviation 45:69-73 O '46
Aircraft engine starters; abstract. A. Beier. Automotive & Aviation Ind 95:35-6 Jl 1 '46
Airframe lag slows British jet program; status of British production of transports. Aviation N 5:22 Je 24 '46
Analysis of rocket engines; German interceptor plane Me 163. Machine Design 17:130 D '45
Application of jet propulsion to military aircraft. W. G. Carter. Roy Aeronautical Soc J 50:347-52; Discussion. 352-74 My '46
Application of the gas turbine to aircraft propulsion. S. G. Hooker. il diags Roy Aeronautical Soc J 50:298-322; Discussion. 329-32, 358-74 My '46
Armament for jet-propelled bombardment airplanes. R. A. Averitt. Aeronautical Eng R 5:5-8 F '46
Army and navy pressing work on at least 30 jet planes, engines. il Aviation N 5:7-8 F 4 '46
Aviation's turbojet specifications; tabulation. Aviation 45:142 F '46
Axial-flow design makes possible light, compact aircraft gas turbines; jet units designed by Westinghouse electric corp. il Power 90:19 Ja '46
Basic principles of the jet exhaust stack. E. A. Boniface. il diag Air Transport 4:45-8 Ap '46
Boundary layer control offers promise of more efficient planes. diags Aviation N 6: 18 S 16 '46
British aircraft gas turbines. H. R. Cox. il diags J Aeronautical Sci 13:53-83 F '46; Abstract. Aviation N 4:9 D 24 '45; 5:12 Ja 21 '46; Discussion. J Aeronautical Sci 13:83-7, 180-2 F, Ap '46
British designers see commercial jet at hand. il Air Transport 4:87 My '46
British flying wings prepare way for J-P airliners. il Aviation 45:63-4 Ag '46
British jet engines pass 500 hr. operation tests. J. R. Hight. il Iron Age 156:96+ N 22 '45
British push jet development in campaign to gain air lead. W. Kroger. il Aviation N 5:12 Je 10 '46
Comparison of propeller and reaction-propelled airplane performances. B. Hamlin and F. Spenceley, diags J Aeronautical Sci 13:425-37 Ag '46
Comprehensive chronology of British turbojet developments. J. Foster, jr. il diags Aviation 45:78-81 Ap '46
Consolidated Vultee's Model 240 can use propjets later on. diags Aviation N 5:21 Ap 8 '46
De Havilland enters the jet propulsion engine field. il Aero Digest 52:98-9+ My '46
De Havilland Goblin jet-propulsion engine. il Engineering 161:175-6 F 22 '46
De Havilland 108 experimental tailless jet aircraft il Engineer 181:572 Je 21 '46
Design analysis of BMW 003 turbojet. R. C. Schulte. il diags Aviation 45:55-68 Mr '46
Design analysis of General Electric Type I-16 jet engine. R. C. Schulte. il diag Aviation 45:43-50 Ja '46
Design analysis of Westinghouse 19-B Yankee turbojet. J. Foster, jr. il diags Aviation 45: 60-8 Ja '46
Design and tooling aspects of the Ryan Fireball fighter. B. T. Salmon. il diags Automotive & Aviation Ind 94:24-7+ F 15 '46
Designing ducting systems to gain better turbojet performance. J. S. Alford. diag Aviation 45:69-73 Mr '46
Development of propjet; two-way harnessing of gas turbine force drives propeller and boosts with jet thrust simultaneously. il Steel 117:92+ O 29 '45; Aviation N 4:20+ O 29 '45; Automotive & Aviation Ind 93:28+ N 15 '45; Nat Pet N 37:64 N 14 '45; Mech Eng 67:854-5 D '45
Development of the I-40 jet propulsion gas turbine. D. D Streid. il diag Automotive & Aviation Ind 94:36-8+ Ja 1 '46; Same. Pet Eng 17:190+ Ja '46; Same. Aviation 45.51-9 Ja '46; Same. Pet Refiner 25:142-4 F '46; Same, without il. Diesel Power 24: 58-9+ Ja '46
Early history of the Whittle jet propulsion gas turbine. F. Whittle. diags Inst Mech Eng J & Proc 152:Proc 419-35, pl 1-12 Mr '46; Same. Engineering 161:212-16, 237-9, 252, 261-4 Mr 1-15 '46; Same cond. Engineer 180:288-90, 310-12, 328-9 O 12-26 '45; Abstracts. Electrician 135:385 O 12 '45; S A E J 54:sup26-7 S '46
L'emploi des réacteurs pour la propulsion des avions. il diag Génie Civil 123:145-6 Je 1 '46
Engineering behind that 606-mph. Meteor. A. H. Narracott. il Aviation 45:69-72 Ja '46
Engineering development of the jet engine and gas turbine burner. F. C. Mock. il diags S A E J 54:218-27 My '46; Excerpt. Automotive & Aviation Ind 94:39+ F 1 '46; Discussion. S A E J 54:227 My '46
Factors affecting the design of jet turbines. W. R. Hawthorne. il plan diags S A E J 54:347-57 Jl '46; Excerpt. Automotive & Aviation Ind 94:98+ F 1 '46; Discussion. K. Campbell. S A E J 54:357 Jl '46
Facts behind jet-engine performance. R. P. Kroon. diag Machine Design 18:132 Ja '46
Features of General Electric type I-40 gas turbine. diag Aero Digest 52:61+ Ja '46
First all-jet fighter announced by navy; FD-1 Phantom. il Aviation N 5:11 Ja 14 '46
First ram jet flight made in navy tests. il Aviation N 5:8 Je 17 '46
Flight testing of jet engines. R. D. Gilson. il Mech Eng 68:411-14 My '46
Fourteenth annual meeting of the Institute of the aeronautical sciences; review of technical papers; aircraft propulsion. Aeronautical Eng R 5:14-15 Ap '46
Future scope of propellers. L. G. Fairhurst. diag Roy Aeronautical Soc J 49:694-9 D '45
Gas turbine and jet propulsion metals. W. L. Nelson. Oil & Gas J 44:105 N 10 '45
Gas turbines and aircraft. F. W. Godsey, jr. diags S A E J 54:458-65 S '46
Goblin jet-propulsion engine. il Engineer 180: 482-3 D 14 '45
Interest in British jet work stimulated. Aviation N 4:13 N 19 '45
Introduction to rockets and jet propulsion. G. E. Pendray. diags Mech Eng 68:611-14 Jl '46
Jet and rocket engineers forecast future speeds. Air Transport 4:101 Ja '46
Jet-driven propellers. il Am Mach 90:212 Ja 17 '46
Jet engines; abstracts. G. H. Woodward and R. P Kroon. il Mech Eng 68:34-6 Ja '46; Aero Digest 52:88-9+ My '46

JET propulsion of aircraft—*Continued*
Jet-propelled, twin engine plane announced by Bell aircraft corp. Automotive & Aviation Ind 93:46 N 15 '45
Jet-propeller combinations versus conventional propulsion systems for airplanes; abstract. S A E J 54:sup28+ F '46
Jet propulsion. W. F. Durand. Mech Eng 68: 191-3 Mr '46; Abstract. Aviation N 4:28 D 10 '45
Jet propulsion and gas turbines in aviation; abstract. H. J. Clyman. S A E J 54:sup26-7 Mr '46
Jet propulsion and its application to high-speed aircraft. D. J. Keirn and D. R. Shoults. bibliog il diag J Aeronautical Sci 13:411-24 Ag '46
Jet propulsion and rockets for assisted take-off. M. J. Zucrow. bibliog il diags A S M E Trans 68:177-88 Ap '46; Same cond. Aero Digest 52:88+ Ap '46
Jet propulsion engines and propeller drive gas turbines; their application in future aviation. R. P. Kroon. il diags Franklin Inst J 241:167-85 Mr '46
Jet propulsion; its effect upon engineering education. F. J. Malina. J Eng Educ 37: 179-85 O '46
Jet propulsion spurts ahead. il Bsns W p44+ Ja 5 '46
Jet propulsion; the U.S. is behind. il Fortune 34:141-3+ S '46
Jet turbine fuel. E. M. Holbrook. il Can Chem & Process Ind 30:26-8 F '46
Lightest jet aircraft engines in world. il Product Eng 17:77 Ja '46
Lockheed unveils Constitution; forerunner of jet transports. il Aviation N 6:7 Ag 26 '46
M.52 supersonic aircraft. il Engineer 182:233 S 13 '46
Maintenance principles for gas turbine jet engines. J. Foster, jr. il diags Aviation 44: 115-18 D '45
Meteor sets 606-mph. record; NAA establishes racing classes. il Aviation N 4:13 N 12 '45
Navy's twin-jet Phantom fighter scores success in carrier test. il Aviation N 6:11-12 Jl 29 '46
New Bell jet fighter exceeds 500 mph. il Aviation N 4:24 N 19 '45
New jet design engine of Carney associates. Bsns W p57 Mr 16 '46
Newest navy jet power units are lightest yet constructed. il Aviation N 4:10 N 26 '45
Optional; jet or propeller. W. Ehlers. diags Aero Digest 53:74-6+ S '46
Place of the gas turbine in aviation. C. D. Flagle and F. W. Godsey, jr. diags Automotive & Aviation Ind 92:33-6+ Je 1 '45; Same. Aviation 44:131-3+ Je '45; Same. Aero Digest 50:60-3+ Ag 1 '45; Same. Engineer 180:67-8, 87-9 Jl 27-Ag 3 '45; Excerpts. Comp Air Mag 50:171-2 Je '45; Power 89:465-6 Jl '45; Abstract. Aviation N 3:26+ Je 11 '45; Elec Eng 65:160-3 Ap '46
Preliminary calculation of the mass ratio, range, and average coefficients of efficiency of a long-distance stratospheric jet-plane. M. Z. Krzywoblocki. Franklin Inst J 241: 255-74 Ap '46
Prop-nosed dual-jet XP-81 put through AAF trials. il Aviation 45:95 Mr '46
Pulse-jet advantages rated for supersonic speed range. J. F. Manildi. Aviation N 5:9 My 13 '46
Ram jets; method of aircraft propulsion. il diag Product Eng 17:140-2 Ag '46
Recent British jet propulsion developments. Automotive & Aviation Ind 94:32 F 1 '46
Report on British jet engines. A. A. Arnhym. il Aero Digest 52:22-3+ Je '46
Reports Britain leads world in development of jet propulsion. Iron Age 157:175 Ap 25 '46
Republic unveils speedy XP-84 jetplane. il Aviation 45:90 Ap '46
Rocket powerplant. M. J. Zucrow. bibliog il diags S A E J 54:375-88 Jl '46
Rolls-Royce Derwent jet-propelled aero engine. il Engineering 160:406-7 N 16 '45; Abstracts. Mech Eng 68:252 Mr '46; Engineer 180:345 N 2 '45
Rolls-Royce Nene jet-propulsion engine. il diag Engineer 181:401-3 My 3 '46; Abstract. Aeronautical Eng R 5:117 Je '46
Rolls-Royce Nene turbojet; engineering details. il diags Aviation 45:73-6 My '46
Some elementary details of ramming intake and propulsive jets for airplanes. S. A. Moss and W. R. Foote. diag J Aeronautical Sci 13:111-18 Mr '46
Superalloys for high temperature service in gas turbines and jet engines; round-table discussion at National metal congress. F. S. Badger and others. il diags Metal Prog 50:97-122 Jl '46
Supersonic ram jet engine. W. Goss and others. il diags Automotive & Aviation Ind 95:34-7+ S 15 '46
Taylor Turbine spurs U.S. jet competition. Aviation N 5:21-2 Je 17 '46
Three British jet engines; Goblin II, Nene I and F. 3. il diags Automotive & Aviation Ind 95:28-33+ S 1 '46
Thrust; power that makes the rocket; portfolio of new prime movers and how they work. col il Fortune 34:128-40 S '46
Timing a meteor aircraft; systems used for world speed record flights at Herne bay. Electrician 135:591-2 N 30 '45
Turbo-jet to rule tomorrow's skies. F. Whittle. il S A E J 54:17-19 O '46
United air lines places order for prop-jet powered transport. il Aviation N 5:20 Mr 4 '46
Use of stainless steel as a structural material in jet-propelled aircraft. G. Brewer. il diags Metal Prog 50:84-8 Jl '46
Westinghouse jet engines and their components; illustrations with text. Automotive & Aviation Ind 93:22-3 D 15 '45
Westinghouse 19B axial flow jet is advance over earlier model. Aviation N 5:24 F 4 '46
XP-81, first jet-propjet model. il diag Aero Digest 52:80-1 Mr '46

Bibliography
Selected bibliography on rockets and jet propulsion. 25p Northwestern univ. lib, Evanston, Ill. '45

JETS
Air jetting aids pile sinking. E. E. Howard. diag Civil Eng 16:402 S '46
Jets boost pumping capacity; Rapides gravel co. H. E. Swanson. il Rock Prod 49:74-5+ O '46
See also
Steam jets

JETTIES
Big rock protects harbor; Basalt rock co. has contract for jetty at Alameda naval air base. il map diags Rock Prod 48:92-5+ D '45
Piers and jetties of precast concrete. S. P. Lathrop. il diags Rock Prod 49:136-7 F '46
Protecting highways from damage by floods; use of permeable pile jetties. L. R. Redden. map Pub Works 77:29-30 F '46
Suspended fenders and dolphins. il diags Engineer 181:221-2 Mr 8 '46

JEWEL bearings. See Bearings, Jewel

JEWEL tea company
Selected companies, with an open road to higher earnings and dividends. Mag of Wall St 77:758-9+ Mr 30 '46

JEWELERS' block insurance. See Insurance, Jewelers' block

JEWELRY
From bombs to beauty; Wynne precision company handmade costume pins resembling fish lures. J. Mebane. il Manuf Rec 115:39+ My '46
Plastics stock molds; jewelry findings. il Mod Plastics 23:134 Jl '46
Stainless steel jewelry. il Manuf Rec 115:43 Mr '46
This little business grew on craftsmanship, design and sales sense; costume jewelry of Charles Buick and Alice Johnson. il Sales Management 56:60+ Ja 1 '46

JEWELRY stores
Jewelry shop, New York city. il plan Arch Forum 84:122 F '46
Modern stores pay dividends to builders and merchants. il plan diags Am Bld 68:68-9 Ag '46

JEWELRY stores—*Continued*

Lighting

Incandescent down-light puts sparkle in jewelry; Kay's jewelry store, Muskegon. F. H. Meier. il Elec World 125:124 Je 22 '46

JEWELRY trade

Characteristics which go toward making a retailer. S. C. Saunders. Dom Comm 34: 17-20 Ag '46

Return of competitive selling creates big demand for jewelry premiums. Ptr Ink 216: 126 Ag 16 '46

Advertising

Credit jewelers adopt fair trade practice rules. Ptr Ink 215:92 Je 28 '46

Gorham finds a way to help hum-haw customers reach buying decisions. Sales Management 56:122+ Ap 15 '46

Jewelry trade plans $3,000,000 fund. Ptr Ink 213:68 N 23 '45

Statistics

Jewelry sales boom; graph. Bsns W p80 Je 8 '46

Record in gems. Bsns W p50+ Ag 17 '46

JEWETT, Frank Baldwin, 1879-

Portrait. Fortune 33:118 Je '46

JEWS

Fortune survey examines U.S. anti-Semites. E. Roper. Fortune 33:257-8+ F '46

Remnants of a race. Economist 150:45-6 Ja 12 '46

Bibliography

Library list for teachers in Jewish schools. J. S. Golub, comp. 52p pa 50c Jewish education committee of New York, 1776 Broadway, New York 19 '45

JEWS in the Netherlands

Jews under the Nazi regime. J. F. Krop. Ann Am Acad 245:28-32 My '46

JIGS

Adjustable jig clamps angle iron for welding frames. C. Vicenzi. diags Am Mach 90:124 Ja 3 '46

Clamping jigs; Cone-Lok. il diag Steel 118: 100+ Mr 11 '46

Drill jig eliminates milling operation. R. J. DeLucia. diags Am Mach 89:141 N 22 '45

Drill jig for quick loading of links. diags Mach 53:188-9 O '46

Drill jig for swivel bracket. diags Mach 52: 189 Je '46

Fall-away jig cuts welding time; beet loader frames, Lindeman power equipment company. H. B. Fairbanks and G. L. Revell. il Am Mach 90:112-13 My 9 '46

General-purpose jig for drilling small levers. diag Mach 52:197 Ag '46

How to build a jig for flame-hardening; illustrated instructions. Power 90:633 S '46

Jig for drilling sleeve flanges. diags Mach 52:196 Je '46

Jig for drilling steel balls; T. A. Dickinson. diag Materials & Methods 23:1625 Je '46; Same. Mech Eng 68:740 Ag '46

Jig for drilling, tapping, and spot-facing the shank end of a small forging. diags Mach 52:182 Mr '46

Jigs and fixtures can be simple. B. C. Brosheer. il diags Am Mach 89:99-102 D 20 '45

Jigs and fixtures designed for milling gear-pump body cavities. diags Mach 52:196-8 Ap '46

Jigs and fixtures from building blocks: Wharton system. il diags Am Mach 90:125-6 S 12 '46

Jigs designed for drilling a bellcrank lever having a forked arm. diag Mach 52:188 Ja '46

Self-ejecting drill jig. diags Power Pl Eng 50:96 Ja '46

Slot-drilling jig with half-bushing guide for drill. H. Moore. diags Mach 52:195 Ap '46

Wharton universal system jigs and fixtures. il diags Automobile Eng 36:297-303 Jl '46; Engineer 181:561-2 Je 21 '46; Engineering 161:608-10, 612 Je 28 '46

Wood-base tooling material; Masonite. H. A. Knight. il Materials & Methods 22:1405-6 N '45

JOB analysis

Are labor-management relations based on economic principles? Congress should set up job evaluation standards to determine wages. J. Levy and S. J. Levy. Comm & Fin Chr 164:2085+ O 24 '46

Common sense in job evaluation. D. Anderson and A. H. Hansen. il Iron Age 157:50-3 Ja 10; 64-8 Ja 17; 42-9+ Ja 24 '46

Evaluating white-collar jobs. C. S. Mattoon. Factory Management 104:80-3 Ap '46

Hiring will be easier, if you blueprint your salesmen's jobs. B. Bigelow and E. G. Fleming. Sales Management 57:76-8+ Ag 15 '46

Job analysis, description and classification. R. F. Wallace. bibliog Personnel J 25:18-30 My '46

Job analysis; to buy or not to buy? R. L. Howard. Personnel J 25:31-5 My '46

Job evaluation. N. B. Brisco. J Retailing 21:97-8 O '45

Job evaluation; a case history. A. J. Percival and G. B. Gross. Harvard Bsns R 24 no 4: 466-97 [Jl] '46

Job evaluation and merit rating. A. S. Knowles. Mech Eng 68:709-11 Ag '46; Same cond. Steel 118:114+ Ap 15 '46

Job evaluation and the heating, ventilating, and air conditioning engineer. R. M. McGrath. il Heating-Piping 18:84-7 Jl '46; Discussion. H. A. Mosher. 18:87 O '46

Job evaluation by the point plan. M. J. Murphy and R. C. Smyth. il Factory Management 104:137-48 Je '46

Job evaluation grows up. W. Donnell. Am Mach 90:101-4 Jl 18 '46

Job evaluation in the foundry. B. Bendiner. Foundry 74:94-5+ Ag '46

Job evaluation may help to minimize stoppages. C. W. Risberg. il Food Ind 18:489-91 Ap '46

Job evaluation methods; abstract. E. Benge. Mach 52:191 My '46

Job evaluation methods and procedures. 2 pts, 37p; 88p pa $5 Dartnell corp, 4660 Ravenwood av, Chicago '46

Job evaluation principles. H. S. Wharen. Am Mach 90:109-20 Ag 1 '46

Job evaluation, salary standardization, and merit rating. L. K. Curry. Bankers Mo 63: 487-9+ O '46

Job evaluation scales. B. P. Hamilton. Iron Age 158:64-6 O 10 '46

Job evaluation systems in chemical industry is recommended. W. von Pechmann. Ind & Eng Chem 38:sup87-8 Ap '46

Jobs cataloged in basic steel. Bsns W p102 My 18 '46

Manpower problem in petroleum refineries solved by job evaluation and wage incentive. Pet Refiner 24:170+ N '45

Northwest electric light & power association; Personnel section conference. Elec World 125:95 Je 22 '46

Pre-planning a personnel selection program. W. V. Ronner. Factory Management 104: 88-92 Ap '46

Problem in job evaluation. J Retailing 22:11-14 F '46

Selective placement; job analysis in employment of handicapped. Nat Safety N 52:95-7 O '45

Simple system for job classification. R. W. Ells. Am Bsns 16:10-11+ My '46

Some notes on job evaluation. J Retailing 21:148 D '45

Wage administration. E. J. Redmon. Personnel J 24:380-3 Ap '46

Wage curves. L. Cohen. bibliog Personnel J 24:384-6 Ap '46

White collar job analysis. C. S. Mattoon. Aero Digest 52:23+ My '46

White collar job evaluation; hints on how it can help management. G. Birney. Credit & Fin Management 48:17-19 My '46

Work simplification plan highly successful at G.P.O. G. C. Compton. il Inland Ptr 117: 40-4 Ag '46

You need job evaluation. N. Pratt. Paper Ind 28:523-5 Jl '46

See also

Motion study

JOB rotation

Job-rotation plan that works. A. Wood and M. L. Okun. Am Mach 90:114-15 My 9 '46

JOB tickets
Job assignment rack eases production control; National Cash Register. il Factory Management 104:147 S '46

JOB work
Applying wage incentives to job shop operation; Edo aircraft corporation. R. P. Wright. diags Factory Management 104:113-16 Ja '46
Cost reducing program for a job shop; National supply co. P. C. Hamlin. il Iron Age 158:56-61 S 26 '46
Mass-production layout techniques in a job shop; Raytheon electrical equipment division. J. Gould. il plans Factory Management 104:97-9 F '46

JOBBER relations
Back your distributors with sound advertising; six successful selling points, time-tested by Black & Decker. L. R. O'Neill. Ind Marketing 31:43-4+ Je '46
Close kinship with distributors; what makes it live and prosper? Jas. Barclay & co., distillers. N. E. Tarble. Sales Management 57:84+ Jl 1 '46
Each selected distributor must sell his quota; Jamison plan for war-baby product. C. J. Swan. il Ptr Ink 215:33-4+ My 31 '46
How to win sales support and influence buyers! advertisement of Black & Decker, makers of portable electric tools tells why it pays to buy thru distributors. L. R. O'Neill. Ptr Ink 216:44-5 Ag 16 '46
Mill & Factory surveys selling through industrial distributors. Ptr Ink 216:63-4 S 13 '46
Why we give distributors a voice in top management; Domestic appliance division, Pressed steel car co. A. Raysson. Sales Management 57:37-9 N 1 '46

JOBBER selection
Policy behind Lightolier's selective distribution program. M. Loebelson. Sales Management 57:96+ N 1 '46

JOBBERS
Aid to retailers; Smart & Final; Los Angeles wholesale food company, expands business. Bsns W p73 O 12 '46
Bank-financed new distributors' buying group in the electrical appliance field; Monitor equipment corp. Bsns W p51 F 9 '46
Billing plan aids all departments in wholesale grocer's warehouse; Tom Boy cooperative merchandising. A. T. Lawson. il Am Bsns 16:16-17 Ja '46
Bin size for the jobber's convenience. il Mod Packaging 19:106-8 Jl '46
Distributor rates leads for manufacturers on thermometer; Patterson bros., New York. Ptr Ink 214:104 F 22 '46
Grocery jobber cuts competitive odds for papa and mama stores; Smart & Final co. J. H. Collins. il Sales Management 57:126+ Jl 1 '46
How local market analysis helps distributor sales; Libbey-Owens-Ford research. G. H. Kent. Ind Marketing 31:57+ Jl; 47+ Ag '46
How to cut waste in dealer displays; the role of the salesman and the jobber. N. J. Leigh. il Adv & Sell 39:52+ Mr '46
Industry's trend; selling through distributors: Mill & Factory's survey. H. Conover. Ind Marketing 31:39-40+ S '46
Jobber; an important, though much maligned, figure in the distribution picture on potash soaps. M. Fuld. Soap & San Chem 22:161+ Je '46
Jobber enlists suppliers in one-day sales training workout; A. E. MacAdam & co; R. A. Ferran. Sales Management 57:97-8+ Jl 15 '46
Jobber setup gives Trane access to huge neglected market; residence building, smaller construction and repair jobs. il Sales Management 57:62+ O 1 '46
Northeastern halves number of dealers in search for lower sales costs. A. Ullman. il Sales Management 57:50+ O 1 '46
Research reveals merchandising is keystone of profits for jobbers. P. P. Gott. il Sales Management 56:107-8+ Ap 15 '46
Small retailers should check all sources of supply. S. C. Saunders. Dom Comm 34:43-8 Jl '46
What size shippers? a distribution problem; National wholesale druggists' survey. il Mod Packaging 20:93-7+ S '46
Where wholesaler fits into distribution from here on. F. B. Freeman. Ptr Ink 213:135-6+ N 16 '45
Wholesaler caters one-line seasonal manufacturers; concentrates efforts of sales staff on one small group at a time. C. J. Swan. Ptr Ink 216:41 Ag 2 '46

See also
Advertising—Jobbers, Appeal to
Jobber relations
Marketing
National electrical wholesalers association
Profit sharing—Jobber and dealer

Accounting
Distribution cost analysis; a management tool for cost reduction. C. H. Sevin. U S Bur For & Dom Com, Economic Ser 50:1-56; pa 15c Supt. of doc. '46

Advertising
Successful newspaper campaign of auto parts jobber. L. R. Jalenak. Ptr Ink 213:126+ N 16 '45

JOBBERS, Wagon
Current queries about wagon jobbers hard to explain. Ptr Ink 214:38 Ja 4 '46; Discussion. 214:88+ F 8 '46

JOBBERS' warehouses. See Warehouses, Jobbers'

JOHANNESBURG, South Africa

Sewerage
Producing formalin from sewage digester gas. H. Wilson. Pub Works 76:42+ N '45

JOHN HANCOCK mutual life insurance company
Annual meeting of policy-holders, 83d. East Underw 47:1+, 3+ F 15 '46

JOHNS-MANVILLE corporation
Research and manufacture combined under one roof. il plan diag Arch Rec 98:112-13 N '45

JOHNSON, Arno H.
Arno Johnson wins AMA study award. por Ptr Ink 215:84 Je 28 '46; Sales Management 57:39 Jl 1 '46

JOHNSON, Balbina A.
Balbina Johnson; with Frank Meleney, the codiscoverer of bacitracin. por Fortune 34: 104-5+ Jl '46

JOHNSON, John H. 1917-
Negro publishing co. por Sales Management 57:43 Ag 1 '46

JOHNSON, John Monroe, 1878-
Honored at testimonial dinner. Ry Age 119: 990-1 D 15 '45

JOHNSON, Keen, 1896-
Role cheers A.F.L. por Bsns W p7 Ag 10 '46

JOHNSON, Matthey and company
Comprehensive exhibition. il Chem Age (Lond) 54:697 Je 22 '46
Exhibition of the products and methods. Chem & Ind p233 Je 22 '46

JOHNSON and Johnson company
New products boost Johnson sales. Barron's 26:6 Ag 5 '46

JOHNSON-MAY bill. See Atomic energy commission (proposed)

JOHNSTON, Eric A. 1896-
How Eric Johnston plans to share profits. E. J. Strickland. por Factory Management 104:94-6 My '46
Johnston divides. Bsns W p100 Ja 5 '46

JOHNSTON, Percy Hampton, 1881-
Sketch. por Comm & Fin Chr 163:169+ Ja 10 '46

JOINT accounts. See Banks and banking—Joint accounts

JOINT production committees. See Employees representation in management

JOINT tenancy

See also
Bank deposits—Joint accounts

JOINTS
Better detail plate; joints, their definition and uses. R. J. Alexander. diags Am Bld 68:124-5 F '46
Factors controlling the strength of brazed joints; from final report N.R.C. 560. C. Rhyne, jr. il Welding J 25:599-611 Jl '46
Filler metal flow in brazed steel joints. diags Iron Age 157:60-1 Ap 11 '46
Gets Bohn-dry mortar joint by calculating angles. diags Brick & Clay Rec 109:29 O '46
Hankinson formula applications for stresses at timber joints. F. C. Smith. Eng N 135: 50 Jl 12 '45; Discussion. C. J. Hogue. 136: 1005 Je 27 '46
How mortar joint trouble was solved. diags Brick & Clay Rec 107:27 D '45
Joints in a jiffy; electronic heating. J. Markus. il diags Sci Am 174:245-8 Je '46
Leakage of rubber sleeve joints under high vacuum. G. S. Muirhead. Chem & Ind p298 Ag 10 '46
Moment-stiffness relations in continuous frames with prismatic members. G. H. Dell. Am Soc C E Proc 72:587-611 My '46
Single automatic woodworking process, using raw lumber, eliminates normal dimensional limitations of solid wood panels. il Arch Forum 84:160 F '46
Welding, joining, fastening, 1945. T. C. Du Mond. il Materials & Methods 23:135-9 Ja '46
What technical men expect in 1946; joining and welding. Steel 118:306-8+ Ja 7 '46

See also
Aluminum—Joining to steel, etc.
Brazing
Electric cables—Joints
Gaskets
Glass—Joining to metal
Glue
Packing
Pipe joints
Plastic materials—Joining
Rail joints
Riveted joints
Solder and soldering
Steatite—Joining to metals
Welding
Wood construction—Concrete joints

Testing
Effect of periods of rest on the fatigue strength of welded joints. diags Welding J 25:sup518-21 S '46
Fracture studies of soldered joints. F. Berman and R. H. Harrington. il Am Soc for Metals Trans 34:143-55 '45
Impact shear strength of silver alloy brazed joints. H. A. Smith and P. A. Koerner. il diags Welding J 25:sup188-92 Mr '46
Improvement of the notch impact resistance of gas-welded joints. A. Matting and H. Koch. il Welding J 25:sup359-60 Je '46
Mechanical properties and some metallurgical features of copper brazed joints. R. F. Tylecote. bibliog il diags Welding J 25:sup242-9 Ap '46

JOINTS, Riveted. See Riveted joints

JOINTS, Universal
1946 passenger cars, transmissions and universal joints; specifications tabulated. Automotive & Aviation Ind 94:109 Mr 15 '46

JOISTS, Concrete
Concrete joists for commercial and residential construction. il Am Bld 68:82-5 Ja '46

JOISTS, Steel
Steel vs. wood joists for fire-resistive apartment buildings. plans Arch Forum 85:16+ Ag '46

JOMINY test. See Steel, Hardening of

JONES, Duane Dodge, 1897-
Gallery; Pied Piper of box tops. J. Lucas. por Adv & Sell 39:120+ Ap '46

JONES-RAY effect
Jones-Ray effect, wettability, and zeta-potential. H. M. Cassel. bibliog J Chem Phys 14:462 Jl '46
Test of Langmuir's interpretation of the Jones-Ray effect. L. A. Wood and L. B. Robinson. bibliog J Chem Phys 14:258-62 Ap '46

JORDAN, Thomas
Bull is thrown. por Bsns W p22+ N 2 '46

JOSHI, Jagannath Vishwanath
India's executive director of the International monetary fund. por Comm & Fin Chr 163: 2510 My 9 '46

JOSIAH Macy junior foundation
War reprint service
War reprint service. Science 102:660-1 D 28 '45

JOURNAL of applied physics (periodical)
Reconversion of the Journal of applied physics. J Ap Phys 17:1 Ja '46

JOURNAL of experimental zoology
Tribute to the editorial board. S. R. Detwiler. Science 102:610 D 14 '45

JOURNALISM
Press in the control of intergroup tensions. A. M. Lee. bibliog Ann Am Acad 244:144-51 Mr '46

See also
House organs
Newspapers
Periodicals

Bibliography
Journalist's bookshelf; an annotated and selected bibliography of United States journalism. R. E. Wolseley. 4th ed 133p $1.50 Quill and Scroll foundation, 339 E. Chicago av, Chicago '46

JOYCE, Patrick H. 1879-
Joyce retires; Burtness heads Chicago Great Western. por Ry Age 120:1112-13 Je 1 '46

JUDGMENTS
See also
Estoppel

JUDGMENTS, Declaratory. See Declaratory judgments

JUGOSLAVIA. See Yugoslavia

JUKE boxes. See Phonograph, Automatic

JUNGLE
Jungle acoustics; study carried out during wet season in Panama. C. F. Eyring. il Acoustical Soc Am J 18:257-70 O '46
Ultrasonic ambient noise in tropical jungles. J. A. Saby and H. A. Thorpe. Acoustical Soc Am J 18:271-3 O '46

JUNIOR achievement movement
Private enterprise, jr; young Americans practical training in business. M. C. Faught. il Banking 39:36-7+ O '46

JURASSIC period. See Geology, Stratigraphic—Jurassic

JUSTI, Henry M. Jr
This is about teeth. Fortune 34:151 Jl '46

JUTE
Carding of jute determines yarn quality. S. A. G. Caldwell. Textile World 96:133+ O '46
Increase in jute production, Belgian Congo. For Comm W 21:44 N 17 '45
India chooses rice; restrictions on jute acreage. Barron's 26:7 Ap 29 '46
Jute acreage and crop estimates, India, 1945, with comparative figures for 1944. For Comm W 21:39 D 15 '45
Jute and the chemical industry. W. G. Atkins. bibliog Chem & Ind p58-61 F 9 '46
Jute; vitally essential product in world trade; India's monopoly fiber. M. E. Poole. il For Comm W 22:6-11+ Ja 26 '46
Moisture relationships of jute; adsorption isotherm and heat of wetting. W. G. Macmillan and others. bibliog Textile Inst J 37:T13-24 F '46
Oiling of jute; comparative fibre-lubricating properties of oil mixtures as studied by fibre length analysis of card slivers. W. G. Macmillan and M. K. Sen. Textile Inst J 37:T141-50 Je '46

JUVENILE delinquency
Let minors be employed! R. W. Babson. Comm & Fin Chr 164:661+ Ag 1 '46

K

KADENACY engine
Taking the mystery out of the Kadenacy system of scavenging Diesel engines. P. H. Schweitzer and others. patent list and bibliog diag A S M E Trans 68:729-34; Discussion. 734 O '46

KAGANOVICH, Lazar, 1893-
Politburo. V. Kravchenko. Fortune 34:228+ S '46

KAISER, Henry John, 1882-
Adventures of Henry and Joe in autoland. por Fortune 33:96-103+ Mr '46
Kaiser pays RFC; Permanente setup cleared. Bsns W p38+ D 8 '45
Men who make aluminum. por Fortune 33: 107 My '46

KAISER cargo, inc.
Kaiser gets five year lease on two Spokane aluminum facilities. Iron Age 157:104 F 28 '46; Steel 118:112-13 Mr 4 '46

KAISER company, inc.
Kaiser purchases Eagle mountain iron mine in southern California. Steel 118:78 My 27 '46

KAISER-FRAZER corporation
Adventures of Henry and Joe in autoland. il plan Fortune 33:96-103+ Mr '46
Back to the twenties? Fortune 33:82 Mr '46
Birth of an auto. Bsns W p19-20 Ja 26 '46
Curb maintains position in Kaiser-Frazer listing. Comm & Fin Chr 164:77+ Jl 4 '46
Eaton returns to steel; starts new venture with Kaiser and Frazer. Bsns W p19-20 Je 15 '46
Flexible wage; Kaiser-Frazer's contract with U.A.W. hitches pay rate to production. Bsns W p17 Ja 12 '46
Kaiser additions; will lease two government-owned aluminum plants. por Bsns W p32 F 16 '46
Kaiser and Frazer cars for 1946. Consumers Res Bul 17:13-14 Mr '46
Kaiser-Frazer signs agreement with United automobile workers. Steel 118:67-8 Ja 14 '46
Kaiser-Frazer to buy into new steel company. Steel 118:80 Je 3 '46
Kaiser gets five year lease on two Spokane aluminum facilities. Iron Age 157:104 F 28 '46; Steel 118:112-13 Mr 4 '46
New stock offering sets record in equity financing. Comm & Fin Chr 163:465 Ja 28 '46
New York curb exchange drafting reply to Mr Cornell's note requesting data on Kaiser-Frazer shares. Comm & Fin Chr 163:3351 Je 20 '46
Ohio ends controversy with N.Y. Curb in listing Kaiser-Frazer shares. Comm & Fin Chr 164:892 Ag 15 '46
Ohio objects; Securities division flays New York curb for listing of Kaiser-Frazer shares. Bsns W p49 Je 22 '46
Rolling its own; Kaiser-Frazer buys into a new steel company. Bsns W p19 Je 8 '46
Scale model speeds Kaiser-Frazer conversion; three-dimensional, seven-color plant layout. il Factory Management 104:116-17 My '46
Second issue. Bsns W p79 Ja 12 '46
Street agape over Kaiser deal. Bsns W p70-3 F 2 '46
21 regions, 3,900 dealers in Kaiser-Frazer setup. W. A. MacDonald. il Sales Management 57:105-6 Ag 1 '46
Willow row ends; C.I.O. wins agreement. Bsns W p102+ N 10 '45

KALAMAZOO, Michigan
Water supply
Water and electricity do mix; City light and water utilities. E. E. Norman. il Am Water Works Assn J 38:342-4 Mr '46

KALAMAZOO vegetable parchment company
Re-incarnation of a paper mill; KVP company limited, mill at Espanola, Ontario. D. W. Emmerson and others. il maps Pulp & Pa of Can 47:71-95 O '46

KALE
Availability of carotene from kale. E. Orent-Keiles and others. Science 103:498-9 Ap 26 '46

KAME (term)
Kame-complexes and perforation deposits. J. H. Cook. il Am J Sci 244:573-83, pl 1-2 Ag '46

KANNER, Morton Henry, 1915-1943
Sketch. L. A. DuBridge. R Sci Instr 17:52-3 Ja '46

KANSAS
See also
Geology—Kansas
Industries and resources
Report of first annual Industrial-agricultural week at Kansas state college. A. L. Pugsley. J Eng Educ 36:502-11 Ap '46

KANSAS CITY, Missouri
Kansas City wholesale fruit and vegetable market. H. G. Wales. J Bsns 19:161-75 Jl '46
Merchandise mart
Trade mart for Kansas City. il Sales Management 57:43 Jl 15 '46

KANSAS CITY southern railway
Annual report. Comm & Fin Chr 163:2158 Ap 22 '46
Company protests bar to refunding. Comm & Fin Chr 162:2394 N 19 '45
Earning power up. Barron's 26:6 My 27 '46

KANSAS state college
Report of first annual Industrial-agricultural week. A. L. Pugsley. J Eng Educ 36:502-11 Ap '46

KAOLIN
Gîtes de kaolin nouvellement exploités en France. V. Charrin. map Génie Civil 123: 177 Jl 1 '46
Illite, montmorillonite, halloysite, and volcanic ash as whiteware body ingredients. L. Mattyasovszky-Zsolnay. Am Cer Soc J 29:254-60 S 1 '46
Note on reactions of alkali with kaolin and metakaolin. S. Zerfoss and B. A. Utter. Am Cer Soc J 29:205-7 Ag 1 '46
Relations of bauxite and kaolin in the Arkansas bauxite deposits. M. I. Goldman and J. I. Tracey, jr. il Econ Geol 41:567-75 S '46
$3,400,000 pilot plant in South Carolina produces alumina from kaolin. il Manuf Rec 115:54 My '46

KAOLINITE
Fundamental study of clay; effect of particle size on properties of casting slips. S. S. Kocatopcu. bibliog Am Cer Soc J 29:99-107 Ap 1 '46
Structure of kaolinite; abstract. G. W. Brindley and K. Robinson. Am Cer Soc J 29 (Cer A [25]):41 F 1 '46

KAPITZA, Peter L., 1894-
My trip to Russia; Kapitza's laboratory in Moscow. I. Langmuir. Chem & Eng N 24: 759-62 Mr 25 '46

KAPOK
Nine; over-all specific volume of kapok. W. H. Rees. bibliog diag Textile Inst J 37: T121-39, pl 1-2 My '46

KAPPES, Marion L. 1889-1945
In memoriam. Special Lib 37:67 Mr '46

KARAKUL sheep
New accent on karakul in Russia's fur activities. For Comm W 22:43 F 16 '46

KARBATE. See Carbon, Structural

KARMAN, Theodor von
Portrait. Fortune 34:142 S '46

KARRER, Paul, 1889-
Paul Karrer. R. E. Oesper. por(pxix) J Chem Educ 23:392 Ag '46

KATY. See Missouri-Kansas-Texas railroad

KAUFMANN, Rudolf, 1908-1941
Sketch. C. Teichert. bibliog Am J Sci 244: 808-10 N '46

KEEFE, Merrit David
Irishman in Wall Street. por Fortune 34:186 N '46

KEESHIN freight lines
Keeshin collapse. Bsns W p74 F 16 '46
Labor power; appointment of D. D. Carmell as a Keeshin trustee. Bsns W p79 Ap 13 '46
Strong-back business. Fortune 34:148 Jl '46

KEFAUVER, Estes, 1903-
Antitrusters on the ropes; Small business committee considers new tactics. por Bsns W p17 O 19 '46

KEFAUVER bill. See Business consolidations

KEFAUVER TVA bill. See Tennessee Valley authority

KEGS
Truck method of handling spike kegs. il Steel 118:117+ Mr 11 '46

KEIR, James, 1735-1820
Roebuck and Keir. M. Schofield. Chem & Ind p106-7 Mr 9 '46

KELLER, Boris Aleksandrovich, 1874-1946
Obituary. V. C. Asmous. Science 104:339 O 11 '46

KELLEY bill. See Pensions, Military

KELLOGG, Charles Wetmore, 1880-
Retirement terminates distinguished career in electric industry. por Edison Elec Inst Bul 14:190+ Je '46

KELLY, George A. 1886-
Portrait. Bsns W p64 Ap 27 '46

KELVIN, William Thomson, 1st baron, 1824-1907
Reminiscences of Lord Kelvin. J. Younger. Civil Eng 16:187 Ap '46

KEMMERER, Edwin Walter, 1875-1945
Sketch. por Comm & Fin Chr 162:3031 D 20 '45

KEMPF, Louis Walter, 1898-
Sketch. por Min & Met 27:206 Ap '46

KENDEX. See Resinous products

KENNA, Frank, 1874-
Mr Kenna has a plan. Fortune 33:164 Je '46

KENNAMETAL
Solid Kennametal rolls developed for cold-metal strip mills. Mach 53:182 O '46

KENNECOTT copper corporation
Stocks for 1946 re-investment. Mag of Wall St 77:330-1+ D 22 '45

KENOTRON
What you should know about industrial electronics; electronic tubes as rectifiers. il Am Mach 90:138 F 14 '46

KENT, Fred I. 1869-
60 years in banking. J. L. Cooley. por Banking 39:54+ N '46

KENTUCKY
See also
Railroads—Kentucky
Roads—Kentucky

Industries and resources
Kentucky moves to attract new industries. P. Hughes. Manuf Rec 115:38+ Je '46
See also
Louisville—Industries
Rock products industry—Kentucky

KENYA colony
News by countries. For Comm W 21:32-3 N 10 '45

KERATIN
Friction between keratin surfaces as affected by some shrinkproofing treatments. M. Lipson and P. Howard. bibliog il Soc Dyers & Col J 62:29-32 Ja '46

Water absorption of keratin; abstract. A. B. Cassie. Am Dyestuff Rep 35:452 S 23 '46

KERN river
Geomorphology of the middle Kern River basin, southern Sierra Nevada, California. R. W. Webb. bibliog maps Geol Soc Bul 57:355-82, pl 1-7 Ap '46

KERNICTERUS. See Brain—Diseases

KEROSENE
Solubility of DDT in kerosenes; effect of auxiliary solvents at subzero temperatures. E. E. Fleck and H. L. Haller. Ind & Eng Chem 38:177-8 F '46

World supplies of gasoline, kerosine, and burning oils. S. P Coleman. Am Pet Inst Proc 25(2):9-13 '45; Abstract. Oil & Gas J 44:61+ D 1 '46

Testing
Char value of kerosine. F. W. H. Matthews and W. H. Thomas. bibliog diag Inst Pet J 32:269-88 My '46

KERR-MCGEE oil industries, inc.
Preferred stock offered. Comm & Fin Chr 163:2294 Ap 29 '46

KESSLERWOOD project. See Housing—Indianapolis

KETAZINES. See Azines

KETENE
Catalytic synthesis of hydrocarbons and oxygenated compounds from ketene and its relation to the Fischer-Tropsch synthesis. B. R. Warner, M. J. Derrig and C. W. Montgomery. bibliog Am Chem Soc J 68: 1615-17 Ag '46

Dipole moments and structures of ketene and of several polar molecules containing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:1357-60 Jl '46

Ketene acetals; phenylketene diethyl- and dimethylacetals from the pyrolysis of the corresponding orthoesters. S. M. McElvain and C. L. Stevens. bibliog Am Chem Soc J 68:1917-21 O '46

Ketene acetals; the alkylation and acylation of substituted ketene acetals. S. M. McElvain, R. E. Kent and C. L. Stevens. bibliog Am Chem Soc J 68:1922-5 O '46

Studies on pituitary lactogenic hormone; reactions with ketene. Choh Hao Li and A. Kalman. bibliog il Am Chem Soc J 68:285-7 F '46

Vinyl alcohols; reduction of hindered diaryl ketenes by the Grignard reagent. R. C. Fuson and others. bibliog Am Chem Soc J 67:1937-9 N '45

KETOCHOLESTEROL
Aminosteroids; preparation of 3 : 7-diketocholestene. J. Barnett, B. E. Ryman and F. Smith. Chem Soc J p526-8 Je '46

KETONES
Absorption spectra; cyclic β-diketones. E. R. Blout, V. W. Eager and D. C. Silverman. bibliog Am Chem Soc J 68:566-71 Ap '46

Action of Grignard reagents; replacement of the oxygen atoms of ketones by two hydrocarbon radicals by the action of Grignard reagents. A. Schönberg and W. Asker. Chem Soc J p609-10 Jl '46

Alkaline cleavage unsymmetrical β-diketones. C. L. Bickel. bibliog Am Chem Soc J 67: 2204-6 D '45

o-Amino-ketones of the acetophenone and benzophenone types. J. C. E. Simpson and others. bibliog Chem Soc J p646-57 O '45

Aromatic cyclodehydration; phenanthrene derivatives by the cyclization of ketones. C. K. Bradsher and L. J. Wissow. bibliog Am Chem Soc J 68:1094-6 Je '46

Branched-chain fatty acids; a further study of the preparation of ketones and keto esters by means of organocadmium reagents. J. Cason. bibliog Am Chem Soc J 68:2078-81 O '46

Cleavage of cyclic beta diketones; tetramethyl-1,3-cyclobutanedione. J. L. E. Erickson and G. C. Kitchens. bibliog Am Chem Soc J 68:492-6 Mr '46

Coupling of aryl methyl ketones by the action of sodium hypohalite solutions. R. C. Fuson and R. Johnson. Am Chem Soc J 68:1668-9 Ag '46

2,4-Dihydroxy-3-quinolyl methyl ketones. W. R. Vaughan. bibliog Am Chem Soc J 68: 324-5 F '46

2 : 4-Dinitrophenylsemicarbazide; a reagent for aldehydes and ketones. J. L. McVeigh and J. D. Rose. Chem Soc J p713-14 O '45

Ethylene imine ketones. N. H. Cromwell and J. A. Caughlan. bibliog Am Chem Soc J 67.2235-8 D '45

2'-Ketodihydro-1,2-cyclopentenonaphthalene and derivatives of naphtho[1.2-*b*]furan. A. L. Wilds and J. A. Johnson, jr. bibliog Am Chem Soc J 68:86-9 Ja '46

Mannich reaction: β-aminoketones from diisopropyl ketone. R. A. Jacobson. Am Chem Soc J 67:1999-2000 N '45

Molecular rearrangements; case of a thermal reversible α-diketone-γ-lactone rearrangement; some experiments with vulpinic acid and related compounds. A. Schönberg and A. Sina. Chem Soc J p601-4 Jl '46

New method for the synthesis of α-chloroketones. J. F. Bunnett and D. S. Tarbell. bibliog Am Chem Soc J 67:1944-6 N '45

Reaction of hydroxylamine-O-sulfonic acid with ketones. J. K. Sanford and others. bibliog Am Chem Soc J 67:1941-3 N '45

Reaction of ketones with halogens and thiourea. R. M. Dodson and L. C. King. bibliog Am Chem Soc J 67:2242-3 D '45

KETONES—*Continued*
Reactions of unsaturated ketones and derivatives with amino compounds; amino ketones. N. H. Cromwell. bibliog(124 references) Chem R 38:83-137 F '46
Researches on acetylenic compounds; the hydration of some acetylenylcarbinols derived from αβ-unsaturated aldehydes. I. M. Heilbron and others. Chem Soc J p54-8 Ja '46
Researches on acetylenic compounds; the preparation of acetylenic ketones by oxidation of acetylenic carbinols and glycols. K. Bowden and others. Chem Soc J p39-45 Ja '46
Solvents in the paint industry. R. B. Pollak. bibliog Paint Oil & Chem R 109:8-10 My 30 '46
Studies in the anthracene series; methyl ketones and carbinolamines derived from 1,2,3,4-tetrahydroanthracene. E. A. Garlock, jr. and E. Mosettig. bibliog Am Chem Soc J 67:2255-9 D '45
Synthesis of methyl ketones and diethyl acylmalonates. H. G. Walker and C. R. Hauser. bibliog Am Chem Soc J 68:1386-8 Jl '46
Synthetic analogues of progesterone. W. C. J. Ross. Chem Soc J p536-8 Ag '45
Thio-Michler ketone and bis-(dimethylaminopyridyl)-thioketone. D. S. Tarbell and V. P. Wystrach. Am Chem Soc J 68:2110 O '46
Vibrational spectra of esters and ketones. H. W. Thompson and P. Torkington. Chem Soc J p640-5 O '45
Willgerodt reaction; a study of reaction conditions with acetophenone and other ketones. D. F. DeTar and M. Carmack. bibliog Am Chem Soc J 68:2025-9 O '46
See also
Thiones

Analysis

X-ray identification and crystallography of aldehydes and ketones as the 2,4-dinitrophenylhydrazones. G. L. Clark, W. I. Kaye and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:310-13 My '46

KETOSES
D-gluco-L-*tagato*-octose. M. L. Wolfrom and A. Thompson. bibliog Am Chem Soc J 68: 1453-5 Ag '46

KETOXIMES. See Oximes

KETTERING, Charles Franklin, 1876-
Sketch. por Civil Eng 16:38-9 Ja '46

KETTLES, Copper
Sanitary candy manufacture. W. H. Eddy. il Food Ind 17:1457 D '45; Discussion (Candy kettles, copper or stainless?) 18:627 Ap '46

KEYNES, John Maynard, 1883-1946
Economic and political consequences of Lord Keynes' theories. P. Cortney. Comm & Fin Chr 161:617+, 713+ F 8, 15 '45; Discussion. W. Craven-Ellis. 164:68+; Reply. 111 Jl 4 '46
In praise of Lord Keynes. F. P. Breckinridge. Comm & Fin Chr 164:1006+ Ag 22 '46
Keynes' posthumous message. P. Cortney. Comm & Fin Chr 164:877+ Ag 15 '46
Keynesian economics. J. Levy. Comm & Fin Chr 164:1264+ S 5 '46
Lord Keynes' legacy. P. Einzig. Comm & Fin Chr 163:2354+ My 2 '46
Sketch. por Comm & Fin Chr 163:2218+ Ap 25 '46; Economist 150:657-8 Ap 27 '46
Tribute. Bsns W p112 Ap 27 '46

KEYS and keyways (machinery)
Adcock and Shipley keyway and cotter hole cutting machine. il Engineer 181:503-4 My 31 '46
Broaching blind holes with multiple short broaches. il Mach 52:173 My '46
Broaching thirty-three internal involute splines in one operation. il Mach 53:210 N '46
Engineering of involute splines. G. L. McCain. diags S A E J 54:245-60 My '46; Excerpts. Automotive & Aviation Ind 94:24-7 My 15 '46; Discussion. C. H. Standard, A. S. Beam and others. il S A E J 54:310-24 Je '46
Keys replace pockets in die shoes. W. J. Kamp. il Am Mach 90:85-6 Ag 29 '46
Machining axle keyways; master lathe converter. il Ry Mech Eng 120:43 Ja '46
Sensitive jack supports thin rods for splining. H. Moore. diag Am Mach 90:140 O 10 '46

KEYSTONE steel and wire company
Individualism pays: unorthodox steel company and equally unusual union keep mills running. Bsns W p37-8 Je 22 '46
Two steel firms bucked downtrend in net. Barron's 26:7 Jl 1 '46

KHAKI
Dyeing of cotton with mineral khaki; fungicidal and bactericidal efficiencies of cotton yarn treated by various mineral khaki processes. E. Race, F. M. Rowe and J. B. Speakman. bibliog diags Soc Dyers & Col J 61:310-21, pl 1-2 D '45; Abstract. Am Dyestuff Rep 35:180 Ap 8 '46
Dyeing of cotton with mineral khaki; the effect of exposure to weathering agencies on yarns pigmented with copper, chromium and iron compounds. E. Race and F. M. Rowe. bibliog il diags Soc Dyers & Col J 62:19-29 Ja '46
Dyeing of cotton with mineral khaki; the incorporation of copper with chromium and iron in mineral khaki for the production of an effective fungicide and bactericide. E. Race, F. M. Rowe and J. B. Speakman. bibliog il Soc Dyers & Col J 62:9-19 pl 1-2 Ja '46; Abstract. Am Dyestuff Rep 35:183 Ap 8 '46

KHRUSHCHEV, Nikita, 1894-
Politburo. V. Kravchenko. Fortune 34:232 S '46

KIDD, Mrs Elizabeth
Portrait. Sales Management 57:40 Jl 1 '46

KIESELGUHR. See Diatomaceous earth

KILGORE-MAGNUSON bill. See National science foundation (proposed)

KILGORE scientific research bill. See Scientific research—Legislation, Proposed

KILLMER, Miles I.
Moles honor two prominent contractors. por Explosives Eng 24:19 Ja '46; Comp Air Mag 51:50 F '46

KILNS
Control of tunnel kilns; abstract. P. Dressler. Brick & Clay Rec 108:38 My '46
European tunnel kiln developments; abstract. G. E. Seil. Brick & Clay Rec 108:40 My '46
How to test your kiln for sulphur. M. J. Bozin. Brick & Clay Rec 109:50+ Ag '46
Manufacture of sponge iron in periodic brick kilns. K. M. Smith and S. E. Burton. U S Bur Mines Rep of Invest 3841:1-38, pl 1-9 '45
Producing sponge iron in a rotary kiln; pilot plant operated by Bureau of mines. T. L. Johnston. flow sheet il Steel 117:128-9+ N 12 '45
Setting a beehive kiln with a fork lift truck; Peoria (Ill.) Brick and tile co. il diag Brick & Clay Rec 108:38 Je '46
Setting a kiln for common, flashed and unflashed face and enameled brick. diags Brick & Clay Rec 109:46-7 Ag; 52+ S '46
Straight line dryer-kiln makes 45 to 50 tons of brick and tile in 24 hours. C. W. Isenhour, jr. il Brick & Clay Rec 108:60+ Mr '46
What amount of heat for two dry kilns? plant making veneer crates and hampers for fruit and vegetable trade. Heating-Piping 18:89 O '46
See also
Cement kilns
Lime kilns

Electric heating

Electric truck kiln for potteries; abstract. H. E. Meuche. Elec World 125:73 Ja 5 '46
How to build an inexpensive kiln; small, electrical kiln for artware can be home built. il Cer Ind 45:75-6 N '45

Firing

Air atomization saves 30% fuel costs at Brisch brick co. il plan Brick & Clay Rec 109:48+ Jl '46

KIMBERLY-CLARK company
Thumbnail stock appraisal. Mag of Wall St 77:457 Ja 19 '46

KINDERGARTENS
See also
Nursery schools

KINDLER reaction
Willgerodt and Kindler reactions; amides from acetylenes and olefins; studies relating to the reaction mechanisms. M. Carmack and D. F. DeTar. bibliog Am Chem Soc J 68:2029-33 O '46

KINEMATICS of machinery. See Machinery, Kinematics of

KING, William Lyon Mackenzie, 1874-
20th year as prime minister. por Bsns W p28 Je 8 '46

KINGSLEY, William H. 1869-1945
Sketch. por East Underw 46:6 N 9 '45

KINZEL, Augustus Braun, 1900-
Sketch. por Min & Met 27:388 Jl '46

KIRBY, Allan Price, 1892-
Kirby plans to sell about half of his Alleghany corp. common. Bsns W p75-6 N 17 '45

KIRI. See Lac

KIRK, Charles Townsend, 1876-1945
Memorial. C. N. Gould. bibliog por(pl 8) Geol Soc Proc 1945:249-51 Je '46

KIRKPATRICK, Sidney D. 1894-
Chemical industry medal awarded to S. D. Kirkpatrick. por Chem & Eng N 23:2334 D 25 '45

KIRKSITE. See Zinc alloys

KITCHEN cars
Illinois Central's new all-electric diner kitchen; drawing. Ry Age 119:952 D 8 '45

KITCHEN utensils
Kitchen utensil output speeded by induction soldering; with cost data. L. Gise and J. R. Stewart. Iron Age 158:169-70 S 26 '46
See also
Aluminum ware

KITCHENS
Big remodeling market. il plan Dom Eng 167: 102-4 Mr '46
Builder plans with manufacturer for more efficient kitchens. il plans Am Bld 68:95-7 F '46
Functional service in the kitchen most important to home seekers. il Am Bld 68: 86-7 Jl '46
Ingenious ideas that will add greatly to kitchen convenience. il Am Bld 68:86 Mr '46
Kitchen center opens; Rochester gas and electric corporation. il Am Gas Assn Mo 28:262+ Je '46
Kitchen planning; time-saver standards. V. Civkin. il plans Arch Rec 98:131, 133 D '45
Kitchens in the modern manner. il plans Dom Eng 167:106-9+ Ap '46
Kitchens planning to be theme of McCall awards. Am Gas J 164:27 Je '46
Light, airy kitchens with built-in conveniences. il Am Bld 68:110 Mr '46
Los Angeles model house has kitchen which incorporates most features housewives have dreamed of. il plan Arch Forum 84:102-3 Mr '46
Manufacturer's research assures effective kitchens; Servel inc. il plans Am Bld 68: 111-13 F '46
New look at the kitchen; Heiner-McCullough study. il Arch Forum 84:155-8 F; 187-90 Mr '46
Packaged kitchens. il diags Arch Forum 84: 149-56+ Ap '46
Planning kitchens today for tomorrow's homes. il plans Am Bld 67:82-3 D '45
Progress, 1926-1946; kitchens, laundries. il Am Bld 68:130-3 O '46
Service in a package; White kitchen compact. il diags Fortune 33:158-63+ Ap '46
Simplified cabinet design complements kitchen appliances. il Arch Forum 84:184 My '46
See also
Dormitories—Food service

Electric equipment
Fort Worth builders plan veterans' low-cost homes complete with electric kitchens. il plans Am Bld 68:84-7 My '46

Equipment
All-metal, compact one-wall unit kitchen combining refrigerator, stove and sink with storage space. il plans Am Bld 68:102 S '46
Intermediate pressures; steam connections for kitchens and restaurants. plans Dom Eng 167:122+ Mr '46
Modern gas kitchen equipment. J. J. Bourke. Am Gas Assn Mo 28:399-400 S '46
New freedom gas kitchen program. H. V. Potter. Am Gas Assn Proc 1945:36-8
Service in a package; White kitchen compact. il diags Fortune 33:158-63+ Ap '46
Set the stage for home service; fundamentals of good kitchen displays and home service demonstration platform arrangements. H. Swenson. il plans Am Gas Assn Mo 28:53-5+ F '46
Tour through tomorrow's house. il Dom Eng 168:90-3 Jl '46
Why does one dealer succeed where another fails? answer: training; American central manufacturing co. creates kitchen specialists. C. F. Hastings. il Sales Management 57:44-6+ O 15 '46

Ventilation
Design of connecting hood over electric range to carry away fumes and heat. plan diags Sheet Metal Worker 37:57+ Ap '46
Glass hood for hospital kitchen. il Heat & Ven 43:82 O '46
Kitchen ventilating problem. plan diags Sheet Metal Worker 37:51-2 F '46
Kitchen ventilating systems. H. J. Hense. il plans Am Gas Assn Mo 28:215-16 My '46
New kitchen center emphasizes ventilation. il Gas Age 97:29 My 16 '46
Practical pointers on kitchen ventilation. S. Lewis. il Heating-Piping 18:94-6 Ag '46
Rochester plan of kitchen ventilation. diags Sheet Metal Worker 37:58+ O '46
Ventilating system for gas ranges achieves cooler cleaner kitchen. il diag Arch Forum 84:171-2 Ja '46

KITCHENS, Hospital
Glass hood for hospital kitchen. il Heat & Ven 43:82 O '46
Service department; kitchens for the general hospital. plans Arch Rec 100:83-5 Jl '46

KITTREDGE, William Albion, 1891-1945
Faithfully yours, Bill. D. Nichols. por Adv & Sell 39:125+ Ap '46

KJELDAHL process. See Nitrogen—Analysis

KLAPPENBACH, Ernst, 1892-1946
Sketch. por Oil & Gas J 44:37 F 2 '46

KLEIN, S.
Klein's for cash; famous bargain store goes to Grayson Shops, West coast apparel chain. il Bsns W p78+ F 16 '46

KLYSTRON
Calculation of the electromagnetic field, frequency and circuit parameters of high-frequency resonator cavities. H. Motz. bibliog diags Inst E E J 93 pt 3:335-43 S '46
Magnetron and the klystron. T. F. Wall. diags Engineering 161:125-7, 148, 184-5 F 8-22 '46
Reflex-klystron oscillators. E. L. Ginzton and A. E. Harrison. bibliog diags Inst Radio Eng Proc 34:97P-113P Mr '46
2,660-mc train communication system; Rock Island railroad. E. A. Dahl. il Electronics 19:118-22 Ja '46
Velocity modulation. J. E. Kauke. il diags Radio N 35:44-5+ F '46

KNIT goods
British knitters combine to promote products in world markets. Ptr Ink 213:140 D 14 '45
See also
Hosiery
Sweaters
Underwear

Manufacture
Carpets can be knitted at high production rate. diags Textile World 96:150+ Ag '46
Knit goods damaged by chlorine bleach. Textile World 95:176+ D '45
Shrinkproofing resin exhausted from bath. I. G. Sanford. il Textile World 96:137+ S '46
Weight control in knitting is vital in quality and cost. A. H. Wesslen. il Textile World 96:133+ S '46

KNIT goods—Manufacture—*Continued*
Wet chlorination of wool textiles and mixtures. W. A. Edwards. Rayon 27:479-82 S '46
See also
Hosiery—Manufacture
Knitting mills

Testing

Physical properties of knitted fabric made of natural and synthetic fibers. H. M. Fletcher. bibliog il Rayon 27:309-12, 364-7 Je-Jl '46

KNITTING
Cotton-and-wool knitting yarns multiply spinning costs. P. M. Thomas. il Textile World 95:108-10+ N '45
Distorted loops avoided by knitting machine adjustment. J. W. Hughes. diags Textile World 95:123+ D '45
Knitting pile fabrics on circular or warp machines. H. Wignall. diags Textile World 96:111+ O '46
Tricot requires careful warping. O. B. Graham. il diags Textile World 96:116-17+ O '46
Tricot stitch is extremely simple; drawings. T. H. Johnson. Textile World 96:94-5 Ag '46
See also
Hosiery—Manufacture

KNITTING machines
Aveco tricot machine. il Textile World 96:145 Je '46
Brinton knitting machine. il Textile World 96:145 My '46
British high speed warp knitting machine. E. F. Mann. il Rayon 27:545 O '46
Circular interlock knitting gained ground in Germany. P. H. Hanes, jr. and C. L. Rosenquist. il Textile World 96:113-14 My '46
Distorted loops avoided by knitting machine adjustment. J. W. Hughes. diags Textile World 95:123+ D '45
Edmos knitting machine utilizes many feeds. il Textile World 96:158 Ap '46
Mill gives operating hints on new circular-knit machines; Supreme's new MJ model produces cotton jersey. G. J. Speizman. il diags Textile World 96:108-9 Je '46
Supreme knitting machine features high productivity. il Textile World 96:157 Ap '46
See also
Hosiery machines

Needles

Knitting needles vary infinitely in design. M. C. Miller. il diags Textile World 96:103-16 Ap '46; Reply. W. A. Simonds. 96:184+ Jl '46

KNITTING mills

Air conditioning

See also
Hosiery mills—Air conditioning

Employees

Employment and earnings in the Philadelphia knitted-outerwear industry, 1944 and 1945. G. E. Votava. Mo Labor R 63:205-10 Ag '46
Knitting mill develops apprentice training program. R. Torgersen. il Textile World 95:141+ N '45

Management

Weight control in knitting is vital in quality and cost. A. H. Wesslen. il Textile World 96:133+ S '46

KNITTING needles. See Knitting machines—Needles

KNIVES
Hand knives; industrial data sheet. il diags Nat Safety N 53:37-8+ Je '46

KNIVES, Chipper
Application of motors to chippers. G. L. Oscarson. il Paper Ind 27:1519-21+ Ja '46

KNIVES, Microtome. See Microtomes

KNIVES, Paper cutting. See Paper cutting knives

KNOEVENAGEL reaction
Preparation of 3-methyl-5-aryl-2-cyclohexen-1-ones. E. C. Horning and R. E. Field. bibliog Am Chem Soc J 68:384-7 Mr '46

KNOTS and splices
How to make rope splices. il Roads & Sts 89:110-11 Ja '46
Let's knot, and let's do it the right way. il Textile World 96:101-5 Je '46; Reply. C. S. Bicksler. 96:186+ Jl '46
Rope and knots. il Roads & Sts 88:104 D '45

KNOXVILLE series
Knoxville series in the California mesozoic. F. M. Anderson. Geol Soc Bul 56:909-1014, pl 1-15 bibliog(p993-8) O '45

KNUDSEN, William Signius, 1879-
Hupp's Knudsen. Bsns W p50 Je 29 '46
Sketch. por(cover) Bsns W p8 Je 8 '46

KOCH, Fred Conrad, 1876-
Sketch. por(cover) Chem & Eng N 24:2180 Ag 25 '46

KOK-SAGYZ
Experimental dryer for pre-pilot plant studies; drying kok-saghyz rubber. D. A. Colker. il diag Ind & Eng Chem Anal ed 18:71-2 Ja '46
Natural rubber from Russian dandelion. R. E. Eskew. flow diag India Rubber World 113:517-20 Ja '46
Synthesis of rubber in kok-saghyz roots during starvation. J. McGavack and P. J. Faulks. bibliog il Rubber Age 58:204-6 N '45

KOKUM butter
Identity and polymorphism of oleyldistearin from kokum butter. E. S. Lutton. bibliog Am Chem Soc J 68:676-9 Ap '46

KOLD-HOLD manufacturing company
Stock offered. Comm & Fin Chr 162:2273 N 12 '45

KOMINUTER. See Ball mills

KOO, Y. C. 1901-
Executive director of International monetary fund. Comm & Fin Chr 164:902 Ag 15 '46

KOONTZ, John
Supervises rebuilding a New Guinea printing plant. J. A. Kingsbury. por Inland Ptr 118: 68 N '46

KOOPS, Matthias
Matthias Koops material in the paper museum of M.I.T. D. Hunter. il Paper Ind 28:219-23 My '46

KOOTENAI formation
Age of the Canadian Kootenay formation. W. A. Bell. bibliog pl Am J Sci 244:513-26 Jl '46

KOREA
Divided Korea. Economist 150:5-6 Ja 5 '46
Liberated Korea. Economist 149:746 N 24 '45
Southern Korea under U.S. military government. il For Comm W 22:6-9 Mr 9 '46

Commerce

Korean-American Chamber of commerce formed. For Comm W 23:22 Ap 13 '46
Korean chamber of commerce in America organized in Los Angeles. For Comm W 23: 25 Je 1 '46
Korea's foreign trade. C. N. Henning. For Comm W 21:7-9+ N 17 '45

KORESIN
Manufacture of koresin in Germany. G. M. Kline. flow sheet Mod Plastics 23:151+ Jl '46
Synthetic rubber manufacturing aided by former Nazi-used compound; abstract. G. W. Burpee. Franklin Inst J 241:453 Je '46

KOROSEAL
Working with the manufacturer; Koroseal licensee and distributor gives advice and service, promoting various items made from its product and guarding quality standards. E. M. Housman. il Ptr Ink 214:62+ Ja 25 '46

KOVAR. See Iron alloys—Nickel cobalt alloys

KRESGE-HOOKER scientific library
Hooker's researches on lapachol in relation to new developments in the field of chemotherapy; abstract. H. Heymann. Chem & Eng N 24:1381 My 25 '46

KRESS, S. H., and company
Selected companies, with an open road to higher earnings and dividends. Mag of Wall St 77:759, 801 Mr 30 '46

KRISTON
New casting resin by B. F. Goodrich chemical co. R Sci Instr 17:44 Ja '46

KRISTON—*Continued*
Tailored allyl ester. S. L. Brous. il Mod Plastics 23:107-10 D '45

KROETER, James, 1911-
Oil man, flier, painter; finds success in all three. por Nat Pet N 38:44 Ap 10 '46

KROGER company
Thumbnail stock appraisal. Mag of Wall St 78:23 Ap 13 '46

KROLL, John Jacob
Portrait. Bsns W p96 Jl 27 '46

KRUG, Julius Albert, 1907-
Julius Krug sworn as Interior secretary. por Elec World News ed 125:6 Mr 23 '46
Krug solves a presidential problem. por Bsns W p15 Mr 2 '46
Public vs. private power. Bsns W p15-17 Mr 16 '46
Takes Interior's reins without policy commitment. Pub Util 37:423 Mr 28 '46
Where Krug differs from Ickes on public power. Elec World 125:98 Mr 16 '46

KRUPP-RENN process. See Iron metallurgy

KRYPTON
Nuclear excitation of krypton and rhodium. M. L. Wiedenbeck. bibliog Phys R 68:237-9 D 1 '45

KUMMEL, Henry Barnard, 1867-1945
Memorial. M. E. Johnson. bibliog por(pl 9) Geol Soc Proc 1945:253-8 Je '46

KUMP, Ernest M., company
Architect in action on schools; school planning survey methods. il map plans diags Arch Rec 99:94-107 Mr '46

KUNZ, Charles J.
Journal award for 1945. G. E. Matthews. por Soc Motion Picture Eng J 46:1-3 Ja '46

KURDISTAN
Independent Kurdistan? map Economist 150: 754-5 My 11 '46

KUWAIT
See also
Petroleum—Kuwait

L

L.C.L. freight. See Freight car service—Car load

LABELING machines
Precision labeling with reinforced plastics. P. Fuller. il Mod Plastics 23:98-9 My '46
Thermoplastic labeler for bottled products. il Modern Packaging 20:128-9+ S '46

LABELS
Advertisers have big good-will opportunity as consumers mobilize; product standards and labeling. H. E. Green. Ptr Ink 214: 49+ F 22 '46
Booklet offers help on informative labeling; Dennison mfg. co. il Ptr Ink 214:26 F 22 '46
Canners and distributors agree on voluntary standards for labels. il Sales Management 55:44 N 15 '45
Does your package rate with the housewife? il Mod Packaging 19:89-92 Ag '46
Don't libel the label. E. C. Dawson. Ptr Ink 217:62 O 18 '46
Fact labeling stimulates sales. A. Schindler. Dom Comm 34:6-7+ F '46
Facts about copyrighting labels; misconceptions regarding registration of trade marks. A. W. Gray. Adv & Sell 38:44 D '45
Foil label; for canned food, beverages, etc. il Mod Packaging 20:91-5 O '46
Food marketing co-op sets policies for selling Your Certified brand. D. Paulhamus. il Sales Management 56:44+ Ja 15 '46
From a layman's viewpoint; type expert looks at labels. G. B. Farrar. il Inland Ptr 118: 54-5 N '46
Good to eat; appetite appeal for health foods; Choplets. il Mod Packaging 19:168-9 Mr '46
Grade labelers go national; canned fruits and vegetables, produced under continuous government inspection. Bsns W p86+ N 10 '45
Housewives like descriptive labels more than grade, Macfadden study shows. Ptr Ink 214: 44+ Mr 29 '46
How commercial standards function in marketing. I. J. Fairchild. Ind Marketing 31: 48+ Ja '46
Labels with a purpose; Quebec's government-bottled wines and liquors. il Mod Packaging 20:110-11 O '46
Manufacturers and media use labels as supplementary advertising. N. Kelne. Ptr Ink 216:104+ Jl 12 '46
New labels for Roma linked to the old. il Mod Packaging 19:114-15 Ap '46
No shelf appeal needed; Sexton label design for institutional food products. il Mod Packaging 19:128-30 Jl '46
Paint labels that sell name and product. il Mod Packaging 19:118-19 N '45
Picture labels that pinch hit for the salesman; Devoe & Raynolds co. new labels for specialty paints and household chemicals. il Mod Packaging 19:133-5 Ap '46
Plastics group offers labeling guide; use is voluntary. Sales Management 55:84 D 15 '45
Something new in Old Gold packaging. il Mod Packaging 20:138-40 S '46
This little Pegler should go to market. E. Dexter. il Adv & Sell 38:40+ D '45
Versatile, modern labels for a varied line of chemical products; R. T. Vanderbilt co. il Mod Packaging 20:128-9 O '46
Why E.C.A. sells radios with informative labels. Sales Management 56:126+ Je 1 '46
Your trademark, are you making the most of it? McQuade & co., paint manufacturer, redesigns entire family of labels. il Mod Packaging 20:105 O '46
See also
Price marks
Tags

LABOR, Casual
See also
Longshoremen

LABOR and capital
Industry's isolation ward; labor press may reconcile some differences. M. Dodge. il Sales Management 57:37-40 S 1 '46
Who gets the consumer's dollar? fallacy that capital gets more than half; Guaranty trust company of New York; abstracts. Comm & Fin Chr 164:661+ Ag 1 '46; Pub Util 38: 306-8 Ag 29 '46
See also
Industrial relations
Profit sharing
Trade unions
Wage payment plans

LABOR and laboring classes
Diplomacy listens to labor; State dept. places aides in key cities of world to observe foreign workers. Bsns W p98+ N 10 '45
Layman's view of law and labor. J. Creese. Franklin Inst J 242:9-21 Jl '46
See also
Absenteeism (labor)
Accidents, Industrial
Apprentices
Arbitration, Industrial
Barges—Employees
Bonus system
Building trades—Labor conditions
Chemical workers
Child labor
Coal miners
Cotton mills—Employees
Disabled—Rehabilitation
Diseases, Industrial
Employees
Employees' representation in management
Employment management
Employment systems
Factory inspection
Farm labor
Foundries—Employees
Gas companies—Employees
Glass factories—Employees
Government employees
Hours of labor
Housing
Hygiene, Industrial
Industrial education
Industrial management
Industrial relations
Insurance, Health
Insurance, Industrial
Insurance, Unemployment
Insurance, Workmen's compensation
International labor office
International labor organization
Labor disputes
Labor laws and legislation
Labor supply
Longshoremen
Lumber workers
Metal workers
Miners
Motor bus drivers

LABOR and laboring classes—See also—*Cont.*
Municipal employees
Occupations
Office workers
Old age pensions
Open and closed shop
Pensions, Industrial
Petroleum workers
Printers
Professional workers
Profit sharing
Radio workers
Railroads—Employees
Research workers
Retail workers
Safety devices and measures
Seamen
Standard of living
Steel workers
Street railroads—Employees
Strikes
Textile workers
Time study
Trade agreements
Trade unions
Transportation workers
Unemployment
Wages
Welfare work in industry
Woman—Employment
Workmen's compensation

Bibliography

Book notes. Published in monthly numbers of International labour review
Recent publications of labor interest. Mo Labor R 62:164-73 Ja '46 [cont monthly]

Education

See Education of workers; Industrial education

International aspects

See also
Employment—International aspects
International labor organization
Trade unions—International aspects

Periodicals

Uniform advertising standards practices needed by labor press. Ptr Ink 213:64 N 16 '45

Statistics

See also
Cost of living—Statistics
Employment—Statistics
Hours of labor—Statistics
Labor supply—Statistics
Occupations—Statistics
Wages—Statistics

Africa

See also
Labor and laboring classes—Congo, Belgian

Argentina

See also
Labor laws and legislation—Argentina

Asia

Employment situation in foreign countries; liberated and enemy countries. Mo Labor R 62:206-8 F '46

Australia

Attitudes toward Australian commonwealth employment service. Mo Labor R 62:229 F '46

Belgium

Labor conditions in Belgium, 1945 and early 1946. H. I. Cowan. Mo Labor R 63:26-35 Jl '46

See also
Labor laws and legislation—Belgium

Canada

Annual review of employment and payrolls in Canada, 1945. 97p pa $1 Canada. Dominion bur. of statistics, Ottawa '46
Employment situation in Canada. Int Labour R 53:227-31 Mr-Ap '46
Labour-management collaboration in the Canadian construction industry. Int Labour R 53:379-87 My-Je '46
What Canadian workers think about labor unions and labor's policies. Factory Management 104:100-1 S '46
Windsor formula. Bsns W p70+ F 9 '46
Windsor impasse; Canada's Ford strike may set pattern for Dominion's labor policies. Bsns W p112+ N 17 '45

Chile

Work accidents in Chile, 1932-1944. Mo Labor R 62:914 Je '46

Congo, Belgian

Conditions of indigenous workers in the Belgian Congo in 1944. Int Labour R 53:340-8 My-Je '46
Migration of indigenous workers in the Belgian Congo. P. de Briey. Int Labour R 52: 335-51 O '45

Czechoslovakia

Nationalisation and the role of labour in the Czechoslovak economy. Int Labour R 53: 75-8 Ja-F '46

Detroit

Employment patterns of Mexicans in Detroit. N. D. Humphrey. Mo Labor R 61:913-23 N '45

France

Representation in management as decreed by the government of France. Personnel J 24: 260-4 Ja '46

Germany

Employment situation in foreign countries; liberated and enemy countries. Mo Labor R 62:191-6 F '46
Future levels of German industrial employment. J. A. Flexner. Mo Labor R 62:895-903 Je '46
Labor conditions in Germany since occupation. Mo Labor R 62:72-6 Ja '46

Great Britain

Employment and unemployment in Great Britain. Int Labour R 53:85-8 Ja-F '46
Employment policy in Great Britain. Int Labour R 53:406-8 My-Je '46
Engineering outlook; manpower situation. Engineering 161:53-5 Ja 18 '46
English socialism. C. S. Slocombe. Personnel J 24:207-20 D '45
Industrial relations. Economist 151:43-4, 124-5, 204-5 Jl 13, 27, Ag 10 '46
Recent industrial disputes and methods of settlement in the United Kingdom. Mo Labor R 62:430-4 Mr '46

See also
Labor supply—Great Britain

Greece

Labour and living conditions in Greece. Economist 151:99 Jl 20 '46

Hollywood, California

See also
Trade unions—Hollywood, California

India

India's labour outlook. Economist 150:58-9 Ja 12 '46
Seventh plenary session of the Indian labour conference. Int Labour R 53:78-81 Ja-F '46

See also
Trade unions—India

Ireland

Anglo-Irish labour movements. Economist 151:547-8 O 5 '46
Population and employment in Eire. Economist 150:642 Ap 20 '46

Italy

Labor-management and factory committees in Italy. J. C. Adams. Mo Labor R 62:912-13 Je '46

Kenya

Land aspects of labour problems in Kenya. Int Labour R 53:194-9 Mr-Ap '46

Latin America

Employment situation in Latin America. J. R. Mock and E. D. Owen. Mo Labor R 62: 741-52 My '46
Labor conditions in Latin America; from the Monthly labor review, August, September, October, and December 1945. (Latin Am. ser. no23) 14p pa U.S. bur. labor statistics, Washington '46

LABOR and laboring classes—*Continued*

Netherlands

Labor foundation of the Netherlands. S. K. Hornbeck and B. C. Slotemaker. Mo Labor R 61:1171-3 D '45

New England

Reconversion in New England. Mo Labor R 63:1-25 Jl '46

New York (state)

Government and labor. T. E. Dewey. Comm & Fin Chr 164:1013+ Ag 22 '46

Norway

Joint production committees in Norway. Int Labour R 53:222-4 Mr-Ap '46

See also
Labor laws and legislation—Norway
Trade unions—Norway

Persia

Labor conditions in Iran. Mo Labor R 63: 364-8 S '46

Russia

Pigs is pigs; workers' hours lengthened and output reduced. J. Bingham. Comm & Fin Chr 164:1931+ O 17 '46
Workers' vacations in the Soviet Union. Mo Labor R 61:1186-7 D '45

St Paul

Wartime labor force of St Paul propeller plant. E. B. Harris. Mo Labor R 62:93-103 Ja '46

South Africa

South Africa settles its industrial difficulties by conciliatory methods; National industrial council. O. H. Frewin. Inland Ptr 118: 43-4 O '46

Southern states

Labor drives South. il Fortune 34:134-41+ N '46

See also
Trade unions—Southern states

Sweden

What can the United States learn from Sweden's past labor pains? N. Hedin. Comm & Fin Chr 163:2781+ My 23 '46

Switzerland

Industrial relations in Switzerland, 1938-44. Mo Labor R 61:1175-7 D '45

See also
Trade unions—Switzerland

Texas

Wartime labor force of Houston ordnance plant; Dickson gun plant. W. T. Watson and E. V. Doane. Mo Labor R 62:458-72 Mr '46

United States

AFL head discusses labor during past and coming year. W. Green. Comm & Fin Chr 164:1266+ S 5 '46
American strike scene. C. S. Slocombe. Personnel J 24:203-6 D '45
Chronology of labor events, January-March 1946. Mo Labor R 62:833-40 My '46
Chronology of labor events, April-June 1946. Mo Labor R 63:316-23 Ag '46
Collective bargaining under price control. V. H. Rothschild, 2d. Comm & Fin Chr 163: 1343+ Mr 14 '46
Fortune survey; how does organized labor rate today, what is to be done, what is proper during a strike, should labor play politics? Fortune 34:5-6+ N '46
Is craft pride dead, or only dying? W. Williams. il Am Mach 90:91-4 F 28 '46
Labor anonymous; portraits. Fortune 34:152-3 N '46
Labor during the war years. L. B. Schwellenbach. Iron Age 157:82-5+ Ja 3 '46
Labor: long range view; Labor day address. L. B. Schwellenbach. Comm & Fin Chr 164:1266+ S 5 '46
Labor outlook for the business period ahead. W. C. Hanson. Mag of Wall St 79:13-15+ O 12 '46
Labor situation. il Fortune 34:121-7+ N '46
Labor's achievements and remaining responsibilities. P. Murray. Comm & Fin Chr 164:1266+ S 5 '46
Labor's place in the economy. A. W. Zelomek. Comm & Fin Chr 163:710+ F 7 '46
Lauds labor's peacetime record; Labor day statement. H. S. Truman. Comm & Fin Chr 164:1266+ S 5 '46
Let's take the lead in giving workers economic facts. Factory Management 104:124-9 Je '46
Longevity of industrial population; abstract. Nat Safety N 52:110 N '45
Organized labor program. S. Hillman. Comm & Fin Chr 163:2781+ My 23 '46
Production alone can save us; failure of Congress to enact social measures. W. Green. Comm & Fin Chr 164:489+ Jl 25 '46
Public is fed up with the union mess. W. Williams. il Factory Management 104:97-100 Ja '46
Reunited labor and Congress; Philadelphia and Asheville addresses. W. Green. Comm & Fin Chr 163:2652+ My 16 '46
Sell out by Congress; failure to provide fundamental security. A. F. Whitney. Comm & Fin Chr 164:1378+ S 12 '46
Tomorrow's challenge to labor. P. Hannah. Comm & Fin Chr 164:1378+ S 12 '46
What I see ahead in labor relations. L. B. Schwellenbach. Factory Management 103: 88-91 N '45
What the factory worker really thinks about productivity, nationalization of industry, and labor in politics. Factory Management 104:81-8 Ja '46
What the factory worker really thinks about wages and hours, strikes, full employment, and veterans. Factory Management 103:81-92 D '45
Where is labor headed? P. T. Sheldrick. il Mag of Wall St 78:200-1+ My 25 '46
Where is organized labor going? D. R. Richberg. Comm & Fin Chr 163:1501+ Mr 21 '46
Workers' experiences during first phase of reconversion. N. Weinberg. Mo Labor R 62:707-17 My '46; Same, with additional data showing effect of incomplete coverage on findings. U S Bur Labor Statistics Bul 876: 1-18; pa 10c Supt. of doc. '46

See also
Labor laws and legislation—United States
Labor supply—United States
Negroes—Employment
Trade unions—United States
Wages—United States

Political aspects

No P.A.C. test. Bsns W p102+ N 24 '45
Unions' lip service to unfettered private enterprise misleading. C. H. Grattan. Barron's 26:3+ O 14 '46

See also Congress of industrial organizations—Political action committee

LABOR conference of American states. See International labor organization—Conference of American states, Mexico (city) 1946

LABOR contracts

Deferred compensation under executive employment contracts. H. S. Koster. Trusts & Estates 83:149-50 Ag '46
Pension plans for key men; employment contracts supplemented by insurance offer advantages. P. F. Millett. Trusts & Estates 83:345-8, 524-7 O-N '46

See also
Trade agreements

LABOR cost

Determination of labor costs in electric arc welding. J. L. Cahill. Welding J 24:1060-2 N '45
How to set up a personnel budget. A. M. Clark. Am Bsns 15:10-11+ N '45
Labor costs in principal industries; abstract. J. D. Goodman. Management R 35:39 F '46
Paper mill operating efficiencies. H. H. Brown. Paper Tr J 123:44-5 Ag 22 '46; Same cond. Paper Ind 28:872+ S '46
Regional aspects of productivity and labor costs; abstract. Management R 34:435-7 N '45

LABOR cost—*Continued*

Accounting

Case study of a payroll system. F. L. Haskell. N A C A Bul 27:451-63 Ja 15 '46
Industrial engineer, the cost accountant, and labor standards. J. W. Sheetz. N A C A Bul 28:316-32 N 1 '46
Reports on utilization of manpower; R. G. LeTourneau, inc. C. D. Weller. N A C A Bul 27:727-42 Ap 15 '46
Standards to control indirect costs. D. B. Caminez. Factory Management 104:276+ Je '46

LABOR disputes

Arbitration as a business tool. R. E. Swart. il Dun's R 54:23-5+ Mr '46
Decline of unfair labor practices as cause of industrial disputes. Mo Labor R 63:223 Ag '46
Economic fallacies of the ability-to-pay wage. I. Wright. Comm & Fin Chr 163:4+ Ja 3 '46
Fact-finding and ability to pay. Nat City Bank p2-5 Ja '46
Fact finding, newest fixture on the American labor scene. J. Hirsch. Barron's 26:3+ Ja 7 '46
Fact-finding rules for labor disputes. Factory Management 104:248+ Mr '46
Government opens drive for fact-finding legislation. Bsns W p20 O 5 '46
Grievance procedure under collective bargaining. A. Weiss and E. L. Hussey. Mo Labor R 63:175-85 Ag '46
Haven't you had enough? urges termination of violence and mass picketing in labor disputes. H. Lutz. Comm & Fin Chr 164:1453+ S 19 '46
Higgins adamant; shipbuilder continues his liquidation program. Bsns W p102+ N 17 '45
Higgins balks; closes three plants when negotiations with A.F.L. deadlock. Bsns W p105-6+ N 10 '45
How management views fact finding. Factory Management 104:118-19 Mr '46
Industrial disputes in the United Kingdom and British dominions, 1935-45. J. A. Flexner and M. B. Cheney. Mo Labor R 62:610-15 Ap '46
Labor laws must tend toward compulsory arbitration; unions' great power finds only government able to protect citizens. J. Rosenfarb. Barron's 26:3+ Jl 15 '46
Law or anarchy! A. E. Bowen. Comm & Fin Chr 164:2075+ O 24 '46
More conciliation; training course and fuller flow of information for federal men who settle labor disputes. Bsns W p101-2 Ap 6 '46
New contract settles Long Island dispute. Ry Age 121:652+ O 19 '46
Non-coercive government action in labor disputes. E. L. Warren. Comm & Fin Chr 163:1784+ Ap 4 '46
Our industrial relations problem. W. K. Jackson. Comm & Fin Chr 163:2915, 2952 My 30 '46
Path to peace in industrial disputes. A. Schindler. Comm & Fin Chr 163:3533+ Je 27 '46
Recent industrial disputes and methods of settlement in the United Kingdom. Mo Labor R 62:430-4 Mr '46
Self-control or government controls. Trusts & Estates 82:451-2 My '46
Settle industrial disputes by peaceful, legal means. R. S. Smethurst. Comm & Fin Chr 164:1458+ S 19 '46
Special investigation, grievance procedures, report no. 529. 91p pa $5 Dartnell corp, Ravenswood and Leland avs, Chicago '46
Tragedy of industrial conflict. C. E. Wilson. Comm & Fin Chr 163:382+ Ja 24 '46
Truman at grips with labor. Bsns W p17-19 D 8 '45
Wage policy, and the role of fact-finding boards. H. M. Douty. bibliog Mo Labor R 62:537-49 Ap '46
Wanted: new labor relations pattern. E. Whitmore. il Am Bsns 15:8-9+ N; 10-11+ D '45
What they say about fact-finding; statements by Board, General Motors and U.A.W. Comm & Fin Chr 163:50-1, 53 Ja 3 '46
What's behind to-day's labor struggle. P. T. Sheldrick. il Mag of Wall St 77:323-5+ D 22 '45

See also
Arbitration, Industrial
Strikes
Trade unions—Jurisdictional disputes
United States—Conciliation service
Wages—Regulation

LABOR laws and legislation

Anti-labor legislation leads to statism. M. Woll. Comm & Fin Chr 163:3202+ Je 13 '46
Engineer labor policy proposed. W. N. Carey. Civil Eng 16:316 Jl '46
Equal pay for women workers. M. L. Plunkett. Mo Labor R 63:380-9 S '46
Fortune survey on labor; what is to be done? Fortune 34:10+ N '46
How workers and management stand on labor controls. Factory Management 104:82-8 Jl '46
Labor laws must tend toward compulsory arbitration; unions' great power finds only government able to protect citizens. J. Rosenfarb. Barron's 26:3+ Jl 15 '46
Law and industrial health. T. C. Waters. Safety Eng 91:72-3 Ja '46
Something has to be done; immediate labor-law reforms. C. O. Gregory. Fortune 34: 132-3+ N '46
State labor laws for women with wartime modifications, December 15, 1944; explanation and appraisal. U S Women's Bur Bul 202, no5:1-66; pa 15c Supt of doc. '46
State labor legislation in 1945. M. L. Mel. Mo Labor R 62:248-53 F '46
State legislation on labor relations and discrimination in employment, 1945. R. S. Spitz. Mo Labor R 61:984-91 N '45
Which strike bill? Bsns W p102+ Ja 26 '46

See also
Arbitration, Industrial
Child labor laws
Employers' liability
Hours of labor
Injunctions
Insurance, Unemployment
Insurance, Workmen's compensation
Minimum wage
Strikes—Law
Trade unions—Law
Wages—Law
Workmen's compensation

Argentina

Legal provision for paid vacations in Argentina. Mo Labor R 61:1185-6 D '45
Regulation of workers' organisations in Argentina. Int Labour R 52:677-80 D '45

Belgium

Joint committees in Belgium. Int Labour R 53:81-2 Ja-F '46
Joint industrial councils law of Belgium, 1945. Mo Labor R 61:1169-70 D '45

See also
Insurance, Unemployment—Belgium

Canada

Changes in Canadian wartime controls affecting labor. Mo Labor R 62:399-401 Mr '46

China

Social policy in China; wartime labour legislation. T. K. Djang. Int Labour R 52:474-8 N '45
Some problems of labour law enforcement in China. T. K. Djang. Int Labour R 53:39-48 Ja-F '46

France

Welfare functions of the French works committees. Int Labour R 53:397-401 My-Je '46

France (colonies)

Labor code for French African colonies, 1945. Mo Labor R 62:90-2 Ja '46

Germany

German labor law; Allied control council. Bsns W p110+ O 12 '46

India

Conciliation service of government of India. Mo Labor R 61:973-4 N '45

LABOR laws and legislation—India—*Cont.*
Machinery for the administration of labour legislation in India. Int Labour R 52:652-5 D '45

Louisiana

Louisiana curb; labor plans court test of measure outlawing strikes. Bsns W p88+ Jl 27 '46
Louisiana points way; little Case bill. Manuf Rec 115:39 O '46

Massachusetts

Massachusetts fair employment practice act of 1946. Mo Labor R 63:20 Jl '46

Minnesota

Minnesota's labor law: pattern for national legislation? Factory Management 104:136-9 My '46

New Jersey

Labor law tested; New Jersey act prevents disruption of gas service. Bsns W p70+ Ap 13 '46

New York (state)

Six months' operation of New York law against discrimination. Mo Labor R 62:593-4 Ap '46

Norway

Legislation on reemployment rights in Norway. W. Galenson. Mo Labor R 62:71 Ja '46
Wage agreements and settlement of disputes in Norway, 1945. Mo Labor R 61:1173-5 D '45

Palestine

Labour legislation in Palestine. Int Labour R 53:219-20 Mr-Ap '46

Philippine Islands

Industrial medicine in the Philippine Islands. J. S. Felton. Ind Med 15:129+ F '46

Salvador

Regulation of industrial relations in Salvador. Int Labour R 53:395-7 My-Je '46

Switzerland

Swiss system of compulsory extension of collective agreements. A. Archinard. Int Labour R 53:155-69 Mr-Ap '46

United States

ASCE seeks Wagner act clarification on rights of professional employees. Eng N 137:89 Jl 25 '46
Case bill pushed. Bsns W p76+ F 9 '46
Case bill veto emphasizes need for immediate labor legislation. E. M. Friedman. Comm & Fin Chr 163:3202+ Je 13 '46
Collective bargaining with a club. D. R. Richberg. Comm & Fin Chr 164:2209+ O 31 '46
Geographical aspects of a minimum wage; must be adjusted to economic characteristics of geographical regions. J. V. Van Sickle. Harvard Bsns R 24 no 3:277-94 [Ap] '46
Hobbs bill signed. Comm & Fin Chr 164:399 Jl 18 '46
Labor angle. Bsns W p94 Ja 26 '46
Labor must be denied the power to paralyze our economy; fifteen industrialists answer query on strikes. Factory Management 104: 102-3 Je '46
Labor relation trends. N. C. Rockwood. Rock Prod 49:79+ O '46
Labor's docket; union interest in Supreme court hearing on anti-closed-shop law. Bsns W p106+ N 17 '45
Law proposed to correct NLRA weaknesses. Factory Management 103:276+ D '45
Motivating factors in Congressional actions. R. Ramspeck. Factory Management 104: 210+ Ap '46
Nation grapples labor crisis. Bsns W p15-16 My 25 '46
National labor policy. D. R. Richberg. Comm & Fin Chr 163:2072+ Ap 18 '46
NLRB under attack again. Bsns W p87 Je 29 '46
Need for new labor law. D. R. Richberg. Comm & Fin Chr 163:241+ Ja 17 '46
Needed: a new labor policy. L. Wolman. Comm & Fin Chr 163:829+ F 14 '46; Abstract. Trusts & Estates 82:214 F '46
Progress in federal labor legislation. J. M. Mead. Comm & Fin Chr 164:1013+, 1037 Ag 22 '46
Reemployment rights of merchant seamen; Public law 87. W. G. Torpey. Personnel J 25:90-3 S '46
Retiring NLRB member urges some Wagner act revisions. M. M. Shipman. Oil Paint & Drug Rep 150:3+ Ag 26 '46
Reunited labor and Congress; Philadelphia and Asheville addresses. W. Green. Comm & Fin Chr 163:2652+ My 16 '46
Scores government partisanship in labor disputes. C. M. White. Comm & Fin Chr 163: 380+ Ja 24 '46
Settle industrial disputes by peaceful, legal means. R. S. Smethurst. Comm & Fin Chr 164:1458+ S 19 '46
Sound labor policy; address before the National Republican club, New York city. L. Wolman. Comm & Fin Chr 163:1783+ Ap 4 '46
Sound national labor policy needed. I. Mosher. Comm & Fin Chr 164:1933+ O 17 '46
Strikes against electric utilities; government operation, cooling-off and factfinding, contract violation; customer opinion survey. Elec World 125:82-4 My 25 '46
Strikes put Truman on spot. Bsns W p98+ D 1 '45
Supreme court decision broadens application of wage and hour law. Steel 118:102-3 Mr 4 '46
Truman at grips with labor. Bsns W p17-19 D 8 '45
Truman on spot; Hobbs labor regulation bill. Bsns W p98+ Je 29 '46
Truman's fact finding proposal no remedy. W. I. King. Comm & Fin Chr 162:3136+ D 27 '45
Union labor put on defensive. Bsns W p15-17 Je 1 '46
Wage and hour law; report and review. M. M. Shipman. Oil Paint & Drug Rep 150: 3+ O 28; 3+ N 4; 3+ N 11; 3+ N 18 '46
Wage-hour ruling; Supreme court approves coverage of employees working on equipment to be utilized by firms in interstate commerce. Bsns W p94 F 2 '46
Wagner act and strikes. R. E. Willis. Comm & Fin Chr 163:2786+ My 23 '46
Wagner act has influenced management; abstract. L. H. Hill. Factory Management 104: 268+ My '46
What rubber manufacturers should know about federal wage and hour standards. F. P. De Sio. Rubber Age 59:183-4 My '46
Where is labor legislation heading? il Factory Management 104:82-7 Mr '46
Wider application of Fair labor standards act to petroleum marketing looms; Wage-hour division weighs two court rulings. R. E. Bjorkback. Nat Pet N 38:11-12 Jl 17 '46

See also
Strikes—Law

Venezuela

Revision of Venezuelan labor law of 1936. Mo Labor R 62:260-4 F '46

Virginia

State labor bill in Virginia. Bsns W p95 F 2 '46

LABOR leaders. See Trade unions—Officials

LABOR legislation, National conference on. See National conference on labor legislation

LABOR libraries. See American federation of labor—Library

LABOR-management conference, 1945. See Industrial relations—Labor-management conference, 1945

LABOR party (Great Britain)
British Labor party, Gallup poll. Iron Age 158:103+ Ag 22 '46
British Labor party's policy. C. L. Attlee. Comm & Fin Chr 162:2322+ N 15 '45
Labor government progress in Britain; address before Trades union congress, Brighton. C. Attlee. Comm & Fin Chr 164: 2265+ O 31 '46
Labour's home policy. Economist 150:955-6 Je 15 '46; Same. Iron Age 157:113+ Je 27 '46

LABOR party (Great Britain)—*Continued*
Socialism in Britain; what now? W. A. Berridge and R. R. Berridge. il Dun's R 54: 16-20+ Ja '46

LABOR press. See Trade unions—Periodicals

LABOR productivity
Building labor productivity. Eng N 136:557 Ap 18 '46
Building labor productivity. J. D. Corrigan. Cer Ind 46:75 Ja '46
Check on labor productivity in automotive plants reveals sharp reductions from prewar levels. Steel 119:59 Ag 12 '46
Combating reduced worker productivity. A. Ramond. Factory Management 104:284+ Je '46
Decline in labor productivity; abstract. C. C. Harrington. Management R 35:336-8 Ag '46
Experts seek common ground on productivity puzzle; conference in Washington. il Iron Age 158:97 N 7 '46
Has our labor efficiency increased during the war? J. Hirsch. Barron's 25:3+ N 19 '45
How productive is labor? H. Fredman. Management R 35:180-2 My '46
Labor criticizes traditional measures of productivity. Bsns W p16 N 2 '46
Labor efficiency declining. Trusts & Estates 83:312 O '46
Measuring labor's productivity. A. T. Court. Automotive & Aviation Ind 94:17+ Mr 1 '46
Only source of high wages is greater output. il Factory Management 104:82-7 F '46
Productivity changes in selected wartime shipbuilding programs. A. D. Searle. Mo Labor R 61:1132-47 D '45
Productivity for everybody. Bsns W p19 S 28 '46
Productivity per manhour. Trusts & Estates 81:343-4 N '45; Same. Management R 34: 483-4 D '45
Productivity per manhour and the worker. M. M. Shipman. Oil Paint & Drug Rep 150:3+ S 30 '46
Productivity: the basic issue; lump of labor theory. Bsns W p86-8+ Ja 19 '46
Regional aspects of productivity and labor costs; abstract. Management R 34:435-7 N '45
Suspicions and resentments affect labor productivity; belief widespread that only union pressure can win economic gains. R. M. Bleiberg. Barron's 26:3+ N 4 '46
What labor can gain by boosting output. Factory Management 104:214+ Ap '46
What the factory worker really thinks. Factory Management 104:81-8 Ja '46
Why output per man-hour must go up. il Factory Management 104:82-7 Ag '46

See also
Efficiency, Industrial
Time study
Wage payment plans

LABOR recruiting
Foreign labour in the United States during the war. J. Henderson. Int Labour R 52: 609-31 D '45
Wartime utilization of Jamaicans in United States industrial establishments. G. E. Sadler. Mo Labor R 61:848-57 N '45

LABOR requirements for production
Graphs aid in visualizing new production programs. M. H. Smith. Factory Management 104:93-6 Ap '46
Labor requirements in cement production. A. W. Collier and C. Stone. Mo Labor R 63: 355-63 S '46
Productivity changes in selected wartime shipbuilding programs. A. D. Searle. Mo Labor R 61:1132-47 D '45

LABOR saving devices
Flame cutting; technique devised to eliminate machining in semifinishing breechblocks. J. F. Smythe. il Steel 118:104+ Ja 14 '46
Productivity: the basic issue; lump of labor theory. Bsns W p86-8+ Ja 10 '46
Tailoring training to trainee in work simplification; RCA Victor division. W. A. Hoffman. il plans Factory Management 104:120-2 Je '46
Work-savers that add up to low-cost production; Philco corporation. il Factory Management 104:113-15 My '46
Work simplification plan highly successful at G.P.O. G. C. Compton. il Inland Ptr 117:40-4 Ag '46

See also
Mechanical handling
Punched card system

LABOR standards
Industrial engineer, the cost accountant, and labor standards. J. W. Sheetz. N A C A Bul 28:316-32 N 1 '46

LABOR supply
Employment situation in foreign countries. M. H. Schoenfeld and others. Mo Labor R 62:6-24, 187-210 Ja-F '46

See also
Employment
Employment systems
Labor recruiting

Statistics
Employment statistics in the planning of a full-employment program. C. Stewart and L. Wood. Am Stat Assn J 41:313-21 S '46
Objectives, uses and types of labor force data in relation to economic policy. L. J. Ducoff and M. J. Hagood. Am Stat Assn J 41:293-302 S '46
Recent experience with problems of labor force measurement. G. Bancroft and E. H. Welch. Am Stat Assn J 41:303-12 S '46

Canada
Canadian manpower reconversion satisfactory; abstract. C. D. Howe. Iron Age 157: 104 Mr 28 '46
Future employment for technical persons. Can Chem & Process Ind 30:50-1+ Ag '46
Technical personnel bureau reports manpower problems. Pulp & Pa of Can 46:1009 D '45

Great Britain
British reconversion faces labor shortage. N. Crump. Barron's 26:13 F 25 '46
Distribution of British manpower, 1939-45. Mo Labor R 61:1149-50 D '45
Industry and manpower in 1945. Economist 150:sup1-3 Mr 23 '46
Manpower control. Economist 149:931-2 D 29 '45
Manpower debate; extracts from speeches by O. Lyttelton and C. R. Attlee in the House of commons. Engineer 181:225-7 Mr 8 '46
Manpower redistribution in Great Britain. Int Labour R 52:682-5 D '45
Releases and manpower. Economist 150:288-9 F 23 '46
Taking stock; economic prospects and the man-power problem. Electrician 136:665-6 Mr 15 '46

Russia
Soviet labour policy. Economist 151:166-8 Ag 3 '46

Sweden
Shortage of labor in Sweden; immigration discussed as possible remedy. For Comm W 23:25 Ap 6 '46

United States
Anatomy of the labor force; sixty million workers, who they are and what they do; charts. il Fortune 34:128-31 N '46
Economy in war and transition; labor market. Survey of Cur Bsns 26:9-12 F '46
Extra workers in the postwar labor force. L. Eskin and L. M. Pearlman. Mo Labor R 61:841-7 N '45
Foreign labour in the United States during the war. J. Henderson. Int Labour R 52:609-31 D '45
Jobs go begging while workers get compensation. Factory Management 103:98-9 D '45
Labor market in the transition. Fed Res Bul 32:957-64 S '46
Labor market is tightening. Bsns W p15-16 S 7 '46
Labor scarcity. Nat City Bank p118 N '45
Measuring our manpower. E. H. Welch. il Dom Comm 34:13-16 S '46
Postwar policies regarding foreign workers and prisoners of war. Mo Labor R 61:910-11 N '45
Prospective labor supply. D. R. Roberts. Survey of Cur Bsns 26:12-15 Jl '46

LABOR supply—United States—*Continued*
Pulse of the labor market; employment and placement activities in principal cities; market exploration map. W. P. Burn. Ptr Ink 216:41-4 Jl 5 '46
Return of veterans; impact on the labor market. Survey of Cur Bsns 25:7-8 D '45
See labor shortage until year-end with leveling off early next year; employment in Michigan, Ohio and Kentucky. J. K. Johnson. Iron Age 158:100-1 O 3 '46
Smaller working force promises rise in living standard; facts puncture 60 million job bubble of needless public employment. B. W. Corrado. Barron's 26:7+ Ap 15 '46
Those 58,500,000 jobs. W. P. Burn. map Ptr Ink 214:33-6+ Mr 1 '46
Veterans replace women in record labor force. Bsns W p90 Jl 6 '46
Wartime utilization of Jamaicans in United States industrial establishments. G. E. Sadler. Mo Labor R 61:848-57 N '45
Where the labor supply is still tight. Bsns W p104 Ja 26 '46
See also
United States—Employment service

LABOR turnover
Absenteeism and turnover; how North Star controls them. R. E. Hibbs. il Textile World 96:153+ S '46
Labor turnover studies. F. R. Clarke. Personnel J 25:55-8 Je '46
Rates of absenteeism and turnover in personnel in relation to employees' work attitudes. K. Brodman. Ind Med 14:953-7 D '45
Turnover begins with hiring. H. Slavin. Personnel J 25:142-4 O '46
Who quits, and why. R. Taft and A. Mullins. Personnel J 24:300-7 F '46

LABOR unions. See Trade unions

LABORATORIES
Benjamin electric manufacturing company's 3-year development program. J. Turner. il Am Bsns 16:16-18 O '46
Brick design in cavity wall lab draws national attention; Benjamin electric mfg. co. il plans Brick & Clay Rec 109:25-7 Ag '46
Fundamentals in the design of industrial laboratories. W. W. Fenner. il plans Eng N 137:510-14 O 17 '46
New research laboratories by B. F. Goodrich company. Science 103:140 F 1 '46
New research laboratory building purchased in Cleveland by the American society of heating and ventilating engineers. il Heating-Piping 18:119 Ap '46
Research and manufacture combined under one roof; Johns-Manville corp. research center. il plan diag Arch Rec 98:112-13 N '45
Research in production, by International harvester co. Bsns W p52 F 23 '46
Research laboratory pilot plant; Allis-Chalmers manufacturing co. laboratory; facilities for studies of portland cement, non-metallic minerals and ores. il Rock Prod 48:100 N '45
See also
Aeronautic laboratories
Cars, Laboratory
Chemical laboratories
Coal laboratories
Cryogenic laboratories
Engineering laboratories
Highway departments—Laboratories
Medical laboratories
Metallurgical laboratories
Naval research laboratory
Petroleum laboratories
Pharmaceutical laboratories
Potteries—Laboratories
Public health laboratories
Radio laboratories
Railroads—Laboratories
Rubber laboratories
Sound laboratories
Testing laboratories
Waterworks—Laboratories
Welding laboratories
also American gas association—Appliance testing laboratory; Franklin institute—Laboratories; Great Britain—National physical laboratory, Teddington; Sterling-Winthrop research institute; Underwriters' laboratories; United States—Forest products laboratory

Designs and plans
New laboratory for Benjamin electric company's plant at Des Plaines, Ill. il plans diags Arch Forum 85:81-6 S '46

Equipment
Catalogue corner. Published in weekly numbers of Science
Dropping device for cylinder plate assay of penicillin. V. L. Chandler and R. D. Shaw. diag Science 104:275 S 20 '46
Europe in acute need of scientific instruments. W. R. Turner and J. L. Thomas. il For Comm W 24:6-7+ S 28 '46
Laboratory service piping; time-saver standards. plans Arch Rec 98:143+ N '45
New molding shop at research laboratory; American cyanamid co. N. Morash. il Mod Plastics 24:176+ S '46
Research service laboratories. P. J. Kramer. Science 103:542 Ap 26 '46
See also
Cocks
Disks, Glass
Furnaces, Laboratory
Glassware, Laboratory

Heating and ventilation
Split system utilized in heating new lab of Benjamin electric mfg. company. il Dom Eng 168:133 Ag '46

LABORATORIES, Medical. See Medical laboratories

LABORATORIES, Public health. See Public health laboratories

LABORATORY cars. See Cars, Laboratory

LABORATORY desks
Locking laboratory desks. A. D. Boston. diag J Chem Educ 22:535 N '45

LABORATORY furnaces. See Furnaces, Laboratory

LABORATORY glassware. See Glassware, Laboratory

LABORATORY work
Paper-and-pencil tests for the laboratory. C. Hendricks. bibliog diags J Chem Educ 22:543-6 N '45

LAC
Bleached lac; the British standards. Chem & Ind p85 F 23 '46
Lac-glycol esters; their preparation, properties, and use. Chem Age (Lond) 53:619-20 D 29 '45
Lac research laboratory closed. B. S. Gidvani. Chem Age (Lond) 54:339-40 Mr 30 '46
Utilisation of kiri; an alternative source of lac resin. B. S. Gidvani and N. R. Kamath. bibliog diag Chem Age (Lond) 54:723-6 Je 29 '46

LACE
Lace industry; with special reference to the products of the Levers machine. W. I. Taylor. il diags Textile Inst J 37:P421-9 Ag '46

LACE machinery
Lace industry; with special reference to the products of the Levers machine. W. I. Taylor. il diags Textile Inst J 37:P421-9 Ag '46

LACQUER and lacquering
Auto finishes turn to glitter; Metalli-chrome lacquer. il Bsns W p50+ My 18 '46
Benzylcellulose. J. F. H. van Eijnsbergen. Paint Oil & Chem R 109:20+ Ag 22 '46
DuPont develops new lacquer coating for automotive industry; Metalli-chrome. Iron Age 157:122 My 30 '46
Evaluation of resins; symposium in London. Chem Age (Lond) 53:613-17 D 29 '45
Gel lacquer technique for protective coating. C. J. Malm and H. L. Smith, jr. bibliog il Ind & Eng Chem 38:937-41 S '46; Abstracts. Chem Ind 58:776-7 My '46; diags Steel 119:76-7+ O 28 '46
Lac-glycol esters; their preparation, properties, and use. Chem Age (Lond) 53:619-20 D 29 '45
New surface lacquer for polystyrene. il Mod Plastics 23:122 Je '46
Nitrocellulose lacquers; evaluation of low-viscosity-type nitrocelluloses in furniture finishing compositions. W. Koch, H. C. Phillips and R. Wint. Ind & Eng Chem 38: 518-21 My '46

LACQUER and lacquering—*Continued*
Note on the effect of tinplate and of lacquered surfaces on the oxidative deterioration of butterfat. C. H. Lea. Soc Chem Ind J 65:136-8 My '46
Plastic resins as protective coatings; nitrocellulose lacquers. P. O. Blackmore. color il Product Eng 17:1-7 Ja '46
Plasticizers and the flammability of nitrocellulose lacquers; abstract. A. Kraus. Paint Oil & Chem R 109:40 Ag 8 '46
Protective coatings industry; paints, varnishes, and lacquers; review of year's activities. V. C. Bidlack. bibliog Chem & Eng N 24:344-6 F 10 '46
Protective surfacing of maps and charts. A. G. Brown. Can Chem & Process Ind 30:27-8 Ja '46
Recent developments in wood finishes. P. S. Kennedy. Mech Eng 68:212-14 Mr '46
Solvent power of lacquer solvents; abstract. Paint Oil & Chem R 109:43-4 O 3 '46
Solvents in the paint industry; the esters. R. B. Pollak. bibliog Paint Oil & Chem R 109: 12+ My 2 '46
Treatment of steel strip before fabrication. W. F. Coxon. Engineering 162:78 Jl 26 '46
Ultra-fine pigment particles basis of new lacquer; Metalli-chrome. il Chem Ind 59:57 Jl '46

See also
Shellac
Strains and stresses —Brittle coating test
Varnish and varnishing

Statistics
Sales of lacquer, 1944, 1945 and first quarter 1946. Chem Ind 59:159 Jl '46

LACTIC acid
Chemical process for the production of lactic acid from sucrose. W. N. Haworth and others. Soc Chem Ind J 65:95-6 Mr '46
Lactic acid for the plastics industry; methods of purification. Chem Age (Lond) 55:200 Ag 17 '46
Production of lactic acid by fermentation of sulfite waste liquor; abstract. R. H. Leonard and W. H. Peterson. Can Chem & Process Ind 30:100 O '46
Purification of lactic acid; production of methyl lactate from aqueous solutions of crude acid. E. M. Filachione and C. H. Fisher. bibliog Ind & Eng Chem 38:228-32 F '46

LACTIC acid bacteria
Growth inhibition of lactic acid bacteria by N-(α,γ-dihydroxy-β,β-dimethylvaleryl)-β-alanine and its reversal by pantothenic acid. W. Drell and M. S. Dunn. bibliog Am Chem Soc J 68:1868 S '46

LACTOBACILLUS casei
Effect of β-pyracin and the lactobacillus casei factor upon hemoglobin regeneration following hemorrhage. M. L. Scott and others. Science 103:303-4 Mr 8 '46
Structure and synthesis of the liver L. casei factor. R. B. Angier and others. bibliog Science 103:667-9 My 31 '46
Use of synthetic L. casei factor in the treatment of sprue. W. J. Darby and others. bibliog Science 103:108 Ja 25 '46

LACTOGENIC hormones. See Hormones

LACTOGLOBULIN. See Globulins

LACTONES
Isolation of aldonic acid lactones through their hydrazides. A. Thompson and M. L. Wolfrom. bibliog Am Chem Soc J 68:1509-10 Ag '46
Mechanism of action of antibiotics; the reaction of unsaturated lactones with cysteine and related compounds. C. J. Cavallito and T. H. Haskell. bibliog Am Chem Soc J 67: 1991-4 N '45
Mutarotation and ring structure of mannuronic lactone. H. S. Isbell and H. L. Frush. bibliog J Res Nat Bur Stand 37:43-9 Jl '46
Observations on the effects of gamma-valerolactone upon experimental animals. W. B. Deichmann and others. il diag J Ind Hygiene 27:263-8 N '45
Optically active ketonic beta lactones. C. L. Bickel. bibliog Am Chem Soc J 68:941-3 Je '46

LACTOPRENE EV. See Rubber, Artificial

LADDERS
Guide for inspection and handling of ladders. Elec World 126:94+ Ag 3 '46
New aluminum accommodation ladder. A. MacPhedran. il Marine Eng 51:144+ S '46
Outrigged ladder has great flexibility. il diags Elec World 124:148 D 8 '45

Safety measures
Construction and maintenance of ladders and stairs for mines; proposed American standard. Min Cong J 32:54-5 Jl '46
Keep an eye on your ladders. il Nat Safety N 53:56+ Ja '46
Ladders. il Nat Safety N 53:90+ Mr '46
Safe ladder usage. il diags Safety Eng 92: 32+ Ag '46

LADING, Bills of. See Bills of lading

LADLES, Foundry. See Foundry ladles

LADUE, Wendell Richard, 1894-
New AWWA president. por Eng N 136:755 My 9 '46
Portrait. Am Water Works Assn J 38:front Je '46

LAGOONS
Research in the design of lagoons has been stimulated by developments in the use of chemicals for processing waste. H. R. Murdock. Ind & Eng Chem 37:sup 97-8 D '45

LA GUARDIA, Fiorello Henry, 1882-
Patience and fortitude pay off. pors Bsns W p22 D 8 '45

LAKE CHARLES, Louisiana

Industries
City that found itself. T. W. Tutwiler. il Manuf Rec 115:42+ Mr '46

LAKE SUPERIOR district power company
Bonds offered. Comm & Fin Chr 162:2274 N 12 '45

LAKES
Lake drained to build cut-off; dike roadway eliminates kink in Southern state parkway on Long Island. il map diag Roads & Sts 89:68-9 Je '46
Plankton productivity of certain southeastern Wisconsin lakes as related to fertilization. J. B. Lackey and C. N. Sawyer. Water & Sewage 84:18+ F '46
Problems of the spring overturn in stratified lakes. E. S. Deevey, jr. bibliog N E Water Works Assn J 60:182-7 Je '46

See also
Ice on rivers, lakes, etc.

Australia
Algal structures in a western Australian salt lake. E. de C. Clarke and C. Teichert. bibliog map Am J Sci 244:271-6, pl 1-2 Ap '46

LAKES, Extinct
Age of Lake Cahuilla. T. D. A. Cockerell. Science 103:235 F 22 '46

LALLEMANTIA oil
Lallemantia oil; abstract. A. Steger and J. van Loon. Paint Oil & Chem R 109:20 Ja 10 '46

LAMBERT company
Big rise in net likely. Barron's 26:11 Mr 25 '46

LAMINAC. See Resinous products

LAMINATED glass. See Glass, Laminated

LAMINATED paper. See Paper, Laminated

LAMINATED plastics. See Plastic materials, Laminated

LAMINATED products
Honeycomb core structures; improvement in adhesives and core materials. O. S. Tuttle and W. B. Kennedy. il diags Mod Plastics 24:129-35+ S '46
Low-density structural core; cellular cellulose acetate. R. E. Maier. il Mod Plastics 23:96-7 My '46
Physical properties of corrugated low-density structures. C. A. Scogland. il diags Product Eng 17:394-7 My '46
Two-in-one materials. il Sci Am 173:342-4 D '45

LAMINATED wood. See Wood, Laminated

LAMME, Benjamin G., medals
David C. Prince, Lamme medalist; presentation addresses. C. M. Laffoon, H. E. Strang; response by D. C. Prince. il diags Elec Eng 65:435-41 O '46
Lamme award: Robert Ernest Doherty. J Eng Educ 37:2-4 S '46

LA MONT boiler. See Boilers, Water tube—La Mont boiler

LAMP shades
Industrial enterprise; lamp shade manufacture; Waite and son. il Electrician 136:965-6 Ap 12 '46
Lamp shade prepackaged with gift appeal; Celanese-Lumarith lamp shade. il Mod Packaging 19:125 Ap '46

LAMPITT, Leslie Herbert, 1887-
Sketch. por(front) Chem & Ind p257 Jl 13 '46

LAMPS, Electric. See Electric lamps

LAMPS, Plastic
Designing lamps in plastics. il Mod Plastics 23:100-2 Ag '46

LANAC. See Aviation—Safety measures

LANCHESTER, Frederick William, 1868-1946
Sketch. por Engineer 181:247 Mr 15 '46; Engineering 161:256 Mr 15 '46; Roy Aeronautical Soc J 50:237-9 Ap '46

LAND, Emory Scott, 1879-
President of the Air transport assn. of America. por(cover) Bsns W p8 Ja 26 '46

LAND
Land and politics; eastern Europe and South America; review of H. Seton-Watson's Eastern Europe between the wars, 1918-1941 and R. H. Sharp's South America uncensored, by W. Ebenstein. J Land & Pub Util Econ 22:59-65 F '46

See also
Agriculture
Clearing of land
Eminent domain
Farms
Irrigation
Land tenure
Municipal lands
Oil lands
Public lands
Real estate business
Reclamation of land

Subdivision

Consider utilities' needs in planning subdivisions. plan Elec World 126:93 Jl 6 '46
Progress, 1926-1946; land use; subdivision development. plans Am Bld 68:92-3 O '46
Today's house; land and services cost analysis. il map plans diags Arch Forum 85: 98-100 Jl '46

Taxation

Rural land-use legislation in the states; the war years; property tax administration. H. Walker, jr. bibliog J Land & Pub Util Econ 22:242-7 Ag '46

Canada

Soil conservation in Canada. Engineering 162:223 S 6 '46

Europe

Some considerations on land market in Europe. G. Medici. J Land & Pub Util Econ 22:171-3 My '46

Great Britain

Soldier settlement in the British empire. D. G. Marshall. J Land & Pub Util Econ 22:259-65 Ag '46

Louisiana

Place of French-speaking farmers of southern Louisiana in future land development and reclamation projects. R. W. Harrison and W. M. Kollmorgen. J Land & Pub Util Econ 22:223-31 Ag '46

Netherlands

Holland rushes work to reclaim farmland. il Eng N 136:8 Ja 3 '46

LAND, Municipal. See Municipal lands

LAND, Public. See Public lands

LAND banks

See also
Agricultural credit

LAND drainage. See Drainage

LAND laws. See Land tenure; Land utilization—Laws and regulations

LAND settlement
Experiment in forest-farm resettlement; federally-sponsored Drummond forest community in northern Wisconsin. S. Henderson. J Land & Pub Util Econ 22:10-21 F '46
Soldier settlement in the British empire. D. G. Marshall. J Land & Pub Util Econ 22:259-65 Ag '46
What has happened to Durham and Delhi land settlements of California? A. Poli. J Land & Pub Util Econ 22:182-90 My '46

LAND tenure
Family farms only, National farmers union asks state-by-state action. Bsns W p44+ F 2 '46
Rural land-use legislation in the states; the war years. H. Walker, jr. bibliog J Land & Pub Util Econ 22:249-52 Ag '46

See also
Agricultural colonization
Farm tenancy

Germany

Land reform in the Russian zone. Economist 149:634 N 3 '45

Kenya

Land aspects of labour problems in Kenya. Int Labour R 53:194-9 Mr-Ap '46

Sweden

Squandering the public domain in Sweden; 1820-1870. R. Freund. maps J Land & Pub Util Econ 22:119-30 My '46

LAND-use legislation. See Land utilization—Laws and regulations

LAND utilization
Experiment in forest-farm resettlement; federally-sponsored Drummond forest community in northern Wisconsin. S. Henderson. J Land & Pub Util Econ 22:10-21 F '46
Gold dredging in California; has played important part in flood control; has increased value of marginal farm lands. H. A. Sawin. il Min Cong J 32:61-4 Ag '46
Institutional obstacles to land improvement; summary of results of three watershed surveys in the South. J. F. Timmons. bibliog J Land & Pub Util Econ 22:140-50 My '46
Land aspects of labour problems in Kenya. Int Labour R 53:194-9 Mr-Ap '46
Reclamation and conservation of stripped-over lands. L. E. Sawyer; J. W. Bristow; R. T. Laing. il Min Cong J 32:26-36 Jl '46
Should non-farm agricultural land be included in the census of agriculture? K. S. Landstrom. J Land & Pub Util Econ 22: 295-6 Ag '46
Spoil reclamation assures good income without leveling. il maps Coal Age 51:91-4 Jl '46

See also
Agriculture
City planning
Municipal lands
Regional planning
Zoning

Laws and regulations

Rural land-use legislation in the states; the war years. H. Walker, jr. bibliog J Land & Pub Util Econ 22:232-58 Ag '46

LAND values
Acreage allotments and land prices; with special reference to tobacco areas. J. E. Mason. bibliog J Land & Pub Util Econ 22: 176-81 My '46
Farm land price trends in two wars. Banking 38:48 F '46
Farm land prices and mortgage debt; with map showing percentage rise in farm land prices since start of World war II. Banking 39:59 O '46
Farm land prices paralleling inflationary trend of World war I period, ABA reports. Comm & Fin Chr 163:890 F 14 '46
Farm land prices serious. il map Banking 38: 60-2 Je '46
Farm land values in the Southeast. D. Young. J Land & Pub Util Econ 22:213-22 Ag '46
Farm prices rise faster than in 1915-20 boom. R. P. Crawford. Barron's 26:13 Ap 15 '46
History repeats warning of farm land boom; charts for each state depict farm land price trends in two wars. Banking 38:52-3 Mr '46

LAND values—*Continued*
Non-agricultural factors in land prices. G. H. Walter. J Land & Pub Util Econ 22: 173-6 My '46
Some considerations on the land market in Europe. G. Medici. J Land & Pub Util Econ 22:171-3 My '46
Study in farm values; per cent change in farm land values, 1946 compared with 1920; map. Bsns W p31 Ap 20 '46

LANDING craft
So we used a movie at Dravo; LST building. F. C. Cole. il Ind Marketing 31:52+ Mr '46
Welding of LST's at Seneca, Ill. L. C. Stiles. il Welding J 24:1053-60 N '45

LANDLORD and tenant
Accounting for construction of building on leased land. J Account 80:396-7 N '45
Employees' tenancies; position under the Rent restriction act. F. E. Sugden. Elec R (Lond) 137:642 N 2 '45
Housing racket. Bsns W p71-3 My 25 '46
Landlord's liability; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11: 38-9 My 23 '46

See also
Farm tenancy
Rent

LANDSCAPE gardening
Landscape gardening; work of Garrett Eckbo. il diag Arch Forum 84:75-80 F; 141-4 Mr '46

LANDSLIDES
Factor of safety in stability analyses. D. M. Burmister. Civil Eng 16:315 Jl '46; Discussion. diag 16:404, 462, 463 S-O '46
Landslide investigation and correction. H. Forbes. il plans Am Soc C E Proc 72:169-98 F '46; Discussion. 72:717-21, 1070-4 My, S '46
Landslides and their relation to engineering in the Dunedin district, New Zealand. W. N. Benson. bibliog maps plans diags Econ Geol 41:328-47 Je '46
Slide control; maintenance in West Virginia. E. L. Worthington. diags Roads & Sts 89: 90-2+ My '46

LANE BRYANT, inc.
Tax cut will lift Lane Bryant profit. Barron's 25:10 D 10 '45

LANGBEINITE
Mining and processing langbeinite; abstract. G. T. Harley. Chem Eng 53:240+ S '46

LANGLEY, Samuel Pierpont, 1834-1906
Langley goes down to the river. J. Hettich. por Aero Digest 52:38+ F '46

LANGMUIR, Irving, 1881-
Test of Langmuir's interpretation of the Jones-Ray effect. L. A. Wood and L. B. Robinson. bibliog J Chem Phys 14:258-62 Ap '46

LANGMUIR equation
Sorption of condensable vapours by porous solids; linear isothermals and the Langmuir equation. A. G. Foster. bibliog Chem Soc J p773-6 N '45

LANGUAGE and languages
See also
Advertising copy—Language, style, etc.
Belgium—Languages
Phonetics
Speech
also names of languages, e.g. English language; Russian language

LANGUAGES, Modern
Study and teaching
Spotting and repeating record player; for teaching foreign languages. R. H. Bailey. il Radio N 35:29+ F '46

See also
Berlitz school of languages

LANHAM act. See Trade marks—Law

LANOLIN. See Wool fat

LAPACHOL
Hooker's researches on lapachol in relation to new developments in the field of chemotherapy; abstract. H. Heymann. Chem & Eng N 24:1381 My 25 '46

LAPLACE'S equation
Numerical solution of Laplace's equation in composite rectangular areas. M. M. Frocht. diags J Ap Phys 17:730-42 S '46

LAPLANT-CHOATE manufacturing company
Annual statement. Comm & Fin Chr 162:2273 N 12 '45

LAPPING
Another micrometer lapping block. H. A. Simonsen. Am Mach 90:143 Je 6 '46
Calipers kept accurate by simple lapping fixtures. R. B. Taggart. il Am Mach 90:135-6 F 28 '46
Dry wax lapping. C. J. Dauber. il Metal Prog 49:347-8 F '46
How the Russians lap carbides. Z. E. Scheelvoog. diag Am Mach 90:138 Mr 28 '46
Lapping tungsten carbides. il Automobile Eng 36:155 Ap '46

LAPPING machines
Light pressure on tungsten carbide increases life of diamond lapping wheels. Mach 53: 196 O '46
Spitfire roller lapping machine. il Iron Age 157:43 Ja 31 '46

LARCENY
Law of larceny. E. W. Fields. Weekly Underw 155:214-16, 390-1 Jl 27, Ag 17 '46; Same cond. Nat Underw 50:18+ Je 27 '46

LARCHMONT, New York
Water supply
Practical measures for taste control. H. T. Hotchkiss and V. A. Mascia. il Pub Works 76:20-2 N '45

LARRICK, Benson Melvin
Most effective man in transit. por Mass Transportation 42:363-6 S '46

LARVICIDES. See Insecticides

LASKI, Harold J., 1893-
English socialism. C. S. Slocombe. Personnel J 24:207-20 D '45

LATCHES
Door latch for street vault grating. R. W. Coursey. il diag Elec World 126:104+ Ag 17 '46
Manual and automatic latching devices for doors, covers and lids. diags Product Eng 17:106-9 Ag; 106-9 S '46

LATENSIFICATION (term)
Hypersensitizing and latensification; a preliminary survey. S. E. Sheppard and others. bibliog Franklin Inst J 240:439-68 D '45

LATENT heat of vaporization. See Vaporization, Heat of

LATENT image. See Photography—Latent image

LATEX. See Rubber latex

LATHES
American hydraulic duplicating lathe. il Mach 53:182-3 S '46; Ry Mech Eng 120:494-5 S '46
American Tool duplicating lathe has a single hydraulic control. il Am Mach 90:162 S 12 '46
Automatic machining of valve guides and similar parts done on lathe with carbide tools. il diag Steel 118:124 My 20 '46
Cromwell lathe developed by Smallpiece ltd. il Automobile Eng 35:551-2 D '45
Drummond improved multi-tool lathes. il Engineer 180:401 N 16 '45; Automobile Eng 35:547-8 D '45
Dunamatic attachment converts lathe into automatic. il Iron Age 157:78 Ap 4 '46
Ermac metal-spinning lathe with positive-lock adjustable tool-rest. il Mach 53:226 N '46
Field for lathes broadens because engineers shelve design traditions. G. Hubbard. il Steel 118:120-1+ Mr 4 '46
Graduated handwheel shows carriage travel. M. Harris. diag Am Mach 90:141 S 12 '46
Hardinge second operation lathe for precision machining. il Steel 119:120 Ag 19 '46
Herbert hexagon turret lathe. il Engineering 161:272-4 Mr 22 '46; Abstract. Automobile Eng 36:127-8 Mr '46
Herbert no. 4 senior capstan lathe. il Automobile Eng 36:167-8 Ap '46; Engineer 181:346 Ap 12 '46
Hexagonal turret has increased versatility. il diags Steel 119:91 S 30 '46

LATHES—*Continued*
Jameson large precision lathe. il diags Engineer 180:377-8 N 9 '45
Lathe attachment measures awkward jobs. H. Moore. diags Am Mach 90:142 Je 6 '46
Lathe converter performs series of machining operations with one setup. il Steel 119:112 O 21 '46
Lathe for indenting floor plate rolls. S. Koffsky. il diags Steel 118:88-91+ Mr 11 '46
Lathe for large tube construction. il Electronics 19:156 Je '46
Lathe for locomotive firebox stays. il Engineering 160:349-50 N 2 '45
Lathe set-up for spherical turning. diag Mach 52:195 Jl '46
LeBlond automatic crankshaft lathes. il Mach 52:202-3 Ap '46; Steel 118:97+ Ap 15 '46
LeBlond crankshaft lathes emphasize fast, automatic operation. il Am Mach 90:153-4 Ap 11 '46
Lehmann Hydratrol lathe with automatic feed regulator and automatically positioned stops. il Mach 52:190-1 Mr '46
Lodge & Shipley automatic lathe. il Steel 118: 135 F 25 '46
Master lathe converter changes a lathe into an all-around machine shop. il Mach 52: 176-7 Mr '46; Am Mach 90:164 Mr 28 '46; Marine Eng 200+ Ap '46
Monarch announces new lathes. il Iron Age 157:78-80 F 7 '46; Mach 52:187-9 Mr '46
Monarch Mona-Matic lathe. il Am Mach 90: 145-6+ F 28 '46
Monarch Speedi-Matic lathe. il Engineering 162:91 Jl 26 '46
Monarch Uni-Matic and Speed-Matic lathes. il Diesel Power 24:318-19+ Mr '46
Monarch Uni-Matic quantity production lathe has individual motor-driven tool slides. il Product Eng 17:279 Ap '46
New lathe produces precision leadscrews. H. E. Linsley. il Iron Age 158:58-9 Ag 1 '46
Precision dividing can be done on a standard engine lathe. W. Wheatly. diag Am Mach 90:131 Ag 1 '46
Production processes; their influence on design; turret lathe machining. R. W. Bolz. il diags Machine Design 17:117-22 N '45
Seneca Falls machine co. Imp Lo-Swing automatic lathe. il diag Mach 52:196-7 F '46
Single heads and slides tailor Monarch Uni-Matic to the job. il Am Mach 90:149-50 F 14 '46
Single-point turning research. J. F. Allen. il diag Iron Age 157:66-70 Ja 10; 69-72 Ja 17 '46
Some American machine tools; Monarch lathes. il Engineer 182:123 Ag 9 '46
Spring-forming attachment for lathes. il Oil & Gas J 44:143-4 Ap 27 '46
Warner & Swasey company makes new five spindle turret lathe for trade. Iron Age 156: 141 D 20 '45
Warner & Swasey multiple spindle bar machine eliminates interchangeable cams. il diags Product Eng 17:100-1 Ag '46
Wickman small British automatic. il Engineer 181:159 F 15 '46; Automobile Eng 36: 129 Mr '46
Zur entwicklung der stahlleichtbau-drehbänke; versuche mit betten rohrförmigen querschnitts. W. Möbius. il diags V D I 88:277-86 My 27 '44; Same cond (Welded tubular lathe beds). Products Eng 17:478-80 Je '46

See also
Turning

Control

Automatic control for vertical turret lathes; Bullard Man-Au-Trol. il Ry Mech Eng 119: 615-16 D '45
Compact drive obviates chatter; roll lathe headstock. E. C. Denne. il Machine Design 18:117-18 Ap '46
Hydraulic, electric and mechanical components combined in new machine tool control; Man-Au-Trol vertical turret lathe. il diags Product Eng 17:192-3 Mr '46
Lehmann Hydratrol automatic turret feed regulator for lathes. il Iron Age 157:77 F 14 '46
Lehman lathe features automatic turret-feed regulator. il Steel 119:96 Jl 22 '46

Manufacture

LeBlond resumes production of crankshaft lathes. il Iron Age 157:39 My 30 '46

Tailstocks

Tailstock couplings allow controlled power drilling. diags Am Mach 90:143 F 14 '46

LATIN AMERICA
Human rights in the cultural tradition of Spanish America. V. A. Belaúnde. Ann Am Acad 243:82-6 Ja '46

See also
Banks and banking—Latin America
Cement industry and trade—Latin America
Credit—Latin America
Finance—Latin America
Food supply—Latin America
Investments, Foreign (in Latin America)
Labor and laboring classes—Latin America
Rapid transit—Latin America
Tourist trade—Latin America

Commerce

Approach to Latin American markets. A. O. Stanley. 154p Dun & Bradstreet, 290 Broadway, New York 8 '45
Businessmen set up Latin-American center in New Orleans. il Ptr Ink 214:72+ F 22 '46
Check list for Latin-American marketers. Ptr Ink 216:106+ Ag 16 '46
City of New Orleans sells itself as export and import center. Sales Management 56: 64-5 Je 15 '46
Customers and competitors in Latin America. A. A. Kron. Comm & Fin Chr 164:75+ Jl 4 '46
Exporter's primer. Chem Ind 59:492 S '46
Fight for Latin markets is on; Britain and United States are competitors. Bsns W p101 Mr 9 '46
Florida: potential Latin-American trade center. M. Smith. il Comm & Fin Chr 163: 398+ Ja 24 '46
Flying store takes U.S. wares to Latin America; Trans-Caribbean Air's distributing venture. il Sales Management 56:41 Mr 1 '46
How to evaluate Latin American markets. S. Simkin. il Adv & Sell 39:68+ F '46
Latin America, its position and prospects. C. A. McQueen. Comm & Fin Chr 164:1007+ Ag 22 '46
Latin America's economy as world conflict ended; resumption of international trade. il For Comm W 24:3-7 Jl 6; 3-4 Jl 13; 5-8+ Jl 27; 7-10+ Ag 3 '46
Our Latin American trade in the first half-year, 1945. P. Wiers and J. Kunstenaar. il For Comm W 21:10-11+ N 24 '45
Packaging for the Latin-American market; problems, legal, linguistic and protective, for the exporter. B. G. Taines. il Ptr Ink 215:59-62+ My 10 '46
Public relations in foreign markets; manufacturers build good-will in Latin America. J. C. Burt and B. G. Taines. il Ptr Ink 214: 27-9+ F 22 '46
Right and wrong way to carry on trade with South American markets. D. Lindquist. Iron Age 158:145-7 Jl 25 '46
Trade with Latin America improved; exports from Canada. Can Chem & Process Ind 30:59 S '46
Warns against optimism on Latin-American trade. B. Foa. Comm & Fin Chr 162:2880+ D 13 '45

Commercial policy

Exchange control in Latin America today; with outline of exchange-control systems by countries. C. F. Carson. For Comm W 24: 8-9+ Jl 6 '46
International trade struggle: Great Britain and Latin America; Washington agreement does not solve commercial problems. R. Schueller. Comm & Fin Chr 162:3009+ D 20 '45

Cultural relations

United States
University of Pennsylvania has created the new office of Director of Inter-American activities. Science 103:16 Ja 4 '46

Economic conditions

Latin-American price trends. S. P. Bernstein. For Comm W 24:9 Jl 27 '46 [cont monthly]

LATIN AMERICA—Economic conditions—*Cont.*
Latin America's economy as world conflict ended. il For Comm W 24:3-7 Jl 6; 3-4 Jl 13; 5-8+ Jl 27; 7-10+ Ag 3 '46

Economic relations

United States

Americas in a changing world; St Louis and Cleveland addresses. J. Abbink. Comm & Fin Chr 163:2642+ My 16 '46
Industrialization in American republics; what influence is it now exerting on economic relationships with the U.S.? G. Wythe. il For Comm W 23:4-7+ Ap 20 '46

Foreign relations

Latin American dilemma. Economist 151:379 S 7 '46

Russia

Shifting balance of power in Latin America. V. L. Horoth. il Mag of Wall St 78:381-3+ Jl 6 '46

United States

Good fences make good neighbors; hemisphere army alone cannot counter Peronismo and communism. A. M. Schlesinger, jr. il map Fortune 34:130-5+ Ag '46
U.S. proposal for inter-American defense pact. Comm & Fin Chr 163:170 Ja 10 '46

History

Human rights in Latin America. C. Alegría. Ann Am Acad 243:87-95 Ja '46

Industries and resources

Industrialization in American republics; what influence is it now exerting on economic relationships with the U.S.? G. Wythe. il For Comm W 23:4-7+ Ap 20 '46
Pan American union requests United States to convoke a conservation congress; abstract. W. Vogt. Science 103:204-5 F 15 '46

Maps

Congratulatory address; completion of millionth map, under direction of American geographical society. S. Braden. Science 103:323-5 Mr 15 '46
Millionth map of Hispanic America. I. Bowman. Science 103:319-23 Mr 15 '46

Sanitary affairs

Co-operative sanitation in the Americas. H. B. Gotaas. Am Water Works Assn J 38: 969-72 Ag '46

LATIN AMERICAN airways
Stock offered. Comm & Fin Chr 163:1429 Mr 18 '46

LATIN AMERICAN workers, Confederation of. See Confederation of Latin American workers

LATIN square
Analysis of Latin squares when some observations are missing. D. B. De Lury. Am Stat Assn J 41:370-89 S '46

LAUNCHING
Launching notes. J. E. Steele. il Marine Eng 51:123-8 S; 87-91 O '46

LAUNCHING of airplanes. See Airplanes—Take-off

LAUNDRIES
Arizona laundry uses plane for deliveries. il Aviation N 5:20 Mr 25 '46
How can waste heat in laundry be reclaimed? diags Power 90:548-50 Ag '46
Large volume water heating; industrial processing, laundries, hot water demand. M. B. Mackay. Am Gas J 165:27-9 S '46
Routemen are an important part of service business. S. C. Saunders. Dom Comm 34: 37-40 S '46

Accounting

Cost accounting in the laundry industry. J. Carruthers. N A C A Bul 27:588-97 Mr 1 '46

Layout

New layouts quick, with magnetic templets; patented method used at LaMeasure brothers laundry & dry cleaning company, Detroit. il Factory Management 104:90-1 Je '46

Power

Does a laundry cut costs by buying or by generating its electricity? J. G. Berger. il Power 90:457-9 Jl '46
Laundry gains space by purchasing power. J. B. White, jr. Elec World 126:118+ Jl 6 '46

LAUNDRIES (rooms)
Apartment house planned laundries at no extra cost. il Am Bld 68:115 Ap '46
Five modern home laundries. il plans diag Am Bld 68:79-81 Ja '46
Home laundries. L. M. Yost. diags plans Am Bld 68:87-9 Mr '46
Planning the home laundry. M. Fenner. il plans Am Gas Assn Mo 28:424-5 O '46
Progress, 1926-1946; kitchens, laundries. il Am Bld 68:130-3 O '46

LAUNDRIES, Hospital
Service department; laundries for the general hospital. plans Arch Rec 100:84-5 Jl '46

LAUNDRIES, Public
New wash, dry and iron self-service laundry plan announced. il Rayon 26:586 N '45
Postwar pipe dream; launderette. Fortune 33: 167 Je '46

LAUNDRIES, Self service. See Laundries, Public

LAUNDRY
American association of textile chemists and colorists; Wash fastness committee. C. W. Dorn. Am Dyestuff Rep 35:144 Mr 25 '46
Application of dust-laying oil to fabrics; wool and cotton hospital bedding. C. H. Bayley and others. il Can Chem & Process Ind 30:43-7 S '46
Care of electric blankets; launderability tests. Rayon 27:472 S '46
Chemical engineering in the laundry industry. F. C. Harwood. il diags Inst Chem Eng Trans 20:44-52; Discussion. 52-4 '42
Delivering laundry in economical, multiple-trip cartons; Mayfair laundry, Providence, R.I. il Mod Packaging 20:112-13 O '46
Elimination of chaos from shrinkage testing. Am Dyestuff Rep 35:366-74 Jl 29 '46
Evaluation of laundry sours; abstract. F. W. Lyndon. Soap & San Chem 22:81 My '46
Improved method for quantitative impregnation of textiles with germicidal emulsifiable oils. Science 104:60-1 Jl 19 '46
Launderer looks to the textile industry. T. D. Reeve. Textile Inst J 37:P449-54 S '46
Laundry; ready for better packaging. il Mod Packaging 19:91-5+ F '46
Laundry rinse operation. D. X. Clarin. Soap & San Chem 22:71 Ja '46
Study of laundering factors. R. A. Phair. Soap & San Chem 22:79+ Je '46
Survey reveals consumers seek washability in fabrics; abstract. R. E. Sumner. Rayon 27:100 F '46

LAUNDRY equipment
See also
Clothes dryers

Advertising

Field work provides best sales promotion materials; Cochrane corporation. S. D. Distelhorst. il Ind Marketing 31:58+ S '46

LAUNDRY machinery
Explosion of steam roll in laundry kills two, injures eight. il Locomotive 46:27 Ja '46

LAURIC acid
Radiochemical changes in some fatty acids. R. E. Honig. Science 104:27-8 Jl 12 '46

LAURITZEN electroscope. See Electroscopes

LAUROYL chloride
Higher aliphatic acid chlorides; estimation of yield in the preparation of lauroyl chloride. R. R. Ackley and G. C. Tesoro. bibliog Ind & Eng Chem Anal ed 18:444-5 Jl '46

LAURYL sulfate
Mixed monolayers of β-lactoglobulin and lauryl sulfate. H. B. Bull. Am Chem Soc J 68: 747-8 My '46

LAURYL sulfonic acid. See Dodecanesulfonic acid

LAVA
Contribution to the petrography of Haleakala volcano, Hawaii. G. A. Macdonald and H. A. Powers. bibliog map Geol Soc Bul 57: 115-23 Ja '46

See also
Pumice

LAVATORIES
Factory design; employee facilities and circulation. il Arch Rec 98:125-6 N '45
Washrooms and lockers. il Nat Safety N 53: 156+ Mr '46
Washrooms set the standard in this clean plant; Reed candy company. il Factory Management 104:108-9 Jl '46

LAVATORIES, Car. See Car lavatories

LAVENDER oil
Analysis of lavender oils. Y. R. Naves. bibliog il Soap & San Chem 22:40-3+ F '46

LAVOISIER, Antoine Laurent, 1743-1794
Franklin and Lavoisier. H. S. van Klooster. por J Chem Educ 23:107-9 Mr '46
Lavoisier bicentenary exhibition in Paris. H. S. Van Klooster. J Chem Educ 23:210-12 My '46

LAW
Layman's view of law and labor. J. Creese. Franklin Inst J 242:9-21 Jl '46
New paper and pulp law suits. L. T. Parker. Paper Ind 27:1027-9 O '45
Supremacy of law. D. A. Simmons. Comm & Fin Chr 163:1+ Ja 3 '46

See also
Advertising—Laws and regulations
Aeronautics—Laws and regulations
Banking law
Building laws and regulations
Contracts
Corporation law
Damages
Debtor and creditor
Discovery, Bill of
Drugs—Laws and legislation
Expert evidence
Food laws and legislation
Fraud
Gifts (law)
Government regulation of industry
Husband and wife
Income tax
Insecticides—Law
Insurance law
Labor laws and legislation
Land tenure
Landlord and tenant
Larceny
Lawyers
Legislation
Liability
Libel and slander
Limitation of actions
Maritime law
Mortgages
Motor bus lines—Laws and regulation
Negotiable instruments
Partnership
Patent laws and legislation
Petroleum laws and regulations
Probate law
Process serving
Public health laws
Railroad law
Release (law)
Reversions
Sales
Salesmen—Law
Securities—Law
State laws
Taxation
Third parties (law)
Trusts, Industrial—Law
Trusts and trustees
Wages—Law
Wills
Workmen's compensation

LAW, Natural. See Natural law

LAW enforcement

Netherlands

Law enforcement during German occupation. H. R. de Zaaijer. Ann Am Acad 245:9-18 My '46

LAWN chairs. See Chairs

LAWN mowers
Warpage of mower blades reduced and production increased by induction hardening. il Mach 53:199 N '46

LAWN sprinklers. See Sprinklers

LAWRENCE, Ernest Orlando
E. O. Lawrence receives the Holley medal of A.S.M.E. por Mech Eng 68:842-3 S '46

LAWRENCE college

Institute of paper chemistry

Annual executives' conference, 10th, May 16-17. Paper Tr J 122:11+ My 23 '46
Institute's war-time role; abstract. B. E. Ashman. Paper Tr J 122:20 Je 27 '46
Paper institute adds staff members. Paper Tr J 122:42 Mr 14 '46
Results of the Institute's war effort. W. Steele. Paper Tr J 122:9 My 30 '46

LAWSON machine and tool company
Precision manufacture. il Diesel Power 24: 50-2 Ja '46

LAWYERS
National conference of lawyers and certified public accountants. D. F. Maxwell and W. Charles. J Account 81:120-6 F '46

See also
American bar association
Insurance, Life—Lawyers' cooperation
Insurance companies—Legal service
Trust companies—Lawyers' cooperation

Advertising

Should lawyers advertise? Ptr Ink 216:67 Ag 30 '46

Directories

Campbell's list; a directory of selected lawyers, 1946-1947. J. A. Campbell and H. L. O. Campbell, eds. 68th ed 170p Campbell's list, 140 Nassau st, New York 7 '46

LAYOFF systems
Union right of participation in layoffs; Press Wireless case. M. M. Shipman. Oil Paint & Drug Rep 150:3+ O 7 '46

LAYOUT. See Factories—Layout; Laundries—Layout; Machine shops—Layout; Retail trade—Store layout; Workplace layout

LAYOUT methods
New layouts quick, with magnetic templets; patented method used at LaMeasure brothers laundry & dry cleaning company, Detroit. il plans Factory Management 104:90-1 Je '46

LAZIER, Wilbur Arthur, 1900-
Herty medal awarded to Lazier. pors Chem & Eng N 24:1384 My 25 '46

LEACHING
Beneficiation of Montana chromite concentrates by roasting and leaching. R. R. Lloyd and others. bibliog 2pls U S Bur Mines Rep of Invest 3834:1-37 '46
Ingenious pump circulates leaching solutions. diags Eng & Min J 146:104-5 D '45
Making tin flotation work; Bolivian ores. A. M. Gaudin and others. bibliog flow sheet il diag Eng & Min J 147:54-9 O; 72-4 N '46
Study of the effect of leaching on the rot-proofing efficacy of copper naphthenate. C. H. Bayley and M. W. Weatherburn. bibliog il Am Dyestuff Rep 34:457-60+ N 19 '45

See also
Hydrometallurgy

LEAD
Absorption of slow mesotrons in lead, iron, aluminum, and water. H. P. Koenig. diags Phys R 69:590-6 Je 1 '46
Cascade showers and mesotron-produced secondaries in lead. S. Nassar and W. E. Hazen. bibliog Phys R 69:298-306 Ap 1 '46
Controlled, lead can be safely used in enamels. Cer Ind 46:92 Ap '46
Effects of copper and lead bearing wastes on the purification of sewage; abstract. M. M. Kalabina. Water & Sewage Works 93:30 Ja '46
Enamelers not adverse to using lead. Cer Ind 46:64 Mr '46
Fundamental studies with the dropping mercury electrode; empirical modification of the Ilkovic equation. J. J. Lingane and B. A. Loveridge. bibliog Am Chem Soc J 68:395-7 Mr '46
Lead products; Toronto plant of the Canada metal co.; abstract. Materials & Methods 23:202+ Ja '46
Lead, specifications and properties; engineering file facts. R. S. Burpo, jr. Materials & Methods 23:187, 189 Ja '46
Lead's reaction to corrosive chemicals. Steel 119:165-6+ Ag 5 '46
Phosphoric acid vs. materials of chemical plant construction; lead. H. M. Church. Chem Eng 53:206+ S '46
Present needs for lead in viscose rayon spinning. J. H. Torrence. il Rayon 27:471-2 S '46
Reaction of lead soaps with sodium iodide. R. S. Barnett. bibliog Ind & Eng Chem Anal ed 18:333 My '46

LEAD—*Continued*
Redetermination of the lattice constant of lead. H. P. Klug. Am Chem Soc J 68:1493-4 Ag '46
Reproducibility of the lead electrode and the electromotive force of the lead stick-lead amalgam cell at 0° to 60° C. R. G. Bates and others. bibliog diags J Res Nat Bur Stand 36:159-70 F '46
Self-diffusion of lead in lead sulphide. J. S. Anderson and J. R. Richards. Chem Soc J p537-41 Je '46
Strength of spot welds in lead, lead alloys and terne plate. J. Heuschkel. il Product Eng 16:872-6 D '45
Superconductivity of lead at 3-cm wavelength. F. Bitter and others. Phys R 70: 97-8 Jl 1 '46
Transmission of light by superconducting lead films. A. Wexler. bibliog Phys R 70: 219 Ag 1 '46
Why not lead-fluxed porcelain enamel? Cer Ind 46:69-70 F '46

Analysis

Coulometric analysis. J. J. Lingane. diags Am Chem Soc J 67:1916-22 N '45
Determination of tetraethyllead in gasoline by X-ray absorption. M. V. Sullivan and H. Friedman. il diag Ind & Eng Chem Anal ed 18:304-6 My '46
Evaluation of urinary lead determinations; the significance of the specific gravity. L. Levine and J. P. Fahy. bibliog J Ind Hygiene 27:217-23 O '45
Internal standard method of spectrographic analysis as applied to the determination of lead in high purity zinc. L. Griffith and J. N. Kirkbride. diags Soc Chem Ind J 65:39-48 F '46
Lead in smelter products; a rapid polarographic method. W. Hered and G. R. Hered. bibliog diag Ind & Eng Chem Anal ed 17:780-1 D '45
Systematic polarographic metal analysis; determination of tin, lead, nickel, and zinc in copper-base alloys. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 18:429-32 Jl '46

Isotopes

Probability of excitation of the nucleus ^{206}Pb in the α-disintegration of polonium. N. Feather. bibliog Phys R 70:88 Jl 1 '46

Prices

Higher lead price in prospect. Barron's 26:5 My 27 '46
Lead at New York, monthly, 1929-1945; tabulation. Iron Age 157:252 Ja 3 '46
London's lead price rise foreshadows boost here. Barron's 26:7 Ja 28 '46
Why a lead shortage? F. E. Wormser. Nat Pet N 38:32+ My 15 '46

LEAD alloys
Corrosion-fatigue properties of some hard lead alloys in sulfuric acid. D. J. Mack. bibliog il diag Am Soc T M Proc 45:629-50 '45; Abstract. Metal Prog 49:176+ Ja '46
F-3 lead alloy; an improved cable sheathing. L. F. Hickernell and C. J. Snyder. bibliog il Elec Eng 65:Trans 563-9 Ag-S '46
Lead base solders and babbitts; engineering file facts. R. S. Burpo, jr., comp. Materials & Methods 22:1781 D '45
Lead products; Toronto plant of the Canada metal co.; abstract. Materials & Methods 23:202+ Ja '46
Lead-zinc for cable sheaths; abstract. M. Pfender and R. Schulze. Materials & Methods 22:1484 N '45
Protective value of lead and lead-tin deposits on steel. A. H. Du Rose. il diag Electrochem Soc Trans 89 (preprint 7):101-12 '46
Strength of spot welds in lead, lead alloys and terne plate. J. Heuschkel. il Product Eng 16:872-6 D '45

Analysis

Spectrochemical analysis of lead base metals. B. B. Dull and L. J. Hibbert. Opt Soc Am J 36:53-6 Ja '46

LEAD arsenates
Production and exports of lead arsenate; selected years, 1935-1945; graph. For Comm W 22:29 Ja 5 '46

LEAD burning
Lead welding. R. L. Ziegfeld and D. M. Brocina. bibliog il diags Steel 119:120-2+ Ag 5 '46
Lead welding with a carbon arc. S. C. Cairns. il Materials & Methods 23:775 Mr '46

LEAD compounds
Intermetallic compounds $Mg_4Na_4Pb_3$. G. Calingaert, H. Shapiro and I. T. Krohn. Am Chem Soc J 68:520-1 Mr '46
Protective action of lead compounds. J. E. O. Mayne. bibliog Soc Chem Ind J 65:196-204 Jl '46
What's ahead in raw materials; lead pigments. F. E. Wormser. Paint Oil & Chem R 108:48+ N 1 '45

LEAD industry and trade
Ethyl fluid crisis grows as lead inventories sink to new low. Nat Pet N 38:15-16 S 25 '46
Hoarded lead. Barron's 26:8 O 7 '46
Industry faces competition in hunt for metals; proposed military caches of copper, lead and zinc may force further government buying. T. J. Keller. Barron's 26:5 Ja 14 '46
Industry suffers from lead shortage. Barron's 26:5 S 23 '46
Informal agreement with Britain is principal cause of U.S. shortage of lead; abstract. F. E. Wormser. Nat Pet N 38:3 My 29 '46
Why a lead shortage? F. E. Wormser. Nat Pet N 38:32+ My 15 '46
Why lead is scarce. bibliog Chem Ind 58:978-9 Je '46

Statistics

Lead industry in 1945. Can Chem & Process Ind 30:57 Mr '46
Lead, 1945. F. E. Wormser. Eng & Min J 147:76-7 F '46
Remelt lead output increases greatly due to subsidies. Iron Age 158:155 Ag 1 '46

Great Britain

Lead shortage. Economist 150:343-4 Mr 2 '46

United States

Higher lead price in prospect. Barron's 26:5 My 27 '46
Lead; annual review and forecast. C. W. Merrill and R. H. Mote. il Min Cong J 32: 44-6 F '46
Lead shortage. F. E. Wormser. Manuf Rec 115:43-4+ Je '46
Lead shortage and its remedy. J. R. Steelman. Oil Paint & Drug Rep 150:5+ S 23 '46
Lead shortage and its remedying. A. Fletcher. Oil Paint & Drug Rep 150:7+ S 16 '46
Lead situation. F. E. Wormser. Paint Oil & Chem R 109:31-2 Mr 7 '46
Lead still short. Bsns W p42 D 29 '45
Lead supply increase studied by CPA; abstract. J. W. Snyder. Oil Paint & Drug Rep 149:5 Ap 29 '46
Low lead production indicates further allotment cuts. Barron's 26:6 Ap 15 '46
Oil jobbers, refiners, API's Marketing committee protest CPA's lead order. Nat Pet N 38:3-6 Ap 10; 3-4 Ap 17; 4-5 Ap 24 '46
Shortages in lead may become acute. W. P. McLendon. Dom Comm 34:60-3 Jl '46

LEAD lining
Procedure for attaching nozzle to a length of lead lined steel pipe. il Paper Ind 28:259 My '46
Simple method of lining tanks with lead. il Sheet Metal Worker 37:52 Jl '46

LEAD metallurgy
Casting and handling ten-ton lead bullion blocks. K. Harms and T. D. Jones. il diag Min & Met 27:391-2 Jl '46
Flexible flowsheet treats varying lead-zinc ore; Mammoth-St Anthony, ltd. C. E. Craven. il Eng & Min J 146:85-9 N '45
Metallurgy of lead; progress hindered during war. T. D. Jones. il Min & Met 27:65-6 F '46
New Calumet mines; geology, mining and milling of a lead-zinc ore. D. C. McLaren. Can Min J 67:239-41 Ap '46
New flotation technique in copper-lead separation; San Francisco mines of Mexico, ltd. G. O. Deshler and T. R. Herndon. il diag Eng & Min J 147:67-9 My '46

LEAD metallurgy—*Continued*
Non-ferrous metallurgy in wartime Germany. A. J. Phillips. Eng & Min J 147:92-3 Je '46
Ten months milling at Moulton Hill. A. C. King and T. V. Lord. flow sheets il diags Can Min J 67:841-56 S '46
Vinegar Hill zinc plant produces zinc and lead flotation concentrates and sulphuric acid. G. H. Pett. flow sheets il Min Cong J 31:22-7 N '45

LEAD mines and mining
Great lead and zinc mines. W. R. Ingalls. Min & Met 27:469-73 S '46

British Columbia
Bluebell mine, and Pilot Bay smelter, Kootenay lake. R. F. Pearce. il Can Min J 66:772 N '45

Idaho
Activity in the Pine Creek area. H. W. Ingalls. flow sheet il map Min Cong J 32: 40-4 Jl '46
Clark Fork lead-zinc district, Bonner county, Idaho. S. H. Lorain. 6pls U S Bur Mines Rep of Invest 3992:1-10 '46

Illinois
Mining lead and zinc in the upper Mississippi valley. R. J. Brodhead. il map Explosives Eng 24:77-83 My '46

Kansas-Oklahoma-Missouri district
New equipment and methods in metal mining; developments in the Tri-state. S. S. Clarke. il Min Cong J 32:96-8 F '46
Tri-state zinc-lead ore reserves. O. Ruhl. pl U S Bur Mines Rep of Invest 3922:1-7 '46

Missouri
Exploration for zinc and lead ore, Phelps lease, Jasper county, Missouri. L. C. Brichta. U S Bur Mines Rep of Invest 3941: 1-44, pl 1-2 '46

Morocco
Moroccan mine develops unusual classifier design. E. J. Breton. flow sheet diag Eng & Min J 147:77-8 Ja '46

Nevada
Exploration of the Mount Hope mine, Eureka county, Nevada. E. J. Matson. 16pls U S Bur Mines Rep of Invest 3928:1-7 '46

Quebec
New Calumet mines; geology, mining and milling of a lead-zinc ore. D. C. McLaren. flow sheet il map diag Can Min J 67:233-41 Ap '46

Utah
Examination of the Wah Wah lead-zinc mine, Beaver county. R. L. Jones and W. C Dunham. U S Bur Mines Rep of Invest 3853:1-14, pl 1-8 '46

Washington (state)
Grandview mine; American zinc, lead & smelting company. flow sheet il map diags Min Cong J 32:26-31 Ja '46

Wisconsin
Mining lead and zinc in the upper Mississippi valley. R. J. Brodhead. il map Explosives Eng 24:77-83 My '46
Vinegar Hill zinc plant produces zinc and lead flotation concentrates and sulphuric acid. G. H. Pett. flow sheets il Min Cong J 31:22-7 N '45

LEAD ores
Lead-silver mineralization in the Clark Fork district, Bonner county, Idaho. A. L. Anderson. il map diag Econ Geol 41:105-23 Mr '46; Discussion. E. E. Fairbanks. 41: 554-5 Ag '46

LEAD oxides
Comparison of effect of TiO_2 and PbO on light absorption of some colored glasses. W. Colbert. diags Am Cer Soc J 29:40-5 F 1 '46
Comparison of effect of TiO_2 and PbO on refractive index of glasses. W. Colbert. diags Am Cer Soc J 29:45-7 F 1 '46
Lead dioxide cell containing various electrolytes. J. P. Schrodt and others. il Electrochem Soc Trans 90 (preprint 21):281-92 '46
Raw lead glazes. C. W. Parmelee. Cer Ind 45:86+ D '45; 46:78+ F; 76+ Mr '46

LEAD plating
Protective value of lead and lead-tin deposits on steel. A. H. Du Rose. il diag Electrochem Soc Trans 89 (preprint 7): 101-12 '46

LEAD poisoning
Control of the lead poisoning hazard in can manufacturing; bodymaking machine (side-seamer). M. Eisenbud and J. W. McEwan. il diags J Ind Hygiene 27:284-8 D '45
Evaluation of urinary lead determinations; approximate upper limit of urinary lead excretion for persons at work. L. Levine and J. P. Fahy. J Ind Hygiene 28:98-9 My '46
Evaluation of urinary lead determinations; the significance of the specific gravity. L Levine and J. P. Fahy. bibliog J Ind Hygiene 27:217-23 O '45
Impairment of reproduction in rats by ingestion of lead. G. Dalldorf and R. R. Williams. il Science 102:668-70 D 28 '45
Lead intoxication by inhalation. L. H. Cotter. J Ind Hygiene 28:44-6 Mr '46
Plumbophobia; occupational lead poisoning. W. C. Wilentz. Ind Med 15:253-6 Ap '46

LEAD sulfide
Self-diffusion of lead in lead sulphide. J. S. Anderson and J. R. Richards. Chem Soc J p537-41 Je '46

LEAD tetraacetate
Lead tetraacetate in carbohydrate research; abstract. R. C. Hockett. Can Chem & Process Ind 29:870 D '45
Lead tetraacetate oxidations in the sugar group; the structure of arlitan, a monoanhydride of sorbitol. R. C. Hockett and others. bibliog Am Chem Soc J 68:922-6 Je '46

LEAD welding. See Lead burning

LEAD work, Architectural
Sheet lead pan lintel flashing. diag Sheet Metal Worker 37:67 Ap '46

LEADERS. See Great men

LEADERSHIP
Human approach in leadership. S. A. Lewisohn. Mech Eng 68:442+ My '46
Leadership and what it takes. R. L. Lee. Edison Elec Inst Bul 14:303-6 S '46
Leadership by persuasion. D. C. Prince. Mech Eng 68:435-7 My '46
Navy training for leadership. J. L. Holloway, jr. Mech Eng 68:441-2 My '46
Training for leadership. J. L. Devers. Mech Eng 68:7-10 Ja '46
Training for leadership. H. R. Kutz. Mech Eng 68:438-41 My '46

LEADSCREWS
Induction hardening speeds up lead-screw production. C. H. Parks and J. Libsch. il Mach 52:179-82 Jl '46
Intermittent leadscrew makes double-helix worm. U. Wheatly. diags Am Mach 90: 117 Ja 31 '46
New lathe produces precision leadscrews. H. E. Linsley. il Iron Age 158:58-9 Ag 1 '46

LEAGUE of nations
League of nations passes from existence. Comm & Fin Chr 163:2417 My 2 '46

LEAK detectors for vacuum systems. See Vacuum apparatus—Testing

LEAKAGE of gas. See Gas leakage

LEASEHOLD insurance. See Insurance, Leasehold

LEASES
See also
Rental plans (merchandizing)
Stores (retail trade) —Leasing

Accounting
Accounting for construction of building on leased land. J Account 80:396-7 N '45

LEATHER
Effects of mildew on vegetable-tanned strap leather. J. R. Kanagy and others. J Res Nat Bur Stand 36:441-54 My '46
Leather chemists in conference; papers read at the Leeds meeting. Chem Age (Lond) 55:447-8 O 12 '46

LEATHER—*Continued*
Mould growth on leather. A. J. Musgrave. bibliog Chem & Ind p226-7 Je 15 '46
Sole treatment. Bsns W p50+ D 22 '45
Story of leather. J. E. Rhoads. il Comp Air Mag 51:258-63, 298-302 O-N '46
See also
Hides and skins
Sheepskin
Tanning
Tanning materials

Testing
Compression of sole leather. C. E. Weir. bibliog J Res Nat Bur Stand 35:257-71 O '45

LEATHER, Substitutes for
Improved coating techniques produce better art leather; vinyl resins. S. Wineman and H. F. Reves. il Textile World 96:114-15 Jl '46

LEATHER chemists' association, American. See American leather chemists' association

LEATHER industry and trade
International hides, skins, and leather committee. For Comm W 23:35 My 4 '46
Leather and shoes; trends in 1946. J. G. Schnitzer. il Dom Comm 34:33-4 Ja '46
Lower leather exports foreseen. il Chem Ind 58:606+ Ap '46
Shoemakers' problems; leather shortage. Barron's 26:6-7 My 13 '46
Threat to shoes. il Bsns W p26+ Ag 10 '46

Canada
Leather industry statistics. Can Chem & Process Ind 30:41 F '46

Germany
German leather-goods industry. For Comm W 23:45 Je 15 '46

Texas
800 jobs from one sales idea; Texas tanning & manufacturing company. R. McDaniel. il Am Bsns 16:12-13+ S '46

Yugoslavia
Shoes and leather in Yugoslavia. M. E. Wambsganss. For Comm W 21:8+ D 8 '45

LEATHER work
German leather-goods industry. For Comm W 23:45 Je 15 '46
Mexico's leather goods: developments and trends. il For Comm W 21:12-13 N 17 '45

LEATHERCRAFT. See Leather work

LEAVES
Leaf-handling and disposal devices aid suburban street cleaning. il Eng N 136:849 My 30 '46

LEAVEY, Edmond Harrison, 1894-
New transport head assumes command. por Ry Age 119:949 D 8 '45

LEBANON
Lebanon today. Economist 151:456-7 S 21 '46
See also
Irrigation—Lebanon

Economic conditions
News by countries. For Comm W 24:32-3+ Jl 6 '46

LECITHIN
Lecithin in soap. M. A. Lesser. bibliog Soap & San Chem 22:37-40+ My '46
Lecithin increases the effect of shortening in bread. D. B. Pratt, jr. il Food Ind 18:16-19+ Ja '46
Lecithin trust charged by U.S. Oil Paint & Drug Rep 150:5 Jl 1 '46

LECITHINASE
Lecithinase activity of clostridium perfringens toxin. E. J. Theriault. (Public health rep supp 188) bibliog U.S. Public health service, Washington; pa 10c Supt. of doc. '45

LECLANCHÉ cell. See Electric batteries

LE CORBUSIER (Charles Édouard Jeanneret-Gris) 1887-
Le Corbusier plans for the reconstruction of France. por Arch Rec 99:92-3 Mr '46
Plan for St Dié. Arch Rec 100:78-83 O '46

LEDO road
La construction de la route de Ledo reliant l'Inde à la route de Birmanie. map Génie Civil 123:114-15 My 1 '46
War's outstanding floating bridge; used to extend the Ledo road over the Irrawaddy river. il diags Eng N 137:226-9 Ag 22 '46
Water supply for the Stilwell road. C. W. Christenson. il Pub Works 77:19-22+ Ap '46

LEESON, Bruce H.
New director of the B.E.A.M.A. por Electrician 137:374 Ag 9 '46

LEGAL aid societies

Directories
1946 Legal aid directory. 39p pa $1 National association of Legal aid organizations, 25 Exchange St, Rochester 4, N.Y. '46

LEGAL responsibility
See also
Proximate cause (law)

LEGAL service
National conference of lawyers and certified public accountants. D. F. Maxwell and W. Charles. J Account 81:120-6 F '46
See also
Insurance companies—Legal service

LEGISLATION
Adjournment of first session of 79th Congress; legislation enacted; measures pending. Comm & Fin Chr 162:3135+ D 27 '45
Legislation proposed by Pres. Truman following convening of second session of 79th Congress. Comm & Fin Chr 163:761 F 7 '46
New law suits affecting the paper industry. L. T. Parker. Paper Ind 28:657-9+ Ag '46
187 bills; digest of proposals considered in Congress in behalf of small business 1943-1944. B. W. Roper. U S Bur For & Dom Com, Economic (Small Bsns) Ser 49:1-118; pa 25c Supt. of doc. '46
79th Congress adjourns; summary of legislation. Comm & Fin Chr 164:934 Ag 15 '46
See also
Law
State laws

LEGISLATIVE reference libraries
See also
Libraries, State

LEGISLATURES, State. See State legislatures

LEGUMES
See also
Beans
Guar
Peas

LEHIGH portland cement company
Thumbnail stock appraisal. Mag of Wall St 77:456 Ja 19 '46

LEHIGH Valley coal corporation
Final plan of recapitalization. Comm & Fin Chr 163:313 Ja 21 '46
Plan clears arrears. Barron's 26:8 Ap 1 '46

LEHIGH Valley railroad
Lehigh Valley rounds out a century. il map Ry Age 120:818-20 Ap 20 '46

LEHRS. See Glass furnaces

LEICESTER, England
Atmospheric pollution in Leicester. N. M. Potter. Chem & Ind p218-20 Je 8 '46

LEIGH, Douglas
Leigh aloft. Fortune 34:152 S '46

LEMON juice shakers
Ceramic plant is result of lemon juice gadget; Charles Reid pottery works. il Cer Ind 46:77 F '46

LEND-lease operations. See World war, 1939-1945—Lend-lease operations

LENGTH measurement
Length of circular arc; chart; reference book sheet. C. P. Nachod. Am Mach 90:147 Mr 28 '46
Length of material in a roll; chart; reference book sheet. C. P. Nachod. Am Mach 90:145 Mr 28 '46
Rapid measurement of an index of fibre length. R. de Montigny and P. Zborowski. diag Pulp & Pa of Can (Convention no) 47:99-112, 115 [F] '46; Same cond. Paper Ind 28:882+ S '46; Correction. Pulp & Pa of Can (Convention no) 47:294 [F] '46

LENGTH of life. See Longevity

LENGTH of service. See Airplane engines—Length of service; Automobiles—Length of service; Employees—Length of service

LENSES
Correction of imperfect weak cylindrical lenses. D. H. Rank. diags Opt Soc Am J 36:172-5 Mr '46
Effect of modifying the spherical aberration on the resolution of a lens erecting telescope. D. H. Rank. diag Opt Soc Am J 36: 302-6 My '46
Lens to supplant the spectrograph slit. C. M. King. il diags Opt Soc Am J 36:164-8 Mr '46
Paraxial differential transfer coefficients of a lens system. F. D. Cruickshank. bibliog Opt Soc Am J 36:13-19 Ja '46
Preventing the fungus fouling of optical instruments. R. E. Vicklund. il diag Ind & Eng Chem 38:774-9 Ag '46
Primary chromatic coefficients of a lens system. F. D. Cruickshank. Opt Soc Am J 36:103-7 F '46
Shock-resistant safety lenses. C. D. Oughton. il Glass Ind 27:121-4+ Mr '46
Slide projector employs aspheric lenses. il diags Machine Design 18:98 O '46
Television lens. il Sci Am 175:36 Jl '46
Theory and computation of an aspherical surface. A. E. Glancy. diags Opt Soc Am J 36:416-23 Jl '46
Toward better vision: Visiclar to market war-born lens. Sales Management 56:75 F 1 '46

See also
Goggles
Magnifiers
Optical instruments
Telescope

LENSES, Contact
Special all-risk policy developed for contact lenses. Nat Underw 50:6 N 7 '46

LENSES, Electron. See Electron optics

LENSES, Magnetic. See Magnetic lenses

LENSES, Photographic
Classification of photographic lens types. R. Kingslake. diags Opt Soc Am J 36:251-5 My '46
Coated lenses; quarter-wave anti-reflection coatings. il Consumers Res Bul 17:17-20 My '46
Lens calibrating system. C. R. Daily. il diags Soc Motion Picture Eng J 46:343-56 My '46
Photometric calibration of lens apertures. A. E. Murray. bibliog il diags Soc Motion Picture Eng J 47:142-51 Ag '46
System of lens stop calibration by transmission. E. Berlant. bibliog il diag Soc Motion Picture Eng J 46:17-25 Ja '46

LENSES, Plastic
Plastic lenses; abstract. P. Pollack. Materials & Methods 24:694 S '46

LENT, Henry Bolles, 1901-
Gallery; Balzac of the third grade. S. Jones. por Adv & Sell 39:122+ Mr '46

LEPIDINE
Studies in the quinoline series; preparation of some substituted lepidylamines. K. N. Campbell and others. Am Chem Soc J 68: 1851-2 S '46
Substituted lepidines. C. E. Kaslow and N. B. Sommer. Am Chem Soc J 68:644-7 Ap '46

LEPROSY
Present status of diasone in the treatment of leprosy. G. H. Faget and others. pls Pub Health Rep 61:960-3 Je 28 '46
Promizole treatment of leprosy. G. H. Faget and others. bibliog Pub Health Rep 61: 957-60, pl 1-3 Je 28 '46

LEPTOSPERMONE
Leptospermone; further evidence for structure. L. H. Briggs, C. H. Hassall and W. F. Short. Chem Soc J p706-9 O '45

LESLIE, William 1890-
Gets high War department citation. por Nat Underw 50:19+ Ja 10 '46

LE SUEUR, Minnesota
New community development planned for Le Sueur, Minn. il plans Am Bld 68:72-3 Jl; 96-7 D '46

LETHANE
Effect of DDT, sulphur and lethane dusts on germination of sugar-beet and onion pollens. E. Artschwager. Science 102:482 N 9 '45
Roach powder; DDT formula improved by the addition of lethane A-70. R. B. Schwitzgebel. il Soap & San Chem 22:131-3 My '46

LE TOURNEAU, R. G., inc.
Preferred stock offered. Comm & Fin Chr 163:2008 Ap 15 '46

LETOURNEAU company of Georgia
How to conduct employee opinion surveys. T. N. Boggs and L. L. Maness. Factory Management 104:90-4 Mr '46

LE TOURNEAU technical institute of Texas
LeTourneau establishes Texas school. il plan Manuf Rec 115:50-1+ My '46
New project to give Texas new steel consuming industry; Le Tourneau technical institute of Texas; industrial plant for concrete house building machinery. il Iron Age 157:95 F 28 '46

LETTERHEADS
Check list for the letterhead. E. J. Dever, jr. il Ptr Ink 213:144+ D 14 '45
Hidden addresses on letterheads. G. E. Mitchell. Am Bsns 16:32 O '46
Look at your letterhead (everybody else does). il Dom Eng 166:124-5 D '45
Purveyor of company prestige; designing letterheads to reflect personality. R. Brady. Trusts & Estates 81:393-4 N '45
Sell letterheads for every member of the family. il Inland Ptr 116:74 F '46
Your next letterhead. il Dom Eng 168:116-17 S '46

LETTERING
Hand-lettering, a pearl or a prize-package? A. R. Hopper. il Ind Marketing 31:49+ Ja '46

See also
Initials

LETTERS, Business. See Commercial correspondence

LETTERSPACING. See Printing, Practical—Spacing

LETTUCE
Early salad crops; useful off-peak load. A. D. Johnson. Elec R (Lond) 137:955-6 D 28 '45

LEUCEMIA
Effect of urethane on lymphatic leukemia in rats. J. B. Murphy and E. Sturm. Science 104:427 N 1 '46

LEUCOPENIA
Presence and significance of a leukopenic factor in inflammatory exudates. V. Menkin. bibliog Science 103:648-9 My 24 '46

See also
Granulocytopenia

LEUKEMIA. See Leucemia

LEUKOPENIA. See Leucopenia

LEVEES
Closing breaks in tidal levees. W. Q. Wright. il Eng N 136:477-80 Ap 4 '46
Deep cutoff trench of puddled clay for earth dam and levee protection. H. Kramer. il diag Eng N 136:986-90 Je 27 '46; Discussion. 137:188 Ag 8 '46
Relief wells for dams and levees. T. A. Middlebrooks and W. H. Jervis. diags Am Soc C E Proc 72:781-98 Je '46; Discussion. 72: 1165-72 O '46
Uncompacted mass asphalt paving for river banks and levees. A. B. Pickett. il diag Civil Eng 16:451-3 O '46

LEVELING
Accurate trigonometric leveling uses ordinary transit. O. B. Misz. diags Eng N 136:362-3 Mr 7 '46

LEVER brothers and Unilever, limited
Charles Luckman assumes presidency of British-owned Lux, Rinso, Lifebuoy, and Pepsodent. il Fortune 34:120-4+ Jl '46
Statement by the chairman at annual general meeting. G. Heyworth. Economist 149: 657 N 3 '45
Unilever problems. Economist 149:602-3, 608 O 27 '45

LEVERAGE. See Stocks—Leverage

LEVERS
Bellcrank production boosted by switching weld location. il Aviation 44:197 D '45
Jig designed for drilling a bellcrank lever having a forked arm. diag Mach 52:188 Ja '46

LEVINSTEIN, Ivan
Ivan Levinstein memorial lecture; speeches at Manchester. Chem & Ind p378-80 O 19 '46

LEVOGLUCOSAN
Isolation of levoglucosan from the enzymic hydrolysates of waxy corn starch. E. M. Montgomery and G. E. Hilbert. bibliog Am Chem Soc J 68:916 My '46

LEVULOSE. See Fructose

LEVY, Fred
Hard to get; Blum's San Francisco confectionery. Fortune 34:175 O '46

LEWIS, James Ogier, 1886-
Winner of the Lucas petroleum medal for 1946. por Min & Met 26:616 D '45

LEWIS, John Llewellyn, 1880-
A.F.L. and Lewis bid for power; return of U.M.W. leader to Federation's fold. por (cover) Bsns W p86+ F 2 '46
First the fireworks, then real work on mine contract. pors Bsns W p106 Mr 23 '46
Lewis still no. 1; victories in soft coal strike. Bsns W p97 Je 8 '46

LEWISITE
BAL (British anti-lewisite). L. L. Waters and C. Stock. Science 102:601-6 D 14 '45
Canadian researches on BAL (British anti-lewisite). L. Young. bibliog Science 103: 439-40 Ap 12 '46

LEWYT corporation
Lewyt venture; offers line of consumer goods. Bsns W p56-8 O 5 '46

LIABILITY
Landlord's liability; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:38-9 My 23 '46
Liability for fire loss to barge being towed to place of work. East Underw 46:31 N 16 '45
Liability of charitable hospitals; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12:30-2 Ag 22 '46
Liability of theatre owners; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:38-40 F 28 '46
U.S. air accident liability legislation a menace. G. W. Orr. il Nat Underw (Auto & aviation no) 50:13+ Ap 19 '46

See also
Bank liability
Damages
Employers' liability
Government liability
Insurance, Liability
Manufacturers' liability
Municipal liability
Negligence
Personal injuries
State liability
Workmen's compensation

LIABILITY, Contingent
Contingent liability under option on leased machinery. J Account 80:487-8 D '45

LIABILITY, Municipal. See Municipal liability

LIABILITY insurance. See Insurance, Liability

LIBEL and slander
General warnings to trade not libelous. Adv & Sell 39:102 Je '46
Libel of product can be stopped. A. W. Gray. Inland Ptr 116:66-7 N '45

LIBEL insurance. See Insurance, Libel

LIBERAL education
Objectives of premedical education; viewpoint of the liberal arts college. W. B. Keighton. J Chem Educ 23:322-5 Jl '46

LIBERAL party (Belgium)
Liberal party. R. Drèze. Ann Am Acad 247:21-5 S '46

LIBERALISM
Balance sheet of liberalism. J. M. Mead. Comm & Fin Chr 164:877+ Ag 15 '46
Liberalism abroad and at home. J. H. Ball. Comm & Fin Chr 163:2644+ My 16 '46
What is a liberal? R. A. Taft. Comm & Fin Chr 163:2641+ My 16 '46

LIBERTY
Freedom through sacrifice. J. F. Dulles. Comm & Fin Chr 163:2912+ My 30 '46
Social composition of scientific power. I. Bowman. Chem & Eng N 24:1338-42 My 25 '46
Statement of essential human rights. Ann Am Acad 243:18-26 Ja '46

See also
Free speech
Freedom of the press

LIBERTY mutual insurance company
Cross-counter insurance pays off; Liberty Mutual expands retail selling. B. Moore. il Sales Management 56:45-6+ Ap 1 '46

LIBRARIANS
Librarian's working knowledge of the aged. H. C. Rogers. Special Lib 37:183-8 Jl-Ag '46

LIBRARIANS, Special
Science librarianship. J. W. Hunt. Science 104:171-3 Ag 23 '46

Directories
Directory of members of Special libraries association as of September 15, 1945. Special Lib 37:1-64 pt 2 Ja '46

Salaries
Special libraries association salary survey. W. Hausdorfer. Special Lib 37:142-7 My-Je '46

Training
Education of medical librarians. E. Brodman. Special Lib 37:68-71 Mr '46
Wanted: more library chemists. E. L. Schulze. bibliog J Chem Educ 23:176-8 Ap '46
What courses for special librarians? Special Lib 36:480-2 D '45

LIBRARIES
Pesticus libraricus. E. H. Burkey and J. Walton. il Special Lib 37:49-50 F '46

See also
Library buildings
School libraries
Technical libraries
also names of libraries, e.g. Engineering societies library; New York public library

Business branches and departments
Libraries stress service to business. D. R. Burgess. Dom Comm 34:10+ Mr '46
Public libraries aid local business growth. M. C. Manley. il Dom Comm 34:35-6 S '46

Instruction in use
Use of books and libraries. H. G. Russell, R. H. Shove and B. E. Meon. 5th ed 101p pa $1 Univ. of Minnesota lib, Minneapolis '46

Insurance requirements
Insurance of libraries; a manual for librarians. D. M. Singer. 92p pa $1.50 American library assn, 520 North Michigan av, Chicago 11 '46

Music collections
See Music libraries and collections

Restoration
Joint committee on books for devastated libraries. D. J. Comins. J Doc 1:79-80 S '45
Library rehabilitation programme of the American library association. H. M. Lydenberg. J Doc 1:72-8 S '45

Special collections
Special collections in England of use for Italian studies. W. O. Hassall. J Doc 1:63-71 S '45
Special library resources. R. L. Vormelker, ed. v2 630p Special Libraries Association, 21 E 10th St, New York '46

California
Report of the activities of the biological sciences group of the Southern California chapter. E. Moyers and E. Adams. Special Lib 37:81-5 Mr '46

Canada
Libraries in Canada, 1942-44 (being part 3 of the biennial survey of education in Canada, 1942-44). 54p pa 35c Canada. Dominion bur. of statistics, Ottawa '46

LIBRARIES—*Continued*

Europe

Post-war problems of continental libraries. M. Danilewicz. J Doc 1:81-8 S '45

See also
American book center for war devastated libraries

France

See also
Bibliothèque nationale

Great Britain

Special collections in England of use for Italian studies. W. O. Hassall. J Doc 1:63-71 S '45

Netherlands

Review of Dutch libraries during the war. J. G. Schönau. Special Lib 37:122-4 Ap '46

LIBRARIES, Medical. See Medical libraries

LIBRARIES, Music. See Music libraries and collections

LIBRARIES, National

See also
Bibliothèque nationale
Library of Congress

LIBRARIES, Special

Fiction in a special library; Potomac electric power company, Washington, D.C. I. A. Zink. Special Lib 37:150-3 My-Je '46

Planning and equipment of libraries in research organizations and industrial concerns. B. Fullman. J Doc 2:68-75 S '46

Problems of information service in industry. E. N. Simons. Assn of Sp Lib & Inf Bur Proc 1945:50-9; Discussion. 59-64

Small library of 5,000 books doubles as exhibition room for traveling Latin-American displays. il plan diags Arch Forum 85:127 O '46

Special librarian and technical progress. F. E. Fitzgerald. Special Lib 37:35-40 F '46

Special library for disabled veterans; Bulova school of watchmaking, Woodside, New York. M. E. Schaaf. Special Lib 37:12-14 Ja '46

Special library resources. R. L. Vormelker, ed. v2 630p Special Libraries Association, 21 E 10th St, New York '46

See also
Aeronautic libraries
Architectural libraries
Business libraries
Chemical libraries
Hospital libraries
Librarians, Special
Libraries, State
Medical libraries
Moving picture studios—Libraries
Music libraries and collections
National safety council—Library
Shipyards—Libraries
Social work libraries

also American federation of labor—Library; United nations conference on international organization—Library

Service

Finding facts for a chemical clientele. I. M. Strieby and B. J. Cole. bibliog il Chem Ind 57:1064-8 D '45

Let your librarian look it up. R. R. Dickison. J Chem Educ 23:175 Ap '46

Operating an abstracting and information service within an industrial organization; Arc manufacturing company, London. W. C. E. Barnes. J Chem Educ 23:152-3 Mr '46

Special library services and their place in the library community. L. Shorb. Special Lib 37:213-16 S '46

LIBRARIES, State

State library in action; New Hampshire state library, Concord. M. P. McKay. Special Lib 37:99-103 Ap '46

LIBRARIES and war

Books and libraries in wartime. P. Butler, ed. 159p $1.50 University of Chicago press, 5750 Ellis av, Chicago 57 '45

LIBRARY administration

Personnel administration in libraries. L. Martin, ed. 168p $3 Univ. of Chicago press, 5750 Ellis av, Chicago

LIBRARY architecture

Informal architectural notes on the planning of university libraries. V. O. Rees. J Doc 2:64-7 S '46

Planning of university and college libraries. K. Povey. J Doc 2:60-3 S '46

LIBRARY association, London

Library association; cultural relations with the U.S.A. L. R. McColvin. Assn of Sp Lib & Inf Bur Proc 1945:37-9

LIBRARY buildings

Planning and equipment of research libraries and information bureaux. E. J. Carter. bibliog il plans Assn of Sp Lib & Inf Bur Proc 1945:65-73

Planning of research libraries. S. R. Pierce. Assn of Sp Lib & Inf Bur Proc 1945:73-5; Discussion. 75-6

Tennessee library council and TVA specialists develop coordinated group of small libraries. il plans Arch Forum 84:118-21 Ja '46

LIBRARY cooperation

Proposal for the co-ordination of unpublished bibliographies. J. L. Thornton. J Doc 2:21-2 Je '46

What lies ahead? R. W. Christ. Special Lib 36:470-4 D '45

LIBRARY equipment. See Library fittings and supplies

LIBRARY exhibits

Program and exhibit materials on postwar housing; pamphlets and audio-visual aids. H. L. Norris. Special Lib 37:6-9 Ja '46

LIBRARY extension

Library extension, problems and solutions; papers presented before the Library institute at the University of Chicago, August 21-26, 1944. C. B. Joeckel, ed. 260p bibliog (p241-8) $3 University of Chicago press, 5750 Ellis av, Chicago '46

LIBRARY fittings and supplies

Planning and equipment of libraries in research organizations and industrial concerns. B. Fullman. J Doc 2:68-75 S '46

Planning and equipment of research libraries and information bureaux. E. J. Carter. bibliog il plans Assn of Sp Lib & Inf Bur Proc 1945:65-73

Planning of research libraries. S. R. Pierce. Assn of Sp Lib & Inf Bur Proc 1945:73-5; Discussion. 75-6

LIBRARY of Congress

Library of Congress and the future of its catalogue. T. Besterman. J Doc 1:194-205 Mr '46

Library of Congress is the national library. L. H. Evans. il Dom Comm 34:11-14+ Ja '46

National film library; problem of selection. J. G. Bradley. Soc Motion Picture Eng J 47:63-71; Discussion. 71-2 Jl '46

Problems facing the Library of Congress. L. H. Evans. Special Lib 36:467-70 D '45

Smithsonian deposit in the Library of Congress. M. C. Leikind. Science 104:145-6 Ag 9 '46

LIBRARY publicity

Publicity primer; an a b c of telling all about the public library. M. D. Loizeaux. 3d rev ed 103p pa $1 H. W. Wilson company, New York '45

LIBRARY schools and training

Preparation of specialists for university libraries. R. B. Downs. Special Lib 37:209-13 S '46

Progress and problems in education for librarianship. J. L. Wheeler. 107p bibliog(98 titles, p101-7) Carnegie corporation of New York, 522 Fifth av, New York 18 '46

See also
Librarians, Special—Training

Curriculum

What courses for special librarians? Special Lib 36:480-2 D '45

LIBRARY service

Industrial sales research ammunition via the library. K. E. Ettinger. Ind Marketing 31: 31+ Ap '46

Libraries, advance scouts for research. L. O. Lewton. bibliog Chem & Met Eng 53: 112-13+ Mr '46

LIBRARY service—*Continued*
Neglected aspect of research; preliminary library research. T. Coulson. Franklin Inst J 241:187-93 Mr '46

See also
Libraries, Special—Service

LIBRARY service corporation (proposed)
Special librarian and technical progress. F. E. Fitzgerald. Special Lib 37:35-40 F '46

LICE
Antioxidants for pyrethrum powders. R. C. Bushland and others. Soap & San Chem 21:119+ N '45
Control of body lice; abstract. J. R. Busvine. Soap & San Chem 22:131 Mr '46
Lice on body and hair. G. W. Eddy and R. C. Bushland. Soap & San Chem 22:157 O '46

LICENSE and permit bonds. See Insurance, Surety and fidelity—License and permit bonds

LICENSES
See also
Engineers—Registration

LICK mountains
Structure of Lick mountains, Virginia. G. W. Stose. maps diags Am J Sci 244:189-99 Mr '46

LICORICE root
Spent licorice root; abstract. P. A. Houseman. Paper Ind 27:1910 Mr '46

LIEBEN, Adolf, 1836-1914
Adolph Lieben. M. Kohn. bibliog J Chem Educ 22:562-4 N '45

LIENS
See also
Factors' liens

LIFE advertisers association. See Life insurance advertisers association

LIFE expectancy. See Longevity

LIFE insurance. See Insurance, Life

LIFE insurance advertisers association
Annual meeting, 12th, New York, Nov. 12-14. East Underw 46:4, 16-17 N 16; 15 N 23 '45; Nat Underw (Life ed) 49:1+ N 16 '45; Weekly Underw 153:1160+ N 17 '45
Annual meeting, 13th, Chicago, Oct. 24-25. East Underw 47:3-4+ N 1 '46; Nat Underw (Life ed) 50:2, 23 N 1 '46; Spectator (Life ed) 154:18-22+ N '46
Forums feature L.I.A. Southern round table session. Nat Underw (Life ed) 50:1. 17 My 17 '46

LIFE insurance agency management association (formerly Association of life agency officers and Life insurance sales research bureau)
Final joint meeting of Association of life agency officers and Life insurance sales research bureau, Chicago, Nov. 12-16. East Underw 46:3, 12 N 16 '45; Weekly Underw 153:1165+ N 17 '45
Life insurance sales group. Ptr Ink 213: 54 N 23 '45
Meeting, Chicago, March 21-22. Nat Underw (Life ed) 50:1+ Mr 29 '46; Weekly Underw 154:842 Mr 30 '46
Merger effected of two agency executives groups. Nat Underw (Life ed) 49:1+ N 16 '45; East Underw 46:1+ N 16 '45; Weekly Underw 153:1164+ N 17 '45
Zimmerman to high post in new agency body; other appointments. Nat Underw (Life ed) 49:1+ D 28 '45; East Underw 46: 1+ D 28 '45; Weekly Underw 153:1543 D 29 '45

LIFE insurance association of America
Annual meeting, New York. Nat Underw (Life ed) 49:1+ D 21 '45
Joint committees of ALC and LIAA. East Underw 47:18 Mr 1 '46
Satterfield now executive director; Bruce Shepherd, manager. Nat Underw (Life ed) 49:1+ N 23 '45; East Underw 46:6 N 23 '45

LIFE insurance company of Virginia
Historical sketch. il Spectator (Life ed) 153:31+ My '46

LIFE insurance medical research fund. See Insurance, Life—Medical research

LIFE insurance sales research bureau. See Life insurance agency management association

LIFE international (periodical)
Export edition of *Life* magazine will carry special ads. Ptr Ink 215:111+ Ap 26 '46

LIFE office management association
Annual conference, 23d, Milwaukee, Sept. 23-25. East Underw 47:3+ S 27 '46; Nat Underw (Life ed) 50:1+ S 27 '46; Weekly Underw 155:770-4 S 28 '46

LIFE preservers
Midget life saver; carbon-dioxide life belt. il Comp Air Mag 51:166 Je '46
Researches of Mellon institute, 1945-1946; progress in life preserver research. il Chem & Eng N 24:911 Ap 10 '46

LIFE underwriters association of the city of New York
Annual sales congress, 26th. East Underw 47:6-7 Mr 15 '46; Nat Underw (Life ed) 50:12+ Mr 15; 3+ Mr 22 '46
New officers. pors East Underw 47:4+ Je 14 '46

LIFWYNN eye-movement camera. See Cameras

LIGHT
Carbon arc as a standard of light and radiation. Light & Lighting 39:44 Mr '46
Plastic filters for the visible and near infrared regions. J. H. Shenk and others. Opt Soc Am J 36:569-75 O '46
Radioactive light sources. M. Blau and I. Feuer. diag Opt Soc Am J 36:576-80 O '46
Theory of light absorption; abstract. E. J. Bowen. Light & Lighting 39:45 Mr '46
Transmission of light by superconducting lead films. A. Wexler. bibliog Phys R 70: 219 Ag 1 '46

See also
Brightness
Color
Daylight
Depolarization (light)
Dyes, Fastness of
Eye
Fluorescence
Glare
Lighting
Luminescence
Optics
Paper, Effect of light on
Photoelectric cells
Photography
Photometry
Radiation
Radioactivity
Reflection (optics)
Refractive index
Rubber, Effect of light on
Spectrum
Stroboscopic instruments
Ultraviolet rays
X rays

Absorption

See Absorption of rays

LIGHT, Colored
Public lighting for the victory celebrations in London as designed and executed by the Ministry of works. R. W. Ames. il diags Light & Lighting 39:117-30 Jl '46
Stage and colour lighting; new automatic change system. il Electrician 136:523-4 Mr 1 '46

LIGHT, Scattering of
Depolarization of light scattered from polymer solutions. P. Doty and H. S. Kaufman. bibliog diag J Phys Chem 49:583-95 N '45
Light scattering and absorption coefficients from reflectance data; optical properties of paper. W. B. Campbell and J. Benny. Pulp & Pa of Can 47:74-8 Je '46
Light scattering investigation of cellulose acetate. R. S. Stein and P. Doty. bibliog diags Am Chem Soc J 68:159-67 F '46
Light scattering of high polymer solutions. J. Waser and others. J Chem Phys 14:43-5 Ja '46
Modified Rayleigh scattering in a liquid. D. H. Rank. bibliog il diag Opt Soc Am J 36: 299-301 My '46
Observations on the angular scattering of light by sulfur sols. V. K. LaMer and I. Johnson. Am Chem Soc J 67:2055-6 N '45
Particle size by spectral transmission. E. D. Bailey. bibliog diag Ind & Eng Chem Anal ed 18:365-70 Je '46

LIGHT, Scattering of—*Continued*
Photoelectric instrument for light scattering measurements and a differential refractometer. P. P. Debye. il diags J Ap Phys 17:392-8 My '46
See also
Tyndall effect

LIGHT airplanes. See Airplanes, Light

LIGHT filters
Improvement of photographic color rendering by correction filters. A. van Kreveld. Opt Soc Am J 36:412-15 Jl '46
Near infra-red transmitting filters. E. R. Blout and others. Opt Soc Am J 36:460-4 Ag '46
Use of a constant-hue flickering filter to distinguish poor imitation from real green foliage. W. A. Shurcliff and E. I. Stearns. il Opt Soc Am J 36:478-80 Ag '46

LIGHT projection
Carbon arcs for motion picture and television studio lighting. F. T. Bowditch and others. bibliog il diag Soc Motion Picture Eng J 46:441-53 Je '46
Development of approach- and contact-light systems. F. C. Breckenridge and C. A. Douglas. il Illum Eng 40:785-829 N '45
Lighting for night construction. il Eng N 136:783 My 16 '46
New floodlight application saves lives on coal and ore unloaders. C. H. Peiffer. il Min Cong J 32:55 Ja '46
New floodlight developed for Yankee stadium. il Elec World 125:138+ My 25 '46
New lighting to aid airport operation. W. A. Pennow. il Pub Works 77:25-6 My '46
Public lighting for the victory celebrations in London as designed and executed by the Ministry of works. R. W. Ames. il diags Light & Lighting 39:117-30 Jl '46
Screen-line tests of paraboloidal reflectors. D. H. Hamsher. il diags Opt Soc Am J 36:291-5 My '46
Sports lighting load development. Elec World 126:98 Ag 31 '46
Switchyard lighting speeds rail traffic; Denver and Rio Grande railroad. L. Ragle. il Elec World 124:127 D 8 '45
See also
Buildings—Exterior lighting

LIGHT-sensitive paint. See Paint, Light-sensitive

LIGHT signals
Emergency stop warning light at head and rear ends of trains. il diags Ry Age 119: 1024-5 D 22 '45; Same. Ry Mech Eng 120:97-8 F '46
Heliographic signaling mirrors. R. S. Hunter. il diags Opt Soc Am J 36:110-15 F '46
Lights indicate building temperature. diag Elec World 125:120+ Je 8 '46
Specification of railroad signal colors and glasses. K. S. Gibson and others. bibliog diags Opt Soc Am J 35:772-95 D '45; Same. J Res Nat Bur Stand 36:1-30 Ja '46

LIGHT telephone
Modulated arc lamp; caesium vapor lamp for modulated infrared-ray communication. il Electronics 19:150+ N '46

LIGHTHOUSES
Engineering work of the Clyde lighthouses trust. D. A. Stevenson. Engineer 180:425-6 N 23 '45; Same. Engineering 160:429, 443 N 23-30 '45

LIGHTING
Footcandles at the eye, as a measure of glare. P. Moon and D. E. Spencer. Illum Eng 41: 180-1 F '46
Hopes of post war light sources; abstract. S. G. Hibben. Franklin Inst J 241:160-1 F '46
Illuminating engineering society, convention, London, May 14-17. Engineering 161:501 My 24 '46; Electrician 136:1296-7, 1385-8 My 17-24 '46; Elec R (Lond) 138:773-4 My 17 '46
Illuminating engineering society, London; abstracts of papers and addresses. Light & Lighting 39:83-7 My '46
Lighting and brightness for selling. K. C. Welch. diags Illum Eng 41:386-418 My '46
Lighting and health. H. C. Weston. Light & Lighting 38:139 O '45
Lighting design procedure and human environment. E. R. Daggy. Illum Eng 40:949-54 D '45
Lighting for recreation; abstract. E. P. Mawson. Light & Lighting 38:142-3 O '45
New trends in lighting. il Mod Plastics 23:91-3 Mr '46
Physical society's exhibition; scientific instruments and apparatus of interest to lighting engineers. Light & Lighting 39:6-7 Ja '46
Piping light with acrylic materials. H. Pearson. il diags Mod Plastics 23:123-7 Ag '46
Popular talks at I.E.S. convention. Light & Lighting 39:78-9 My '46
Relation between illumination and vision. C. L. Crouch. bibliog il diags Illum Eng 40: 747-84 N '45; Discussion. 41:565-9 Jl '46
Report of the I.E.S. committee on progress. bibliog il diags Illum Eng 40:901-48 D '45
Sight's partner. il Nat Safety N 53:32-3+ Je '46
See also
Car lighting
Church lighting
Daylight
Electric lamps
Electric lighting
Gas lighting
Glare
also subdivision Lighting under special subjects, e.g.
Airplanes
Airports
Barracks
Drafting rooms
Electric plants (central stations)
Factories
Jewelry stores
Machine shops
House lighting
Light projection
Lighting fixtures
Mine lighting
Office lighting
Stage lighting
Windows
Moving picture studios
Moving picture theaters
Railroads
School buildings
Show windows
Store buildings
Textile mills

Bibliography
Current articles on lighting. Published in monthly numbers of Illuminating engineering

Exhibitions
Exhibition at the I.E.S. convention. il Light & Lighting 39:90-6 My '46; Electrician 136: 1298-9 My 17 '46
International lighting exposition, Chicago, April 25-30. Elec World News ed 125:9 My 4 '46

Standards
Application of the I.E.S. code to cotton spinning and weaving; abstract. N. C. Hodson. Light & Lighting 39:136 Jl '46
Brightness limitations for luminaires. C. L. Crouch. bibliog diags Illum Eng 40:427-49 Jl '45; Discussion. 41:77-81 Ja '46
Interreflection method of predetermining brightnesses and brightness-ratios; report no.3 of Committee on standards of quality and quantity for interior illumination, Illuminating engineering society. bibliog diags Illum Eng 41:361-85 My '46
Lighting performance recommendations for portable and installed residence luminaires. diags Illum Eng 41:521-48 Jl '46
New I.E.S. code. Light & Lighting 38:161-2 N '45
Visibility-levels; report no.2 of Committee on standards of quality and quantity for interior illumination, Illuminating engineering society. bibliog Illum Eng 41:351-60 My '46

Study and teaching
Better light and better sight through teaching. R. C. Putnam. Edison Elec Inst Bul 14:287-9 Ag '46

Tables, calculations, etc.
Cosine response of photocells and the photometry of linear light sources. C. A. Morton. Light & Lighting 38:157-60 N '45
Discomfort glare and angular distance of glare-source. M. Luckiesh and S. K. Guth. Illum Eng 41:485-92 Je '46
Illumination from a line source. H. Reinhardt Elec World 124:158 D 8 '45
Interreflection method of predetermining brightnesses and brightness-ratios; report no.3 of Committee on standards of quality and quantity for interior illumination, Illuminating engineering society. bibliog diags Illum Eng 41:361-85 My '46

LIGHTING—Tables, calculations, etc.—*Cont.*
Light distribution from rectangular sources. P. Moon and D. E. Spencer. bibliog diags Franklin Inst J 241:195-227 Mr '46
Light distributions in rooms. P. Moon and D. E. Spencer. diags Franklin Inst J 242: 111-41 Ag '46
Light flux distribution in a rectangular parallelepiped and its simplifying scale; tr. from Japanese by Harry Shiramizu. K. Hisano. Illum Eng 41:232-47 Mr '46
Maintenance factors. P. Moon and D. E. Spencer. Illum Eng 41:211-31 bibliog(p230) Mr '46
Method of plotting isolux curves. J. G. Holmes. diags Light & Lighting 39:158-60 S '46
Natural light reflected from the ceiling. B. F. Greene. diag Illum Eng 41:474-84 Je '46
New methods for point by point calculations. I. Goodbar. diags Illum Eng 41:39-76 Ja '46
Photometric curves. H. G. Batson. diag Elec R (Lond) 138:720-2 My 10 '46

War measures

No sinkings after the dimout. Elec West 95:92 N '45

See also
Blackouts in war

LIGHTING, Decorative
Fluorescent light display effects. H. H. Ballin. il diag Electrician 137:241-2 Jl 26 '46
Piping light with acrylic materials. H. Pearson. il diags Mod Plastics 23:123-7 Ag '46
Public lighting for the victory celebrations in London as designed and executed by the Ministry of works. R. W. Ames. il diags Light & Lighting 39:117-30 Jl '46

LIGHTING, Industrial
Designing with fluorescent lighting; supplemental lighting, drafting rooms, offices, lighting levels. M. Luckiesh. il Arch Rec 99:62-7 Ja '46
Fluorescent lighting. Nat Safety N 52:58+ D '45
Fluorescent lighting developments increase lamp output, decrease costs. A. G. Elley. il Eng N 137:105-8 Jl 25 '46
Lighting and paint. M. Luckiesh. Paint Oil & Chem R 108:92-4 N 1 '45
Lighting in industry; abstract. W. A. Allen. Light & Lighting 39:104 Je '46
Visibility-levels; report no.2 of Committee on standards of quality and quantity for interior illumination, Illuminating engineering society. bibliog Illum Eng 41:351-60 My '46
Where to sell commercial and industrial lighting. il diags Elec World 125:118-32 Ap 13 '46

See also
Drafting rooms—Lighting
Factories—Lighting
Foundries—Lighting
Machine shops—Lighting
Mine lighting
Store buildings—Lighting
Textile mills—Lighting

Portable equipment

Portable enginehouse lighting; equipment used by London Midland & Scottish railroad. il Ry Age 121:412 S 7 '46; Same. Ry Mech Eng 120:519 O '46
Up to 1,000 foot-candles intensity is used for critical seeing tasks; portable unit. il Elec World 125:138 My 11 '46

LIGHTING, Natural. See Daylight

LIGHTING engineers
Illumination engineering, a profession. H. H. Higbie. bibliog Illum Eng 40:414-19 Jl '45; Discussion. 40:420-1; 41:248-60 Jl '45, Mr '46
Public lighting engineer; his organisation, staff and training. R. Parker. Electrician 137:729-30 S 13 '46

LIGHTING fixtures
Fluorescent fixtures. il Mod Plastics 23:94-6 Mr '46
Lighting equipment. il Factory Management 104:156+ Ja '46
Lighting performance recommendations for portable and installed residence luminaires. diags Illum Eng 41:521-48 Jl '46
Lighting product display. il Elec West 97: 74-81 S '46
New hanger device allows light unit to be lowered. il Elec World News ed 126:20 O 19 '46
Pan-shaped polystyrene light shields; troffer fluorescent lighting system. C. T. Masterson. il diag Mod Plastics 23:107 Ag '46
Partners of light; plastics ideally suited for diffusers, shields, fixtures, and glowing radiant panels. C. A. Breskin. il Sci Am 174:197-200 My '46
Piping light with acrylic materials. H. Pearson. il diags Mod Plastics 23:123-7 Ag '46
Policy behind Lightolier's selective distribution program. M. Loebelson. Sales Management 57:96+ N 1 '46
Vertical plane lighting. F. G. W. Tree. diag Electrician 135:459-60 N 2 '45

See also
Street lighting fixtures

LIGHTING research
Brightness limitations for luminaires. C. L. Crouch. bibliog diags Illum Eng 40:427-49 Jl '45; Discussion. 41:77-81 Ja '46

LIGHTNING
Characteristics of lightning discharges. J. C. Buchanan. il Civil Eng 15:549-50 D '45
Lightning recorded by aeroplane propeller. J. M. Bryant and M. Newman. il J Ap Phys 17:555-7 Jl '46
What are fireballs? E. A. Logan. diags Elec R (Lond) 138:381-3 Mr 8 '46

See also
Lightning arresters
Lightning protection

LIGHTNING, Accidents from
River-channel excavation; lightning causes explosion. H. R. Johnston. il plan Civil Eng 15:547-8 D '45

LIGHTNING, Artificial
Army-navy precipitation-static project; high-voltage installation; artificial-lightning generator developed thru the University of Minnesota co-operation with Naval research laboratory. M. Newman and A. O. Kemppainen. bibliog il diags Inst Radio Eng Proc 34:247-54 My '46

LIGHTNING arresters
121-kv. lightning arresters stand without help. il Elec World News ed 126:20 S 21 '46

Testing

Portable test set for distribution arresters. W. J. Stewart. il diags Elec World 125: 90-1 F 16 '46

LIGHTNING protection
Better lightning performance of transmission lines. T. W. Schroeder. diags Elec World 126:70-2 Jl 20 '46
High-voltage research at the National physical laboratory; protection of barrage balloons and personnel against lightning. R. Davis. diags Engineer 180:435-6 N 30 '45; Same. Inst E E J 93 pt 1:184-6 Ap '46
Lightning investigations on 33-kv wood-pole lines. F. E. Andrews and G. D. McCann. bibliog il diags Elec Eng 64:Trans 768-77 N '45
Lightning performance of 220-kv transmission lines. diags Elec Eng 65:Trans 70-6 F '46
Lightning protection for primary metering cabinets. R. Pfaff and H. N. Ekvall. il diag Elec World 125:110-11 Ap 13 '46
Lightning protection of electric equipment. E. G. Merrick. diags Paper Ind 27:1034-7 O '45
Protection of structures against lightning; abstracts. R. A. Price. Electrician 136: 158 Ja 18 '46; Engineering 161:127 F 8 '46
Uninsulated guys afford lightning protection. il diag Elec World 125:94 Ja 5 '46

LIGNIN
6-Chlorovanillin from the chlorite oxidation of lignin. I. A. Pearl. Am Chem Soc J 68: 916 My '46
Electrolytic oxidation of lignin. A. Bailey and H. M. Brooks. Am Chem Soc J 68: 445-6 Mr '46
Extraction of lignin from hydrolyzed lignocellulose. R. Katzen, F. G. Sawyer and D. F. Othmer. Ind & Eng Chem 37:1218-22 D '45

LIGNIN—*Continued*
Industrial uses of alkali lignin. E. B. Brookbank. bibliog Paper Tr J 122:44-6 Mr 28 '46; Same cond. Paper Ind 28:714+ Ag '46
Influence of purified lignin on nitrification in soil. J. E. Fuller. bibliog Science 104:313-15 O 4 '46
Lignin-filled, laminated-paper plastics; cooperative report. Paper Tr J 122:35-42 Ap 4 '46; Same. Paper Ind 27:1683-9 F '46
Reaction between thio compounds and lignin. F. E. Brauns and M. A. Buchanan. bibliog Paper Tr J 122:49-52 My 23 '46; Same cond. Paper Ind 28:424+ Je '46
Separation of lignin and cellulose; recovery of methoxy lignin chloride. Chem Age (Lond) 53:481-2 N 24 '45
Stability of the methoxyl groups in methylated hydrochloric acid spruce lignin. F. E. Brauns. bibliog Am Chem Soc J 68:1721-4 S '46; Abstract. Am Dyestuff Rep 35:318 Je 17 '46
Synthetic lignin resin and plastic. A. J. Bailey and O. W. Ward. bibliog Ind & Eng Chem 37:1199-1202 D '45
Thiophenol spruce lignin. F. E. Brauns and W. H. Lane. bibliog Paper Tr J 122:38-40 F 21 '46

LIGNITE
Le bassin des lignites d'Uzès (Gard). V. Charrin. Génie Civil 123:40 F 1 '46
Ester waxes from British lignite and peat. C. M. Cawley and J. G. King. Soc Chem Ind J 64:237-42 S '45
Gasification of lignite and subbituminous coal. V. F. Parry and others. 17pls U S Bur Mines Rep of Invest 3901:1-59 '46
Inspection standards for strip mines (coal and lignite); revised, October 1945. U S Bur Mines Information Circ 7350:1-32 '46
Lignite in south France; treatment for removal of sulphur. Chem Age (Lond) 54: 215 F 23 '46
Low-cost gas from lignite; Parry process. Comp Air Mag 50:303 N '45
Use of selective solvents to extract fractions from synthetic oil from coal; tr. by J. P. Jones. E. Terres. flow sheets il Nat Pet N 38 pt 2:R84-8, R181-2+ F 6, Mr 6 '46

LIGNOCELLULOSE
Extraction of lignin from hydrolyzed lignocellulose. R. Katzen, F. G. Sawyer and D. F. Othmer. Ind & Eng Chem 37:1218-22 D '45

LIGNOSULFONIC acids
Oxidation of lignin sulfonic acids by periodic acid. D. Pennington and D. M. Ritter. Am Chem Soc J 68:1391 Jl '46

LILLY, Eli, award
Eli Lilly and company award in bacteriology and immunology. Science 104:294 S 27 '46

LILLY, Josiah Kirby, 1861-
J. K. Lilly observes 70th year with firm. por Oil Paint & Drug Rep 149:3+ My 27 '46

LILY-tulip cup corporation
Further growth. Barron's 25:18 D 10 '45

LIMA beans
Nutritive value of canned foods; influence of temperature and time of storage on vitamin contents. N. B. Guerrant, M. G. Vavich and R. A. Dutcher. bibliog Ind & Eng Chem 37:1240-3 D '45
Seed pitting of the lima bean by lygus bugs in California. K. F. Baker and W. C. Snyder. bibliog Science 103:500-1 Ap 26 '46

LIME
Correct low lime slurry; chart. Rock Prod 48: 108 O '45
Defecation of refinery sirups; phosphoric acid and lime as pipe line defecants. G. G. Halvorsen and A. R. Bollaert. bibliog diag Ind & Eng Chem 38:385-9 Ap '46
Device for feeding lime solution into mains. E. T. Cranch. il Water & Sewage Works 93:R115 Ap '46
Lime hydrolysis of soybean protein; foaming properties of the hydrolyzate. J. M. Perri, jr. and F. Hazel. bibliog diags Ind & Eng Chem 38:549-54 My '46
Lime recovery from sludges. Chem & Eng N 24:2826 O 25 '46
Phase equilibrium relations in a portion of the system Na_2O-CaO-Al_2O_3-SiO_2. K. T. Greene and R. H. Bogue. bibliog J Res Nat Bur Stand 36:185-207 F '46
Report on studies of ternary system CaO-C_5A_3-C_2F; quaternary system CaO-C_5A_3-C_2F-C_2S; quaternary system as modified by 5% magnesia. M. A. Swayze. bibliog pl Am J Sci 244:1-30, 65-94 Ja-F '46
Solubility of lime in textile scouring liquors; abstract. R. G. Fargher and F. W. Thomas. Chem & Ind p87 F 23 '46
Studies of binary and ternary combinations of magnesia, calcia, baria, beryllia, alumina, thoria and zirconia in relation to their use as porcelains. R. F. Geller and others. bibliog pls diags J Res Nat Bur Stand 36: 277-312 Mr '46
Treatment of spent pickling liquors [résumé of two papers in Industrial and engineering chemistry, March, 1944 and June, 1945]. R. D. Hoak, C. J. Lewis and W. W. Hodge. Steel 118:104+ F 11 '46
Use of lime to eliminate small mud balls in filters. A. E. Clark. Water & Sewage Works 93:186 My '46
X-ray diffraction data for compounds in the system CaO-MgO-SiO_2. C. B. Clark. Am Cer Soc J 29:25-30 Ja 1 '46

Manufacture
Economical manufacture of quality lime. V. J. Azbe. plans diags Rock Prod 48:92-4+ Ag; 81-2+ S; 102+ O; 95-6+ N '45; 49:113-15 Ja; 90-1+ F '46
Estimating best output and fuel rates of dry feed lime kilns. R. Gibbs. il Chem & Met Eng 53:99-101 Ap; 139-41 My '46
See also
Lime kilns
Lime plants

Testing
Properties of highly hydrated dolomitic masonry limes and certain of their cement-lime mortars. G. J. Fink and E. Trattner. bibliog Am Soc T M Proc 45:723-31 '45

LIME as fertilizer
Agricultural limestone a fifty million ton market. B. Nordberg. il Rock Prod 49:84-5 Ap '46
Agricultural limestone; a life-giving grist. W. A. Albrecht. il diag Rock Prod 48:92-4+ O '45
Agstone production; J. Jeffrey, uses both hammermill and rolls. il Rock Prod 49:76-7 O '46
Fifty million tons market; first annual convention of Agricultural limestone division, National crushed stone assn. Rock Prod 49:74-6+ Mr '46
Government wants more production; soil requirements. G. Smith. Rock Prod 49:89-97 Ap '46
Impact primary produces cubical products; McCorkle stone co. produces agricultural limestone. R. S. Torgerson. il Rock Prod 48:66-7+ N '45
Lime for the land; electrical applications to limestone mining and preparation. il Elec R (Lond) 137:731-5 N 23 '45
Move plants closer to markets; Concrete materials and construction co. produces agstone. R. S. Torgerson. il Rock Prod 49: 86-8 Ap '46
Ohio agstone conference. Rock Prod 49:67+ F '46
Processing soft limestone; Schield soft limestone co. R. S. Torgerson. il Rock Prod 49:95-7 Ap '46
Produce agricultural limestone; by-product in quarrying cement rock; Carney co. R. S. Torgerson. il Rock Prod 49:110-12 Ja '46
Rate of carbonation of lime in agricultural practice. H. F. Taylor. Chem & Ind p349 S 21 '46
Sales promotion needed for future market. P. E. Heim. il Rock Prod 49:98-102 Ap '46

LIME hydrators. See Hydrators, Lime

LIME industry and trade

Advertising
Sales promotion needed for future market. P. E. Heim. il Rock Prod 49:98-102 Ap '46

LIME industry and trade—*Continued*

History

Fifty years of progress; hydrated lime, an important development. diag Rock Prod 49: 108+ Je '46

LIME kilns

Developing maximum rotary kiln capacity. V. J. Azbe. Rock Prod 49:80-1 Jl; 90-1 Ag '46

Economical manufacture of quality lime. V. J. Azbe. plans diags Rock Prod 48:92-4+ Ag; 81-2+ S; 102+ O; 95-6+ N '45; 49:113-15 Ja; 90-1+ F '46

Estimating best output and fuel rates of dry feed [and wet feed] lime kilns. R. Gibbs. il Chem & Met Eng 53:99-101 Ap; 139-41 My '46

Laboratory corrosion tests of rotary lime-kiln refractories. G. R. Pole and A. W. Beinlich, jr. il Am Cer Soc J 28:357-60 D 1 '45

Producing lime in rotary kilns; abstract. W. R. Cliffe. Rock Prod 49:100+ My '46

Production and fuel rates of rotary kilns burning lime sludge. R. Gibbs. diags Paper Tr J 122:37-40 My 2 '46; Same cond. Paper Ind 28:422+ Je '46

Scaffolding for kiln repairs. diag Rock Prod 49:50 S '46

Firing

Manufacturing quality lime; firing lime kilns with oil and producer gas. V. J. Azbe. plans diags Rock Prod 49:113-15 Ja '46

LIME oil

Constituents of expressed West Indian lime oil. A. G. Caldwell and E. R. H. Jones. Chem Soc J p540-3 Ag '45

LIME plants

Fine grinding improves product; Toms Brook lime and stone co. H. E. Swanson. il Rock Prod 49:92-4 Ap '46

Move plants closer to markets; Concrete materials and construction co. produces agstone. R. S. Torgerson. il Rock Prod 49: 86-8 Ap '46

Processing soft limestone; Schield soft limestone co. R. S. Torgerson. il Rock Prod 49:95-7 Ap '46

Equipment

Largest hydration plant in Mexico; Calidra, S.A. M. R. Nuñez. il Rock Prod 49:84-5 O '46

Lime hydrating systems. G. R. Lacy. diags Rock Prod 49:68-70 S '46

LIMESTONE

Artificial recharge of artesian limestone at Orlando, Florida. A. G. Unklesbay and H. H. Cooper, jr. bibliog maps Econ Geol 41: 293-307 Je '46

Effect of moisture on thermal conductivity of limerock concrete. M. Tyner. bibliog il diags Am Concrete Inst J 18:9-18 S '46

Limestone and hard rocks in Missouri. H. E. Swanson and N. C. Rockwood. map Rock Prod 49:98-100 O '46

Limestone replacements refute theories of origin. B. Prescott. Eng & Min J 147:86-9+ Ap '46

Mining and quarrying Greenbrier limestone; Acme limestone company. R. H. Counts. il Explosives Eng 24:9-12+ Ja '46

Mining limestone by shrinkage stoping method. A. C. Hewitt. il plan Explosives Eng 23:246-9+ N '45

Plant practices in Missouri. H. E. Swanson and N. C. Rockwood. flow sheet il Rock Prod 49:103-4+ O '46

Porosity through dolomitization. K. K. Landes. bibliog map Am Assn Pet Geologists Bul 30:305-18 Mr '46

Quimbys mill, new member of Platteville formation, upper Mississippi valley. A. F. Agnew and A. V. Heyl, jr. diag Am Assn Pet Geologists Bul 30:1585-7 S '46

Stone deposits of Oklahoma. N. C. Rockwood and H. E. Swanson. il Rock Prod 49:97-100 F '46

Treatment of spent pickling liquors [résumé of two papers in Industrial and engineering chemistry, March, 1944 and June, 1945]. R. D. Hoak, C. J. Lewis and W. W. Hodge. Steel 118:104+ F 11 '46

Two plants in one; Campbell limestone co. H. E. Swanson. il flow sheet Rock Prod 49:58-9+ S '46

Analysis

Determining ferric oxide in clay and limestone. R. A. Loveland. Rock Prod 49:109 Ja '46

LIMITATION of actions

Gwynne bill drastically modified by Senate. Oil Paint & Drug Rep 150:3+ Ag 5 '46

Gwynne bill providing 2-year limitation statute passes House. Oil Paint & Drug Rep 149:3+ My 27 '46

State statute of limitations inapplicable where enforcement of federal equitable rights involved. Banking Law J 63:469-74 Je '46

Statute of limitations not tolled against United States as holder in due course of notes. Banking Law J 62:881-3 N '45

LIMITERS, Electric current. See Electric current limiters

LIMNOLOGICAL society of America

Annual meeting, 8th, St Louis; officers elected. Science 103:516 Ap 26 '46

LIMNOSCELIS paludis

Primitive reptile limnoscelis restudied. A. S. Romer. bibliog diags Am J Sci 244:149-88 Mr '46

LINCOLN, Abraham, 1809-1865

Carding mill connected with life of Abraham Lincoln; early wool mill restored in New Salem village. C. C. Hall. il Textile World 96:141+ F '46

LINDQUIST, Mel B.

Ford employs new strategy; negotiations with C.I.O.'s U.A.W. por Bsns W p96+ D 8 '45

LINEMEN

Linemen trained on model line. A. W. Chewning. il Elec World 124:96+ D 22 '45

Lineman training course combines class and practice; Oklahoma gas & electric co. R. F. Danner. il Elec World 126:82-4 O 12 '46

Personnel carrier for large line crews. E. W. Templin and I. L. Bateman. il diags Elec World 125:58-9 Ja 5 '46

Winning their spurs; linemen's school of the Hydro electric power commission of Ontario. il Nat Safety N 54:26-7+ S '46

LINEMEN'S equipment

Jumper makes speedy connection; minimizes arcing. il Elec World 125:134 Je 8 '46

Lineman's best friends. G. Thompson. il Nat Safety N 52:28-9+ D '45; Same abr. Ind Stand 16:225-7 O '45; Same abr. Safety Eng 91:19-21 F '46

Rubber situation in relation to linemen's protective devices. T. R. Claffy. Edison Elec Inst Bul 14:87-8 Mr '46

LINEN

See also
Flax

LINEN thread

Testing

Testing of linen sole threads for strength and variability. R. G. Mitton. il Textile Inst J 37:T25-38 F '46

LINK belt company

Fairbanks-Morse vs. Link-Belt; comparative audit. S. Devlin. Mag of Wall St 77:398-400+ Ja 5 '46

Thumbnail stock appraisal. Mag of Wall St 78:214 My 25 '46

LINKANOE. See Canoes, Plastic

LINKS and link motion

Compound adjustments made to linkage output with movable fulcrums. il diags Product Eng 17:92-3 S '46

LINOLEIC acid

Analysis

Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain elaeostearic as well as linoleic and oleic acids. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 65:74-81 Mr '46

Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain linolenic as well as linoleic and oleic acids. F. D. Gunstone and T. P. Hilditch. Soc Chem Ind J 65:8-13 Ja '46

LINOLENIC acid

Analysis

Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain linolenic as well as linoleic and oleic acids. F. D. Gunstone and T. P. Hilditch. Soc Chem Ind J 65:8-13 Ja '46

LINOLEUM

Manufacture

High concrete walls partition building into curing chambers for linoleum; Congoleum-Nairn, inc. il diags Eng N 136:978-80 Je 27 '46

LINSEED. See Flaxseed

LINSEED oil

Activation of linseed oil by sulfur dioxide; abstract. L. I. Waterman, C. van Vlodrop and M. J. Pfauth. Paint Oil & Chem R 109: 18B+ Mr 7 '46

Aluminum number of oxidized linseed oil. Paint Oil & Chem R 108:12 D 27 '45

Bonding properties of mixtures of petroleum extracts and linseed oil and of the extracts themselves. W. Davies and W. J. Rees. diags Iron & Steel Inst J 150:49-68 no 2 '44

Catalytic isomerization of vegetable oils; evaluation of oils in bodying, varnishes and alkyd resins. L. B. Falkenburg and others. bibliog il Ind & Eng Chem 38:1002-9 O '46

Catalytic isomerization of vegetable oils; nickel catalysts. S. B. Radlove and others. bibliog flow sheet diag Ind & Eng Chem 38:997-1002 O '46

CPA advisory committee discusses linseed oil; abstract. Paint Oil & Chem R 109:28 Ap 4 '46

Drying oil and oleoresinous varnish films; increase in acidity on aging. V. J. Frilette. bibliog Ind & Eng Chem 38:493-6 My '46

Impregnation of magnesium alloy castings; copolymer of styrene and linseed oil. H. Dobkin. diags Foundry 74:84-5+ N '46

Influence of driers upon polymerization of linseed oil by sunlight; abstract. J. Rinse. Paint Oil & Chem R 109:40 My 30 '46

Linseed oil control revocation asked. Oil Paint & Drug Rep 150:5+ Jl 1 '46

Monolayers of oxidized and heat-bodied linseed oil. D. C. Lichtenwalner and others. bibliog J Phys Chem 49:511-19 N '45

Polymerization of drying oils; rubberlike product from vegetable oils, Norepol. J. C. Cowan, W. C. Ault and H. M. Teeter. bibliog flow sheet il Ind & Eng Chem 38: 1138-44 N '46

Printing ink makers seek linseed substitute. Oil Paint & Drug Rep 150:3+ O 28 '46

Segregation of linseed oil glycerides by chromatography; abstract. F. T. Walker. Paint Oil & Chem R 108:9-10 N 29 '45

Specific heats of vegetable oils from 0° to 280° C. P. E. Clark, C. R. Waldeland and R. P. Cross. bibliog diag Ind & Eng Chem 38:350-3 Mr '46

Viscosity of linseed stand oil at high shearing stresses. D. Tollenaar and H. Bolthof. bibliog Ind & Eng Chem 38:851-3 Ag '46

What's ahead in raw materials. T. L. Daniels. Paint Oil & Chem R 108:58+ N 1 '45

World in scramble for scarce linseed oil. Barron's 26:9 N 11 '46

LINT

Dry chemicals extinguish textile lint fires; powder propelled by carbon dioxide. R. G. Shepherd. il Textile World 96:114-15 O '46

LINTELS

Clay tile lintels; diagrams and table. Brick & Clay Rec 109:31 S '46

LION oil company

Expands into chemical field. il Manuf Rec 115:44-5+ O '46

LIPIDES

Changes in stored dried eggs; spectrophotometric and fluorometric measurement of changes in lipides. H. J. Dutton and B. G. Edwards. bibliog flow sheet Ind & Eng Chem 37:1123-6 N '45

Dehydrated egg powders; relation of lipide and salt-water fluorescence values to palatability. M. M. Boggs and others. bibliog Ind & Eng Chem 38:1082-4 O '46

Dehydrated egg powders; sources of off-flavors developed during storage. H. L. Fevold and others. bibliog Ind & Eng Chem 38:1079-82 O '46

Determination of carotenoids and lipid amine-aldehyde products in dehydrated egg. H. J. Dutton and B. G. Edwards. bibliog Ind & Eng Chem Anal ed 18:38-41 Ja '46

LIPOPROTEINS

Preparation and properties of serum and plasma proteins; a system for the separation into fractions of the protein and lipoprotein components of biological tissues and fluids. E. J. Cohn and others. bibliog Am Chem Soc J 68:459-75 Mr '46

LIPSTICKS

Milkmaid makes cosmetic news with color-constant lipstick T. Armstrong. il Sales Management 55:43-4 D 1 '45

LIQUEFIED petroleum gas

Absorption plant aids gas conservation. W. J. Davis. il Pet Eng 17:199+ My '46

Bottled gas grabs a market. Bsns W p21 N 2 '46

California Natural gasoline association fall meeting, Los Angeles, Oct. 11. Oil & Gas J 45:99+ O 19 '46

Design of concrete piers for horizontal storage tanks. O. L. Garretson and H. R. Zeigler. il Pet Refiner 25:131-3 S '46

Lighter hydrocarbons have taken on a lot of weight. G. G. Oberfell and R. W. Thomas. Pet Eng (Ref annual) 17:248+ Jl 1 '46; Same. Pet Refiner 25:158+ Je '46; Abstracts. Nat Pet N 38:22+ Je 12 '46; Oil & Gas J 45:60-1 Je 8 '46

Liquefied petroleum gas and natural-gasoline specifications. Oil & Gas J 44:87 Ja 5 '46

Liquefied petroleum gas association, annual meeting, Colorado Springs, May 27-29. Nat Pet N 38:16 Je 5 '46

Liquefied petroleum gas industry and its peacetime problems. F. E. Fisher and J. W. Vaiden. Pet Eng 17:116-17 Ja '46

Liquefied petroleum gas, it's future in the gas industry. F. E. Drake. flow diag il Am Gas J 165:15-18+ O '46

Liquefied petroleum gas; its relation to the manufactured gas industry. F. E. Drake. Gas Age 96:15-17+ N 29 '45; Same. Am Gas J 163:11-15 D '45

LP gas plant and distribution practice; Philadelphia electric company. E. G. Boyer. il diag Am Gas Assn Mo 28:315-20+ Jl-Ag '46; Same cond. Am Gas J 165:31-5 Jl '46

Liquefied petroleum gas sales in 1945 up 21.4 per cent over 1944. G. G. Oberfell and R. W. Thomas. il Oil & Gas J 44:64-6+ Ja 12 '46; Same. Gas Age 97:47-8+ Ja 24 '46; Same. Pet Eng 17:59+ Ja '46; Same. Pet Refiner 25:137-8+ Ja '46

Liquefied petroleum gases in water gas production. K. Richter. Gas Age 96:25+ N 29 '45; Same. Am Gas J 163:15-16 D '45

Many new marketers and distributors entering LPG business; with tabulated statistics, 1922-1945. il Nat Pet N 38:36+ Ja 9 '46

Natural-gasoline industry looks two ways in seeking outlets for products. J. H. Dunn. Oil & Gas J 44:112-14+ Ap 20 '46; Same. Nat Pet N 38 pt 2:R380-4+ My 1 '46

New cycling plant conserves gas; produces 300,000 gal. products daily; Sheridan condensate field, Texas. A. L. Foster. il diag Oil & Gas J 45:60-2+ Je 1 '46

New Gulf Coast gasoline plant serves three fields. E. H. Short, jr. flow chart il map Oil & Gas J 45:114-17+ My 25 '46

Peak and base load gas production past and future. E. G. Boyer. Gas Age 98:31-5+ Jl 11 '46

Plans and opportunities for natural-gasoline and cycling industries. J. H. Dunn. Pet Refiner 25:143-4+ My '46

Postwar LPG market offers opportunities for the specialist. M. N. Beeler. il Nat Pet N 38:41+ Mr 13 '46

Sales of liquefied petroleum gases in the United States, 1938-44. Chem Ind 57:957 N '45

Shell cycling plant designed for high pressure absorption. C. C. Pryor. flow diag il Pet Refiner 25:117-23 Ap '46

Stretching the market for appliances and equipment beyond the gas mains. K. W. Rugh. Gas Age 98:25-7+ Jl 11 '46

LIQUEFIED petroleum gas—*Continued*
Utilization of LP-gas by the manufactured gas industry. A. R. Stryker. Gas Age 96: 46-9+ D 13 '45
Utilization of LP-gas by the natural gas industry. F. E. Drake. Gas Age 97:22-4+ My 30 '46
Volatile hydrocarbons separated from condensate at Sheridan cycling plant. W. J. Davis. il plan Pet Eng 17:103+ Ap '46

Bibliography

LP-gas for the manufactured gas industry. Am Gas Assn Mo 28:139 Mr '46

Directories

Producers of liquefied petroleum gases. A. C. Coumbe, comp. Pet Eng 17:299-300 Mr '46

Odorizing

Inexpensive burette dispenses LPG odorant in measured amounts, prevents losses. diag Nat Pet N 38 pt 2:R498 Jl 3 '46

LIQUID air
Oxygen by fractionation at low pressures; liquid air portable unit, M-7. W. E. Lobo. il diag Chem Ind 59:53-6 Jl '46
Precautions for safety in handling liquid air. A. A. Rapp. il Steel 118:124 F 11 '46

LIQUID argon. See Argon, Liquid

LIQUID assets. See Assets, Liquid

LIQUID carbonic corporation
Stock issue placed. Comm & Fin Chr 163:654 F 4 '46

LIQUID fuel
Bureau of mines gets ammonia plant to make synthetic fuels survey. Nat Pet N 37:34 N 28 '45
Bureau of mines liquid fuels program. Chem & Eng N 24:486 F 25 '46
Commission studies future liquid fuel supplies. Chem Ind 59:498+ S '46
Germany's Fischer-Tropsch process. E. Cotton. flow diags il diags Nat Pet N 38 pt 2: R425-6+ Je 5 '46
Hirst to head hydrogenation plant to be established by U. S. Bureau of mines. Coal Age 51:132+ Ja '46
Liquid fuel purification. B. F. Hunter. il diags Power Pl Eng 49:130+ N '45
Missouri ordnance works becomes Bureau of mines demonstration plant. Chem & Eng N 24:39 Ja 10 '46
New plant will provide pattern for synthetic-liquid fuels industry. F. R. Staley. flow diag il Oil & Gas J 44:118+ Ap 27 '46
Oil from coal nearer as development work gathers momentum. J. Randolph. il Coal Age 51:86-91 Ag '46
Permanent buildings taking a big share of funds for Bureau of mines program for development of synthetic liquid fuels. Nat Pet N 38 pt 2:R173-4+ Mr 6 '46
Production of petrol and oil substitutes from rubber. W. H. Nightingale. Chem & Ind p9 Ja 5 '46
Review of Fischer-Tropsch and related processes for synthetic liquid fuel production. N. R. Golumbic. bibliog 4pls U S Bur Mines Information Circ 7366:1-24 '46
Synthetic fuel plants. Chem & Eng N 23: 2349+ D 25 '45
Synthetic liquid fuels and lubricants in Germany. W. C. Schroeder. Am Gas J 163:28 D '45; Excerpt. Gas Age 96:21 N 29 '45
Synthetic liquid fuels and the manufactured gas industry. B. Miller. Gas Age 97:19-21+ F 21 '46
Utilization of natural gas in the United States. G. G. Oberfell. Gas Age 97:27-9 Ja 10 '46; Same. Nat Pet N 38 pt 2:R48-50 Ja 2 '46; Same. Pet Eng 17:170+ Ja '46; Same. Pet Refiner 25:101-3 Ja '46; Same. Min & Met 27:169-70 Mr '46; Same cond. Am Gas Assn Mo 28:7-13 Ja '46; Same cond. Oil & Gas J 44:76-8 D 15 '45

See also
Acetylene
Airplane engines—Fuel
Automobile engines—Fuel
Automotive fuel
Benzol (commercial benzene)
Coal liquefaction
Diesel engines—Fuel
Fischer-Tropsch process
Gasoline
Internal combustion engines—Fuel
Kerosene
Liquefied petroleum gas
Oil burners
Oil fuel

Bibliography

Bibliography of Bureau of mines investigations on the production of liquid fuels from oil shale, coal, lignite, and natural gas. A. C. Fieldner and P. L. Fisher. bibliog (236 titles) U S Bur Mines Information Circ 7304:1-18 '45

LIQUID heat. See Tetracresyl silicate

LIQUID helium. See Helium, Liquid

LIQUID level control
Electronic probe controls liquid levels. diags Product Eng 17:93 O '46

LIQUID level indicators
Averaging liquid level control. J. G. Ziegler. il diags Ind & Eng Chem 38:360-4 Ap '46
How does level indicator work on brine cooler? F. M. Bennett. diag Power Pl Eng 49:124+ D '45
Liquid level gage gives continuous readings. H. F. Reichard. diag Chem Eng 53:129 Ag '46
New fuel gauge for aircraft; Pacitor gauge. il diag Engineer 181:204-5 Mr 1 '46; Engineering 162:31-3 Jl 12 '46
Nivometer, for measuring the level of a liquid in a vessel under pressure; abstract. A. Spoerli. Materials & Methods 23:1110 Ap '46
Rotary gauge indicates hydrofluoric acid level in process vessel. il diag Pet Refiner 25: 138+ Jl '46
Selection and application of refinery instruments. A. Krieg. diags Pet Eng 17:93-4+ Mr '46
Selection, installation and maintenance of refinery process control instruments. E. Bainbridge. diags Pet Refiner 25:105-8 Mr '46
Tank contents gauge; Pacitor gauge. il Elec R (Lond) 138:347 Mr 1 '46; Electrician 136: 970 Ap 12 '46

LIQUID soap. See Soap, Liquid

LIQUIDITY (economics)

See also
Assets, Liquid

LIQUIDS
Correlating viscosity and vapor pressure of liquids. D. F. Othmer and J. W. Conwell. bibliog Ind & Eng Chem 37:1112-15 N '45
Correlation of viscosities of liquids with temperatures. M. S. Telang. bibliog J Phys Chem 49:579-82 N '45
Dependence of the viscosities of liquids on reduced temperature, and a relation between viscosity, density, and chemical constitution. L. H. Thomas. bibliog Chem Soc J p573-9 Jl '46
Device for determining vapor pressure of one drop of pure liquid. S. Natelson and J. L. Zuckerman. bibliog diags Ind & Eng Chem Anal ed 17:739-40 N '45
Equation for the line of saturation of liquids and vapors. J. E. Haggenmacher. Am Chem Soc J 68:1123-6 Je '46
Evaporation of liquids in currents of air. S. H. Wade. il Inst Chem Eng Trans 20:1-8; Discussion. 9-13 '42
Flow of liquids through vertical circular orifices and triangular weirs. F. W. Greve. il diag Purdue Univ Eng Exp Sta, Research Ser 95:1-67 '45 (pa 50c)
Free volume and entropy in condensed systems; entropy in binary liquid mixtures; partial molal entropy in dilute solutions; structure and thermodynamics in aqueous electrolytes. H. S. Frank and M. W. Evans. bibliog J Chem Phys 13:507-32 N '45
Free volume and entropy in condensed systems; entropy of vaporization in liquids and the pictorial theory of the liquid state. H. S. Frank. bibliog diags J Chem Phys 13:493-507 N '45
Heat transfer and pressure drop of liquids in double-pipe fin-tube exchangers. B. De Lorenzo and E. D. Anderson. bibliog il diags A S M E Trans 67:697-702 N '45

LIQUIDS—*Continued*
Heat transfer to liquids boiling under pressure. M. T. Cichelli and C. F. Bonilla. bibliog Am Inst Chem Eng Trans 41:755-87 D '45
Infra-red absorption cell for liquids. N. D. Coggeshall. il diags R Sci Instr 17:343-4 S '46
Infrared emission spectra of liquids. S. F. Kapff. Science 104:274 S 20 '46
Liquid association and the critical temperature. F. Brescia. bibliog J Chem Phys 14: 501-2 Ag '46
Liquid-liquid extraction in spray towers. H. F. Johnson, jr. and H. Bliss. bibliog flow sheet diags Am Inst Chem Eng Trans 42: 331-58 Ap '46
Method of estimating the Prandtl number of liquids. K. G. Denbigh. Soc Chem Ind J 65:61-3 F '46
Mixing liquids in shallow tanks aided by design analysis. E. S. Bissel and others. il Chem & Met Eng 53:118-19 Ja '46
On the application and derivation of the new viscosity-temperature relationship of liquids. M. S. Telang. bibliog(72 references) J Phys Chem 50:373-86 Jl '46
Recent work in the field of high pressures; volumetric effects in liquids. P. W. Bridgman. bibliog Rs Mod Phys 18:13-18 Ja '46
Resistance coefficients and flow of liquids in pipe systems. V. Tatarinov. diags Product Eng 17:406-11 My '46
Solubilization of insoluble organic liquids by detergents. J. W. McBain and P. H. Richards. bibliog Ind & Eng Chem 38:642-6 Je '46
Studies in vapor-liquid equilibria. T. T. Puck and H. Wise. bibliog diag J Phys Chem 50:329-39 Jl '46
Ultrasonic propagation in liquids; application of pulse technique to velocity and absorption measurements at 15 megacycles. J. R. Pellam and J. K. Galt. il diags J Chem Phys 14:608-14 O '46
Ultrasonic propagation in liquids; theoretical study of the free volume model of the liquid state. C. Kittel. bibliog J Chem Phys 14: 614-24 O '46

See also
Brownian movements
Dew points
Emulsions
Equation of state
Films
Fluids
Hydraulics
Hydrodynamics
Inflammable liquids
Liquid fuel
Solution (chemistry)
Solvents
Surface tension
Viscosity

Viscosity

See Viscosity

LIQUIDS, Inflammable. See Inflammable liquids

LIQUOR traffic
Federal taxation of public business enterprises; Saratoga Springs case may lead to removal of discriminatory exemptions enjoyed by state, municipal, and coöperative commercial projects. L. Gates. Pub Util 38:18-20 Jl 4 '46
Value of banking counsel to business; case of wholesalers of wine and spirits. J. W. Minton. Banking 38:128-9 F '46

See also
Beer
Brewing industries
Distilling industries
Whisky
Wine

Advertising
Anti-liquor advertising drive to use five million protest stickers. Ptr Ink 214:122 F 22 '46
Match-book messages on racial intolerance may extend to other media; liquor distributor to test before-and-after effect. E. Cunningham. il Ptr Ink 213:24 D 7 '45
Product expenditures of newspaper advertisers in 1945; alcoholic beverages. Ptr Ink 215:57-8 My 3 '46

Taxation
State liquor profits considered open to U.S. taxes; Kentucky contemplates device to avoid being subjected to levy. E. R. Abrams. Barron's 26:11+ F 4 '46

British Guiana
Alcoholic-beverage industry and trade. For Comm W 22:32-3 Mr 2 '46

France
Wine, champagne, cognac; French output and trade. J. Kobler. il map For Comm W 21:9+ D 8 '45

Guatemala
Production of distilled spirits in Guatemala, 1938-1944; imports of alcohol beverages into Guatemala, 1938, 1942-1944. For Comm W 21:25 D 8 '45

Quebec
Labels with a purpose; Quebec's government-bottled wines and liquors. il Mod Packaging 20:110-11 O '46

LISSAJOUS curves
Lissajous figures. I. B. Cohen. il Acoustical Soc Am J 17:228-30 Ja '46

LITHIUM
Bright future for lightest element; abstract. H. Osborg. Iron Age 157:131+ Mr 7 '46
Extraction and uses of lithium in Germany. G. T. Motock. pl U S Bur Mines Information Circ 7361:1-23 '46
Lithium, servant metal. il Sci Am 173:290-2 N '45
Lithium; some of its uses. Mech Eng 67:855 D '45
New uses for lithium. Chem & Eng N 24:680 Mr 10 '46
Obscure alloying metals grew 50 years during the war. J. V. Sherman. Barron's 26:13 Ja 14 '46
Slow neutron cross sections of indium, gold, silver, antimony, lithium, and mercury as measured with a neutron beam spectrometer. W. W. Havens, jr. and J. Rainwater. bibliog Phys R 70:154-73 Ag 1 '46
Some users' experience with lithium atmospheres for heat treating; with cost data. R. S. Burpo, jr. il diag Materials & Methods 24:622-5 S '46
Studies on the flotation of spodumene from the Edison mine, Keystone, South Dakota. G. A. Munson and K. L. Erickson. bibliog pl U S Bur Mines Rep of Invest 3892:1-8 '46
Versatile metal. Bsns W p54+ Mr 16 '46
Wave function for the ground state of lithium. K. Huang. Phys R 70:197-202 Ag 1 '46

LITHIUM alloys
Lithium, servant metal. il Sci Am 173:290-2 N '45

LITHIUM aluminum silicate. See Spodumene

LITHIUM carbonate
Use of lithium carbonate in dry process enamels. Cer Ind 46:70 F '46

LITHIUM chloride
Dry cell designed to operate at −40° C containing lithium chloride in the electrolyte. M. E. Wilke. Electrochem Soc Trans 90 (preprint 23):299-305 '46
Production of lithium chloride from spodumene by a lime-gypsum roast process. W. M. Sternberg and others. U S Bur Mines Rep of Invest 3848:1-10 '46

LITHIUM compounds
Action of bases on organic halogen compounds; the action of the lithium salts of aliphatic amines on some organic halogen compounds. C. H. Horning and F. W. Bergstrom. bibliog Am Chem Soc J 67:2110-11 D '45
Alkylation of triethylsilane. R. N. Meals. bibliog Am Chem Soc J 68:1880 O '46
Eutectic studies in lithium compounds; diagrams. Cer Ind 47:52-5 Ag '46
Reaction between triethylsilane and methyllithium. H. Gilman and S. P. Massie, jr. Am Chem Soc J 68:1128 Je '46
2,4,5-Triphenyl-3-furyllithium and 3,4,6-triphenyl-2-pyridyllithium. H. Gilman and D. S. Melstrom. bibliog Am Chem Soc J 68: 103-4 Ja '46

LITHIUM diethylamide
Rearrangement in the condensation of *o*-bromodimethylaniline with lithium diethylamide. H. Gilman, R. H. Kyle and R. A. Benkeser. Am Chem Soc J 68:143-4 Ja '46
Rearrangement in the reaction of α-halogenonaphthalenes with lithium diethylamide. H. Gilman and others. bibliog Am Chem Soc J 67:2106-8 D '45

LITHOGRAPHERS' national association
Annual convention, 41st, Atlantic City, May 14-16. Inland Ptr 117:44-6 Je '46

LITHOGRAPHIC paper. See Paper, Lithographic

LITHOGRAPHIC technical foundation
Foundation's research labs newly quartered in Chicago. il Inland Ptr 116:33-4 N '45
Your part in lithography's future. W. E. Griswold. Paper Tr J 122:84+ Je 20 '46

LITHOGRAPHY
Coatings for deep-etch offset. C. F. King. Inland Ptr 117:45-8 Ap '46
Discuss labor and equipment outlook at convention of lithographers, Philadelphia, Nov. 1-2. Inland Ptr 116:59-61 N '45
Evaluation of the roughness of lithographic printing plates. G. A. H. Elton and G. Macdougall. bibliog il Soc Chem Ind J 65: 212-15 Jl '46
Lithographic foundation tests uncover numerous advantages of cellulose gum. Inland Ptr 117:65-6 Ag '46
Metal lithography; the case for decorated containers. W. P. Murray. il Mod Packaging 19:104-6+ N '45
Offset and combination plant owners should know how letterpress process color plates are converted to lithographic reproduction. G. C. Compton. il Inland Ptr 117:48-50 S '46
Problems facing lithographers discussed at fourteenth annual convention of NAPL. Inland Ptr 118:42-4 N '46
Your part in lithography's future. W. E. Griswold. Paper Tr J 122:84+ Je 20 '46

LITHOMAT corporation, Cambridge, Massachusetts
Three men on paper plates. pors Fortune 33: 149-52+ F '46

LITMUS
Litmus manufacture in Britain. Chem Age (Lond) 53:491 N 24 '45

LITOMOSOIDES carinii
Development of litomosoides carinii filariid parasite of the cotton rat in the tropical rat mite. R. W. Williams and H. W. Brown. Science 102:482 N 9 '45

LITTLE ROCK, Arkansas

Industries

Little Rock's unsuspected riches. I. H. McDuff. il Manuf Rec 115:176-8+ Jl '46

LIVE stock
Application of chemistry to animal husbandry. J. G. Archibald. J Chem Educ 23: 49-51 Ja '46
Growth and aging problems in agriculture. S. Brody. Science 104:307-12 O 4 '46

See also
Cattle breeding
Feeding and feeding stuffs

Prices

Big supply of feeds promises lower live stock prices this winter. Barron's 26:11 Ag 5 '46
Changes in subsidies and price ceilings for livestock and grain announced. Comm & Fin Chr 163:1264 Mr 7 '46

Transportation

Injunction against Chicago Junction asked; connection with movement of live-stock from Chicago stock yards. Ry Age 120:414 F 23 '46

Belgium

Livestock population. For Comm W 22:34 F 2 '46

Bolivia

Quality livestock for Bolivia's Altiplano. For Comm W 23:19 Ap 27 '46

Brazil

Hair-sheep skins and goatskins from Brazil. B. B. Mackay. il For Comm W 22:6+ Mr 16 '46

Bulgaria

Reduction in livestock numbers. For Comm W 22:37-8 Mr 2 '46

France

Wartime requisitioning and drought decrease French livestock. For Comm W 21:37 D 22 '45

Ireland

Livestock numbers in Eire, 1944 and 1945. For Comm W 22:38 Mr 2 '46

Sweden

Livestock numbers and meat production. For Comm W 23:34-5 Ap 6 '46

Texas

Featuring Texas. il Manuf Rec 115:141-3 Jl '46

LIVE stock insurance. See Insurance, Live stock

LIVE stock sprays
Toxicity of DDT sprays to livestock; tests on cows and goats. H. S. Telford and J. E. Guthrie. Soap & San Chem 22:124-5+ S '46

See also
Cattle fly sprays

LIVER
Biological incorporation of a choline homologue into liver phospholipids. C. S. McArthur. bibliog Science 104:222 S 6 '46
Effect of alloxan on the in vitro formation of glucose by the liver. A. Canzanelli and others. bibliog Science 104:223 S 6 '46
Further studies on the monkey anti-anemia factor. J. M. Cooperman and others. Science 102:645 D 21 '45
Isolation of a new leukopoietic factor from liver. J. K. Cline, L. J. Berry and T. D. Spies. bibliog Am Chem Soc J 67:2273 D '45
Pancreatic enzymes and liver fat. C. H. Best. Science 103:207 F 15 '46
Structure and synthesis of the liver L. casei factor. R. B. Angier and others. bibliog Science 103:667-9 My 31 '46

Analysis

Determination of vitamin A in liver. W. D. Gallup and J. A. Hoefer. bibliog Ind & Eng Chem Anal ed 18:288-90 My '46

Diseases

Effect of methionine supplements on hepatic injury produced by carbon tetrachloride. V. A. Drill and T. A. Loomis. bibliog Science 103:199-201 F 15 '46
Experimental evaluation of methionine in the therapy of liver injury from carbon tetrachloride. C. B. Shaffer and others. bibliog J Ind Hygiene 28:87-93 My '46

See also
Jaundice

LIVER extracts
Mechanism of action of folic acid and liver extract in the treatment of anemia. J. E. Davis. Science 104:37 Jl 12 '46

LIVING trusts. See Trusts and trustees—Living trusts

LLOYD, Clifford J.
Power personalities. por Power 90:759 N '46

LLOYD'S, London
All right; sue us. Fortune 34:159 S '46
Pulbrook re-elected chairman of Lloyd's; D'Ambrumenil deputy; other committee members. East Underw 46:1+ N 30 '45

LLOYDS bank
Statement of the chairman. Lord Balfour of Burleigh. Economist 150:151 Ja 26 '46

LOAD (electric plants). See Electric plants (central stations)—Load

LOAD (mechanics)
Action of impulsive loads on elastic structures. J. B. Wilbur. diags Boston Soc C E J 33: 163-73 Jl '46
Autographic method for obtaining load-extension records of high-speed tensile tests on sheet specimens at elevated temperatures. A. E. Flanigan and others. il diags J Aeronautical Sci 13:405-9 Ag '46
Design live loads in buildings. J. W. Dunham. plans Am Soc C E Proc 72:429-43 Ap '46; Discussion. 72:1161-4 O '46
Device for classroom demonstration of moving loads. D. D. Haines. il Civil Eng 16:176-7 Ap '46
Effect of repeated loading on the bond strength of concrete. C. W. Muhlenbruch. bibliog il diags Am Soc T M Proc 45:824-45 '45

LOAD (mechanics)—*Continued*
Elastic limit basis for determining load supporting power of soil substructures. V. J. Brown. diags Roads & Sts 89:84-7+ Je '46
Helical springs; buckling under static loads. J. Dick. Automobile Eng 36:284 Jl '46
How to avoid loosening of bolts and nuts. R. J. Sweeney. diags Machine Design 18:139-44 Je '46
Load-carrying capacity of journal bearings; abstract. J. M. Stone and A. F. Underwood. Automotive & Aviation Ind 94:34-5 Je 15 '46; Abstract and discussion. S A E J 54: 18 Jl '46
Piles and pile foundations; making and interpreting pile load tests. R. D. Chellis. il diags Eng N 136:914-19 Je 13 '46
Procedure for determining the critical load for a column of varying section. G. H. Martin. bibliog J Aeronautical Sci 13:135-40 Mr '46
Redistribution of residual welding stresses by tensile loading along a Unionmelt weld joining two 3-ft. x 12-ft. x 1-in. plates. J. L. Meriam and others. il diags Welding J 25:sup697-9 O '46
Special rivets for shear loading. K. Schmidt. il diags Product Eng 17:236-8 Mr '46
Strength of beams as determined by lateral buckling. K. de Vries. diags Am Soc C E Proc 72:985-1011 S '46

See also
Bridges—Load

LOAD dispatching. See Electric plants (central stations)—Loading dispatching

LOAD factor
Loss load factor. G. H. Stubbings. diag Electrician 137:919-20 O 4 '46

LOADING and unloading
Guide to safe loading for industrial trucks; with chart. Nat Safety N 53:40 Je '46
Sunken sidings allow easy loading. F. Chilson. Food Ind 17:1483 D '45

Airplanes

Air cargo handling problems. M. B. Crawford. diags Mech Handling 33:173, 212-19 Mr-Ap '46; Abstracts. Iron Age 156:120 D 13 '45; il S A E J 54:sup24 Ap '46
Aircraft cargo loading problems. D. W. Long. Mech Handling 33:436-9+, 526-7 Jl-Ag '46
Cargo dropping from conveyor belt in airplane. il Sci Am 173:283 N '45
Loading stand for large transports. Aeronautical Eng R 5:105 Je '46
Mechanized air cargo handling. F. M. Reck. il diags Aero Digest 53:55-6+ Jl '46
Pre-packed containers for air cargo; monorail loading system. il diags Aero Digest 51:77+ N 15 '45
Tub carts restyled for new loading needs. il Air Transport 4:40 Ja '46

Cars

Auto-loader for light cars designed. il Ry Age 121:373 Ag 31 '46
Bulk handling of SRF pellets from car to Banbury accomplished. il Rubber Age 60:83 O '46
Electrically operated goods traffic. il Electrician 135:492 N 9 '45
Glued unit loads cut breakage of bottled goods. C. W. Braden. il Mod Packaging 19:118-20+ Ja '46
McKerrow's method for loading newsprint; old rubber motor-car tires as shock absorbers at end-wall of cars. il Pulp & Pa of Can 47:72-4 My '46; Same cond. Ry Age 120: 919-20 My 4 '46
Mechanized equipment speeds deliveries; Union Pacific's Omaha stores. il Ry Age 121:761-3 N 9 '46
Power unloading for the small works. il diag Mech Handling 32:681-2 D '45
Preventing newsprint damage; old motorcar tires used as shock absorbers at end-wall of box cars. il Ry Age 120:919-20 My 4 '46
Railroads study bonded-block method of carton loading. W. G. Burden. diag Glass Ind 27:505+ O '46
Sheet steel handling simplified; Baker industrial truck for loading and unloading steel. il Iron Age 157:57 My 2 '46
Shipping glass damage-free; bonded-block method of loading. il diags Cer Ind 47:56+ O '46

Motor trucks

Grapes unload mechanically. Z. Halperin. il diag Food Ind 18:331 Mr '46
Hydraulic drum lifter is faster and safer. B. I. Bell. il Nat Pet N 38 pt 2:R497 Jl 3 '46

Ships

Clamshell bucket unloading towers. H. Brask. il plan Boston Soc C E J 33:185-99 Jl '46
Erie railroad modernizes ore handling facilities. il Steel 118:114-16+ My 13 '46
Mechanical unloading of barges. G. E. Allin. il Mech Handling 33:98-101 F '46
New floodlight application saves lives on coal and ore unloaders. C. H. Peiffer. il Min Cong J 32:55 Ja '46

See also
Cargo handling

Tank ships

Submarine loading-line replacement. R. P. Howell. il map diag Oil & Gas J 44:108-11 Ap 27 '46

Tank trucks

Air loading simplifies bulk shipments; brewer's trucks transfer grain from rail siding to plant bins. il diags Food Ind 18:870-1 Je '46

LOADING machines
Gypsum mine mechanization. E. R. Cushing. il diags Rock Prod 49:92-7 Ag '46

LOAN receipts. See Insurance—Adjustment of claims—Loan receipts

LOANS
Replacing obsolete equipment; methods of financing purchase of new equipment without impairing working capital. W. G. Jorgenson. Rock Prod 48:97+ O '45

See also
Building and loan associations
Credit
Insurance, Life—Policy loans
Interest
Investments
Loans, Bank
Mortgages
Reconstruction finance corporation
Veterans—Loans

Guaranty

Government-guaranteed loans to British industry; Control of investment bill. P. Einzig. Comm & Fin Chr 163:517+ Ja 31 '46

LOANS, Bank
Bank advances analysed. Economist 151:675-6 O 26 '46
Bank credit for motor carriers; abstract. K. R. Cravens. Banking 38:130 F '46
Banker, builder, merchant tie-up; how new homes can be merchandised through cooperation. il Banking 38:64-5 Mr '46
Bankers, watch your real estate lending! R. A. Benge. Comm & Fin Chr 164:1697+ O 3 '46
Banking at the crossroads. H. H. McGee. Comm & Fin Chr 163:1926+ Ap 11 '46
Banking procedure; G.I. home loans; California bank, Los Angeles. M. Donnelly. il Burroughs Clearing House 30:17-19+ Je '46
Bankloan plan for dealer financing; American trust company, San Francisco. E. Burke. il Burroughs Clearing House 30:20-2+ Ja '46
Banks and small business; activities of ABA Small business credit commission. R. M. Hanes. Comm & Fin Chr 164:1800+ O 10 '46; Same abr. Credit & Fin Management 48:13-15+ O '46
Banks expanding instalment credit; Review of Chicago Federal reserve bank. Comm & Fin Chr 164:753+ Ag 8 '46
Borrowers have paid this bank 6% on loans as usual; Farmers national bank, Pennsburg, Pa. R. Stevenson. Bankers Mo 63: 178-9+ Ap '46
Construction loans. G. F. Christie. Banking Law J 63:374-5 My '46
Credit boom feared Bsns W p15-16 Ag 31 '46
Electrified housekeeping; potential market for electrical equipment, banker's role. J. S. Piper. Banking 38:38-9+ Je '46
Every person with an income is entitled to a bank loan. F. P. Powers. Bankers Mo 63:242-3 My '46
Facing facts on consumer credit. C. M. Flora. Comm & Fin Chr 162:3011+ D 20 '45

LOANS, Bank—*Continued*
Factors to be considered in making bank loans to electric utility companies; abstract. W. G. Olson. Pub Util 37:433-5 Mr 28 '46
Financing appliances for dealers; Security-first national bank of Los Angeles. Banking 38:75-6 Mr '46
Financing small business. R. F. Wille. Credit & Fin Management 48:17+ Jl '46
Financing the coffee market. J. J. Riley. Banking 38:115 Mr '46
Future of bank loans. K. K. DuVall. Banking Law J 63:283+ Ap '46
How's business? W. R. Kuhns. Banking 38: 33-4+ My '46
Loans for war purposes by commercial banks. G. M. Conkling. Fed Res Bul 31: 1102-5 N '45
More productive loans may send bond yields up. B. Ravits. Barron's 26:11 Jl 29 '46
More uses for bank credit; financing plans of equipment manufacturers. Banking 38:46 Ap '46
New face for Oglesby, Ill.; bank and Booster club promote plan for modernizing business section. R. O'Neill. il Banking 38:54-5 F '46
One bank's experience with GI loans; Schenectady (N.Y.) savings bank. K. Macfarlane. Banking 39:48-9 O '46
Our loans are increasing and we get 5% and 6%. F. L. O'Hair. Bankers Mo 63:238 My '46
Profits for banks in FHA Title I financing. K. R. Wells. Banking Law J 63:286-7 Ap '46
Real estate loans are made when homes are found; we found the homes; Naperville, Ill. National bank. L. H. Clemens. il Bankers Mo 63:502-4 O '46
Sales finance plan; 1,100 banks joined to facilitate financing of appliances. W. B. Hall. Burroughs Clearing House 30:17-19+ F '46
17 months of GI loan experience; Veterans' financial service of Rochester, N.Y. R. R. McGuire. Banking 39:46+ Ag '46
Shortages cause run on commercial loans by small plants. D. I. Brown. Iron Age 158: 110-11 S 5 '46
Six plans for lending money on homes; California bank of Los Angeles. E. H. Sink. il Bankers Mo 63:273-5 Je '46
Small business loans; how one bank plans to set up such a division. A. L. Peters. Credit & Fin Management 48:16+ Jl '46
Some bank presidents say loan losses are too small! J. Y. Beaty. Bankers Mo 63:221 My '46; Discussion. 63:325-6 Jl '46
Some frank talk on lending; Pennsylvania bankers association panel of experts. M. C. Jones and others. Banking 38:33-5+ N '45
Ten commandments of sound loan administration. H. N. Stronck. Bankers Mo 63:96 F '46
12,000 banks and 56 gypsies. Fortune 33:209-10 My '46
Warns banks against speculative loans on government bonds. A. Sproul. Comm & Fin Chr 164:129+ Jl 4 '46
We're learning a lot on GI loans. E. R. Parsons. il Banking 39:36-7+ Jl '46
What a banker should know about laundries; abstract. J. Carruthers. Banking 38:135 N '45
Why loans should rise. W. G. F. Price. Banking 39:37-8+ S '46
Will banks finance business expansion in postwar era? G. M. Francis. il Dom Comm 34:7-12 O '46

See also
Advertising and bankers
Agricultural credit
Banks and banking—Airplane purchase financing
Banks and banking—Automobile purchase financing
Credit, Bank

Collateral

Bank can't take from policy proceeds more than amount of personal note. Nat Underw (Life ed) 50:6 Ag 30 '46
Bank entitled to include credit balance of maker of note as collateral security for payment of note. Banking Law J 63:544-8 Jl '46
Bank may retain collateral security pledged on note of maker for non-payment of other indebtedness. Banking Law J 62:989-92 D '45
Factor's lien financing. J. W. Olmstead. Banking 39:47+ Ag '46
How to get field warehousing loans. S. Hart. Banking 38:43+ Ja '46
Ten loans made possible by field warehouse security. S. D. Hart. Bankers Mo 63:322-4 Jl '46
Warehouse receipt financing. R. L. Gordon. Am Inst Banking Bul 27:13-14+ O '45

Defense loans

Financing war production and contract terminations under Regulation V. Fed Res Bul 32:240-8 Mr '46

Guaranty

Hits government guarantee of loans. R. M. Hanes. Comm & Fin Chr 164:352 Jl 18 '46; Same abr. Banking 39:116 Ag '46
Insurance of bank loans and its implications. F. Quantius. J Bsns 19.133-44 Jl '46
Success of V-loans suggest peacetime uses. B. Griffith. Barron's 25:14 N 26 '45

Instalment payment

Consumer instalment credit for banks limited. C. W. Phelps. Barron's 25:13+ N 12 '45
Helping small business; banks are increasing instalment loan facilities; address before A.B.A. Chicago convention. C. M. Flora. Credit & Fin Management 48:12+ O '46
How banks have handled installment loans with success. C. W. Phelps. il Bankers Mo 63:11-15 Ja '46
Opportunities for profit in installment loans to small business. C. A. Bimson, jr. il Bankers Mo 63:121-4 Mr '46
This new credit philosophy brings advantages of term loan principles to small businessmen. C. M. Flora. Bankers Mo 63:483-4 O '46

Small loans

Caution needed in consumer lending. W. B. French. Comm & Fin Chr 164:339+ Jl 18 '46
Consumer credit digest. Banking 38:46+ Mr; 44-5+ Ap; 48-9+ My; 48-9+ Je; 39:42-3+ Jl; 42-3+ Ag; 42-3+ S; 52-3+ O '46
Consumer loan totals to be larger than commercial loans of 1939. E. I. H. Bennett. il Bankers Mo 63:169-72 Ap '46
Expansion of consumer credit policy urged. P. D. Williams. Comm & Fin Chr 163: 2133+ Ap 18 '46
Fifty billion dollars is the target for bank financing of consumers. G. S. Jones, jr. il Bankers Mo 62:551-4 D '45
How to control personal loan loss. J. W. Miller. Banking 38:92 My '46
Live banks make communities live; experience of two Warren, Ohio banks with small loan advertising. H. R. Farrall. Banking 39:39 Ag '46
What consumer lending is and is not. C. M. Flora. Banking 39:42-3+ S '46

Statistics

All banks in the United States, loans and investments. Published in monthly numbers of Federal reserve bulletin
Weekly reporting member banks, loans and investments. Published in monthly numbers of Federal reserve bulletin

LOANS, Brokers'. See Brokers' loans

LOANS, Foreign
Administration plans for U.S. loan aid, exclusive of British credit under discussion. Comm & Fin Chr 163:1401 Mr 14 '46
Advocates loan to Britain. P. D. Reed. Comm & Fin Chr 162:3015+ D 20 '45
Aims of our foreign investment policy. O. H. Korican. Harvard Bsns R 24 no 4:498-511 [Jl] '46
America's future role in foreign lending. J. Hirsch. Comm & Fin Chr 163:3198+ Je 13 '46
Anglo-American financial agreement. Nat City Bank p6-11 Ja '46; Excerpt. Comm & Fin Chr 163:439 Ja 24 '46

LOANS, Foreign—*Continued*
Anglo-American negotiations; with text of financial agreement and related documents. For Comm W 21:7-9+ D 22 '45; Same. Fed Res Bul 32:14-19 Ja '46
Baruch offers plan for postwar foreign economic policy; advocates creation of a Supreme economic council for Europe. E. Blair. Barron's 25:4 N 19 '45
British loan terms aid world trade; oil equipment exports to rise. H. D. Ralph. map Oil & Gas J 45:122-3 Jl 27 '46
Canada grants export credits to China. For Comm W 22:21-2 Mr 2 '46
Canadian and American credits to Britain. N. Crump. Comm & Fin Chr 163:2079+ Ap 13 '46
Commons and House of Lords approve U.S. loan. Comm & Fin Chr 162:3025 D 20 '45
Congressional reactions to UK loan vary. H. M. Bratter. Comm & Fin Chr 162:2874+ D 13 '45
Export credits and the United Kingdom loan outlines for Canadian Parliament. For Comm W 23:22-4 My 11 '46
Financial agreement between United States and United Kingdom; text. Comm & Fin Chr 162:2926 D 13 '45
Foreign affairs; United States government foreign loans, advances and commitments. H. Bratter. Banking 38:41+ My '46
Foreign lending program emerging. Nat City Bank p41-5 Ap '46
Foreign loan policy of the United States; statement by National advisory council on international monetary and financial problems. Fed Res Bul 32:227-31 Mr '46
Government financing of reconstruction and foreign trade. W. Chatfield-Taylor. Comm & Fin Chr 162:2453+ N 22 '45
Green light for development loans in Latin America. Comm & Fin Chr 164:1269 S 5 '46
Holds British loan unbusinesslike. J. H. Jones. Comm & Fin Chr 162:3015+ D 20 '45
International trade increasingly shackled; our loans will not prevent continued quota and exchange restrictions. J. Hirsch. Barron's 25:7+ D 17 '45
Loan to Britain shapes postwar trade pattern. H. M. Tremaine. Mag of Wall St 77:380-1+ Ja 5 '46
Loans foster foreign trade. Bsns W p109-10 Jl 20 '46
Myth and reality in foreign loans. P. H. Lohman. Comm & Fin Chr 164:742+ Ag 8 '46
Necessity for foreign investment. W. L. Thorp. Comm & Fin Chr 162:2452+ N 22 '45
Our foreign lending program. M. S. Szymczak. Comm & Fin Chr 163:2783+ My 23 '46
Principal international credits or loans extended or awaiting approval from summer 1944 to date; tabulation. Nat City Bank p44 Ap '46
Proposed loan-gift to England. W. F. Hauhart. Comm & Fin Chr 162:2873+ D 13 '45
Public loans to foreign countries. J. R. Clark, jr. Comm & Fin Chr 162:2569+ N 29 '45
Requests British loan liquidation; Senator Moore lists insurance holdings pledged back in 1941. Weekly Underw 153:1404 D 15 '45
Senatorial reactions to U.K. loan. G. H. Taylor; A. Capper. Comm & Fin Chr 163: 2+ Ja 3 '46
Senators seek foreign loan data; Republican senators, headed by S. Bridges, introduce resolution calling for facts of American loans abroad. Comm & Fin Chr 163:1005+ F 21 '46
Should we make a loan to Italy? L. Currie. Comm & Fin Chr 163:3469+ Je 27 '46
Sifting foreign loans. H. Bratter. Banking 38:46-7+ D '45
Text of financial agreement between the governments of the United States and the United Kingdom. Index 25 no 4:98-100 [D] '45
U.S. props French economy. Bsns W p109 Je 8 '46

See also
Export-import bank of Washington

LOANS, Small
Experience with reductions in the small-loan rate in Wisconsin. E. Shapiro. J Bsns 18:209-18 O '45
Faith and prayer make risky loans good; unusual approach pays off for Memphis woman lender. R. L. Holman. Barron's 26:15 Ag 12 '46
Loan rates cut? expecting record small-loan volume. Bsns W p71-2+ Ja 26 '46

See also
Loans, Bank—Small loans

Bibliography
Consumer credit. (Business literature v. 18, no. 8) p41-2 Business library, Newark public lib, Newark, N.J. Ap '46

LOBBIES (architecture)
How to heat lobbies. T. W. Reynolds. plans diags Heat & Ven 43:69-72 Ag '46

LOBBYING
Do you lobby? Bsns W p18 Ag 17 '46
Failure of lobby probe moves stirs Washington comment. Pub Util 38:302-4 Ag 29 '46
Lobbying registration act; formal interpretation asked. Oil Paint & Drug Rep 150:3+ Ag 26 '46
Trade associations studying lobby act provisions. Oil Paint & Drug Rep 150:3 Ag 19 '46
Who's lobbying for what and how successful is it? Pub Util 37:784-6 Je 6 '46

LOCAL government
Local electors at the polls. Economist 149: 548-9 O 20 '45

See also
Municipal government
Sanitary districts

LOCATING (machine work)
Bullard Man-Au-Trol spacer locates work for drilling without jig use. il Am Mach 90: 145 Ag 29 '46; Automotive & Aviation Ind 95:41 Ag 15 '46; Bsns W p52+ Ag 10 '46; Mach 53:184 S '46; Mech Eng 68:823-4 S '46; Ry Mech Eng 120:492 S '46; Iron Age 158:73 S 26 '46
Edge-locating gage aids jig boring work. R. F. Isetts. Am Mach 90:133 Ag 1 '46
Methods of locating and boring shaft holes in gear-boxes. diags Mach 52:195-6 Je '46
Opposed dowel locates reverse side of hole. S. Framurz. diag Am Mach 90:123-4 Ag 29 '46
Optical locating system takes guesswork out of positioning; method involving microscopes attached to special fixtures. G. C. Becker. il diags Am Mach 90:83-6 Ja 3 '46
Quick, accurate means of locating work on machine tool table. J. W. Carr. il Mach 53:187-8 O '46
Relocating plate shortens setup time. R. G. Growe. diag Am Mach 90:141 O 10 '46
Spring-actuated receding guides for locating work in coining die. L. Kasper. diags Mach 52:192-3 D '45
Toolmaker's button and swivel-base trammel speed layouts. S. Framurz. diags Am Mach 90:139-40 N 7 '46

See also
Dividing (machine work)

LOCATION in industry
Factors controlling the location of various types of industry. C. P. Wood. il Am Soc C E Proc 72:347-56 Mr '46
Guide for local industrial promotion. U S Bur For & Dom Com, Economic (Small Bsns) Ser 47:1-26 '46
Location of industry; British experience and programs. D. F. Heatherington. il For Comm W 23:3-5+ My 4; 12-14+ My 11 '46
Wanted: industry; Mississippi plan, revived Balance agriculture with industry act. Bsns W p66+ Ja 5 '46

See also
Airports—Location
Factories—Location
Gasoline service stations—Location
Retail trade—Store location

LOCKE steel chain company
That's the way we make chain. Fortune 34: 154+ S '46

LOCKERS, Cold storage. See Cold storage lockers

LOCKHEED aircraft corporation
Lockheed-Consolidated merger would create new aircraft giant. W. Kroger. Aviation N 6:7 S 16 '46
Profit of $4,809,738. Aviation N 6:24 Jl 1 '46
Report to shareholders. Comm & Fin Chr 162:2395 N 19 '45

LOCKING devices
Clamping jigs; Cone-Lok. il diag Steel 118: 100+ Mr 11 '46
Evaluating self-locking nuts. W. E. Horenburger. diags Machine Design 18:135-9 Ag '46
Introduction to the theory of lock nuts. H. S. Rowell. diags Engineering 160:464, 488-90 D 7-14 '45
Plastic locking rings simplify assembly and repair operations. diag Am Mach 90:146 Ap 11 '46
Self-locking adjusting device. M. Goldberg. diag Mach 53:179 S '46

LOCKS (hydraulic engineering)
Calyx drill aids soft-ground examination; investigating foundation material for lock on Cross-Florida barge canal. H. A. Scott. il diag Eng N 137:102-4 Jl 25 '46
Guide walls, landward lock, Hastings, Minn; unit prices. Eng N 136:1009 Je 27 '46
Large Diesels in Panama Canal plants unique for automatic-starting scheme. J. L. King. il plan diag Power 90:613-16 S '46

LOCOMOTIVE boilers
Application of tubes and flues; report of Master boiler makers association. il Ry Mech Eng 120:24-8 Ja '46
Factors affecting cinder cutting of boilers. il diags Ry Mech Eng 119:590-6 D '45
Fusion-welded boiler on D.&H. locomotive; construction, inspection, repairs, etc. G. S. Edmonds. il Mech Eng 68:619-21 Jl '46
Heat transfer in the locomotive boiler. L. H. Fry. bibliog diags A S M E Trans 68: 107-13 F '46; Discussion. 68:565-7 Jl '46
Locomotive boiler questions and answers. G. M. Davies. Published in monthly numbers of Railway mechanical engineer
Progress in staybolt application; report by Master boiler makers' association. diags Ry Mech Eng 120:75-9 F '46
Report on flues and tubes; Master boiler makers' association. Ry Mech Eng 120:562 O '46
Water treatment benefits. il Ry Mech Eng 119:575-7+ D '45

See also
Feed water purification
Locomotive fireboxes
Locomotive grates
Locomotive smoke-boxes
also Master boiler makers' association

Cleaning

Cleaning flues and tubes. S. F. Wentz. il diags Ry Mech Eng 119:594-6 D '45

Failure

Investigation of end cracking. A. T. Westbrook. il Ry Mech Eng 120:562 O '46

Firing

Automatic controls for overfire air jets; abstract. J. Canetta. diag Ry Age 121:52-3 Jl 13 '46
Burning coal in locomotives. A. A. Raymond. il diags Ry Age 119:941-3 D 8 '45
Supply of air to coal-fired steam locomotives. R. A. Sherman and others. A S M E Trans 68:467-78 bibliog(p477-8); Discussion. 478-80 Jl '46

Manufacture

Alco all-welded boilers; welding, stress-relieving and inspection equipment, American locomotive co., Schenectady plant. il Ry Mech Eng 120:339-43 Jl '46
All-welded locomotive boilers at American locomotive company's Schenectady plant; illustrations with text. Ry Age 121:4-5 Jl 6 '46
Applying flues with special tips. V. R. Bachini. diag Ry Mech Eng 120:25-8 Ja '46
Fusion-welded locomotive boilers; Bureau of locomotive inspection rules. J. M. Hall. Ry Age 120:816-17 Ap 20 '46; Same. Mech Eng 68:624+ Jl '46
Locomotive boilers now welded to stop leakage, reduce maintenance. Sci Am 175:129 S '46; Steel 119:104 Ag 12 '46
Locomotive boilers; welded construction. J. Partington. il Mech Eng 68:622-4 Jl '46
Welded locomotive boilers; abstract. R. B. McColl. Mech Eng 68:825 S '46

Oil firing

Oil-burning locomotives of the G.W.R. il diags Engineer 180:388-9 N 16 '45; Engineering 160:431 N 23 '45

Testing

How locomotive boiler performance is related to boiler proportions. W. F. Collins. Ry Age 120:186-8 Ja 19 '46

Thermic siphons

Steel fire—boxes and thermic siphons. R. I. Kirkland. Engineer 180:397-8 N 16 '45

LOCOMOTIVE cab signals. See Railroads—Signals

LOCOMOTIVE fireboxes
Air supply to coal-fired fireboxes; abstract. R. A. Sherman. Ry Age 121:53-4 Je 8 '46
Burning coal in locomotives. A. A. Raymond. il diags Ry Age 119:941-3 D 8 '45
Progress in staybolt application; report by Master boiler makers' association. diags Ry Mech Eng 120:75-9 F '46
Staybolt materials and application. G. R. Greenslade. Ry Mech Eng 120:561 O '46
Steel fire-boxes and thermic siphons. R. I. Kirkland. Engineer 180:397-8 N 16 '45

LOCOMOTIVE grates
Locomotive grate and smokebox improvements on the L.M.S. railway. Engineering 161:103 F 1 '46

LOCOMOTIVE industry
American Locomotive vs. Baldwin; comparative investment audit. H. S. Coffin. Mag of Wall St 77:458-60+ Ja 19 '46

LOCOMOTIVE inspection, Bureau of. See Interstate commerce commission—Bureau of locomotive inspection

LOCOMOTIVE maintenance officers' association
Annual meeting, Chicago, Sept. 4-6. Ry Mech Eng 120:526-40 O '46

LOCOMOTIVE shops
Converts shop for Diesel repairs; shop of the Boston & Maine at Mechanicville. il layout plan Ry Age 121:716-19+ N 2 '46
Diesel locomotives get super service; Erie railroad repair and maintenance station. F. D. Kennedy. il Am Mach 90:88-9 Ag 29 '46
Diesel shops on Santa Fe Coast lines. il map Ry Age 120:714-17, 770-4 Ap 6-13 '46
Erie Diesel layout has everything; Marion, Ohio. il plans Ry Age 120:1130-4 Je 8 '46
Fast freights on the Boston & Maine. il Diesel Power 24:450-2 Ap '46
Fire hazards in Diesel shops. W. S. Wicker. Ry Age 119:856-7 N 24 '45
Modern shops for Great Northern Diesels. il plan diag Ry Age 120:1215-18 Je 22 '46

Equipment

Another modern shop for Diesels; Southern shop at Alexandria. il layout plan Ry Age 121:218-21 Ag 10 '46
Assembly rack for Baker valve gear; locomotive shop of the Pere Marquette. il Ry Mech Eng 120:80-1 F '46
Developments in modern tooling; Locomotive maintenance officers' association report. Ry Mech Eng 120:532-3 O '46
Drilling saddle bolt holes; Decatur, Ill. shops of the Wabash. il Ry Mech Eng 120:79 F '46
Enlarge, modernize locomotive shops; improvements on Northern Pacific at Livingston, Mont. il plans diags Ry Age 119: 973-8+ D 15 '45
Great Northern's Diesel repair shops. il Diesel Power 24:178-80+ F '46
Lathe for locomotive firebox stays. il Engineering 160:349-50 N 2 '45
Lidgerwood used in turning tires. il Ry Mech Eng 120:28-9 Ja '46
Machine work and flame hardening at Marshall shops. il Ry Mech Eng 120:266-8 My '46

LOCOMOTIVE shops—Equipment—*Continued*
Machining axle keyways; master lathe converter. il Ry Mech Eng 120:43 Ja '46
Magnetic-particle testing prevents railroad failures; shops of Baltimore & Ohio railroad. L. B. Sagle. il Am Mach 90:106-7 Ja 31 '46
Marshall shops make nickel-steel driving rods. il Ry Mech Eng 120:358-62 Jl '46
Modern locomotives need modern tools. J. R. Phelps; E. N. Statley. il Ry Age 120:675-6 Mr 30 '46
Portable pneumatic machine bores locomotive cylinders. E. Kisko. diag Am Mach 90: 160 Je 20 '46
Shape-cutting template rack; Texas & Pacific locomotive shops. il Ry Mech Eng 120:203 Ap '46
Testing device for superheater units; locomotive shops of the St Louis-San Francisco. il Ry Mech Eng 119:596-7 D '45
Three back shop devices. J. R. Phelps. il Ry Mech Eng 120:268-9 My '46

Lighting

Light and power for Diesel locomotive shop of the Delaware, Lackawanna and Western. il plan Ry Mech Eng 120:272-3 My '46
Locomotive shop lighting. il Ry Mech Eng 120: 422-4 Ag '46
Portable enginehouse lighting; equipment used by London Midland & Scottish railroad. il Ry Age 121:412 S 7 '46; Same. Ry Mech Eng 120:519 O '46

Power

Light and power for Diesel locomotive shop of the Delaware, Lackawanna and Western. il plan diag Ry Mech Eng 120:271-5 My '46

LOCOMOTIVE smokeboxes
Locomotive grate and smokebox improvements on the L.M.S. railway. Engineering 161:103 F 1 '46

LOCOMOTIVE terminals
See also
Locomotive shops
Roundhouses

LOCOMOTIVES
American geared locomotives. il Engineer 181:537 Je 14 '46
Availability of steam locomotives; how to get results with some of the older types. J. O. Converse. il Ry Age 120:904-6 My 4 '46
British locomotive working in wartime. O. S. Nock. il diags Engineer 180:122-5, 144-6; 181:374-5, 398-9, 466-7, 490-1; 182:60-2 Ag 17-24 '45, Ap 26-My 3, 24-31, Jl 19 '46
Eight-coupled locomotive. Engineer 181:147-8 F 15 '46
Engineering outlook; locomotives and rolling stock. Engineering 161:220-2 Mr 8 '46
Foreign countries acquire locomotives from War assets administration. For Comm W 23:19 Je 22 '46
German development of locomotives and cars. Ry Mech Eng 120:184-5+ Ap '46
German war-developed locomotives; illustrations. Ry Age 119:862 N 24 '45
Last fifty years, and the next; development of American motive power. J. B. Ennis. Ry Age 119:970-2 D 15 '45; Same Comm & Fin Chr 162:3137+ D 27 '45; Same cond. Diesel Power 24:191+ F '46
Liberation 2-8-0 locomotive for continental service. il diag Engineering 161:440-2 My 10 '46
Lidgerwood used in turning tires. il Ry Mech Eng 120:28-9 Ja '46
Locomotive development on the L.M.S., 1923-1932. E. S. Cox. Engineer 181:162-3 F 15 '46
Locomotive engineering and the chief mechanical engineer. O. V. S. Bulleid. Engineer 182:375 O 25 '46 (to be cont)
Locomotive operation on the Burlington. H. H. Urbach. Ry Mech Eng 120:568-9 O '46
Locomotive trends on the Pennsylvania railroad. J. V. B. Duer. il Mech Eng 68:419-22+ My '46
Locomotives for today and tomorrow. C. Kerr, jr. il Ry Age 120:765-9 Ap 13 '46; Same. Ry Mech Eng 120:239-44+ My '46
L.N.E.R. A2 class passenger locomotives. il diag Engineering 162:175 Ag 23 '46
L.N.E.R. Pacific locomotive no. 500. il Engineer 181:505 My 31 '46
Modern power on the Norfolk & Western; comparison of performance of 4-8-4 and articulated locomotives. C. E. Pond. il Ry Age 121:335-8 Ag 24 '46
Modern power saves train-miles; use of modern Diesel and steam locomotives on Cotton Belt railroad. il map Ry Age 119: 936-40 D 8 '45
New French locomotive. il diags Engineer 180:96 Ag 3 '45; Abstract. Product Eng 17: 51 Ja '46
New York Central 4-8-4 locomotives. E. C. Poultney. il Engineer 182:73-5 Jl 26 '46
Les nouvelles locomotives franco-américaines 141-R. Y. Machefert-Tassin. il map Génie Civil 123:225-7 S 1 '46
Present-day locomotive working in Great Britain. O. S. Nock. il diags Engineer 182: 314-16 O 11 '46
Progress in railway mechanical engineering; 1944-1945. il diags Mech Eng 68:107-19 F '46
Railway locomotives of 1945. il Engineer 181: 16-18, supp 1, 42-3 Ja 4-11 '46
Reading 4-8-4, class T-1 locomotives. il Ry Age 120:629-30 Mr 23 '46; Ry Mech Eng 120:189-92 Ap '46
Report on locomotive construction. diags Ry Mech Eng 120:475-80 S '46; Same cond. without diags. Ry Age 121:266-8 Ag 17 '46
Report on utilization of locomotives, with cost data; Railway fuel and traveling engineers' association. Ry Mech Eng 120: 564-7 O '46
Steam, Diesel and electric power combine to handle increased traffic; western lines of the Milwaukee Road. il Ry Age 120:1174-5 Je 15 '46
Tank engines for northern Ireland. il Engineer 182:356 O 18 '46
Transportation corps exhibits German equipment. Ry Mech Eng 120:227-8 Ap '46
Variety in motive power promised by developments of the future. H. C. Wilcox. il Ry Age 120:28-31 Ja 5 '46
See also
Electric locomotives

Bearings

Journal box to increase the life of spherical roller bearings on cars, locomotives, tenders or trailers. il Ry Age 121:186 Ag 3 '46
Magnus journal-box devices. il Ry Age 121: 690 O 26 '46
New York Central develops hot-box alarm. il Ry Age 120:504-6 Mr 9 '46; Same. diags Ry Mech Eng 120:186-8+ Ap '46
Roller-bearing locomotive repairs. il Ry Mech Eng 120:30-1 Ja '46

Cleaning

Locomotive cleaned by chemical shower. il Soap & San Chem 22:41 Ag '46; Steel 119: 110 O 21 '46

Cost of operation

A.R.E.A. reports on locomotive economics. Ry Mech Eng 120:249-53 My '46
Diesel locomotives roll on; with cost and other statistical data. G. W. Grupp. Diesel Power 24:201-3 F '46
Economics studies on coal-burning gas turbine locomotives show interesting cost comparisons. Nat Pet N 38 pt 2:R566 Ag 7 '46
Locomotive costs assuming importance. il Ry Age 120:1005-8 My 18 '46
Railroads' motive power costs analyzed; steam and Diesel locomotives compared. A. H. Candee. il Civil Eng 16:439-41 O '46

Crossheads

Maintaining Timken piston rods and crossheads. il Ry Mech Eng 120:197-9 Ap '46

Design

Condensing by compression; locomotive experiment. H. Holcroft. il diags Engineer 182:202-3, 227-9, 248-9 S 6-20 '46; Discussion. S. Labrow. 182:350 O 18 '46
Condensing locomotives. G. V. Lomonossoff and G. Lomonossoff. bibliog il diags Inst Mech Eng J & Proc 152:Proc 275-88; Discussion. il diags 289-303 D '45

LOCOMOTIVES—Design—*Continued*
Liberation 2-8-0 locomotive. il diags Engineer 181:242-4 Mr 15 '46
Locomotive limitations. J. S. Tritton. diags Engineering 162:190-1 Ag 23 '46
Locomotives I have known. O. V. S. Bulleid. diags Inst Mech Eng J & Proc 152:Proc 341-52. pl 1-6 Mr '46
Merchant navy class locomotives of the Southern railway. O. V. S. Bulleid. il diags Engineering 162:21-4, 44-7 Jl 5-12 '46; Same cond. Engineer 180:512-14, 530-2 D 21-28 '45; Discussion. Engineering 160:542-3 D 28 '45; Engineer 180:510-11 D 21 '45
New Beyer-Garratt locomotives for South African railways. il diag Engineer 181:195-6 Mr 1 '46
Pennsylvania railroad Q-2 locomotives. il diags Ry Mech Eng 120:1-4 Ja '46; Same, without diags. Ry Age 119:1014-16 D 22 '45
Refinement of existing designs will produce tomorrow's power. il Ry Age 119:802-4 N 17 '45
Western Maryland Shay; Lima-built geared locomotive. il diags Ry Mech Eng 119:569-74 D '45; Same cond. Ry Age 119:549-52 O 6 '45

Equipment

Franklin self-locking power reverse gear. il diags Ry Age 121:181 Ag 3 '46
Retractable pilot coupler. il Ry Age 121:179 Ag 3 '46
Wear gauge for chafing plates. il diags Ry Mech Eng 120:308-9 Je '46
Welded fittings; Diesel-or steam-locomotive piping. il Ry Age 121:92 Jl 20 '46

See also
Locomotive boilers
Locomotive fireboxes
Locomotive grates

Failure

Bureau of locomotive inspection annual report. Ry Mech Eng 120:113-16+ Mr '46; Same cond. Ry Age 120:325-7 F 9 '46

Front ends

Supply of air to coal-fired steam locomotives. R. A. Sherman and others. A S M E Trans 68:467-78 bibliog(p477-8); Discussion. 478-80 Jl '46

Fuel

Charcoal briquettes as a coal substitute. H. Greene and T. N. Jewitt. Soc Chem Ind J 64:270-1 O '45
Coal-fired gas-turbine locomotive. J. I. Yellott and C. F. Kottcamp. diags Ry Age 121:551-5+ O 5 '46
Colloidal fuel. D. W. Machin. Ry Mech Eng 119:585-6 D '45
Competition and the coal situation; meeting competition of Diesel locomotives. R. L. Ireland, jr. Ry Age 121:508-9 S 28 '46; Same. Ry Mech Eng 120:567-8 O '46
Conservation of coal for locomotives. J. F. Barkley. Ry Mech Eng 120:11-12 Ja '46
Cost of locomotive coal. Engineer 182:273 S 27 '46; Abstract. Engineering 162:318 O 4 '46
Future use of coal in railway motive power. K. A. Browne. bibliog Mech Eng 68:547-9 Je '46; Discussion. 68:912-14 O '46
Gas-turbine locomotive; new motive power for big coal customer. W. A. Stanbury, jr. diags Coal Age 51:82-7 O '46
Locomotive fuel economics. J. I. Yellott. il Min Cong J 32:30-1 Je '46
Locomotive fuel from the coal-man's viewpoint. C. F. Hardy. bibliog A S M E Trans 68:757-61; Discussion. 761-2 O '46

See also
Locomotive boilers—Firing
Locomotives, Diesel—Fueling

Inspection

Magnetic-particle testing prevents railroad failures; shops of Baltimore & Ohio railroad. L. B. Sagle. il Am Mach 90:106-7 Ja 31 '46

Lubrication

Grease grooves in driving box bearings. diags Ry Mech Eng 119:599 D '45; Discussion. A. E. Hickel. 120:201-2 Ap '46
High-pressure locomotive lubricator uses magnesium castings. il diags Product Eng 17:[no 7] 104 Jl '46

Prices

Locomotive prices; tabulation. J. G. Lyne. Ry Age 120:87 Ja 5 '46

Rating

Comparable locomotive ratings. F. E. Wynne. Ry Age 120:316-18 F 9 '46

Reconstruction

North Western class-H locomotives are being modernized. il Ry Age 120:860-2 Ap 27 '46; Same, with diags. Ry Mech Eng 120: 295-8 Je '46
Rebuilt 4-6-2 locomotive; L.N.E. railway. il diag Engineering 160:326 O 26 '45
Reconstruction of B17 class 4-6-0 locomotives, L.N.E.R. il Engineering 160:524 D 21 '45

Repair

Applying heavy locomotive springs. il Ry Mech Eng 119:598 D '45
Reclaiming locomotive parts by welding; Locomotive maintenance officers' association report. Ry Mech Eng 120:529-32 O '46

See also
Locomotives, Diesel electric—Repair

Rods

Maintaining Timken piston rods and crossheads. il Ry Mech Eng 120:197-9 Ap '46
Marshall shops make nickel-steel driving rods. il Ry Mech Eng 120:358-62 Jl '46

Safety measures

See also Interstate commerce commission —Bureau of locomotive inspection

Sand supply

Automatic sand-handling plant for railway service. Comp Air Mag 51:112 Ap '46

Smoke problem

Air supply to coal-fired fireboxes; abstract. R. A. Sherman. Ry Age 121:53-4 Jl 13 '46
Automatic controls for overfire air jets; abstract. J. Canetta. diag Ry Age 121:52-3 Jl 13 '46
Eliminating black smoke; report of Railway fuel and traveling engineers' association. Ry Mech Eng 120:569-70 O '46
Elimination of locomotive smoke; abstract. R. V. Wright. Ry Age 121:51-2 Jl 13 '46
Locomotive smoke greatly reduced by overfire air jet. il Sci Am 174:126 Mr '46
Smoke consumer silencer. J. E. Bjorkholm. il diag Ry Age 119:901-2 D 1 '45
Southern railroads lead in movement to abate smoke nuisance; Bituminous coal research, inc. Manuf Rec 114:54 N '45
Wilson smoke consumer. diag Ry Age 121:182 Ag 3 '46

Springs

Spring-rigging design and maintenance; Locomotive maintenance officers' association report. diag Ry Mech Eng 120:533-8 O '46

Statistics

Locomotives ordered and built in 1945. A. J. McGinnis. Ry Age 120:88-92 Ja 5 '46

Testing

Magnaflux test of Diesel locomotive parts; abstract. M. C. Haber. il Ry Mech Eng 120: 304-7 Je '46

Valves and valve gear

Assembly rack for Baker valve gear; locomotive shop of the Pere Marquette. il Ry Mech Eng 120:80-1 F '46
Conjugated valve gears for locomotives; their history and development. H. Holcroft. diags Engineer 181:145-7, 168-70, 192-3 F 15-Mr 1 '46; Discussion. E. C. Poultney. 181:248 Mr 15 '46

Water scoops

Water-scoop operation leads to derailment and collision. Ry Age 120:165 Ja 12 '46

Weighing

Small locomotive scales have advantages. J. N. Todd. il diags Ry Age 120:366-8 F 16 '46

LOCOMOTIVES—*Continued*

Wheels

Design of locomotive crankpins; abstract. O. J. Horger and W. I. Cantley. Materials & Methods 23:1644+ Je '46

Rebuilding locomotive wheels by automatic shielded arc methods; Pittsburgh coal co. L. K. Stringham. il Welding J 25:336-9 Ap '46

LOCOMOTIVES, Diesel

Diesel engine fires. il Safety Eng 91:38-9 Je '46

Diesel locomotives roll on; with cost and other statistical data. G. W. Grupp. Diesel Power 24:201-3 F '46

Diesel traction on the North western railway (India); with cost data. H. W. Puttick. diags Inst Mech Eng Proc 151 no 1:87-98, pl 1-2 '44; Discussion. il 152:Proc 324-31 D '45

Fast freights on the Boston & Maine. il Diesel Power 24:449-52+ Ap '46

Planet shunting locomotive. il Mech Handling 33:40-1 Ja '46

Road foreman and Diesel locomotives; fuel and lubrication; report of Railway fuel and traveling engineers' association. Ry Mech Eng 120:570-1 O '46

Ruston and Hornsby oil-engined mine locomotive. il Engineer 182:240 S 13 '46

Fueling

Diesel locomotives take on fuel. il plan diags Diesel Power 24:1080-3 S '46

Fueling Great Northern's fleet of Diesel locomotives. il Diesel Power 24:710-11 Je '46

Lubrication

M. & J. filter element; lubricating oil filters of Diesel locomotives. il Ry Age 119:866 N 24 '45; Same. Ry Mech Eng 120:44 Ja '46

LOCOMOTIVES, Diesel-electric

Another rail giant makes its debut; three-unit 6,000-hp. power plant for Sante Fe. il Bsns W p19 S 21 '46

Baldwin announces largest single-unit Diesel electric locomotive. il diags Diesel Power 24:54-5 Ja '46

Can't neglect Diesel water facilities; cooling systems and steam heating equipment. G. E. Martin. il plan Ry Age 121:332-4 Ag 24 '46

Coal strikes impel C.N.J. to Dieselize. Ry Age 121:769+ N 9 '46

Diesel-electric locomotive operation; abstract. R. Aldag, jr. S A E J 54:sup30-1 F '46

Diesel-electric locomotive parts; A.A.R. P.&S. division report. Ry Age 121:289 Ag 17 '46

Diesel-electric traction; with cost data; abstract. D. B. Hoseason. Inst E E J 93 pt 1: 231-3 My '46

Diesel freight power for Mexican line. il Ry Age 121:226-8 Ag 10 '46

Diesel locomotives, advantages for Santa Fe. F. G. Gurley. il Ry Age 121:513-14 S 28 '46

Diesel locomotives roll on; with cost and other statistical data. G. W. Grupp. Diesel Power 24:201-3 F '46

Diesel locomotives take over at Pearl Harbor navy shipyard. G. W. Grupp. il Diesel Power 24:966-7+ Ag '46

Diesel locomotives to fit the job. O. L. Olsen. Ry Mech Eng 120:571-2 O '46

Diesel railroad firsts. il Diesel Power 24:190+ F '46

Diesel trailers for hump operation; New York Central using Diesels, with supplementary motor capacity, as pushers. il Ry Age 120: 402-3 F 23 '46; Ry Mech Eng 120:146-8 Mr '46

Diesels aid the Rio Grande. il Ry Age 121: 367-9 Ag 31 '46

Diesels in industrial service, Florence pipe foundry and machine company. il Ry Age 120:724 Ap 6 '46

Diesels satisfy Canadian Pacific. il Diesel Power 24:187 F '46

Diesels to replace electrics on Boston & Maine's Fitchburg division; improved ventilation of Hoosac tunnel. il plan Ry Mech Eng 120:318-20 Je '46

Electrical and allied developments of 1945; locomotives, G. Bartlett. il Gen Elec R 49: 42-3 Ja '46

Electro-motive swings into full output of Diesel locomotives. il Iron Age 157:115 My 2 '46

Electro-motive type F-3 Diesel. il plans diags Ry Age 121:674-7+ O 26 '46

Elgin, Joliet & Eastern receives transfer locomotive. il Ry Age 121:371-2 Ag 31 '46

Fires in Diesel-electric locomotives. W. S. Wicker. Ry Age 120:1107-8 Je 1 '46; Same. Ry Mech Eng 120:299-300 Je '46

First Ingalls Diesel-electric locomotive. il Ry Age 120:1062-4 My 25 '46; Same, with diag. Ry Mech Eng 120:289-91+ Je '46

French Diesel-electric locomotives. il Elec R (Lond) 137:877 D 14 '45

Great Northern hauls war freight; mountain operations on western lines aided by use of Diesel-electrics. il map Ry Age 120:440-3 Mr 2 '46

Ingalls 1,500 hp. Diesel electric locomotive. R. H. Macy. il diags Diesel Power 24:588-9+ My '46

Large or small cylinder diameter; dual-pressure, intercooled, turbocharged, four-cycle engine. R. B. Miller. diags Ry Mech Eng 120:344+ Jl '46; Same. Diesel Power 24: 9545 Ag '46

Lightest weight locomotive Diesel powers Alco's 75,000th. plan diag Am Mach 90: 152 S 26 '46

Maintenance and operation of Diesel electric locomotives. G. F. Wiles. Ry Mech Eng 120: 117-18; Discussion. 118-20 Mr '46

Milwaukee road increases its Diesel fleet. il Diesel Power 24:207 F '46

Missouri Pacific's Sunshine Special converts to Diesel. il Diesel Power 24:199-200 F '46

Modern double-reduction traction motor. L. Greer. il Elec Eng 65:Trans 471-4 Jl '46; Same cond. Ry Mech Eng 120:368-9+ Jl '46

More Diesels; Fairbanks-Morse to get railroad business. il Bsns W p22 My 11 '46

New Diesel adaptable for freight or passenger service. il Iron Age 158:102 O 24 '46

Observations on the use of a Diesel freight locomotive through a railway tunnel. L. B. Berger and L. H. McGuire. 5pls U S Bur Mines Rep of Invest 3887:1-20 '46

Off-the-line fire protection; Diesel-electric locomotive shops. il Diesel Power 24:192-3+ F '46

Over the mountain with Diesel-electrics; Northern Pacific. il Ry Age 120:913-15 My 4 '46

Record to note; performance by three Electromotive freight locomotives on the B & O. il Diesel Power 24:716 Je '46

Refinement of existing designs will produce tomorrow's power. il Ry Age 119:802-4 N 17 '45

Report on locomotive construction. diags Ry Mech Eng 120:475-80 S '46; Same cond, without diags. Ry Age 121:266-8 Ag 17 '46

Rio Grande makes the grade; Diesel locomotives for mountain routes. il Diesel Power 24:188-9+ F '46

Santa Fe buys new design road Diesel. il diags Ry Age 121:636-41 O 19 '46

Seaboard 3,000-hp. Diesel. il plan diag Ry Mech Eng 120:55-61 F '46; Same, without diags. Ry Age 120:226-31 Ja 26 '46

6000-Hp Diesel-electric locomotive. il Mech Eng 68:987-8 N '46

Southern railway has gone Diesel; equipment, instruction cars, shops, etc. il Diesel Power 24:182-4 F '46

Southern trains its Diesel forces; second instruction car for operating and mechanical personnel goes in service. il plan Ry Age 119:848-52 N 24 '45

Union Pacific places first Fairbanks-Morse road Diesel in regular service. il Ry Age 121:126-9 Jl 27 '46; Diesel Power 24:972-7+ Ag '46

World's most powerful locomotive delivered; built for Seaboard air line railway. Iron Age 156:142 D 13 '45

Cost of operation

A.R.E.A. reports on locomotive economics. Ry Mech Eng 120:249-53 My '46

Locomotive costs assuming importance. il Ry Age 120:1005-8 My 18 '46

Railroads' motive power costs analyzed; steam and Diesel locomotives compared. A. H. Candee. il Civil Eng 16:439-41 O '46

LOCOMOTIVES, Diesel-electric—*Continued*

Equipment

Cleaning Diesel engine filters. il diags Ry Mech Eng 120:139-41 Mr '46

Cleaning Diesel oil-cooler cores. il plan Ry Mech Eng 120:411 Ag '46

Fire engine on rails; fire equipment for Diesel electric locomotives. M. A. Laswell. Safety Eng 90:34 N '45

Manufacture

Alco sets up assembly line for mass production of Diesel electrics. il Iron Age 158: 99 S 19 '46

From ships to locomotives; Ingalls shipbuilding corp. converts part of Pascagoula yards to production of Diesel electrics. Bsns W p54 N 10 '45

Repair

Another modern shop for Diesels; Southern shop at Alexandria. il layout plan Ry Age 121:218-21 Ag 10 '46

Classified repairs for Diesel locomotives; report of Locomotive maintenance officers' association. Ry Mech Eng 120:538-40 O '46

Converts shop for Diesel repairs; shop of the Boston & Maine at Mechanicville. il layout plan Ry Age 121:716-19+ N 2 '46

Diesel locomotives get super service; Erie railroad repair and maintenance station. F. D. Kennedy. il Am Mach 90:88-9 Ag 29 '46

Diesel shops on Santa Fe Coast lines. il map Ry Age 120:714-17, 770-4 Ap 6-13 '46

Erie Diesel layout has everything; shop at Marion, Ohio. il plans Ry Age 120:1130-4 Je 8 '46

Fire hazards in Diesel shops. W. S. Wicker. Ry Age 119:856-7 N 24 '45

Great Northern's Diesel repair shops. il Diesel Power 24:178-80+ F '46

Modern shops for Great Northern Diesels. il plan diag Ry Age 120:1215-18 Je 22 '46

Riders keep them rolling; Rio Grande traveling Diesel-electric maintainers. W. L. Cotton. il Ry Mech Eng 120:87-9 F '46

LOCOMOTIVES, Gas and oil

See also
Locomotives, Diesel
Locomotives, Diesel-electric
Locomotives, Gas turbine

LOCOMOTIVES, Gas turbine

Coal-burning gas-turbine locomotive. Mech Eng 68:902 O '46

Coal-burning gas turbine locomotives may supplant Diesel-electrics. il diags Nat Pet N 38 pt 2:R563-6 Ag 7 '46

Coal-fired gas-turbine locomotive. J. I. Yellott and C. F. Kottcamp. diags Ry Age 121:551-5+ O 5 '46

Coal-fired gas-turbine prospects bright; abstracts. J. I. Yellott. diags Power 90:157+ Mr '46; Mech Eng 68:465-6 My '46

Coal group orders two 3750-hp locomotive gas turbines. diags Iron Age 158:102-3 S 19 '46

Economics studies on coal-burning gas turbine locomotives show interesting cost comparisons. Nat Pet N 38 pt 2:R566 Ag 7 '46

Gas-turbine locomotive; new motive power for big coal customer. W. A. Stanbury, jr. diags Coal Age 51:82-7 O '46

Gas turbine locomotives. W. Giger. il diags Ry Mech Eng 120:394-8 Ag '46; Same abr. Ry Age 120:1135-7 Je 8 '46

Locomotives for today and tomorrow. C. Kerr, jr. il Ry Age 120:765-9 Ap 13 '46; Same. Ry Mech Eng 120:244+ My '46

LOCOMOTIVES, Industrial

Diesel locomotives take over at Pearl Harbor navy shipyard. G. W. Grupp. il Diesel Power 24:366-7+ Ag '46

Diesels in industrial service, Florence pipe foundry and machine company. il Ry Age 120:724 Ap 6 '46

Planet shunting locomotive. il Mech Handling 33:40-1 Ja '46

LOCOMOTIVES, Mine

Rebuilding locomotive wheels by automatic shielded arc methods; Pittsburgh coal co. L. K. Stringham. il Welding J 25:336-9 Ap '46

Ruston and Hornsby oil-engined mine locomotive. il Engineer 182:240 S 13 '46

Underground haulage with locomotives and mine cars. C. R. Nailler and C. C. Hagenbuch. il Min Cong J 32:41-2 Je '46

See also
Electric locomotives, Mine

LOCOMOTIVES, Steam turbine

American geared turbine steam locomotive. il Engineer 180:466-9 D 7 '45

Condensing locomotives. G. V. Lomonossoff and G. Lomonossoff. bibliog il diags Inst Mech Eng J & Proc 152:Proc 275-88; Discussion il diags 289-303 D '45

German condensing locomotive. il Ry Age 119:1051-2 D 29 '45

German 110 mph turbine locomotives. Iron Age 157:73 Ja 31 '46

L.M.S. turbine locomotive. R. C. Bond. Engineer 181:136-9; Discussion. 135-6 F 8 '46

Locomotives for today and tomorrow. C. Kerr, jr. il Ry Age 120:765-9 Ap 13 '46; Same. Ry Mech Eng 120:239-44+ My '46

Tests of L.M.S. turbine locomotive. E. C. Poultney. il Ry Age 120:1178-80+ Je 15 '46

LOCUST beans. See Carob beans

LOCUSTS. See Grasshoppers

LOEW'S, incorporated

Consolidated income account for years ended Aug. 31, 1942-1945. Comm & Fin Chr 163: 906 F 18 '46

LOG cabins

House in Chappaqua, N.Y. il plans Arch Forum 83:94-7 D '45

LOGARITHMS

Math tips; logarithms, time-saving invention. P. Swain. Power 90:266, 337, 410, 484 Ap-Jl '46

LOGGERHEAD turtle. See Turtles

LOGGING. See Lumbering

LOGOGRAPH charts. See Charts (calculating)

LOGOTYPE. See Advertisements—Typography

LOGS

See also
Bark peeling

LOMONÓSOV, Mihâilo Vasîlievich

Some reflections on the cause of heat and cold; tribute to M. V. Lomonósov. A. J. Shneiderov. Science 103:487 Ap 19 '46

LONDON

Engineering defence work in London. T. P. Frank. il Engineering 160:381-2, 400, 408-12 N 9-16 '45; Same cond. Engineer 180:372-3+, 385-6 N 9-16 '45

Future of London. Economist 150:369 Mr 9 '46

London traffic and the London plan; conference. Engineer 182:262-2 S 20 '46

See also
Chemical industries—London
Gas supply—London
Retail trade—London

Bridges

World-famous bridge replaced; new Waterloo bridge. il Roads & Bridges 84:101 Mr '46

Crystal palace

See Crystal palace, London

Libraries

See also
American library in London
London—National central library

Lighting

Public lighting for the victory celebrations in London as designed and executed by the Ministry of works. R. W. Ames. il diags Light & Lighting 39:117-30 Jl '46

Metropolitan district

More land for London; County of London plan. W. G. Holford. il map Arch Rec 99: 86-91 Mr '46

National central library

National central library and the United States. E. G. Taylor and R. H. Hill. Assn of Sp Lib & Inf Bur Proc 1945:36-7

LONDON—*Continued*

Railroads

Railway (London plan) committee report. plan Engineer 181:437-8 My 10 '46; Engineering 161:450-1 My 10 '46; Electrician 136:1247 My 10 '46

Railways and the re-planning of London. V. A. M. Robertson. Engineering 162:294 S 27 '46

Rapid transit

London passenger transport board; twelfth annual report. Elec R (Lond) 138:457-8 Mr 22 '46

London transport board bravely plans to resume five year plan. Mass Transportation 42:35+ Ja '46

London transport's problem. Economist 151: 59-61 Jl 13 '46

London's railways. map Economist 150:739-40 My 11 '46

Streets

Sub-surface works and the London traffic plan. H. F. Cronin. Engineering 162:342 O 11 '46

Subways

Factory in a railway tunnel; wartime use of 5 miles of London subway. S. C. Mount. il diag Heat & Ven 43:74-7 O '46

Fluorescent lighting in underground. il Light & Lighting 39:51-2 Mr '46

Underground railways and London planning. J. C. Martin. Engineering 162:318 O 4 '46

Water supply

London's water supply; safeguarding its purity in war. E. F. W. Mackenzie. il Water Works & Sewerage 92:353-7 D '45

Metropolitan water board; statement relating to new works. H. Franklin. Engineer 182:100 Ag 2 '46

Proposed greater London water area. Engineering 161:110 F 1 '46

LONDON brick company

Statement by the chairman at annual general meeting. P. M. Stewart. Economist 150:636 Ap 27 '46

LONDON stock exchange

Bull or bear? Economist 150:1053-4 Je 29 '46

London versus New York stock prices. M. Winkler. Comm & Fin Chr 164:1460+ S 19 '46

St Helena aftermath. Economist 151:143 Jl 27 '46

Security profits and prejudice. Economist 149: 832-3 D 8 '45

Steadiness of the London stock exchange. P. Einzig. Comm & Fin Chr 164:1376+ S 12 '46

Stock exchange, 1945. Economist 150:sup3 Mr 23 '46

Stock exchange reconversion. Economist 151: 303-4 Ag 24 '46

World's investment centre; London looks to New York. H. Wincott. Comm & Fin Chr 163:3053+ Je 6 '46

LONG BEACH, California

Harbor

Cyclopean pier construction; explosives loading pier. K. P. Peel. il diags Eng N 136:282-4 F 21 '46

LONG distance telephone. See Telephone—Long distance

LONG ISLAND

See also
Water, Underground—Long Island

LONG ISLAND CITY, New York

Proposed city redevelopment; plan for blighted industrial area. il plans Arch Forum 84:113-15 F '46

LONG ISLAND lighting company

Annual report. Comm & Fin Chr 163:2009 Ap 15 '46

Curb contracts voided. Comm & Fin Chr 162: 2274 N 12 '45

Merger plan filed. Comm & Fin Chr 162:2644 D 3 '45

LONGEVITY

How to figure your own life expectancy Spectator (Life ed) (Endorsement no) 153: 32 D '45

Longevity of industrial population; abstract. Nat Safety N 52:110 N '45

Le vieillissement de la population française et la prolongation de la vie active. Génie Civil 123:250 S 15 '46

LONGINES-WITTNAUER watch company

Stock offered. Comm & Fin Chr 163:2856 My 27 '46

LONGSHOREMEN

Davis, arbitrator to settle stevedores' dispute. Bsns W p110+ N 17 '45

Down to the sea; Bridges warns of trouble to come. Bsns W p83 Je 22 '46

Pleasure craft liability risks; protection and indemnity and Longshoremen's and harbor workers' compensation act. E. N. Muller, jr. il Spectator (Property ed) 12:10-14+ Jl 25 '46

Recent industrial disputes and methods of settlement in the United Kingdom. Mo Labor R 62:430-4 Mr '46

Superunion? proposed merger of seven maritime labor groups. Bsns W p99-100 My 18 '46

LONGSHOREMEN'S and warehousemen's union, International. See International longshoremen's and warehousemen's union

LONGWALL system. See Coal mines and mining—Longwall system

LOOMIS, Alfred Lee, 1887-

Amateur of the sciences; wealthy adventurer in apparatus. pors Fortune 33:132-5+ Mr '46

LOOMS

Activity recorder charts weaver efficiency; total loom stops, warp and filling stops by machine. C. S. Parsons. Textile World 96: 127+Ap '46

Creases formed at the loom. H. E. Wenrich. il diags Rayon 27:359-60, 420-2 Jl-Ag '46

Detector stops loom when back cell is empty. diags Textile World 96:164+ F '46

Double-index dobby-chain barrel on wrong time. P. G. Alexander. diags Rayon 27:475 S '46

Electro-pneumatic loom is developed in Brazil. H. E. Reed. il diags Textile World 96: 129+ My '46

Good inspection forms aid loom maintenance. F. L. Byrd. Textile World 96:118-21 O '46

Gummy loom heddles cleaned in soaking tanks. H. Mochrie. il Textile World 96:135 O '46

Keeping shuttle-boxes in condition. H. E. Wenrich. il Rayon 26:646-9 D '45

Loomfixers' manual; wool section (cont). E. P. Schremp. diags Textile World 96:178 Jl '46

New tools help the fixer in reaming and grinding. H. E. Wenrich. il Textile World 96:115+ Ag '46

Off-pick hazard is chief problem in terry motion. T. Hargreaves. diags Textile World 96:117+ Ag '46

Proper start means longer loom life. E. P. Schremp. il diag Textile World 96:149+ Ap '46

Shuttle furring and yarn tensioning. H. E. Wenrich. il Rayon 26:582-4 N '45

Shuttleless loom developed in Britain. il Textile World 96:120-1 Mr '46

Static electricity grounded to loom frame. R. Lynch. diag Textile World 96:138 Ag '46

Sulzer loom operates at 230 to 240 p.p.m. Textile World 95:160 N '45

Weaving-knitting loom for wide fabric range: Kayloom. il Textile World 96:146 Je '46

Control

Old stop-motion magnet used as filling stop motion. diags Textile World 96:166 S '46

LOOSE-leaf books and devices

Modified Holmstrom system of documentation; Moore's loose-leaf filing system. A. G. Clement and R. H. S. Robertson. il J Doc 1:217-21 Mr '46

LOOSE-leaf catalogs. See Catalogs, Loose-leaf

LOOSE-WILES biscuit company

Financial position. Mag of Wall St 77:696-7 Mr 16 '46

LOOSE-WILES biscuit company—*Continued*
Name changed to Sunshine biscuits, inc. Comm & Fin Chr 163:1730 Ap 1 '46

LORAN system
Evaluation of hyperbolic radio avigation. Aviation 45:51+ Ag '46
First loran-guided Pacific crossing completed Marine Eng 51:109 S '46
Hyperbolic navigation; radio discussion between the I.E.E. and I.R.E. of America. Electrician 136:294-6 F 1 '46
Introduction to loran. J. A. Pierce. bibliog il maps diags Inst Radio Eng Proc 34:216-34 My '46; Abstract. Inst E E J 93 pt 3:243-5; Discussion. 245-50 Jl '46
Loran, a problem; development must be timed to retirement of existing equipment. Bsns W p61 Ja 26 '46
Loran, new long-range aid to navigation. F. G. Watson. map Civil Eng 16:297-9 Jl '46
Loran system; pulsed transmissions provide precise over-water navigation for ships and aircraft. il plan diags Electronics 18:94-9 N; 110-15 D '45; 19:109-15 Mr '46
2-Mc sky-wave transmission. J. A. Pierce. diags Electronics 19:146-53 My '46
Race on for navigation aids; Loran and Decca navigator. Bsns W p56-7+ Je 29 '46
Safety features for passenger ships. il map diag Marine Eng 50:164-9 N '45
Stars for romance; Loran for navigation. R. Le Kashman. il map Air Transport 4:57-8+ F '46
Successor to the sextant. H. Manchester. il maps Sci Am 174:264-7 Je '46

LORENTZ factor. See X rays—Diffraction

LORENTZ transformation
Lorentz transformations applied to the problem of two electrons. G. W. O. Howe. Wireless Eng 23:155-6 Je '46

LOS ALAMOS, New Mexico
Los Alamos debut; still busy assembling bombs. il Bsns W p21-2 N 17 '45
Operation permanent. il Bsns W p27 Ap 6 '46

LOS ALAMOS scientists, Association of. See Association of Los Alamos scientists

LOS ANGELES
Longest Los Angeles shoestring to date; 1,200-mile pipe line to natural gas from Texas and New Mexico. J. H. Collins. map Pub Util 38:602-9 N 7 '46
Los Angeles freeway contracts let; bids on section of Santa Ana parkway. map diag Roads & Sts 89:86-7 F '46
Westchester; planned business development in southwest section of Los Angeles. il Am Bld 68:76-9+ Mr '46

See also
Housing—Los Angeles
Printing trade—Los Angeles

Bridges

Concrete spiral stairway connects parkway bridges in Los Angeles. il diags Eng N 136:845 My 30 '46

Industries

Apparel exhibit to show why California needs textile mills. Sales Management 56:89 Mr 1 '46
Little to sell, but Los Angeles resumes market trade trips. Sales Management 56:126 Ap 1 '46
Los Angeles forges ahead. C. H. Vivian. il map Comp Air Mag 51:174-80 Jl '46
Los Angeles; the city unlimited. il Bsns W p21-2+ Ag 10 '46

Lighting

Improved street illumination reduces accident rates in Los Angeles. il Eng N 136: 858 My 30 '46

Rapid transit

America's next decade of labor philosophy in municipally operated transit is being formulated now; San Francisco strike. R. Lapham. Mass Transportation 42:288-9+ Jl '46
Gilding the white elephant. B. Larrick. il Mass Transportation 42:243-5 Je '46
Los Angeles surveys; city planners discuss future of transit. il map Bus Transportation 25:48-9 F '46
Statement to California railroad commission on application for fare increase by Los Angeles transit lines. R. Fitzgerald. Mass Transportation 42:290-3 Jl '46
We bet Horace Greeley laughs in his tomb. Mass Transportation 42:275-6 Jl '46

Sewerage

Chemical treatment in Los Angeles sewers; use of chlorinated hydrocarbon, Cloroben. R. F. Brown. Eng N 137:161-2 Ag 8 '46

Water and power department

Right job for the man; improved civil service procedure undertaken by Los Angeles Department of water and power. C. E. Hill. Pub Util 37:221-4 F 14 '46

Water supply

Los Angeles makes its own zeolite. il Eng N 136:732-3 My 2 '46

LOST security bonds. See Insurance, Surety and fidelity—Lost security bonds

LOST wax process
Comparison of precision casting methods. W. A. Morey. Foundry 74:85+ Ag '46; Same, with ils and diags. Machine Design 18:83-6 O '46
Designing for precision casting. R. C. Wynne. il Machine Design 18:129-31 Jl '46
Lost wax at work. il diags Sci Am 173:334-6 D '45
Lost wax investment castings; steps in producing precision parts; Haynes stellite company. il Machine Design 18:146-7 My '46
Lost-wax process; producing parts of stainless, chrome-steel, stellite and hastelloy; Haynes stellite division, Union carbide and carbon corporation; illustrations with text. Am Mach 90:110-13 Ap 11 '46; Same. Chem Ind 58:602-3 Ap '46
Lower costs in precision work by mass methods; Haynes stellite company; illustrations and text. flow sheet Factory Management 104:98-101 My '46
Mass production of precision castings; Haynes stellite co. W. G. Gude. il Foundry 74:164-9+ My '46
Mass production of precision castings; illustrations with text; Haynes stellite co. diags Steel 118:96-100+ Ap 8 '46; Materials & Methods 23:1016-20 Ap '46; Power 90:463+ Jl '46
Organic compounds of silicon. A. E. L. Jervis. il Chem Age (Lond) 55:39-41+ Jl 13 '46
Precision-cast parts of high-temperature alloys. W. O. Sweeny. il diags Product Eng 17:121-6 S '46
Precision casting comes of age. il diags Product Eng 17:495-6 Je '46
Precision casting gains ground. il Bsns W p64+ Ap 6 '46
Precision casting; Haynes stellite company. il Mech Eng 68:467-8, 637-9 My, Jl '46
Precision casting heat-treatable copper-base alloys; microstructures. H. Rosenthal and others. il Iron Age 158:48-54 S 19 '46
Precision casting methods and equipment; Kokomo plant of Haynes-Stellite. J. Geschelin. il diags Automotive & Aviation Ind 94: 20-3+ Ap 15 '46
Precision casting on a mass production basis; Haynes stellite co. C. O. Herb. il Mach 52: 149-58 My '46
Precision casting practice; Kerr dental mfg. co. il Steel 118:116-18+ Ja 28; 128-9+ F 4 '46
Precision casting with plastic patterns; Illinois precise casting co. C. T. Post. il diags Iron Age 156:54-9 N 15 '45
Precision investment castings. E. L. Cady. il diags Materials & Methods 23:742-60 Mr '46
Telescoptics; casting metal lens or mirror grinding tools. P. A. Driscoll. diag Sci Am 174:239-40 My '46

LOTIONS

Rating

Lotions for the hands. il Consumers Res Bul 17:5-7 Ap '46

LOTT, Edson S. 1856-1945
Sketch. por East Underw 46:29-30+ N 9 '45; Nat Underw 49:25 N 8 '45

LOTTERIES
Lotteries, ladies and nylons. Adv & Sell 39:218 Ja '46

LOUD speaking apparatus
Air modulation helps give loud speaker long range. il Comp Air Mag 51:22 Ja '46
Analysis of the comparison of beam power and triode tubes used in power amplifiers for driving loudspeakers. J. K. Hilliard. diags Soc Motion Picture Eng J 46:30-6 Ja '46
Audio chanalyst can be used as a servicing device for sound equipment; can also serve as amplifier. A. Liebscher. il diags Radio N 34:32-4+ D '45
Generalized plane wave horn theory. V. Salmon. bibliog diags Acoustical Soc Am J 17: 199-211 Ja '46
Giant loud speakers. Franklin Inst J 241:310-11 Ap '46
High-fidelity all purpose amplifier designed for public address work. R. T. Rogers and M. Putman. il diag Radio N 35:32-4 Ap '46
High-power military sound systems. Electronics 19:216+ F '46
High quality loudspeaker of small dimensions. P. W. Klipsch. bibliog diags Acoustical Soc Am J 17:254-8 Ja '46
Improved loudspeaker system for theaters. J. B. Lansing and J. K. Hilliard. bibliog il Soc Motion Picture Eng J 45:339-49 N '45
Loud-speaker yard communication. il diag Ry Age 121:364-6 Ag 31 '46
Loud-speaking intercommunicating telephone; made by Dictograph Products. Consumers Res Bul 17:24-5 My '46
Massive speaker cabinet. C. A. Volf. il Electronics 19:206+ Mr '46
New permanent magnet public address loudspeaker. J. B. Lansing. il Soc Motion Picture Eng J 46:212-19 Mr '46
Psychological and technical considerations employed in the Bucky sound reproduction and public address systems. P. A. Bucky. Soc Motion Picture Eng J 46:75-9 Ja '46
Railway Express terminal gets public address system. il Ry Age 120:965 My 11 '46
Storecast's supermarket commercials to spot advertising and merchandising. Ptr Ink 215:112 Ap 5 '46
Wave propagation and outdoor field tests of a loudspeaker system. F. L. Hopper and R. C. Moody. bibliog Soc Motion Picture Eng J 46:115-23 F '46
Wide range loudspeaker developments. H. F. Olson and J. Preston. il diags RCA R 7: 155-78 Je '46; Same. Soc Motion Picture Eng J 17:327-52 O '46

See also
Radio loud speakers

Advertising
Theaters are their customers; but promotion woos movie audiences; Altec makes radio and loudspeaker equipment. H. Bessey. il Sales Management 56:46+ Ap 15 '46

Testing
Effects of finite baffles on response of source with back enclosed. R. H. Nichols, jr. diag Acoustical Soc Am J 18:151-4 Jl '46

LOUISIANA

See also
Gas, Natural—Louisiana
Industrial education—Louisiana
Land—Louisiana
Roads—Louisiana
Sand—Louisiana

Industries and resources
Another BAWI; plan to attract heavy industry, airline operations. Bsns W p44+ Ag 10 '46

LOUISIANA and Arkansas railway
Annual report. Comm & Fin Chr 163:2159 Ap 22 '46

LOUISVILLE, Kentucky

Industries
Louisville reconverts. P. Hughes. il Manuf Rec 115:34-6+ F '46

Water supply
Artificial recharge of glacial sand and gravel with filtered river water at Louisville. W. F. Guyton. bibliog maps diags Econ Geol 41:644-58 S '46

LOUISVILLE gas and electric company
Christmas bargain; Louisville expects cut in utility rates. Bsns W p75 D 22 '45
Plan reflects new values. Barron's 26:7 My 20 '46

LOUISVILLE industrial foundation
Industry-recruiting program that works. R. P. Crawford. Barron's 26:11 Je 17 '46

LOUSE powder. See Lice

LOVELACE, Griffin M.
Sketch. J. A. Stevenson. por East Underw 46: 28 D 14 '45

LOW temperature. See Temperature, Low

LOWE, Donald Blair, 1883-1946
Passing of the pioneers. por Ind Med 15: 275 Ap '46

LOWENSTEIN, M., and sons, inc.
Stocks offered. Comm & Fin Chr 163:1287 Mr 11 '46
To consider dividends. Barron's 26:6 Ag 26 '46

LUBRICATING grease institute, National. See National lubricating grease institute

LUBRICATING greases
Automatic can filler and crimper shuts off grease flow at proper weight. il Nat Pet N 38 pt 2:R258 Ap 3 '46
Grease grooves in driving box bearings. diags Ry Mech Eng 119.599 D '45; Discussion. A. E. Hickel. 120:201-2 Ap '46
Grease lubricants. J. C. Van Gundy. il Steel 118:92-5+ Mr 25; 142-5+ Ap 1 '46
Grease lubrication of ball-bearing motors and generators. E. M. Higgins. il Mech Eng 67: 639-44+ O '45; Discussion. 68:163-5 F '46
Grease-making science rapidly expanding, technologists say. Oil & Gas J 45:49 O 5 '46
Greases; their characteristics and uses; abstract. Product Eng 17:130-1 F '46
Lubrication of antifriction bearings. D. T. Achorn. Paper Tr J 122:152-3 Je 20 '46
Multi-purpose paradox. T. G. Roehner. il Sci Am 175:166-8 O '46
National lubrication grease institute, 14th annual meeting, Chicago, Sept. 30-Oct. 2; abstracts of papers. Oil & Gas J 45:135 O 19 '46
Silicone greases for bearing lubrication at high or low temperatures. Power Pl Eng 50: 86-7 Jl '46
Silicone greases prove versatility. Aero Digest 52:79 Ja '46; R Sci Instr 17:78-80 F '46
Spraying of gear lubricants. D. E. Whitehead. il diag Power Pl Eng 50:89+ Mr '46

Manufacture
Continuous process for aluminum greases. H. G. Houlton and others. flow sheet il Oil & Gas J 45:127-8+ O 19 '46
Evaluation and manufacturing methods of ball- and roller-bearing greases. A. E. Hickel. il Pet Refiner 25:109-12 F '46
Manufacturing methods and tests on hub-wedge and curve greases as used on railroad equipment. A. E. Hickel. il Pet Refiner 25:134-6 O '46

Testing
Aspects of grease corrosion. H. A. McConville. il Gen Elec R 49:30-1 O '46
Performance testing of wheel-bearing lubricants. E. W. Adams. il S A E J 54:133-7 Mr '46; Abstract. Automotive & Aviation Ind 93:76+ D 15 '45; Discussion. S A E J 54:137 Mr '46
Will your ball and roller bearing greases stand up? H. A. McConville. Power Pl Eng 50:89-90 Ag '46

LUBRICATING oil industry
Oil maverick; west coast refiner deserts 1,000-mile policy. Bsns W p18 Ap 13 '46

Advertising
Influencing the industrial supply salesman; Lubriplate tailormade business-paper copy, sales meetings and monthly bulletin mailings. il Ptr Ink 214:83-4+ F 15 '46
Petroleum research develops new products and wider markets for the Texas company; Beacon laboratories, house organ, booklets. il diags Ind Marketing 31:44-5+ Mr '46

LUBRICATING oils
Acryloid 150; pour point improver. Oil & Gas J 44:142 Ap 20 '46
Action of lube oil detergents on automotive engines. F. M. Watkins. il Pet Refiner 25: 89-93 patent list(p93) Ja '46
Additives impart necessary qualities to lubricating oils. Oil & Gas J 44:249 Mr 30 '46
Additives improve engine lubricant; Permalube. il Steel 119:126 S 9 '46
Alloyed oils; chemical additives. A. B. Boehm. il Sci Am 174:167-9 Ap '46
API lube committee adopts revised definitions and names for crankcase oils. Nat Pet N 38:14 S 25 '46
Anti-foam additive improves engine lubrication at high power outputs. il Sci Am 174: 215 My '46
Aviation lubricating oils; abstract. B. M. Berry and F. S. Rollins. Automotive & Aviation Ind 93:70+ D 15 '45
Basic requirements of lubricating oil maintenance. W. C. Bauer. Roads & Bridges 83: 136-41 N '45; Abstract. S A E J 53:sup 21+ D '45
Clean oil and its value to the paper industry. B. F. Hunter. il diag Paper Ind 27:1530-1 Ja '46
Diesel engine lubricating oils; abstract. F. W. Kavanagh. S A E J 54:103 O '46
Dimethyl-silicone-polymer fluids and their performance characteristics in hydraulic systems. V. G. Fitzsimmons and others. il A S M E Trans 68:361-9 My '46
Doped or premium motor oil; study of Triton oil. Consumers Res Bul 18:21-4 S '46
Effect of additives on viscosity-temperatures. K. S. Ramaiya. Automobile Eng 36:190 My '46
Factors in aeration and deaeration of aircraft-engine oil. W. L. Weeks. diags S A E J 54:174-90 Ap '46; Abstract. Automotive & Aviation Ind 94:38+ Ja 15 '46
German military fuels and lubricants; abstract. N. L. Klein. S A E J 54:sup31 Je '46
Inhibitors in turbine oils reduce oxidation and prevent rust. E. W. Gardiner. il diags Power 90:169-71+ Mr '46
Investigation of piston-ring sticking in high-duty aero-engines. A. Lahiri and E. Mikolajewski. bibliog 4pls Inst Pet J 32: 59-77; Discussion. 78-89 F '46
Lauson engine test conditions. W. L. Nelson. Oil & Gas J 44:112+ F 16 '46
Low temperature sludge in automotive gasoline engines. il diag Roads & Sts 89:105-10+ F '46
Lubricating oil maintenance equipment. il diag Ry Mech Eng 120:494 S '46
Lubricating-oil research in Socony-Vacuum laboratories. F. R. Staley. il Oil & Gas J 44:105+ Mr 23 '46
Lubricating oil storage and handling. Oil & Gas J 45:129 O 26 '46
Machine tool lubrication; Aviation division of the Studebaker corp. P. E. Bundy. Iron Age 157:72-3 Ja 10 '46
Maintenance of lubricating oils for prime movers. B. Hunter. Marine Eng 51:117-20 S '46; Same. il Power Pl Eng 50:78-9+ S '46
Mechanical factors affecting ring gumming in petrol engines, with particular reference to the rating of lubricating oils. B. Pugh. Engineer 180:491-3 D 14 '45; Same. Engineering 161:93-4 Ja 25 '46; Discussion. Engineer 180:480-2 D 14 '45
Molecular weights of viscous hydrocarbon oils; correlation of density with viscosities. A. E. Hirschler. bibliog Inst Pet J 32:133-61 Mr '46
Navy experience with Diesel fuels and lubricants. H. F. Galindo. il S A E J 53:670-7 N '45
New motor oil definitions termed aids to oil companies and to the consumers; abstracts. H. R. Wolf. Nat Pet N 38:22+ Ja 16 '46; S A E J 54:sup31 My '46
New synthetic lubricants from natural or other hydrocarbon gases. J. C. Kratzer and others. il Nat Pet N 38 pt 2:R135-6+ F 6 '46; Same, with additional il. Pet Refiner 25:127-38 F '46; Same. S A E J 54:228-37 My '46; Abstract. Automotive & Aviation Ind 94:36 F 1 '46
Oil cleaning system; services seventeen automatic screw machines. il Steel 119:77+ Ag 12 '46
Oil for the postwar car. H. L. Hemmingway. bibliog Pet Refiner 24:127-31 N '45; Abstract. S A E J 54:98-9 O '46
Oils for instrument bearings. C. H. Braithwaite, jr. il Aero Digest 53:94+ O '46
Oxidation of lubricating oils. H. H. Zuidema. bibliog Chem R 38:197-226 Ap '46
Physical chemistry of lubricating oils. A. Bondi. bibliog diags Pet Refiner 25:121-6 Je; 119-32 Jl; 119-29 Ag '46
Physical properties and chemical constitution of lubricating oils. M. Freund. bibliog Pet Refiner 25:137-40 O '46
Postwar crankcase oils; abstract. H. R. Wolf. Nat Pet N 38:46+ My 1 '46
Pour point depressed, viscosity index raised by oil additive; Acryloid 150. Sci Am 175: 68 Ag '46
Practical information concerning steam turbine lubricating oil. S. F. Whirl. il Power Pl Eng 50:64-7 Je '46
Pressures against which oils will spread on solids. E. R. Washburn and E. A. Anderson. bibliog J Phys Chem 50:401-6 S '46
Protective value of industrial lubricants. G. H. von Fuchs. bibliog il Iron Age 158:46-9 O 3 '46
La régénération des huiles usagées; ses techniques; ses possibilités en France. P. Stirnemann. Chimie & Ind 55:96-105 F '46
Ross coolers for lubricating oil and jacket water. il diag Diesel Power 23:1458-60+ D '45
Shell turbine oil. Marine Eng 50:216 N '45
Sludging; effect of oil-water mixtures and other factors. E. V. Paterson. Automobile Eng 36:131-2 Mr '46
Steam turbines; lubrication. diags Power 89: 820-1 D '45
Surface area of powders; heat of wetting of metal surfaces by oils. H. H. Herbst. bibliog diag Pet Refiner 25:121-5 Mr '46
Synthetic liquid fuels and lubricants in Germany. W. C. Schroeder. Am Gas J 163:28 D '45
Turbine oils of today. R. E. Burness. Marine Eng 51:160+ Ap '46
Use and evaluation of heavy-duty engine oils. O. L. Brandes and H. H. Donaldson, jr. il S A E J 54:74-80 F '46
Use of chemical additives in petroleum products. L. A. Hamilton and P. V. Keyser, jr. bibliog il Nat Pet N 38 pt 2:R228+ Mr 6 '46
Value of heavy-duty motor oils for passenger cars studied. V. B. Guthrie. Nat Pet N 37: 52+ D 19 '45
Viscosity; most important property of lubricating oil. C. M. Larson. diags Power 90:508-10 Ag '46
Viscosity of oils. W. L. Nelson. Oil & Gas J 45:163 My 18 '46
War-made oils make car engines weatherproof. P. V. Keyser, jr. Nat Pet N 37:34 N 21 '45

Analysis
Analyze additive lubricants in minutes instead of hours with spectrographic method. L. E. Calkins and M. M. White. il Nat Pet N 38 pt 2:R519+ Jl 3 '46

Bibliography
References to oil additives. W. L. Nelson. Oil & Gas J 44:115 Mr 16 '46

Color
Physical chemistry of lubricating oils. A. Bondi. bibliog Pet Refiner 25:119-22 Ag '46

Manufacture
La fabrication des huiles de graissage à partir de l'alcool éthylique. Génie Civil 123:64 Mr 1 '46
Improved technology=better lube oils. G. Armistead, jr. bibliog diags Oil & Gas J 44:124+ Ap 27; 115+ My 4 '46
Lubricant stocks improved by propane deasphalting. J. T. Dickinson and N. R. Adams. flow chart il Oil & Gas J 44:185+ Mr 30 '46
Manufacture and application of lubricants in Germany. M. E. Spaght. bibliog Pet Processing 1:126+ O '46

LUBRICATING oils—Manufacture—*Continued*
Production of lubricating oils from the olefines produced in the Fischer-Tropsch synthesis. D. Gall. bibliog Soc Chem Ind J 65:185-9 Jl '46
Production of synthetic lubrication oil by condensation and polymerization. G. G. Pritzker. bibliog Nat Pet N 38 pt 2:R606+ Ag 7 [cont as] Pet Processing 1:58-9+ S '46
Refrigeration applications in petroleum processing. C. W. Cannon. diags Refrig Eng 51: 130-4+ F '46
Synthetic lubricants from ethylene condensations. H. Schildwachter. bibliog diag Pet Refiner 25:109-13 Mr '46
Vacuum distillation, chemical treating make quality lubricating oils. A. L. Foster. flow chart il Oil & Gas J 45:78-9+ S 28 '46

Prices

Suspend all price controls on lubricants, text of recommendations. Nat Pet N 38: 14+ My 22 '46

Rating

Motor oils. Consumers Res Bul 18:13-14 Ag; 19-20 S '46

Specifications

Industrial lubrication; tests and specifications. W. G. Forbes. Nat Pet N 37 pt 2: R1012; 38 pt 2:R56 D 5 '45, Ja 2 '46
Industrial user should not specify own lubricants. B. C. Voshell. Nat Pet N 38:36-7+ Jl 10 '46

Sulfur content

Oxidation of lubricating oils; mechanism of sulfur inhibition. G. H. Denison, jr. and P. C. Condit. bibliog Ind & Eng Chem 37: 1102-8 N '45
Sulfur in lubricating oils. Oil & Gas J 44:82 F 9 '46

Testing

Application of heavy duty additives to aviation oils. C. O. Tongberg and others. il Automotive & Aviation Ind 94:28-9+ F 15 '46
Correlation of chemical constitution and oxidation susceptibility of lubricating oil components. S. F. Kapff and others. bibliog diags Inst Pet J 31:453-74 D '45
Course of the reaction at 100° C in the system aromatic-free mineral oil/oxygen. D. J. W. Kreulen. bibliog diag Inst Pet J 32: 515-24 Ag '46
Determination of the pressure-viscosity coefficient and molecular weight of lubricating oils by means of the temperature-viscosity equations of Vogel and Eyring. A. Cameron. bibliog Inst Pet J 31:401-14 O '45
Development of improved turbine oils. C. N. Smith and G. H. S. Snyder. pl Inst Pet J 32:313-22 Je '46
Dimethyl-silicone-polymer fluids and their performance characteristics in unilaterally loaded journal bearings. J. E. Brophy and others. il A S M E Trans 68:355-60 My '46
Lubricant tests by the four-ball oil tester. C. F. Krienke. diag Pet Refiner 25:141-4 S '46
Performance characteristics of detergent motor oils vs. non-detergent motor oils; abstracts. L. E. Calkins. Nat Pet N 37:48 N 14 '45; il S A E J 54:sup28-9 My '46; Discussion. 54:sup29 My '46
Results of tests on method for estimating maximum pour points of lubricating oils containing pour point depressants. Am Soc T M Proc 45:237-43 '45
Rusting characteristics of turbine lubricating oils. W. P. Kuebler. il Mech Eng 68:889-93 O '46

LUBRICATION and lubricants
Design of fluid-film bearings for optimum loading; engineering data sheet. H. A. S. Howarth. diags Machine Design 18:101-3 O; 151-4 N '46
Development and lubrication of the automotive hypoid gear. F. F. Musgrave. bibliog Inst Pet J 32:32-44 Ja '46
Development of fuels and lubricants for army ground vehicles. N. L. Klein. Nat Pet N 38 pt 2:R92-4+ F 6 '46
Extreme-pressure lubricants. B. F. Hunter. Steel 118:118+ My 20 '46
Forging costs cut by improved die lubricant. L. R. Pistoles. il Iron Age 158:55-6 O 17 '46
How to deliver and maintain lubricants. H. L. Flynn. diags Am Mach 90:117-36 Jl 18 '46
How to get the most out of ball and roller bearings. A. Palmgren and G. Palmgren. il Factory Management 103:141-8 D '45
How to lubricate ball and roller bearings; abstract. il Food Ind 17:1453 D '45
How to lubricate metalworking machines. H. L. Flynn. diags Am Mach 89:113-28 D 20 '45
How to select the right bearing lubricant. Roads & Sts 89:111+ S '46
Industrial lubrication (cont). W. G. Forbes. Nat Pet N 38 pt 2:R56 Ja 2 '46
Load in a bolt due to tightening the nut. J. L. M. Morrison. diags Engineering 161:409-12 My 3 '46
Lubricant selection simplified; with charts; engineering data sheet. J. G. O'Neill. Machine Design 18:161-4 My '46
Lubricants as engineering materials; abstract. C. L. Pope. Power 89:918 Mid-D '45
Lubricants from aromatics and paraffin chains; abstract. C. Berthelot. Chem Eng 53:268+ Ag '46
Lubricants from natural gas. Bsns W p64+ Ja 12 '46
Lubricants; their proper specification and utilization in design. B. F. Hunter. il diag Machine Design 18:133-6+ S '46
Lubrication of rubber plant machinery. A. F. Brewer. diags India Rubber World 113:384-9 D '45
Lubrication on schedule. A. Strohmaier. il Nat Safety N 53:66+ Ja '46
Lubrication; safety aspects. Nat Safety N 53:122+ Mr '46
Molybdenite as a die lubricant. T. E. Norman. Metal Prog 50:314 Ag '46
Nonfluorescent lubricant for fluorophotometry. A. Koff and M. Frederick. Ind & Eng Chem Anal ed 17:745 N '45
Planned procedure reduces lubrication costs 32.5 percent; E. R. Squibb & sons, Brooklyn. J. E. Burns. il Factory Management 104:154-5 Jl '46
Preparation of tetrahydrofuran polymers as a synthetic lubricant for metals; abstract. F. H. Roberts. Chem & Met Eng 53:224+ My '46
Reaction rate of hydrogen chloride and sulfide with steel. C. F. Prutton, D. Turnbull and G. Dlouhy. bibliog diag Ind & Eng Chem 37:1092-7 N '45
Research and development in the Ordnance department, U.S. army; fuels and lubricants. R. E. Jeffrey, jr. J Ap Phys 16:801-6 D '45
Researches of Mellon institute, 1945-1946; synthetic lubricants. Chem & Eng N 24: 910-11 Ap 10 '46
Le rôle de la chimie colloidale dans la lubrification. J. Groff. il diags Génie Civil 123: 215-17, 232-4 Ag 15-S 1 '46
Running steel in contact without lubrication. R. C. Edwards. il Iron Age 157:56-7 F 28 '46
Silicone oils and greases. T. A. Kauppi and W. W. Pedersen. il diag Machine Design 18:109-13 Jl '46
Silicones as lubricants. T. A. Kauppi and W. W. Pedersen. il diag S A E J 54:120-4 Mr '46; Same abr. Nat Pet N 37 pt 2:R944-8 D 5 '45; Abstract. Automotive & Aviation Ind 93:29+ D 15 '45
Silicones, new materials for industry. il Steel 118:78-83+ Ap 22 '46
S.A.E. National fuels and lubricants meeting, Tulsa, Nov. 6-7. S A E J 53:sup24-5+ D '45; Nat Pet N 37:34+ N 7; 48 N 14 '45
Storing and handling methods that keep good oil and grease good. A. J. Strohmaier, J. C. Halbrook and R. B. Akell. il Power 90:35+ Ja '46
Synthetic lubricants are made from gases; contain no petroleum. Sci Am 174:121 Mr '46
What is a lubricant? H. E. Mahncke. bibliog il diag Diesel Power 24:842-5 Jl '46

LUBRICATION and lubricants—*Continued*
What technical men expect in 1946; lubrication. Steel 118:281 Ja 7 '46

See also
Bearings
Friction
Graphite
Lubricating greases
also subdivision Lubrication under special subjects, e.g.
Airplane engines
Automobile engines
Automobiles
Machine tools
Lubricating oils
Lubricators
Oil reclamation
Refrigeration and refrigerating machinery
Textile machinery
Wire rope

Testing

Coordinating research council. K. G. Mackenzie. Am Pet Inst Proc 25(3):38-40 '45; Same. Nat Pet N 37 pt 2:R958+ D 5 '45

Film-lubrication between spherical surfaces; with an application to the theory of the four-ball lubricant testing instrument. J. Howlett. J Ap Phys 17:137-49 Mr '46

Mechanical testing of extreme pressure lubricants (with special reference to hypoid oils). H. L. West. bibliog 8pls Inst Pet J 32:206-29 Ap '46

Mechanism of action of organic chlorine and sulphur compounds in extreme-pressure lubrication. C. F. Prutton and others. bibliog 2pls Inst Pet J 32:90-118 F '46

Some observations on the development of extreme pressure (E.P.) properties by chlorine and sulphur additives in mineral oil, as assessed by the four ball machine. W. Davey. diags Inst Pet J 32:575-81 S '46

Viscosity of lubricants under high pressure. M. D. Hersey and R. F. Hopkins. bibliog(48 titles) Mech Eng 67:820-4 D '45; Discussion. 68:576-83 Je '46

LUBRICATION and lubricants (cutting and grinding)

Clean coolant aids honing; Barnesdril magnetic coolant separator. W. Baumbeck. il Iron Age 157:58-9 F 28 '46

Conditioning coolants in a centralized sump; Mills industries, inc, Chicago. C. Brandquist. il Factory Management 104:149-50 Mr '46

Constant delivery of clean oils boosts output and saves equipment; conveyorized chip troughs and pumps speed contaminated oils to central reclamation and storage. P. C. Booty. il plan diag Am Mach 90:122-5 F 14 '46

Coolants for machining operations; engineering file facts. Materials & Methods 23:475 F '46

Cutting compounds for machining aluminum alloys. Mach 52:168 Je '46

Cutting fluids. W. H. Oldacre. bibliog il Mech Eng 68:339-43 Ap '46

Cutting fluids and chipbreakers. W. A. Carter. Engineering 161:582 Je 21 '46

Cutting-fluids selection guide; reference book sheet. Am Mach 90:141 Ap 25 '46; Same. Aero Digest 52:64+ Mr '46

Effectiveness of cutting oils; reference book sheet. J. T. Beard. Am Mach 90:137, 139 O 24 '46

Industrial emulsions. E. H. Kadmer. Pet Refiner 25:133-6 Jl '46

Internal friction in drill lubricants. J. Bjorksten. Iron Age 158:45 Jl 11 '46

Liquid coolers; units for controlling coolant temperature during high speed machining. il plan Steel 119:96-7+ N 4 '46

Mass production responsible for increased cutting oil research. J. T. Beard, jr. Am Mach 90:148-9 O 24 '46

New saw lubricant. il Iron Age 157:68 Ja 17 '46

Oil cleaning system; services seventeen automatic screw machines. il Steel 119:77+ Ag 12 '46

Oil spray collection; Dallow Lambert installation for thread grinding machines. il Automobile Eng 36:104 Mr '46

Shop control of oil concentration. E. L. H. Bastian. il Am Mach 90:126-7 Ag 1 '46

What it takes to purify coolants. B. F. Hunter. il diags Am Mach 90:126-9 S 26 '46

Physiological effect

Carbon tetrachloride; use in broaching operations; health hazard. R. H. Avery and L. Davis. Nat Safety N 52:89+ O '45

Discussion of the commoner industrial dermatoses. S. M. Peck. bibliog Ind Med 14:960-4 D '45

Prevention program for industrial dermatitis. S. M. Peck. il Safety Eng 91:71-3 Ap '46

LUBRICATION and lubricants (metal drawing)

Lubrication in drawing aluminum. S. Spring. bibliog Steel 117:78-9+ D 24 '45

Lubrication in drawing magnesium. S. Spring. bibliog Steel 117:64+ D 31 '45

Selecting drawing compounds for press work. J. McElgin. il Mach 52:157-9 Ap '46

Some points to be considered in selecting drawing lubricants. Mach 52:176 Je '46

Wax drawing compound. E. A. Bunting. il Steel 118:88-9+ F 11 '46

LUBRICATION research

Piston lubrication phenomena in a motored glass cylinder engine. S. J. Beaubien and A. G. Cattaneo. il diags S A E J 54:60-7 O '46

Visual study of cylinder lubrication. M. C. Shaw and T. J. Nussdorfer. il diags S A E J 54:68-72 O '46

LUBRICATORS

Analysis of pressure losses in lubricant and fuel pumps. B. R. Walsh. diags Product Eng 17:126-8 N '46

Felt wick lubricating systems for bearings and machine parts. W. H. Lehmberg and E. L. Johnson. il Product Eng 17:509-12 Je '46

High-pressure locomotive lubricator uses magnesium castings. il diags Product Eng 17:[no 7] 104 Jl '46

How to deliver and maintain lubricants. H. L. Flynn. diags Am Mach 90:117-36 Jl 18 '46

How to lubricate metalworking machines; typical lubricators and systems. H. L. Flynn. diags Am Mach 89:118-20 D 20 '45

LUCITE

Dressing table sparklers. il Mod Plastics 23: 123 Mr '46

Model serves many purposes; model power plant made of Lucite. il Power 90:688 O '46

LUCKMAN, Charles, 1909-

Charles Luckman assumes presidency of British-owned Lux, Rinso, Lifebuoy, and Pepsodent. pors Fortune 34:120-4+ Jl '46

LUGGAGE

Molded luggage. il Mod Plastics 23:147-50 Ap '46

See also
Hat boxes

LUGGAGE, Plastic

New plastic line makes up 70% of production; Boyle Leather Goods luggage. il Ptr Ink 214:53 F 15 '46

LUKENS steel company

Annual report. Comm & Fin Chr 163:906 F 18 '46

LUMARITH

Injection molded hypodermic for penicillin. il Mod Plastics 23:117 Je '46

Testing flame-resistant cellulose acetate. M. Bentivoglio and B. E. Cash. il Mod Plastics 23:119-21 F '46

LUMBER

Forest products; A.A.R. P.&S. division report. Ry Age 121:293 Ag 17 '46

High and low of forest products; large-volume railway requirements. C. M. Burpee. il Ry Age 120:36-9 Ja 5 '46

Lumber shortage a critical problem on bridges. Roads & Sts 89:83+ Je '46

See also
Lumbering
Mine timber
Pine
Wood
Wood construction

LUMBER camps

Radio communication

FM radio and its applications to woods operations. W. C. Fisher. il map Pulp & Pa of Can 47:109-11+ O '46

LUMBER camps—Radio communication—*Continued*
Use of radio and electronics in the pulp and paper industry. K. R. Swinton. il Pulp & Pa of Can (Convention no) 47:181-2 [F] '46

LUMBER drying
Gas-dried wood. Bsns W p62+ Ap 13 '46

LUMBER handling
Logging in Russia. Pulp & Pa of Can 47:120+ S '46
Wood handling at KVP. L. J. McCarthy. il Pulp & Pa of Can 47:77-9 O '46

LUMBER mills
Efficient production line in planning mill; Diesel engine power. il Diesel Power 24: 583 My '46

LUMBER trade
Character of lumber demand. M. A. Dietz. Dom Comm 34:17-18 Mr '46
Easing the timber shortage. B. W. Corrado and A. Netboy. Barron's 26:3+ Ag 12 '46
Forest controls; lumber operators asks more cutting on public lands. Bsns W p26+ O 19 '46
Lumber goal; plea for price relief; stocks near vanishing point. Bsns W p22+ F 23 '46
Lumber; trends in 1946. J. L. Muller. Dom Comm 34:34 Ja '46
Production and distribution of lumber by small mills. R. J. Hoyle. Mech Eng 68: 432-4 My '46
Progress, 1926-1946; lumber manufacture now a highly mechanized operation. il Am Bld 68:97 O '46
Treated lumber processors see American farms as live market. T. Armstrong. il Sales Management 57:94-6 Ag 1 '46

See also
Lumber workers
Lumbering

Advertising

Lumber dealers spend own money on this idea column for farmers. L. A. Castell. Sales Management 56:115-16+ Je 15 '46

Great Britain

Production of lumber, United Kingdom, Sept. 1939-June 1945. For Comm W 22:32 Ja 5 '46
United Kingdom timber imports; yearly and half yearly figures, 1938 and 1945; half yearly figures for 1939 and 1946. Economist 151:426 S 14 '46
United Kingdom's lumber imports, first half of 1944 and first half of 1945. For Comm W 21:39 N 17 '45

Haiti

Haiti has little commercially important timber. M. A. Klein. For Comm W 22:31 Ja 5 '46

New Zealand

Imports and exports, first six months of 1946 compared with 1945; tabulations. For Comm W 25:25 O 26 '46

LUMBER workers
Compromise near on Northwest lumber strike. Bsns W p103 D 1 '45
Logging by inexperienced woodsmen; with cost data. J. D. Pond. il Pulp & Pa of Can 46:931+ N '45
Wages in the basic lumber industry, 1944. V. S. Baril and others. U S Bur of Labor Statistics Bul 854:1-47; pa Supt. of doc. '46
Woods workers wages as defined by the Quebec regional war labour board. Pulp & Pa of Can 46:1015 D '45

LUMBERING
Canvas dams for river drive. A. Koroleff. diags Pulp & Pa of Can 47:95 My '46
Loggers promote forest improvement; 3d annual convention of Truck loggers association of British Columbia. Paper Tr J 122:14 Ja 17 '46
Logging by inexperienced woodsmen; with cost data. J. D. Pond. il Pulp & Pa of Can 46:931+ N '45
Long haul for pulpwood; new, war-born industry for Montana; pulpwood for Wisconsin mills. il Paper Ind 28:931-2+ O '46
Modern logging methods; abstract. J. Godden. il Pulp & Pa of Can 47:107-8 Jl '46
Ontario regulates settler's pulpwood harvest. T. E. Mackey. il Pulp & Pa of Can 47:103-4 Jl '46
Power saws; past, present and future. J. W. Challenger. Pulp & Pa of Can 47:65-7 F '46
Pulpwood production tools. M. H. Collet. il Paper Ind 27:1203-6+ N '45
Selective cutting in British Columbia. H. Weatherby. il Pulp & Pa of Can 47:62-3 F '46
Woods department, KVP company limited. H. Burk. il map Pulp & Pa of Can 47: 74-7 O '46
Woods division; Brompton pulp and paper company. J. H. Merrill. il map Pulp & Pa of Can 47:62-6 Jl '46
Work studies in woods operations; methods used in Sweden. B. Flodman. Pulp & Pa of Can 47:105+ Ag '46

See also
Lumber workers
Motor trucks in lumbering

Accidents

Axe cuts; study of injuries in woods operations during 1942, 1943 and 1944. D. B. Chant. Pulp & Pa of Can 47:59-61 F '46

Costs

Preplanning of logging operations for minimum costs. D. M. Matthews and J. A. Willard. Mech Eng 67:325-9 My '45; Same. Paper Tr J 122:43-7 F 7 '46

Safety measures

Bulldozer accident prevention. K. F. Park. Pulp & Pa of Can 46:1012-13+ D '45

Study and teaching

Marathon instructs vets in mechanized logging. Pulp & Pa of Can 47:71+ Mr '46

LUMINAIRES. See Lighting fixtures

LUMINESCENCE
Black light and color magic. il diags Arch Rec 100:115-19 S '46
Characteristics of luminescent materials for cathode-ray tubes; Radio section discussion meeting. Inst E E J 92 pt 3:299-300 D '45
Decay in brightness of infra-red sensitive phosphors. R. T. Ellickson and W. L. Parker. diags Phys R 70:290-9 S 1 '46
Development of infra-red sensitive phosphors. B. O'Brien. bibliog Opt Soc Am J 36:369-71 Jl '46
Effect of absorption on decay of infra-red sensitive phosphors. R. T. Ellickson and W. L. Parker. Phys R 69:534 My 1 '46
Effect of wave-length distribution on the brightness of phosphors. R. T. Ellickson. Opt Soc Am J 36:261-4 My '46
Infra-red sensitive phosphors. F. Urbach and others. Opt Soc Am J 36:372-81 Jl '46
Law of precharged luminescence. J. De Ment. Science 103:178 F 8 '46
Light storage in infra-red sensitive phosphors. R. T. Ellickson. Opt Soc Am J 36: 501-2 S '46
Light sum of phosphors under thermal and infra-red stimulation. R. T. Ellickson. diags Opt Soc Am J 36:264-9 My '46
Luminescence and tenebrescence as applied in radar. H. W. Leverenz. bibliog il diags fold chart RCA R 7:199-239 Je '46
Preparation and characteristics of zinc sulfide phosphors sensitive to infra-red. G. R. Fonda. diag Opt Soc Am J 36:382-9 Jl '46
Principles and uses of luminescent, fluorescent and phosphorescent materials. M. Harwood. Rayon 27:265-6 My '46
Proceedings of the O.S.A.; session on infra-red-sensitive phosphors. Opt Soc Am J 36: 351-3 Je '46
Radioactive light sources. M. Blau and I. Feuer. diag Opt Soc Am J 36:576-80 O '46
Thermoluminescence and conductivity of phosphors. R. C. Herman and C. R. Meyer. bibliog J Ap Phys 17:743-8 S '46

LUMINESCENCE—*Continued*
Uniform luminescent materials. C. G. A. Hill. Science 103:155-8 F 8 '46
Visible speech translators with external phosphors. H. Dudley and O. O. Gruenz, jr. il diags Acoustical Soc Am J 18:62-73 Jl '46
See also
Fluorescence
LUMINOUS tape. See Tape, Luminous
LUNCH counters
Making the most of an eleven-foot frontage; well-planned small restaurant; Riker's Greenwich Village branch. il plans diags Am Bld 68:98-9 S '46
Restaurant employs parallel arrangement of counter and booths for maximum seating capacity in narrow space. il plan Arch Forum 83:84 D '45
LUNCH wagons
Mobilizing for the mobile trade; eatwagons. il Bsns W p20 Jl 27 '46
LUNCHES, Employees'
Food service for workers; report to Division of engineering and industrial research, N.R.C. Mech Eng 68:640-2 Jl '46
Food service offers load opportunities. H. L. Murphey. il Elec World 125:116 Mr 2 '46
Fuel for the human power plant. il Nat Safety N 53:12+ Mr '46
See also
Lunchrooms and cafeterias, Employees'
LUNCHROOMS and cafeterias
Building types; drive-in restaurants and luncheonettes; reference studies in design and planning. il plans Arch Rec 100:99-114 bibliog(p114) S '46
Planning the modern luncheonette. E. M. Fleischman. il plans Arch Rec 100:107-9 S '46
Electric equipment
Coffee house load offers diversity. il Elec World 126:112 Jl 20 '46
LUNCHROOMS and cafeterias, Employees'
Design and installation of small industrial canteens. D. G. Winslow. Gas J (Lond) 247: 108-9+; Discussion. 111 Ja 16 '46
Factory design; personnel feeding. il Arch Rec 98:127-8 N '45
Food helped to win; in-plant feeding, Irvin works of Carnegie-Illinois steel corporation. il Nat Safety N 52:80-1 O '45
How to feed 300 workers in 10 minutes; Graham-Paige motors corporation. J. M. Lents. flow chart il Factory Management 103:124-6 D '45
In-plant feeding and industrial efficiency. Safety Eng 91:64-5 Je '46
In-plant feeding; survey of current techniques and equipment. il plans Arch Forum 85:177-83 S '46
New ideas in industrial restaurant design; traffic flow. A. W. Dana. plans Arch Rec 98:139-40 N '45
Office building provides for efficient work, pleasant lunches; Charles L. Harney co., San Francisco. il plans Arch Forum 85: 104-5 O '46
Lighting
Boeing aircraft company cafeteria. B. A. Travis. il plan diag Illum Eng 41:561-4 Jl '46
LUNCHROOMS and cafeterias, Roadside
See also
Lunch wagons
LUNCHROOMS and cafeterias, School
Model school-lunch program; home service department of the Cumberland and Allegheny gas co. W. L. Hutcheson. il Gas Age 96:18-19+ N 29 '45
LUNDEBERG, Harry
President, Seafarers' international union. por Fortune 34:151 N '46
LUNGS
Diseases
Delayed chemical pneumonitis occurring in workers exposed to beryllium compounds. H. L. Hardy and I. R. Tabershaw. bibliog J Ind Hygiene 28:197-211 S '46
Geographic differences in sensitivity to histoplasmin among student nurses. C. E. Palmer. maps Pub Health Rep 61:475-87 Ap 5 '46
Respiratory air flow characteristics and their relation to certain lung conditions occurring in industry. L. Silverman. bibliog il J Ind Hygiene 28:183-96 S '46
Studies of the role of fungi in pulmonary disease; cross reactions of histoplasmin. C. W. Emmons and others. bibliog Pub Health Rep 60:1383-94 N 23 '45
See also
Pneumonia
Dust diseases
Pneumoconioses. O. A. Sander. Ind Med 15: 528-30 S '46
See also
Silicosis
LUPINUS macounii, Rydb
Papilionaceous alkaloids; lupinus macounii, Rydb. L. Marion. Am Chem Soc J 68:759-60 My '46
LUPOLENE. See Polythene
LURIA brothers and company
Family rivals; Luria steel & trading corp., competitor of Luria bros. & co., purchases scrap firms. Bsns W p32+ Je 22 '46
LURIA steel and trading corporation
Family rivals; Luria steel & trading corp., competitor of Luria bros. & co., purchases scrap firms. Bsns W p32+ Je 22 '46
LUTEOLIN
Flavanones and related compounds; the reduction of luteolin and apigenin trimethyl ether with sodium amalgam. T. A. Geissman and R. O. Clinton. Am Chem Soc J 68: 706-8 Ap '46
LUTIDINE
Studies in coal tar bases; separation of β-and γ-picolines and 2:6-lutidine. E. A. Coulson and J. I. Jones. Soc Chem Ind J 65:169-75 Je '46
LUXEMBURG
Commercial policy
Union in the Low Countries. Economist 151: 205-6 Ag 10 '46
LUXURY tax
Luxury transaction taxes on specified products changed. For Comm W 23:27-8 Ap 27 '46
LYGUS
Seed pitting of the lima bean by lygus bugs in California. K. F. Baker and W. C. Snyder. bibliog Science 103:500-1 Ap 26 '46
LYNCH, Daniel Francis Joseph, 1891-1945
Sketch. J. T. Hogan. Science 103:332 Mr 15 '45
LYOGELS. See Colloids
LYON metal products, inc.
One way to find scarce material; Lyon Metal Products campaign of advertising and promotion to find steel supplies. il Am Bsns 16:20-1 S '46
LYONS, J. and company
Ordinary general meeting, 52d, London. Economist 150:1024 Je 22 '46
LYSINE
Analysis
Chromatography in the separation and determination of the basic amino acids. M. S. Bergdoll and D. M. Doty. bibliog Ind & Eng Chem Anal ed 18:600-3 O '46
LYSINE anhydride
Synthesis of lysine anhydride. E. Katchalski, I. Grossfeld and M. Frankel. Am Chem Soc J 68:879-80 My '46
LYSOZYME chloride
Optical and crystallographic properties of lysozyme chloride. F. T. Jones. bibliog il diags Am Chem Soc J 68:854-7 My '46
LYTTON, Henry C. 1846-
Real pioneer; merchant prince of Chicago now 100. por Bsns W p43-4+ Jl 6 '46
LYXONIC acid
Isolation of aldonic acid lactones through their hydrazides. A. Thompson and M. L. Wolfrom. bibliog Am Chem Soc J 68:1509-10 Ag '46

M

M-SCOPE. See Pipe lines—Detection

MACANDREWS and Forbes company
Thumbnail stock appraisal. Mag of Wall St 78:273 Je 8 '46

MACARONI
Macaroni products increase output. A. J. Mullen. Dom Comm 34:26+ Ap '46

MCCAFFERY, Richard Stanislaus, 1874-1945
Sketch. G. J. Barker and others. Science 102: 606-7 D 14 '45

MCCAIN, Arthur Williamson, 1894-
Shift at Chase. por Bsns W p24 My 4 '46

MCCARRAN-FERGUSON act. See Insurance companies—Regulation

MCCARTER, medal
Man and a medal for resuscitation from asphyxiation by gas. il Am Gas Assn Mo 28: 57 F '46

MCCARTYS basalt flow
McCartys basalt flow, Valencia county, New Mexico. R. L. Nichols. bibliog maps diags Geol Soc Bul 57:1049-86, pl 1-8 N '46

MCCLOSKEY, Matthew H.
Low-cost homes. Bsns W p36 Ag 10 '46

MCCLUNG, Clarence Erwin, 1870-1946
Sketch. D. H. Wenrich. Science 103:551-2 My 3 '46

MCCOLL, Robert Boyd, 1882-
Sketch. por Mag of Wall St 79:37 O 12 '46

MCCONNELL, Fowler Beery, 1894-
Portrait. Bsns W p83 Ap 6 '46

MCCORD corporation
Strikes hit McCord's net, but not orders. Barron's 26:8 Mr 11 '46

MCCORMICK, Fowler, 1898-
Fowler McCormick; self-made man. il pors Fortune 34:110-15+ S '46

MCCOY, Alexander Watts, 1889-1944
Memorial. por Am Assn Pet Geologists Bul 30:292-6 F '46

MCCRORY stores corporation
Higher profit likely. Barron's 26:16 Ap 15 '46

Preferred stock offered. Comm & Fin Chr 163: 73 Ja 7 '46

Unsubscribed shares offered. Comm & Fin Chr 163:195 Ja 14 '46

MACFADDEN, Bernarr, 1868-
Macfadden's second publishing empire? Ptr Ink 215:81 Je 28 '46

MCFETRIDGE, William L.
General president, Building service employees' international union, A.F. of L. por Fortune 34:150 N '46

MCGILL university
Education of planners at McGill university. J. Bland. J Land & Pub Util Econ 21:315-16 N '45

MCGRAW award
David E. Harris given the McGraw award. Elec West 96:92+ Ja '46; Excerpts. Elec World News ed 125:9 Ja 12 '46

MACHADO Y ORTEGA, Luis, 1900-
Latin American executive director of the International bank. por Comm & Fin Chr 164:1563 S 26 '46

MACHINE guns
All-electric gun charging. W. C. Rohn. il diags Elec Eng 65:Trans 1-4 Ja '46

Machine gun rate-of-fire indicator; nonmilitary uses indicated. A. D. Peterson. il diags Electronics 18:134-8 D '45

Stranded wire helical springs for machine guns. H. H. Clark. il diags Product Eng 17:[no 7] 154-8 Jl '46

Manufacture

Mass-production welding; manufacture of the Sten gun. il Elec R (Lond) 138:199-202 F 8 '46

MACHINE parts
Bright-hardening of tools and machine parts in controlled atmospheres. C. E. Peck. flow diag il diag Mach 52:158-63 F; 178-80 Mr '46

Carbon-graphite mechanical parts. F. F. Ruhl. il diag Steel 118:108-10+ My 20 '46

Case for drop-forging. R. E. W. Harrison. Am Mach 90:135-6 Mr 28 '46

Copper furnace brazed parts and principles of design. K. Schmidt. il diags Product Eng 17:103-7 O '46

Design of powder metallurgy parts; abstract. M. T. Victor and C. A. Sorg. Materials & Methods 24:700 S '46

Designing for precision casting. R. C. Wynne. il Machine Design 18:129-31 Jl '46

Designing welded machinery parts. G. L. Snyder. il diags Steel 118:124-7+ F 4; 98-100+ F 11; 100-2+ F 18 '46; Same. Welding J 25:105-18 F '46; Same. A S M E Trans 68:293-307 My '46; Same cond. Machine Design 18:135-42 Ja '46; Same cond. Mach 52: 157-60 Ja; 167-71 F '46

Developing parts for production; brittle lacquer method of stress analysis (stresscoat). G. W. Birdsall. il diags Steel 117:104-8+ D 17 '45

Felt wick lubricating systems for bearings and machine parts. W. H. Lehmberg and E. L. Johnson. il Product Eng 17:509-12 Je '46

Hard carbides find non-cutting uses. P. M. McKenna. diags Am Mach 90:117-20 Ag 15 '46

Hard surfacing machine parts by welding increases their life 3 to 30 times. C. J. Long and T. C. Rich. Brick & Clay Rec 109:62+ S '46

How to effect economy with die castings. S. E. Maxon. il diags Machine Design 17:143-6 D '45

Laminated plastic for machine table ways. Iron Age 157:50 Ap 25 '46

Limitations and design of precision press forgings. il Product Eng 16:821-3 D '45

Mechanical parts made from powdered metals. R. P. Seelig. bibliog il diags Steel 117:116-19+ N 19 '45

Modern hard-facing methods. A. R. Lytle. il diag Welding J 24:1155-65 D '45; Same cond. Machine Design 18:131-6 My '46

Painting machine parts; abstract. C. R. Syer. Materials & Methods 24:182 Jl '46

Powder metal machine parts design characteristics and data. A. J. Langhammer. il diags Product Eng 16:877-9 D '45

Powder metallurgy. J. E. Newson. Inst Mech Eng J & Proc 154:208-13 bibliog(p213); Discussion. 213-16, pl 1-2 S '46

Probability and quality control; application to machine parts. E. Goddess. Am Mach 90:118-19 Ag 29 '46

Projection welding for short runs. R. O. Klenze. il diags Machine Design 17:101-6 N '45

Residual stresses can be beneficial or might cause failure of part. J. O. Almen. il diags Product Eng 17:81-5 Ag '46

Rubber machine parts. il Machine Design 17: 116-19 D '45

Some consideration in designing parts for powder metallurgy. I. J. Donahue. diags Mech Eng 68:949-52 N '46

Some uses of glass as an engineering material. C. F. Lindsay. bibliog il Materials & Methods 23:1284-8 My '46

Stamping machine parts. C. Carmichael. il diags Steel 119:74-5+ Ag 26 '46

What cemented carbides offer the designer. R. K. Lotz. il diags Machine Design 18: 135-8+ Je '46

See also
Bearings
Bolts and nuts
Gearing

MACHINE pins. See Pins, Machinery

MACHINE shop management
Closer control with machine load board; Grinnell corporation. G. K. Lowe. il Factory Management 104:125-7 F '46

Combined drawing and instruction sheet. G. Cavern. Am Mach 90:111 O 24 '46

Don't keep foremen in the dark on costs. P. Bernstein. Am Mach 90:126-7 F 28 '46

Four steps to foremanship. D. T. Armstrong. Am Mach 90:124-5 Mr 14 '46

Guard your tools. M. L. Borden. Am Mach 90:120-3 Ap 25 '46

Handling single-point tools at Watervliet arsenal. E. G. Moffat. il Mech Eng 68:415-18 My '46; Same cond. Mach 52:161-2 Mr '46

MACHINE shop management—*Continued*
Handy tools measure equipment obsolescence. J. C. Hussey. Am Mach 90:110-11 My 9 '46
How not to go broke on setup costs. G. J. Oberst. Am Mach 90:99-103 F 14 '46
How to estimate manufacturing costs in a small or job shop. D. P. Oberg. Am Mach 90:101-3 Ap 11 '46
Jig and fixture economics. J. W. Hendry. diag Automobile Eng 35:509-10 N '45
Job evaluation principles. H. S. Wharen. Am Mach 90:109-20 Ag 1 '46
Little can go a long way; short ends of bar stock; control and handling system. B. Melnitsky. diags Am Mach 90:122-3 Mr 14 '46
Machine utilization and economical assignment. J. W. Field. Factory Management 104:288+ Ag '46
Plant committee coordinates application of carbides to milling; Kearney & Trecker corporation. A. O. Schmidt and D. V. Stevens. il diags Am Mach 90:95-9 Ap 25 '46
Probability and quality control. E. Goddess. Am Mach 90:110-11 Ag 15; 118-19 Ag 29 '46
Process engineering controls costs. C. D. Townsend. il Am Mach 90:94-6 Jl 4 '46
Schwitzer-Cummins plant organized for small lot and mass production of engine equipment. J. Geschelin. il Automotive & Aviation Ind 93:26-31, 114 D 1 '45
Scintilla's self-contained setup; producing ignition equipment and Diesel fuel injection systems. J. Geschelin. il Automotive & Aviation Ind 94:30-3+ My 1; 38-42+ My 15 '46
Should machine shops be decentralized? RCA splits machine shop into units serving separate divisions. B. P. Hamilton. diag Am Mach 90:108-11 O 24 '46
Statistical control in workshop administration. W. T. O'Dea. Inst Mech Eng J & Proc 154:1-8; Discussion. 9-11 Je '46
Time study can win friends and still cut costs. J. W. Marks. Am Mach 90:97-9 Ag 1 '46
Tolerances on assemblies. B. Epstein. diags Am Mach 90:119-21 Ja 3 '46

See also
Assembling methods
Foremen
Inspection
Job rotation
Machine shop practice
Machinery, Replacement of
Routing systems
Tool rooms

MACHINE shop practice
Careful tool layouts shorten screw-machine cycles. A. Ainsworth. plans Am Mach 90:108-10 Ap 25 '46
Engineering bronzes; compositions, characteristics, fabrication, etc. K. Rose. diags Materials & Methods 23:1038-40 Ap '46
How should you machine this long taper? D. T. Armstrong. diag Am Mach 89:130 S 13 '45; Discussion. 89:118-20 N 22 '45; 90:126-8 F 14 '46
Ideas from halfway around the world. S. Framurez. diags Am Mach 90:115-16 Ja 31 '46
Insuring dimensional accuracy through heat treating. H. Dobkin. diags Steel 118:90-1+ F 18 '46
Machining compressor crankshafts; Servel inc. G. E. Stedman. il Steel 119:94-5 S 16 '46
Machining, 1945. T. C. Du Mond. il Materials & Methods 23:125-9 Ja '46
Machining stainless-steel valves. A. P. Nelson. il Mach 52:148-53 Jl '46
Making petrol injection pumps. il diags Automobile Eng 36:55-64 F '46
Radical engine design changes shop practices; Jack & Heintz precision industries. C. S. Ricker. il diags Am Mach 90:104-7 Jl 4 '46
Setup plates save down time; Joshua Hendy iron works. H. C. Andree. il Am Mach 90:100-1 Jl 4 '46
Shop shots; illustrations with text (cont). Am Mach 89:96-7 D 6 '45; 90:80-1 Ja 31; 128-9 F 28; 100-1 Ap 25; 108-9 My 23; 132-3 Ag 15; 136-7 S 12; 114-15 O 10; 128-9 O 24 '46
Short cuts for the small shop (cont). A. H. Waychoff. diags Am Mach 89:131 N 22 '45; 90:107 F 14; 103 Mr 28; 137 My 9; 149 Je 20; 116 Jl 18; 107 Ag 1; 87 Ag 29; 138 S 26; 110 N 7 '46
Six special tools from English shops. diags Am Mach 90:139-40 F 14 '46
Tooling for tapers; manufacture of fuse firing pin and striker. J. J. Meadows. diags Iron Age 158:68-72 Jl 18 '46
Twin production lines; manufacture of rockets, Canton naval ordnance plant. W. G. Miller. il diags Steel 117:120-1+ D 10 '45

See also
Airplane engines—Manufacture
Bearings—Manufacture
Broaching
Centering (machine work)
Chucks
Cylinders (engines, etc.)—Manufacture
Dies
Diesel engines—Manufacture
Drafting room practice
Drilling and boring (metal working, etc.)
Forging
Gages
Gear cutting
Grinding
Hard facing
Honing
Indexing (machine work)
Inspection
Lapping
Lathes
Machine shop management
Machine tools
Machinery
Metal cutting
Metal finishing
Milling
Railroads—Shops
Riveting
Rolling (metal work)
Rolling mills
Sheet metal work
Tapping
Welding

MACHINE shops
Better plant facilities increase production; Brown instrument company. G. H. Fry, jr. il Factory Management 104:142-5 Mr '46
Operating and maintenance charges for air conditioning machine shops; Wright aeronautical corp. H. B. Lammers. il Heating-Piping 18:93-6 F '46
What future for contract tool shops? B. Finney. Am Mach 90:108-11 Jl 4 '46
Working conditions in a machine shop improved by sound-conditioning. F. A. Westbrook. il Mach 52:188 Je '46
Yankee metalworking, 1900; reminiscences about a New England shop. H. L. Whittemore. Am Mach 90:110-13 My 23 '46

See also
Airlines—Shops
Airplane factories
Automobile factories
Locomotive shops
Machine shop management
Machine shop practice
Machine tools
Motor bus lines—Shops
Railroads—Shops
Tool rooms

Accidents
Miscellaneous machine and tool accidents. il Safety Eng 92:36 Jl '46

Accounting
See Factories—Accounting

Costs
Don't keep foremen in the dark on costs. P. Bernstein. Am Mach 90:126-7 F 28 '46
How to estimate manufacturing costs in a small or job shop. D. P. Oberg. Am Mach 90:101-3 Ap 11 '46
Jig and fixture economics. J. W. Hendry. diag Automobile Eng 35:509-10 N '45
Speed and feed selection in carbide milling with respect to production, cost, and accuracy. H. Ernst and M. Field. il diags A S M E Trans 68:211-15 Ap '46

Electric equipment
See also
Machine tools—Electric driving

Employees
Apprentice training; David Brown and sons (Huddersfield). il Automobile Eng 36:383 S '46
Job evaluation principles. H. S. Wharen. Am Mach 90:109-20 Ag 1 '46
Time study can win friends and still cut costs. J. W. Marks. Am Mach 90:97-9 Ag 1 '46

MACHINE shops—Employees—*Continued*
Wage structure in machine-tool industry, January 1945. D. L. Helm and T. P. Kanninen. Mo Labor R 62:933-44 Je '46
Wage structure of the machine-tool accessories industry, January 1945. L. M. David. Mo Labor R 62:438-50 Mr '46

Equipment

Fuller's reorganized setup for postwar production of transmissions. J. Geschelin. il Automotive & Aviation Ind 94:34-40+ Je 1 '46
Schwitzer-Cummins plant organized for small lot and mass production of engine equipment. J. Geschelin. il Automotive & Aviation Ind 93:26-31, 114 D 1 '45
Scintilla's self-contained setup; producing ignition equipment and Diesel fuel injection systems. J. Geschelin. il Automotive & Aviation Ind 94:30-3+ My 1; 38-42+ My 15 '46
33d annual review number. il diags Am Mach 90:106-96 Ja 17 '46

See also
Machine tools
Surface plates

Layout

Constant delivery of clean oils boosts output and saves equipment; conveyorized chip troughs and pumps speed contaminated oils to central reclamation and storage. P. C. Booty. Am Mach 90:124-5 F 14 '46
Effortless handling halves machining costs; Buda company, Harvey, Ill. P. H. Curtiss. il plan Factory Management 104:89-91 Jl '46
Visual planning for shop lay-out. il Engineer 182:354 O 18 '46

Lighting

Lighting for production. H. J. Williams. il Am Mach 90:101-5 Ag 29 '46
Shadowless lighting; Union special machine company, Chicago. J. R. Haugan. il Factory Management 104:105 My '46

Records

Cost-record system for machine tools. H. A. Muir. Mach 53:190-3 O '46
Guard your tools. M. L. Borden. Am Mach 90:120-3 Ap 25 '46
Tool kits cut costs; Van Norman tool control. M. Mastalerz. Am Mach 90:129-31 Ag 15 '46

Safety measures

Guard the power press. G. H. Calhoun. Safety Eng 91:28-9 Ja '46
They did it with color; use of paints and tinted glass, machine shop at El Segundo refinery. B. Klein. il Nat Safety N 53:20-1 F '46

MACHINE tool industry
Disposition of machine tool orders at close of lend-lease revealed by U. S. Am Mach 90:148f Mr 14 '46
Machine tool industry asked to assume leadership. F. Smith. Iron Age 158:136+ O 24 '46
Machine tool salesmen dig for business; Delta sales training school. W. E. Schutz. il Ind Marketing 30:50-1+ O '45
Machine tools: a paradox; outlook clouded by auto strikes, labor shortage, and lack of motors. Bsns W p17-19 D 29 '45
Machine tools; present and future prospects. H. E. Linsley. il Iron Age 157:104-9 Ja 3 '46
Machine tools; report of New era exposition and annual meetings of associations. G. Hubbard. Steel 118:158-60 My 6 '46
More putterers; home workshop's popularity grows. Bsns W p78+ Jl 27 '46
New automatic machines are industry's hope to ease higher wage squeeze. Barron's 26: 1 Ja 14 '46
Profit producers for industry; abstracts. A. G. Bryant. Iron Age 157:67-8 Ap 18 '46; Credit & Fin Management 48:28-9+ S '46
Tooling up again. Bsns W p17 Ap 20 '46
See also Britsol tool company

Advertising

Giddings & Lewis advertises field performance facts. E. K. Morgan. il Ind Marketing 30: 48-9 N '45
Warner & Swasey sells America and sells machine tools too. Ind Marketing 31:45+ O '46

Statistics

Machine tool shipments; graph. Bsns W p16 N 24 '45
New orders, shipments and unfilled orders, by months, 1943-1945; yearly dollar volume of shipments, 1921-1945; tables and chart. Automotive & Aviation Ind 94:148 Mr 15 '46

Surplus tools

Graft charges climax complaints from machine dealers of WAA policies. Iron Age 157:124 Ap 4 '46
Grant surplus machine tools to schools. il Am Mach 90:92 Ja 3 '46
How good is surplus machinery? H. C. Francis. Am Mach 90:144+ Ja 31 '46
How to buy surplus machine tools. Mach 52:170-2 Ap '46
How to deal with surplus machine tools. A. G. Bryant. Mach 52:155-6 Ja '46; Excerpt. Iron Age 156:133 N 29 '45
Just what is the Clayton formula? pricing surplus machine tools. Mach 52:174-5 F '46
Machine tool agents to aid in disposal; list. Iron Age 157:110-11+ Ja 24; 136-41 F 21; 135-41 F 28; 124+ Mr 28; 180-7 Ap 4; 164-6 My 23; 123-6 My 30; 140+ Je 13; 158:138+ Jl 18 '46; Steel 118:101 F 4; 66-7 F 25; 81 Mr 11; 87 Mr 18; 128 Ap 1; 83 Ap 8; 71 Ap 22; 71 Ap 29; 71 My 27; 77 Je 3 '46
Machine tool surplus position; abstract. C. J. Stilwell. Iron Age 157:167 My 23 '46
Machinery dealers national assn. poses strong questions to RFC. Iron Age 157:142-6 Ja 31 '46
Machinery dealers to act as RFC agents in selling surplus tools. Steel 117:32+ D 31 '45
National machine tool builders' assn. issues pamphlet as aid in purchase of surplus machine tools. Iron Age 157:142-7 Mr 28 '46
Putting surplus machine tools to work. W. P. Kirk. Mach 52:176-7 D '45
Solution to surplus machine tool problem. R. L. Giebel. Iron Age 156:100-1 N 29 '45
Surplus price cut hits tool builders. Barron's 26:1 S 2 '46
Surplus tools; disposal problem still serious. Bsns W p35-7 Ag 17 '46
UNRRA seeks ways to buy surplus tools. Iron Age 157:126 My 23 '46

Belgium

Belgium machine tool industry estimated operating at 100 percent. Iron Age 158:161 Jl 4 '46

Germany

German developments reported by British intelligence. Am Mach 90:194 Ag 15 '46
Nazi tungsten hoard proved insufficient. H. Crump. Am Mach 90:148 Ja 31 '46
No more German tool exports. J. D. Wilson. Am Mach 90:129-32 Je 6 '46

Great Britain

British machine tools during the war. A. H. Lloyd. diags Inst Mech Eng J & Proc 154: 216-19, pl 1-2 S '46
British tool industry's postwar plans. W. J. Hargest. Am Mach 90:132f Ja 3 '46
Engineering outlook. Engineering 161:197-9 Mr 1 '46
Equipment for reconversion. Economist 151: 387-8 S 7 '46
Future of the British machine tool industry. Engineer 180:389-90 N 16 '45
Wartime developments in British machine tools. J. A. Oates. il diags Iron Age 157: 61-7 Mr 14 '46

Japan

Only 10% of Japan's machine tool plants ravaged by war. A. B. Einig. il Am Mach 90:156 S 12 '46

Switzerland

Swiss machine tools; developments during the war years. E. Mettler. il Automobile Eng 35:502-4 N '45

United States

Strategic machine tool industry erroneously seen as giant. W. A. Lloyd. Iron Age 157: 102-3 Mr 21 '46

MACHINE tool industry—United States—*Continued*
Wage structure of the machine-tool accessories industry, January 1945. L. M. David. Mo Labor R 62:438-50 Mr '46

MACHINE tools
Adcock and Shipley keyway and cotter hole cutting machine. il Engineer 181:503-4 My 31 '46
British machine tools during the war. A. H. Lloyd. diags Inst Mech Eng J & Proc 154: 216-19, pl 1-2 S '46
Carbides require more powerful machines. E. Hirschfeld. il diags Am Mach 90:108-12 S 26 '46
Cemented carbides used for other purposes than cutting tools. K. R. Beardslee il Mach 52:152-3 Ag '46
Cincinnati 16-in. Hydro-Tel built in 3 different styles. il Am Mach 90:160 O 24 '46
Developments in modern tooling; Locomotive maintenance officers' association report. Ry Mech Eng 120:532-3 O '46
Engine reconditioning; recent developments in American machine tools. il Automobile Eng 36:351-3 Ag '46
Future requirements for machine tools. J. R. Weaver. Mach 52:187 Je '46
German developments reported by British intelligence. Am Mach 90:194 Ag 15 '46
Hardinge precision second-operation machine designed for high-speed production. il Mach 52:201-2 Jl '46
Kearney & Trecker Milwaukee model T planned to bore, mill and thread to close tolerances. il Am Mach 89:149 D 20 '45
Landis automatic nipple machine threads, reams, chamfers both ends. il Am Mach 90:153 Ag 15 '46
Lighting for specific machines. H. J. Williams. il diags Am Mach 90:110-13 Ag 29 '46
Machine tool equipment. il Materials & Methods 24:738-40 S '46
Machine tool materials; abstract. E. G. Green. Materials & Methods 24:170 Jl '46
Machine tools; report of New era exposition and annual meetings of associations. G. Hubbard. Steel 118:158-60 My 6 '46
Machining, 1945. T. C. Du Mond. il Materials & Methods 23:125-9 Ja '46
New equipment (cont). il Iron Age 156:66-8 N 29 '45; 157:82-4 F 7; 71-4 Ap 25; 158:77-80 Jl 4; 65-8 Jl 11; 77-80 S 12 '46
Production equipment; possible trends. il Automobile Eng 36:187-90 My '46
Selecting a machine tool for carbide tooling. T. C. Du Mond. il Materials & Methods 24:374-8 Ag '46
Special purpose machines; recent Canadian productions. il Automobile Eng 36:216-18 My '46
Stop machine-tool chatter. G. Holman. diags Am Mach 90:100-1 Ag 1 '46; Discussion. 90: 125 S 26 '46
Swiss machine tools; developments during the war years. E. Mettler. il Automobile Eng 35:502-4 N '45
33d annual review number. il Am Mach 90: 106-32 Ja 17 '46
Transfer machine uses 152 tools; manufacture of refrigerator-compressor bodies. il diags Am Mach 90:116-18 Jl 4 '46
Wartime developments in British machine tools. J. A. Oates. il diags Iron Age 157: 61-7 Mr 14 '46
What technical men expect in 1946; machining. Steel 118:290-4+ Ja 7 '46

See also
Cutting tools
Dividing machines
Drilling and boring machinery
Feed mechanism
Gear cutting machines
Grinding machines
Lapping machines
Lathes
Machine shop practice
Machine tool industry
Metal cutting
Milling cutters
Punches
Reamers
Saws, Metal working
Screw machines
Shapers
Shears (machines)
Threading machines
Tool steel

Control
Air power, a useful metalworking tool. B. C. Brosheer. il Am Mach 89:107-10 N 22 '45
Contouring control for machine tools. il Electronics 19:178+ F '46
Control can be a snap; precision snap-acting electric switches; illustrations with text. A. L. Riche. Am Mach 90:105-8 My 9 '46
Machine-tool contour controller. J. M. Morgan. il diags Electronics 19:92-6 O '46
Pneumatic device operates standard machine tools. il diag Comp Air Mag 51:277 O '46
Selecting limit switches. C. S. Kidd. il diags Product Eng 17:123-5 O '46
Tool control accomplished by sensitive electronic set-up. il Sci Am 174:174 Ap '46

Design
Machine tool design responds to needs of industry. il diags Am Mach 90:114-28 Mr 28 '46
Machine tools of tomorrow. G. R. Truedsson, diags Am Mach 90:110-11 S 12; 122-3 S 26; 136 O 10; 118-19 O 24 '46
Simplified variable-voltage drive is key to improved mechanical design. W. E. Happel and G. A. Caldwell. il diag Product Eng 17:127-9 Ag '46
User's future requirements for machine tools; abstracts. J. R. Weaver. Iron Age 157:105 Ap 11 '46; Product Eng 17:480 Je '46
What production engineers would like in the way of new machine tools. W. F. Pioch. Mach 53:188-9 N '46

Electric driving
Electrical standards for machine tools. R. H. Clark. Mech Eng 68:446-8+ My '46; Same abr. Mach 52:176-8 Ja '46
Electronic motor control; drive for vertical milling machine. M. Morgan. il diags Machine Design 18:114-19 S '46
Electronics applied to machine tools; abstract. B. T. Anderson. Materials & Methods 23:1098+ Ap '46
Instruments often help machines work at peak efficiency. J. H. Miller. il diags Product Eng 17:118-21 Ag '46
Landis Diesel engine crankshaft grinder uses two motors to drive crankshaft. il diags Product Eng 17:456-7 Je '46
Machine tool drives; Crompton Parkinson Hyslip motor for flywheel applications. il Automobile Eng 36:85-6 F '46
Machine tool electrical standards; reference book sheets. Am Mach 90:145, 147 F 14; 141, 143 F 28; 145 Mr 14 '46
Machine tool electrification forum held by Westinghouse electric corp, Pittsburgh, April 9-10. Iron Age 157:104 Ap 11 '46; Am Mach 90:142h Ap 25 '46
Machine tools of tomorrow. G. R. Truedsson. diags Am Mach 90:122-3 S 26 '46
Present-day motor drives and other electrical equipment for machine tools. G. A. Caldwell. Mach 52:164-7 Je '46
Problems in applying rapid reversing drives; abstract. R. H. Clark. Product Eng 17:480 Je '46
Reciprocating machine tools; simplification of electrical arrangements. J. Lewis. diag Elec R (Lond) 138:89-91 Ja 18 '46
Rifle manufacture; electrical applications. il Elec R (Lond) 138:81-6 Ja 18 '46
Simplified variable-voltage drive is key to improved mechanical design. W. E. Happel and G. A. Caldwell il diag Product Eng 17:127-9 Ag '46
Single heads and slides tailor Monarch Uni-Matic to the job. il Am Mach 90:149-50 F 14 '46
What an automotive production man has to say about machine tool standards. A. P. O'Neill. Automotive & Aviation Ind 94: 47-8+ My 1 '46

Exhibitions
ASTE exhibits new era of industrial efficiency. W. B. Fiske. il Ind Marketing 31: 40-1+ My '46
American society of tool engineers; 5th exposition, Cleveland, April 8-12. Am Mach 90:142j-142l Ap 25 '46
Paris fair; some of the French, Swiss, and Italian machine tools; illustrations with brief descriptions. Am Mach 90:141-4 Ag 29 '46
Tools improved; Cleveland show. Bsns W p48-51 Ap 20 '46

MACHINE tool industry—Exhibitions—*Cont.*
Worlds' most modern tool room; ASTE exposition of 1946; national officers, technical program of annual meeting; exposition floor plan, list of exhibitors. il Steel 118:152-64 Ap 1 '46

Fixtures

Adjustable-wedge toolholder for high-load carbide turning. C. Bily. il diags Am Mach 90:138 Ag 15 '46
Air-operated fixtures. S. Johnson, jr. il Steel 118:95-6+ My 13 '46; Abstracts. Automotive & Aviation Ind 94:38 F 1 '46; S A E J 54:sup22 Mr '46
Broaching holes through boring-bars and tool-holders. I. F. Yeoman. il diags Mach 52:191-3 F '46
Duplex trunnion fixtures; General mills inc. il Steel 119:104-5+ Jl 1 '46
Fixture for spot-facing ends of lever hubs. diag Mach 52:182-3 Mr '46
Jigs and fixtures can be simple. B. C. Brosheer. il diags Am Mach 89:99-102 D 20 '45
Jigs and fixtures from building blocks; Wharton system. il diags Am Mach 90:125-6 S 12 '46
Labor-saving by the use of pneumatic work fixtures. C. H. Wick. il diags Mach 53:137-45 O '46
Maximum clamping at minimum cost; hydraulically actuated fixtures. F. R. Swanson. il diag Am Mach 90:93-6 Ag 1 '46
Non-magnetic angle plate and V-block fixture. L. L. Dodds. diags Am Mach 90:136 Ap 25 '46
Positioning fixture permits tapping to 4½-in. depth an unmachined heavy walled pipe. il Steel 118:111 F 11 '46
Production-developed fixtures with general-purpose applications. T. J. Donovan. il diags Am Mach 90:143-4 Ap 11 '46
Setup plates save down time; Joshua Hendy iron works. H. C. Andree. il Am Mach 90:100-1 Jl 4 '46
Wharton universal system jigs and fixtures. il diags Automobile Eng 36:297-303 Jl '46; Engineer 181:561-2 Je 21 '46; Engineering 161:608-10, 612 Je 28 '46
Work-holding methods used in surface grinding. J. C. Arndt and W. S. Hallowell. il Mach 53:160-6 O '46

See also
Arbors and mandrels
Chucks
Jigs

Lubrication

Machine tool lubrication; Aviation division of the Studebaker corp. P. E. Bundy. Iron Age 157:72-3 Ja 10 '46

Manufacture

Boring machine tool castings for anti-friction bearings. il Mach 52:179-80 Ap '46

Prices

Just what is the Clayton formula? pricing surplus machine tools. Mach 52:174-5 F '46
Machine tool and equipment prices lifted 20%; some items decontrolled. Am Mach 90:142f-142g Ap 25 '46
Most machine tool builders hold prices despite decontrol. Iron Age 158:106-7 Ag 22 '46
Tool builders take conservative position on increasing prices; survey of representative companies. G. Hubbard. Steel 118:64-5 Ap 29 '46

Repair

Cost-record system for machine tools. H. A. Muir. Mach 53:190-3 O '46

Standards

Electrical standards for machine tools. R. H. Clark. Mech Eng 68:446-8+ My '46; Same abr. Mach 52:176-8 Ja '46
Machine tool electrical standards; reference book sheets. Am Mach 90:145, 147 F 14; 141, 143 F 28; 145 Mr 14 '46
What an automotive production man has to say about machine tool standards. A. P. O'Neill. Automotive & Aviation Ind 94:47-8+ My 1 '46

Storage

Standby tool processing under army ordnance plan progressing. Steel 118:70 F 18 '46

Unit construction

Kearns unit-construction machines. il Automobile Eng 36:114-15 Mr '46
Package units for simplified design, low costs. il diag Machine Design 18:129-34 Mr '46
Sonder-werkzeugmaschinen neuer art und form. H. Stein. il diags V D I 88:229-37 Ap 29 '44; Same cond (Adaptable machine tools). Product Eng 17:241-3 Mr '46

MACHINE work
Grinding, surfacing and stock removal by wet belt machining. W. F. Schleicher. il Steel 119:94-5+ Jl 8 '46
Liquid coolers; units for controlling coolant temperature during high speed machining. il plan Steel 119:96-7+ N 4 '46
Machine tool design responds to needs of industry; how machining operations will be affected. il diags Am Mach 90:117-28 Mr 28 '46
Machining plastics. K. Rose. Materials & Methods 22:1457 N '45
Machining stainless steels. E. Von Hambach. diags Steel 119:62-7 S 30; 116-18+ O 7; 112-13+ O 14 '46
Wet-belt machining. W. F. Schleicher. il Iron Age 157:52-5 F 28 '46
What technical men expect in 1946; machining. Steel 118:290-4+ Ja 7 '46

See also
Broaching
Centering (machine work)
Dividing (machine work)
Drilling and boring (metal working, etc.)
Grinding
Honing
Indexing (machine work)
Locating (machine work)
Machine shop practice
Metal cutting
Milling
Plastic materials—Cutting
Polishing
Time study (of machinery)

Tables, calculations, etc.

Angular and straight cuts combined. E. J. Tangerman. diag Am Mach 90:122 Ja 3 '46
Does the drill point clear? measuring drill clearance. W. E. Ainsworth and G. Munro. il diag Am Mach 90:120-1 Ag 29 '46
Method of checking compound angles. J. Ahearn. diags Mach 52:182-5 D '45
Setup charts for Bullard Mult-Au-Matics. J. J. Meadows. Iron Age 156:54-8 D 13 '45

MACHINE works
Industrial group using arc welding; Wyoming iron works. il Sheet Metal Worker 37:74+ Je '46
International harvester company enlarges Diesel production facilities. il Diesel Power 24:328-9 Mr '46

See also
Diesel engines—Manufacture
Machinery—Manufacture

Employees

Small-plant program for good employee relations; Pulverizing machinery company. C. G. Wyder. il Factory Management 104:126-30 Ja '46
Wage structure in the machinery industries, January 1945. L. M. David. Mo Labor R 62:265-76 F '46

See also
Machine shops—Employees

Equipment

Collectors catch cast iron dust; Detroit Diesel engine division, General motors corporation. R. A. Shaw. il Am Mach 90:103 Jl 4 '46
Duplex trunnion fixtures; General mills inc. il Steel 119:104-5+ Jl 1 '46
Engine production; Austin truck power unit. il Automobile Eng 35:483-92 N '45

MACHINE works—Equipment—*Continued*
Power trucks break production bottleneck at Elliott co.'s Jeannette, Pa., plant. il Steel 118:163-4 My 6 '46

Management

Simplified formulas put more jobs on incentive; Black-Clawson co. M. A. Young. il Factory Management 103:118-22 N '45
Small-plant services for efficient production; Pulverizing machinery co. C. G. Wyder. il Factory Management 104:145-9 Ja '46

See also
Machine shop—Management

MACHINERY

See also
Agricultural machinery
Assembling methods
Auger machines
Balancing machines
Balancing of machinery
Bearings
Belting
Bolts and nuts
Bottle making machinery
Brickmaking machinery
Calculating machines
Casting machines
Centering machines
Coal mining machinery
Conveying machinery
Cotton machinery
Couplings
Cranes, derricks, etc.
Crankshafts
Crushing machinery
Cylinders (engines, etc.)
Diesel engines
Dividing machines
Drilling and boring machinery
Electric machinery
Electric welding machines
Excavating machinery
Fans, Mechanical
Feed mechanism
Filling machines
Fish filleting machine
Fits (machinery)
Flotation machines
Foundry machinery
Friction
Gear cutting machines
Gearing
Governors (machinery)
Grinding machines
Harvesting machinery
Hoisting machinery
Hydraulic machinery
Hydraulic presses
Internal combustion engines
Jigs
Keys and keyways (machinery)
Knitting machines
Labeling machines
Lathes
Locomotives
Looms
Lubrication and lubricants
Machine shop practice
Machine tools
Machinery industry
Marking machines
Mechanical engineering
Mechanical handling
Metal working machinery
Milling machines
Mining machinery
Molding machines
Nailing machines
Packaging machinery
Packing
Paper making machinery
Paving machines
Pins, Machinery
Pneumatic conveying
Pneumatic machinery
Power transmission
Presses
Printing machinery
Printing presses
Pulleys
Pumping machinery
Pumps
Railroads—Track making machinery
Refrigeration and refrigerating machinery
Road making machinery
Rock drills
Rolls
Rubber machinery
Screw machines
Shafting
Shafts
Shapers
Shoveling machines
Spinning machinery
Springs (mechanism)
Steam engines
Steam turbines
Swaging machines
Testing machines
Textile machinery
Threading machines
Tools
Tractors
Trenching machinery
Turbines
Valves
Wire forming machines
Woolen and worsted machinery

Cleaning

Use of solvents in cleaning machinery for reconversion. M. Foy. Mach 52:165-7 D '45

See also
Airplane engines—Cleaning

Control

Electronic relays. K. Keller. il diags Machine Design 18:119-22 Ag '46

Cooling

Breathers, means of cooling machines. A. Raines and J. H. Rosenbloom. il diag Machine Design 18:75-7+ O '46

Design

Application of fabricated construction to machine design. F. Koenigsberger. bibliog il diags Inst Mech Eng J & Proc 152:Proc 245-61 D '45; Same abr. Engineer 177:355-6, 364-6 My 5-12 '44; Discussion. Inst Mech Eng J & Proc 152:Proc 262-74 D '45; Engineer 177:345-7 My 5 '44
Case for drop-forging. R. E. W. Harrison. Am Mach 90:135-6 Mr 28 '46
Changeover of a band saw to welded design. J. R. Morrill. il diags Welding J 25:543-5 Je '46
Combination grinding wheel dresser. J. R. Moore. il diags Machine Design 18:101-5 S '46
Combining metal forms simplifies production. R. J. Wolf. il diags Materials & Methods 22:1739-43 D '45
Design of welded parts. R. J. Wolf and C. Eiwen. il diag Product Eng 17:[no 7] 122-3 Jl '46
Design of weldments for best results at lowest costs. I. A. Oehler. il diags Product Eng 17:86-9 Ag '46
Designing computing mechanisms. M. Fry. il diags Machine Design 17:103-8 Ag; 113-20 S; 123-8 O; 141-5 N; 123-6 D '45; 18:115-18+ Ja; 137-40 F '46
Designing for precision casting. R. C. Wynne. il Machine Design 18:129-31 Jl '46
Designing welded machinery parts. G. L. Snyder. il diags Steel 118:124-7+ F 4; 98-100+ F 11; 100-2+ F 18 '46; Same. Welding J 25:105-18 F '46; Same. A S M E Trans 68:293-307 My '46; Same cond. Machine Design 18:135-42 Ja '46; Same cond. Mach 52:157-60 Ja; 167-71 F '46
Developing parts for production; brittle lacquer method of stress analysis (stress-coat). G. W. Birdsall. il diags Steel 117: 104-8+ D 17 '45
Electric strain gages aid machine design. V. E. Hillman. il diags Iron Age 157:50-3 Ap 11 '46
How design affects heat-treatment; reference book sheet. diags Am Mach 90:145, 147 N 7 '46
How to apply counters in machines. il Machine Design 18:143-6 Mr '46
Impact stress in elastic bodies calculated by the energy method. M. F. Spotts. bibliog diags Product Eng 17:200-4 Mr '46
Lubricants; their proper specification and utilization in design. B. F. Hunter. il diag Machine Design 18:133-6+ S '46
Machine design textbooks should contain what name implies. Z. Fox. il diags Product Eng 17:[no 7] 124-7 Jl '46
Machines without men. E. W. Leaver and J. J. Brown. Fortune 34:165+ N '46
Mechanical principles of the screw extrusion machine. Z. Rogowsky. diag Engineering 162:358-60 O 11 '46
Mechanical seals. D. R. Lewis. il diag Machine Design 18:125-8 S; 78-82 O; 138-42+ N '46
Nomogram for shaft design; reference book sheet. C. P. Nachod. Product Eng 17:87 Ja '46
Production processes; their influence on design. R. W. Bolz. il plan diags Machine Design 17:109-14 Jl; 113-18 Ag; 135-40 S; 147-52 O; 117-22 N; 131-6 D '45; 18:119-26 Ja; 117-22 F; 121-8 Mr; 167-72 Ap; 117-22 My; 115-21 Je; 119-24 Jl; 129-34 Ag; 129-32 S; 93-6 O; 131-7 N '46
Redesigning? consider materials changes; graphotype; machine for embossing plates for addressing machine. R. K. Lotz. il diags Machine Design 17:127-9 D '45
Residual stresses can be beneficial or might cause failure of part. J. O. Almen. il diags Product Eng 17:81-5 Ag '46
Section properties of fillets; engineering data sheet. V. M. Kibardin. Machine Design 18: 155-7 Ag; 159-61 S '46
Stamping machine parts. C. Carmichael. il diags Steel 119:74-5+ Ag 26 '46
Torsion bar provides coupling flexibility. J. H. Potter. il diags Machine Design 18:122-4 Je '46
Velocity and acceleration in cam design. J. S. Kahr. il diags Product Eng 17:246-9 Mr '46

MACHINERY—Design—*Continued*

What cemented carbides offer the designer. R. K. Lotz. il diags Machine Design 18: 135-8+ Je '46

See also

Drafting room practice
Gearing—Design
Interchangeable mechanism
Keys and keyways (machinery)
Machine tools—Design
Machinery, Kinematics of
Springs (mechanism)—Design

Exhibitions

Royal Netherlands industries fair, Utrecht. il Engineer 181:341-2; 182:276-7 Ap 12, S 27 '46

Welsh industries fair, Cardiff. Engineering 161:607; 162:319 Je 28, O 4 '46

See also

Machine tools—Exhibitions

Failures

Bearing failures; causes and cures. R. W. Dayton and R. E. Adams. bibliog il Machine Design 18:113-16 My; 128-32 Je '46

Foundations

Anti-vibration foundations for heavy machines. Engineer 181:403 My 3 '46

Concrete pipe sections jacked vertically provide machinery foundations. J. B. Hoffmier. il Eng N 136:856-7 My 30 '46

Cork slab foundation for heavy machine tools on poor grade filled land. il Iron Age 158: 64-5 S 19 '46

Press relocation simplified; Fisher Body plant suspension of stamping machines. il Bsns W p55-7 S 7 '46

Setting heavy machinery on concrete bases; grouting mixtures. R. R. Kaufman. Am Concrete Inst J 17:721-4 Je '46

Some essentials of turbine-generator foundation design. il plans diags Eng N 137:316-20 S 5 '46

See also

Steam turbines—Foundations

Inspection

New eye for industry; millionth of a second X-ray equipment. E. L. Cady. il Sci Am 174:110-12 Mr '46

See also

Textile machinery—Inspection

Maintenance and repair

How to get the most out of ball and roller bearings. A. Palmgren and G. Palmgren. il Factory Management 103:141-8 D '45

Machine upkeep history on a single form; Iron fireman manufacturing company, Cleveland. J. Burchfield. Factory Management 104:125 Jl '46

Manufacture

Application of fabricated construction to machine design. F. Koenigsberger. bibliog il diags Inst Mech Eng J & Proc 152:Proc 245-61 D '45; Same abr. Engineer 177:355-6, 364-6 My 5-12 '44; Discussion. Inst Mech Eng J & Proc 152:Proc 262-74 D '45; Engineer 177:345-7 My 5 '44

Induction heating applications in the machine-building industries. H. A. Strickland, jr. Mach 52:181-4 Ag '46

Machinability in relation to production; heavy engineering. Engineer 181:498 My 31 '46; Same. Engineering 161:605 Je 28 '46

Precision manufacture; Lawson machine and tool company. il Diesel Power 24:50-2 Ja '46

Try welding in manufacture of machinery. diags Diesel Power 24:330-1 Mr '46

See also

Machine parts

Mounting

Vibration-absorbing levelers for machinery. Aeronautical Eng R 4:125 D '45

Vibro-levelers; rubber insulated machinery mountings. il Metal Finishing 43:517 D '45

Moving

Collis new plant handling truck. il Mech Handling 33:111-12 F '46

Planning machine moves. H. M. Bradley. il diags Factory Management 103:135-8 N '45

Press relocation simplified; Fisher Body plant suspension of stamping machines. il Bsns W p55-7 S 7 '46

Noise

Noise and its suppression. N. Fleming. Inst Chem Eng Trans 20:30-5 bibliog(p35); Discussion. 35-7 '42

Quiet, please! employee efficiency and machine life upped by killing vibration. J. P. Callahan. il diags Am Mach 90:102-3 F 28 '46

Painting

How to use color in the shop. H. J. Williams. il diags Am Mach 90:121-32 My 9 '46

Machine finishes producers; addresses of companies, tradename, type of finish, etc. Machine Design 18:248-50+ O '46

Standardization of color finishes for machinery and equipment. D. L. Hadley and C. B. Ryder. diag Steel 118:121-2+ Ja 28 '46

Patents

How to protect machine improvements. G. V. Woodling. diags Machine Design 17:133-6 N '45

Prices

Machine tool and equipment prices lifted 20%; some items decontrolled. Am Mach 90:142f-142g Ap 25 '46

Price rules removed on selected list of heavy machinery and equipment. Iron Age 157: 98-9 Ap 11 '46

Prices of construction machinery, Aug. 1939 to Dec. 1945. Mo Labor R 62:491-3 Mr '46

Protection

See Metal protection

Safety devices

Clutch safety device eliminates possibility of overload damage to automatic machinery. il diags Steel 119:93 Ag 26 '46

Guards you can see through; use of transparent plastics. il Safety Eng 91:38-9+ Mr '46

Machines need guards. il Nat Safety N 53: 119-20+ Mr '46

Safe controls. C. E. Marshall. il Safety Eng 91:43+ Mr '46

See also

Cranes, derricks, etc.—Safety measures

Standards

Engineering of involute splines. G. L. McCain. diags S A E J 54:245-60 My '46; Excerpts. Automotive & Aviation Ind 94:24-7 My 15 '46; Discussion. C. H. Standard, A. S. Beam and others. il S A E J 54:310-24 Je '46

Experiment in the use of a standard limit system. J. Loxham. Engineer 181:415; Discussion. 411-12 My 3 '46

Machine pins; standard approved by A.S.M.E.; reference book sheet. diags Am Mach 90:197, 199 Ja 17 '46

Step-drilling taper-pin holes; proposed standard; reference book sheets. H. W. Fahrlander, comp. diag Am Mach 90:129, 131 Ja 3 '46

Storage

New method of protecting machines for shipment or storage; sprayed coating. il Mach 53:154-6 O '46; Aero Digest 53:89+ O '46

New plastic covering protects idle equipment; strip-off coating available for factory equipment going in storage; cocoon system. A. V. Gemmill. il Food Ind 18:1540-1 O '46

Packaging equipment; preparing machines for shipment or storage; vinyl resin and asphalt-gilsonite spray coatings. il Steel 119: 134+ S 23 '46

Plastic film assures safe storage and shipment of machinery. il Iron Age 158:96-7 Ag 29 '46; Product Eng 17:152-3 N '46

MACHINERY—*Continued*

Surplus machines

WAC sets depreciation rates for three types of surplus machinery. Iron Age 157:111 Mr 21 '46

Transportation

Flying machines; air delivery of bag-making equipment. il Mod Packaging 19:116-17+ Jl '46

Vibration

Deflections and critical speeds of stepped shafts; engineering data sheet. H. L. Blood. bibliog Machine Design 18:155-7 Je '46

Floor stiffening overcomes vibration. C. J. Shannon. diags Textile World 96:97 Ja '46

How to avoid loosening of bolts and nuts. R. J. Sweeney. diags Machine Design 18: 139-44 Je '46

Isolation of vibration in spring mounted apparatus; with reference book sheets. J. N. MacDuff. diags Product Eng 17:[no 7] 106-9, 159, 161, 163 Jl; 154-6 Ag '46

Loosening by vibration of threaded fastenings. J. N. Goodier and R. J. Sweeney. diags Mech Eng 67:798-802 D '45

Mechanism of tool vibration in the cutting of steel. R. N. Arnold. diags Engineer 180:355-6, 379-80 N 2-9 '45; Discussion. 180:350-2 N 2 '45

Nomograph aids solution of vibration problems; engineering data sheet. M. Nord and S. F. Ciricillo. Machine Design 17:155-6 N '45

Non-inductive wave analyser circuits of constant Q; vibration problems in engineering. H. G. Yates. diags Engineer 181:515-16 Je 7 '46

Vibration detective at work; abstract. R. C. Griffith. Am Mach 90:114-15 My 23 '46

See also

Airplane engines—Vibration
Electric machinery—Vibration
Refrigeration and refrigerating machinery—Vibration

MACHINERY, Automatic

Automatic control for vertical turret lathes; Bullard Man-Au-Trol. il Ry Mech Eng 119: 615-16 D '45

Automatic factory; threat-and-promise of laborless machines is closer than ever. il Fortune 34:160-4 N '46

Automatic machines use gas to heat-treat parts. F. Maud. il diags Am Mach 90:101-6 S 26 '46

Automatic machining of automotive valves. il Steel 119:112+ O 14 '46

Automatic manufacturing plant; shell plant of W. F. & John Barnes co. suggests possibilities for peacetime manufacturing. E. Oberg. il Mach 52:148-55 F '46

Cam-less five spindle automatic. J. Parina, jr. il Steel 118:90-1+ Mr 25 '46

Machine-tool control; Bullard company Man-Au-Trol. Mech Eng 68:37 Ja '46

Machines automatiques à envelopper les petits produits de consommation. M. Moser. il diags Génie Civil 123:265 O 1 '46

Machines without men. E. W. Leaver and J. J. Brown. Fortune 34:165+ N '46

Potter & Johnston automatics. il Mach 52: 199-200 Je '46

Potter & Johnston's automatics have many war-born improvements. il Am Mach 90:181 Je 20 '46

Setup charts for Bullard Mult-Au-Matics. J. J. Meadows. Iron Age 156:54-8 D 13 '45

Transfer machine uses 152 tools; manufacture of refrigerator-compressor bodies. il diags Am Mach 90:116-18 Jl 4 '46

MACHINERY, Kinematics of

How to determine accelerations for mechanisms in which key points move along paths that rotate. P. K. Slaymaker. diags Machine Design 18:147-50 Jl '46

Velocity and acceleration in cam design. J. S. Kahr. diags Product Eng 17:246-9 Mr '46

MACHINERY, Replacement of

B. & O. machinery replacement program. il Ry Mech Eng 120:180-3 Ap '46

Bloody foot prints in the snow or eight ideas for taming the industrial cycle. J. E. Wiley Ind Marketing 31:34-6+ Ag '46

Depreciation, graveyard of dividends. J. L. Trecker. Diesel Power 23:1354+ N '45

Handy tools measure equipment obsolescence. J. C. Hussey. Am Mach 90:110-11 My 9 '46

Industry will need new equipment to meet postwar competition. Am Mach 90:97-104 Ja 17 '46

Just how modern is your plant? abstract. Management R 35:382-3 S '46

Needed: a sensible depreciation policy for machine tools and other production equipment. B. Finney. Am Mach 90:111-18 Ap 25 '46

New yardstick for gaging a drill's economic life. A. F. Horle. Eng & Min J 147:79-80 My '46

1945 inventory of production equipment other than machine tools, by industrial and geographical groupings; with age data. Am Mach 89:105-20 D 6 '45

Planned modernization to meet world competition. W. Gates. il Mag of Wall St 78:70-2+ Ap 27 '46

Replacing obsolete equipment; methods of financing purchase of new equipment without impairing working capital. W. G. Jorgenson. Rock Prod 48:97+ O '45

Save your depreciation reserve. H. A. Strangman. Am Mach 90:113 O 10 '46

Small metalworking plants have higher percentage of old equipment; results of survey. Am Mach 90:113-15 Mr 14 '46

MACHINERY, Used

Buying used mechanical equipment. R. H. Emerick. il diags Heat & Ven 43:62-7 S '46

MACHINERY in industry

Industrial way of life. P. Meadows. il Tech R 48:285-8+ Mr '46

Labor and technological advances; abstract. A. Ramond. Management R 35:224-6 Je '46

Planned modernization to meet world competition. W. Gates. il Mag of Wall St 78: 70-2+ Ap 27 '46

See also

Machinery, Replacement of

MACHINERY industry

Applying market research to the machinery industry. E. R. Walsh, jr. Ind Marketing 31:30+ F '46

Machinery and motive products; trends in 1946. W. H. Myer. il Dom Comm 34:35-6 Ja '46

Machinery; prospects for 1946. Steel 118:sup 26-9 Ja 7 '46

New postwar price policy for machinery. Iron Age 156:111-12 D 6 '45

Outlook for the construction machinery industry. E. R. Galvin. Diesel Power 23:1360+ N '45

See also

Agricultural machinery industry
Machine tool industry
Textile machinery industry

Advertising

Bloody foot prints in the snow or eight ideas for taming the industrial cycle. J. E. Wiley. Ind Marketing 31:34-6+ Ag '46

Success story of machinery advertising by Greer. S. W. Smith. il Ind Marketing 31: 25+ Ja '46

26 points about export promotion material. P. W. Stone. Ptr Ink 216.46-7 S 20 '46

See also

Hosiery machines—Advertising

Directories

Diesel engine directory; manufacturers of engines and plant accessories. Diesel Power 24:736-54+ Je '46

33d annual review number. il diags Am Mach 90:106-96 Ja 17 '46

Exhibitions

See also

Machine tool industry—Exhibitions
Machinery—Exhibitions

Securities

Investment stake in diversified machinery stocks; with statistical review of leading companies. H. F. Travis. il Mag of Wall St 78:327-9+ Je 22 '46

MACHINERY industry—Securities—*Cont.*
Realistic appraisal of machinery stocks; with position of leading stocks. H. S. Coffin. il Mag of Wall St 77:526-8+ F 2 '46
Today's outlook for machinery producers; with financial survey of leading manufacturers. L. Rogers. il Mag of Wall St 78:630-1+ Ag 31 '46

Germany
No more German tool exports. J. D. Wilson. Am Mach 90:129-32 Je 6 '46

Great Britain
Engineering outlook. Engineering 161:27-9, 53-5, 77-8, 101-3, 123-5, 149-51, 172-4, 197-9, 220-2, 244-6, 268-9, 292-4 Ja 11-Mr 29 '46
Markets for machinery; with tables showing exports of British machinery and vehicles, 1935-1939. Economist 150:496-7 Mr 30 '46

Italy
Engineering industries in Italy. Engineering 161:295 Mr 29 '46

Japan
Manufacture of agricultural and industrial machinery; tabulations. For Comm W 24:35 S 14 '46

Russia
Russian machinery output to expand. Am Mach 90:142n Ag 25 '46

MACHINISTS
Teamwork among machinists. E. A. Hoppe. Am Mach 90:117 Ag 29 '46

MACHINISTS, International association of. See International association of machinists

MCKESSON and Robbins, inc.
Annual report. Comm & Fin Chr 162:2395 N 19 '45
Annual report. Comm & Fin Chr 164:1873 O 14 '46
FTC challenge; McKesson & Robbins accused of misusing word free in describing premiums. Bsns W p88+ Mr 23 '46

MACKEY, Joseph Thomas, 1879-
J. T. M.; just the man. J. E. Allen. pors Inland Ptr 118:34-6 N '46

MCLAUGHLIN, George Dunlap, 1887-1945
Sketch. C. H. Behre, jr. and D. B. Eisendrath. Science 103:418 Ap 5 '46

MACLEAN, Ida Smedley, 1877-1944
Sketch. M. A. Whiteley. Chem Soc J p65-7 Ja '46

MCLEOD gage. See Vacuum gages

MACLURA pomifera. See Osage orange

MCMAHON, Brien, 1903-
Freshman senator. por(cover) Bsns W p8 Ap 13 '46

MCMAHON act. See Atomic energy commission

MACNAUGHTON, William G. 1874-1946
TAPPI medal presentation. J. d'A. Clark. por Paper Tr J 122:146+ F 28 '46
TAPPI medalist. por Paper Tr J 121:50 D 13 '45; Same. Pulp & Pa of Can 47:56 Ja '46

MCNEW, John Thomas Lamar, 1895-
Sketch. por Civil Eng 15:569 D '45

MACPHAIL, Leland Stanford, 1890-
Portrait. Fortune 34:134 Jl '46

MCPHERRIN, John
Portrait. Sales Management 57:41 O 1 '46

MCREYNOLDS, James Clark, 1862-1946
Sketch. Comm & Fin Chr 164:1315 S 5 '46

MACY, R. H., and company
Annual report. Comm & Fin Chr 164:2020 O 21 '46
Another Macy unit. Bsns W p59 Jl 13 '46
Macy buys in Brooklyn. Bsns W p84 F 2 '46
Macy's strike in New York settled. Mo Labor R 63:221 Ag '46
Peace at Macy. Bsns W p94 Jl 27 '46
Stocks for defensive investment. Mag of Wall St 79:87, 110 O 26 '46
Way it should be; Lemuel L. Foster, Negro personnel official. Fortune 34:170 O '46

MADAGASCAR

Commerce
Status of trade with France. For Comm W 23:32 Je 22 '46

Economic conditions
News by countries. For Comm W 22:28-9 Mr 30; 23:26-7 Ap 6; 31-2 My 18 '46

MADISON, Wisconsin
Urban fringe studies of two Wisconsin cities; a summary. R. B. Andrews. J Land & Pub Util Econ 21:375-82 N '45

MAGAZINES. See Periodicals

MAGIC
Tricks for trade; makers and sellers of magicians' magic. Bsns W p34+ My 18 '46

MAGMA. See Rocks, Igneous

MAGNAFLUX testing. See Magnetic testing

MAGNESIA
Bicarbonate process for the production of magnesium oxide. H. A. Doerner and others. flow sheet il diag U S Bur Mines Tech Pa 684:1-48; pa 10c Supt. of doc. '46
Calcined dolomite; convert from magnesium to refractory manufacture. il Rock Prod 48:84-7 D '45
Chlorination of magnesia. H. A. Doerner and W. F. Holbrook. bibliog and patent list U S Bur Mines Rep of Invest 3833:1-25, pl 1-6 '45
Mineral-insulated metal-sheathed conductors. F. W. Tomlinson and H. M. Wright. il Inst E E J 93 pt 2:325-35 Ag '46; Abstracts. Electrician 135:674 D 14 '45; Engineering 161:31 Ja 11 '46; Discussion. Inst E E J 93 pt 2:336-40; 94 pt 2:84-91 Ag '46, F '47; Electrician 135:708-10 D 21 '45; Elec R (Lond) 137:936-7 D 28 '45
Olivine, a suggested source of magnesia. G. W. Pawel. bibliog il Am Cer Soc J 28:360-2 D 1 '45
Particle size determination from X-ray line broadening. L. S. Birks and H. Friedman. bibliog il J Ap Phys 17:687-92 Ag '46
Physical properties of some high-temperature refractory compositions. G. R. Pole and others. bibliog il diag Am Cer Soc J 29: 208-22 Ag 1 '46
Refractory magnesia outlook. il Chem Ind 57:1078+ D '45
Report on studies of ternary system CaO-C_3A_3-C_2F; quaternary system CaO-C_3A_3-C_2F-C_2S; quaternary system as modified by 5% magnesia. M. A. Swayze. Am J Sci 244:65-94 F '46
Studies of binary and ternary combinations of magnesia, calcia, baria, beryllia, alumina, thoria and zirconia in relation to their use as porcelains. R. F. Geller and others. bibliog pls diags J Res Nat Bur Stand 36:277-312 Mr '46
X-ray diffraction data for compounds in the system CaO-MgO-SiO_2. C. B. Clark. Am Cer Soc J 29:25-30 Ja 1 '46

Manufacture
Complex processing used for light magnesium oxide. A. Q. Smith. il Chem Eng 53:119 O '46

MAGNESITE
Magnesite; Brazil to work vast deposits; Magnesita, S.A. will also mine talc and recover precious stones. J. A. Merz. il map Rock Prod 48:92-4 N '45
New refractories and basic lined openhearths; abstracts of papers at Open hearth conference. Iron Age 157:70-1 My 2 '46
Northwest Magnesite leads refractory production. Chem & Met Eng 53:190+ Ap '46
Rammed magnesite bottoms. J. J. Golden. Steel 119:112+ Jl 22 '46; Same. Brick & Clay Rec 109:58 Ag '46; Same. Blast F & Steel Pl 34:1036 Ag '46
Role of refractories in peacetime production; magnesite refractories. il Brick & Clay Rec 108:72 Ja '46

MAGNESIUM
Corrosion resistance of magnesium and certain of its alloys under various accelerated atmospheric conditions. R. R. Rogers and others. il diag Electrochem Soc Trans 90 (preprint 25):315-22 '46
Designing with magnesium. 323p Aluminum company of America, 801 Gulf bldg, Pittsburgh 19 '45
Effect of hot forming temperatures on magnesium. Iron Age 157:66 Mr 21 '46
Future of magnesium in the West; abstract. L. B. Grant. Chem & Met Eng 52:262+ N '45

MAGNESIUM—*Continued*
Growth of light metals assured; tonnages uncertain. J. L. Head. Eng & Min J 147: 100 F '46
Industrial significance of the basic characteristics of magnesium. J. D. Hanawalt. il Metal Prog 49:548-52, 739-43 Mr-Ap '46; Abstract. Product Eng 17:319-20 Ap '46
Lubrication in drawing magnesium. S. Spring. bibliog Steel 117:64+ D 31 '45
Magnesium anodes for the cathodic protection of underground structures; abstract. H. A. Robinson. Nat Pet N 38 pt 2:R452 Je 5 '46
Magnesium as a galvanic anode; some factors affecting its performance. H. A. Robinson. il diags Electrochem Soc Trans 90 (preprint 4):49-71 '46
Magnesium battery; abstract. Materials & Methods 24:686 S '46
Magnesium castings for lightweight portable engine-driven chain saw. il diags Product Eng 17:452-4 Je '46
Magnesium comes of age. Bsns W p79-80+ Je 1 '46
Magnesium for cathodic protection of pipe lines. R. M. Hutchison. diag Pet Eng 17: 213+ Mr '46
Magnesium industry boomed by war; out to up current sales. Iron Age 158:180 O 17 '46
Magnesium; inexhaustible metal. F. P. Peters. il Sci Am 175:53-6 Ag '46
Magnesium rods used to prevent corrosion of Alice-Corpus Christi pipe line. Am Gas Assn Mo 27:482 N '45
Plenty available for wide variety of potential peacetime uses. T. W. Atkins. Min & Met 27:125-7 F '46
Power helps wrest magnesium from the sea. J. P. Warren and W. J. Coughlin. flow diag il diag Power 90:74-7, 166-8 F-Mr '46
Private magnesium plants adequate for postwar. W. S. Symington. Iron Age 156:118-19 D 13 '45
Protection of two 8-in. coated pipe lines with magnesium. A. Smith, jr. il diag Oil & Gas J 45:195-6+ S 21 '46
Rate of dissolution of magnesium and zinc in acids. C. V. King, H. Wishinsky and H. Bloodgood. bibliog Am Chem Soc J 68:238-9 F '46
Scattering of neutrons by magnesium. R. N. Little and others. bibliog diags Phys R 69:414-17 My 1 '46
Solubility of calcium sulphate as a factor in the extraction of magnesia from sea water. F. C. Gilbert and W. C. Gilpin. Soc Chem Ind J 65:111-13 Ap '46
Standard free energy of formation and entropy of the aqueous magnesium ion. C. C. Stephenson. bibliog Am Chem Soc J 68:721 Ap '46
Structural deterioration of aluminum and magnesium by corrosion; abstract. W. Patterson. Metal Prog 49:1030+ My '46
Surplus property administration recommends retaining seven government-owned plants for magnesium production, and sale or lease of others. L. M. Lamm. Chem & Eng N 23:2296 D 25 '45
Symington of SPA would close magnesium plants. Elec World 124:77 D 22 '45
Trends in the light metals. J. H. Weitz. Min Cong J 32:62-3 F '46
Use of magnesium for cathodic protection of the Katy pipe line. P. Hart and O. Osborn. bibliog il diag Pet Eng 17:136+ Ag '46
Values of the optical constants for beryllium, magnesium, and zinc. R. O. Bock. Phys R 68:210-13 N 1 '45

See also
Magnesia
Magnesite
Magnesium founding
Magnesium metallurgy

Analysis

Combination arc-spark source for magnesium analysis. V. J. Caldecourt and J. L. Saunderson. il diags Opt Soc Am J 36:99-102 F '46
Determination of magnesium in aluminum alloys. H. C. Deterding and R. G. Taylor. bibliog Ind & Eng Chem Anal ed 18:127-9 F '46
Determination of nitrogen, phosphorus, potassium, calcium, and magnesium in plant tissue; semimicro wet-digestion method for large numbers of samples. O. J. Kelley, A. S. Hunter and A. J. Sterges. bibliog diag Ind & Eng Chem Anal ed 18:319-22 My '46
Separation of calcium from magnesium by oxalate method in samples of high magnesium-calcium ratio. E. R. Wright and R. H. Delaune. bibliog Ind & Eng Chem Anal ed 18:426-9 Jl '46
Spot tests for aluminum and magnesium alloys. Oil & Gas J 45:115 Je 15 '46
Volumetric determination of magnesium in magnesium carbonate ores. L. R. Williams. bibliog Ind & Eng Chem Anal ed 18:542-4 S '46

Fire hazards

Gas-tight briquette handling plant; magnesium-rich dust. A. Huckett. il diags Mech Handling 33:66-71 F '46
Magnesium fires controlled by automatic sprinklers. Am Mach 89:129 D 6 '45
Preventing magnesium fires. N. J. Thompson. il Materials & Methods 24:679 S '46
Safety in handling magnesium. N. J. Thompson. il Factory Management 104:126-8 Jl '46
Sprinkler protection for magnesium storage. Nat Safety N 52:119-20 D '45

Isotopes

Level scheme of Mg^{24} and the mass of Na^{24}. R. G. Sachs. bibliog Phys R 70:572 O 1 '46

Metallography

Inverse segregation in cast magnesium alloys; abstract and discussion. R. J. M. Payne. Engineer 182:282 S 27 '46
Rapid estimation of grain size in magnesium castings. J. P. Ogilvie. Metal Prog 49:349 F '46

Prices

Aluminum and magnesium alloy prices as of April 1946. W. L. Nelson. Oil & Gas J 45: 106 Ag 10 '46

Protection

Protective finish for magnesium alloys. R. B. Mason. bibliog il Iron Age 157:48-52 Mr 21 '46

Welding

Emergency repair of magnesium parts by gas welding. Welding J 24:1051-2 N '45; Same cond. Iron Age 156:65 D 6 '45
Heliarc welding technique. il diag Aero Digest 53:54+ O '46
How to work magnesium alloys. A. Ashburn. diags Am Mach 90:128-30 N 7 '46
Magnesium alloys; technique of gas welding. Chem Age (Lond) 55:316 S 14 '46
Pressure welding; abstract. R. F. Tylecote. Mech Eng 68:361-2 Ap '46
Welding fluxes for magnesium. Iron Age 156: 71 N 22 '45
Welding of magnesium; argon method. L. F. Pearsall. diag Welding J 25:549 Je '46

MAGNESIUM, Molten
Pumping molten magnesium. M. M. Moyle. il diag Metals & Alloys 22:716-20 S '45; Excerpts. Mech Eng 68:253 Mr '46

MAGNESIUM alloys
Anodising magnesium alloys. Chem Age (Lond) 54:374 Ap 6 '46
Application of magnesium for cathodic protection. F. M. Ruffing. il diag N E Water Works Assn J 59:325-34 D '45
British patent magnesium joining process. Iron Age 158:65 S 12 '46
Cladding magnesium alloys; abstract. E. Hartmann. Materials & Methods 22:1834 D '45
Coloring magnesium alloys; Manodyz process. P. R. Cutter. Iron Age 158:59-60 Jl 25 '46
Corrosion resistance of magnesium and certain of its alloys under various accelerated atmospheric conditions. R. R. Rogers and others. il diag Electrochem Soc Trans 90 (preprint 25):315-22 '46
Corrosion stability of magnesium alloys; abstract. J. D. Hanaowalt and C. E. Nelson. Mech Eng 68:156 F '46
Deep-drawing of magnesium. R. G. Gillespie. il diags Mach 52:145-55 Mr '46

MAGNESIUM alloys—*Continued*
Designing with magnesium. 323p Aluminum company of America, 801 Gulf bldg, Pittsburg 19 '45
Development of magnesium alloys as aircraft materials; abstracts. J. C. DeHaven. Automotive & Aviation Ind 94:37 My 1 '46; Machine Design 18:178 Jl '46; S A E J 54: 74-5 O '46
Die casting; materials used. H. Chase. il Materials & Methods 22:1446-7 N '45
Effect of water vapor on magnesium alloys during heat treatment. R. F. Thomson and others. il Metal Prog 50:67-71 Jl '46
18,000-ton forging press; with special forging and heat-treating furnaces, produces magnesium and aluminum alloy forgings; Wyman-Gordon products corp. L. E. Browne. il Steel 118:114-16+ Je 17 '46
Evaluation of aeroplane metals. J. S. Van Den Broek. il diags Roy Aeronautical Soc J 50:811-28 O '46
Fatigue strengths of magnesium casting alloys; abstract. F. A. Fox and J. L. Walker. Materials & Methods 23:488+ F '46
Forging of magnesium. A. L. Rustay. il Mach 52:141-8 Je '46
How to work magnesium alloys. A. Ashburn. diags Am Mach 90:117-32 N 7 '46
Lighter engine; Nelson Aircraft uses magnesium parts. Bsns W p 56+ Je 15 '46
Magnesium alloy microporosity; abstract. E. A. G. Liddiard and W. A. Baker. Materials & Methods 23:216 Ja '46
Magnesium alloys; compositions, properties and designations of American commercial alloys; data sheet. H. S. Jerabek, comp. Metal Prog 50:308b Ag '46
Magnesium alloys for aircraft. F. A. Rappleyea. il Aero Digest 52:79-81 Ap; 53:87-8+ S '46
Magnesium and magnesium alloys. A. G. Gray. il map Steel 119:92-6+ O 21; 92-5+ N 4; 150-2+ N 11 '46; 120:102-4+ F 3; 100-2+ F 10; 114-5+ Mr 3; 90-1+ Mr 10 '47 (to be cont)
Magnesium-cerium alloy castings for high temperature use. R. F. Marande. bibliog il Materials & Methods 23:418-24 F '46
Magnesium gives high cathodic protection to pipelines and buried structures. L. M. Oldt. Nat Pet N 38 pt 2:R186-7 Mr 6 '46
Magnesium in body construction. il Bus Transportation 25:185-6 Jl '46
Magnesium; lightest of structural metals; abstract. L. M. Oldt. Mech Eng 68:357-8 Ap '46
Microporosity in magnesium alloy castings. H. Dobkin. bibliog il Foundry 74:98-101+ O; 84-5+ N '46
Microporosity in magnesium alloys; abstract. E. A. G. Liddiard and W. A. Baker. Materials & Methods 23:506+ F '46
New magnesium die casting alloy; Eclipsaloy 130; abstract. R. F. Hauser. Materials & Methods 23:1634 Je '46
Portable X-ray unit utilizes magnesium. W. Kes. il Materials & Methods 24:626-7 S '46
Production principles for deep drawn magnesium parts. R. G. Gillespie. il Materials & Methods 23:701-5 Mr '46
Protective finish for magnesium alloys. R. B. Mason. bibliog il Iron Age 157:48-52 Mr 21 '46
Shear properties of metals and alloys. R. S. Burpo, jr. comp. Materials & Methods 24: 143, 145 Jl '46
Superheating in magnesium-base alloys. F. A. Fox and E. Lardner. il diags Engineering 159:438-40, 478-80 Je 1, 15 '45; Abstract. Metal Prog 49:598+ Mr '46

See also
Electron metal

Analysis

Commercial use of direct reading spectrochemical analysis of magnesium alloys. J. L. Saunderson and T. M. Hess. il plan diag Metal Prog 49:947-55 bibliog(p954) My '46

Testing

Compression testing of magnesium alloy sheet. A. A. Moore and J. C. McDonald. bibliog il diag Am Soc T M Proc 45:698-704 '45
Influence of some different surface preparations on the corrosion of magnesium-base alloys of low and normal iron content; summary. F. A. Fox and C. J. Bushrod. Engineering 161:305 Mr 29 '46; Discussion. 161:305 Mr 29 '46; Engineer 181:309 Ap 5 '46
Reaction of an aluminium-magnesium alloy with water vapour, and the absorption of hydrogen. R. Eborall and C. E. Ransley. il diag Engineering 161:428-32, 438-9 My 3-10 '46; Discussion. 161:305 Mr 29 '46; Engineer 181:309 Ap 5 '46
Tensile and creep strengths of some magnesium-base alloys at elevated temperature; abstract. A. A. Moore and J. C. McDonald. Iron Age 158:76 Jl 4 '46

MAGNESIUM aluminate

See also
Spinel

MAGNESIUM association
Annual meeting, 3d, New York, Oct. 3-4. Foundry 74:154+ N '46

MAGNESIUM bromide
Isomerisation studies; effect of magnesium bromide. Chem Age (Lond) 53:572 D 15 '45

MAGNESIUM carbonate
Bicarbonate process for the production of magnesium oxide. H. A. Doerner and others. flow sheet il diag U S Bur Mines Tech Pa 684:1-48; pa 10c Supt. of doc. '46
Keeping the heat in; magnesia, mixed with asbestos fibers. il Sci Am 174:122+ Mr '46
Thermal insulations in industry; development of magnesia insulation. Paper Ind 28:96 Ap '46
Volumetric determination of magnesium in magnesium carbonate ores. L. R. Williams. bibliog Ind & Eng Chem Anal ed 18:542-4 S '46

See also
Magnesite

MAGNESIUM chloride
Dehydration of magnesium chloride. J. G. N. Gaskin. diag Soc Chem Ind J 65:215-16 Jl '46
Equilibria in saturated solutions; the ternary systems $CaCl_2$-$MgCl_2$-H_2O, $CaCl_2$-KCl-H_2O, and $MgCl_2$-KCl-H_2O at 35°. W. J. Lightfoot and C. F. Prutton. diags Am Chem Soc J 68:1001-2 Je '46
Humidity measurements in presence of water-soluble salts. G. C. Williams and R. O. Schmitt. Ind & Eng Chem 38:967-74 S '46
Spray drying of magnesium chloride; abstract. K. E. Kunkel. Chem & Met Eng 53: 254+ Mr '46

See also
Carnallite

MAGNESIUM compounds
Intermetallic compounds $Mg_4Na_4Pb_3$. G. Calingaert, H. Shapiro and I. T. Krohn. Am Chem Soc J 68:520-1 Mr '46

MAGNESIUM dust
Dust from magnesium alloys. il Chem Age (Lond) 55:471 O 19 '46

MAGNESIUM fluoride
Toward better vision: Visiclar to market warborn lens. Sales Management 56:75 F 1 '46

MAGNESIUM founding
Aluminum and magnesium sessions draw large crowds; American foundrymen's association. Foundry 74:152+ Je '46
American vs. European magnesium castings; abstract. L. W. Eastwood, J. A. Davis and J. DeHaven. Materials & Methods 23:1074 Ap '46
Casting magnesium; abstract. M. M. Moyle. Materials & Methods 23:1374 My '46
Casting magnesium alloys. A. G. Gray. il diags Steel 119:92-5+ N 4; 150-2+ N 11 '46
Design of magnesium castings for high properties and soundness. C. J. McDowall. il diags Product Eng 17:340-3 Ap '46
Examination and treatment of industrial magnesium foundry wastes. O. C. Garst. U S Bur Mines Rep of Invest 3860:1-36, pl 1-4 '46
Grain refinement of magnesium; abstracts. J. A. Davis and others. Materials & Methods 22:1496 N '45; Metal Prog 49:798+ Ap '46
Heat treating magnesium castings. il Gas Age 96:20 D 27 '45

MAGNESIUM founding—*Continued*
Impregnating magnesium castings; with data on resin-styrene compound. S. A. Moore. il Iron Age 157:76-80 Mr 14 '46

Inverse segregation in cast magnesium alloys; abstract and discussion. R. J. M. Payne. Engineer 182:282 S 27 '46

Light alloy castings; abstract. G. M. Young. Materials & Methods 24:174+ Jl '46

Light alloy founding; abstract. E. W. Fell. Materials & Methods 24:446 Ag '46

Magnesium casting capacity expands sharply. J. C. DeHaven. il Foundry 74:88-91+ Ja '46

Magnesium die castings. R. M. Heintz. il Machine Design 18:101-4+ F; 111-15 Mr '46

Magnesium foundry core practice; binders and inhibitors. G. W. Kurachek. bibliog Foundry 74:76-7+ S '46

Magnesium melting pots maintained by metal spraying; process inhibiting scale formation. il Steel 118:130+ F 4 '46

Magnesium melting practice. L. M. Nash. il Iron Age 157:61-3 F 7 '46

Microporosity in magnesium alloy castings. H. Dobkin. bibliog il Foundry 74:98-101+ O; 84-5+ N '46

Superheating in magnesium-base alloys. F. A. Fox and E. Lardner. il diags Engineering 159:438-40, 478-80 Je 1, 15 '45; Abstract. Metal Prog 49:598+ Mr '46

Superheating magnesium alloys; abstract. N. Tiner. Materials & Methods 23:220+ Ja '46

Wartime expansion in light-metal foundries. Foundry 74:138, 141 F '46

MAGNESIUM hydroxide
Determination of the pH of saturation of magnesium hydroxide. J. W. Ryznar, J. Green and M. G. Winterstein. bibliog diag Ind & Eng Chem 38:1057-61 O '46

See also
Brucite

MAGNESIUM metallurgy
Bicarbonate process for the production of magnesium oxide. H. A. Doerner and others. flow sheet il diag U S Bur Mines Tech Pa 684:1-48; pa 10c Supt. of doc. '46

Cheap magnesium; Permanente Metals new process. Bsns W p22 S 28 '46

Chlorination of magnesia. H. A. Doerner and W. F. Holbrook. bibliog and patent list U S Bur Mines Rep of Invest 3833:1-25, pl 1-6 '45

Continuous Mg process; abstract. A. C. Byrns. Chem Ind 59:684 O '46

Magnesium and magnesium alloys. A. G. Gray. il map Steel 119:92-6+ O 21 '46

Magnesium practice at I. G. Farben. Iron Age 157:68 Je 27 '46

Electrometallurgy

Germany's magnesium production. R. M. Hunter. Steel 117:132+ S 24 '45; Same abr. Chem Age (Lond) 54:15-17 Ja 5 '46

MAGNESIUM octane sulfonate
Studies of sulfonates; some surface and interfacial tension measurements with aqueous solutions of certain alkanesulfonates. E. C. Lingafelter, O. L. Wheeler and H. V. Tartar. bibliog Am Chem Soc J 68:1490-3 Ag '46

MAGNESIUM ores

See also
Brucite

MAGNESIUM oxide. See Magnesia

MAGNESIUM perchlorate
Osmotic and activity coefficients of zinc nitrate, zinc perchlorate and magnesium perchlorate; transference numbers in zinc perchlorate solutions. R. H. Stokes and B. J. Levien. bibliog diag Am Chem Soc J 68:333-7 F '46

MAGNESIUM silicates
X-ray diffraction data for compounds in the system CaO-MgO-SiO_2. C. B. Clark. Am Cer Soc J 29:25-30 Ja 1 '46

See also
Serpentine
Steatite
Talc

MAGNESIUM sulfate
Magnesium base sulphate pulping; possible methods of disposing of or utilizing solids in sulphite waste liquor. R. S. Hatch. Paper Tr J 122.54-6 Mr 14 '46; Same cond. Paper Ind 28:716+ Ag '46

See also
Langbeinite

MAGNESIUM sulfite
Magnesium base sulphite pulping; possible methods of disposing of or utilizing solids in sulphite waste liquor. R. S. Hatch. Paper Tr J 122:54-6 Mr 14 '46; Same cond. Paper Ind 28:716+ Ag '46

MAGNESIUM titanate
Heat capacities at low temperatures of the metatitanates of iron, calcium and magnesium. C. H. Shomate. bibliog Am Chem Soc J 68:964-6 Je '46

High-temperature heat contents of the metatitanates of calcium, iron and magnesium. B. F. Naylor and O. A. Cook. bibliog Am Chem Soc J 68:1003-5 Je '46

MAGNETIC analysis. See Magnetic testing

MAGNETIC chucks. See Chucks, Magnetic

MAGNETIC clutches. See Clutches, Magnetic

MAGNETIC control
Adjustable speed magnetic drive. G. Stangland. il diags Power Pl Eng 50:82-6 Jl '46

Magnetic drive; device adapted to variable speed centrifugal pumping. C. W. Camp. il diags Water & Sewage Works 93:243-6 Je '46

Magnetic drives. F. A. Annett. diags Power 90:89-96 F '46

Magnetically-controlled gas discharge tubes. R. E. B. Makinson and others. bibliog diags J Ap Phys 17:567-72 Jl '46

MAGNETIC field
Calculation of the magnetic field in dynamo-electric machines by Southwell's relaxation method. H. Motz and W. D. Worthy. bibliog Inst E E J 92 pt 2:522-8 D '45; Discussion. 93 pt 2:379-82 Ag '46

Coil systems for producing transverse and longitudinal magnetic gradients. G. H. Shortley and A. May. diags J Ap Phys 16:841-3 D '45

Electron beams in strong magnetic fields. J. R. Pierce Phys R 68:229-30 N 1 '45

Lowering of electrical breakdown field strength at microwave frequencies due to externally-applied magnetic field. D. Q. Posin. Phys R 69:541 My 1 '46

New magnetomotive force gauge and magnetic field indicator. W. B. Ellwood. il diags R Sci Instr 17:109-11 Mr '46

Paths of ions and electrons in non-uniform crossed electric and magnetic fields. N. D. Coggeshall. bibliog Phys R 70:270-80 S 1 '46

Superconductivity; resistance phenomena in conductors at temperatures near absolute zero. C. W. Hewlett. diags Gen Elec R 49:19-25 Je '46

Unit-pole definition of magnetic field strength. Wireless Eng 23:207-10 Ag '46

MAGNETIC flux
Amortisseur action of the squirrel cage. E. Bretch. diags Elec Eng 65:255-8 Je '46

Fluxmeter method of measurement. H. A. Miller. diags Electrician 136:1577-9 Je 14 '46

Magnetic reversible gear drive utilizes magnetic flux; patent assigned to Woodward governor co. diag Machine Design 17:163 N '45

Peak voltages induced by accelerated flux reversal in reactor cores operating above saturation density. T. Specht and E. C. Wentz. bibliog il diags Elec Eng 65:Trans 254-62 My '46

MAGNETIC induction
Magnetic antenna. L. Page. Phys R 69:645-8 Je 1 '46

See also
Magnetic flux

MAGNETIC instruments
New magnetomotive force gauge and magnetic field indicator. W. B. Ellwood. il diags R Sci Instr 17:109-11 Mr '46

See also
Magnetometers
Permeameters

MAGNETIC lenses
Class of electron lenses which satisfy Newton's image relation. R. G. E. Hutter. J Ap Phys 16:670-8 N '45

MAGNETIC materials
Applications of thin permalloy tape in wide-band telephone and pulse transformers. A. G. Ganz. bibliog il Elec Eng 65:Trans 177-83 Ap '46
Ductile permanent magnets offer new design possibilities. J. H. Goss. il diags Product Eng 17:44-7 Ja '46
Elastic anisotropy in electrical strip steel. F. G. Benford. Metal Prog 49:94-5 Ja '46
Five permanent magnet materials announced by G-E. Automotive & Aviation Ind 94:67 Je 1 '46
Magnetic materials. L. Bragg. il Inst E E J 92 pt 1:444-51 D '45; Abstracts. Electrician 134:467-8 My 25 '45; Elec R (Lond) 136.752 My 25 '45
Permanent magnet steels; including Alnico group, Comol, Silmanal, Vectolite, Cunico, Cunife and others. W. E. Ruder. il Iron Age 157:65-9 My 9 '46
Permeability of ferromagnetic materials at frequencies between 10^3 and 10^{10} c/s. J. T. Allanson. bibliog diags Inst E E J 92 pt 3: 247-55 D '45
Powdered iron cores for use in high frequency magnetic applications and other electronic purposes. C. T. Martowicz. bibliog il Steel 118:146-8+ Ap 1 '46
Theory of the dispersion of magnetic permeability in ferromagnetic materials at microwave frequencies. C. Kittel. bibliog diag Phys R 70:281-90 S 1 '46
Vicalloy, a workable alloy for permanent magnets; abstract. E. A. Nesbitt. Iron Age 157:64-5 Mr 7 '46

MAGNETIC measurements
B-H curve tracer for magnetic-recording wire. T. H. Long and G. D. McMullen. il diag Elec Eng 65:Trans 146-9 Mr '46
B-H meter for samples of small cross-sectional area. E. C. Crittenden, jr. and others. il diag R Sci Instr 17:372-4 O '46
Double-solenoid coil system for magnetic measurements. E. W. Frowe and C. J. Aronson. diag J Ap Phys 16:667-9 N '45
Gauss meter. il R Sci Instr 16:384 D '45

See also
Magnetic permeability
Magnetic susceptibility
Magnetic units
Magnetometers
Permeameters

MAGNETIC moment
Magnetic moments of H^3 and He^3. R. G. Sachs and J. Schwinger. Phys R 70:41-3 Jl 1 '46
Magnetic moments of light nuclei. R. G. Sachs. Phys R 69:611-15 Je 1 '46
Molecular beam magnetic resonance method; the radiofrequency spectra of atoms and molecules. J. B. M. Kellogg and S. Millman. bibliog diags Rs Mod Phys 18:323-52 Jl '46
Nuclear induction. F. Bloch. bibliog Phys R 70:460-74 O 1 '46
Nuclear induction experiment. F. Bloch and others. il diags Phys R 70:474-85 O 1 '46
Relativistic correction in calculating the magnetic moment of the deuteron. P. Caldirola. Phys R 69:608-10 Je 1 '46
Resonance absorption by nuclear magnetic moments in a solid. E. M. Purcell and others. Phys R 69:37-8 Ja 1 '46

MAGNETIC permeability
Iron-cored loop receiving aerial. R. E. Burgess. bibliog Wireless Eng 23:172-8 Je '46
Iron powder cores and coils. H. W. Jaderholm. Inst Radio Eng Proc 33:904 D '45
Permeability of ferromagnetic materials at frequencies between 10^5 and 10^{10} c/s. J. T. Allanson. bibliog diags Inst E E J 92 pt 3:247-55 D '45
Theory of the dispersion of magnetic permeability in ferromagnetic materials at microwave frequencies. C. Kittel. bibliog diag Phys R 70:281-90 S 1 '46

See also
Permeameters

MAGNETIC properties
Magnetism and catalysis. P. W. Selwood. bibliog(222 references) diags Chem R 38:41-82 F '46
Reciprocal electric force. F. W. Warburton. Phys R 69:40 Ja 1 '46
Theoretical response from a magnetic-wire record. M. Camras. diags Inst Radio Eng Proc 34:597-602 Ag '46
Theory of long period magnetic relaxation. C. Kittel. bibliog diags Phys R 69:640-4 Je 1 '46

MAGNETIC recording. See Sound—Recording and reproducing

MAGNETIC separators
Clean coolant aids honing; Barnesdril magnetic coolant separator. W. Baumbeck. il Iron Age 157:58-9 F 28 '46
Easily cleaned magnetic filter. il Engineer 182:356 O 18 '46
Filtricator magnetic oil filter. il Engineer 180: 516 D 21 '45
Magnetic oil filter installed in Philips co. (Holland) 35-mm projector. il Machine Design 18:106 S '46
Magnetic separators solve tramp-iron problem in preparation. E. H. Neyman. il diags Coal Age 51:90-2 Mr '46
Philips new magnetic filter. il Electrician 136:173 Ja 18 '46; Engineering 161:105-6 F 1 '46
Separating small parts. Iron Age 159:49 O 31 '46
Ventilating separators, breakers, screens. C. C. Hermann. diags Foundry 74:97+ S '46

MAGNETIC surveying
Controlling plane position in aerial magnetic surveying; Shoran system. H. Jensen and J. R. Balsley, jr. il diags Eng & Min J 147: 94-5+ Ag '46
Magnetic exploration of the nickel-copper deposits of Bohemia basin, southeastern Alaska. M. S. Walton, jr. and G. C. Kennedy. maps Econ Geol 40:496-502 N '45

MAGNETIC susceptibility
Defect in the magnetic susceptibility of manganese dioxide and other compounds of manganese. J. T. Grey, jr. Am Chem Soc J 68:605-8 Ap '46
Instrument for determining the partial pressure of oxygen in a gas. L. Pauling, R. E. Wood and J. H. Sturdivant. diags Am Chem Soc J 68:795-8 My '46; Abstract. Science 103:338 Mr 15 '46
New magnetic effect applied to the structure of catalytically active solids. P. W. Selwood, F. N. Hill and H. Boardman. Am Chem Soc J 68:2055-9 O '46
X-ray diffraction and magnetic studies of unreduced ferric oxide Fischer-Tropsch catalysts. L. J. E. Hofer, W. C. Peebles and W. E. Dieter. bibliog Am Chem Soc J 68:1953-6 O '46

MAGNETIC sweeping. See Roads—Magnetic sweeping

MAGNETIC templets. See Templets, Magnetic

MAGNETIC testing
Crack detection; utility and limitations of the magnetic method. D. Taylor. diags Automobile Eng 36:319-21 Jl '46
Magnaflux test of Diesel locomotive parts; abstract. M. C. Haber. il Ry Mech Eng 120: 304-7 Je '46
Magnafluxing the railroads; overhaul of rolling stock. Diesel Power 24:238 F '46
Magnetic analysis inspection of metals. H. L. Edsall. il Materials & Methods 22:1731-5 D '45
Magnetic hardness tester for gaging hardness of small ferrous metal parts. Mech Eng 68: sup41 Mr '46
Magnetic inspection of welds; abstract. G. C. Close. Materials & Methods 23:1666 Je '46
Magnetic method for diamond hardness measurements. Iron Age 156:65 N 29 '45
Magnetic-particle testing prevents railroad failures; shops of Baltimore & Ohio railroad. L. B. Sagle. il Am Mach 90:106-7 Ja 31 '46
Magnetic testing of metals. P. E. Cavanagh and others. bibliog il diags Electronics 19: 114-21 Ag '46
Magnetism and the testing of materials. diags Engineering 162:41-2 Jl 12 '46
New magnetic field gage. il Marine Eng 51: 116 S '46

MAGNETIC testing—*Continued*
Non-destructive field testing. C. D. Havens. il Pet Eng 17:127-8 Ap '46
Non-destructive testing methods; magnetic analysis inspection. R. Le Grand. il diags Am Mach 90:140-2 My 23 '46
Non-destructive testing methods; magnetic particle inspection. R. Le Grand. il diags Am Mach 90:128-30 My 23 '46
Non-destructive testing of refinery equipment. C. D. Havens. il Pet Eng 17:92+ Je '46
Recent developments in nondestructive testing. F. T. Sisco. Min & Met 27:442 Ag '46
Symposium on magnetic particle testing; Philadelphia district meeting, Jan. 22, 1945. 122p pa $1.25 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '45

MAGNETIC units
Unit-pole definition of magnetic field strength. Wireless Eng 23:207-10 Ag '46

MAGNETIC-wire record. See Sound—Recording and reproducing

MAGNETISM
Ferromagnetism of collective electron assemblies in a metal with overlapping energy bands. W. Band. Phys R 68:227 N 1 '45
International conference on magnetism, Strasbourg, May 21-24, 1939. Science 104:70-3 Jl 26 '46
Magnetism and catalysis. P. W. Selwood. bibliog(222 references) diags Chem R 38:41-82 F '46
Note on magnetic energy. E. A. Guggenheim. bibliog Phys R 68:273-6 D 1 '45
Paramagnetic losses in two manganous salts. R. L. Cummerow and D. Halliday. bibliog Phys R 70:433 S 1 '46
Temperatures near the absolute zero; adiabatic demagnetization of paramagnetic salts. C. W. Hewlett. diag Gen Elec R 49: 7-10 My '46

See also
Demagnetization
Electricity
Electromagnets
Magnetic measurements

MAGNETISM, Terrestrial
Aurora and geomagnetism; abstract. C. W. Gartlein. Electronics 19:242+ Ja '46
Electric quadrupole of the earth. W. M. Elsasser. bibliog Phys R 70:438 S 1 '46
Induction effects in terrestrial magnetism. W. M. Elsasser. bibliog Phys R 69:106-16 F 1 '46
Induction effects in terrestrial magnetism; secular variation. W. M. Elsasser. bibliog diags Phys R 70:202-12 Ag 1 '46

MAGNETITE
Eastern magnetite; review of 1945. J. R. Linney. il Min & Met 27:85 F '46
System iron-oxygen; equilibrium and thermodynamics of liquid oxide and other phases. L. S. Darken and R. W. Gurry. bibliog il Am Chem Soc J 68:798-816 My '46
Titaniferous magnetite deposits of the Lake Sanford area, New York. R. C. Stephenson. bibliog pls fold maps diags (New York State museum bul. 340) 95p Univ. of the State of New York, Albany '45

MAGNETIZATION
Capacitor discharge magnetizer for plant shops. W. L. Porta. il diags Electronics 19:168+ Je '46
Condenser-discharge magnetiser for permanent magnets. F. Brailsford. il diags Engineering 162:145-6 Ag 16 '46
Magnetisation of polycrystalline iron and iron-silicon alloys. G. C. Richer. bibliog Iron & Steel Inst J 150:93-142 no 2 '44
Saturation in induction motors. T. Millar. Elec R (Lond) 138:456 Mr 22 '46
Theory of long period magnetic relaxation. C. Kittel. bibliog diags Phys R 69:640-4 Je 1 '46
Transmission of velocity-selected neutrons through magnetized iron. E. M. Fryer. bibliog diags Phys R 70:235-44 S 1 '46

MAGNETOMETERS
Aerial doodle bug. il Sci Am 175:80 Ag '46
Air prospector; improved airborne magnetometer. Bsns W p39 My 18 '46
Airborne magnetometer. il plan Min Cong J 32:48-50+ Jl '46
Airborne magnetometer. J. R. Balsley, jr. bibliog il maps Pet Eng 17:77-8+ Jl; 104+ Ag '46
Airborne magnetometer, new aid to geophysics. A. W. Knoerr. il diags Eng & Min J 147:70-5 Je '46
Airborne magnetometer; new geophysical tool. E. A. Eckhardt. il Oil & Gas J 45:78-9+ Je 8 '46
Controlling plane position in aerial magnetic surveying. H. Jensen and J. R. Balsley, jr. il diags Eng & Min J 147:94-5+ Ag '46
Detailed magnetometer surveys quickly made from helicopters. il Min & Met 27:474 S '46
Development and applications of airborne magnetometers in the U.S.S.R. A. A. Logachev. bibliog maps Pet Eng (Ref annual) 17:211-12+ Jl 1 '46
Flying eye, which helped defeat Axis subs, expected to open up era of aerial oil surveys; airborne magnetometer. il Nat Pet N 38:6 Je 5 '46
Mercury jet magnetometer. E. H. Rhoderick. diag R Sci Instr 17:453 O '46
New airborne magnetometer demonstrated in Ottawa; experimental flights in northern Quebec and Ontario. il diag Can Min J 67:953-6 O '46
New prospecting aid; airborne magnetic detector. Comp Air Mag 51:192 Jl '46
Oil exploration from the air; flying eye, or airborne magnetometer. il Diesel Power 24:1221+ O '46
Operational procedure for the airborne magnetometer. H. Jensen. diags Oil & Gas J 45:80-3 Jl 13 '46
Recording magnetometer. Electronics 19:154+ O '46
Trial runs of aerial magnetometer completed. Nat Pet N 38:16 Jl 10 '46

MAGNETOS
New magneto coil tester. il diag Machine Design 18:152-3 Ag '46

Manufacture
Production of magnetos at Fairbanks Morse plant. J. Geschelin. il Automotive & Aviation Ind 94:18-22+ Ja 1 '46
Scintilla's self-contained setup; producing ignition equipment and Diesel fuel injection systems. J. Geschelin. il Automotive & Aviation Ind 94:30-3+ My 1; 38-42+ My 15 '46

MAGNETOSTRICTION
Torsional magnetostriction pickup. S. R. Rich. il diag Electronics 19:107-9 Je '46

MAGNETRON
Cavity magnetrons; basic transmitting tube of American and British microwave radar sets. il Electronics 19:126-31 Ja '46
Constant current circuits. O. T. Fundingsland and G. J. Wheeler. diags Electronics 19: 130-3 N '46
Donutron; squirrel-cage magnetron. F. H. Crawford and M. D. Hare. diags Electronics 19:200+ N '46
Early work on the cavity magnetron; abstract. J. T. Randall and H. A. H. Boot. Electrician 136:806 Mr 29 '46
Electron ballistics in high-frequency fields. A. L. Samuel. diags Bell System Tech J 24:344-50 bibliog(p352) Jl '45
Energy build-up in magnetrons. L. P. Hunter. diags J Ap Phys 17:833-43 O '46
Introduction to multi-resonator magnetrons. R. Latham and others. il diags Engineer 181:310-12, 331-3 Ap 5-12 '46
Japanese magnetrons. M. Hobbs. il Electronics 19:114-15 My '46
Magnetron. W. E. Willshaw and E. C. S. Megaw. il diags Engineering 161:361-3 Ap 19 '46
Magnetron and the klystron. T. F. Wall. diags Engineering 161:125-7, 148, 184-5 F 8-22 '46
Magnetron as a generator of centimeter waves. J. B. Fisk and others. il diags Bell System Tech J 25:167-348 Ap '46
Magnetron; part played by tellurium copper. Electrician 136:810 Mr 29 '46
Magnetron; this is the tube that makes radar pulse. il diag Fortune 34:142-3 O '46
Radar and the magnetron; abstract. J. T. Randall. Electrician 136:537-8 Mr 1 '46

MAGNETRON—*Continued*
Radiolocation; development of radar. F. B. Llewellyn. Engineer 181:296-7 Mr 29 '46; Same. Inst E E J 93 pt 1:382-4 S '46
Raytheon cavity magnetron tubes. il R Sci Instr 17:73-4 F '46
Secondary electron emission from oxide-coated cathodes. M. A. Pomerantz. bibliog diags Franklin Inst J 241:415-33; 242:41-61 Je-Jl '46
Space charge in cylindrical magnetron. L. Page and N. I. Adams, jr. Phys R 69:494-500 My 1 '46
Space charge in plane magnetron. L. Page and N. I. Adams, jr. Phys R 69:492-4 My 1 '46
Waveguide-output magnetrons with quartz transformers. L. Malter and J. L. Moll. diags RCA R 7:414-21 S '46

MAGNETS
Capacitor discharge magnetizer for plant shops. W. L. Porta. il diags Electronics 19:168+ Je '46
Ductile permanent magnets offer new design possibilities. J. H. Goss. il diags Product Eng 17:44-7 Ja '46
Permanent magnet steels; including Alnico group, Comol, Silmanal, Vectolite, Cunico, Cunife and others. W. E. Ruder. il Iron Age 157:65-9 My 9 '46
See also
Electromagnets
Roads—Magnetic sweeping

MAGNIFICATION
High dispersion electron diffraction by primary magnification. G. L. Simard and others. il diag J Ap Phys 16:832-6 D '45

MAGNIFIERS
Aspheric corrector plates for magnifiers. R. E. Hopkins. Opt Soc Am J 36:604-10 O '46

MAGNUSON bill. See Scientific research—Legislation, Proposed

MAHOGANY
Mahogany lumber from Latin American and African logs; mill ceilings established by OPA. For Comm W 23:42 Je 22 '46

MAHON, William D. 1861-
Abdication as international president of A F.L.'s Amalgamated assn. of street electric railway and motor coach employees. por Bsns W p86 Je 22 '46
Bill Mahon; a labor man who knew the needs of transit men. W. A. Draper. por Mass Transportation 42:367-8 S '46

MAHONING river
Urge Mahoning Valley communities to build sewage disposal plants. Eng N 135:838 D 20 '45

MAIL
Handling the mail, in and out. il plan Am Bsns 16:22-4+ Mr '46
How Prudential handles 82,000 letters daily. J. Turner. il Am Bsns 16:22-4 My '46
How United air lines speeds mail handling. il Am Bsns 16:22-3+ Ap '46

MAIL, Registered
See also
Insurance, Registered mail

MAIL handling
See also
Air mail service
Railway mail service

MAIL order business
Difficulties of selling abroad by mail order. Ptr Ink 214:84 Ja 11 '46
Helping the small businessman. H. M. Tremaine. il Mag of Wall St 78:527+ Ag 3 '46
Mail firms list hopes. Bsns W p78+ F 2 '46
Mail-order companies forecast high sales. Ptr Ink 215:97 Ap 12 '46
Mail-order houses expand abroad. Barron's 26:6 S 2 '46
Mail order merry-go-round. E. J. Jacobs. Adv & Sell 39:74 Jl '46
Marketing by subscription; selling a parcel a month. J. A. Murphy. il Adv & Sell 39: 73+ Ja '46
1946 prospects for Chicago mail-order houses; Sears decentralization renewed. Ptr Ink 214:89+ Ja 4 '46
Resurgent Spiegel. Bsns W p86+ My 18 '46
Smartly styled parcels replace pallid mail order cartons. il Sales Management 57:117-18+ N 1 '46
Swelling farm demand and quota restrictions plague mail order houses. C. T. Post. Iron Age 157:114 Ap 18 '46
Tags that tell, and sell, Spiegel's planned program. R. Epstein. il Mod Packaging 19:98-100+ D '45
What's in a name? mail-order company found its personality by emphasizing Alden trademark. Bsns W p59 Ag 3 '46
See also
Alden's, inc.
Montgomery Ward and company

Advertising

Mail order can build national distribution even for ironwork; Hinderer iron works caters to architects who influence purchases of consumers. D. Markstein. Ptr Ink 216:50 Ag 2 '46
Mail-order catalog making is a science. G. C. Cullinan. il Ptr Ink 216:38-40 S 27 '46
Mail-order flyers feature formerly scarce goods; presage competitive appeals. Ptr Ink 214:100 Ja 11 '46
Making more profit with mail advertising dollars. P. M. Jaques. Ptr Ink 214:29 Ja 11 '46
Sears, Roebuck uses color in newspapers as mail-order houses up ad budgets. H. E. Green. Ptr Ink 216:124 S 13 '46
Systematic direct mail follow-up gets maximum results. R. Stone. il Ind Marketing 30: 40-1 N '45

Employees

Besieged Spiegel; child labor case, OPA case, and strike. Bsns W p92-3 Je 15 '46
Teamsters win stronghold. Bsns W p80+ Je 22 '46

Finance

Big mail order firms consider new capital issues. D. K. Middleton. Barron's 26:9+ Je 10 '46

MAIL order stores. See Chain stores—Mail order stores

MAIL orders
Mail-order catalog relieves salesmen of large-line selling; American Type Founders plan. J. A. Murphy. il Ptr Ink 217:46-7 O 4 '46

MAIL questionnaires. See Questionnaires

MAIL service. See Air Mail service; Postal service; Railway mail service

MAILING departments
Handling the mail, in and out. il plan Am Bsns 16:22-4+ Mr '46
How Prudential handles 82,000 letters daily. J. Turner. il Am Bsns 16:22-4 My '46

MAILING lists
How to audit a mailing list. C. Tompkins. Adv & Sell 39:58+ Mr '46
How to keep a mailing list. E. H. Stuart. Ptr Ink 215:74 My 10 '46
Mailing lists have gone awry. S. Brock, jr. Ptr Ink 215:29 Ap 12 '46
Prospect list is life blood of selling by mail; how to remove non-prospects and eliminate duplications. M. Rogers. Ptr Ink 213:24 N 16 '45

MAINE
See also
Sand—Maine

MAINE public service company
Bonds offered. Comm & Fin Chr 162:3075-6 D 24 '45

MAINTENANCE departments
Organized to maintain seven plant locations; Pollak manufacturing company. D. J. Buckley. Factory Management 104:137-40 Ja '46

MAKITA oil
Makita oil; abstract. Paint Oil & Chem R 109:24 My 2 '46

MALACHITE green
Quinoid structure and bacteriostatic activity. E. Fischer and others. bibliog Science 102: 507-8 N 16 '45

MALARIA

Alkylaminoalkyl derivatives of 8-aminoquinoline. R. C. Elderfield and others. Am Chem Soc J 68:1524-9 Ag '46

Aminoalkylamino derivatives of 8-aminoquinoline. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1568-9 Ag '46

Aminoalkylphenols as antimalarials; simply substituted α-aminocresols. J. H. Burckhalter and others. bibliog Am Chem Soc J 68:1894-901 O '46

8-[3-(3′-Aminopropylamino)-propylamino]-6-methoxyquinoline. L. W. Kissinger, I. Von and M. Carmack. bibliog Am Chem Soc J 68:1562-5 Ag '46

8-Amino-6-quinolyl methyl sulfone. H. Gilman and A. E. Lindblad. bibliog Am Chem Soc J 68:982-3 Je '46

Antimalarial agents; A.C.S. symposium. Chem & Eng N 24:1046 Ap 25 '46

Antimalarial drug. Chem & Eng N 24:251 Ja 25 '46

Antimalarial program of the Office of scientific research and development. R. C. Elderfield. Chem & Eng N 24:2598-602 O 10 '46

Antimalarials. R. E. Lutz and others. bibliog Am Chem Soc J 68:1285-8, 1288-91, 1322-4, 1324-5, 1325-6 Jl '46

Antimalarials; α-alkyl and dialkylaminomethyl-2-phenyl-4-quinolinemethanols. R. E. Lutz and others. bibliog Am Chem Soc J 68:1813-31 S '46

Antimalarials; 7-chloro-4-hydroxy- and 4,7-dichloro-1-methylcarbostyrils. R. E. Lutz and others. bibliog Am Chem Soc J 68:1810-12 S '46

Attempts to find new antimalarials; derivatives of *o*-phenanthroline (7 : 8 : 3′ : 2′-pyridoquinoline). B. E. Halcrow and W. O. Kermack. Chem Soc J p155-7 Mr '46

Attempts to find new antimalarials; derivatives of 3 : 4 : 2′ : 3′-pyridoacridine and 1 : 2 : 2′ : 3′-pyridoacridine. J. Dobson and W. O. Kermack. Chem Soc J p150-5 Mr '46

Bucheher reaction on 5-hydroxybenzo(f) quinoline. R. F. Coles and C. S. Hamilton. Am Chem Soc J 68:1595-6 Ag '46

Ch'ang Shan, a Chinese antimalarial herb. C. S. Jang and others. Science 103:59 Ja 11 '46

5- and 7-Chloro-8-aminoquinoline. C. C. Price and D. B. Guthrie. bibliog Am Chem Soc J 68:1592-3 Ag '46

Contributions to the chemistry of synthetic antimalarials. J. N. Ashley and others. Chem Soc J p768-9, 610-13 N '45, Jl '46

Contributions to the chemistry of synthetic antimalarials; open ring analogue of tetrahydropamaquin. H. J. Barber, F. W. Major and W. R. Wragg. Chem Soc J p613-16 Jl '46

Correction on the nomenclature of human plasmodium. C. W. Sabrosky. Science 104: 401-2 O 25 '46

Derivatives of *p,p′*-diaminodiphenyl sulfone. H. Heymann and L. F. Fieser. bibliog Am Chem Soc J 67:1979-86 N '45

Derivatives of *p,p′*-diaminodiphenyl sulfone. H. Heymann and C. Heidelberger. bibliog Am Chem Soc J 67:1986-90 N '45

α-Dialkylaminomethyl-4-quinolinemethanols substituted in the 2-position. S. Winstein and others. Am Chem Soc J 68:1831-7 S '46

Dibenzofuran; some dialkylaminoalkylamino derivatives. H. Gilman and S. Avakian. bibliog Am Chem Soc J 68:580-3 Ap '46

4-(6′-Diethylaminohexylamino)-6-methoxybenzothiazole (SN 15,295). M. L. Mercury, S. M. Vincent and M. L. Sherrill. Am Chem Soc J 68:1594-5 Ag '46

α-(2-Diethylaminoethylmercaptomethyl)-6-methoxy-2-phenyl-4-quinolinemethanol and a homolog. H. Gilman, R. A. Benkeser and L. Tolman. Am Chem Soc J 68:1848-9 S '46

8-(3-Diethylamino-2-hydroxypropylamino)-5,6-dimethoxyquinoline and some of its homologs. W. M. Lauer. R. T. Arnold and R. E. Buckles. Am Chem Soc J 68:1552-3 Ag '46

4-(4′-Diethylamino-1′-methylbutylamino)-7-chloroquinazoline. C. C. Price, N. J. Leonard and D. Y. Curtin. Am Chem Soc J 68:1305-6 Jl '46

2,4-Dihydroxy-3-quinolyl methyl ketones. W. R. Vaughan. bibliog Am Chem Soc J 68: 324-5 F '46

Discovery of paludrine. F. H. S. Curd and F. L. Rose. Chem & Ind p75-7 F 16 '46; Discussion. p88-9 F 23 '46

Experiments on the synthesis of 4- hydroxy- and 4-chloroquinolines from β-anilinopropionic acids. R. C. Elderfield and others. Am Chem Soc J 68:1259-63 Jl '46

Formula of paludrine. Science 103:452 Ap 12 '46

Heterocyclic basic compounds; 8-[3(3′-aminopropylamino)-propylamino]-6-methoxyquinoline. H. S. Mosher. Am Chem Soc J 68: 1565-8 Ag '46

Heterocyclic basic compounds; 3,6-dichloro-9-(1-methyl-4-diethylaminobutyl)-aminoacridine. D. P. Spalding and others. bibliog Am Chem Soc J 68.1596-8 Ag '46

High rate of natural plasmodium infection in anopheles crucians. C. W. Sabrosky and others. Science 104:247-8 S 13 '46

Malaria control in Assam. R. S. Wilmot. il Civil Eng 16:60-1 F '46

Malaria cure reported; derivatives of 8-aminoquinolines. Bsns W p51 Ap 20 '46

2-Methoxy-6-chloro-9-(N-substituted-amino)-acridines; compounds derived from cyclic secondary amines. J. Corse, J. T. Bryant and H. A. Shonle. Am Chem Soc J 68: 1911-13 O '46

5-Methyl-6-methoxy-8-(2′-diethylaminoethylamino)-quinoline. M. Carmack, L. W. Kissinger and I. Von. bibliog Am Chem Soc J 68:1551-2 Ag '46

New antimalarial; important British discovery; paludrine. Chem Age (Lond) 53:431 N 10 '45

New potential chemotherapeutic agents; derivatives of diphenylamine and of αα-diphenylmethylamine. F. E. King, T. J. King and I. H. M. Muir. Chem Soc J p5-10 Ja '46

New system for the classification of compounds; contribution from Survey of antimalarial drugs. E. L. Buhle and others. J Chem Educ 23:375-91 Ag '46

Nicaragua experiences big dividends from a malaria campaign. P. J. Coffey. il map Eng N 135:722-5 N 29 '45

N-substituted 2-methoxy-6-chloro-9-aminoacridines derived from unsymmetrical aliphatic amines. J. Corse, J. T. Bryant and H. A. Shonle. bibliog Am Chem Soc J 68: 1905-10 O '46

Note on staining plasmodia. A. W. Ratcliffe. Science 103:630-1 My 17 '46

Plasmodium gallinaceum infection characterized by predominance of exoerythrocytic forms. V. H. Haas and others. Pub Health Rep 61:921-8 Je 21 '46

Precipitin technique for determining mosquito blood meals. E. H. Arnold and others. Pub Health Rep 61:1244-9, pl 1-2 Ag 23 '46

Preparation of aryldialkylaminomethylcarbinols. D. R. V. Golding and W. H. McNeely. Am Chem Soc J 68:1847-8 S '46

Preparation of bz-dichloro-4-aminoquinoline derivatives. A. R. Surrey and H. F. Hammer. Am Chem Soc J 68:1244-6 Jl '46

Preparation of 7-chloro-4-(2-piperidylmethylamino)-quinoline. T. R. Norton and others. Am Chem Soc J 68:1330-1 Jl '46

Preparation of some 4-aminoquinolines. B. Riegel and others. Am Chem Soc J 68:1229-32 Jl '46

Preparation of some α-dialkylamino-ω-methylaminoalkanes. R. Munch, G. T. Thannhauser and D. L. Cottle. bibliog Am Chem Soc J 68:1297-9 Jl '46

Progress in drugs, fine chemicals and biological products during 1945; mepacrine and paludrine. G. C. Green. Chem Age (Lond) 54:209-10 F 23 '46

Pyrryl derivatives of pyridine, quinoline and acridine. H. Gilman, C. G. Stuckwisch and J. F. Nobis. bibliog Am Chem Soc J 68: 326-8 F '46

Quinazoline derivatives. M. M. Endicott and others. bibliog Am Chem Soc J 68:1299-1301, 1301-3, 1303-4 Jl '46

Quinazolines; syntheses of 4-alkylaminoquinazolines. B. E. Christensen, B. Graham and A. J. Tomisek. Am Chem Soc J 68:1306-8 Jl '46

Quinolines; some bz-iodo-3-methyl-4-(1′-methyl-4′-diethylaminobutylamino)-quinolines. E. A. Steck, L. L. Hallock and A. J. Holland. Am Chem Soc J 68:1241-3 Jl '46

MALARIA—*Continued*
Quinolines; the synthesis of 5- and 7-chloro- and bromo-3-methyl-4-dialkylaminoalkylaminoquinolines. E. A. Steck, L. L. Hallock and A. J. Holland. bibliog Am Chem Soc J 68:380-3 Mr '46
Rainfall periodicity in relation to malaria and agriculture in the Near East. H. de Terra. bibliog Science 101:629-31 Je 22 '45; Discussion. 103:342-4 Mr 15 '46
Relapses following delayed treatment of naturally induced vivax malaria of Pacific origin. H. H. Gordon and others. bibliog Science 103:391-2 Mr 29 '46
Sanitary engineer's part in the war; part played by malaria control units. A. J. Horn. Pub Works 77:34-7 My '46
Some 3-alkyl-2,4-quinolinediols. R. H. Baker, G. R. Lappin and B. Riegel. Am Chem Soc J 68:1284-5 Jl '46
Some basically substituted quinazolines. R. L. McKee, M. K. McKee and R. W. Bost. bibliog Am Chem Soc J 68:1902-3 O '46
Some compounds containing the trifluoromethyl group. H. Gilman and others. bibliog Am Chem Soc J 68:426-8 Mr '46
Some dialkylaminoalkylamino derivatives of dibenzothiophene. H. Gilman and S. Avakian. bibliog Am Chem Soc J 68:1514-15 Ag '46
Some isomeric (methoxy)-(2,5-dimethylpyrryl-1)-quinolines. H. Gilman and L. Fullhart. bibliog Am Chem Soc J 68:978-9 Je '46
Some N-substituted aminoquinolines. E. B. Hartshorn and S. L. Baird, jr. bibliog Am Chem Soc J 68:1562-3 Ag '46
Some quinolines patterned as open models of a modified atebrin. H. Gilman, R. V. Christian and S. M. Spatz. Am Chem Soc J 68:979-81 Je '46
Some substituted 1,10-phenanthrolines. H. R. Snyder and H. E. Freier. Am Chem Soc J 68:1320-2 Jl '46
Structure and antimalarial activity. D. M. Hall and E. E. Turner. Chem Soc J p694-702 O '45
Studies in chemotherapy; antimalarials; halogenated sulfanilamidoheterocycles. J. P. English and others. bibliog Am Chem Soc J 68:453-8 Mr '46
Studies in chemotherapy; antimalarials; the synthesis of substituted metanilamides and related compounds. J. P. English and others. bibliog Am Chem Soc J 68:1039-49 Je '46
Studies in chemotherapy; some sulfanilamidoheterocycles. J. H. Clark and others. bibliog Am Chem Soc J 68:96-9 Ja '46
Studies in the quinoline series. K. N. Campbell and others. bibliog Am Chem Soc J 68:1556-62, 1837-40, 1851-2 Ag-S '46
Studies in the quinoline series; quinolyl mercaptans and sulfides. A. G. Renfrew. bibliog Am Chem Soc J 68:1433-6 Ag '46
Study of plasmochin and the occurrence of rearrangements in the preparation of certain plasmochin analogs. R. C. Elderfield and others. Am Chem Soc J 68:1516-23 Ag '46
4-Substituted cinnoline derivatives. T. L. Jacobs and others. bibliog Am Chem Soc J 68:1310-13 Jl '46
Sulfur analog of the plasmochin type; 8-(γ-diethylaminopropylamino)-6-quinolyl methyl sulfide. H. Gilman and others. Am Chem Soc J 68:1577-9 Ag '46
Syntheses of certain derivatives of phenylalanine and of auramine in studies of antimalarial action. L. Hellerman and others. bibliog Am Chem Soc J 68:1890-3 O '46
Synthesis of alicyclic diamines. L. C. Behr and others. Am Chem Soc J 68:1296-7 Jl '46
Synthesis of 4-(4'-amino-1'-methylbutylamino)-7-chloroquinoline and some 4-(4'-monoalkylamino-1'-methylbutylamino)-7-chloroquinolines. M. Carmack and others. bibliog Am Chem Soc J 68:1220-5 Jl '46
Synthesis of antimalarial compounds related to niquidine. T. S. Work. Chem Soc J p194-200 Mr '46
Synthesis of antimalarials. D. S. Breslow and others. bibliog Am Chem Soc J 68:1232-8, 1317-19 Jl '46
Synthesis of antimalarials; synthesis of certain 8-aminoquinolines. C. R. Hauser and others. bibliog Am Chem Soc J 68:1544-6 Ag '46
Synthesis of antimalarials; the synthesis of certain compounds related to quinacrine. D. S. Breslow and others. bibliog Am Chem Soc J 68:100-2 Ja '46
Synthesis of antimalarials; the synthesis of certain quinacrine analogs having N-heterocyclic groups in the α-position of the side chain. M. S. Bloom, D. S. Breslow and C. R. Hauser. bibliog Am Chem Soc J 67:2206-8 D '45
Synthesis of 7-chloro-4-1-ethyl-4-piperidylamino)-quinoline (SN-13,425). R. C. Fuson, W. E. Parham and L. J. Reed. Am Chem Soc J 68:1239-40 Jl '46
Synthesis of 3-(3-cyclohexylpropyl)-4-quinolinol. R. H. Baker and R. M. Dodson. bibliog Am Chem Soc J 68:1283-4 Jl '46
Synthesis of 1-diethylamino-5-aminohexane. E. P. Anderson, J. V. Crawford and M. L. Sherrill. bibliog Am Chem Soc J 68:1294-6 Jl '46
Synthesis of 1-diethylamino-2,3-epoxypropane, 3-diethylamino-2-hydroxypropylamine, and 4-diethylamino-3-hydroxybutylamine. H. Gilman and others. bibliog Am Chem Soc J 68.1291-3 Jl '46
Synthesis of 8-(3-diethylaminopropylamino)-6-methoxy-5-phenylquinoline. H. R. Snyder and N. R. Easton. Am Chem Soc J 68:1549-51 Ag '46
Synthesis of 4-hydroxyquinolines. C. C. Price and others. bibliog Am Chem Soc J 68:1204-8, 1251-9, 1279-83 Jl '46
Synthesis of monoalkyl-substituted diamines and their condensation products with 4,7-dichloroquinoline. D. E. Pearson, W. H. Jones and A. C. Cope. Am Chem Soc J 68: 1225-9 Jl '46
Synthesis of potential antimalarials; some 2-substituted 8-(diethylaminopropylamino)-quinolines. K. Mislow and J. B. Koepfli. bibliog Am Chem Soc J 68:1553-6 Ag '46
Synthesis of some 8-aminoquinolines. R. H. Baker and others. bibliog Am Chem Soc J 68:1532-6 Ag '46
Synthesis of some 7-chloro-4-(3-alkylaminopropylamino)-quinolines. D. S. Tarbell and others. bibliog Am Chem Soc J 68:1217-19 Jl '46
Synthesis of some chloromethoxyquinolines. W. M. Lauer and others. Am Chem Soc J 68:1268-9 Jl '46
Synthesis of some substituted 8-aminoquinolines. T. R. Norton and others. bibliog Am Chem Soc J 68:1572-6 Ag '46
Synthesis of substituted aminobenzacridines. G. B. Bachman and G. M. Picha. bibliog Am Chem Soc J 68:1599-1602 Ag '46
Synthesis of substituted 4-aminoquinolines. C. C. Price and V. Boekelheide. bibliog Am Chem Soc J 68:1246-50 Jl '46
Synthesis of 5-substituted derivatives of 6-methoxy-8-aminoquinoline and of 5-chloro-6-methoxyquinoline. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1584-7 Ag '46
Synthetic antimalarials. N. L. Drake and others. bibliog Am Chem Soc J 68:1208-13, 1214-16, 1309, 1313-14, 1529-31, 1536-46, 1602-6 Jl-Ag '46
Synthetic antimalarials; pyrimidine derivatives. F. H. S. Curd, F. L. Rose and others. Chem Soc J p343-84 My '46
Two 6-β-hydroxyethoxy-8-diethylaminoalkylaminoquinolines. M. S. Morgan and L. H. Cretcher. bibliog Am Chem Soc J 68:781-4 My '46
United States Public health service communicable disease center. J. M. Andrews. Pub Health Rep 61:1203-10 Ag 16 '46
Wartime research in malaria; the Board for the coordination of malarial studies. Science 103:8-9 Ja 4 '46
Winter survival of aedes aegypti (L.) in Houston, Tex. S. P. Hatchett. bibliog Pub Health Rep 61:1234-44 Ag 23 '46

See also
Lapachol

Statistics

Malaria; numbers of cases reported by the state health officers in 1945 as compared with similar data for the years 1939-44. B. C. Hampton. Pub Health Rep 61:679-83 My 10 '46

MALARIA—Statistics—*Continued*
Numbers of cases reported by state health officers, January-June, 1945, as compared with data for the same period 1939-44. Pub Health Rep 60:1467-70 D 7 '45

MALAYAN Union
Malays or Malayans? Economist 150:403-4 Mr 16 '46
Regrouping and new status of British areas in southeast Asia. For Comm W 24:19 Ag 24 '46

See also
Corporation law—Malayan Union
Rubber industry and trade—Malayan Union

Commercial policy
Import and exchange controls. For Comm W 22:21 Mr 30; 24:21 Ag 24 '46

Economic conditions
Urgent tasks in Malaya. Economist 150:299-300 F 23 '46

MALEIC anhydride
Addition of olefinic esters to maleic anhydride. J. Ross, A. I. Gebhart and J. F. Gerecht. bibliog Am Chem Soc J 68:1373-6 Jl '46
Apparatus and procedure for technical butadiene analysis. C. L. Gregg. diags Ind & Eng Chem Anal ed 17:728-30 N '45
Copolymerization of styrene and maleic anhydride. T. Alfrey and E. Lavin. Am Chem Soc J 67:2044-5 N '45
Paper capacitors containing chlorinated impregnants; mechanism of stabilization. L. Egerton and D. A. McLean. bibliog il Ind & Eng Chem 38:512-17 My '46
Polymerization of allyl compounds; the peroxide-induced copolymerization of allyl acetate with maleic anhydride. P. D. Bartlett and K. Nozaki. bibliog Am Chem Soc J 68:1495-1504 Ag '46
Relation between specific refractivity of polymers and atomic structure of polymer unit. R. H. Wiley. bibliog Ind & Eng Chem 38:959-60 S '46
Synthesis of the monoacid chloride and the monoalkyl esters of the maleic acid anhydride addition product of *l*-pimaric acid. M. M. Graff. bibliog Am Chem Soc J 68: 1937-8 O '46

MALEIMIDES
Preparation of N-aryl-α-arylaminomaleimides. A. R. Surrey and R. A. Cutler. bibliog Am Chem Soc J 68:514-17 Mr '46

MALENKOV, Georgi, 1902-
Politburo. V. Kravchenko. Fortune 34:231 S '46

MALHEUR River siphon. See Siphons

MALIC acid
Organic acid content of raw cotton fiber: isolation of *l*-malic acid and citric acid from cotton fiber. E. R. McCall and J. D. Guthrie. bibliog Am Chem Soc J 67:2220-1 D '45

MALLEABLE iron. See Cast iron

MALONIC acid
Addition of α-naphthylmethylmagnesium and α-naphthylmethylcadmium chlorides to alkylidenemalonic esters. B. Riegel, S. Siegel and W. M. Lilienfeld. bibliog Am Chem Soc J 68:984-5 Je '46
Proportion of ester anion and amide from esters and sodium amide; carbonation of esters; synthesis of malonic acid derivatives. C. R. Hauser, R. Levine and R. F. Kibler. bibliog Am Chem Soc J 68:26-9 Ja '46
Synthesis of α,β-unsaturated esters. A. Galat. Am Chem Soc J 68:376-7 Mr '46
Synthesis of 4-hydroxyquinolines; through ethoxymethylenemalonic ester. C. C. Price and R. M. Roberts. bibliog Am Chem Soc J 68:1204-8 Jl '46
Synthesis of methyl ketones and diethyl acylmalonates. H. C. Walker and C. R. Hauser. bibliog Am Chem Soc J 68:1386-8 Jl '46
Synthesis of some 4-quinolinols and 4-chloroquinolines by the ethoxymethylenemalonic ester method. B. Riegel and others. bibliog Am Chem J 68:1264-6 Jl '46

MALPIGHIA punicifolia L. See Barbados cherries

MALPRACTICE
Malpractice of dentist; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12: 34-5 S 26 '46

MALPRACTICE liability insurance. See Insurance, Malpractice liability

MALRAUX, André
Portrait. Fortune 34:164 O '46

MALT
Evaluation of malts for production of alcohol from wheat. C. B. Thorne and others. bibliog Ind & Eng Chem 37:1142-4 N '45
Mold as an adjunct to malt in grain fermentation. N. M. Erb and F. M. Hildebrandt. bibliog Ind & Eng Chem 38:792-4 Ag '46
Tank trucks haul yeast and malt; glass-lined and stainless steel tanks used by Boston brewer; platform trucks for economy in beer and ale deliveries. il Food Ind 18: 201-2 F '46

MALTOL
Formation of maltol by the degradation of streptomycin. J. R. Schenck and M. A. Spielman. Am Chem Soc J 67:2276 D '45

MAMEY
Chemical nature of the insecticidal principle in mamey seed. M. A. Jones and H. K. Plank. Am Chem Soc J 67:2266-7 D '45

MAMMALS, Fossil
See also
Chalicotheres

MAMMEA americana. See Mamey

MAN
See also
Anthropology

MANAGEMENT
Effect of cartels on the managerial function. W. Berge. Comm & Fin Chr 163:2219+ Ap 25 '46
How we know management is the foreman's business; Aluminum company of America. R. K. Heineman. Factory Management 104: 96-9 S '46
Management engineering. L. W. Wallace. Am Cer Soc Bul 25:366-9 O 15 '46
Management statistics in war contract renegotiation. N. C. Parkin. bibliog Am Stat Assn J 40:504-19 D '45
Management's peacetime responsibilities and opportunities. R. E. Gillmor. Mech Eng 68: 14-16 Ja '46; Same cond. Factory Management 104:300+ F '46

See also
Administration
Business management
Efficiency, Industrial
Employment management
Factory management
Farm management
Industrial management
Machine shop management
Mine management
Office management
also subdivision Management under various headings, e.g.
Coal mines and mining
Department stores
Electric utilities
Gas companies
Railroads

Study and teaching
Management training program; Radcliffe college. Personnel J 24:362-8 Ap '46

MANAGEMENT counsel
Management services provided by the independent accountant; advisory services to clients. C. E. Fernald. J Account 82:378-87 N '46

MAN-AU-TROL spacer. See Locating (machine work)

MANCHURIA
Manchuria again. Economist 150:364-5 Mr 9 '46
See also
Railroads—Manchuria

MANDATED Islands, Japanese. See Islands of the Pacific—Japanese mandate

MANDATORY governments
Human rights in mandated territories. W. E. Rappard. Ann Am Acad 243:118-23 Ja '46
See also Islands of the Pacific—Japanese mandate

MANDIOCA. See Cassava

MANDRELS. See Arbors and mandrels

MANEY, Thomas Joseph, 1888-1945
Sketch. A. T. Erwin. Science 103:302 Mr 8 '46

MANGANESE
Electrolysis of manganese into a metal cathode from suspensions of manganese oxide and carbon in molten manganous chloride. B. Cartwright and S. F. Ravitz. bibliog Electrochem Soc Trans 89 (preprint 4):73-82 '46
Le manganèse dans les moûts de pommes et dans les cidres. J. Tavernier. bibliog Chimie & Ind 55:174-9 Mr '46
Manganese, 1945. N. B. Melcher. Eng & Min J 147:89 F '46
Thermodynamic properties of manganese. K. K. Kelley; B. F. Naylor; C. H. Shomate. bibliog U S Bur Mines Tech Pa 686:1-33; pa 10c Supt. of doc. '46

See also
Ferromanganese

Analysis

Determination of manganese and chromium in high chromium steels. H. W. Tomb. Iron Age 157:64 Je 13 '46
Methods of analyzing manganese ore and electrolytic manganese pilot-plant metallurgical products. R. W. Lewis and others. il diags U S Bur Mines Bul 463:88-134; pa 55c Supt. of doc. '46
New method for determination of manganese; based on potentiometric titration of manganous ion with permanganate ion in neutral pyrophosphate solution. J. J. Lingane and R. Karplus. bibliog Ind & Eng Chem Anal ed 18:191-4 Mr '46
Separation and identification of cobalt, nickel zinc, and manganese. R. K. McAlpine. J Chem Educ 23:298-300 Je '46; Discussion. W. T. Hall. 23:516-17 O '46
Simplified determination of manganese in caustic soda. R. F. Moran and A. P. McCue. Ind & Eng Chem Anal ed 18:556-7 S '46

Biological effect

Determination of factors injurious to plants in acid soils; abstract. T. Wallace and others. Food Ind 18:620 Ap '46
Relation of manganese to internal bark necrosis of apple. A. Berg and G. Ciulo. Science 104:265-6 S 20 '46

See also
Manganese poisoning

Isotopes

Disintegration schemes of radioactive substances; Mn^{52} and V^{48}. W. C. Peacock and M. Deutsch. bibliog Phys R 69:306-13 Ap 1 '46
Experimental test of beta-ray theory for the positron emitters Na^{22}, V^{48}, Mn^{52}, Co^{58}. W. M. Good and others. bibliog diag Phys R 69:313-20 Ap 1 '46

MANGANESE alloys
Age hardening copper-manganese-nickel alloys. R. S. Dean and others. il Am Soc for Metals Trans 34:481-502 bibliog(p502); Discussion. 502-4 '45
Copper-manganese equilibrium system. R. S. Dean and others. il Am Soc for Metals Trans 34:443-63 bibliog(p462-3); Discussion. 463-4 '45
Heat contents above 25°C. of seven manganese-copper alloys. B. F. Naylor. bibliog U S Bur Mines Rep of Invest 3835:1-13 '46
Properties of transitional structures in copper-manganese alloys. R. S. Dean and others. bibliog Am Soc for Metals Trans 34:465-80 '45

See also
Iron alloys—Manganese alloys
Manganin
Spiegeleisen

MANGANESE bronze
Removing risers from manganese bronze castings; data sheet. W. B. George. diags Foundry 74:170 Jl '46

Analysis

Routine analysis of manganese bronze. E. K Babson and W. W. Johnson. bibliog Ind & Eng Chem Anal ed 18:292-3 My '46

MANGANESE carbide
Preparation and hydrolysis of manganese carbide (Mn_3C). W. R. Myers and W. P. Fishel. bibliog Am Chem Soc J 67:1962-4 N '45

MANGANESE compounds
Defect in the magnetic susceptibility of manganese dioxide and other compounds of manganese. J. T. Grey, jr. Am Chem Soc J 68:605-8 Ap '46

MANGANESE dust
Further blood and neurologic studies of a group of employees in a manganese crushing mill. F. A. Faught. Ind Med 15:393-4 Je '46

MANGANESE hydroxide
Estimation of oxygen in inert oxygen-free atmospheres. E. H. Winslow and H. A. Liebhafsky. bibliog diag Ind & Eng Chem Anal ed 18:565-8 S '46

MANGANESE metallurgy
Concentration of manganese ores from Gila, Greenlee, and Graham counties, Arizona. G. M. Potter and others. U S Bur Mines Rep of Invest 3842:1-12 '46
Concentration of oxide manganese ores from Clallam county, Wash. (Madeline, Lakeview, and Victory claims). T. F. Mitchell and W. J. Long. pl U S Bur Mines Rep of Invest 3837:1-6 '45
How the SO_2 process worked on Three Kids manganese ore. D. N. Vedensky. il diag Eng & Min J 147:58-64 Jl '46
Mining and concentration of Missouri Valley manganese at Chamberlain, South Dakota. L. W. Dupuy and others. flow sheets U S Bur Mines Rep of Invest 3839:1-103, pl 1-29 bibliog(p103) '46; Abstract. Metal Prog 50: 320+ Ag '46
New methods cut costs for Chamberlain manganese. L. Dupuy and others. il Eng & Min J 147:93-6 Ap '46
Open pit mining for manganese. D. E. Eilersten and J. W. Feiss. flow sheet il Min Cong J 32:32-3+ S '46

Electrometallurgy

Control of sulfur in electrolytic manganese. J. Koster. bibliog diags Electrochem Soc Trans 89 (preprint 26):307-17 '46
Effect of impurities on the electrodeposition of manganese. D. Schlain and others. U S Bur Mines Rep of Invest 3872:1-18 '46
Electrolytic manganese in acid-steel tests at Atlas steel casting co. and the Detroit steel casting co. R. T. C. Rasmussen. U S Bur Mines Rep of Invest 3830:1-20 '45
Electrolytic manganese in low-carbon steel; tests at the Stanley works, Bridgeport, Conn. F. Sillers, jr. and R. T. C. Rasmussen. U S Bur Mines Rep of Invest 3911: 1-18 '46
Electrolytic manganese vs ferromanganese addition agents. R. T. C. Rasmussen and F. Sillers, jr. Iron Age 156:80+ D 6 '45
Electro-process developed to produce metallic manganese. G. L. Allen and others. flowsheet il diag Chem & Met Eng 53:106-9 Mr '46; Discussion. C. L. Mantell. 53:172 Ap '46
Operation of electrolytic manganese pilot plant, Boulder City, Nev. J. H. Jacobs and others. flow sheets il fold pls diags U S Bur Mines Bul 463:1-165; pa 55c Supt. of doc. '46
Pilot-plant production of electrolytic manganese from Chamberlain, S. Dak., nodules. J. H. Jacobs and J. W. Hunter. U S Bur Mines Rep of Invest 3862:1-14 '46
Proposal for electrolytic manganese plant for Three Kids ore, Las Vegas, Nev.; with cost data. J. H. Jacobs and others. flow sheets fold pl U S Bur Mines Bul 463: 135-65; pa 55c Supt. of doc. '46
Recovery of cobalt from manganese ores in the production of electrolytic manganese. D. Schlain and others. bibliog U S Bur Mines Rep of Invest 3866:1-18, pl 1 '46
Steelmakers test usefulness of electrolytic manganese. R. T. C. Rasmussen and F. Sillers, jr. Steel 117:138+ N 19 '45
Study of anodes for electrolytic manganese. D. Schlain and others. bibliog U S Bur Mines Rep of Invest 3863:1-20, pl 1-5 '46

MANGANESE mines and mining

Georgia

Exploration of the Piedmont manganese belt, McCormick county, South Carolina, and Wilkes county, Georgia. W. A. Beck. pl U S Bur Mines Rep of Invest 3858:1-5 '46

Mexico

Manganese from Mexico. R. V. Pierce. il map diags Comp Air Mag 51:33-8 F '46

Montana

Bottom dump skip at Butte. W. R. Catrow. il diag Min Cong J 32:24-6 Mr '46

South Carolina

Exploration of the Piedmont manganese belt, McCormick county, South Carolina, and Wilkes county, Georgia. W. A. Beck. pl U S Bur Mines Rep of Invest 3858:1-5 '46

South Dakota

Mining and concentration of Missouri Valley manganese at Chamberlain, South Dakota. L. W. Dupuy and others. flow sheets U S Bur Mines Rep of Invest 3839:1-103, pl 1-29 bibliog(p103) '46; Abstract. Metal Prog 50: 320+ Ag '46

New methods cut costs for Chamberlain manganese. L. Dupuy and others. il Eng & Min J 147:93-6 Ap '46

Simplified mining; ready method of working manganese deposits. Bsns W p32+ My 18 '46

Virginia

Open pit mining for manganese. D. E. Eilertsen and J. W. Feiss. flow sheet il plan diag Min Cong J 32:28-33+ S '46

MANGANESE ores

New developments will reveal additional manganese resources. J. C. Adkerson. Iron Age 157:145 F 28 '46

Spilite and manganese problems of the Olympic peninsula, Washington. C. F. Park, jr. bibliog map Am J Sci 244:305-23, pl 1-4 My '46

MANGANESE oxides

Defect in the magnetic susceptibility of manganese dioxide and other compounds of manganese. J. T. Grey, jr. Am Chem Soc J 68:605-8 Ap '46

Reaction of the Leclanché dry cell. L. C. Copeland and F. S. Griffith. Electrochem Soc Trans 89 (preprint 22):255-64 '46

MANGANESE poisoning

Further blood and neurologic studies of a group of employes in a manganese crushing mill. F. A. Faught. Ind Med 15:393-4 Je '46

MANGANESE steel

Effect of cold rolling on the structure of Hadfield manganese steel. N. P. Goss. bibliog il Am Soc for Metals Trans 34:630-8; Discussion. 638-44 '45

Manganese alloy cast steels; materials work sheet. Machine Design 17:157-62 N '45

Repairing contractors' and steel mill equipment with manganese applicator bars. L. A. Davis. il diag Welding J 25:969-74 O '46

MANGANESE sulfate

Paramagnetic losses in two manganous salts. R. L. Cummerow and D. Halliday. bibliog Phys R 70:433 S 1 '46

MANGANESE titanium steel

Effect of fisheyes on impact strength of high-tensile manganese-titanium steel plate. M. R. Gross and others. bibliog il Metal Prog 49:1173-80 Je '46

MANGANIN

Stability of double-walled manganin resistors. J. L. Thomas. pl J Res Nat Bur Stand 36: 107-10 Ja '46

MANHEIMER, Jacob

Honored on 70th year in trade. por Oil Paint & Drug Rep 150:5+ S 16 '46

MANHOLE covers

Lifting device fits all manhole covers. diags Elec World 125:103 Je 8 '46

MANHOLES

Button in cover marks gassy manholes. diags Elec World 124:112 N 24 '45

Demountable hoist for manhole tanks. il diags Elec World 126:148+ S 28 '46

Locating lost sewers and manholes; use of M-Scope. E. T. Cranch. plan Water & Sewage Works 93:149 Ap '46

Mechanization speeds manhole cleaning. il Elec World 125:103 F 16 '46

MANICURING

Attachments driven by flexible shaft in compact manicuring device. il diags Product Eng 17:459 Je '46

See also

Nail polishes

MANIFOLDS

See also

Airplane engines—Manifolds

MANILA

Health conditions in certain large cities of the Far East after liberation. H. R. O'Brien. map Pub Health Rep 61:1339-50 S 13 '46

Rebuilding Manila. H. Leopold. il maps Eng N 137:172-7 Ag 8 '46

Rehabilitation of ruined Manila. H. W. Richardson. il Eng N 136:221-6 F 7 '46

Harbor

Reconstruction of Manila harbor. M. M. Gross. il map diag Civil Eng 16:168-71 Ap '46

Water supply

Restoring Manila's water system to service. L. K. Clark. il maps Am Water Works Assn J 38:608-24 My '46

MANILA hemp

Abacá agreement with Philippine Republic. For Comm W 24:24 Ag 31 '46

Production of abacá in Central America expanding. For Comm W 21:32 N 24 '45

MANILOW, Nathan

Better than a Quonset; Chicago home builder. por Fortune 33:221-2 Ap '46

MANIOC. See Cassava

MANIPULATORS, Welding

Positioning fixture for large weldments. diag Elec World 125:106 Mr 2 '46

Positioning large weldments. il diag Steel 119:124 S 16 '46

Special work-handling fixtures; production of compressor units for refrigerators; Crosley corp. C. C. Peck. il Materials & Methods 23: 776 Mr '46

MANITOBA

See also

Gold mines and mining—Manitoba

Mines and mineral resources—Manitoba

MANITOULIN island, Ontario

Highway connection to Manitoulin island; railway swing bridge converted to highway use. il map Roads & Bridges 84:57-9+ F '46

MANNICH reaction

Mannich reaction: β-aminoketones from diisopropyl ketone. R. A. Jacobson. Am Chem Soc J 67:1999-2000 N '45

Quinazolines; synthesis of an amino alcohol derived from quinazoline. B. E. Christensen, B. Graham and A. M. Griffith. Am Chem Soc J 67:2001-2 N '45

MANNING formula. See Hydraulics—Tables, calculations, etc.

MANNITOL

Acetone derivatives of hexahydric alcohols; triacetone mannitol and its conversion into *d*-arabinose. L. F. Wiggins. Chem Soc J p13-14 Ja '46

Anhydrides of polyhydric alcohols; derivatives of 5 : 6-anhydro mannitol and sorbitol. L. F. Wiggins. Chem Soc J p388-90 My '46

Anhydrides of polyhydric alcohols; derivatives of 1 : 2-5 : 6-dianhydro mannitol. L. F. Wiggins. Chem Soc J p384-8 My '46

Anhydrides of polyhydric alcohols; 2 : 5-diamino 1 : 4-3 : 6-dianhydro mannitol and sorbitol and their sulphanilamide derivatives. R. Montgomery and L. F. Wiggins. Chem Soc J p393-6 My '46

MANNITOL—*Continued*
Hexitol anhydrides; the structure of the 2,5-anhydromannitol of Brigl and Grüner (2,5-anhydrosorbitol). R. C. Hockett, M. Zief and R. M. Goepp, jr. bibliog Am Chem Soc J 68:935-7 Je '46
Hexitol anhydrides; the structures of the anhydromannitols of Brigl and Grüner; the structure of isomannide. R. C. Hockett and others. bibliog Am Chem Soc J 68:930-5 Je '46
Sugar interconversion under reducing conditions. M. L. Wolfrom and others. bibliog Am Chem Soc J 68:122-6, 578-80 Ja, Ap '46

MANNOSE
Acetylation of D-mannose phenylhydrazone. M. L. Wolfrom and M. G. Blair. bibliog Am Chem Soc J 68:2110-11 O '46

MANNURONIC acid
Mutarotation and ring structure of mannuronic lactone. H. S. Isbell and H. L. Frush. bibliog J Res Nat Bur Stand 37:43-9 Jl '46

MANOMETERS
Application of the differential manometer to the measurement of fluid density and specific gravity with special reference to temperature effects. R. D Cowherd. diags Paper Tr J 123:33-40 O 3 '46
Compact, accurate manometer for high differentials. L. J. Rowell. il diags Power Pl Eng 50:58-60 Ap '46
Manometric system for volumetric gas analyzers. A. R. Anderson. diag Ind & Eng Chem Anal ed 18:70 Ja '46
Measurement of electric currents by means of a mercury manometer. A. Kolin. diags R Sci Instr 16:378-9 D '45
New mercury manometer. J. Werner. bibliog diag Ind & Eng Chem Anal ed 17:805 D '45
Pirani gauge for use at pressures up to 15 mm. E. S. Rittner. diag R Sci Instr 17: 113-14 Mr '46

MANOSTAT. See Pressure regulators

MANPOWER. See Labor supply

MANTELS
Woodwork company redesigns complete line; Curtis companies. il Am Bld 68:86-9 Je '46

MANUAL industries. See Handicraft

MANUAL training
Building types study number; school shop for general education; with time saver standards. il plans diags Arch Rec 100:91-106, 119+ Jl '46

MANUFACTURERS
Manufacturers reluctant to produce; Chicago Federal reserve bank. Comm & Fin Chr 163: 1783+ Ap 4 '46
Some problems facing industry. L. R. Clausen. Comm & Fin Chr 162:2449+ N 22 '45

MANUFACTURERS' agents
Better business with buttons. B. White. Ind Marketing 31:29-30+ Ap '46
Manufacturers use agents for selling. R. F. Stiles. Dom Comm 34:24-5 My '46
What is a manufacturers' representative? Dom Eng 166:186+ D '45

MANUFACTURERS' demonstrations. See Department stores—Manufacturers' demonstrations

MANUFACTURERS' liability
How to protect yourself against lawsuits when products fail. J. H. Bibby. Sales Management 56:93-4+ Je 1 '46
Keeping an eye on law suits. L. T. Parker. Food Ind 18:198-201 F '46
Liability for defective mechanism; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:44-5 Ap 11 '46

MANUFACTURERS' literature
Factory's catalog service. Published in monthly numbers of Factory management

MANUFACTURERS' retail stores. See Retail stores, Manufacturers'

MANUFACTURERS trust company
Report to stockholders. H. D. Gibson. Comm & Fin Chr 163:291 Ja 17 '46

MANUFACTURES
America's industrial war front; Printers' Ink market exploration. W. P. Burn. map Ptr Ink 214:29-32 Ja 4 '46
Financial developments among large manufacturing corporations, 1945; with tables. D. P. Warner and A. R. Koch. charts Fed Res Bul 32:1106-14 O '46
Guide for local industrial promotion. U S Bur For & Dom Com, Economic (Small Bsns) Ser 47:1-26 '46
Industrial injuries in manufacturing, third quarter of 1945. Mo Labor R 62:237-40 F '46
Sell, then buy; specialists, familiar with all phases of a particular process, and fabricators, who assemble and sell, are supplementary figures in modern industry. E. L. Cady. il Sci Am 174:210-12 My '46

See also
Brickmaking
Catalogs
Chemistry, Technical
Coke manufacture
Commerce
Cost accounting
Cotton manufacture
Factories
Factory management
Gas manufacture
Glass manufacture
Industry
Inspection
Labor and laboring classes
Machine shops
Machinery
Metal work
Metals
Paper making
Patents
Production
Products, New
Rayon manufacture
Side lines
Subcontracting
Textile fabrics
Trade marks
also subdivision Manufacture under names of products, e.g. Resinous products—Manufacture

Statistics
Census of manufactures to be restored in 1946. M. R. Conklin. Ind Marketing 30:98+ O '45
Economy in war and transition; manufacturing output. Survey of Cur Bsns 26:12-15 F '46
Expansion from retained earnings; study of tangible net worth and net working capital totals for 1,785 medium and smaller manufacturers, 1940-1944. R. A. Foulke. Dun's R 53:15-16+ N; 14-22+ D '45
Financial developments in manufacturing and trade in 1944. D. P. Warner. Fed Res Bul 31:1191-6 D '45
Fourteen important ratios for 36 manufacturing industries, 1944. R. A. Foulke. Dun's R 53:21-2, 63 D '45
Indexes of the value of manufacturers' shipments and new orders, monthly figures and monthly averages, 1939-1944; revised series. Survey of Cur Bsns 26:23 Jl '46
Inventory-sales relationships in the seven-month period following V-J day. Survey of Cur Bsns 26:7-8+ Ap '46
Manufacturers' orders, shipments and inventories, monthly figures, 1939-1945; revised data. Survey of Cur Bsns 26:22 Ag '46
Manufacturers' shipments and inventories, Jan.-April, 1946. Survey of Cur Bsns 26:11-13+ Je '46
1945 composite balance sheet of 120 manufacturing companies, with comparisons for other years. Nat City Bank p35 Mr '46
Percentage change in manufacturing output: monthly average in second quarter 1946 from monthly average in base period of 1941; chart. Survey of Cur Bsns 26:8 Jl '46
Plans for census of manufactures outlined. W. H. Mautz. Dom Comm 34:3+ Je '46
Post-war role of business inventories. D. S. Wilson. Comm & Fin Chr 164:2204+ O 31 '46; Same. Survey of Cur Bsns 26:25-31 O '46
Profits before taxes as percentage of net worth, 2,152 manufacturing corporations, 1936-39 average, 1941, 1944; chart. Survey of Cur Bsns 26:5 Mr '46

MANUFACTURING chemists' association
Annual meeting, Skytop, Pa., June 6. Chem & Eng N 24:1666-7 Je 25 '46
Chemical manufacturers state stream-pollution objectives. Oil Paint & Drug Rep 148: 7+ N 26 '45

MAPLE, Fred J.
Fred Maple of Roebling. por Ind Marketing 30:156+ N '45

MAPLE
Wood treatment with urea resin-forming systems (dimensional stability). M. A. Millett and A. J. Stamm. bibliog Mod Plastics 24: 150-3+ O '46

MAPLE sugar
Maple sugar lags. Bsns W p34 Je 22 '46

MAPPING
Preparation of contour maps. E. A. Stephenson and D. D. Haines. Oil & Gas J 45:115-16 Ag 17 '46
Radar shows promise in mapping; symposium. P. Kissam and others. il map diag Civil Eng 16:294-9 Jl '46
See also American congress on surveying and mapping

MAPPING, Aerial
Air forces' collection of aerial photographs. F. R. Fosberg. Science 102:538-9 N 23 '45
Economics of photogrammetry; with cost data. L. T. Eliel. Am Soc C E Proc 71:287-96 Mr '45; Discussion. 71:907-15, 1282-8, 1565-6; 72:401-4 Je, O, D '45, Mr '46
Shoran for maps. Bsns W p36 My 4 '46; Electronics 19:295-6+ Je '46
Shoran for world mapping. C. I. Aslakson. diag Radio N 36:112-13 Ag '46

MAPS
Uses of contour maps. E. A. Stephenson and D. D. Haines. Oil & Gas J 45:131 Ag 24 '46
See also
Latin America—Maps
Road maps
World war, 1939-1945—Maps

Printing

See also
Road maps—Printing

Protection

Protective surfacing of maps and charts. A. G. Brown. Can Chem & Process Ind 30:27-8 Ja '46

MAPS, Topographical. See Topographical maps

MAPS, Weather. See Weather maps

MARATHON, Ontario
Marathon builds a mill and a town in a Canadian wilderness. il Paper Ind 28:930, 936-8 O '46

MARCANO, Vicente, 1848-1891
Vicente Cárcano; pioneer chemist of Venezuela. C. F. Asenjo. por J Chem Educ 23:145-8 Mr '46

MAREMONT automotive products, inc.
Debentures offered. Comm & Fin Chr 163:194-5 Ja 14 '46

MARFANIL
Potent antibacterial; British manufacture of marfanil. Chem Age (Lond) 53:440 N 10 '45

MARGIN buying. See Stocks—Margin buying

MARIETTA college

Edwy R. Brown school of petroleum

Oil school is born; Edwy R. Brown school of petroleum, Marietta college. H. Ridder. il Nat Pet N 38:25+ Jl 10 '46

MARIHUANA
Hemp menace; vast expansion of acreage threat of increased traffic in narcotic. Bsns W p48+ Ja 12 '46
Marihuana activity of cannabinol. S. Loewe. bibliog Science 102:615 D 14 '45
Studies on marihuana and pyrahexyl compound. E. G. Williams and others. bibliog Pub Health Rep 61:1059-83 Jl 19 '46

MARINE and shipbuilding workers of America, Industrial union of. See Industrial union of marine and shipbuilding workers of America

MARINE biological laboratories
Functions and development of a tropical marine laboratory; Miami marine laboratory. F. G. W. Smith. Science 103:609-11 My 17 '46

MARINE biology
Functions and development of a tropical marine laboratory. F. G. W. Smith. Science 103:609-11 My 17 '46
See also
Abalones
Deep sea deposits
Fouling organisms
Photography, Submarine

MARINE boilers. See Boilers, Marine

MARINE borers
See also
Teredos

MARINE deposits. See Ocean bottom

MARINE engineering
Historical transactions, 1893-1943. 544p Society of naval architects and marine engineers, 29 W. 39th st, New York 18 '45
Institution of naval architects and Institution of engineers and shipbuilders in Scotland, combined autumn meeting, Glasgow, Sept. 24-26. Engineering 162:328-9, 355, 376-8, 401-2 O 4-25 '46
Italian shipbuilding and marine engineering. Engineering 162:173 Ag 23 '46
Marine developments in 1945. G. Bartlett. Marine Eng 51:144 Ja '46
Marine power plant efficiency. F. V. Smith. diags Marine Eng 51:101-8 Jl '46
Naval engineering duty in wartime. R. Doughton, jr. il Metal Prog 50:455-61 S '46
Power plants for postwar vessels. A. C. Rohn and W. E. Hammond. Marine Eng 50:154-61 N '45
Present and future of marine engineering. A. L. Ayre. Engineer 182:237-9 S 13 '46; Same. Engineering 162:271, 294-5 S 20-27 '46
La 45e session de l'Association technique maritime et aéronautique (Paris, 25-28 juin 1946). Génie Civil 123:204-5, 218-19 Ag 1-15 '46
Reduction of losses in power generation and consumption in marine power plants. L. M. Goldsmith. il Nat Pet N 38 pt 2:R154+ F 6 '46; Same. Power Pl Eng 50:54-7 Ap '46
Research in naval architecture and marine engineering. K. S. M. Davidson. Marine Eng 51:115-16 Mr '46
Shipbuilding and marine engineering in 1945. il Engineer 181:10-11, supp 3, 43-5, 66-8 Ja 4-18 '46
Some methods of modern ship design applied to an Atlantic liner; with operating cost and income data. E. P. Trask. diags Marine Eng 50:185-93 N '45
See also
Boilers, Marine
Diesel engines, Marine
Gas turbines, Marine
Motor ships
Naval architecture
Propellers
Salvage
Ship propulsion
Ship propulsion, Electric
Ship resistance
Shipbuilding
Steam turbines, Marine
Steamboats
Steering gear
Warships
also Society of naval architects and marine engineers

MARINE engines
Engines and engineers. C. C. Pounder. Engineering 161:356-7 Ap 12 '46
See also
Diesel engines, Marine
Gas turbines, Marine
Internal combustion engines, Marine
Internal combustion engines, Outboard
Steam turbines, Marine

MARINE exposition, National. See National marine exposition

MARINE fauna
Underwater noise due to marine life. D. P. Loye and D. A. Proudfoot. Acoustical Soc Am J 18:446-9 O '46
See also
Fouling organisms
Starfishes

MARINE flora
See also
Algae

MARINE gas turbines. See Gas turbines, Marine

MARINE insurance. See Insurance, Marine

MARINE insurance union, International. See International marine insurance union

MARINE sediments. See Ocean bottom

MARINE structures
Cavitation in hydraulic structures; a symposium. J. K. Vennard and others. bibliog il diags Am Soc C E Proc 71:1000-68 S '45; Correction. 71:1571 D '45; Discussion. bibliog 72:419-22, 705-16, 867-80 Mr, My-Je '46

MARINE structures—*Continued*
Suspended fenders and dolphins. il diags Engineer 181:221-8 Mr 8 '46
Wartime needs develop new techniques in building concrete marine structures; floating docks and forts. il Concrete 54:8-10 Ag '46

See also
Bulkheads
Concrete construction, Subaqueous
Docks
Jetties
Piers
Piles and pile driving
Steel construction, Subaqueous
Wharves, Concrete

MARINE terminals. See Terminals

MARINE workers
Maritime foremen; ship officers' strike ends. Bsns W p88-90 N 2 '46
Shipping crisis; officers' strike. Bsns W p109 O 5 '46
Strike averted in maritime industry. Mo Labor R 63:82-4 Jl '46
Superunion? proposed merger of seven maritime labor groups. Bsns W p99-100 My 18 '46
U.S. ships put out to sea with a holdful of unions. Bsns W p90 Je 1 '46

See also
Longshoremen
Seamen

MARINSHIP corporation
Marinship yard completes its construction program. Marine Eng 51:116 Je '46

MARITAIN, Jacques, 1882-
Portrait. Fortune 34:165 O '46

MARITIME law
Rules coast trade ships, sold to foreigners, lose their status; abandonment of vessel to underwriter upon payment of total marine loss constitutes sale. Weekly Underw 153:1080-1 N 10 '45

See also
Admiralty
Seamen—Law
Shipping—Claims

MARITIME preparatory technical conference
International labour organisation. Maritime preparatory technical conference, Copenhagen, Nov. 1945. 8 v, v 1 121p pa 60c; v 2 27p pa 20c; v 3 99p pa 50c; v 4 24p pa 20c; v 5 24p pa 20c; v 6 65p pa 35c; v 7 73p pa 50c; v 8 101p pa 50c International labour office, Montreal '45

MARITIME workers. See Marine workers

MARKDOWNS. See Price policies

MARKET, Industrial. See Industrial market

MARKET, Institutional. See Institutional market

MARKET areas
Plan for allocating goods to protect your future markets; statistically based technique. J. G. Neukom and J. D. Louth. Sales Management 57:115-16+ S 1 '46
Problems in planning distribution channels for industrial goods. J. A. Proven. Ind Marketing 31:43+ S '46
Regional trade barometers. L. D. H. Weld. map Published in monthly numbers of Dun's statistical review; summary in Dun's review
Six-step plan for analyzing sales by major markets. R. D. Crisp. Sales Management 56:37-8 My 20 '46
Wholesale dry goods trading areas; 1945 retail sales 147% more than in 1935; P.I. market exploration. W. P. Burn. map Ptr Ink 216:45-8 S 6 '46

See also
Shopping areas

MARKET research
Advertising promotion; Caldwell-Clements study distribution areas and quotas. Ptr Ink 214:68 Mr 29 '46
AMA conference spotlights growing research interest. W. Doty. Ind Marketing 31:55+ Jl '46
Applying market research to the machinery industry. E. R. Walsh, jr. Ind Marketing 31:30+ F '46
Brand loyalty during the cigarette shortage. F. T. Schreier and A. J. Wood. Adv & Sell 38:113-14+ N '45
Buyer's measure is taken; durable goods' sales prospects. Bsns W p19-20 Ag 24 '46
Check list for helping solve class-of-trade problem. R. D. Crisp. Ptr Ink 215:35-6 Ap 26 '46
Consumer analysis of the Greater Milwaukee market Ptr Ink 215:44 Ap 12 '46
Consumer research projects standardized for newspapers; Market research committee of N.A.E.A. Ptr Ink 215:57+ Je 21 '46
Customer polls as a buying guide; research plan, Lord's department store, Evanston, Ill. F. J. Cummings. il Am Bsns 16:20-1+ O '46
Disproportionate method of market sampling. R. Ferber. J Bsns 19.67-75 Ap '46
Does your package rate with the housewife? il Mod Packaging 19:89-92 Ag '46
Don't blame research when findings are twisted for promotional uses. R. D. Crisp. Ptr Ink 215:62+ Je 28 '46
Duplication tip; newspaper's analysis of refrigerator orders in Elmira gives inkling of actual demand. Bsns W p46-8 Ag 31 '46
Exploring the market. M. Patterson. Mech Eng 68:553-4 Je '46
Exporters ask Commerce dept. for market data on 108 foreign countries. Ptr Ink 213: 49+ D 21 '45
Fact finding in distribution. F. B. Turck, jr. Mech Eng 68:550-2 Je '46
Finding out what people think of a public utility service; Bell Telephone survey. A. H. Richardson and C. T. Smith. Edison Elec Inst Bul 14:281-5 Ag '46
Five points to consider in setting up a chemical market research department. Chem Ind 58:969 Je '46
Five steps for conducting market research; plus methods for promoting resulting data; Sylvania Electric. P. S. Ellison. il Ptr Ink 216:39-41 S 13 '46
Flood for Peoria; Silex co. market absorption plan. Bsns W p70+ Je 15 '46
Formfit helps corset retailers find way to greater profits; fact-finding research project. il Sales Management 56:56+ Ja 1 '46
Four-city comparison of buyer preference now available. C. Conlee. il Ptr Ink 216:94+ S 20 '46
Great increase in market research predicted at AMA session. Ptr Ink 213:67+ D 14 '45
Here's what the public wants; in personal planes. Aviation 45:42-3 Ag '46
Home food freezers join appliances testing market for consumer demand. Ptr Ink 216: 100 Ag 23 '46
Home is inventory survey gives advertised brands increased preference; tenth study by Cleveland press. Ptr Ink 215:102+ My 3 '46
How good is marketing research? F. L. Thomsen. Harvard Bsns R 24 no 4:453-65 [Jl] '46
How local market analysis helps distributor sales; Libbey-Owens-Ford research. G. H. Kent. Ind Marketing 31:57+ Jl; 47+ Ag '46
How market research can help you with development of new products. K. G. Fuller. Ind Marketing 31:37-8+ Je '46
How New Hampshire measures her vacation business. A. M. Heath. Ptr Ink 213:38+ D 28 '45
How Pennsalt creates new markets, broadens others, through research. T. Armstrong. il Sales Management 56:134+ Ap 1 '46
How Sylvania's market research molded a new package pattern. il Sales Management 55:179 D 1 '45
How to determine the size of a survey sample. R. H. Colley. Ptr Ink 216:35-7 S 6 '46
How to double your returns from dollars spent for sales research. W. W. Heusner. Sales Management 56:113-14+ My 1 '46
How women of 18-30 look at merchandise. B. D. Beck. Adv & Sell 39:49+ S '46
How you can pre-test the product and the market for soft goods items. P. White and M. White. Sales Management 57:108+ Jl 1 '46
If you do make a survey use a check list to clarify your objectives and insure results. W. M. Fox. Ind Marketing 30:62+ O '45

MARKET research—*Continued*
Industrial market research in relation to advertising. F. Juraschek. il Ind Marketing 31:45-6+ F; 47-8 Mr; 47+ Ap '46
Interviewing the interviewers; supervisor for advertising agency tells how crew is assembled and instructed for out-of-town consumer survey. D. Favini. Ptr Ink 214:54+ Mr 8 '46
Inventory of grocery products found in 401 consumers' pantries. Ptr Ink 214:108 Mr 8 '46
It's easier to sell people what they want, and where and how they want it. R. D. Crisp. Ptr Ink 215:36-7 Je 7 '46
Learning what the post-boom sales potential will be; Silex co. market saturation test in Peoria. Ptr Ink 215:37 Je 14 '46
Market research; symposium for junior chemical engineers; Chem. & Met. report. bibliog Chem & Met Eng 53:153-60 My '46
Marketing air-conditioning equipment; survey made for Anemostat corporation. J. F. Brinley. il Ind Marketing 30:44-5+ N '45
Marketing research, partner of technical research. R. S. Aries. bibliog Paper Tr J 121: 51-6 D 13 '45
Marketing research standards to be set by new Association of survey agencies. Ptr Ink 215:97+ Je 7 '46
More or better research. R. D. Crisp. Ptr Ink 214:176 Ja 18 '46
Outline of market research procedures for industrial products. W. Alderson. Ind Marketing 30:46+ N '45
Pre-testing gets big response to long questionnaire; 460 construction truck operators each spent an hour or more answering 200 and more questions for McGraw-Hill. R. H. Ganly. il Ptr Ink 214:29-31 Mr 1 '46
Previewing future markets for porcelain enamel products. F. C. Woleslagle. il Ind Marketing 30:34-5 N; 50-1+ D '45; 31:64+ Ja '46
Printers' Ink jury of marketing opinion and how it functions. Ptr Ink 214:23 F 8 '46
Qualitative market research. L. C. Lockley. Chem & Eng N 24:2174-6 Ag 25 '46
Research is O.K. but: boners of interpretation and execution. E. J. Lux. Ptr Ink 217: 42-3 O 4 '46
Research laboratory of tomorrow? L. Handel. Ptr Ink 215:170 My 17 '46
Research through Kodachrome eyes; pretesting greeting card design with slide films. R. J. Bender. Ptr Ink 215:96+ My 17 '46
Sales research applied to advertising reduces the selling load. J. O. Peck. Ind Marketing 30:42+ N '45
Sense qualities research and your products; measuring impressions of color, taste, smell. A. J. Wood and F. T. Schreier. il Adv & Sell 39:49+ O '46
Silex saturation test seeks forecast of future sales trends. Sales Management 56:110 Je 15 '46
Six avenues of inquiry for practical company research. F. Juraschek. Sales Management 55:89 D 15 '45
Six case histories of market research. T. E. Maytham. Ptr Ink 214:21-3 Mr 29 '46
Survey reveals vast market for improved textile finishes; American cyanamid co. T. Armstrong. Sales Management 56:124+ Ja 15 '46
Sylvania Electric shows how market research pays its way. P. S. Ellison and others. Ind Marketing 31:42-4 O '46
Teen-age jury to steer sales policy of Seventeen cosmetics. E. M. Kelley. il Sales Management 55:40-2 N 15 '45
Tests products by roving Sip and snack bar. il Ptr Ink 214:23 Mr 8 '46
There really is a product hungry market; Proctor electric company tests on irons in 6 cities. O. MacCarthy. il Adv & Sell 39: 52+ S '46
There's huckstering in market research; by a Researcher. Ptr Ink 217:86+ N 8 '46
Toiletries for men. M. G. Rollins. il Adv & Sell 39:35+ Mr '46
Top management is recognizing market research, AMA reports. W. W. Heusner. Ptr Ink 215:94 My 24 '46
Unearthing and measuring markets for new industrial products; preliminary mail questionnaires. R. L. Edsall. Ptr Ink 214:56+ F 1 '46
Use of mail questionnaires in industrial market research. J. C. Spurr. il Ind Marketing 31:47-8+ Jl '46; Abstract. Chem & Met Eng 53:254+ Jl '46
What Clevelanders expect to buy with their home-building money; the Cleveland Press survey. J. H. Barr. Sales Management 56: 102+ F 1 '46
What is depth interviewing? Ptr Ink 214:36+ F 15 '46
What's on the horizon for markets? T. G. MacGowan. Adv & Sell 39:33-4+ Ja '46
When you know your marketing problems, they're half-solved. R. D. Crisp. Ptr Ink 216:33-5 Ag 16 '46
Where to sell lamps; lighting fixtures; results of Sylvania surveys. il Elec West 96: 117-20 F '46
Why market research should be major management function. R. F. Elder. Ptr Ink 215:52+ My 31 '46
Word association tests help in product and copy research. A. J. Wood. Ptr Ink 217: 48-9 O 11 '46

See also
Buying habits
Market statistics

Bibliography
Information sources for chemical market research. R. M. Lawrence; W. W. Chadbourne. il Chem Ind 57:1058-61; 58:62-5+, 252-5+, 429-32+, 582-5+, 795-800+, 967-9+; 59:75-80+, 487-92, 663-8 D '45-Jl, S-O '46

MARKET statistics
America's industrial war front; Printers' Ink market exploration. W. P. Burn. map Ptr Ink 214:29-32 Ja 4 '46
Appraisal of foreign purchasing power for U.S. goods. V. L. Horoth. Mag of Wall St 77:755-6+ Mr 30 '46
Brides average $2,000 each in retail spending. Ptr Ink 215:123 Je 14 '46
Can an advertiser believe what surveys tell him? A. Politz. Ptr Ink 215:23-5 Ap 5 '46
Chemical marketing statistics program of Bureau of census. J. A. Van Swearingen. Chem & Met Eng 53:132-3 Ja '46
Cleveland market data handbook, 1945. H. W. Green. 69p Real property inventory of metropolitan Cleveland, 1001 Huron Road, Cleveland 15 '45
Facts to guide postwar decisions. A. C. Nielsen. Food Ind 18:358-9+ Mr '46
Farm Journal releases data sheets for all counties in the U. S. R. C. Schindler. Sales Management 56:106-7 Ja 15 '46
First steps in fact-gathering for forecasting future sales. P. B. B. Andrews. Sales Management 56:167+ Mr 15 '46
Housing; a Printers' Ink marketing exploration. W. P. Burn. map Ptr Ink 217:49-52 O 4 '46
Intercounty migration of the civilian population; number 4, third series. W. P. Burn. map Ptr Ink 213:25-30+ D 7 '45
Market data book number, 1946. Ind Marketing 30:1-536 O 25 '45
Marketing in the West; post-war possibilities. N. W. Engle. Ptr Ink 214:30-1 F 22 '46
New market study measures retail sales changes since '29. Sales Management 55: 173-4 N 15 '45
N.Y. Times study shows increase in city's number of families. Ptr Ink 214:82 Ja 18 '46
One-half of U.S. families can't buy durable goods and regulation W makes recourse to installment buying more difficult. C. M. Wright. Ptr Ink 217:92+ O 18 '46
Opportunities to organize for long-term effective selling. J. G. Neukom. Advanced Management 11:93-6+ S '46
Over 73 billions in retail sales in 1945; market explorations; gains, 1939-1945; by states, metropolitan areas and selected counties. W. P. Burn. maps Ptr Ink 215:33-6+ Ap 5; 43-6+ Je 7 '46
Ownership of household equipment in relation to income and size of community. Mo Labor R 61:1219-21 D '45
Philadelphia evening bulletin issues first consumer analysis. Ptr Ink 217:77 O 4 '46

MARKET statistics—*Continued*
Plan for allocating goods to protect your future markets; statistically based technique. J. G. Neukom and J. D. Louth. Sales Management 57:115-16+ S 1 '46
Pulse of the labor market; employment and placement activities in principal cities; market exploration map. W. P. Burn. Ptr Ink 216:41-4 Jl 5 '46
Sales management high-spot cities. Published in semi-monthly numbers of Sales management
Sales Management 1946 survey of buying power; estimates of population, total retail sales, sales by three major store groups, effective buying income, gross and net, gross farm income, wholesale sales, sales-advertising controls for the Nation, sections, states, counties and cities. il maps Sales Management 56:19-412 My 10 '46; Corrections. 56:112 Je 15; 57:48 Jl 1 '46
Six-step plan for analyzing sales by major markets. R. D. Crisp. Sales Management 56:37-8 My 20 '46
16% duplication on consumer orders shown by Gannett study; duplication of electric refrigerator orders in retail stores in Elmira, New York. Ptr Ink 216:44+ Ag 23 '46
32,500,000 radio-owning families; analysis of nation's listeners by counties; market exploration. W. P. Burn. map Ptr Ink 215: 49-52 My 3 '46
Use caution when comparing post-war industrial markets with pre-war statistics. A. H. Dix. Ptr Ink 216:48+ Jl 5 '46
Wholesale grocery territories; food group store sales show increases; P.I. market explorations. W. P. Burn. map Ptr Ink 216: 37-40 Ag 2 '46

See also
Income—Statistics

MARKET stores
IGA stores to sell many new items; all supplies needed for kitchen, dining room, and bathroom. J. Garth. il Am Bsns 16:14-15+ O '46
1946's trend in super markets and self-service stores; study of 694 cities. R. A. Sprague. il Adv & Sell 39:45+ Jl '46
One-stop supermarkets. Bsns W p70+ Jl 27 '46
Super market to sell appliances, clothing. Ptr Ink 215:114 My 17 '46
Supermarkets plus; retail store members of the Independent Grocers Alliance plan to diversify. Bsns W p69-70+ O 12 '46
Tomorrow's supermarket; abstract. M. M. Zimmerman. Management R 35:239-41 Je '46
Unorthodox giant; Penn fruit co.'s new supermarket. il Bsns W p79 Ap 20 '46

Advertising
Slide projectors to show food ads on screen in western super markets. L. F. Thomann. il Ptr Ink 216:81+ Jl 26 '46
Storecast's supermarket commercials to spot-advertising and merchandising. Ptr Ink 215: 112 Ap 5 '46

MARKET surveys
Public utility analyzes market for retailers; Virginia electric & power co. Ptr Ink 216: 112+ S 13 '46
Remarks on service-station survey. W. M. Hughes. Am Pet Inst Proc 25(1):104-6 '45

See also
Questionnaires

MARKETING
Appraisal of the frozen-foods industry; various marketing obstacles. A. Morrow. J Retailing 21:105-12 O '45
Botany picks its markets. il Bsns W p56-7 S 14 '46
Careless exploitation of new products. E. G. Thomssen. Soap & San Chem 22:85 Je '46
Check list for helping solve class-of-trade problem. R. D. Crisp. Ptr Ink 215:35-6 Ap 26 '46
Credit's place in marketing. W. J. Shultz. Credit & Fin Management 48:10-12 F '46
Current appraisal of order-production process. T. S. Holden. Ind Marketing 31:31+ O '46
Distribution; challenge to advertising. A. Weatherhead, jr. Ind Marketing 31:39+ Ag '46
Each selected distributor must sell his quota; Jamison plan for war-baby product. C. J. Swan. il Ptr Ink 215:33-4+ My 31 '46
18 ways public warehouse service can ease distribution headaches. map Sales Management 57:104+ Jl 15 '46
Eureka reinstates the dealers. Bsns W p42+ Ag 31 '46
Fact finding in distribution. F. B. Turck, jr. Mech Eng 68:550-2 Je '46
How commercial standards function in marketing. I. J. Fairchild. Ind Marketing 31: 48+ Ja '46
How the air age is changing marketing; some straws in the wind. il Sales Management 56:70+ Je 1 '46
Ideal pattern of merchandising cooperation; checklist. R. F. Chisholm. Ptr Ink 215:67-8+ My 17 '46
Introduces new product by smashing traditions; Para Ti advertising, pricing and distribution. il Ptr Ink 216:44-5 S 20 '46
Look ahead! can selling keep U.S. business in high gear? Yes! say leaders at first national marketing forum. Sales Management 55:121+ D 15 '45
Maca, selling through Kraft, cracks 85% of food store outlets; Northwestern yeast company abandons distribution through own sales force. Q. D. Pierce. il Sales Management 56:43-4+ Ja 1 '46
Magazine distribution system used for other products; daily calls on dealers make constant checking of stock and displays. E. M. Housman. il Ptr Ink 217:46-7 O 11 '46
Marketing by subscription; selling a parcel a month. J. A. Murphy. il Adv & Sell 39: 73+ Ja '46
Marketing chemical specialties. E. Despres. Chem Ind 57:1071-2 D '45
Marketing leadership needed. H. A. Wallace. Comm & Fin Chr 164:77+ Jl 4 '46
Mass distribution of prefabricated homes on the way; Gunnison plans dealer for every town of 9,000 and over. E. J. Dever, jr. il Ptr Ink 214:23-5+ Ja 11 '46
Merchandise warehouse in distribution. P. W. Frenzel. Ind Marketing 31:34+ F '46
Opportunities to organize for long-term effective selling. J. G. Neukom. Advanced Management 11:93-6+ S '46
Plasma builds civilian market through surgical supply houses; Hyland laboratories of Los Angeles. il Sales Management 56:139-40 Ja 15 '46
Problems in planning distribution channels for industrial goods. J. A. Proven. Ind Marketing 31:43+ S; 38+ O; 51-2+ N '46
Seventeenth Boston conference on distribution, 1945; a national forum for problems of distribution. 87p pa $3.75 Retail trade board, Boston chamber of commerce, 80 Federal st, Boston 10 '45
Six major problems facing frozen foods. R. E. Nagler. il Sales Management 56:46+ Mr 1 '46
Tangible aids for establishing distributive organizations. E. McSweeney. map Ind Marketing 31:31-2+ Ag '46
There's a break somewhere in the distribution line. H. C. Wilson. Ptr Ink 215:140 Je 7 '46
Three industrial trade groups seek five billion dollar sales goal; American supply & machinery manufacturers, National supply & machinery distributors, and Southern supply & machinery distributors. map Sales Management 57:106+ S 1 '46
Tool nobody wanted; how Skilsaw cracked its market; protection for distributors, and business paper advertising. B. Sullivan. il Sales Management 57:46+ Ag 1 '46
21 regions, 3,900 dealers in Kaiser-Frazer setup. W. A. MacDonald. il Sales Management 57:105-6 Ag 1 '46
Via new channel; drug items to be handled by magazine distributors. Bsns W p63-4+ Jl 13 '46
Where wholesaler fits into distribution from here on. F. B. Freeman. Ptr Ink 213:135-6+ N 16 '45

See also
Advertising
Airport market
Basement stores
Boston conference on distribution
Brokers
Canvassing
Chain stores
Containers
Dealer helps

MARKETING—See also—*Continued*
Dealer relations
Display of merchandize
Distribution (economics)
Exhibits
Export trade—Marketing
Factors
Farm market
Food brokers
Fuller brush company
Industrial market
Institutional market
Jobbers
Mail order business
Manufacturers' agents
Market stores
Merchandizing
Post exchanges
Price policies
Private brands
Products, New
Retail trade
Roadside stores
Sales management
Sales policies—Selective selling
Salesmanship
Salesmen
Salesmen, Retail
Securities—Marketing
Vending machines
Voluntary chain systems
Warehousing

Bibliography

Methods of marketing, distributing, and advertising in the small community. (Business literature v. 18, no. 3) p29-30 Business library, Newark public lib, Newark, N.J. N '45

New books for marketing men. Sales Management 55:60 N 15 '45

Chain store outlets

If you want to sell the 5 & 10's, learn to do business their way. T. H. McClure. Sales Management 57:50+ S 1 '46

Cost

Abandons door-to-door selling in favor of dealers; Eureka vacuum cleaners. F. LaClave. il Ptr Ink 215:68+ My 10 '46

Changes in distribution costs; abstract. H. E. Hansen. Management R 35:96-8 Mr '46

Charting relation of volume and costs. C. C. Balderston. Factory Management 104:322+ F '46

Cost of entering new markets. C. E. Wolf, jr. U S Bur For & Dom Com, Economic Ser 51:1-23 '45

Cost of launching new sales territories. C. H. Sevin. Adv & Sell 38:74+ N '45

Distribution cost analysis; a management tool for cost reduction. C. H. Sevin. U S Bur For & Dom Com, Economic Ser 50:1-56; pa 15c Supt. of doc. '46

Distribution costs key competitive efficiency; tank truck delivery study. F. M. Surface. Adv & Sell 39:32+ F '46; Same. Ind Marketing 31:36 F '46

How distribution costs can be reduced. C. H. Sevin. Ptr Ink 214:21-3 Mr 8 '46

On the contrary, distribution doesn't cost enough. D. Belding. Adv & Sell 39:39+ Ja '46

Production costs per unit expected to rise 25.7%; selling costs 13.7% over 1939; with graphs. Steel 118:sup8-9 Ja 7 '46

Reducing the cost of distribution. C. H. Sevin. Dom Comm 34:8-10 F '46

Reduction of distribution costs; program for action and a check list of opportunities. L. O. Brown. Ind Marketing 31:54+ F; 46+ Mr; 44+ Ap '46

What to do about distribution costs. D. Francisco. Adv & Sell 39:54 Ap '46

Definition

By way of definition. Aesop Glim. Ptr Ink 217:107+ N 8 '46

These are the five definitions: advertising, sales promotion, merchandising, marketing and distribution. Adv & Sell 39:52+ Ap '46

Department store outlets

Manufacturer analyzes retail sales, helps department stores sell more shoes; I. Miller & sons. I. E. Grossmann. il Ptr Ink 215: 36-8 My 24 '46

Will department stores dominate frozen food selling; by phone? Frostmaster plan of delivery from low-rent outlying points. il Sales Management 56:58+ My 1 '46

Selected outlets

See Sales policy—Selective selling

Small town outlets

Far from Fifth. M. O'Dea. Ptr Ink 215:48 My 3 '46 [cont every other week]

Small towns are good markets for national advertisers; Nampa, Idaho, department store test. L. Thornton. il Ptr Ink 216:42-3 S 6 '46

Study and teaching

Working model for convention program, ad club course, or marketing class. Ptr Ink 215:88+ My 17 '46

MARKETING, Cooperative

Food marketing co-op sets policies for selling Your Certified brand. D. Paulhamus. il Sales Management 56:44+ Ja 15 '46

See also
California fruit growers exchange

MARKETING association, American. See American marketing association

MARKETING research agencies, National association of. See National association of marketing research agencies

MARKETS, Farmers'

Florida's state farmers' markets. W. A. Dunlap. il Dom Comm 34:17-19 Ja '46

MARKETS, Municipal

Cities plan terminal markets; modern produce sales-storage sites. Bsns W p76+ D 22 '45

Engineers plan new wholesale produce market for New York. C. F. Loyd. map diag Civil Eng 16:392-4 S '46

MARKETS, New

Brief case notes; men use deodorants. D. Crowell. Ptr Ink 214:27 F 1 '46

Bulk cleanser sold to institutions now branded and packaged for consumers; advertising helped win acceptance for Marvene. il Ptr Ink 215:105 Je 14 '46

Claytoons reach out for new markets in merchandise lines; Mother Goose Claytoon-illustrated; next step may be Claytoon-character dolls, etc. il Sales Management 55:79 N 15 '45

Consumer market invaded by industrial supplier; Pennsylvania salt manufacturing co. il Ptr Ink 215:94+ Ap 12 '46

Cost of launching new sales territories. C. H. Sevin. Adv & Sell 38:74+ N '45

Jobber setup gives Trane access to huge neglected market; residence building, smaller construction and repair jobs. il Sales Management 57:62+ O 1 '46

Swords into plowshares; challenge for industrial advertising; three companies exploring peacetime markets for war-born products and techniques. W. E. Rainsley. il Ptr Ink 213:24-5 D 28 '45

Uses national ads after 50 years; manufacturer of hospital and sick-room supplies develops Barca-Loafer chair. E. M. Housman. il Ptr Ink 216:55-6 S 13 '46

War-born plastic goes civilian; Krene. il Sales Management 57:41 S 15 '46

MARKETS, Public

See also
Markets, Municipal

MARKING

See also
Symbols

MARKING devices

Phenolics stamp out the price; stamp kit of cotton-flock-filled phenolic. il Mod Plastics 23:132 Ag '46

MARKING machines

Noblewest dial-feed marker operates as production unit. il Am Mach 90:134 Ja 3 '46

MARKS of origin

Amendment to Merchandise marks act; Union of South Africa. For Comm W 23: 35+ Ap 27 '46

MARKSMANSHIP. See Shooting

MARL

Shipways with cellular walls on a marl foundation. M. M. Fitz Hugh and others. diags Am Soc C E Proc 71:1327-53 N '45

MARQUISES

Exploitation for the show; marquee for small theater. diags Arch Rec 99:110-11 Je '46

MARRIAGE
See also
Community property
Husband and wife

MARROW
Bone marrow of horses and cattle. L. Calhoun. bibliog Science 104:423 N 1 '46

MARSEILLES, France
Les destructions et la reconstruction du port de Marseille. J. Thomas. il maps Génie Civil 123:45-8 F 15 '46

Harbor

Les travaux d'agrandissement du port de Marseille. J. Thomas. il map diags Génie Civil 123:185-8 Jl 15 '46

MARSHALL, Laurence Kennedy, 1889-
Rise of Raytheon in Boston's suburbs. por Fortune 34:136-41+ O '46

MARSHALL Field and company
Annual report. Comm & Fin Chr 163:1030 F 25 '46
Marshall Field, the store. il Fortune 32:142-7+ D '45

MARSHALL islands
Coral reefs in the Gilbert, Marshall, and Caroline islands. L. E. Nugent, jr. bibliog maps Geol Soc Bul 57:735-79, pl 1-2 Ag '46

MARSHES
Brush mat and volcanic cinders used to build road over quagmire on a Pacific island. Eng N 135:721 N 29 '45
Construction of highway fills in swamps and bogs. G. Piette. il Roads & Bridges 84:62+ My '46
Exploration of Orinoco Delta fraught with difficulties of terrain and climate. P. Reed. il map Oil & Gas J 45:64-6 S 14 '46
Muskrat farming in marshlands of Wayne county, Ohio. M. C. Gilfillan. il Banking 38:58 D '45
See also
Carolina bays

MARSTELLER, William A.
Personalities in industrial advertising. por Ind Marketing 31:156 F '46

MARTENSITE
Martensite formation range for engineering steels; chart; engineering file facts. Materials & Methods 23:1621 Je '46
Martensite transformation. A. R. Troiano and A. B. Greninger. il Metal Prog 50:303-7 Ag '46
Some observations on the austempering and isothermal transformation of steels, with special reference to the production of martensite. F. C. Thompson and L. R. Stanton. diags Iron & Steel Inst J 151:133-70, bibliog(p168-70) pl 13-16; Discussion. 171-80 no 1 '45
Temperature range of martensite formation. R. A. Grange and H. M. Stewart. Steel 118:126+ My 20 '46

MARTIN, Glenn L., company
Annual report. Comm & Fin Chr 164:1086 Ag 26 '46

MARTIN, William McChesney, jr. 1906-
Portrait. Bsns W p21 F 16 '46

MARTINIQUE

Economic conditions

News by countries. For Comm W 21:30-1 N 10 '45

MARTINS bank, limited
Statement by the chairman. F. A. Bates. Economist 150:154 Ja 26 '46

MARTINSBURG shale. See Shale

MARVIN, Cloyd Heck, 1889-
War department research and development division. Science 104:369 O 18 '46

MARVINOL
New polyvinyl type resin. Mod Plastics 23:150 Ap '46

MARX, Karl, 1818-1883
Karl Marx; life and ideas of the rebel. pors Fortune 33:140-8+ My '46
Marx in motion. J. Slavens. Fortune 34:12 S '46

MARX, Louis
Louis Marx, toy king. pors Fortune 33:122-7+ Ja '46

MARYLAND casualty company
Attractive features in new stock issues. G. Geyer. Nat Underw 50:19 Ag 22 '46
Decide on refinancing plan to raise $24 million and pay off RFC; Williams makes peace. Nat Underw 50:21+ Je 6 '46
Preferred stocks offered. Comm & Fin Chr 164:558 Jl 29 '46
RFC out; company retires all advances made since 1934. East Underw 47:31 Ag 9 '46
Recapitalization plan. East Underw 47:26 My 31 '46

MASON, George Walter, 1891-
Sketch. por Sales Management 56:41 My 1 '46

MASONITE
Wood-base tooling material. H. A. Knight. il Materials & Methods 22:1403-6 N '45

MASONITE corporation
Masonite demand heavy, company expands at $1,000,000 cost. il Manuf Rec 114:48-9+ D '45

MASONRY
Altus dam rebuilt as gravity structure with masonry facing used as forms. W. S. Byrne. il Eng N 135:860-3 D 27 '45
Anchoring to masonry; drawings. Brick & Clay Rec 109:36 S '46
Clay walls. il diags Arch Forum 85:114 Jl '46
Do you know these rules for efficient masonry construction? R. C. McConkey. diags Brick & Clay Rec 109:32 Jl '46
Estimating clay products masonry. diags Brick & Clay Rec 107:30-1 D '45
Low cost maintenance obtained with brick and clay masonry. il Brick & Clay Rec 107:29-30 N '45
Modular masonry means less waste. diags Brick & Clay Rec 107:48 O '45
Two special methods of restoring and strengthening masonry structures; intrusion mixture containing Alfesil, and Prepakt concrete. J. W. Kelly and B. D. Keatts. il diags Am Concrete Inst J 17:289-304 F '46
See also
Brick construction
Concrete blocks
Stonework

Study and teaching

How veterans can be reconverted into skilled masons; apprentice program. T. W. Cole. Brick & Clay Rec 107:34+ N '45

MASS (chemistry)
Relativistic misconception. C. R. Eddy. Science 104:303-4 S 27 '46; Discussion. 104:400-1 O 25 '46

MASS production. See Production

MASS spectra. See Spectrum—Mass spectra

MASS spectrometers. See Spectrometers, Mass

MASSACHUSETTS institute of technology
Annual report of progress. K. T. Compton. il Tech R 48:569-72+ Jl '46
Chemistry goes to the battlefield; M.I.T.'s chemical engineering building used as laboratory for Chemical warfare service. F. W. Holt, jr. il Tech R 48:103-6 D '45
Condensation of a report on course XV. R. W. King. J Eng Educ 36:634-52 Je '46
Education of planners at Massachusetts institute of technology. R. B. Greeley. J Land & Pub Util Econ 21:313-15 N '45
Institute evaluates its war record. K. T. Compton. il map Tech R 48:39-41, 109+ N-D '45
M.I.T. radar research leads to extensive engineering series; publication of series of books on physics and electrical engineering arranged. Iron Age 156:164+ D 13 '45
Prefab test. il Bsns W p44 N 17 '45
Technology's radar school. W. H. Radford. il Tech R 48:227-31+ F '46
Westgate; shelter for vets, headache for M.I.T. il Bsns W p38 Mr 16 '46

Acoustics laboratory

Acoustics laboratory at M.I.T. Acoustical Soc Am J 17:360 Ap '46
New interdepartmental acoustics laboratory. Science 103:310 Mr 8 '46

MASSACHUSETTS institute of technology—*Continued*

Laboratory for nuclear science and engineering

Laboratory for nuclear science and engineering. J. R. Zacharias. R Sci Instr 17: 120-2 Mr '46

Radiation laboratory

Expanded horizons; work of Radiation laboratory in developing microwave radar systems for military purposes. L. A. du Bridge and L. N. Ridenour. il Tech R 48: 23-6+ N '45

History and activity of the Radiation laboratory of the Massachusetts institute of technology. L. A. DuBridge. R Sci Instr 17:1-5 Ja '46

Services of M.I.T. radiation laboratory revealed. Aeronautical Eng R 4:145 N '45

Story of radar. L. A. du Bridge. il Tech R 48:355-8+ Ap '46

Research laboratory of electronics

Research laboratory of electronics at the Massachusetts institute of technology. J. A. Stratton. R Sci Instr 17:81-3 F '46

MASSACHUSETTS mutual life insurance company

Dividends, interest to be revised; new scale effective June 1. Life Ins Courant 51:190-1 Ap '46

MASSEY, Vincent, 1887-

Portrait. Fortune 33:114 Je '46

MASSEY-HARRIS company

Massey-Harris; biggest farm-tool builders in the Empire. il Fortune 33:108-15+ Je '46

MASTER boiler makers' association

Annual meeting, 29th, Chicago, Sept. 4-6. Ry Mech Eng 120:556-63 O '46

MATCH books

How book matches got their start. J. A. Murphy. Adv & Sell 38:54 N '45

How we printed 72 colors in a die-cut match book; Bigelow-Sanford carpet co. M. J. Sutter. il Ptr Ink 216:41 Ag 23 '46

See also

Advertising mediums—Match books

Manufacture

Match book production. Inland Ptr 116:73 D '45-Ja '46

MATCHES

German match monopoly. Chem Age (Lond) 55:472 O 19 '46

Match suit ends. Bsns W p20-1 Ap 13 '46; Abstract. Oil Paint & Drug Rep 149:3+ Ap 15 '46

MATCHING impedance. See Impedance

MATERIAL control

Costs of testing raw materials which used in manufacture of chemical products should be kept reasonable. W. von Pechmann. Ind & Eng Chem 37:sup 103-4 D '45

Individual schedule issue; important aspect of material control. D. C. Ling. il diags Automobile Eng 36:285-91, 333-40 Jl-Ag '46

One-card graphic system for close control of materials; RCA Victor division, N. N. Barish. il Factory Management 104:149-52 My '46

See also

Inventories
Stores systems

MATERIAL handling

Do's and the don'ts of materials handling. J. I. Thompson. il diags Food Ind 18:1175-6+ Ag '46

Handling materials with lifting, tiering and special trucks; Chem & Met report. il diags Chem & Met Eng 52:119-30 N '45 [reprints 25c]

Industry must find the way to palletized shipping. A. J. Martin, jr. and J. F. Roberts. il Factory Management 104:121-5 Ja '46

Jig facilitates handling on pallets. il Steel 118:122+ F 11 '46

Little can go a long way; short ends of bar stock; control and handling system. B. Melnitsky. diags Am Mach 90:122-3 Mr 14 '46

Research speeds materials handling by Navy's Bureau of ordnance. il Nat Safety N 53: 24-6+ Ap '46

Spring-powered rack combines material handling, storage and transportation. il Steel 119:111 O 28 '46

Standardized factory facilities. R. MacLatchie. il Factory Management 103:139-46 N '45

Yard of Brompton pulp and paper company. R. Rouse. il Pulp & Pa of Can 47:78-9 Jl '46

See also

Cement handling
Coal handling
Conveying machinery
Electric trucks, Industrial
Factory transportation
Freight handling
Loading and unloading
Mechanical handling
Motor trucks, Industrial
Ore handling
Pallets
Steel handling
Storage
Wire handling

Safety measures

Easy to handle. il Safety Eng 92:22-4 Ag '46

Guide to safe loading for industrial trucks; with chart. Nat Safety N 53:40 Je '46

Hand-lifting and carrying device. il Safety Eng 91:60 Je '46

Handling finished pieces at punch presses. il Nat Safety N 54:39-40 Ag '46

Not hard to handle. L. M. Baker. il Safety Eng 91:53-6 F '46

MATERIALS

Annual engineering review. il Materials & Methods 23:86-152 Ja '46

Condensed review of some recently developed materials, arranged alphabetically by trade names. Mach 53:171-83 O '46

Directory of materials. Machine Design 18: 168-256 O '46

Economics of the engineering materials. H. A. Knight. il Materials & Methods 24:613-18 S '46

Efficient utilization of materials; abstract. C. M. A. Stine. Chem Eng 53:278+ O '46

Materials and the postwar world. J. C. DeHaven. Foundry 74:97+ Ap '46

Materials in action as seen by the high-speed movie camera. K. Rose. il Materials & Methods 23:414-17 F '46

Materials work sheets published in Machine Design during 1945. pa 50c Machine Design, Readers' service dept, Penton bldg, Cleveland 13 '46

Methods of specifying materials. J. L. McCloud. il Materials & Methods 23:412-13 F '46

Should a single materials specification system be established? opinions of engineers. Machine Design 18:101-6+ Mr '46; Same. Ind Stand 17:172-9 Jl '46

Some uses of glass as an engineering material. C. F. Lindsay. bibliog il Materials & Methods 23:1284-8 My '46

Tests or traditions? simulated-service tests. F. P. Peters. il Sci Am 175:149-52 O '46

Two-in-one materials. il Sci Am 173:342-4 D '45

See also

Airplanes—Materials
Automobiles—Materials
Boron carbide
Building materials
Ceramic materials
Electric industries—Materials
Insulating materials
Mechanical handling
Packaging materials
Paint materials
Paper making materials
Plastic materials
Purchasing departments
Radio apparatus industry—Materials
Raw materials
Refractory materials
Road materials
Shipbuilding—Materials
Soap materials
Stores systems
Strength of materials
Tanning materials

MATERIALS, Purchasing of. See Purchasing

MATHEMATICAL instruments

See also

Differential analyzers
Integrators

MATHEMATICAL physics
Alice and the sluggers. L. A. Hawkins and S. A. Moss. Mech Eng 68:143-4 F '46; Discussion. 68:660-2 Jl '46

Five-dimensional field theory. K. C. Wang and K. C. Cheng. Phys R 70:516-18 O 1 '46

Recent contributions to the theory of random functions. N. Levinson and others. Science 103:283-4 Mr 1 '46

See also
Aerodynamics
Elasticity
Electricity
Gases
Hydrodynamics
Laplace's equation
Light, Scattering of
Magnetism
Optics
Potential, Theory of
Rotation
Sound
Thermodynamics

MATHEMATICAL societies
See also
American mathematical society

MATHEMATICAL statistics
Calculating the geometric mean from a large amount of data. Z. Szatrowski. Am Stat Assn J 41:218-20 Je '46

MATHEMATICIANS
See also
Birkhoff, George David

MATHEMATICS
Math tips (cont). P. Swain; J. King. Power 89:857; 90:55, 124, 197, 266, 337, 410, 484, 555, 632, 708, 786 D '45-N '46

Mathematical theory of gas flow. M. M. Munk. Aero Digest 51:49+ D 1 '45; 52:52+ F '46

Mathematics of investment. G. C. Watt. J Account 82:211-13 S '46

Survey of elementary mathematics for water and sewage works operators. W. K. Eglof. diags Water & Sewage Works 93:187-9, 233-5, 280-2, 339-41, 406-7 My-Jl, S-O '46

See also
Arithmetic
Calculus
Differential equations
Fourier's series
Geometry, Analytic
Graphic statics
Interest
Interpolation
Mathematical physics
Matrices
Mechanics
Polynomials
Statistical methods
Triangles

Examinations

United States armed forces institute examinations in mathematics as a means of determining credit in engineering mathematics. J. H. Zant. J Eng Educ 36:170-4 N '45

Tables, calculations, etc.

Application of machines to differencing of tables. J. Laderman and M. Abramowitz. Am Stat Assn J 41:233-7 Je '46

Tables of fractional powers. 486p $7.50 Columbia univ. press, 2960 Broadway, New York 27 '46

MATLES, James J.
Director of organization, United electrical, radio & machine workers, C.I.O. por Fortune 34:147 N '46

MATRICES
Applications of matrix algebra to filter theory. P. I. Richards. bibliog diags Inst Radio Eng Proc 34:145P-50P Mr '46

Matrix analysis of continuous beams. S. U. Benscoter. diags Am Soc C E Proc 72: 1091-1122 O '46

MATTER
Interaction of radiation and matter. P. Havas. Phys R 68.214-26 N 1 '45

See also
Adsorption
Atoms
Chemistry
Colloids
Compressibility
Diffusion
Dynamics
Elasticity
Electrons
Gases
Ions
Molecules
Physics
Quantum theory
Radioactivity
Solids
Solution (chemistry)
Specific gravity
Viscosity
Wave mechanics

MATTHEWS, Norman
Regional director (East side Detroit) United auto workers, C.I.O. por Fortune 34:148 N '46

MATTIELLO, Joseph J. 1900-
Award for services with the Office of the quartermaster general. por Paint Oil & Chem R 109:33 Mr 7 '46

MATTRESSES
About Mr Moody, who is putting new ideas into mattresses. il Sales Management 57: 63-4 N 1 '46

Manufacture

Electronic vulcanizing on commercial basis; manufacture of Foamex mattresses. il Electronics 19:164+ Ja '46

MAXSON food systems, inc.
Preferred stock offered. Comm & Fin Chr 163:1570 Mr 25 '46

Sky plate boost; Maxson incorporates food division, plans stock issue and big expansion program. Bsns W p32 Ja 5 '46

MAXWELL, Alexander, 1878-
Sketch. por Edison Elec Inst Bul 14:232 Jl '46

MAY, Alan Nunn
Sentence criticized by Association of scientific workers of Great Britain. Science 103:754 Je 28 '46

MAY department stores company
May co. expands; merger with Kaufman. Bsns W p55-6 Ag 3 '46

MAY-JOHNSON bill. See Atomic power—Legislation

MAYO, George Elton, 1880-
Fruitful errors of Elton Mayo, who proposes to management and labor a social basis for industrial peace. por Fortune 34:180-3+ N '46

MAYONNAISE
Mayonnaise and salad dressing. L. I. Nikula. Dom Comm 34:39-40 F '46

1945 mayonnaise and salad dressings show sharp decline. S. M. Sackrin. il Dom Comm 34:61-4 Ag '46

Rating

Mayonnaise; CR's test of six brands. Consumers Res Bul 17:13-15 My '46

MEAD, George Houk, 1877-
Portrait. Bsns W p15 Ag 3 '46

MEAD, Lake
Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81, 1387-1414, 1573-5; 72: 83-97, 235-40, 409-12, 682-96, O '45-Mr, My '46

MEAD corporation
Bonds offered. Comm & Fin Chr 164:10 Jl 1 '46

Stocks with leverage possibilities. Mag of Wall St 78:394 Jl 6 '46

MEADOL
Industrial uses of alkali lignin. E. B. Brookbank. bibliog Paper Tr J 122:44-6 Mr 28 '46; Same cond. Paper Ind 28:714+ Ag '46

MEAL
Carotene loss in stored leaf meals and extracts. M. E. Wall and E. G. Kelley. bibliog Ind & Eng Chem 38:215-18 F '46

MEAN deviation. See Variation (statistics)

MEANDERS
Alinement affects length, depth, and stability of channel. J. F. Friedkin. il Civil Eng 16: 491-2 N '46

Elongate intrenched meanders of Conodoguinet Creek, Pa. A. N. Strahler. bibliog pl diag maps Am J Sci 244:31-40 Ja '46

MEASUREMENT
Calculations of geometrical dimensions on drawn parts; reference book sheet. diags Product Eng 17:263-4 Mr '46

Precision angle checking without special equipment. D. Campbell. diags Am Mach 90:131 O 24 '46

Symposium on metrology; abstracts of papers dealing with principal units and standards of scientific measurement. Engineering 161: 401-2 Ap 26 '46

MEASUREMENT—*Continued*
Units and standards discussed at meeting of National physical laboratory, Department of scientific and industrial research. Electrician 136:1175 My 3 '46

See also
Calipers
Calorimeters and calorimetry
Color measurement
Colorimeters and colorimetry
Electric measurements
Flow meters
Frequency measurement
Gages
Gas flow
Gas measurement
Length measurement
Magnetic measurements
Measuring instruments
Meters
Micrometers
Optical measurements
Porosity—Measurement
Pressure measurement
Pyrometers and pyrometry
Radio measurements
Sound—Measurement
Statistical methods
Stream measurement
Surveying
Tanks—Measurement
Temperature—Measurement
Thermometers and thermometry
Thickness measurement
Units
Vacuum tubes—Measurement uses
Vibration—Measurement
Viscosity—Measurement
Water flow
Weights and measures
Wood measurement

MEASUREMENT, Theory of
Theory of scales of measurement. S. S. Stevens. Science 103:677-80 Je 7 '46

MEASUREMENT of opinion, attitudes, and consumer wants, Committee on the. See Committee on the measurement of opinion, attitudes, and consumer wants

MEASURING instruments
Air pressure inspector simulates working load. C. Toffel. diags Am Mach 90:135 Ag 15 '46
Braille instruments aid blind inspectors. il Iron Age 157:56-7 My 23 '46; Same cond. Mech Eng 68:656-7 Jl '46
Circular calibration ring with two axes of symmetry. G. Brewer. diags Product Eng 17:115-19 F '46
Cost savings by precision work. A. M. Ewing. il Dom Comm 34:13-15 F '46
Fellows lead-measuring instrument. il Mech Eng 68:905 O '46
Gauge and tool makers' exhibition. il Engineer 181:45-6, 59-61, 91-3 Ja 11-25 '46; Engineering 161:42-4, 65-8, 113-14, 136-8 Ja 11-18, F 1-8 '46; Automobile Eng 36:81-4 F '46; Electrician 136:101-2 Ja 11 '46
Lathe attachment measures awkward jobs. H. Moore. diags Am Mach 90:142 Je 6 '46
Measuring instrument for simultaneously gaging bore diameters of automobile cylinder block at 32 points. il Automotive & Aviation Ind 94:88+ My 1 '46
New equipment. il Iron Age 158:75-6 Jl 18; 65-8 Ag 15 '46
Proving rings for calibrating testing machines. B. L. Wilson and others. bibliog il diags U S Nat Bur Stand Circ C454:1-21; pa 10c Supt. of doc. '46
Screw thread measuring parallel slips. il Engineer 181:139 F 8 '46
33d annual review number; inspection, layout, and testing equipment. il Am Mach 90:166-76 Ja 17 '46
Two screw thread measuring devices. il diags Engineer 181:208 Mr 1 '46

See also
Calipers
Dilatometers
Gages
Micrometers
Planimeters
Pressure gages

MEASURING instruments, Electric
Electrical robot in laboratory model measures stress in piping systems. L. C. Andrews. il Nat Pet N 38 pt 2:R108+ F 6 '46
Measuring eccentricity of welding electrode coatings. H. P. Zade. il diags Iron Age 157:48-9 Ap 11 '46

MEASURING instruments, Optical
Checking surface finish; Comparoscope. il Steel 118:115+ Ja 28 '46
Instrument for checking bore diameters in long cylinders. D. E. McDonald. Mach 52: 192 D '45
Interference viewer, plus rectangular optical flats, add uniformity to light-wave tests. il Sci Am 174:229 My '46
Measuring eccentricity of welding electrode coatings. H. P. Zade. il diags Iron Age 157:46-7 Ap 11 '46
Optical comparator made in the shop. E. J. Heyman. diags Am Mach 89:112-13 N 22 '45
Optical grinding machine. Mech Eng 68:981 N '46
SIP optical profile projector projects contours or surfaces. il Am Mach 89:160 D 20 '45
SIP profile projector and universal measuring apparatus. il Mach 52:201-2 Je '46

MEAT
First quarter allocations reflect improved meat supply. Food Ind 18:53 Ja '46
No meat flood. Bsns W p20 O 19 '46

See also
Beef
Cookery—Meat
Cooling of meat
Fish as food
Horse meat
Packing houses
Pork
Poultry
Whale meat

Analysis
Determination of nitrite in brines and cured meats. J. C. Morpeth. Chem & Ind p370-2 O 12 '46
Effect of cooking on the creatine-creatinine, phosphorus, nitrogen and pH values of raw lean beef. J. R. Bendall. Soc Chem Ind J 65:226-30 Ag '46

Preservation
Plastics precede production; meat-saving germicidal Sanilite lamp unit; casting plastics paved way for molded product. C. Simmons. il Sci Am 174:170-1 Ap '46

Prices
More meat at moderately higher prices results from expiration of price controls. Barron's 26:5 Jl 15 '46
Public calls for removal of price control on meat; Gallup poll. Iron Age 158:107 O 17 '46

MEAT, Dried
Dehydrating meat; abstract. O. G. Hankins and C. F. Dunker. Food Ind 18:974+ Je '46
How meat is dehydrated in New Zealand; frozen meat thawed, precooked, ground and trayed; dehydrated in multiple-tunnel dryer. J. C. Andrews. flow sheet il Food Ind 18:32-3+ Ja '46

MEAT, Frozen
Are prepackaged frozen meats ready for the retailer? F. W. Specht. il Food Ind 18: 1192-3+ Ag '46
Food packaging studies; significance of WVTR in protecting frozen meat. D. Metcalf and others. Mod Packaging 20:147-9 S '46
Meat plan test; prepackaged and frozen. Bsns W p69 Je 1 '46

Transportation
Refrigerated storage and transport of meat in the tropics. E. Griffiths and M. J. Hickman. il Engineering 161:453-6 My 10 '46

MEAT cutting machines
Welded redesign brings marked improvements to electric meat saw machine. J. S. McKeighan. il Welding J 25:53-4+ Ja '46

MEAT industry and trade
American meat institute meeting, Chicago. Food Ind 17:1504+ D '45
Butchers balk; union refuses swing shift to enable Monday closings. Bsns W p28+ Je 8 '46
Illegal beef. il Bsns W p17 My 11 '46
Less meat likely. Bsns W p17 F 16 '46
Meat famine deepens. Bsns W p17-18 S 21 '46
Meat shortage. Nat City Bank p114-15 O '46
Meat supplies disrupted. Barron's 26:8 S 2 '46
Meat to spare. Bsns W p17 Ag 3 '46
Record corn crop promises more meat next year. Barron's 26:5 S 23 '46
Supply of meat. Economist 149:722-3 N 17 '45

MEAT industry and trade—*Continued*
World meat output shows sharp drop. For Comm W 22:31 Mr 9 '46

See also
Butcher shops
Packing industry

Regulation

Controls dam flow of meat. Barron's 26:5+ O 7 '46
Meat and politics. B. C. Reece. Comm & Fin Chr 164:1939, 1977 O 17 '46
OPA lifts meat price controls. Comm & Fin Chr 164:2137 O 24 '46
Political significance of meat crisis; Gallup poll. Iron Age 158:95 O 31 '46
Truman ends meat price controls. Comm & Fin Chr 164:1939+ O 17 '46
Vanishing steaks. Bsns W p19 D 22 '45

Statistics

Lend-lease and other exports of meat products, 1938-1945; chart. For Comm W 22:38 F 16 '46

Argentina

Argentine cattle and beef situation. For Comm W 21:28 D 1 '45

Australia

Australian meat industry. For Comm W 24:38 Jl 6 '46
Production of meat in Australia, 1943-1946. For Comm W 23:35 My 4 '46

Bolivia

Meat moves by air over Bolivia's peaks. C. S. Macaulay. il map For Comm W 23:10-11+ My 4 '46

Cuba

Cuban meat industry. For Comm W 22:35 Ja 19 '46

Germany

Meat packing and processing in wartime Germany. G. T. Carlin. il Food Ind 18:1018-19+ Jl '46

Great Britain

Marketing of meat. Economist 150:850-1 My 25 '46

MECHANICAL analogies. See Electric circuits—Mechanical analogies

MECHANICAL draft
Curing faulty draft with blowers. il diags Sheet Metal Worker 37:80-2 F '46
Ventilating problems in central power stations. E. L. Blair. diag Elec World 126:109-11 S 28 '46

MECHANICAL drawing
Robot pencil for quick sketches. il Bsns W p60 Je 29 '46

See also
Drafting room practice
Engineering drawing

MECHANICAL engineering
Engineering of involute splines. G. L. McCain. diags S A E J 54:245-60 My '46; Discussion. C. H. Standard, A. S. Beam and others. il 54:310-24 Je '46
Experiment in course administration; course in Advanced machine design at Cornell. P. H. Black. J Eng Educ 36:512-14 Ap '46
Mechanical engineering in the shipyard. J. F. Petree. diags Inst Mech Eng J & Proc 152:Proc362-9, pl 1-8 Mr '46; Same. Engineering 159:90, 97-100, 116-20 F 2-9 '45; Same cond. Engineer 179:88-90 F 2 '45; Abstract. Mech Handling 32:181-4 Ap '45
Progress in railway mechanical engineering, 1944-1945. il diags Mech Eng 68:107-22 F '46

See also
Aeronautic engineering
Automobile engineering
Balancing of machinery
Boilers
Chemical engineering
Electric engineering
Hydraulic machinery
Locomotives
Lubrication and lubricants
Machine shop practice
Machine tools
Machinery
Marine engineering
Mechanical movements
Mechanics
Motor trucks
Power transmission
Pumping
Springs (mechanism)
Standardization
Steam engines
Tolerance
also American society of mechanical engineers

Bibliography

Additions to the library. Inst Mech Eng J & Proc 152:149-52 D '45 [cont monthly in Journal section]
Books for mechanical engineers, 1945. Mech Eng 68:284 Mr '46
Reviews of books and notes on books received in the Engineering societies library. Published in monthly numbers of Mechanical engineering

History

Mechanical engineering industry of Clydeside: its origin and development. C. A. Oakley. Engineer 180:366-7, 391-2 N 9-16 '45

Study and teaching

Education and training of mechanical engineers. A. Robertson. Engineering 160:336, 369, 393 O 26, N 9-16 '45; Same. Inst Mech Eng J & Proc 154:124-30 Je '46; Same cond. Engineer 180:324-5 O 26 '45

See also
Mechanics—Textbooks
Steam engineering—Study and teaching

Tables, calculations, etc.

Allowable working stresses for steels. C. Lipson and G. Noll. Product Eng 17:205-8 Mr '46
Deflections and critical speeds of stepped shafts; engineering data sheet. H. L. Blood. bibliog Machine Design 18:155-7 Je '46
Dynamic behavior and design of servomechanisms. G. S. Brown and A. C. Hall. diags A S M E Trans 68:503-22 bibliog(p521-2); Discussion. 522-4 Jl '46
Energy losses in the chain-belt problem. F. R. Archibald. il diags Mech Eng 68:139-42 F '46
Sum and difference method for calculating stresses in disks. A. M. G. Moody and M. L. Land. diag Product Eng 17:147-52 O '46

Textbooks

Machine design textbooks should contain what name implies. Z. Fox. il diags Product Eng 17:[no 7] 124-7 Jl '46

See also
Mechanics—Textbooks

MECHANICAL engineers
Profession of mechanical engineering. S. H. Stelfox. Engineering 162:64-5 Jl 19 '46

Directories

Membership list, 1946. A S M E Trans 68:1-235 sec 2 Ag '46

MECHANICAL equipment of buildings
Buying used mechanical equipment. R. H. Emerick. il diags Heat & Ven 43:62-7 S '46
What good is a valve if it doesn't work when needed? L. W. Mauger. il Heating-Piping 17:547-8 O-N '45

See also
Air conditioning equipment
Electric wiring, Interior
Elevators
Heating
Hot water supply
Houses—Mechanical equipment
Lighting
Plumbing
Power plants
Ventilation

MECHANICAL fans. See Fans, Mechanical

MECHANICAL handling
And now robot tie handlers; plant of the Southern wood preserving company. il diag Ry Age 121:55-8 Jl 13 '46
Automatic manufacturing plant; shell plant of W. F. & John Barnes co. suggests possibilities for peacetime manufacturing. E. Oberg. il Mach 52:148-55 F '46
Automatic mechanical pickler; Superior drawn steel co. J. D. Knox. il diag Steel 118:123-4 Ap 29 '46
Beats its schedules with mechanized handling; Galvin manufacturing corporation. il Factory Management 104:125 Mr '46

MECHANICAL handling—*Continued*
Casting and handling ten-ton lead bullion blocks. K. Harms and T. D. Jones. il diag Min & Met 27:391-2 Jl '46
Continuous-flow handling lowers unit costs 40 percent; Mengel furniture. G. A. Van Brunt. il plan Factory Management 104:129-33 My '46
Effortless handling halves machining costs; Buda company, Harvey, Ill. P. H. Curtiss. il plan Factory Management 104:89-91 Jl '46
Equipment advances 1944-45; materials handling. diag Chem Ind 57:863 N '45
Free flow, high production with mechanized hauling; Ferro machine & foundry company, Cleveland. H. B. Myers. il plans Factory Management 104:106-12 Ja '46
Gas-tight briquette handling plant; magnesium-rich dust. A. Huckett. il diags Mech Handling 33:66-71 F '46
Handling long loads; factory of Towmotor corp. il Steel 117:120+ D 17 '45
Handling materials with tongs, grips and grapples. J. E. Hyler. il Mech Handling 33: 288-96, 357-63+ My-Je '46
Handling of generating sets. il Mech Handling 33:210-11 Ap '46
Material handling facilities; A.A.R. P.&S. division report. il Ry Age 121:290-1 Ag 17 '46
Materials handling principles. G. V. Migula. il Mech Handling 33:559-62 S '46
Materials handling reveals mill engineering skill; illustrations with text. Textile World 96:125+ S '46
Mechanical aids in the manufacture of steel office furniture and equipment. il layout plan Mech Handling 33:550-4 S '46
Mechanical aids to motor car production; Vauxhall motors, ltd. il Mech Handling 33: 344-8 Je '46
Mechanisation at reconstructed Birmingham goods depot. il plan Mech Handling 32:695-700 D '45
Mechanization multiplies output six times; American-LaFrance foamite corporation. il Factory Management 104:86-7 Ap '46
Mechanized air cargo handling. F. M. Reck. il diags Aero Digest 53:55-6+ Jl '46
Mechanized waste handling at one-third the old cost; Dixie cup company, Chicago. R. F. Hahn. il Factory Management 104:130-1 Je '46
Modern materials-handling methods. H. S. Wharen. il diags Am Mach 90:109-40 Je 20 '46
Modernisation and mechanisation to aid foundry production. G. W. Nicholls. Mech Handling 33:150-5, 205-9 Mr-Ap '46
New equipment. il Iron Age 157:74-6 Ja 10; 67-70 Mr 21; 65-8 Je 13; 73-6 Ag 8 '46
New layout, output up a half; Apex electrical manufacturing company, Cleveland. J. Duirk. il plan Factory Management 104:90-3 S '46
Operating men discuss labor saving devices in brick and tile plants. F. R. Mahurin. Brick & Clay Rec 108:39-40+ Je '46
Profitable materials handling. C. T. Bower. il Mech Handling 33:21-3 Ja '46
Reclaiming brass scrap; B. & O. shop. il Steel 119:100 Ag 19 '46
Reducing foundry hand-work. F. A. Foxall. Mech Handling 33:74 F '46
Reduction in materials handling machine stock by Office of quartermaster general. Iron Age 158:162+ O 17 '46
Review of power and mechanical equipment; mechanical transmission, materials handling. il diag Power 89:884-6 Mid-D '45
Special racks handle heavy material economically. Iron Age 158:51 O 24 '46
Standardization of materials-handling equipment. N. Warshaw. Mech Eng 68:545-6 Je '46
Stearns to manufacture Warren Yardhoist for mechanical handling of concrete block. il Concrete 53:16+ N '45
Streamline production with mechanical materials handling. il Rayon 26:607-9 N '45
Streamlining the flow of production; abstract. A. H. Dobler. Management R 35:384-5 S '46
33d annual review number; plant service equipment. il diag Am Mach 90:177-83 Ja 17 '46
Tong with a brain. il Safety Eng 91:68 Ap '46
Transfer crane system; mechanical handling aids correlated with plant layout; Ceco steel products corp. G. W. Birdsall. il plan Steel 117:124-6+ N 19 '45
Two-way radio speeds palletized storage; Eastman Kodak company. il Factory Management 104:126-7 Ag '46
Weighing out seven aggregate sizes and ready mixed concrete; W. G. Block co. material handling plant. O. H. Wustrack. il Rock Prod 48:74-5+ O '45
What technical men expect in 1946; materials handling. Steel 118:286+ Ja 7 '46

See also
Ash handling
Assembling methods
Brick handling
Cableways
Car dumpers
Clay handling
Coal handling
Conveying machinery
Cranes, derricks, etc.
Cupola furnaces—Charging
Dumping appliances
Electric trucks, Industrial
Elevators
Freight handling
Gravel handling
Hoisting machinery
Loading and unloading
Manipulators, Welding
Mine haulage
Monorail conveyors
Motor trucks, Industrial
Ore handling
Packaging machinery
Paper handling
Pneumatic conveying
Steel handling
Trucks

Advertising
Barrett campaign; ABP plaque award winner. R. N. Hobson. il Ind Marketing 31:37+ My '46
Case histories of business-paper advertising campaigns; promoting an intangible; Barrett-Cravens materials-handling equipment. il Ptr Ink 215:44-5 My 17 '46

Bibliography
Abstracts and references. Published in monthly numbers of Mechanical handling

Cost
Modern materials-handling methods; selection of handling system. H. S. Wharen. Am Mach 90:134-7 Je 20 '46

Safety measures
Hidden factor in a flow chart; safe handling in steel works. E. Mandry. il Safety Eng 91:22-4+ My '46
Modern materials-handling methods; safety in handling. H. S. Wharen. Am Mach 90: 137-9 Je 20 '46

Standards
It's time to standardize materials handling equipment. N. Warshaw. diags Food Ind 18:178-9+ F '46

MECHANICAL movements
Apparatus simulates wrist motions. L. A. Elmer. il diag Machine Design 18:113-14 Ap '46
Cutting an increasing twist in gun rifling. G. Tonn. diags Mach 53:176-8 S '46
Hardman motion converter eliminates crankshafts and connecting rods. il diags Automotive & Aviation Ind 94:43+ Ap 1 '46
Intermittent motion for changing timing interval for air-valve functioning. diags Mach 52:182 My '46
Interrupted rotating motion with quick take-up action; machine that produces a woven-wire fabric. L. Kasper. diags Mach 52:189-90 F '46
Irregular intermittent motion; machine that fabricates wire screening. L. Kasper. diags Mach 52:181-2 My '46
Limit switches; their selection and characteristics. C. S. Kidd. il diags Product Eng 17: 132-7 S '46
Limit switching mechanisms; methods of mechanical actuation; drawings. Product Eng 17:392-3 My '46
New motion-transformer developed for converting rotary into reciprocating motion, or vise versa. il Iron Age 157:64 F 28 '46
Novel reciprocating drive gives harmonic motion. il diags Machine Design 18.133-6 Ap '46
Rotating disk-and-pin mechanism for controlling cutter-head slide of automatic cam-generating device. C. Golosman. diags Mach 52:189-93 Ag '46

MECHANICAL movements—*Continued*
Substitute for crankshaft cuts vibration, side-thrust. diags Bsns W p62 F 2 '46
Torsional oscillating motion with self-synchronized impulse; mechanical resonant scanner for radar. D. B. Nichinson. il diags Product Eng 17:110-12 Ag '46

See also
Feed mechanism
Gearing
Geneva stop
Links and link motion
Machinery, Kinematics of

MECHANICAL rubber goods. See Rubber goods, Mechanical

MECHANICAL stokers. See Stokers, Mechanical

MECHANICAL transients analyzer
Solving complex problems by electrical analogy. G. D. McCann and H. E. Criner. il diags Machine Design 17:137-42 D '45; 18: 129-32+ F '46

MECHANICS
Ball and taper roller bearings. M. S. Frenkel. diags Roy Aeronautical Soc J 50:199-236 Mr '46

See also
Aerodynamics
Aeronautics
Deformations (mechanics)
Dynamics
Elasticity
Factor of safety
Fluids
Friction
Gases
Hydraulics
Hydrodynamics
Hysteresis (mechanics)
Liquids
Load (mechanics)
Machinery
Mechanical engineering
Mechanical movements
Movements of inertia
Physics
Power transmission
Rotation
Springs (mechanism)
Steam engines
Strains and stresses
Thermodynamics
Torsion
Vibration
Viscosity
Wave mechanics

Electric analogies

Analogy among torsional rigidity, rotating fluid inertia and self-inductance for an infinite cylinder; inertia of airplane wing containing fuel; flutter and stability calculations. J. W. Miles. diags J Aeronautical Sci 13:377-80 Jl '46
Dimensionless analysis of servomechanisms by electrical analogy. S. W. Herwald and G. D. McCann. bibliog il diag Elec Eng 65:Trans 636-9 O '46
Electrical analogy methods applied to servomechanism problems. G. D. McCann and others. bibliog il diags Elec Eng 65:Trans 91-6 F '46
Electrical model for the investigation of crankshaft torsional vibrations in in-line engines. H. B. Stewart. il diags S A E J 54:238-44 My '46; Excerpts. Automotive & Aviation Ind 94:35-6 Ja 15 '46
Non-inductive wave analyser circuits of constant Q; vibration problems in engineering. H. G. Yates. diags Engineer 181:515-16 Je 7 '46
Solving complex problems by electrical analogy. G. D. McCann and H. E. Criner. il diags Machine Design 17:137-42 D '45; 18: 129-32+ F '46

Study and teaching

Problems contributed by Professor Ferdinand L. Singer of New York university. C. O. Harris. J Eng Educ 36:597-8 My '46

Textbooks

Century of American textbooks in mechanics and resistance of materials. J. O. Draffin. bibliog J Eng Educ 36:221-37 N '45

MECHANICS (persons)
More mechanics and fewer engineers needed; trade schooling of veterans should supplement professional courses. A. M. Cooper. Barron's 26:13 My 20 '46
Teaching plant men new techniques in the mechanical crafts; training program of Standard Oil (N.J.) il Nat Pet N 38 pt 2: R323-5 My 1 '46

See also
Airplane mechanics
Automobile mechanics
Machinists

MECHANICS, Celestial
Statistical hypotheses in stellar dynamics. H. Jehle. Phys R 70:538-55 O 1 '46

MECHANICS, Statistical. See Statistical mechanics

MECHANICS educational society of America
Slow but sure; M.E.S.A. locals accept 10¢ hourly raises. Bsns W p96-7 Ja 5 '46

MECHANISM, Interchangeable. See Interchangeable mechanism

MEDALS
EEI resuscitation medals honor alertness, skill, teamwork that saved lives. M. B. Woods. il Edison Elec Inst Bul 14:39-46 F '46
E. O. Lawrence receives the Holley medal of A.S.M.E. Mech Eng 68:842-3 S '46
Howard Taylor first recipient of AFA's Simpson gold medal. Iron Age 157:171 Ap 25 '46
Illuminating engineering society awards medal to Crittenden. Ind Stand 17:195 Ag '46
Medal day proceedings of Franklin institute. Franklin Inst J 242:67-80 Jl '46
Top civilian award made to George A. Anthony, naval architect; Medal for merit awarded. Marine Eng 51:94-5 O '46

See also
Chemical industry medal
Herty medal
McCarter medal
Morehead medal
Olney medal
Perkin medal
Schoellkopf medal

MEDALS, Military and naval
Heroical order; medals by the millions for armed forces. Bsns W p42+ Mr 16 '46

MEDICAL advertising

See also
Advertising—Physicians, Appeal to
Drug trade—Advertising
Medicines, Proprietary—Advertising

MEDICAL associations
Doctor's guild; Southern Pacific hospital staff organizes; abstract. Ind Med 14:802+ O '45

MEDICAL buildings

See also
Clinics
Health centers

MEDICAL centers
Industrial medical centre; with particular reference to pre-employment and periodic medical examinations. E. Dwyer. bibliog Ind Med 15:152+ F '46

See also
Health centers

MEDICAL colleges

See also
New York university—College of medicine

Curriculum

Orientation of an undergraduate medical curriculum. D. W. Atchley. Science 104:67-70 Jl 26 '46
Teaching industrial hygiene in the Department of public health and preventive medicine. D. O'Hara. Ind Med 14:993-4 D '45

MEDICAL education
Biology in the premedical curriculum. V. Hamburger. Science 102:511-13 N 16 '45; Reply. A. C. Giese. 103:543 Ap 26 '46
Chemistry in the premedical curriculum; the viewpoint of the medical college. D. Calvin and B. M. Hendrix. J Chem Educ 23: 326-30 Jl '46
Chemistry in the premedical curriculum; viewpoint of the college of liberal arts. W. T. Caldwell and W. Rogers, jr. J Chem Educ 23:334-6 Jl '46
Cultural values of the sciences in the premedical program. W. B. Meldrum and W. E. Cadbury, jr. J Chem Educ 23:338-40 Jl '46
Objectives of premedical education; viewpoint of the liberal arts college. W. B. Keighton. J Chem Educ 23:322-5 Jl '46
Scientific and humanistic objectives of premedical education; viewpoint of the medical college. H. E. Setterfield. J Chem Educ 23:330-3 Jl '46

MEDICAL education—*Continued*
Scientific values of the humanities in the premedical program. D. Stetten, jr. J Chem Educ 23:336-7 Jl '46
Tropical disease education program of the United States public health service. W. S. Boyd and others. Pub Health Rep 61:707-11 My 17 '46

See also
Hygiene, Industrial—Study and teaching
Medical colleges
Pharmaceutical education
Public health—Study and teaching

MEDICAL ethics
Professional discipline. Economist 151:284-6 Ag 24 '46

MEDICAL examinations. See Physical examinations

MEDICAL expense insurance. See Insurance, Medical expense

MEDICAL geography
Geographic differences in sensitivity to histoplasmin among student nurses. C. E. Palmer. maps Pub Health Rep 61:475-87 Ap 5 '46
Geopathology, a branch of biometeorology. F. Sargent, 2d. Science 103:316-17 Mr 8 '46
Tropical diseases and geopathology. F. R. Dieuaide. Science 102:656-8 D 28 '45

MEDICAL instruments and apparatus
Improved remedies and devices are developed. il Dom Comm 34:21-3 Ag '46
Method for continuous parenteral administration of penicillin and other drugs. B. G. Noble. diag Science 103:759 Je 28 '46
Summary report on the production of German medical, surgical and sundry rubber goods. Rubber Age 58:338-42+ D '45
Technology and medicine. K. S. Lion. Tech R 48:232-4+ F '46

MEDICAL laboratories
Hospital laboratories; floor plans. Arch Rec 99:76 Je '46

See also
Pharmaceutical laboratories
Public health laboratories

MEDICAL libraries
Education of medical librarians. E. Brodman. Special Lib 37:68-71 Mr '46
Highly organized medical library; containing over a million papers and abstracts classified into tabbed packets; Pickett-Thomson research laboratory. D. Thomson. J Doc 2: 57-9 S '46
Report of the activities of the biological sciences group of the Southern California chapter. E. Moyers and E. Adams. Special Lib 37:83-5 Mr '46

See also
American hospital association—Library

Bibliography

Bibliography on standards; medical, hospital and nursing libraries and librarians, 1925-1945. A. M. Purington. Special Lib 37:72-8 Mr '46

MEDICAL library association
Officers. Science 103:691 Je 7 '46

MEDICAL memorial fund
New foundation. Science 103:624 My 17 '46

MEDICAL physics. See Physics, Medical

MEDICAL records

See also
Medical service, Industrial—Records

MEDICAL research
Contributions of medical research in chemical warfare to medicine. O. Bodansky. Science 102:517-21 N 23 '45
Fellowships in the medical sciences of the National research council. Science 102:525 N 23 '45
Impact of the war on medicine. A. N. Richards. Science 103:575-8 My 10 '46
Medical research mission to the Soviet Union. A. B. Hastings and M. B. Shimkin. bibliog Science 103:605-8, 637-44 My 17-24 '46
Medicine and medical research in Belgium. J. La Barre and P. Bastenie. Ann Am Acad 247:98-102 S '46
N.R.C. establishes Medical research division. Can Chem & Process Ind 30:96 Jl '46
New foundation, the Medical memorial fund. Science 103:624 My 17 '46
Oil companies announce plans to aid medical research work; Sun oil co. and Houdry process corp. to produce Carbon 13. Oil & Gas J 44:46 Ja 5 '46; Nat Pet N 38:6 Ja 2 '46
Recent work in medical science reported at Canadian physiological society annual conference; abstracts of papers. Can Chem & Process Ind 29:787-90+ N '45
Technology and medicine. K. S. Lion. Tech R 48:232-4+ F '46

See also
Insurance, Life—Medical research
Nutrition research
Paludrine
Pharmaceutical research

also Fels research institute of Temple university school of medicine; Sterling-Winthrop research institute

MEDICAL research, National society for. See National society for medical research

MEDICAL service
Appraisal of national health insurance program. W. A. Milliman. East Underw 47:37 Ap 26; 6 My 3 '46
Chamber of commerce opposes Truman's health plan. East Underw 46:30 N 30 '45
Doctors and the health service. Economist 150:324-6 Mr 2 '46
Federal assistance not enough. C. I. Pepper. Nat Underw 50:40 S 12 '46
Medical care improvement discussed at NYU dinner. Oil Paint & Drug Rep 149:3+ Ja 28 '46
Medical care in the U.S.S.R. Int Labour R 53:269-71 Mr-Ap '46
Medical care problem not extensive. E. P. Schmidt. Nat Underw 50:15 Ja 24 '46; Same. Nat Underw (Life ed) 50:3 Ja 25 '46
Medical services by government, local, state, and federal. B. J. Stern. 208p $1.50 Commonwealth fund, 41 E. 57th st, New York '46
New health service. Economist 150:449 Mr 23 '46
New strategy employed in health cover bill; revenue provisions left out so new committees get measure. Nat Underw 49:19+ N 29 '45; Same. Nat Underw (Life ed) 49:1+ N 30 '45
1944-1945 programs for postwar social security and medical care. E. E. Witte. R Econ Stat 27:171-88 N '45
President Truman's message on federal health insurance. Comm & Fin Chr 162:2497+ N 22 '45
Recommendations for medical care service in Australia. Int Labour R 53:266-9 Mr-Ap '46
Social security board for compulsory sickness cover. Nat Underw (Life ed) 50:4 Jl 19 '46; Same abr. Nat Underw 50:22 Jl 18 '46
Truman health program; little fear of immediate enactment. Nat Underw 49:17+ N 22 '45; Same abr. Nat Underw (Life ed) 49:1 N 23 '45
Truman proposes five-point health plan to Congress; program features prepayment of medical costs through compulsory health insurance. East Underw 46:1+ N 23 '45; Same cond. Weekly Underw 153:1189+ N 24 '45

See also
Clinics
Hospitals
Insurance, Health
United States—Public health service

Group and prepayment plans

A.M.A. medical plan agency incorporated. Nat Underw 50:20 Ap 18 '46; Same. Nat Underw (Life ed) 50:3 Ap 19 '46
A.M.A. to bracket prepaid medical care groups; plan to standardize, integrate, promote. M. Fishbein. Nat Underw 50:19+ F 21 '46; Same. Nat Underw (Life ed) 50:1+ F 22 '46
Analyzes aims of medical insurance; competition between non-profit plans and insurance is healthful and should be friendly; abstract. L. H. Pink. East Underw 47:32, 35 Je 7 '46

MEDICAL service—Group and prepayment plans—*Continued*
California medics to sponsor state-wide promotion drive; to sell California physicians' service, and to push health insurance plans. Sales Management 55:186+ N 15 '45
Clinics prosper; future of group medicine. Bsns W p38+ N 24 '45
Committees set up to aid medical care cooperation between American medical assn. and representatives of insurance groups. Nat Underw 50:60 S 26 '46; Same. Nat Underw (Life ed) 50:8+ S 27 '46
Co-op medical care plans unite under corporation; Cooperative health federation of America. Nat Underw 50:19 Ag 29 '46; Same. Nat Underw (Life ed) 50:14 Ag 30 '46
Employees' M and H program; Consolidated natural gas company. N. D. Bradley. Am Gas Assn Mo 28:311+ Jl-Ag '46
Health rivalry; insurance plan of Wisconsin medical society. Bsns W p42 D 15 '45
Health service; group medical programs. Bsns W p107-8 N 24 '45
Insuring health; A.M.A. establishes standards for voluntary benefit plans. Bsns W p20 Mr 9 '46
Medical care plan not expected to hinder sales; Health insurance plan of greater New York. Nat Underw 50:24 Ag 8 '46; Same. Nat Underw (Life ed) 50:2 Ag 9 '46
Name insurance conferees in American medical association program. Nat Underw 50:35 O 10 '46; Same. Nat Underw (Life ed) 50:6 O 11 '46
Officers elected for Associated medical care plans, inc. Nat Underw (Life ed) 50:8 N 1 '46
Prepaid medical care insurance plans in spotlight at H. & A. meeting. H. R. Gordon and others. East Underw 47:27+ My 31 '46
Pre-payment as a private enterprise. J. J. Wittmer. Ind Med 15:497-9 Ag '46
Seek greater publicity for Wisconsin plan. Nat Underw 50:20 S 5 '46
State doctors win; proposal to absorb Surgical care of Milwaukee county into Wisconsin physicians service. Nat Underw 50:20 O 17 '46; Same. Nat Underw (Life ed) 50:13 O 18 '46
What is the attitude of management on prepaid health insurance? G. O. Bahrs. Ind Med 15:522-3 S '46

Socialization

Bill of health. Economist 150:483-4 Mr 30 '46
Free medical care. C. A. Peters, comp. Ref Shelf v 19, no 3:1-378 bibliog(353-78) '46 ($1.25)
Government should improve services before entering fields of national compulsion; abstracts. L. H. Pink. East Underw 47:32-3 F 8 '46; Weekly Underw 154:343 F 2 '46
Health bill. Economist 151:163-4 Ag 3 '46
Health debate. Economist 150:701-2 My 4 '46
Saskatchewan plans for extensive health insurance coverage. F. Jordan. East Underw 47:34 Ja 11 '46

MEDICAL service, Industrial
Army industrial medical program at a port of embarkation. J. S. Felton. il plans diag Ind Med 14:854+ N '45
Bethlehem Steel program promotes employees' safety and health. L. A. Shoudy. il Steel 118:80-3 F 18 '46
Case for cooperation among plant physician, nurse, safety engineer. C. Harris. il Safety Eng 91:66-9+ My '46
Consultant in relation to the plant physician. C. Leggo. Ind Med 14:834-5 N '45
Cooperative plan for the development of a small plant health and industrial hygiene program in New York city; with cost data. N. Millman and others. Ind Med 15:371-5; Discussion. 375-6 Je '46
Doctor in industry; General Motors dramatizes industrial medicine through the life story of an industrial physician. il Ind Med 15.264-7 Ap '46
Doctor interprets industrial medicine; a radio interview with M. N. Newquist, M.D., by M. Cross. Nat Safety N 52:24+ N '45
Effects of reconversion; abstract. C. O. Sappington. Ind Med 15:507-8 Ag '46
Emotional first aid stations in industry. L. H. Whitney; J. C. Kindred. Ind Med 15:336-9 My '46
Establishing a modern plant medical program. R. B. O'Connor. Ind Med 15:608+ O '46
Factory design; first aid and health. il Arch Rec 98:129 N '45
Future of medicine in industry. H. Bartle. Ind Med 14:794-6 O '45
Health facilities in New Jersey plants. W. G. Hazard. Ind Med 15:15-22 Ja '46
Health program; Thilmany pulp & paper company. H. H. Leedke. il plan Paper Ind 28:651-6 Ag '46
How I got into industrial practice and what I think of it; six doctors tell of their careers. Ind Med 15:44+ Ja '46
How the employer may evaluate his medical service. F. M. R. Bulmer and G. R. McCall. Ind Med 14:787-9 O '45; Same cond. Management R 35:49-51 F '46; Same cond. Safety Eng 91:75-7 Ap '46
Industrial health department functions and relationships; abstract. C. O. Sappington. Ind Med 15:464 Jl '46
Industrial health in small plants. G. S. Everts. Ind Med 14:958-60 D '45
Industrial medical service for the smaller plants. il Ind Med 15:192-4 Mr '46
Industrial medical services; Middletown air technical service command. L. E. Terry. Ind Med 14:967-9 D '45
Industrial medicine and surgery; abstracts of papers and presentations of Central states society meeting, Dec. 7, 1945. C. O. Sappington. Ind Med 15:256-9 Ap '46
Industrial medicine in the Philippine Islands. J. S. Felton. Ind Med 15:129+ F '46
Industrial relations values. C. Leggo. Ind Med 15.330-2 My '46
Industry and medicine; what each expects of the other. H. Strong. Ind Med 15:194-6 Mr '46
Medical facilities, a foundry asset. J. M. Price. il Foundry 74:80-1+ Ag '46
Medical practice at Climax. J. Ruddy. il Min & Met 27:359-60 Je '46
Medical service. il Nat Safety N 53:177 Mr '46
Medical service plan suitable for chemical industry. W. von Pechmann. Ind & Eng Chem 38:sup87-8 Mr '46
Occupational medicine; abstract. M. N. Newquist. Ind Med 15:479 Ag '46
Operations and plants of International nickel company of Canada; medical care. il plan Can Min J 67:512-14 My '46
Physical inventories; pre-employment and periodic medical examinations. P. W. Rush. il Nat Safety N 53:24-5+ Je '46
Psychosomatic consultations in industry. E. A. Irvin. Ind Med 15:1-5 Ja '46
Relationships between the industrial physician and the community practitioner. C. Leggo. Ind Med 15:187-8 Mr '46
Report of New Jersey Bureau of industrial health. W. G. Hazard. Ind Med 15:172-4 F '46
Some thoughts after thirty years in industry. J. C. Bridge. Ind Med 15:289+ Ap '46
Symposium on Medical science and industry, St Louis. Science 103:519 Ap 26 '46
That ounce of prevention, and how the medical department provides it. H. G. Ross. il Nat Safety N 53:30-1+ Ap '46
Three cornered cooperation; safety, medical and personnel divisions. J. S. Felton. Nat Safety N 53:26-7+ F '46
Tighter defense against occupational disease; supply and maintenance centers operated under the ATSC. il Factory Management 103:124-6 N '45
Today's health program; Permanente plan. C. Kuh. bibliog Safety Eng 90:71-2+ N '45
Tuberculosis in industry from the viewpoint of the physician in industry; abstract. M. Pollak. Nat Safety N 54:44 Ag '46
Up-to-date factory's medical center; Lockheed hydraulic brake co, Leamington Spa, England. C. M. Townsend. Ind Med 15: 230+ Mr '46
Use of radioactive tracers in industrial medicine. S. T. Cantril. Ind Med 15:37-8 Ja '46
Value of plant inspections when made by the plant physician with the safety director. H. Dierker. Ind Med 15:579-81 O '46
Value of the laboratory in industrial medicine; abstract. L. W. Spolyar. Ind Med 14: sup34+ N '45

MEDICAL service, Industrial—*Continued*
War's impact and influence on industrial medicine. C. D. Selby and E. F. Lutz. Ind Med 14:923-4+ N '45
Worker and his job; symposium at annual meeting of Western association of industrial physicians and surgeons, San Francisco, June 30, 1946. Ind Med 15:515-27 S '46

See also
Dental service, Industrial
Diseases, Industrial
Eye—Examination
First aid in illness and injury
Hospitals, Industrial
Hygiene, Industrial
Nurses and nursing, Industrial
Physical examinations
Psychiatry, Industrial
Ramazzini, Bernardini
Ramazzini society

Records

Health records in small plants. N. Millman and V. Donnelly. diag Ind Med 15:491-7 Ag '46

Study and teaching

Long Island College of medicine course. Ind Med 14:974-5 D '45
Occupational medicine at Yale. Ind Med 15: 505+ Ag '46

MEDICAL supplies
Medical supplies still short in Holland. For Comm W 21:25 N 24 '45

MEDICINE
Impact of nucleonics on medicine. R. S. Stone. Chem & Eng N 24:482-3+ F 25 '46

See also
Anesthetics, Local
Antiseptics
Bacteriology
Chemistry, Medical and pharmaceutical
Chemotherapy
Diseases
Drugs
Electrotherapeutics
First aid in illness and injury
Hospitals
Hygiene, Industrial
Infectious diseases
Medical service
Medical service, Industrial
Nurses and nursing
Pharmacology
Physical therapy
Physicians
Poisons
Public health
Shock

Bibliography

Quarterly cumulative index medicus. v. 37, January-June 1945. 919p; v 38, July-December, 1945. 846p Am. medical assn, 535 N. Dearborn st, Chicago '45 ($12)
Scientific, medical, and technical books, published in the United States of America, 1930-1944; a selected list of titles in print with annotations. R. R. Hawkins, ed. 1114p $20 R. R. Bowker co, 62 W. 45th st, New York 19 '46

History

Postscript, the apothecary's art. il Fortune 34:129 Jl '46

Study and teaching

See also
Medical colleges
Medical education

Belgium

Medicine and medical research. J. La Barre and P. Bastenie. Ann Am Acad 247:98-102 S '46

Poland

Status of equipment for medical teaching and research in Poland. S. Konopka. Science 103:531 Ap 26 '46

Russia

Medical research mission to the Soviet Union. A. B. Hastings and M. B. Shimkin. bibliog Science 103:605-8, 637-44 My 17-24 '46

MEDICINE, Military
Acquisitions récentes dans le traitement des brûlés. F. Lagrot. Génie Civil 123:24-5 Ja 15 '46

See also
United States—Army—Medical and sanitary affairs

MEDICINE, Primitive
Primitive medicine; curative practices of isolated civilizations. M. F. A. Montagu. il Tech R 48:27-30+ N '45

MEDICINE, Veterinary. See Veterinary medicine

MEDICINES, Proprietary

See also
Proprietary association of America

Advertising

Proprietary Association hits medical ad copy, urges self-regulation with media help. Ptr Ink 215:125+ My 17 '46
Ringing message of Dr Bell; nomination for advertising's Hall of fame. J. C. Knollin. il Ptr Ink 213:30+ N 30 '45

MEDIEVAL ages. See Middle ages

MEDINA, Ohio
Prospecting for more bank business; bank-use survey covering Medina. Banking 39: 33-5+ O '46

MEEHANITE
Meehanite used for babbitted bearing shells. il Iron Age 157:48 My 23 '46
Role of casting in engineering production. C. R. Austin. Mach 53:203-7 N '46
Test bar data v. casting properties. C. R. Austin. Iron Age 158:70-3 S 26 '46

MEGGERS. See Ohmmeters

MEHARG, Virgil E.
John Wesley Hyatt award. por Mod Plastics 23:113 My '46

MEIGHAN, Howard Sidney, 1908-
CBS director of station administration. R. T. Colwell. por Adv & Sell 39:116+ F '46

MEINESZ, Felix Andries Vening, 1887-
Presentation of Penrose medal. por(pl 2) Geol Soc Proc 1945:121-7 Je '46

MELAMINE
American Cyanamid looks to the future by promoting chemical research; booklet on melamine. H. Peck. il Ind Marketing 30:78+ O '45
Melamine. H. F. Payne. bibliog il Paint Oil & Chem R 109:9-10+ Mr 21 '46
Melamine; abstract. R. W. Sudhoff. Chem & Met Eng 53:204 Mr '46

MELAMINE resins
All-wool suits to offer coolness in hot weather; Monsanto's Resloom. D. Powers. Rayon 27: 198 Ap '46
Color in shock-resistant materials. il Mod Plastics 23:128-9 F '46
Dye staining technique for studying shrinkage control imparted to cotton by melamine resins. J. K. Dixon and others. bibliog Am Dyestuff Rep 35:215-17+ My 6 '46
Experiment in restaurant tableware. P. Fuller. il diags Mod Plastics 24:100-3 S '46
Fear of cyanide gas; demonstration by F. D. Snell quashes theory that heated melamine gives off cyanide in dangerous quantities. Mod Plastics 23:103 Mr '46
Melamine-bonded fiberglas laminates; abstract. G. A. Albert. Materials & Methods 23:496 F '46
Melamine glass-cloth laminates properties and machinability. P. C. Fuller. il Product Eng 17:142-5 F '46
Melamine industrial molding materials; abstract. P. C. Fuller and W. A. Ward. Materials & Methods 23:210 Ja '46
Melamine molding compounds. P. W. Fuller. il Product Eng 17:309-10 Ap '46
Wearing quality of experimental currency-type papers. F. T. Carson and M. B. Shaw. pl diags J Res Nat Bur Stand 36:249-68 Mr '46

Analysis

Chemicals imparting wet strength; analysis of dilute melamine resin solution. B. Ivarsson and B. Steenberg. bibliog diag Chem Age (Lond) 54:391-6 Ap 13 '46

MELANINE
Melanin formation. G. R. Clemo and J. Weiss. Chem Soc J p702-5 O '45

MELLON, T., and sons
Dynasties unify; trend in managing hereditary fortunes. Bsns W p21 Je 15 '46

MELLON securities corporation
Merger of Mellon securities corp. into First Boston corp. voted by directors. Comm & Fin Chr 163:3481+ Je 27 '46

MELTING points
Analysis of binary mixtures of normal aliphatic dibasic acids and esters; use of composition; melting point relations of the acids. D. F. Houston and W. A. Van Sandt. bibliog Ind & Eng Chem Anal ed 18:538-40 S '46

Melting points of metals and alloys. H. R. Morrison. Welding J 25:545-6 Je '46

Melting points of *N*-substituted polyamides. B. S. Biggs, C. J. Frosch and R. H. Erickson. bibliog Ind & Eng Chem 38:1016-19 O '46

Solubility and melting point as functions of particle size. L. Harbury. bibliog J Phys Chem 50:190-9 My '46

See also
Freezing points

MELVILLE shoe corporation
Selected companies, with an open road to higher earnings and dividends. Mag of Wall St 77:759, 801+ Mr 30 '46

MEMBRANES
Determination of the activities of several coexisting ions by the Gibbs-Donnan equilibrium without the use of specific electrodes. K. Sollner. bibliog Am Chem Soc J 68:156 Ja '46

Improved methods of preparation of electropositive permselective protamine collodion membranes. H. P. Gregor and K. Sollner. bibliog J Phys Chem 50:88-96 Mr '46

Improved methods of preparation of permselective collodion membranes combining extreme ionic selectivity with high permeability. H. P. Gregor and K. Sollner. bibliog diag J Phys Chem 50:53-70 Ja '46

MENASCO manufacturing company
Menasco switches main effort to gas turbine, jet development; other products. Aviation N 6:20+ Jl 29 '46

MENDELS, Morton M.
Named Secretary of world bank. Comm & Fin Chr 164:1035 Ag 22 '46

MENDES-FRANCE, Pierre, 1907-
France's executive director of the fund and bank. por Comm & Fin Chr 163:3067 Je 6 '46

MENGEL company
Making a name. il Bsns W p65-6 Je 1 '46

Mengel promotes own brand to cut risks of private label business. il Sales Management 56:56+ Je 1 '46

MENINGITIS
Cerebrospinal meningitis; a chronological record of reported cases and deaths. M. Gover and G. Jackson. bibliog Pub Health Rep 61:433-50 Mr 29 '46

MENNONITES
Amish aloof; Mennonites may ballot on unionization at Wilson bros. plants. Bsns W p90+ Je 29 '46

MEN'S stores
Carey's, Grand Central, a store built on brand acceptance. J. A. Murphy. Adv & Sell 38: 97 D '45

Retail operating ratios; new figures for men's furnishings. R. L. Tebeau. il Dun's R 54:15-17+ Ag '46

See also
Tailor shops

MEN'S suiting fabrics
Men's suits. il Consumers Res Bul 16:15-17 N '45; Correction. 17:14 F '46

MEN'S suits
All-wool suits to offer coolness in hot weather; Monsanto's Resloom. D. Powers. Rayon 27: 198 Ap '46

Trade show demonstrates display; Men's fashion guild. il Ptr Ink 214:40 F 15 '46

Rating

Men's suits. il Consumers Res Bul 16:15-17 N '45; Correction. 17:14 F '46

MENSTRUATION
Edrisal in the treatment of dysmenorrhea. H. J. Hindes. bibliog Ind Med 15:262-3 Ap '46

MENSURATION
See also
Surveying

MENTAL diseases
New psychiatric approach. F. Kennedy. Nat Underw (Life ed) 50:5 S 20 '46

See also
Hospitals, Psychiatric

MENTAL hospitals. See Hospitals, Psychiatric

MENTAL hygiene
Study and teaching

Conclusions concerning psychiatric training and clinics; meeting of consultants in mental hygiene, United States public health service, September 6, 1945. Pub Health Rep 61:943-57 Je 28 '46

MENTAL hygiene, Industrial
Comprehensive mental hygiene program at Caterpillar tractor co. H. A. Vonachen and others. bibliog Ind Med 15:179-84 Mr '46

Employment examination for psychiatric casualties. F. W. Dershimer. Ind Med 14:996+ D '45

Industrial mental hygiene program for federal employees. J. W. Cronin and others. Pub Health Rep 60:1323-36 N 9 '45

Neuropsychiatric aspects of industrial accidents. J. L. Fetterman. bibliog Ind Med 15:96-100 F '46

Organization of a mental hygiene unit in industry. K. Brodman. bibliog Ind Med 15: 259-62 Ap '46

Psychologically hazardous occupations. D. E. Cameron. Ind Med 15:332-5 My '46

Psychosomatic consultations in industry. E. A. Irvin. Ind Med 15:1-5 Ja '46

Rates of absenteeism and turnover in personnel in relation to employees' work attitudes. K. Brodman. Ind Med 14:953-7 D '45

MENTAL hygiene, Military
See also
Psychiatry, Military

MENTHOL
Analysis

Determination of menthol in peppermint oil; acetic anhydride and pyridine as reagent. J. S. Jones and S. C. Fang. bibliog Ind & Eng Chem Anal ed 18:130-1 F '46

MEPACRINE. See Atebrin

MERCANTILE buildings. See Commercial buildings; Store buildings

MERCANTILE clearing house (proposed). See Clearing house, Mercantile (proposed)

MERCAPTALS
Hydrogenolysis of steroid thioacetals with modified Raney nickel catalyst. S. Bernstein and L. Dorfman. Am Chem Soc J 68: 1152-3 Jl '46

MERCAPTANS
Mechanism of modifier action in the GR-S polymerization. H. R. Snyder and others. bibliog Am Chem Soc J 68:1422-31 Ag '46

Preparation of mercaptans from alcohols. R. L. Frank and P. V. Smith. Am Chem Soc J 68:2103-4 O '46

Regeneration of caustic solutions for gasoline treating by catalytic air oxidation. D. C. Bond. flow diag il Oil & Gas J 44:83-4+ D 8 '45

Regulator theory in emulsion polymerization; chain transfer of low molecular weight mercaptans in emulsion and oil-phase. W. V. Smith. bibliog Am Chem Soc J 68: 2059-64 O '46

Regulator theory in emulsion polymerization; control of reaction rate by diffusion for high molecular weight mercaptans. W. V. Smith. Am Chem Soc J 68:2064-9 O '46

Studies in the quinoline series; quinolyl mercaptans and sulfides. A. G. Renfrew. bibliog Am Chem Soc J 68:1433-6 Ag '46

Use of tannins in mercaptan removal; abstract. J. Happel and S. P. Cauley. Chem Eng 53:242+ S '46

Analysis

Amperometric titration of mercaptans with silver nitrate using the rotating platinum electrode. I. M. Kolthoff and W. E. Harris. bibliog diags Ind & Eng Chem Anal ed 18: 161-2 Mr '46

Copper alkyl phthalates for the estimation of mercaptans. E. Turk and E. E. Reid. bibliog Ind & Eng Chem Anal ed 17:713-14 N '45

MERCAPTANS—Analysis—*Continued*
Determination of alkyl disulfides in the absence and presence of mercaptans. I. M. Kolthoff and others. bibliog diag Ind & Eng Chem Anal ed 18:442-4 Jl '46
Molecular weight and mercaptan content of mixtures of primary mercaptans; gravimetric determination. H. A. Laitinen, A. S. O'Brien and J. S. Nelson. Ind & Eng Chem Anal ed 18:471-2 Ag '46

MERCAPTOACETIC acid
Reaction between thio compounds and lignin. F. E. Brauns and M. A. Buchanan. bibliog Paper Tr J 122:49-52 My 23 '46; Same cond. Paper Ind 28:424+ Je '46
Thioglycolic acid rides the waves. A. Addleston. bibliog il Chem Ind 58:414-15+ Mr '46

MERCAPTOBENZOTHIAZOLE
Action of chlorine on 2-mercaptobenzothiazole in aqueous acetic acid. S. P. Findlay and G. Dougherty. Am Chem Soc J 68:1666 Ag '46

MERCAPTO compounds
Effect of some sulfhydryl-containing substances on the toxicity of an organic mercurial compound. W. K. Long and A. Farah. bibliog Science 104:220-1 S 6 '46
Systolic effect by sulfhydryl reagents. R. Mendez. Science 104:5-6 Jl 5 '46

MERCAPTOPYRIDINE
2-Mercaptopyridine. J. R. Thirtle. bibliog Am Chem Soc J 68:342 F '46

MERCERIZING
Applications of the barium number determination. S. M. Edelstein. bibliog Rayon 27:260-2 My '46
Some aspects of color. R. W. Jacoby. Am Dyestuff Rep 35:56-8 Ja 28 '46; Abstract. Textile World 95:139 D '45
Yarn finishing aided by photography. C. M. Bowden. il Textile World 96:137+ Mr '46

MERCHANDIZING
Advantages and disadvantages of special deals; advice on use of word free. il Ptr Ink 215:27-9 Ap 12 '46
American merchandising methods for Australia. F. Goldberg. Ptr Ink 216:43 Ag 9 '46
Better product, but it looks like cheaper rivals; what to do? Libbey Glass heat-treated tumbler. K. C. White. il Sales Management 56:60+ Mr 1 '46
Boost for video; television demonstration in Philadelphia store reveals selling power. Bsns W p84 D 8 '45
Combination offers. il Ptr Ink 215:42-3 My 3 '46
Guarantees; they can be simple or elaborate. il Ptr Ink 215:43-6 My 10 '46
High spots in Philco's merchandising. J. H. Carmine. il Ptr Ink 213:21-3+ D 28 '45
Ideal pattern of merchandising cooperation; checklist. R. F. Chisholm. Ptr Ink 215:67-8+ My 17 '46
Is this your first try at merchandising? here are some basic ideas. il Dom Eng 167:100-1+ Mr '46
Marketing pattern. Bsns W p80 F 23 '46
Mengel promotes own brand to cut risks of private label business. il Sales Management 56:56+ Je 1 '46
Merchandise planning and control. L. C. Hobert. N A C A Bul 27:1109-19 Jl 15 '46
Package as a sales hypo; entertainment or utility value sometimes added. il Ptr Ink 215:56+ My 17 '46
Possible mercantile clearing-house plan; simplification in billing and payment procedure. M. K. Gunz. J Retailing 21:113-16 O '45
Research reveals merchandising is keystone of profits for jobbers. P. P. Gott. il Sales Management 56:107-8+ Ap 15 '46
This time it's his own money agency executive spends; step-by-step merchandising procedure for his own invention; LumiNite automatic switch light. T. L. Wheeler, jr. il Ptr Ink 215:38-9 My 31 '46
You never hear a huckster yell, rotten apples! C. G. O'Neill. Ptr Ink 213:192 D 14 '45

See also
Advertising
Buying habits
Chain stores
Department stores—Management
Display of merchandize
Electric apparatus and appliances—Merchandizing
Exhibits
Fashion
Five- and ten-cent stores
Gas industry—Merchandizing
Gasoline service stations—Side line selling
Mail order business
Marketing
Models (in merchandizing)
Package goods
Premiums (merchandizing)
Price policies
Purchasing
Rental plans (merchandizing)
Retail trade
Sales management
Sales promotion
Samples (merchandizing)
Self service
Showrooms
Special sales
Voluntary chain systems
Warehousing
Welcome wagon service company

Definition
By way of definition. Aesop Glim. Ptr Ink 217:107+ N 8 '46
These are the five definitions: advertising, sales promotion, merchandising, marketing and distribution. Adv & Sell 39:52+ Ap '46

MERCHANT marine
Postwar merchant fleets of the maritime nations. Marine Eng 51:101 F '46
Postwar shipping; world tonnage available and emerging policies. K. E. Carlson and G. Lytzen. il For Comm W 22:3-7+ F 23; 12-13+ Mr 2 '46
World trade is theme of merchant marine conference. Marine Eng 51:79-80 O '46

See also
Harbors
Insurance, Marine
National marine exposition
Seamen
Shipping
Steamboat lines

Argentina
Argentina invites bids for building five modern ships. For Comm W 23:19 Je 1 '46

Norway
Norway's merchant marine. O. E. Heskin. il For Comm W 22:9-11 F 2 '46

Portugal
Portuguese merchant marine reorganized. For Comm W 24:44 Jl 27 '46

Turkey
Turkey ambitious to build up merchant marine. For Comm W 24:18 S 21 '46

United States
American passenger ship fleet. Marine Eng 50:132-5 N '45
American shipping establishes new record in 1945. F. J. Taylor. Marine Eng 51:144 Ja '46
America's great merchant marine and paint. E. S. Land. Paint Oil & Chem R 108:15 N 1 '45
Characteristics of ships offered for sale under Ship sales act of 1946; tabulation. Weekly Underw 155:746 S 28 '46
Competition at sea; effects of wage increases. Economist 151:417-18 S 14 '46
Crews needed; sailings delayed by shortages of officers, seamen. Bsns W p98+ Ja 5 '46
Don't sell our merchant marine short! R. S. Neblett. Marine Eng 51:117 Mr '46
Foreign trade route and vessel requirements. Marine Eng 50:132-5 D '45
Future shipping policies discussed at American merchant marine conference. Marine Eng 50:194+ N '45
Greater effectiveness keynote of new U.S. merchant fleet. P. A. Johnston. Barron's 25: 11+ D 31 '45
Health program for the merchant marine. F. Powdermaker and D. Blain. Ind Med 15: 316-19 My '46
Marine transportation. E. S. Land. Marine Eng 51:84-6 Je '46
Merchant ship sales act of 1946. Marine Eng 51:96-100 Ap '46
Modern ships of the American merchant marine. F. V. Smith. il diags Gen Elec R 48:34-42 D '45
Number of steel merchant vessels over 2000 gross tons constructed by shipyards of the United States during the war years 1939-1945, up to January 1, 1946; tabulation. Marine Eng 51:150-1 F '46 [cont monthly]
Our merchant marine tomorrow. R. M. Hyatt. Pub Util 38:544-8 O 24 '46

MERCHANT marine—United States—*Cont.*
Procedure under Merchant ship sales act. Weekly Underw 155:432 Ag 24 '46
Public relations committee appointed for shipowners. Marine Eng 51:140 F '46
Reemployment rights of merchant seamen; Public law 87. W. G. Torpey. Personnel J 25:90-3 S '46
Reviews construction plans. J. L. Luckenbach. Weekly Underw 155:943+ O 19 '46
Rules coast trade ships, sold to foreigners, lose their status. Weekly Underw 153:1080-1 N 10 '45
Shipbuilders see new job ahead to replace slow, wartime emergency merchant fleet. Barron's 25:1 N 19 '45
Shipyards build 1041 merchant ships of 10,304,644 tons in 1945; with tabulated data of ships building or under contract Jan. 1, 1946. Marine Eng 51:104-13 Ja '46
Status of merchant marine. H. L. Vickery. Marine Eng 51:111-12 Mr '46
Street grows ship-conscious. Bsns W p31-2+ My 25 '46
Surplus tonnage; Congress' Ship sales act. Bsns W p19-20 F 23 '46
Wartime transportation record of the American merchant marine. Marine Eng 51:143 F '46
What prospects for an American merchant marine. W. Gates. il Mag of Wall St 78:567-9+ Ag 17 '46

MERCHANT marine act, 1936
Air transportation by surface carriers; proposed amendment to Merchant marine act. J. A. Eubank. Marine Eng 51:119-20 Jl '46
Federal bill amends Merchant marine act respecting air transportation. Weekly Underw 154:816-17 Mr 30 '46

MERCHANT ship sales act of 1946. See Merchant marine—United States

MERCHANTS
Real pioneer; merchant prince of Chicago now 100. Bsns W p43-4+ Jl 6 '46

MERCHANTS and miners transportation company
Hints at liquidation. Barron's 26:7 Ag 5 '46

MERCK and company
New drug, streptomycin, may boost Merck's profits. Barron's 26:7 Ag 12 '46
Newcomers of the Stock Exchange. W. A. Howell. Mag of Wall St 78:760 S 28 '46
Stock offered. Comm & Fin Chr 163:1287 Mr 11 '46

MERCURATION
Determination of geometric isomer composition by methoxymercuration; oleic and elaidic esters. T. Connor and G. F. Wright. bibliog Am Chem Soc J 68.256-8 F '46
Monomercuration of aromatic hydrocarbons; paracymene. T. F. Doumani and K. A. Kobe. bibliog il Ind & Eng Chem 38:248-50 Mr '46
Monomercuration of aromatic hydrocarbons; toluene. A. J. Barduhn and K. A. Kobe. bibliog diag Ind & Eng Chem 38:247-8 Mr '46
Theoretical discussion of further substitution in disubstituted naphthalenes; heteronuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. Soc Dyers & Col J 62:241-2 Ag '46
Theoretical discussion of further substitution in homonuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. bibliog Soc Dyers & Col J 61:283-5 N '45

MERCURY
Conserving and reclaiming mercury. A. G. Arend. diags Chem Age (Lond) 53:513-15 D 1 '45
Controlled clutching licks high breakaway torques; utilization of centrifugal force with mercury as hydraulic medium. H. J. Zimmermann. il diags Machine Design 18:137-41 Jl '46
Dear quicksilver. Economist 151:271 Ag 17 '46
Effect of reaction between mercury and oxygen upon polarographic waves of certain metals at small concentrations. E. R. Smith and others. bibliog J Res Nat Bur Stand 37:151-5 S '46
Magnetically-controlled gas discharge tubes. R. E. B. Makinson and others. bibliog diags J Ap Phys 17:567-72 Jl '46
Mercury-balance pressure regulator. A. J. Bailey. bibliog diags Ind & Eng Chem Anal ed 15:283-4 Ap 15 '43; Same. Pet Refiner 25:127-8 Mr '46
Mercury cleaning apparatus for continuous operation. F. E. Holmes. diag Ind & Eng Chem Anal ed 18:451-2 Jl '46
Mercury meanderings; future during the postwar era. W. Bradley. il Min Cong J 32:35-8 Mr '46
Mercury photosensitized reactions of 1-butene and 2-butene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 14:581-5 O '46
Mercury photo-sensitized reactions of diethyl ether. B. D. Darwent and others. J Chem Phys 14:551-7; Discussion. 557-9 S '46
Mercury photo-sensitized reactions of isobutene. H. E. Gunning and E. W. R. Steacie. J Chem Phys 14:544-51 S '46
Mercury photosensitized reactions of propane at low pressures. B. D. Darwent and E. W. R. Steacie. bibliog J Chem Phys 13:563-71 D '45
Mercury photosensitized reactions of propylene and isoprene. H. E. Gunning and E. W. R. Steacie. J Chem Phys 14:57-61 F '46
Mercury-sensitized reaction between hydrogen and nitrous oxide. H. A. Taylor and N. Zwiebel. bibliog J Chem Phys 14:539-43 S '46
Method of preventing mercury from drossing; regulators on Inertaire transformers. R. Gassner. Elec World 124:112+ N 24 '45
Properties of the electrical double layer at a mercury surface; the effect of frequency on the capacity and resistance of ideal polarized electrodes. D. C. Grahame. bibliog diag Am Chem Soc J 68:301-10 F '46
Reducing mercury losses in flow meter operations. J. P. Squier. diags Oil & Gas J 45: 79 Ag 10 '46
Slow neutron cross sections of indium, gold, silver, antimony, lithium, and mercury as measured with a neutron beam spectrometer. W. W. Havens, jr. and J. Rainwater. bibliog Phys R 70:154-73 Ag 1 '46
What "atomic" gold might do; synthesis at low cost would rock world's business, government. F. Pick. Barron's 26:3+ Mr 11 '46

Analysis

Microdetermination of mercury in biological material. J. Cholak and D. M. Hubbard. bibliog diag Ind & Eng Chem Anal ed 18: 149-51 F '46

MERCURY (planet)
Advance of the perihelion of Mercury. F. W. Warburton. bibliog Phys R 70:86-7 Jl 1 '46

MERCURY acetate
Anomalous behavior of methyl 12-hydroxy-9,10-octadecenoates in rapid iodine number determinations. P. S. Skell and S. B. Radlove. bibliog Ind & Eng Chem Anal ed 18:67-8 Ja '46

MERCURY arc rectifiers. See Electric rectifiers

MERCURY compounds
Action of antifouling paints; solubilities of antifouling toxics in sea water. J. D. Ferry and G. A. Riley. bibliog Ind & Eng Chem 38:699-701 Jl '46
Mercurial fungicide wax problems. W. F. Horner, F. R. Koppa and H. W. Herbst. il Ind & Eng Chem 37:1069-73 N '45

MERCURY dimethyl
Reaction of hydrogen atoms with dimethyl mercury. G. M. Harris and E. W. R. Steacie. bibliog J Chem Phys 13:559-62 D '45
Reaction of methyl radicals with butadiene and isoprene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 14:534-5 S '46

MERCURY electrodes. See Polarography

MERCURY industry and trade
Domestic mercury question; shall U.S. production of mercury be curtailed? il Chem Ind 58:438+ Mr '46
Mercury meanderings; future during the postwar era. W. Bradley. il Min Cong J 32: 35-8 Mr '46
Mercury, 1945. H. M. Meyer. Eng & Min J 147:84-5 F '46
Quicksilver; annual review and forecast. C. N. Schuette. il Min Cong J 32:65-6 F '46

MERCURY iodide
See also
Nessler's reagent
MERCURY metallurgy
Conserving and reclaiming mercury. A. G. Arend. diags Chem Age (Lond) 53:513-15 D 1 '45
MERCURY mines and mining
Mercury meanderings; current situation in quicksilver mining; operating and economic problems. W. Bradley. il Min Cong J 32: 36-7 Ja '46
Oregon
Exploration of Glass Buttes mercury deposit, Lake county, Oregon. G. C. Reed. 3pls U S Bur Mines Rep of Invest 3926:1-4 '46
MERCURY perchlorate
Mercurous perchlorate, as a volumetric reagent for iron. W. Pugh. Chem Soc J p588-9 S '45
MERCURY poisoning
Effect of some sulfhydryl-containing substances on the toxicity of an organic mercurial compound. W. K. Long and A. Farah. bibliog Science 104:220-1 S 6 '46
Mercury hazard curbed; abstract. L. E. Renes and W. Stalker. Safety Eng 92:58 Jl '46
Mercury hazards in seed treating. H. F. Schulte. J Ind Hygiene 28:159-61 Jl '46
Mercury vapor exposure in the mercury thermometer industry; abstracts. H. Heimann and K. L. Dennis. Heating-Piping 18:110 Je '46; Nat Safety N 54:112 O '46
Poisoning from organic compounds of mercury; abstract. T. Herner. J Ind Hygiene 28:sup93 Jl '46
MERCURY sulfates
Determination of ethylene; 22% mercuric sulfate in 22% sulfuric acid. A. W. Francis and S. J. Lukasiewicz. bibliog Ind & Eng Chem Anal ed 17:703-4 N '45
Standard electrode potentials of the mercury-mercurous sulfate electrode in methanol at 20, 25, 30 and 35°. E. W. Kanning and M. G. Bowman. bibliog Am Chem Soc J 68:2042-6 O '46
MEREDITH, Lewis Douglas, 1905-
Job of packaging; puts National Life at top of the mortgage heap. por Fortune 33:221 Ap '46
Sketch. C. Axman. por East Underw 47:3+ Ap 26 '46
MERGERS. See Business consolidations
MERRIAM, John Campbell, 1869-1945
Sketch. C. Stock. Science 103:470-1 Ap 19 '46
MERRILL, C. A.
Ace typographer of yesteryear. por Inland Ptr 118:46-7 O '46
MERRILL Lynch, Pierce, Fenner and Beane
Big Lynch reports. Bsns W p70+ Mr 9 '46
MESABI ores. See Iron ores—Minnesota
MESITYL phenylketene
Vinyl alcohols; reduction of hindered diaryl ketenes by the Grignard reagent. R. C. Fuson and others. bibliog Am Chem Soc J 67:1937-9 N '45
MESITYL phenylvinyl alcohol
Vinyl alcohols; cleavage of enol peroxides. R. C. Fuson, E. W. Maynert and W. J. Shenk, jr. Am Chem Soc J 67:1939-41 N '45
MESITYLENE
Radioactive hydrocarbons. A. V. Grosse and S. Weinhouse. Science 104:402 O 25 '46
MESO compounds
Lack of meaning of the phrase inactive by internal compensation as applied to meso compounds. C. R. Noller. Science 102:508-9 N 16 '45
MESOHYDRIC tautomerism. See Tautomerism
MESOTRONS
Absorption of slow mesotrons in lead, iron, aluminum, and water. H. P. Koenig. diags Phys R 69:590-6 Je 1 '46
Cascade showers and mesotron-produced secondaries in lead. S. Nassar and W. E. Hazen. bibliog Phys R 69:298-306 Ap 1 '46
Cloud-chamber photographs of heavy particles at high altitudes. D. J. Hughes. il Phys R 69:371-81 My 1 '46
Comparison of the stopping power of lead and aluminum for cosmic-ray mesotrons. E. Fein. diags Phys R 70:567 O 1 '46
Concerning the anomalous scattering of mesotrons. R. P. Shutt. Phys R 69:128 F 1 '46
Cosmic ray probe will attack mesons; study to be made by Massachussets institute of technology and AAF. il Aviation N 6:8 S 2 '46
Decay process of positive and negative mesons. M. Conversi and others. bibliog Phys R 68:232 N 1 '45
High energy neutron-proton scattering and the meson theory of nuclear forces with strong coupling. J. L. Lopes. bibliog Phys R 70:5-15 Jl 1 '46
Pair production of light mesons by electrons. H. Feshbach and L. Tisza. Phys R 68:233 N 1 '45
Production of mesotrons in the stratosphere. I. Bloch. bibliog Phys R 69:575-85 Je 1 '46
Some experimental results concerning mesotrons. R. P. Shutt. bibliog il Phys R 69:261-74 Ap 1 '46
Successive multiple production of penetrating particles. W. B. Fretter and W. E. Hazen. il Phys R 70:230-1 Ag 1 '46
Theory of the low mass neutral mesotron. C. Kikuchi. bibliog Phys R 69:125 F 1 '46
MESQUITE gum
Constitution of mesquite gum; the methanolysis products of methylated mesquite gum. E. V. White. bibliog Am Chem Soc J 68:272-5 F '46
MESSENGERS
See also
Eastern states messenger service
METABOLISM
Amino acids and cell metabolism; abstract. E. C. Barton-Wright. Chem & Ind p 197 My 18 '46
Metabolism of a very small mammal. P. R. Morrison and O. P. Pearson. bibliog Science 104:287-9 S 27 '46
Metabolite antagonists. R. O. Roblin, jr. bibliog(484 references) diags Chem R 38:255-377 Ap '46
Modification of metabolism apparatus. W. J. Leach. diag Science 103:341-2 Mr 15 '46
METACHLORIDINE
Antimalarial drug. Chem & Eng N 24:251 Ja 25 '46
METAL cleaning
Chemical cleaning of refinery equipment. W. J. Davis. il Pet Eng 17:51-4 Je '46
Chemical cleaning process applied to marine equipment. J. H. Adkison and others. il diag Marine Eng 51:105-8 Ag '46
Chemical removal of scales, sludges and oxides. G. F. Williams. bibliog il diags Heating-Piping 18:108-11 Ag '46
Cleaning and de-whiskering nails. A. J. Lehman. il plan Steel 118:123+ F 18 '46
Cleaning and finishing. T. C. Du Mond. il Materials & Methods 23:140-4 Ja '46
Cleaning before packaging. G. Black. Metal Finishing 43:496 D '45
Cleaning zinc alloys; abstract. F. Hazel and W. Stericker. Materials & Methods 24:456+ Ag '46
Comparison of surfaces. E. B. Hughes. Metal Prog 50:299 Ag '46
Effect of various surface treatments in cleaning and preparing copper, nickel and steel for chromium plating. W. M. Tucker and R. L. Flint. bibliog diag Electrochem Soc Trans 88 (preprint 28):325-45 '45; Same. Metal Finishing 44:340-3+, 389-93 Ag-S '46; Excerpt. Steel 118:123-4 Mr 18 '46
Efficient reconditioning and material handling program developed at warehouse; Phillips petroleum co. P. Reed. il Oil & Gas J 44:81-2+ Ja 12 '46
Films and surface cleanliness. J. C. Harris. bibliog Metal Finishing 44:328-30+, 386-8 Ag-S '46
Liquid metal cleaners; abstract. G. C. Close. Materials & Methods 22:1844+ D '45
Low-cost cleaning tool has many useful applications in removal of scale and rust. diag Oil & Gas J 44:91 Ap 13 '46
Metal surface preparation for black oxide finishing. A. P. Shulze. il Metal Finishing 44:102-5 Mr '46

METAL cleaning—*Continued*
Method of evaluating metal cleaners. S. Spring, H. I. Forman and L. F. Peale. il Ind & Eng Chem Anal ed 18:201-4 Mr '46; Same. Metal Finishing 44:297-300 Jl '46
New equipment. il Iron Age 158:66-8 S 19 '46
New metal cleaners. Materials & Methods 24:486 Ag '46
New method of cleaning rubber molds; soft grit blasting. Rubber Age 59:696 S '46
Oil removal by alkaline cleaners; effect of surface condition of metals. S. Spring and L. F. Peale. bibliog il Ind & Eng Chem 38:1063-6 O '46
Polishing and plating Oldsmobile three-piece bumpers. C. O. Herb. il Mach 53:158-65 N '46
Practical pointers on alkali cleaning. A. P. Schulze. Materials & Methods 23:1055 Ap '46
Preparation of metals for painting. R. E. Gwyther. Steel 119:158+ O 14 '46
Scientific evaluation of metal cleaners. il diag Steel 119:72-4+ Ag 12 '46
Selection of metal cleaning methods. C. D. Townsend. il Materials & Methods 22:1412-17 N '45
Sodium hydride descaling. E. L. Cady. il Materials & Methods 23:1278-83 My '46
Sodium hydride process for descaling metals. il Chem Ind 57:1082 D '45
Soft-grit blasting of cylinders. J. Albin. il Iron Age 156:65-7 N 22 '45
Soft-grit blasting; using ground corncobs and rice hulls. E. C. Lathrop and S. I. Aronovsky. il Steel 119:102+ Jl 22 '46
Surface finishing of beryllium copper. il Iron Age 156:60-3 N 15 '45
Synthetic detergent additions in cleaning baths; Nacconol NR. il Iron Age 157:55 Ja 31 '46
Tips on cleaning of zinc die castings. C. H. Jeglum. Materials & Methods 24:425 Ag '46
War turns a page in metal processing; finishing. il Am Mach 90:100-2 Ja 31 '46
What is a clean surface? E. H. Lyons, jr. bibliog Electrochem Soc Trans 88 (preprint 1):1-7 '45; Same. Steel 117:82+ D 31 '45

See also
Aluminum—Cleaning
Bearings—Cleaning
Castings—Cleaning
Degreasing
Sand blast
Steel—Cleaning

Testing

Metal cleaning; indirect performance tests; soil removal methods. J. C. Harris. il diag Am Soc T M Proc 45:985-1014 bibliog(p995-6, 1014) '45

METAL cleaning, Electrolytic
Examination of electro-cleaned steel by electron diffraction; abstract. C. W. Smith and I. L. Karle. Iron Age 158:70 O 10 '46

See also
Polishing, Electrolytic

METAL coated paper. See Paper, Metal coated

METAL coating
British patent magnesium joining process. Iron Age 158:65 S 12 '46
Electric resistance brazing of structural aluminum alloys. W. F. Hess and E. F. Nippes. il Welding J 25:sup193-200 Ap '46
Fighting corrosion by pistol; sprayed metal and plastic coatings; Schori process. il diag Sheet Metal Worker 37:43-4+ Jl '46
Flame cutting, flame hardening and welding on railroads; metal spraying operations. J. W. Kenefic. il Welding J 25:303-4 Ap '46
Flame sprayed plastics or metals; Schori process. M. J. Gurdin. Iron Age 158:64 Ag 22 '46
Glycerine use in metal coatings; patent. W. W. Hamel. Iron Age 158:67 O 10 '46
High speed production metallizing; Metco guns. L. E. Browne. il Steel 118:92-3+ My 13 '46
Lockheed Aircraft finds many uses for metallizing. il Steel 118:113-14+ F 25 '46
Magnesium melting pots maintained by metal spraying; process inhibiting scale formation. il Steel 118:130+ F 4 '46
Metal coating by vacuum evaporation. F. C. Benner. il Mod Plastics 23:110-11 F '46
Metal-spraying magnesium melting pots. A. V. Keller. Materials & Methods 23:482 F '46
Metallizing as a production process. il Iron Age 156:72-3 D 13 '45
Modern hard-facing methods. A. R. Lytle. il diag Welding J 24:1155-65 D '45; Same cond. Machine Design 18:131-6 My '46
Powdered metal spray; abstract. Materials & Methods 22:1512 N '45
Spraying filler metals on brazed joints. il diags Iron Age 157:52-4 Mr 28 '46
Steam turbine repaired by metallizing. H. M. Atwood. il Power Pl Eng 49:71 O '45; Same cond. Power 90:43 Ja '46
Studies of the interface of oxide coated cathodes. A. Fineman and A. Eisenstein. il diags J Ap Phys 17:663-8 Ag '46
Technical developments of 1945. N. Hall and G. B. Hogaboom, jr. bibliog and patent list(255 references) il Metal Finishing 44:2-7+ Ja '46
Use of ultra sound metal coating; abstract. C. D. Townsend. Mech Eng 68:462 My '46
Using metal spraying for quick repairs. D. L. Cannie. il Factory Management 104:103-4 Ap '46
Worn parts built up by automatic welding. il Iron Age 157:73 Mr 14 '46

See also
Alloys, Hard facing
Electroplating
Paper, Metal coated
Pipe coating
Zinc plating

Study and teaching

Pearl Harbor's metal spraying school. G. W. Grupp. il Metal Finishing 43:450-1 N '45

METAL coloring
Color merchandising of metal products. E. Engel. Iron Age 156:77-9 D 6 '45
Coloring magnesium alloys; Manodyz process. P. R. Cutter. Iron Age 158:59-60 Jl 25 '46
Metal coloring; brass. M. F. Maher and F. J. MacStoker. Metal Finishing 44:153-4+ Ap '46
Metal coloring; bronze. M. F. Maher and F. J. MacStoker. Metal Finishing 44:331-3 Ag '46
Parkerizing in color for iron and steel. Automotive & Aviation Ind 94:88 F 1 '46

See also
Metals, Non-ferrous—Blackening
Steel—Blackening

METAL congress, National. See National metal congress

METAL cutting
Art of cutting metals; work of F. W. Taylor. O. W. Boston. Mech Eng 68:302-4+ Ap '46
Conference on machinability. Engineering 161: 544-5, 569-70, 593, 617-18 Je 7-28 '46
Cutting fluids and chipbreakers. W. A. Carter. Engineering 161:582 Je 21 '46
How to work magnesium alloys. A. Ashburn. diags Am Mach 90:118-22 N 7 '46
Institution of mechanical engineers conference on machinability. Engineer 181:501-2, 523-4 My 31-Je 7 '46
Lethal gases from welding, burning, cutting. H. K. Sessions. il Safety Eng 91:63-4 My '46
Machinability and structure; non-ferrous metallurgy. A. J. Murphy. il Engineering 161:573-4 Je 14 '46
Machinability; conference held by British institution of mechanical engineers. Metal Prog 50:506+ S '46
Machinability in light engineering production. P. C. Redwood. Engineering 161:606 Je 28 '46
Machinability in relation to production; heavy engineering. G. M. Baker. Engineer 181:498 My 31 '46; Same. Engineering 161:605 Je 28 '46
Machinability in relation to production; medium engineering. L. Johnstone. Engineer 181:499 My 31 '46; Same. Engineering 161: 606 Je 28 '46
Machinability testing methods using pendulum machines. A. S. Kenneford. diags Engineering 161:599-600 Je 21 '46
Machining of aluminum alloys; reference book sheets. L. E. Pennington. diags Am Mach 90:145, 147 Je 6; 161, 163 Je 20; 131, 133 Jl 4; 149, 151 Jl 18 '46
Machining powder-metal parts. H. L. Strauss, jr. Am Mach 90:137 Mr 28 '46

METAL cutting—*Continued*
Measurements of temperatures in metal cutting. A. O. Schmidt and others. bibliog il A S M E Trans 68:47-9 Ja '46; Discussion. 68:568 Jl '46
Mechanics of the cutting operation. R. N. Arnold and G. A. Hankins. il diags Engineering 161:574-6 Je 14 '46
Metallographic examination discloses causes of machining difficulties. N. R. Cusworth and others. il Materials & Methods 23:434-7 F '46
Negative rake; recommendations for the use of Ardoloy tipped tools. il Automobile Eng 35:543-6 D '45
Recent research in metal machining; abstract. D. F. Galloway. diags Mech Eng 68:565-7 Je '46
Standardisation of tools for machinability tests. C. H. Booth. Engineering 161:595-6 Je 21 '46
Tentative method of assessment of machinability. C. W. George. il Engineering 161: 621-2 Je 28 '46
Universal router turntable cuts circles in large work. F. Molle. diags Am Mach 89: 143 N 22 '45
What technical men expect in 1946; machining. Steel 118:290-4+ Ja 7 '46

See also
Broaching
Cutting off machines
Cutting tools
Drilling and boring (metal working, etc.)
Electric cutting
Gear cutting
Grooving
Lubrication and lubricants (cutting and grinding)
Machine tools
Machine work
Milling
Milling cutters
Oxyacetylene cutting
Pipe cutting
Saws, Metal working
Screw machines
Shears (machines)
Steel cutting
Thread cutting
Threading machines
Tool steel

Tables, calculations, etc.

Analysis of initial contact of milling cutter and work in relation to tool life. M. Kronenberg. il diags A S M E Trans 68:217-28 Ap '46
Carbide milling cutter data calculating chart. Mach 52:173-5 Ap '46
Effect of speed, feed, and angle on machinability. W. W. Taylor. diag Engineering 161: 620-1 Je 28 '46
Horsepower chart for lathe cuts; reference book sheets. N. B. Archer. Am Mach 90: 145, 147 S 12 '46
Precision cam design methods and analyses; computation of machine settings. diags Product Eng 16:845-8 D '45
Speed and feed selection in carbide milling with respect to production, cost, and accuracy. H. Ernst and M. Field. il diags A S M E Trans 68:207-15 Ap '46
Tap rpm. for various cutting speeds; table; reference book sheet. Am Mach 90:147 My 9 '46
Tapping speeds for various materials; table; reference book sheet. Am Mach 90:145 My 9 '46
Trigonometry versus micrometer stops in turning and facing. D. T. Armstrong. diag Am Mach 90:149-50 My 23 '46

METAL cutting, Subaqueous
Flame-cutting steel under water with oxyacetylene, oxy-hydrogen and electric arc. G. V. Slottman. il Am Mach 90:110-13 Ja 31 '46
Sunken steel hopper barge cut to pieces on the bottom; use of combination of electric arc and oxygen jet. W. L. Dickey. diags Eng N 136:432-3 Mr 21 '46
Underwater arc-oxygen cutting. il Steel 118: 110 F 25 '46
Underwater cutting and welding. C. Kandel. il Welding J 25:209-12 Mr '46
Underwater cutting and welding speeded and simplified by electric arc processes. C. Kandel. il Eng N 136:484-7 Ap 4 '46
U.S. navy developments in underwater cutting; arc-oxygen cutting. B. Ronay and C. D. Jensen. il diags Welding J 25:201-9 Mr '46

METAL drawing
Basic dies for deep drawing. C. A. Gray. il diags Am Mach 90:90-2 Jl 4 '46
Calculations of geometrical dimensions on drawn parts; reference book sheet. diags Product Eng 17:263-4 Mr '46
Carbide die applications, present and future. E. Glen. il diag Iron Age 157:51-4 Ap 25 '46
Carbide drawing dies. D. Mapes. il Steel 119: 84+ Jl 29 '46
Combination die for blanking and drawing a beaded cup. E. Barron. diags Mach 52:183-4 My '46
Controlled die cushion aids drawing operations. diag Am Mach 90:144 Mr 14 '46
Deep drawing and bulging of stainless steel; manufacture of dairy equipment; International harvester co. J. E. Obernesser. il diags Steel 119:96-9+ Jl 1 '46
Deep-drawing of magnesium. R. G. Gillespie. il diags Mach 52:145-55 Mr '46
Double-acting attachment permits deep drawing on a single-acting press. F. B. Money. il diags Mach 52:195-7 Ag '46
Drawability of aluminum alloys at elevated temperatures. D. M. Finch, S. Wilson and J. E. Dorn. diag Iron Age 157:70-3 F 14 '46
Drawing pronged shells. C. W. Hinman. diags Am Mach 90:158 Je 20 '46
Drawing stainless cylinders; Lalance & Grosjean co. L. E. Browne. il Steel 117:116-17+ D 10 '45
Drawing, stretching, stamping of aluminum. H. L. Smith, jr. il Steel 119:88-90+ Jl 22 '46
Failure of autobody sheet in deep drawing operations; discussion of paper by K. J. B. Wolfe. H. W. McQuaid. Steel 118:122+ Ap 29 '46
Hydraulic strippers facilitate drawing of thin shells. H. F. Hild. il diags Mach 52: 147-53 D '45
Notes on metal drawing. H. R. Hageman. diags Am Mach 90:152 My 23 '46
Production principles for deep drawn magnesium parts. R. G. Gillespie. il Materials & Methods 23:701-5 Mr '46
Production processes; their influence on design; deep drawing. R. W. Bolz. il Machine Design 18:119-26 Ja '46
Tough stainless demands rugged tooling. P. Hallin. diags Am Mach 90:101-3 N 7 '46
Use of adhesives in cold drawing stainless steel tubing. H. K. Ihrig. il diags Steel 119:102-4+ O 21 '46
What technical men expect in 1946; forging, drawing and stamping. Steel 118:282+ Ja 7 '46

See also
Lubrication and lubricants (metal drawing)
Wire drawing

METAL fabrics. See Textile fibers, Metallic

METAL finishing
Applied finishes for zinc alloy die castings. il Product Eng 17:389-91 My '46
Automatic roto shaving for fine surfaces. W. Praeg. il Iron Age 156:56-7 D 27 '45
Bright dipping for copper and its alloys, cadmium and zinc plate, magnesium and lead. G. Soderberg. bibliog Electrochem Soc Trans 88 (preprint 10):115-20 '45; Same. Metal Finishing 44:433-4 O '46; Same abr. Steel 118:109-10 My 13 '46
Burrs blasted by shell; walnut shell flour used to deburr precise and fragile hydraulic parts for aircraft. W. L. Lewis. il Am Mach 89: 104-5 D 20 '45
Checking surface finish; Comparoscope. il Steel 118:115+ Ja 28 '46
Chemical treatment of highly finished metal surfaces. Mach 52:166-8 Jl '46; Same abr. Mech Eng 68:904 O '46
Cleaning and finishing. T. C. Du Mond. il Materials & Methods 23:140-4 Ja '46
Cleaning and finishing equipment and supplies. il diag Materials & Methods 24:737-8 S '46
Coated abrasives solve many reconversion metal-finishing problems. il diag Mach 52: 174-5 Je '46
Coatings and finishes, 1945. K. Rose. il Materials & Methods 23:105-8 Ja '46
Drying industrial finishes on metals. H. R. Clauser. il Materials & Methods 24:910-14, 1452-6 O, D '46

METAL finishing—*Continued*
Effect of surface preparation on the durability of organic coatings; abstract. V. M. Darsey. Metal Finishing 44:286 Jl '46
Finishing developments. A. Bregman. il Iron Age 157:130-5+ Ja 3 '46
Flame cutting; technique devised to eliminate machining in semifinishing breechblocks. J. F. Smythe. il Steel 118:104+ Ja 14 '46
Gear-tooth finish improved by burnishing. G. H. Sanborn. il Am Mach 90:88-9 Ja 3 '46
Glycerine in metal treatment. G. Leffingwell and M. A. Lesser. bibliog il Materials & Methods 22:1432-4 N '45
Grinding, surfacing and stock removal by wet belt machining. W. F. Schleicher. il Steel 119:94-5+ Jl 8 '46
Liquid honing; emulsion of fine-mesh abrasive; vapor blast. Bsns W p85 Je 1 '46
Machining and finishing cylinder bores at Buick. K. Rose. il diags Materials & Methods 24:619-21 S '46
New equipment; finishing. il Iron Age 156: 79-80 D 13 '45; 157:69-70 Ap 11; 158:66-8 S 19 '46
New metal finishing process announced by Sturgis; Britehoning. Iron Age 158.50 Ag 29 '46
Phosphating metallic surfaces, finishing treatment. W. G. Cass. Chem Age (Lond) 55:67-70 Jl 20 '46
Pickling and bright dipping copper-zinc alloys. G. B. Hogaboom. diags Metal Finishing 44:198-201 My '46
Pneumatic machine does tube burring quickly and accurately. C. Lusk and R. E. Mooreman. diag Am Mach 89:140 D 20 '45
Pre-treating metals for finish; abstract. G. C. Close. Materials & Methods 22:1832 D '45
Production processes; their influence on design; abrasive belt machining. R. W. Bolz. il Machine Design 18:93-6 O '46
Protective finish for magnesium alloys. R. B. Mason. bibliog il Iron Age 157:48-52 Mr 21 '46
Resins of the vinyl family in metal finishing; abstract. F. L. Scott. Metal Finishing 44:286 Jl '46
Roto-finish process. A. H. Allen. il plan diags Steel 118:98-100+ Je 24 '46
Sodium hydride descaling. E. L. Cady. il Materials & Methods 23:1278-83 My '46
Spring-loaded burring tool. O. Gammon. il diags Am Mach 89:95 D 6 '45
Surface finish; what surface profile is really like, as shown by ordinary and electron microscopes. L. H. Milligan. il diag Diesel Power 24:336-8 Mr '46
Technical developments of 1945. N. Hall and G. B. Hogaboom, jr. bibliog and patent list(255 references) il Metal Finishing 44: 2-7+ Ja '46
33d annual review number; tumbling, burring and cleaning equipment. il Am Mach 90: 162-5 Ja 17 '46
Vergleich der oberflächenrauhigkeit feinstbearbeiteter ebener flächen. J. Kluge and G. Bochmann. il diag V D I 88:179-81 Ap 1 '44; Same cond (Comparison of roughness of super-finished plane surfaces). Product Eng 17:401-2 My '46
War turns a page in metal processing; finishing. il Am Mach 90:100-4 Ja 31 '46
Wet belt finishing; naval discharge buttons; abstract. W. F Schleicher. Materials & Methods 23:1658 Je '46
Wet-belt machining. W. F. Schleicher. il Iron Age 157:52-5 F 28 '46
What technical men expect in 1946; surface treatment. Steel 118:318-20+ Ja 7 '46

See also
Aluminum—Finishing
Grinding
Honing
Lacquer and lacquering
Lapping
Metal cleaning
Metal coloring
Pickling (metals)
Polishing
Polishing, Electrolytic
Steel—Finishing

Patents
Patents. Published in monthly numbers of Metal finishing
Technical developments of 1945. N. Hall and G. B. Hogaboom, jr. bibliog and patent list(255 references) il Metal Finishing 44: 2-7+ Ja '46

Standards
Applied finishes standardization and basic principles of procedure; Sperry gyroscope company. S. B. Ashkinazy. il Product Eng 17:24-8 Ja '46

METAL foils
For better usage; films, foils and sheeting. C. A. Southwick, jr. Mod Packaging 19:131-2 N '45
Protective qualities of foil. Mod Packaging 19:156 D '45
X-ray microradiography of distorted crystals. R. Smoluchowski and others. il Phys R 70: 318-22 S 1 '46

See also
Aluminum foil
Nickel foil
Radium foil

METAL powder association
Spring meeting, 2d, New York, June 13. Chem & Eng N 24:1906 Jl 25 '46; Iron Age 157:78-80 Je 20 '46; Steel 118:130 Je 24 '46

METAL powders
Average physical properties of five powdered metal parts; tabulation. Steel 118:85 Ap 22 '46
British developments in powder metallurgy technique reviewed; abstract. W. D. Jones. Iron Age 157:146 My 9 '46
Compressed air speeds powder metal forming; clutch facings and brake linings; S. K. Wellman co. il Materials & Methods 23:729 Mr '46
Design of powder metallurgy parts; abstract. M. T. Victor and C. A. Sorg. Materials & Methods 24.700 S '46
Designing powder metal parts; Moraine products division, General motors corp. diags Steel 118:108-10+ Je 3 '46
Engineering properties of sintered metals. P. Schwarzkopf. il Product Eng 17:268-72 Ap '46
Engineering properties of sintered versus cast metals P. Schwarzkopf. il Product Eng 17:122-6 F '46
Extruding powdered metals to form synthetic welding wire. F. G. Daveler. diags Materials & Methods 23:1317-20 My '46
Geiger counter used in powder metallurgy. E. S. Kopecki. il diags Iron Age 157:48-51 F 28 '46
General rules for powder metallurgy. H. H. Hausner. diags Am Mach 90:104-5 F 14 '46
Heavy Alloy aids machine design; tungsten powder metallurgy product. G. H. S. Price. il Iron Age 158:62-3 S 19 '46
Machining powder-metal parts. H. L. Strauss, jr. Am Mach 90:137 Mr 28 '46
Making electrical contacts with metal powders E. I. Larsen. Steel 118:119+ Ja 28 '46
Manufacture of ferrous metal powder parts; pictorial story photographed by F. M. Demarest; text by P. Schwarzkopf and C. G. Goetzel. Metal Prog 49:539-47 Mr '46
Mechanical parts made from powdered metals. R. P. Seelig. bibliog il diags Steel 117:116-19+ N 19 '45
Metal powder association second annual spring meeting, New York, June 13. Iron Age 157: 78-80 Je 20 '46
La métallurgie des poudres. Génie Civil 123: 130 My 15 '46
New ceramic combines ceramic materials and powdered metals. H. H. Hausner. il diags Cer Ind 47:87-8+ O; 90+ N '46
New welding technique; powder welding; abstract. C. B. Clason. Materials & Methods 24:718 S '46
Photoelectric properties of metals in a finely divided state. L. J. Reimert. bibliog Opt Soc Am J 36:278-83 My '46
Powder metal machine parts design characteristics and data. A. J. Langhammer. il diags Product Eng 16:877-9 D '45
Powder metallurgy. J. E. Newson. Inst Mech Eng J & Proc 154:208-13 bibliog(p213); Discussion. 213-16, pl 1-2 S '46
Powder metallurgy; abstract. W. D. Jones. Mech Eng 68:574 Je '46
Powder metallurgy and the refractory metals. A. L. Percy. il Steel 118:106-8+ Je 17 '46
Powder metallurgy, 1945. T. C. Du Mond. Materials & Methods 23:123-4 Ja '46

METAL powders—*Continued*
Powdered metal cold formed into bearings. diag Product Eng 17:98 O '46
Powdered metal spray; abstract. Materials & Methods 22:1512 N '45
Powdered metal vs. other high production methods. H. Chase. il Materials & Methods 24:363-9 Ag '46
Powdered metals hot pressed; laboratory press built by National diamond hone wheel company. il Product Eng 17:93 N '46
Processing operations in powder metallurgy. H. H. Hausner. diags Am Mach 90:124-5 Ap 25 '46
Silicide-hardened copper compacts for bearings; abstract. F. R. Hensel, E. I. Larsen and E. F. Swazy. Iron Age 157:65-7 Mr 7 '46
Sintered metallic powders for electrical contacts. H. H. Hausner. il Engineering 161: 188-90 F 22 '46
Some consideration in designing parts for powder metallurgy. I. J. Donahue. diags Mech Eng 68:949-52 N '46
Statistical approach in industrial research. A. Lesser, jr. bibliog Iron Age 158:50-5 Ag 22 '46
Strauss hot press produces dense powder-metal test pieces. il Am Mach 90:156 O 24 '46
Surface area of powders; heat of wetting of metal surfaces by oils. H. H. Herbst. bibliog diag Pet Refiner 25:121-5 Mr '46
Titanium hydride increases compact density. H. L. Strauss, jr. diags Steel 118:138+ My 6 '46
Uniform metal powders in ultra-fine grades. Sci Am 175:200 N '46
Use of ultra-fine particles in powder metallurgy. H. H. Hausner. Materials & Methods 24:98-102 Jl '46
Vacuum-fusion method for determining gases in non-ferrous metals. H. A. Sloman. Engineering 160:420 N 23 '45
Welding with powdered metal. il Iron Age 157:69 Je 20 '46; Same. Mech Eng 68: 818-19 S '46

See also
Aluminum, Powdered
Copper, Powdered
Beryllium, Powdered
Iron, Powdered

METAL products
Extrusions push ahead. F. P. Peters. il Sci Am 174:53-5 F '46

METAL protection
Accelerated corrosion testing of protective and decorative coatings. R. R. Rogers. il Can Chem & Process Ind 30:91-4 O '46
Advanced metal preservation methods employed by U.S. navy in laying up vessels. I. H. Such. il Steel 118:90-2+ Ap 29 '46
Baked-on plastic coatings prevent corrosion; tubular goods and other oil-field equipment. E. H. Short, jr. il Oil & Gas J 45: 88-9+ Ag 10 '46
Chromating and phosphating prior to painting; abstract. A. R. King. Paint Oil & Chem R 109:32+ Je 27 '46
Coloring magnesium alloys; Manodyz process. P. R. Cutler. Iron Age 158:59-60 Jl 25 '46
Corrosion of metals; new phosphating methods of protection. W. G. Cass. Chem Age (Lond) 54:373-4 Ap 6 '46
Current zinc electroplating practice; chromate, anodic and phosphate types of protective coatings for zinc plated surfaces. A. G. Gray. bibliog il Steel 117:132+ N 12 '45
Dehumidification protects U.S. navy's inactive fleet. T. H. Urdahl and E. B. Queer. il diags Heating-Piping 18:71-5 Mr '46; Same cond. Marine Eng 51:123-4 Je '46; Abstract. Mech Eng 68:562 Je '46
Development work to prevent corrosion. B. B. Morton. il Pet Eng 17:134+ N '45
Diffused nickel-zinc coatings; Corronizing process. G. Black. il Metal Finishing 44: 207+ My '46
Effect of surface preparation on the durability of organic coatings; abstract. V. M. Darsey. Steel 119:106+ Jl 8 '46
Fighting corrosion by pistol; sprayed metal and plastic coatings; Schori process. il diag Sheet Metal Worker 37:43-4+ Jl '46
Finishing developments. A. Bregman. il Iron Age 157:130-5+ Ja 3 '46
First electrodeposition of metal for corrosion resistance. S. G. Bart. il Chem Ind 58:51 Ja '46
German low temperature phosphating of metal. W. G. Cass. Chem & Eng N 24:1126 Ap 25 '46
Insulation of dissimilar metal faying surfaces; tests of Ryan aeronautical co. B. W. Floersch. il Automotive & Aviation Ind 95: 37+ O 1 '46
Komul, cold-applied anti-corrosive coating. Marine Eng 50:222 N '45
Metal articles; abstract. W. T. Black. Mod Packaging 19:143 Ap '46
Modern metal protection; corrosion and coatings symposium. il diags Steel 119:108-9+ O 14 '46
Moisture-proof covering to protect navy material; sprayed plastic coating. il Iron Age 156:105 N 29 '45
Multi-purpose protective covering; sealing caps, sleeves and tubing of vinyl materials. il Mod Plastics 24:101-2 O '46
Multi-purpose seal coat protects waterworks structures, both concrete and metal; filter plants at Atlanta, Ga. P. Weir. il Eng N 136:728-31 My 2 '46
Navy develops a new corrosion-protection technique. J. Anthony. il diag Iron Age 157:104-5 Ap 18 '46
New developments to combat corrosion in paper and pulp industries; liquid neoprene, nitrocote, and durofilm; rubber pipe joint. K. P. Chamberlain. Paper Tr J 123:126+ O 10 '46
New method of protecting machines for shipment or storage; sprayed coating. il Mach 53:154-6 O '46; Aero Digest 53:89+ O '46
New plastic covering protects idle equipment; strip-off coating available for factory equipment going in storage; cocoon system. A. V. Gemmill. il Food Ind 18: 1540-1 O '46
Nickel zinc and nickel tin corrosion resistant metal coatings; with cost data. L. C. Conradi. il Product Eng 17:127-9 S '46
Organic coatings in water-works maintenance. D. R. Meserve. N E Water Works Assn J 60:227-35 S '46
Packaging equipment; preparing machines for shipment or storage; vinyl resin and asphalt-gilsonite spray coatings. il Steel 119:134+ S 23 '46; Power 90:760-1 N '46
Packaging metal parts; corrosion prevention starts on the production line. C. E. Waring. il Mod Packaging 19:135-9 Ja; 143-7 F; 204-7 Mr '46
Packaging the United States reserve fleets; sprayed plastics and dehumidifiers for protection. il Engineering 162:132, 138-40 Ag 9 '46
Paint, varnish and lacquer industry of Germany; selected coating products. H. O. Farr, jr. Paint Oil & Chem R 109:46+ Je 27; 40+ Jl 11 '46
Parkerizing in color for iron and steel. Automotive & Aviation Ind 94:88 F 1 '46
Permanent storage of delicate war equipment and instruments. Mach 52:187 D '45
Phosphating metallic surfaces. W. G. Cass. Chem Age (Lond) 55:5-8, 35-8, 67-70, 101-4 Jl 6-27 '46
Plastic film assures safe storage and shipment of machinery. il Iron Age 158:96-7 Ag 29 '46; Product Eng 17:152-3 N '46
Plastic protective coating applied on-the-job. il Product Eng 17:158 N '46
Porcelain enamels for metal protection; abstracts. G. H. McIntyre. Steel 117:119-20 O 15 '45; Chem & Met Eng 52:242+ D '45
Power train is sealed for export shipment. G. L. Moses. Elec World 124:123 D 8 '45
Preserving artillery pieces; preparing gun parts for storage in welded steel containers. W. H. Walter. il Steel 119:100-2+ S 16 '46
Protective films in new merchandising roles. F. C. Edelston. il Mod Packaging 19:156-8 Mr '46
Protective packaging. O. C. Rutledge. il Gen Elec R 48:16-19 D '45
Protective plastic strip-off coating available to industry. il Bsns W p52+ Ap 27 '46
Protective value of electro-tin as an undercoating. S. Wernick. Metal Finishing 44: 13-15, 67+ Ja-F '46

METAL protection—*Continued*
Protective value of industrial lubricants. G. H. von Fuchs. bibliog il Iron Age 158:46-9 O 3 '46
Putting dogs of war in live storage; plastic coating sprayed on naval guns. R. G. Skerrett. il Comp Air Mag 51:102-3 Ap '46
Reducing cast iron grain growth; Metcolizing. H. J. Nichols. il Steel 119:101+ N 4 '46
Renovation and rustproofing applied to filter plants. P. Weir. il Water & Sewage Works 93:R127-30 Ap '46
Serve and sell; Barber-Colman's new packaging for cutting tools, utilizing plastic strip-coating; Protecto-coat. il Mod Packaging 20:102-4+ O '46
Silica gel did its war work well; munitions, etc. protected from corrosion and moisture. R. G. Skerrett. il Comp Air Mag 50:280-5 N '45
Special organic coatings for protection against corrosion. R. P. Devoluy. il Paint Oil & Chem R 109:12+ Ag 8 '46
Spray coatings for heavy-duty packaging; vinyl resin solution with webbing agent, polyvinyl chloride for packaging navy equipment. il Mod Plastics 23:152-3 Ap '46
Steel packaging; reusable and resealable steel drums for export shipment and prolonged storage. W. L. Hardy. il Steel 117:96-8+ D 17 '45
Study of primers for ferrous metals in atmospheric exposure; progress report no. 1, by New England paint and varnish production club. Paint Oil & Chem R 108:136-7 N 1 '45
Underground corrosion. il 106 tabs diags U S Nat Bur Stand Circ C450:1-312 bibliog(206 titles, p271-8); pa $1.25 Supt. of doc. '45
Use of paperboard as a sorptive material in protective packaging. R. C. Rietz and L. O. Anderson. Paper Tr J 122:47-50 Mr 14 '46

See also
Alloys, Hard facing
Aluminum—Protection
Chromium plating
Corrosion and anti-corrosives
Electroplating
Enamel and enameling
Ihrigizing
Magnesium—Protection
Metal coating
Paint, Protective
Phosphate coating
Pipe coating
Pipe lines—Protection
Steel—Protection
Water pipes—Protection

METAL spinning
Aluminum spinning. diag Automobile Eng 36:136-7 Mr '46
Design of parts to be formed by metal spinning. C. J. Holinger. il diags Product Eng 17:150-3 Ag '46
Forming tubular products and closing tube ends by flame spinning. il Steel 117:92-3 N 26 '45
Hot-spinning heavy tank heads. C. H. Wick. il diags Mach 53:141-7+ S '46
Metal spinning; abstract. C. J. Holinger. Materials & Methods 23:818+ Mr '46
Technique of metal spinning. E. Weiss. il diags Mach 52:159-64 My '46

METAL spraying. See Metal coating

METAL trade
Low-cost producers to profit by metal price boosts. M. H. Zink. Barron's 26:11 Jl 22 '46
Metals in review. il Eng & Min J 147:71-103+ F '46
Primary metal producers; prospects for 1946. Steel 118:sup14-17 Ja 7 '46

See also
Aluminum industry and trade
Copper industry and trade
Iron industry and trade
Lead industry and trade
Metal workers
Metals, Non-ferrous
Mineral industries
Scrap metal industry
Sheet metal trade
Steel industry and trade
Tin industry and trade
Tin plate
Zinc industry and trade

Securities
Metals in reconversion; with statistical position of non-ferrous metal companies. Mag of Wall St 77:326-8+ D 22 '45
What of the metals now? with position of leading stocks. G. L. Merton. il Mag of Wall St 77:766-9+ Mr 30 '46

Canada
Manufactures of the non-ferrous metals in Canada, 1939-1943. 124p 50c Canada. Dominion bur. of statistics, Ottawa, '46

Germany
Horsetrading settling future of German metals industry in four power discussions. J. R. Hight. Iron Age 157:86+ Ap 18 '46

Great Britain
Britain faces facts on higher metals costs. Barron's 26:7 Ap 22 '46
Chemistry metallurgy and empire; first Robert Horne memorial lecture. S. Robson. Chem & Ind p162-5, 170-3 Ap 20-27 '46
Wanted, a base metal policy. Economist 151: 19-21 Jl 6 '46

Peru
Peruvian exports of nonferrous metals, January-June 1944 and 1945. For Comm W 21:34 D 15 '45

Russia
Russia to export metals. Bsns W p113-14 D 22 '45

United States
Metal subsidies; statement before Senate committee on banking and currency. J. D. Conover. Min Cong J 32:46-51+ My '46
Metals and minerals; trends in 1946. W. A. Janssen. il Dom Comm 34:36-7 Ja '46
OWMR sees supply-demand inbalance as economic threat. D. Ansboro. Iron Age 157: 120-1 Ja 31 '46

METAL trades committee. See International labor organization—Metal trades committee

METAL waste
Chip and oil reclaiming conveyor. il diag Mech Handling 32:563-5 N '45
Operation of a salvage division; Erie works, General electric co. F. E. Lockrow. N A C A Bul 27:401-6 Ja 1 '46

See also
Aluminum waste
Foundries—Waste
Iron dust
Scrap metal
Slag
Steel waste
Tailings

METAL work
Annual engineering review. il Materials & Methods 23:86-152 Ja '46
How to work magnesium alloys. A. Ashburn. diags Am Mach 90:117-32 N 7 '46
Induction heating, economics, applications, etc. E. L. Cady. il Materials & Methods 24:399-410 Ag '46
Nickel, wrought and cast; properties applications, fabrication, etc. Machine Design 18:175-8 Ap '46
Parts and metal-forms, 1945. F. P. Peters. Materials & Methods 23:101-4 Ja '46
Powdered metal vs. other high production methods. H. Chase. il Materials & Methods 24:363-9 Ag '46
Processing equipment for peacetime production; review and directory. Materials & Methods 23:1589-1608 Je '46
Statistical approach in industrial research. A. Lesser, jr. bibliog Iron Age 158:50-5 Ag 22 '46
War turns a page in metal processing. flow diag il diag Am Mach 90:89-104 Ja 31 '46
What technical men expect in 1946. Steel 118:262-8+ Ja 7 '46

See also
Aluminum work
Brass founding
Dies
Electroplating
Extrusion process
Flanges
Forging
Foundry practice
Heat treatment
Machine shop practice
Machine tools
Metal coloring
Metal cutting
Metal drawing
Metal finishing
Metal spinning
Peening
Pickling (metals)
Polishing
Pressed metal
Punching
Rolling (metal work)
Rolls
Sheet metal work
Shells (metal work)
Solder and soldering
Stamping

METAL work—See also—*Continued*
Steel work
Stencils and stencil cutting
Tin plate
Tubes, Steel—Manufacture
Welding

Bibliography

Materials & Methods digest; engineering materials and processing methods. Published in monthly numbers of Materials & methods

What's new in manufacturers' literature; metals, metal work, equipment, etc. Metal Prog 49:160a-160b Ja '46 [cont monthly]

METAL workers

Bundy's cost saving plan adds to employee base pay. W. G. Patton. Iron Age 158:92-4 O 31 '46

First meeting of the I.L.O. Metal trades committee. Int Labour R 53:371-9 My-Je '46

Many happy returns; veteran re-employment program; Lyon metal products, inc. N. Ormond. il Safety Eng 91:18+ Mr '46

Plating and polishing industry; straight-time average hourly earnings. E. B. Harris and others. Metal Finishing 43:454-6 N '45

Profit-sharing in metal working plants; pros and cons. B. Finney. Am Mach 90:117-24 S 12 '46

Wage structure of electroplating and polishing industry, January 1945. J. W. Bloch. Mo Labor R 62:767-76 My '46

Wage structure of the machine-tool accessories industry, January 1945. L. M. David. Mo Labor R 62:438-50 Mr '46

Wages of office workers in metalworking industries, January 1945. L. M. David. Mo Labor R 63:54-60 Jl '46

See also
Aluminum works—Employees
Foundries—Employees
Iron workers
Machine works—Employees
Steel workers

METAL working industries

1946 metalworking production estimated at $29 billion. Ind Marketing 31:54+ Ja '46

Progress in materials and methods. Materials & Methods 23:83-4 Ja '46

What industry expects in 1946; prospects of metalworking and metalproducing industries as reported by more than 3600 plants. Steel 118:sup1-32 Ja 7 '46

What technical men expect in 1946. Steel 118: 262-8+ Ja 7 '46

See also
Sheet metal trade

Directories

Stampings, forgings, die castings, machine finishes producers. Machine Design 18:228-41, 248-54 O '46

Where-to-buy; products directory of current advertisers in Steel. Steel 119:1-44 sec 2 O 21 '46

Finance

Earnings position of 50 metalworking companies; first half 1946, 1945, 1940. Steel 119: 81 S 23 '46

Securities

Diverse outlook for metal fabricators; with financial data on leading companies. P. Dobbs. il Mag of Wall St 78:580-1+ Ag 17 '46

Statistics

Current situation in materials, components, metalworking equipment. Steel 119:85-91 S 9 '46

Fabricated metal products; prospects for 1946. Steel 118:sup18-21 Ja 7 '46

Reconversion status and forecasts of leading plants in metalworking industries, September 1945-June 1946; tabulation. Am Mach 89: 148d D 20 '45

California

Metal trades manufacturers of southern California protest handicap of high labor costs. R. T. Reinhardt. Iron Age 158:78+ S 19 '46

China

See also
Foundries—China

Germany

Arcwelding trends in wartime Germany. F. W. Myers, jr. il Iron Age 157:56-60 F 7; 54-8 Mr 21; 46-50 Ap 25 '46

Forging practice in wartime Germany. C. W. Heppenstall, jr. il Iron Age 158:55-7 Ag 1 '46

How Germany built up its manufacturing industries. G. H. Johnson. Mach 52:180-1 D '45

Southern states

Welding research as applied in the South. W. W. Austin, jr. and E. N. Kemler. Welding J 25:sup630-3 O '46

METAL working machinery

Cold metal contour forming; machinery developed by Cyril Bath co. R. A. Mackenzie. il Steel 117:112-13+ D 10 '45

Fabricating with metal working machines. G. Becker. diags Mod Plastics 23:146-7 Ag '46

How to lubricate metalworking machines. H. L. Flynn. diags Am Mach 89:113-28 D 20 '45

Machine built with manifold dies points steel tubes. il Steel 118:141+ Ap 1 '46

Mechanical engineering in the shipyard. J. F. Petree. diags Inst Mech Eng J & Proc 152:Proc 362-9, pl 1-8 Mr '46; Same. Engineering 159:90, 97-100, 116-20 F 2-9 '45; Same cond. Engineer 179:88-90 F 2 '45

New equipment. il Iron Age 158:55-8 O 3 '46

1945 inventory of production equipment other than machine tools, by industrial and geographical groupings; with age data. Am Mach 89:105-20 D 6 '45

Outstanding operations in Inco's Huntington mill of the International nickel company for processing nickel and nickel-alloy products; illustrations with text. Mach 52:164-6 F '46

Small metalworking plants have higher percentage of old equipment; results of survey. Am Mach 90:113-15 Mr 14 '46

See also
Foundry machinery
Heading machines
Lathes
Machine tools
Presses
Sharpening
Sheet metal working machinery
Straightening machines
Stretching machines
Swaging machines
Wire forming machines

METAL working plants

Heavy purchases for plant and equipment indicated for 1946. Steel 118:sup12-13 Ja 7 '46

Microscopic electronic parts by the million; Sylvania electric products inc. il Steel 118: 95+ Je 24 '46

Sell, then buy; specialists, familiar with all phases of a particular process, and fabricators, who assemble and sell, are supplementary figures in modern industry. E. L. Cady. il Sci Am 174:210-12 My '46

Stainless steel fabricator expands facilities; Heintz mfg co. J. Anthony. il Iron Age 157: 114-16 Ja 31 '46

See also
Aluminum works
Brass works
Foundries
Machine works
Rolling mills
Steel works

Accidents

Statistical quality control of metal stampings. G. R. Armstrong. Iron Age 157:46-8 F 21 '46

Air conditioning

Man-made weather for metalworking; with cost data. E. J. Tangerman. il maps diags Am Mach 90:117-32 O 10 '46

Costs

Cost reducing program for a job shop; National supply co. P. C. Hamlin. il Iron Age 158:56-61 S 26 '46

Economic aspects of tube bending. R. Shaw, jr. il Steel 119:94-5+ S 2 '46

Machinability in relation to production; medium engineering. L. Johnstone. Engineer 181:499 My 31 '46; Same. Engineering 161: 606 Je 28 '46

Electric equipment

Making aluminium houses; electrical aids to large-scale flow production. il Elec R (Lond) 138:975-7 Je 21 '46

METAL working plants—Electric equipment —*Continued*
Making bolts and studs; electrical applications, A.P. Newall & co. il Elec R (Lond) 137:769-73, 887-92 N 30, D 21 '45
Metals testing; electrical equipment used in making bolts and studs; A. P. Newall & co. il Elec R (Lond) 139:361-4 S 6 '46

Employees

See Metal workers

Equipment

Bethlehem axle plant modernized. R. E. Penrod. il Iron Age 158:60-3 O 10 '46
Current situation in materials, components, metalworking equipment. Steel 119:90-1 S 9 '46
40-foot 1,000,000-amp butt weld; production of large diameter pipe; A. O. Smith corp. il Steel 118:120-3+ F 4 '46
Industrial power trucks cut material handling costs. W. A. Lloyd. il Iron Age 158: 62-6 Jl 4 '46
Intra-plant transportation expedited by battery trucks; Hubbard & co. il Steel 119: 106+ N 4 '46
Manufacturers' literature. Published in monthly numbers of Materials & methods
Needed: a sensible depreciation policy. B. Finney. Am Mach 90:111-18 Ap 25 '46
New equipment; finishing. il Iron Age 156:79-80 D 13 '45
1945 inventory of production equipment other than machine tools, by industrial and geographical groupings; with age data. Am Mach 89:105-20 D 6 '45
Operation-to-operation handling; Duff-Norton mfg co. il Steel 119:138+ S 23 '46
Operations and plants of International nickel company of Canada; Henry Wiggin & company limited. il Can Min J 67:537-41 My '46
Operations and plants of International nickel company of Canada; United States operations; Huntington and Bayonne works. flow sheet il Can Min J 67:523-33 My '46
Processing equipment for peacetime production; review and directory. Materials & Methods 23:1589-1608 Je '46
Sapphire as a production tool. R. F. Waindle. il Am Mach 90:101-4 Je 6 '46
Small metalworking plants have higher percentage of old equipment; results of survey. Am Mach 90:113-15 Mr 14 '46
33d annual review number. il diags Am Mach 90:106-96 Ja 17 '46
Transfer crane system; mechanical handling aids correlated with plant layout; Ceco steel products corp. G. W. Birdsall. il plan Steel 117:124-6+ N 19 '45

See also
Machine tools

Layout

Metalworking in miniature; plant layout models. il Am Mach 90:118 Ja 3 '46
Transfer crane system; mechanical handling aids correlated with plant layout; Ceco steel products corp. G. W. Birdsall. il Steel 117:124-6+ N 19 '45

Lighting

Lighting for production. H. J. Williams. il Am Mach 90:101-5 Ag 29 '46

Management

Coordination of engineering and production in the manufacture of welded products. E. C. Brekelbaum. il diags Welding J 25:975-9 O '46
Cost reducing program for a job shop; National supply co. P. C. Hamlin. il Iron Age 158:56-61 S 26 '46
Give the foreman schedule responsibility; Signode steel strapping company. F. A. H. Hulick. il Am Mach 90:116-20 Mr 14 '46
Inspection in the small plant; Steelcraft engineering co. J. H. Bryant. il Steel 117: 118-19+ D 3 '45
Putting production control to work; National radiator co. J. A. Coltrin. il Iron age 157: 40-3 My 16 '46
Setting up for a new product. L. S. Whitson. il Iron Age 158:58-63 N 7 '46

Records

Bar stock records; system put into operation at Waterbury tool division, Vickers, inc. B. Melnitsky. Steel 118:95+ Ap 8 '46
Estimating die costs. R. Howell. il Iron Age 156:44-8 N 29 '45
Putting production control to work; National radiator co. J. A. Coltrin. il Iron Age 157: 40-3 My 16 '46

METALATION
Condensations by sodium; the metalation of olefins and the preparation of β,γ-unsaturated acids. A. A. Morton and others. bibliog Am Chem Soc J 67:2224-8 D '45
Metalation of benzotrifluoride. J. D. Roberts and D. Y. Curtin. bibliog Am Chem Soc J 68:1658-60 Ag '46
Metalation of cumene by ethylpotassium. H. Gilman and L. Tolman. Am Chem Soc J 68:522 Mr '46

METALITE
Featherweight structural material; a metal-faced sandwich. Chem & Eng N 24:830 Mr 25 '46; diag Iron Age 157:45 My 30 '46
Metal-balsa sandwich. diag Sci Am 174:254 Je '46
Metal faced sandwich material, developed for aircraft construction, is strong, lightweight structural material. il diag Arch Forum 84:169 Je '46
Metalite aircraft structural material. il diag Automotive & Aviation Ind 94:160+ Mr 15 '46; Aeronautical Eng R 5:97 Ap '46
Metalite for structural uses. il diag Aero Digest 53:82+ Ag '46

METALLIC films. See Films, Metallic

METALLIC soap. See Soap, Metallic

METALLIZING. See Metal coating

METALLOGRAPHIC specimens
Metal test specimens mounted in urea. il Mod Plastics 24:121 O '46
Methods for polishing metallographic specimens; abstract. F. G. Anderson and R. E. McGraw. Steel 119:183 N 11 '46

METALLOGRAPHY
Copper-manganese equilibrium system. R. S. Dean and others. il Am Soc for Metals Trans 34:443-63 bibliog(p462-3); Discussion. 463-4 '45
Estimation of spatial grain size. W. A. Johnson. il diags Metal Prog 49:87-92, data sheet 1192B Ja, Je '46
Etching for the microscope; abstract. C. A. E. Wilkins. Materials & Methods 23:1390+ My '46
Fractographic structures in bismuth. C. A. Zapffe. il Metal Prog 50:283-6 Ag '46
Fractography; a new tool for metallurgical research. C. A. Zapffe and M. Clogg, jr. il Am Soc for Metals Trans 34:71-98 bibliog(p97-8) '45; Same cond. Steel 116:106-9+ My 28 '45; Discussion. diags Am Soc for Metals Trans 34:98-107 '45
Grain shape and grain growth. D. Harker and E. R. Parker. il diags Am Soc for Metals Trans 34:156-95; Discussion. 195-201 '45
Internal friction and plastic extension of zinc single crystals. T. A. Read and E. P. T. Tyndall. J Ap Phys 17:713-20 S '46
Machinability and structure; non-ferrous metallurgy. A. J. Murphy. il Engineering 161:573-4 Je 14 '46
Microscope in metallurgy. L. Sanderson. diag Chem Age (Lond) 54:497-500, 612-14 My 4, Je 1 '46
Microscopic examination. W. Dietz. Materials & Methods 24:992 O '46
Microstructure of hard-facing alloys. H. W. Sharp. il Welding J 25:936-41 O '46
Nonferrous physical metallurgy; review of 1945. R. Hultgren and E. R. Parker. il Min & Met 27:93-100 F '46
Precision casting heat-treatable copper-base alloys; microstructures. H. Rosenthal and others. il Iron Age 158:48-54 S 19 '46
Sigma phase; abstract. F. B. Foley. Metal Prog 49:1224+ Je '46
Simple, fast metallographic polishing method. R. B. McCauley, jr. and L. F. Mondolfo. il Materials & Methods 23:1583-6 Je '46
Structure and chemistry of metallic crystals; abstract. G. D. Preston. Chem & Ind p402-3 D 22 '45

METALLOGRAPHY—*Continued*
Two historic letters about the copper-tin diagram from Roozeboom to Neville. D. Stockdale. Metal Prog 49:1183-7 Je '46
Universal metallographic polishing procedure. W. C. Coons. il Metal Prog 49:956-9 My '46
Upright type of microscope in metallography. J. R. Vilella. il Metal Prog 49:113-16 Ja '46
See also
Aluminum—Metallography
Etching (metals)
Iron—Metallography
Magnesium—Metallography
Steel—Metallography

METALLURGICAL analysis
Application of the vacuum-fusion method to the determination of the oxygen, hydrogen, and nitrogen contents of non-ferrous metals, alloys, and powders. H. A. Sloman. Engineering 160:385, 404-5, 419-20 N 9-23 '45; Discussion. 160:234-5 S 21 '45; Engineer 180:240 S 28 '45
Colorimetric determination of cobalt in metallurgical products with nitroso R salt. R. S. Young, E. T. Pinkney and R. Dick. Ind & Eng Chem Anal ed 18:474-6 Ag '46
Effect of reaction between mercury and oxygen upon polarographic waves of certain metals at small concentrations. E. R. Smith and others. bibliog J Res Nat Bur Stand 37:151-5 S '46
Electrical equipment for spectrographic analysis. R. S. Coulter. il diags Materials & Methods 23:1298-1302 My '46
Electronic metal analyzer. S. R. Winters. il Radio N 36:28-9+ N '46
Identification of electroplated coatings; engineering file facts. G. Black and others. Materials & Methods 24:673 S '46
Methods of analyzing manganese ore and electrolytic manganese pilot-plant metallurgical products. R. W. Lewis and others. il diags U S Bur Mines Bul 463:88-134; pa 55c Supt. of doc. '46
Mixed metal magic. J. Markus. il Sci Am 175:169-71 O '46
Nondestructive analysis of a metallurgical unknown; Invar. S. Tour. Metal Prog 50: 314 Ag '46
Photelometric analysis; Cenco-Sheard-Sanford photelometer. J. Parina, jr. bibliog il Steel 118:110-11+ Je 17 '46
Polarography; electrochemical analysis of metals. L. Sanderson. diags Chem Age (Lond) 55:289-92 S 7 '46
Quantometer for rapid spectrographic examination of metals and alloys. R. H. Müller. il Ind & Eng Chem Anal ed 18:sup 23-4 Ag '46
Quick methods for identifying metals. J. E. Garside. Iron Age 158:58-62 O 17 '46
Spectroscopy applied to ferrous and non-ferrous materials. W. J. Poehlman. bibliog il diags Welding J 24:sup564-72 N '45; Abstract. Mech Eng 68:255-6 Mr '46
Volumetric determination of magnesium in magnesium carbonate ores. L. R. Williams. bibliog Ind & Eng Chem Anal ed 18:542-4 S '46
X-ray diffraction as an analytical tool. D. Goodman. il Iron Age 158:55-8 S 19 '46
See also
Alloys—Analysis
Aluminum—Analysis
Copper—Analysis
Iron—Analysis
Lead—Analysis
Magnesium—Analysis
Manganese—Analysis
Metals—Analysis
Steel—Analysis
Zinc—Analysis

METALLURGICAL apparatus
See also
Flotation machines

METALLURGICAL laboratories
Electrical steel research laboratory; Joseph Sankey and sons. Engineer 182:377 O 25 '46
Operations and plants of International nickel company of Canada; technical control. il plans diag Can Min J 67:473-9 My '46
See also
Metallurgical plants—Experimental plants

Equipment
New equipment. il Iron Age 157:78-80 F 14 '46

METALLURGICAL patents
See also
Aluminum metallurgy—Patents

METALLURGICAL plants
Conversion plant at Langeloth, Pa; Climax molybdenum co. M. W. Murphy and others. il Min & Met 27:350-2 Je '46
Problems posed by surplus mines, mills, and smelters. R. H. Ramsey. il Eng & Min J 147:65-70 Ja '46
Proposal for electrolytic manganese plant for Three Kids ore, Las Vegas, Nev.; with cost data. J. H. Jacobs and others. flow sheets fold pl U S Bur Mines Bul 463:135-65; pa 55c Supt. of doc. '46
See also
Aluminum works
Blast furnaces
Iron works
Ore treatment
Smelting works
Steel works

Electric equipment
Electric control for large material handling plants for ore preparation. P. F. Grove. diag Mech Handling 33:268-71 My '46
Maintenance of rectifiers on electrochemical installations. J. E. Housley and G. N. Hughes. il diag Elec Eng 65:Trans 436-41 Jl '46

Equipment
Abrasion-resistant alloy reduces milling costs; Ni-Hard. K. A. Delonge. il Eng & Min J 147:60-2 O '46
Climax crushing plants. F. Coolbaugh. flow sheets il Min & Met 27:320-2 Je '46
Fine-grinding and concentration at Climax. E. J. Duggan. flow sheets il Min & Met 27:323-9 Je '46
History of crushing and milling at Climax. D. F. Haley and C. J. Abrams. flow sheet Min & Met 27:317-19 Je '46
Matachewan consolidated mines. D. C. McLaren. flow sheet il Can Min J 67:702-7 Jl '46
Modernized device makes tin plant possible; Buckman tilting concentrator. J. B. Huttl. flow sheet il Eng & Min J 147:84-7 My '46
New flotation technique in copper-lead separation; San Francisco mines of Mexico, ltd. G. O. Deshler and T. R. Herndon. il diag Eng & Min J 147:67-9 My '46
Operations and plants of International nickel company of Canada; milling, smelting, nickel and copper refining. flow sheets il plan diags Can Min J 67:423-62 My '46
Platinum metals refinery at Acton, London. flow sheets il Can Min J 67:541-4 My '46
Rubber-lined pipe resists abrasion in mill circuits. J. Casale. Eng & Min J 146:100-1 D '45
Some things millmen should want but don't. H. E. T. Haultain. diags Can Min J 67:763-8 Ag '46
Young-Davidson mine; milling procedure. D. C. McLaren. flow sheet il diags Can Min J 67:175-83 Mr '46
See also
Concentrators
Converters

Experimental plants
Establish pilot plant to study concentration milling and processing. il Iron Age 156: 138 N 29 '45
Producing sponge iron in a rotary kiln; pilot plant operated by Bureau of mines. T. L. Johnston. flow sheet il Steel 117:128-9+ N 12 '45

Fires and fire protection
Operations and plants of International nickel company of Canada; fire protection. il map diags Can Min J 67:496-500 My '46

Fuel
Fuel considerations in the fabrication of non-ferrous metals and light alloys. L. Aitchison. Chem Age (Lond) 55:535-7 N 2 '46

Power
Consumption of off peak power with boiler feed water heater at Wright Hargreaves mines, limited. J. B. Lowes. diags Can Min J 67:718-19 Jl '46

METALLURGICAL plants—Power—*Continued*
Electric power conversion at the trail plants of the Consolidated mining & smelting company of Canada, limited. A. G. Dickinson. il Electrochem Soc Trans 90 (preprint 14): 205-17 '46
Hydro-electric power and Ontario gold mining. R. E. Foster. Can Min J 67:256-8 Ap '46
Operations and plants of International nickel company of Canada; power. il diags Can Min J 67:464-72 My '46

Safety measures

Operations and plants of International nickel company of Canada; safety. il Can Min J 67:503-11 My '46

Waste

Reclamation of wet process waste; use of metallurgical by-product liquors. A. G. Arend. il diags Chem Age (Lond) 55:15-18 Jl 6 '46

Germany

Non-ferrous metallurgy in wartime Germany. A. J. Phillips. il Eng & Min J 147:90-3 Je '46

METALLURGICAL research
Ferrous metallurgical research. N. A. Matthews. il J Ap Phys 16:780-7 D '45
Fundamental research program in metallurgy being pushed by navy. Steel 119:103 Ag 5 '46
High temperature alloys; research on materials for gas turbines. N. J. Grant. Iron Age 157:42-8 My 23; 50-6 My 30; 77-80 Je 6; 60-3 Je 20 '46
Metallurgical problems. Chem Age (Lond) 55:18-20 Jl 6 '46
Metallurgical research program of the Bureau of mines relating to iron and steel. R. S. Dean bibliog U S Bur Mines Rep of Invest 3920:1-17 '46
Metallurgy at the Royal aircraft establishment. Engineering 161:236 Mr 8 '46
Metals in modern society. C. S. Smith. Min & Met 27:541-3 N '46
New developments in the study of surface chemistry. E. A. Gulbransen. il diags Metal Prog 49:553-9 Mr '46
New research tools sharpen metallurgist's perception. J. C. Hartley. Steel 118:90+ Ja 21 '46
Non-ferrous metal research; abstract. H. Morrison. Chem Age (Lond) 53:519 D 1 '45
Non-ferrous metallurgical research at Frankford arsenal. C. H. Greenall. bibliog il J Ap Phys 16:787-92 D '45
Nonferrous physical metallurgy; review of 1945. R. Hultgren and E. R. Parker. il Min & Met 27:93-100 F '46
Operations and plants of International nickel company of Canada; marketing and research activities. Can Min J 67:545-51 My '46
Progress in engineering knowledge during 1945; metallurgy. P. L. Alger and others. il Gen Elec R 49:13-17 bibliog(p63) F '46
Research on metallic surfaces organized in France. A. M. Portevin. Metal Prog 49: 560 Mr '46
Researches of Mellon institute, 1945-1946; in the interest of metallurgy. Chem & Eng N 24.909 Ap 10 '46
What technical men expect in 1946; metallurgy. Steel 118:264-8+ Ja 7 '46

See also
Corrosion research
Foundry research
Metallurgical laboratories
Steel research

Bibliography

Wartime research in metalworking materials and processes; reports issued by Office of technical services. Iron Age 158:66 Ag 22 '46

METALLURGISTS, Institution of. See Institution of metallurgists

METALLURGY
Aeronautics and the metallurgist. L. Aitchison. Roy Aeronautical Soc J 50:677-93; Discussion. 693-709 S '46
Chemistry, metallurgy and empire; first Robert Horne memorial lecture. S. Robson. Chem & Ind p162-5, 170-3 Ap 20-27 '46
Few changes mark year in non-ferrous metallurgy. C. R. Hayward. il Eng & Min J 147:95-7 F '46
Metallurgical aspects of X ray tube manufacture. M. J. Zunick. bibliog il diags Iron Age 157:56-9 Ap 11 '46
Metallurgists and atomic energy; abstract. C. Darwin. Chem Age (Lond) 55:350-1 S 21 '46
Metallurgy; wartime developments being integrated with peacetime production. J. Z. Briggs. il Iron Age 157:124-9+ Ja 3 '46
Microscope in metallurgy. L. Sanderson. diag Chem Age (Lond) 54:497-500, 612-14 My 4, Je 1 '46
Non-ferrous metallurgy in wartime Germany. A. J. Phillips. il Eng & Min J 147:90-3 Je '46
Les ultra-sons en métallurgie. N. Marinesco. il diags Chimie & Ind 55:180-91 Mr '46

See also
Aluminum metallurgy
Blast furnaces
Cobalt metallurgy
Copper metallurgy
Electrodeposition of metals
Electrometallurgy
Flotation process
Flue dust
Flux
Furnaces, Metallurgical
Gold metallurgy
Hydrometallurgy
Iron metallurgy
Lead metallurgy
Magnesium metallurgy
Manganese metallurgy
Metallography
Metallurgical analysis
Metallurgical laboratories
Metallurgical plants
Metals
Nickel metallurgy
Open hearth process
Ore treatment
Pickling (metals)
Sintering
Slag
Smelter fumes
Smelting
Smelting works
Steel metallurgy
Tin metallurgy
Zinc metallurgy

Bibliography

Among the newer books. Published in monthly numbers of Mining and metallurgy
Current Institute papers. Published in Mining and metallurgy
Engineering books. Published in monthly numbers of Materials & methods
Materials & Methods digest; engineering materials and processing methods. Published in monthly numbers of Materials & methods
Outstanding books of 1945 in the mineral technology field. Min & Met 27:114+ F '46

Study and teaching

Metallurgical education and the metal industries. H. T. Heald. Min & Met 27:402-3 Jl '46
Training industrial metallurgists; new course at Birmingham. L. Aitchison. Chem Age (Lond) 54:609-11 Je 1 '46
Training of good metallurgists; abstract. T. Wright. Chem Age (Lond) 55:534 N 2 '46

METALS
Absorption spectrum of metal-ammonia solutions. R. A. Ogg, jr. bibliog J Chem Phys 14:114-15 F '46
Aeronautics and the metallurgist. L. Aitchison. Roy Aeronautical Soc J 50:677-93; Discussion. 693-709 S '46
Annual engineering review. il Materials & Methods 23:86-152 Ja '46
Atomic physics and the strength of metals. N. F. Mott. Engineering 161:558-60 Je 14 '46; Excerpt. Engineer 181:469-70 My 24 '46
Colored glasses; selective absorption of metals. N. J. Kreidl. Glass Ind 27:450-1+ S '46
Dissociation pressures of metal oxides. B. Lustman. Iron Age 158:61 S 26 '46
Economics of the engineering materials. H. A. Knight. il Materials & Methods 24:613-18 S '46
Electron diffraction camera for the study of high temperature surface reactions. E. A. Gulbransen. il diags J Ap Phys 16:718-24 N '45
Induction and dielectric heating data. Elec West 96:61 Ja '46; Excerpt (Physical constants of metals) tabulation. Rayon 26:670 D '45; Same. Materials & Methods 22:1783 D '45; Same. Aviation 45:123 Ja '46
Iron, steel and nonferrous metals listed by tradenames, by producing companies and by principal constituents. Machine Design 18:168-206 O '46

METALS—*Continued*

Les journées des états de surface (Paris, 23-26 octobre 1945). Génie Civil 123:60 Mr 1 '46

Materials & Methods digest; engineering materials and processing methods. Published in monthly numbers of Materials & methods

Materials and the postwar world. J. C. DeHaven. Foundry 74:97+ Ap '46

Melting points of metals and alloys. H. R. Morrison. Welding J 25:545-6 Je '46

Metallurgical aspects of X ray tube manufacture. M. J. Zunick. bibliog il diags Iron Age 157:56-9 Ap 11 '46; Same. Glass Ind 27: 238-41+ My '46

Metallurgy; wartime developments being integrated with peacetime production. J. Z. Briggs. il Iron Age 157:124-9+ Ja 3 '46

Metals and alloys in the petroleum industry. J. H. Wilson. Inst Pet J 32:230-40 Ap '46

Metals in modern society. C. S. Smith. Min & Met 27:541-3 N '46

Metals in review. il Eng & Min J 147:71-103+ F '46

Our metals developments since first World war. W. E. Jominy. Iron Age 157:132+ My 2 '46

Physical and chemical properties of organometallic compounds; vapour pressures and freezing points of simple metal alkyls of groups II, III, and V. C. H. Bamford, D. L. Levi and D. M. Newitt. diags Chem Soc J p468-71 Je '46

Physics of the solid state. G. Busch. Engineering 160:490-1 D 14 '45

Problems in non-elastic deformation of metals. C. Zener and J. H. Hollomon. bibliog diags J Ap Phys 17:69-82 F '46

Production and uses of rare metals. W. J. Kroll. il Min & Met 27:262-6 My '46

Redesigning? consider materials changes; graphotype; machine for embossing plates for addressing machine. R. K. Lotz. il diags Machine Design 17:127-9 D '45

Reduction by dissolving metals. A. J. Birch. Chem Soc J p430-6, 809-13, 593-7 S '44, N '45, Jl '46

Shear properties of metals and alloys; engineering file facts. R. S. Burpo, jr. comp. Materials & Methods 23:1341, 1343, 1345, 1617, 1619; 24:143, 145 My-Jl '46

Some problems of the metallic state. L. Bragg. diags Engineering 160:433-5 N 23 '45

Substitute metallurgical products. A. M. Portevin; trans. by W. M. Baldwin, jr. Metal Prog 50:485-94 S '46

Theoretical criterion for the initiation of slip bands. C. Zener. bibliog Phys R 69:128-9 F 1 '46

Use of metals in postwar homes may rise to ten tons per unit. C. W. Farrier. Steel 118: 60-1 Ja 14 '46

See also

Alloys
Aluminum
Antimony
Babbitt metal
Bearing metals
Beryllium
Bismuth
Brass
Bronze
Cast iron
Chromium
Cobalt
Copper
Corrosion and anti-corrosives
Creep of metals
Deformations (mechanics)
Electrodeposition of metals
Electrometallurgy
Electron metal
Fatigue in metals
Films, Metallic
Foundry practice
Geology
Glass—Joining to metal
Gold
Heat treatment
Iron
Lead
Lithium
Magnesium
Manganese
Mercury
Metal trade
Metallography
Metallurgy
Mines and mineral resources
Molybdenum
Monel metal
Nickel
Ore deposits
Pickling (metals)
Plastic materials—Joining to metal
Platinum metals
Potassium
Radium
Rare earth metals
Scrap metal
Sheet metal
Silver
Slag
Sodium
Solder and soldering
Solutions, Solid
Steel
Stellite
Strength of materials
Strontium
Tantalum
Thorium
Tin
Tungsten
Uranium
Welding
White metals
Zinc

Aging

Age hardening copper-manganese nickel alloys. R. S. Dean and others. il Am Soc for Metals Trans 34:481-502 bibliog(p502); Discussion. 502-4 '45

Aging heat treatments of 75S aluminum. F. R. Kostoch. Iron Age 158:49 Ag 15 '46

Aging of high purity aluminum alloy containing 4 pct cu; abstracts. M. L. V. Gayler. Iron Age 158:45 O 31 '46; Engineer 182: 281 S 27 '46; Engineering 162:306 S 27 '46; Discussion. Engineer 182:281 S 27 '46; Engineering 162:306 S 27 '46

Effect of aging on mechanical properties of aluminum-alloy rivets. F. C. Roop. bibliog(39 titles) diags U S Nat Advisory Com for Aeronautics 1941:353-69 '42

Analysis

Automatic analyzer. Bsns W p61 Ja 26 '46

Qualitative analysis of group III; a survey. M. M. Tenbusch and G. E. F. Brewer. bibliog(82 references) J Chem Educ 23:66-72 F '46

Rapid method of determining minute quantities of carbon in metals. J. K. Stanley and T. D. Yensen. bibliog il diag Ind & Eng Chem Anal ed 17:699-702 N '45

See also

Metallurgical analysis

Bibliography

Manufacturers' literature. Published in monthly numbers of Materials & methods

Cleaning

See Metal cleaning

Color

Color merchandising of metal products. E. Engel. Iron Age 156:77-9 D 6 '45

Coloring

See Metal coloring

Detection

Locator probe aids medical science; indicates presence of metals in the body. il Gen Elec R 49:54-5 O '46

Metal detector for conveyor belts. il Electronics 19:160 My '46

Metal meter; to identify mixed metals. il Bsns W p85 Je 1 '46

Mine-detecting jeep recovers cached silver; electrical devices recovered $8,500,000 lost in Manila bay. il Oil & Gas J 44:79 D 15 '45

RCA electronic metal detector. il Rubber Age 59:347 Je '46

Treasure finding modernized; electronic metal locators. W. E. Osborne. il diags Radio N 36:30-1+ S '46

Try this 1946 treasure finder; sensitive metal locator. W. E. Osborne. il plan diag Radio N 36:36-7+ N '46

Failure

Failure of ductile metals in tension. G. Sachs and J. D. Lubahn. bibliog diag A S M E Trans 68:271-6 My '46

Fractography; a new tool for metallurgical research. C. A. Zapffe and M. Clogg, jr. il Am Soc for Metals Trans 34:71-98 bibliog(p97-8) '45; Same cond. Steel 116:106-9+ My 28 '45; Discussion. diags Am Soc for Metals Trans 34:98-107 '45

Problems in fracture of metals. J. H. Hollomon and C. Zener. bibliog diag J Ap Phys 17:82-90 F '46; Abstract. Materials & Methods 23:1360+ My '46

Thermodynamic criterion for the fracture of metals. E. Saibel. bibliog Phys R 69:667 Je 1 '46

Thermodynamic criterion for the fracture of metals; a criticism. C. Zener. Phys R 70:225-6 Ag 1 '46

See also

Fatigue in metals

Fluidity

Stress and strain in plastic flow. W. P. Roop. bibliog il diags Welding J 25:799-823 S '46

METALS—*Continued*

Gas content

Removing dissolved gases from molten metals. P. M. Hume. bibliog il diags Steel 119:108-11+ O 7; 110-11 O 14 '46

Physiological effect

Toxicology of newer metals; abstract. L. Fairhall. Ind Med 15:474 Ag '46

Polishing

See Polishing; Polishing, Electrolytic

Prices

Annual average metal prices, 1897-1945; table and chart. Eng & Min J 147:82-3 F '46

Standards

1945 supplement of A.S.T.M. standards including tentatives. (Part 1, Metals) 397p American society for testing materials 260 S. Broad St, Philadelphia 2 '46

Stockpiling

See Minerals—Stockpiling

Temperature effects

Aluminum for elevated temperatures; abstract. A. E. Flanigan, L. F. Tedsen and J. E. Dorn. Materials & Methods 23:782 Mr '46

Autographic method for obtaining load-extension records of high-speed tensile tests on sheet specimens at elevated temperatures. A. E. Flanigan and others. il diags J Aeronautical Sci 13:405-9 Ag '46

Effect of hot forming temperatures on magnesium. Iron Age 157:66 Mr 21 '46

Effects of temperature on physical properties of aluminum alloy sheet; abstract. A. E. Flanigan, L. F. Tedsen and J. E. Dorn. Iron Age 158:75-6 Jl 4 '46

Reversed stress testing of piston materials at high temperatures to determine their usefulness. K. Wellinger and G. Staehli. diags Automotive & Aviation Ind 94:20-3+ F 15 '46

Straining of weld metal during cooling. E. P. DeGarmo. il diags Iron Age 156:48-50 D 20 '45

Tensile and creep strengths of some magnesium-base alloys at elevated temperature; abstract. A. A. Moore and J. C. McDonald. Iron Age 158:76 Jl 4 '46

See also
Creep of metals

Testing

Aufgaben der werkstofforschung in der feinmechanischen technik. H. Lüpfert. bibliog il V D I 87:481-8 Ag 7 '43; Abstract (Metallurgical research problems in the precision parts industry). Product Eng 17: 116 Ag '46

Corrosion limits metals that can be used for construction of HF alkylation units. il Nat Pet N 38 pt 2:R618+ Ag 7 '46

Flaws detected by supersonic waves; Reflectoscope. J. W. Dice. il diag Elec World 125: 98+ F 2 '46

Hypersonic analyzer betters testing technique. il diag Iron Age 156:74 D 13 '45; Electronics 19:166+ Mr '46; Machine Design 18:103 Ja '46; Product Eng 17:198 Mr '46

Metal inspection by supersonic echoes; supersonic reflectoscope. il diags Diesel Power 24:312-15 Mr '46

Metal test specimens mounted in urea. il Mod Plastics 24:121 O '46

Metals testing; electrical equipment used in making bolts and studs; A. P. Newall & co. il Elec R (Lond) 139:361-4 S 6 '46

Non-destructive testing methods. R. Le Grand. il diags Am Mach 90:119-42 My 23 '46

Non-destructive testing of refinery equipment. C. D. Havens. il Pet Eng 17:92+ Je '46

Recent developments in nondestructive testing. F. T. Sisco. Min & Met 27:442, 478 Ag-S '46

Refinements in supersonic reflectoscopy; polarized sound. F. A. Firestone and J. R. Frederick. il diags Acoustical Soc Am J 18:200-11 Jl '46

Stress analysis methods. W. M. Murray. il diag Materials & Methods 23:1002-6 Ap '46

Supersonic flaw detector. R. B. De Lano, jr. bibliog il diag Electronics 19:132-6 Ja '46

Supersonic inspection. il Steel 117:94+ D 24 '45

Supersonic inspection of materials and parts; abstract. D. Erdman. il S A E J 54:74 O '46

Supersonic reflectoscope for interior inspection. F. A. Firestone. il diags Metal Prog 48:505-12 S '45; Same. Acoustical Soc Am J 17:287-99 Ja '46

Tensile properties of several special steels and certain other materials under pressure. P. W. Bridgman. bibliog J Ap Phys 17:201-12 Mr '46

Tentative method of assessment of machinability. C. W. George. il Engineering 161: 621-2 Je 28 '46

Testing and inspection, 1945. H. A. Knight. il Materials & Methods 23:145-50 Ja '46

See also
Brinell hardness test
Hardness—Testing
Magnetic testing
Testing machines

Textile uses

See also
Aluminum—Textile uses
Textile fibers, Metallic

X ray inspection

Acceptance standards; determination of casting quality by radiography and X-ray micrography. il Automobile Eng 36:101-4 Mr '46

Accurate interpretation of radiographs. H. R. Clauser. il diags Materials & Methods 22: 1418-22 N '45

Aircraft quality castings; use of radiography and fluoroscopy; Northrop aircraft inc. T. E. Piper. il diags Foundry 74:96-101+ Je '46; Same cond. Iron Age 157:46-9 My 2 '46

Case for 100 pct X ray aircraft castings. J. G. Schneeman. il Iron Age 158:56-8 O 10 '46

Classification and inspection of castings for airplanes. M. A. Melcon. Automotive & Aviation Ind 94:40+ Ap 1 '46

Continuous X-ray inspection; Elwood, Ill. ordnance plant; abstract. D. Goodman. Materials & Methods 23:832 Mr '46

Effect of cold rolling on the structure of Hadfield manganese steel. N. P. Goss. bibliog il Am Soc for Metals Trans 34: 630-8; Discussion. 638-44 '45

Fluoroscopy of light-alloy castings. B. Cassen and D. S. Clark. il diag Iron Age 156:54-9 N 1 '45; 157:48-50 Ap 18 '46; Same cond (pt 1). Automotive & Aviation Ind 94:26-30+ Ja 1 '46

Growth of industrial radiology; abstract. W. J. Wiltshire. Engineer 180:392-3 N 16 '45

High-voltage radiography; 1 and 2 million-volt equipment permits examination of steel sections up to 12 in. thick. D. Goodman. il diags Iron Age 157:58-61 F 21 '46

Inspects heavy steel sections with 1000-kilovolt X-ray unit; Bethlehem steel co. il Steel 118:122-4 Mr 25 '46; Same. Foundry 74:94-5+ Je '46

Interpretation of radiographs; particularly of aircraft parts. L. W. Ball. il Am Soc for Metals Trans 34:545-75 bibliog(p575) '45; Same cond. Machine Design 16:135-40 D '44; Same cond. Foundry 73:82-5+ F '45; Discussion. Am Soc for Metals Trans 34: 575-88 '45

Non-destructive testing methods. R. Le Grand. il diags Am Mach 90:120-7 My 23 '46

Precise measurements and inspection by stereoscopic radiography. B. J. DeSimone. il diags Metal Prog 50:71-4 Jl '46

Production control with 2,000,000-volt X-rays; testing shells and bombs; Elwood ordnance plant. D. Goodman. il diags Electronics 19:146-9 F '46

Progress in engineering knowledge during 1945; X-rays. P. L. Alger and others. diag Gen Elec R 49:17-19 bibliog(p63) F '46

Radiographic inspection fits into work-processing schedules; Steam division, Westinghouse electric corporation. R. Le Grand. il diags Am Mach 90:134-7 N 7 '46

Radiographic studies of metals and materials subject of meeting sponsored by American industrial radium and X-ray society. Steel 118:128+ F 18 '46

METALS—X ray inspection—*Continued*
Recent developments in nondestructive testing. F. T. Sisco. Min & Met 27:478 S '46
Two million volt X-ray inspection equipment; inspecting loaded shells and bombs at Elwood ordnance plant. D. Goodman. il diag Metal Prog 49:327-32 F '46
X ray checks casting quality; Bethlehem steel co. il Foundry 74:94-5+ Je '46
X-ray in the steel foundry. il Steel 118:143 F 4 '46
X ray standards for purchasing castings. L. W. Ball. il Iron Age 156:62-4 N 22 '45
X-ray supplies the answer in identifying unknown metal. Am Mach 90:123 Jl 4 '46
See also
Welding—X ray inspection

METALS, Clad
British patent magnesium joining process. Iron Age 158:65 S 12 '46
Cladding magnesium alloys; abstract. E. Hartmann. Materials & Methods 22:1834 D '45
See also
Alclad

METALS, Cold treatment of
Cold treatment; mechanical refrigeration in auto and other industries. Bsns W p58+ My 18 '46
Refrigerating aluminum; abstract. M. L. Rask. Materials & Methods 23:244+ Ja '46
See also
Steel, Cold treatment of

METALS, Cold working of
Cold-bending of pipe and metal shapes. E J. DeWitt and H. S. Nachman. il diags Mach 52:141-50 Ap '46
Cold-forged inserts; abstract. W. G. Waltermire. diags Products Eng 17:116-17 S '46
Cold metal contour forming; machinery developed by Cyril Bath co. R. A. Mackenzie. il Steel 117:112-13+ D 10 '45
Grain sizes produced by recrystallization and coalescence in cold-rolled cartridge brass. H. L. Walker. il Ill U Eng Exp Sta Bul 359:1-55 '45 (pa 70c)
Selection of die steels for cold work. W. H. Wills. il Iron Age 156:58-61 N 22 '45
Selection of die steels for cold working metals. G. M. Butler. Steel 119:124+ Ag 19 '46
Work hardened surfaces of fatigue specimens. F. C. Hull and H. R. Welton. il Metal Prog 48:1287-8 D '45
See also
Steel, Cold working of

METALS, Creep of. See Creep of metals

METALS, Heat resisting
See also
Alloys, Heat resisting

METALS, Molten
Rapid and direct measurement of vapor pressure of liquid metals. A. H. Weber and G. Plantenberg. diag Phys R 69:649-51 Je 1 '46
Removing dissolved gases from molten metals. P. M. Hume. bibliog il diags Steel 119:108-11+ O 7; 110-11+ O 14 '46

METALS, Non-ferrous
Application of the vacuum-fusion method to the determination of the oxygen, hydrogen, and nitrogen contents of non-ferrous metals, alloys, and powders. H. A. Sloman. Engineering 160:385, 404-5, 419-20 N 9-23 '45; Discussion. 160:234-5 S 21 '45
Cyclical impetus for mining companies. E. A. Barnes. Mag of Wall St 78:447-9+ Jl 20 '46
Eliminating defects in nonferrous centrifugal castings. N. Janco. diags Foundry 74:94-5+ Jl '46
Few changes mark year in non-ferrous metallurgy. C. R. Hayward. il Eng & Min J 147:95-7 F '46
Machinability and structure; non-ferrous metallurgy. A. J. Murphy. il Engineering 161:573-4 Je 14 '46
Manufactures of the non-ferrous metals in Canada, 1939-1943. 124p pa 50c Canada. Dominion bur. of statistics, Ottawa, '46
Metals in reconversion; with statistical position of non-ferrous metal companies. Mag of Wall St 77:326-8+ D 22 '45
Non-ferrous metallurgical research at Frankford arsenal. C. H. Greenall. bibliog il J Ap Phys 16:787-92 D '45
Non-ferrous metallurgy in wartime Germany. A. J. Phillips. il Eng & Min J 147:90-3 Je '46
Nonferrous metals aid in steel's use. J. Levin. J Chem Educ 23:142-4 Mr '46
Non-ferrous metals and alloys, 1945. F. P. Peters. il Materials & Methods 23:90-5 Ja '46
Nonferrous metals, present and future. C. T. Post. il Iron Age 157:86-90+ Ja 3 '46
Nonferrous physical metallurgy; review of 1945. R. Hultgren and E. R. Parker. il Min & Met 27:93-100 F '46
Nonferrous scrap and secondary metals; annual review and forecast. H. L. Cullen. il Min Cong J 32:112-15 F '46
Porosity and shrinkage in nonferrous castings. W. A. Baker. Iron Age 156:36L-36N Ag 30 '45; Same cond. Metal Prog 49:138+ Ja '46
Selecting nonferrous bearing material. N. E. Woldman. il diag Iron Age 158:54-7 S 5 '46
Soft-soldering nonferrous metals. G. H. Bohn. il diags Welding J 25:513-16 Je '46
Wanted, a base metal policy. Economist 151:19-21 Jl 6 '46
What of the metals now? G. L. Merton. il Mag of Wall St 77:766-9+ Mr 30 '46
World survey of non-ferrous metals; an American boom may offset limited European consumption in postwar years. O. W. Roskill. Eng & Min J 147:76-81 Mr '46
See also
Brass
Bronze
also names of non-ferrous metals, e.g. Aluminum, Copper, Lead, Magnesium
also British non-ferrous metals federation

Blackening
Metal surface preparation for black oxide finishing. A. P. Shulze. il Metal Finishing 44:104-5 Mr '46

Prices
Average monthly quotations in 1945. Steel 118: 352 Ja 7 '46
Have-not theory and metal prices. I. B. Joralemon. il Min Cong J 32:54-7 Je '46
Low-cost producers to profit by metal price boosts. M. H. Zink. Barron's 26:11 Jl 22 '46
Metal subsidies; statement before Senate committee on banking and currency. J. D. Conover. Min Cong J 32:46-51+ My '46
Metals price battle. Barron's 26:5+ Ag 19 '46

Statistics
Imports, exports, and consumption, United Kingdom, 1938, 1944-1945. For Comm W 23: 39 My 4 '46
Nonferrous pinch. Bsns W p24+ N 2 '46
Peruvian exports of nonferrous metals, January-June 1944 and 1945. For Comm W 21:34 D 15 '45
Quantity and value of nonferrous metals produced in Mexico, 1945. For Comm W 24:28 Ag 10 '46

Testing
Standard nonferrous test-bars; abstract. F. Hudson. Materials & Methods 24:720+ S '46

METALS, Powdered. See Metal powders

METAMORPHISM
Metamorphism along the Pulaski fault in the Appalachian valley of Virginia. E. N. Cooper. bibliog pl map Am J Sci 244:95-104 F '46
Structure and metamorphism of the Bellows Falls quadrangle of New Hampshire and Vermont. F. C. Kruger. bibliog fold map Geol Soc Bul 57:161-205, pl 1-2 F '46

METAPHOSPHORIC acid
Deproteinization by metaphosphoric acid; review of its value for the analyst. A. A. Horvath. bibliog(50 references) Ind & Eng Chem Anal ed 18:229-33 Ap '46

METASOMATISM
Nature of replacement. G. V. Douglas and others. il diags Econ Geol 41:546-53 Ag '46

METASTABLE atoms
Note on the lifetime of metastable states. M. L. Wiedenbeck. bibliog Phys R 69:567-9 Je 1 '46

METASTABILITY
Metastable state of 22 microseconds in Ta^{181}. S. DeBenedetti and F. K. McGowan. diag Phys R 70:569 O 1 '46

METEOR air transport
Profit, out of the wide blue yonder; Meteor air transport. F. Barker. il map Air Transport 4:25-9 O '46

METEORITES
Do meteorites start fires? B. Mather. Nat Safety N 54:99-100 Jl '46
New Pennsylvania meteorite. H. Leighton. Science 103:694 Je 7 '46

METEOROLOGICAL charts. See Weather maps

METEOROLOGICAL instruments
Cloud range meter. F. J. Moles. il diag Gen Elec R 49:46-8 Ap '46; Same abr. Mech Eng 68:649 Jl '46
Continuous wind recorders. R. L. Ives. il diags R Sci Instr 17:416-25 O '46
New instrument determines total vapor in atmosphere; spectroscopic hygrometer. N. B. Foster. il Eng N 135:681 N 15 '45
Static d-f reveals storm location. il Electronics 19:212+ F; 224+ Ap '46
Storm finder; static direction device enabled planes to avoid bad weather. Bsns W p31 Ja 5 '46

See also
Anemometers
Barographs
Coronagraph
Radio meteorographs
Thermometers and thermometry

METEOROLOGICAL optics
Sunset shadow bands. R. L. Ives. Opt Soc Am J 35:736 N '45

METEOROLOGICAL research
Reflection of sound signals in the troposphere. G. W. Gilman and others. bibliog il diags Acoustical Soc Am J 18:274-83 O '46

See also
Radio meteorographs

METEOROLOGICAL stations
Explosionproof heaters for hydrogen house at meteorological station. R. L. Ives. il diags Heating-Piping 18:83-4 O '46

METEOROLOGY

See also
Atmospheric electricity
Atmospheric pressure
Auroras
Hurricanes
Lightning
Rain and rainfall
Snow
Solar radiation
Sunspots
Weather

Charts, etc.

See Weather maps

METEOROLOGY, Aeronautic
Army-navy precipitation-static project. R. Gunn and others. bibliog il diags Inst Radio Eng Proc 34:156-77, 234-54 Ap-My '46
Fourteenth annual meeting of the Institute of the aeronautical sciences; review of technical papers. Aeronautical Eng R 5:24-5 Ap '46
Globecasting weather; can air carriers gain anything from the atom bomb test? S. Bangs. Air Transport 4:33-5 Ag '46
Meteorology and high altitude aviation. G. M. B. Dobson and A. W. Brewer. diags Roy Aeronautical Soc J 50:787-806; Discussion. 806-10 O '46
More work needed to develop facsimile weather map network. A. McSurely. Aviation N 5:29 Ap 15 '46
PICAO subcommittee outlines world-wide meteorology plan. Aviation N 4:47-8 D 3 '45
Radio teletype in the AACS. R. Lambe. il Radio N 35:52-3+ Mr '46

See also
Radio meteorographs

METEORS
Meteoric impact ionization observed on radar oscilloscopes. O. P. Ferrell. bibliog Phys R 69:32-3 Ja 1 '46
Rockets vs. meteoroids. F. Watson. Science 104:210 Ag 30 '46

METER reading
Bow-wow, Mister Meterman! how to handle dogs. B. McAlister. Pub Util 37:213-20 F 14 '46; Same. Edison Elec Inst Bul 14:53-5+ F '46
Dispatching system for metermen. J. L. Lineback. il Elec World 124:83 D 22 '45
Meter reading, billing and commercial practices under wartime conditions. K. F. Hoefle. il Am Water Works Assn J 38:775-8 Je '46
Meter readings corrected for transformer errors. L. M. Stoakes. Elec World 125:134 My 11 '46
Reading meters in multiples of 10 kwhr. L. M. LaPorte. Edison Elec Inst Bul 14: 254 Jl '46

METERS
Aids accurate metering of volatile liquids; patent. diags Pet Processing 1:124 O '46

See also
Automobile parking—Meters
Current meters
Dynamometers
Electric meters
Flow meters
Frequency meters
Gages
Gas meters
Meter reading
Orifice meters
Steam meters
Viscosimeters
Voltmeters
Water meters

METHACRYLATES
Pyrolytic preparation of α-carbalkoxyalkyl acrylates and methacrylates. E. M. Filachione, J. H. Lengel and C. H. Fisher. bibliog Am Chem Soc J 68:330-3 F '46
Some derivatives of simple carbohydrates containing unsaturated substituents. W. N. Haworth, Mrs H. Gregory and L. F. Wiggins. Chem Soc J p488-91 Je '46

METHACRYLONITRILE
Dipole moments and structures of ketone and of several polar molecules containing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:1357-60 Jl '46

METHACRYLYLUREA
Methacrylylurea and N-phenyl-N'-methacrylylurea. R. A. Jacobson. Am Chem Soc J 67:1998-9 N '45

METHALLYL ethers. See Ethers

METHANE
Compressed methane for commercial vehicles, gas produced from sewage. Engineer 181: 299 Mr 29 '46
Equilibrium constants for methane in paraffin mixtures. G. H. Hanson, M. J. Rzasa and G. G. Brown. bibliog Ind & Eng Chem 37:1216-17 D '45
Equilibrium of iron-carbon alloys with mixtures of CO-CO_2 and CH_4-H_2. R. P. Smith. bibliog Am Chem Soc J 68:1163-75 Jl '46
Experimental comparison of the chemical effects of deuterons and of alpha particles on methane and *n*-butane. R. E. Honig and C. W. Sheppard. bibliog il diags J Phys Chem 50:119-43 Mr '46
Gaseous fuels in Britain. D. D. Howat. bibliog Chem Age (Lond) 54:134-5 F 2 '46
Hydrogen sulfide from sulfur dioxide and methane. S. W. Walker. bibliog flow sheet Ind & Eng Chem 38:906-12 S '46
Percentages of methane increase difficulty of controlling coal dust. Coal Age 50:120+ D '45
Petroleum byproducts, a big factor in organic chemical industry; Chem & Met report. bibliog il Chem & Met Eng 52:121-8 D '45 [reprint 25c]
Photochemical reactions in sunlight; (a) formation of triarylmethyl peroxides by the action of oxygen on triarylmethanes; (b) dehydrogenation effected by oxygen; (c) dehydrogenation effected by *p*-benzoquinone and phenanthraquinone. A. Schönberg and A. Mustafa. Chem Soc J p657-60 O '45
Production and storage of liquid methane; abstract. A. Egerton and others. Gas J (Lond) 247:678 Ap 24 '46
Reducing properties of methane; experiments with metallic oxides. Chem Age (Lond) 54:234 Mr 2 '46

METHANE—*Continued*
Selective reduction of iron in chromite by methane-hydrogen and similar gas mixtures. F. S. Boericke. U S Bur Mines Rep of Invest 3847:1-14 '46
Separation and chemical utilization of coal gas constituents. N. Booth. Gas J (Lond) 248:434-6+ S 11 '46
Super-expansibility of methane-ethane mixtures. W. O. Clinedinst. bibliog Pet Refiner 25:148-9 Je '46
Thermodynamic properties of methane. C. S. Matthews and C. O. Hurd. fold pl Am Inst Chem Eng Trans 42:55-77; Discussion. 78 F '46
See also
Chlorofluoromethanes

METHANOL
Action of methanol on phenol in the presence of alumina; formation of anisole, methylated phenols, and hexamethylbenzene. N. M. Cullinane and S. J. Chard. diag Chem Soc J p821-3 N '45
Composition of vapors from boiling binary solutions; apparatus for determinations under pressure. D. F. Othmer and F. R. Morley. bibliog diags Ind & Eng Chem 38:751-7 Jl '46
Dielectric constants of the methanol-water system from 5 to 55°. P. S. Albright and L. J. Gosting. bibliog Am Chem Soc J 68: 1061-3 Je '46
Effect of electrolytically released halogens on an absolute methyl alcohol solution of cinnamic acid. R. Leminger and L. A. Pasiut. bibliog Electrochem Soc Trans 88 (preprint 31):367-70 '45
Electrolysis in alcohol; results with metallic chloride. C. Charmetant and R. Paris. Chem Age (Lond) 54:336 Mr 30 '46
Esterification of galacturonic acid and polyuronides with methanol-hydrogen chloride. E. F. Jansen and R. Jang. Am Chem Soc J 68:1475-7 Ag '46
Extraction of lignin from hydrolyzed lignocellulose. R. Katzen, F. G. Sawyer and D. F. Othmer. Ind & Eng Chem 37:1218-22 D '45
Methanol-water solutions solved by nomograph. W. C. Frishe. Chem & Met Eng 52: 118 N '45
Reaction of 3,4-epoxy-1-butene with methanol; direction and mechanism of ring opening. R. G. Kadesch. bibliog Am Chem Soc J 68:41-5 Ja '46
Rectification in ternary systems containing binary azeotropes. R. H. Ewell and L. M. Welch. bibliog Ind & Eng Chem 37:1224-31 D '45
Solvents face difficult expansion problems. J. G. Park. il Chem & Met Eng 53:116-18 My '46
Standard electrode potentials of the mercury-mercurous sulfate electrode in methanol at 20, 25, 30 and 35°. E. W. Kanning and M. G. Bowman. bibliog Am Chem Soc J 68:2042-6 O '46
Study of zinc-chromium catalysts for synthesis of methanol; abstract. V. M. Grinevich. Chem Eng 53:252+ S '46
Synthesis of methanol from carbon dioxide and hydrogen over copper-alumina catalysts; mechanism of reaction. V. N. Ipatieff and G. S. Monroe. Am Chem Soc J 67:2168-71 D '45
Thermodynamic functions of cyclohexane-methanol mixtures. S. E. Wood. bibliog Am Chem Soc J 68:1963-6 O '46
Vapor-liquid equilibrium; benzene-methanol mixtures. G. Scatchard, S. E. Wood and J. M. Mochel. bibliog Am Chem Soc J 68: 1957-60 O '46
Vapor-liquid equilibrium; carbon tetrachloride-methanol mixtures. G. Scatchard, S. E. Wood and J. M. Mochel. bibliog Am Chem Soc J 68:1960-3 O '46

Analysis

Sampling and determination of methanol in air. G. W. Rogers. bibliog diags J Ind Hygiene 27:224-30 O '45

METHEMOGLOBIN
Therapeutic and prophylactic effect of methemoglobinemia in inhalation poisoning by hydrogen cyanide and cyanogen chloride. B. J. Jandorf and O. Bodansky. bibliog J Ind Hygiene 28:125-32 Jl '46

METHIONINE
Effect of methionine supplements on hepatic injury produced by carbon tetrachloride. V. A. Drill and T. A. Loomis. bibliog Science 103:199-201 F 15 '46
Experimental evaluation of methionine in the therapy of liver injury from carbon tetrachloride. C. B. Shaffer and others. bibliog J Ind Hygiene 28:87-93 My '46
Interrelations between choline, betaine, and methionine. H. J. Almquist. bibliog Science 103:722-3 Je 21 '46
Methionine. Ind Med 15:414 Je '46
Methionine and isoleucine content of mammalian hemoglobins; its significance for nutritional and metabolic studies. E. Brand and J. Grantham. bibliog Am Chem Soc J 68:724 Ap '46
Synthesis of *dl*-methionine. D. Goldsmith and M. Tishler. Am Chem Soc J 68:144 Ja '46
Synthesis of *dl*-methionine. J. E. Livak and others. bibliog Am Chem Soc J 67:2218-20 D '45
Synthesis of methionine cuts cost. il Chem & Eng N 24:1428 My 25 '46

Analysis

Determination of tryptophane, phenylalanine, and methionine; a rapid procedure. W. C. Hess and M. X. Sullivan. bibliog Ind & Eng Chem Anal ed 17:717 N '45

METHOXYACETANILIDE
Skraup reaction with *p*-methoxyacetanilide. C. E. Kaslow and S. Raymond. bibliog Am Chem Soc J 68:1102-3 Je '46

METHOXYAMINOQUINOLINE
Derivatives of 6-methoxy-8-aminoquinoline. G. B. Bachman and H. H. Szmant. Am Chem Soc J 68:31-4 Ja '46

METHOXYBENZENETRICARBOXYLIC acid
Preparation of 5-methoxybenzene-1,2,3-tricarboxylic acid. A. L. Wilds and C. Djerassi. Am Chem Soc J 68:1862-4 S '46

METHOXYBENZOTHIAZOLE
4-(6′-Diethylaminohexylamino)-6-methoxybenzothiazole (SN 15,295). M. L. Mercury, S. M. Vincent and M. L. Sherrill. Am Chem Soc J 68:1594-5 Ag '46

METHOXYCROTONIC acid
α-Methoxycrotonic acid. K. Pfister, C. A. Robinson and M. Tishler. Am Chem Soc J 67:2269 D '45

METHOXYDIBENZOYLMETHANE
Methylation of *p*-methoxy dibenzoylmethane. C. L. Bickel. Am Chem Soc J 67:2045 N '45

METHOXYDIMETHYLPYRRYLQUINOLINE
Some isometic (methoxy)-(2,5-dimethylpyrryl-1)-quinolines. H. Gilman and L. Fullhart. bibliog Am Chem Soc J 68:978-9 Je '46

METHOXY group
Stability of the methoxyl groups in methylated hydrochloric acid spruce lignin. F. E. Brauns. bibliog Am Chem Soc J 68:1721-4 S '46

METHOXYHEXENYNE
Studies in the polyene series; condensation of the C_{18}-aldehyde [3-(2′ : 6′ : 6′-trimethyl-*cyclo*hexenyl)-1-methylcrotonaldehyde] with 1-hexyne and 2-methoxyhex-3-en-5-yne. J. Cymerman and others. Chem Soc J p500-3 Je '46

METHOXY lignin chloride
Separation of lignin and cellulose; recovery of methoxy lignin chloride. Chem Age (Lond) 53:481-2 N 24 '45

METHOXYMERCURATION. See Mercuration

METHOXYMETHYL phenyl ethylamine
Amines related to 2,5-dimethoxyphenethylamine; 2-hydroxy and 2-methoxy-5-methylphenylalkanolamines. A. E. Ardis, R. Baltzly and W. Schoen. bibliog Am Chem Soc J 68:591-5 Ap '46

METHOXYNAPHTHALENE
1,2,3,4-Tetrahydro-2-methoxynaphthalene. H. A. Arbit. bibliog Am Chem Soc J 68:1662 Ag '46

METHOXYOXIMINOPROPYL rubatoxanone
6′-Methoxy-8-oximino-3-propylrubatoxanone. C. F. Koelsch. Am Chem Soc J 68:146-7 Ja '46

METHOXYPHENYL isopropylamine
Amines related to 2,5-dimethoxyphenethylamine; 2-hydroxy and 2-methoxy-5-methylphenylalkanolamines. A. E. Ardis, R. Baltzly and W. Schoen. bibliog Am Chem Soc J 68:591-5 Ap '46

METHOXYQUINOLINE
Skraup reaction with *p*-methoxyacetanilide. C. E. Kaslow and S. Raymond. bibliog Am Chem Soc J 68:1102-3 Je '46

METHYL acrylate
Polymerization of *p*-chlorostyrene in the presence of polymethylacrylate. R. B. Carlin and N. E. Shakespeare. Am Chem Soc J 68:876-8 My '46

METHYL acrylic acid
Heats of polymerization; some esters of α-methylacrylic acid. L. K. J. Tong and W. O. Kenyon. bibliog diag Am Chem Soc J 68:1355-7 Jl '46

METHYL alcohol. See Methanol

METHYL ammonium chloride
Crystal structure of methylammonium chloride. E. W. Hughes and W. N. Lipscomb. diags Am Chem Soc J 68:1970-5 O '46

Thermodynamic properties of the three crystalline forms of methylammonium chloride. J. G. Aston and C. W. Ziemer. bibliog Am Chem Soc J 68:1405-13 Ag '46

METHYL arachidonate
Spectrophotometric studies of the oxidation of fats; oxygen absorption and chromophore production in fatty esters. R. T. Holman and G. O. Burr. bibliog Am Chem Soc J 68:562-6 Ap '46

METHYL benzothiazolium iodide
Direct synthesis of 2-methylbenzothiazolium salts. L. G. S. Brooker and H. W. J. Cressman. bibliog Am Chem Soc J 67:2046 N '45

METHYL bromide
Methylbromosilanes. W. F. Gilliam, R. N. Meals and R. O. Sauer. bibliog Am Chem Soc J 68:1161-3 Jl '46

Residues in wheat flour fumigated with methyl bromide. S. E. Lewis and K. Eccleston. bibliog Soc Chem Ind J 65:149-52 '46

Sorption of methyl bromide by wheat. F. P. W. Winteringham and A. Harrison. bibliog Soc Chem Ind J 65:140-9 My '46

Analysis

Method for the micro-determination of the sorption of fumigants. F. P. W. Winteringham. bibliog diags Soc Chem Ind J 65:48-51 F '46

METHYL bromide poisoning
Methyl bromide intoxication; abstract. H. E. Holling and C. A. Clarke. J Ind Hygiene 27: sup172 N '45

METHYL butene
Inter-polymerization of isobutene and 2-methyl-2-butene using an alumina-silica catalyst; composition of the hydrogenated nonenes. G. C. Johnson and F. S. Fawcett. bibliog Am Chem Soc J 68:1416-19 Ag '46

METHYL capric acid
Monomethyldecoic acids. C. V. Wilson. bibliog Am Chem Soc J 67:2161-2 D '45

METHYL carbostyril
N-substituted 4-methylcarbostyrils. C. E. Kaslow and D. J. Cook. bibliog Am Chem Soc J 67:1969-72 N '45

METHYL cellulose
Chlorophenyl carbamates of methyl cellulose. E. Dyer and K. L. McCormick. Am Chem Soc J 68:986-7 Je '46

Synthetic hydrophilic colloids as soil amendments. H. A. Wadsworth. Science 104:17 Jl 5 '46

METHYL chloride
Coördination compounds of boron trichloride; systems with methyl chloride and ethyl chloride. D. R. Martin and W. B. Hicks. bibliog J Phys Chem 50:422-7 S '46

Analysis

Determination of methyl chloride in air. J. L. Franklin, E. L. Gunn and R. L. Martin. diags Ind & Eng Chem Anal ed 18:314-16 My '46

METHYL chloride poisoning
Eight cases of methyl chloride poisoning with three deaths. W. D. McNally. J Ind Hygiene 28:94-7 My '46

METHYL chlorosilicane
Derivatives of the methylchlorosilanes; polysiloxanes from methyldichlorosilane. R. O. Sauer, W. J. Scheiber and S. D. Brewer. Am Chem Soc J 68:962-3 Je '46

Lower flammability limits of methylchlorosilanes. E. W. Balis and H. A. Liebhafsky. il diags Ind & Eng Chem 38:583-5 Je '46

METHYL cyanide. See Acetonitrile

METHYL cyclohexane
Effect of added components on the relative volatility of two binary mixtures. O. L. Updike, jr. and others. bibliog Am Inst Chem Eng Trans 41:717-36 D '45

Extractive distillation of hydrocarbon mixtures in a packed column. R. S. Dicks and C. S. Carlson. bibliog il diag Am Inst Chem Eng Trans 41:789-803 D '45

Heat capacities, heats of transition, heats of fusion and entropies of cyclopentane, methylcyclopentane and methylcyclohexane. D. R. Douslin and H. M. Huffman. bibliog Am Chem Soc J 68:173-6 F '46

Vapor-liquid equilibria in phenol-hydrocarbon systems. H. G. Drickamer and others. bibliog(p603) diags Am Inst Chem Eng Trans 41:555-605 O '45

Analysis

Analysis of ternary mixtures of methylcyclohexane-toluene-aniline. C. S. Carlson, A. E. Schubert and M. R. Fenske. Ind & Eng Chem Anal ed 18:109-11 F '46

METHYL cyclohexanol
Epimeric alcohols of the *cyclo*hexane series; the optically inactive 3-methyl*cyclo*hexanols. A. K. Macbeth and J. A. Mills. Chem Soc J p709-12 O '45

METHYL cyclopentane
Direct catalytic conversion of methylcyclopentane to benzene. B. S. Greensfelder and D. L. Fuller. bibliog Am Chem Soc J 67: 2171-3 D '45

Heat capacities, heats of transition, heats of fusion and entropies of cyclopentane, methylcyclopentane and methylcyclohexane. D. R. Douslin and H. M. Huffman. bibliog Am Chem Soc J 68:173-6 F '46

METHYL ether
Raman and ultraviolet-absorption spectra of the dimethyl ether-boron trifluoride complex. F. V. Dunderman and S. H. Bauer. bibliog J Phys Chem 50:32-9 Ja '46

METHYL etioporphyrin
Further studies on steric deformation. R. C. Ellingson and A. H. Corwin. Am Chem Soc J 68:1112-15 Je '46

Steric deformation; the synthesis of N-methyl etioporphyrin. W. K. McEwen. bibliog Am Chem Soc J 68:711-13 Ap '46

METHYL fluorene
Aromatic cyclodehydrogenation; experiments with 2-ethylbiphenyl. M. Orchin. bibliog Am Chem Soc J 68:571-2 Ap '46

METHYL furan
Reaction of 2-methylfuran with formaldehyde and substituted ammonium chlorides. R. F. Holdren and R. M. Hixon. Am Chem Soc J 68:1198-1200 Jl '46

Vapor pressure and vapor-liquid equilibria in the system furfural—2-methylfuran. R. F. Holdren and R. M. Hixon. diags Ind & Eng Chem 38:1061-2 O '46

METHYL glucopyranoside phosphate
Carbohydrate phosphoric esters; the alkaline hydrolysis of α-methylglucopyranoside-6-phosphate, methylglucofuranoside-3-phosphates and *iso*-propylidene glucofuranose-3- and -6-phosphates. E. E. Percival and E. G. V. Percival. Chem Soc J p874-6 D '45

METHYL glucosamine
Improved synthesis of N-methyl-L-glucosaminic acid. M. L. Wolfrom and others. Science 104:276 S 20 '46

Streptomyces antibiotics; N-methyl-*l*-glucosamine from streptomycin. F. A. Kuehl, jr. and others. Am Chem Soc J 68:536 Mr '46

METHYL glycolate
Pyrolytic preparation of α-carbalkoxyalkyl acrylates and methacrylates. E. M. Filachione, J. H. Lengel and C. H. Fisher. bibliog Am Chem Soc J 68:330-3 F '46

METHYL group
Action of methanol on phenol in the presence of alumina; formation of anisole, methylated phenols, and hexamethylbenzene. N. M. Cullinane and S. J. Chard. diag Chem Soc J p821-3 N '45
Reaction of methyl radicals with butadiene and isoprene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 14:534-5 S '46
Relation between internuclear distances and potential barriers of methyl groups. F. A. French and R. S. Rasmussen. bibliog J Chem Phys 14:389-94 Je '46
Symmetrical dicarbocyanines having a methyl group as substituent on the chain. F. M. Hamer and R. J. Rathbone. Chem Soc J p595-600 S '45

METHYL hydroxylamine
Comparative estimations of carbonyl and carboxyl groups in chromium trioxide and hypochlorous acid oxycelluloses and oxyxylans. B. Meesook and C. B. Purves. bibliog Paper Tr J 123:35-42 O 31 '46

METHYL iodide
Quantum yield in the photo-reaction between methyl iodide and nitric oxide. T. Iredale and E. R. McCartney. bibliog Am Chem Soc J 68:144-5 Ja '46

METHYL isobutyl ketone
Liquid-liquid extraction in spray towers. H. F. Johnson, jr. and H. Bliss. bibliog flow sheet diags Am Inst Chem Eng Trans 42: 331-58 Ap '46
Solvent properties of methyl isobutyl ketone. J. R. Scheibli and T. W. Evans. Paint Oil & Chem R 109:12+ O 31 '46

METHYL isocytosine
Convenient syntheses of thymine and 5-methylisocytosine. H. W. Scherp. Am Chem Soc J 68:912-13 My '46

METHYL isopropylbenzoic acid
Studies in *p*-cymene; the saponification rate of isomeric benzoates derived from *p*-cymene. C. T. Lester and C. F. Bailey. bibliog Am Chem Soc J 68:375-6 Mr '46

METHYL isoquinoline
Synthesis of 3-methyl*iso*quinolines. G. R. Clemo and J. H. Turnbull. Chem Soc J p533-5 Ag '45

METHYL lactate
Purification of lactic acid; production of methyl lactate from aqueous solutions of crude acid. E. M. Filachione and C. H. Fisher. bibliog Ind & Eng Chem 38:228-32 F '46
Pyrolytic preparation of α-carbalkoxyalkyl acrylates and methacrylates. E. M. Filachione, J. H. Lengel and C. H. Fisher. bibliog Am Chem Soc J 68:330-3 F '46

METHYL linoleate
Union of gaseous oxygen with methyl oleate, linoleate, and linolenate. F. D. Gunstone and T. P. Hilditch. Chem Soc J p836-41 N '45

METHYL linolenate
Union of gaseous oxygen with methyl oleate, linoleate, and linolenate. F. D. Gunstone and T. P. Hilditch. Chem Soc J p836-41 N '45

METHYL mannopyranoside
Preparation of D-rhamnose from methyl α-D-mannopyranoside. W. T. Haskins, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 68:628-32 Ap '46

METHYL methacrylate
Laminated edge attachment for acrylics. E. H. Snyder. il diags Mod Plastics 24:138-45 S '46; Same. A S M E Trans 68:767-71 O '46
Regulator theory in emulsion polymerization; chain transfer of low molecular weight mercaptans in emulsion and oil-phase. W. V. Smith. bibliog Am Chem Soc J 68:2059-64 O '46
Regulator theory in emulsion polymerization; regulator reaction in copolymerizing systems. W. V. Smith. Am Chem Soc J 68: 2069-71 O '46
Rohm and Haas plant at Darmstadt. Chem & Met Eng 53:210 Ja '46
Store with a specialty; giftware of methyl methacrylate. il Mod Plastics 23:128-9 Mr '46
Thermal polymerization of methyl methacrylate. C. Walling and E. R. Briggs. bibliog diag Am Chem Soc J 68:1141-5 Jl '46

METHYL naphthalene
Oxidative ring closure in the Friedel-Crafts reaction; condensation of β-naphthoyl chloride with α-methylnaphthalene. G. D. Buckley. Chem Soc J p561-4 S '45
Some factors influencing the ultraviolet absorption spectra of polynuclear aromatic compounds; the spectra of aryl carbinols and polybenzfluorenes. R. N. Jones. Am Chem Soc J 67:2021-7 N '45

METHYL oleate
Union of gaseous oxygen with methyl oleate, linoleate, and linolenate. F. D. Gunstone and T. P. Hilditch. Chem Soc J p836-41 N '45

METHYL orange
Micro-titration of free chlorine with methyl orange. M. Taras. bibliog Am Water Works Assn J 38:1146-50 O '46

METHYL pentadiene
Methyl pentadiene polymers and copolymers with butadiene; abstract. F. McMillan. India Rubber World 113:239 N '45
New synthetic rubbers based on methylpentadiene. F. M. McMillan and others. il India Rubber World 113:663-6+ F '46

METHYL pentane
Low-temperature thermal data on the five isomeric hexanes. D. R. Douslin and H. M. Huffman. bibliog Am Chem Soc J 68:1704-8 S '46
Vapor pressures and saturated liquid and vapor densities of the isomeric hexanes. W. S. Kay. bibliog diag Am Chem Soc J 68:1336-9 Jl '46

METHYL propargyl ether
Studies in the polyene series; condensations between methyl propargyl ether and αβ-unsaturated carbonyl compounds. I. M. Heilbron, E. R. H. Jones and R. N. Lacey. Chem Soc J p27-30 Ja '46

METHYL propionylricinoleate
Anomalous behavior of methyl 12-hydroxy-9,10-octadecenoates in rapid iodine number determinations. P. S. Skell and S. B. Radlove. bibliog Ind & Eng Chem Anal ed 18: 67-8 Ja '46

METHYL pyrazine carboxylic acid
Preparation of 6-methylpyrazine-2-carboxylic acid. F. Leonard and P. E. Spoerri. Am Chem Soc J 68:526 Mr '46

METHYL ricinelaidate
Anomalous behavior of methyl 12-hydroxy-9,10-octadecenoates in rapid iodine number determinations. P. S. Skell and S. B. Radlove. bibliog Ind & Eng Chem Anal ed 18: 67-8 Ja '46

METHYL ricinoleate
Anomalous behavior of methyl 12-hydroxy-9,10-octadecenoates in rapid iodine number determinations. P. S. Skell and S. B. Radlove. bibliog Ind & Eng Chem Anal ed 18: 67-8 Ja '46

METHYL styrene
Polymerization of alpha-methylstyrene. A. B. Hersberger, J. C. Reid and R. G. Heiligmann. bibliog il diag Ind & Eng Chem 37:1073-8 N '45
Preparation and polymerization of some substituted styrenes. C. S. Marvel and others. bibliog Am Chem Soc J 68:736-8 My '46

METHYL sulfone
Heats of formation of liquid methyl sulfoxide and crystalline methyl sulfone at 18°. T. B. Douglas. Am Chem Soc J 68: 1072-6 Je '46

METHYL sulfoxide
Heats of formation of liquid methyl sulfoxide and crystalline methyl sulfone at 18°. T. B. Douglas. Am Chem Soc J 68: 1072-6 Je '46

METHYL thiazole carboxylic acid
Action of thionyl chloride on 2 : 4-dimethylthiazole-5-carboxylic acid. W. R. Boon. Chem Soc J p601-3 S '45

METHYL thionaphthenequinone
Syntheses in the thionaphthene series. D. S. Tarbell and D. K. Fukushima. bibliog Am Chem Soc J 68:1456-60 Ag '46

METHYL thiophene
Physical properties of 2- and 3-methylthiophene. F. S. Fawcett. bibliog Am Chem Soc J 68:1420-2 Ag '46

METHYL tryptophan
Convenient synthesis of 5-methyltryptophan. M. E. Jackman and S. Archer. Am Chem Soc J 68:2105-6 O '46

METHYL vinyl benzoate
Use of liquid phase oxidation for the preparation of nuclearly substituted styrenes; methyl *p*-vinylbenzoate. W. S. Emerson and others. bibliog Am Chem Soc J 68:674-6 Ap '46

METHYL vinyl carbinol
Production of methyl vinyl ketone from methylvinylcarbinol; zinc oxide with cupric or cuprous oxide as catalyst. J. J. Kolfenbach and others. bibliog Ind & Eng Chem 37:1178-80 D '45

METHYL vinyl ketone
Production of methyl vinyl ketone from methylvinylcarbinol; zinc oxide with cupric or cuprous oxide as catalyst. J. J. Kolfenbach and others. bibliog Ind & Eng Chem 37:1178-80 D '45

METHYLAMINE
Ethylene imine ketones. N. H. Cromwell and J. A. Caughlan. bibliog Am Chem Soc J 67:2235-8 D '45

Hydrogenation of dinitriles in liquid methylamine. B. S. Biggs and W. S. Bishop. bibliog Ind & Eng Chem 38:1084-6 O '46

Low temperature dry cells. E. Otto and others. diag Electrochem Soc Trans 90 (preprint 17):235-47 '46

Pressure-volume relations of the gaseous methylamines at 0° and reduced pressures. J. C. Arthur with W. A. Felsing. bibliog Am Chem Soc J 68:1883-5 O '46

METHYLATION
Constitution of damson gum; hydrolysis products from methylated damson gum. E. L. Hirst and J. K. N. Jones. Chem Soc J p506-12 Je '46

Decomposition of phenyliodoso acetate. R. B. Sandin and W. B. McCormack. Am Chem Soc J 67:2051-2 N '45

Improved methods for the preparation of the X-ray contrast media iodoxyl and diodone. R. H. Hackman and R. Lemberg. bibliog Soc Chem Ind J 65:204-5 Jl '46

Methylation of carvacrylamine. J. F. R. Kuck and J. V. Karabinos. Am Chem Soc J 68: 909-10 My '46

Methylation of *p*-methoxy dibenzoylmethane. C. L. Bickel. Am Chem Soc J 67:2045 N '45

Methylation of methyl 6-hydroxydehydroabietate. H. H. Zeiss. Am Chem Soc J 67:2054 N '45

Preliminary study of the polyuronide hemicellulose of phormium tenax (N.Z. flax). R. J. McIlroy, G. S. Holmes and R. P. Mauger. Chem Soc J p796-9 N '45

METHYLENE
Stokes' law and the limiting conductance of organic ions. E. Gonick. diag J Phys Chem 50:291-300 Jl '46

METHYLENE acetals. See Acetals

METHYLENE group
α-Methylenic reactivity in olefinic systems; the reaction between olefins and phenyl *iso*cyanate; evidence relating to the catalytic action of stannic chloride. J. W. Baker and J. B. Holdsworth. pl diag Chem Soc J p724-32 N '45

Periodate oxidation of certain active methylene groups. C. F. Huebner, S. R. Ames and E. C. Bubl. bibliog Am Chem Soc J 68:1621-8 Ag '46

METRAZOLE
Synthesis of cardiazole (pentamethylenetetrazole) by the action of hydrazoic acid on *cyclo*hexanone. N. B. Chapman, H. McCombie and B. C. Saunders. Chem Soc J p929 D '45

METRIC system
Metric system and the historical record. G. W. Hervey. Science 103:733 Je 21 '46

Study and teaching
Teaching the metric system. G. Wakeham. J Chem Educ 23:134 Mr '46

METROPOLITAN districts
Express highway planning in metropolitan areas. J. Barnett. il maps Am Soc C E Proc 72:287-305 Mr '46; Discussion. 72:722-4, 1057-69 My, S '46

Metropolitan water district financing and the cost of metropolitan water. K. R. Kennison. N E Water Works Assn J 60:162-80; Discussion. 180-1 Je '46

Summary of data by metropolitan counties. Sales Management 56:120+ My 10 '46

See also
London—Metropolitan district
Sanitary districts
Shopping areas

METROPOLITAN life insurance company
Annual business statement. East Underw 47: 1+ F 22 '46

Citation for Metropolitan canteener troupe. East Underw 46:13 N 16 '45

Housing projects as investments for life companies. F. W. Ecker. East Underw 47:3+ Ja 18 '46; Excerpts. Nat Underw (Life ed) 49:2 N 5 '45; Weekly Underw 153:1098 N 10 '45

How to order a city; Metropolitan Life makes housing pay. il Fortune 33:132-7+ Ap '46

Increase in ordinary dividend scale averages over 10 per cent. Life Ins Courant 51: 192-3 Ap '46

Induction session for new employes. East Underw 47:4+ Je 14 '46

METROPOLITAN museum of art
Art and the textile industry. plan Textile Col 68:20-1+ Ag '46

Not for art alone; Metropolitan museum services to industrial designers. il Bsns W p28+ Ag 17 '46

METROSIL. See Electric resistors

MEXICANS in the United States
Employment patterns of Mexicans in Detroit. N. D. Humphrey. Mo Labor R 61: 913-23 N '45

See also
Immigration and emigration—Mexico

MEXICO
See also
Antimony mines and mining—Mexico
Building—Mexico
Chemical industries—Mexico
Drug trade—Mexico
Electric apparatus industry—Mexico
Electricity supply—Mexico
Gas, Natural—Mexico
Manganese mines and mining—Mexico
Petroleum industry and trade—Mexico
Public works—Mexico
Railroads—Mexico
Roads—Mexico
Silver mines and mining—Mexico
Standards—Mexico
Textile industry—Mexico

Biography
Who's who in Latin America; a biographical dictionary of notable living men and women of Latin America. Pt. 1, Mexico. R. Hilton, ed. 3d ed rev & enl 130p $2.50; pa $1.75 Stanford university press, Stanford University, California '46

Commerce
Mexico's chemical industry; Chem. & Met. report. J. A. Lee. il map Chem & Met Eng 53:120-31 Je '46

Mexico's foreign trade prospects. R. L. Heilbroner. Comm & Fin Chr 164:2337+ N 7 '46

Most U.S. products sold in Mexico are made there. Ptr Ink 216:66+ Ag 16 '46

Water pumps for farms and homes in Mexico. il For Comm W 22:10-11+ Mr 23 '46

Commercial policy
Foreign trade control fortified by formation of control commission. For Comm W 24: 28-9 S 21 '46

Import control extended to numerous commodities; removal of commodities from export-control list. For Comm W 22:22-4 Ja 12 '46

MEXICO—*Continued*

Constitution

See also
Amparo (writ)—Mexico

Economic conditions

Latin America's economy as world conflict ended. il For Comm W 24:3-4+ Jl 13 '46
News by countries. For Comm W 21:33-7 N 10 '45; 22:25-8 Ja 19; 23:32 My 18; 36-7 Je 15; 24:30 Jl 20; 20 Ag 24; 27-9 S 21; 25:34 O 19 '46

Economic policy

Certain emergency legislation to be continued. For Comm W 21:29 N 17 '45
Industrialisation of Mexico. Economist 150: 18-19 Ja 5 '46
Law for the development of manufacturing industries. For Comm W 23:27-30 Ap 6 '46
Mexico-first law; stern limitations on entry of foreign capital. Bsns W p114 F 16 '46

Expropriation policy

Interest in Mexican settlement case centered on appraisers. C. Vinson. Oil & Gas J 44:51 Mr 2 '46
Mexico has lost under oil property grab. M. A. Hernandez. Nat Pet N 38:38 S 11 '46

Foreign relations

United States

Mexican water treaty. M. G. Glaeser. J Land & Pub Util Econ 22:1-9 F '46 (to be cont)

Industries and resources

Industrialisation of Mexico. Economist 150: 18-19 Ja 5 '46
Law for the development of manufacturing industries. For Comm W 23:27-30 Ap 6 '46
Mexico's electrification program. B. Nikiforoff and others. il maps Elec Eng 65: 245-51 Je '46
Problems in Mexico. Mag of Wall St 78:331 Je 22 '46

Law

See also
Amparo (writ)—Mexico

Politics and government

Mexican crisis. Economist 150:298-9 F 23 '46
Mexican elections. Economist 151:58 Jl 13 '46
Political background in Mexico. Economist 149:753-4, 795 N 24-D 1 '45; Correction. 150: 299 F 23 '46

Sanitary affairs

Mexico modernizes water systems to improve public health. A. E. Stuntz. il Pub Works 77:31-2+ O '46

MEXICO (city)
Mexico city builds $10 million sport city. il plan Eng N 135:632 N 8 '45

Architecture

Mexico's building boom. il Arch Forum 85: 10-13 Jl '45

Rapid transit

Bus pools carry majority of riders in Mexico city. il Bus Transportation 25:46-7 Ag '46

MEXICO, Gulf of

See also
Shipping—Gulf of Mexico

MEYER, Eugene, 1875-
Portrait. Bsns W p17 N 2 '46
To head world bank. por Bsns W p109 Je 8 '46; Comm & Fin Chr 163:3058 Je 6 '46

MEYERS, Carl W.
Portrait. Bsns W p26 N 2 '46

MIAMI, Florida

Water supply

Additions to Miami water supply system. C. F. Wertz. flow diag il plan Am Water Works Assn J 38:326-32 Mr '46

MIAMI BEACH, Florida
Adopt new parking plan. Eng N 136:363 Mr 7 '46
Four-point program for the automobile parking problem. C. A. Renshaw. Pub Works 77:47 Ap '46

MIAMI marine laboratory. See Marine biological laboratories

MICA
Color standard for ruby mica. D. B. Judd. J Res Nat Bur Stand 35:245-56 O '45
Exploration of the Avon mica district, Latah county, Idaho. G. C. Reed. 7 pls U S Bur Mines Rep of Invest 3898:1-23 '46
Exploration of the Elk Mountain mica deposit, San Miguel county, N. Mex. R. J. Holmquist. 4pls U S Bur Mines Rep of Invest 3921:1-7 '46
German pilot plant production of synthetic mica. H. A. Curtis. Chem & Met Eng 53: 109 Mr '46
Inside of electrical machines. R. H. Robinson. il diags Electrician 137:447-50, 586-9 Ag 16, 30 '46
Mica and beryl examination and exploration in Cleburne, Randolph, Clay, Coosa, Chilton, Tallapoosa, and Lee counties, Ala. bibliog 15pls U S Bur Mines Rep of Invest 3905:1-119 '46
Mica and its products; properties, processing and uses. P. P. Paisley. il Can Chem & Process Ind 30:34-40 Mr '46
Mica and micanite. W. B. Robertshaw. Inst E E J 92 pt 1:415 N '45
Mica as a critical war mineral. H. S. Spence. il diags Can Min J 67:611-17, 710-17 Je-Jl '46
Mica capacitors for carrier telephone systems; silvered capacitors. A. J. Christopher and J. A. Kater. il diags Elec Eng 65:Trans 670-4 O '46
Mica delamination aided by science. D. W. Kessler. il Dom Comm 34:14-15 Mr '46
Mica mining, Canada. Can Chem & Process Ind 30:59 Mr '46
Some physical properties of mica. P. Hidnert and G. Dickson. bibliog diags J Res Nat Bur Stand 35:309-53, pl 1-4 O '45

Testing

Dielectric properties of some homogeneous materials at high electric stress. A. E. W. Austen. bibliog diags Inst E E J 92 pt 1: 373-7 O '45
Judging mica quality electrically. K. G. Coutlee. bibliog il diags Elec Eng 64:Trans 735-41 N '45

MICA, Substitutes for
German insulating material overcoming the mica shortage. Chem Age (Lond) 53:597-8 D 22 '45; Abstract. Am Cer Soc J 29 (CerA [25]):81 My 1 '46
German pilot plant production of synthetic mica. H. A. Curtis. Chem & Met Eng 53: 109 Mr '46
German production of synthetic mica. Chem & Eng N 24:1260 My 10 '46
Germans achieve synthetic mica. Elec World 125:96 Mr 2 '46
High titania dielectrics. E. Wainer. diags Electrochem Soc Trans 89 (preprint 3): 47-71 bibliog(71 references, p69-70) '46

MICELLES
Critical concentration for the formation of micelles as indicated by the absorption spectrum of a cyanine dye. M. L. Corrin and others. J Chem Phys 14:216-17 Mr '46
Determination of critical concentrations for micelle formation in solutions of cationic soaps by changes in the color and fluorescence of dyes. M. L. Corrin and W. D. Harkins. J Chem Phys 14:641 O '46
Determination of critical concentrations for the formation of soap micelles by the spectral behavior of pinacyanol chloride. M. L. Corrin and others. bibliog J Chem Phys 14:480-6 Ag '46
Effect of solvents on the critical concentration for micelle formation of cationic soaps. M. L. Corrin and W. D. Harkins. J Chem Phys 14:640 O '46
Structure of soap micelles indicated by X-rays and the theory of molecular orientation; aqueous solutions. W. D. Harkins, R. W. Mattoon and M. L. Corrin. bibliog 2pl Am Chem Soc J 68:220-8 F '46

MICHAEL condensation. See Condensation, Chemical

MICHAEL REESE hospital. See Chicago—Michael Reese hospital

MICHELSON lamp
Light source for the primary standard of wave-length. C. Hsueh. il diags Opt Soc Am J 36:160-4 Mr '46

MICHIGAN
Michigan sponsors $325,000 tourist campaign. il Ptr Ink 214:102 Mr 22 '46

See also
Petroleum industry and trade—Michigan
Public welfare—Michigan
Roads—Michigan
Rock products industry—Michigan
Sand—Michigan

MICHIGAN central airlines
Michigan central airlines seeks to enter interstate operations. Aviation N 4:27 Ja 7 '46

MICHIGAN hospital service
Blue Cross rift; seventeen hospitals quit Michigan hospital service. Bsns W p32+ Ja 19 '46

MICHIGAN public service company
Public utility securities. Comm & Fin Chr 163:128 Ja 10 '46

MICHLER'S hydrol
Some pyridyl analogues of triphenylmethane. H. J. Kahn and V. A. Petrow. Chem Soc J p858-61 D '45

MICROANALYSIS
Colorimetric determination of *p,p'*-DDT in technical DDT. S. W. Chaikin. bibliog Ind & Eng Chem Anal ed 18:272-3 Ap '46
Colorimetric micromethod for determination of antimony in biological materials, with concomitant determination of bismuth. E. W. McChesney. bibliog Ind & Eng Chem Anal ed 18:146-9 F '46
Detection of palladium using pararosaniline hydrochloride; a spot test procedure. P. W. West and E. S. Amis. bibliog Ind & Eng Chem Anal ed 18:400-2 Je '46
Determination of nitrogen, phosphorus, and potassium in leaf tissues; application of micromethods. R. H. Cotton. bibliog Ind & Eng Chem Anal ed 17:734-8 N '45
Method for the micro-determination of the sorption of fumigants. F. P. W. Winteringham. bibliog diags Soc Chem Ind J 65:48-51 F '46
Micro-analysis of mixtures (amino acids) in the form of isotopic derivatives. A. S. Keston, S. Udenfriend and R. K. Cannan. bibliog Am Chem Soc J 68:1390 Jl '46
Microanalytic measurement of oxygen production. P. Pringsheim. diags Electronics 18:340+ D '45
Microdetermination of antimony in biological material; spectrographic method. J. Cholak and D. M. Hubbard. bibliog J Ind Hygiene 28:121-4 Jl '46
Microdetermination of mercury in biological material. J. Cholak and D. M. Hubbard. bibliog diag Ind & Eng Chem Anal ed 18:149-51 F '46
Microdetermination of the saponification number of fats and oils; decigram, centigram, and milligram procedures. K. Marcali and W. Rieman, 3d. diag Ind & Eng Chem Anal ed 18:144-5 F '46
Micro-Kjeldahl determination of nitrogen in gramicidin and tryptophan; comparison of Gunning-Arnold-Dyer and Friedrich methods. L. M. White and G. E. Secor. bibliog Ind & Eng Chem Anal ed 18:457-8 Jl '46
Micro-titration of free chlorine with methyl orange. M. Taras. bibliog Am Water Works Assn J 38:1146-50 O '46
Modification of the arsenic method of Magnuson and Watson. T. H. Maren. Ind & Eng Chem Anal ed 18:521 Ag '46
Modified all-dithizone method for determination of traces of copper. S. L. Morrison and H. L. Paige. bibliog Ind & Eng Chem Anal ed 18:211-13 Mr '46
New standard for use in ultimate analysis of organic compounds especially suited for microprocedures. C. L. Ogg and C. O. Willits. Ind & Eng Chem Anal ed 18:334 My '46
Nitrogen determination by the micro-Dumas method; improvements in apparatus. E. Stehr. bibliog il diags Ind & Eng Chem Anal ed 18:513-15 Ag '46
Qualitative spot tests for rubber polymers. H. P. Burchfield. bibliog Ind & Eng Chem Anal ed 17:806-10 D '45
Quantitative inorganic microanalysis for university students. C. C. Miller. bibliog diag Chem & Ind p26-8 Ja 19 '46
Quick methods for identifying metals. J. E. Garside. Iron Age 158:58-62 O 17 '46
Rapid method of determining minute quantities of carbon in metals. J. K. Stanley and T. D. Yensen. bibliog il diag Ind & Eng Chem Anal ed 17:699-702 N '45
Selective spot test for copper. P. W. West. bibliog Ind & Eng Chem Anal ed 17:740-1 N '45
Sensitive and selective test for gallotannin (tannic acid) and other tannins. F. Feigl and H. E. Feigl. Ind & Eng Chem Anal ed 18:62-3 Ja '46
Spectrophotometric determination of traces of nickel. O. R. Alexander, E. M. Godar and N. J. Linde. Ind & Eng Chem Anal ed 18:206-8 Mr '46
Thiocyanate complex as a means of extracting cobalt before its microdetermination by other methods. N. S. Bayliss and R. W. Pickering. bibliog Ind & Eng Chem Anal ed 18:446-8 Jl '46
X-ray identification and crystallography of aldehydes and ketones as the 2,4-dinitrophenylhydrazones. G. L. Clark, W. I. Kaye and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:310-13 My '46

MICROBALANCES. See Balances

MICROBAROGRAPH. See Barographs

MICROCHEMISTRY
Spot reaction experiments; water as a participant in reactions of sulfur dioxide. F. Feigl. J Chem Educ 22:558-60 N '45
Ultramicrochemistry; abstract. G. T. Seaborg. Chem & Met Eng 53:250+ Ja '46

See also
Microanalysis

MICRODENSITOMETER. See Densitometers

MICROFILM reading machines
New microfilm projector for disabled persons. L. Moholy. Assn of Sp Lib & Inf Bur Proc 1945:82-3; Discussion. 83-4

MICROFILM records
Microfilm recorder photographs, endorses, and face-stamps checks and papers. il Sci Am 174:184 Ap '46; Mech Eng 68:155-6 F '46
Microfilming in the office. D. A. Ploesser. Am Gas Assn Mo 28:119-20 Mr '46; Abstract. Management R 35:44-5 F '46
Microfilming saves space and time. J. Turner. il Am Bsns 16:12-15+ Mr '46
Micro-filming speeds waybill handling; Rock Island's installation of photographic equipment il Ry Age 120:867-9 Ap 27 '46
Microphotography. E. L. Anfindsen. J Account 81:300-5 Ap '46
Northwestern Mutual's microfilming. East Underw 47:16 Ap 12 '46
Records on film cut cost at Wilson foundry & machine company. il Am Bsns 16:28+ My '46

MICROFILMS
American periodicals 1800-1825; University microfilms commences a new series; with checklist of 500 titles. R. E. Booth. Library Journal [New York] 71:156-63+ F 1 '46
ASLIB microfilm service. Assn of Sp Lib & Inf Bur Proc 1945:101-2
Few remarks on documentary reproduction in general and microfilm in particular. L. Moholy. J Doc 1:31-40 Je '45
Organization of microcard production; library catalog card with microprint text on its back. F. Rider. J Doc 1:93-108 S '45
Preservation of records by micro-photography in the United States of America; federal and state statutes. S. H. Haughton. J Doc 1:156-61 D '45
Recordak units for film developing. il Ry Age 120:1187 Je 15 '46
University microfilms; a microfilming service for scholars. E. B. Power. J Doc 2:23-31 Je '46

Bibliography
Union list of microfilms. 143p Philadelphia bibliographical center and Union library catalogue, Fine arts building, University of Pennsylvania, Philadelphia 4

MICROFILMS—*Continued*

Catalogs

Microfilm abstracts; a collection of abstracts of doctoral dissertations and monographs available in complete form on microfilm. 137p University microfilms, 313 North First st, Ann Arbor, Mich. '45

Directories

Directory of microfilm services in the United States and Canada. 30p Special libraries assn, 31 E. 10th st, New York '45

MICROHARDNESS tester. See Hardness—Testing

MICROMETERS

Adjustable inside micrometer fits around boring bar. H. W. Cutting. diag Am Mach 90:136 O 24 '46

Adjustable micrometer is easy to make. J. Taylor. diag Am Mach 90:135 Ag 15 '46

Capacitive micrometer; principle also used for dilatometer, manometer, roughness-gage and hardness testing apparatus. R. W. Dayton and G. M. Foley. il diags Electronics 19:106-11 S '46

Electronic micrometer. il Bsns W p54 Jl 13 '46

Electronic micrometer for thin materials. diag Electronics 19:190+ O '46

Federal products corp.'s double-duty micrometer. il Bsns W p58 D 22 '45

Inside micrometer provided with base for height-gaging work. R. S. Alexander. diag Am Mach 89:140 N 22 '45

Jones multi-purpose micrometer. il Engineer 182:196 Ag 30 '46

Micrometer bracket aids taper-checking. S. Framurz. diags Am Mach 90:132 Ag 1 '46

Micrometer-graticule combination for particle determination. S. C. Blacktin. Chem & Ind p154 Ap 13 '46

Micrometer increased in versatility by use of dial indicator. il Sci Am 174:128 Mr '46

Micrometer with dial indicator. il Steel 118: 122 Ap 22 '46

Microscope micrometer measures thickness of transparent materials. il Sci Am 174: 228 My '46

Paper strip calibrates micrometer dials. C. Rogers. diags Am Mach 90:141 O 10 '46

Trigonometry versus micrometer stops in turning and facing. D. T. Armstrong. diag Am Mach 90:149-50 My 23 '46

MICROORGANISMS

Continuous cultivation of micro-organisms. W. A. Moor. diags Science 102:594-5 D 7 '45

Control of microbiological food spoilage by fumigation with epoxides. R. Whelton and others. bibliog Food Ind 18:23-5, 174-6+ Ja-F '46

Microbe; friend and enemy of man. S. A. Waksman. Chem & Eng N 24:1372-4 My 25 '46

Micro-organisms in paper. J. W. Appling. Mod Packaging 20:143-6+ S '46

See also

Bacteria
Fungi
Mildew
Molds (botany)
Plankton
Viruses

MICROORGANISMS, Fossil. See Micropaleontology

MICROPALEONTOLOGY

Coprolites from the Bridger formation of Wyoming; their composition and microorganisms. W. H. Bradley. bibliog Am J Sci 244: 215-39, pl 1-4 Mr '46

Micropaleontology of upper cretaceous and paleocene in western Ecuador. H. E. Thalmann. bibliog map Am Assn Pet Geologists Bul 30:337-47 Mr '46

Progress in paleontological research on the Pacific coast, 1917-1944. C. Stock. Geol Soc Bul 57:320-2 bibliog(p338-40) Ap '46

MICROPHONES

Antinoise characteristics of differential microphones. H. E. Ellithorn and A. M. Wiggins. bibliog diags Inst Radio Eng Proc 34:84P-9P F '46

Electric ear controls operation of ball mill; microphone regulates sand input. il Elec World 125:188+ Ja 19 '46

Electronic microphone. J. Rothstein. diag Electronics 19:230+ Mr '46

Gradient microphones. H. F. Olson. bibliog diags Acoustical Soc Am J 17:192-8 Ja '46

Inertia throat microphones. E. H. Greibach and L. G. Pacent. il diags Elec Eng 65: Trans 187-91 Ap '46; Abstract. Electronics 19:238+ Ap '46

Meet the microphone. H. J. Seitz. il plan Radio N 36:28-9+ Ag '46

Motional impedance analysis applied to a dynamic microphone. J. E. White. Acoustical Soc Am J 18:155-60 Jl '46

Problems of high altitude communication. J. Weichbrod. Acoustical Soc Am J 18:161-6 Jl '46

Small microphone boom. B. F. Ryan and E. H. Smith. il diags Soc Motion Picture Eng J 45:441-8 D '45

Sound-pressure measurement standard. F. Massa. il diags Electronics 19:218+ My '46

Television must sound right; fallacies in studio design and equipment must be corrected. R. Hubbell. il Radio N 35:46-7+ F '46

Theory of the propagation of sound in scattering and absorbing media. M. P. Givens and others. diags Acoustical Soc Am J 18:284-95 O '46

Ultrasonic condenser microphone. T. H. Bonn. bibliog il diags Acoustical Soc Am J 18:496-502 O '46

Testing

Absolute pressure calibration of condenser microphones by the reciprocity method. A. L. DiMattia and F. M. Weiner. bibliog il Acoustical Soc Am J 18:341-4 O '46

Laboratory method for objective testing of bone receivers and throat microphones. E. H. Greibach. il diags Elec Eng 65:Trans 184-7 Ap '46

MICROPHOTOGRAPHY

Microphotography. E. L. Anfindsen. J Account 81:300-5 Ap '46

See also

Microfilms

MICROPSEUDOMORPHISM. See Pseudomorphs

MICROSCOPE and microscopy

Agar technique for arresting movement in protozoa. W. S. Bullough. Science 104:227 S 6 '46

Application of metallic shadow-casting to microscopy. R. C. Williams and R. W. G. Wyckoff. il J Ap Phys 17:23-33 Ja '46

Composition, optical and crystallographic properties of two calcium oxalate-chloride double salts. F. T. Jones and L. M. White. bibliog il diags Am Chem Soc J 68:1339-42 Jl '46

Determination of 2,2-bis-*p*-chlorophenyl-1,1,1-trichloroethane in technical DDT; microscopical method. W. McCrone, A. Smedal and V. Gilpin. il diags Ind & Eng Chem Anal ed 18:578-82 S '46

Fractography; a new tool for metallurgical research. C. A. Zapffe and M. Clogg, jr. il Am Soc for Metals Trans 34:71-98 bibliog(p97-8) '45; Same cond. Steel 116:106-9+ My 28 '45; Discussion. diags Am Soc for Metals Trans 34:98-107 '45

Hot stage for microscopic observations between room temperature and 350° C. M. J. Vold and T. M. Doscher. bibliog diags Ind & Eng Chem Anal ed 18:154-5 F '46

Measurement of the radius of curvature of concave spheres. D. H. Rank. Opt Soc Am J 36:108-10 F '46

Microscope gages small dimensions during grinding. J. E. McElwee. diags Am Mach 90:142 S 26 '46

Microscope in metallurgy. L. Sanderson. diag Chem Age (Lond) 54:497-500, 612-14 My 4, Je 1 '46

Microscopic studies of lyogels; vulcanization of rubber. E. A. Hauser and D. S. Le Beau. bibliog il J Phys Chem 50:171-6 My '46

Optical locating system takes guesswork out of positioning; method involving microscopes attached to special fixtures. G. C. Becker. il diags Am Mach 90:83-6 Ja 3 '46

Petrographic analysis by fragment counting; precision of micro-sampling and the combined error of sampling and counting. F. Chayes. Econ Geol 40:517-25 D '45

Phase microscope. Bsns W p57 Ag 10 '46

Phase microscopy. il Sci Am 175:224 N '46

Russians' new electronic microscopes. For Comm W 23:38 My 25 '46

MICROSCOPE and microscopy—*Continued*
Scientific instrument division of American optical company; (formerly Spencer lens company). il Am Cer Soc Bul 25:210-13 Je 15 '46
Shadowed replicas of tooth surfaces. D. B. Scott and R. W. G. Wyckoff. bibliog Pub Health Rep 61:697-700, pl 1-6 My 17 '46
Structural changes of natural and synthetic rubbers during mastication and their subsequent recovery. D. S. le Beau and E. A. Hauser. bibliog il Rubber Age 59:67-72 Ap '46
Superior pith for free-hand sections. F. Carvajal. Science 103:112 Ja 25 '46
Trigonometrical correction of microscope objectives. F. D. Cruickshank. Opt Soc Am J 36:296-8 My '46
Two-dimensional form of flocculation; photographs of flocculates that can be mistaken for single particles. H. Green. il Ind & Eng Chem 38:679-82 Jl '46
Typical structures on replicas of apparently intact tooth surfaces. D. B. Scott and R. W. G. Wyckoff. Pub Health Rep 61: 1397-400, pl 1-6 S 27 '46
Useful little microscope; Multiscope. il Engineer 182:63 Jl 19 '46

See also
Electron microscope
Metallography
Microtomes
Photomicrography

History

Cornelius Varley's microscope stage. R. S. Whipple. il diags Engineering 162:314-15 O 4 '46

Lighting

Illuminator for use in metallographic microscopy. E. E. Fairbanks. Opt Soc Am J 36:244 Ap '46
Microscopic studies of lyogels; preparation of samples for ultra-illumination by incident light. E. A. Hauser and D. S. le Beau. bibliog il Ind & Eng Chem 38:335-8 Mr '46

MICROSCOPIC slides
Cheap and speedy method of cleaning old microscope slides. G. J. Spencer. Science 103:456-7 Ap 12 '46

MICROSCOPICAL society, American. See American microscopical society

MICROTOMES
High speed microtome for the electron microscope. E. F. Fullam and A. E. Gessler. il R Sci Instr 17:23-35 Ja '46
Microtomy with a reciprocating circular knife and a mechanism for sharpening the knife. O. O. Heard. il diags R Sci Instr 17:227-32 Je '46

MICROWAVES. See Radio waves

MIDDLE ages
Further notes on engineering in the middle ages. J. K. Finch. J Eng Educ 36:378-82 Ja '46
Medieval love of color. B. Brown. Rayon 26: 655-6 D '45

MIDDLE EAST. See Near East

MIDDLE WEST

See also
Chemical industries—Middle western states

Industries and resources

Midwest banks on research. il Bsns W p21-2 S 7 '46
Midwest research institute catalyzes new industry in mid-America. E. C. Fetter. Chem Eng 53:101-3 Ag '46

See also Midwest research institute, Kansas City, Missouri

MIDDLE WEST corporation
Annual report. Comm & Fin Chr 163:2358 My 27 '46
Middle West distribution likely soon. Barron's 26:13 My 13 '46

MIDLAND bank limited
Statement by the chairman. Lord Linlithgow. Economist 150:150 Ja 26 '46

MIDLAND mutual life insurance company
Commemorates fortieth anniversary. Spectator (Life ed) 154:44-5 Ag '46

MIDWEST award
Midwest award to the Coris. Chem & Eng N 24:893-5 Ap 10 '46

MIDWEST power conference
Annual conference, 8th, Chicago, April 3-5. Chem & Eng N 24:1382-3 My 25 '46; Elec World 125:141-2 Ap 13 '46; Power 90:319-22+ My '46; Power Pl Eng 50:79-81+ My '46

MIDWEST research institute, Kansas City, Missouri
Fosters area development. il Manuf Rec 115: 36-7+ S '46
Midwest banks on research. il Bsns W p21-2 S 7 '46
Midwest research institute catalyzes new industry in mid-America. E. C. Fetter. Chem Eng 53:101-3 Ag '46
New scientific research institution. G. E. Ziegler. il J Ap Phys 17:669-73 Ag '46
Research progress at Midwest research institute; abstract of first annual report. H. Vagtborg. il Chem & Eng N 24:1183-91 My 10 '46

MIDWEST rubber reclaiming company
Stocks offered. Comm & Fin Chr 163:2729 My 20 '46

MIGRANT workers. See Migration of workers

MIGRATION
Americans on the move. H. Dreiser. Dom Comm 34:32-4 S '46

MIGRATION, International. See Immigration and emigration

MIGRATION of workers
Intercounty migration of the civilian population; number 4, third series. W. P. Burn. map·Ptr Ink 213:25-30+ D 7 '45
Joads are better off. Fortune 34:191 N '46
Migration of indigenous workers in the Belgian Congo. P. de Briey. Int Labour R 52: 335-51 O '45
Recommendations for protection of migrant workers; summary of P. S. Taylor's program. Mo Labor R 62:228-9 F '46

MIKOYAN, Anastas, 1896-
Politburo. V. Kravchenko. Fortune 34:231+ S '46

MILDEW
American association of textile chemists and colorists; mildew proofing committee. H. D. Barker. Am Dyestuff Rep 35:143 Mr 25 '46
Deleterious effects of fungi. F. J. Sowa. Rayon 27:257-9 My '46
Effect of mildew on caselining material. B. W. Scribner and E. Abrams. Paper Tr J 123:132+ O 10 '46
Effect of nitrogen on the growth of chaetomium globosum on cotton canvas. F. R. Romano. il Am Dyestuff Rep 35:363-4+ Jl 29 '46
Effects of mildew on vegetable-tanned strap leather. J. R. Kanagy and others. J Res Nat Bur Stand 36:441-54 My '46
Fungicidal activity of bisphenols as mildew preventives on cotton fabric. P. B. Marsh and M. L. Butler. bibliog il Ind & Eng Chem 38:701-5 Jl '46
Fungicides in war and peace. H. Mitchell. Textile Col 68:14-15+ F '46
Hundred mills specify mildewproofing wants. R. E. Horsey. il Textile World 96:123 Ag '46
Mildew and rot resistance of textiles and effectiveness of textile fungicides. H. D. Barker. Am Dyestuff Rep 35:274-6+ Je 3 '46
Mildew control in the paint industry. R. C. Harnden. il Paint Oil & Chem R 108:32-4 N 15 '45; Excerpt. Oil Paint & Drug Rep 148:46 N 5 '45
Mildew-proofing agent from Rohm & Haas co. Chem & Eng N 24:2826+ O 25 '46
Mildew-proofing agent; Hyamine 3258. Bsns W p62+ S 28 '46
Mildew-proofing fabrics. R. E. Horsey. il Nat Safety N 53:36+ Je '46
Mildew proofing treatment. Rayon 26:666 D '45
Mildewproofing of paper mill felts; use of Preventol GD. F. A. Soderberg. Paper Tr J 122:153-4 Je 20 '46

MILDEW—*Continued*
Resistance of treated cotton fabrics to attack by termites and micro-organisms. R. A. St George and M. S. Furry. il Am Dyestuff Rep 35:207-10 Ap 22 '46
Tropicalization; Hyamine 3258 for mildew-proofing; abstract. Mech Eng 68:256-7 Mr '46

MILITARY administration
See also
Military occupation

MILITARY aeronautics. See Aeronautics, Military

MILITARY airplanes. See Airplanes, Military

MILITARY airports. See Airports, Military

MILITARY art and science
Science and the Civil war. I. B. Cohen. il diag Tech R 48:167-70+ Ja '46
See also
Aeronautics, Military
Atomic bombs
Camouflage
Chemical warfare
Communication, Military
Landing craft
Military bridges and other headings beginning Military
Mines, Military
Mines, Submarine Ordnance
Radio communication, Military
War

MILITARY balloons. See Balloons, Military

MILITARY bridges
Bridge building by Canadian army engineers in Europe. C. A. Campbell. il Roads & Bridges 84:117-18+ Mr '46
Evolution of the Bailey bridge. Engineering 162:245 S 13 '46
Famous military bridges; Bailey bridges built by the 1306 Engineer general service regiment. R. C. Horne. il Eng N 137:391-2 S 19 '46
Steel for one more river; army engineers produced meter beams to bridge rivers of Northern Europe; operation of Hadir steel works. P. Queneau. il Min & Met 27:398-9 Jl '46
War's outstanding floating bridge; used to extend the Ledo road over the Irrawaddy river. il diags Eng N 137:226-9 Ag 22 '46

MILITARY buildings
Army headquarters building, Fort Shafter, Oahu, T.H. il plan Arch Rec 100:68-71 Jl '46
Navy architecture at Camp Parks, Calif.; seabees' chapel, ships service and hostess house. il plans diags Arch Forum 83:73-9 D '45
Port of aerial embarkation; permanent base for military air transportation on Pacific coast. plans Arch Forum 84:104-6 Ja '46
See also
Arsenals
Barracks

MILITARY chemistry. See Chemical warfare

MILITARY communication. See Communication, Military; Military telephone; Radio communication, Military

MILITARY education
See also
Military training

MILITARY engineering
British war devices in 1945. il map Engineer 181:31-3, supp 3, 53-5 Ja 11-18 '46
Building Saipan. J. C. Howland. il map Civil Eng 16:104-7 Mr '46
Canadian engineers' contribution to victory. A. G. L. McNaughton. Mech Eng 67:839-42 D '45
How air helped build a military base on Guam. R. P. Day. il Comp Air Mag 51:15-17 Ja '46
Model experiments carried out in connection with Mulberry harbour; summary and discussion. F. H. Todd. Engineer 181:400 My 3 '46; Engineering 161:473 My 17 '46
See also
Fortification
Military bridges
Military railway service
Mines, Military
Ordnance
Radio apparatus—Military use
Railroads, Military
Water supply for armies

MILITARY fabrics
New techniques for the inspection of textiles. H. F. Schoenfelder. diags Rayon 27:483-5, 548-8 S-O '46; Same. Ind Stand 17:255-60 O '46
Problems for future quartermaster textile research. S. J. Kennedy. Am Dyestuff Rep 34:511-15+ D 3 '45
Release of surplus textiles bogs down at critical time. G. Montgomery. flow chart Textile World 95:137+ D '45
Water repellents for military textiles. H. N. Mitchell. Textile Col 68:16-17 S '46
See also
Army fabrics

MILITARY geology. See Geology, Military

MILITARY hospitals. See Hospitals, Military

MILITARY hygiene
DDT; development, war use, peace applications. Soc Dyers & Col J 61:335-6 D '45
Summary of twenty-two trinitrotoluene fatalities in World war II. W. J. McConnell and R. H. Flinn. bibliog J Ind Hygiene 28: 76-86 My '46
See also
United States—Army—Medical and sanitary affairs
Water supply for armies

MILITARY insurance. See Insurance, Military and naval service

MILITARY lands. See Public lands

MILITARY mines. See Mines, Military

MILITARY money. See Money, Military

MILITARY motor vehicles. See Motor vehicles, Military

MILITARY occupation
Finances in liberated countries. Banking 38: 90 D '45
German contracting in occupied Europe. A. L. Horniker. Harvard Bsns R 25 no 1:74-91 [O] '46
See also
Germany—Allied military government
Japan—American occupation

MILITARY pensions. See Pensions, Military

MILITARY pilots association
Former military pilots organize to improve air veterans' status. B. Stubblefield. Aviation N 6:27 Jl 29 '46
Target for today; war pilots organize new union. Bsns W p88 Ag 17 '46

MILITARY pipe lines
Crossing the Whangpoo at Shanghai; military pipe line. F. E. Hangs. il map Pet Eng 18:174+ O '46
Military pipe line systems a World war II development. J. J. King. il Pet Eng 17:150+ Mr '46
Our P.O.L. pipelines to China. il map Eng N 136:708-10 My 2 '46

MILITARY psychiatry. See Psychiatry, Military

MILITARY railroads. See Railroads, Military

MILITARY railway service
M.R.S. inactivation progresses. C. B. Tavenner. map Ry Age 120:34-5 Ja 5 '46

MILITARY research
AAF plans for the future. R. K. Winkleblack. il Automotive & Aviation Ind 95: 30-1+ Ag 1 '46
Army's research program; role of Research and development division, War department. H. S. Aurand. Mech Eng 68:785-6+ S '46
Research and development in the Ordnance department, U.S. army. G. M. Barnes and others. il diag J Ap Phys 16:745-806 D '45
Research needs for weapons. G. M. Barnes. Mech Eng 68:196-8+ Mr '46
Research needs in subsistence and personal equipment. W. H. McLean. Mech Eng 68: 203-5 Mr '46; Same. Rayon 27:350-2, 401-2 Jl-Ag '46
also Texas university—Defense research laboratory

MILITARY service
How unreasonable attitudes may be counteracted. R. R. Cohen. il Factory Management 104:117-20 Ja '46

MILITARY service—*Continued*
Inequalities in adult capacity; from military data. W. V. Bingham. bibliog Science 104: 147-52 Ag 16 '46
See also
Military railway service
Military training

Insurance aspects

U.S. army and navy cooperation with private life insurance companies. C. Axman. East Underw 46:6+ D 14 '45
See also
Insurance, Military and naval service

MILITARY service, Compulsory
Appeal for the deferment of college science students. O. C. Carmichael and others. Science 102:500-1 N 16 '45
Conscription for peace. Economist 150:915-16 Je 8 '46
Draft pool low. Bsns W p30 Ag 10 '46
Draft slows research; testimony before War mobilization subcommittee of the Senate military affairs committee. R. E. Gillmor. Aviation N 4:27 N 12 '45
Important changes in deferment policy. Chem & Eng N 23:1937, 2181+ N 10, D 10 '45
Military release and draft of special classes. Mo Labor R 62:591 Ap '46
President signs bill extending draft to July 1; teen-agers barred, 26 to 29-year-olds called. Comm & Fin Chr 163:2815 My 23 '46
Scientific training. H. A. Meyerhoff. Science 103:70-1 Ja 18 '46
Selective service. M. H. Trytten. J Eng Educ 36:626-33 Je '46
Selective service and student personnel. H. A. Meyerhoff. Science 103:479-80 Ap 19 '46
Selective service in World war II. P. W. Hale. Elec Eng 64:402-3 N '45

MILITARY tanks. See Tanks, Military

MILITARY telegraph
Systems development of military communications in the North African theater of operations. T. R. Putnam. il map Elec Eng 65: Trans 757-61 N '46

MILITARY telephone
Infantry combat communications. R. E. Willey. il diag Elec Eng 65:1-7 Ja '46
Systems development of military communications in the North African theater of operations. T. R. Putnam. il map Elec Eng 65: Trans 757-61 N '46

MILITARY tractors. See Tractors, Military

MILITARY training
Comparison of instruction in colleges and military service schools. D. C. Nicholson. J Chem Educ 23:78-81 F '46
Costs of compulsory military training. J. M. Swomley, jr. Comm & Fin Chr 163:5+ Ja 3 '46
Electronic sound effects circuit; reproduction of battle sounds used in training men for the army. H. Syzling. il diag Electronics 19:214+ Ja '46
Evils of compulsory military training. H. C. Holdridge. Comm & Fin Chr 163:1089+ F 28 '46
Evolution of stage lighting; use in military training; abstract. L. G. Applebee. Light & Lighting 39:63-4 Ap '46
Plastic training aids; transparent models used at Ordnance school, Aberdeen proving ground; abstract. E. D. Roberts. Mech Eng 68:253 Mr '46
Post-war training for Signal corps reserve officers. C. W. Janes and J. O. Sweeny. J Eng Educ 36:299-301 D '45
Training for leadership. H. R. Kutz. Mech Eng 68:438-41 My '46
Transportation training centre, Royal engineers, Longmoor. il Engineer 181:444-5 My 17 '46
Universal military service in peacetime; statement by American mathematical society and Mathematical association of America. Science 103:579-81 My 10 '46
Urges delay on training bill. G. F. Zook. Comm & Fin Chr 162:2626 N 29 '45
Urges military training D. D. Eisenhower. Comm & Fin Chr 162:2501 N 22 '45

MILITARY training camps
City seeks army camp as material source; San Diego's move. Eng N 136:270 F 21 '46

Power supply

Substation capacity increased tenfold in an eastern military post. il diag Elec World 124:143 D 8 '45

Sanitation

Review of some army sewage treatment problems and results. il Pub Works 76:24-5+ D '45
Some operation data on a large army activated sludge plant; Camp Shelby, Miss. J. H. McCutchem and C. G. Wood. il map plan Pub Works 77:20-1+ O '46

MILK
Chemist and milk production. A. L. Provan. Chem & Ind p47-8; Discussion. 49 F 2 '46
Chemist in the dairy industry; abstract. E. B. Anderson. Chem & Ind p48-9; Discussion. 49 F 2 '46
Incentive improves milk. Bsns W p90 F 23 '46

Analysis

Use of an ion-exchange resin in determination of traces of copper with special reference to powdered and fluid milk. H. A. Cranston and J. B. Thompson. Ind & Eng Chem Anal ed 18:323-6 My '46

Preservation

See also
Milk, Dried
Milk, Frozen

Prices

Milk by the pound; Syracuse dairy abandons quart pricing. Bsns W p49 Ag 17 '46
Milk kettle boils. Bsns W p21-2 Ap 13 '46

Testing

New routine tests in the dairy industry. J. G. Davis. bibliog Chem & Ind p362-5 O 5 '46

MILK, Chocolate
Chocolate milk, product with future. G. Hadary. Food Ind 17:1449 D '45

MILK, Condensed
Swiss family Nestlé. il Fortune 33:116-23+ F '46

Patents

Condensed milk. Food Ind 17:1565 D '45

MILK, Dried
Absorption of CO_2; abstract. J. A. Pearce. Food Ind 18:435 Mr '46
Copper in milk. Oil Paint & Drug Rep 150:5 O 21 '46
Dried milk companies form export association. Oil Paint & Drug Rep 148:5 N 26 '45
Dried milk; test of consumer acceptance. H. L. Cook and R. W. Hoecker. il Mod Packaging 19:110-13+ D '45
Drying powdered milk by electricity. il Elec West 95:89 D '45
576-kw. spray-process powdered milk dryer. M. M. Clayton. Elec World 125:184+ Ja 19 '46
Gas-packing dry whole milk; replacement of oxygen by vacuumizing and filling headspace with inert gas. S. T. Coulter and R. Jenness. il Food Ind 18:352-5+ Mr '46
Keeping quality of egg and milk mixtures; abstract. J. A. Pearce and others. Food Ind 18:1296 Ag '46
Quick soluble milk blocks; abstract. O. de Rousset-Hall and M. Ingram. Food Ind 17:1401 N '45
Wisconsin opens door to dried skim milk. il Bsns W p22 N 24 '45

MILK, Evaporated
Evaporated milk; new processing and canning factory. il Elec R (Lond) 139:207-10 Ag 9 '46
Freezing point data sheets and cooling curves. Food Ind 18:1036 Jl '46

MILK, Frozen
Frozen milk; it keeps for months in paper cartons. il Mod Packaging 19:128-30 Ja '46

MILK, Goats'
Bacteria, fat and vitamins in goat's milk; abstract. A. D. Holmes and others. Food Ind 18:966 Je '46

MILK, Powdered. See Milk, Dried

MILK, Vegetable. See Soybean milk

MILK bottles
How scale prevention cuts bottle washing cost. P. E. Piper. il Food Ind 18:1024-5+, 1198-9+ Jl-Ag '46

MILK containers
Improved milk container. il diag Mod Packaging 19:182 Ag '46
Milk container; paper and glass. A. Morrow. bibliog il Mod Packaging 19:95-7+ Jl '46
Nettoyage et stérilisation des récipients et ustensiles utilisés en laiterie. G. Ray. bibliog Chimie & Ind 55:23-30 Ja '46

MILK delivery
Inefficiency preferred; unionized route salesmen refuse to continue every-other-day delivery. A. Morrow. il Food Ind 18:347-8 Mr '46

MILK handling
Nettoyage et stérilisation des récipients et ustensiles utilisés en laiterie. G. Ray. bibliog Chimie & Ind 55:23-30 Ja '46

MILK plants
How scale prevention cuts bottle washing cost. P. E. Piper. il Food Ind 18:1024-5+, 1198-9+ Jl-Ag '46
Ice bank reduces refrigeration peak load in milk plants. C. H. Minster. diag Food Ind 18:1016-17 Jl '46
Milk plant designed for rapid erection. il diags Eng N 137:234-7 Ag 22 '46

MILK trade
Less milk in sight. Bsns W p30+ Mr 9 '46
Milk production falls as demand rises. Barron's 26:5 Mr 4 '46
Milk reconverts. Bsns W p22+ N 24 '45

See also
Milk—Prices
Milk delivery

Advertising

Dairymen pool efforts in drink-more-milk drive. Sales Management 57:96+ O 15 '46

Canada

Monthly statistics of the fluid milk trade in the principal markets of Canada, 1943 and 1944. P. H. Ferguson. 34p Canada. Dominion bur. of statistics, Ottawa '46

Detroit

Vet co-op pays off on better service; Detroit's Servicemen's dairy co-operative association. K. Detzer. il Am Bsns 16:10-11+ Ag '46

MILK truck drivers. See Milk delivery

MILKING machines
De Laval proves potency of how-to-use-it demonstrations; local meetings teach methods of using mechanical milkers. il Sales Management 55:65+ D 15 '45

MILL villages. See Company towns

MILLER, Alexander Kenneth, 1856-1945
Sketch. A. J. C. Cosbie. Chem Soc J p67-8 Ja '46

MILLER, William Joseph, 1876-
President of the Miller pottery engineering company. por Am Cer Soc Bul 25:1-4 Ja 15 '46

MILLES, Carl, 1875-
Neptune with a chisel; Swedish fountain-maker. por Arch Forum 84:92-6 Je '46

MILLIAMMETERS
Determining the resistance of a sensitive d.c. meter. G. Dexter. diags Radio N 35:80 Mr '46
Multi-range milliammeter. R. P. Turner. il diags Radio N 35:49+ F '46

MILLINERY
Things are looking up for millinery. il Dom Comm 34:34-5 My '46

MILLING
Canadian milling machine has interlocked hydraulic electric control. il diag Product Eng 17:18 Ja '46
Cutting an increasing twist in gun rifling. G. Tonn. diags Mach 53:176-8 S '46
Effect of work position in face milling of steel with carbide cutters. F. W. Lucht. il diags Iron Age 156:72-6 D 6; 64-8 D 13 '45; pt 1 rev 157:64-8 Ja 24 '46; Same. A S M E Trans 68:151-60 F '46
Machining stainless steels. E. Von Hambach. il diags Steel 119:116-18+ O 7 '46
Milling large spar caps with positive rake cutters; Northrop aircraft, inc. F. M. Gibian. il diags Automotive & Aviation Ind 94: 32-4+ F 15 '46
Multiple milling of tool shanks increases production. E. Weaver. il Mach 52:183 Je '46
New high-speed milling technique; new cutter introduced by General tool and die corp. il diag Iron Age 157:76-7 F 14 '46
Plant committee coordinates application of carbides to milling; Kearney & Trecker corporation. A. O. Schmidt and D. V. Stevens. il diags Am Mach 90:95-9 Ap 25 '46
Precision cam design methods and analyses; computation of machine settings. diags Product Eng 16:845-8 D '45
Rapid milling of propeller-shaft bearings. il Mach 52:180 Ag '46
Speed and feed selection in carbide milling with respect to production, cost, and accuracy. H. Ernst and M. Field. il diags A S M E Trans 68:207-15 Ap '46

MILLING cutters
Adjustable spacer for milling cutters. il Engineering 162:18-19 Jl 5 '46
Analysis of initial contact of milling cutter and work in relation to tool life. M. Kronenberg. il diags A S M E Trans 68:217-28 Ap '46
Beaver tool and engineering corp. carbide bladed cutter. il Steel 118:150 Mr 4 '46
Carbide milling cutter data calculating chart Mach 52:173-5 Ap '46
Carbide milling cutters; production tests on modified forms of negative rake. Automobile Eng 36:309-10 Jl '46
Carbide mills aluminum alloys. G. R. Gwynne. il Am Mach 90:106-7 Je 6 '46
Copper-cushioned toolbits processed for high metal removal. il diags Am Mach 90:130 Ja 31 '46
Cutter adjusts for slot width; redesign of milling cutter for rods. W. Radtke. il Am Mach 90:130 Mr 14 '46
Cutter life as affected by the mounting of cemented carbide blanks. F. W. Lucht. il diags Steel 119:80-3+ Jl 22 '46
Data on production runs with carbide milling cutters. A. O. Schmidt. bibliog il diags Mech Eng 68:427-31 My '46; Same cond. Iron Age 156:54-7 N 22 '45
Experiences with carbide-tipped tools. M. E. Feldstein. il diags Mech Eng 68:307-13 Ap '46
High-rake flycutters mill precision surfaces on castings. G. C. Becker. il diag Am Mach 89:128-9 D 6 '45
How to select carbide milling cutters. D. V. Stevens and A. O. Schmidt. il diags Am Mach 90:112-16 O 24 '46
Increasing production with carbide tool inserts; Westinghouse electric corp. R. J. Rousseau. il Steel 118:92-3+ Je 10 '46
Milling cutter data; tables; reference book sheet. Am Mach 90:145 S 26 '46
Milling-cutter design for continuous production; grinding technique. A. A. Schwartz. il diags Mech Eng 68:608-10 Jl '46; Abstract. Mach 52:179 F '46
Milling cutters with cushioned blades. il Mach 52:213 F; 186 Mr '46
Milling hard welded steel. F. Lucht. diag Materials & Methods 23:482 F '46
Milling with carbide tools; abstract. F. M. Burt. Materials & Methods 22:1510+ N '45
New high-speed milling technique; new cutter introduced by General tool and die corp. il diag Iron Age 157:76-7 F 14 '46
New milling technique; Kennamilling. il Iron Age 157:74 Ja 31 '46; Mach 52:179 D '45; Ry Mech Eng 120:96 F '46
Regrinding broken-off end mills in two steps. M. Schumm. Am Mach 90:139 Mr 28 '46
Rule of thumb calculation sets cutter grinders. A. F. Sheridan. diags Am Mach 90:147 Jl 18 '46
Two-piece milling cutter allows axial expansion. R. A. Schultz. diags Am Mach 90:138 F 28 '46
Vibra-cushioned face mill. Iron Age 157:65 Ap 25 '46

MILLING cutters—*Continued*

Testing

Production research; measurement of forces on high speed carbide-tipped milling tools with cathode-ray oscillograph. il Electronics 19:186+ S '46

MILLING machines

Boring large holes in bakelite with a small Van Norman miller. N. Brackett. il Am Mach 90:137 Ag 15 '46

Built-up milling machine for large light work. A. Rhodes. il Am Mach 90:139 Mr 28 '46

Cincinnati Hydromatic milling machines. il Automotive & Aviation Ind 94:43 My 15 '46; Am Mach 90:174 My 23 '46; Mach 52:205+ Je '46

Cincinnati improved milling machines. il Mach 52:201-2 Ag '46; Am Mach 90:149 Ag 1 '46

Cincinnati knee-type milling machines. il Engineering 162:319-21 O 4 '46

Cincinnati medium-sized knee-and-column type milling machine. il Automotive & Aviation Ind 95:41 Ag 1 '46

Cincinnati new series Hydro-Tel milling machine. il Mach 53:220-1 N '46

Herbert vertical knee-type milling machine. il Engineering 161:486 My 24 '46; Automobile Eng 36:261 Je '46

Herbert vertical milling machine. il Engineer 181:321 Ap 5 '46

Kent-Owens automatic miller. il Steel 118:138 Mr 4 '46

M.O. milling machine, manufactured by Victoria machine tool co. il Automobile Eng 35:549 D '45

Miller for slotting marine bearings. il Steel 119:102-3+ Jl 15 '46

Sentinel universal tool-room milling machine. il(p348) Engineering 162:345-6 O 11 '46

Slotting marine bearings on special planer type milling machine. il Mach 52:151 Ap '46

Sundstrand duplex-type Rigidmil. il Am Mach 90:168 N 7 '46; Mach 53:222 N '46

Van Norman no.2 horizontal miller improves negative-angle milling. il Am Mach 89:149 N 22 '45; Steel 118:118 Ja 14 '46

Van Norman no. 3 horizontal miller. il Am Mach 89:141 D 6 '45; Mach 52:204 D '45; Steel 118:130+ Mr 25 '46

Control

Electronic motor control; drive for vertical milling machine. M. Morgan. il diags Machine Design 18:114-19 S '46

Rotating disk-and-pin mechanism for controlling cutter-head slide of automatic cam-generating device. C. Golosman. diags Mach 52:189-93 Ag '46

Special machine utilizes combination drives; milling machine to produce cutter bits for the Reed roller bit co. F. J. Kampmeier. il diags Machine Design 18:101-6 Ap '46

Fixtures

Eliminates tool changes. R. Mawson. diags Steel 119:122 Ag 19 '46

Fixture for milling tool shanks. diags Mach 52:181-2 Mr '46

Jigs and fixtures designed for milling gear-pump body cavities. diags Mach 52:196-8 Ap '46

Milling fixture has horizontal and vertical clamping. L. Kasper. diag Am Mach 90:141 F 14 '46

Special attachments speed turbine bucket production; General Electric's Lynn River works. il Iron Age 157:64-5 Ja 10 '46

MILLS, Ball. See Ball mills

MILNE-WATSON, Sir David, 1869-1945

Sketch. Chem & Ind p324-5 O 20 '45

MILWAUKEE

Consumer analysis of the Greater Milwaukee market. Ptr Ink 215:44 Ap 12 '46

Rapid transit

Milwaukee transit floats capture top honors in Centurama parade. D. Kayser. il Mass Transportation 42:404 S '46

Streets

Milwaukee's street inventory record will facilitate predictions of future pavement requirements and reconstruction. R. W. Gamble. il diags map Eng N 136:63-7 Ja 10 '46

Water supply

Checking the distribution system; pitometer surveys. H. Breimeister. Am Water Works Assn J 38:239-43 F '46

Milwaukee's 73-year old water tower gets face lifting. J. E. Hubel. il Water & Sewage Works 93:378-9 O '46

MINE accidents

Death lurks in old mines; abstract. A. L. Foss. Nat Safety N 52:119-21 N '45

Electrical and mechanical hazards in metal mines; metal-mine accident-prevention course, section 6. bibliog il diags U S Bur Mines Miners' Circ 56:1-82; pa 20c Supt. of doc. '46

Handling the new recruit. H. B. Hicks. Can Min J 67:184-7 Mr '46

Health and safety in mining, 1945. C. M. Fellman. il Min & Met 27:128-9 F '46

National safety competition of 1945, Bureau of mines; with list of winners, 1925-1945; honorable mention awards, 1945. F. T. Moyer. il Explosives Eng 24:105-8+ Jl '46

Safety in mining; annual review and forecast. J. T. Ryan, jr. and C. M. Donahue. il Min Cong J 32:102-5 F '46

Strange happening underground, proving that you can't always believe what you see; fantasy. H. B. Hicks. il Can Min J 67: 796-9 Ag '46

See also

Coal mines and mining—Accidents and explosions
Coal mines and mining—Safety measures
Electricity in mining—Safety measures
Mine haulage—Safety measures
Mining engineering—Safety measures

MINE accounting

Accounting practice at Climax. J. Domenico. Min & Met 27:356-7 Je '46

Payroll work speeded by modern machine equipment. J. C. McNeil. il Coal Age 51: 92-6 Ag '46

See also

Coal mines and mining—Accounting

MINE air

Winter air-conditioning of mines helps prevent coal-dust explosions. Coal Age 50: 116+ N '45

See also

Mine ventilation

MINE buildings

Bathhouse design economizes on space; Reels Cove mine of the Tennessee products corp. plan Coal Age 51:128 F '46

How Hudson Bay runs its mine warehouse. P. G. Bishop. il Eng & Min J 146:90-3 O; 90-6 N '45; 147:79-81 Ja; 85-7 Mr; 97-9 Ap '46

Operations and plants of International nickel company of Canada; designing. il Can Min J 67:483-6 My '46

See also

Mine shops

MINE cages

Bear-trap device tests cage dogs. J. G. W. Purdie. diags Eng & Min J 146:87 D '45

MINE cars

All-welded mine car. il Engineer 180:332 O 26 '45

Handling of colliery tub traffic; pneumatic plant. il Mech Handling 33:473-5 Ag '46

Level-deck cross-track hoisting car saves labor. il Coal Age 51:106+ Je '46

Retractible ramp reduces mine car wear. il diag Eng & Min J 147:81 Je '46

Safety dogs protect man-cars on slopes. J. V. Mather. il diags Coal Age 51:110+ Ag '46

Underground haulage with locomotives and mine cars. C. R. Nailler and C. C. Hagenbuch. il Min Cong J 32:41-2 Je '46

See also

Dump cars
Mine haulage

MINE construction

Rock tunneling in the Roslyn-Cle Elum field in central Washington. T. Murphy. il plan diags Min Cong J 32:22-5 Jl '46

See also

Concrete construction in mines
Mine buildings

MINE drainage
Concrete lining prevents corrosion of pipe; Homer mine of the M. A. Hanna co. diags Eng & Min J 147:104+ Je '46
Cripple Creek increases production; Carlton tunnel drained untouched blocks of ground. M. Geddes and K. Geddes. il Min Cong J 32:26-7 Ag '46
Drainage for low-cost mining. plan diag Coal Age 51:125-6 My '46
See also
Mine pumping, Electric

MINE dust
Dust control in hematite mining. B. D. Tebbens and I. R. Tabershaw. bibliog J Ind Hygiene 28:100-6 My '46
Increased ventilation, its effect on dust concentration in mine air. A. S. Richardson and others. il plan Min Cong J 32:40-1 S '46
See also
Mine air
Silicosis

MINE equipment
Bottom dump skip at Butte. W. R. Catrow. il diag Min Cong J 32:24-6 Mr '46
Exposition preview; Western division, American mining congress. Min Cong J 32:47-52 Ag '46
Heavy equipment handles backfill at Sullivan. J. B. Huttl. il diag Eng & Min J 147:70-1 Jl '46
Mining at Climax; blasting, loading, haulage, etc. R. Henderson and W. K. McGlothlin. il plan Min & Met 27:308-16 Je '46
Mining practice marked by labor-saving changes. R. S. Lewis. il Eng & Min J 147: 92-5 F '46
New equipment and methods in metal mining. il Min Cong J 32:93-8 F '46
New idea in drill boosters in bauxite mine. J. A. Fuller. diags Min Cong J 32:30-1 Mr '46
Operations and plants of International nickel company of Canada; designing. il Can Min J 67:483-6 My '46
Pneumatic guides provide smoother skip travel. W. Smith. il diags Eng & Min J 147:106-7 Ap '46
Slack-line scraper used for open pit. C. K. Carmean and H. O. Gray. il Eng & Min J 147:76-7 Jl '46
Will silicones be useful in the mining industry? il diag Eng & Min J 147:72-4 Jl '46
See also
Coal mines and mining—Equipment
Electricity in mining
Fans, Mine
Mine cages
Mine cars
Mine hoisting
Mining machinery
Rock drills

Advertising
Formula for sure-fire industrial copy: earthiness, authenticity; Yuba manufacturing co. dredges for mining. H. A. Sawin. il Sales Management 55:106+ N 15 '45

MINE explosions
See also
Coal mines and mining—Accidents and explosions

MINE fans. See Fans, Mine

MINE filling
Backfilling problem in the anthracite region as it relates to conservation of anthracite and prevention on subsidence. S. H. Ash and J. Westfield. U S Bur Mines Information Circ 7342:1-18 bibliog(p16-18) '46
Heavy equipment handles backfill at Sullivan. J. B. Huttl. il diag Eng & Min J 147:70-1 Jl '46
Iron King obtains fill by block-caving waste. H. F. Mills. il plan Eng & Min J 147:68-9 O '46

MINE fires
Coal-mine explosions and coal- and metal-mine fires in the United States during the fiscal year ended June 30, 1945. D. Harrington and others. 1pl U S Bur Mines Information Circ 7359:1-22 '46
Fires, gases, and ventilation in metal mines; metal-mine accident-prevention course, section 5. bibliog il diags U S Bur Mines Miners' Circ 55:1-94; pa 20c Supt. of doc. '46
How's your fire protection? H. B. Hicks. Can Min J 67:32-4 Ja '46
Operations and plants of International nickel company of Canada; fire protection. il map diags Can Min J 67:496-500 My '46
See also
Coal mines and mining—Fires and fire protection

MINE foremen
Conference method promotes efficiency in mine supervision. L. Harris. Coal Age 51: 88-90 Jl '46
J & L takes legal action in attempt to rescind recent UMW foremen's contract. Iron Age 158:98 Jl 25 '46
Mine boss; what's on his mind re his job and future. W. H. Kushnick. Coal Age 51: 83-5 S '46
Mine foreman and accident prevention. J. J. Rutledge. il Explosives Eng 24:53+ Mr '46
Mine foreman and his certificate of competency. J. J. Rutledge. Explosives Eng 23:250+ N '45
Mine foreman and mine maintenance. J. J. Rutledge. Explosives Eng 24:154-5 S '46
NLRB allows foremen unionization. Coal Age 51:154+ Ap '46
Qualities of the foreman men like to work with. P. D. Pearson. Eng & Min J 147:75 My '46

MINE forests. See Forests and forestry, Mine

MINE gases
Fires, gases, and ventilation in metal mines; metal-mine accident-prevention course, section 5. bibliog il diags U S Bur Mines Miners' Circ 55:1-94; pa 20c Supt. of doc. '46
See also
Mine ventilation

MINE haulage
Larry train solves Oak Hill refuse-disposal problem. R. R. Richart. il diags Coal Age 50:103-8 N '45
Low-cost mining over many years goal at Robin Hood mine. J. H. Edwards. il map diag Coal Age 51:68-74 Ja '46
Machine methods for high productivity. plans diags Coal Age 51:101-10 My '46
Mining at Climax. R. Henderson and W. K. McGlothlin. il plan Min & Met 27:308-16 Je '46
Service haulage under various seam conditions; equipment used to serve mobile mechanical loaders. il diags Min Cong J 32: 44-6 Mr '46
Special equipment boosts efficiency at trackless operation; Moss hill no. 9 mine, Hart-Ross coal co. R. R. Richart. il diags Coal Age 51:83-7 Jl '46
Standard plan evolved for loader and shuttle-car work. il diags Coal Age 51:94-5 Ja '46
Tonnage raised by adoption of shuttle-car gathering; Knox consolidated coal corp. plan Coal Age 50:88-9 N '45
Trackless mobile equipment reduces mining costs; Fenix operations in the Tri-state district. H. O. Gray. il Eng & Min J 146: 97-9 N '45
Transport of coal from face to screening plant. E. J. Daniell. il plan diag Mech Handling 33:485-90 Ag '46
Transportation for low-cost operation. Coal Age 51:115-17 My '46
Underground haulage with locomotives and mine cars. C. R. Nailler and C. C. Hagenbuch. il Min Cong J 32:41-2 Je '46
See also
Coal mining machinery—Conveyors
Electric locomotives, Mine
Mine cars
Mine tracks

Cost
Mine haulage with locomotives and track; with cost data. E. H. Jenks. il diag Min Cong J 31:47-9 D '45

MINE haulage—*Continued*

Safety measures

Accidents from hoisting and haulage in bituminous-coal mines; coal-mine accident-prevention course, section 3. bibliog il diags U S Bur Mines Miners' Circ 49:1-59; pa 20c Supt. of doc. '46

Haulage safety promoted by logic in eliminating hazards. il Coal Age 50:110-14 D '45

MINE hoisting

Four unusual ways to mount slusher hoists. il diags Eng & Min J 147:82-3 Ja '46

Level-deck cross-track hoisting car saves labor. il Coal Age 51:106+ Je '46

New East Malartic hoist. il Can Min J 67: 777-8 Ag '46

Ropes lubricated during hoisting cycle. W. Vassar. diags Eng & Min J 146:104 N '45

Skip winging of coal. il plan diags Mech Handling 33:476-9 Ag '46

See also
Mine cages
Mine haulage

Safety measures

Accidents from hoisting and haulage in bituminous-coal mines; coal-mine accident-prevention course, section 3. bibliog il diags U S Bur Mines Miners' Circ 49:1-59; pa 20c Supt. of doc. '46

Bear-trap device tests cage dogs. J. G. W. Purdie. diags Eng & Min J 146:87 D '45

Safe practices in mine hoisting. D. Harrington and J. H. East, jr. bibliog il diags U S Bur Mines Miners' Circ 61:1-55 '46

Test those dogs! stopping device for mine hoists. H. B. Hicks. Can Min J 66:790-2 N '45

MINE hoisting, Electric

Dynamic braking of a.c. electric mine hoist. G. Morrison. diag Can Min J 67:962-3 O '46

Electric hoist powers self-dumping car; Mammoth-St Anthony, ltd. il Eng & Min J 146:103 N '45

Improved control of mine hoist drives. J. G. Ivy. il diags Can Min J 67:20-3 Ja '46

Load equalisation; colliery winding equipment; flywheel set with Ward-Leonard control. G. Barnard. diags Elec R (Lond) 137:754-6 N 23 '45

Off peak pumping and hoisting at Powell Rouyn mines. D. S. Johnson and W. H. Burns. il Can Min J 66:781-3 N '45

Sunshine's modernized hoist uses rotating control; Rototrol control system. R. F. Mahoney and H. B. Hodgins. il Eng & Min J 147:90-2 Ap '46

What causes this motor to slow down? induction motor installed in mine shaft. diags Power 90:121+ F '46

MINE inspection

All this and mining too! work of inspectors of Division of industrial safety's Bureau of mines, tunnels, quarries, and explosives, New York state. il Safety Eng 91:46-8 Je '46

Federal coal mine inspection; accident rate cut under operation of new act. D. Harrington. il Min & Met 27:255-9 My '46

Inspection standards for strip mines (coal and lignite); revised October 1945. U S Bur Mines Information Circ 7350:1-32 '46

MINE inspectors' institute of America

Annual meeting, 36th, Wilkes-Barre, June 3-5. Coal Age 51:116+ Jl '46

MINE lamps. See Safety lamps, Electric

MINE lighting

Fluorescent lamp mine lighting at Binley colliery. il Electrician 136:1377 My 24 '46

Mine lighting exhibition. Engineering 161:163 F 15 '46

Mine lighting; summary of recent work initiated by National illumination committee. Light & Lighting 39:49-50 Mr '46

Underground daylight; Jones & Laughlin Vesta no. 4 mine. il Steel 119:80 O 28 '46

See also
Safety lamps, Electric

MINE management

Education of a manager. H. B. Hicks. Can Min J 67:642-5 Je '46

Metal mining; review of 1945. E. D. Gardner. il Min & Met 69:67-9 F '46

Mine service departments. Can Min J 67: 173-4 Mr '46

Operations and plants of International nickel company of Canada; collective bargaining, pensions, insurance, employee activities. il Can Min J 67:514-22 My '46

Operations and plants of International nickel company of Canada; employment practices. Can Min J 67:501-2 My '46

Postwar education for mining engineers; basic training needed to meet problems of management. M. Read. Min & Met 27:173-4 Mr '46

Wilfley leasing co.; how a small mine grows. R. H. Ramsey. il map Eng & Min J 147:94-7 Mr '46

See also
Coal mines and mining—Management
Mine accounting
Mine foremen

Stores systems

How Hudson Bay runs its mine warehouse. P. G. Bishop. il Eng & Min J 146:90-3 O; 90-6 N '45; 147:79-81 Ja; 85-7 Mr; 97-9 Ap '46

Operations and plants of International nickel company of Canada; purchasing and stores. plan Can Min J 67:493-5 My '46

Operations of the warehouse department at Climax. A. Staziker. Min & Met 27:358-9 Je '46

Purchasing practice for the mining operations at Climax. L. A. Cowan. Min & Met 27: 353-5 Je '46

MINE pumping

Winter diamond drilling; supplying water to diamond drills in sub-zero weather at the Francoeur. J. M. Gardner. Can Min J 67: 172 Mr '46

MINE pumping, Electric

Off peak pumping and hoisting at Powell Rouyn mines. D. S. Johnson and W. H. Burns. il Can Min J 66:781-3 N '45

MINE pumps

Vertical turbine pumps for mine use. F. E. Dunn. il Min Cong J 32:65-7 Ag '46

MINE rescue work

Mine rescue life-line telephone assemblies. J. J. Forbes and others. diags U S Bur Mines Rep of Invest 3875:1-11, pl 1-13 '46

Plan for training mine officials in rescue organization and disaster prevention. E. R. Maize and J. V. Berry. 7pls U S Bur Mines Information Circ 7353:1-13 '46

MINE roofs

Accidents from falls of roof and coal in bituminous-coal mines; coal-mine accident-prevention course, section 2. bibliog il plans diags U S Bur Mines Miners' Circ 48:1-114; pa 25c Supt. of doc. '45; Abstract. Nat Safety N 53:110 F '46

Causes and prevention of mine roof falls. F. G. Smith. il Min Cong J 32:39-42 Ap '46

Hunting for loose rocks; how to make roof safe despite them. diags Coal Age 51:96+ Jl '46

One reason why pillars pass air into goafs and returns. diags Coal Age 51:98+ Je '46

See also
Mine timbering

MINE shafts

Re-timbering no.6 shaft; McIntyre Porcupine mines; with cost data. K. O'Donnell. diags Can Min J 67:245-8 Ap '46

Rubber tires serve as skip guides in mine shafts. il plan diag Comp Air Mag 51:196 Jl '46

Wasa Lake inclined shaft. il diags Can Min J 67:951-2 O '46

See also
Shaft sinking

MINE shops

Modern shops meet maintenance need at Union Pacific. il plan diag Coal Age 50:97-102 N '45

Operations and plants of International nickel company of Canada; maintenance. il plans Can Min J 67:487-93 My '46

Reconditioning drill bits by hot-milling at Parral. W. J. Upton. il plan Eng & Min J 147:96-9 Ag '46

MINE signals
Simple signal system requires little upkeep. diag Eng & Min J 147:98 My '46

MINE subsidences
Backfilling problem in the anthracite region as it relates to conservation of anthracite and prevention on subsidence. S. H. Ash and J. Westfield. U S Bur Mines Information Circ 7342:1-18 bibliog(p16-18) '46
Tri-state caved area mined with cableway. il Eng & Min J 147:83-4 Mr '46

MINE supplies. See Mine management—Stores systems

MINE surveying
See also
Borehole surveying

MINE sweepers. See Warships—Mine sweepers

MINE taxation
Depreciation; report of the tax committee of the American mining congress. Min Cong J 32:48-51 Ja '46
Federal mine taxation should provide incentives; resolution of the Mining and metallurgical society of America. Eng & Min J 147:64-6+ My '46
Mexican mining must have tax relief. C. Perez Duarte. Eng & Min J 146:96-9 D '45
Mexico is strangling its mining industry. E. Just. il Eng & Min J 147:76-80 Je '46
Postwar demand and supply of minerals. H. S. Mudd. Min & Met 27:23-4 Ja '46
Underground Lake iron ore costs must come down. J. F. Wolff. diag Eng & Min J 147: 71-2 Ap '46

MINE telephone
Mine rescue life-line telephone assemblies. J. J. Forbes and others. diags U S Bur Mines Rep of Invest 3875:1-11, pl 1-13 '46

MINE timber
Anaconda's tree farms; grows trees for its mine timber. H. Olson. il Min Cong J 31: 40-3 D '45

MINE timbering
Accidents from falls of roof and coal in bituminous-coal mines; coal-mine accident-prevention course, section 2. bibliog il plans diags U S Bur Mines Miners' Circ 48:1-114; pa 25c Supt. of doc. '45
How to post a pitching bed; should props be underset? diags Coal Age 51:118+ F '46; Discussion. 51:100+ Mr '46
Preparing a timber program; preventing accidents from falls of roof and coal. diags Coal Age 51:104+ Mr '46
Re-timbering no.6 shaft; McIntyre Porcupine mines; with cost data. K. O'Donnell. diags Can Min J 67:245-8 Ap '46
Safe support provided by hitching and steel timbers. J. V. McKenna. il diags Coal Age 51:78-82 Jl '46

MINE tracks
Back-up clips improve welded rail joints. il diag Coal Age 50:124+ N '45
Crossovers for mine tracks in single and double entries. plans Min Cong J 32:52-3 Jl '46
High bridge promotes economical haulage; Blue diamond coal co. il map Coal Age 51: 120 Ap '46
Mine haulage with locomotives and track; with cost data. E. H. Jenks. il diag Min Cong J 31:47-9 D '45

Curves and turnouts

Better track through turnouts as transition elements. N. B. Gurley. diags Coal Age 51: 75-8 Ja '46

MINE transportation
Building Boliden's sixty-mile aerial tramway. il map Eng & Min J 147:66-9 Jl '46
Discussion of hydraulic materials transportation. F. B. Allen. Mech Eng 67:825-6 D '45
Operations and plants of International nickel company of Canada; transportation. il Can Min J 67:480-2 My '46
Supply handling for efficiency in trackless coal mining. il plans Coal Age 51:80-5 Je '46

See also
Mine cars
Mine haulage
Mine hoisting
Mine tracks
Motor trucks in mining

MINE ventilation
Design of injectors for low-pressure air flow. G. E. McElroy. bibliog U S Bur Mines Tech Pa 678:1-50; pa 10c Supt. of doc. '45
Dust control in hematite mining; effect of ventilation. B. D. Tebbens and I. R. Tabershaw. J Ind Hygiene 28:104-6 My '46
Fires, gases, and ventilation in metal mines; metal-mine accident-prevention course, section 5. bibliog il diags U S Bur Mines Miners' Circ 55:1-94; pa 20c Supt. of doc. '46
Increased ventilation, its effect on dust concentration in mine air. A. S. Richardson and others. il plan Min Cong J 32:40-1 S '46
Makeshift mine ventilation. E. Smith. il Safety Eng 91:53-4 Mr '46
Mine foremen, Pa., bituminous; state-board questions on ventilation. diags Coal Age 51:100+ Jl '46
One reason why pillars pass air into goafs and returns. diags Coal Age 51:98+ Je '46
Safety, ventilation, and industrial hygiene; Climax molybdenum co. W. E. Jones and E. J. Eisenach. diags Min & Met 27:333-8 Je '46
Shaft sinking by stripping churn-drill holes. W. A. Cole. 2pls U S Bur Mines Information Circ 7308:1-6 '45; Same. Min Cong J 31:35-7+ Ap '45
Ventilation for more tons per man. plan Coal Age 51:121-3 My '46
Why intakes and returns rarely carry same volume of air. diag Coal Age 51:100+ Ja '46

See also
Fans, Mine

MINE waste
Iron King obtains fill by block-caving waste. H. F. Mills. il plan Eng & Min J 147:68-9 O '46

See also
Coal mines and mining—Waste disposal

MINE water
Clean-up of Pennsylvania's streams ordered. H. E. Moses. Civil Eng 16:282 Je '46
Flood-prevention projects at Pennsylvania anthracite mines. S. H. Ash and J. Westfield. fold maps U S Bur Mines Rep of Invest 3868:1-25, pl 1-16 bibliog(p25) '46

MINER, Douglas C. 1893-
Personalities in industrial advertising. por Ind Marketing 31:98 Jl '46

MINERAL industries
Future mineral needs call for international trade. Eng & Min J 147:53+ S '46
Mineral economics; review of 1945. L. W. Mayer. il Min & Met 27:57-61 F '46
Non-metallics turn from war to peacetime industries. O. Bowles and W. H. Waggaman. il Eng & Min J 147:101-3+ F '46
Postwar demand and supply of minerals. H. S. Mudd. Min & Met 27:22-4 Ja '46
Principles of foreign mineral policy of the United States. C. K. Leith. il Min & Met 27:6-17 Ja '46

See also
Aggregates
Coal trade
Feldspar
Limestone
Metal trade
Metallurgy
Mines and mineral resources
Mining industry and finance
Petroleum industry and trade
Phosphates
Quarries and quarrying
Rock products industry
Salt
Stone, Crushed
Sulfur industry and trade

Alabama

Alabama, rich in industrial minerals. H. E. Swanson and N. C. Rockwood. il maps Rock Prod 49:76-86+ My '46

Canada

Canada's mineral industry in 1945; statistical review. W. H. Losee. il Can Min J 67:76-83 F '46

MINERAL industries—Canada—*Continued*
Mineral production of Canada, by kinds, 1945; tabulation. Can Chem & Process Ind 30:43 Ja '46

See also
Mines and mineral resources—Canada

Germany

Industrial minerals in Germany; abstract. M. F. Goudge. Rock Prod 49:75+ M '46

Latin America

Latin-American minerals' role during the war years. S. M. Anderson. il For Comm W 23:4-7+ Je 8 '46

Oklahoma

Oklahoma mineral industries conference. W. E. Ham. il Rock Prod 49:117-18 Ja '46

Peru

Exports of metals and minerals in ingots, concentrates, and ores from Peru to the United States, years 1937-44. For Comm W 22:40 Ja 26 '46

United States

Let's take the initiative; plan of action to revitalize mining. il map Eng & Min J 147: 68-79 Ag '46
Metals and minerals; trends in 1946. W. A. Janssen. il Dom Comm 34:36-7 Ja '46
Nonmetallic industrial minerals; review of 1945. O. Bowles. il Min & Met 27:77-82 F '46
Nonmetallic mineral industries; annual review and forecast. O. Bowles. il Min Cong J 32:73-5 F '46

See also
Mines and mineral resources—United States

MINERAL lands
FSA mineral rights policies revoked. Oil Paint & Drug Rep 150:5 O 28 '46
Mineral deposits jurisdiction transferred to Department of the interior. Oil Paint & Drug Rep 149:5 My 27 '46

See also
Ore deposits

MINERAL waters

See also
Hot springs

MINERAL wool
Demountable soundproof rooms; two sheets of steel cemented to two sheets of composition board with a rockwool blanket between. W. S. Gorton. il diags Acoustical Soc Am J 17:236-9 Ja '46
Expand rock wool capacity; Carney rock wool co. R. S. Torgerson. il Rock Prod 49:60-1+ Mr '46

Standards

Industrial mineral wool products, all types; testing and reporting. diags U S Nat Bur Stand Commercial Standard CS131-46:1-40; pa 10c Supt. of doc. '46
New mineral wool insulation standard. diags Steel 119:120+ S 2 '46

MINERALOGICAL analysis
Petrographic analysis by fragment counting; precision of micro-sampling and the combined error of sampling and counting. F. Chayes. Econ Geol 40:517-25 D '45
Portable differential thermal analysis unit for bauxite exploration. S. B. Hendricks and others. il diag Econ Geol 41:64-76 Ja '46

MINERALOGY
Frederick Augustus Genth, 1820-1893, chemist, mineralogist, collector; with a list of his scientific papers. W. M. Myers and S. Zerfoss. bibliog(102 titles) il Franklin Inst J 241:341-54 My '46
Microscopic characters of vein carbonates. F. F. Grout. bibliog(142 references) 16pls Econ Geol 41:475-502 Ag '46
Mineralogy of late upper cretaceous, paleocene, and eocene sandstones of Los Banos district, west border of San Joaquin valley, California. S. N. Daviess. bibliog map diag Am Assn Pet Geologists Bul 30:63-83 Ja '46
Notes on the cutting and polishing of thin sections. C. Meyer. il Econ Geol 41:166-72 Mr '46

See also
Abrasives
Crystallography
Feldspar
Geology
Metals
Mica
Minerals
Mines and mineral resources
Ore deposits
Rocks
Talc

MINERALOGY, Determinative
Punched card identification of ore minerals. E. E. Fairbanks. bibliog Econ Geol 41: 761-8 N '46

MINERALS
Correction factor for specific gravity and volume differences in fragment analysis. F. Chayes. Econ Geol 41:749-60 N '46
Dating sedimentation, vulcanism, and orogeny in Beartooth Mountain region, Montana, by heavy minerals. M. H. Stow. bibliog map Geol Soc Bul 57:675-85, fold pl 1 Jl '46
Humic acids and true organic acids as solvents of minerals. W. G. Fetzer. bibliog Econ Geol 41:47-56 Ja '46
Industrial minerals division of the A.I.M.M.E, annual meeting, Chicago, Feb. 25-28. Rock Prod 49:106+ Ap '46
Lead-silver mineralization in the Clark Fork district, Bonner county, Idaho. A. L. Anderson. il map diag Econ Geol 41:105-23 Mr '46
Minerals of the montmorillonite group, their origin and relation to soils and clays. C. S. Ross and S. B. Hendricks. bibliog U S Geol S Professional Pa 205-B:23-79, pl 1-8; pa 35c Supt. of doc. '45
Nonmetallic industrial minerals; review of 1945. O. Bowles. il Min & Met 27:77-82 F '46
Nonmetallic minerals of New Mexico. F. Kutnewsky. il Comp Air Mag 51:211-16 Ag '46
Non-metallics turn from war to peacetime industries. O. Bowles and W. H. Waggaman. il Eng & Min J 147:101-3+ F '46
Principles of foreign mineral policy of the United States. C. K. Leith. il Min & Met 27:6-17 Ja '46
Transport and deposition of the non-sulphide vein minerals. F. G. Smith. bibliog Econ Geol 41:57-63 Ja '46
Wartime dependence on foreign minerals. A. M. Bateman. Econ Geol 41:308-27 Je '46

See also
Aggregates
Chromite
Clay
Coal
Dolomite
Feldspar
Magnetite
Metals
Mica
Mineralogical analysis
Ore deposits
Pegmatites
Petroleum
Phosphates
Quartz
Rocks
Rubies
Salt
Sand
Sulfur
Tantalite
Vermiculite
Zircon

Stockpiling

Domestic and foreign procurement of critical minerals, 1942-44; tabulation. Eng & Min J 147:82 F '46
Industry faces competition in hunt for metals; proposed military caches of copper, lead and zinc may force further government buying. T. J. Keller. Barron's 26:5 Ja 14 '46
Metal stockpiling program progressing. Barron's 25:11 N 12 '45
Minerals short; Ickes plea for stockpiling. Bsns W p20-1 F 2 '46
Proposed stockpiling legislation; testimony of Julian D. Conover before Senate committee on military affairs, Oct. 30, 1945. Min Cong J 31:44-7 N '45
Showdown due on disposition of surplus metals. Barron's 25:9 D 10 '45
Stock-piling bill-S.752. H. J. Evans. Min & Met 27:434-6 Ag '46

MINERS
Operations and plants of International nickel company of Canada; personnel. il plan Can Min J 67:501-22 My '46
Take a look at mining, ex-serviceman; extensive information including wages and salaries and list of mining schools. il Eng & Min J 146:74-80 N '45

MINERS—*Continued*
Test those new miners. H. B. Hicks. Can Min J 67:726-9 Jl '46
See also
Coal miners
Iron miners
Mine foremen
Mining towns
United mine workers of America

Diseases and hygiene
Hernias and miners. W. Schweisheimer. Can Min J 67:875-6 S '46
Know-how in fighting silicosis with aluminum. A. W. Jacob. bibliog il plan diags Eng & Min J 147:70-5 Mr '46
Medical practice at Climax. J. Ruddy. il Min & Met 27:359-60 Je '46
Operations and plants of International nickel company of Canada; medical care. il plan Can Min J 67:512-14 My '46

Bibliography
Bibliography of Bureau of mines publications dealing with health and safety in the mineral and allied industries. S. J. Davenport. 190p Supt. of doc, Washington 25, D.C. '46

Training
See Mining schools and education

Colorado
Personnel department at Climax. A. W. Doepke. il Min & Met 27:361-2 Je '46

Netherlands
Training miners in the Netherlands. J. L. Herold. Personnel J 25:78-86 S '46

MINERS' lamps. See Safety lamps, Electric

MINES, Acoustic. See Mines, Submarine

MINES, Bureau of. See United States—Mines, Bureau of

MINES, Military
Clearing minefields with explosives; demolition snakes. J. L. Bisch. il diags Explosives Eng 24:150-3 S '46
Vehicular-mounted mine detector. H. G. Doll and others. il diags Electronics 19: 105-9 Ja '46
See also
Mines, Submarine

MINES, Submarine
Acoustic mines fired by pneumatic-tool beats. R. G. Skerrett. il Comp Air Mag 51:160-1 Je '46
British and German mine design. Engineer 180:362-4, 386-7, 410-11 N 9-23 '45
Countering the magnetic mine; degaussing secrets revealed at I.E.E; symposium. Electrician 136:953-4 Ap 12 '46; Elec R (Lond) 138:565-6 Ap 12 '46
Degaussing; abstract. C. S. Daniel. Inst E E J 93 pt 1:247-8 Je '46
Electrical engineering aspect of degaussing. I. S. Fraser and others. il diag Engineer 181:563-5 Je 21 '46
Fuzes for electronic mines. Electronics 19: 162+ O '46
Military secret; self-buoyant electrical cable which neutralized the magnetic mine. Can Min J 66:912-13 D '45
Naval mining and degaussing exhibition. Engineering 162:129 Ag 9 '46
Research in countering magnetic mine; history. H. W. K. Kelly. Electrician 136:953-4 Ap 12 '46
Some model experiments in connection with mine warfare; summary and discussion. R. W. L. Gawn. Engineer 181:386-7 Ap 26 '46; Engineering 161:449-50 My 10 '46
Theory and practice of degaussing. Engineering 161:343 Ap 12 '46

MINES and mineral resources
Colorado mining association 49th annual meeting, Denver, Jan. 24-28. Eng & Min J 147:117-19 F '46
Concept of ore reserves. S. G. Lasky. Min & Met 26:471-4 O '45; Discussion. W. M. Myers. 27:180-1 Mr '46
Federal and state bureaus and officials concerned with mineral resources; U.S. and Canada. Min & Met 27:136-9 F '46
Mineral economics; review of 1945. L. W. Mayer. il Min & Met 27:57-61 F '46
Mineral exploration and the outlook for metal supplies. G. F. Laycock. Engineer 182:10-11, 38-9 Jl 5-12 '46
Principles of mineral conservation. W. M. Myers. Pennsylvania State College Mineral Industries Exp Sta Circ 25:1-19 '46 (pa 25c)
See also
Bauxite
Clay mines and mining
Coal mines and mining
Copper mines and mining
Geology
Gold mines and mining
Gypsum mines and mining
Iron mines and mining
Lead mines and mining
Lignite
Magnesite
Manganese mines and mining
Mercury mines and mining
Minerals
Mining engineering
Mining industry and finance
Mining machinery
Oil shales
Ore deposits
Petroleum
Petroleum supply
Phosphates
Prospecting
Quarries and quarrying
Salt mines and mining
Shale
Slate
Sulfur
Zinc mines and mining

Bibliography
Among the newer books. Published in monthly numbers of Mining and metallurgy

Alabama
Alabama, rich in industrial minerals. H. E. Swanson and N. C. Rockwood. il maps Rock Prod 49:76-86+ My '46
Mica and beryl examination and exploration in Cleburne, Randolph, Clay, Coosa, Chilton, Tallapoosa, and Lee counties, Ala. bibliog 15pls U S Bur Mines Rep of Invest 3905:1-119 '46

Alaska
Exploration of Red Mountain chromite deposits, Kenai peninsula. F. A. Rutledge. bibliog U S Bur Mines Rep of Invest 3885:1-26, pl 1-24 '46
Exploration of Spirit mountain nickel prospect, Canyon Creek, lower Copper River region, Alaska. H. C. Pierce. 3pls U S Bur Mines Rep of Invest 3913:1-8 '46
Geology and associated mineral deposits of some ultrabasic rock bodies in southeastern Alaska. G. C. Kennedy and M. S. Walton, jr. bibliog maps U S Geol S Bul 947-D: 65-84, pl 19-22; pa 10c Supt. of doc. '46
Magnetic exploration of the nickel-copper deposits of Bohemia basin, southeastern Alaska. M. S. Walton, jr. and G. C. Kennedy. maps Econ Geol 40:496-502 N '45
Molybdenite investigations in southeastern Alaska. W. S. Twenhofel and others. bibliog maps U S Geol S Bul 947-B:7-38, pl 1-8 '46
See also
Copper mines and mining—Alaska
Nickel mines and mining—Alaska

Arizona
Exploration of the Packard fluorspar property, Gila county. J. B. Cummings. U S Bur Mines Rep of Invest 3880:1-7, pl 1-6 '46
Iron King obtains fill by block-caving waste. H. F. Mills. il plan Eng & Min J 147:68-9 O '46
New equipment and methods in metal mining; Arizona observations. H. H. Angst. il Min Cong J 32:98 F '46

Arkansas
Barytes operations in Arkansas. O. J. Benston. il Min Cong J 32:26-8 Je '46
Quartz crystal deposits of western Arkansas. A. E. J. Engel. bibliog il maps diags Econ Geol 41:598-618 S '46

Australia
Australian government aids mineral development. il Min & Met 27:550-1 N '46
Australia's uranium. Eng & Min J 147:82 Mr '46

Belgium
Minor elements in sphalerites from Belgium. P. Evrard. bibliog Econ Geol 40:568-74 D '45

MINES and mineral resources—*Continued*

Brazil

Beryl-tantalite pegmatites of northeastern Brazil. W. D. Johnston, jr. bibliog il maps diags Geol Soc Bul 56:1015-69, pl 1-5 N '45

Magnesite; Brazil to work vast deposits; Magnesita, S.A. will also mine talc and recover precious stones. J. A. Merz. il map Rock Prod 48:92-4 N '45

Quartz crystal in Brazil. W. D. Johnston, jr. and R. D. Butler. bibliog maps diags Geol Soc Bul 57:601-49, pl 1-11 Jl '46

British Columbia

The 44-hour week in B. C. mines. Can Min J 67:806 Ag '46

Heavy equipment handles backfill at Sullivan. J. B. Huttl. il diag Eng & Min J 147:70-1 Jl '46

Review of mining in British Columbia in 1945. F. H. Stephens. il Can Min J 67:84-90 F '46

California

Chromite deposits of the North Elder Creek area, Tehama county, California. G. A. Rynearson. map U S Geol S Bul 945-G:191-210, pl 65-70 '46

See also

Tin mines and mining—California

Canada

Application of geophysics to the problems of the pre-Cambrian shield. T. Koulomzine. il maps diag Can Min J 67:933-40 O '46

Canada's mineral industry in 1945; statistical review. W. H. Losee. il Can Min J 67:76-83 F '46

Mica as a critical war mineral. H. S. Spence. il diags Can Min J 67:611-17, 710-17 Je-Jl '46

La mine Eldorado de Port Radium, le plus grand centre mondial de production d'uranium (Canada). E. Lemaire. il maps Génie Civil 123:201-4, 213-15 Ag 1-15 '46

Record exploration efforts boom Canadian mining areas. R. D. Hoffman and A. Hoffmann. il maps Eng & Min J 147:80-4+ Ag '46

See also

Canada—Mines and resources, Department of
Iron ores—Canada
Phosphate rock—Canada

China

Mineral resources of China. V. C. Juan. bibliog maps Econ Geol 41:399-474 Je '46

Mineral resources of western China. C. D. Hulin. Min & Met 27:436 Ag '46

Colorado

Climax Molybdenum enterprise. flow sheets il maps plans diags Min & Met 27:297-365 Je '46

States and epochs of mineralization in the San Juan mountains, Colorado, as shown at the Dunmore mine, Ouray county, Colorado. V. C. Kelley and C. Silver. bibliog il maps diags Econ Geol 41:139-59 Mr '46

Wilfley leasing co.; how a small mine grows. R. H. Ramsey. il map Eng & Min J 147:94-7 Mr '46

Congo, Belgian

Minerals in the Belgian Congo. Chem Age (Lond) 54:90 Ja 19 '46

Finland

Finland looks ahead in mining. H. Stigzelius. map Min & Met 27:511-13 O '46

Florida

Florida seeks to develop valuable mineral deposits. Iron Age 157:160 My 2 '46

France

French slate industry. S. Gradel. il diags Comp Air Mag 51:237-43 S '46

La zone métallifère des causses du Gévaudan (Aveyron). Génie Civil 123:53 F 15 '46

Gaspé peninsula

Geology and mineral deposits. W. H. McGerrigle. Can Min J 67:242-4 Ap '46

Georgia

Exploration of the Hog Creek corundum mine, Towns county. T. J. Ballard. pl U S Bur Mines Rep of Invest 3855:1-3 '46

Germany

Allied Council restricts German metal output. J. D. Wilson. Eng & Min J 147:70-4 My '46

Gold Coast, Africa

Geology and mineral resources of the Gold Coast. Can Min J 67:187 Mr '46

Greece

Minerals in Greece. Chem Age (Lond) 54:663 Je 15 '46

Guatemala

Guatemala offers prospects for producing scarce minerals, IADC avers. For Comm W 24:17 Jl 27 '46

Idaho

Exploration of the Avon mica district, Latah county, Idaho. G. C. Reed. 7pls U S Bur Mines Rep of Invest 3898:1-23 '46

New equipment and methods in metal mining; Coeur D'Alene district. J. B. Haffner. il Min Cong J 32:94-5 F '46

Illinois

Construction material surveys. H. E. Swanson and N. C. Rockwood. il Rock Prod 48:79+ O '45

Fluorspar reserves in Illinois gravely affected during war; other minerals; abstract. M. M. Leighton. Iron Age 157:124 F 28 '46

Latin America

Latin-American minerals' role during the war years. S. M. Anderson. il For Comm W 23:4-7+ Je 8 '46

Malaya, British

Relationship of the Geological survey department to the mining industry of Malaya. E. S. Willbourn. Chem & Ind p108 Mr 9 '46

Manitoba

How Hudson Bay runs its mine warehouse. P. G. Bishop. il Eng & Min J 146:90-3 O; 90-6 N '45; 147:79-81 Ja; 85-7 Mr; 97-9 Ap '46

Mining in Manitoba in 1945. J. P. de Wet. Can Min J 67:97-100 F '46

Mexico

How a sudden demand for optical calcite was met. C. R. King. Eng & Min J 147:80-1 My '46

Mexico is strangling its mining industry. E. Just. il Eng & Min J 147:76-80 Je '46

Vistas of Mexican mining. E. Just. il Eng & Min J 147:74-6 S; 76-8 O '46

Michigan

See also

Sand—Michigan

Mississippi

Story of Mississippi. il Manuf Rec 115:89 Ja '46

Missouri

Limestone and hard rocks. H. E. Swanson and N. C. Rockwood. map Rock Prod 49:98-100 O '46

Morocco

Tin and tungsten deposits of French Morocco. E. T. Heck. il map Econ Geol 41:383-9 Je '46

Nevada

Exploration of the Blue metal corundum property, Douglas county, Nevada. E. O. Binyon. 3pls U S Bur Mines Rep of Invest 3895:1-7 '46

Mineralization of Nevada. W. J. Bichan. bibliog Can Min J 66:855-8 D '45

Mining activity renewed in historic Eureka district. J. B. Huttl. flow sheet il Eng & Min J 146:88-90 D '45

See also

Zinc mines and mining—Nevada

MINES and mineral resources—*Continued*

New Mexico

Exploration of Gallinas fluorspar deposits, Lincoln county. J. H. Soulé. U S Bur Mines Rep of Invest 3854:1-25, pl 1-7 '46

Exploration of the Elk Mountain mica deposit, San Miguel county, N. Mex. R. J. Holmquist. 4pls U S Bur Mines Rep of Invest 3921:1-7 '46

Exploration of the White Eagle fluorspar mine, Cooks Peak mining district, Grant county. J. H. Soulé. 3pls U S Bur Mines Rep of Invest 3903:1-5 '46

Nonmetallic minerals of New Mexico. K. Kutnewsky. il Comp Air Mag 51:211-16 Ag '46

Newfoundland

Production in Newfoundland of fluorspar, limestone and pyrophyllite, 1940-1944. For Comm W 21:35 N 24 '45

Production of copper, lead, and zinc concentrates in Newfoundland, 1940-44. For Comm W 21:31 D 1 '45

North Carolina

Exploration at the Cline mine, Cabarrus county. W. A. Beck. U S Bur Mines Rep of Invest 3873:1-4, pl 1 '46

North Dakota

Bibliography

Bibliography of the geology and natural resources of North Dakota, 1814-1944. C. E. Budge. Bul 1:1-214 N.D. Research Foundation, Bismarck, N.D. '46

Nova Scotia

Mineral industry of Nova Scotia, 1945. D. L. Currie. il Can Min J 67:112-13 F '46

Oklahoma

Oklahoma favored with varied mineral resources. N. C. Rockwood and H. E. Swanson. il maps diag Rock Prod 49:92-104+ F '46

See also

Mineral industries—Oklahoma

Ontario

Black Donald graphite. D. C. McLaren. flow sheet il plan Can Min J 66:763-72 N '45

Brucite deposits in the Rutherglen district, Ontario. M. L. Keith. bibliog maps diags Geol Soc Bul 57:967-83, pl 1-2 O '46

Lyndoch beryl deposit. D. C. McLaren. il diags Can Min J 67:857-62 S '46

Ontario annual review, 1945. J. C. Browning. il Can Min J 67:101-6 F '46

Oregon

Beach and river sands of the coastal region of southwest Oregon with particular reference to black sands. W. H. Twenhofel. fold map Am J Sci 244:114-39, pl 1-4, 200-14 F-Mr '46

Ferruginous bauxite deposits in northwestern Oregon. F. W. Libbey and others. bibliog il map Econ Geol 41:246-65 My '46

Persia

Problems in development of Iranian mineral resources N. W. Wilson. Min & Met 27:439 Ag '46

Philippine Islands

Bombing, fire, looting, and decay contribute to damage suffered by Philippine properties. Eng & Min J 146:112+ D '45

Philippine mining revival possible, with investment and engineering initiative. C. A. Mitke. Eng & Min J 146:120-3 D '45

Quebec

Canadian asbestos. il Comp Air Mag 51:189-90 Jl '46

Region of the North shore of the St Lawrence. J. Claveau. bibliog il maps Can Min J 67: 625-33 Je '46

Ten months milling at Moulton Hill. A. C. King and T. V. Lord. flow sheets il diags Can Min J 67:841-56 S '46

See also

Mines and mineral resources—Gaspé peninsula

South Africa

Minerals and mining in South Africa. S. H. Haughton. il Min & Met 27:437-9 Ag '46

South America

Factors affecting investment in South American mining. N. B. Knox. map Min & Met 25:589-92; 26:173-4, 292-4, 340-1, 432-3, 479-80; 27:178 D '44, Mr, Je-Jl, S-O '45, Mr '46

War's end brings curtailment in South American mining. L. T. Higgins. Min & Met 27: 127 F '46

Spain

Spanish mining industry returning to normal. For Comm W 24:48 Ag 17 '46

Sweden

Building Boliden's sixty-mile aerial tramway. il map Eng & Min J 147:66-9 Jl '46

Peace puts new burden on expanding Swedish mines. H. G. Tonndorf. il Eng & Min J 147:65-7 O '46

Tajikistan

Mineral riches of the Tajik Soviet republic. P. Myshkin. Can Min J 67:624 Je '46

Tennessee

New equipment and methods in metal mining; eastern Tennessee. H. A. Coy. il Min Cong J 32:95-6 F '46

Texas

Alunite at Woodbine-Eagle Ford contact in northeastern Texas. L. W. Stephenson. il Am Assn Pet Geologists Bul 30:1764-70 O '46

Exploration of Eagle Mountain fluorspar deposits, Hudspeth county, Tex. W. E. Dennis. 4pls U S Bur Mines Rep of Invest 3878: 1-11 '46

Featuring Texas. il Manuf Rec 115:130-3 Jl '46

Mining and milling operations of the Southwestern graphite co., Burnet county, Texas; with cost data. A. B. Needham. U S Bur Mines Information Circ 7339:1-9 '46

Refractories in the Texas area. F. K. Pence. Am Cer Soc Bul 25:86 Mr 15 '46

United States

Federal development of continental shelf possibilities. H. L. Ickes. Oil & Gas J 44:43 F 2 '46

Government controls, 1944-1945. P. D. McMurrer. Min Cong J 32:54-5 Mr '46

Have-not theory and metal prices. I. B. Joralemon. il Min Cong J 32:54-7 Je '46

Hope for discovering hidden ores; abstract. W. E. Wrather. Eng & Min J 147:114 F '46

Interim inventory. Fortune 33:208+ Mr '46

Interior department report stresses mineral depletion. Chem & Eng N 24:481 F 25 '46

Let's take the initiative; plan of action to revitalize mining. il map Eng & Min J 147: 68-79 Ag '46

Mine bureau projects long term program to develop new deposits. Iron Age 157:163-6 F 14 '46

Mine output of metal decreases in 1945. Eng & Min J 147:105 Mr '46

Mineral resources and mineral resourcefulness. W. E. Wrather. Min & Met 27:427-8 Ag '46

Mineral resources controls held uneconomic at U.S. Chamber of commerce meeting. Eng & Min J 147:100 Je '46

Need for better approach to conserve mineral resources. W. E. Wrather. Iron Age 156: 135-7 N 29 '45

Ore-reserve viewpoints. S. G. Lasky. il Min & Met 27:466-8 S '46

Postwar outlook for our natural resource industries. J. C. Cresswill. il Mag of Wall St 77:259-61+ D 8 '45

Problems posed by surplus mines, mills, and smelters. R. H. Ramsey. il Eng & Min J 147:65-70 Ja '46

Reports before Senate subcommittee on present supply of mineral reserves in United States. Iron Age 156:74+ N 29 '45

War drain on minerals found staggering; abstract. H. L. Ickes. Steel 118:97 F 4 '46

MINES and mineral resources—United States—*Continued*
Whence our future ore reserves? G. M. Fowler. il Min Cong J 32:34-5 My '46

See also
Coal mines and mining—United States
Gold mines and mining—United States
Petroleum—United States
United States—Mines, Bureau of

Utah

Salts cored successfully with oil field equipment; carnallite, sylvite and halite deposit, Utah. C. L. Severy. il diag Eng & Min J 147:85-7 Ag '46
White Horse alunite deposit, Marysvale, Utah. M. E. Willard and P. D. Proctor. il maps diags Econ Geol 41:619-43 S '46

Virginia

Notes on the ilmenite deposit at Piney River, Virginia. D. M. Davidson and others. bibliog il maps Econ Geol 41:738-48 N '46

Washington (state)

Preliminary exploration of Bi-Metallic molybdenum deposit, Okanogan county, Washington. R. H. Storch. 2pls U S Bur Mines Rep of Invest 3932:1-6 '46

Wyoming

Exploration of the Bear Lodge fluorite property, Crook county. W. C. Dunham. U S Bur Mines Rep of Invest 3877:1-7, pl 1-5 '46

Yugoslavia

Balkan base-metal enterprise: Trepca mines, ltd. il map Eng & Min J 147:54-60 S '46

MINIMUM wage
Geographical aspects of a minimum wage; must be adjusted to economic characteristics of geographical regions. J. V. Van Sickle. Harvard Bsns R 24 no 3:277-94 [Ap] '46
Large majority favor minimum wage legislation; Gallup poll. Iron Age 157:107 Ap 18 '46
Minimum wage of 50 cents an hour seen as possible compromise to 65-cent demand. Comm & Fin Chr 162:2373 N 15 '45
Minimum wage problem. E. M. Herrick. Management R 35:165-7 My '46
New wage floor? Bsns W p96-8 F 23 '46
Progress of state minimum-wage legislation, 1943-45. A. Angus and L. Sullivan. Mo Labor R 62:736-40 My '46

MINING camps
Automatic operation of a small filtration plant; Boone county coal corp. E. H. Greenwald and H. E. Davis. diags Am Water Works Assn J 38:348-54 Mr '46
Personnel department at Climax. A. W. Doepke. il Min & Met 27:361-2 Je '46

MINING costs
New yardstick for gaging a drill's economic life. A. F. Horle. Eng & Min J 147:79-80 My '46
Underground Lake iron ore costs must come down. J. F. Wolff. diags Eng & Min J 147:70-4 Ap '46

See also
Coal mines and mining—Costs

MINING engineering
Engineering at Climax. V. C. Rogers. il Min & Met 27:340-1 Je '46
Grandview mine; American zinc, lead & smelting company. flow sheet il map diags Min Cong J 32:26-31 Ja '46
Japs mine coal in Kyushu. W. Bellano. il map Explosives Eng 23:237-40+ N '45
Operations and plants of International nickel company of Canada; designing. il Can Min J 67:483-6 My '46
Operations and plants of International nickel company of Canada; mining. flow sheets il plans diags Can Min J 67:332-422 My '46
Useful block diagrams are easy to construct. A. T. Broderick. diags Eng & Min J 147: 74-5 O '46

See also
Blasting
Coal mines and mining
Drilling and boring (earth and rocks)
Electricity in mining
Mine haulage
Mine management
Mine pumping
Mine shops
Mine ventilation
Mining machinery
Mining methods
Prospecting
Quarries and quarrying
Rock drills
Shaft sinking

Bibliography

Current Institute papers. Published in Mining and metallurgy
Outstanding books of 1945 in the mineral technology field. Min & Met 27:114+ F '46

Power

Consumption of off peak power with boiler feed water heater at Wright Hargreaves mines, limited. J. B. Lowes. diags Can Min J 67:718-19 Jl '46
Gas engine and gas producer practice in Australia. W. N. Dunstan. diags Engineer 180: 400-1 N 16 '45
Hydro-electric power and Ontario gold mining. R. E. Foster. bibliog map Can Min J 67:155-68, 253-8, 634-9, 720-5, 788-95, 867-74, 957-9 Mr-Ap, Je-O '46
Operations and plants of International nickel company of Canada; power. il diags Can Min J 67:464-72 My '46

See also
Coal mines and mining—Power
Electricity in mining
Mine pumping, Electric

Safety measures

Construction and maintenance of ladders and stairs for mines; proposed American standard. Min Cong J 32:54-5 Jl '46
Education of a manager. H. B. Hicks. Can Min J 67:642-5 Je '46
Electrical and mechanical hazards in metal mines; metal-mine accident-prevention course, section 6. bibliog il diags U S Bur Mines Miners' Circ 56:1-82; pa 20c Supt. of doc. '46
Explosives-handling practices at the mines of the Anaconda copper mining co. at Butte, Mont. E. F. Courtney and J. A. Johnson. 6pls U S Bur Mines Information Circ 7356:1-13 '46
How's your fire protection? H. B. Hicks. Can Min J 67:32-4 Ja '46
Ingenious devices reflect interest in mine safety. E. Runehjelm. il diags Eng & Min J 147:77 S '46
Keeping travelways safe. H. B. Hicks. Can Min J 67:259-62 Ap '46
Modern methods and equipment demand modern management. H. B. Hicks. Can Min J 67:964-7 O '46
Operations and plants of International nickel company of Canada; safety. il Can Min J 67:503-11 My '46
Pickands Mather & company honors Danube mine employees; Bovey, Minnesota, iron-ore operation wins the Sentinels of safety trophy. il Explosives Eng 24:20-1 Ja '46
Prevention of explosives accidents in metal mines; metal-mine accident-prevention course, section 4. bibliog il U S Bur Mines Miners' Circ 54:1-80 '45
Safety in mining; annual review and forecast. J. T. Ryan, jr. and C. M. Donahue. il Min Cong J 32:102-5 F '46
Safety, ventilation, and industrial hygiene; Climax molybdenum co. W. E. Jones and E. J. Eisenach. il plan diags Min & Met 27:330-9 Je '46
Stench warning tests, Lake Superior district mines. F. E. Cash and E. W. Johnson. U S Bur Mines Rep of Invest 3850:1-23 '45
Watch that loose; danger of loose ground. H. B. Hicks. Can Min J 67:114-17 F '46
Why mine safety? Safety Eng 91:57 My '46

See also
Coal mines and mining—Safety measures
Electricity in mining—Safety measures
Holmes safety association
Mine hoisting—Safety measures

Bibliography

Bibliography of Bureau of mines publications dealing with health and safety in the mineral and allied industries. S. J. Davenport. 190p Supt. of doc, Washington 25, D.C. '46

MINING engineering—*Continued*

Study and teaching

Few accelerated programs now given in mineral engineering schools. J. W. Stewart. Min & Met 27:504 O '46

Postwar education for mining engineers; basic training needed to meet problems of management. M. Read. Min & Met 27: 173-4 Mr '46

See also
Mining schools and education

MINING engineers

Is the mining industry neglecting its future technical and supervisory talent. E. Just. Eng & Min J 146:74-9 D '45

Mining engineers comparatively well paid; Canadian survey. Min & Met 27:547 N '46

Opportunities abroad for U.S. mining engineers. S. P. Wimpfen. Min & Met 27:506-8 O '46

Take a look at mining, ex-serviceman; extensive information including wages and salaries and list of mining schools. il Eng & Min J 146:74-80 N '45

See also
Mining engineering—Study and teaching
Mining schools and education

MINING industry and finance

Federal mine taxation should provide incentives; resolution of the Mining and metallurgical society of America. Eng & Min J 147:64-6+ My '46

Foreign mining investments require government support. C. W. Wright. Eng & Min J 147:80-1+ Ap '46

Risks of mining ventures should be evaluated. A. S. Lewis. Eng & Min J 147:61-3 S '46

See also
Mine accounting
Mine taxation
Mineral industries
Mines and mineral resources
Mining costs

Securities

Cat and dog skit; low-grade mining stocks on Pittsburgh and Salt Lake exchanges soar. Bsns W p64+ Ja 5 '46

Cyclical impetus for mining companies; with statistical position of non-ferrous metal companies. E. A. Barnes. Mag of Wall St 78:447-9+ Jl 20 '46

Mineral resources and venture capital. A. S. Richardson. Comm & Fin Chr 162:2573+ N 29 '45

Stock forfeiture; rights of delinquent owners of assessable mining shares of Central Eureka mining co. Bsns W p71 Ja 5 '46

Canada

See also
International nickel company of Canada

Latin America

To encourage investment, Latin America must vitalize Inter-American conference resolutions. H. Bancroft. Eng & Min J 147: 52-7 Ja '46

Mexico

Mexican mining must have tax relief. C. Perez Duarte. Eng & Min J 146:96-9 D '45

Mexico is strangling its mining industry. E. Just. il Eng & Min J 147:76-80 Je '46

South America

Factors affecting investment in South American mining. N. B. Knox. map Min & Met 25:589-92; 26:173-4, 292-4, 340-1, 432-3, 479-80; 27:178 D '44, Mr, Je-Jl, S-O '45, Mr '46

United States

Metal subsidies; statement before Senate committee on banking and currency. J. D. Conover. Min Cong J 32:46-51+ My '46

Mining industry faces a fateful year. E. Just. Eng & Min J 147:67-70 F '46

New capital will help the gold miner. H. L. Hazen. Eng & Min J 146:100-1 N '45

MINING machinery

Diamond drilling as applied to ore production. il diags Eng & Min J 146:69-73 O '45; 147:58-64 Ja; 88-93 Mr '46

Gypsum mine mechanization. E. R. Cushing. il diags Rock Prod 49:68-70+ Jl; 92-7 Ag '46

Jumbo for small development drifts. il diag Eng & Min J 146:101 N '45

Threadless detachable bits as used on Witwatersrand. P. A. Creewel. diags Eng & Min J 147:78-80 Jl '46

Trackless mobile equipment reduces mining costs; Fenix operations in the Tri-state district. H. O. Gray. il Eng & Min J 146:97-9 N '45

See also
Coal mining machinery
Electricity in mining
Mine haulage
Rock drills

MINING methods

Balkan base-metal enterprise: Trepca mines, ltd. il map Eng & Min J 147:54-60 S '46

Diamond drilling as applied to ore production. il diags Eng & Min J 146:69-73 O '45; 147.58-64 Ja; 88-93 Mr '46

Diamond drilling features Mountain Copper's mining. J. B. Huttl. il diags Eng & Min J 147:64-6 S '46

Fusion-piercing, new way of making blast holes in iron ores. il diag Eng & Min J 147: 63 O '46

History and trend of mining at Climax. W. J. Coulter and others. il diag Min & Met 27:303-7 Je '46

Long-hole Leyner drilling speeds stope preparation; National tunnel & mines co., Utah. il diags Eng & Min J 146:82-4 N '45

Lowering mining costs with block-caving. P. B. Bucky. diags Eng & Min J 147:75-9 Ap '46

Matachewan consolidated mines. D. C. McLarin. il plans diags Can Min J 67:696-702 Jl '46

Metal mining; review of 1945. E. D. Gardner. il Min & Met 69:67-9 F '46

Mining and quarrying Greenbrier limestone; Acme limestone company. R. H. Counts. il Explosives Eng 24:9-12+ Ja '46

Mining at Climax; blasting, loading, haulage, etc. R. Henderson and W. K. McGlothlin. il plan Min & Met 27:308-16 Je '46

Mining limestone by shrinkage stoping method. A. C. Hewitt. il plan Explosives Eng 23:246-9+ N '45

Mining practice marked by labor-saving changes. R. S. Lewis. il Eng & Min J 147: 92-5 F '46

More about mining by block caving. Explosives Eng 24:16+ Ja '46

New equipment and methods in metal mining. il Min Cong J 32:93-8 F '46

New Horadiam method of mining at Copper mountain. R. S. Douglas and others. il plans diags Can Min J 66:773-80, 859-67 N-D '45

New metal mining methods. P. B. Bucky. il Min Cong J 32:62-4 Ap '46

Operations and plants of International nickel company of Canada; mining, flow sheets il plans diags Can Min J 67:332-422 My '46

Shrink fill method of mining ore. P. B. Bucky. diags Explosives Eng 24:141-8 S '46

Simplified mining; ready method of working manganese deposits. Bsns W p32+ My 18 '46

Sublevel stoping with delayed filling; Hiawatha mine at Iron River, Mich. G. A. Koehler. il Eng & Min J 147:121+ F '46

Young-Davidson mine. D. C. McLaren. il plans diags Can Min J 67:5-12 Ja '46

Zinc mining along the St Lawrence. T. Marvin. il maps plans diags Explosives Eng 24:45-52+ Mr '46

See also
Blasting
Coal mines and mining—Methods
Gypsum mines and mining
Mine management
Mining engineering
Quarries and quarrying

Stripping operations

Barytes operations in Arkansas. O. J. Benston. il Min Cong J 32:26-8 Je '46

Combined lift and length feature Charleson conveyor. V. K. Taipale. il Eng & Min J 147:81-3 Jl '46

Making low grade iron ore pay. A. J. Wiseley. il Min Cong J 32:22-4+ Ag '46

MINING methods—Stripping operations—*Cont.*
New methods cut costs for Chamberlain manganese. L. Dupuy and others. il Eng & Min J 147:93-6 Ap '46
Open pit mining for manganese. D. E. Eilertsen and J. W. Feiss. flow sheet il plan diag Min Cong J 32:28-33+ S '46
Open-pit zinc mine in northeastern Tennessee. W. Black and E. L. Ohle. il Eng & Min J 147:91-3 Ag '46
Slack-line scraper used for open pit. C. K. Carmean and H. O. Gray. il Eng & Min J 147:76-7 Jl '46
Tri-state caved area mined with cableway. il Eng & Min J 147:83-4 Mr '46

See also
Coal mines and mining—Stripping operations

MINING research
Microseismic method of predicting rock failure in underground mining; general method. L. Obert and W. Duvall. 3 pls U S Bur Mines Rep of Invest 3797:1-7 '45

See also
Rocks—Testing

MINING schools and education
Centenary of the Imperial college; Royal school of mines. il Engineering 160:461-2, 472 D 7 '45
Eight years of work to promote student interest in coal mining shows much progress. G. H. Deike. Min & Met 27:108 F '46
Is the mining industry neglecting its future technical and supervisory talent? E. Just. Eng & Min J 146:74-9 D '45
Miner and the machine; Government mines mechanization training centre at Sheffield. C. B. Rees. il Can Min J 67:960-1 O '46
Mineral industries education; review of 1945. E. A. Holbrook. Min & Met 27:84 F '46
Plans for the coal mining industry; report of Recruitment, education, and training committee. Engineer 181:57-9 Ja 18 '46
St Joseph lead co, Edwards division, trains veterans for mining. Eng & Min J 147:105 Ap '46
Training miners in the Netherlands. J. L. Herold. Personnel J 25:78-86 S '46

MINING towns
Good town water supplied by new Princess-Elkhorn plant, David, Ky; Filt-R-Stil units. il diag Coal Age 51:88-9 Je '46
Max Schott school system; Climax molybdenum co. O. B. Slostad. il Min & Met 27:364-5 Je '46
Question of mining villages. J. St Georges. map Can Min J 67:24-8 Ja '46
Subsoil pollutants in mine villages. Coal Age 51:102 S '46

See also
Yellowknife, Canada

MINNEAPOLIS-HONEYWELL regulator company
Minneapolis-Honeywell making bid to stay in aviation business. Aviation N 6:20+ Jl 1 '46
Stock placed. Comm & Fin Chr 163:2858 My 27 '46

MINNESOTA

See also
Labor laws and legislation—Minnesota
Water supply—Minnesota

Sanitary affairs
Refuse collection in Minnesota. M. Iverson. Pub Works 76:46+ N '45

MINNESOTA mutual life insurance company
Adopts American experience 2½ per cent reserve basis. Life Ins Courant 51:291-3 Je '46

MINORITIES
Controlling group prejudice. G. W. Allport, ed. biblog Ann Am Acad 244:1-182 Mr '46
Protection of minorities and human rights. P. de Azcárate. Ann Am Acad 243:124-8 Ja '46
Research on minority problems. K. Lewin. Tech R 48:163-4+ Ja '46
Upper Silesia under the League of nations. G. S. Kaeckenbeeck. Ann Am Acad 243: 129-33 Ja '46

MIRRLEES engine. See Diesel engines

MIRRORS
Colored mirror; abstract. W. H. Colbert and W. L. Morgan. Am Cer Soc J 29 (Cer A[25]):65 Ap 1 '46

MIRRORS, Parabolic

Testing
Quantitative tests for off-axis parabolic mirrors. L. G. Schulz. Opt Soc Am J 36:588-94 O '46

MIRRORS, Signaling
Heliographic signaling mirrors. R. S. Hunter. il diags Opt Soc Am J 36:110-15 F '46

MISS AMERICA (periodical)
Little ladies' gazette. il Sales Management 56:174 Ja 15 '46

MISSING persons

See also
Death, Presumption of

MISSISSIPPI

See also
Geology—Mississippi

Industries and resources
Advertising helps to balance state's agriculture with its industry; communities pay for plants with bond issues which are retired through earnings. D. Markstein. il Ptr Ink 214:75+ Mr 1 '46
Mississippi attracts industry and aids state by building plants, furnishing capital, labor and raw materials. D. Markstein. il Food Ind 18:1022-3 Jl '46
Story of Mississippi. il Manuf Rec 115:69-103 Ja '46
Wanted: industry; Mississippi plan, revived Balance agriculture with industry act. Bsns W p66+ Ja 5 '46

MISSISSIPPI power and light company
Program to involve $15,000,000. Manuf Rec 115:74 Je '46

MISSISSIPPI river
Uncompacted mass asphalt paving for river banks and levees. A. B. Pickett. il diag Civil Eng 16:451-3 O '46

Flood control projects
New project for stabilizing and deepening lower Mississippi river. C. Senour. maps Am Soc C E Proc 72:145-58 F '46; Discussion. 72:1020-2 S '46

MISSISSIPPI valley

Industries and resources
Factory whistles blow in farm towns as industry booms in Mississippi valley. il Am Bsns 16:8-9+ My '46

MISSOURI

See also
Clay mines and mining—Missouri
Lead mines and mining—Missouri
Iron ores—Missouri

MISSOURI-Kansas-Texas railroad
Can Katy do it? Claughton group's plans for north-south rail artery. map Bsns W p68+ F 16 '46
Consolidated income account for calendar years 1942-1945. Comm & Fin Chr 163:1432 Mr 18 '46
Katy signs new lease on life. Bsns W p42+ Je 22 '46
Katy strengthened for postwar era. A. Jansen. Barron's 26:9+ Jl 8 '46

MISSOURI Pacific railroad
Interest payments. Comm & Fin Chr 164: 2289 N 4 '46
Paul J. Neff succeeds L. W. Baldwin. Ry Age 120:1106 Je 1 '46

MISSOURI river
Garrison dam on the Missouri river to make rolled fill history. maps diags Eng N 136: 920-2 Je 13 '46
Interagency row; in setting surface height for Garrison dam. Bsns W p21 Mr 23 '46
Mighty Missouri; controversy over Pick-Sloan and MVA plans. M. Q. Sharpe. Pub Util 36: 754-9 D 6 '45
Missouri basin inter-agency committee. R. C. Crawford. il Civil Eng 16:64-5 F '46
Missouri River basin development; coordinated plan as approved by Congress. D. B. Freeman. il Civil Eng 16:258-9 Je '46

MISSOURI river—*Continued*
Missouri River development program. L. A. Pick. map Am Water Works Assn J 38: 859-67 Jl '46
Missouri River plan. Comp Air Mag 51:168 Je '46
Navigation channels developed by contraction works. D. B. Freeman. il Civil Eng 16: 493-4 N '46
Role of the lower tributaries in the Missouri Valley plan. H. W. Wood, jr. maps Civil Eng 16:118-19 Mr '46
Start Missouri basin 10-year program of water resources development. Eng N 136: 766 My 16 '46
To tame the Missouri, 108 dams; map. Bsns W p21-2 Je 1 '46
$2 billion program begun on Missouri River basin. Eng N 136:527+ Ap 18 '46

MISSOURI state life insurance company
Public officials honor General American for carrying out Missouri State promises. East Underw 47:3+ My 3 '46; Nat Underw (Life ed) 50:1+ My 3 '46
Walter W. Head's successful battle for protection of policyholders; abstract. K. Crichton. East Underw 47:14 Ap 19 '46

MISSOURI Valley authority (proposed)
Irrigation warfare renewed; dispute over U.S. limitation on size of tracts eligible for water. Bsns W p19-20 N 17 '45
Missouri, Columbia River authorities opposed by legislators, business men. Eng N 135: 837 D 20 '45
MVA delay asked. Bsns W p44 D 15 '45
Utilization of rivers in the public interest. W. W. Horner. Am Water Works Assn J 38:878-82 Jl '46

MITCHELLS and Butlers, limited
Statement by the chairman at annual general meeting. Economist 149:840 D 8 '45

MITES
Food of nymphs and adults of neoschöngastia indica (Hirst 1915). G. W. Wharton and R. K. Carver. Science 104:76-7 Jl 26 '46
Transmission of litomosoides carinii, filariid parasite of the cotton rat, by the tropical rat mite, liponyssus bacoti. R. W. Williams and H. W. Brown. Science 103:224 F 22 '46

MIXED crystals. See Solutions, Solid

MIXERS
Displacement capacities of mixing impellers. J. H. Rushton and others. diags Am Inst Chem Eng Trans 42:441-54 Je '46
Equipment advances 1944-45. E. J. Lyons. Chem Ind 57:856 N '45
Home mixer and liquidizer. il diag Machine Design 18:151-2 Ag '46
How to design a spiral ribbon. A. B. Porter. Chem & Met Eng 52:122-3 S '45; Discussion. C. A. Lee. 53:166 F '46
Improved mixing device for large charge stock tanks. E. H. Atwood. diag Pet Refiner 25:125-6 Mr '46
Preparation of synthetic resin enamels with Baker Perkins dispersion mixer. E. M. Schmiel. il Plant Oil & Chem R 109:6-8 My 2 '46
Technology of mixing. J. H. Rushton. bibliog il Can Chem & Process Ind 30:55-61 My '46

See also
Agitators
Banbury mixers
Concrete mixers
Dough mixers

MIXING
Mixing. J. H. Rushton. bibliog Ind & Eng Chem 38:12-13 Ja '46
Mixing liquids in shallow tanks aided by design analysis. E. S. Bissel and others. il Chem & Met Eng 53:118-19 Ja '46
Technology of mixing. J. H. Rushton. bibliog il Can Chem & Process Ind 30:55-61 My '46

See also
Homogenization

MIXTURES
Analysis of binary mixtures of normal aliphatic dibasic acids and esters; use of composition; melting point relations of the acids. D. F. Houston and W. A. Van Sandt. bibliog Ind & Eng Chem Anal ed 18:538-40 S '46
Analysis of ternary mixtures of methylcyclohexane-toluene-aniline. C. S. Carlson, A. E. Schubert and M. R. Fenske. Ind & Eng Chem Anal ed 18:109-11 F '46
Free volume and entropy in condensed systems; entropy in binary liquid mixtures; partial molal entropy in dilute solutions; structure and thermodynamics in aqueous electrolytes. H. S. Frank and M. W. Evans. bibliog J Chem Phys 13:507-32 N '45
How electrical conductivity can aid in separation of immiscible liquids. J. E. Cornish. diags Chem Eng 53:127 Ag '46
Refractive index of ethanol-water mixtures and density and refractive index of ethanol-water-ethyl ether mixtures. T. A. Scott, jr. bibliog J Phys Chem 50:406-12 S '46
Theory of multimolecular adsorption from a mixture of gases. T. L. Hill. bibliog J Chem Phys 14:268-75 Ap '46
Thermodynamic functions of cyclohexane-methanol mixtures. S. E. Wood. bibliog Am Chem Soc J 68:1963-6 O '46
Use of refractive indices of dimethyl esters. D. F. Houston and J. S. Furlow. bibliog Ind & Eng Chem Anal ed 18:541-2 S '46
Vapor-liquid equilibrium; benzene-methanol mixtures. G. Scatchard, S. E. Wood and J. M. Mochel. bibliog Am Chem Soc J 68: 1957-60 O '46
Vapor-liquid equilibrium; carbon tetrachloride-methanol mixtures. G. Scatchard, S. E. Wood and J. M. Mochel. bibliog Am Chem Soc J 68:1960-3 O '46

See also
Buffer mixtures
Inflammable mixtures
Liquids
Solution (chemistry)

MIXTURES, Azeotropic. See Azeotropy

MIXTURES, Inflammable. See Inflammable mixtures

MLADEK, Jan Viktor, 1911-
Executive director of the fund for Czechoslovakia, Poland and Yugoslavia. por Comm & Fin Chr 164:491 Jl 25 '46

MOBILE, Alabama

See also
Public health—Mobile, Alabama

Industries
Mobile, Alabama, after the storm. il Fortune 33:106-17 Mr '46

Water supply
Improvements to water works at Mobile. A. N. Beck. il Civil Eng 16:17-19 Ja '46

MOCKUPS. See Airplane engines—Models

MODEL home exhibits. See Electric industries—Model home exhibits; Gas industry—Model home exhibits

MODEL houses. See Houses, Model

MODELS
Another case in the effective use of scale-model layout. J. R. Upjohn. il Factory Management 104:108-9 S '46
Building model lessens chance for layout mistakes; reconversion at the Dole valve company, Chicago. il Factory Management 104: 104-5 Ja '46
Machine tool scale models and templets for plant lay-outs. il Mach 52:175 Ag '46
Metalworking in miniature; plant layout models. il Am Mach 90:118 Ja 3 '46
Pharmaceutical plant uses scale models for plant and equipment layout and design; Johnson & Johnson baby products plant, Cranford, N.J. il Chem Eng 53:104-5 O '46
Scale-model preview of plant and process. K. G. Freeman. il Factory Management 104:92-3 Jl '46
Scale model speeds Kaiser-Frazer conversion; three-dimensional, seven-color plant layout. il Factory Management 104:116-17 My '46
Simmons three-dimensional models pre-test retail store layouts. il Sales Management 57:89-90+ N 1 '46
Templet or model for plant layout. R. W. Mallick and J. H. Sansonetti. il plan diags Am Mach 90:101-4 Ag 15 '46

MODELS—*Continued*
Visual planning for shop lay-out. il Engineer 182:354 O 18 '46

See also
Airplane engines—Models
Airplane models
Airships—Model testing
Architectural models
Bridges—Model testing
Hydraulic models
Models, Plastic
Piping—Models
Railroads—Models
Roads—Models

MODELS (in merchandizing)
How to translate a blueprint job into lucid selling English; Westinghouse sells X-ray equipment with three dimensional models. il Sales Management 57:42-3 S 15 '46
Miniature models aid in selling heavy equipment. il Ind Marketing 31:68+ Ap '46
Miniature models can do a big selling job. il Ind Marketing 31:50-1+ Ja '46
New uses for industrial displays and exhibits point to potent postwar sales promotion. R. E. Quaid. il Ind Marketing 30:42-3+ D '45
Wee refrigerator demonstrates sales points for Servel. il Sales Management 55:155 D 1 '45

MODELS (persons)
Cinderella: commercial model; John Robert Powers organization. F. Smith. Adv & Sell 39:46+ S '46

MODELS, Architectural. See Architectural models

MODELS, Artists. See Models (persons)

MODELS, Plastic
Models mean fine molding. il Mod Plastics 23:98-9 Je '46
Plastic bearings aid in search for greater power; abstract. Boyd. Franklin Inst J 242: 231-2 S '46
Transparent models for construction and test purposes. A. H. Jennings. il Mod Plastics 23:130-2 Je '46
Transparent plastic plant models in three-dimensional layout. il Factory Management 104:108-9 Ag '46

MOHAMMEDANISM
Human rights in Islam. M. Khadduri. bibliog Ann Am Acad 243:77-81 Ja '46

MOISSAN, Ferdinand Frédéric Henri, 1852-1907
F. F. H. Moissan and the isolation of fluorine (1886). K. R. Webb. Chem & Ind p306-8 Ag 17 '46

MOISTURE
Breathers, means of cooling machines; moisture problems in outdoor machinery. A. Raines and J. H. Rosenbloom. il diag Machine Design 18:75-7+ O '46
Determination of moisture in sugar solutions with Karl Fischer reagent. F. W. Zerban and L. Sattler. il diag Ind & Eng Chem Anal ed 18:138-9 F '46
Determining the moisture equilibrium curves of hygroscopic materials. W. A. Wink. il diag Ind & Eng Chem Anal ed 18:251-2 Ap '46
Distillation trap for determining moisture in relatively dry materials. W. N. Lindsay. bibliog diag Ind & Eng Chem Anal ed 18:69 Ja '46
Effect of water on the strength of glass. T. C. Baker and F. W. Preston. J Ap Phys 17:179-88 Mr '46
Electrical moisture meter. L. Hartshorn and W. Wilson. bibliog il diags Inst E E J 92 pt 2:403-12 O '45; Abstract. Elec R (Lond) 136:619 Ap 27 '45; Discussion. Inst E E J 92 pt 2:412-15 O '45; Elec R (Lond) 136:619-20 Ap 27 '45; Electrician 134:383-4 Ap 27 '45
For better usage; terminology of water-vapor transmission testing. C. A. Southwick, jr. Mod Packaging 19:137-9+ Jl '46
Industrial measurement; moisture meters. Elec R (Lond) 137:624 N 2 '45
Karl Fischer method for moisture determination; abstract. Smith, Bryant and Mitchell. Paint Oil & Chem R 109:24-5 My 2 '46
Moisture adsorption of textile yarns at low temperatures. R. C. Darling and H. S. Belding. bibliog Ind & Eng Chem 38:524-9 My '46; Discussion. 38:1203-4 N '46
Moisture control test of beef extract; abstract. A. R. Riddle. Food Ind 18:132+ Ja '46
Moisture determination in solid materials. A. O. Gates. Chem & Met Eng 52:119 D '45
Moisture meters move up. E. L. Cady. il Sci Am 175:205-7 N '46
Physical and chemical methods for moisture determination. D. W. Grover. bibliog Chem & Ind p365 O 5 '46
Radio-frequency dielectric properties of dehydrated carrots; application to moisture determination by electrical methods. W. C. Dunlap, jr. and B. Makower. bibliog diag J Phys Chem 49:601-22 N '45
Rapid moisture testing of granular material. J. H. Jupe. il diag Electronics 19:180+ My '46
Sulphuric acid equilibrium cell determines air moisture content continuously. A. E. Kroll and P. G. Foust, jr. diag Chem & Met Eng 53:115-16 Je '46

See also
Evaporation
Food, Frozen—Moisture content
Humidity
Hygrometers
Peanuts—Moisture content
Soil moisture
Textile fibers—Moisture content
Vegetables, Dried—Moisture content

MOLASSES
Feedstuff makers face deeper molasses cut. Oil Paint & Drug Rep 149:3+ Mr 25 '46
Influence of adsorption on the crystallisation of sucrose from impure solutions. S. E. Coalstad. Soc Chem Ind J 65:206-8 Jl '46
Unfermentable reducing substances in molasses; anhydrides and amino acid condensation products of reducing sugars. L. Sattler and F. W. Zerban. bibliog Ind & Eng Chem 37:1133-42 N '45

MOLASSES, Dried
Molasses dried; patent. Food Ind 18:444 Mr '46

MOLD bran
Mold bran aids production of grain alcohol. J. W. Boyer and L. A. Underkofler. flow diag Chem & Met Eng 52:110-11 D '45

MOLDED products
All-round cabinet replaces open-back model; Belfone Maestro unit for intercommunication. il Mod Plastics 24:121 S '46
Cellulose propionate plastic. R. H. Ball. il Mod Plastics 23:118-19+ D '45
Color in cold moldings. J. E. Simonds. il Mod Plastics 23:83-4 My '46
Combining plastics with other materials; molded plywood. R. C. Scull. il Mod Plastics 23:130-1 Ag '46
Custom molders of plastics; addresses of companies, types of materials and names of parts customarily molded. Machine Design 18:242-7 O '46
Earrings that act as hearing aids. il Mod Plastics 23:120-2 Je '46
Eye testing demands accuracy; Verhoeff stereopter. H. E. Hasenzahl. il Mod Plastics 23:121-2 Mr '46
Family of molded phenolic bobbins. il Mod Plastics 23:100 Jl '46
Field performance of Forticel. B. E. Cash. India Rubber World 114:534-5 Jl '46; Excerpt. Mod Plastics 23:112 My '46
Insulation of molded pulp; development of a fiber-molding process; General electric company. Comp Air Mag 51:51 F '46
Molded bases for round fluorescent bulbs. il Mod Plastics 23:126-7 F '46
Molded fiber articles. M. P. Chaplin. Paper Ind 28:704+ Ag '46
New plastics parts boost refrigerator efficiency. il Mod Plastics 23:104-5 Mr '46
Nylon molding powders. A. F. Randolph. il Product Eng 17:312 Ap '46
Phenolic control for electronic blanket. D. Maxwell. il Mod Plastics 23:137 Ap '46
Phenolics stamp out the price; stamp kit of cotton-flock-filled phenolic. il Mod Plastics 23:132 Ag '46
Physical properties of corrugated low-density structures. C. A. Scogland. il diags Product Eng 17:394-7 My '46
Plastics in radio. L. Laden. il Radio N 34: 25-8+ D '45

MOLDED products—*Continued*
Plastics molding materials; classification, applications, fabrication. Machine Design 18: 159-63 Je '46
Present products in the low-pressure molded laminates; abstract. W. J. Connelly. Product Eng 17:404 My '46
Progress in plastics. A. E. Williams. il diags Engineer 182.206-7, 229-32 S 6-13 '46
Redesigned for use; Cameo cleanser. il diag Mod Plastics 23:122-3 F '46
Stone-like plastic formed by molding; G-E mycalex. T. C. Du Mond. il Materials & Methods 24:87-9 Jl '46
Testing flame-resistant cellulose acetate. M. Bentivoglio and B. E. Cash. il Mod Plastics 23:119-21 F '46
Three razors; 3 materials. il Mod Plastics 24: 104-5 S '46

See also
Molds (for plastics)
Resinous products
Tableware, Plastic

Manufacture

H.f. units for preheating moulding materials. il Engineer 181:368 Ap 19 '46
How to work with plastics. H. L. Flynn. diags Am Mach 90:117-36 Ap 11 '46
Injection molding of nylon. R. B. Akin. il diag Mod Plastics 23:139-43 Ag '46
Plastics are molded cold, too. il Am Mach 90:117 My 23 '46; Same abr. Mech Eng 68: 654 Jl '46
Post-forming developments during the war and their applications to peace-time products. W. I. Beach. il India Rubber World 113:325-7 Mr '46; Same cond. Product Eng 17:118-19 S '46
Preheating without preforming. il Mod Plastics 23:148-50 Je '46

See also
Molding
Molding machines (for plastics)

Standards

S.P.I. standard for tolerances on molded plastics parts. Product Eng 17:172-6 F '46

Testing

Correlation between strength properties in test specimens and molded phenolic parts. P. S. Turner and R. H. Thomason. il diags Mod Plastics 23:146-54+ My; 154-8+ Jl '46
Effect of temperature and humidity on mechanical properties of molded cellulose acetate. W. E. Welch and others. Mod Plastics 23:159-64+ Ag '46
Relation between the impact and flexural tests for molded plastics. L. E. Welch and H M. Quackenbos, jr. bibliog il diags A S M E Trans 68:547-56 Jl '46

MOLDED products, Mechanical
Balance in a phenolic fan blade; specially shaped and weighed preforms. il Mod Plastics 23:165 Ap '46
Design standards for inserts; their application in plastics parts. diags Mod Plastics 23:142-54+ Ja '46; Same. Product Eng 17:29-38 Ja '46
From trim-tab motor to hand mixer. il Mod Plastics 23:100-1 My '46
How transfer molding affects plastics parts design. W. F. Robb. il diags Product Eng 17:129-33 N '46
Molded part helps control yarn windup. il diag Mod Plastics 24:148 S '46
Molded textile scroll condenser. il Mod Plastics 23:120 Mr '46
Plastic rotors for Fords; abstract. Materials & Methods 23:1638 Je '46
Small, but the real thing; model maker's plane and the balsa stripper. il Mod Plastics 23:111 Mr '46
Three precision molded parts for child's camera. il Mod Plastics 23:101-3 Jl '46

MOLDERS. See Foundries—Employees

MOLDING
Deep drawn laminates; ice saver buckets; Andover Kent, new process. il Mod Plastics 23:100-2 Mr '46
Design standards for inserts; their application in plastics parts. diags Mod Plastics 23:142-54+ Ja '46; Same. Product Eng 17:29-38 Ja '46
Effect of molding pressure and resin on results of short-time tests and fatigue tests of compreg. W. N. Findley and others. il diags A S M E Trans 68:317-25 bibliog (p325-6); Discussion. 326-7 My '46
Experiment in restaurant tableware. P. Fuller. il diags Mod Plastics 24:100-3 S '46
Flash remover for moldings and die castings. diags Am Mach 90:140 Mr 28 '46
High-frequency preheating; thermosetting plastic material. A. R. Tinnerholm. il Mod Plastics 23:180-2 Ap '46
How to work with plastics; molding. H. L. Flynn. diags Am Mach 90:120-2 Ap 11 '46
How transfer molding affects plastics parts design. W. F. Robb. il diags Product Eng 17:129-33 N '46
Impression molding; its position in the molding field. R. W. Crawford and I. B. Nathanson. il Mod Plastics 23:161-4 Ap '46
Low pressure molding, materials and techniques. T. W. Noble. Product Eng 17:138-9 N '46
Low pressure molding of laminates; abstract. J. E. Stokes. Product Eng 17:115 S '46
Magazine molding and how it is done. il Mod Plastics 23:144-5 F '46
Manufacture of phenolic molding compounds in Germany; based on production manual of Dynamit A.-G., Troisdorf. il Mod Plastics 24: 160-2+ S '46
Models mean fine molding. il Mod Plastics 23:98-9 Je '46
Molding laminated foot appliances. il Mod Plastics 23:114-16 Je '46
Molding unlimited. C. A. Breskin. il Sci Am 174:261-3 Je '46
New injection cylinder. il diag Mod Plastics 23:210 F '46
New molding shop at research laboratory; American cyanamid co. N. Morash. il Mod Plastics 24:176+ S '46
Plastics mold release. E. E. Ziegler. India Rubber World 114:826-9 S '46
Postforming methods and applications. W. I. Beach. il Mod Plastics 23:142-5 Mr '46
Preheating without preforming. il Mod Plastics 23:148-50 Je '46
Reinforcing low pressure molding. J. D. Lincoln. il Mod Plastics 23:138-9 Mr '46
Steam tables for molding dies. J. H. Burkham. diags Mod Plastics 23:156-62 F '46
Time and temperature control for compression molding. A. Hermann. diags Mod Plastics 23:137-43+ D '45
Transfer moulding. M. Freund. il diags Engineering 162:237-9 S 6 '46
Wartime production short-cuts speed civilian goods; soda water syphon head. il Mod Plastics 24:104-5 O '46
Year in plastics engineering. il diags Mod Plastics 23:125-35+ Ja '46

See also
Nylon—Molding

MOLDING machines (for plastics)
Lester-Phoenix injection molding machines. il Mach 52:194 My '46; India Rubber World 114:72 Ap '46
Progress in plastics. A. E. Williams. il diags Engineer 182:207, 229-32 S 6-13 '46
Sheet vinyl electrotype processing. il Mod Plastics 23:111-13 Jl '46
Transfer moulding. M. Freund. il diags Engineering 162:237-9 S 6 '46
Vertical acting injection mold. il Mod Plastics 24:200 O '46
Year in plastics engineering. il diags Mod Plastics 23:125-35+ Ja '46

Miniature presses

Boy's own molding press. il Mod Plastics 23: 94-5 My '46

MOLDING machines (for rubber)
Extrusion principle applied to the injection molding of rubber. il diags Product Eng 17:96-7 O '46
H-P-M Turbojector molding machine. il Mach 52:195 My '46; Iron Age 157:50 My 16 '46

MOLDING sand. See Sand, Foundry

MOLDINGS (architecture)
Better detail plate; exterior mouldings and cornices. R. J. Alexander. diags Am Bld 68:106-7 S '46

MOLDS (botany)
Fungistatic vapors for control of mold in packages and equipment. T. C. Scheffer and C. G. Duncan. Ind & Eng Chem 38:619-21 Je '46
Inhibition of growth of mycobacterium tuberculosis by a mold product; the effect on pathogenic human tubercle bacilli; mycocidin. I. E. Gerber and M. Gross. Science 103:167-9 F 8 '46
Mold as an adjunct to malt in grain fermentation. N. M. Erb and F. M. Hildebrandt. bibliog Ind & Eng Chem 38:792-4 Ag '46
Mold conquered; electronic oven. il Bsns W p54 N 24 '45
Mould growth on leather. A. J. Musgrave. bibliog Chem & Ind p226-7 Je 15 '46
Mould growth on leather; abstract and discussion. A. J. Musgrave. Chem & Ind p65 F 9 '46
Mold inhibitors; patent. Food Ind 18:123 Ja '46
Propionate treatment of parchment to inhibit mold. J. C. Olson, jr. and H. Macy. bibliog il Mod Packaging 19:166-9+ Ap '46
Saccharification of grain mashes for alcoholic fermentation; plant-scale use of mold amylase. L. A. Underkofler, G. M. Severson and K. J. Goering. bibliog il Ind & Eng Chem 38:980-5 O '46
See also
Fungi
Mildew
Penicillium

MOLDS (for casting)
Age of green and dry sand molding. J. E. Hurst. Foundry 74:97+ F '46
Casting turbogenerator parts; Allis-Chalmers mfg. co. il Foundry 74:90-1 Ag '46
Effect of grain shape on the moulding properties of synthetic moulding sands. W. Davies. diags Iron & Steel Inst J 150:19-47, pl 5-9 no 2 '44
Feeding metal to molds; abstract. S. T. Jazwinski and S. L. Finch. Materials & Methods 23:802 Mr '46
Mold cavity variation. R. Cleland, jr. Foundry 74:91+ F '46
Ventilating the mold shakeout. C. C. Hermann. il diags Foundry 74:104-5+ Ap; 117+ Je '46
See also
Cores
Steel ingots—Molds

Permanent molds
Aluminum-bronze permanent mold castings. B. Johnson. il Iron Age 157:80-3 Ap 4 '46
Graphite molds for casting Jominy bars. P. M. Sanders. diag Metal Prog 50:91 Jl '46
Organic compounds of silicon. A. E. L. Jervis. il Chem Age (Lond) 55:39-41+ Jl 13 '46
Permanent mold aluminum castings. H. Brown. il Steel 118:124-6 Mr 4 '46
Permanent mold casting; abstract. A. R. Palmer. Materials & Methods 22:1822+ D '45
Permanent mold casting of aluminum alloys. Foundry 74:288 My '46
Permanent mold casting of aluminum alloys; tips on gates and risers. S. Frankel. il Materials & Methods 23:1626 Je '46
Permanent-mold casting of pistons by Chrysler's high-production methods. C. H. Wick. il plan Mach 53:148-57 N '46
Permanent mold castings offer production economies. F. W. Schleicher. il Iron Age 158:42-5 O 3 '46
Permanent mold gray iron castings. E. C. Hoenicke. il Materials & Methods 24:901-4 O '46
Permanent-mold or die cast? H. Chase. il diags Machine Design 18:140-4 Ag '46
Permanent molds for casting aluminum. V. J. Sedlon. il Foundry 74:82-4+ Ag '46
Sand cast and permanent-mold cast aluminum alloy parts; with cost data. W. J. Klayer. il diags Product Eng 17:81-5 O '46
Vacuum permanent mold casting. J. W. Wheeler. il Foundry 74:90-3+ Je '46

Plaster molds
Aircraft manufacturing technique applied to bus building; American car & foundry co.; production of plaster molds for casting Kirksite dies and forms. R. B. Stubbs. il Mach 52:168-75 D '45

Rubber molds
Making flexible molds from neoprene latex. H. H. Abernathy and R. H. Walsh. il Rubber Age 58:349-51 D '45

MOLDS (for ceramics)
Different methods of slip casting. S. S. Kocatopcu. bibliog Am Cer Soc Bul 25:51-2 F 15 '46

MOLDS (for glass)
Surface chemistry of glass molds; improvements in gray iron molds or methods of using them. W. E. Thrun and H. K. McGrath. bibliog Glass Ind 27:340-2+ Jl '46

MOLDS (for plastics)
Beryllium copper as a mold material. L. F. Boland. il Mod Plastics 23:139-42 F '46
Duplicating of plastic molds. I. Thomas and J. Hohl. il Mod Plastics 23:117-23 My '46
How to work with plastics; molds, types, materials and design. H. L. Flynn. diags Am Mach 90:123-30 Ap 11 '46
Inexpensive molds for cast plastics. P. Frost and L. W. Smith. il Mod Plastics 23:178-9 Ap '46
Plastics mold release. E. E. Ziegler. India Rubber World 114:826-9 S '46
Rubber molds facilitate casting of plastics; abstract. T. A. Dickinson. Materials & Methods 23:1078 Ap '46
Zinc alloy molds for short runs. il Mod Plastics 23:150 Ag '46

MOLDS (for rubber)
New method of cleaning rubber molds; soft grit blasting. Rubber Age 59:696 S '46
Plastic molds for electronic vulcanizing; resin-impregnated glass fiber fabric molds. il Mod Plastics 23:142-5 Jl '46

MOLECULAR association
Associating effect of the hydrogen atom; the N-H-N bond; the structure and tautomerism of cyanamides. L. Hunter and H. A. Rees. Chem Soc J p617-21 S '45
Dielectric properties of liquid mixtures. G. Oster. bibliog Am Chem Soc J 68:2036-41 O '46
Statistical mechanics of linear association equilibria. P. J. Flory. bibliog J Chem Phys 14:49-50 Ja '46

MOLECULAR beams
Molecular beam magnetic resonance method; the radiofrequency spectra of atoms and molecules. J. B. M. Kellogg and S. Millman. bibliog diags Rs Mod Phys 18:323-52 Jl '46
Molecular beam technique. I. Eastermann. bibliog(69 ref) il diags Rs Mod Phys 18: 300-23 Jl '46
New method of measuring the electric dipole moment and moment of inertia of diatomic polar molecules. H. K. Hughes. Phys R 70:570-1 O 1 '46
Nuclear induction. F. Bloch. bibliog Phys R 70:460-74 O 1 '46

MOLECULAR distillation. See Distillation

MOLECULAR rays. See Molecular beams

MOLECULAR rearrangements
Aliphatic diazo compounds; investigation of α-diazo-γ,γ,γ-triphenylpropane, in relation to molecular rearrangements and stability. L. Hellerman and R. L. Garner. Am Chem Soc J 68:819-23 My '46
Allylic rearrangements; further studies related to the nature of the butenyl Grignard reagent. W. G. Young and J. D. Roberts. bibliog Am Chem Soc J 68:1472-5 Ag '46
Allylic rearrangements; some addition reactions of butenylmagnesium bromide. W. G. Young and J. D. Roberts. bibliog Am Chem Soc J 68:649-52 Ap '46
Allylic rearrangements; studies of the ozonization of allylic systems. W. G. Young and others. bibliog Am Chem Soc J 68: 293-6 F '46
Beckmann rearrangement in the preparation of aldehydes. G. H. Coleman and R. E. Pyle. Am Chem Soc J 68:2007-9 O '46
Beckmann rearrangement of aliphatic ketoximes. A. D. McLaren. bibliog Science 103:503 Ap 26 '46
Course of autoxidation reactions in polyisoprenes and allied compounds; double bond movement during the autoxidation of a mono-olefin. E. H. Farmer and D. A. Sutton. Chem Soc J p10-13 Ja '46

MOLECULAR rearrangements—*Continued*
Dienone—phenol rearrangement applied to chrysene derivatives; the synthesis of 3-hydroxy-1-methylchrysene and related compounds. A. L. Wilds and C. Djerassi. bibliog Am Chem Soc J 68:1715-19 S '46
Endo-exo-rearrangement in the addition of acids to dicyclopentadiene. P. D. Bartlett and A. Schneider. bibliog Am Chem Soc J 68:6-8 Ja '46
Kinetics of anionotropic rearrangement; oxotropic formation of the styrene system. E. A. Braude, E. R. H. Jones and E. S. Stern. diag Chem Soc J p396-404 My '46
Kinetics of anionotropic rearrangement; substituent effects in the oxotropic formation of the butadiene system; comparison of the electron-attracting properties of the ethylenic and acetylenic bonds. E. A. Braude and E. R. H. Jones. Chem Soc J p128-30 F '46
Kinetics of anionotropic rearrangement; substituent effects in the oxotropic formation of the vinylacetylene system. E. A. Braude and E. R. H. Jones. Chem Soc J p122-7 F '46
Mechanism of benzidine-type rearrangements, and the rôle of π-electrons in organic chemistry. M. J. S. Dewar. Chem Soc J p406-8 My '46
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance; magnitude of steric effects, range of occurrence of steric and polar effects and place of the Wagner rearrangement in nucleophilic substitution and elimination. I. Dostrovsky, E. D. Hughes, and C. K. Ingold. Chem Soc J p173-94 Mr '46
Methylpolysiloxanes. W. Patnode and D. F. Wilcock. bibliog Am Chem Soc J 68:358-63 Mr '46
Molecular rearrangement of fluorylidene dimethyl sulfide to fluorene-1-dimethyl sulfide. L. A. Pinck and G. E. Hilbert. Am Chem Soc J 68:751-3 My '46
Molecular rearrangements; case of a thermal reversible α-diketone-γ-lactone rearrangement; some experiments with vulpinic acid and related compounds. A. Schönberg and A. Sina. Chem Soc J p601-4 Jl '46
New syntheses of heterocyclic compounds; Schmidt rearrangement of 1 : 3-dimethyl-2-azafluorenone. V. A. Petrow. Chem Soc J p200-3, 888-91 Mr, O '46
Organic sulphur compounds; experiments with 1-thia-γ-pyrones; thermal rearrangement of 1-thia-γ-pyrone derivatives into the isomeric 1-thia-α-pyrone derivatives. A. Schönberg and W. Asker. Chem Soc J p604-8 Jl '46
Polymerization of olefins; the depolymerization of olefins in relation to intramolecular rearrangements. F. C. Whitmore and E. E. Stahly. bibliog Am Chem Soc J 67: 2158-60 D '45
Preparation and partial aromatization of 1,4-cholestadienone-3 by the dienone-phenol rearrangement. A. L. Wilds and C. Djerassi. bibliog Am Chem Soc J 68:1712-15 S '46
Preparation of new derivatives of diethylstilbestrol and hexestrol by the Claisen rearrangement. E. Kaiser and J. J. Svarz. Am Chem Soc J 68:636-8 Ap '46
Rearrangement in the condensation of *o*-bromodimethylaniline with lithium diethylamide. H. Gilman, R. H. Kyle and R. A. Benkeser. Am Chem Soc J 68:143-4 Ja '46
Rearrangement in the reaction of α-halogenonaphthalenes with lithium diethylamide. H. Gilman and others. bibliog Am Chem Soc J 67:2106-8 D '45
Rearrangement of substituted benzopinacols; application of electronic theories. G. H. Stempel, jr. bibliog J Chem Educ 23:434-8 S '46
Rearrangements in compounds of carbon, silicon, germanium and tin containing halogens, isocyanate and thiocyanate. G. S. Forbes and H. H. Anderson. bibliog Am Chem Soc J 67:1911-14 N '45
Rearrangements of aldoximes into amides with Raney nickel; stereoisomeric geranamides. A. G. Caldwell and E. R. H. Jones. Chem Soc J p599-601 Jl '46
Retention of asymmetry during the Beckmann, Lossen, and Curtius changes. A. Campbell and J. Kenyon. Chem Soc J p25-7 Ja '46
Study of plasmochin and the occurrence of rearrangements in the preparation of certain plasmochin analogs. R. C. Elderfield and others. Am Chem Soc J 68:1516-23 Ag '46
Thermal rearrangement of branched-chain methylpolysiloxanes. D. W. Scott. Am Chem Soc J 68:356-8 Mr '46
2-Tolylpyrrolines and the rearrangement and hydrolysis of aryl cyclopropyl ketimines. J. B. Cloke and others. bibliog Am Chem Soc J 67:2155-8 D '45

MOLECULAR refraction. See Refraction, Molecular

MOLECULAR still. See Distillation apparatus

MOLECULAR volume
Gram-molecular volume slide-box. G. W. Josten. il J Chem Educ 22:613 D '45
Molecular volumes of mononuclear aromatic hydrocarbons. N. Corbin, M. Alexander and G. Egloff. bibliog Ind & Eng Chem 38:610-11 Je '46

MOLECULAR weights
Associating effect of the hydrogen atom; the N-H-N bond; the structure and tautomerism of cyanamides. L. Hunter and H. A. Rees. Chem Soc J p617-21 S '45
Determination of the pressure-viscosity coefficient and molecular weight of lubricating oils by means of the temperature-viscosity equations of Vogel and Eyring. A. Cameron. bibliog Inst Pet J 31:401-14 O '45
Effect of molecular weight and method of deësterification on the gelling behavior of pectin. R. Speiser and C. R. Eddy. bibliog Am Chem Soc J 68:287-93 F '46
Effect of polymolecularity on deformation of butyl polymers. R. L. Zapp and F. P. Baldwin. bibliog Ind & Eng Chem 38:948-55 S '46
Effects of molecular structure on physical properties of butyl rubber. P. J. Flory. bibliog diags Ind & Eng Chem 38:417-36 Ap '46
Equation relating density, refractive index, and molecular weight for paraffins and naphthenes. M. R. Lipkin and C. C. Martin. bibliog Ind & Eng Chem Anal ed 18:380-2 Je '46
Gasoline loss control and molecular weight determinations. H. G. Koefoed. bibliog 4pls diags Inst Pet J 32:529-74 S '46
Molecular weight and mercaptan content of mixtures of primary mercaptans; gravimetric determination. H. A. Laitinen, A. S. O'Brien and J. S. Nelson. Ind & Eng Chem Anal ed 18:471-2 Ag '46
Molecular weight distribution data on high polymers; graphical representation. R. F. Boyer. bibliog(52 references) Ind & Eng Chem Anal ed 18:342-8 Je '46
Molecular weight; physical property correlation for petroleum fractions. I. W. Mills, A. E. Hirschler and S. S. Kurtz, jr. bibliog diag Ind & Eng Chem 38:442-50 Ap '46
Molecular weights and other properties of viruses as determined by light absorption. G. Oster. bibliog Science 103:306-8 Mr 8 '46
Molecular weights of viscous hydrocarbon oils; correlation of density with viscosities. A. E. Hirschler. bibliog Inst Pet J 32:133-61 Mr '46
Monolayers of β-lactoglobulin; film molecular weight. H. B. Bull. Am Chem Soc J 68: 745-7 My '46
Osmotic pressure measurements with polydimethylsilicone fractions. D. W. Scott. bibliog Am Chem Soc J 68:1877-9 O '46
Photoelectric instrument for light scattering measurements and a differential refractometer. P. P. Debye. il diags J Ap Phys 17:392-8 My '46
Tensile strength in relation to molecular weight of high polymers. P. J. Flory. Am Chem Soc J 67:2048-50 N '45

MOLECULAR weights—*Continued*
Viscosity-molecular weight relation for natural rubber. W. C. Carter, R. L. Scott and M. Magat. bibliog Am Chem Soc J 68: 1480-3 Ag '46

See also
Polymerization
Polymers

MOLECULES
Application of the methods of molecular distribution to solutions of large molecules. B. H. Zimm. bibliog diag J Chem Phys 14:164-79 Mr '46
Behavior of macromolecules in inhomogeneous flow. H. A. Kramers. J Chem Phys 14: 415-24 Jl '46
Bond energy of diatomic molecules; abstract. M. A. Cook. Can Chem & Process Ind 30: 98 O '46
Cross linkages in cellulose and their practical implications; with review of effects of formaldehyde treatment upon properties of cellulose; claims of patent to Kantorowicz. E. Heuser. bibliog Paper Tr J 122: 43-8 Ja 17 '46; Same cond. Paper Ind 27: 1902+ Mr '46
Depolarization of light scattered from polymer solutions. P. Doty and H. S. Kaufman. bibliog diag J Phys Chem 49:583-95 N '45
Dipole moments and structures of ketene and of several polar molecules containing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68: 1357-60 Jl '46
Dissociation spectra of covalent polyatomic molecules. R. Samuel. bibliog(66 references) il diag Rs Mod Phys 18:103-47 Ja '46
Effective temperatures of molecules in relation to the temperatures of sources. N. R. Tawde. Phys R 70:432 S 1 '46
Electronic structure of the nitrogen molecule. G. Herzberg. bibliog Phys R 69:362-5 Ap 1 '46
Force constants of triatomic molecules. G. Glockler and J. Tung. bibliog J Chem Phys 13:388-96 O '45; Discussion and reply. D. M. Simpson. 14:294 Ap '46
Inactive by internal compensation. G. F. Wright. Science 104:190 Ag 23 '46
Isotope effect and the ratio rule. W. F. Edgell. bibliog J Chem Phys 13:539-46 D '45
Kinetics of exchange reactions; influence of solvent and molecular structure. L. J. le Roux and others. Chem Soc J p586-8 S '45
Lack of meaning of the phrase inactive by internal compensation as applied to meso compounds. C. R. Noller. Science 102:508-9 N 16 '45
Mechanism of solvent action; influence of molecular size and shape on temperature dependence of solvent ability. A. K. Doolittle. Ind & Eng Chem 38:535-40 My '46
Modern structural chemistry. L. Pauling. Chem & Eng N 24:1788-9 Jl 10 '46
Molecular architecture and biological reactions. L. Pauling. bibliog Chem & Eng N 24:1375-7 My 25 '46
Molecular constants and chemical theories; some remarks on physical constants and theories of higher valence states. R. Samuel. bibliog J Chem Phys 13:572-84 D '45
Molecular structure and mechanical properties of high polymers; abstract. H. Mark. Chem & Ind p247 Je 29 '46
Molecular structure of trimethyl silicon chloride. R. L. Livingston and L. O. Brockway. bibliog Am Chem Soc J 68:719-21 Ap '46
New method of determining electronegativity from other atomic properties. W. Gordy. bibliog Phys R 69:604-7 Je 1 '46
Pressure broadening of spectral lines. H. M. Foley. bibliog Phys R 69:616-28 Je 1 '46
Relation between bond force constants, bond orders, bond lengths, and the electronegativities of the bonded atoms. W. Gordy. bibliog J Chem Phys 14:305-20 My '46
Self-broadening in the 14μ band of HCN. H. M. Foley. Phys R 69:628-31 Je 1 '46
Some remarks on macromolecules; native and synthetic. T. Svedberg. il diag Chem & Eng N 24:1672-3 Je 25 '46
Structure of benzene. C. R. Bailey, C. K. Ingold and others. diags Chem Soc J p222-333 Ap '46
Structure of some electron-deficient molecules. H. C. Longuet-Higgins. Chem Soc J p139-43 F '46
Surface film thicknesses of polymeric substances in relation to molecular structure. F. T. Wall and M. Zelikoff. bibliog Am Chem Soc J 68:726 Ap '46
Synthetic Patterson maps. A. D. Booth and D. Wrinch. bibliog J Chem Phys 14:503-4 Ag '46
Tetrahedral P_4 molecule. J. R. Arnold. J Chem Phys 14:351 My '46
Thermodynamic properties of ethylbenzene vapor from 300° to 1500°K. F. G. Brickwedde and others. bibliog J Chem Phys 13: 547-53 D '45
Ultraviolet absorption spectra of organic molecules; mechanical interference of substituent groups with resonance configurations. W. H. Rodebush and I. Feldman. bibliog Am Chem Soc J 68:896-9 My '46
Vibrational levels of anharmonic oscillator. D. ter Haar. bibliog Phys R 70:222-3 Ag 1 '46

See also
Atoms
Chemical bonds
Crystallography
Isomerism
Molecular beams
Molecular rearrangements
Molecular weights
Polymers
Stereochemistry

Models
Electric circuit models for the vibration spectrum of polyatomic molecules. G. Kron. diags J Chem Phys 14:19-31 Ja '46

Rotation
Application of the method of molecular rotation differences to steroids; naturally occurring sterols and their simple derivatives. D. H. R. Barton. bibliog Chem Soc J p813-19 N '45
Application of the method of molecular rotation differences to steroids; unsaturated sterols and their derivatives. D. H. R. Barton. bibliog(70 references) Chem Soc J p512-22 Je '46
Asymmetric rotor; punched-card methods of constructing band spectra. G. W. King, P. C. Cross and G. B. Thomas. bibliog J Chem Phys 14:35-42 Ja '46
Energy levels and thermodynamic functions for molecules with internal rotation; unsymmetrical tops attached to a rigid frame. K. S. Pitzer. J Chem Phys 14:239-43 Ap '46
Relation between internuclear distances and potential barriers of methyl groups. F. A. French and R. S. Rasmussen. bibliog J Chem Phys 14:389-94 Je '46

Size
Molecular size and shape of botulinus toxin. G. Kegeles. bibliog Am Chem Soc J 68:1670 Ag '46
Shape and size of pectinic acid molecules deduced from viscometric measurements. H. S. Owens and others. bibliog Am Chem Soc J 68:1628-32 Ag '46
Size and shape of macromolecules in solution; methods based on ultracentrifuge, on osmotic pressure, on light scattering, and on streaming birefringence. P. M. Doty and H. Mark. bibliog(41 references) Ind & Eng Chem 38:682-6 Jl '46

Vibration
Bending force constants for halogenated ethylenes. K. S. Pitzer and N. K. Freeman. bibliog J Chem Phys 14:586-8 O '46
Electric circuit models for the vibration spectrum of polyatomic molecules. G. Kron. diags J Chem Phys 14:19-31 Ja '46
Motions of molecules in condensed systems; infra-red spectra for benzene solid, liquid, and vapor in the range from 3 to 16.7μ. R. S. Halford and O. A. Schaeffer. bibliog J Chem Phys 14:141-9 Mr '46
Motions of molecules in condensed systems: selection rules, relative intensities, and orientation effects for Raman and infra-red spectra. R. S. Halford. J Chem Phys 14: 8-15 Ja '46
Network analyzer tests of equivalent circuits of vibrating polyatomic molecules. G. K. Carter and G. Kron. diags J Chem Phys 14:32-4 Ja '46

MOLECULES—Vibration—*Continued*
Note concerning the Coriolis contribution to the energy of a symmetric polyatomic molecule. H. H. Nielsen. Phys R 70:184-6 Ag 1 '46
Product rule applications. F. Halverson. J Chem Phys 13:533-4 N '45
Structure of benzene; inactive fundamental frequencies of benzene, hexadeuterobenzene, and the partly deuterated benzenes. N. Herzfeld, C. K. Ingold and H. G. Poole. Chem Soc J p316-33 Ap '46
Theoretical evaluation of normal frequencies of vibration of the isomeric octanes. C. O. Ahonen. J Chem Phys 14:625-36 O '46

MOLINILLO seed oil
Puerto Rican fatty oils; the characteristics and composition of molinillo seed oil. C. F. Asenjo, J. A. Goyco and Z. Martínez-Pico. Am Chem Soc J 67:1936-7 N '45

MOLLIER diagrams
Mollier diagram for hydrocarbons. Oil & Gas J 44:109 F 9 '46

MOLLUSKS, Fossil
Mollusca of the tertiary formations of northeastern Mexico. J. Gardner. (Memoir 11) 332p, pl 1-28 Geological soc. of America, 419 W. 117th st, New York 27 '45
Paleocene freshwater mollusks from Sheridan county, Wyoming. T. Yen. bibliog Am J Sci 244:41-8 Ja '46
Paleontology of the pleistocene molluscan fauna of the Newport Bay area, California. S. C. Bruff. Univ of Calif Bul of Dept of Geol Sci v 27, no 6:213-40 bibliog(p237-40) '46 (pa 35c)

MOLTEN aluminum. See Aluminum, Molten

MOLTEN glass. See Glass, Molten

MOLYBDENITE
Climax ore testing program. R. E. Cuthbertson. il Min & Met 27:346-9 Je '46
Geology of the Climax ore body. J. W. Vanderwilt and R. U. King. maps Min & Met 27:299-302 Je '46
Molybdenite as a die lubricant. T. E. Norman. Metal Prog 50:314 Ag '46
Molybdenite investigations in southeastern Alaska. W. S. Twenhofel and others. bibliog maps U S Geol S Bul 947-B:7-38, pl 1-8 '46

MOLYBDENUM
Climax Molybdenum enterprise. flow sheets il maps plans diags Min & Met 27:297-365 Je '46
Direct catalytic conversion of methylcyclopentane to benzene. B. S. Greensfelder and D. L. Fuller. bibliog Am Chem Soc J 67:2171-3 D '45
Effect of working on the physical properties of molybdenum. J. W. Marden and D. M. Wroughton. il Electrochem Soc Trans 89 (preprint 30):377-84 '46
Isotopic constitution of tellurium, silicon, tungsten, molybdenum, and bromine. D. Williams and P. Yuster. bibliog Phys R 69: 556-67 Je 1 '46
Molybdenum; abstract. il(p259) Mech Eng 68: 258 Mr '46
Molybdenum, 1945. E. K. Jenckes. Eng & Min J 147:88 F '46
Molybdenum process for producing chunks of large size and multiplicity of shapes. il Chem & Eng N 24:394 F 10 '46
Powder metallurgy and the refractory metals. A. L. Percy. il Steel 118:106-8+ Je 17 '46
Preliminary exploration of Bi-Metallic molybdenum deposit, Okanogan county, Washington. R. H. Storch. 2pls U S Bur Mines Rep of Invest 3932:1-6 '46
War job of tungsten and molybdenum products. M. H. McClement. Steel 118:141 Mr 4 '46

Analysis

Colorimetric determination of molybdenum in zinc cyanide plating solutions. L. Silverman and others. Metal Finishing 44:426-8 O '46
Modified moly spot test. R. G. Townsend. Iron Age 157:49 Ap 11 '46
Semiquantitative tests for moly in steel. W. E. Thrun and C. R. Heidbrink. Iron Age 158:41 O 3 '46
Simultaneous spectrophotometric determination of titanium, vanadium, and molybdenum. A. Weissler. bibliog Ind & Eng Chem Anal ed 17:695-8 N '45

MOLYBDENUM blue
Morgan method of soil testing; use of the Spekker absorptiometer for estimating phosphate. J. Tinsley and N. H. Pizer. bibliog Soc Chem Ind J 65:208-11 Jl '46

MOLYBDENUM corporation of America
Profit margin up. Barron's 25:8 D 24 '45

MOLYBDENUM oxides
Effect of molybdenum and other oxides on surface tension of silicate melts and on properties of refractories and abrasives. C. R. Amberg. bibliog diag Am Cer Soc J 29:87-93 Ap 1 '46
Role of surface area in dehydrocyclization catalysis. A. S. Russell and J. J. Stokes, jr. diag Ind & Eng Chem 38:1071-4 O '46

MOLYBDENUM steel
Comparative graphitization of some low-carbon steels with and without molybdenum and chromium. G. V. Smith and others. bibliog il A S M E Trans 68:589-95 Ag '46
Cracking in service of 0.5% molybdenum steel steam piping. Engineer 182:149-50 Ag 16 '46; Same. Engineering 162:209 Ag 30 '46; Abstract. Elec R (Lond) 139:537 O 4 '46
Effect of carbide spheroidization upon the rupture strength and elongation of carbon-molybdenum steel. S. H. Weaver. Iron Age 158:63 Ag 22 '46
Effects of deoxidation practice; probable relationship between spheroidization and graphitization in presence of aluminum deoxidizing additions indicated. G. V. Smith and others. il Steel 117:114-17+ D 3 '45
Further observation of graphitization in aluminum-killed carbon-molybdenum-steel steam piping. R. W. Emerson and M. Morrow. bibliog il plan A S M E Trans 68: 597-607 Ag '46
Graphitization in some cast steels. A. J. Smith and others. bibliog il Welding J 25: sup257-68 My '46; Same. A S M E Trans 68:609-20 bibliog(p620); Discussion. 621-4 Ag '46
Graphitization of carbon-molybdenum steel in high-temperature steam piping. G. A. Timmons. bibliog Welding J 25:sup 1-6; Discussion. sup 6-8 Ja '46
Influence of heat-treatment upon the susceptibility to graphitization of high-aluminum-deoxidized carbon-molybdenum steel. F. Eberle. il Welding J 25:sup307-12 My '46; Same. A S M E Trans 68:625-30 Ag '46
Studies on susceptibility of casting steels to graphitization. J. J. Kanter. il A S M E Trans 68:581-7 Ag '46

MOLYBDENUM tungsten steel
Study of subzero treatments applied to molybdenum-tungsten high speed steel. R. G. Kennedy, jr. il diag Am Soc for Metals Trans 34:250-92 bibliog(p291-2); Discussion. 292-309 '45

MOMENTS of inertia
Additional-mass effect of plates as determined by experiments. W. Gracey. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:81-90 '42
Analogy among torsional rigidity, rotating fluid inertia and self-inductance for an infinite cylinder; inertia of airplane wing containing fuel; flutter and stability calculations. J. W. Miles. diags J Aeronautical Sci 13:377-80 Jl '46
Dynamic loads in airplane structures during landing. S. Tu. diags J Aeronautical Sci 13:381-7 Jl '46
New method of measuring the electric dipole moment and moment of inertia of diatomic polar molecules. H. K. Hughes. Phys R 70: 570-1 O 1 '46; Correction. 70:909 D 1 '46

MONEL metal
Operations and plants of International nickel company of Canada; United States operations; Huntington and Bayonne works. flow sheet il Can Min J 67:523-33 My '46
Special alloys for gun synchronizer; KR-Monel and Hiperco. H. C. Roters. il Metal Prog 50:89 Jl '46

MONEL metal—*Continued*
Tensile elastic properties of typical stainless steels and nonferrous metals as affected by plastic deformation and by heat treatment. D. J. McAdam, jr. and R. W. Mebs. il diags U S Nat Advisory Com for Aeronautics 1940:309-86 bibliog(p356-7) '41

MONETARY treaties. See Financial treaties and agreements

MONEY
Historical note on the purchasing power concept, and index numbers; William Fleetwood's, Chronicon preciosum; 1707. W. F. Ferger. Am Stat Assn J 41:53-7 Mr '46
Monetary theory of deficit spending. C. Warburton. bibliog R Econ Stat 27:74-84 My '45; Discussion and reply. 28:90-4 My '46
Money is the language of accountancy. E. C. Riegel. J Account 80:358-60 N '45
Symposium on fiscal and monetary policy. L. W. Mints, A. H. Hansen, H. S. Ellis, A. P. Lerner, and M. Kalecki. R Econ Stat 28:60-84 My '46
Twenty-five years of monetary controls. R. B. Warren. Comm & Fin Chr 163:3261+ Je 13 '46

See also
Banks and banking
Capital
Credit
Finance
Foreign exchange
Gold as money
Inflation (finance)
Investments
Prices
Silver as money
Wealth

International aspects
American position in monetary equilibrium. J. Jacobsson. Comm & Fin Chr 163:3067+ Je 6 '46
Depreciation of the American dollar and world trade aspects. V. L. Horoth. il Mag of Wall St 78:556-8+ Ag 17 '46
Dollar in Switzerland and the war scare. Mag of Wall St 79:106 O 26 '46
Dollar left vulnerable by U.S policies; Canada and Sweden take advantage of forced-export maneuvers. T. P. McCarthy. Barron's 26:3 Jl 29 '46
Dollar's value abroad; inflation grips our former foes, crippling them as foreign markets. Barron's 25:5 D 24 '45
Economic and political consequences of Lord Keynes' theories. P. Cortney. Comm & Fin Chr 161:617+, 713+ F 8, 15 '45; Discussion. W. Craven-Ellis. 164:68+ Jl 4 '46; Reply. 164:111 Jl 4 '46
Reconstructing forces promoting international commerce; restoration of stable monies first. I. Wright. Comm & Fin Chr 164:205+ Jl 11 '46
Revaluation outlook. J. van Galen. Comm & Fin Chr 164:1261+ S 5 '46
Up-valuation of Canadian and Swedish currencies. Nat City Bank p93-5 Ag '46

See also
Bretton Woods agreement
Foreign exchange
International monetary fund
Money, International

Belgium
Belga discarded as legal monetary unit. Comm & Fin Chr 163:1134 F 28 '46

Canada
Canada restores dollar parity. F. Cist. Comm & Fin Chr 164:341+ Jl 18 '46
Canada's exchange control. Economist 151:21-2 Jl 6 '46
Currency revaluation in Canada. N. Crump. Comm & Fin Chr 164:480+ Jl 25 '46
Dollars on level terms; effects on Britain. Economist 151:63 Jl 13 '46
Statement by the Minister of finance on the appreciation of the Canadian dollar. J. L. Ilsley. Fed Res Bul 32:859-65 Ag '46
Up-valuation of Canadian and Swedish currencies. Nat City Bank p93-5 Ag '46

China
Another devaluation of Chinese currency. J. Lyons. Mag of Wall St 78:688+ S 14 '46
Chinese money puzzle. R. Gould. il Banking 38:29 Je '46

Czechoslovakia
Sinking European currencies defy stabilization efforts; actual markets for Czech crown, French franc, are far from official rates. F. Pick. Barron's 25:11 D 3 '45

Europe
Europe's currencies recover from postwar fright levels. F. Pick. Barron's 26:6 Jl 29 '46
Exchange rates run wild. L. A. Hahn. Comm & Fin Chr 164:1005+ Ag 22 '46
Monetary reconstruction in continental Europe. F. H. Klopstock. Comm & Fin Chr 163:2071+ Ap 18 '46
Results of monetary reforms in western Europe. R. W. Bean. Fed Res Bul 32: 1115-22 O '46

France
Devaluation of the French franc and gold transfers. Fed Res Bul 32:871-3 Ag '46
Franc devalued. Economist 149:944 D 29 '45
French currency system suffering utter collapse. Barron's 26:5 F 25 '46
French devaluation favors sterling, French hoarders prefer gold and dollars. Barron's 26:25 Ja 7 '46
Reduction in value of the French franc and its consequences; parities between French franc and other francs of the franc zone. For Comm W 22:24 Mr 2 '46
Sinking European currencies defy stabilization efforts; actual markets for Czech crown, French franc, are far from official rates. F. Pick. Barron's 25:11 D 3 '45
Stabilization of the franc. E. Paulin. Comm & Fin Chr 163:249+ Ja 17 '46
Value of franc cut; action essential. Comm & Fin Chr 162:3144 D 27 '45

Germany
Germany's financial problems nearing climax. Comm & Fin Chr 164:1377+ S 12 '46

Great Britain
Bank till money economies. Economist 150: 469 Mr 23 '46
Coinage in 1945. Economist 150:900 Je 1 '46
Conversion of British currency, measures, and weights to a decimal system. W. H. Gibson. Textile Inst J 36:P177-81 N '45
Money and income. Economist 150:712-14 My 4 '46
New currency statistics. Economist 150:310-11 F 23 '46

Guatemala
Monetary and banking reform in Guatemala; with text of monetary and central banking laws. Fed Res Bul 32:257-88 Mr '46

Hungary
Hungary; overnight step from inflation to deflation. J. Lyons. Mag of Wall St 78:688 S 14 '46
Hungary's new currency likely to follow old. H. Lehrman. Barron's 26:3-4 Ag 19 '46
New Hungarian currency. Economist 151:209 Ag 10 '46

India
Nickel ousts silver. Economist 150:939 Je 8 '46
Rupee parity. Economist 151:556 O 5 '46

Iraq
Iraq currency trends. Economist 149:692 N 10 '45

Italy
Devaluation of the lira. J. Lyons. Mag of Wall St 77:335 D 22 '45
Lira devaluated; Treasury dept. statement. Comm & Fin Chr 163:879 F 14 '46

Japan
Japan may gain as yen goes through wringer. Barron's 26:8 Mr 4 '46

Java
Currency in Java. Economist 150:108 Ja 19 '46

Netherlands
Dutch continue investment control. P. Lieftinck. Comm & Fin Chr 164:212 Jl 11 '46

MONEY—*Continued*

Netherlands Indies

New guilder introduced. For Comm W 23: 28 Je 8 '46

New Zealand

Currency in circulation in New Zealand, 1942-1945. For Comm W 21:23 D 15 '45

Siam

Siam to fix new exchange rate for baht. For Comm W 22:23 F 23 '46

Spain

Spanish currency is stronger than the Fascist tradition. F. Pick. Barron's 26:10 Mr 18 '46

Sweden

Sweden lowers value of dollar and pound. Comm & Fin Chr 164:353 Jl 18 '46

Up-valuation of Canadian and Swedish currencies. Nat City Bank p93-5 Ag '46

Value of Swedish crown appreciated in relation to the U.S. dollar and the pound sterling. For Comm W 24:29 Ag 3 '46

Switzerland

Swiss franc aided by privacy of bank deposits. F. Pick. Barron's 26:9 O 21 '46

Turkey

Turkey devalues. Economist 151:426 S 14 '46

United States

Currency hoarding. Mag of Wall St 79:4 O 12 '46

Depreciation of the American dollar and world trade aspects. V. L. Horoth. il Mag of Wall St 78:556-8+ Ag 17 '46

Dollar to be unchanged; Snyder notifies International monetary fund. Comm & Fin Chr 164:1534 S 26 '46

Dollars and banks. T. I. Parkinson. Comm & Fin Chr 163:1837 Ap 4 '46

Expanded money supply and economic activity. H. P. Wald. Survey of Cur Bsns 26:8-15 My '46; Abstract. Dom Comm 34: 4-6 Je '46

Gold coin standard for U.S.? Engle bill. W. E. Spahr. Comm & Fin Chr 162:2699+ D 6 '45

Is dollar depreciation in the offing? W. C. Hanson. il Mag of Wall St 78:496-8+ Ag 3 '46

Marketing men; a production must in the years just ahead. C. V. Kinter. Ind Marketing 31:29-30 Mr '46

Money-credit issue boils. Bsns W p15-16 Mr 30 '46

National fiscal policy. W. E. Spahr. Comm & Fin Chr 163:1782+ Ap 4 '46

100% money and other "reserve" proposals. W. E. Spahr. Comm & Fin Chr 163:1629+ Mr 28 '46

Paper currency, by denominations, and coin in circulation, yearly 1933-1942 and monthly Nov. 1943-Nov. 1945. Fed Res Bul 32:48 Ja '46 [cont monthly]

Postwar money supply and its significance. W. E. Spahr. Comm & Fin Chr 163:712+ F 7 '46

Purchasing power fallacy. W. Chamberlain. Comm & Fin Chr 163:1927+, 2214+ Ap 11, 25 '46

Wartime monetary expansion and postwar needs. Fed Res Bul 31:1091-9 N '45

What are we using for money? T. I. Parkinson. Comm & Fin Chr 164:1458+ S 19 '46

What is the dollar? E. H. Neary. Comm & Fin Chr 164:1650 O 3 '46

What makes inconvertible Federal reserve currency work. Lin Lin. Comm & Fin Chr 164:482+ Jl 25 '46

When is there enough money? can its excess be eliminated? E. S. Pillsbury. Comm & Fin Chr 163:2215+ Ap 25 '46

MONEY, International

International currency essential to world unity. A. A. Potter. Comm & Fin Chr 164: 1544 S 26 '46

MONEY, Military

Army lost $50,000,000 to GI exchange operators. H. M. Bratter. Comm & Fin Chr 164: 1652 O 3 '46

Important changes instituted in German economy; new monetary scrip system. H. M. Bratter. Comm & Fin Chr 164:1453+ S 19 '46

Military currency in Gemany. Economist 151:465-6 S 21 '46

New GI money in Berlin; military payment certificates. H. Bratter. il Banking 39:17 N '46

War department official on occupation currency; letter to Senator Green. J. W. Martyn. Comm & Fin Chr 162:2572+ N 29 '45

MONEY back offers. See Guaranty of products

MONEY market

Money market, 1945. Economist 150:sup4 Mr 23 '46

See also
Interest

MONEY orders

Finance company precluded from conducting sale of money orders. Banking Law J 63: 584-7 Ag '46

MONEY raising campaigns

How to put selling steam behind a fund raising drive; Cleveland's Community chest drive. A. H. Billingsley. il Sales Management 57:82+ Ag 1 '46

MONGE, Gaspard, 1746-1818

Le rôle de Monge dans la réorganisation de la France sous le consulat. E. Lemaire. Génie Civil 123:114 My 1 '46

MONITOR equipment corporation

Bank-financed new distributors' buying group in the electrical appliance field. Bsns W p51 F 9 '46

MONOCHROMATORS

Theory of an efficient interference filter. R. L. Mooney. bibliog Opt Soc Am J 36:256-60 My '46

MONOMOLECULAR layers. See Films

MONON. See Chicago, Indianapolis and Louisville railway

MONOPOLIES

Lead pigment industry sales practices defended. Oil Paint & Drug Rep 149:5+ Je 3 '46

Stranglehold of monopoly in America. G. H. Taylor. Comm & Fin Chr 164:346+ Jl 18 '46

See also
Glass container industry
Trusts, Industrial

MONORAIL conveyors

Automatic tramrail delivery to 87 machines; United States rubber company, rayon mill, Scottsville, Va. E. L. Johnson. il Factory Management 104:88-9 Ag '46

Carbon bushes on spraying plant conveyors. F. L. Gray. il Mech Handling 33:72-4 F '46

Merry-go-round assembly raises output 10 to 100 percent; Mercury manufacturing company. J. J. Sichman, jr. il Factory Management 104:156-7 Je '46

New roll handling system at Waldorf. N. H. Sandberg. il Paper Ind 27:1370-1 D '45

Pre-packed containers for air cargo; monorail loading system. il diags Aero Digest 51:77+ N 15 '45

War-time developments of monorail type cranes. Mech Handling 33:419-27 Jl '46

MONOTYPE

Clever system effects savings in the cost of monotype composition. il Inland Ptr 116:59 D '45-Ja '46

MONSANTO chemical company

Building tomorrow's leaders. C. W. Lundin. Chem & Eng N 24:31-3 Ja 10 '46

Monsanto's central office service department plan. J. Mathews. il Am Bsns 16:14-15+ F '46

Preference stock sold. Comm & Fin Chr 163: 2442-3 My 6 '46

Clinton laboratories

Training program of the Clinton laboratories. R Sci Instr 17:319-20 Ag '46

MONTANA
See also
Manganese mines and mining—Montana

Industries and resources
Montana's production; a statistical summary of the state's industries, 1930-1945. R. J. W. Ely. (Bul. no. 9) 60p Bureau of business research, Montana state university, Missoula '45

MONTANA-DAKOTA utilities company
How Mondakonia grew to $50,000,000. G. E. Stedman. il map Gas Age 98:110-12+ O 3 '46
Private company in accord with U.S. power agencies. Pub Util 37:622-3 My 9 '46

MONTECATINI. See Chemical industries—Italy

MONTGOMERY, John J. 1858-1905
Montgomery and the birds. J. Hettich. por Aero Digest 52:40+ Ja '46

MONTGOMERY Ward and company
Annual report. Comm & Fin Chr 163:2295 Ap 29 '46
Montgomery Ward; master plan of packaging. il Mod Packaging 19:93-8+ Ag '46
New issue depresses Ward's stock. Barron's 26:1+ Jl 29 '46
New Ward test? Bsns W p22+ D 22 '45
Speeches upheld; Montgomery Ward's right to defend its reputation. Bsns W p93 N 2 '46
Stewardship of Sewell Avery for Montgomery Ward. il Fortune 33:110-13+ My '46
Ward's book club lines. Bsns W p84 Ja 26 '46

Government seizure
Truman legacy; profit report on army's operation; retroactive-pay issue back to White house. Bsns W p19-20 Ap 13 '46
U.S. Supreme court bars ruling on validity of government seizure. Comm & Fin Chr 162:2275 N 12 '45

MONTMORILLONITE
Illite, montmorillonite, halloysite, and volcanic ash as whiteware body ingredients. L. Mattyasovszky-Zsolnay. Am Cer Soc J 29:254-60 S 1 '46
Minerals of the montmorillonite group; their origin and relation to soils and clays. C. S. Ross and S. B. Hendricks. bibliog (p72-9) U S Geol S Professional Pa 205-B:23-79, pl 1-8; pa 35c Supt. of doc. '45

MONTOUR railroad
Montour deal on. Bsns W p74 S 14 '46

MONTREAL
Bridges
Dry packing and grouting of substructure salvages 90-year-old Montreal bridge. il Eng N 136:32-4 Ja 10 '46

Streets
Cost of traffic congestion in the city of Montreal. D. Beaubien. il Roads & Bridges 84: 59-60+ My '46
It costs $500 per car per year for street-widening and parking cars. R. N. Watt. Mass Transportation 42:126-7 Mr '46
Montreal's snow-removal method. H. A. Gibeau. il Roads & Bridges 84:90-1+ Ap '46

Water supply
Reservoir and pumping station with special features. A. Brisset Des Nos. il plans Water & Sewage 84:27-30+ Mr '46

MONTREAL light, heat and power consolidated
Montreal Light stockholders reject indemnity offered by Quebec Hydro. Elec World 126: 85 Jl 6 '46

MONTREAL school of social work
Library
School of social work library. P. G. Pratt. Special Lib 37:115-17 Ap '46

MOODY, Joe
About Mr Moody, who is putting new ideas into mattresses. il Sales Management 57:63-4 N 1 '46

MOON
Lightning-like phenomena on the moon. N. J. Giddings. Science 104:146 Ag 9 '46
Moon radio. il Sci Am 175:31 Jl '46
Radar echoes from the moon. J. Mofenson. il diags Electronics 19:92-8 Ap '46
Radar reaches the moon. T. Gootée. il diag Radio N 35:25-7+ Ap '46

MOONEY, James David, 1884-
New, tough team; Sorensen and Mooney join Willys-Overland. por Fortune 33:170 Mr '46
Portrait. Bsns W p26 O 12 '46
Portrait. Fortune 34:82 Ag '46

MOORE, Harry Edgar
Sketch. por East Underw 47:39-40 Mr 29 '46

MOORE-MCCORMACK lines, inc.
Expands its operations. Barron's 26:6 Ag 12 '46

MORAINES
Kame-complexes and perforation deposits. J. H. Cook. il Am J Sci 244:573-83, pl 1-2 Ag '46

MORAN, Edmond Joseph, 1896-
Admiral of the invasion ports comes home. por Bsns W p20 Ag 31 '46

MOREELL, Ben, 1892-
Chief, Material division, Office of assistant secretary of the navy. por Eng N 137:77-8 Jl 18 '46
Sketch. por Explosives Eng 24:6-7 Ja '46
Vice Adm. Moreell hailed for bringing union, management together. por Nat Pet N 38:5 F 20 '46

MOREHEAD medal
Vice Admiral Vickery receives Morehead medal; presentation by G. O. Carter; response by H. L. Vickery. Marine Eng 51: 110-12 Mr '46

MORFA, Raymond J.
Portrait. Bsns W p42 Je 22 '46

MORGAN, J. P., and company
Report to stockholders. G. Whitney. Comm & Fin Chr 163:369+ Ja 24 '46

MORGAN, Thomas Hunt, 1866-1945
Sketch. H. J. Muller. Science 103:550-1 My 3 '46

MORGUES
Hospital morgues; floor plans. Arch Rec 99: 77 Je '46

MOROCCO
See also
Phosphate rock—Morocco
Tangier, Morocco

Economic conditions
News by countries; French Morocco. For Comm W 22:29-30 F 16; 24:15-17 Ag 24 '46
Review of developments during 1945 in French Morocco. For Comm W 23:27-9 Je 22 '46

MORPHINE
Physiological effect
Cycle of morphine addiction; biological and psychological studies. R. R. Brown. bibliog Pub Health Rep 61:37-53 Ja 11 '46
Cycle of morphine addiction; biological and psychological studies. E. G. Williams and F. W. Oberst. bibliog Pub Health Rep 61: 1-26 Ja 4 '46

MORPHOLINOMETHYLNAPHTHOL
p-Aminobenzoates of piperidino- and morpholinomethylnaphthols. R. L. Shriner, G. F. Grillot and W. O. Teeters. Am Chem Soc J 68:946-7 Je '46

MORRIS, George Delbert, 1885-1945
Sketch. bibliog por Am Cer Soc Bul 25:40 Ja 15 '46

MORRIS, Philip, and company
Call for Philip Morris. Bsns W p91 F 9 '46
Subscribers and purchasers of 3.60% preferred stock may withdraw subscriptions. Comm & Fin Chr 163:819 F 11 '46

MORRIS, Robert Hamilton, 1878-
Sketch. por Min & Met 27:164 Mr '46

MORRIS motors, limited
Europe's largest auto maker. il Fortune 34: 88-93+ Jl '46

MORRIS plan corporation of America
Preferred stock offered. Comm & Fin Chr 163:2443 My 6 '46

MORRIS plan insurance society
Changes name to Bankers security life insurance society. Weekly Underw 155:238 Ag 3 '46; Same cond. Nat Underw 50:15 Ag 2 '46

MORRISON, Harry Winford, 1885-
Sketch. por Explosives Eng 24:134-5 S '46

MORRISON, Samuel Oliver
Sunroc refrigeration co., inc.; engaging family business in water coolers. por Fortune 34:150-5 O '46

MORSE, David A.
Portrait. Bsns W p100 Je 29 '46

MORSE, Philip McCord, 1903-
Director of scientific research for the Associated universities, inc. Science 104:205 Ag 30 '46

MORTALITY
How to figure your own life expectancy. Spectator (Life ed) (Endorsement no) 153:32 D '45
Why mortality has declined in last decade. D. B. Cragin. East Underw 47:28 pt 2 O 4 '46

Statistics
Causes of death in the United States; chart. Spectator (Life ed) 153:15 N '45
Cerebrospinal meningitis; a chronological record of reported cases and deaths. M. Gover and G. Jackson. bibliog Pub Health Rep 61:433-50 Mr 29 '46
Death on wheels; automobile death toll in 1945. T. J. V. Cullen. map Spectator (Property ed) 12:12-17 O 10 '46
Increase in tuberculosis proportionate mortality among nonwhite young adults. J. Yerushalmy. Pub Health Rep 61:251-8 F 22 '46
Jolly fat man fortunate to be insured on any basis; influence of body weight on mortality. Life Ins Courant 50:518-19 N '45
Metropolitan shows excellent mortality in non-war deaths for 1945. Nat Underw (Life ed) 50:12 F 22 '46
Mortality in large cities, 1945. Pub Health Rep 61:315 Mr 1 '46
Mortality: people and property. H. M. Gault. Spectator (Life ed) 153:19-23+ My; 25-7+ Je; 154:30-2+ Jl '46
Negro mortality; mortality from all causes in the death registration states. M. Gover. Pub Health Rep 61:259-65 F 22 '46
Negro mortality; the birth rate and infant and maternal mortality. M. Gover. bibliog Pub Health Rep 61:1529-38 O 25 '46
1945 mortality record L. I. Dublin. Spectator (Life ed) 153:30+ Ja '46
Policyholders health record in 1945 good; death rate under pre-war. East Underw 47: 11 Ja 18 '46
Tuberculosis mortality in each state, 1944; tabulation. Pub Health Rep 61:144-5 F 1 '46
Tuberculosis mortality in major cities, United States, 1942-43. R. V. Kasius and E. H. Pitney. bibliog Pub Health Rep 61:297-312 Mr 1 '46
Tuberculosis mortality in major cities; United States, 1944. E. H. Pitney and R. V. Kasius. bibliog Pub Health Rep 61:1443-54 O 4 '46
Tuberculosis mortality in the United States and in each state; 1944. J. Yerushalmy and I. M. Moriyama. maps Pub Health Rep 61:487-516 Ap 5 '46

See also
Suicide
World war, 1939-1945
—Casualties

MORTAR
Estimating mortar requirements. Brick & Clay Rec 107:27 D '45
How to mix portland cement mortar. Brick & Clay Rec 107:27 D '45
Make both ready mix and lime mortar; Fort Worth sand and gravel co. H. E. Swanson. il Rock Prod 48:68-70+ N '45
Mechanically applied cement mortar used to reline 31-in. water main. G. W. Jones. il Eng N 137:506-8 O 17 '46
Mortar color in brickwork. Brick & Clay Rec 109:30 Ag '46
Quantity of materials required for masonry mortar; tabulation. Brick & Clay Rec 109: 24 O '46
Suggested mortars for specific conditions; tabulation. Brick & Clay Rec 108:35 Ap '46

Testing
Cement investigations for Boulder dam; results of tests on mortars up to age of 10 years. R. E. Davis and others. Am Concrete Inst J 18:21-48 S '46
Determining air content of cement mortars. C. J. Knickerbocker. Rock Prod 49:73 F '46
Properties of highly hydrated dolomitic masonry limes and certain of their cement-lime mortars. G. J. Fink and E. Trattner. bibliog Am Soc T M Proc 45:723-31 '45

MORTARS (ordnance)
Army ordnance reveals powerful assault weapon; 36-in. mortar. il Iron Age 156:115 N 22 '45
36-inch mortar revealed by army. il Product Eng 16:863 D '45

MORTGAGE bankers association of America
Annual convention, New York. Nat Underw (Life ed) 49:12-12A N 23 '45
Meeting, Cincinnati. Nat Underw (Life ed) 50:11+ O 4 '46

MORTGAGE conference of New York
Assails U.S. for suing N.Y. mortgage unit. T. I. Parkinson. Nat Underw (Life ed) 50:11 O 4 '46
Life companies in accused group feel skirts are clean; Mortgage conference of New York case. Nat Underw (Life ed) 50:3+ Ag 16 '46
Mortgage conference of New York makes no agreements; being investigated by Federal grand jury. East Underw 47:15 Jl 12 '46
Nine life companies named in anti-trust suit filed against Mortgage conference of New York. Weekly Underw 155:346 Ag 10 '46
U.S. hits N.Y. mortgage pact. Nat Underw (Life ed) 50:7 Ag 9 '46

MORTGAGE redemption policies. See Insurance, Life—Mortgage redemption policies

MORTGAGES
Arkansas high court affirms borrower's right to secure insurance cover. Nat Underw 49:6 N 22 '45
Assumption of obligation to pay note by others does not render makers sureties thereafter. Banking Law J 63:396-8 My '46
Bankers, watch your real estate lending! R. A. Benge. Comm & Fin Chr 164:1697+ O 3 '46
Depression policy outlined to mortgage customers; Second federal savings and loan association of Cleveland. Burroughs Clearing House 30:7 My '46
Easy credit boosts price of homes. E. M. Fisher. Nat Underw (Life ed) 50:9 O 18 '46
FHA on packaged mortgage plan. East Underw 47:3 N 8 '46
Home mortgage loans this year. H. P. Irr. Comm & Fin Chr 164:938 Ag 15 '46
Home mortgage trends. R. W. Babson. Comm & Fin Chr 163:840 F 14 '46
Improved mortgage lending. A. E. MacDougall. Comm & Fin Chr 163:2085+ Ap 18 '46
Inflationary mortgaging; booklet by Newton savings bank, Mass.; abstract. Banking 38: 71-2 Ap '46
Innovations in future mortgage lending. L. D. Meredith. East Underw 47:3+ N 8 '46
Investment problems of the next decade. L. D. Meredith. il Spectator (Life ed) 153:24-8 My '46; Excerpts. Nat Underw (Life ed) 50:1+ Ap 26 '46; Weekly Underw 154:1096 Ap 27 '46
Major influences affecting mortgage lending policy. E. M. Fisher. Banking Law J 63:715-22 O '46
MBA reports mortgage debt drop by Nation in 1945. Comm & Fin Chr 164:1700 O 3 '46
Mortgage merchandising plan of American bankers association. Banking 38:142 N '45
Mortgage package. H. B. Smith. Banking Law J 63:376-7 My '46
Mortgaging a home. A. C. Blum. il Mag of Wall St 77:406+ Ja 5 '46
Non-farm mortgage financing in 1945. Comm & Fin Chr 163:2203 Ap 22 '46
Outlook for mortgage lending. R. Rodgers. Comm & Fin Chr 163:1634+ Mr 28 '46

MORTGAGES—*Continued*
Plan to insure payments of mortgages if mortgagor is unemployed. Nat Underw 49: 25 N 29 '45; Same. Nat Underw (Life ed) 49:4 N 30 '45
Practical ideas for appraising new homes for loans. il Bankers Mo 63:173-5 Ap '46
Resist inflationary pressure in mortgage lending. Nat Underw (Life ed) 50:4 Ag 2 '46
Search for mortgage facts; survey of bank experience in financing urban real estate to be conducted by National bureau of economic research. Banking 39:49 Ag '46
Service for mortgage prospects; promotion plan offered by ABA. Banking 38:66 Ap '46
Urban (nonfarm) residential and commercial real estate mortgages of corporate and noncorporate mortgagors, end of calendar year, 1929-45; tabulation. Survey of Cur Bsns 26:17 S '46
What the past teaches about mortgage lending. E. M. Fisher. Banking Law J 63:369-71 My '46
What's ahead for mortgage investment? R. Rodgers. Comm & Fin Chr 164:1780+ O 10 '46
Why all mortgagors should have extended coverage insurance. L. W. Taylor. East Underw 46:24 N 23 '45
See also
Chattel mortgages
also Federal housing administration—Insured mortgage plan; Mortgage conference of New York

MORTGAGES, Farm
Bidding-up process plagues farm loan field. Nat Underw (Life ed) 50:21 Ag 9 '46
Farm land prices and mortgage debt. map Banking 39:59 O '46
Farm mortgage lending seminar sponsored by Mortgage bankers association of America. E. L. Butz. Burroughs Clearing House 30: 20-1+ Jl '46
Farm mortgage pitfalls. J. W. Tapp. Banking 39:54-5+ Ag '46
Farm real estate debt; with tables giving data for 1940-1946. Fed Res Bul 32:983-8 S '46
Prudential inaugurates north New Jersey farm lending; sets up Boise loan branch. Weekly Underw 155:502 Ag 31 '46
Prudential will make New Jersey farm loans. East Underw 47:6 Ag 30 '46
Reviews situation under Frazier-Lemke law. A. L. Austin. Nat Underw (Life ed) 50:11 O 18 '46

MORTICIANS' liability insurance. See Insurance, Morticians' liability

MORTIMER-LAMB, Harold, 1872-
Retirement. R. C. Rowe. por Can Min J 67: 193-4 Mr '46

MOSCOW conference of foreign ministers. See International conferences

MOSES, Etta
Pioneer user of cast aluminum cited; Miss Etta Moses awarded 50-year service pin by American foundrymen's association. por Foundry 74:161 S '46

MOSHER, Ira, 1887-
Portrait. Bsns W p97 D 1 '45
What William Green and Ira Mosher think; Factory asked nine questions. Factory Management 104:86 Mr '46

MOSQUITOES
Aedes tortilis (Theobals), a mosquito new to the United States. A. E. Staebler and W. F. Buren. Pub Health Rep 61:685 My 10 '46
High rate of natural plasmodium infection in anopheles crucians. C. W. Sabrosky and others. Science 104:247-8 S 13 '46
Highways and airports as malaria and mosquito producers. il Pub Works 77:20-1 Mr '46
Plasmodium gallinaceum infection characterized by predominance of exo-erythrocytic forms. V. H. Haas and others. Pub Health Rep 61:921-8 Je 21 '46
Precipitin technique for determining mosquito blood meals. E. H. Arnold and others. Pub Health Rep 61:1244-9, pl 1-2 Ag 23 '46
Winter survival of aedes aegypti (L.) in Houston, Tex. S. P. Hatchett. bibliog Pub Health Rep 61:1234-44 Ag 23 '46

Extermination
Aerosol formulation; laboratory tests with pyrethrum and DDT aerosols against the common malaria mosquito and the housefly. A. W. Lindquist and others. il Soap & San Chem 12:135+ My '46
Analysis of the design and performance of airplane exhaust generators for the production of DDT aerosols for the control of anopheles quadrimaculatus. C. W. Krusé and R. L. Metcalf. diags Pub Health Rep 61:1171-84 Ag 9 '46
Blasting ditches in Florida coral rock; U.S. naval air station, Boca Chica, Florida; explosives eliminate mosquito menace. F. P. Bussells. il Explosives Eng 24:17-18 Ja '46
Chlorine as a possible ovicide for aedes aegypti eggs. S. P. Hatchett. Pub Health Rep 61:683-5 My 10 '46
Concentrated sprays tested for utility in control of flies and mosquitoes. H. O. Schraeder and others. Soap & San Chem 22:145+ Ap '46
DDT in paradichlorobenzene as a larvicide. H. A. Johnson and J. L. Eason, jr. Pub Health Rep 61:1185-8 Ag 9 '46
Larviciding with oil sprays. Nat Pet N 38 pt 2:R491 Jl 3 '46
Malaria control in Assam. R. S. Wilmot. il Civil Eng 16:60-1 F '46
Mineral oil films in relation to mosquito control. A. Crossfield and G. F. Hazzard. 2pls diag Inst Pet J 32:323-39 bibliog(p339); Discussion. 339-40 Je '46
Mosquito abatement by flood control is effectively practiced in California; with cost data. Eng N 137:166 Ag 8 '46
Nicaragua experiences big dividends from a malaria campaign. P. J. Coffey. il map Eng N 135:722-5 N 29 '45
Removal of DDT from water supplies. J. A. Carollo. Am Water Works Assn J 37:1310-17; Discussion. H. E. Jordan. 1317 D '45
Sanitary engineer's part in the war; part played by malaria control units. A. J. Horn. Pub Works 77:34-7 My '46
TDE, 1,1-dichloro-2,2-bis (*p*-chlorophenyl)-ethane, as an anopheline larvicide; comparison with DDT. C. C. Deonier and H. A. Jones. Science 103:13-14 Ja 4 '46
Two new effective insect repellents, NMRI-201 and NMRI-448. L. A. Jachowski, jr. and M. Pijoan. Science 104:266-9 S 20 '46
Use of DDT in mosquito control. il diags (Public health rep supp 186) 96p U.S. Public health service, Washington; pa 20c Supt. of doc. '45

MOSS, Sanford Alexander, 1872-
Pioneer in gas-turbine research. por Comp Air Mag 51:85 Mr '46
Portrait. Fortune 34:142 S '46

MOTELS. See Tourist camps, hostels, etc.

MOTHS
American association of textile chemists and colorists; committee on insect pests. A. J. Kellner. Am Dyestuff Rep 35:141 Mr 25 '46

MOTION
See also
Machinery, Kinematics of
Mechanical movements
Mechanics
Rotation
Vibration

MOTION picture export association
Battle of the screen. Fortune 33:200 Mr '46

MOTION pictures. See Moving pictures

MOTION study
Applying motion study to aircraft assemblies. F. C. Bailey. diags Iron Age 157:40-5 My 30 '46
Never-ending studies. E. L. Cady. il Sci Am 174:68-9 F '46
Process charts prove your job is not different. J. E. Fuqua. Factory Management 104:78-9 Ap '46
Setting time standards without a stopwatch; Springfield armory. R. A. Olsen. il Factory Management 104:92-6 F '46
Standard movement time approach to incentives. R. A. Olsen. il Factory Management 104:126-30 Mr '46
Standardized work area and accessories; AC spark plug division, General Motors. P. W. Rhame. diags Factory Management 104: 139-41 S '46

MOTION study—*Continued*
Tool-engineer training helps prevent production errors; AC spark plug division, General motors corporation. W. F. Eitel. il diag Am Mach 90:104-7 Mr 28; 114-16 Ap 11 '46
Waverly press creates own precision methods; efficiency standards, based upon careful time and motion studies. G. C. Compton. Inland Ptr 116:38-40 O '45
See also
Time study

MOTLEY, Arthur Harrison, 1900-
Gallery; exuberantly a salesman. por Adv & Sell 39:102+ Ag '46

MOTOR boats
Jet boat engine; Gray Marine powerplant. il Bsns W p20 O 12 '46
Motorboating and yachting riding wave of popularity. J. Jackson. il Dom Comm 34:24-8 Ag '46
Service craft built at Texas shipyard; for ferrying workers and supplies to offshore drilling rigs. il Marine Eng 51:99 S '46

MOTOR bus associations
Index of bus associations, U.S. and Canada. Bus Transportation 25:105-7 Ja '46
Pennsylvania bus association holds silver anniversary meeting. Bus Transportation 25:67-9 Jl '46

MOTOR bus brakes. See Air brakes, Motor bus; Brakes, Motor bus

MOTOR bus drivers
Northrop sets safety record; buses used to transport employees. Safety Eng 90:48 N '45
Picking safe bus drivers. Bus Transportation 25:40-2 Mr '46
Psycho-physical tests in driver selection. Bus Transportation 25:44-5 Ag '46
Safety education for the bus driver; Hudson County Boulevard commission. F. Kane. il Bus Transportation 25:50-1 Mr '46
Union wage rates of city streetcar and bus operators, July 1, 1945. H. Abowitz and A. V. Simi. Mo Labor R 62:112-17 Ja '46; Same with additional tabulations. (Rates paid in each city, p6-11.) U.S. Bur Labor Statistics Bul 856:1-11 '45

Training
How to profit from a drivers training program; Dixie-Sunshine trailways. il Bus Transportation 25:57-9 Jl '46

MOTOR bus engines
Aerocoach's new 210 hp bus engine. il Automotive & Aviation Ind 94:49 Je 1 '46
Chrome plated piston rings. L. Doty. il diag Bus Transportation 25:54-6 Jl '46
Chrysler industrial engines. il diag Bus Transportation 25:195-6 Ap '46
Leyland Titan PD.1; a double-decker bus chassis with 7.4-litre oil engine. il diags Automobile Eng 36:47-53 F '46
Multi-fuel motor; Hickey motor for Greyhound air-conditioning unit; also new A.M.C. engine. Bsns W p44+ Ap 20 '46

Bearings
Bearing life extended; oil consumption improved. L. A. Wick. il Bus Transportation 25:77 My '46

Cooling
Alcohol-water injection. F. R. Speed. il diags Bus Transportation 25:77-81 Ja '46

Fuel
Operator who isn't tongue-tied about crucial fuel situation. Mass Transportation 42:81 F '46

Fuel feeding
Gasoline injection, diags Bus Transportation 24:78-9 N '45

Lubrication
Bearing life extended; oil consumption improved. L. A. Wick. il Bus Transportation 25:77 My '46
Crankcase ventilation. H. L. Hemmingway. il diags Bus Transportation 25:68-71 Mr '46
Low temperature sludge control. E. J. Bowhay and R. S. Wetmiller. il Bus Transportation 25:188A-188B F '46
New approach to engine lubrication. F. R. Speed. Bus Transportation 25:50-1 Jl '46

Repair
Engine block salvage; Heli-Coil screw thread inserts. il Bus Transportation 25:76-7 Mr '46

Specifications
American gasoline engines; tabulation. Automotive & Aviation Ind 94:132-9 Mr 15 '46
Engine tune up speecifications, 1946; tabulation. Bus Transportation 25:66a-66b Je '46
1946 motor bus engine specifications; tabulation. Bus Transportation 25:112-13 Ja '46

MOTOR bus industry and trade
Single factories plan production equal to prewar combined industry output. Mass Transportation 42:396+ S '46
White to double bus production and add 50-passenger city unit. Mass Transportation 41:387-8 D '45

Statistics
Bus production reaches 18,450. E. F. Theisinger. Bus Transportation 25:64-7 Ja '46

MOTOR bus lines
Brown bus with the orange band; Inter city transportation co. S. Iannelli. il Bus Transportation 25:46-8 Mr '46
First 20 years; Manhattan transit co. pioneer bus operator between New York and New Jersey. S. Iannelli. il Bus Transportation 24:62-4 D '45
Traffic congestion; symposium. Bus Transportation 25:81-3 My '46
Transit looks to future with confidence. G. C. Hecker. Bus Transportation 25:46-7 S '46
See also
Greyhound corporation
Motor buses—Chartering
National city lines, inc.
Railroads—Motor vehicle auxiliaries
Railroads—Motor vehicle competition
Rapid transit
Trolley buses

Accidents
Comparative claims costs and risks; street cars, trackless trolley coaches and gas buses. M. J. Thompson. Bus Transportation 25:52-3 O '46
Unusual accident not responsibility of road bureaus, Jersey court rules; suit over plunge of bus from Passaic River bridge. Eng N 136:249 F 14 '46

Advertising
Advertising slogans; Los Angeles transit lines advertising campaign. il Bus Transportation 24:67 D '45
Cuts and color; presentation of advertising and annual reports by Worcester street railway. J. C. MacMurray. il Bus Transportation 25:33-5 F '46
Georgia power company; radio show, publication of transportation map of Atlanta. Bus Transportation 25:64 Ap '46
Go by bus; radio program promotes riding and builds good will for Salt Lake City buses. E. Bly and G. L. Stanley. il Bus Transportation 25:59-62 Mr '46

Airline connections
Rich revenue sources open if you still have imagination; Flxible's Airporter designed for service between airport and downtown area. il Mass Transportation 42:286-7 Jl '46

Automobile parking service
Perimeter parking for cities; Baltimore bus company patrons offered parking service on outskirts and transportation to business district. L. D. Farrar. Pub Util 38:581-7 N 7 '46

Baggage
Review of new lost baggage lawsuits. L. T. Parker. il Bus Transportation 25:36-9 F '46

Claims
Review of new lost baggage lawsuits. L. T. Parker. il Bus Transportation 25:36-9 F '46

Costs
Bus Transportation maintenance award winners, 1945; with cost data. il Bus Transportation 24:35-61 N '45
$1,131,000,000 was spent by the bus industry, 1942-1945; tabulation. Bus Transportation 25:74-5 Ja '46

MOTOR bus lines—Costs—*Continued*
What the bus industry used in last 5 years, 1941-1945; will need in next 5 years, 1946-1950; tabulation. Bus Transportation 25:76 Ja '46

Employees

Certified Diesel mechanic; training program, Central Greyhound. il Bus Transportation 25:50-2 Ag '46
Collective bargaining vs. collective management. A. Crager. Bus Transportation 25: 48-51 My '46
Initial training and retraining; abstract. A. Nielsen. Bus Transportation 25:71-2 Jl '46
Keeping abreast of the mechanical times; auto clinics conducted by Louisiana State department of education. il Bus Transportation 25:58-60 Ag '46
No fact finding; one Greyhound bus group signs with union. Bsns W p96+ D 22 '45
Sharing the profits; plan inaugurated by Cincinnati and Lake Erie transportation company. Bus Transportation 25:52-3 My '46
Union wage rates of city streetcar and bus operators, July 1, 1945. H. Abowitz and A. V. Simi. Mo Labor R 62:112-17 Ja '46; Same, with additional tabulations. (Rates paid in each city, p6-11.) U S Bur Labor Statistics Bul 856:1-11 '45
What price seniority? San Diego Electric protects employee's seniority rights. H. H. Wilson. il Bus Transportation 25:54-7 F '46

See also
Motor bus drivers

Equipment and supplies

Buyers' guide; bus parts, materials, accessories, shop equipment and tools; 1946 directory. Bus Transportation 25:225-39+ Je '46

Fares

Houstonians watch battle for Main Street; eye possible five-cent fare. Mass Transportation 42:208-9 My '46
Inflation threat; will ten cent fare be an answer? A. J. Lundberg and others. Mass Transportation 41:322-3+ N '45
OPA fare report stirs Detroit. Bus Transportation 25:43-5 Mr '46
Rates and schedules at your finger tips; information guides, Chicago union motor coach terminal. J. C. Reid. il map Bus Transportation 25:60-4 F '46
Ten-cent fare announcement by Department of street railways in Detroit; with comments by W. A. Jackson. Mass Transportation 41:330-1+ N '45

Finance

Bus barometer, 1st half of 1946. C. W. Stocks and C. H. Holck. Bus Transportation 25:54-7 O '46
Bus barometer, 1st quarter 1946. C. W. Stocks. Bus Transportation 25:46-9 Jl '46
Early returns for fourth quarter, 1945. Bus Transportation 25:55 Mr '46
Early returns for second quarter. Bus Transportation 25:61 S '46
Early returns for third quarter of 1945. Bus Transportation 24:61 D '45
Fitzgerald; big name in buses. Bsns W p70+ Jl 20 '46
Funds earmarked for bus purchases; New Jersey commission accepts plan for financial procedure. Bus Transportation 25:50 F '46
Operating revenue for nine months of 1945 reaches new high. C. W. Stocks. Bus Transportation 25:82-5 Ja '46

Garages

New inspection garage for Dallas. il plan Bus Transportation 25:56-8 Mr '46
Orange and Black line builds a modern garage. J. McDonald. il Bus Transportation 25:64-5 Ag '46
Protection against garage fires. P. W. Eberhardt. il Bus Transportation 25:66-8 Ag '46
Standardized garages for standardized fleet; Third Avenue transit system, New York. F. T. Ward. plans Bus Transportation 25: 48-51 Ja '46
Wythenshawe bus garage. il Engineer 182: 62 Jl 19 '46

Laws and regulations

Bus rules aired; hearing before Public service commission of New York on proposed changes. Bus Transportation 25:66 Jl '46
Outstanding bus lawsuits of 1945. L. T. Parker. Bus Transportation 25:53-5 Ag '46
Review of new bus lawsuits. L. T. Parker. Bus Transportation 25:46-8 Ap '46
Review of new lost baggage lawsuits. L. T. Parker. il Bus Transportation 25:36-9 F '46

Maintenance and repair

Bus Transportation maintenance award winners, 1945; with cost data. il Bus Transportation 24:35-61 N '45
Changing bus fleet maintenance picture. F. Patras. S A E J 54:215-17 My '46
Coordinated maintenance manuals. K. Cook. il diags Bus Transportation 25:86-90 Je '46
Dynamometer, trouble diagnostician. A. Bennett. il Bus Transportation 25:67-9 O '46
Eye appeal in service equipment; Kansas City public service co. W. R. Fryer. il Bus Transportation 25:86-7 Ja '46
Five Fitzgeralds were born to busses; their shop methods for Los Angeles transit lines. J. H. Collins. Pub Util 36:688-93 N 22 '45
Heavy jobs get a lift; Pacific Greyhound solves number of problems through use of special tools. H. B. McKibben. il Bus Transportation 25:72-3 Mr '46
Holding the line; Washington motor coach system, Seattle. W. W. Churchill. il Bus Transportation 25:56-7 My '46
Increase net from shop saving. J. C. Baine, jr. Mass Transportation 41:316-17 N '45
Inflated maintenance cost. E. F. Theisinger. Bus Transportation 25:66-70 S '46
Infrared removes floor covering. il Bus Transportation 25:65 Jl '46
Keeping abreast of the mechanical times; auto clinics conducted by Louisiana State department of education. il Bus Transportation 25:58-60 Ag '46
Keeping buses looking fit; Toronto transportation commission. il Bus Transportation 25:42-4 Jl '46
Keeping school; operation of school buses in New York state under wartime conditions. B. H. Belknap. il Bus Transportation 25: 40-4 F '46
Know the worst, and do something about it; keeping pull-in and repair records. W. W. Kunz. Bus Transportation 25:91-3 Je '46
Maintenance has many angles; Portland traction co. il plan Bus Transportation 25: 68-73 Je '46
Maintenance in Macon. R. M. Knight. diags Bus Transportation 25:74 Ag '46
Maintenance procedures sharpened during war years; Pacific Greyhound lines. R. M. Ahrens. il Bus Transportation 25:80-5 Je '46
New developments in maintenance since Pearl Harbor; abstract. J. A. Harvey. il S A E J 54:sup22-3 S '46
Postwar maintenance. E. B. Richardson. Bus Transportation 24:84+ N '45
Problems of the maintenance department; abstracts. A. F. McDougald. Bus Transportation 24:52-5 D '45; Mass Transportation 41:318-19+ N '45
Production line maintenance. C. S. Battelle. Bus Transportation 25:61-3 Ag '46
Replacements parts crisis. Mass Transportation 42:193-5 My '46
SAE National west coast transportation and maintenance meeting, Seattle, Aug. 22-24. S A E J 54:48-50 O '46
Streamlined inspection procedure. B. Park. il Bus Transportation 25:58-60 Ap '46

See also
Motor bus lines—Shops

Management

American buslines; what's behind the name. map Bus Transportation 25:45-7 My '46
Baine reveals re-incarnation of old Bob O'Brien's spirit. Mass Transportation 42: 373-5 S '46
Comeback trail; Ironbound transportation co. of Newark, N.J. F. Kane. il Bus Transportation 25:39-42 Ap '46
Let's get on with the job. H. G. Morris. Bus Transportation 25:62-5 S '46

MOTOR bus lines—Management—*Continued*
Retirement of intercity buses; abstract. W. A. Taussig. Bus Transportation 25:75+ F '46
Roy Fitzgerald talks for National; interview with C. W. Stocks. il maps Bus Transportation 25:48-53 S '46
Seven steps transit must take. W. R. Pollard. Bus Transportation 24:44-7 D '45
Speaking of reconversion. C. M. Gray. Mass Transportation 42:150-1 Ap '46
Transit's postwar opportunities and responsibilities; abstract. G. G. Steele. Bus Transportation 25:69-70 Jl '46

Negro passengers

Virginia's Jim Crow bus law declared invalid. Ry Age 120:1153 Je 8 '46

Public relations

Driver training programs, baggage handling, etc. Bus Transportation 25:69-72 Ag '46
Free tickets. Bus Transportation 25:64-5 O '46
Get out of your car barns; go up to the public square! C. E. Ebert. Mass Transportation 42:204-5 My '46
Public relations for the bus industry. Bus Transportation 25:73 My '46
What does the public want in the way of service? obtaining the answers; St Louis public service company. il Bus Transportation 25:60-2 Jl '46

See also
Motor bus lines—Service

Radio telephone

Bus radio central; enables drivers to talk with each other and with terminals. il Bsns W p42+ My 18 '46
Bus radio progresses. Bsns W p32 Jl 27 '46
Calling all buses; Arnold lines first transit company to install two-way radio in bus. il Bus Transportation 24:67 N '45; 25:45 F '46
KKSN calling; Key System, Oakland, Calif., using frequency modulated, two-way radio. il Bus Transportation 25:45 Jl '46
Two-way radio blazes its way into transit 1946 future. W. E. Peek. il Mass Transportation 41:287 O '45

Records

Know the worst, and do something about it; keeping pull-in and repair records. W. W. Kunz. Bus Transportation 25:91-3 Je '46

Safety measures

Ice-free bus steps. J. J. Curley. il diags Bus Transportation 24:74-5 D '45
Picking safe bus drivers. il Bus Transportation 25:40-2 Mr '46
Portland's passes sell safe habits. il Bus Transportation 25:46-7 F '46
Psycho-physical tests in driver selection. Bus Transportation 25:44-5 Ag '46
Safety education for the bus driver; Hudson County Boulevard commission. F. Kane. il Bus Transportation 25:50-1 Mr '46
Safety on a personal basis. W. E. McMillan and J. P. Hallanan. Bus Transportation 25:48-9 Ag '46

Schedules

Rates and schedules at your finger tips; information guides, Chicago union motor coach terminal. J. C. Reid. il map Bus Transportation 25:60-4 F '46
Schedule charts; Eau Claire transportation company. Bus Transportation 25:62-4 Ap '46

Securities

Financially speaking; refunding and other financial operations in 1945. G. J. MacMurray. Bus Transportation 25:52-4 Ja '46

Service

Blueprint for express bus service; Detroit's new service. C. S. Ricker. il map Bus Transportation 25:43-5 Ap '46
Hurry-up passage to Portland; number system is substitute for reservations; Pacific Greyhound in San Francisco. D. Trengen. il Bus Transportation 24:72-4 N '45
New business, at the track; bus services for Monmouth Park racetrack, Oceanport, N.J. il Bus Transportation 25:56-7 Ag '46
Passenger guides, Toronto transportation commission. il Bus Transportation 25:64-5 Mr '46

See also Motor bus lines—Automobile parking service

Shops

Chassis overhaul; Chiswick depot of London passenger transport board. il layout plan Mech Handling 33:569-74 S '46
Dirty job cleaned up; cleanliness and cleaning facilities, Kensington shop of Philadelphia transportation co. E. F. Theisinger. il Bus Transportation 25:64-6 Je '46
Everybody's looking for trouble; shop operation of Los Angeles transit lines. il Bus Transportation 25:53-7 Ap '46
Maintenance tel-board used in shops of the Capital transportation co. il Bus Transportation 24:76-7 D '45
St Louis does it again; modernization and re-equipment program; automotive division general shops. E. F. Theisinger. il layout Bus Transportation 25:51-60 Je '46

Statistics

Bus industry, and other transportation; basic facts, 1942-1945; tables. C. W. Stocks. Bus Transportation 25:58-60 Ja '46
Bus operating results for 1945. C. W. Stocks. Bus Transportation 25:49-52 Ap '46
Census of common carrier service, 1945; tabulation. Bus Transportation 25:73 Ja '46
Local and intercity bus service, 1942-1945; tables. Bus Transportation 25:62-3 Ja '46
School bus census, 1945. il Bus Transportation 25:68-9 Ja '46

See also
Motor bus lines—Finance

Taxation

Baltimore's greatest transit factor turned into political booby trap; municipal tax impedes conversion to buses. Mass Transportation 41:375-6 D '45

Terminals

Broadcasting piped music in bus terminal waiting rooms. Bus Transportation 25:62 Ap '46
Dallas bus terminal for Southwestern Greyhound lines. il map plans Arch Forum 83: 160 N '45
Model of sub-street motor bus terminal exhibited in Detroit. il Mass Transportation 42:300 Jl '46
New terminal boosts business; Vermont transit's terminal at Rutland. il Bus Transportation 25:40-1 Jl '46
Rates and schedules at your finger tips; information guides, Chicago union motor coach terminal. J. C. Reid. il map Bus Transportation 25:60-4 F '46

Tickets

Tax tables for bus tickets; ready reference table. Bus Transportation 25:75 My '46
Ticket printing and issuing machine. il Bus Transportation 25:63-4 Mr '46

Traffic

Eliminating staggered hours causes transit congestion in New Orleans. il Mass Transportation 42:30-2 Ja '46
Saved by interstate buses; Hudson & Manhattan railroad strike. il Bus Transportation 25:38-9 Jl '46

Baltimore

Perimeter parking for cities; Baltimore bus company patrons offered parking service on outskirts and transportation to business district. L. D. Farrar. Pub Util 38:581-7 N 7 '46

Chicago

Chicago invests $23 million in modernization. C. W. Stocks. il map Bus Transportation 25: 54-60 S '46

Cincinnati

Cincinnati company goes all Diesel. M. Huden. il map plan diag Diesel Power 24: 1203-4+ O '46

MOTOR bus lines—*Continued*

Detroit

Blueprint for express bus service; Detroit's new service. C. S. Ricker. il map Bus Transportation 25:43-5 Ap '46

Detroit express busses average 15.13 miles per hour. Mass Transportation 42:207 My '46

Houston, Texas

Houstonians watch battle for Main Street; eye possible five-cent fare. Mass Transportation 42:208-9 My '46

Mexico (city)

Bus pools carry majority of riders in Mexico city. il Bus Transportation 25:46-7 Ag '46

New Jersey

Funds earmarked for bus purchases; New Jersey commission accepts plan for financial procedure. Bus Transportation 25:50 F '46

New Orleans

Teche Greyhound lines wins Bus Transportation maintenance award; with cost data. il Bus Transportation 24:38-40 N '45

New York (city)

Standardized garages for standardized fleet; Third Avenue transit system, New York. F. T. Ward. plans Bus Transportation 25: 48-51 Ja '46

New York (state)

Bus rules aired; hearing before Public service commission on proposed changes. Bus Transportation 25:66 Jl '46

Oak Ridge, Tennessee

Atom's express; bus service provided at Clinton engineer works. C. Byrd. il Bus Transportation 24:68-71 N '45

Pacific coast

Transit crusade; antitrust suit filed against Southern Pacific co., Standard Oil, and bus concerns. Bsns W p48+ N 10 '45

St Louis

St Louis does it again; modernization and re-equipment program; automotive division general shops. E. F. Theisinger. il layout Bus Transportation 25:51-60 Je '46

United States

Lets Greyhound keep Florida motor lines; I.C.C. approves acquisition of control. Ry Age 121:698-9 O 26 '46

Let's look ahead. E. A. Roberts. Bus Transportation 24:68-9 D '45

Over the goal in '45, and forward. E. Lawrence. il Bus Transportation 25:42-5 Ja '46

Postwar outlook and problems of the intercity bus industry. A. M. Hill. Bus Transportation 25:42-4 My '46

What the 1945 figures show. C. W. Stocks. Bus Transportation 25:56-7 Ja '46

Western states

Diesels-West. T. White. il Diesel Power 24: 1216-20 O '46

MOTOR bus lines, School

Keeping school; operation of school buses in New York state under wartime conditions. B. H. Belknap. il Bus Transportation 25:40-4 F '46

School bus census, 1945. il Bus Transportation 25:68-9 Ja '46

Safety measures

New school bus embodies packaged safety. Safety Eng 91:65 Ap '46

Safety engineering awards trophy for Reo's safety school bus. Safety Eng 91:27 My '46

MOTOR bus lines, Tourist

Gray lines; sightseeing at its best. F. Kane. il Bus Transportation 25:58-62 O '46

Highway tours. il Bus Transportation 25: 75-6 My '46

MOTOR buses

Bus and truck facts; Diesel power; statistical data. map Diesel Power 24:1208-10 O '46

Chausson enters bus field in France. W. F. Bradley. il Automotive & Aviation Ind 94: 32-3+ Je 1 '46

Flxible Airporter club coach. il Bus Transportation 25:52-3 Jl '46

Flxible inter-city 37 passenger twin-motor bus. il Mass Transportation 42:170-1 Ap '46

Greyhound postwar bus. il diag Bus Transportation 25:54-5 My '46

History of first articulated coach. F. R. Fageol. Mass Transportation 42:323+ Ag '46

Kenworth in production on four new bus models. il Bus Transportation 25:72-3 O '46

Motor coach of the future. L. H. Smith. diag S A E J 54:169-73 Ap '46; Same. Bus Transportation 25:73-5+ F '46

1946 buses for city work; illustration with brief descriptions. Bus Transportation 25: 72-84 S '46

1946 buses for intercity work; illustrations with text. Bus Transportation 25:58-69 My '46

Oldest order for new Brills; first postwar buses delivered to Vermont transit company. il Mass Transportation 42:40 Ja '46

Personnel carrier for large line crews. E. W. Templin and I. L. Bateman. il diags Elec World 125:58-9 Ja 5 '46

Retirement of intercity buses; abstract. W. A. Taussig. Bus Transportation 25:75+ F '46

Rich revenue sources open if you still have imagination; Flxible's Airporter designed for service between airport and downtown area. il Mass Transportation 42:286-7 Jl '46

S.A.E. annual meeting; truck and bus sessions. S A E J 54:sup50-2 F '46

S. A. E. summer meeting; truck and bus sessions. S A E J 54:sup57-8 Jl '46

Sun-Kraft sales coach explores the buy-ways. il Sales Management 57:50 S 15 '46

Two million mile bus; satisfactory vehicle for long haul operators. T. L. James. Bus Transportation 25:72-3 Jl '46; Abstract. S A E J 54:30+ O '46

Washington preview; transit riders view and vote their preferences. il Bus Transportation 24:70-1 D '45

What will other builders say? articulated Kaiser coach. il Mass Transportation 42: 322-3 Ag '46

See also

Motor bus lines
Railroads—Motor vehicle auxiliaries
Street railroads—Motor bus substitution
Trolley buses

Acceleration

Transmissions giving uninterrupted acceleration. P. M. Heldt. il diags S A E J 54:330-8+ Jl '46

Air conditioning

Air conditioned buses. il Heat & Ven 43:80-1 F '46

Air quality control; activated carbon air purification equipment. il diag Bus Transportation 25:191-2 Jl '46

W. W. Holden achieves impossible; air conditioned city coach. il Mass Transportation 41:381+ D '45

See also

Trolley buses—Air conditioning

Axles

1946 rear axle specifications; tabulation. Bus Transportation 25:114 Ja '46

Bodies

Plaster mock-ups reduce engineering problems in bus body design. C. Smith. il diags Product Eng 17:437-9 Je '46

Brakes

See Air brakes, Motor bus; Brakes, Motor bus

Chartering

Chartered service. A. Hogg. Bus Transportation 24:75-6 N '45

Find a way to cash in on public's new leisure time; Arnold lines, of Washington, charter service. il Mass Transportation 42:380-1+ S '46

MOTOR buses—*Continued*

Chassis

Leyland Titan PD.1; a double-decker bus chassis with 7.4-litre oil engine. il diags Automobile Eng 36:47-53 F '46

Design

Aircraft ideas adapted in Flxible 37-DC. il diags Bus Transportation 25:70-1+ O '46
Bus design from the operator's viewpoint, city service. A. F. McDougald. S A E J 54:31-2 O '46
Plaster mock-ups reduce engineering problems in bus body design. C. Smith. il diags Product Eng 17:437-9 Je '46
Progress in vehicle design. W. E. P. Duncan. Bus Transportation 24:42-4 D '45

Doors

Adjustable door shoe. T. E. Morin. diags Bus Transportation 25:73 Ag '46

Electric equipment

New C.A.V. switchboard for heavy passenger and goods vehicles. il Automobile Eng 36: 451-2 O '46
Servicing the new Delco regulator. W. H. Crouse. il diags Bus Transportation 25:74-9 Je '46

Equipment

Heating, lighting, ventilating and seating equipment; illustrations with brief descriptions. Bus Transportation 25:87-90 S '46

See also
Brakes, Motor bus

Heating and ventilation

South wind bus heater. il Bus Transportation 25:207 Mr '46

History

Transit milestones. F. R. Fageol. il Mass Transportation 42:328-31+ Ag '46

Lighting

Fluorescent lighting for buses. W. E. Peek. il Bus Transportation 25:51-3 F '46

Manufacture

ACF-Brill bodies die-formed. R. B. Stubbs. il Bus Transportation 25:52-4 Mr '46
Aircraft manufacturing technique applied to bus building; American car & foundry co. R. B. Stubbs. il Mach 52:168-75 D '45

Materials

ALCOA really intent on aluminum motors, bearings and axles in coming bus designs. S. V. Malcuit. il Mass Transportation 42: 173-4 Ap '46

Painting

Keeping buses looking fit; Toronto transportation commission. il Bus Transportation 25:42-4 Jl '46
Restoring the bloom of youth. P. L. Hexter. Bus Transportation 25:67 Je '46

Prices

As, if and when equipment purchasing. Mass Transportation 42:199 My '46

Repair

See also
Motor bus lines—Maintenance and repair

Seats

Seating equipment; illustrations with brief descriptions. Bus Transportation 25:89-90 S '46

Specifications

American bus chassis; tabulation. Automotive & Aviation Ind 94:120-1 Mr 15 '46
1946 motor bus component parts; general characteristics, engine specifications, rear axle specifications; tabulations. Bus Transportation 25:108-14 Ja '46
Thoughtless selfishness in specifications! R. R. Monroe. Mass Transportation 41:335+ N '45

Springs and suspension

Duo-Flex spring. il diags Bus Transportation 25:66-9 Ap '46
Tips on spring changing. il Bus Transportation 25:74-5 Mr '46
Torsion rubber spring design with automotive applications. A. S. Krotz and W. B. Fageol, jr. il diags Product Eng 17:[no 7] 112-16 Jl '46

Steps

Ice-free bus steps. J. J. Curley. il diags Bus Transportation 24:74-5 D '45

Transmission

Fuller's reorganized setup for postwar production of transmissions. J. Geschelin. il Automotive & Aviation Ind 94:34-40+ Je 1 '46
Spicer's new line of heavy duty transmissions. il Automotive & Aviation Ind 94:38 Mr 1 '46
Transmission boring bar. il diags Bus Transportation 25:75 Ag '46
Transmissions giving uninterrupted acceleration. P. M. Heldt. il diags S A E J 54: 330-8+ Jl '46

MOTOR cars (railroad)

Electric traction engineer's experience with railcars fitted with mechanical transmission; with cost data. K. N. Eckhard. Inst E E J 93 pt 1:70-3 F '46
Engineer looks at Argentina; railcars. R. Hammond. il maps Engineer 182:116-18 Ag 9 '46

MOTOR courts. See Tourist camps, hostels, etc.

MOTOR cycle engines

Solex bicycle engine. W. F. Bradley. diags Automotive & Aviation Ind 95:48 Jl 1 '46

MOTOR cycle industry and trade

Great Britain

Engineering outlook. Engineering 161:103 F 1 '46

MOTOR cycle insurance. See Insurance, Motor cycle

MOTOR industry research association

Motor industry research association; object and work. Engineer 181:586 Je 28 '46

MOTOR ships

C1-M cargo motorships. Marine Eng 51:111 Je '46
Coasters for the Dutch East Indies. P. L. Rhodes. il plans diags Marine Eng 51: 102-6 Ap '46
Codrington, Diesel river towboat. il Marine Eng 51:118-20 Mr '46
Conversion of M.V. Vecta to Diesel-electric drive. il Engineering 161:344-5 Ap 12 '46
Diesel power of M.S. Henry Ford II. M. McLaren. il Mech Eng 68:792-3+ S '46
Diesel towboat Chilli Simpson. il Marine Eng 51:130-2 F '46
European cross-channel ships. il Marine Eng 51:130-3 Ag '46
Excursion boat, Delaware Belle. il Marine Eng 51:97-9 O '46
Lehigh Diesel river towboat. il Marine Eng 51:118-22 Ap '46
Naval armaments vessel Flintlock. il diags Engineer 182:208-9 S 6 '46
Naval auxiliary M.V. Flintlock. il Engineering 162:151 Ag 16 '46
Piping system problems in motorships. E. C. Lloyd. diags Marine Eng 51:152+ F; 138+ Mr '46
Postwar Scandinavian shipping. il Marine Eng 51:140-3 F '46
Propulsion conversion of the motorship Vecta. il Engineer 181:197-9 Mr 1 '46
Roller chains provide unique propulsion drive. N. C. Bremer. il diags Machine Design 18: 150-2+ S '46
Sweden building transatlantic liner. il Marine Eng 51:84-6 O '46
Tug Kanak converted to Diesel drive. il Marine Eng 51:154+ Ap '46
Westerdam, Holland-America motorship. il plan Marine Eng 51:114-18 Ag '46

See also
Diesel engines, Marine
Ship propulsion, Electric

MOTOR truck drivers

Automotive equipment operators on airport ramps; mental and physical requirements. Nat Safety N 54:40+ S '46

MOTOR truck drivers—*Continued*
30 training courses for supervisors of truck fleets designed to promote safety, efficiency. Nat Pet N 38:38+ F 6 '46
Trucking crisis; New York city tie-up. Bsns W p93 S 7 '46
Union wages and hours of motortruck drivers and helpers, July 1, 1945. D. Gerrish and others. Mo Labor R 62:104-12 Ja '46; Same, with additional tabulations. (Union scale of wages and hours, by cities, p8-42). U S Bur Labor Statistics Bul 874:1-42; pa 10c Supt. of doc. '46

See also
Milk delivery

MOTOR truck driving
How to drive a truck. J. W. Sinclair. S A E J 54:200-4 Ap '46; Same cond. Nat Pet N 38:53-4+ My 15 '46

MOTOR truck engines
Application and use of high speed Diesel engines in trucks; abstract. J. A. Watts. S A E J 54:sup 28+ S '46
Austin 5-ton truck chassis. il diags Automobile Eng 36:95-7 Mr '46
Engine trends for the future; abstract. J. M. Shoemaker. Nat Pet N 38:38+ S 18 '46
Gardner 8-cylinder engine. il diags Automobile Eng 36:311-12 Jl '46
Leyland commercial vehicle 9·8 litre oil engine. il diag Engineer 181:479-81 My 24 '46
Leyland 130-B.H.P. goods vehicles. il diags Engineering 162.272-4, 276 S 20 '46
Morris-Commercial 5-tonner. il diags Automobile Eng 36:327-9 Ag '46
Motor trucks of the future. R. Cass. S A E J 54:298-300 Je '46; Abstract. il Nat Pet N 38:30+ Mr 27 '46
Sulzer oil engine; two-stroke opposed-piston model employed in commercial vehicles. il diags Automobile Eng 35:527-8 D '45
Trojan delivery van with two-stroke engine. il diags Engineer 182:283 S 27 '46

Fuel
Compressed methane for commercial vehicles, gas produced from sewage. Engineer 181:299 Mr 29 '46

Lubrication
Oil analysis spots engine faults; how service works with average fleet. il Food Ind 18: 693-5 My '46

Manufacture
Engine production; Austin truck power unit. il Automobile Eng 35:483-92 N '45

Mounting
Power plant installation on M-H Delivr-All truck. il diags Automotive & Aviation Ind 95:33 Jl 1 '46

Specifications
American gasoline engines; tabulation. Automotive & Aviation Ind 94:132-9 Mr 15 '46
Truck specifications; tabulations. Automotive & Aviation Ind 94:115-19 Mr 15 '46

MOTOR truck industry
Chevrolet trains men to sell right truck for right job. il Sales Management 56:131+ F 15 '46
Mack truck men put new cutting edge on dull sales techniques. M. C. Horine. il Sales Management 56·78+ Ja 1 '46
1946 truck-trailer production to set new mark. V. Bell. il Steel 119:92-3 O 7 '46
1,000,000 trucks annually for four years. R. F. Black. Comm & Fin Chr 163:877+ F 14 '46
Pre-testing gets big response to long questionnaire; 460 construction truck operators each spent an hour or more answering 200 and more questions for McGraw-Hill. R. H. Ganly. il Ptr Ink 214:29-31 Mr 1 '46
Production of trucks lags behind 1946 goals. M. C. Horine. Nat Pet N 38:34+ My 8 '46

Advertising
CFAC honors industrial campaigns; Diamond T motor car co. Ind Marketing 31:40+ Je '46

Statistics
89 million motor vehicles produced in 46 years, 1900-1945; tabulation. Automotive & Aviation Ind 94:73 Mr 15 '46
Motor vehicle production in Canada, 1921-1945; tabulation. Automotive & Aviation Ind 94:74 Mr 15 '46
New truck registrations. Automotive & Aviation Ind 95:54 Ag 1 '46 [cont monthly]
Passenger car and truck production by months, 1933-1945; tabulations and chart. Automotive & Aviation Ind 94:76 Mr 15 '46
Production of motor trucks and truck tractors, 1939-1945; chart. Survey of Cur Bsns 25:5 D '45
Truck production by capacities, U.S. plants, by years, 1936-1945, by months, 1945; tabulations and chart. Automotive & Aviation Ind 94:77 Mr 15 '46
Truck trailer production, 1942-1945; civilian and military; tabulations. Automotive & Aviation Ind 94:78 Mr 15 '46
12-year record of new truck sales, by makes, 1931-1942; tabulation. Automotive & Aviation Ind 94:88 Mr 15 '46

MOTOR truck lines

Government operation
Seized firms sue; Kansas City trucking companies ask for nearly $3,000,000 in damages. Bsns W p20 My 18 '46

MOTOR truck trailers. See Trailers

MOTOR trucks
British truck has ingenious twin-engined drive. plan diags Automotive & Aviation Ind 95:46 S 1 '46
Bus and truck facts; Diesel power; statistical data. map Diesel Power 24:1208-10 O '46
Dodge announces changes for truck models of 1/2 to 2 ton line. il Automotive & Aviation Ind 93:38+ N 15 '45
Dodge one-ton truck has four-wheel drive. il Automotive & Aviation Ind 94:40-1 Ja 1 '46
Eisenhauer 20-ton vehicle built from two Chevrolet trucks. il diag Automotive & Aviation Ind 93:38-9 D 15 '45; 94:33 F 1 '46
Engineering features of new Dodge 2½ and 3 ton trucks. il Automotive & Aviation Ind 95:25-7 Ag 15 '46
Facts and predictions about motor transport and its use; abstract. F. B. Lautzenhiser. S A E J 54:sup23 Ag '46
Ford of Canada announces new car and truck models. il Automotive & Aviation Ind 94: 30-1+ Ap 15 '46
FWD truck for road maintenance. il Roads & Bridges 84·78 My '46
How about those new trucks? S. F. Gale. il Gas Age 96:21-2+ D 27 '45
Leyland 130-B.H.P. goods vehicles. il diags Engineering 162:272-4, 276 S 20 '46
Marmon-Herrington delivery truck. il diag Automotive & Aviation Ind 93:22-3+ N 15 '45
Motor trucks of the future. R. Cass. S A E J 54.297-302+ Je '46; Abstract. il Nat Pet N 38·30+ Mr 27 '46
Proposed design for field-testing unit; equipment and its arrangement in commercial vehicle. M. S. Watson, jr. plan diags Pet Eng 17:84+ Je '46
S.A.E. annual meeting; truck and bus sessions. S A E J 54:sup50-2 F '46
S. A. E. summer meeting; truck and bus sessions. S A E J 54:sup57-8 Jl '46
Truck design for foreign needs; abstract. A. Taub. S A E J 54:sup 28 S '46
Truck steps swing down for use. il Sci Am 175:132 S '46
Trucks at your service; leasing company provides trucks, painted and lettered as you specify. il Food Ind 17:1308-9 N '45
White new WB series. il Automotive & Aviation Ind 95:28-30+ O 1 '46
Willys-Overland 1947 car and truck line. il Automotive & Aviation Ind 95:32-4 O 15 '46

See also
Loading and unloading—Motor trucks
Motor truck engines
Motor truck industry
Motor vehicles
Refrigeration on cars, trucks, etc.
Tank trucks
Tractors
Trailers

Accidents
How to reduce motor truck liability. L. T. Parker. Am Gas J 164:35-7 Ap '46

MOTOR trucks—*Continued*

Axles

Clark's new laboratory for testing axles and transmissions. il Automotive & Aviation Ind 94:20-1 Je 15 '46
New Timken rear axles. il Automotive & Aviation Ind 93:48 D 1 '45

Bodies

Knock-down all-aluminum bodies developed by Reynolds for trucks. diags Automotive & Aviation Ind 95:44+ O 1 '46
Magnesium in body construction. il Bus Transportation 25:185-6 Jl '46
Redesigned body on IHC trucks. il Automotive & Aviation Ind 94:60 My 1 '46
Standardization of truck bodies. S. F. Gale. plans Gas Age 97:17-19+ Ap 18 '46; Abstract. il Am Gas J 164:50 My '46

Brakes

See Brakes, Motor truck

Cabs

Driver's comfort; abstract. O. F. Quartullo. S A E J 54:sup 27 S '46

Chassis

Austin 5-ton truck chassis. il diags Automobile Eng 36:95-9 Mr '46
Design thirty years ago; 1916 Pierce-Arrow 5-ton chassis. diags Automobile Eng 36:218 My '46
Design thirty years ago; the 1916 Maudslay subsidy chassis. il Automobile Eng 36:246 Je '46
Guy Arab chassis. il plan diags Automobile Eng 36:375-82 S '46
Morris-Commercial 5-tonner. il diags Automobile Eng 36:327-32 Ag '46

Cost of operation

Costkeeping system for truck operators. Roads & Bridges 84:92 S '46
Diesel powered common carriers increasing; with cost and operating statistics. G. W. Grupp. Diesel Power 24:1194-6+ O '46
Trade experience in trucks; cost estimates. il Sheet Metal Worker 37:45-6 Ag; 52 S '46

Design

British design light metal truck. il Iron Age 157:63 F 28 '46
Design thirty years ago; the 1916 Packard 3-ton truck. diags Automobile Eng 36:156 Ap '46
Future truck trends; abstract. M. C. Horine. S A E J 54:sup30 My '46
Grapes unloaded mechanically. Z. Halperin. il diag Food Ind 18:331 Mr '46
Prerequisites of truck design; abstract. F. R. Nail. S A E J 54:101-2 O '46
Problems of special motor vehicle design; abstract. W. D. Owsley. S A E J 54:101 O '46
Structural problems of the commercial vehicle. V. W. Pilkington. Engineer 182:370-1 O 25 '46
Twin-engine truck design. il diags Product Eng 17:[no 7] 102 Jl '46

Electric equipment

New C.A.V. switchboard for heavy passenger and goods vehicles. il Automobile Eng 36: 451-2 O '46

Fires and fire protection

Money to burn. R. C. Coleman. il Safety Eng 92:10-11+ Jl '46

Frames

Parish again producing passenger car frames; process of heavy duty truck frames manufacture. J. Geschelin. il Automotive & Aviation Ind 95:26-8+ Jl 15 '46

History

Golden jubilee of Thornycroft road transport. il Engineer 181:520 Je 7 '46

Laws and regulations

Consolidating cases held sound practice; Supreme court approves I.C.C. procedure. Ry Age 120:583+ Mr 16 '46
Highway departments agree on new truck limits; uniform standards governing the maximum dimensions, weights and speeds. Roads & Sts 89:71 My '46
Kentucky's liberalized truck rules promise bigger oil markets. H. Taylor. Nat Pet N 38:48 Mr 6 '46
Kentucky's truck transport bottleneck eased by passage of more liberal load limit bill. Nat Pet N 38:12 F 13 '46
Laws governing length of semi-trailers vary, chart shows state requirements. Nat Pet N 37:54 N 21 '45
Liabilities, responsibilities of motor carriers. C. R. Conklin. Nat Underw 49:4+ N 8 '45; Discussion. 49:4 N 29 '45
Road truce ends; strife between states over levies and restraints on trucking. Bsns W p36+ Ja 12 '46
Special permit system proposed for heavy trucks on arterial roads. R. H. Baldock. Eng N 136:49-51 Ja 10 '46
Unified effort sparked Kentucky's advance in easing restrictions on truck transport. Nat Pet N 38:18+ Mr 13 '46

Length of service

Approaches to vehicle retirement; abstract. G. W. Laurie. Nat Pet N 38:27 Ja 16 '46

Maintenance and repair

Keep up your truck preventive maintenance. Roads & Sts 89:105-10 My '46
Repair workshops; maintenance of road vehicles by the L.M.S. railway co. il plan Automobile Eng 36:87-9 F '46; Engineer 181:102-4 F 1 '46; Mech Handling 33:107-9 F '46; Engineering 161:296 Mr 29 '46
SAE National west coast transportation and maintenance meeting, Seattle, Aug. 22-24. S A E J 54:48-50 O '46
S. A. E. summer meeting; transportation and maintenance sessions. S A E J 54:sup52-3 Jl '46

Management

Card system controls fleet inspections; National tea co. Food Ind 18:1032-3 Jl '46
For hire carrier looks at depreciation; abstract. H. L. Willett, jr. S A E J 54:sup50-1 Ap '46
Oil analysis spots engine faults; how service works with average fleet. il Food Ind 18:693-5 My '46

Manufacture

Control plan ends assembly delays; teletype system speeds production in General Motors truck and coach division at Pontiac. R. J. French. il Am Bsns 15:16-17+ N '45
Major operations and scheduling of huge Dodge truck plant. J. Geschelin. il Automotive & Aviation Ind 95:24-7+ S 1 '46
Revacycle gear cutting and tire press; two innovations at Fort Wayne plant, International harvester co. J. Geschelin. il Automotive & Aviation Ind 95:41+ S 15 '46

Painting

Metal finishing with infra-red heat; White motor company. J. Parina, jr. il Steel 118: 94-6+ Mr 11 '46

Records

Card system controls fleet inspections; National tea co. Food Ind 18:1032-3 Jl '46

Safety measures

Safety in transporting flammable chemicals; Hercules Powder nitrocellulose trucks. C. L. Jones. il Chem Eng 53:103 O '46

Size

Progress being made toward uniformity in truck size and weight limits. Eng N 136: 48-9 Ja 10 '46
Truck size and weight limits approved by highway officials. Eng N 136:706-7 My 2 '46

Specifications

Truck specifications; tabulations. Automotive & Aviation Ind 94:115-19 Mr 15 '46

Speed

Truck speed and time loss on grades. J. W. Stevens. Am Soc C E Proc 72:919-38 S '46

MOTOR trucks—*Continued*

Springs and suspension

Lightweight suspension for tandem axles on trailers; developed by Feather ride corp. il Machine Design 18:106-7 Jl '46
New spring developed for Fruehauf trailer line. il Automotive & Aviation Ind 95:48 Jl 1 '46
Signal corps trailer chassis has torsion bar suspension. il diag Product Eng 17:142 S '46
Torsion bar suspension system on Fruehauf tandem axle trailers. il diags Automotive & Aviation Ind 94:22-3+ Ja 15 '46

Statistics

Review of highway transport; trucks, tractors and trailers; statistical tables. Automotive & Aviation Ind 94:84-5 Mr 15 '46

Steering gear

Automotive hydraulic steering mechanism assists driver and eliminates road shock. il Product Eng 17:285 Ap '46
Four front wheels, in tandem relation provide easier steering for large trucks. il plan diags Machine Design 18:110 My '46

Taxation

Virginia court voids truck tax; municipal taxes on interstate truckers. Bsns W p41 Jl 20 '46

Transmission

Clark's new laboratory for testing axles and transmissions. il Automotive & Aviation Ind 94:20-1 Je 15 '46
Construction and operation of the White hydro torque transmission. R. Brunken. il diags Automotive & Aviation Ind 94:18-20+ Mr 1 '46
Fuller's reorganized setup for postwar production of transmissions. J. Geschelin. il Automotive & Aviation Ind 94:34-40+ Je 1 '46
Mono-shift mechanism added to Mack transmission. il Automotive & Aviation Ind 94: 31 Mr 1 '46
Spicer's new line of heavy duty transmissions. il Automotive & Aviation Ind 94:38 Mr 1 '46

Weight

Progress being made toward uniformity in truck size and weight limits. Eng N 136: 48-9 Ja 10 '46
Truck size and weight limits approved by highway officials. Eng N 136:706-7 My 2 '46
Truckers' gain; weight limit may go to 50,000 lb. Bsns W p39 Mr 9 '46

MOTOR trucks, Amphibious

Design and sealing problems for underwater operation of a vehicle. D. D. Stone. il diags Product Eng 17:474-7 Je '46
Fusion welding of sheet metal; construction of amphibious truck, DUKW. J. M. Diebold. il diags Welding J 25:724-32 Ag '46
Future found for buffalo; twenty-ton amphibian. il Bsns W p53 N 24 '45
Tyre pressure control whilst running; amphibian vehicle. diags Engineer 182:108-9 Ag 2 '46; il Engineering 162:296-8 S 27 '46; Automobile Eng 36:441-2 O '46; Discussion. S. E. Opperman. Engineering 162:352 O 11 '46
Versatile vehicle; the peacetime potentialities of the water buffalos. il Mech Eng 68: 39-40 Ja '46

MOTOR trucks, Industrial

American industrial trucks. il Mech Handling 32:463-7, 632-5; 33:29-32 Ag, N '45, Ja '46
Boydell & co. dumpers. il Mech Handling 33: 377-9 Je '46
British fork lifting trucks. il Mech Handling 33:373 Je '46
Buda Chore Boy. il Ry Age 120:241 Ja 26 '46
Demonstration of fork-lift trucks. Engineering 162:105 Ag 2 '46
Dockmen get a lift; mechanical equipment for moving freight at trucking terminals. F. Davin. il Nat Safety N 54:22-3+ Jl '46
Douglas one ton high-lift truck. il diags Mech Handling 33:581-3, 645-6 S-O '46
Handling bar stock. B. Melnitsky. il Steel 119:108+ Ag 26 '46
Handling long loads; factory of Towmotor corp. il Steel 117:120+ D 17 '45
Handling of railway parcels traffic. F. H. Slade. il Mech Handling 33:277-81 My '46
Hyster builds new model lift truck. il Ry Age 120:817 Ap 20 '46
Hyster lift truck exemplifies compactness in design. V. Johnson. il diags Machine Design 18:101-6 Je '46
Industrial power trucks cut material handling costs. W. A. Lloyd. il Iron Age 158: 62-6 Jl 4 '46
Lift truck adapted to charging box furnaces. diags Iron Age 157:55 Je 13 '46
Lift trucks conserve time, space. il Paper Tr J 121:122 N 22 '45
Lift trucks handle 350 tons of blocks daily. il Concrete 54:26-7 S '46
Lifting, stacking and tiering truck. il Engineer 182:17 Jl 5 '46
Man's work now; motor scooter hauls people and materials for many industries. il Bsns W p46+ S 21 '46
Mechanized equipment speeds deliveries; Union Pacific's Omaha stores. il Ry Age 121:761-3 N 9 '46
Modern materials-handling methods; industrial trucks. H. S. Wharen. diags Am Mach 90:128-33 Je 20 '46
New equipment. il Iron Age 158:73-4 Ag 8 '46
Plant truck traffic control with intercoms. il Electronics 19:160+ Jl '46

See also
Electric trucks, Industrial
Tractors, Industrial

Maintenance and repair

Power truck maintenance. F. H. Slade. il Mech Handling 33:201-5 Ap '46

Safety measures

One million miles a year; in-plant vehicles; Glenn L. Martin company trains operators. il Nat Safety N 52:25+ D '45
Plant transportation loading chart; Westinghouse Electric. Safety Eng 92:50 Ag '46
Transporting materials safely with power trucks and tractors. C. B. Cook. il Rubber Age 59:64-6 Ap '46
Truck it safely; Goodyear tire & rubber co. il Safety Eng 91:18-19+ Je '46

MOTOR trucks, Military

Army T23 experimental truck designed for operation in deep mud. E. H. Holtzkemper. il diags Automotive & Aviation Ind 94:36-8 Ap 15 '46

MOTOR trucks, Steam

Steam lorry. R. H. P. Nott. il diags Automobile Eng 36:117-23 Mr '46

MOTOR trucks and roads

Factors influencing stress in concrete pavement from applied loads; tire contact studies. G. S. Paxson. il Concrete 54:2-8 My '46
Progress being made toward uniformity in truck size and weight limits. Eng N 136: 48-9 Ja 10 '46
Truck speed and time loss on grades. J. W. Stevens. Am Soc C E Proc 72:919-38 S '46

MOTOR trucks in freight service

Cold trucks cover state delivering sausage; water ice refrigeration used by Mickelberry's. il map diags Food Ind 18:518-19 Ap '46
Diesel powered common carriers increasing; with cost and operating statistics. G. W. Grupp. Diesel Power 24:1194-6+ O '46
Diesel truck and the West's industrial development. M. D. Pugh. il Diesel Power 24: 1186-9 O '46
Diesels-West. T. White. il Diesel Power 24: 1216-20 O '46
Five decades of commercial road transport. E. S. Shrapnell-Smith. Engineering 161: 309, 331, 341, 365-6, 462-3, 548-9, 571-2, 604-5 Mr 29-Ap 19, My 17, Je 7-14, 28 '46
Haulaway revival. Bsns W p22+ Ap 27 '46
Highway users map program for future; National highway transportation congress. Ry Age 121:575+ O 5 '46
Improved maintenance and operating practices and safety campaigns head up ATA's program. Nat Pet N 38:52-4 O 16 '46

MOTOR trucks in freight service—*Continued*
Jersey City truck terminal provides haven for drivers as well as transfer point for long distance freight. il plan Arch Forum 85:95 O '46

Pacific intermountain express. il map Diesel Power 24:1198-9 O '46

Refrigerator truck line; Texas operators request ICC to authorize trailer-truck frozen food hauling in 41 states. Bsns W p64 My 4 '46

Speeding up with Diesels; Werner transportation co. M. Greenberg. il Diesel Power 24: 1222-3+ O '46

Square deal redivivus; memorandum on coordination of road and rail freight transport. Economist 151:104-5 Jl 20 '46

Truck frozen shrimp over desert roads; 600-mile run from California to Arizona. il map Food Ind 18:1551-2 O '46

Truckers' post-war prospects analyzed; Commerce department report. Ry Age 120:160-1 Ja 12 '46

Truckers tell Lea just what ails them; statement by American trucking association. Ry Age 120:154+ Ja 12 '46

See also
Highway transportation
Keeshin freight lines
Motor trucks—Laws and regulations

Radio communication

Highway radio control of truck traffic. il Electronics 18:248+ D '45

Rates

Antitrust suit; Justice dept.'s attack on truck-owner union members. Bsns W p92-4 Mr 2 '46

Prescribes minimum truck rates on salt from Kansas. Ry Age 119:951 D 8 '45

MOTOR trucks in lumbering
Logging tires today and what we may expect tomorrow. H. T. Humby. il Pulp & Pa of Can 47:69-71 Mr '46

MOTOR trucks in mining
Truckless mobile equipment reduces mining costs; Fenix operations in the Tri-state district. H. O. Gray. il Eng & Min J 146: 97-9 N '45

MOTOR trucks in repair service
C.& N.W. uses highway wreck truck. il Ry Mech Eng 120:82-3 F '46

Eye appeal in service equipment; Kansas City public service co. W. R. Fryer. il Bus Transportation 25:86-7 Ja '46

Mobile machine shop reduces costly delays from breakdowns. R. B. Tuttle. il Oil & Gas J 45:220-1 S 21 '46

Portable machine shop built by the Davey compressor co. il Mach 52:185 Ap '46; Same. Mech Eng 68:652-3 Jl '46

Saves time on welding and lead melting; Berg and Strain, Fresno, Calif.; acetylene and electro-welding facilities on trailer. il Dom Eng 167:120+ F '46

MOTOR trucks in selling
Current queries about wagon jobbers hard to explain. Ptr Ink 214:38 Ja 4 '46

MOTOR vehicles
Five decades of commercial road transport. E. S. Shrapnell-Smith. Engineering 161:309, 331, 341, 365-6, 462-3, 548-9, 571-2, 604-5 Mr 29-Ap 19, My 17, Je 7-14, 28 '46

Surplus jeeps? Bsns W p18 Mr 23 '46

See also
Automobiles
Diesel engines, Automotive
Electric vehicles
Highway transportation
Motor buses
Motor cars (railroad)
Motor trucks
Railroads—Motor vehicle auxiliaries
Taxicabs
Tractors
Trailers
Trolley buses

Gearing

Differential is self-locking; patent assigned to R. G. LeTourneau, inc. diag Machine Design 17:176 D '45

Law

Registration as a source of essential motor vehicle facts. M. McEachin. Automotive & Aviation Ind 95:20-1+ Jl 15 '46

See also
Automobile laws and regulations
Motor bus lines—Laws and regulations
Motor trucks—Laws and regulations

Statistics

Effect of the war on motor vehicle registrations and highway motor fuel consumption. E. M. Cope and S. F. Bielak. Automotive & Aviation Ind 94:40-2+ F 15 '46

Extended life span of autos bodes well for oil industry. A. J. McIntosh. Nat Pet N 38:7+ Ag 7 '46

1945 motor-vehicle registrations record slight increase over 1944; tabulation by states. Automotive & Aviation Ind 94:80-1 Mr 15 '46

Review of highway transport; passenger carrier group; statistical tables. Automotive & Aviation Ind 94:86 Mr 15 '46

Total U.S. motor vehicle registrations by years showing increases and decreases, 1896-1945; car and truck registrations by states, by years, 1940-1944; tabulations. Automotive & Aviation Ind 94:82 Mr 15 '46

Truck registrations gain 114,000; forecast of 1945 motor vehicle registrations. Automotive & Aviation Ind 93:40+ D 1 '45

World registrations by continental divisions and countries; tabulations. Automotive & Aviation Ind 94:83 Mr 15 '46

Taxation

Billion dollars; for what? how will this sum, collected in next ten years from Canada's motorists, be spent? R. A. Stapells. Roads & Bridges 84:96+ Ap '46; Discussion (Motor-vehicle taxes justify extensive road program). C. H. Grant. 84:76-8 Jl '46

Highway revenues increase; but watch that leaky tax bucket. Nat Pet N 38:33-4+ Je 19 '46

Road ahead. A. Bradley. Automotive & Aviation Ind 95:27+ O 15 '46

Track-layer type

Suspension and track of German track laying vehicles; abstract. T. Franzen. il diags S A E J 54:sup27-8 Je '46

MOTOR vehicles, Military
Development of fuels and lubricants for army ground vehicles. N. L. Klein. Nat Pet N 38 pt 2:R92-4+ F 6 '46

Gasoline gum tolerance of ordnance equipment. M. L. Alspaugh. il S A E J 54:289-95 Je '46; Excerpts. Nat Pet N 38 pt 2: R166 Mr 6 '46; Discussion. S A E J 54: 295-6 Je '46

German radiators and oil cooler structures and facilities for manufacture; abstract. F. M. Young. diags S A E J 54:sup29-30 Je '46

Reports on German military vehicles. il diags Automotive & Aviation Ind 94:26-9+ Ap 1 '46: S A E J 54:sup17-19+ Ap '46

Review of the German army Diesel development program; abstracts. M. A. Thorne. Diesel Power 24:460+ Ap '46; S A E J 54: sup20 Je '46

Some Canadian contributions in army vehicle design. R. E. Jamieson. Pulp & Pa of Can (Convention no) 47:247-8+ [F] '46

Vehicular-mounted mine detector. H. G. Doll and others. il diags Electronics 19:105-9 Ja '46

War-time development of military road vehicles. K. M. F. Hedges. il Engineering 160:525-8, 545-7 D 21-28 '45

See also
Tractors, Military

Design

German army transport; detailed study and analysis of captured enemy vehicles. il diags Automobile Eng 35:387-97, 471-81, 515-25 O-D '45

Exhibitions

Exhibition of British and German fighting vehicles. Engineering 162:67 Jl 19 '46

MOTOR vehicles, Military—Exhibitions—*Cont.*
Fighting vehicle exhibition. il Engineer 182: 76-8, 148-9 Jl 26, Ag 16 '46

Manufacture

Welding of combat vehicles. L. M. Dalcher. il diags Welding J 24:1046-51 N '45

Springs and suspension

Observations of various German suspensions and steering gear; abstract. R. L. Weider. il diag S A E J 54:sup25-6 Je '46

Steering gear

Observations of various German suspensions and steering gear; abstract. R. L. Weider. il diag S A E J 54:sup25-6 Je '46

Transmission

German automotive transmission systems; development and design; abstract. R. R. Burkhalter. il diags S A E J 54:sup21-3 Je '46

MOTOR vehicles, Steam

See also
Motor trucks, Steam

MOTORS. See Airplane engines; Automobile engines; Internal combustion engines; Motor bus engines; Motor truck engines

MOTORS, Electric. See Electric motors

MOULDINGS. See Moldings (architecture)

MOUNDS (geology)
Small mounds of the Gulf coastal plain. R. S. Dietz. Science 102:596-7 D 7 '45

MOUNTAIN railroads
Diesels aid the Rio Grande. il Ry Age 121: 367-9 Ag 31 '46
Great Northern hauls war freight; mountain operations on western lines aided by use of Diesel-electrics. il map Ry Age 120:440-3 Mr 2 '46
Joint operation aided by C.T.C., installation on heavy grades on the Moffat tunnel route of the Denver & Salt Lake. il maps Ry Age 120:725-8 Ap 6 '46
Over the mountain with Diesel-electrics; Northern Pacific. il Ry Age 120:913-15 My 4 '46
Rio Grande makes the grade; Diesel locomotives for mountain routes. il Diesel Power 24:188-9+ F '46
Two important tunnels built in 1945; Northern Pacific and Rio Grande single-track bores through the Rockies. il diag Ry Age 120:952-5, 1056-8 My 11, 25 '46

MOUNTAIN roads
Truck shovel handy unit on mountain road maintenance. il Roads & Sts 89:82 Ag '46

MOUNTAIN VIEW, Oklahoma
It was their move; Mountain View moved across Washita river in 1903. C. Holbrook. il Comp Air Mag 51:39-41 F '46

MOUNTAINS
Dating sedimentation, vulcanism, and orogeny in Beartooth Mountain region, Montana, by heavy minerals. M. H. Stow. bibliog map Geol Soc Bul 57:675-85, fold pl 1 Jl '46

See also
Aviation—Mountain flying
Volcanoes

MOUTH

Diseases

Prevention of oral diseases of occupational origin. L. D. Heacock. bibliog Ind Med 15: 184-7 Mr '46
Use and abuse of radiographs in the diagnosis of mouth infection. E. H. Thomas. Ind Med 15:9-13 Ja '46

MOUTH organ. See Harmonica

MOVIETIME, inc.
Movietime phone service to plug specific films. Ptr Ink 216:69 Ag 30 '46

MOVING

See also
Factories—Moving
Machinery—Moving

MOVING industry

Advertising

Van and storage company finds 4% for advertising good investment. Ptr Ink 214:66 Ja 18 '46

MOVING of machinery. See Machinery—Moving

MOVING of structures
Erecting a 145-ft. deisobutanizing tower; illustrations with text. D. Attaway. Pet Eng 17: 102+ My '46
It was their move; Mountain View, Oklahoma, moved across Washita river in 1903. C. Holbrook. il Comp Air Mag 51:39-41 F '46
Large power-type rig in west Texas unitized to facilitate moving. K. M. Fagin. il diags Pet Eng 17:154+ Ag '46
Old barracks moved 102 miles because of material scarcity. il Eng N 137:389 S 19 '46
World's largest derrick walked across west Texas sand dunes. E. H. Short, jr. il Oil & Gas J 44:60-2 Mr 9 '46

MOVING picture cameras
High-speed camera for studying combustion in an aircraft-engine. Mech Eng 68:903 O '46
High speed photography of the cathode-ray tube. H. Goldstein and P. D. Bales. bibliog il diag R Sci Instr 17:89-96 Mr '46
Lens calibrating system. C. R. Daily. il diags Soc Motion Picture Eng J 46:343-56 My '46
Positive vari-focal view-finder for motion picture cameras. F. G. Back. il diags Soc Motion Picture Eng J 45:466-71 D '45
Wide angle 35-mm high-speed motion picture camera. J. H. Waddell. il diags Soc Motion Picture Eng J 46:87-102 F '46

See also
Airplanes, Military—Gun cameras

MOVING picture film collections
National film library; problem of selection. J. G. Bradley. Soc Motion Picture Eng J 47:63-71; Discussion. 71-2 Jl '46

Cataloging

Filing and cataloguing of motion picture film. C. M. Effinger. il Soc Motion Picture Eng J 46:103-10 F '46

MOVING picture films
Ansco color for professional motion pictures. H. H. Duerr and H. C. Harsh. diags Soc Motion Picture Eng J 46:357-67 My '46
Application of direct-positive sound track in 16-mm release processing by duplication method. G. C. Misener and G. Lewin. il Soc Motion Picture Eng J 46:167-77 Mr '46
Du Pont fine-grain sound films, types 232 and 236. H. W. Moyse. Soc Motion Picture Eng J 45:285-93 O '45
Film-splicing and repair machine. A. Wallingsford. il Soc Motion Picture Eng J 47: 254-7 S '46
Machine processing of 16-mm Ansco color film. J. L. Forrest. Soc Motion Picture Eng J 45:313-24; Discussion. 324-6 N '45
Measurement and control of dirt in motion picture processing laboratories. N. L. Simmons and A. C. Robertson. bibliog il diags Soc Motion Picture Eng J 46:185-205 Mr '46
Motion picture film; Telefilm. R Sci Instr 17: 345 S '46
New film for photographing the television monitor tube. C. F. White and M. R. Boyer. il Soc Motion Picture Eng J 47:152-64 Ag '46
New photographic developer for picture negatives. J. R. Alburger. Soc Motion Picture Eng J 45:459-65 D '45
Practical utilization of monopack film. C. G. Clarke. Soc Motion Picture Eng J 45:327-32 N '45
Safer film; nonflammable product in 35-mm. size. Bsns W p63 D 15 '45
Sensitometric evaluation of reversible color film. R. H. Bingham. bibliog Soc Motion Picture Eng J 46:368-78 My '46
Sound in depth; 50-mm. film provides three-dimensional sound effects. Bsns W p28+ Ap 6 '46
Television reproduction from negative films. E. Meschter. Soc Motion Picture Eng J 47:165-81 Ag '46
Two new Eastman fine-grain sound recording films. R. M. Corbin and others. bibliog il Soc Motion Picture Eng J 45:265-84 O '45

MOVING picture films—*Continued*
Unified approach to the performance of photographic film, television pickup tubes and the human eye. A. Rose. bibliog il diags Soc Motion Picture Eng J 17:273-94 O '46
Use of desiccants with undeveloped photographic film. C. J. Kunz and C. E. Ives. Soc Motion Picture Eng J 46:475-510 Je '46

Standards

American standard 16-mm test films. diag Soc Motion Picture Eng J 46:511-15 Je '46
Report of the Subcommittee on 16-mm film splices. diags Soc Motion Picture Eng J 47:1-11 Jl '46

MOVING picture industry
Battle of the screen. Fortune 33:200 Mr '46
Film comeback; American pictures in foreign theaters. Bsns W p24+ Jl 6 '46
How the wheels go around in a motion picture sales department. A. Montague. il Sales Management 56:52+ Ja 15 '46
Hughes rebels; producer of "The outlaw" sues Hays office. Bsns W p20 My 4 '46
Motion pictures tomorrow. W. F. Rodgers. Soc Motion Picture Eng J 47:120-3 Ag '46
Motion pictures; trends in 1946. N. D. Golden. Dom Comm 34:37-8 Ja '46
Movies worry; second runs are off 10% to 30%. Bsns W p86 Mr 16 '46
Old films pay off. Bsns W p40 O 19 '46
Rise of independents promises better movies. S. Wood. Barron's 26:11 S 9 '46
Town-meeting convention yields merchandising tips; Metro-Goldwyn-Mayer conducts informal sessions for salesmen and branch managers. E. J. Dever, jr. il Ptr Ink 214: 29-32+ Mr 8 '46
20th Century-Fox to hit foreign market with vets trained in film exploitation. N. Kelne. Ptr Ink 215:117+ Je 14 '46
U.S. films face fight abroad. Bsns W p109-10 D 29 '45
Wartime record and post-war future of projection and sound equipment. A. G. Smith. Soc Motion Picture Eng J 46:178-84 Mr '46
World pictures; new movie organization set up by Rank, Universal, and International. Bsns W p44+ D 8 '45

Advertising

Hughes fight tightens administration of Hollywood code on advertising. L. F. Thomann. Ptr Ink 216:122 S 13 '46
Movie advertising to hold up in face of box office slack rumored in trade. N. Kelne. Ptr Ink 216:120 Ag 16 '46
Movietime phone service to plug specific films. Ptr Ink 216:69 Ag 30 '46

Employees

Cinema electricians; scope for returning ex-service men. R. N. Paterson. Elec R (Lond) 138:285 F 22 '46
It's second-run; Hollywood movie strike. il Bsns W p100 O 5 '46
Militant painter; storm center of Hollywood's labor strife, Herbert Sorrell. Bsns W p79-80+ Jl 13 '46
More trouble in paradise; in Hollywood, management and unions prefer labor politics to policy. il Fortune 34:154-9+ N '46

Finance

Movie makers cash in on big inventories; backlogs keep profits high in era of rising costs. D. C. Gillette. Barron's 26:9 Ap 29 '46

Insurance requirements

Seek bonds to protect motion picture distributors against loss on "percentage" pictures. Weekly Underw 154:629 Mr 9 '46; Nat Underw 50:39 Mr 7 '46

International aspects

Hollywood and international understanding. H. L. Hansen. Harvard Bsns R 25 no 1: 28-45 [O] '46

Regulation

Movie pay-off; independent theater wins damage suit against producers in first-run picture issue. Bsns W p24+ Mr 2 '46
Movie surrender? Bsns W p16-17 N 17 '45
New film decree. Bsns W p19-20 Je 22 '46
No film peace; antitrust proceeding. Bsns W p41-2 O 26 '46

Securities

Hollywood wows Wall street. Bsns W p58+ My 11 '46
Outlook for the movies; with position of leading motion picture companies. J. C. Clifford. Mag of Wall St 77:776-7+ Mr 30 '46
Shifting scenes for the movies; with financial survey of principal motion picture producers. M. C. Lowe. il Mag of Wall St 78: 452-4+ Jl 20 '46
Varying status of the movie industry; with statistical data on leading producers. C. F. Morgan. il Mag of Wall St 77:401-3+ Ja 5 '46

Taxation

Sanctuary closed; single-picture corporations attacked by U.S. Bsns W p26+ Ag 3 '46

Canada

First motion-picture studio nearing completion. For Comm W 23.38 My 4 '46
Motion picture theatres in Canada, 1945. 21p pa 25c Canada. Dominion bur. of statistics, Ottawa '46

Chile

Chile's activity in movie-making. For Comm W 24:33 Ag 3 '46

China

Movies for China. Bsns W p106 Mr 2 '46

Finland

Finnish motion-picture market. For Comm W 23:45 Je 22 '46
U.S. films popular in Finland. For Comm W 22:33 Ja 12 '46

France

Understanding between the United States and France with respect to exhibition of American motion pictures in France; text. For Comm W 23:53 Je 15 '46

Great Britain

See also
Gaumont-British picture corporation

Mexico

Films go begging. Bsns W p106 Jl 27 '46

Venezuela

Theaters and types of films, Maracaibo, Venezuela. For Comm W 22:30 F 9 '46

MOVING picture laboratories
Measurement and control of dirt in motion picture processing laboratories. N. L. Simmons and A. C. Robertson. bibliog il diags Soc Motion Picture Eng J 46:185-205 Mr '46

MOVING picture machines
Application of pure mathematics to the solution of Geneva ratios. R. W. Jones. il diag Soc Motion Picture Eng J 47:55-62 Jl '46
Behavior of a new blue-sensitive phototube in theater sound equipment. J. D. Phyfe. Soc Motion Picture Eng J 46:405-8 My '46
Improved film-drive filter mechanism. C. C. Davis. bibliog diags Soc Motion Picture Eng J 46:454-64 Je '46
Nonintermittent motion picture projector with variable magnification; used in navy aviation training. F. G. Back. il Soc Motion Picture Eng J 47:248-53 S '46
16mm. sound movie projector. il Product Eng 17:282-3 Ap '46
Wartime record and post-war future of projection and sound equipment. A. G. Smith. Soc Motion Picture Eng J 46:178-84 Mr '46
Westrex master sound film reproducer. G. S. Appelgate and J. C. Davidson. il Soc Motion Picture Eng J 46:278-83 Ap '46
Westrex standard sound film reproducer. G. S. Appelgate and J. C. Davidson. il Soc Motion Picture Eng J 46:272-7 Ap '46
World markets for U.S. motion-picture equipment. N. D. Golden. il For Comm W 24:3-4+ Jl 27 '46

Light sources

Incandescent lamps for film projection. T. J. J. A. Manders. Light & Lighting 39: 143-5 Ag '46

MOVING picture machines—Light sources—*Continued*
New carbon for increased light in studio and theater projection. M. T. Jones and others. bibliog il Soc Motion Picture Eng J 45:449-58 D '45

Lubrication

Magnetic oil filter installed in Philips co. (Holland) 35-mm projector. il Machine Design 18:106 S '46

MOVING picture photography
Practical utilization of monopack film. C. G. Clarke. Soc Motion Picture Eng J 45:327-32 N '45
Specialized photography applied to engineering in the Army air forces. P. M. Thomas and C. H. Coles. il Soc Motion Picture Eng J 46:220-30 Mr '46

Apparatus and supplies

Development of two automatic follow-focus devices for use in cinematography. J. T. Strohm and W. G. Heckler. il Soc Motion Picture Eng J 45:302-9 O '45

Industrial applications

Combustion in a precombustion-type Diesel engine. H. F. Bryan. il diags S A E J 54: 449-57; Discussion. 457 S '46
Detergency studied by photomicrographic movie technique. il Soap & San Chem 22:52-3 Je '46
High-speed motion-picture study of normal combustion, knock and preignition in a spark-ignition engine. A. M. Rothrock and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:15-30 '42
Materials in action as seen by the high-speed movie camera. K. Rose. il Materials & Methods 23:414-17 F '46
Motion radiography of mold pouring. S. L. Fry. il Foundry 74:92-6 F '46
Roles of detonation waves and autoignition in spark ignition engine knock as shown by photographs taken at 40,000 and 200,000 frames per second. C. D. Miller. bibliog il diag Pet Processing 1:28-9+ S '46; Abstract. S A E J 54:34-5 O '46; Summary. Automotive & Aviation Ind 95:35 Jl '46
Slow-motion study of injection and combustion of fuel in a Diesel engine. C. D. Miller. bibliog il diags S A E J 53:719-33; Discussion. 733-5 D '45
This is resistance welding, new General Electric motion picture. il Mach 52:182-3 Je '46
Timing a Meteor aircraft; systems used for world speed record flights at Herne bay. Electrician 135:591-2 N 30 '45
X-ray movies in the foundry; abstract. S. L. Fry. Metal Prog 49:812+ Ap '46

Lighting

Continuous flash lighting; an improved high-intensity light source for high-speed motion picture photography. H. M. Lester. bibliog il diags Soc Motion Picture Eng J 45:358-69 N '45
Theory and practice of lighting for the camera. H. T. Souther. il diag Soc Motion Picture Eng J 46:254-68 Ap '46

Scientific applications

Flame speeds and energy considerations for explosions in a spherical bomb. E. F. Fiock and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:39-58 '41
High speed photography of the cathode-ray tube. H. Goldstein and P. D. Bales. bibliog il diag R Sci Instr 17:89-96 Mr '46

Standards

American standards on motion pictures. diags Soc Motion Picture Eng J 46:284-309 Ap '46

MOVING picture photography, Amateur
Make your own promotion movies. F. B. Koss. il Ind Marketing 31:44-6+ My '46

MOVING picture projection
Audio-visual classroom planning. P. Will, jr. il plans diags Arch Rec 99:66-77 F '46
High cost of poor projection. C. E. Lewis. Soc Motion Picture Eng J 17:295-8 O '46

MOVING picture projectors. See Moving picture machines

MOVING picture sound recording
Application of direct-positive sound track in 16-mm release processing by duplication method. G. C. Misener and G. Lewin. il Soc Motion Picture Eng J 46:167-77 Mr '46
Chemical drag observed with variable-density sound tracks. E. Meschter. il Soc Motion Picture Eng J 46:111-14 F '46
Du Pont fine-grain sound films, types 232 and 236. H. W. Moyse. Soc Motion Picture Eng J 45:285-93 O '45
Factor governing frequency response; abstract. M. Rettinger and K. Singer. Electronics 19:194+ Jl '46
Factors governing the frequency response of a variable-area film recording channel. M. Rettinger and K. Singer. diags Soc Motion Picture Eng J 17:299-326 O '46
Improved film-drive filter mechanism. C. C. Davis. bibliog diags Soc Motion Picture Eng J 46:454-64 Je '46
Intermodulation distortion of low frequencies in sound film recording. F. G. Albin. Soc Motion Picture Eng J 46:4-16 Ja '46
Multisection rerecording equalizer. W. L. Thayer. bibliog il Soc Motion Picture Eng J 45:333-8 N '45
New recorder for 16-mm buzz track. M. G. Townsley. il Soc Motion Picture Eng J 46: 206-11 Mr '46
Optical cueing device for disk playback. G. C. Misener. il diag Soc Motion Picture Eng J 45:297-301 O '45
Preliminary sound recording tests with variable-area dye tracks. R. O. Drew and S. W. Johnson. bibliog diag Soc Motion Picture Eng J 46:387-404 My '46
Push-pull frequency modulated circuit and its application to vibratory systems; application to calibration of recording heads. A. Badmaieff. bibliog il diags Soc Motion Picture Eng J 46:37-51 Ja '46
Simplified all-purpose film recording machine. G. R. Crane and H. A. Manley. il Soc Motion Picture Eng J 46:465-74 Je '46
Simplified recording transmission system. F. L. Hopper and R. C. Moody. il diags Soc Motion Picture Eng J 47:132-41 Ag '46
Sound in depth; 50-mm. film provides three-dimensional sound effects. Bsns W p28+ Ap 6 '46
Three-band variable equalizer. L. D. Grignon. diags Soc Motion Picture Eng J 46:64-74 Ja '46
Two new Eastman fine-grain sound recording films. R. M. Corbin and others. bibliog il Soc Motion Picture Eng J 45:265-84 O '45

Foreign language synchronization

Dubbing and post-synchronization studios; adding foreign dialog to completed pictures and dubbing in replacement lines. W. A. Mueller. il plan diags Soc Motion Picture Eng J 47:230-7 S '46
Synchronization technique; method used by M-G-M International films corporation to transpose stories from one language to another. W. A. Pozner. il diag Soc Motion Picture Eng J 47:191-211 S '46

Noise reduction

Film noise spotter. J. P. Corcoran. il diag Soc Motion Picture Eng J 46:124-7 F '46

MOVING picture studios
Complete motion picture production plant for metropolitan New York; RKO-Pathe corporation. R. B. Austrian. il plans Soc Motion Picture Eng J 47:12-21 Jl '46
Dubbing and post-synchronization studios; adding foreign dialog to completed pictures and dubbing in replacement lines. W. A. Mueller. il plan diags Soc Motion Picture Eng J 47:230-7 S '46

Electric equipment

Electrical power equipment for new British film studios. Engineer 181:559-60 Je 21 '46; Electrician 136:1455-6 My 31 '46; Elec R (Lond) 138:932 Je 14 '46

Equipment

Film-splicing and repair machine. A. Wallingsford. il Soc Motion Picture Eng J 47: 254-7 S '46

MOVING picture studios—Equipment—*Cont.*
Modernization desires of a major studio. L. L. Ryder. Soc Motion Picture Eng J 47: 225-9 S '46; Abstract. Electronics 19:188+ Jl '46
Small microphone boom. B. F. Ryan and E. H. Smith. il diags Soc Motion Picture Eng J 45:441-8 D '45

Libraries

Filing and cataloguing of motion picture film. C. M. Effinger. il Soc Motion Picture Eng J 46:103-10 F '46

Lighting

Carbon arcs for motion picture and television studio lighting. F. T. Bowditch and others. bibliog il diag Soc Motion Picture Eng J 46:441-53 Je '46
Design of studio light fittings. W. R. Stevens and F. S. Hawkins. Light & Lighting 39: 146 Ag '46
General electric co. arc lamp for film studios. il Electrician 137:1004 O 11 '46
New carbon for increased light in studio and theater projection. M. T. Jones and others. bibliog il Soc Motion Picture Eng J 45: 449-58 D '45
Power rectifiers for studio lighting. L. A. Umansky. il diags Soc Motion Picture Eng J 45:414-40 D '45
Report of the Committee on studio lighting. Soc Motion Picture Eng J 47:113-18 Ag '46
Report of the studio lighting committee, Society of motion picture engineers. diags Soc Motion Picture Eng J 45:249-60 O '45

MOVING picture theaters
Building types; small motion picture theater; reference studies on design and planning; with time saver standards. il plans diags Arch Rec 99:99-118, 129+ Je '46
Improved loudspeaker system for theaters. J. B. Lansing and J. K. Hilliard. bibliog il Soc Motion Picture Eng J 45:339-49 N '45
Liability of theatre owners; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:38-40 F 28 '46
Report of the subcommittee on theater engineering, construction, and operation, Society of motion picture engineers. Soc Motion Picture Eng J 45:262-4 O '45

Air conditioning

Air conditioning costs for theaters. Elec World 125:128 F 16 '46
Theatre air conditioning is vast potential market. J. H. Toler. il plans Dom Eng 167: 138-42 Mr '46

Automobile parking service

Transit-theater tie tried in Atlanta. Mass Transportation 42:321 Ag '46

Employees

See Moving picture industry—Employees

Heating and ventilation

Heating, ventilating and air conditioning. Arch Rec 99:117 Je '46

Lighting

Theater lighting. diags Arch Rec 99:118 Je '46

Projection rooms

Projection room for small theater; with time saver standards. il plans Arch Rec 99:115, 131 Je '46

Sound control

Massive speaker cabinet. C. A. Volf. il Electronics 19:206+ Mr '46
Psychological and technical considerations employed in the Bucky sound reproduction and public address systems. P. A. Bucky. Soc Motion Picture Eng J 46:75-9 Ja '46

Television

Relation of television to motion pictures. A. B. Du Mont. Soc Motion Picture Eng J 47: 244-6 S '46
Television program shown on theatre screen; microwave relay equipment used in feeding signals to screen. il Elec World 125:124 Ap 27 '46

MOVING pictures
Illusion of depth in motion pictures. H. T. Souther. il diags Soc Motion Picture Eng J 46:245-53; Discussion. 269-71 Ap '46
Motion pictures, the theater, and race relations. J. T. McManus and L. Kronenberger. Ann Am Acad 244:152-8 Mr '46

See also
Slide films
Television broadcasting—Moving pictures

History

Presentation of scrolls to Thomas Armat and Warner brothers. D. E. Hyndman. il Soc Motion Picture Eng J 47:124-31 Ag '46

Military use

Army film distribution and exhibition. R. A. Kissack, jr. Soc Motion Picture Eng J 46: 26-9 Ja '46
Specialized photography applied to engineering in the Army air forces. P. M. Thomas and C. H. Coles. il Soc Motion Picture Eng J 46:220-30 Mr '46

See also
Moving pictures in military education

News films

Movie magazine; Rank producing organization offers current events film. Bsns W p102 Ag 10 '46
Newsreel race; advantages of 16-mm. film. Bsns W p41 Ja 5 '46

Rating

Ratings of motion pictures. Consumers Res Bul 17:27-8 Ja '46 [cont monthly]

Standards

American standards on motion pictures. diags Soc Motion Picture Eng J 47:258-64 S '46
Report of the Committee on standards. Soc Motion Picture Eng J 47:110-13 Ag '46

Study and teaching

Report of the Committee on motion picture instruction. Soc Motion Picture Eng J 47:95-106 Ag '46

MOVING pictures, Colored
Ansco color for professional motion pictures. H. H. Duerr and H. C. Harsh. diags Soc Motion Picture Eng J 46:357-67 My '46
Behavior of a new blue-sensitive phototube in theater sound equipment. J. D. Phyfe. Soc Motion Picture Eng J 46:405-8 My '46
Machine processing of 16-mm Ansco color film. J. L. Forrest. Soc Motion Picture Eng J 45:313-24; Discussion. 324-6 N '45
Phototube for dye image sound track. A. M. Glover and A. R. Moore. bibliog il Soc Motion Picture Eng J 46:379-86 My '46
Practical utilization of monopack film. C. G. Clarke. Soc Motion Picture Eng J 45: 327-32 N '45
Preliminary sound recording tests with variable-area dye tracks. R. O. Drew and S. W. Johnson. bibliog diag Soc Motion Picture Eng J 46:387-404 My '46
Report of the SMPE committee on color; importance of new high sensitivity caesium-antimony phototubes. Soc Motion Picture Eng J 45:397-400 D '45
Sensitometric evaluation of reversible color film. R. H. Bingham. bibliog Soc Motion Picture Eng J 46:368-78 My '46

MOVING pictures, Talking
Phototube for dye image sound track. A. M. Glover and A. R. Moore. bibliog il Soc Motion Picture Eng J 46:379-86 My '46
Synchronization technique; method used by M-G-M International films corporation to transpose stories from one language to another. W. A. Pozner. il diag Soc Motion Picture Eng J 47:191-211 S '46

See also
Moving picture sound recording

MOVING pictures in advertising
ABC's of building audiences for industrial films. R. M. Cronin. Sales Management 57: 134+ O 1 '46
Ad films are becoming an important medium, A.N.A. finds. Ptr Ink 217:79+ O 4 '46

MOVING pictures in advertising—*Continued*
Bank-agent auto plan film. Banking 38:79-80+ N '45
Contests help these salesmen earn over $9,000 a year; Alexander film co., Colorado Springs. Ptr Ink 216:37 Jl 26 '46
Disney color movie is feature of better light-better sight 1946 program. il Edison Elec Inst Bul 14:36-7 F '46
Disney film battles twilight squint. il Sales Management 56:45 Mr 15 '46
Film tells of birth of life insurance in England and America; photograph with text. Weekly Underw 155.503 Ag 31 '46
Films sell foreign markets; motion pictures of industrial products in action educate, train and sell. J. T. Kolbert. il Ind Marketing 30:48-9+ O '45
$40,000 celluloid bomb; General electric transportation division releases Lifestream of the city. Mass Transportation 42:72-4 F '46
How Eastman slants umbrella copy to vertical, horizontal markets; campaign to promote use of sales and training films. Ind Marketing 31:47+ S '46
Hughes fights for O.K. on Jane Russell movie displays; N.Y. ponders film ad code. il Ptr Ink 215:133+ My 3 '46
Institute of life insurance produces motion picture film; Search for security. il East Underw 47:10 Ag 30 '46; Same cond. Nat Underw (Life ed) 50:1 Ag 30 '46
Movies show mining and tunneling operations; distributed by Ingersoll-Rand co. il Comp Air Mag 51:165 Je '46
Production pointers on promotion films. il Ind Marketing 31:44-6+ Ja '46
Roma road show depicts role of wine as aid to gracious living; technicolor film showing broadcast performance. il Sales Management 56:97+ Mr 15 '46
Search for security; Institute of life insurance visualizes history of insurance. il Spectator (Life ed) 154:22-3 S '46
Selling through eyes and ears; cuff-notes on current merchandising movies. Sales Management 56:67 My 1 '46
Simmons puts showmanship into launching of new electronic blanket; film for training salespeople and for consumer audiences, augmented by demonstration. J. G. Roemer. Sales Management 57:60+ S 1 '46
So we used a movie at Dravo; LST building. F. C. Cole. il Ind Marketing 31:52+ Mr '46
Sports movies build friendly feeling for Tide Water Oil. Sales Management 56:168 F 15 '46
Suggestions for making good commercial films. J. S. Hukill. Ptr Ink 213:118+ N 16 '45
Two new bank films; Watson wakes up, New York savings banks' film and Colonial trust company's test ABC's of GI loans. il Banking 39:113 O '46
What do you know about commercial films? N. Kelne. il Ptr Ink 216:47-8+ Jl 19 '46

See also
Advertising campaigns—Moving picture tie-in
Advertising copy—Moving picture tie-in
Television advertising

MOVING pictures in education
Abstracting of biological films. W. M. Reid. Science 103:206 F 15 '46
Audio-visual classroom planning. P. Will, jr. il plans diags Arch Rec 99:66-77 F '46
Films for schools: public relations tool for industry. H. Kerkow. il Sales Management 56:68+ Mr 1 '46
1946 ANFA year book and audio-visual who's who. W. L. Knighton, ed. 106p Allied non-theatrical film assn, 303 Lexington av, New York 16 '46
Report of the Committee on 16-mm and 8-mm motion pictures. Soc Motion Picture Eng J 47:107-10 Ag '46

See also
Moving pictures in military education
Moving pictures in safety education

Catalogs
Educational film guide formerly Educational film catalog. annual ed, June 1946. D. E. Cook and E. Rahbek-Smith, comps. 523p H.W. Wilson co. '46
Educational films; list of movies and slide films on welding. Welding J 25:770, 772 Ag '46
1946 catalog. ns no. 35:1-143 South Carolina, University. Extension division audio visual aids bureau, Columbia, S.C. 19 Jl '46
1000 and one; the blue book of non-theatrical films. 21st annual ed 1945-46 160p pa $1 Educational screen, 64 East Lake st, Chicago '45

MOVING pictures in employee training. See Moving pictures in industry

MOVING pictures in industry
American steel foundries color-sound moving picture; demonstrate type A-3 Ride control freight-car trucks. il Ry Age 121:417 S 7 '46
Animated annual statement; United States steel corporation's new sound motion picture, Behind the annual report. L. S. Metcalfe. il Banking 38:114 N '45
Company reports should be merchandised; U.S. steel corporation's moving picture; idea adaptable to gas companies. L. S. Metcalfe. il Gas Age 96:52+ D 13 '45
Convention-on-film inspires wholesalers, sells to dealers, trains salesmen; Philco convention. J. H. Carmine. il Ptr Ink 216:29-31 Ag 2 '46
Doctor in industry; General Motors dramatizes industrial medicine through the life story of an industrial physician. il Ind Med 15:264-7 Ap '46
Films promote loyalty, aid typists, increase morale; how companies are using motion pictures and sound-slidefilms for special training problems. Am Bsns 16:32 Mr '46
Films sell foreign markets; motion pictures of industrial products in action educate, train and sell. J. T. Kolbert. il Ind Marketing 30:48-9+ O '45
How to select film producers and determine costs. R. Rockwell. il Ind Marketing 31: 42-3 Ap '46
Make your own promotion movies. F. B. Koss. il Ind Marketing 31:44-6+ My '46
Motion pictures to teach foundry work; United States Office of education. S. Reid. il Foundry 74:86-7+ N '46
Oil industry movies helpful in training marketing personnel. il Nat Pet N 38:27 Jl 31 '46
Theory and practice of gear cutting illustrated in motion-picture film. il Mach 52: 188-9 Ap '46
U.S. Steel finds new uses for training films; solve many problems of business management. P. Eastman. Am Bsns 16:34 F '46

See also
Moving picture photography—Industrial applications

Advertising
How Eastman slants umbrella copy to vertical, horizontal markets; campaign to promote use of sales and training films. Ind Marketing 31:47+ S '46

Catalogs
Industrial films. Am Cer Soc Bul 25:13-16 Ja 15 '46

MOVING pictures in military education
Waller flexible gunnery trainer. F. Waller. il plan diags Soc Motion Picture Eng J 47:73-87 Jl '46

MOVING pictures in naval education
Nonintermittent motion picture projector with variable magnification; used in navy aviation training. F. G. Back. il Soc Motion Picture Eng J 47:248-53 S '46

See also United States naval photographic services depot, Hollywood

MOVING pictures in public health education
New films available on administration of mass radiography programs. Pub Health Rep 61: 829 Je 7 '46

MOVING pictures in safety education
Safety film "X marks the spot" released by N.J. motor bureau. L. S. Metcalfe. il East Underw 46:34 N 16 '45
Safety films win awards. Nat Safety N 53: 56+ My '46

MOVING pictures on airplanes
Movies in flight; new PAA projector halves weight; TWA, AOA plan use. Air Transport 4:95 My '46

MOWERS, Lawn. See Lawn mowers

MUCILAGE
Institute reports on guar; new source for vegetable mucilage. Paper Tr J 121:38+ D 20 '45
Use of guar in paper manufacture. B. W. Rowland. il Paper Ind 27:1398+ D '45; Same. Pulp & Pa of Can 47:79-83 Je '46; Abstract. Paper Tr J 121:38+ D 20 '45

MUD fluids. See Petroleum—Mud fluids

MUD jacking
Mudjacking in Texas. M. B. Hodges. il Roads & Sts 89:86-90 Ag '46

MUDALIAR, Sir A. Ramaswami Diwan Bahadur, 1887-
Economic and social council convenes. por (cover) Bsns W p8 My 25 '46

MUDSTONE
Landslides and their relation to engineering in the Dunedin district, New Zealand. W. N. Benson. bibliog maps plans diags Econ Geol 41:328-47 Je '46

MULLEN, William
Three men on paper plates. por Fortune 33: 149-52+ F '46

MULLITE
Soviets develop new refractory material for glass furnaces; Thermomullite. For Comm W 24:33 S 28 '46

MULTIMOLECULAR adsorption. See Adsorption

MULTIPLE tenancy plan. See Factories

MULTIPLE use buildings. See Buildings, Multiple use

MULTIVIBRATORS
Electronic counters. I. E. Grosdoff. il diags RCA R 7:438-47 S '46
Equivalent circuit of the multivibrator. G. W. O. Howe. diags Wireless Eng 22:573-5 D '45
Low frequency multivibrators. C. J. Quirk. diag Electronics 18:350+ D '45
Measuring and monitoring broadcast frequencies. L. S. Cole. il diags Electronics 19: 110-11 Jl '46
Multivibrator as a service instrument. W. M. Ross. diag Radio N 35:120 Je '46
Multivibrator circuits. N. W. Mather. diags Electronics 19:136, 138 O '46
New angular-velocity-modulation system employing pulse techniques. J. F. Gordon. il diags fold chart Inst Radio Eng Proc 34: 328-34 Je '46

MUNICIPAL accounting
Municipal accounting. P. L. Sandberg. Am Water Works Assn J 37:1280-8 D '45

MUNICIPAL advertising
City advertises for manufacturers to send products for local outlets; Rochester direct-mail and newspaper campaigns. Ptr Ink 216:106 Jl 5 '46
City fathers advertise for trouble; Corpus Christi variation of plant suggestion box. R. McDaniel. Ptr Ink 216:39 Ag 9 '46
San Francisco makes a presentation that may bring United nations headquarters to city. W. Williams, jr. Ptr Ink 213:113-14 N 23 '45
States and cities expand campaigns for new industry; analysis of 10 recent programs. D. Markstein. il Ptr Ink 216:46-7 S 13 '46

MUNICIPAL airports. See Airports, Municipal

MUNICIPAL bonds
Chicago voters approve large bond issues. Eng N 136:902 Je 13 '46
Has the peak been reached for municipal bond prices? H. M. Tremaine. Mag of Wall St 78:387-9+ Jl 6 '46
Municipal bond financing in Nov. and Dec. and for calendar year of 1945. Comm & Fin Chr 163:366-8 Ja 21 '46
Municipal prices attained record highs; IBA committee report. Comm & Fin Chr 162: 2732-9 D 6 '45
Municipals; whither now? Bsns W p66+ N 2 '46
Otis wins again; competitive bidding gains triumph in Montreal. Bsns W p58+ Mr 2 '46
Premium bonds; offered by Sacramento utility district. Bsns W p73-4 Jl 20 '46
Yield on municipal bonds at record low. L. B. Lebenthal. Comm & Fin Chr 163:535 Ja 31 '46

MUNICIPAL buildings
Municipal building in the modern manner at Royal Oak, Michigan; to house all activities of public works department. il Roads & Sts 89:91 Mr '46
Power board and municipal building; Alabama state planning board and TVA collaborate at Guntersville. il plans Arch Forum 84:139 Mr '46

See also
Fire houses
Health centers
Markets, Municipal

MUNICIPAL centers
Civic center for Petaluma, Calif. il map plans Arch Forum 83:114-15 N '45

MUNICIPAL contracts. See Contracts, Municipal

MUNICIPAL employees
Bargaining plan for civil service proposed in New York transit report. Eng N 137: 353 S 19 '46
Detroit improves employment system in public works. Eng N 135:745 N 29 '45
General strike settled at Rochester, N.Y. Eng N 136:888 Je 6 '46
Personnel problems in municipal administration; discussion. Water & Sewage 83:48+ N '45
Public workers and the right to strike. C. S. Rhyne. Eng N 137:292-5 S 5 '46
Right job for the man; improved civil service procedure undertaken by Los Angeles Department of water and power. C. E. Hill. Pub Util 37:221-4 F 14 '46
Union relations with public ownership. W. R. LaDue. Am Water Works Assn J 38: 914-20 Ag '46
Unionists unite to discipline Rochester. Bsns W p98 Je 1 '46

See also
Firemen
Waterworks—Employees

MUNICIPAL engineering
City traffic engineering activities; report by Eno foundation for highway traffic control. il map Roads & Bridges 84:60-1+ F '46

See also

City planning	Sewage disposal
Municipal improvement	Sewerage
Pavements	Snow removal
Public works	Streets
Refuse collection	Water purification
Refuse disposal	Water supply engineering

MUNICIPAL finance
Chicago's public works to cost nearly 300 million in seven years. L. M. Johnson. Civil Eng 16:398-9 S '46
Cities finance public works on pay-as-you-go basis. Eng N 137:501 O 17 '46
Cities on make; hunt for new sources of revenue. Bsns W p62+ O 12 '46
Cities seek new income sources. Bsns W p41-3 Ap 13 '46
City governments cut their debts. L. B. Sims. Dom Comm 34:7-8 My '46
Higher suburban service charges help cities meet rising costs. Eng N 136:1001 Je 27 '46
Red ink coming. Fortune 33:226-7 Ja '46
State and municipal finances. Nat City Bank p22-3 F '46

See also

Municipal bonds	Waterworks—Finance
Municipal taxation	
Sewerage—Finance	

Bibliography

City periodic financial reports. (City documents, no.1) 28p U.S. Bur. of the census, Washington, D.C. '46

State aid

Helping cities to help themselves; New York state program of providing funds for local-works planning. J. O. Heck. il Eng N 137:163-6 Ag 8 '46

MUNICIPAL forests. See Forests, Municipal

MUNICIPAL government
Government in the future city. V. Jones. bibliog Ann Am Acad 242:79-87 N '45

See also
Cities and towns
Municipal employees
Municipal finance
Municipal officials
Municipal ownership
Street departments

Yearbooks
Municipal year book, 1946. C. E. Ridley and O. F. Nolting, eds. 593p $8.50 International city managers' assn, Chicago '46

MUNICIPAL improvement
Chicago announces 7-year construction program; with financial data. Eng N 136:532 Ap 18 '46
Chicago board develops public works program. P. Harrington. il Civil Eng 16:24-6 Ja '46
City building and renewal. J. D. McGoldrick. Ann Am Acad 242:96-100 N '45
Civic improvement pays; planning in southern communities. C. R. Walker. plans Manuf Rec 115:36+ Ag '46

See also
City planning
Pavements
Streets
Water fronts

MUNICIPAL lands
Municipal land policy and control. M. S. McDougal. Ann Am Acad 242:88-95 N '45

MUNICIPAL liability
Liability to furnish fire protection; high court denies property owners' recovery for city of Beacon's alleged negligence. Weekly Underw 153:1385+ D 15 '45

MUNICIPAL markets. See Markets, Municipal

MUNICIPAL officials
Relationship of the utility operator to the village officials. I. M. Hoover. Am Water Works Assn J 37:1267-9 D '45

Directories
Directory of municipal road officials in Canadian cities, towns, counties, and townships. Roads & Bridges 84:169-78+ Je '46

MUNICIPAL ownership
Taxation of municipal utilities; abstract of Ohio Supreme court decision no. 30128. Am Water Works Assn J 37:1293-7 D '45

See also
Airports, Municipal
Electric utilities—Municipal ownership
Rapid transit—Municipal ownership
Waterworks—Municipal ownership

MUNICIPAL radio stations. See Radio stations, Municipal

MUNICIPAL taxation
Cities eye utility taxes. B. Jones. Pub Util 38:311-13 Ag 29 '46
Cities pass hat; drive for more revenue. Bsns W p46+ Je 1 '46
Cities tap new tax sources to increase revenues. Bsns W p66 N 2 '46
Municipalities look to broader tax bases; local governments also seek increasing share of state revenues. B. Jones. Barron's 26:9+ My 6 '46
Toledo wage tax; city couples 1% levy on payrolls with 1% income tax on corporate net profits. Bsns W p70+ Ja 19 '46
Utility tax killed; Ohio cities study income-payroll levy. Bsns W p67 Jl 27 '46
Virginia court voids truck tax; municipal taxes on interstate truckers. Bsns W p41 Jl 20 '46
Waning property tax; cities are switching to new revenue sources. Arch Forum 85: 16 O '46

See also
Taxation—Philadelphia
Taxation—Shanghai

MUNITION factories
Behind a curtain of war secrecy, construction speeded output of RDX; Holston ordnance works. il map Eng N 137:96-101 Jl 25 '46
Design for living, Illinois style sees hope for future in huge surplus war plant. il Bsns W p17-18 O 26 '46
Heating, piping, and air conditioning at Oak Ridge. J. K. Fairbairn. il Heating-Piping 17:527-9 O-N '45
Naval ordnance plant. il Factory Management 104:B55-B57 pt 2 Ap '46

See also
Atomic bombs—Manufacture
Shells (projectiles)—Loading plants

Electric equipment
Rifle manufacture; electrical applications. il Elec R (Lond) 138:81-6 Ja 18 '46

Employees
Medical study of the effect of TNT on workers in a bomb and shell loading plant and Report of fatal case of aplastic anemia. R. F. Sievers and others. (Pub. health bul. 291) il 98p bibliog(70 titles) U.S. Public health service, Washington; pa 25c Supt. of doc. '45
Wartime labor force of Houston ordnance plant; Dickson gun plant. W. T. Watson and E. V. Doane. Mo Labor R 62:458-72 Mr '46

Management
Twin production lines; manufacture of rockets, Canton naval ordnance plant. W. G. Miller. il diags Steel 117:120-1+ D 10 '45

Power
Building a power plant in ten months; Clinton engineer works. J. D. Watson. il Eng N 135:807-10 D 13 '45
Power system development for service to Hanford plutonium plant. B. V. Hoard and J. R. Curtin. map diags Elec Eng 65:Trans 773-8 N '46

Safety measures
Mission accomplished; safety work of Ordnance department. F. C. Tapp. il Safety Eng 91:22+ Ja '46
Safety at every step; program of the Manhattan project. W. G. Johnson. il Nat Safety N 53:20-1+ Je '46
Super secret and super safe; atomic bomb project. W. G. Johnson. il Nat Safety N 52:74-5+ O '45

Waste
Estimation of ammonium picrate in wastes from bomb- and shell-loading plants; some reactions of ammonium picrate in water and sewage. C. C. Ruchhoft and F. I. Norris. bibliog Ind & Eng Chem Anal ed 18:480-3 Ag '46

MUNITIONS

See also
Explosives—Manufacture

Surplus problem
Reclamation of war equipment in Australia. Engineering 161:138 F 8 '46

Transportation
Silica gel did its war work well; munitions, etc. protected from corrosion and moisture. R. G. Skerrett. il Comp Air Mag 50:280-5 N '45

MUNITIONS industry
Dominion's war output totaled $10.5 billion. Steel 118:113 Ja 28 '46

Finance
CPA says private industry financed $5.9 billion of $23.1 billion war plant expansion. L. W. Moffett. Iron Age 157:92+ My 9 '46

Germany
Axis manufacture of explosives. R. A. Cooley. flow sheet il diag Chem Ind 59:645-9+ O '46
German arsenal; production of armaments in Soviet zone. Economist 151:326-7 Ag 31 '46

Japan
Axis manufacture of explosives. R. A. Cooley. flow sheet il diag Chem Ind 59:645-9+ O '46

MUNSELL color system. See Color

MURAL painting and decoration
Murals by Claire Falkenstein for auditorium of San Leandro naval hospital, California. il Arch Forum 85:152+ S '46

MURIATIC acid. See Hydrochloric acid

MURPHY, Bill
He makes privileges pay their way. por Bsns W p78 Mr 16 '46

MURPHY, Edgar Jackson, 1901-
Portrait. Chem & Eng N 24:483 F 25 '46

MURPHY, Elsie
Sees need for more women in wood fabric field. J. Morrow. por Textile Col 68:20-1 Mr '46

MURPHY, Robert
Strike one; American baseball guild, new independent union. por Bsns W p92+ Ap 27 '46

MURRAY, Philip, 1886-
Radical conservative. por Bsns W p17 Ja 26 '46

MUSCLE
Distribution of sodium and water in muscle following severe cold injury. J. M. Crismon and F. A. Fuhrman. bibliog Science 104: 408-9 N 1 '46
Elastic elements of skeletal muscle. H. B. Bull. bibliog Am Chem Soc J 67:2047-8 N '45
Nucleosis of skeletal muscle; its value as a biological test. R. Altschul. Science 103: 566-7 My 3 '46

MUSCLE grafting. See Grafting (surgery)

MUSCLES
Biochemistry of muscle training. A. V. Palladin. bibliog Science 102:576-8 D 7 '45
Chemical-mechanical theory of muscular contraction. F. Binkley. Science 102:477-9 N 9 '45
Effect of di-isopropyl fluorophosphate (DFP) on the action potential of muscle. R. Couteaux and others. bibliog Science 104: 317 O 4 '46
Mechanics of human muscles. H. W. Haggard. diags Mech Eng 68:321-4 Ap '46
Mechanism of myotonic contraction. A. Lanari. bibliog Science 104:221 S 6 '46
Treatment of myopathies and industrial injuries with wheat germ oil. M. Ant. Ind Med 15:399+ Je '46

MUSEUM libraries
See also
Smithsonian institution—Library

MUSEUM of modern art, New York
Art of the South Seas at the Museum of modern art. il maps plans Arch Forum 84: 97-104 My '46

MUSEUMS
Present status of foreign herbaria and museums. F. R. Fosberg and W. W. Diehl. Science 103:282-3 Mr 1 '46
See also
Art galleries and museums
United States—National museum

MUSHROOMS
Freezing point data sheets and cooling curves. Food Ind 18:1037 Jl '46

MUSIC
Bibliography
Music publishers' numbers, 18th and 19th centuries. O. E. Deutsch. J Doc 1:206-16; 2:80-91 Mr, S '46
Dictionaries and encyclopedias
Encyclopedia of the arts. D. D. Runes and H. G. Schrickel, eds. 1064p $10 Philosophical library, 15 E. 40th st, New York '46
Physiological effect
See Music, Influence of
Psychology
Economic value of music. R. W. Babson. Comm & Fin Chr 163:2413+ My 2 '46
Therapeutic use
See Music, Influence of

MUSIC, Influence of
Place of music in healing. H. Burris-Meyer and R. L. Cardinell. Acoustical Soc Am J 17:232-5 Ja '46

MUSIC in industry
Bank survey on music; Second national bank of Houston. Burroughs Clearing House 30: 12 Ag '46
Canning to music. F. C. McPeak. Personnel J 25:145-7 O '46
Results of use of music in banks. il Burroughs Clearing House 30:8-10 N '45

MUSIC libraries and collections
Plea for a British union catalogue of old printed music. O. E. Deutsch. J Doc 1:41-4 Je '45

MUSIC publishing
Music publishers' numbers, 18th and 19th centuries. O. E. Deutsch. J Doc 1:206-16; 2:80-91 Mr, S '46
Advertising
Lectures and dealer tie-ins boost sales of pianos and teaching methods; dealer-publishing house cooperation. N. Kelne. Ptr Ink 216:86+ Ag 9 '46

MUSIC trade
Yearbooks
Encyclopedia and reference work of the music industry, 1945-1946. 7th annual ed 718p Billboard pub. co, 1564 Broadway, New York 19 '46

MUSICAL instruments
Symphonet in cellulose acetate. il Mod Plastics 23:252 Ap '46
See also
Harmonica
Organ
Piano
Violin
Wind instruments

MUSICAL instruments, Electric
Photoelectric tone generator; patterns rotated through light beams generate fundamental and nine harmonics. L. E. Greenlee. il diags Electronics 19:93-5 S '46
Photo-electronic organ. R. E. Campbell and L. E. Greenlee. il diag Radio N 35:25-7+ Je; 36:36-7+ Jl '46

MUSICAL intervals and scales
Just scale for music. A. T. Jones. bibliog Acoustical Soc Am J 18:167-9 Jl '46

MUSICAL pitch
See also
Tuning

MUSICAL scales. See Musical intervals and scales

MUSSELS
See also
Fouling organisms

MUSTARD gas
Biological actions and therapeutic applications of the β-chloroethyl amines and sulfides. A. Gilman and F. S. Philips. bibliog(68 references) Science 103:409-15+ Ap 5 '46
Mustard gas mutations in neurospora. N. H. Horowitz and others. Science 104:233-4 S 6 '46
Thiamorpholines, oxides and dioxides. W. F. Hart and J. B. Niederl. bibliog Am Chem Soc J 68:714-15 Ap '46

MUTAROTATION. See Optical rotation

MUTATION (biology)
Mustard gas mutations in neurospora. N. H. Horowitz and others. Science 104:233-4 S 6 '46

MUTUAL benefit life insurance company
First year claims, 1945; tabulation. Life Ins Courant 51:347 Jl '46
Mutual Benefit goes on CSO 1941 mortality table and 2¼ per cent interest. Spectator (Life ed) 153:90-1+ N '45

MUTUAL inductance
Measuring mutual inductance and capacitance. A. W. Simon. diags Electronics 19: 142+ Ag '46

MUTUAL insurance. See Insurance, Mutual

MUTUAL insurance companies, National association of. See National association of mutual insurance companies

MUTUAL life insurance company of New York
Century of American life insurance; a history of the Mutual life insurance company of New York, 1843-1943. S. B. Clough. 402p $4.50 Columbia univ. press, 2960 Broadway, New York 27 '46; Review. East Underw 47:3 Ap 19 '46; Weekly Underw 154:1342 My 25 '46
Long-range program plans. A. E. Patterson. East Underw 47:3+ Ag 2 '46

MUTUAL life insurance company of New York —*Continued*
Mutual life alters agency operation. R. Hull. Weekly Underw 153:1121+ N 17 '45; Excerpts. East Underw 46:11 N 23 '45

MUTUAL savings banks. See Savings banks

MUZAK corporation
Chicago music; Muzak invades new market. Bsns W p57 F 9 '46

MYCOLOGICAL society of America
Annual meeting, 12th, St Louis. Science 103: 514 Ap 26 '46

MYERS, Guy C.
Myers, catalyst; Seattle utility broker. por Bsns W p68+ F 23 '46

MYLER plastics corporation
Stock offered. Comm & Fin Chr 162:3077 D 24 '45

MYOCARDIUM. See Heart

MYRCENE
Inhibition of myrcene polymerization during storage. W. J. Runckel and L. A. Goldblatt. bibliog Ind & Eng Chem 38:749-51 Jl '46

N

NAGASAKI, Japan
Atomic bomb damage at Nagasaki. il Eng N 135:834-5 D 20 '45

NAIL polishes

Advertising

Color ads are logical for colorful product; Revlon nail polish. E. M. Housman. Ptr Ink 216:36-7 Ag 9 '46

Rating

Painting the fingernails; with ratings of 10 brands of nail lacquer. Consumers Res Bul 17:15-18 Ja '46

NAILING machines
Egg crate nailing machine of simple welded steel design. il Product Eng 17:113 F '46
Precision nailing machine eliminates hand assembly. il Product Eng 17:146 O '46
They said it couldn't be done; Auto-Soler and the Auto-Nailer make their own nails and drive them. J. Mebane. il Manuf Rec 114:43+ N '45

NAILS
Cleaning and de-whiskering nails. A. J. Lehman. il plan Steel 118:123+ F 18 '46

NAMES, Personal
Treasury of names. E. Wells. 326p $4 Duell, Sloan & Pearce, 270 Madison av, New York 16 '46

NAPALM
Napalm. L. F. Fieser and others. il diag Ind & Eng Chem 38:768-73 Ag '46
Napalm reconverts from incendiaries to soap. G. E. McCadden. il Chem Eng 53:115 S '46

NAPHTHA
Hydroforming; a catalytic method for naphtha upgrading. L. R. Hill and others. flow diags il Nat Pet N 38 pt 2:R456-8+ Je 5 '46
Improved petroleum naphthas and solvents are finding many new industrial uses. B. H. Weil. bibliog il Nat Pet N 38 pt 2:R65-9 Ja 2 '46
Modern refining processes; gas reversion and polyform processes. G. Armistead, jr. diags Oil & Gas J 45:189+ Jl 27 '46
Projection of laboratory reaction velocity data into commercial design. J. H. Hirsch, C. L. Crawford and C. Holloway, jr. bibliog Ind & Eng Chem 38:885-90 S '46
Solvents used as degreasers. Safety Eng 91: 74 Je '46
Some solvent extraction developments in Germany; tr. by J. P. Jones. E. Terres. Nat Pet N 38 pt 2:R181-2+ Mr 6 '46

NAPHTHALENE
2,3-Diphenyl-1,4-naphthoquinone. H. M. Crawford and H. B. Nelson. bibliog Am Chem Soc J 68:134-5 Ja '46
Limits of inflammability and ignition temperatures of naphthalene. G. W. Jones and G. S. Scott. bibliog U S Bur Mines Rep of Invest 3881:1-5, pl 1 '46
New naphthalene derivatives structurally related to stilboestrol. B. J. F. Hudson. Chem Soc J p76-8 F '46
Oxidative ring closure in the Friedel-Crafts reaction; condensation of aromatic acid chlorides with naphthalene derivatives. G. D. Buckley. Chem Soc J p564-6 S '45
Preparation of some 2 : 3-naphthalene derivatives. H. H. Hodgson and D. E. Hathway. Chem Soc J p841-2 N '45
Sulphonation of naphthalene; abstracts. R. Lantz. Soc Dyers & Col J 61:337-8 D '45
Theoretical discussion of further substitution in disubstituted naphthalenes; heteronuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. Soc Dyers & Col J 62:241-2 Ag '46
Theoretical discussion of further substitution in homonuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. bibliog Soc Dyers & Col J 61:283-5 N '45

Analysis

Estimation of naphthalene in absorbing oil. P. E. Reichardt and D. L. White. bibliog diag Ind & Eng Chem Anal ed 18:286-8 My '46

NAPHTHALENE acetic acid
Flower formation in the pineapple plant as controlled by 2,4-D and naphthaleneacetic acid. J. van Overbeek. Science 102:621 D 14 '45

NAPHTHALENEACETONE
Derivatives of acetyl hydroxy furans and their conversion into substituted acetones. A. L. Wilds, W. J. Close and J. A. Johnson, jr. bibliog Am Chem Soc J 68:89-92 Ja '46

NAPHTHALENEDIAMINE
Preparation and chromoisomerism of 4 : 5-dinotro-1-naphthylamine, and some perimidines and perinones from 4-chloro- and 4-bromo-1 : 8-naphthylenediamine. H. H. Hodgson and D. E. Hathway. Chem Soc J p543-5 Ag '45

NAPHTHALENEGLYCOLIC acid
Alkamine esters of substituted 1-naphthaleneglycolic acids. R. F. Feldkamp and M. L. Moore. Am Chem Soc J 67:1898-9 N '45

NAPHTHALENE poisoning
What the ventilating engineer should know about chlorinated naphthalene and diphenyl. E. C. Riley. Heat & Ven 42:77-8 N '45

NAPHTHENES
Catalytic cracking of pure hydrocarbons; cracking of naphthenes. B. S. Greensfelder and H. H. Voge. bibliog Ind & Eng Chem 37:1038-43 N '45
Catalytic dehydrogenation of polycyclic naphthenes. A. V. Grosse, J. M. Mavity and W. J. Mattox. bibliog Ind & Eng Chem 38:1041-5 O '46
Equation relating density, refractive index, and molecular weight for paraffins and naphthenes. M. R. Lipkin and C. C. Martin. bibliog Ind & Eng Chem Anal ed 18:380-2 Je '46

Analysis

Analysis for naphthene ring in mixtures of paraffins and naphthenes. M. R. Lipkin, C. C. Martin and S. S. Kurtz, jr. bibliog Ind & Eng Chem Anal ed 18:376-80 Je '46

NAPHTHENIC acid
Effects of radioactivity on a naphthenic acid. I. A. Breger and V. L. Burton. bibliog Am Chem Soc J 68:1639-42 Ag '46

NAPHTHOFURAN
Derivatives of acetyl hydroxy furans and their conversion into substituted acetones. A. L. Wilds, W. J. Close and J. A. Johnson, jr. bibliog Am Chem Soc J 68:89-92 Ja '46
2'-Ketodihydro-1,2-cyclopentenonaphthalene and derivatives of naphtho[1.2-b]furan. A. L. Wilds and J. A. Johnson, jr. bibliog Am Chem Soc J 68:86-9 Ja '46

NAPHTHOXYACETONE
Aryloxyacetones. C. D. Hurd and P. Perletz. bibliog Am Chem Soc J 68:38-40 Ja '46

NAPHTHOYL chloride
Oxidative ring closure in the Friedel-Crafts reaction; condensation of aromatic acid chlorides with naphthalene derivatives. G. D. Buckley. Chem Soc J p564-6 S '45
Oxidative ring closure in the Friedel-Crafts reaction; condensation of β-naphthoyl chloride with α-methylnaphthalene. G. D. Buckley. Chem Soc J p561-4 S '45

NAPHTHYLAMINE
Action of bases on organic halogen compounds; the reaction of potassium amide with the naphthyl halides. R. S. Urner and F. W. Bergstrom. Am Chem Soc J 67:2108-9 D '45
Colorimetric determination of nitrites. B. F. Rider and M. G. Mellon. bibliog Ind & Eng Chem Anal ed 18:96-9 F '46
Determination of nicotine in the air. W. E. McCormick and M. Smith. bibliog Ind & Eng Chem Anal ed 18:508-12 Ag '46

NAPHTHYLENEDIAMINE. See Naphthalenediamine

NAPHTHYL halides
Action of bases on organic halogen compounds; the reaction of potassium amide with the naphthyl halides. R. S. Urner and F. W. Bergstrom. Am Chem Soc J 67:2108-9 D '45

NAPHTHYL isocyanate
α-Naphthyl isocyanate derivative of *n*-butylaniline. D. Craig. Am Chem Soc J 68:716 Ap '46

NAPHTHYLMETHYL cadmium chloride
Addition of α-naphthylmethylmagnesium and α-naphthylmethylcadmium chlorides to alkylidenemalonic esters. B. Riegel, S. Siegel and W. M. Lilienfeld. bibliog Am Chem Soc J 68:984-5 Je '46

NAPHTHYLMETHYL magnesium chloride
Addition of α-naphthylmethylmagnesium and α-naphthylmethylcadmium chlorides to alkylidenemalonic esters. B. Riegel, S. Siegel and W. M. Lilienfeld. bibliog Am Chem Soc J 68:984-5 Je '46

NAPHTHYL thiourea
ANTU; a progress report detailing results obtained with this new and highly effective rodenticide. E. H. Rieman. il Soap & San Chem 22:135-7+ O '46
Instructions for using ANTU as a poison for the common Norway rat. C. P. Richter and J. T. Emlen, jr. Pub Health Rep 61:602-7 Ap 26 '46

NAPHTHYRIDINE
Synthesis of antimalarials; synthesis of certain 1,5- and 1,8-naphthyridine derivatives. J. T. Adams and others. Am Chem Soc J 68:1317-19 Jl '46

NAPLES zoological station
Zoological station during the last years of war. C. Artom. Science 104:352 O 11 '46

NAPPING of textiles
Napping needs a measure of performance. L. C. Tolleson. il diags Textile World 95:127+ D '45
Wool napping shows little change. E. P. Schremp. il diags Textile World 96:125+ O '46

NARINGIN
Occurrence of crystalline naringin on grapefruit rind. G. L. Keenan. Science 104:211 Ag 30 '46

NASH-KELVINATOR corporation
Annual report. Comm & Fin Chr 163:1161 Mr 4 '46

NASHVILLE, Chattanooga and St Louis railway
Bonds offered. Comm & Fin Chr 163:2729 My 20 '46
One hundred years of railroading. il Manuf Rec 114:54-5 D '45

NATHAN, Robert Roy, 1908-
Portrait. Bsns W p5 D 8 '45

NATION, William Mitchell, 1908-
Detroit auto worker. il pors Fortune 34:126-9+ Ag '46

NATIONAL academy of sciences
American philosophical society and the National academy of sciences joint meeting, Philadelphia, Nov. 16-17, 1945. L. P. Eisenhart. Science 102:595-6 D 7 '45
Presentation of the awards. Science 102:556 N 30 '45
Program of annual meeting. Science 103:450 Ap 12 '46

NATIONAL accident and health association. See National association of accident and health underwriters

NATIONAL advisory committee for aeronautics. See United States—National advisory committee for aeronautics

NATIONAL advisory council on international monetary and financial problems
Background of the National advisory council. H. M. Bratter. Comm & Fin Chr 163:3343+, 3471+; 164:67+ Je 20-Jl 4 '46
New organ of government. Economist 150:839 My 25 '46
President Truman appoints committee to work with NAC. Comm & Fin Chr 164:73 Jl 4 '46

NATIONAL aeronautic association of the United States
Will revamp its policy, stress community air activities. Aviation N 5:11 Ap 15 '46

NATIONAL airlines, inc.
From sand-dune hopping to big league transport; NAL's route of the Buccaneers. G. Herrick. il map Air Transport 4:24-30 '46
Stock offered. Comm & Fin Chr 164:1087 Ag 26 '46

NATIONAL association of accident and health underwriters
Agents seek bigger role in National Association; proposals of Stein's group. East Underw 47:28 My 31 '46
Annual meeting, 16th, Denver, June 17-19. East Underw 47:28-34 Je 21 '46; Nat Underw 50:19+ Je 20 '46; Nat Underw (Life ed) 50:1+ Je 21 '46
Breidenbaugh named executive secretary. East Underw 47:32 Ag 2 '46
Mid-year meeting, Wichita, Kan. Jan. 23-25. East Underw 47:31+, 34-9 F 1 '46; Nat Underw 50:15+ Ja 24; 17+ Ja 31 '46; Nat Underw (Life ed) 50:1 Ja 25; 2+ F 1 '46

NATIONAL association of broadcasters
Annual convention, 24th, Chicago. Bsns W p38+ N 2 '46
Meeting of second district of NAB, New York. Ptr Ink 215:143 My 3 '46
NAB convention. Ptr Ink 217:115+ O 25 '46

NATIONAL association of casualty and surety agents
Annual meeting, Chicago. Nat Underw 50:19+ O 31 '46

NATIONAL association of corrosion engineers
Convention and exhibition, Kansas City, May 7-9. Chem & Eng N 24:1380 My 25 '46
National meeting, 2d, Kansas City, May 7-9. Chem & Met Eng 53:215-16+ Je '46

NATIONAL association of cost accountants
Bibliography
Complete topical index, N.A.C.A. publications, April, 1920, to April 15, 1946. N A C A Bul 27:801-88 My 1 '46
Committee on research
Research in industrial accounting. N A C A Bul 27:253-7 N 15 '45

NATIONAL association of credit men
Credit takes its place; president forecasts rosy future. R. L. Simpson. Credit & Fin Management 48:4-5 Je '46
Spring meeting, French Lick Springs, Ind. June 24-25. Credit & Fin Management 48: 37-45 Jl '46

NATIONAL association of electric companies
Aims and purposes. P. L. Smith. Edison Elec Inst Bul 14:231+ Jl '46; Abstract. Elec World 125:88 Je 8 '46
Operation NAEC; new utility organization. P. L. Smith. Pub Util 37:729-33 Je 6 '46

NATIONAL association of finishers of textile fabrics
Estimates finishers group represents 90% of cotton finishing. A. C. Moore. Textile Col 68:19+ F '46

NATIONAL association of flying clubs
New organization will promote establishment of flying clubs. Aviation N 5:15 Mr 11 '46

NATIONAL association of home builders
Annual convention, Chicago, Feb. 25-28. Am Bld 68:35 Mr '46; Arch Rec 99:20+ Ap '46; Concrete 54:6-8 Ap '46
Story of the National association of home builders of the United States. F. W. Cortright. Am Bld 68:40-1+ F '46

NATIONAL association of ice industries
Primary activities, etc. Refrig Eng 51:126+ F '46

NATIONAL association of independent insurance adjusters
Annual meeting, Philadelphia, June 4-5. Nat Underw 50:25+ Je 13 '46

NATIONAL association of independent insurers
Annual meeting, Chicago. East Underw 47: 38 O 25 '46; Nat Underw 50:7-8+ O 17; 29 O 24 '46; Weekly Underw 155:929+ O 19 '46
Moving to formulate own statistical plan. East Underw 47:1+ O 4 '46

NATIONAL association of insecticide and disinfectant manufacturers
Annual meeting, 32d, New York, Dec. 3-4. Oil Paint & Drug Rep 148:7+ D 10 '45; Chem Ind 58:54-6 Ja '46; Soap & San Chem 22: 114-17+ Ja '46
Mid-year meeting, 32d, French Lick, Ind. June 17-19. Soap & San Chem 22:146-8 Je; 122-5+ Jl '46; Chem & Eng N 24:1790-1 Jl 10 '46; Oil Paint & Drug Rep 149:7+ Je 24 '46

NATIONAL association of insurance agents
Annual convention, 51st, Denver, Sept. 22-26. East Underw 47:1+, 17-36 S 27; 17+ O 4 '46; Nat Underw 50:25-57 S 26; 1+ O 3 '46; Spectator (Property ed) 12:16-19, 31 S 26; 56+ O 10 '46; Weekly Underw 155: 722-35+ S 28 '46
Committee chairmen. East Underw 46:68 D 14 '45
Committee heads named. Nat Underw 50:5 O 17 '46
Committee reports. Nat Underw 50:46+ S 26 '46
George Scott leaving National association; was director of education. East Underw 46: 28 D 21 '45
Johnson and Lee named, Van Vechten stays on executive committee. East Underw 47:26 O 11 '46; Nat Underw 50:1+ O 10 '46
Launches crusade against wage-profit link. Nat Underw 50:5 F 7 '46
Local agents bolster Executive committee; John C. Stott of New York and J. F. Van Vechten of Ohio. Weekly Underw 153:1061+ N 10 '45; Same cond. Nat Underw 49:3+ N 8 '45
Meeting, Cincinnati, May 12-16. East Underw 47:24-5 My 17 '46; Nat Underw 50:1+ My 16; 1+ My 23 '46; Spectator (Property ed) 11:14-17+ My 23 '46
NAIA appoints Richard E. Farrer of Michigan educational director. East Underw 47: 22 Ap 5 '46; Nat Underw 50:1 Ap 4 '46
Opposes changing constitution. G. F. Kern. East Underw 47:18 S 6 '46
President's report. H. Brown. East Underw 47:18+ S 27 '46
State directors approves changes in constitution. East Underw 47:24 S 27 '46
Text of proposed constitutional changes. East Underw 47:18+ Ag 23 '46

NATIONAL association of insurance brokers
Aim to expand national organization. East Underw 47:27 Mr 22 '46
Annual meeting of directors, New York. East Underw 47:26 Jl 5 '46
Brokers association re-organizes and widens scope of insurance influence. H. E. Moore. Weekly Underw 154:5+ Ja 5 '46
New officers. Nat Underw 50:6 Je 27 '46

NATIONAL association of insurance commissioners
Annual meeting, 77th, Portland, Ore, June 9-16. Nat Underw 50:1, 5+ Je 13; 2+ Je 20 '46; Nat Underw (Life ed) 50:1, 3+ Je 14; 4+ Je 21 '46; Spectator (Property ed) 11:12-13+ Je 27 '46; Weekly Underw 154:1529+, 1544+ Je 15 '46
Committee named to evolve central office plan. Nat Underw 50:4+ S 12 '46; Same. Nat Underw (Life ed) 50:1+ S 13 '46
Mid-year meeting, Grand Rapids, Mich. Dec. 2-5. East Underw 46:1+ D 7 '45; Nat Underw 49:3+ D 6 '45; Nat Underw (Life ed) 49:1+ D 7 '45; Spectator (Property ed) 11:37-8+ D 6 '45; Weekly Underw 153:1313-19 D 8 '45; Spectator (Life ed) 153:18+ D '45
Name N.A.I.C. committees. Nat Underw 50: 3 O 3 '46; Nat Underw (Life ed) 50:3 O 4 '46
New official lineup. Nat Underw 50:4 Je 20 '46; Same. Nat Underw (Life ed) 50:7 Je 21 '46
Parkinson new secretary. Nat Underw 50:4 S 5 '46
Possible site for N.A.I.C. headquarters. Nat Underw 50:1+ Jl 11 '46; Same. Nat Underw (Life ed) 50:1+ Jl 12 '46
President's address at annual meeting; abstracts. J. M. McCormack. East Underw 47: 1+ Je 14 '46; Nat Underw 50:5+ Je 13 '46
President's report at mid-year meeting. J. M. McCormack. East Underw 46:18+ D 7 '45; Abstract. Nat Underw 49:5+ D 6 '45; Same. Nat Underw (Life ed) 49:3+ D 7 '45

NATIONAL association of insurance women
Annual convention, Atlanta, June 12-15. East Underw 47:24+ Je 14; 24 Je 21 '46; Nat Underw 50:10 Je 20 '46
President reports good progress. F. H. Anderson. Nat Underw 50:6 Je 13 '46

NATIONAL association of life underwriters
Annual convention, Cleveland, Sept. 9-13. East Underw 47:3-4+ S 13 '46; Nat Underw (Life ed) 50:7 S 13; 1+ S 20 '46; Nat Underw (Life ed) Daily ed 50:5-52 S 11; 5-48 S 12; 5-48 S 13 '46; Weekly Underw 155:589, 634+ S 14 '46
Comments on move to equalize makeup of N.A.L.U. board; national officers reactions. Nat Underw (Life ed) 50:3+ Je 21 '46
Committee reports at mid-year meeting. East Underw 47:11 Mr 15 '46
Counsels no radical change in N.A.L.U. setup. O. S. Cummings. Nat Underw (Life ed) 50:7 Jl 26 '46
Field man can afford to be national trustee. A. C. Duckett. Nat Underw (Life ed) 50:9 Ag 23 '46
Goes over top in 1945 membership goal. Nat Underw (Life ed) 50:1 Jl 19 '46; East Underw 47:8 Jl 19 '46
Mid-year meeting, Omaha, March 11-16. Nat Underw (Life ed) 50:17-22 Mr 15; 1+, 2+ Mr 22 '46
New trustees. East Underw 47:9 S 20 '46
President reviews year. C. D. Connell. East Underw 47:4 S 13 '46
Push N.A.L.U. and Bar association cooperation. Nat Underw (Life ed) 50:1 Jl 26 '46
Report at mid-year meeting. C. D. Connell. East Underw 47:13 Mr 22 '46
Suggests improvements in N.A.L.U. setup. P. H. Dunnavan. Nat Underw (Life ed) 50:4 Ag 9 '46
Want more agents on NALU trustees' board. H. K. Nickell and others. East Underw 47: 13 Jl 26 '46

NATIONAL association of manufacturers
Annual convention, 50th, New York. Bsns W p19-20 D 8 '45; Steel 117:88-9 D 10 '45
Economic background for social action; objectives of the National association of manufacturers for 1946. R. R. Wason. Factory Management 104:290+ Ja '46
Modern N.A.M. Bsns W p18-19 D 15 '45
New officers. Comm & Fin Chr 162:3171 D 27 '45
Six pressing economic problems posed by NAM. Comm & Fin Chr 162:2925 D 13 '45

NATIONAL association of manufacturers of spraying and dusting equipment
Organization. Soap & San Chem 22:159 F '46

NATIONAL association of marketing research agencies
Marketing research standards to be set by new Association of survey agencies. Ptr Ink 215:97+ Je 7 '46

NATIONAL association of master plumbers
Annual meeting, Atlantic City, May 27-30. il Dom Eng 167:106-9 Je; 168:98-9 Jl '46

NATIONAL association of metal finishers (proposed)
Metal finishers plan national association. il Iron Age 158:58 Jl 25 '46

NATIONAL association of motor bus operators
Annual meeting, 17th, Chicago, May 22-24. Bus Transportation 25:41-50b+ Je '46

NATIONAL association of mutual insurance agents
Annual meeting, New York, Oct. 14-16. Nat Underw 50:4+ O 17; 2 O 24 '46

NATIONAL association of mutual insurance companies
Meeting, Chicago. Nat Underw 50:20, 27-8 Ap 4 '46
Mutual casualty group discusses sales problems at Chicago meeting. Nat Underw 49: 31+ N 15 '45

NATIONAL association of photo-lithographers
Annual convention, 14th, Washington, Oct. 3-5. Inland Ptr 118:42-4 N '46
Annual meeting, Philadelphia, Nov. 1-2. Inland Ptr 116:59-61 N '45

NATIONAL association of power engineers
Annual meeting, 63d, Cleveland, Aug. 19-23. Power 90:665-6 O '46

NATIONAL association of printing ink makers
Annual meeting, Washington, D.C. Sept. 25. Chem & Eng N 24:2776 O 25 '46
Thirty-second annual convention, Washington, D.C. Sept. 25-27. Oil Paint & Drug Rep 150:7+ S 30 '46

NATIONAL association of purchasing agents
Annual meeting, 31st, Chicago, May 27-29. Oil Paint & Drug Rep 149:3+ Je 3 '46; Steel 118:78-9 Je 3 '46
Annual meeting, 31st, Chicago, May 27-29. Ry Age 120:1138-9 Je 8 '46

NATIONAL association of railroad and utilities commissioners
Annual meeting, 57th, Miami Beach, Dec. 4-7. Ry Age 119:984-7 D 15 '45; Elec World News ed 124:3 D 15 '45

NATIONAL association of real estate boards
Annual convention, French Lick, Ind. Comm & Fin Chr 162:2925 D 13 '45

NATIONAL association of securities dealers
Objects to Gestapo methods of NASD; "an outraged member" writes to executive director. Comm & Fin Chr 163:1348+ Mr 14 '46
Over-the-counter market and the NASD. W. H. Fulton. Comm & Fin Chr 162:2450+; Editorial comment. 2453+ N 22 '45

NATIONAL association of sheet metal distributors
Annual meeting, Atlantic City, March 12. Sheet Metal Worker 37:60 Ap '46

NATIONAL association of shippers advisory boards
Annual meeting, 10th, St Louis, Oct. 22. Ry Age 121:678-9 O 26 '46

NATIONAL association of state aviation officials
Annual meeting, Butte, Montana. Aviation N 6:10 O 7 '46
Annual meeting, St Louis. Aviation N 4:16+ N 12 '45

NATIONAL association of supervisors of state banks
Annual meeting, New Orleans. Burroughs Clearing House 30:3-4 Ja '46

NATIONAL association of wholesalers
Wholesalers form central group. Oil Paint & Drug Rep 150:4 S 16 '46
Wholesalers mobilize. Bsns W p64+ S 14 '46

NATIONAL automatic merchandising association
Robot salesmen to take on new lines, both hot and cold. R. Z. Greene. il Sales Management 56:74+ Mr 15 '46

NATIONAL automobile and casualty insurance company
Coast company would lose license for six months; California deputy commissioner makes suspension demand. East Underw 47:30 Ja 18 '46

NATIONAL automobile underwriters association
Committees appointed. East Underw 47:27 Jl 26 '46

NATIONAL automotive fibres, inc.
Stock offered. Comm & Fin Chr 163:2160 Ap 22 '46

NATIONAL aviation clinic. See Aeronautics, Commercial

NATIONAL aviation council (proposed)
Spokesman for AAF plead for air board. Aviation N 5:9-10 Je 10 '46

NATIONAL aviation trades association
Campaign begun to revitalize NATA. W. Kroger. Aviation N 5:13 F 18 '46

NATIONAL banks. See Banks and banking, National

NATIONAL battery company
Sales drop likely. Barron's 25:8 D 24 '45

NATIONAL biscuit company
Cuts out half its lines. Barron's 26:6 Je 17 '46
Thumbnail stock appraisal. Mag of Wall St 78:750 S 28 '46

NATIONAL board of fire underwriters
Annual meeting, 80th, New York, May 23. East Underw 47:1+ My 24; 17 My 31 '46; Nat Underw 50:1+ My 23 '46; Weekly Underw 154:1341+ My 25 '46; Spectator (Property ed) 11:18 My 23 '46
Marks 80 years service. il Spectator (Property ed) 11:19 My 23 '46
New chairmen. East Underw 47:16 Je 21 '46; Same. Weekly Underw 155:18 Jl 6 '46

NATIONAL bureau of standards. See United States—Standards, National bureau of

NATIONAL bus communications, inc.
Bus radio central; enables drivers to talk with each other and with terminals. il Bsns W p42+ My 18 '46

NATIONAL bus traffic association
Annual meeting, 11th, Chicago, May 20. Bus Transportation 25:50b-50d Je '46

NATIONAL butane-propane association
Meeting, 1st, Chicago, Sept. 21-25. Chem & Eng N 24:2783 O 25 '46

NATIONAL canners association
Food processors hold first postwar meeting. Food Ind 18:376+ Mr '46

NATIONAL cemeteries. See Cemeteries, National

NATIONAL central library. See London—National central library

NATIONAL citizens' political action committee
No P.A.C. test. Bsns W p102+ N 24 '45
School of political action offers students comprehensive curriculum. Steel 119:78 Jl 8 '46

NATIONAL city bank of New York
Report to stockholders. G. S. Rentschler. Comm & Fin Chr 163:293 Ja 17 '46

NATIONAL city lines, inc.
Fitzgerald; big name in buses. Bsns W p70+ Jl 20 '46
Newcomers on the Stock Exchange. W. A. Howell. Mag of Wall St 78:782 S 28 '46
Roy Fitzgerald talks for National; interview with C. W. Stocks. il maps Bus Transportation 25:48-53 S '46

NATIONAL coal association
Annual meeting, Cleveland, March 14-15. Coal Age 51:130+ Ap '46

NATIONAL concrete burial vault association
Annual meeting, St Louis, June 12-14. Rock Prod 49:126+ Jl '46

NATIONAL concrete masonry association
Annual meeting, 26th, Chicago, March 12-14. Rock Prod 49:151-60 Ap '46; Concrete 54: 10-12+ Ap '46
Executive committee meeting, Denver, Sept. 13. Concrete 54:25 O '46

NATIONAL confectioners association
Annual convention, 63d, Chicago, June 24-27. Food Ind 18:1224+ Ag '46

NATIONAL conference of lawyers and certified public accountants
National conference of lawyers and certified public accountants. D. F. Maxwell and W. Charles. J Account 81:120-6 F '46

NATIONAL conference on labor legislation
Conference, 12th, Washington, Dec. 5-6. Mo Labor R 62:254-7 F '46

NATIONAL conservation bureau
Accident prevention went to war. J. H. Harvey. East Underw 46:92+ D 14 '45

NATIONAL co-operatives, inc.
Co-ops make big plans for the future. E. Lamm. il Nat Pet N 38:32-4 Ja 30 '46

NATIONAL cottonseed products association
Annual convention, 15th, New Orleans, May 20-22. Oil Paint & Drug Rep 149:7+ My 27 '46

NATIONAL council for stream improvement (of the pulp, paper and paperboard industries)
Activities of the National council for stream improvement, inc. H. W. Gehm. il Water & Sewage Works 93:289-93 Jl '46

NATIONAL council of salesmen's organizations
Salesmen's council formed. Ptr Ink 214:109 Mr 29 '46

NATIONAL crushed stone association
Annual meeting, 29th, Cincinnati, Jan. 28-30. Rock Prod 49:64-73+ Mr '46
Directors meeting, New York, July 18-19. Rock Prod 49:76-7+ S '46

NATIONAL cylinder gas company
Thumbnail stock appraisal. Mag of Wall St 78:88 Ap 27 '46

NATIONAL dairy products corporation
Debentures offered. Comm & Fin Chr 162:2949 D 17 '45
National Dairy Products expansion. Barron's 26:1+ S 9 '46
Thumbnail stock appraisal. Mag of Wall St 78:752 S 28 '46

NATIONAL department stores corporation
New sales peak. Barron's 26:13 My 13 '46

NATIONAL distillers products corporation
Stock sold. Comm & Fin Chr 163:2010 Ap 15 '46

NATIONAL distribution council
Distribution council formed by Wallace. Oil Paint & Drug Rep 150:3 Ag 19 '46
Government and business get together to improve distribution methods. Sales Management 57:58-9 S 1 '46
Wallace names 29 men to Distribution council. Ptr Ink 216:92 Ag 23 '46

NATIONAL district heating association
Annual meeting, 37th, Virginia Beach. Heating-Piping 18:100-4 Jl '46; Power 90:456 Jl '46

NATIONAL drug trade conference
Annual meeting, Washington, D.C. Dec. 7. Oil Paint & Drug Rep 148:7+ D 17 '45

NATIONAL economic council
To guard against inflation now, deflation later. Bsns W p7 Ag 3 '46

NATIONAL electrical code
Digest of electric code changes. J. M. Evans. Elec West 97:84-6 S '46
Index to the 1946 electric code. J. M. Evans. Elec West 97:72-4 Ag '46
Some things 1946 code will contain. Elec West 95:90 N '45
Summary of National electrical code changes of interest to light and power industry. Edison Elec Inst Bul 14:19-20+ Ja '46

NATIONAL electrical contractors association
Annual meeting, Cleveland, Oct. 29-31. Elec World 124:130 N 10 '45
Annual meeting, 45th, Atlantic City, Oct. 14-18. Elec World 126:78 O 26 '46

NATIONAL electrical wholesalers association
Wholesalers' committees aid industrial marketing. C. G. Pyle. Ind Marketing 30:46+ O '45

NATIONAL farm chemurgic council
Annual conference, 11th, St Louis, March 18-20. Chem & Eng N 24:900-1+ Ap 10 '46
Annual conference, 11th, St Louis, March 18-20. Oil Paint & Drug Rep 149:4 Ap 1 '46

NATIONAL farm institute
Corn belt fumes. Bsns W p21-2 F 23 '46

NATIONAL farmers union
Homeward bound. Bsns W p40 Jl 20 '46

NATIONAL federation of sales executives
Officers. Sales Management 56:138 Je 1 '46
Recap of action taken at the annual meeting. Sales Management 56:68-9 Je 15 '46
Roving camera man's report on the N.F.S.E. meeting. il Sales Management 56:70-2+ Je 15 '46
Sales executive group to coordinate work of distribution organizations. Ptr Ink 214: 90 Ja 4 '46

NATIONAL federation of telephone workers
Design for unity; telephone workers' federation moves toward tighter control over its 47 member unions. Bsns W p92+ Jl 27 '46
N.F.T.W.'s coup; settlement obtained from Western Electric, Bell Telephone, and A.T.&T. Bsns W p96-7 Mr 16 '46
Telephone strike set. Bsns W p97 Mr 2 '46

NATIONAL fertilizer association
Annual convention, 21st, French Lick, Ind. June 10-12. Chem & Eng N 24:1803 Jl 10 '46; Oil Paint & Drug Rep 149:3+ Je 17 '46
Annual southern convention, 19th. Oil Paint & Drug Rep 148:7+ N 26 '45

NATIONAL fire protection association
Achievements in 50 years. P. Bugbee. East Underw 47:26 Ap 5 '46
Annual meeting, 50th, Boston, June 3-7. Nat Underw 50:2+ Je 6; 10 Je 13 '46
Association at new peak in 1945. P. Bugbee. Weekly Underw 154:32 Ja 5 '46
Celebrates fiftieth anniversary. Ind Stand 17:170 Jl '46
Fifty years of public service. P. Bugbee. il Nat Safety N 54:94-5 O '46
Marks golden anniversary. Spectator (Property ed) 11:44 Je 13 '46
President's address at golden anniversary meeting. R. E. Vernor. Weekly Underw 154.1482-3 Je 8 '46

NATIONAL fire waste council
Reorganized; comes under U.S. Chamber jurisdiction. Nat Underw 50:8 N 7 '46

NATIONAL food research institute (proposed)
Food research institute proposed. Comm & Fin Chr 163:1984 Ap 11 '46

NATIONAL fraternal congress of America
Annual convention, 59th, Chicago, Nov. 28-30. Nat Underw (Life ed) 49:1+ N 30; 28-40 D 7 '45; Weekly Underw 153:1290-1 D 1 '45
Annual convention, 60th, Chicago, Oct. 21-24. Nat Underw (Life ed) 50:32-44 O 25; 22 N 1 '46
President's report. F. Newberry. Weekly Underw 153:1288-9 D 1 '45

NATIONAL graphic arts education association
Educators hold annual conference. Inland Ptr 117:71 Jl '46

NATIONAL gypsum company
Almost three-quarters of big National Gypsum expansion in South. il Manuf Rec 114:44-5+ N '45
Company founded on sales policies sticks to them after 20 years. il Sales Management 56:46+ My 1 '46
National Gypsum reaches out. Bsns W p60-2 Jl 27 '46

NATIONAL housing agency
NHA more exacting than military in wartime. G. A. Browning. Barron's 26:3 O 7 '46

NATIONAL illumination committee of Great Britain
Members, officers, annual report for 1945. Light & Lighting 39:46-8 Mr '46

NATIONAL industrial advertisers association
Annual conference, 23d, Atlantic City. Ind Marketing 31:29-31+ Jl '46; Ptr Ink 215:88 Je 28 '46
Annual conference, 23rd, Atlantic City, June 20-22; program. Ind Marketing 31:136+ Je '46
NIAA adopts long range program to strengthen professional status of industrial advertising men. W. L. Witt. Ind Marketing 31:37+ O '46
NIAA conference; photographs. Ptr Ink 215: 34-5 Je 28 '46
New officers and organizational changes voted in at directors' meeting. Ind Marketing 30: 158+ N '45

NATIONAL industrial sand association
Annual meeting, 11th, Hot Springs, Va, May 15-16. Rock Prod 49:124+ Je '46
Board of directors semi-annual meeting, Hot Springs, Va. Nov. 8-9. Rock Prod 48:128+ D '45

NATIONAL industrial traffic league
Annual meeting, 38th, Chicago. Ry Age 119: 933+ D 8 '45
Sets forth its principles for I.C.C. regulation of all transport. Ry Age 120:245-7 Ja 26 '46

NATIONAL labor relations act. See Labor laws and legislation—United States

NATIONAL labor relations board
Clarifies ruling on a former or a substantially equivalent position. Bsns W p98+ F 23 '46
Foremen unionization encouraged by NLRB. Iron Age 157:150+ My 9 '46
Foremen's league charges NLRB decisions encouraging unionization of management. Steel 118:52 Ap 22 '46
NLRB fettered; law requires Board to conduct strike vote. Bsns W p100+ N 17 '45
NLRB under attack again. Bsns W p87 Je 29 '46
New NLRB member quit Wall Street for steel mill. Bsns W p80 Je 22 '46
Recent decisions of interest to labor. Published in monthly numbers of Monthly labor review

NATIONAL lime association
Annual meeting, 28th, Hot Springs, March 28-30. Rock Prod 49:71-4+ My '46

NATIONAL lubricating grease institute
Annual meeting, 14th, Chicago, Sept. 30-Oct. 2. Nat Pet N 38:19+ O 9 '46
Annual meeting, 14th, Chicago, Sept. 30-Oct. 2; abstracts of papers. Oil & Gas J 45:135 O 19 '46

NATIONAL machine tool builders' association
Annual meeting, 45th, Quebec, Oct. 7-9. Am Mach 90:150-2 O 24 '46; Mach 53:196-7 N '46; Steel 119:78-9 O 14 '46
Spring meeting, Atlantic City, April 16-17. Am Mach 90:148j-148l My 9 '46; Steel 118: 54 Ap 22 '46

NATIONAL machine tool distributors association
Annual meeting, Cleveland, Nov. 19-20. Steel 117:67+ N 26 '45

NATIONAL manufacture and stores corporation
Preferred stock offered. Comm & Fin Chr 162:2275 N 12 '45

NATIONAL marine exposition
National marine exposition to promote maritime industry; with list of exhibitors. plans Marine Eng 51:90-9 My '46

NATIONAL maritime union of America
Maritime Union remodels group of buildings into efficient national and local headquarters in New York city. il plans Arch Forum 84:123-4 My '46

NATIONAL mediation board
1945 fiscal report. Ry Age 120:584+ Mr 16 '46

NATIONAL metal congress
Congress, 27th, Cleveland. Iron Age 157:61-5 F 14 '46
Congress, 28th, Atlantic City; technical programs. Steel 119:137-45 N 11 '46
National metal congress and exposition held at Cleveland. R. F. Gould. il Chem & Eng N 24:775-8 Mr 25 '46
Some notes on the National metal congress and exposition. il Metal Prog 49:526-9 Mr '46
Technical papers; abstracts. Steel 118:130-6 Ja 28 '46
Technical program, Feb. 4-8. Iron Age 157:56-9 Ja 31 '46; Materials & Methods 23:169+ Ja '46; Metal Prog 49:67-9 Ja '46; Steel 118: 128-9+ Ja 28 '46

NATIONAL metal exposition
Exhibitors; list. Iron Age 157:59-73 Ja 31 '46; Materials & Methods 23:177-8 Ja '46; Metal Prog 49:70-4 Ja '46; plans Steel 118:138-42 Ja 28 '46
Exhibitors list; floor plans. Steel 119:145-9 N 11 '46
Improved working conditions brought out by metal show exhibits. G. Hubbard. il Steel 118:63-5 F 11 '46
Metal show sets stage for peacetime processing. il Am Mach 90:144 1-144n F 28 '46
Old fashioned selling returns to Cleveland metal exposition. W. B. Fiske. il Ind Marketing 31:38-40+ Mr '46
Wartime developments revealed at the National metal exposition. J. Geschelin. Automotive & Aviation Ind 94:35+ Mr 1 '46

NATIONAL metal trades association
Annual meeting, 46th, Cleveland, Steel 117: 66-7 N 26 '45

NATIONAL museum. See United States—National museum

NATIONAL Negro insurance association
Annual convention, New York. East Underw 47:12 Jl 19 '46; Nat Underw (Life ed) 50: 3+ Jl 19 '46

NATIONAL oil products company
Expands plants. Barron's 26:8 Ja 14 '46
Investment securities for capital building. Mag of Wall St 78:150+ My 11 '46

NATIONAL paint salesmen's association
Annual convention, 6th, Atlantic City, Oct. 18-20. Paint Oil & Chem R 109:7 O 31 '46
Program for the year 1946. H. T. Tallon. Paint Oil & Chem R 108:82 N 1 '45

NATIONAL paint, varnish and lacquer association
Convention-at-home program. Paint Oil & Chem R 108:5-7 N 1 '45
1946 committees appointed. Paint Oil & Chem R 109:36+ Ap 18 '46

NATIONAL paper trade association
Annual meeting, 43d. Paper Tr J 122:7-8+ Ap 4 '46
Fall meeting, Chicago, Oct. 17-19. Paper Tr J 123:9-10 O 24 '46

NATIONAL parks and reserves

United States
New park policy? Government services, inc., as manager of public recreation area at Fontana dam, N.C. il Bsns W p32+ Je 1 '46

See also
Okefenokee swamp
park

NATIONAL petroleum association
Annual meeting, 44th, Atlantic City, Sept. 18-20. Nat Pet N 38:11-14 S 25 '46; Oil & Gas J 45:55-6 S 28 '46
Semi-annual meeting, 43d, Cleveland, April 18-19. Oil & Gas J 44:94-5 Ap 27 '46; Nat Pet N 38:11-14+ Ap 24 '46; Chem & Eng N 24:1202-3 My 10 '46

NATIONAL petroleum council
All branches of industry represented; list of oil men invited to serve. Nat Pet N 38:3-4 Je 19 '46
Eighty-five industry officials named to OGD council; list. H. D. Ralph. Oil & Gas J 45:56 Je 22 '46
Hallanan named temporary OGD chairman; permanent organization plans under way. H. D. Ralph. Oil & Gas J 45:56-7 Je 29 '46
NPC meets to organize; texts of letters on anti-trust situation. Nat Pet N 38:11-12 S 18 '46
NPC ok's organization; adopts rigid restrictions. Nat Pet N 38:11-14 O 2 '46
NPC to mark time pending further clearance on antitrust; group's aims, texts of letters on Council exchanged between Interior and Justice dept. H. Yocom. Nat Pet N 38:4-6 Je 26 '46
Quarterly meeting, Washington, Sept. 26: Oil & Gas J 45:40 O 5 '46

NATIONAL petroleum news (periodical)
25 years ago these oil men first subscribed to NPN; certificates honor a quarter century of readership. Nat Pet N 38:30-1+ Ag 21 '46

NATIONAL physical laboratory, Teddington. See Great Britain—National physical laboratory, Teddington

NATIONAL power and light company
Distribution of common stocks of Birmingham electric co., Carolina power & light co. and Pennsylvania power & light co. Comm & Fin Chr 164:830 Ag 12 '46
Value of National Power assets rises; effect of New Pennsylvania common. Barron's 25: 10+ D 10 '45
Value of National Power's distribution. Barron's 26:6 Ag 26 '46

NATIONAL professional association of engineers, architects and scientists
Engineering employees meet to form national agency. Eng N 137:487 O 17 '46
Professional bargaining units form national organization. Civil Eng 16:480 N '46

NATIONAL protective insurance company of Kansas City
Ex-partners feud; mail-order insurance. Bsns W p32 Jl 13 '46

NATIONAL provincial bank
Statement by the chairman. C. F. Campbell. Economist 150:152 Ja 26 '46

NATIONAL railroad adjustment board
Adjustment board decisions. Ry Age 120:489 Mr 2 '46

NATIONAL railways of Mexico
External holders of Mexican rail bonds receive offer. Comm & Fin Chr 163:1571 Mr 25 '46

NATIONAL ready-mixed concrete association
Annual meeting, 16th, Cincinnati, Jan. 23-25. Rock Prod 49:82-9 F '46
Board meeting, Chicago, Oct. 18-19. Concrete 53:18-19 N '45
Board meeting, Chicago. Concrete 54:12 S '46
Directors' meeting, Chicago, Oct. 18-19. Rock Prod 48:102+ N '45

NATIONAL real estate foundation
Completes its staff. Am Bld 68:150 Mr '46
Meeting, Washington, Oct. 16-17. Am Bld 67: 118+ N '45
Property owners' organization invites membership. A. W. Binns. Am Bld 68:93 Ja '46

NATIONAL reclamation association
Ickes challenged. Bsns W p64 D 1 '45

NATIONAL registry of rare chemicals
National registry of rare chemicals. F. Knock. Chem & Eng N 24:2173 Ag 25 '46

NATIONAL research corporation
New quarters. Chem & Eng N 24:1074 Ap 25 '46

NATIONAL research council
Committee on the growth of the National research council. P. S. Owen. Science 102: 499-500 N 16 '45
Fellowship appointments for the academic year 1946-47. Science 104:13 Jl 5 '46
Important changes in organization. Science 104:10+ Jl 5 '46
Pacific science conference, Washington, June 6-8. Science 104:349 O 11 '46

NATIONAL research council of Canada
Twenty-eighth annual report, 1944-1945. 40p National research council of Canada, Ottawa '45

NATIONAL resources planning board
Federal power commission and National resources planning board. R. M. Lawrence and L. A. Monroe. Chem Ind 58:967-9 Je '46

NATIONAL retail dry goods association
Annual convention, New York. Bsns W p77-8 Ja 19 '46

Vendor relations committee
Trade relations and work of the Vendor relations committee of the N.R.D.G.A. I. D. Wolf. J Retailing 21:131-3+ D '45

NATIONAL roster of scientific and specialized personnel
Returning veterans and displaced war workers offered help. Science 103:80-1 Ja 18 '46
Technical manpower distribution shown by Roster figures. Chem Ind 58:69 Ja '46

NATIONAL rural electric cooperative association
Annual meeting, 4th, Buffalo. Elec World News ed 125:5-6 Mr 9 '46

NATIONAL safety council
Annual meeting, Chicago, Sept. 30-Oct. 1, officers, directors, trustees, executive board. Nat Safety N 52:10-15 N '45
Executive board, 1945-1946; portraits. Nat Safety N 53:28-9 Ja '46
Financial report, 1945. Nat Safety N 53: 39 Ap '46
Green cross for safety; National safety council's campaign for fund raising. Nat Safety N 53:24 F '46
Keep it up; President Truman's letter; Council's report. Nat Safety N 52:69-70 O '45
Labor enlists for safety; leaders to serve on NSC governing boards. Nat Safety N 54:101+ O '46
NSC announces campaign for public support. Nat Safety N 53:18-19 Ja '46
Services and activities. Refrig Eng 51:522+ Je '46

Library
Story of the National safety council library. R. Parks. Special Lib 37:148-50 My-Je '46

NATIONAL sand and gravel association
Annual meeting, 30th, Cincinnati, Jan. 22-24. Rock Prod 49:79-85 F '46
Board meeting, Chicago, Oct. 18-19. Concrete 53:18-19 N '45
Directors' meeting, Chicago, Oct. 18-19. Rock Prod 48:102+ N '45

NATIONAL sanitary supply association
Annual convention, 23d, Chicago, May 26-29. Soap & San Chem 22:57 Je '46

NATIONAL science foundation (proposed)
Army, navy strongly criticize patent provisions of science bill. W. Kroger. Aviation N 5:9 Ap 22 '46
Committee for a National science foundation statement. Science 103:11 Ja 4 '46
Compromise bill for a national science foundation; Kilgore-Magnuson bill. H. A. Meyerhoff. Science 103:192 F 15 '46
Forum; material selected from testimony before House subcommittee on public health. H. W. Smith; H. A. Wallace; H. A. Meyerhoff; R. Chambers. Science 103:724-6+ Je 21 '46
Further notes on science legislation. R. Chambers. Science 103:160-1 F 8 '46
Great science debate; the atom touched off debate on national science policy. il Fortune 33:116-21+ Je '46
National science foundation and military-sponsored research. Science 104:368-9 O 18 '46
National science foundation and the scientific worker. R. W. Gerard. Science 103:4-6 Ja 4 '46
National science foundation bill reported to Senate for passage. Oil Paint & Drug Rep 149:3+ Ap 15 '46
National science foundation; S. 1850, final Senate bill. H. A. Meyerhoff. Science 103: 270-3 Mr 1 '46; Same. Mech Eng 68:358-9 Ap '46
National science foundation; will it be a practical reality or a perpetual controversy? I. M. Kolthoff and M. B. Visscher. Science 103:104 Ja 25 '46
New Kilgore-Magnuson bill; S. 1850. A. E. Cohn. Science 103:430-1 Ap 5 '46
New research bills replace Kilgore and Magnuson bills; S. 1850 and S. 1777. Elec Eng 65:185-6 Ap '46
Obituary: National science foundation, 1946. H. A. Meyerhoff. Science 104:97-8 Ag 2 '46
On the floor of the Senate. H. A. Meyerhoff. Science 103:382 Mr 29 '46
Outline of proposed national science foundation. Electronics 19:258+ Ja '46
Policy battles back of the proposed research foundation. R. S. McBride. Chem & Met Eng 52:99-100 N '45
Proposals for a National research foundation. Science 102:539-41 N 23 '45
Report of the Engineering college research association's committee on legislation; digest of S. 1850. C. E. MacQuigg. J Eng Educ 36:579-86 My '46
Report on science legislation, Physical society of Pittsburgh. Science 103:383-4 Mr 29 '46
S. 1720. Science 103:39-45+ Ja 11 '46
S. 1720 vs. S. 1777. H. A. Meyerhoff. Science 103:161-2 F 8 '46
S. 1850 in the House. H. A. Meyerhoff. Science 104:48 Jl 19 '46
Safeguarding science in the NSF. M. W. Welch. Science 103:430 Ap 5 '46
Science deadlock is being compromised. Bsns W p7 F 9 '46
Science foundation; committee report. Chem & Eng N 24:1214 My 10 '46
Science legislation; H.R. 6448. H. A. Meyerhoff. Science 103:687-8 Je 7 '46
Scientists divided; another science foundation bill; H.R. 6448, introduced by W. D. Mills. W. Davis. Science 103:688 Je 7 '46
Senate and S. 1850. H. A. Meyerhoff. Science 103:589-90 My 10 '46
Statement by Senator Willis introducing a bill for a national science foundation; with text of S. 1777. Science 103:163-5 F 8 '46
Statement concerning S. 1850; committee supporting the Bush report. Science 103:558 My 3 '46
Text of the new Kilgore-Magnuson bill. Science 103:225-30+ F 22 '46

NATIONAL science foundation (proposed)—*Continued*
Willis bill, S. 1777. Chem & Eng N 24:789 Mr 25 '46

NATIONAL security traders association
Annual convention, 13th, Seattle, Sept. 17-19. Comm & Fin Chr 164:1541-3 S 26 '46
Goals of NSTA. T. Graham. Comm & Fin Chr 164:1537+ S 26 '46

NATIONAL service life insurance. See Insurance, Military and naval service

NATIONAL skyway freight corporation
Stock offered. Comm & Fin Chr 163:2584 My 13 '46

NATIONAL society for medical research
Organized under sponsorship of the Association of American medical colleges. Science 104:225 S 6 '46

NATIONAL society of professional engineers
Statement. M. Albertson. Min & Met 27:404-5 Jl '46

NATIONAL steel corporation
Annual report. Comm & Fin Chr 163:1869 Ap 8 '46
Ernest Weir refutes USWA statistics in report to employees. Iron Age 156:110 N 22 '45
Thumbnail stock appraisal. Mag of Wall St 78:214 My 25 '46

NATIONAL thrift week. See Saving

NATIONAL vulcanized fibre company
Securities offered. Comm & Fin Chr 162: 2396-7 N 19 '45

NATIONAL wage stabilization board
Prices imperil wage pattern. Bsns W p98+ Ag 24 '46
Stabilization setup changes; new tripartite agency takes over wage adjustment duties of old NWLB. Bsns W p90+ Ja 5 '46
Wage board gets new life. Bsns W p19-20 Mr 9 '46
Wage board lives, lingeringly. Bsns W p77 Ag 3 '46
Wage-cut snarl. Bsns W p94+ S 14 '46

NATIONAL war labor board
Collective bargaining sidetracked. H. G. Heneman, jr. Advanced Management 11: 105-10 S '46
Impact of war on post-war labor relations; value of collective bargaining patterns established by the War labor board. J. Shister. il Dun's R 53:18-20+ O '45
Stabilization setup changes; new tripartite agency takes over wage adjustment duties of old NWLB. Bsns W p90+ Ja 5 '46

NATIONAL warm air heating and air conditioning association
Mid-year meeting, Chicago, June 24-26. Sheet Metal Worker 37:82-6 Jl '46; Gas Age 98: 21+ Ag 8 '46

NATIONAL wholesale druggists association
Annual convention, 72nd, Atlantic City, Sept. 23-26. Oil Paint & Drug Rep 150:7+ S 30 '46
Costly victory; wholesale druggists fined $87,000 on no-contest pleas. Bsns W p92+ Ja 12 '46
Mid-year meeting, Chicago. Oil Paint & Drug Rep 149:7+ Ap 22 '46

NATIONALISM
National unity and national ethics. W. G. Muelder. Ann Am Acad 244:10-18 Mr '46

NATIONALIZATION of banks. See Bank of England—Government ownership; Banks and banking—Government ownership

NATIONALIZATION of industry. See Government ownership

NATURAL dyes. See Dyes and dyeing—Natural dyes

NATURAL gas. See Gas, Natural

NATURAL gasoline. See Gasoline, Natural

NATURAL gasoline association of America
Annual meeting, 25th, Dallas, April 17-19. Oil & Gas J 44:110-11 Ap 20; 102-3 Ap 27 '46; Nat Pet N 38:42+ Ap 24 '46; Pet Refiner 25: 149-50+ My '46

NATURAL history museums
See also
United States—National museum

NATURAL law
Essential human rights. W. D. Lewis and J. R. Ellingston, eds. Ann Am Acad 243: 1-149 Ja '46

NATURAL resources
Natural products of the empire. J. L. Simonsen and others. Chem Age (Lond) 54:727-9; 55:13 Je 29-Jl 6 '46
Natural resources and urban development. O. W. Freeman. bibliog Ann Am Acad 242:30-45 N '45
See also
Coal
Conservation of resources
Fisheries
Forests and forestry
Fuel
Gas, Natural
Mines and mineral resources
Oil lands
Oil shales
Ore deposits
Peat
Petroleum
Raw materials
Reclamation of land
Soil conservation
Water supply

NATURAL rights. See Natural law

NATURAL steam. See Steam, Natural

NAUTICAL instruments
Electronic marine navigator first commercial radar product. il diags Product Eng 17: 69-71 Ja '46
New Pitlog for merchant ships. il Marine Eng 51:186 My '46
Pitometer log. il Marine Eng 50:222 N '45
See also
Direction finding apparatus
Gyro compass
Sounding

NAVAL air service. See United States—Air service, Navy

NAVAL air stations
Industrial ventilation; naval air station at Coco Solo, Canal Zone; illustrations with text. F. F. Kravath. Heat & Ven 43:63-7 Ag '46
Navy builds airbases; illustrations. Arch Forum 84:128-9 Mr '46

NAVAL air transport service. See United States—Air service, Navy—Transport service

NAVAL architects and marine engineers, Society of. See Society of naval architects and marine engineers

NAVAL architecture
Excursion boat, Delaware Belle. il Marine Eng 51:97-9 O '46
Historical transactions, 1893-1943. 544p Society of naval architects and marine engineers, 29 W. 39th st, New York 18 '45
Institution of naval architects and Institution of engineers and shipbuilders in Scotland, combined autumn meeting, Glasgow, Sept. 24-26. Engineering 162:328-9, 355, 376-8 O 4-18 '46
Interiors for tomorrow's ships. M. Lapidus. il plans Marine Eng 50:172-6+ N '45
Large passenger-carrying ships for certain essential trade routes. J. L. Bates. diags Marine Eng 50:136-47 N '45; Discussion. 51:158+ Ja '46
Research in naval architecture and marine engineering. K. S. M. Davidson. Marine Eng 51:115-16 Mr '46
Stabilisation of ships by activated fins. J. F. Allan. il diags Engineering 160:318-20, 338-40, 361-3 O 19-N 2 '45
Stability of naval vessels; simplified method of approximating maximum range. M. I. Mantell. Marine Eng 51:109-11 Jl '46
See also
Bulkheads (naval architecture)
Colliers
Freight ships
Marine engineering
Motor ships
Power plants, Floating
Propellers
Ship propulsion
Ship resistance
Shipbuilding
Ships
Steamboats
Tank ships
Towboats
Warships
Whaling vessels

Designs and plans
Coasters for the Dutch East Indies. P. L. Rhodes. Marine Eng 51:102-6 Ap '46
Great Lakes bulk-cargo carrier. L. A. Baier. bibliog il plan diags Mech Eng 68:857-65 O '46
New American South African C-3's. H. L. Seward. il plans diags Marine Eng 51:100-9 My '46

NAVAL architecture—Designs and plans—*Continued*
New ships for the Great White Fleet. il plans diags Marine Eng 50:136-48 D '45
Ore carrier S. S. Venore. H. F. Robinson and E. P. Worthen. il plans diag Marine Eng 51:117-19 Ja '46
Phoenix, all-welded tanker. W. A. Stewart. il plans diags Marine Eng 51:88-99 Je '46
Progressive engineering features on cargo liner Mormacgulf. O. W. Page. il plans diags Marine Eng 51:90-100 Jl '46

Study and teaching

See also Webb institute of naval architecture

NAVAL art and science
L'évolution de la technique maritime et aéronautique depuis 1939. M. Bahon. Génie Civil 123.204-5 Ag 1 '46
Subject heading list for naval research libraries. 3d ed 499p Office of research and inventions, Navy dept, Washington, D.C. '46
Technical achievements in the navy. il Engineer 181:14-16, 28-9 Ja 4-11 '46

See also
Camouflage
Marine engineering
Naval bases and other headings beginning Naval
Navy yards and naval stations
Sea power
Seamen
Shipbuilding
Submarine warfare

NAVAL bases
Concrete at advance bases; using coral for aggregate. I. S. Rasmusson. il Am Concrete Inst J 17:541-51 Ap '46
Midway tank farm. W. J. Raue. il Civil Eng 15:551-2 D '45
Navy put Diesel plant in underground chamber at two small bases in the Pacific. M. S. Fitzwilliam. plans diags Elec World 125: 58-9 Mr 30 '46
Sand Bay naval fueling station in the Aleutians headed by oil man; can handle any size ship. P. Wollstadt. Nat Pet N 37:28 N 21 '45
San Pedro naval depot's 188 million bbls. of oil powered Pacific war machine to victory. Nat Pet N 38:48 Ap 10 '46

See also
Naval air stations

NAVAL education
Navy training for leadership. J. L. Holloway, jr. Mech Eng 68:441-2 My '46
Royal naval damage control school. il Engineer 180:478-80 D 14 '45

See also
United States—Navy—Education

NAVAL guns
Early fire-control radars for naval vessels. W. C. Tinus and W. H. C. Higgins. il diags Bell System Tech J 25:1-47 Ja '46
Moisture-proof covering to protect navy materiel; sprayed plastic coating. il Iron Age 156:105 N 29 '45
Navy's gyro gunsight. il diag Comp Air Mag 50:328-9 D '45
Putting dogs of war in live storage; plastic coating sprayed on naval guns. R. G. Skerrett. il Comp Air Mag 51:102-3 Ap '46

Manufacture

Electroplating, polishing and buffing at the U.S. naval gun factory, Washington, D.C. A. L. Fry. il Metal Finishing 44:467-71+ N '46

NAVAL oil reserves. See Oil reserves (United States navy)

NAVAL ordnance laboratory, White Oak, Maryland
Engineers and scientists in government service; hiring and rating of technical talent in Naval ordnance laboratory. R. D. Bennett. Elec Eng 64:383-6 N '45; Discussion. 65:52-3 Ja '46
Naval ordnance laboratory at White Oak. il Chem & Eng N 24:2364 S 10 '46
Naval ordnance laboratory, White Oak, Maryland. Science 104:237-8 S 13 '46
New research center at White Oak, Md. il Arch Rec 99:106+ Ja '46
Wartime history of the naval ordnance laboratory. R. D. Bennett. R Sci Instr 17:293-6 Ag '46

NAVAL research
Broad research program enlists aid of private facilities. il Steel 118:70-3+ My 13 '46
Engineer's place in naval research. W. G. Schindler. Inst Radio Eng Proc 33:823-4 D '45
Research needs of the navy. H. G. Bowen. Mech Eng 68:194-5+ Mr '46

NAVAL research laboratory
Naval research laboratory; its contributions to war and peace. il diag Product Eng 17: 492-4 Je '46
Nonferrous foundry research at the Naval research laboratory. B. M. Loring. il Foundry 74:98-101+ F '46

NAVAL stations. See Naval air stations; Navy yards and naval stations

NAVAL stores
Carryover of naval stores declined last year. Chem & Met Eng 53:288 Mr '46
Hercules transition quick from war to peace; naval stores plants in the South. il Manuf Rec 114:48-9+ N '45
Industry in Greece. For Comm W 24:35-6 S 14 '46
Postwar research forges ahead; naval stores. J. M. Schantz. Chem Ind 59:262-3 Ag '46

NAVIES

See also
Airplane carriers
Naval architecture and other headings beginning Naval
Navy yards and naval stations
Sea power
Submarine boats
Warships

NAVIGATION

See also
Air navigation
Decca navigation system
Harbors
Loran system
Nautical instruments
Radio aids to navigation
Rivers
Shipping
Sounding

NAVY yards and naval stations
Navy builds shops. il Arch Forum 84:124-5 Mr '46
Navy yard revamps foundry; Norfolk navy shipyard. P. Dwyer. il Foundry 74:78-82+ S; 112-15+ O '46
Norfolk navy yard holds foundry conference. Foundry 74:197 Ag '46

See also
Naval bases

Safety measures

Selling safety to supervisors cuts accidents 67 percent. A. R. Lateiner. il Factory Management 104:102-4 My '46

NAZI movement. See Germany—Nazi movement

NEAR EAST
Middle Eastern tension. Economist 149:901-2 D 22 '45
World wide chemistry. W. G. Cass. Chem & Eng 24:2548+ S 25 '46

See also
Petroleum—Near East

NEAVE, Ralph
One about Ralph Neave and McClelland Barclay; adecdote. M. Goldgar. por Ptr Ink 213:132 D 7 '45

NEBRASKA power company
FPC renounces authority over power company acquired by nonprofit corporation. Pub Util 37:455-6 Mr 28 '46
Myers, catalyst; Seattle utility broker. Bsns W p68+ F 23 '46

NEEDLEWORK
Bright promotions by Bucilla lure mobs of women to needlework; Bernhard Ulmann co. W. C. MacCausland. il Sales Management 56:71-2+ Ja 15 '46

NEFF, Grover Cleveland, 1886-
Sketch. por Edison Elec Inst Bul 14:178-9 Je '46

NEFF, Paul J. 1884-
Succeeds L. W. Baldwin as executive head of Missouri Pacific. por Ry Age 120:1106 Je 1 '46

NEGLIGENCE
Classical tragedy; loss of the Thetis. Economist 150:446-7 Mr 23 '46

NEGLIGENCE—*Continued*
Electric company liable for negligence by employe of wiring contractor. East Underw 47:26 Ap 26 '46
Landlord's liability; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:38-9 My 23 '46
Minor negligently causing mother's death cannot share amount recovered by deceased's administrator in action against him. Weekly Underw 154:785 Mr 23 '46
New gas explosion suits. L. T. Parker. Am Gas J 164:45-7 My '46
Res ipsa loquitur; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:36-7 Mr 28 '46
Res ipsa loquitur; riding academies; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12:68+ O 10 '46
Soldiers sue Consolidated Vultee aircraft corp.; action involving plane crash off Hawaii. Nat Underw 50:28 O 24 '46
Turning point in Michigan law spells automobile claim cost hike; overruling doctrine of imputed negligence. Nat Underw 50:32 Ja 10 '46

See also
Damages
Manufacturers' liability
Personal injuries
Proximate cause (law)

NEGOTIABLE instruments
Defenses of holder in due course of installment notes. Banking Law J 63:213-18 Mr '46
Executor's note pledging estate pass book as security. C. R. Rosenberg, jr. Burroughs Clearing House 30:54+ N '45
Here's the law that makes extra work for banks; Negotiable instruments act. Bankers Mo 63:21-2 Ja '46
Holder of stolen U. S. Treasury notes held disqualified as holder in due course. Banking Law J 62:908-12 N '45
Maker of note also endorser. C. R. Rosenberg, jr. Burroughs Clearing House 30:43 Ja '46
Purchaser for value of note held holder in due course. Banking Law J 63:61-5 Ja '46
Unindorsed note wrongly transferred by agent. Banking Law J 63:244-8 Mr '46

See also
Acceptances, Trade
Checks
Drafts
Indorsement
Money orders
Promissory notes
Warehouse receipts

NEGRO folklore. See Folklore, Negro

NEGRO market
158 Negro newspapers study racial market. Ptr Ink 216:98 Ag 23 '46

NEGROES
Negro progress and racial bias. H. A. Wallace. Comm & Fin Chr 163:1981+ Ap 11 '46
Psychodynamic factors in racial relations. H. V. McLean. Ann Am Acad 244:159-66 Mr '46

See also
Foster, Lemuel L.
Race discrimination
United States—Army—Negro troops

Economic conditions
Annual family and occupational earnings of residents of two Negro housing projects in Atlanta, 1937-44. A. L. Ritter. Mo Labor R 61:1061-73 D '45

Employment
Elimination of discrimination; excerpts from Fair employment practices committee annual report. Personnel J 24:255-9 Ja '46
Fair employment practice. G. H. Fisher. Manuf Rec 115:120+ Ja '46
Industrial experiment. A. Rubin and G. J. Segal. Ann Am Acad 244:57-64 Mr '46
Negroes win a point; fighting racial discrimination within labor unions. Bsns W p88 Je 22 '46
Personnel practices and wartime changes. F. J. Haas and G. J. Fleming. Ann Am Acad 244:48-56 Mr '46
Unions and Negro employment. H. R. Northrup. Ann Am Acad 244:42-7 Mr '46

Housing
Housing in a democracy. R. C. Weaver. bibliog Ann Am Acad 244:95-105 Mr '46
Low-rent apartments of minimum height; George Washington Carver apartments, Chicago. il plans diag Arch Rec 99:93-4 Ja '46
Relationship between condition of dwellings and rentals, by race. C. K. Robinson. bibliog J Land & Pub Util Econ 22:296-302 Ag '46

Mortality
Increase in tuberculosis proportionate mortality among nonwhite young adults. J. Yerushalmy. Pub Health Rep 61:251-8 F 22 '46
Negro mortality; mortality from all causes in the death registration states. M. Gover. Pub Health Rep 61:259-65 F 22 '46
Negro mortality; the birth rate and infant and maternal mortality. M. Gover. bibliog Pub Health Rep 61:1529-38 O 25 '46

Segregation
Good neighbors; California judge knocks out race restrictive covenant in Los Angeles residential area as unconstitutional. Arch Forum 84:16+ Ja '46

See also
Motor bus lines—Negro passengers
Railroads—Negro passengers

NEGROES as scientists

See also
Carver, George Washington

NEHALEM river
Stratigraphy of upper Nehalem River basin, northwestern Oregon. W. C. Warren and H. Norbisrath. bibliog maps Am Assn Pet Geologists Bul 30:213-37 F '46

NEIGHBORHOOD planning
Good neighborhoods. C. Bauer. bibliog Ann Am Acad 242:104-15 N '45

See also
Shopping centers

NELA PARK, Cleveland
Nela Park reopens; a camera report on G-E's lighting training center. il Sales Management 57:44-6+ O 1 '46

NELSON, Donald Marr, 1888-
Recall of Donald M. Nelson. por Steel 119:74 S 2 '46

NEOHEXANE. See Dimethyl butane

NEOMANNIDE
Hexitol anhydrides; the preparation and proof of structure of 1,5,3,6-dianhydromannitol (neomannide); the structure of isomannide. R. C. Hockett and E. L. Sheffield. bibliog Am Chem Soc J 68:937-9 Je '46

NEON sign policy. See Insurance, Plate glass—Neon sign policy

NEOPENTANE. See Dimethyl propane

NEOPENTYL bromides. See Bromodimethyl propane

NEOPENTYL chloride. See Chlorodimethylpropane

NEOPENTYL halides
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance. I. Dostrovsky and E. D. Hughes. Chem Soc J p157-94 Mr '46

NEOPENTYL iodide. See Iododimethylpropane

NEOPRENE
Adhesive tension patch; neoprene used in testing airplane wings. E. R. Weaver. Metal Prog 49:538 Mr '46
Creep of neoprene in shear under static conditions. W. N. Keen. bibliog il diag A S M E Trans 68:237-40 Ap '46
German neoprene progress; abstract. M. A. Younker and N. A. Copeland. Rubber Age 59:706 S '46
Higher compressor speed and larger pumps give more refrigeration; process for synthesis of neoprene. J. D. Constance. diag Power 90:325-6 [issue p103-4] My '46
Making flexible molds from neoprene latex. H. H. Abernathy and R. H. Walsh. il Rubber Age 58:349-51 D '45
Neoprene improves action in Jacobs new-type drill chuck. il Aeronautical Eng R 4:141 N '45; Product Eng 16:833 D '45
Neoprene in product design. V. A. Cosler. il Product Eng 17:61-4 Ja '46

NEOPRENE—*Continued*
State of cure of neoprene vulcanizates; measurement by the T-50 test. D. B. Forman and R. R. Radcliff. bibliog Ind & Eng Chem 38:1048-52 O '46

NEOTYPE (term)
Neotypes. G. G. Simpson. bibliog Am J Sci 143:680-94 D '45

NEPHELINE syenite
Nepheline syenite in 1944. Can Min J 67:252 Ap '46

NEPHELOMETRIC analysis
Nephelometric determination of small amounts of sodium. F. K. Lindsay, D. G. Braithwaite and J. S. D'Amico. Ind & Eng Chem Anal ed 18:101-2 F '46

See also
Turbidimetric analysis

NEPTUNIUM
Chemical and radioactive properties of the heavy elements. G. T. Seaborg. Chem & Eng N 23:2190-3 D 10 '45
Impact of nuclear chemistry; the heavy elements. G. T. Seaborg. il diags Chem & Eng N 24:1192-8 My 10 '46
Synthesis of the new elements neptunium and plutonium. L. S. Foster. bibliog J Chem Educ 22:619-23 D '45
Transuranium elements. G. T. Seaborg. bibliog il diags Science 104:379-86 O 25 '46

Isotopes
Seaborg announces fissionable neptunium. Chem & Eng N 24:2764 O 25 '46

NERVES
Electrical correlates of peripheral nerve injury. R. G. Grenell and H. S. Burr. Science 103:48-9 Ja 11 '46
Maintenance of respiratory activity in stored peripheral nerve. J. Wortis and R. Lapouse. Science 104:247 S 13 '46
Nerve stimulator; thyratron-type relaxation oscillator for biological research and medical therapy. W. I. Weiss. diags Electronics 19:155 F '46
Reduction of sympathetic synaptic transmission as an index of inhibition at adrenergic junctions in general. A. S. Marrazzi. bibliog Science 104:6-8 Jl 5 '46

NERVOUS system
Spinal conditioning in dogs. W. N. Kellogg and others. Science 103:49-50 Ja 11 '45

See also
Senses and sensation

NESS, Eliot, 1904-
There goes Eliot Ness. por Fortune 33:196 Ja '46

NESSLER'S reagent
Determination of nitrogen in ferro-alloys by direct Nesslerisation. W. C. Newell. Engineering 160:505 D 14 '45

NESTLÉ family
Swiss family Nestlé. pors Fortune 33:116-23+ F '46

NETHERLANDS
Rebuilding Holland. Economist 150:244-6 F 16 '46
Reconstruction work in the Netherlands. J. A. Ringers. Engineering 160:477 D 7 '45

See also
Coal mines and mining—Netherlands
Colleges and universities—Netherlands
Finance—Netherlands
Housing—Netherlands
Housing laws—Netherlands
Investments, Foreign—Netherlands
Investments, Foreign (in Netherlands)
Land—Netherlands
Textile industry—Netherlands
Walcheren

Commerce
Holland's reconstruction generates foreign trade. B. Landheer. il For Comm W 23: 3-6+ My 25 '46
Opportunity in the Netherlands. Electrician 136:1448 My 31 '46
Proposed imports from the United States during the year 1946. For Comm W 24:31 Jl 20 '46
Trade and industry during German occupation. H. Vos. Ann Am Acad 245:55-61 My '46
Trade with Holland. Chem Age (Lond) 54:604 Je 1 '46

Commercial policy
Netherlands; problem of foreign exchange; regulations concerning import and export licenses. M. W. Holtrop. For Comm W 24:26-7 Ag 3 '46
Union in the Low Countries. Economist 151: 205-6, 244-5 Ag 10-17 '46

Economic conditions
Dutch postwar reconversion. J. Van Galen. Comm & Fin Chr 163:2639+ My 16 '46
Holland's position and prospects. E. D. de Meester. Comm & Fin Chr 162:2570+ N 29 '45
Holland's reconstruction generates foreign trade. B. Landheer. il For Comm W 23:3-6+ My 25 '46
Situation during the first six months of 1946. For Comm W 24:29-30 S 21 '46

Economic policy
Dutch economic plan for 1946. Economist 151: 300 Ag 24 '46
Rebuilding Holland's economy; Netherlands RFC, aided by private institutions, pushes restoration, expansion of industry and agriculture. Bsns W p109-10+ O 19 '46

German occupation
Dutch were helped by underground printing. il Inland Ptr 117:85 Je '46
Netherlands during German occupation. N. W. Posthumus, ed. Ann Am Acad 245:1-180 My '46

NETHERLANDS INDIES
Indonesia's position in Netherlands commonwealth. For Comm W 22:25 F 2 '46

See also
Shipping—Netherlands Indies
Sumatra—Economic conditions

Commerce
Export trade of Indies in postwar doldrums. il For Comm W 24:5-6+ S 14 '46

NETWORK analyzers. See Electric distribution—Network analyzers

NETWORK vaults. See Vaults (electric installation)

NEUTRAL salt effect
Heterogeneous acid and acid-salt hydrolysis of secondary cellulose acetate. R. N. Haward and T. White. Soc Chem Ind J 65: 63-4 F '46

NEUTRINOS
Calorimetric experiment on the radiation losses of 2-Mev electrons. W. W. Buechner and R. J. Van de Graaff. bibliog diag Phys R 70:174-7 Ag 1 '46

NEUTRONS
Absorption curve of 31-second $_8O^{19}$ beta-rays and cross section for production by thermal neutrons. L. Seren and others. Phys R 70: 561 O 1 '46
Absorption of slow neutrons by Cd^{113}. B. J. Moyer and others. Phys R 69:666 Je 1 '46
Atmospheric helium three and radiocarbon from cosmic radiation. W. F. Libby. bibliog Phys R 69:671-2 Je 1 '46
Capture cross sections for slow neutrons. J. W. Coltman and M. Goldhaber. diag Phys R 69:411-13 My 1 '46
Capture cross sections for slow neutrons; small capture cross sections. C. O. Muehlhause and M. Goldhaber. Phys R 70:85 Jl 1 '46
Chemical forms assumed by C^{14} produced by neutron irradiation of nitrogenous substances. P. E. Yankwich and others. bibliog J Chem Phys 14:131-40 Mr '46
Collision cross sections for 25-Mev neutrons. R. Sherr. bibliog Phys R 68:240-5 D 1 '45
Determination of absolute neutron intensities. R. D. O'Neal and G. Scharff-Goldhaber. Phys R 69:368 Ap 1 '46
Disintegration of nitrogen by fast neutrons. H. H. Barschall and M. E. Battat. Phys R 70:245-8 S 1 '46
Energy distribution and number of cosmic-ray neutrons in the free atmosphere. S. A. Korff and B. Hamermesh. bibliog Phys R 69:155-9 Mr 1 '46

NEUTRONS—*Continued*
Experiments with a slow neutron velocity spectrometer. R. F. Bacher and others. plans diag Phys R 69:443-51 My 1 '46
Fast neutron energy absorption in gases, walls, and tissue. P. C. Aebersold and G. A. Anslow. bibliog Phys R 69:1-21 Ja 1 '46
Fast neutron resonance with nitrogen. F. A. Valente and H. I. Zagor. Phys R 69: 55-9 F 1 '46
Mass of the neutron. D. J. Hughes. Phys R 70:219 Ag 1 '46
Mass of the neutron. K. Sun. Phys R 69: 240 Mr 1 '46
Multiple production of neutrons by cosmic radiation. S. A. Korff and B. Hamermesh. Phys R 70:429 S 1 '46
Neutron beam spectrometer studies of boron, cadmium, and the energy distribution from paraffin. J. Rainwater and W. W. Havens, jr. bibliog plan Phys R 70:136-53 Ag 1 '46
Neutron, the intermediate or compound nucleus, and the atomic bomb. W. D. Harkins. il diag Science 103:289-302 Mr 8 '46
Neutron yields from the photo- and electro-disintegration of beryllium. M. L. Wiedenbeck. Phys R 69:235 Mr 1 '46
Preparation of high specific induced radioactivity by neutron bombardment of metal chelate compounds. R. B. Duffield and M. Calvin. Am Chem Soc J 68:1129 Je '46
Proposed neutron spectrometer in the 10-1000 kev range. B. T. Feld. Phys R 70:429 S 1 '46
Relativistic correction in calculating the magnetic moment of the deuteron. P. Caldirola. Phys R 69:608-10 Je 1 '46
Reproducible neutron standard. G. R. Gamertsfelder and M. Goldhaber. Phys R 69:368-9 Ap 1 '46
Slow neutron cross sections of indium, gold, silver, antimony, lithium, and mercury as measured with a neutron beam spectrometer. W. W. Havens, jr. and J. Rainwater. bibliog Phys R 70:154-73 Ag 1 '46
Slowing down of low energy neutrons in water; determination of photo-neutron energies. R. D. O'Neal. bibliog Phys R 70:1-4 Jl 1 '46
Theory of the slowing down of neutrons in heavy substances. G. Placzek. bibliog Phys R 69:423-38 My 1 '46
Thresholds for slow neutron induced reactions. L. I. Schiff. bibliog Phys R 70:562 O 1 '46
Transmission of velocity-selected neutrons through magnetized iron. E. M. Fryer. bibliog diags Phys R 70:235-44 S 1 '46
Two kinds of neutrons? J. De Ment. Science 104:303 S 27 '46
Velocity dependence of the absorption of boron for slow neutrons. J. H. Manley and others. bibliog diags Phys R 69:405-11 My 1 '46
Yield function and angular distribution of the D+D neutrons. W. E. Bennett and others. bibliog diag Phys R 69:418-22 My 1 '46

Scattering

Albedo of thermal neutrons. M. Ageno. Phys R 69:241-2 Mr 1 '46
High energy neutron-proton scattering and the Meson theory of nuclear forces with strong coupling. J. L. Lopes. bibliog Phys R 70:5-15 Jl 1 '46
Neutron diffraction and nuclear resonance structure. L. B. Borst and others. Phys R 70:557 O 1 '46
Neutron scattering in ortho- and parahydrogen and the range of nuclear forces. C. S. Wu and others. Phys R 69:236 Mr 1 '46
Resonance scattering of fast neutrons. D. C. Grahame. bibliog Phys R 69:369-70 Ap 1 '46
Scattering of fast neutrons by boron. H. H. Barschall and others. Phys R 70:458-9 O 1 '46
Scattering of neutrons by magnesium. R. N. Little and others. bibliog diags Phys R 69: 414-17 My 1 '46
Scattering of slow neutrons by ortho- and paradeuterium. M. Hamermesh and J. Schwinger. Phys R 69:145-54 Mr 1 '46

NEVADA
See also
Cobalt mines and mining—Nevada
Mines and mineral resources—Nevada
Gold mines and mining—Nevada

NEW businesses. See Business—New businesses

NEW CASTLE, Indiana
Local interest helps absentee ownership; New Castle gets acquainted with out of town managers. J. F. Sembower. Am Bsns 16: 30 O '46

NEW council of American business, inc.
N.C.A.B.'s debut; organization of businessmen, with leftish program. Bsns W p20-1 D 8 '45

NEW employees. See Employment management—New employees

NEW ENGLAND
See also
Labor and laboring classes—New England
Textile industry—New England
Public works—New England

NEW ENGLAND conference for the graphic arts
Conference, 2d, Boston, April 1-3. Inland Ptr 117:84-5 Je '46

NEW ENGLAND gas and electric association
Files amended recapitalization plan with SEC. Comm & Fin Chr 163:1731 Ap 1 '46
Public utility securities. Comm & Fin Chr 164:620 Ag 1 '46

NEW ENGLAND gas association
Annual meeting, 19th, Boston, March 21-22. Am Gas J 164:24-6 Ap '46; Gas Age 97: 30-1+ Ap 4 '46
Operating division meeting, Boston, Jan. 17. Am Gas J 164:18+ F '46

NEW ENGLAND mutual life insurance company
New England Mutual dramatizes workday for its employes; more than 100 employes take part in presentations. il East Underw 47: 1+ My 3 '46

NEW ENGLAND power association
One stock capital for New England Power. Barron's 26:6 Ap 8 '46
Reorganization plan approved by SEC. Comm & Fin Chr 163:1571 Mr 25 '46

NEW ENGLAND sales management conference
Meeting, 7th, Boston, Jan. 11-12. Sales Management 56:108-9 F 1 '46

NEW ENGLAND water works association
Annual meeting, Poland Spring. Eng N 137: 405 S 26 '46
Annual meeting, 64th, Boston, Sept. 11. Water Works & Sewerage 92:325-8 N '45
Annual meeting, 64th, Boston, Sept. 11; annual reports, committees. N E Water Works Assn J 59:364-407 D '45

NEW enterprises, inc.
Investment test; Boston businessmen form group to investigate unproved enterprises. Bsns W p36 Ag 10 '46

NEW GUINEA
See also
Gold mines and mining—New Guinea

NEW HAMPSHIRE
How New Hampshire measures her vacation business. A. M. Heath. Ptr Ink 213:38+ D 28 '45

State library
State library in action. M. P. McKay. Special Lib 37:99-103 Ap '46

NEW JERSEY
Industrial health, Bureau of
Report of New Jersey Bureau of industrial health. W. G. Hazard. Ind Med 15:172-4 F '46

NEW MEXICO
See also
Geology—New Mexico
Petroleum—New Mexico

NEW ORLEANS
City of New Orleans sells itself as export and import center. Sales Management 56:64-5 Je 15 '46
Free port no. 2. Bsns W p34+ Jl 6 '46
Prospects for homes learn values thru Home planners' institute. Sales Management 57: 48 Ag 15 '46
See also
Motor bus lines—New Orleans

International house
Businessmen set up Latin-American center. il Ptr Ink 214:72+ F 22 '46

International trade mart
New Orleans merchandise mart to be international sales headquarters. il Ptr Ink 213: 32 D 28 '45

Railroads
New Orleans plans rail terminal job. map Eng N 136:533 Ap 18 '46
Order from chaos; $30,000,000 modernization program may reorganize jumble of rail terminals. Bsns W p30+ Ap 6 '46

Rapid transit
Baine reveals re-incarnation of old Bob O'Brien's spirit. Mass Transportation 42: 373-5 S '46
Eliminating staggered hours causes transit congestion. il Mass Transportation 42:30-2 Ja '46

Water supply
Precast sectional walls and roof allow for uneven reservoir settlement at New Orleans. il diags Eng N 137:244-8 Ag 22 '46

NEW products. See Products, New

NEW SALEM, Illinois
Carding mill connected with life of Abraham Lincoln; early wool mill restored in New Salem. C. C. Hall. il Textile World 96: 141+ F '46

NEW TESTAMENT. See Bible

NEW YORK (city)
More families, fewer stores, in New York city; pictograph. Sales Management 56:65 F 15 '46
New York advancing; seven more years of progressive administration in the city of New York, 1939-1945. Victory ed R. A. Rankin, ed. 393p pa $1 Municipal reference library, 2230 Municipal bldg, New York 7 '45
Zeckendorf city; giant riverside project for New York. il plan Arch Forum 85:9 O '46
See also
Housing—New York (city)
Retail trade—New York (city)

Airports
See Airports—New York (city)

Architecture
Amster Yard; old city block in Manhattan converted into garden surrounded by apartments and professional offices. il plans diag Arch Forum 85:63-8 Ag '46
Postwar New York skyscraper; office building for Standard oil company of New Jersey. Arch Forum 84:91-3 My '46

Bridges
Additional stiffening of Bronx-Whitestone bridge. O. H. Ammann. il diags Civil Eng 16:101-3 Mr '46; Discussion. L. Balog. 16: 358-9 Ag '46
Brooklyn bridge; design and stress condition. O. H. Ammann. il diags Am Soc C E Proc 72:25-41 Ja '46; Discussion. 72:534-5 Ap '46
Brooklyn bridge; historical features of construction and operation. H. R. Seely. bibliog il map diags Am Soc C E Proc 72:5-24 Ja '46; Discussion. 72:864-6 Je '46
Brooklyn bridge; physical examination and field observations. N. Gray. il Am Soc C E Proc 72:42-56 Ja '46
Brooklyn bridge; tests of metals removed from cables and stiffening trusses. H. E. Wessman. bibliog il Am Soc C E Proc 72: 57-68 Ja '46
Builders of the bridge, by D. B. Steinman; review. J. C. Riedel. J Eng Educ 36:657-70 Je '46
High road to Brooklyn; history of Brooklyn bridge. E. H. Cameron. il diag Tech R 48: 419-22+, 487-90+ My-Je '46

Commerce
Northward ho; a century and a half of retailing on Manhattan. A. M. Sullivan. il map Dun's R 54:16-21+ F '46
See also
World trade center, New York (proposed)

Finance
See Finance—New York (city)

Galleries and museums
See also
Museum of modern art, New York

Graphic arts center (proposed)
Huge Graphic arts center is planned. il Inland Ptr 117:74 Jl '46

Hospitals
Medical college; New York university's new school forms part of planned Bellevue Hospital medical center. il plans Arch Forum 83:99-103 N '45

Libraries
Program for the public libraries of New York city. A. M. Githens and R. Munn. il maps 150p $3 City planning commission, Dept. of city planning, Municipal bldg, New York 7 '45
See also
New York public library

Markets
Engineers plan new wholesale produce market for New York. C. F. Loyd. map diag Civil Eng 16:392-4 S '46

Metropolitan museum of art
See Metropolitan museum of art

Population
N.Y. Times study shows increase in city's number of families. Ptr Ink 214:82 Ja 18 '46

Railroads
Grand Central sky rejuvenated; redecorating ceiling of concourse. il Ry Age 119: 520-2 S 29 '45; Abstract. Mech Eng 58:156-7 F '46
Safe scaffolds; renovating ceiling of Grand central terminal, New York. il Safety Eng 91:40+ Ja '46

Rapid transit
New York city's subway snafu. L. D. Farrar. Pub Util 37:531-42 Ap 25 '46
New York's vanishing 5c fare. D. Anderson; W. Jackson. Mass Transportation 42:118-20 Mr '46

Sewerage
Father Knickerbocker looks ahead; fourteen dual-fuel engines scheduled for sewage plants. il map Diesel Power 24:1070-4 S '46

Streets
57th street; tight bottleneck for art in the United States. il Fortune 34:144-51+ S '46
Traffic outrage. il plans Fortune 34:122-9 O '46

Tunnels
Governors Island shaft, Brooklyn-Battery tunnel, New York city; unit prices. Eng N 136:808+ My 16 '46
See also
Hudson river tunnels

NEW YORK (state)
New York coordinates all safety activities. il Safety Eng 91:50-1 Je '46

NEW YORK (state)—*Continued*
New York fights federal taxes on state business; case arising from taxation of Saratoga Springs bottled water business. Elec World 124:137 D 8 '45

See also
Labor laws and legislation—New York (state)
Public works—New York (state)

Industrial hygiene and safety standards, Division of
Industrial hygiene and safety standards. il Safety Eng 92:50-1 S '46

Industrial safety, Division of
All this and mining too! work of inspectors of Division of industrial safety's Bureau of mines, tunnels, quarries and explosives. il Safety Eng 91:46-8 Je '46

Postwar public works planning commission
New York state's plans are ready. T. E. Dewey. il plans Arch Rec 98:83-94 D '45

NEW YORK board of trade

Drug, chemical and allied trades section
Annual dinner, 20th, New York, March 14. Chem & Eng N 24:919 Ap 10 '46

NEW YORK central railroad
Annual report, year ending December 31, 1945. Ry Age 120:1283 Je 29 '46
Equipment trust certificates. Comm & Fin Chr 163:75 Ja 7 '46
Income account for calendar years 1943-1945. Comm & Fin Chr 163:3421 Je 24 '46

NEW YORK, Chicago and St Louis railroad
Bonds offered; annual report. Comm & Fin Chr 163:2161 Ap 22 '46
Favors Nickel Plate control of Wheeling. Ry Age 121:146-7 Jl 27 '46

NEW YORK City airport authority
Create authority to finance N.Y. airports. Eng N 136:516 Ap 11 '46
New York airport authority. Roads & Sts 89: 98 My '46
Outstanding figures named to N.Y. board. Aviation N 5:38 Ap 15 '46

NEW YORK clearing house association
Annual meeting, New York, Oct. 1. Comm & Fin Chr 164:2266 O 31 '46

NEW YORK coffee and sugar exchange
Reopened for trading in coffee futures; OPA removes curbs. Comm & Fin Chr 164:2134 O 24 '46

NEW YORK curb exchange
Curb maintains position in Kaiser-Frazer listing. Comm & Fin Chr 164:77+ Jl 4 '46
New York stock exchange and the Curb. E. Schram. Comm & Fin Chr 164:79+ Jl 4 '46
Ohio ends controversy with N.Y. Curb in listing Kaiser-Frazer shares. Comm & Fin Chr 164:892 Ag 15 '46
Ohio objects; Securities division flays New York Curb for listing of Kaiser-Frazer shares. Bsns W p49 Je 22 '46

NEW YORK life insurance company
Agent loses suit for commissions under 1908 contract that was given up for Nylic agency agreement. Nat Underw (Life ed) 49:10 N 16 '45
Annual statement. Comm & Fin Chr 163:783 F 11 '46
Job satisfaction survey yields dividends; agents satisfied with Nylic pay program. D. Dowell. Weekly Underw 153:1234-5 N 24 '45

NEW YORK public library
Television comes to the library. D. Hudelson. Special Lib 36:478-80 D '45
Waterproofing treatment protects New York public library against moisture penetration. il Arch Forum 85:195 Jl '46

NEW YORK security dealers association
Addresses at 20th annual dinner, New York, March 8. P. L. Carret and others. Comm & Fin Chr 163:1356+, 1368-72 Mr 14 '46

NEW YORK state association of supervising and adjusting fire insurance agents
Reviews history of organization. G. F. Krank. East Underw 47:18+ Je 28 '46

NEW YORK state bar association
Insurance law section completed. Nat Underw 50:6 Ag 22 '46; Same. Nat Underw (Life ed) 50:2 Ag 23 '46

NEW YORK state college of ceramics. See Alfred university—New York state college of ceramics

NEW YORK state school of industrial and labor relations. See Cornell university—New York state school of industrial and labor relations

NEW YORK state sewage works association
Spring meeting, 19th, Utica, May 24-25. Water & Sewage Works 93:325-8 Ag '46

NEW YORK state teachers college, Oswego
First studies for a model school in New York. il plans Arch Rec 99:108-9 Mr '46

NEW YORK stock exchange
Annual report. E. Schram. Comm & Fin Chr 163:1637+ Mr 28 '46
Considering permissive incorporation of business of firms. Comm & Fin Chr 162:2499 N 22 '45
Fashion; equities. Fortune 34:168+ O '46
Investment appraisals of newcomers on the Stock Exchange. W. A. Howell. il Mag of Wall St 78:760 S 28 '46
Listings for 1945. Comm & Fin Chr 163:1618-20 Mr 25 '46
Member firms of N.Y. stock exchange discuss pro's and con's of permissive incorporation. Comm & Fin Chr 164:612+, 879+, 1007+, 1135+, 1263+, 1456+, 1696, 1988, 2208 Ag 1, 15, 22, 29, S 5, 19, O 3, 17, 31 '46
Monthly range of prices on the New York stock exchange. Comm & Fin Chr 163:621-40 Ja 31 '46
Nerves on Wall Street. Economist 151:385-6 S 7 '46
New issues ebb. Bsns W p68+ Ag 3; p65 Ag 17 '46
New issues face a test. Bsns W p54-6 O 12 '46
New York stock exchange and the Curb. E. Schram. Comm & Fin Chr 164:79+ Jl 4 '46
NYSE cases of disciplinary action. E. C. Gray. Comm & Fin Chr 162:3029 D 20 '45
NYSE governors hear arguments on corporate membership. Comm & Fin Chr 164: 75+ Jl 4 '46
Program for foreign share listings. Comm & Fin Chr 164:2138 O 24 '46
Wall Street truce. Bsns W p70+ O 19 '46
Wants to encourage listing of foreign securities on its big board. Comm & Fin Chr 164: 1580 S 26 '46

Advertising
Public opinion poll decided theme of Stock exchange ads; clear up misconceptions, explain exchange's functions, promote public-welfare objectives. E. J. Dever, jr. il Ptr Ink 216:38-40 Jl 12 '46

Employees
652 employees of Stock Exchange authorize strike, says union. Comm & Fin Chr 164: 881+ Ag 15 '46

Rules
Amended rules on delivery of called stocks and bonds. Comm & Fin Chr 162:2627 N 29 '45
Explains new rule on margined accounts. Comm & Fin Chr 162:2349 N 15 '45

NEW YORK stock exchange and financial employees independent association. See United financial employees

NEW YORK, Susquehanna and western railroad
Susquehanna reorganization in closing stages. A. Jansen. Barron's 25:9+ N 19 '45

NEW YORK telephone company
Annual report. Comm & Fin Chr 163:1572 Mr 25 '46
Rate base cut; Supreme court holds that intercompany profits may not be figured into costs. Bsns W p28 F 2 '46

NEW YORK university
Into the tax-exemption fold; Ramsey accessories mfg. corp. Bsns W p67-8+ Ja 26 '46

NEW YORK university—*Continued*

College of medicine

Medical college; New York university's new school forms part of planned Bellevue Hospital medical center. il plans Arch Forum 83:99-103 N '45

NEW YORK Yankees. See Baseball players

NEW ZEALAND

Natural products of the empire. Melville. Chem Age (Lond) 55:13 Jl 6 '46

See also

Geology—New Zealand
Hygiene, Industrial—New Zealand
Social laws and legislation—New Zealand

Commerce

International economic position of New Zealand. G. H. Brown. bibliog J Bsns 19 pt 2: 1-195 Ap '46

Economic conditions

New Zealand in 1945. Economist 150:sup7 Mr 23 '46

News by countries. For Comm W 24:27-8 Ag 3 '46

Economic history

International economic position of New Zealand. G. H. Brown. bibliog J Bsns 19 pt 2: 1-195 Ap '46

Economic policy

Post-war economic stabilisation in New Zealand. Int Labour R 53:389-95 My-Je '46

NEW ZEALAND flax. See Phormium tenax

NEWARK, New Jersey

Bridges

New bridge at Newark. S. G. Roberts. il Comp Air Mag 51:6-9 Ja '46

NEWARK fire insurance company

135th birthday. Spectator (Property ed) 11: 18 Je 27 '46

NEWBERRY, J. J., company

Thumbnail stock appraisal. Mag of Wall St 78:275 Je 8 '46

NEWCOMEN society for the study of the history of engineering and technology

Newcomen society; twenty-fifth anniversary; abstracts. S. B. Hamilton. Engineer 180: 399 N 16 '45; Engineering 160:422 N 23 '45

Summer meeting. Engineer 181:560 Je 21 '46

NEWFOUNDLAND

See also

Fisheries—Newfoundland

Economic conditions

News by countries. For Comm W 21:20-2 D 1 '45

Prosperity continued through 1945; outlook for 1946. For Comm W 23:29-31 My 25 '46

NEWPORT NEWS shipbuilding and dry dock company

Apprentice school

Only apprentice school with junior college rating. G. G. Via. il Factory Management 104:113-17 Je '46

NEWS

Bid by shortwave; Press Wireless asks to deliver network programs to stations. Bsns W p32+ Jl 20 '46

Cut-rate news; American Cable proposes worldwide radio transmission of press dispatches. Bsns W p42+ D 29 '45

More news by air; publications trying out faster distribution methods. Bsns W p86 F 16 '46

NEWS agencies

See also

Associated press

NEWSPAPER advertising. See Advertising mediums—Newspapers

NEWSPAPER advertising executives association

Convention in New York; photographs. Ptr Ink 215:40-1 Je 21 '46

Meeting, New York. Ptr Ink 215:118 Je 14 '46

NAEA adopts revised code of ad ethics. Ptr Ink 215:110 Je 21 '46

NAEA asks jobs for teachers, students; to improve advertising education. Ptr Ink 215:93+ My 24 '46

NAEA session plans for expanded 1946 advertising gross. Ptr Ink 214:116+ Ja 25 '46

NEWSPAPER advertising network, American. See American newspaper advertising network

NEWSPAPER offices

Press building for Philadelphia inquirer designed for assembly line newspaper production. il map plans Arch Forum 83:114-16 D '45

NEWSPAPERS

Brewery Gulch gazette. M. I. Cox. il Inland Ptr 116:58 F '46

Political handbook of the world; parliaments, parties and press as of January 1, 1946. W. H. Mallory, ed. 202p $3 Council on foreign relations, inc, 58 E 68th st, New York 21 '46

Red Wing and its daily newspaper. (Community basis for postwar planning no. 9) 54p pa 50c University of Minnesota press, Minneapolis '46

WHCU cooperates with weeklies to improve rural newspaper content. Ptr Ink 216:90 Jl 26 '46

See also

Advertising mediums—Newspapers
Associated press
Newspaper offices
Newsprint paper
Periodicals

also names of newspapers, e.g. Denver post, Labor herald

Advertising

Louisville publisher wins NNPA award for varied use of newspaper promotion. Ptr Ink 215:134+ My 3 '46

Advertising service

Consumer research projects standardized for newspapers; Market research committee of N.A.E.A. Ptr Ink 215:57+ Je 21 '46

National advertising in newspapers. N. Borden, M. Taylor and H. T. Hovde. 500p $5 Harvard univ. press; Review by R. Webster. Ptr Ink 214:94+ Mr 22 '46

Prepared advertising as an aid to space sales; help to ex-GI businessman and builds accounts for a newspaper. F. A. Schneller. Adv & Sell 38:70+ N '45

Selling newspaper space to national advertisers. N. H. Borden. Harvard Bsns R 24 no 4:438-52 [Jl] '46

Employees

Court rules newspapers under wage-hour law. Comm & Fin Chr 163:1010 F 21 '46

Is management as blind as labor? J. W. DeVine. Inland Ptr 117:63-4 Ap '46

Newspapers lose; U.S. Supreme court holds publishers subject to wage-hour law. Bsns W p102+ F 16 '46

Finance

Revenues and expenses of newspaper publishers in 1941, together with data relating to national advertising in newspapers. N. H. Borden, M. D. Taylor and H. T. Hovde. 56p pa 50c Harvard univ. Graduate school of business administration, Soldiers Field, Boston 63 '46

Management

Newspapers offer a package; advertising network organized. Bsns W p79-80 D 15 '45

Printing

Full page of natural color photos printed simultaneously with news; Chicago tribune. Inland Ptr 117:68 Jl '46

Newspapers by offset. Inland Ptr 117:84 Je '46

Radio transmission

Chicago tribune radio facsimile makes debut. il Inland Ptr 117:46 Jl '46

Electronic newspaper by Broadcasters facsimile analysis. Gen Elec R 49:49 S '46

Radio newspaper; facsimile broadcasting. il Bsns W p31 Ap 27 '46

Reader interest

Ads top news stories in teen-age readership; study by Minneapolis star. L. E. Borg. Adv & Sell 39:58+ O '46

NEWSPAPERS—Reader interest—*Continued*
Minneapolis newspaper polls readers' interests. Sales Management 56:132 F 1 '46
Readership survey shows bad shooting; both ads and editorial matter miss their actual target. G. Gladfelder. il Ptr Ink 214:27-8 Ja 11 '46
What do people read most in Sunday newspapers? A. W. Lehman. Adv & Sell 39: 35-6+ Ap '46

Great Britain
Control of the press. Economist 151:85-6 Jl 20 '46
Daily news limited, centenary year; statement by chairman, L. J. Cadbury. Economist 150:862 My 25 '46

Maryland
Non-profit Council issues first rating report on weekly newspapers. Ptr Ink 215:52+ Ap 5 '46

NEWSPAPERS and advertising. See Advertising mediums—Newspapers; Newspapers—Advertising service

NEWSPRINT paper
Attractive newsprint offers tempt Canada's pulp mills. Paper Tr J 123:7+ S 5 '46
Canadian newsprint profits $4.40 a ton. Paper Tr J 122:17 Ja 31 '46
Developments in newsprint manufacture. W. G. McNaughton. Paper Ind 28:720+ Ag '46
End newsprint price control, publishers ask; new Southern mill plans told to SNPA. Ptr Ink 217:134 O 11 '46
Newsprint shortage continues. Bsns W p86+ Ja 12 '46
Press section of a newsprint machine. F. A. Garrett. bibliog Paper Tr J 122:53-9 Ap 18 '46
Some observations on Swedish newsprint mills and London pressrooms. G. L. Larocque. Pulp & Pa of Can (Convention no) 47:180 [F] '46
Strikes reduce newsprint supply, force papers to cut or drop ads. il Ptr Ink 215:38+ My 31 '46
Task group sees no increase in U.S. newsprint output. Pulp & Pa of Can 46:956+ N '45

Prices
Canada's dollar stabilization brings newsprint to $73.80. Paper Tr J 123:19+ Jl 18 '46

Statistics
North American newsprint output increased eight per cent in year. G. A. Ware. Paper Tr J 122:52+ F 28 '46; Same. Pulp & Pa of Can 47:47-51 Mr '46; Same abr. Paper Ind 27:1886-8 Mr '46

Testing
Proof press evaluation of paper. A. T. Gardner. Pulp & Pa of Can 47:78-9 Ag '46

Transportation
McKerrow's method for loading newsprint; old rubber motor-car tires as shock absorbers at end-wall of cars. il Pulp & Pa of Can 47:72-4 My '46; Same cond. Ry Age 120:919-20 My 4 '46

NEWSSTANDS

Side line selling
Via new channel; drug item to be handled by magazine distributors. Bsns W p63-4+ Jl 13 '46

NEWTON, Isaac, 1642-1727
Newton. E. N. D. Andrade. Engineer 182: 58-60, 82-4 Jl 19-26 '46

NIACIN. See Nicotinic acid

NIAGARA Hudson power corporation
Annual report. Comm & Fin Chr 163:1572 Mr 25 '46
Columbia Gas vs. Niagara Hudson. Comm & Fin Chr 164:1931+ O 17 '46
Completes refinancing program. Comm & Fin Chr 163:2011 Ap 15 '46
Dividends in sight for Niagara Hudson. E. Etherington. Barron's 26:9+ My 27 '46
Niagara Hudson cuts senior charges. Barron's 26:8 Mr 4 '46
Niagara Hudson plan to delay dividends. Barron's 26:1+ O 7 '46
Niagara Hudson senior dividend looms. Barron's 25:10 D 10 '45
Public utility securities. Comm & Fin Chr 162:2702+ D 6 '45

NIAGARA river
Must pay N.Y. for Niagara water use. Eng N 136:527 Ap 18 '46

NICARAGUA

Commercial policy
Nicaragua's controls on exchange and trade. G. Kalmanoff. il For Comm W 21:12+ D 22 '45

Economic conditions
Latin America's economy as world conflict ended. For Comm W 24:54 Jl 13 '46
News by countries. For Comm W 22:28-30 Ja 26; 23:28-9 My 4; 24:29-31 Jl 6; 23 Jl 27; 20 S 7; 25:19 O 5; 17 N 2 '46

Sanitary affairs
Nicaragua experiences big dividends from a malaria campaign. P. J. Coffey. il map Eng N 135:722-5 N 29 '45

NICARAGUAN canal (proposed)
Isthmus vs. atom; how to enlarge and defend Panama canal. il Bsns W p21-2 F 2 '46

NICHOLS medal
Nichols medal awarded to W. M. Stanley. Chem & Eng N 24:750-8 Mr 25 '46

NICKEL
Adsorption of fatty acids on nickel and platinum catalysts. H. A. Smith and J. F. Fuzek. bibliog diag Am Chem Soc J 68: 229-31 F '46
Advancements in nickel-dipping practice. G. H. McIntyre. bibliog Am Cer Soc Bul 25: 333-7 S 15 '46
Bright annealing of nickel and high nickel alloys. E. M. Kline and R. K. Gensler. il Metal Prog 48:1283-6 D '45
Catalytic isomerization of vegetable oils; nickel catalysts. S. B. Radlove and others. bibliog flow sheet diag Ind & Eng Chem 38:997-1002 O '46
Effect of various surface treatments in cleaning and preparing copper, nickel and steel for chromium plating. W. M. Tucker and R. L. Flint. bibliog diag Electrochem Soc Trans 88 (preprint 28):325-45 '45; Same. Metal Finishing 44:340-3+, 389-93 Ag-S '46
Factors governing adherence of enamels applied to sheet iron. L. A. Johnson and E. E. Howe. bibliog il Am Cer Soc J 29:296-301 O 1 '46
Hydrogenolysis of steroid thioacetals with modified Raney nickel catalyst. S. Bernstein and L. Dorfman. Am Chem Soc J 68:1152-3 Jl '46
Nickel and high nickel alloys; their use in the pulp and paper industry. H. O. Teeple. flow sheet il diag Paper Ind 27:1522-9 Ja '46
Nickel and its alloys prevent equipment from wearing out under severe conditions. C. O. Brown. Ind & Eng Chem 38:sup69-70 Ap '46
Nickel in bearing bronze. R Sci Instr 17:313 Ag '46
Nickel, 1945. H. W. Davis. Eng & Min J 147:90 F '46
Nickel, wrought and cast; properties applications, fabrication, etc. Machine Design 18:175-8 Ap '46
Operations and plants of International nickel company of Canada; United States operations; Huntington and Bayonne works. flow sheet il Can Min J 67:523-33 My '46
Preparation of a Raney nickel catalyst. A. A. Pavlic and H. Adkins. bibliog Am Chem Soc J 68:1471 Ag '46
Production and properties of nickel bolometers. F. G. Brockman. Opt Soc Am J 36:32-5 Ja '46
Resistance of nickel-containing alloys to corrosives encountered in the petroleum refineries. B. B. Morton. il diag A S M E Trans 68:229-35 Ap '46
Studies of the interface of oxide coated cathodes. A. Fineman and A. Eisenstein. il diags J Ap Phys 17:663-8 Ag '46
Summary of nickel uses. Can Min J 67:552-4 My '46

NICKEL—*Continued*

Transference number of nickel in a nickel sulfate solution. C. J. B. Zitek and H. J. McDonald. bibliog diags Electrochem Soc Trans 89 (preprint 24):279-87 '46

Analysis

Colorimetric determination of iron in the presence of large concentrations of copper and nickel. R. H. Greenburg. Ind & Eng Chem Anal ed 18:255-7 Ap '46

Colorimetric determination of nickel in bronzes. G. Haim and B. Tarrant. bibliog Ind & Eng Chem Anal ed 18:51-2 Ja '46

Polarographic determination of nickel in steel and nickel ore. P. W. West and J. F. Dean. diag Ind & Eng Chem Anal ed 17:686-8 N '45

Separation and identification of cobalt, nickel, zinc, and manganese. R. K. McAlpine. J Chem Educ 23:298-300 Je '46

Spectrographic analysis of austenitic nickel-chrome steel. S. D. Steele and J. M. Johnston. il Soc Chem Ind J 64:278-83 O '45

Spectrophotometric determination of traces of nickel. O. R. Alexander, E. M. Godar and N. J. Linde. Ind & Eng Chem Anal ed 18:206-8 Mr '46

Systematic polarographic metal analysis; determination of tin, lead, nickel, and zinc in copper-base alloys. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 18:429-32 Jl '46

Isotopes

Mass assignment of 2.6 *h* Ni^{65}. J. A. Swartout and others. Phys R 70:232 Ag 1 '46

NICKEL, Powdered

Call on powdered metal process for millions of nickel filters for switch of V-T fuse. il Steel 118:84-5+ Ap 22 '46

German iron and nickel powders made by the carbonyl process. T. P. Colclough. Iron Age 157:48-9 F 21 '46

Nickel in war-time Germany; recovery from low-grade ores. D. D. Howat. flow sheet Chem Age (Lond) 55:191-3 Ag 17 '46

NICKEL alloys

Age hardening copper-manganese-nickel alloys. R. S. Dean and others. il Am Soc for Metals Trans 34:481-502 bibliog(p502); Discussion. 502-4 '45

Alloys beat the heat; key materials of turbo-superchargers, gas turbines, and jet engines. F. P. Peters. il diag Sci Am 174:152-4 Ap '46

Bright annealing of nickel and high nickel alloys. E. M. Kline and R. K. Gensler. il Metal Prog 48:1283-6 D '45

Corrosion-resistant alloys; Hastelloy alloys A, B, C and D; mechanical properties, acid penetration tests, machinery speeds, etc. il Steel 119:70-5+ Jl 29 '46

Deposition of nickel-cobalt alloys from chloride solutions. C. B. F. Young and C. Struyk. bibliog il diags Electrochem Soc Trans 89 (preprint 1):1-31 '46

Effect of the iron content of cupro-nickel on its corrosion and resistance in sea water. A. W. Tracy and R. L. Hungerford. il Am Soc T M Proc 45:591-612; Discussion. 613-17 '45

Grinding operations on stellite and Hastelloy products; illustrations with text. Mach 53: 148-9 S '46

High temperature alloys; research on materials for gas turbines. N. J. Grant. Iron Age 157:42-8 My 23; 50-6 My 30; 77-80 Je 6; 60-3 Je 20 '46

High temperature furnace for distilling and refining metals; developed to recover cupro-nickel from nickel silver. F. F. Poland. il Materials & Methods 23:710-12 Mr '46

New alloys for severe corrosion services; Chlorimet 2 and Chlorimet 3. M. G. Fontana. il Chem Eng 53:114-15 O '46

Ni span; characteristics and uses of three recently developed age-hardenable iron-nickel-titanium alloys. W. A. Mudge and A. M. Talbot. bibliog Iron Age 157:66-70 Ap 25 '46

Nickel and high nickel alloys; their use in the pulp and paper industry. H. O. Teeple. flow sheet il diag Paper Ind 27:1522-9 Ja '46

Nickel and its alloys prevent equipment from wearing out under severe conditions. C. O. Brown. Ind & Eng Chem 38:sup69-70 Ap '46

Nickel in the B-29; abstract. Metal Prog 48: 1148+ N '45

Operations and plants of International nickel company of Canada; Henry Wiggin & company limited. il Can Min J 67:537-41 My '46

Operations and plants of International nickel company of Canada; United States operations; Huntington and Bayonne works. flow sheet il Can Min J 67:523-33 My '46

Outstanding operations in Inco's Huntington mill of the International nickel company for processing nickel and nickel-alloy products; illustrations with text. Mach 52:164-6 F '46

Oxide films formed on alloys at moderate temperatures; electron diffraction and electron microscope study. E. A. Gulbransen, R. T. Phelps and J. W. Hickman. bibliog il Ind & Eng Chem Anal ed 18:640-52 O '46

Phosphoric acid vs. materials of chemical plant construction; Durimets T and 20 and other alloys. D. E. Jack; W. Z. Friend. Chem Eng 53:203-4+ S '46

Phosphoric acid vs. materials of chemical plant construction; Hastelloy. C. G. Chisholm. il Chem & Met Eng 53:222+ Jl '46

Physical and corrosion-resistant properties of Hastelloy alloys. Oil & Gas J 44:156 Ag 20 '46

Precision-cast parts of high-temperature alloys. W. O. Sweeny. il diags Product Eng 17:121-6 S '46

Pressure vessels made with welded nickel alloy linings. T. H. Menaugh. il diags Materials & Methods 23:1289-92 My '46

Resistance of nickel-containing alloys to corrosives encountered in the petroleum refineries. B. B. Morton. il diag A S M E Trans 68:229-35 Ap '46

Studies of the interface of oxide coated cathodes. A. Fineman and A. Eisenstein. il diags J Ap Phys 17:663-8 Ag '46

Summary of nickel uses. Can Min J 67:552-4 My '46

See also

Alnico
Chromium nickel steel
Invar
Iron alloys—Nickel alloys
Iron alloys—Nickel chromium alloys
Monel metal
Nickel silver
Nickel steel
Permalloy

Bibliography

Bibliography of electrodeposited nickel alloys. M. B. Diggin and O. Kardos. Metal Finishing 44:429-32 O '46

NICKEL carbonyl

German iron and nickel powders made by the carbonyl process. T. P. Colclough. Iron Age 157:48-9 F 21 '46

Operations and plants of International nickel company of Canada; Clydach refinery produces nickel by the carbonyl process. il Can Min J 67:534-6 My '46

NICKEL chromium steel

Effect of overheating on the transformation characteristics of a nickel-chromium-molybdenum steel. K. Winterton. bibliog Iron & Steel Inst J 151:79-85, pl 2-3 no 1 '45; Abstract. Metal Prog 49:144+ Ja '46

Tensile properties of unstable austenite and its low-temperature decomposition products. A. H. Cottrell. bibliog diags Iron & Steel Inst J 151:93-104, pl 5-6 no 1 '45

NICKEL dimethylglyoxime

Note on reactions of alkali with kaolin and metakaolin. S. Zerfoss and B. A. Utter. Am Cer Soc J 29:205-7 Ag 1 '46

NICKEL foil

Nickel ribbon and foil 0.1 micron thick; abstract. F. G. Brockman. Chem & Met Eng 52:248+ D '45

NICKEL industry and trade

Nickel consumption expected to drop 25 per cent below war peak. R. C. Stanley. Steel 118:424-5 Ja 7 '46; Abstracts. Blast F & Steel Pl 34:76 Ja '46; Min Cong J 32:92 F '46

Operations and plants of International nickel company of Canada; INCO's part in the war. Can Min J 67:319-21 My '46

NICKEL industry and trade—*Continued*
Operations and plants of International nickel company of Canada; marketing and research activities. Can Min J 67:545-51 My '46

NICKEL metallurgy
Methods of chlorination of silicate-oxidized nickel ores; abstract. D. P. Bogatsky. Chem & Met Eng 53:294+ My '46
Nickel blast-smelting still offers advantages. C. C. Downie. plan Eng & Min J 147:88-90 Ag '46
Nickel in war-time Germany; recovery from low-grade ores. D. D. Howat. flow sheet Chem Age (Lond) 55:191-3 Ag 17 '46
Operations and plants of International nickel company of Canada; Clydach refinery produces nickel by the carbonyl process. il Can Min J 67:534-6 My '46
Operations and plants of International nickel company of Canada; milling, smelting, nickel and copper refining, flow sheets il plan diags Can Min J 67:423-62 My '46
Production of nickel and chrome steels from laterite ores. T. F. Baily. il Electrochem Soc Trans 88 (preprint 29):347-55 '45

Electrometallurgy
Operations and plants of International nickel company of Canada; nickel refining. il Can Min J 67:457-62 My '46

NICKEL mines and mining

Alaska
Magnetic exploration of the nickel-copper deposits of Bohemia basin, southeastern Alaska. M. S. Walton, jr. and G. C. Kennedy. maps Econ Geol 40:496-502 N '45
Nickel investigations in southeastern Alaska. G. C. Kennedy and M. S. Walton, jr. bibliog maps U S Geol S Bul 947-C:39-64, pl 9-18; pa 15c Supt. of doc. '46

Cuba
Test period ahead for Nicaro nickel. Barron's 26:11 F 25 '46

Ontario
Operations and plants of International nickel company of Canada. flow sheets il maps plans diags Can Min J 67:309-522 My '46

NICKEL ores
Exploration of Spirit mountain nickel prospect, Canyon Creek, lower Copper river region, Alaska. H. C. Pierce. 3pls U S Bur Mines Rep of Invest 3913:1-8 '46
Operations and plants of International nickel company of Canada; geology. il map Can Min J 67:322-31 My '46

NICKEL plate railroad. See New York, Chicago and St Louis railroad

NICKEL plating
Chevrolet's new setup for plating bumpers. J. Geschelin. il Automotive & Aviation Ind 95:18-21 N 1 '46
Codeposition of tungsten and nickel from an aqueous ammoniacal citrate bath. L. E. Vaaler and M. L. Holt. bibliog Electrochem Soc Trans 90 (preprint 9):151-62 '46
Common plating bath troubles. H. J. Sedusky and J. B. Mohler. Metal Finishing 44:295-6 Jl '46
Nickel plate propeller promises lower cost. il Aviation 5:21 Je 17 '46
Nickel plating on steel by chemical reduction. A. Brenner and G. E. Riddell. J Res Nat Bur Stand 37:31-4 Jl '46; Abstracts. Iron Age 158:71 Ag 8 '46; Metal Finishing 44:284 Jl '46; Mech Eng 68:904-5 O '46
Nomographic procedure for a two-component colored system; copper in a nickel plating bath. E. A. Brown. Ind & Eng Chem Anal ed 18:493-5 Ag '46
Ordinary nickel plating faults. Metal Finishing 44:436 O '46
Production plating of zinc die casting; Electric auto-lite co. H. Chase. il Iron Age 157:34-8 My 30 '46
Protective value of electro-tin as an undercoating. S. Wernick. Metal Finishing 44:13-15, 67+ Ja-F '46
Ultrathin nickel ribbons for bolometer filaments. F. G. Brockman. Metal Prog 49:1172 Je '46
See also
Corronizing

Bibliography
Bibliography of electrodeposited nickel alloys. M. B. Diggin and O. Kardos. Metal Finishing 44:429-32 O '46

Testing
Methods of examining the microstructure of nickel coatings. Automobile Eng 36:140 Mr '46

NICKEL silver
High temperature furnace for distilling and refining metals; developed to recover cupronickel from nickel silver. F. F. Poland. il Materials & Methods 23:710-12 Mr '46
Nickel silvers; properties, application, etc. Machine Design 18:159-62 Ag '46

NICKEL steel
Marshall shops make nickel-steel driving rods. il Ry Mech Eng 120:358-62 Jl '46
Nickel steel tubing adapted to -320 degrees F. H. D. Newell. Blast F & Steel Pl 33:1540 D '45
Production of nickel and chrome steels from laterite ores. T. F. Baily. il Electrochem Soc Trans 88 (preprint 29):347-55 '45
Welding of nickel-alloy steels. T. N. Armstrong. bibliog diags Iron Age 157:36-41 Ja 24; 49-55 Ja 31; 69-76 F 7; 56-60 F 14 '46
See also
Chromium nickel steel

NICKEL sulfate
Codeposition of tungsten and nickel from an aqueous ammoniacal citrate bath. L. E. Vaaler and M. L. Holt. bibliog Electrochem Soc Trans 90 (preprint 9):151-62 '46
Transference number of nickel in a nickel sulfate solution. C. J. B. Zitek and H. J. McDonald. bibliog diags Electrochem Soc Trans 89 (preprint 24):279-87 '46

NICOTINAMIDE
Fluorometric determination of nicotinamide. J. V. Scudi. bibliog Science 103:567 My 3 '46

NICOTINE
Contribution to the study of nicotine and the synthesis of 7-azaindole and derivatives. G. R. Clemo and G. A. Swan. Chem Soc J p603-7 S '45

Analysis
Determination of nicotine in the air. W. E. McCormick and M. Smith. bibliog Ind & Eng Chem Anal ed 18:508-12 Ag '46

NICOTINIC acid
Nicotinic acid; vitamin becomes an industry. Chem Ind 57:1057 D '45
Pellagra paradox. Tech R 48:416-18 My '46
Water-insoluble forms of thiamine and niacin. W. Huber, W. Boehme and S. C. Laskowski. bibliog Am Chem Soc J 68:187-90 F '46

NIELSEN audimeter. See Radio advertising—Coverage

NIGERIA
Direct mail à la Nigeria; Dorr company gets requests for free copies of Popular Mechanics. Adv & Sell 39:80+ Je '46

NI-HARD. See Iron alloys—Nickel chromium alloys

NIJMEGEN, Netherlands

Bridges
How the famous Nijmegen arch was built. il Eng N 136:821 My 23 '46

NINETEEN hundred and forty-five
Atomic age begins; peace comes; reconversion lags; all in 1945! il Ptr Ink 214:21-3 Ja 4 '46
Engineering news events of 1945; chronological summary. Eng N 136:172-3 F 7 '46
It happened in 1945. C. Kinnaird, ed. 464p $3.50 Duell, Sloan & Pearce, 270 Madison av, New York 16 '46
Some significant (and some not so significant) events of 1945; as sifted from 52 issues of Printers' ink. Ptr Ink 214:23-4+ Ja 4 '46

NINETEEN hundred and forty-six
1946; part of a balance sheet on three centuries of scientific revolution. il Fortune 33:122-3 Je '46

NINETEEN hundred and forty-six—*Continued*
What industry expects in 1946; prospects of metalworking and metalproducing industries as reported by more than 3600 plants. Steel 118:supl-32 Ja 7 '46

NIQUIDINE
Synthesis of antimalarial compounds related to niquidine. T. S. Work. Chem Soc J p194-200 Mr '46

NI-RESIST. See Iron alloys—Nickel alloys

NITRATE plants
See also
Nitrogen fixation

NITRATES
Catalytic hydrogenolysis of nitrate esters. L. P. Kuhn. Am Chem Soc J 68:1761-2 S '46
See also
Alkali metal nitrates
Ammonium nitrate
Sodium nitrate
Water supply—Nitrate content

Analysis
Spectrophotometric determination of nitrates in plating baths. A. Dolance and P. W. Healy. Ind & Eng Chem Anal ed 17:718-19 N '45

NITRATION
p-Aminodimethylaniline; orientation of groups in the disubstituted molecule. E. E. Ayling, J. H. Gorvin and L. E. Hinkel. Chem Soc J p530-2 Je '46
8-Amino-6-quinolyl methyl sulfone. H. Gilman and A. E. Lindblad. bibliog Am Chem Soc J 68:982-3 Je '46
Chain length measurements on nitrated cellulosic constituents of wood. R. L. Mitchell. bibliog il Ind & Eng Chem 38:843-50 Ag '46
Further nitration of 1 : 3-, 1 : 6-, 2 : 6-, and 2 : 7-dinitronaphthalenes, and the preparation of 1 : 3 : 6-trinitronaphthalene. H. H. Hodgson and E. R. Ward. Chem Soc J p533-4 Je '46
Kinetics of nitration of aromatic nitro compounds in sulfuric acid. F. H. Westheimer and M. S. Kharasch. bibliog Am Chem Soc J 68:1871-6 O '46
New potential chemotherapeutic agents; derivatives of 2-aminobenzocinnoline. F. E. King and T. J. King. Chem Soc J p824-6 N '45
Nitration of 3-acetamidoacetophenone. W. A. Waters. Chem Soc J p629 S '45
Nitration of bicyclo[2,2,1]heptane. R. T. Blickenstaff and H. B. Hass. Am Chem Soc J 68:1431 Ag '46
Nitration of starches with nitrogen pentoxide in presence of sodium fluoride. G. V. Caesar and M. Goldfrank. bibliog diag Am Chem Soc J 68:372-5 Mr '46
Synthesis of arylpropylamines; from nuclear nitration. T. M. Patrick, jr., E. T. McBee and H. B. Hass. Am Chem Soc J 68:1153-5 Jl '46
Theoretical discussion of further substitution in disubstituted naphthalenes; heteronuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. Soc Dyers & Col J 62:241-2 Ag '46
Theoretical discussion of further substitution in homonuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. bibliog Soc Dyers & Col J 61:283-5 N '45
Vapor-phase nitration of neopentane and neohexane. A. P. Howe and H. B. Hass. bibliog Ind & Eng Chem 38:251-3 Mr '46
See also
Denitration

NITRIC acid
Computations on the denitration of aqueous mixtures of sulphuric and nitric acids with steam. G. E. Stephenson. Inst Chem Eng Trans 20:103-5 '42; Same. Soc Chem Ind J 62:17-20 F '43; Discussion. Inst Chem Eng Trans 20:105-6 '42

Analysis
Analysis of hydrofluoric-nitric acid stainless steel pickling bath. W. E. McKee and W. F. Hamilton. bibliog Ind & Eng Chem Anal ed 17:310-12 My '45; Same. Metal Finishing 43: 332-3+ Ag '45; Abstract. Steel 118:110-12 Je 10 '46

Manufacture
Production of concentrated nitric acid. A. H. Manning. bibliog flow sheets il diags Inst Chem Eng Trans 20:97-103 '42; Same. Chem & Ind 62:98-104 Mr 13 '43; Abstract. Can Chem & Process Ind 27:128+ Mr '43
Recycling process uses cheap oxygen for ammonia oxidation. M. C. Sze and Chih Wu. bibliog flow sheet Chem Eng 53:113-15 Ag '46

NITRIDING process. See Case hardening—Nitriding process

NITRIFICATION
Capsular polysaccharide of rhizobium radicicolum. E. Schlüchterer and M. Stacey. Chem Soc J p776-83 N '45
Influence of purified lignin on nitrification in soil. J. E. Fuller. bibliog Science 104:313-15 O 4 '46

NITRILES
Acylation and carbethoxylation of nitriles in the presence of sodium amide. R. Levine and C. R. Hauser. bibliog Am Chem Soc J 68:760-1 My '46
Alkylamines and nitriles. Chem & Ind p325 Ag 31 '46
Alkylation and arylation of aliphatic nitriles in liquid ammonia. F. W. Bergstrom and R. Agostinho. bibliog Am Chem Soc J 67:2152-4 D '45
4-Chloro-3-methyl-3-butenonitrile and related compounds. A. Mooradian and J. B. Cloke. bibliog Am Chem Soc J 68:785-9 My '46
Hydrogenation of dinitriles in liquid methylamine. B. S. Biggs and W. S. Bishop. bibliog Ind & Eng Chem 38:1084-6 O '46
Processes for making nitrile compounds patented by three oil companies. D. P. Thornton, jr. Nat Pet N 38 pt 2:R221-4 Mr 6 '46

NITRITES
Nitrites. C. H. Stone. J Chem Educ 23:196-7 Ap '46

Analysis
Colorimetric determination of nitrites. B. F. Rider and M. G. Mellon. bibliog Ind & Eng Chem Anal ed 18:96-9 F '46

NITRO compounds
Apparent anomalous monoreduction of 2:4-dinitrotoluene explained on the theory of hyperconjugation (the Baker-Nathan effect). H. H. Hodgson. bibliog Soc Dyers & Col J 62:114-15 Ap '46
Behavior of nitro alcohols toward formic acetic anhydride. C. D. Hurd, S. S. Drake and O. Fancher. bibliog Am Chem Soc J 68:789-91 My '46
Decarboxylation of nitro substituted 3-carboxy-4-quinolinols by pyrolysis of their silver salts. R. H. Baker and others. Am Chem Soc J 68:1267 Jl '46
Kinetics of nitration of aromatic nitro compounds in sulfuric acid. F. H. Westheimer and M. S. Kharasch. bibliog Am Chem Soc J 68:1871-6 O '46
N-nitro-*N'*-2 : 4-dinitrophenylurea; a reagent for primary and secondary amines. J. L. McVeigh and J. D. Rose. Chem Soc J p621-2 S '45
Paper capacitors containing chlorinated impregnants; mechanism of stabilization. L. Egerton and D. A. McLean. bibliog il Ind & Eng Chem 38:512-17 My '46
Preferential reduction of nitro-groups in polynitro-compounds; picric acid and 3 : 5-dinitro-o-cresol; an almost quantitative preparation of picramic acid. H. H. Hodgson and E. R. Ward. Chem Soc J p663-5 O '45
Preferential reduction of nitro groups in polynitro-compounds; the preparation of 4 : 5-dinitro-2-naphthylamine from 1 : 3 : 8-trinitronaphthalene and a comparison of sodium sulphide reductions of available dinitronaphthalenes. H. H. Hodgson and E. R. Ward. Chem Soc J p794-6 N '45
Preparation and reduction of nitro amines obtained from aromatic amines, formaldehyde, and nitroparaffins. H. G. Johnson. bibliog Am Chem Soc J 68:14-18 Ja '46
Synthesis of alicyclic diamines. L. C. Behr and others. Am Chem Soc J 68:1296-7 Jl '46

NITRO compounds—*Continued*
Synthesis of several dinitrodiphenylthiocarbazides and a dinitrodiphenylthiocarbazone. A. W. Scott and C. R. Spell. Am Chem Soc J 68:328-30 F '46

NITROACETOVERATRONE
6-Aminoacetoveratrone and 5 : 6-dimethoxy-3-methylanthranil. J. C. E. Simpson. Chem Soc J p94-7 F '46

NITROAKRIDIN 3582
Chemoprophylaxis of experimental influenza infections in eggs. R. H. Green and others. Pub Health Rep 61:1401-3 S 27 '46

NITROAZAPHENOTHIAZINE
New synthesis of heterocyclic compounds; 3-azaphenthiazines. V. A. Petrow and E. L. Rewald. Chem Soc J p591-3 S '45

NITROBARBITURATES
Identification of organic bases by means of the optical properties of diliturates (nitrobarbiturates); primary aromatic amines. B. T. Dewey and E. M. Plein. diags Ind & Eng Chem Anal ed 18:515-20 Ag '46

NITROBENZENE
Influence of structure and strain in a metal cathode on the electrolytic reduction of nitrobenzene to aniline. D. N. Solanki. bibliog Electrochem Soc Trans 88 (preprint 18): 197-202 '45
Kinetics of nitration of aromatic nitro compounds in sulfuric acid. F. H. Westheimer and M. S. Kharasch. bibliog Am Chem Soc J 68:1871-6 O '46
Porous carbon electrodes; wicking electrodes for utilization of insoluble liquid depolarizers; reduction of nitrobenzene. N. M. Winslow. bibliog diags Electrochem Soc Trans 88 (preprint 16):175-88 '45

NITROBENZENEDIAZONIUM chloride
Interpretation of the Sandmeyer reaction; the formation of complex salts between aryl diazonium chlorides and ferric chloride of general formula, $R{\cdot}\overset{+}{N}_2{}_2FeCl_4$, and the decomposition of *p*-nitrobenzenediazonium chloride by ferrous salts. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p819-21 N '45
Interpretation of the Sandmeyer reaction; the influence of the chloride ion on the decompositions of neutral *p*-nitrobenzenediazonium chloride and of *p*-nitrobenzenediazonium cobaltinitrite. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p545-6 Ag '45

NITROBENZENETHIOL
p-Nitrophenyl disulfide, *p*-nitrophenyl sulfide and *p*-nitrothiophenol. C. C. Price and G. W. Stacy. bibliog Am Chem Soc J 68:498-500 Mr '46

NITROBENZOYL chloride
Chemistry of xanthic acid derivatives; the interaction of carboxylic acid chlorides and potassium ethyl xanthate. G. Bulmer and F. G. Mann. Chem Soc J p677-80 O '45
o-Nitrobenzoyl chloride and hazard involved in its distillation. W. A. Bonner and C. D. Hurd. Am Chem Soc J 68:344-5 F '46

NITROCELLULOSE
Behaviour of plasticizers in nitrocellulose films. H. L. Tuthill. Paint Oil & Chem R 108:7-10+ D 13 '45
Chain length measurements on nitrated cellulosic constituents of wood. R. L. Mitchell. bibliog il Ind & Eng Chem 38:843-50 Ag '46
Comparison of recently developed plasticizers for nitrocellulose, by Chicago paint and varnish production club. bibliog Paint Oil & Chem R 108:124-9 N 1 '45
From raw material to fountain pen. W. G. Tucker. il Mod Plastics 23:137-41 Je '46
Layer-cake plastics. C. A. Breskin. il Sci Am 175:160-2 O '46
Let it break! plastic outer coating saves contents of shattered bottles. il Mod Packaging 19:107 Ap '46
Mechanism of solvent action; influence of molecular size and shape on temperature dependence of solvent ability. A. K. Doolittle. Ind & Eng Chem 38:535-40 My '46
Nitrocellulose coating protects glass containers. Mod Plastics 23:200 Je '46
Nitrocellulose lacquers; evaluation of low-viscosity-type nitrocelluloses in furniture finishing compositions. W. Koch, H. C. Phillips and R. Wint. Ind & Eng Chem 38:518-21 My '46
Plasticizers and the flammability of nitrocellulose lacquers; abstract. A. Kraus. Paint Oil & Chem R 109:40 Ag 8 '46
Viscosity of cellulose derivatives and resins in mixed solvents. S. R. Palit. bibliog Paint Oil & Chem R 109:14+ Jl 11 '46
Wear in cellulose nitrate playing cards. il Mod Plastics 23:99 Jl '46

NITROCINNAMIC acid
Kinetics of halogen addition to unsaturated compounds; nitrocinnamic acids. I. Hartman and P. W. Robertson. Chem Soc J p891-3 D '45

NITRODESOXYHEPTITOLS
Carbohydrate C-nitroalcohols; 1-nitro-1-desoxy-D-α-glucoheptitol and a 2,6-anhydro-1-nitro-1-desoxyheptitol. J. C. Sowden and H. O. L. Fischer. bibliog Am Chem Soc J 68:1511-13 Ag '46

NITROGEN
Activated adsorption of nitrogen on a finely divided tungsten powder. R. T. Davis, jr. bibliog diag Am Chem Soc J 68:1395-1402 Ag '46
Continued world scarcity of nitrogen forecast. Chem & Met Eng 53:318 Ap '46
Disintegration of nitrogen by fast neutrons. H. H. Barschall and M. E. Battat. Phys R 70:245-8 S 1 '46
Dissociation energies of CO, N_2, NO, and CN. J. G. Valatin. J Chem Phys 14:568 S '46
Electronic structure of the nitrogen molecule. G. Herzberg. bibliog Phys R 69:362-5 Ap 1 '46
Fast neutron resonance with nitrogen. F. A. Valente and H. I. Zagor. Phys R 69:55-9 F 1 '46
Hysteresis in the physical adsorption of nitrogen on bone char and other adsorbents. L. F. Gleysteen and V. R. Deitz. bibliog J Res Nat Bur Stand 35:285-307 O '45
Ionization by fission fragments in nitrogen, argon, and xenon. N. O. Lassen. bibliog Phys R 68:230-1 N 1 '45
Nitrogen and stearic acid adsorption by supported and unsupported catalysts. H. E. Ries, jr and others. J Chem Phys 14:465-6 Jl '46
Nitrogenous constituents of flaxseed; peptization. E. P. Painter and L. L. Nesbitt. bibliog Ind & Eng Chem 38:95-8 Ja '46
Origin of nitrogen in natural gases. G. H. Cady. bibliog Science 104:341-2 O 11 '46
Production of photons in a Townsend gap in air, nitrogen, and argon. L. H. Fisher. Phys R 68:279 D 1 '45
Soil nitrogen and thrips injury to spinach. S. H. Wittwer and L. Haseman. Science 103:331-2 Mr 15 '46
Solubility of oxygen and nitrogen in organic solvents from -25° to 50° C. C. B. Kretschmer, J. Nowakowska and R. Wiebe. bibliog diag Ind & Eng Chem 38:506-9 My '46
Spectrum of high frequency discharge in air in relation to active nitrogen. N. R. Tawde and G. K. Mehta. Phys R 69:245 Mr 1 '46

Analysis
Apparatus for trapping ammonia in the Kjeldahl method for nitrogen. T. J. Potts. diag Ind & Eng Chem Anal ed 18:78 Ja '46
Application of the Herzberg stain to nitrated cotton and nitrated paper fibres. A. Mackie. Chem & Ind p373-4 O 12 '46
Application of the vacuum-fusion method to the determination of the oxygen, hydrogen, and nitrogen contents of non-ferrous metals, alloys, and powders. H. A. Sloman. Engineering 160:385, 404-5, 419-20 N 9-23 '45
Determination of basic nitrogen in hydrocarbon feed stocks. L. Donn and H. Levin. diags Ind & Eng Chem Anal ed 18:593-5 O '46
Determination of nitrogen by combustion; improved Dumas apparatus and recycle procedure. H. Gonick and others. il diags Ind & Eng Chem Anal ed 17:677-82 N '45
Determination of nitrogen in ferro-alloys by direct Nesslerisation. W. C. Newell. Engineering 160:505 D 14 '45

NITROGEN—Analysis—*Continued*
Determination of nitrogen in refractory metal carbides and their compositions; solution and distillation method. J. C. Redmond, L. Gerst and W. O. Touhey. diag Ind & Eng Chem Anal ed 18:24-6 Ja '46
Determination of nitrogen, phosphorus, and potassium in leaf tissue; application of micromethods. R. H. Cotton. bibliog Ind & Eng Chem Anal ed 17:734-8 N '45
Determination of nitrogen, phosphorus, potassium, calcium, and magnesium in plant tissue; semimicro wet-digestion method for large numbers of samples. O. J. Kelley, A. S. Hunter and A. J. Sterges. bibliog diag Ind & Eng Chem Anal ed 18:319-22 My '46
Determination of total nitrogen. A. E. Beet, R. Belcher and A. L. Godbert. bibliog Ind & Eng Chem Anal ed 17:746 N '45
Filtration error in nitrogen determinations. J. L. Leitch and L. A. Wells. bibliog diags Franklin Inst J 241:73-7 Ja '46
Gas bubble releaser for use in Dumas nitrogen determination azotometers. R. Pomatti. bibliog Ind & Eng Chem Anal ed 18:63 Ja '46
Improved Kjeldahl trap and ammonia-distillation outfit. A. Lovecy. diags Soc Chem Ind J 65:224-6 Ag '46
Micro-Kjeldahl determination of nitrogen in gramicidin and tryptophan; comparison of Gunning-Arnold-Dyer and Friedrich methods. L. M. White and G. E. Secor. bibliog Ind & Eng Chem Anal ed 18:457-8 Jl '46
Nitrogen determination by the micro-Dumas method; improvements in apparatus. E. Stehr. bibliog il diags Ind & Eng Chem Anal ed 18:513-15 Ag '46
Semimicro-Kjeldahl procedure for control laboratories. J. O. Cole and C. R. Parks. bibliog Ind & Eng Chem Anal ed 18:61-2 Ja '46

Industrial applications

Fluxing molten aluminum with dry nitrogen. P. M. Hulme. il Materials & Methods 22: 1435-8 N '45

Isotopes

Activity of N^{16} and He^{6}. H. S. Sommers, jr. and R. Sherr. bibliog Phys R 69:21-9 Ja 1 '46

NITROGEN compounds
Chemical forms assumed by C^{14} produced by neutron irradiation of nitrogenous substances. P. E. Yankwich and others. bibliog J Chem Phys 14:131-40 Mr '46
Geometrically isomeric piperazine derivatives containing two quaternary nitrogen atoms. W. E. Hanby and H. N. Rydon. Chem Soc J p833-5 N '45
Identity of some electrodialyzable constituents of cotton root bark. D. R. Ergle, L. E. Hessler and J. E. Adams. bibliog Am Chem Soc J 68:48-9 Ja '46
Nitrogen production, 1944-1945. Oil Paint & Drug Rep 150:5 Jl 8 '46
Sydnones; a new class of compound containing two adjacent nitrogen atoms. R. A. Eade and J. C. Earl. Chem Soc J p591-3 Jl '46

See also
Amines
Ammonium compounds
Azo compounds
Cinnoline
Nitriles
Nitro compounds

NITROGEN fixation
Cheap nitrates; pilot plants developed at University of Wisconsin. Bsns W p56 N 24 '45
New thermal process for NO; direct combination of nitrogen and oxygen, using gas flame as source of heat. il Chem Ind 58:245 F '46
Nitrogen fixation at atmospheric pressure; abstract. C. G. Fink and D. M. Wroughton. Chem & Met Eng 53:260+ Ja '46

NITROGEN halides
New interest in the nitrogen halides. F. W. Schueler. bibliog J Chem Educ 23:168 Ap '46

NITROGEN in the body
Intravenous utilization of partial acid hydrolysates of proteins. W. C. Risser and others. Science 103:362 Mr 22 '46

NITROGEN oxides
Dissociation energies of CO, N_2, NO, and CN. J. G. Valatin. J Chem Phys 14:568 S '46
Immersion freezing in liquid nitrous oxide; German process. G. MacKinney. flow diags Food Ind 18:667-9+ My '46
Mercury-sensitized reaction between hydrogen and nitrous oxide. H. A. Taylor and N. Zwiebel. bibliog J Chem Phys 14:539-43 S '46
New thermal process for NO; direct combination of nitrogen and oxygen, using gas flame as source of heat. il Chem Ind 58:245 F '46
Nitration of starches with nitrogen pentoxide in presence of sodium fluoride. G. V. Caesar and M. Goldfrank. bibliog diag Am Chem Soc J 68:372-5 Mr '46
Predissociations in nitric oxide. P. J. Flory and H. L. Johnston. bibliog J Chem Phys 14:212-13 Mr '46
Quantum yield in the photo-reaction between methyl iodide and nitric oxide. T. Iredale and E. R. McCartney. bibliog Am Chem Soc J 68:144-5 Ja '46

Physiological effect

Exposures to oxides of nitrogen accompanying shrinking operations. F. E. Adley. J Ind Hygiene 28:17-20 Ja '46
Lethal gases from welding, burning, cutting. H. K. Sessions. il Safety Eng 91:63-4 My '46
Nitrogen dioxide; rate of oxidation of nitric oxide and its bearing on the nitrogen dioxide content of electric arc fumes. H. B. Elkins. bibliog J Ind Hygiene 28:37-9 Mr '46

NITROGEN pentoxide. See Nitrogen oxides

NITROGLYCERIN
Nitroglycerine's war record. J. Taylor. Chem & Ind p332 S 7 '46

NITROHEXAHYDROPYRIMIDINE
Preparation of some hexahydropyrimidines from nitroparaffins. M. Senkus. bibliog Am Chem Soc J 68:1611-13 Ag '46

NITROMETHANE
Carbohydrate C-nitroalcohols; 1-nitro-1-desoxy-D-α-glucoheptitol and a 2,6-anhydro-1-nitro-1-desoxyheptitol. J. C. Sowden and H. O. L. Fischer. bibliog Am Chem Soc J 68:1511-13 Ag '46
Effect of added components on the relative volatility of two binary mixtures. O. L. Updike, jr. and others. bibliog Am Inst Chem Eng Trans 41:717-36 D '45

NITROMETHOXYACETOACETANILIDE
2-Nitro-4-methoxyacetoacetanilide. M. Carmack and I. Von. Am Chem Soc J 68:1809 S '46

NITRONAPHTHYLAMINE
Preparation of 7-nitro-2-naphthylamine and of 3 : 6-dinitronaphthalic anhydride. H. H. Hodgson and E. R. Ward. Chem Soc J p590-1 S '45
Preparation of some 2 : 3-naphthalene derivatives. H. H. Hodgson and D. E. Hathway. Chem Soc J p841-2 N '45
Theoretical discussion of further substitution in disubstituted naphthalenes; heteronuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. Soc Dyers & Col J 62:241-2 Ag '46
Theoretical discussion of further substitution in homonuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. bibliog Soc Dyers & Col J 61:283-5 N '45

NITROPARAFFINS
Antiskinning agents derived from nitroparaffins. H. G. Johnson. bibliog Ind & Eng Chem 37:1176-8 D '45
Preparation and reduction of nitro amines obtained from aromatic amines, formaldehyde, and nitroparaffins. H. G. Johnson. bibliog Am Chem Soc J 68:14-18 Ja '46
Preparation of some hexahydropyrimidines from nitroparaffins. M. Senkus. bibliog Am Chem Soc J 68:1611-13 Ag '46
Reaction of aliphatic amines with formaldehyde and nitroparaffins; secondary amines. H. G. Johnson. Am Chem Soc J 68:12-14 Ja '46
Reaction of primary aliphatic amines with formaldehyde and nitroparaffins. M. Senkus. bibliog Am Chem Soc J 68:10-12 Ja '46
Solvents in the paint industry; nitroparaffins. R. B. Pollak. bibliog Paint Oil & Chem R 109:22+ Ag 8 '46

NITROPARAFFINS—*Continued*
Vapor-phase nitration of neopentane and neohexane. A. P. Howe and H. B. Hass. bibliog Ind & Eng Chem 38:251-3 Mr '46

NITROPHENOL
Friedel-Crafts reaction with *o*-nitrophenol and acyl halides. F. C. Brown. bibliog Am Chem Soc J 68:872-3 My '46

See also
Dinitrophenol

NITROPHENYLAZONAPHTHOL
Indicator properties of derivatives of 4'-nitrophenylazo-1-naphthol. K. H. Ferber. bibliog Ind & Eng Chem Anal ed 18:631-2 O '46

NITROPHENYL disulfide
p-Nitrophenyl disulfide *p*-nitrophenyl sulfide and *p*-nitrothiophenol. C. C. Price and G. W. Stacy. bibliog Am Chem Soc J 68:498-500 Mr '46

NITROPHENYL sulfide
p-Nitrophenyl disulfide, *p*-nitrophenyl sulfide and *p*-nitrothiophenol. C. C. Price and G. W. Stacy. bibliog Am Chem Soc J 68:498-500 Mr '46

NITROQUINOLINE
Antimalarials; 2-chloro-5-(3-diethylaminopropylamino)-quinoline; useful preparations of 2-chloro-5- and 8-nitroquinolines. A. J. Deinet and R. E. Lutz. Am Chem Soc J 68:1325-6 Jl '46
Syntheses of certain 8-nitroquinolines. A. Tomisek and others. Am Chem Soc J 68:1587-9 Ag '46

NITROSO compounds
Colorimetric determination of cobalt in metallurgical products with nitroso R salt. R. S. Young, E. T. Pinkney and R. Dick. Ind & Eng Chem Anal ed 18:474-6 Ag '46
Vulcanization reactions in butyl rubber; action of dinitroso, dioxime, and related compounds. J. Rehner, jr. and P. J. Flory. bibliog Ind & Eng Chem 38:500-6 My '46

NITROSOTRIACETONAMINE
Temperature and dielectric constant effects in the decomposition of nitrosotriacetoneamine. C. V. King and F. Lionetti. bibliog Am Chem Soc J 67:2248-50 D '45

NITROSTILBENE
Catalytic reduction of α-nitrostilbenes to α,β-diphenylethylamines. W. D. McPhee, E. S. Erickson, jr. and U. J. Salvador. Am Chem Soc J 68:1866 S '46

NITROSTYRENE
Preparation and polymerization of some substituted styrenes. C. S. Marvel and others. bibliog Am Chem Soc J 68:736-8 My '46

NITROSYL compounds
Inorganic nitrosyl compounds. T. Moeller. bibliog(139 references) J Chem Educ 23:441-4, 542-8 S, N '46

NITROTHIOPHENOL. See Nitrobenzenethiol

NITROTOLUENE
Note on the bromination of *p*-nitrotoluene. G. W. K. Cavill. bibliog Soc Chem Ind J 65:124 Ap '46

NITROVANILLIC acid
Reactions of vanillin and its derived compounds; the reaction of vanillin with alkali and silver nitrate. I. A. Pearl. Am Chem Soc J 68:1100-1 Je '46

NIVOMETER. See Liquid level indicators

NOBLE, Charles MacIntosh, 1896-
New Jersey's state highway engineer. por Roads & Sts 89:84 Jl '46

NOBLE, Edward John, 1882-
Portrait. Bsns W p46 Je 29 '46

NOISE
Combating noise in mechanisms; abstracts. diags Product Eng 17:[no 7] 121 Jl '46; Mech Eng 68:984-5 N '46
Combatting the noise problem in gas pressure regulators. W. A. La Violette. il plan Gas Age 98:101-4+ O 3 '46
Conservation of hearing. Nat Safety N 53:190 Mr '46
Effects of acoustical treatment in industrial areas. F. K. Berrien and C. W. Young. Acoustical Soc Am J 18:453-7 O '46
Effects of amplitude distortion upon the intelligibility of speech. J. C. R. Licklider. Acoustical Soc Am J 18:429-34 O '46
Effects of ear protective devices on the intelligibility of speech in noise. K. D. Kryster. il Acoustical Soc Am J 18:413-17 O '46
Effects of noise in the textile industry. W. Schweisheimer. Rayon 26:593 N '45
Intelligibility of bands of speech in noise. J. P. Egan and F. M. Wiener. Acoustical Soc Am J 18:435-41 O '46
Noise and its suppression. N. Fleming. Inst Chem Eng Trans 20:30-5 bibliog(p35); Discussion, 35-7 '42
Noise factor in office fatigue. E. Thomson. J Account 82:252 S '46
Noise levels due to an airplane passing overhead. F. M. Wiener and R. J. Marquis. il Acoustical Soc Am J 18:450-2 O '46
Physics and physiology of acoustic trauma. L. Rüedi and W. Furrer. il Acoustical Soc Am J 18:409-12 O '46
Reduction of noise in the power house. N. T. Pef. Power Pl Eng 50:97-8 Ag '46
Selective reduction of harmful noise; Neoprene ear plug. J. S. Miller, jr. diag Am Mach 90:116 Ag 15 '46
Ultrasonic ambient noise in tropical jungles. J. P. Egan and F. M. Wiener. Acoustical Soc Am J 18:271-3 O '46
Underwater noise due to marine life. D. P. Loye and D. A. Proudfoot. Acoustical Soc Am J 18:446-9 O '46

See also
Air conditioning equipment—Noise
Air engines—Noise
Airplanes—Noise
Electric fans, Ventilating—Noise
Machinery—Noise
Moving picture sound recording—Noise reduction
Radio communication—Interference elimination
Radio receiving apparatus—Noise
Silencers
Sound absorbent materials
Soundproofing
Vacuum tubes—Noise

NOMA electric corporation
Debentures offered. Comm & Fin Chr 162:2276 N 12 '45
Noma Electric plans big expansion. Barron's 25:6 N 26 '45
Plans bond redemption. Barron's 26:6 S 9 '46

NOMINEE registration. See Securities—Nominee registration

NOMOGRAPHY
Cetane number of Diesel fuel from average boiling point and density by nomograph. W. C. Frishe. Pet Refiner 25:133 O '46
Common well nomograph. I. J. Hooks and H. Gray. Civil Eng 16:175-6 Ap '46
Composition of cellulose esters; use of equations and nomographs. C. R. Fordyce, L. B. Genung and M. A. Pile. bibliog Ind & Eng Chem Anal ed 18:547-50 S '46
Construction of nomographs with hyperbolic coordinates. W. H. Burrows. bibliog Ind & Eng Chem 38:472-7 My '46
Critical flow in circular conduits analyzed by nomograph. F. T. Mavis. Eng N 136:361-2 Mr 7 '46
Frictional pressure loss nomogram. J. R. Ernst. Engineer 182:5-6, supp Jl 5 '46
Impedance nomograph. G. J. Wheeler. Electronics 19:186 S '46
Nomogram facilitates helical spring design; engineering data sheet. C. P. Nachod. Machine Design 18:149-50 F '46
Nomogram for frequency formula. C. P. Nachod. Elec Eng 64:469 D '45
Nomogram for shaft design; reference book sheet. C. P. Nachod. Product Eng 17:87 Ja '46
Nomograms of chords of holes in bolt circles, circular spacing of holes; reference book sheet. L. Dodge. Product Eng 17:523-4 Je '46
Nomograph aids solution of vibration problems; engineering data sheet. M. Nord and S. F. Ciricillo. Machine Design 17:155-6 N '45
Nomograph for absorption factor equation. G. E. Mapstone. Ind & Eng Chem 37:1222-3 D '45
Nomograph for calculation of olefin conversion in catalytic poly plant. E. G. Glass, jr. Nat Pet N 38 pt 2:R33 Ja 2 '46

NOMOGRAPHY—*Continued*
Nomograph for calculation of over-all heat transfer coefficients. H. J. Garber and W. Licht, jr. Ind & Eng Chem 38:757-9 Jl '46
Nomograph for formulas containing fractional exponents. W. H. Burrows. Ind & Eng Chem 38:586-9 Je '46
Nomographic procedure for a two-component colored system; copper in a nickel plating bath. E. A. Brown. Ind & Eng Chem Anal ed 18:493-5 Ag '46
Nomographic representation of polynomials. W. H. Burrows. J Eng Educ 36:361-75 Ja '46; Excerpts. Product Eng 17:402-3 My '46
Nomographic solution for heat dissipated by free convection. J. P. C. McMath. Elec World 126:120 S 14 '46
Phase-shifter nomograph. R. E. Lafferty. diags Electronics 19:158 My '46
Simplifying the construction of nomographs. E. B. Steinberg. Machine Design 18:123-6+ My '46
Spacing girder stiffeners; nomograph. B. L. Parker. Eng N 136:870 My 30 '46
Square root of sum of squares; engineering data sheet. C. P. Nachod. Machine Design 18:155-6 Jl '46
Steam flow nomograph. D. S. Davis. Paper Ind 28:229 My '46
Successive multiple-contact extraction nomograph. M. Nord. Ind & Eng Chem 38:560 My '46
Timber beam loads determined by nomograph. I. J. Hooks. Civil Eng 16:459 O '46
Vapor pressure-temperature nomographs. S. B. Lippincott and M. M. Lyman. Ind & Eng Chem 38:320-3 Mr '46

NONENE
Inter-polymerization of isobutene and 2-methyl-2-butene using an alumina-silica catalyst; composition of the hydrogenated nonenes. G. C. Johnson and F. S. Fawcett. bibliog Am Chem Soc J 68:1416-19 Ag '46

NONFERROUS founders' society
Plan organization of chapters. Foundry 73:220 D '45

NON-FERROUS metals. See Metals, Non-ferrous

NON-FORFEITURE benefits. See Insurance, Life—Policies—Non-forfeiture benefits

NON-METALLIC bearings. See Bearings, Non-metallic

NON-PROFIT corporations. See Electric utilities—Non-profit corporations; Government corporations.

NON-SCHEDULED air carriers. See Air carriers—Non-scheduled operations

NOPOL
Nopol; the reaction of β-pinene with formaldehyde. J. P. Bain. bibliog Am Chem Soc J 68:638-41 Ap '46

NORCAMPHANE
Exchange of hydrogen and chlorine between bicyclo(2,2,1)heptane and *t*-butyl chloride. L. Schmerling. bibliog Am Chem Soc J 68: 195-6 F '46
Nitration of bicyclo[2,2,1]heptane. R. T. Blickenstaff and H. B. Hass. Am Chem Soc J 68:1431 Ag '46

NOREPOL
Polymerization of drying oils; rubberlike product from vegetable oils, Norepol. J. C. Cowan, W. C. Ault and H. M. Teeter. bibliog flow sheet il Ind & Eng Chem 38:1138-44 N '46

NORFOLK, Virginia
Railroads
Five interlockings at Norfolk. il map Ry Age 120:1176-7 Je 15 '46

NORFOLK and western railway
Annual report for 1945. Ry Age 120-794-5 Ap 13 '46
N. & W. names Jenks chairman; Robert H. Smith now president. Ry Age 120:1140 Je 8 '46
Norfolk & Western promotes three. Manuf Rec 115:54-5 Je '46
Statement by the president from annual report and condensed income account, 1942-1945. Comm & Fin Chr 163:2011 Ap 15 '46

NORMALITY (term)
Note on the meaning of normal. C. D. King. Science 104:87-8 Jl 26 '46; Discussion. C. D. Leake. 104:330-1 O 4 '46

NORMALITY factor (term)
Term Normality factor. J. H. M. Henderson. Science 104:209 Ag 30 '46

NORRIS stamping and manufacturing company
Norris Stamping prepares to enter equipment field with national distribution. Iron Age 156:82+ D 20 '45

NORTH AMERICA
High potential areas in North America. R. L. Ives. bibliog map diag Am J Sci 244:263-70 Ap '46

NORTH AMERICAN company
Annual report. Comm & Fin Chr 163:1870 Ap 8 '46
Dissolution value. Barron's 26:6 Ap 29 '46
Files program of integration in complying with Holding company act. Comm & Fin Chr 163:2161 Ap 22 '46
New plan. Comm & Fin Chr 163:2220+ Ap 25 '46
Supreme court decision in North American co. case; analysis includes outline of powers of Congress in interstate commerce. J. Simpson. Am Gas J 165:44-6 Jl '46

NORTH AMERICAN light and power company
Files plan to pay all claims on preferred. Comm & Fin Chr 164:1088 Ag 26 '46

NORTH CAROLINA
Industries and resources
New industry investment put at $50,000,000 in North Carolina; abstract. P. Kelly. Manuf Rec 115:51 N '45

NORTH CAROLINA university
Education of planners at the University of North Carolina. R. B. House. J Land & Pub Util Econ 21:316-17 N '45
Library
Library resources of the University of North Carolina; a summary of facilities for study and research. C. E. Rush, ed. 264p $3.50 North Carolina univ. press, Chapel Hill '45

NORTH YORK, Ontario
Water supply
Water softening in North York; problems of iron removal; efficiency of zeolite; with cost data. G. H. Baker. il Water & Sewage 84:68-9+ Ap '46

NORTHEAST airlines
NEA consolidation heralds hearings. Aviation N 4:41 N 12 '45

NORTHEASTERN insurance company of Hartford
Roger Babson sells interest. Nat Underw 50: 16 S 26 '46

NORTHERN natural gas company
Debentures offered. Comm & Fin Chr 162: 2276+ N 12 '45

NORTHERN Pacific railway
Northern Pacific; first railroad to follow trail of Lewis and Clark. L. A. Luther. il Comp Air Mag 51:118-22 My '46
Rental income important. Barron's 26:6 Je 17 '46

NORTHERN states power company
Financial news and comment; brief filed with Securities and exchange commission. O. Ely. Pub Util 38:165-6 Ag 1 '46
May revise plan. Barron's 26:11 Mr 25 '46
Northern States Power common offered more. Barron's 26:6 S 16 '46
Preferred stock offered. Comm & Fin Chr 164:831 Ag 12 '46

NORTHLICH, William R.
Personalities in industrial advertising. por Ind Marketing 31:74+ S '46

NORTHROP aircraft, inc.
Annual report. Comm & Fin Chr 163:75 Ja 7 '46

NORTHWEST
See also
Electricity supply—Northwestern states

NORTHWEST airlines, inc.
Annual statement for year ended June 30, 1945. Comm & Fin Chr 162:2822 D 10 '45

NORTHWEST electric light and power association
Annual meeting, 39th, Seattle, July 17. Elec West 97:90-2 Ag '46
Business development section, meeting, Portland, April 15-17. Elec West 96:74-6 My '46
In unity there is strength; over-all industry organization is essential. J. P. Johnson. Elec West 96:87-8 Je '46
Northwest engineers plow into lessons; meeting of Engineering and operation section. Elec West 96:98-100 Je '46

NORTHWESTERN mutual life insurance company
Revised dividend scale for 1946; gross interest rate to be 3%. Life Ins Courant 50:580-1 D '45

NORTHWESTERN national life insurance company
Technique of getting out statement Jan. 1. Nat Underw (Life ed) 50:5 Ja 11 '46

NORTHWESTERN public service company
Bonds offered. Comm & Fin Chr 164:2056 O 21 '46

NORTON bill. See Fair employment practice commission (proposed)

NORWALK, Connecticut

Water supply
Construction of Norwalk Lake dam. J. E. Riordan. il map diag N E Water Works Assn J 60:255-65 S '46

NORWAY
Norway's arctic problem; grim difficulties tackled. I. A. Jacobsen. il For Comm W 22:9-10+ Mr 2 '46

See also
Budget—Norway
Housing—Norway
Labor laws and legislation—Norway
Merchant marine—Norway
Standards—Norway

Commerce
Norway's comprehensive export-industry survey. I. A. Jacobsen. il For Comm W 23:7+ My 25 '46

Economic conditions
News by countries. For Comm W 23:32-3 Je 22; 24:20-1 S 7 '46
Norway outlines five-year plan; profit and loss statement. For Comm W 23:28 Ap 6 '46
Norway's economic recovery. Economist 149: 796 D 1 '45
Reconstruction in Norway. Economist 150: 1050+ Je 29 '46
Reconstruction of Finnmark (Norway) progressing. For Comm W 23:22 Je 8 '46

German occupation
Underground trade-union activity in Norway during the war. Mo Labor R 61:979-81 N '45

Industries and resources
Norway industry gains momentum, official agency says. For Comm W 23:28 Je 1 '46

NORWICH, New York

Water supply
Survival and retirement experience with water works facilities as of Dec. 31, 1940. Am Water Works Assn J 37:1344-54 D '45

NOTCHED bar testing
Effect of fiber on notched bar tensile strength properties of a heat treated low alloy steel. G. Sachs and others. bibliog diags Am Soc for Metals Trans 34:505-16 '45
Effect of notches on static and fatigue strength. D. W. Drake. bibliog il diags J Aeronautical Sci 13:259-69 My '46
Effect of triaxiality on the technical cohesive strength of steels. G. Sachs and J. D. Lubahn. bibliog il diags Welding J 25:sup53-64 Ja '46
Effects of notches of varying depth on the strength of heat treated low alloy steels. G. Sachs and others. diags Am Soc for Metals Trans 34:517-39 bibliog(p539); Discussion. 539-44 '45
Low-temperature behavior of ferritic steels. H. W. Gillett and F. T. McGuire. Steel 119:76+ Ag 12 '46
Method for evaluating toughness of steel. S. A. Herres and A. F. Jones. il diags Metal Prog 50:462-9 S '46
New form of notched-bar test piece. W. E. Woodward. diags Engineering 162:123 Ag 9 '46
Study of size effect and notch sensitivity in fatigue tests of steel. H. F. Moore. diags Am Soc T M Proc 45:507-21; Discussion. 522-31 '45
Symposium on notch effects in high-strength aluminum alloys. L. Schapiro and others. il diags J Aeronautical Sci 13:391-404 Ag '46

NOURSE, Edwin Griswold, 1863-
Portrait. Bsns W p7 Ag 3 '46

NOVA SCOTIA
See also
Bridges—Nova Scotia
Mines and mineral resources—Nova Scotia

NOVOLAKS. See Resinous products

NOVATION
Oral promise to pay debt on note held invalid and not a novation. Banking Law J 63:659-64 S '46

NOZZLES
Fire control nozzle; Aquatomic fog nozzle. Blast F & Steel Pl 34:407 Mr '46
Fuel-injection processes with pintle-valve nozzles. N. Kendall. diags Engineering 160: 389-92, 417-19 N 16-23 '45
High-pressure water jets for descaling. diags Iron Age 158:52 Jl 11 '46
Procedure for attaching nozzle to a length of lead lined steel pipe. il Paper Ind 28: 259 My '46
Redesigned air nozzles solve cleaning problems. R. A. Shaw. diags Am Mach 90: 143-4 N 7 '46
Steam turbines; nozzles and blades or buckets. diags Power 89:794-6 D '45
Theoretical discharge of nozzles in U.S. gallons per minute; table. Power Pl Eng 50: 116 My '46
Theoretical flow of a frictionless, adiabatic, perfect gas inside of a two-dimensional hyperbolic nozzle; abstract. H. W. Emmons. Aeronautical Eng R 5:63 Ag '46

NUCLEAR induction
Nuclear induction. F. Bloch. bibliog Phys R 70:460-74 O 1 '46
Nuclear induction experiment. F. Bloch and others. il diags Phys R 70:474-85 O 1 '46

NUCLEAR research. See Atomic research

NUCLEON
Theory of the electron and of the nucleon. A. Pais. bibliog Phys R 68:227-8 N 1 '45

NUCLEONIC research. See Atomic research

NUCLEONICS (term)
New term nucleonics; generic name for atomic energy and related subject matter. Z. Jeffries. Chem & Eng N 24:186 Ja 25 '46

NUCLEOPROTEINS
X-ray-induced depolymerization of thymonucleohistone and of sodium thymonucleate. A. H. Sparrow and F. M. Rosenfeld. bibliog Science 104:245-6 S 13 '46

NUCLEOSIDES
Experiments on the synthesis of purine nucleosides; the synthesis of 9-*d*-xylopyranosido-2-methylthioadenine and its conversion into 9-*d*-xylopyranosidoadenine. G. A. Howard. B. Lythgoe and A. R. Todd. Chem Soc J p556-61 S '45

NUCLEOTIDES
Synthesis in the study of nucleotides. A. R. Todd. bibliog Chem Soc J p647-53 Jl '46

NUEVITAS, Cuba
Port facilities at Nuevitas. For Comm W 23:20-1 Ap 13 '46

NUMBERING machines
Care of numbering machines. Inland Ptr 117: 73 Je '46

NUMBERING systems
Numbered products promote customer confidence. il Ind Marketing 31:41+ Ap '46
Timely action on parts coding will avoid post-war confusion. J. Callahan. il Am Mach 89: 137-8 N 22 '45

NUMERALS
See also
Advertising copy—Numerals

NUMISMATICS. See Coins

NUREMBERG
Nuernberg today. H. M. Bratter. Comm & Fin Chr 164:1777+ O 10 '46

NUREMBERG trials. See World war, 1939-1945—War criminals

NÜRNBERG. See Nuremberg

NURSERIES (horticulture)
Gas fuels Lacy nurseries. C. Thompson. il Gas Age 98:27-8 Ag 8 '46
Nursery and seed store. il map plan Arch Forum 83:168 N '45

NURSERY schools
Model center for child care; MacLean Gardens, Washington, D.C. il plan Arch Rec 99:108 My '46

NURSES and nursing
Announcement of examinations for the appointment of nurses to the regular commissioned corps of the United States Public health service. Pub Health Rep 61:359-60 Mr 8 '46
New advertising council campaign aims to relieve shortage of nurses. il Ptr Ink 215: 44+ My 24 '46
Professional nurses. il U S Women's Bur Bul 203, no3:1-66 bibliog(p58-64) '46

NURSES and nursing, Industrial
First on the scene. E. Gregory. il Safety Eng 92:73-4 Ag '46
Health program; Thilmany pulp & paper company. H. H. Leedke. il plan Paper Ind 28:651-6 Ag '46
Industrial nurse; her function in the paper making industry. H. W. Noble. il Pulp & Pa of Can 46:912-14+ N '45
This is our service; nurse's department, Parker pen company. M. Morrissey. il Safety Eng 91:65-6 Mr '46
Winder clinic; Manufacturers cooperative health clinic. K. Pierce. Ind Med 15:sup 36+ F '46

NURSES and nursing, Public health
Training public health workers; programs sponsored by state health departments under title VI of the Federal social security act and the Federal venereal disease control act (1936-44). J. W. Mountin and E. K. Hankla. Pub Health Rep 61:725-48 bibliog(p739) My 24 '46

NURSES national memorial (proposed)
America's war nurses of World war II will be provided with national headquarters in Washington. Safety Eng 90:81 N '45

NURSING school libraries
Bibliography
Bibliography on standards; nursing libraries, 1925-1945. A. M. Purington. Special Lib 37:77-8 Mr '46

NURSING schools
Study of nursing school health practices and a recommended health program for student nurses. B. M. Davis and others. (Public health rep supp 189) 22p U.S. Public health service, Washington; pa 10c Supt. of doc. '45

NUT shelling machines
Nuts shelled by machine; California walnut growers association plant. il Food Ind 18: 30-1 Ja '46

NUTRITION
Butter-margarine controversy. H. J. Deuel, jr. Science 103:183-7 F 15 '46
Chromates in animal nutrition. W. G. Gross and V. G. Heller. bibliog J Ind Hygiene 28:52-6 Mr '46
Feeding returned prisoners of war. Nat Safety N 53:80+ Ja '46
Food and efficiency. Chem & Ind p85 F 23 '46
Food and phylogeny; abstract. C. S. Haynes. Chem & Ind p204 My 25 '46
Important nutritional value in sweets is not the sugar. Consumers Res Bul 17:25 My '46
Interdependence of medicine and industry in the study of human nutrition. I. M. Rabinowitch. Can Chem & Process Ind 30: 96+ O '46
Interrelations between choline, betaine, and methionine. H. J. Almquist. bibliog Science 103:722-3 Je 21 '46
Is it good for you? studies of human diet and health. Bsns W p39 F 9 '46
Methods of food appraisal. G. H. Berrymann. Science 104:429 N 1 '46
Nutrition panel meeting. Chem & Ind p246 Je 29 '46
Nutritional improvement of white rice. M. C. Kik and R. R. Williams. il diags Nat Res Council Bul 112:1-76 '45
Nutritional role of amino-acids. A. Neuberger. bibliog Chem & Ind p338-42 S 14 '46
Nutritive value of canned foods; factors affecting ascorbic acid content of canned grapefruit and orange juices. F. C. Lamb. bibliog Ind & Eng Chem 38:860-4 Ag '46
Nutritive value of canned foods; influence of temperature and time of storage on vitamin contents. N. B. Guerrant, M. G. Vavich and R. A. Dutcher. bibliog Ind & Eng Chem 37:1240-3 D '45
Nutritive value of dehydrated vegetables and fruits. P. L. Pavcek and others. bibliog Ind & Eng Chem 38:853-6 Ag '46
Nutritive value of processed animal foods. Cruickshank and Kodicek. Chem & Ind p302 Ag 10 '46
Nutritive value of ready-to-eat breakfast cereals. R. G. Booth, T. Moran and W. J. S. Pringle. Soc Chem Ind J 64:302-4 N '45
Nutritive value of vegetables products. W B. Adam. Chem & Ind p302-3 Ag 10 '46
Nutritive value of wheat flour proteins. H. C. H. Graves. bibliog Chem & Ind p261-3 Jl 13 '46
Rate of enzymic digestion of proteins as a factor in nutrition. D. Melnick and others. bibliog Science 103:326-9 Mr 15 '46
Recent advances in the science of nutrition. C. G. King. il diags Chem & Eng N 24: 1521-3 Je 10 '46
Short and long food chains among vegetable crops. J. H. MacGillivray. Science 102:533-5 N 23 '45
Some recent developments in human feeding. J. Drummond. il Food Ind 18:327-30+ Mr '46
See also
Bread
Diet
Food
Lunches, Employees'
Metabolism
Proteins
Starvation
Vitamins

NUTRITION foundation
Grants. Science 102:661 D 28 '45
Is it good for you? studies of human diet and health. Bsns W p39 F 9 '46
Meeting, New York, Nov. 8. Chem & Eng N 23:2108 N 25 '45

NUTRITION research
Enrichment of rice with synthetic vitamins and iron. M. F. Furter and others. bibliog il diag Ind & Eng Chem 38:486-93 My '46
Research for better nutrition. H. C. Sherman. Franklin Inst J 242:1-4 Jl '46
Research funds for nutritional science; Williams-Waterman fund for the combat of dietary diseases. Science 104:58-9 Jl 19 '46; Chem & Eng N 1554 Je 10 '46

NUTS
Facts about edible-tree-nut trade now available. For Comm W 24:39 S 21 '46

NUTS (machinery). See Bolts and nuts

NUTTER, William P.
General chairman, Brotherhood of railroad trainmen, Pacific electric lines. por Fortune 34:147 N '46

NYASALAND
Commerce
Foreign trade reaches peak in 1945. For Comm W 23:38 Je 15 '46
Economic conditions
News by countries. For Comm W 22:26 F 2; 28 Mr 23 '46

NYLON
Back to nylons; redesigned hosiery boxes. il Mod Packaging 19:125 F '46
Briefcase of nylon sheeting. il Mod Plastics 23:116 Je '46
Du Pont plans to triple nylon output. Rayon 27:460 S '46

NYLON—*Continued*
Elastic nylon. Chem & Eng N 24:1260 My 10 '46
Five M's (men, management, materials, machines and mistakes) influence hosiery production. J. A. Crumley. diags Textile World 95:135+ D '45
Let's knot, and let's do it the right way. il Textile World 96:101-5 Je '46; Reply. C. S. Bicksler. 96:186+ Jl '46
Munsingwear plant exclusively for seamless nylons. il Textile World 96:151 S '46
Nylon staple fiber promises many interesting new blends. Rayon 27:470 S '46
Nylons, no. 1 sales bait, used as premiums, charge account openers, door prizes. il Ptr Ink 213:53+ N 23 '45
Proper handling of nylon produces more uniform hose. il Textile World 96:131+ Je '46
Scott & Williams introduces new stocking of the future. il Rayon 27:31 Ja '46
Seam-free nylon stockings. il Rayon 27:476 S '46
Suggestions for the manufacture of nylon seamless hosiery. Rayon 27:83 F '46
Valuable suggestions for nylon full-fashioned hosiery manufacture. il Rayon 26:639-43 D '45

See also
Cotton fabrics—Nylon mixtures
Dyes and dyeing—Nylon

Dyeing

See Dyes and dyeing—Nylon

Manufacture

Nylon production; pictured flowsheet. Chem & Met Eng 53:148-51 Mr '46
Nylon production technique is unique. J. A. Lee. il Chem & Met Eng 53:96-9 Mr '46
Single-end sizing of nylon; with particular reference to full-fashioned hosiery. Rayon 27:82-3 F '46

Molding

Injection molding of nylon. R. B. Akin. il diag Mod Plastics 23:139-43 Ag '46
Nylon molding powders. A. F. Randolph. il Product Eng 17:312 Ap '46

Strength

Impact strength of nylon and of sisal ropes. S. B. Newman and H. G. Wheeler. diag J Res Nat Bur Stand 35:417-31 N '45

NYLON fabrics
Nylon dressing used to cover severe wounds and burns. Sci Am 174:57 F '46
Nylon surgical gauze. il Mod Plastics 23:111-12 D '45
Some effects of dry heat upon the properties of nylon fabrics; presented by Philadelphia section. charts Am Dyestuff Rep 35:38-42 Ja 14 '46; Same cond. Rayon 27:80-1 F '46; Excerpt. Textile World 96:192+ Ja '46

Rayon mixtures

Spun nylon-rayon challenges cotton mills. P. M. Thomas. il Textile World 96:141+ My '46

Testing

Dynamic tensile tests of parachute webbing. A. H. Stang and others. 3pl J Res Nat Bur Stand 36:411-19 Ap '46

NYLON hosiery trade. See Hosiery trade

NYLON printing
Review of recent developments in printing. P. L. Meunier. Am Dyestuff Rep 35:309-10 Je 17 '46

NYLON research
Nylon research laboratory dedicated; honor of the late W. H. Carothers. Rayon 27: 522 O '46

See also
Du Pont de Nemours, E. I., and company

NYLON yarn
Nylon yarn; its history and manufacture. H. C. Mersereau. il Can Chem & Process Ind 29:808-13 D '45
Nylon weather achieved by refrigerated air conditioning; Hudson hosiery mills. C. M. Bowden. il Textile World 96:116-17 My '46
Present nylon yarn situation. W. A. Beh. il Rayon 27:353-4 Jl '46

NYSTROM, Paul Henry, 1878-
Businessman professor. H. Bridges. por Adv & Sell 39:128+ S '46

O

OAK
Wood treatment with urea resin-forming systems (dimensional stability). M. A. Millett and A. J. Stamm. bibliog Mod Plastics 24:150-3+ O '46

OAK RIDGE, Tennessee
Atom plant poll inconclusive. il Bsns W p77 Ag 31 '46
Atomic election; Oak Ridge employees will vote on bargaining agent. Bsns W p90+ Ag 10 '46
Building a city from scratch; Clinton engineer works. E. A. Wende. il Eng N 135:815-18 D 13 '45
Heating, piping, and air conditioning at Oak Ridge. J. K. Fairbairn. il Heating-Piping 17:527-9 O-N '45
Industrial psychiatry in the community of Oak Ridge. C. Leggo and others. bibliog Ind Med 15:243-53 Ap '46
Oak Ridge gives industry a unit operation; gas diffusion. J. F. Hogerton. il Chem & Met Eng 52:98-101 D '45
Oak Ridge, reconverted. il Bsns W p19-21 Ag 3 '46
Taylor Instrument. il diags Fortune 34:88-95+ Ag '46

See also
Motor bus lines—Oak Ridge, Tennessee

Sewerage

Water supply and sewage works for the atomic bomb city. G. E. Crosby and P. B. Streander. il diag Eng N 135:822 D 13 '45

Water supply

Water supply and sewage works for the atomic bomb city. G. E. Crosby and P. B. Streander. il diag Eng N 135:819-22 D 13 '45

OAK RIDGE institute of nuclear studies
Nuclear research institute at Oak Ridge. Science 103:705-6 Je 14 '46

OAKLAND, California

Water supply

Check-valves and water-hammer risk. H. A. Knudson. il Eng N 137:310-12 S 5 '46

OATS

Diseases and pests

New helminthosporium blight of oats. F. Meehan and H. C. Murphy. Science 104: 413-14 N 1 '46

OBERG, Erik, 1881-
Retires as editor of Machinery. por Mach 53: 175 S '46

O'BRIEN, Eugene William, 1897-
New president of the A.S.M.E. por Mach 53:157 O '46
Sketch. por Mech Eng 68:757-8 Ag '46

OBSERVATORIES, Astronomical. See Astronomical observatories

OBSOLESCENCE
Handy tools measure equipment obsolescence. J. C. Hussey. Am Mach 90:110-11 My 9 '46
Obsolescence, a business disease; holding to old methods and machines dangerous. J. E. Bullard. Credit & Fin Management 48: 36-9 F '46

See also
Buildings—Obsolescence
Machinery, Replacement of
Depreciation

OCCUPATION, Military. See Military occupation

OCCUPATIONAL health research, Institute for. See Institute for occupational health research

OCCUPATIONAL therapy

See also
Bibliotherapy

OCCUPATIONS
Job guide; a handbook of official information about employment opportunities in leading industries. S. H. Kasper, ed. 193p $2.50; pa $2 Public affairs press, 2153 Florida av, Washington 8, D.C. '45

See also
Ability tests
Automobile mechanics
Handicapped
Job analysis
Office workers
Radio workers
Research workers
Veterans—Occupations
Vocational guidance
Woman—Occupations

Bibliography

Choosing an occupation; recent books and pamphlets in the reference department of the New York public library. A. E. Plowitz and M. L. Hackman. 22p N. Y. pub. lib, New York '46
Occupations; a selected list of pamphlets. G. Forrester. 240p $2.25 H. W. Wilson co, New York '46

Statistics

Occupational data for counselors; handbook of census information selected for use in guidance. bibliog U S Bur Labor Statistics Bul 817:1-36 pa 10c Supt. of doc. '45

OCCUPATIONS, Choice of
Choosing a career. E. D. Smith. Mech Eng 68:27-32 Ja '46
Public or private service. Economist 151: 572-3 O 12 '46
Value of avocational experience; fitting workers to jobs. P. H. Casselman. Personnel J 25:127-30 O '46

OCCUPATIONS, Dangerous
Psychologically hazardous occupations. D. E. Cameron. Ind Med 15:332-5 My '46

See also
Accidents, Industrial
Diseases, Industrial
Hygiene, Industrial
Poisons, Industrial

OCEAN
Developments in hydrographical apparatus. il diags Engineering 162:313 O 4 '46
Functions and development of a tropical marine laboratory; Miami marine laboratory. F. G. W. Smith. Science 103:609-11 My 17 '46
Recent results in submarine geophysics. M. Ewing and others. bibliog diags Geol Soc Bul 57:909-34, fold map(pl 1) pl 2-12 O '46
Swedish marine-biological commission; oceanographic expedition. Science 104:13 Jl 5 '46
Underwater noise due to marine life. D. P. Loye and D. A. Proudfoot. Acoustical Soc Am J 18:446-9 O '46
U.S. Navy Hydrographic office has established Division of oceanography. Science 103:528-9 Ap 26 '46

See also
Continental shelf
Deep sea deposits
Diving, Submarine
Waves

OCEAN bottom
Drowned ancient islands of the Pacific basin. H. H. Hess. bibliog map Am J Sci 244: 772-91 N '46
Free-fall coring tube; a new type of gravity bottom sampler. M. J. Hvorslev and H. C. Stetson. bibliog diags Geol Soc Bul 57:935-49, pl 1-4 O '46
Photography of the ocean bottom. M. Ewing and others. bibliog il diags Opt Soc Am J 36:307-21 Je '46
Recent results in submarine geophysics. M. Ewing and others. bibliog diags Geol Soc Bul 57:909-34, fold map(pl 1) pl 2-12 O '46
Studies on redox potential of marine sediments. C. E. ZoBell. diags Am Assn Pet Geologists Bul 30:477-513 bibliog(p510-13) Ap '46

See also
Deep sea deposits
Sounding

OCEAN currents
Recording ocean currents by radio; current meter records radio-transmitted dots and dashes on a chronographic tape. il Eng N 136:118-19 Ja 24 '46

OCEAN FALLS, British Columbia
Story of a pulp and paper town; Ocean Falls. il Pulp & Pa of Can 47:63-6 Ag '46

OCEAN liners. See Steamboats

OCEAN travel
Going abroad? here's how; survey of travel conditions. Bsns W p17-18 Ja 5 '46
National federation of American shipping reports on travel situation. Marine Eng 51:122+ Je '46

O'CONNOR, William Francis, 1910-
Professor of safety engineering; New York university College of engineering. Safety Eng 90:50 N '45

OCTADECANE
High molecular weight hydrocarbons; eicosane, 1-phenyleicosane and 3-ethyloctadecane. K. W. Sherk, M. V. Augur and M. D. Soffer. bibliog Am Chem Soc J 67:2239-40 D '45

OCTANE number
Blending octane numbers of 2:5-dimethylfuran. H. B. Nisbet. bibliog Inst Pet J 32: 162-6 Mr '46
Relation of octane number and peroxide content of catalytic gasolines. H. Velde. Pet Refiner 25:137-40 Je '46

O'DEA, Mark
Mark O'Dea, painter. Ptr Ink 214:32 F 15 '46

ODORS
About odors, their nature, cause and control. F. H. Munkelt. bibliog Refrig Eng 51:31-4+; Discussion. C. O. Bratley. 64 Ja '46
Chemistry of dicyclopentadiene; addition of alcohols and phenols. H. A. Bruson and T. W. Riener. Am Chem Soc J 68:8-10 Ja '46
Odor and the organic chemist. E. L. Saul. J Chem Educ 23:296-7 Je '46
Planning for clean flavor; 13 reports on causes of off-odors in foods and simple methods for curing the problem. J. A. Dunn. diags Food Ind 18:188-90+ F '46
Stench warning tests, Lake Superior district mines. F. E. Cash and E. W. Johnson. U S Bur Mines Rep of Invest 3850:1-23 '45
Studies on odor elimination in apple storage. C. R. Gross and R. M. Smock. bibliog Refrig Eng 50:535-40 D '45; Discussion. 51: 46-7 Ja '46

See also
Deodorization
Liquefied petroleum gas—Odorizing
Perfumery
Water purification—Taste and odor removal

OESTROGENS. See Estrogens

OFF premises coverage. See Insurance, Fire—Off premises coverage

OFFICE appliances
Combating noise in mechanisms; abstracts. diags Product Eng 17:[no 7]121 Jl '46; Mech Eng 68:984-5 N '46
Foreign demand affects office machine supply. C. B. Welch. il Dom Comm 34:48-52 Ag '46
Insurance company office machines. N. H. Wilson. East Underw 46:34+ D 14 '45

See also
Addressing machines
Calculating machines
Dictating machines
Typewriters

OFFICE buildings
Bank office building, Mexico city. il plans Arch Forum 84:116 F '46
Design live loads in buildings. J. W. Dunham. plans Am Soc C E Proc 72:429-43 Ap '46; Discussion. 72:1161-4 O '46
Hotel-office building, Miami Beach; combination design reflects trend toward year-round use of Florida hotels. il plans diag Arch Forum 83:144-6 N '45
Postwar New York skyscraper; office building for Standard oil company of New Jersey. il plans Arch Forum 84:91-3 My '46

See also
Insurance company buildings
Newspaper offices
Trade union buildings

Equipment

When cold water lines ran hot; engineer's experience in locating cause for this trouble in an office building. J. J. Woolfenden. Heat & Ven 43:92-3 F '46

OFFICE buildings—Equipment—*Continued*

Heating and ventilation

Does night shutoff of heating pay? A. S. Griswold. il Heat & Ven 43:65-8 O '46
What's new in commercial heating? H. S. Birkett. il Gas Age 97:31-3+ Mr 7 '46

Lighting

See Office lighting

OFFICE buildings, Industrial

Administration building for radio maker includes display room; Hoffman radio corp., Los Angeles. il plans Arch Forum 85:100 O '46
Administration building for Servel inc. il map plans diag Arch Forum 83:152-3 N '45
Aluminum co. of America office building in New York to feature new type of aluminum construction. il Chem & Eng N 24:1212 My 10 '46
Chimney offices; Valley power station of Bradford corporation. il Elec R (Lond) 138: 134 Ja 25 '46
Office building provides for efficient work, pleasant lunches; Charles L. Harney co., San Francisco. il plans Arch Forum 85: 104-5 O '46
Remodeled office building for U.S. plywood corporation; use of plywood and allied laminated products demonstrated. il plans diag Arch Forum 85:111-13 S '46
Saginaw Malleable. il Factory Management 104:B47-B49 pt 2 Ap '46
Scovil manufacturing company meets expanded need for administrative space by remodeling industrial buildings. il plans diag Arch Forum 83:101-3 D '45

OFFICE equipment

Future developments in office equipment; abstract. F. G. MacIlroy. Management R 35: 41-2 F '46
Office methods and operations. G. H. Sherwood, ed. J Account 81:154-5 F '46 [cont monthly]

See also
Desk furnishings
Office appliances
Office supplies

Manufacture

Mechanical aids in the manufacture of steel office furniture and equipment. il layout plan Mech Handling 33:550-4 S '46

Standards

Standards for office equipment; abstract. E. B. Gage. Management R 34:474-5 D '45

OFFICE equipment industry

Foreign demand affects office machine supply. C. B. Welch. il Dom Comm 34:48-52 Ag '46
Office machinery industry faces three busy years. L. E. Browne. il Steel 119:65-7 S 2 '46

Advertising

Frequent contests serving many purposes for this advertiser; Swingline stapling machines and staples. Ptr Ink 213:23 N 30 '45

Securities

Divergent trends for office equipments; with position of leading manufacturers of business machines. G. V. Mathis. Mag of Wall St 77:770-1+ Mr 30 '46
Weighing prospects of office equipments; with financial survey of leading stocks. C. F. Morgan. il Mag of Wall St 78:632-3+ Ag 31 '46

New Zealand

Imports of office machinery into New Zealand, 1944 and 1945. For Comm W 23:45 My 25 '46

OFFICE furniture

See also
Desks

OFFICE lighting

Better light means better office production. il Am Bsns 16:20-2+ F '46
Desk, design target in private office lighting. A. W. Larson. il plans Elec West 96:68-9 Mr '46
Light for offices. il Elec West 96:91 Ap '46
Lighted ceilings; office of Spott electric co. il Elec West 95:92 D '45
More light without added expense. F. I. Wilson. Am Bsns 15:30+ N '45
Office illumination upped six fold by fluorescent lighting. il Elec World 124:166 N 10 '45
Shop and office lighting. il Ry Mech Eng 120:364-7 Jl '46
Trends in lighting offices; fluorescent lighting. il Arch Rec 99:65-7 Ja '46

OFFICE management

Central duplicating cuts office costs for General Foods. G. L. Harris. il Am Bsns 16: 18-19+ Jl '46
Cutting typing and stenographic costs. il Am Bsns 16:20-4+ Ja '46
Goodyear's office service methods; concentrates activities and types of work in one big office operating department. il Am Bsns 16:14-18+ My '46
Handling the mail, in and out. il plan Am Bsns 16:22-4+ Mr '46
How United air lines speeds mail handling. il Am Bsns 16:22-3+ Ap '46
Incentive pay advocated as offset to help shortage; American management assn. conference. A. F. Hinrichs and others. Nat Underw (Life ed) 50:2+ S 27 '46
Investors Syndicate's figure factory; accounting and office methods. J. Turner. il Am Bsns 16:12-15+ Ap '46
Making an office operations audit; abstract. E. F. O'Toole. Management R 35:81-3 Mr '46
Monsanto's central office service department plan. J. Mathews. il Am Bsns 16:14-15+ F '46
Office methods and operations. G. H. Sherwood, ed. J Account 81:154-5 F '46 [cont monthly]
Process charts prove your job is not different. J. E. Fuqua. Factory Management 104:78-9 Ap '46
Union issue treated at A.M.A. meeting; explain management attitude; other problems. J. H. MacDonald and others. Nat Underw 49:12+ N 29 '45; Same abr. Nat Underw (Life ed) 49:7 N 23 '45

See also
Accounting
Billing
Business management
Commercial correspondence
Credit departments
Dictation
Executives
Files and filing (documents, etc.)
Forms and blanks, Business
Office workers

Standards

Standards to aid office economy. E. H. Conarroe. il Ind Stand 17:251-3 O '46

OFFICE management association, Life. See Life office management association

OFFICE standards. See Office management—Standards

OFFICE supplies

Purchasing office supplies; American brake shoe company; abstract. G. Buckley. Management R 35:372-3 S '46

Advertising

Copy that clicked; United States envelope company, new fastener. R. Manville. il Ptr Ink 215:47 My 31 '46

OFFICE workers

Color schemes aid office workers. A. P. Schulze. il Am Bsns 16:20-1+ Mr '46
Cooperative part-time business training. Management R 35:113 Ap '46
Decorously idle; white-collar employees of Boston engineering office keep up their strike. Bsns W p100+ My 25 '46
Evaluating white-collar jobs. C. S. Mattoon. Factory Management 104:80-3 Ap '46
Incentive pay advocated as offset to help shortage. A. F. Hinrichs and others. Nat Underw (Life ed) 50:2+ S 27 '46
Incentives for clerical and indirect workers; abstract. J. W. Nickerson. Management R 34:422-3 N '45
Management should not fear clerical unionization. H. E. Niles; L. Merrill. Nat Underw (Life ed) 49:11 N 16 '45
Noise factor in office fatigue. E. Thomson. J Account 82:252 S '46
Office salaries since VJ-day. il Am Bsns 16: 8-9+ Ag; 32+ S '46

OFFICE workers—*Continued*
Perception versus routine; do your assistants know what they are doing? J. P. Callahan. Credit & Fin Management 48:30-2 Ag '46
Reduction and control of errors; abstract. W. E. Williams, jr. J Account 82:331-2 O '46
Report of the subcommittee on employee selection tests. Am Gas Assn Proc 1945:57-9
Salaries of clerical workers in 20 cities, October 1945. Mo Labor R 62:944 Je '46
Trends in personnel administration for office employees. H. M. Dirks. N A C A Bul 27: 765-77 My 1 '46
Using films in office training; abstract. Management R 35:411-12 O '46
Wages of office workers in metalworking industries, January 1945 L. M. David. Mo Labor R 63:54-60 Jl '46
White collar job analysis. C. S. Mattoon. Aero Digest 52:23+ My '46
White collar job evaluation; hints on how it can help management. G. Birney. Credit & Fin Management 48:17-19 My '46
White-collar man; H. F. Hansjergen. il Fortune 33:124-7+ Je '46
White-collar unionization; abstract. H. Rushmore. Management R 35:8-9 Ja '46
White-collar woe; organizing drive by C.I.O. il Bsns W p100+ S 28 '46
Working conditions in 222 offices; abstract. Management R 35:219-21 Je '46

See also
Bank employees
Dictating machine operators
Typists

OFFICES
Check your office against these important pointers. E. W. Fair. Inland Ptr 116:47 Mr '46
Dramatic color marks New York offices for movie magnate; Samuel Goldwyn. il plan Arch Forum 83:120-1 D '45
New Insurance Exchange office ultra-modern. il Nat Underw 50:14 Mr 7 '46
Offices built for management. il Am Bsns 15: 18-20+ N '45
President's office; manager's office; engineer's office; photographs. Am Bsns 16:22-4 Jl '46
Regional sales and display office; plywood construction in lobby; U.S. plywood corp. il plans Arch Forum 83:117-19 D '45

See also
Advertising agencies—Offices
Architects' offices
Designers' offices
Newspaper offices
Office lighting
Physicians' offices
Printing offices
Publishers' offices
Trade union buildings

Layout
Agency planning and layout. plan Rough Notes 89:30+ My; 40+ Je '46
Office planning and layout. J Account 81: 422-3 My '46

Safety measures
Rules for office safety. Management R 35: 83-4 Mr '46

OGALLALA formation
Algae reefs in cap rock of Ogallala formation on Llano Estacado plateau, New Mexico and Texas. W. A. Price and others. 4pls map Am Assn Pet Geologists Bul 30:1742-6 O '46

OHIO Edison company
Common stock offered. Comm & Fin Chr 164: 12 Jl 1 '46
New common stock. Comm & Fin Chr 163: 3480 Je 27 '46

OHIO oil company
Earnings trend upward. Barron's 26:6 Jl 22 '46

OHIO public service company
Proposed merger. Comm & Fin Chr 163:783 F 11 '46
Securities offered. Comm & Fin Chr 163:3141-2 Je 10 '46

OHIO river
Present condition of the Ohio river. A. R. Todd. flow diag Am Water Works Assn J 38:41-4 Ja '46; Same. Water & Sewage Works 93:79-80 F '46

OHIO River valley
Ohio River valley water sanitation compact. F. H. Waring. map Civil Eng 16:195-6 My '46

OHMMETERS
Electronic volt-ohmmeter. H. H. Arnold. il diags Radio N 34:48-50+ N '45
How to megger large multi-section pin type insulators. J. Lezotte. il diag Elec World 126:76 Ag 31 '46
Resistance measurements. S. Litt. diags Radio N 35:45-6 Ja '46

OIL. See Oils and fats

OIL, Gas. See Gas oil

OIL, Insulating. See Insulating oil

OIL, Lubricating. See Lubricating oils

OIL, Transformer. See Insulating oil

OIL analysis
Acid flocculation test for determination of gum content of heavy distillate fuel oils. W. A. Proell and J. A. Bolt. Oil & Gas J 44:234-5+ Mr 30 '46
Analysis of lavender oils. Y. R. Naves. bibliog il Soap & San Chem 22:40-3+ F '46
Detection of conjugated unsaturated fatty acids with tetranitromethane; abstract. H. P. Kaufmann and P. Kirsch. Paint Oil & Chem R 109:30 Mr 21 '46
Determination of organic peroxides in hydrocarbons. E. M. Tanner and T. F. Brown. bibliog Inst Pet J 32:341-50 Je '46
Determination of water content in oils. M. M. Acker and H. A. Frediani. bibliog Ind & Eng Chem Anal ed 17:793-4 D '45
Determining the oil content of varnishes and enamels; abstract. C. P. A. Kappelmeier and W. R. van Goor. Paint Oil & Chem R 109:20 Ap 4 '46
Estimation of naphthalene in absorbing oil. P. E. Reichardt and D. L. White. bibliog diag Ind & Eng Chem Anal ed 18:286-8 My '46
Fingerprinting hydrocarbons and compounds. il Pet Refiner 25:115-18 Jl '46
Microdetermination of the saponification number of fats and oils; decigram, centigram, and milligram procedures. K. Marcali and W. Rieman, 3d. diag Ind & Eng Chem Anal ed 18:144-5 F '46
Oil analysis spots engine faults; how service works with average fleet. il Food Ind 18: 693-5 My '46
Precision scientific co.'s titrometer. il Rubber Age 58:622+ F '46
Semimicrodetermination of saponification equivalent by Rieman's double-indicator method. D. Ketchum. Ind & Eng Chem Anal ed 18:273-4 Ap '46
South African fish products; periodic acid as a reagent in the analysis of the unsaponifiable fractions of natural fats. M. L. Karnovsky and W. S. Rapson. bibliog Soc Chem Ind J 65:138-40 My '46
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain elaeostearic as well as linoleic and oleic acids. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 65:74-81 Mr '46
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain linolenic as well as linoleic and oleic acids. F. D. Gunstone and T. P. Hilditch. Soc Chem Ind J 65:8-13 Ja '46

See also
Cottonseed oil—Analysis
Iodine number
Peppermint oil—Analysis
Petroleum—Analysis

OIL and colour chemists' association
Annual general meeting. Chem Age (Lond) 55:83 Jl 20 '46

OIL bulk stations

Equipment
Bulk distribution of petroleum products. W. J. Kearns. il plans diag Comp Air Mag 50: 324-7 D '45
Island petroleum cuts losses, boosts deliveries with remote metering control in bulk plant. O. J. Sambach. il plan Nat Pet N 38:26+ Je 19 '46

OIL bunkering stations
Every ship was fueled on time, and safely; bunkering plant on the Oakland waterfront. Nat Safety N 52:96-7 D '45

OIL burner industry
C.P.A. burner priorities. Sheet Metal Worker 37:62+ S '46
Millions of jobs, but only if we sell! sell! sell! W. A. Matheson. Sales Management 55:75-6+ D 1 '45
Oil burner manufacturers look to fuel oil jobbers to play important role in huge postwar expansion. F. Sturtevant. Nat Pet N 38:26+ F 13 '46
Oil burner service and profits. F. C. Sturtevant. il Nat Pet N 38:21+ Jl 24 '46
Promising outlook for oil heating industry. il Dom Eng 167:148+ F '46
Warming outlook, oil heat industry. Bsns W p22+ My 4 '46

OIL burners
Adjustment of burners to utilize cat-cracked fuel oils suggested; abstract. A. E. Pew, jr. and others. Nat Pet N 38:20+ My 1 '46
Automatic heating trouble shooting. Sheet Metal Worker 37:78-9 F '46
Automatic oil burner features flame shape control. il diags Machine Design 18:99 O '46
Canadian underwriters warn on oil burners; those not approved by Laboratories held dangerous. Weekly Underw 155:960 O 19 '46
Catalytic distillates as burner fuels; abstract. W. A. Sullivan. Nat Pet N 38:22+ My 1 '46
Combustion of catalytically cracked distillates and new burner design widening markets for new fuels. S. R. Cauley and H. R. Linden. bibliog il Oil & Gas J 45:80-2+ Ag 10 '46
Fires involving oil burners rise; National Board on how to cut risks. East Underw 47:18 Ag 30 '46; Same cond. Nat Underw 50:5 Ag 29 '46
Friction clutch operated by centrifugal force; used on oil burner. il Mach 53:202 N '46
Fuel oils have changed. W. A. Sullivan. il Sci Am 175:66-8 Ag '46
Improved combustion head announced. il Oil & Gas J 44:79 D 15 '45
New type combustion head for domestic oil burners designed. il Nat Pet N 37:52 D 5 '45
Oil burner design features economy clutch operation. Nat Pet N 38:24 Je 26 '46
Oil burner; fuel oil research modifies design of pot type. il Heat & Ven 43:94 Je '46
Oil heat for industry. J. Smith. flow diag il Sci Am 175:217-19 N '46
Peacetime fuel oils from war equipment. A. E. Pew, jr. and others. bibliog Am Pet Inst Proc 25(3):53-6 '45; Same. Pet Refiner 24: 124-6 N '45; Same. Nat Pet N 37 pt 2:R961+ D 5 '45
Urges change in design of vaporizing burners so as to utilize catalytic cracked fuel oil; abstract. G. T. Kaufman. Nat Pet N 38:34 F 6 '46
Utilization of all types of domestic fuel oil seen possible with use of new modified burner. il Nat Pet N 38:22+ My 8 '46

Standards
Oil burner, oil storage tank installation standards released in code form by OHI distribution division. Nat Pet N 38:44+ Jl 17 '46

OIL chemists' society, American. See American oil chemists' society

OIL circuit breakers. See Electric circuit breakers

OIL compact commission, Interstate. See Interstate oil compact commission

OIL companies
Airport development. F. P. S. Glassey. il plan Nat Pet N 38:25+ Jl 17 '46
Equipment, motor oil supplies, labor difficulties, margins. Nat Pet N 38:30-1 Jl 31 '46
Independent jobber, a power on Main street; survey shows many interesting facts. H. H. Hahn. Nat Pet N 38:26-7 Ap 3 '46
Indiana independent petroleum assn. spring meeting. Nat Pet N 38:18-20 Mr 20 '46
Kansas oil men's assn. 31st annual meeting, Wichita, March 11-12. Nat Pet N 38:22-4 Mr 20 '46
Majors lead the way as oil industry takes to the air. H. Ridder. il Nat Pet N 38:33-4+ Jl 17 '46
Ohio petroleum marketers assn. annual convention, Columbus. Nat Pet N 38:13-16 Mr 20 '46
Oil jobber builds profits and gallonage with sales, service of farm implements; Lorraine oil co. H. Taylor. il Nat Pet N 38:22+ Ag 28 '46
Petroleum specialties; chance for marketers to expand sales field. B. H. Weil. il Nat Pet N 38:30+ Ap 10 '46
Selecting franchised dealers and locations; Shell Oil county-to-county survey. P. K. Lakin. il Ptr Ink 216:66+ S 13 '46
Shell Oil's research center. il Sales Management 57:130 N 1 '46
Smith oil & refining company to distribute Gulf products in 3 states. P. Wollstadt. il Nat Pet N 38:18+ Ja 16 '46
What Socony is doing to lift efficiency level of its dealers; training the trainers. E. Kinney. il Sales Management 56:42-5 Je 1 '46

See also names of companies, e.g.
Old ocean oil company
Standard oil company (New Jersey)

Advertising
How Esso has built flexible radio promotion. R. M. Gray. maps Adv & Sell 38:38+ N '45
Sports movies build friendly feeling for Tide Water Oil. Sales Management 56:168 F 15 '46
Spot radio campaign gets cooperation of dealers; Esso wants rest rooms clean; spot radio plug was dealer premium. Ptr Ink 217:37 N 1 '46
Story behind Standard Oil's radio broadcasts for students. il Sales Management 55:35-7 D 15 '45
These advertising approaches sell private enterprise; Union oil co. of California campaign. L. F. Thomann. Ptr Ink 216:48-9 S 13 '46
22% of Shell advertising budget goes to outdoor. J. B. Lowery. il Sales Management 57:108+ Ag 1 '46

Credit problems
Credit men discuss credit cards, drum deposits, truck accounts. H. Taylor. Nat Pet N 38:18+ My 22 '46
Farmer and the oil he buys. B. H. Morse. Nat Pet N 38:30+ Je 26 '46
Petroleum division, National assn. of credit men, 21st annual meeting, Chicago. Nat Pet N 38:39-40 F 27 '46

Development work
Oil company aid for the airport operator. R. R. Brine. Aviation 45:47+ O '46
Oil company helps promote small airports through systematic development program. E. Lamm. il Nat Pet N 38:36+ O 2 '46

Employees
Effect of wage decisions on oil jobbers. H. Fuller. Nat Pet N 38:42+ Jl 3 '46
Esso shows employes how to cash in on new packages. Sales Management 56:120 Mr 15 '46
Foremen's unions gain foothold in oil industry and NLRB certifies groups as bargaining agents. R. Bjorkback. Nat Pet N 38:34 O 2 '46
Oil companies find worries about returned veterans largely unfounded. F. P. S. Glassey. Nat Pet N 38:36+ Mr 13 '46
Oil company plants can be approved for training if employment of vets as apprentices is planned. Nat Pet N 38:45 F 20 '46
Oil industry movies helpful in training marketing personnel. il Nat Pet N 38:27 Jl 31 '46
Sales training schools, builders of profits. F. C. Sturtevant. Nat Pet N 38:30+ S 11 '46

Equipment
Oil jobber equipment; slight improvement. F. C. Sturtevant. Nat Pet N 38:34+ Ag 14 '46

OIL companies—*Continued*

Finance

Annual reports of nine oil companies. Nat Pet N 38:46 Ap 10 '46

Expense per gallon handled up 19.82% in '46 over '41, New York survey shows. Nat Pet N 38:32-3+ S 18 '46

Statistics submitted to oil wage fact-finding panel. Nat Pet N 38:54-5 Ja 16 '46

Management

Analysis and control of marketing expense; abstract. L. Haacke. Nat Pet N 38:16+ Ap 17 '46

Budget quota system; C. L. Dorris explains some basic management principles. F. C. Sturtevant. il Nat Pet N 38:28+ Je 12 '46

Jobber sees bright future in accessories; plans building, sales expansion to double prewar business; Lincoln oil co. E. Lamm. il Nat Pet N 38:22+ My 15 '46

Management service for dealers. F. C. Sturtevant. Nat Pet N 38:39+ Ag 7 '46

Sales incentives plus efficient bookkeeping add up to more profits; Nebraska-Iowa oil co. E. Lamm. il Nat Pet N 38:25-8+ Jl 3 '46

Service is keynote of Ohio jobber in town of 112; Swary service co. H. Taylor. il Nat Pet N 38:25+ Je 26 '46

Success story of Michigan marketer offers tip to returning servicemen; Cadillac oil co. also makes and sells soap. H. Taylor. il Nat Pet N 37:40-1+ N 14 '45

Veterans take over; two ex-GI officers manage oil jobbing company; MacMillan & Cameron co. H. Taylor. il Nat Pet N 38: 25-6+ O 23 '46

Securities

See Petroleum industry and trade—Securities

Side line selling

Many oil jobbers venture into non-automotive merchandising field to meet dealer demands. F. C. Sturtevant. Nat Pet N 38:42+ My 1 '46

Petroleum marketers can beat shortages through wise merchandising of TBA items. F. C. Sturtevant. Nat Pet N 38:28+ O 2 '46

Travel bureaus

Shell gives vacationists all but gas and '47 model. il Sales Management 57:122+ Ag 15 '46

Standard oil of Ohio opens Travel service bureau. il Nat Pet N 38:19 Ja 2 '46

OIL containers

Cleaning

Mechanical barrel washer launders 60-80 drums an hour. flow diag il diags Nat Pet N 38 pt 2:R502-3 Jl 3 '46

OIL delivery

Delivery efficiency and proper dispatching of oil tank trucks helps bolster profits. Nat Pet N 38:34 Jl 10 '46

See also
Tank trucks

Costs

Reducing costs of gasoline delivery; study of jobber and major company records. F. C. Sturtevant. Nat Pet N 38:27-8+ S 25 '46

OIL distillation

See also
Oil shales—Distillation

OIL engines. See Diesel engines; Internal combustion engines

OIL films

Mineral oil films in relation to mosquito control. A. Crossfield and G. F. Hazzard. 2pls diag Inst Pet J 32:323-39 bibliog(p339); Discussion. 339-40 Je '46

Rust preventive oils; use of contact angles to study the action of mineral oil films. G. P. Pilz and F. F. Farley. bibliog il diag Ind & Eng Chem 38:601-9 Je '46

OIL filters

Cleaning Diesel engine filters. il diags Ry Mech Eng 120:139-41 Mr '46

Filter unit supplies clean oil to crankcases and lubricators. il Pet Refiner 24:162+ N '45

Filtricator magnetic oil filter. il Engineer 180: 516 D 21 '45

Fueling Great Northern's fleet of Diesel locomotives. il Diesel Power 24:710-11 Je '46

Germans invented continuous band filter to produce an oil-free hard wax; tr. by J. P. Jones. E. Terres. il diags Nat Pet N 38 pt 2:R344-6+ My 1 '46

Insulating oils reclaimed by triple filtration. diag Elec World 125:138 My 25 '46

M. & J filter element; lubricating oil filters of Diesel locomotives. il Ry Age 119:866 N 24 '45; Same. Ry Mech Eng 120:44 Ja '46

New filter design announced by Winslow engineering co. il diag Diesel Power 24:711 Je '46

OIL fires

Diesel engine fires. il Safety Eng 91:38-9 Je '46

Extraction and refining of oils and fats with attending fire hazards. G. E. Stecher. Weekly Underw 154:1070-2, 1135-7 Ap 27-My 4 '46

Navy shows how to fight fire; illustrations with text. Pet Eng 17:77-8 Mr '46; Excerpts. Safety Eng 91:27 Mr '46

Putting out oil fires with water. D. Powell. il Marine Eng 51:132+ Jl '46

6,800 sq. ft. of burning oil; effectiveness of air foam demonstrated. il Safety Eng 91:37-8 My '46

Some notable wartime oil fires. V. J. Wilmoth. 8pls Inst Pet J 32:1-9; Discussion. 10-17 Ja '46

See also
Petroleum refineries—Fires and fire protection

OIL flow

Big-Inch and Little Inch flow charts. H. W. Lambert. Oil & Gas J 45:222-4 S 21 '46

Leakage in capillary seals of hydraulic valves and pumps. P. G. Exline. Product Eng 17:290-6 Ap '46

Two-phase, two-component flow in the viscous region. R. C. Martinelli, J. A. Putnam and R. W. Lockhart. diag Am Inst Chem Eng Trans 42:681-702; Discussion. 702-5 Ag '46

OIL fuel

Adjustment of burners to utilize cat-cracked fuel oils suggested; abstract. A. E. Pew, jr and others. Nat Pet N 38:20+ My 1 '46

Average refinery yield of residual to shrink sharply; abstract. S. H. Hulse. Oil & Gas J 45:93 Je 15 '46

Catalytic distillates as burner fuels; abstract. W. A. Sullivan. Nat Pet N 38:22+ My 1 '46

Combustion of catalytically cracked distillates and new burner design widening markets for new fuels. S. R. Cauley and H. R. Linden. bibliog il Oil & Gas J 45:80-2+ Ag 10 '46

Economics of oil firing. Economist 151:589-90 O 12 '46

Fuel oils have changed. W. A. Sullivan. il Sci Am 175:66-8 Ag '46

Gulf finds high fuel-oil yield in refining Kuwait crude. il Oil & Gas J 45:162 S 21 '46

Liquid fuel purification. B. F. Hunter. il diags Power Pl Eng 49:130+ N '45

Low-gravity crude oil successfully treated by central steam heating for fuel use. N. Williams. il diag Oil & Gas J 45:110-12+ Jl 20 '46

Navy plant salvages two grades of fuel oil from the sludge from tank cleanings. il Nat Pet N 38 pt 2:R356+ My 1 '46

Oil heat for industry. J. Smith. flow diag il Sci Am 175:217-19 N '46

Peacetime fuel oils from war equipment. A. E. Pew, jr. and others. bibliog Am Pet Inst Proc 25(3):53-6 '45; Same. Pet Refiner 24: 124-6 N '45; Same. Nat Pet N 37 pt 2:R961+ D 5 '45

Sand Bay naval fueling station in the Aleutians headed by oil man; can handle any size ship. P. Wollstadt. Nat Pet N 37:28 N 21 '45

Synthetic fuel oil proved successful by extensive tests. Iron Age 157:131+ Je 27 '46

OIL fuel—*Continued*
Urges change in design of vaporizing burners so as to utilize catalytic cracked fuel oil; abstract. G. T. Kaufman. Nat Pet N 38: 34 F 6 '46
Use of chemical additives in petroleum products. L. A. Hamilton and P. V. Keyser, jr. bibliog il Nat Pet N 38 pt 2:R228+ Mr 6 '46
Viscosity of oils. W. L. Nelson. Oil & Gas J 45:163 My 18 '46
Warn grief is likely on substitute fuel oils. Nat Pet N 37:34 N 28 '45

See also
Airplane engines—Fuel
Automobile engines—Fuel
Automotive fuel
Boilers—Oil firing
Coal liquefaction
Diesel engines—Fuel
Gasoline
Internal combustion engines—Fuel
Liquid fuel
Locomotive boilers—Oil firing
Oil bunkering stations
Oil burners
Oil fuel industry

Gum content

Acid flocculation test for determination of gum content of heavy distillate fuel oils. W. A. Proell and J. A. Bolt. Oil & Gas J 44:234-5+ Mr 30 '46

Manufacture

Use of selective solvents to extract fractions from synthetic oil from coal; tr. by J. P. Jones. E. Terres. flow sheets il Nat Pet N 38 pt 2:R84-8 F 6 '46

Prices

Press of other oil price problems bogs down OPA action on residuals. Nat Pet N 38:5 Mr 13 '46

Specifications

Bunker fuel-oil specifications. Oil & Gas J 45:196 Jl 27 '46

Testing

Application of variance analysis to some problems of petroleum technology. H. M. Davies. Inst Pet J 32:465-81 bibliog(p481); Discussion. 481-91 Ag '46
Carbon-hydrogen ratio of catalytically cracked distillate fuel oils. S. P. Cauley and E. B. Delgass. bibliog Oil & Gas J 45:166-9 Jl 27 '46
Fuel oil tests. W. L. Nelson. bibliog Oil & Gas J 45:95 S 14 '46

OIL fuel industry
Empire state petroleum association, fall meeting, Elmira, Oct. 7-8. Nat Pet N 38: 16-18 O 16 '46
Five year plan; 6,000,000 using oil heat by 1951. Dom Eng 168:136+ Ag '46
Formal statement to the Group session on marketing on fuel-oil availability. Am Pet Inst Proc 25(2):23-5; Discussion. 25-9 '45
Fuel oil is tight. Bsns W p19 Ja 19 '46
Instruction plan helps jobbers cope with expansion of fuel oil market. Nat Pet N 38: 28+ Ag 14 '46
Oil burner manufacturers look to fuel oil jobbers to play important role in huge postwar expansion. F. Sturtevant. Nat Pet N 38:26+ F 13 '46
Retail marketing of furnace oil. H. P. Bishop. 42p pa 50c Harvard univ. Graduate sch. of bsns. adm, Soldiers Field, Boston 63, '46; Review and discussion. Nat Pet N 38:16-17 Je 26; 38:22 Jl 10 '46
Rising demand brings pinch in Atlantic coast residual supply. F. C. Sturtevant. Nat Pet N 38:11-12 Jl 10 '46
Symposium on fuel-oil availability. Am Pet Inst Proc 25(2):14-16 '45
Who sells the oil? Harvard professor's survey. Bsns W p57 Ag 3 '46
World supplies of gasoline, kerosine, and burning oils. S. P. Coleman. Am Pet Inst Proc 25(2):9-13 '45; Abstract. Oil & Gas J 44:61+ D 1 '45

OIL handling
Constant delivery of clean oils boosts output and saves equipment; conveyorized chip troughs and pumps speed contaminated oils to central reclamation and storage. P. C. Booty. il plan diag Am Mach 90:122-5 F 14 '46
How to lubricate metalworking machines; care and handling of lubricants. H. L. Flynn. diags Am Mach 89:125-7 D 20 '45
Storing and handling methods that keep good oil and grease good. A. J. Strohmaier, J. C. Halbrook and R. B. Akell. il Power 90:35+ Ja '46

See also
Oil bunkering stations
Oil storage

OIL heat institute of America
Annual meeting, 23d, Philadelphia. Dom Eng 167:133-6 My; 140-1+ Je '46; Nat Pet N 38: 13-14+ My 1 '46; Sheet Metal Worker 37: 66+ My '46

OIL heating
How can this oil heater be corrected? diags Power 90:118-21+ F '46
Low-gravity crude oil successfully treated by central steam heating for fuel use. N. Williams. il diag Oil & Gas J 45:110-12+ Jl 20 '46
Oil heating furnace produces steam for processing also; patent. diag Pet Processing 1:122 O '46
Temperature difference in exchangers. W. L. Nelson. diag Oil & Gas J 44:91 D 22 '45
Waste hot gun-barrel water utilized to heat tank bottoms. N. Williams. il plan diags Oil & Gas J 44:82-5 Mr 16 '46

OIL industries

See also
Coconut oil
Essential oils
Fish oil
Kerosene
Linseed oil
Oil companies
Oil fuel industry
Oils and fats
Petroleum industry and trade
Tung oil

Brazil

Brazilian vegetable oils form source of big trade. K. Wernimont. il For Comm W 23: 14-15+ My 25 '46
Production, Baia, Brazil. For Comm W 21:36 N 24 '45

Congo, Belgian

Belgian Congo as a fats-and-oils source. M. D. Hall. il For Comm W 24:3-4+ Ag 24 '46

Ecuador

Ecuadoran imports. For Comm W 23:45 Je 22 '46

Egypt

Production of linseed, sesame, peanuts, and cottonseed, 1941-1945. For Comm W 22:33 Mr 9 '46

Great Britain

United Kingdom's import trade, 1938, 1943 and 1944. For Comm W 21:33 D 8 '45

Hungary

Vegetable-oil industry, Hungary. For Comm W 21:31 D 1 '45

Switzerland

Situation in Switzerland. For Comm W 23: 45 Je 1 '46

OIL lands
Divergent views held by industry and lawmakers on public lands. Oil & Gas J 45:38 My 18 '46; Nat Pet N 38:50 My 15 '46
Federal mineral leasing act. E. Carper. Pet Eng 17:194+ N '45

See also
Oil reserves (United States navy)
Petroleum—Concessions

OIL measurement
Maintenance of mercury type orifice meters. M. Welch. Pet Refiner 24:143-4 D '45
Pipe line metering. W. H. Marsh. il Pet Eng 17:196 Mr '46
Streamlined orifice calculations. E. E. McReynolds. flow charts Pet Refiner 25:130-5 Ag '46
Temperature correction report; text presented at New York convention. Nat Pet N 38: 32+ O 16 '46

OIL pipe lines

See also
Petroleum pipe lines

OIL pipes
See also
Petroleum pipe lines

OIL pumps
Compact fuel oil pumping unit. il diag Product Eng 17:110 F '46
Factors in aeration and deaeration of aircraft-engine oil. W. L. Weeks. diags S A E J 54:174-90 Ap '46
Gear pump teeth; designing to avoid compression of fluid at base of tooth. H. Walker. il diags Automobile Eng 36:347-9 Ag '46
Oil-well pump E. A Stephenson. diags Oil & Gas J 45:105-6 S 14 '46
Pumps for viscous fluids. P. J. Olmstead. diags Heat & Ven 43:82-8 S '46
Selecting a rotary pump. W. E. Wilson. Oil & Gas J 44:63-5 Mr 9 '46
Survey of modern centrifugal pump practice for oilfield aid oil refinery services. N. Tetlow. diags Inst Mech Eng J & Proc 150: Proc 121-34 F '44; Discussion. 152:Proc 303-14 D '45
Unitized equipment for pipe-line gathering service. W. Law. il Oil & Gas J 44:290+ N 17 '45
See also
Gasoline pumps
Petroleum—Pumping

OIL purification
Centrifugal purification; abstract. C. W. Bryden. Oil & Gas J 45:92 O 12 '46
See also
Oil filters
Oil reclamation

OIL reclamation
Chip and oil reclaiming conveyor. il diag Mech Handling 32:663-5 N '45
Conditioning coolants in a centralized sump; Mills industries, inc, Chicago. C. Brandquist. il Factory Management 104:149-50 Mr '46
Constant delivery of clean oils boosts output and saves equipment; conveyorized chip troughs and pumps speed contaminated oils to central reclamation and storage. P. C. Booty. il plan diag Am Mach 90:122-5 F 14 '46
Continuous absorption oil purifier keeps circulatory system clean. flow sheet il Pet Processing 1:33-4+ S '46
How to deliver and maintain lubricants. H. L. Flynn. diags Am Mach 90:131-6 Jl 18 '46
How to lubricate metalworking machines; care and handling of lubricants. H. L. Flynn. diags Am Mach 89:125-7 D 20 '45
Lubricating oil maintenance equipment. il diag Ry Mech Eng 120:494 S '46
Machine tool lubrication; Aviation division of the Studebaker corp. P. E. Bundy. Iron Age 157:72-3 Ja 10 '46
Navy plant salvages two grades of fuel oil from the sludge from tank cleanings. il Nat Pet N 38 pt 2:R356+ My 1 '46
Oil cleaning system; services seventeen automatic screw machines. il Steel 119:77+ Ag 12 '46
Oil spray collection; Dallow Lambert installation for thread grinding machines. il Automobile Eng 36:104 Mr '46
Purification of insulating oils; Hopkinson centrifugal purifier. diag Electrician 136:1095-6 Ap 26 '46
La régénération des huiles usagées; ses techniques; ses possibilités en France. P. Stirnemann. Chimie & Ind 55:96-105 F '46
Turbine-oil purification. il diag Elec R (Lond) 137:571-3 O 19 '45
What it takes to purify coolants. B. F. Hunter. il diags Am Mach 90:126-9 S 26 '46
See also
Oil filters

OIL refineries
Unique plant produces tung and peanut oils; Continental commodities corp. Madagascar plant. D. Gordon. flow sheet Chem & Met Eng 52:106-7 N '45

Electric equipment
Oil refining; electrical applications in Scottish shale-oil industry. il Elec R (Lond) 139:519-23 O 4 '46

Fires and fire protection
Extraction and refining of oils and fats with attending fire hazards. G. E. Stecher. Weekly Underw 154:1070-2, 1135-7 Ap 27-My 4 '46

OIL refining
Deodorizing edible oils; pictured flow sheet. Chem Eng 53:134-7 S '46
Solvent extraction of cottonseed and peanut oil; effect of heat on cottonseed oil miscellas. H. L. E. Vix and others. bibliog il diag Ind & Eng Chem 38:635-42 Je '46
White mineral oil and petrolatum in the manufacture of speciality papers. R. K. Rhodes. Paper Tr J 123:59-62 S 26 '46
See also
Oil reclamation
Petroleum refining

OIL reserves (United States navy)
At the top of the world; Seabee camps at Point Barrow and Umiat. P. Wollstadt. il map Nat Pet N 37:28-31 N 28 '45
House approves program to develop Naval reserve no.4 in Alaska. H. D. Ralph. Oil & Gas J 45:39 Je 1 '46
Navy continues oil exploration work on petroleum reserve no. 4 in Alaska. Nat Pet N 38:30 Ja 23 '46
Navy's oil plan outlined before Congressional committee. W. G. Greenman. Oil & Gas J 44:69-70 D 8 '45
Postpone possible revision of cost provisions of Navy's contract with California Standard. Nat Pet N 38:13 S 11 '46
Seabees who drilled Point Barrow, Alaska, Umiat well fought cold, mud but found oil. P. Wollstadt. Nat Pet N 37:14 N 14 '45
U.S. navy seeks new oil reserves in Alaska. il map Pet Eng 17:214+ Ja '46
Use of oil-base mud at Elk Hills naval reserve no. 1. R. W. Stuart. Oil & Gas J 45:128-9+ My 25 '46

OIL sampling
Eagle single compartment bottom sampler. R. G. Mitchell and S. A. Hunn. diags Inst Pet J 31:415-17 O '45

OIL separators
Disposal of refinery wastes. L. C. Burroughs. il plans Pet Refiner 25:81-6 Jl '46
Laboratory study of continuous vegetable oil extraction; countercurrent extractor, rising-film evaporator, and oil stripper. A. C. Beckel, P. A. Belter and A. K. Smith. il diags Ind & Eng Chem Anal ed 18:56-8 Ja '46
Oil and water separators. diag Marine Eng 51:138 My '46
Raft for separating oil and ballast water. il diags Oil & Gas J 44:79 Mr 23 '46
Separator made from scrap removes oil from exhaust steam going to boiler feed. R. W. Machen. il Pet Processing 1:97 O '46
Why doesn't trap work all the time? diags Power 90:477-9+ Jl '46

OIL shales
Bureau of mines undertakes $1.5 million shale oil demonstration. il Iron Age 158:111 Ag 8 '46
Oil-shale investigations. Chem & Eng N 23: 2100 N 25 '45

Distillation
Corrosion problems in the cracking of shale oil. G. E. Mapstone and C. B. McLaren. bibliog Pet Refiner 25:97-100 F '46
Distilling oil. il Elec R (Lond) 139:285-90, 519-23 Ag 23, O 4 '46
European shale-treating practice. W. W. Odell and E. L. Baldeschwieler. U S Bur Mines Information Circ 7348:1-70, pl 1-22 '46; Abstract. diags Pet Eng 18:82+ O '46
Oil shale retorting. J. W. Payne and others. il plan Nat Pet N 38 pt 2:R36-9 Ja 2 '46
Shale oil. il diags Engineer 180:498-500, 520-1 D 21-28 '45
Shale oil; abstract. G. H. Smith. Chem & Ind p6 Ja 5 '46
Sulphuric acid refining in the production of aviation and motor fuel. F. Sager. bibliog Pet Refiner 25:127-30 Je '46

Patents
Century of oil-shale patents (1845 to 1945). S. Klosky. bibliog(76 references) diags Chem & Eng N 24:2342-4 S 10 '46

OIL shales—*Continued*

France

L'industrie des schistes bitumineux en France. G. Vié. diag Génie Civil 123:277-9 O 15 '46

Scotland

Oil-shale winning; electrical applications in the Scottish oil industry. il Elec R (Lond) 139:87-92 Jl 19 '46

United States

Oil shale, America's fuel ace in the hole. il map Oil & Gas J 45:68-9+ Ag 31 '46

OIL stocks. See Petroleum industry and trade—Securities

OIL storage

Huge underground vaults built oiltight for storage of navy Diesel and fuel oils; concrete-lined vertical cylinders. N. A. Bowers. il diags Eng N 135:873-7 D 27 '45

Midway tank farm. W. J. Raue. il Civil Eng 15:551-2 D '45

Fire protection

Consider changes in the tank fire prevention code. Nat Pet N 38:7 My 22 '46

OIL tankers. See Tank ships

OIL tanks

Cures oil-reservoir condensation troubles. W. M. Byars. diag Power 90:329 My '46

Factors affecting selection of storage for pipe line terminals. D. E. Larson. il Pet Eng 17:158+ Mr '46

Cleaning

Man killed cleaning oil tank under steam pressure. Locomotive 46:26 Ja '46

Reconditioning storage-tank surfaces. V. M. Coulson. il Oil & Gas J 44:80-1+ Ja 5 '46

Sulfide corrosion complicates tank-cleaning operation in Tampico refinery. F. R. Staley. il diag Oil & Gas J 44:250 D 29 '45

Painting

Mobile scaffold eliminates injuries and saves man hours in tank painting. il Oil & Gas J 45:104 Jl 6 '46

Protection

Plastic tank coatings resist sour west Texas crude corrosion; Resoweld. G. Weber. il Oil & Gas J 45:89-90 Je 29 '46

Protecting oil storage tank bottoms with magnesium; cathodic protection; abstract. J. R. James and R. L. Featherly. Oil & Gas J 45:88-9 O 5 '46

Standards

Oil burner, oil storage tank installation standards released in code form by OHI distribution division. Nat Pet N 38:44+ Jl 17 '46

OIL tanks, Concrete

Construction of Japanese underground oil storage tanks. C. J. Scheve and G. J. Fox. il diags Eng N 137:206 Ag 15 '46

Midway tank farm. W. J. Raue. il Civil Eng 15:551-2 D '45

OIL testing

Isothermal and adiabatic compressibilities of oil. A. Cameron. bibliog Inst Pet J 31:421-7 N '45; Correction. 31:494 D '45

Modified aniline-point apparatus for dark oils. N. Madsen. bibliog diag Pet Refiner 24:142 D '45

Oil specialties data released by army, navy; development of better hydraulic oils, recoil oils and other special oils. Oil Paint & Drug Rep 150:7+ S 16 '46

See also

Insulating oil—Testing
Lubricating oils—Testing
Viscosimeters

OILWELL drilling contractors, American association of. See American association of oil-well drilling contractors

OIL well drills. See Drills, Oil well

OIL wells. See Petroleum—Well drilling

OIL workers international union

Annual convention, 16th, Fort Worth, Dec. 10-15. Mo Labor R 62:606-8 Ap '46

OILS, Essential. See Essential oils

OILS, Lubricating. See Lubricating oils

OILS, Textile. See Textile oils

OILS and fats

American oil chemists hold 37th annual meeting. Chem & Eng N 24:1524-6 Je 10 '46

Carotene loss in stored leaf meals and extracts. M. E. Wall and E. G. Kelley. bibliog Ind & Eng Chem 38:215-18 F '46

Catalytic isomerization of vegetable oils; evaluation of oils in bodying, varnishes and alkyd resins. L. B. Falkenburg and others. bibliog il Ind & Eng Chem 38:1002-9 O '46

Catalytic isomerization of vegetable oils; nickel catalysts. S. B. Radlove and others. bibliog flow sheet diag Ind & Eng Chem 38:997-1002 O '46

Chemical plant in Germany; corrosion problems in the oils and fats industry. Chem Age (Lond) 54:81-2 Ja 19 '46

Chlorine dioxide for fat bleaching. E. R. Woodward and G. P. Vincent. il plan diags Soap & San Chem 22:40-3+ S '46

Deodorized petroleum base oils. B. I. Scoggin and others. diags Soap & San Chem 22: 149+ Ap '46

Determination of freezing point of oil; abstract. A. Petrikaln. Chem & Met Eng 53: 284 Ja '46

Fat and oil supplies; the market outlook. J. B. Gordon. Soap & San Chem 22:38-9 Ja '46

Fats-and-oils outlook as shortages continue. C. E. Lund. il For Comm W 25:8-9+ O 26 '46

Fats-and-oils situation in Mexico. For Comm W 21:36 N 24 '45

Fats, oils imports to gain in 1947. Oil Paint & Drug Rep 150:3+ O 7 '46

Foodstuffs, fats and oils; trends in 1946. C. E. Lund. il Dom Comm 34:32-3 Ja '46

Improvement of keeping quality of edible fats by some commercially available tannins; abstract. H. T. Spannuth and others. Food Ind 18:1283 Ag '46

Investigation of the seed oils of some Sudan cæsalpinioideæ. D. N. Grindley. bibliog Soc Chem Ind J 65:118-19 Ap '46

Laboratory study of continuous vegetable oil extraction; countercurrent extractor, rising-film evaporator, and oil stripper. A. C. Beckel, P. A. Belter and A. K. Smith. il diags Ind & Eng Chem Anal ed 18:56-8 Ja '46

Newest extraction process will get last drop of oil. il Paint Oil & Chem R 109:9 Ag 22 '46

Oil and fat outlook. C. E. Lund. Soap & San Chem 22:43-4+ O '46

Oil chemists meet in Chicago. Chem & Eng N 23:2198-201 D 10 '45

Oil deodorization; abstract. A. P. Lee and W. G. King. Soap & San Chem 22:77 Ap '46

Pressures against which oils will spread on solids. E. R. Washburn and E. A. Anderson. bibliog J Phys Chem 50:401-6 S '46

Puerto Rican fatty oils; the characteristics and composition of molinillo seed oil. C. F. Asenjo, J. A. Goyco and Z. Martínez-Pico. Am Chem Soc J 67:1936-7 N '45

Rapid method for determining fat content of dried eggs; modification of Babcock test. C. Paley and S. Rubin. bibliog il Food Ind 18:1194-5 Ag '46

Reaction of fatty oils with phenol in the presence of sulfur dioxide or sulfuric acid; abstract. Paint Oil & Chem R 109:18 Mr 7 '46

Rust preventive oils; use of contact angles to study the action of mineral oil films. G. P. Pilz and F. F. Farley. bibliog il diag Ind & Eng Chem 38:601-9 Je '46

Spectrophotometric studies of the oxidation of fats; oxygen absorption and chromophore production in fatty esters. R. T. Holman and G. O. Burr. bibliog Am Chem Soc J 68:562-6 Ap '46

Stability of carotene at elevated and room temperatures; abstract. E. Bickoff and K. T. Williams. Food Ind 18:776+ My '46

Still lean on fats. Bsns W p21 Jl 20 '46

Swelling of rubber; study of reclaiming oils with regard to swelling action on GR-S and natural rubber. K. S. Rostler and R. M. White. bibliog diag Rubber Age 58:585-90 F '46

OILS and fats—*Continued*
Swelling of rubber; swelling behaviour of vulcanized natural rubber and GR-S in mixtures of hydrocarbons. F. S. Rostler and K. S. Rostler. bibliog Rubber Age 60:57-68 O '46
Team work and mobility explain remarkable success of fat salvage drive. R. W. Peet. il Ptr Ink 214:21-2+ Ja 11 '46
Vegetable oils situation. Barron's 25:11 N 12 '45
Viscosities and densities of solvent-vegetable oil mixtures. F. C. Magne and E. L. Skau. bibliog diags Ind & Eng Chem 37:1097-1101 N '45
Worldwide shortage of oils and fats. Chem & Met Eng 53:110 Ja '46

See also
Acids, Fatty
Angelica oil
Castor oil
Coconut oil
Corn oil
Cottonseed oil
Creosote
Drying oils
Emulsions
Essential oils
Fish oil
Floor oils
Gasoline
Grapeseed oil
Insulating oil
Lallemantia oil
Lavender oil
Lime oil
Lubricating greases
Lubricating oils
Lubrication and lubricants
Oil fuel
Oil industries
Ointments
Oiticica oil
Oleomargarine
Palm oil
Peanut oil
Peppermint oil
Petitgrain oil
Petroleum
Pine oil
Rancidity
Shortening
Soap
Soybean oil
Stand oils
Sterculia oil
Tall oil
Textile oils
Tung oil
Viscosity
Whale oil
Wheat germ oil

Prices

Chemicals, oils and drugs price records for 1939-1945; tabulation. Oil Paint & Drug Rep 149:7 Ja 14 '46

Statistics

Oils, fats consumption; April-June. Oil Paint & Drug Rep 150:7 S 23 '46
Slight gain in 4th quarter fat use. Soap & San Chem 22:55 Ap '46
Soapers 2nd quarter fat use drops. Soap & San Chem 21:43 N '45
United States exports of fats and oils and oilbearing materials in terms of oil, including lend-lease, 1935-1944; chart. For Comm W 22:37 F 16 '46
United States exports of fats, oils and oil-bearing materials in terms of oil to principal receiving areas, 1940 compared with 1944; charts. For Comm W 22:39 F 16 '46
United States imports of fats, oils, and oil-bearing materials, in terms of oil, from major sources, 1940; map. For Comm W 22:31 F 23 '46

OINTMENTS
Action of antiperspirant creams on fabrics. R. R. Bien. Am Dyestuff Rep 35:269-71+ Je 3 '46
Alphatron radon ointment in industrial practice. H. H. Jordan. bibliog il Ind Med 14: 964-7 D '45
Industrial dermatitis; creams to give protection against noxious substances. il Automobile Eng 35:482 N '45
Newer uses of topical penicillin in the treatment of dermatologic infections. F. R. Ferlaino. bibliog Ind Med 15:569-75 O '46

See also
Butesin picrate

Testing

Method for the evaluation of protective ointments. L. Schwartz and others. Nat Safety N 54:46+ S '46

OITICICA oil
What's ahead in raw materials; tung, oiticica and drying oils generally. M. P. Austin. Paint Oil & Chem R 108:54+ N 1 '45

OKEFENOKEE swamp park
Blasting boat trails. C. W. Dodson. il Explosives Eng 24:140+ S '46

OKINAWA
Okinawa; DDT and water treatment. A. E. Stilson. map Am Water Works Assn J 38: 625-36 My '46

See also
Public health—Okinawa

OKLAHOMA

See also
Mineral industries—Oklahoma
Petroleum industry and trade—Oklahoma
Rock products industry—Oklahoma
Sand—Oklahoma

OKLAHOMA CITY

Industries

New industry holds spotlight in Oklahoma City reconversion. L. Penn. il Manuf Rec 115:36-8+ Ap '46

OKLAHOMA gas and electric company
Exchange offer completed. Comm & Fin Chr 163:2162 Ap 22 '46

OKOPRENE. See Insulating materials

OLD age
Aging of tissues; necessity for research. W. D. MacNider. Science 104:405-6 N 1 '46
Deposition of calcium phosphates accompanying senile degeneration and disease. C. Frondel and E. L. Prien. bibliog Science 103:326 Mr 15 '46
Librarian's working knowledge of the aged. H. C. Rogers. Special Lib 37:183-8 Jl-Ag '46

See also
Age and employment
Longevity

OLD age pensions
Assistance for the old. Economist 149:939 D 29 '45
Some thoughts and ideas on retirement and pensions. G. L. Camp. Oil Paint & Drug Rep 149:7+ Je 24 '46

See also
Congressmen—Pensions
Pensions, Industrial
Railroads—Pensions

OLD ocean oil company
New company buys capital stock of J. S. Abercrombie. Oil & Gas J 45:40 Je 1 '46

OLEFINS
Addition of carbon tetrabromide and bromoform to olefins. M. S. Kharasch, E. V. Jensen and W. H. Urry. Am Chem Soc J 68:154-5 Ja '46
Alkylation of isoparaffins; application of the carbonium-ion theory. F. G. Ciapetta. bibliog Ind & Eng Chem 37:1210-16 D '45
Alkylation of thiophene by olefins and alcohols. W. M. Kutz and B. B. Corson. Am Chem Soc J 68:1477-9 Ag '46
Catalytic cracking of pure hydrocarbons; secondary reactions of olefins; isomerization, hydrogen transfer, polymerization, and aromatization. H. H. Voge, G. M. Good and B. S. Greensfelder. Ind & Eng Chem 38:1033-40 O '46
Chemicals from olefines. H. D. Axe. Soc Dyers & Col J 62:129-32 My '46
Condensations by sodium; the metalation of olefins and the preparation of β,γ-unsaturated acids. A. A. Morton and others. bibliog Am Chem Soc J 67:2224-8 D '45
Course of autoxidation reactions in polyisoprenes and allied compounds; double bond movement during the autoxidation of a mono-olefin. E. H. Farmer and D. A. Sutton. Chem Soc J p10-13 Ja '46
German soap substitutes; O.X.O. process for manufacture, from Fischer-Tropsch olefins, of fatty alcohols. Soap & San Chem 22:75+ O '46
Heats, equilibrium constants and free energies of formation of the monoolefin hydrocarbons. J. E. Kilpatrick and others. bibliog J Res Nat Bur Stand 36:559-612 Je '46
Hydroxylation and epoxidation of some 1-olefins with per-acids. D. Swern, G. N. Billen and J. T. Scanlan. bibliog Am Chem Soc J 68:1504-7 Ag '46
Isomerization of alkanes; effect of olefins upon the isomerization of *n*-butane in the presence of aluminum halide; hydrogen halide catalyst. H. Pines and R. C. Wackher. bibliog diags Am Chem Soc J 68:595-9 Ap '46

OLEFINS—*Continued*
Manufacture and application of lubricants in Germany. M. E. Spaght. bibliog Pet Processing 1:126+ O '46
Mechanism of catalyzed alkylation of isobutane with olefins. M. H. Gorin, C. S. Kuhn, jr. and C. B. Miles. bibliog Ind & Eng Chem 38:795-9 Ag '46
α-Methylenic reactivity in olefinic systems; the reaction between olefins and phenyl *iso*cyanate; evidence relating to the catalytic action of stannic chloride. J. W. Baker and J. B. Holdsworth. pl diag Chem Soc J p724-32 N '45
Nomograph for calculation of olefin conversion in catalytic poly plant. E. G. Glass, jr. Nat Pet N 38 pt 2:R33 Ja 2 '46
Octane rating improvement of olefinic gasolines by isomerization. L. Berg, G. L. Sumner, jr. and C. W. Montgomery. bibliog diag Ind & Eng Chem 38:734-7 Jl '46
Olefines for the chemical industry; abstract. H. Steiner. Chem & Ind p87 F 23 '46
Polymerization of olefins; the depolymerization of olefins in relation to intramolecular rearrangements. F. C. Whitmore and E. E. Stahly. bibliog Am Chem Soc J 67:2158-60 D '45
Production of lubricating oils from the olefines produced in the Fischer-Tropsch synthesis. D. Gall. bibliog Soc Chem Ind J 65: 185-9 Jl '46
Reactions of aliphatic hydrocarbons with sulfur; production of olefins, diolefins, and thiophene. H. E. Rasmussen, R. C. Hansford and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:376-82 Ap '46
Sulfurization of unsaturated compounds. H. E. Westlake, jr. bibliog(94 references) Chem R 39:219-24 O '46
Willgerodt and Kindler reactions; amides from acetylenes and olefins; studies relating to the reaction mechanisms. M. Carmack and D. F. DeTar. bibliog Am Chem Soc J 68:2029-33 O '46
Willgerodt reaction; acetylenes, olefins, and tertiary carbinols. D. B. Pattison and M. Carmack. bibliog Am Chem Soc J 68:2033-5 O '46

Analysis

Determination of conjugated diolefins with chloromaleic anhydride. S. T. Putnam, M. L. Moss and R. T. Hall. bibliog diags Ind & Eng Chem Anal ed 18:628-30 O '46

OLEIC acid
Addition of olefinic esters to maleic anhydride. J. Ross, A. I. Gebhart and J. F. Gerecht. bibliog Am Chem Soc J 68:1373-6 Jl '46
Determination of geometric isomer composition by methoxymercuration; oleic and elaidic esters. T. Connor and G. F. Wright. bibliog Am Chem Soc J 68:256-8 F '46

Analysis

Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain elaeostearic as well as linoleic and oleic acids. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 65:74-81 Mr '46
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain linolenic as well as linoleic and oleic acids. F. D. Gunstone and T. P. Hilditch. Soc Chem Ind J 65:8-13 Ja '46

OLEOMARGARINE
Butter-margarine controversy. H. J. Deuel, jr. Science 103:183-7 F 15 '46
Envelope for oleo; pliable container is made of thermoplastic film. Bsns W p64 Ap 13 '46
Margarine taxes; soybean aid campaign for current bill to rescind federal excises. Bsns W p43 F 2 '46
Self-coloring package for oleomargarine. il Mod Packaging 19:136-7 Je '46
Thermoplastic container for margarine; mixing of coloring matter with oleomargarine while still in its wrapping. il Mod Plastics 23:106-7 Je '46
Vitamin A deterioration in fortified oleomargarine; abstract. E. B. Boyce and others. Food Ind 18:1635 O '46

OLEYLDISTEARIN
Identity and polymorphism of oleyldistearin from kokum butter. E. S. Lutton. bibliog Am Chem Soc J 68:676-9 Ap '46
X-ray investigation of glycerides; diffraction analyses of symmetrical monoöleyl-disaturated triglycerides. L. J. Filer, jr. and others. bibliog Am Chem Soc J 68:167-71 F '46

OLIVER corporation
Annual report. Comm & Fin Chr 163:1162-3 Mr 4 '46
Financial position. H. S. Coffin. Mag of Wall St 77:630, 669 Mr 2 '46

OLIVINE
Olivine, a suggested source of magnesia. G. W. Pawel. bibliog il Am Cer Soc J 28:360-2 D 1 '45

OLNEY medal
Milton Harris awarded Olney medal. Rayon 27:13 Ja '46
Olney medal award. il Am Dyestuff Rep 35: 98-100 F 25 '46
Olney medal award for 1945 to Milton Harris. il Am Dyestuff Rep 34:532 D 17 '45

OLYMPIC peninsula, Washington
Spilite and manganese problems. C. F. Park, jr. bibliog map Am J Sci 244:305-23, pl 1-4 My '46

O'MAHONEY bill. See Corporation law

ONE-CENT sales. See Special sales—One-cent sales

O'NEIL, William Francis, 1885-
General Tire on the loose; growth and diversification. por Fortune 34:112-19+ Jl '46

ONIONS
Effect of DDT, sulphur and lethane dusts on germination of sugar-beet and onion pollens. E. Artschwager. Science 102:482 N 9 '45

ONODAGA pottery company
Commemorates its 75th anniversary. Cer Ind 47:48 O '46

ONTARIO
Ontario's new planning act. D. Porter. il Roads & Bridges 84:77-8+ S '46

See also
Gold mines and mining—Ontario
Iron ores—Ontario
Mines and mineral resources—Ontario
Railroads—Ontario
Roads—Ontario

Hydroelctric power commission
Dam on upper Ottawa is next in Ontario power plans. map Bsns W p116 D 22 '45
Thirty-eighth annual report. Electrician 137: 797 S 20 '46

ONTARIO, Lake
Erosion of shores of Lake Ontario studied by groups in Canada and U.S. Eng N 137: 112 Jl 25 '46

ONTARIO good roads association
Annual meeting, 44th, Toronto, Feb. 26-27. Roads & Bridges 84:91-101 Mr '46

ONTARIO paper company
Birds-eye view of the Ontario paper company. il Pulp & Pa of Can 46:997-8 D '45

ONTARIO road builders association
Annual meeting, Toronto. Roads & Bridges 84:102-5+ Mr '46

OÖLITH (term)
Oölite and oölith. R. K. DeFord and W. A. Waldschmidt. Am Assn Pet Geologists Bul 30:1587 S '46

OPACIFIERS
Action of opacifiers in glasses, glazes, and enamels; abstract. F. H. Zschacke. Am Cer Soc J 29 (Cer A [25]):155 S 1 '46
Effect of composition on properties of cone 11 zirconium silicate—opacified glazes. R. R. Danielson. bibliog Am Cer Soc J 29:282-7 O 1 '46
Gas opacification of white cover coat enamels. P. A. Huppert. Cer Ind 46:86+ Ap '46
Uverite; a mill addition opacifier for porcelain enamel. C. J. Harbert and J. W. Iliff. bibliog Am Cer Soc J 29:93-8 Ap 1 '46

OPACITY
Measurement of the size characteristics of powders by photo-extinction methods; the experimental investigation of the photo-extinction laws. H. E. Rose and H. B. Lloyd. bibliog diags Soc Chem Ind J 65:65-74 Mr '46
See also
Opacifiers

OPAL
Formation of hyalite and opal. A. C. Copisarow and M. Copisarow. bibliog Science 104:286-7 S 27 '46

OPAL glass. See Glass, Opal

OPALESCENCE
Formation of hyalite and opal. A. C. Copisarow and M. Copisarow. bibliog Science 104:286-7 S 27 '46
Opalescence of silicic acid gels. A. C. Copisarow and M. Copisarow. bibliog Am Chem Soc J 67:1915-16 N '45

OPEN air theaters. See Theaters, Open air

OPEN and closed shop
Adventure in a closed shop. M. L. Young. Personnel J 24:387-92 Ap '46
Higgins unionized; workers' reject open-shop. Bsns W p78+ F 9 '46

OPEN hearth furnaces
Flame radiation measuring instrument; efficiency of open-hearth furnace checked with vacuum-tube voltmeter connected to radiation pyrometer. E. M. Yard. bibliog il diags Electronics 19:102-4 N '46
Labor saving devices in the open hearth shop; slag and flue dust removal. B. D. McCarthy. il Steel 118:122+ Ap 8 '46
Openhearth conference of the American institute of mining and metallurgical engineers, Chicago, April 24-26. Iron Age 157: 65-71 My 2 '46
Operating an 180-ton open hearth furnace with ends and roof of basic construction. A. K. Moore. il Blast F & Steel Pl 34:97-9 Ja '46
Outlook for an all-basic open hearth furnace. R. B. Sosman. Blast F & Steel Pl 34:251-3 F '46; Same. Brick & Clay Rec 108:56+ F '46
Practical interpretation of theoretical steel making for the benefit of management and operator. C. F. Christopher. Blast F & Steel Pl 34:587-91+ My '46
Progress in open hearth furnace construction and operation. J. O. Griggs. plan diags Blast F & Steel Pl 34:480-1+ Ap '46

Charging
Substitution of coke for pig iron in open-hearth charge; abstract. O. P. Luetscher. Iron Age 157:69-70 My 2 '46

Firing
Oxygen now used in firing open-hearth furnaces. Steel 119:140 S 9 '46

Lining
Behavior of various types of open-hearth bottoms. R. B. Snow. Steel 119:112+ Jl 22 '46; Same. il Brick & Clay Rec 109:73-4 S '46
Density of open-hearth bottoms. R. B. Snow. il Blast F & Steel Pl 33:1394-7 N '45
New refractories and basic lined openhearths; abstracts of papers at Open hearth conference. Iron Age 157:70-1 My 2 '46
Openhearth bottom repairs; mechanical device, extracting liquid metal from cavities preparatory to patching. J. B. McIntyre. diags Iron Age 157:62-4 My 23 '46
Plastic lined furnace doors. J. N. Hornak. Blast F & Steel Pl 34:900 Jl '46
Rammed magnesite bottoms. J. J. Golden. Steel 119:112+ Jl 22 '46; Same. Brick & Clay Rec 109:58 Ag '46; Same. Blast F & Steel Pl 34:1036 Ag '46
Refractories review for 1945. M. A. Fay. il Blast F & Steel Pl 34:105-7+ Ja '46
Testing of chrome-magnesite brick for resistance to iron oxide bursting. S. Zerfoss and H. M. Davis. bibliog il Am Cer Soc J 29: 15-20 Ja 1 '46

OPEN hearth process
Constitution of basic steel furnace slags. J. R. Rait and H. J. Goldschmidt. Iron & Steel Inst J 151:433-54 no 1 '45
Constitution of some basic open hearth slags. B. Mason. bibliog il Blast F & Steel Pl 32: 1328-33 N '44; Same. Iron & Steel Inst J 150:69-80 no 2 '44; Same cond. Engineering 157:515-16 Je 30 '44
Cupola practice at Sheffield. W. H. Steinheider. Blast F & Steel Pl 33:1380-1 N '45
Desulphurizing cupola iron with soda ash. C. G. Hummon. Blast F & Steel Pl 33:1381-4 N '45
Effects of variations in raw materials on basic open hearth operations and production. C. R. FonDersmith. il Blast F & Steel Pl 34:1277-84, 1393-5 O, N '46; Excerpts. Steel 118:132+ Je 3 '46
National open hearth steel committee and blast furnace and raw materials committee of the American institute of mining and metallurgical engineers; 29th conference; committee members; program. Blast F & Steel Pl 34:sup20-4+ Ap '46
New process developed; using oxygen to increase heat in openhearth furnaces. Iron Age 158:123 S 26 '46
Openhearth conference of the American institute of mining and metallurgical engineers, Chicago, April 24-26. Iron Age 157: 65-71 My 2 '46
Open hearth steel and blast furnace and raw materials committee of American institute of mining and metallurgical engineers; conference, Chicago, April 24-26. Steel 118: 140-1+ My 6 '46; Metal Prog 49:1188-92 Je '46
Open-hearth steelmakers of Ohio meet in Cleveland. Steel 117:130 N 12 '45
Oxygen reduces melting time of open-hearth heats; joint meeting of Southern Ohio section, National open hearth committee, and Ohio Valley section of American institute of mining and metallurgical engineers. Steel 119:178+ N 11 '46
Phosphorous reaction in basic open-hearth practice. Y. K. Zea. Iron & Steel Inst J 151:459-504 bibliog(p504); Discussion. 540-67 no 1 '45
Practical interpretation of theoretical steel making for the benefit of management and operator. C. F. Christopher. diags Blast F & Steel Pl 34:587-91+, 715-20, 990-4, 1123-8 My-Je, Ag-S '46
Radiation pyrometer for openhearth bath measurements; abstract. H. T. Clark and S. Feigenbaum. diag Iron Age 157:63-4 Mr 7 '46
Some fundamental problems in the manufacture of steel by the acid open-hearth process. G. R. Fitterer. Am Soc for Metals Trans 34:41-70 '45; Abstract. diag Iron Age 154:62-4 O 26 '44
Some quality considerations in current open hearth production. H. J. Forsyth. il Blast F & Steel Pl 34:93-6 Ja '46
Some statistical studies of surface quality controls; semi-finished killed steel. H. J. Forsyth. il Blast F & Steel Pl 34:469-74+ Ap '46
Statistical method and results of a study of factors affecting open hearth production rate. A. P. Woods and C. R. Taylor. Blast F & Steel Pl 34:847-54+ Jl '46
Study of the basic open-hearth process, with particular reference to slag constitution. A. H. Jay. diags Iron & Steel Inst J 151:505-36 bibliog(p 536) pl 50; Discussion. 536-70 no 1 '45
Use of cupola iron in the open hearth. W. H. Steinheider. Blast F & Steel Pl 33:1384+ N '45
Use of graphite for reboiling soft melt heats. R. R. Fayles. Blast F & Steel Pl 34:sup52+ Ap '46
Use of Mexican graphite lowers open hearth melting costs. R. J. Zemanek. il Blast F & Steel Pl 34:100-4 Ja '46

OPERA
See also
Ballet

OPERATING rooms. See Hospitals—Operating rooms

OPERATION crossroads. See Atomic bombs—Testing

OPHTHALMOLOGY
See also
Eye
Lenses

OPTICAL glass. See Glass, Optical

OPTICAL instruments

Cast plastics for precision optics. il Mod Plastics 23:116-18 Ja '46

Complete Houdry case inspection during regular catalyst change; use of Tubescope. W. C. Uhl. il Pet Processing 1:65-6 S '46

Device to facilitate the reading of spectrophotometric curves. G. Reimann and E. J. Carmine. il Opt Soc Am J 36:235-6 Ap '46

Optical glass substitute. R Sci Instr 17:44 Ja '46

Optical methods in electrophoresis; principles, apparatus, determination of apparatus constants, and application to refractive index measurements. L. G. Longsworth. bibliog il diags Ind & Eng Chem Anal ed 18:219-29 Ap '46

Physical society's exhibition; scientific instruments and apparatus of interest to lighting engineers. Light & Lighting 39:6-7 Ja '46

Plastic optics; abstract. E. H. Land. Opt Soc Am J 36:349 Je '46

Preventing the fungus fouling of optical instruments. R. E. Vicklund. il diag Ind & Eng Chem 38:774-9 Ag '46

Synthetic optical crystals are essential to modern infrared instruments. R. H. Munch. il Ind & Eng Chem 38:sup75-6 Mr '46

See also

American optical company
Collimators
Densitometers
Diffraction gratings
Glass, Optical
Iconometer
Magnifiers
Measuring instruments, Optical
Microscope and microscopy
Mirrors, Parabolic
Monochromators
Photometers
Polarimeters
Prisms
Reflection (optics)
Refractoscope
Sextant
Spectrographs
Spectrometers
Spectrophotometers
Stroboscopic instruments
Telescope

OPTICAL measurements

Values of the optical constants for beryllium, magnesium, and zinc. R. O. Bock. Phys R 68:210-13 N 1 '45

OPTICAL measuring instruments. See Measuring instruments, Optical

OPTICAL methods

Measurement of recording characteristics by means of light patterns. B. B. Bauer. il diags Acoustical Soc Am J 18:387-95 O '46

Measurement of the size characteristics of powders by photo-extinction methods. H. E. Rose and H. B. Lloyd. bibliog diags Soc Chem Ind J 65:52-8 F; 65-74 Mr '46

Optical methods in electrophoresis; principles, apparatus, determination of apparatus constants, and application to refractive index measurements. L. G. Longsworth. bibliog il diags Ind & Eng Chem Anal ed 18:219-29 Ap '46

Simple optical method for the synthesis and evaluation of television images. R. E. Graham and F. W. Reynolds. il diags Inst Radio Eng Proc 34[Waves & Electrons 1]:18W-30W Ja '46

Size and shape of macromolecules in solution; methods of measurement. P. M. Dot and H. Mark. bibliog(41 references) Ind & Eng Chem 38:682-6 Jl '46

OPTICAL properties

Composition, optical and crystallographic properties of two calcium oxalate-chloride double salts. F. T. Jones and L. M. White. bibliog il diags Am Chem Soc J 68:1339-42 Jl '46

Identification of organic bases by means of the optical properties of dilituarates (nitrobarbiturates); primary aromatic amines. B. T. Dewey and E. M. Plein. diags Ind & Eng Chem Anal ed 18:515-20 Ag '46

Optical and crystallographic properties of lysozyme chloride. F. T. Jones. bibliog il diags Am Chem Soc J 68:854-7 My '46

Physical chemistry of lubricating oils. A. Bondi. bibliog Pet Refiner 25:119-24 Ag '46

Recent work in the field of high pressures; optical effects. P. W. Bridgman. bibliog Rs Mod Phys 18:75-9 Ja '46

System of characterization of pure hydrocarbons; refractometric analysis as a key to the evaluation of structure. R. T. Wendland. bibliog J Chem Educ 23:3-15 Ja '46

See also

Fluorescence
Paper—Optical properties
Refractive index

OPTICAL rotation

Application of the method of molecular rotation differences to steroids; naturally occurring sterols and their simple derivatives. D. H. R. Barton. bibliog Chem Soc J p813-19 N '45

Application of the method of molecular rotation differences to steroids; unsaturated sterols and their derivatives. D. H. R. Barton. bibliog(70 references) Chem Soc J p512-22 Je '46

Asymmetric transformations with benzylmalonoanilic acids. E. M. Davidson and E. E. Turner. Chem Soc J p843-8 D '45

Effect of hydrocarbon bacteria on racemic mixtures of hydrocarbons. J. Turkevich and L. A. Hiller, jr. Am Chem Soc J 68:530-1 Mr '46

Mutarotation and ring structure of mannuronic lactone. H. S. Isbell and H. L. Frush. bibliog J Res Nat Bur Stand 37: 43-9 Jl '46

Optically active ketonic beta lactones. C. L. Bickel. bibliog Am Chem Soc J 68:941-3 Je '46

Resolution of racemic α-hydroxy-β,β-dimethyl-γ-butyrolactone. R. Beutel and M. Tishler. Am Chem Soc J 68:1463-5 Ag '46

Studies on glass; heats of solution of crystalline and glassy glucose; heat of mutarotation of α-glucose. R. D. Rowe and G. S. Parks. diag J Chem Phys 14:383-8 Je '46

Synthesis of a homologous series of optically active normal aliphatic α-monoglycerides (L-series). E. Baer and H. O. L. Fischer. bibliog Am Chem Soc J 67:2031-7 N '45

OPTICAL society of America

Annual meeting, 31st, Oct. 3-5. Glass Ind 27:555+ N '46

Minutes of the 27th meeting, Board of directors', annual reports; proceedings. Opt Soc Am J 36:341-68 Je '46

Proceedings of the 30th annual meeting; with abstracts of papers. Opt Soc Am J 35:796-807 D '45

Unity in diversity. G. R. Harrison. Opt Soc Am J 36:183-4 Ap '46

OPTICAL trade

Advertising

This unusual campaign solves a common problem; case history of ad campaign by House of vision. E. J. Dever, jr. il Ptr Ink 217:46-8 O 18 '46

OPTICAL workers

Earn-as-you-learn idea sells technical apprenticeship; Shuron optical co. Sales Management 56:173 Ja 15 '46

OPTICS

Optics of distilled and natural water. E. O. Hulburt. Opt Soc Am J 35:698-705 N '45

Optics of searchlight illumination. E. O. Hulburt. il Opt Soc Am J 36:483-91 Ag '46

Paraxial differential transfer coefficients of a lens system. F. D. Cruickshank. bibliog Opt Soc Am J 36:13-19 Ja '46

Radiation in a diffusing medium. F. Benford. diags Opt Soc Am J 36:524-54 S '46

Transmission and reflection by a diffusing medium; based on Radiation in a diffusing medium. [Opt Soc Am J 36:524-54 S '46] F. Benford. Gen Elec R 49:46-52 O '46

See also

Absorption of rays
Achromatism
Color
Depolarization (light)
Fluorescence
Lenses
Light
Luminescence
Measuring instruments, Optical
Photochemistry
Photometry
Photomicrography
Prisms
Radiation
Reflection (optics)
Spectrum
Television

OPTICS—*Continued*

Bibliography

Dr W. W. Coblentz, Ives medalist for 1945. bibliog(412 titles) Opt Soc Am J 36:61-71 F '46

OPTICS, Electron. See Electron optics

OPTICS, Geometrical

Calculation of aspherical correcting surfaces. M. Herzberger and H. O. Hoadley. Opt Soc Am J 36:334-40 Je '46

Propagation of radiation in a medium with random inhomogeneities. P. G. Bergmann. diags Phys R 70:486-92 O 1 '46

Theory and computation of an aspherical surface. A. E. Glancy. diags Opt Soc Am J 36: 416-23 Jl '46

Trigonometrical correction of microscope objectives. F. D. Cruickshank. Opt Soc Am J 36:296-8 My '46

OPTICS, Meteorological. See Meteorological optics

OPTICS, Physiological

Brightness discrimination and visual acuity as functions of intensity. T. L. Jahn. bibliog Opt Soc Am J 36:83-6 F '46

Correcting the spherical and chromatic aberrations of the eye. A. C. S. van Heel. diag Opt Soc Am J 36:237-9 Ap '46

Illusion of depth in motion pictures. H. T. Souther. il diags Soc Motion Picture Eng J 46:245-53; Discussion. 269-71 Ap '46

Influence of the Stiles-Crawford effect on measurements with the Pulfrich photometer. G. Hansen. bibliog diags Opt Soc Am J 36:321-5 Je '46

Ocular effects of radiant energy. C. F. Kutscher. diags Ind Med 15:311-16 My '46

Theory of the Stiles and Crawford effect. B. O'Brien. bibliog diags Opt Soc Am J 36:506-9 S '46

Unified approach to the performance of photographic film, television pickup tubes and the human eye. A. Rose. bibliog il diags Soc Motion Picture Eng J 17:273-94 O '46

Visual critical flicker frequency as a function of intensity. T. L. Jahn. bibliog Opt Soc Am J 36:76-82 F '46

See also
Color sense
Eye
Sight

OPTIONS, Stock purchase. See Stock purchase options

OPTOPHONE

Reading aid for the blind; letters converted into distinctive sounds. V. K. Zworykin and L. E. Flory. il diag Electronics 19:84-7 Ag '46

ORANGE juice

Durability counts in kitchen equipment; Dazey ice crusher and fruit juicer. il Mod Plastics 24:99 S '46

Nutritive value of canned foods; factors affecting ascorbic acid content of canned grapefruit and orange juice. F. C. Lamb. bibliog Ind & Eng Chem 38:860-4 Ag '46

Orange juice, words; orange juice, the thing. B. C. Baum. Food Ind 18:191+ F '46

ORANGE juice, Dried

Orange juice dehydration hits stride. il Bsns W p52 D 29 '45

ORANGE juice, Frozen

Frozen orange juice; picture story. Food Ind 18:670-3 My '46

Orange juice frozen in cellophane bags. il Mod Packaging 19:136-7 F '46

ORANGES

Controlling orange decay; thiourea, thioacetamide, 2-aminothiazole, and quinosol in aqueous solution. J. F. L. Childs and E. A. Siegler. bibliog Ind & Eng Chem 38:82-7 Ja '46

Orange production and exports, Brazil; with figures for 1935-1945. For Comm W 22:29-30 Ja 12 '46

ORDERS

Backlog order turmoil subsides under Sylvania's new control setup. C. H. Goddard. Sales Management 57:86+ S 15 '46

Better way to fill back orders; use of colored metal file signals. H. L. Corley, jr. Am Bsns 16:38+ Ap '46

Bread and butter problems of a sales manager; don't let those backlogs fool you. J. A. Murphy. Adv & Sell 39:64+ Ag '46

Down goes order processing cost; parts order control system of Service department, Timken-Detroit axle company. R. G. French. il Am Bsns 16:12-13+ My '46

Duplication tip; newspaper's analysis of refrigerator orders in Elmira gives inkling of actual demand. Bsns W p46-8 Ag 31 '46

Graybar film stresses proper follow-through on orders. il Sales Management 57:82+ Ag 15 '46

Manufacturers and dealers test lists to find duplicate and unwanted orders. H. L. Stephen. Ptr Ink 216:85+ Ag 9 '46

One-writing plan ends back-order delays; Chain belt company, Milwaukee, installs new system of order billing. G. E. Toles. il Am Bsns 16:12-13+ O '46

16 per cent duplication on consumer orders shown by Gannett study; duplication of electric refrigerator orders in retail stores in Elmira, New York. Ptr Ink 216:44+ Ag 23 '46

ORDERS, Cancellation of. See Cancellation of orders

ORDERS, Unfilled

Water in your backlog. I. L. Hillman. Credit & Fin Management 48:4-7 Ag '46

ORDNANCE

Gasoline gum tolerance of ordnance equipment. M. L. Alspaugh. il S A E J 54:289-95; Discussion. 295-6 Je '46

Machines of a modern army; abstract. G. M. Grant. S A E J 54:sup24+ Ag '46

Navy exhibits new developments in ordnance equipment and armor plate. Iron Age 157: 168a Je 6 '46

Research and development in the Ordnance department, U.S. army. G. M. Barnes and others. il diag J Ap Phys 16:745-806 D '45

Research and development of materials for ordnance materiel. J. H. Frye. J Ap Phys 16:797-801 D '45

Research needs for weapons. G. M. Barnes. Mech Eng 68:196-8+ Mr '46

See also
Mortars (ordnance)
Naval guns
Projectiles
United States—Army—Ordnance and ordnance stores

Manufacture

Measurement and appraisal of ordnance arsenal performance. J. A. Piacitelli. Mech Eng 68:333-8 Ap '46

Naval ordnance plant. il Factory Management 104:B55-B57 pt 2 Ap '46

Silver alloy brazing. A. Bregman. il Steel 118:94-5+ Je 10 '46

Storage

America's war machine hibernates; ordnance preservation. J. Robitscher. il Manuf Rec 114:41-4 D '45

Ordnance supply system; ordnance storage techniques. E. E. MacMorland. il diags Mech Eng 68:145-51 F '46

Preserving artillery pieces; preparing gun parts for storage in welded steel containers. W. H. Walter. il Steel 119:100-2+ S 16 '46

ORDNANCE depots

Ordnance supply system. E. E. MacMorland. il diags Mech Eng 67:789-97; 68:17-23, 145-51, 206-11 D '45-Mr '46

ORE bins

Alteration increases capacity of ore bin; Combined metals reduction co. plans diags Eng & Min J 147:104 Je '46

ORE cars

Rolling wrench for hopper car gates. il Ry Age 119:900 D 1 '45

ORE deposits

Abyssal versus the magmatic theory of ore genesis. C. H. White. bibliog Econ Geol 40:336-44 Ag '45; Discussion. 41:173-5 Mr '46

Control of impounding structures on ore deposition. R. A. Mackay. bibliog diags Econ Geol 41:13-46 Ja '46

ORE deposits—*Continued*
Depth changes in ore deposition. E. L. Bruce. Can Min J 67:250-2 Ap '46
Emplacement of the Uncle Sam porphyry, Tombstone district, Arizona. J. Gilluly. bibliog maps Am J Sci 243:643-66, pl 1-2 D '45
Geology of the Climax ore body. J. W. Vanderwilt and R. U. King. maps Min & Met 27:299-302 Je '46
Limestone replacements refute theories of origin. B. Prescott. Eng & Min J 147:86-9+ Ap '46
Microscopic characters of vein carbonates. F. F. Grout. bibliog(142 references) 16pls Econ Geol 41:475-502 Ag '46
Mineralization of Nevada. W. J. Bichan. bibliog Can Min J 66:855-8 D '45
Mining geology; review of 1945. H. E. McKinstry. Min & Met 27:62-5 F '46
Nature of replacement. G. V. Douglas and others. il diags Econ Geol 41:546-53 Ag '46
New Calumet mines; geology, mining and milling of a lead-zinc ore. D. C. McLaren. flow sheet il map diag Can Min J 67:233-41 Ap '46
Operations and plants of International nickel company of Canada; geology. il map Can Min J 67:322-31 My '46
Recent contributions to the geology of the Michigan copper district. T. M. Broderick and others. bibliog maps diags Econ Geol 41:675-725 N '46
Role of sulphur bacteria in the formation of the so-called sedimentary copper ores and pyritic ore bodies. C. Schouten. il Econ Geol 41:517-38 Ag '46
Some notes on micro-pseudomorphism. C. Schouten. bibliog il diags Econ Geol 41:348-82 Je '46
Spilite and manganese problems of the Olympic peninsula, Washington. C. F. Park, jr. bibliog map Am J Sci 244:305-23, pl 1-4 My '46
Stages and epochs of mineralization in the San Juan mountains, Colorado, as shown at the Dunmore mine, Ouray county, Colorado. V. C. Kelley and C. Silver. bibliog il maps diags Econ Geol 41:139-59 Mr '46
Synthetic replacements as an aid to ore-genetic studies. C. Schouten. il Econ Geol 41:659-67 S '46
Transport and deposition of the non-sulphide vein minerals. F. G. Smith. bibliog Econ Geol 41:57-63 Ja '46
White Horse alunite deposit, Marysvale, Utah. M. E. Willard and P. D. Proctor. il maps diags Econ Geol 41:619-43 S '46

See also
Geology
Gold ores
Iron ores
Manganese ores
Mines and mineral resources

ORE docks
Canadian national railways builds large ore dock at Port Arthur, Ont. il diag Ry Age 120:235-8 Ja 26 '46

ORE handling
Bottom dump skip at Butte. W. R. Catrow. il diag Min Cong J 32:24-6 Mr '46
Discussion of hydraulic materials transportation. F. B. Allen. Mech Eng 67:825-6 D '45
Erie railroad modernizes ore handling facilities. il Steel 118:114-16+ My 13 '46
Modern ore-bridge installation. G. W. Heumann and W. C. Raube. il diags Gen Elec R 48:7-12 D '45
New ore bridges near completion in Ohio. il Iron Age 158:97 Ag 29 '46
One ore conveying belt replaces three; Kevin iron ore pit of Butler brothers. Blast F & Steel Pl 34:748 Je '46
Underground belt conveyor handles increased tonnage; Sullivan mine of the Consolidated mining & smelting company of Canada. J. B. Huttl. diags Eng & Min J 147:84-6 Je '46
Welded pier leg, shear leg and trolley of a 15-ton ore bridge. G. F. Wolfe. il diag Welding J 25:921-7 O '46

See also
Ore cars
Ore docks

ORE sampling
Exploration of the Copper Butte mine, Mineral Creek mining district, Pinal county, Ariz. H. D. Phelps. 6pls U S Bur Mines of Invest 3914:1-34 '46
Operations and plants of International nickel company of Canada; technical control. plan diag Can Min J 67:473-6 My '46

ORE ships
Ore carrier S. S. Venore. H. F. Robinson and E. P. Worthen. il plans diags Marine Eng 51:116-31 Ja '46; Abstract. Mech Eng 68:161-2 F '46; Discussion. Marine Eng 51: 145-7+ Ja '46

ORE testing
Climax ore testing program. R. E. Cuthbertson. il Min & Met 27:346-9 Je '46
Safe, effective roaster for sulphide ore tests. O. Wiser. diags Eng & Min J 147:65 Jl '46

ORE transportation

See also
Iron ores—Transportation
Ore cars
Ore ships

ORE treatment
Beneficiation of iron ore draws continued attention. E. W. Davis. il Eng & Min J 147:108-10 F '46
Climax crushing plants. F. Coolbaugh. flow sheets il Min & Met 27:320-2 Je '46
Climax ore testing program. R. E. Cuthbertson. il Min & Met 27:346-9 Je '46
Concentration of bauxite for milling in the 50-ton Bureau of mines pilot plant, Bauxite, Ark. S. M. Runke and R. G. O'Meara. pl U S Bur Mines Rep of Invest 3909:1-25 '46
Concentration of oxide manganese ores from Clallam county, Wash. (Madeline, Lakeview, and Victory claims). T. F. Mitchell and W. J. Long. pl U S Bur Mines Rep of Invest 3837:1-6 '45
Dressing minerals. Min & Met 27:461 S '46; Discussion. 27:553-4 N '46
Fine-grinding and concentration at Climax. E. J. Duggan. flow sheets il Min & Met 27: 323-9 Je '46
Flexible flowsheet treats varying lead-zinc ore; Mammoth-St Anthony, ltd. C. E. Craven. il Eng & Min J 146:85-9 N '45
History of crushing and milling at Climax. D. F. Haley and C. J. Abrams. flow sheet Min & Met 27:317-19 Je '46
Late developments in the beneficiation of Lake Superior iron ores. G. J. Holt. flow sheets il diags Blast F & Steel Pl 34:77-84 Ja '46
New reagents and methods mark ore-dressing advance. S. A. Falconer. il Eng & Min J 147:104-7+ F '46
Operations and plants of International nickel company of Canada; milling. flow sheet il Can Min J 67:423-30 My '46
Ore concentration and milling; review of 1945. E. H. Rose. il Min & Met 27:70-6 F '46
System for preparing ore at the Minnequa works of the Colorado fuel and iron corporation. R. R. Williams, jr. il plan Blast F & Steel Pl 34:108-14 Ja '46
Trends in milling methods. A. W. Schlechten. il Min Cong J 32:99-102 F '46
Workers in ore dressing enjoy lively discussion of over thirty papers; A.I.M.E. annual meeting. Min & Met 27:217-18 Ap '46

See also
Electrometallurgy
Flotation process
Gold metallurgy
Hydrometallurgy
Iron metallurgy
Leaching
Metallurgy
Sintering
Tailings
Zinc metallurgy

OREGON

See also
Geology—Oregon
Paleobotany—Oregon

Sanitary affairs
1945 progress report on pollution of Oregon streams. F. Merryfield and W. G. Wilmot. il Oregon State College Eng Exp Sta [Corvallis] Bul Ser no 19:1-59 '45 (pa 40c)

ORES
Punched card identification of ore minerals. E. E. Fairbanks. bibliog Econ Geol 41: 761-8 N '46

See also
Geology
Gold ores
Iron ores
Manganese ores
Metallurgy
Metals
Mines and mineral resources
Ore deposits
Ore treatment

ORGAN, Electric
Photo-electronic organ. R. E. Campbell and L. E. Greenlee. il diag Radio N 35:25-7+ Je; 36:36-7+ Jl '46

ORGANIC chemistry. See Chemistry, Organic

ORGANIZATION in industry
Accounting in decentralized organization; RCA Victor division. A. Macgillivray. N A C A Bul 28:3-13 S 1 '46
Decentralize; make your good men good. A. A. Voit. Sales Management 56:84-5 Je 1 '46
Departments without names. E. L. Cady. il Sci Am 175:157-9 O '46
Executive myopia. R. W. Johnson. J Bsns 19:63-6 Ap '46
How one industrial supplier reorganized for postwar sales; Chase bag company centralizes advertising, sales promotion, publicity, market research in one department. J. P. Grady. Ind Marketing 31:27-8+ Ag '46
Organization chart for an international airline. Air Transport 4:37-9 Je '46
Organization, executive capacity and progress. H. A. Hopf. Advanced Management 11:34-47, 69 Je '46
Organization; foundation of management. L. Fish. Advanced Management 11:52-6 Je '46
Organizing industrial research. il Diesel Power 24:316-17+ Mr '46
Periodic analysis for better organization. E. B. Maple. Factory Management 104:262+ Ag '46
Shop organization. E. Steiner. Sheet Metal Worker 37:62+ Jl '46
Should machine shops be decentralized? RCA splits machine shop into units serving separate divisions. B. P. Hamilton. diag Am Mach 90:108-11 O 24 '46
Technical service pays its way. Nat Pet N 38 pt 2:R403-7 Je 5 '46
Utilizing highest skill of maintenance personnel; Philco corporation. H. N. Johnston. il Factory Management 104:94-6 Ag '46

See also
Advertising departments
Committees (in management)
Credit departments
Employment departments
Engineering departments
Home economics departments
Purchasing departments
Research departments
Sales departments
Traffic departments, Industrial

ORIENTATION (chemistry)
Structure of soap micelles indicated by X-rays and the theory of molecular orientation; aqueous solutions. W. D. Harkins, R. W. Mattoon and M. L. Corrin. bibliog 2pl Am Chem Soc J 68:220-8 F '46

ORIFICE meters
Maintenance of mercury type orifice meters. M. Welch. Pet Refiner 24:143-4 D '45
Orifice meter in natural gasoline measurement; with simplified calculation charts. R. W. Weeks. bibliog Pet Refiner 25:135-9 Ap '46
Safe practices for orifice meter repair and operation. D. Attaway. il Pet Eng 17:47-50 Ag '46
Streamlined orifice calculations. E. E. McReynolds. flow charts Pet Refiner 25:130-5 Ag '46

ORIFICES
Air flow through small orifices; chart. B. Maddock. Power Pl Eng 49:128 D '45
Concentric orifices. D. R. Taylor. bibliog diag Water & Sewage Works 93:129-36 Ap '46
Flow of liquids through vertical circular orifices and triangular weirs. F. W. Greve. il diag Purdue Univ Eng Exp Sta, Research Ser 95:1-67 '45 (pa 50c)
Self-cleaning orifice for limiting pipe flow made from a common plug cock. A. C. Guillen. diags Chem & Met Eng 53:145 My '46

ORIGIN, Marks of. See Marks of origin

ORNITHINE
Synthesis of *dl*-ornithine hydrochloride. N. F. Albertson and S. Archer. bibliog Am Chem Soc J 67:2043-4 N '45

ORNSTEIN, Leonard Salomon, d. 1941
Sketch. R. C. Mason. Science 102:638-9 D 21 '45

ORSAT apparatus
Gasoline loss control and molecular weight determinations. H. G. Koefoed. bibliog 4pls diags Inst Pet J 32:529-74 S '46

ORTHICON. See Television cameras

ORTHOPEDIC apparatus

See also
Artificial limbs

ORTLEB, George, 1876-
Top-flight craftsmen. por Inland Ptr 116:36 N '45

OSAGE orange
Osage orange pigments; complete structures of osajin and pomiferin. M. L. Wolfrom and others. bibliog Am Chem Soc J 68:406-18 Mr '46

OSAJIN
Osage orange pigments; complete structures of osajin and pomiferin. M. L. Wolfrom and others. bibliog Am Chem Soc J 68:406-18 Mr '46

OSAZONES
Action of copper sulfate on phenylosazones of the sugars. R. M. Hann and C. S. Hudson. Am Chem Soc J 66:735-8; 68:1766-9 My '44, S '46
Studies on sugar osazones; a comparison of the phenylosazones prepared from 3 : 6-anhydro-*d*-glucose and 3 : 6-anhydro-*d*-galactose with the anhydro-osazones prepared from *d*-galactosazone and *d*-glucosazone by the method of Diels and Meyer. E. G. V. Percival. Chem Soc J p783-6 N '45

OSCILLATIONS. See Vibration

OSCILLATIONS, Electric
Analysis of parasitic oscillations in radio transmitters. J. S. Jackson. diags Radio N 35:68+ F '46
Oscillations in electrical and mechanical systems. J. Willis. Inst E E J 92 pt 1:453 D '45
Probability distributions of sinusoidal oscillations combined in random phase. M. Slack. Inst E E J 93 pt 3:76-86 bibliog(p80) Mr '46

OSCILLATORS
Analysis of linear sweep generator. E. L. Langbergh. diags Electronics 19:194+ N '46
Audio oscillators; two versions of Wien bridge oscillator. il diags Radio N 36:38-40+ Ag '46
Automatic frequency control for r-f heating. S. I. Rambo. bibliog il diags Electronics 19.120-2 Ap '46
Bimodal oscillator. S. Lubkin. diags Electronics 19:242+ F '46
Cathode-coupled amplifier. K. A. Pullen, jr. diags Inst Radio Eng Proc 34:402-5 Je '46
Cavity oscillator circuits. A. M. Gurewitsch. il diags Electronics 19:135-7 F '46
Circuits for sub-miniature tube. il diags Electronics 19:154-6 My '46
Coaxial butterfly circuits. E. E. Gross, jr. il diags Electronics 19:156-60 Ap '46
Coaxial modification of the butterfly circuit; abstract. E. E. Gross. il diag Electronics 19:222+ Ja '46
Code practice oscillator. N. L. Chalfin. il diags Radio N 36:29+ S '46
Composite tank circuit for uhf. P. L. Bargellini. bibliog il diags Electronics 19:115-19 S '46
Current oscillator for television sweep. G. C. Sziklai. patent list il diags Electronics 19:120-3 S '46
Designing a stable variable frequency oscillator. L. C. Tyler. diags Radio N 36:54+ Jl '46
Duplex operation of induction heaters. W. C. Rudd. il diags Electronics 19:93-5 N '46
Energy conversion in electronic devices. D. Gabor. bibliog(p137) diags Inst E E J 91 pt 3:128-41 S '44; Abstract. Elec R (Lond) 134:488 Ap 7 '44; Discussion. Inst E E J 91 pt 3:141-5; 93 pt 3:126-7 S '44, Mr '46
Frequency modulated oscillator for leak hunting in vacuum systems. W. M. Brubaker and V. Wouk. il diag R Sci Instr 17:97-8 Mr '46
Grid-controlled rectifiers for r-f heating. B. Boyd. il diags Electronics 19:125-7 O '46
High-frequency generator for industrial heating. Engineering 162:184 Ag 23 '46

OSCILLATORS—*Continued*
High-voltage rectified power supply using fractional-mu radio-frequency oscillator. R. L. Freeman and R. C. Hergenrother. diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:145W-7W Mr '46
Home built signal shifter. S. Heytow. il diag Radio N 35:48-50+ Mr '46
Improved modulated oscillator pickup. H. Kalmus. diags Electronics 19:182+ Jl '46
Interchange of energy between an electron beam and an oscillating electric field. J. Marcum. diags J Ap Phys 17:4-11 Ja '46
Laboratory pulse generator with variable time delay. D. R. Scheuch and F. P. Cowan. diags R Sci Instr 17:223-6 Je '46
Linear sweep generator. W. J. Haywood. diags Radio N 36:78+ N '46
Low cost audio oscillator. R. W. Ehrlich. il diags Radio N 36:50-1+ N '46
Magnetron and the klystron. T. F. Wall. diags Engineering 161:148 F 15 '46
Magnetron as a generator of centimeter waves. J. B. Fisk and others. il diags Bell System Tech J 25:167-348 Ap '46
Method of oscillator keying. H. T. Miller. diags Radio N 36:116+ S '46
Oscillator power relations. R. E. Burgess. bibliog diag Wireless Eng 23:237-40 S '46
Practical radio course; automatic frequency control for adjusting oscillators. A. A. Ghirardi. il diags Radio N 35:46-8+ Ap '46
Practical radio course; minimizing and compensating for oscillator frequency drift. A. A. Ghirardi. il diags Radio N 35:46-7+ Mr '46
Reflex-klystron oscillators. E. L. Ginzton and A. E. Harrison. bibliog diags Inst Radio Eng Proc 34:97P-113P Mr '46
Resnatron; high-power uhf oscillator-amplifier tetrode. W. W. Salisbury. il diags Electronics 19:92-7 F '46
Stability of *LC* oscillators. N. Lea. bibliog il diags Inst E E J 92 pt 3:261-74; Discussion. 275-9; 93 pt 3:294-5 D '45, Jl '46
Study of locking phenomena in oscillators. R. Adler. bibliog diags Inst Radio Eng Proc 34:351-7 Je '46
Television sweep oscillators. E. M. Noll. diags Radio N 35:52-3+ Ja '46
Test oscillator, TS-47/APR. D. W. Moore, jr. il diags Radio N 35:32-4+ My '46
Thermistor-regulated low-frequency oscillator. L. Fleming. il diags Electronics 19:97-9 O '46
Try this 1946 treasure finder; sensitive metal locator. W. E. Osborne. il plan diag Radio N 36:36-7+ N '46
Two-terminal oscillator. M. G. Crosby. diags Electronics 19:136-7 My '46
Use of high-frequency oscillators in titrations and analyses. F. W. Jensen and A. L. Parrack. bibliog diag Ind & Eng Chem Anal ed 18:595-9 O '46
V.h.f. heterodyne frequency meter; application of split concentric-tuned oscillator. A. A. Goldberg. il diags Radio N 35:32-4+ Mr '46

See also
Magnetron
Multivibrators

Testing
Checking uhf oscillator stability. L. E. Pinney. il diag Electronics 18:139 D '45

OSCILLATORS, Crystal
Crystal controlled 2 meter transmitter. W. D. Speight. il diag Radio N 36:36-7+ Ag '46
Measurement of the activity of quartz oscillator crystals. A. J. Biggs and G. M. Wells. bibliog diags Inst E E J 93 pt 3:29-36 Ja '46
Series-resonant crystal oscillators. F. Butler. diags Wireless Eng 23:157-60 Je '46
Standard of frequency and its applications. C. F. Booth and F. J. M. Laver. diags Inst E E J 93 pt 3:223-36 bibliog(p236-6); Discussion. 236-41 Jl '46
Symposium on quartz oscillator plates. C. Frondel and others. Am Cer Soc Bul 24 (Cer A 24):205-6, 210-11 N 15 '45
Ultrasonic trainer circuits for teaching use of airborne radar for bombing or navigation. F. J. Larsen. il diags Electronics 19: 126-9 Je '46

OSCILLOGRAPHS
Detection of detonation and other operating abnormalities in aircraft engines by means of special instrumentation. J. W. Streett. il diags S A E J 53:660-9 N '45
Evaluation of circuit constants from oscillograms. L. S. Foltz. Elec Eng 65:490-2 O '46
Fault location and relay performance; analysis by automatic oscillographs. H. P. Dupuis and W. E. Jacobs. map Elec Eng 65:Trans 442-6 Jl '46
Measurement of large varying currents. A. C. Johnson. diags Elec Eng 65:Trans 8-11 Ja '46
Modified Zisman apparatus for measuring contact potential differences in air; plate driven by radio loudspeaker and null point determined with oscillograph instead of earphones. S. Rosenfeld and W. M. Hoskins. diags R Sci Instr 16:343-5 D '45
Modulation percent from oscillograms; chart. N. Marchand. Elec World 125:90 Ap 27 '46
Nitrogen-helium discharge lamp to provide timing marks on recording drum oscillograph. Electrician 136:1591 Je 14 '46
Transient delay line useful in radar, television, or test oscilloscope work. J. M. Lester. il diags Electronics 19:147-9 Ap '46

Films
Colored trace oscillograms. L. S. Trimble and F. W. Bowden. il Soc Motion Picture Eng J 46:231-6 Mr '46

OSCILLOGRAPHS, Cathode ray
Alarm system for panoramic receivers. W. A. Anderson. il diags Electronics 19:92-5 Jl '46
Autographic method for obtaining load-extension records of high-speed tensile tests on sheet specimens at elevated temperatures. A. E. Flanigan and others. il diags J Aeronautical Sci 13:405-9 Ag '46
Automatic oscillograph with a memory; for obtaining photographic records of randomly occurring transients. A. M. Zarem. il diags Elec Eng 65:Trans 150-4 Mr '46
B-H curve tracer for magnetic-recording wire. T. H. Long and G. D. McMullen. il diag Elec Eng 65:Trans 146-9 Mr '46
Build this 5 inch cathode-ray oscilloscope. L. E. Greenlee. il diag Radio N 36:40-2+ O '46
Curve-tracer for acoustic devices; quality control over production of handset receivers obtained. R. K. Hellmann. il diags Electronics 18:130-3 D '45
Engine ignition faults, and a new method of diagnosis and location during running. F. R. F. Ramsay and W. Nethercot. il diag Engineer 181:542-3 Je 14 '46
Four-channel electronic switch; permits display of four or more transients at once on cathode-ray oscilloscope screen. N. A. Moerman. il diags Electronics 19:150-3 Ap '46
High speed oscillograph for transient measurements. N. Rohats. il diag Electronics 19:135-7 Ap '46
Image formation in cathode-ray tubes and the relation of fluorescent spot size and final anode voltage. G. Liebmann. bibliog diags Inst Radio Eng Proc 33:381-9 Je '45; Discussion. 34:580-6 Ag '46
Improved electronic engine indicator. A. H. B. Walker. il diags Engineering 162:361-4 O 18 '46
Introduction to the high-voltage cathoderay oscillograph. J. B. Higham. bibliog diag Inst E E J 93 pt 1:51-2 Ja '46
Magnify details in a wave form. il diags Elec World 126:98-9 O 12 '46
Measuring pulse characteristics. A. Easton. bibliog diags Electronics 19:150-4 F '46
Production research; measurement of forces on high speed carbide-tipped milling tools with cathode-ray oscillograph. il Electronics 19:186+ S '46
Radio-frequency spectrum analyzers. E. M. Williams. il Inst Radio Eng Proc 34:18P-22P Ja '46
Spectral intensity measurements with phototubes and the oscillograph. G. H. Dieke and others. diags Opt Soc Am J 36:185-91 Ap '46
Spectrochemical analysis with the oscillograph. G. H. Dieke and H. M. Crosswhite. diags Opt Soc Am J 36:192-5 Ap '46

OSCILLOGRAPHS, Cathode ray—*Continued*
Speeding up the return trace. A. H. Taylor. diag Electronics 19:176 N '46
Spot welding of heavier gages of aluminum alloy; instruments for rapid measurement of current and tip force. R. C. McMaster and N. A. Begovich. il diags Welding J 24:sup644-52 D '45
Test oscilloscope for television stations. A. H. Brolly and W. R. Brock. il diag Electronics 19:120-2 N '46
Three-beam oscillograph for recording at frequencies up to 10,000 megacycles. G M. Lee. bibliog il diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:121W-7W Mr '46
Transient video analyzer. C. Moritz. il diags Electronics 19:130-5 Je '46
Writing cathode-ray tube. H. Lineback. il Radio N 35:30-1+ F '46

OSCILLOSCOPES
Measurement of current transients in a low voltage circuit. B. T. Barnes and others. diag R Sci Instr 17:426-7 O '46
Meteoric impact ionization observed on radar oscilloscopes. O. P. Ferrell. bibliog Phys R 69:32-3 Ja 1 '46

OSMOMETERS
Convenient small osmometer. B. H. Zimm and I. Myerson. diags Am Chem Soc J 68: 911-12 My '46

OSMOSIS
Correlating filtration theory with industrial practice. B. F. Ruth. bibliog il Ind & Eng Chem 38:564-71 Je '46
Hexanolamine caprylate and diisopropylamine caprylate as colloidal electrolytes. E. Gonick. Am Chem Soc J 68:177-81 F '46
Osmotic and activity coefficients of zinc nitrate, zinc perchlorate and magnesium perchlorate; transference numbers in zinc perchlorate solutions. R. H. Stokes and B. J. Levien. bibliog diag Am Chem Soc J 68:333-7 F '46
See also
Donnan equilibrium

OSMOTIC pressure
Osmotic pressure measurements with polydimethylsilicone fractions. D. W. Scott. bibliog Am Chem Soc J 68:1877-9 O '46
Osmotic pressure of β-lactoglobulin solutions. H. B. Bull and B. T. Currie. bibliog diag Am Chem Soc J 68:742-5 My '46
Size and shape of macromolecules in solution; methods of measurement. P. M. Doty and H. Mark. bibliog(41 references) Ind & Eng Chem 38:682-6 Jl '46
Water immersion testing of metal protective paints; role of osmosis in water absorption and blistering. W. W. Kittelberger and A. C. Elm. bibliog Ind & Eng Chem 38:695-9 Jl '46

OSOTRIAZOLES. See Triazole

OSTEOPATHY
Osteopathy and university presidents. M. B. Visscher. Science 102:674 D 28 '45; Discussion. 103:117-18 Ja 25 '46

O'SULLIVAN rubber corporation
Securities offered. Comm & Fin Chr 163: 75-6 Ja 7 '46

OSWEGO teachers college. See New York state teachers college, Oswego

OTIS and company
Otis wins again; competitive bidding gains triumph in Montreal. Bsns W p58+ Mr 2 '46

OTIS elevator company
Otis Elevator may have big gain in net. Barron's 25:10 D 10 '45

OTTAWA, Ontario
Bridges
Reconstruction of fire-damaged bridge over Ottawa river. il diags Roads & Bridges 84: 45-9+ Ag '46

OTTOMAN bank
Annual general meeting, London. Economist 149:695 N 10 '45
Annual general meeting, 79th, London. Economist 151:641 O 19 '46

OUTAGES. See Electric power—Interruptions

OUTBOARD motors. See Internal combustion engines, Outboard

OUTDOOR living areas
Three California houses provide outdoor and indoor living quarters. il plans Arch Rec 99:56-61 Ja '46

OUTPUT of workers. See Labor productivity

OVENS
Stopper rods dried in new type oven. il Foundry 74:142 Ag '46
See also
Gas ovens

OVENS, Laboratory
Oven for measurement of volatility of plasticizers in polyvinyl chloride and chloride-acetate copolymer compositions. D. K. Rider and J. K. Summer. il Ind & Eng Chem Anal ed 17:730-3 N '45

OVER-the-counter marketing. See Securities—Over-the-counter marketing

OVERALLS
Levi's jump the range; cowboy britches fashionable on campuses. P. Ferry. Adv & Sell 39:52+ O '46

OVERDRAFTS
Bank cannot recover payment made by error on depositor's check where account has insufficient funds. Banking Law J 63:747-76 O '46
Overdraft problem. W. F. Deuser. Banking 38:75 Je '46
Seventeen checks in clearings for amounts $5 to $75, total $664.45 balance $228.12; shall we pay any? L. Childs. Bankers Mo 62:520 N '45

OVERHEAD expense
Administrative expense standards. I. W. Keller. N A C A Bul 27:1079-94 Jl 15 '46
Cost and asset construction; capitalizing overhead and general and administrative expenses attributable to construction. F. S. Kaulback, jr. bibliog J Account 82:398-400 N '46
Keep that overhead under your thumb. C. A. Parker. Aviation 45:80-1+ Jl '46
Know your overhead costs; plumbing shop accounting. G. M. Carson. Dom Eng 167: 103+ My; 114-15+ Je; 168:108-10+ Jl; 106-7+ Ag; 120-2+ S; 136-7+ O '46
Some aspects of overhead distribution. R. H. Robnett. N A C A Bul 28:195-206 O 1 '46

OVERSHOES. See Shoes, Rubber

OVERTIME
Bonus issue clarified. Bsns W p103 Mr 30 '46
Does overtime pay? abstract. M. D. Kossoris. Management R 35:232-4 Je '46
Employee bonus plans and the wage and hour law; overtime requirements. M. M. Shipman. Oil Paint & Drug Rep 150:3+ O 14 '46

OVERVOLTAGE
Determination of ground-fault current and voltages on transmission systems. E. M. Hunter and P. H. Light. Gen Elec R 49: 19-23 Ap '46

OVINGTON, Earle L. 1879-1936
Ovington brings the mail. por Aero Digest 53:30+ O '46

OVUM
Use of a planimeter in volume studies of early embryos. J. H. Venable. Science 102: 670-1 D 28 '45

OWENS, O. John, 1890-
President, district 6 (Ohio) United mine workers, A.F. of L. por Fortune 34:148 N '46

OWENS-ILLINOIS glass company
Annual report. Comm & Fin Chr 163:1163 Mr 4 '46

OXALIC acid
Chain mechanisms for the reaction of chlorine and oxalic acid. H. Taube. Am Chem Soc J 68:611-17 Ap '46
Equilibria in ternary systems containing oxalates. L. M. Hill, T. P. Goulden and E. Hatton. Chem Soc J p78-81 F '46
Formation of tetravalent uranium during the uranyl-sensitized photochemical decomposition of oxalic acid. J. J. McBrady and R. Livingston. bibliog diag J Phys Chem 50: 176-90 My '46
Utilization of wood wastes; pulp for paper. J. K. Russell. bibliog Pulp & Pa of Can (Convention no) 47:278 [F] '46

OXAZOLES
Chemistry of the oxazoles. R. H. Wiley. bibliog(129 references) Chem R 37:401-42 D '45

OXFORD company
NASD issues instructions relating to Oxford case. Comm & Fin Chr 163:520+ Ja 31 '46

OXIDASES
Effect of ribonucleinase on succinic dehydrogenase and cytochrome oxidase. C. A. Zittle. Franklin Inst J 240:504-5 D '45
Enzyme activity; index of quality in frozen vegetables. M. A. Joslyn. bibliog(50 references) Food Ind 18:1204-10+ Ag '46

OXIDATION
Atmospheric oxidation of cellulose in presence of reduced vat dyes. J. Brear and H. A. Turner. bibliog il Soc Dyers & Col J 61:273-8 N '45
Bacterial oxidation of ammonia in circulating water. J. C. Hill. Am Water Works Assn J 38:980-2 Ag '46
Correlation of chemical constitution and oxidation susceptibility of lubricating oil components. S. F. Kapff and others. bibliog diags Inst Pet J 31:453-74 D '45
Course of the reaction at 100° C in the system aromatic-free mineral oil/oxygen. D. J. W. Kreulen. bibliog diag Inst Pet J 32:515-24 Ag '46
Course of the reaction at 100° C in the systems xylene/oxygen and aromatic-free mineral oil/xylene/oxygen. D. J. W. Kreulen. bibliog Inst Pet J 32:525-8 Ag '46
Destruction of organic matter in blood fibrin and chromacized medical catgut by wet oxidation; determination of iron in blood and of chromium in sutures. G. F. Smith. bibliog Ind & Eng Chem Anal ed 18:257-9 Ap '46
Formation of hydrogen peroxide during the oxidation of reduced vat dyes. W. Atherton and H. A. Turner. bibliog diag Soc Dyers & Col J 62:108-14 Ap '46
Hexitol anhydrides; the structure of the 2,5-anhydromannitol of Brigl and Grüner (2,5-anhydrosorbitol). R. C. Hockett, M. Zief and R. M. Goepp, jr. bibliog Am Chem Soc J 68:935-7 Je '46
High temperature oxidation in aluminum alloy forgings. L. J. Barker. il Iron Age 157: 60-5 My 9 '46
Hydrolysis and catalytic oxidation of cellulosic materials; determination of structural components of cotton linters. R. F. Nickerson and J. A. Habrle. bibliog il Ind & Eng Chem 37:1115-18 N '45
Hydrolysis and catalytic oxidation of cellulosic materials; structural components of various cellulosic materials. R. F. Nickerson and J. A. Habrle. Ind & Eng Chem 38:299-301 Mr '46
Influence of compounds of iron upon oxidation reactions. H. A. Turner. bibliog Soc Dyers & Col J 61:255-8 O '45
Influence of structure on the oxidation reactivity of hydrocarbons. P. George and A. Robertson. Inst Pet J 32:400-7 Jl '46
Inhibition of oxidation of ascorbic acid by certain vegetable extracts. R. Reder. Science 103:201-2 F 15 '46
Lead tetraacetate oxidations in the sugar group; the structure of arlitan, a monoanhydride of sorbitol. R. C. Hockett and others. bibliog Am Chem Soc J 68:922-6 Je '46
Nitrogen dioxide; rate of oxidation of nitric oxide and its bearing on the nitrogen dioxide content of electric arc fumes. H. B. Elkins. bibliog J Ind Hygiene 28:37-9 Mr '46
Organic acids by direct oxidation of coal. N. W. Franke and M. W. Kiebler. il diag Chem Ind 58:580-1 Ap '46
Oxidation and anti-oxidation. E. A. Evans. bibliog Inst Pet J 32:392-9 Jl '46
Oxidation of cellulose by sodium hypochlorite in presence of ferrous hydroxide. G. M. Nabar and H. A. Turner. diag Soc Dyers & Col J 61:258-63 O '45
Oxidation of compounds possessing the primary amino group; β,β,β-triphenylethylamine. L. Hellerman. bibliog Am Chem Soc J 68:825-8 My '46
Oxidation of diphenylamine and of its *N*-derivatives; oxidation of >N·CH$_2$R to >N·CO·R. J. Forrest, D. A. Liddell and S. H. Tucker. Chem Soc J p454-6 Je '46
Oxidation of galacturonic acid and of 5-keto-gluconic acid in alkaline solution. H. S. Isbell and N. B. Holt. bibliog J Res Nat Bur Stand 35:433-8 N '45
Oxidation of GR-S vulcanizates. J. R. Shelton and H. Winn. bibliog il Ind & Eng Chem 38:71-6 Ja '46
Oxidation of lignin sulfonic acids by periodic acid. D. Pennington and D. M. Ritter. Am Chem Soc J 68:1391 Jl '46
Oxidation of lubricating oils. H. H. Zuidema. bibliog Chem R 38:197-226 Ap '46
Oxidation of lubricating oils; mechanism of sulfur inhibition. G. H. Denison, jr. and P. C. Condit. bibliog Ind & Eng Chem 37: 1102-8 N '45
Oxidation products of certain petrographic constituents of bituminous coals. G. Schulz and H. C. Howard. bibliog Am Chem Soc J 68:994-6 Je '46
Oxidation testing of transformer oils. W. G. Horsch. bibliog Elec World 126:54-7 Ag 3; 72-4 Ag 17; 56-9 Ag 31 '46
Oxidation tests for transformer oil. A. A. Pollitt. Inst Pet J 32:414-23 Jl '46
Oxidative ring closure in the Friedel-Crafts reaction. G. D. Buckley. Chem Soc J p561-6 S '45
Partial oxidation of ethane used in German ethylene manufacture. Pet Processing 1:135 O '46
Periodate oxidation of certain active methylene groups. C. F. Huebner, S. R. Ames and E. C. Bubl. bibliog Am Chem Soc J 68: 1621-8 Ag '46
Production of methyl vinyl ketone from methylvinylcarbinol; zinc oxide with cupric or cuprous oxide as catalyst. J. J. Kolfenbach and others. bibliog Ind & Eng Chem 37:1178-80 D '45
Quantitative determination of some inhibitors in polymers by ultraviolet light absorption. F. W. Banes and L. T. Eby. Ind & Eng Chem Anal ed 18:535-8 S '46
Rare-earth metal oxides; the direct oxidation of praseodymium and terbium sesquioxides. J. K. Marsh. Chem Soc J p15-17 Ja '46
Rate of oxidation of thiodiglycol and triethylamine by hydrogen peroxide. S. D. Ross. Am Chem Soc J 68:1484-5 Ag '46
Recent work on corrosion and oxidation. U. R. Evans. diags Chem Soc J p207-14 Mr '46
Recycling process uses cheap oxygen for ammonia oxidation. M. C. Sze and Chih Wu. bibliog flow sheet Chem Eng 53:113-15 Ag '46
Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in cyclohexene and gasoline. H. F. Lewis and others. bibliog il Ind & Eng Chem 37:1108-11 N '45
Regeneration of caustic solutions for gasoline treating by catalytic air oxidation. D. C. Bond. flow diag il Oil & Gas J 44:83-4+ D 8 '45
Researches on acetylenic compounds; the preparation of acetylenic ketones by oxidation of acetylenic carbinols and glycols. K. Bowden and others. Chem Soc J p39-45 Ja '46
Review of the mechanism of the oxidation of liquid hydrocarbons. P. George and A. Robertson. bibliog Inst Pet J 32:382-91 Jl '46
Simplified electronic interpretation of oxidation-reduction for use in teaching organic chemistry. D. C. Gregg. J Chem Educ 22: 548-53 N '45
Spectrophotometric changes during oxidation of vitamin A oils. G. R. Halpern. bibliog Ind & Eng Chem Anal ed 18:621-5 O '46
Spectrophotometric studies of the oxidation of fats; oxygen absorption and chromophore production in fatty esters. R. T. Holman and G. O. Burr. bibliog Am Chem Soc J 68:562-6 Ap '46
Stability of soybean flours; effect of accelerated oxidation. L. J. Filer, jr, C. J. Martin and B. F. Daubert. bibliog il Ind & Eng Chem 37:1180-3 D '45

OXIDATION—*Continued*
Studies in chemotherapy; oxidation of 2-thiouracil and related compounds by iodine. W. H. Miller, R. O. Roblin, jr. and E. B. Astwood. bibliog Am Chem Soc J 67:2201-4 D '45
Total emissivities of oxidized and unoxidized surfaces. T. R. Harrison. Elec World 125: 104 Je 8 '46
Use of liquid phase oxidation for the preparation of nuclearly substituted styrenes; methyl *p*-vinylbenzoate. W. S. Emerson and others. bibliog Am Chem Soc J 68:674-6 Ap '46
Use of liquid phase oxidation for the preparation of nuclearly substituted styrenes; *p*-vinylphenyl acetate. W. S. Emerson and others. Am Chem Soc J 68:1665-6 Ag '46

See also
Combustion
Corrosion and anti-corrosives
Spontaneous combustion

Autoxidation

Autoxidation of furfural. A. P. Dunlop, P. R. Stout and S. Swadesh. il Ind & Eng Chem 38:705-8 Jl '46
Autoxidation of quininone. W. E. Doering and J. D. Chanley. Am Chem Soc J 68: 586-8 Ap '46
Autoxidation process for sulphuric acid and sulphate production. H. E. Keyes. bibliog flow sheets il diag Chem & Met Eng 53: 126-30 My '46
Course of autoxidation reactions. Paint Oil & Chem R 108:16 D 13 '45
Course of autoxidation reactions in polyisoprenes and allied compounds; double bond movement during the autoxidation of a mono-olefin. E. H. Farmer and D. A. Sutton. Chem Soc J p10-13 Ja '46
Union of gaseous oxygen with methyl oleate, linoleate, and linolenate. F. D. Gunstone and T. P. Hilditch. Chem Soc J p836-41 N '45

OXIDATION, Electrolytic
Electrolytic oxidation of lignin. A. Bailey and H. M. Brooks. Am Chem Soc J 68: 445-6 Mr '46

OXIDATION of rubber. See Rubber—Aging

OXIDATION reduction potential. See Potential, Electric

OXIDES
Color and solarization of glasses containing combinations of coloring oxides. L. V. Gagin and others. Glass Ind 27:500-1+ O '46
Dissociation energies of surface films of various oxides as determined by emission measurements of oxide coated cathodes. H. Jacobs. bibliog diags J Ap Phys 17:596-603 Jl '46
Dissociation pressures of metal oxides. B. Lustman. Iron Age 158:61 S 26 '46
Effect of molybdenum and other oxides on surface tension of silicate melts and on properties of refractories and abrasives. C. R. Amberg. bibliog diag Am Cer Soc J 29:87-93 Ap 1 '46
Electron diffraction and electron microscope study of oxide films formed on metals and alloys at moderate temperatures; stripped oxide films of metals. R. T. Phelps, E. A. Gulbransen and J. W. Hickman. bibliog il diags Ind & Eng Chem Anal ed 18:391-400 Je '46
Energy additivity in oxygen-containing crystals and glasses. M. L. Huggins and K. Sun. bibliog J Phys Chem 50:319-28 Jl '46
New magnetic effect applied to the structure of catalytically active solids. P. W. Selwood, F. N. Hill and H. Boardman. Am Chem Soc J 68:2055-9 O '46
Oxide coated cathode literature, 1940-1945. J. P. Blewett. bibliog diag J Ap Phys 17:643-7 Ag '46
Oxide films formed on alloys at moderate temperatures; electron diffraction and electron microscope study. E. A. Gulbransen, R. T. Phelps and J. W. Hickman. bibliog il Ind & Eng Chem Anal ed 18:640-52 O '46
Pulsed properties of oxide cathodes. E. A. Coomes. bibliog diag J Ap Phys 17:647-54 Ag '46
Raw lead glazes; refractoriness of color oxides determines range of temperature. C. W. Parmelee. bibliog Cer Ind 46:76+ Mr '46
Studies of the interface of oxide coated cathodes. A. Fineman and A. Eisenstein. il diags J Ap Phys 17:663-8 Ag '46
Study of oxide cathodes by X-ray diffraction methods; oxide coating composition. A. Eisenstein. bibliog il J Ap Phys 17:654-63 Ag '46

See also
Alkaline earth oxides

OXIDIZING agents
Anomalous behavior of some oxidizing agents. R. K. McAlpine. J Chem Educ 23:301-5 Je '46
Studies in the detoxication of catalyst poisons; the use of various oxidising agents for the detoxication of cystein. E. B. Maxted. Chem Soc J p763-6 N '45

OXIMES
Beckmann rearrangement of aliphatic ketoximes. A. D. McLaren. bibliog Science 103:503 Ap 26 '46
Furans; the ultraviolet absorption of isomeric furaldoximes. R. F. Raffauf. bibliog Am Chem Soc J 68:1765-6 S '46
Rearrangements of aldoximes into amides with Raney nickel; stereoisomeric geranamides. A. G. Caldwell and E. R. H. Jones. Chem Soc J p599-601 Jl '46
Vulcanization reactions in butyl rubber; action of dinitroso, dioxime, and related compounds. J. Rehner, jr. and P. J. Flory. bibliog Ind & Eng Chem 38:500-6 My '46

Analysis

Chromatographic resolution of the quinone oximes. D. K. Gullstrom, H. P. Burchfield and J. N. Judy. bibliog diag Ind & Eng Chem Anal ed 18:613-16 O '46

OXINDOLE
Chemistry of oxindole. W. C. Sumpter. bibliog(214 references) Chem R 37:443-79 D '45

OXYACETYLENE apparatus
Do you weld? then test your hose lines often this easy way. diag Dom Eng 166:129+ N '45
Gas welding regulator upkeep. il diags Aero Digest 52:82-3 F '46
How to coil welding hose to prevent kinks; illustrated instructions. Power 90:485 Jl '46
How to repair torch welding heads; illustrated instructions. Power 89:858 D '45
Piping for distribution of oxygen and acetylene cuts manufacturing costs; installation at Modine mfg. co. M. W. Hippe. il Heating-Piping 18:97-9 F '46

Safety measures

Cylinder rupture. Safety Eng 91:62 Ja '46
Exposures to oxides of nitrogen accompanying shrinking operations. F. E. Adley. J Ind Hygiene 28:17-20 Ja '46
In scrapping our ships never scrap safety; poisonous fumes, hazard in oxyacetylene cutting. W. R. Stewart. il Safety Eng 91: 20-1 Ja '46
Oxy-acetylene welding hazards. W. S. Smith. il Safety Eng 92:18-19+ S '46
Safe cylinder handling. il diags Safety Eng 91:28-9 Mr '46
Safe practice in oxy-acetylene welding. D. Attaway. il Pet Refiner 24:105-8 D '45
Safer welding and cutting. W. S. Smith. il Nat Safety N 54:30+ S '46

OXYACETYLENE cutting
Bracket circle-burner cuts ellipses at any bevel. P. Warren. diags Am Mach 90:143 Mr 28 '46
Cutting and welding of gas-filled tanks. il Steel 118:117 Ap 15 '46
Economical method of flame-cutting cast iron. il diags Steel 119:115-16 S 16 '46
Electric-eye flame cutter. il Iron Age 157:41 Ja 24 '46; Same. Blast F & Steel Pl 34: 144-5 Ja '46
Electric eye tracing in machine cutting. W. Bergerow. il diags Welding J 24:941-8 O '45; Discussion, 25:58 Ja '46

OXYACETYLENE cutting—*Continued*
Electronic control widens scope of oxyacetylene cutting machines. il Mach 52:189 Ja '46
Electronic tracing device; control of cutting torch with electric eye, follows outline of drawn patterns, eliminating templates. il Steel 118:94+ Ja 14 '46
Electronics actuates tracer control; pantograph type oxyacetylene cutting machines. R. F. Helmkamp. il diags Machine Design 18:137-42 Ap '46
Flame cutting and welding in bulldozer manufacture. H. H. Washbond and O. F. Wilkinson. il Iron Age 158:56-9 S 12 '46
Flame cutting stainless steel. G. E. Bellew. il Iron Age 158:42-5 Jl 11 '46
Flame cutting; technique devised to eliminate machining in semifinishing breechblocks. J. F. Smythe. il Steel 118:104+ Ja 14 '46
Fundamental data on oxyacetylene cutting technique (cont). G. V. Slottman. il diags Am Mach 89:122-5 N 22; 102-4 D 6; 110-12 D 20 '45; 90:94-6 Ja 3; 110-13 Ja 31; 134-5 F 14 '46
Guide for cutting small circles. H. P. Martin. il diags Welding J 25:339-40 Ap '46
Linde shape-cutting machine. il Welding J 25:484 My '46
Mechanized flame-cutting in foundries. P. A. Spaulding. il Materials & Methods 23: 479 F '46
Oxweld oxy-acetylene shape-cutting machine. il Automotive & Aviation Ind 94: 41 Ap 1 '46
Oxweld shape-cutting machine. il Blast F & Steel Pl 34:622 My '46
Oxyacetylene cutting; chemistry of the process. Chem Age (Lond) 54:558 My 18 '46
Pipe-cutting attachment. il Mech Eng 68: 822 S '46; Heating-Piping 18:88 Ag '46; Iron Age 158:58 Ag 22 '46
Production processes; their influence on design; flame cutting. R. W. Bolz. il plan Machine Design 18:115-21 Je '46
Some recent Canadian contributions to oxygen cutting. R. A. Dunn. il Welding J 25: 946-52 O '46
Special oxyacetylene machine cutting applications. R. F. Helmkamp. il Welding J 25: 213-22 Mr '46
Stack cutting plates with multiple torch setup. M. Keaveny. il Steel 118:126+ Mr 25 '46
Steel warehouse and flame cutting. L. J. Quetsch. il Welding J 25:24-5 Ja '46
Strip templets for cutting difficult shapes. il diags Steel 117:118-19+ D 10 '45
Welding, flame cutting for efficient maintenance and low cost. A. D. Stout, jr. il Coal Age 51:94-8 S; 97-100 O; 100-4 N '46

OXYACETYLENE flame
Flame cutting, flame hardening and welding on railroads. J. W. Kenefic. il Welding J 25:299-307 Ap '46
Flame hardening cast iron. R. H. Olmsted. il Foundry 74:152-5+ My '46
Flame-hardening in the small shop. W. B. Sharav. il Welding J 25:19-24 Ja '46
Flame-hardening setup for small machined parts. W. B. Sharav. il Welding J 25:328 Ap '46
Flame-hardening small machined parts. il Iron Age 157:77 F 7 '46; Same. Mach 52: 172-3 F '46
Forming tubular products and closing tube ends by flame spinning. il Steel 117:92-3 N 26 '45
Heating for bending and straightening; reference book sheet. diags Am Mach 90:141 Ag 15 '46
How to build a jig for flame-hardening; illustrated instructions. Power 90:633 S '46
Machine work and flame hardening at Marshall shops. il Ry Mech Eng 120:266-8 My '46
Manual oxyacetylene flame brazing of aluminum, aluminum alloy sheet and subassemblies. F. Clark. il diags Welding J 25:505-13 Je '46
Simple setup for small-lot flame-hardening of valve plugs; illustrations with text. R. H. Brooks. Welding J 25:245-6 Mr '46

OXYACETYLENE welding
Application of pressure welding to overland pipe lines. E. P. Jones. bibliog il Welding J 25:27-31 Ja '46
Application of pressure welding to the manufacture of aircraft landing gear. E. R. Proctor. il Welding J 24:1011-15; Discussion. E. P. Jones; A. Z. Boyajian. 1015-17 N '45
Emergency repair of magnesium parts by gas welding. Welding J 24:1051-2 N '45; Same cond. Iron Age 156:65 D 6 '45
Flame cutting and welding in bulldozer manufacture. H. H. Washbond and O. F. Wilkinson. il Iron Age 158:56-9 S 12 '46
Fundamentals affecting the bond in pressure welds. L. Fine and others. bibliog il diags Welding J 25:517-29 Je '46
High-strength pressure welded joints. C. B. Voldrich and J. L. Zambrow. Steel 118:98-9+ Ap 15 '46; Same abr. Automotive & Aviation Ind 94:34-6+ My 15 '46
How to weld aluminum. il Iron Age 157:50-5 Je 20 '46
Metallurgical aspects of high quality pressure welded joints for landing gear. L. Fine and others. il Metal Prog 49:350-5, 530-6 F-Mr '46
Multiple tip torches speed stainless steel welding. W. P. Brotherton. il Iron Age 157:70-3 Je 20 '46
Pressure gas welding of alloy steel tubing. J. L. Zambrow and R. D. Williams. bibliog il diags Welding J 25:sup585-96 O '46
Pressure welding's flexibility solves alloy pipe problems. E. P. Jones. il Oil & Gas J 45: 238+ S 21 '46
Some observations on the effect of oxygen on carbon in steel. L. Fine and C. H. Maak. bibliog il Welding J 25:sup283-7 My '46
Special length boiler tubing tailor-made by oxyacetylene pressure welding. il Welding J 24:1090 N '45
Tailor-made boiler tubing; use of oxyacetylene pressure-welding. il Steel 118:108+ Mr 18 '46
Tool and die welding. A. R. Butler and F. E. Kessler. il Welding J 25:960-1 O '46
Uniwelding produces high joint efficiency. E. R. Proctor. il Iron Age 157:46-51 Mr 7 '46
Weldability factors for 18-8 stainless. F. H. Page, jr. Iron Age 156:58-61 D 27 '45
Welding of nickel-alloy steels. T. N. Armstrong. Iron Age 157:58-60 F 14 '46

Safety measures
See Oxyacetylene apparatus—Safety measures

Testing
Improvement of the notch impact resistance of gas-welded joints. A. Matting and H. Koch. il Welding J 25:sup359-60 Je '46
Metallurgical aspects of high quality pressure welded joints for landing gear. L. Fine and others. il Metal Prog 49:530-6 Mr '46

OXYCELLULOSE
Behavior of bleached fabrics toward acid and alkali; abstract. E. Pacsu. Am Dyestuff Rep 34:525 D 17 '45; Same. Rayon 26:637 D '45
Cellulose studies; reaction of oxycellulose with aqueous acids and alkalies; abstract. E. Pascu. Am Dyestuff Rep 34:516 D 3 '45
Comparative estimations of carbonyl and carboxyl groups in chromium trioxide and hypochlorous acid oxycelluloses and oxyxylans. B. Meesook and C. B. Purves. bibliog Paper Tr J 123:35-42 O 31 '46

OXYGEN
Absorption of one-half centimeter electromagnetic waves in oxygen. R. Beringer. diags Phys R 70:53-7 Jl 1 '46
Adsorption of oxygen at low temperature and pressure on smooth iron. M. H. Armbruster and J. B. Austin. bibliog Am Chem Soc J 68:1347-54 Jl '46
Effect of reaction between mercury and oxygen upon polarographic waves of certain metals at small concentrations. E. R. Smith and others. bibliog J Res Nat Bur Stand 37:151-5 S '46
Electric arc welding ventilation and its relation to oxygen deficiency. F. J. Viles, jr. and L. Silverman. bibliog J Ind Hygiene 27:289-91 D '45

OXYGEN—*Continued*
Evolution of oxygen from illuminated suspensions of frozen, dried, and homogenized chloroplasts. C. S. French and others. bibliog Science 103:505-6 Ap 26 '46
Gas permeability; an isostatic test method. D. W. Davis. il diags Mod Packaging 19: 145-9+ My '46
Instrument for determining the partial pressure of oxygen in a gas. L. Pauling, R. E. Wood and J. H. Sturdivant. diags Am Chem Soc J 68:795-8 My '46; Abstract. Science 103:338 Mr 15 '46
Isomerization of alkanes; effect of oxygen upon the isomerization of *n*-butane and *n*-pentane in the presence of aluminum bromide and aluminum chloride. H. Pines and R. C. Wackher. diag Am Chem Soc J 68:599-605 Ap '46
Isomerization of *n*-butane catalyzed by aluminum bromide; effect of oxygen and other promoters on the reaction. A. G. Oblad and M. H. Gorin. bibliog Ind & Eng Chem 38:822-8 Ag '46
Isostatic method for determining the gas permeability of sheet materials. D. W. Davis. bibliog il diags Paper Tr J 123:33-40 Ag 29 '46; Same cond. Mod Packaging 19:145-9+ My '46
Kinetics of OH radicals as determined by their absorption spectrum; attempt to trace OH radicals in the thermal hydrogen-oxygen reaction. O. Oldenberg and others. bibliog J Chem Phys 14:16-18 Ja '46
Kinetics of the pentavalent vanadium—iodide reaction; correlation with the induced catalysis of the oxygen—iodide reaction. J. B. Ramsey, E. L. Colichman and L. C. Pack. bibliog Am Chem Soc J 68: 1695-8 S '46
New band system in the green excited in a mixture of xenon and oxygen and the energy of dissociation of CO. C. Kenty and others. il Phys R 69:36 Ja 1 '46
Solubility of oxygen and nitrogen in organic solvents from -25° to 50° C. C. B. Kretschmer, J. Nowakowska and R. Wiebe. bibliog diag Ind & Eng Chem 38:506-9 My '46
Storage of dried fruit; gas changes during storage of dried apricots and influence of oxygen on rate of deterioration. E. R. Stadtman and others. bibliog Ind & Eng Chem 38:324-9 Mr '46
System iron-oxygen; equilibrium and thermodynamics of liquid oxide and other phases. L. S. Darken and R. W. Gurry. bibliog il Am Chem Soc J 68:798-816 My '46
Volume of oxygen in a cylinder; chart. Eng N 136:1004 Je 27 '46; Same. Welding J 24: 1177 D '45

See also
Ozidation
Steel—Oxygen content

Analysis

Analytical chemistry of the rare earths; active-oxygen determination. G. L. Barthauer and D. W. Pearce. bibliog Ind & Eng Chem Anal ed 18:479-80 Ag '46

Application of the vacuum-fusion method to the determination of the oxygen, hydrogen, and nitrogen contents of non-ferrous metals, alloys, and powders. H. A. Sloman. Engineering 160:385, 404-5, 419-20 N 9-23 '45

Determination of dissolved oxygen; proposed modification of the Winkler method. R. Pomeroy and H. D. Kirschman. bibliog Ind & Eng Chem Anal ed 17:715-16 N '45

Elementary isotopic analysis; determination of oxygen. A. V. Grosse, S. G. Hindin and A. D. Kirshenbaum. Am Chem Soc J 68: 2119 O '46

Estimation of oxygen in inert oxygen-free atmospheres. E. H. Winslow and H. A. Liebhafsky. bibliog diag Ind & Eng Chem Anal ed 18:565-8 S '46

Microanalytic measurement of oxygen production. P. Pringsheim. diags Electronics 18:340+ D '45

Oxygen-hydrogen indicator; Deoxo indicator. il R Sci Instr 17:244 Je '46

Set for direct CO_2 and oxygen analysis. il Blast F & Steel Pl 34:407 Mr '46

Industrial applications

Extending compressed-air operations with helium-oxygen air; reduces physiological hazards. il Eng N 137:118-19 Jl 25 '46
Manufacture of oxygen in large quantities for industrial uses; abstract. Iron Age 158:74 O 10 '46
Oxygen for industry. E. L. Cady. il Sci Am 175:101-4 S '46
Oxygen now used in firing open-hearth furnaces. Steel 119:140 S 9 '46
Oxygen reduces melting time of open-hearth heats; joint meeting of Southern Ohio section, National open hearth committee, and Ohio Valley section of American institute of mining and metallurgical engineers. Steel 119:178 N 11 '46
Oxygen-steam producer blast; gasification of coke at atmospheric pressure. R. F. Mitchell. bibliog il diags Can Chem & Process Ind 30:34-42 Ag '46
Oxygen utilization in gas making processes; abstract. L. L. Newman. Chem Eng 53: 248+ Ag '46
Recycling process uses cheap oxygen for ammonia oxidation. M. C. Sze and Chih Wu. bibliog flow sheet Chem Eng 53:113-15 Ag '46

See also
Oxyacetylene flame

Isotopes

Partial separation of the oxygen isotopes by thermal diffusion and the deuteron bombardment of O^{17}. S. B. Welles. bibliog Phys R 69:586-9 Je 1 '46

Manufacture

Equipment for low-cost oxygen production; abstract. F. J. Jenny and M. J. Conway. Oil & Gas J 45:91 O 12 '46
Homemade oxygen. Fortune 34:172 O '46
Metal chelates for oxygen production. M. Calvin. Chem Ind 58:610 Ap '46
Oxygen by fractionation at low pressures; liquid air portable unit, M-7. W. E. Lobo. il diag Chem Ind 59:53-6 Jl '46
Separation of oxygen from nitrogen; abstract. C. R. Downs. Chem Eng 53:276+ O '46
War-developed oxygen generator with post-war possibilities. il Chem & Met Eng 53: 125 Mr '46

Physiological effect

Oxygen toxicity; abstract. J. J. Comroe, jr. and others. J Ind Hygiene 27:sup160 O '45

See also
Anoxemia

OXYGEN, Liquid
Determination of traces of acetylene in liquid oxygen in rectifying columns. H. P. McKoon and H. D. Eddy. bibliog diags Ind & Eng Chem Anal ed 18:133-6 F '46

OXYGEN apparatus
Improved helmet for breathing oxygen or other gases. J. E. Duncan. il Science 104: 395-6 O 25 '46

OXYGEN deficiency. See Anoxemia

OXYHYDROGEN cutting
Flame-cutting steel under water with oxy-acetylene, oxy-hydrogen and electric arc. G. V. Slottman. il Am Mach 90:110-13 Ja 31 '46

OXYXYLANS. See Xylan

OYSTER culture
Fluctuations in abundance of marine animals. M. D. Burkenroad. Science 103:684-6 Je 7 '46

OZARK airlines
Ozark airlines, statistics prepared, awaits CAB action on application. Aviation N 5:27-8 F 11 '46

OZONE
Force constants of ozone. G. Glockler and G. Matlack. bibliog J Chem Phys 14:531-3 S '46
Meteorology and high altitude aviation. G. M. B. Dobson and A. W. Brewer. diags Roy Aeronautical Soc J 50:799-802 O '46
Notes on the infra-red spectrum and molecular structure of ozone. A. Adel and D. M. Dennison. bibliog J Chem Phys 14:379-82 Je '46

OZONE—*Continued*
Ozone production by low-pressure mercury arcs. L. R. Koller. il diag Gen Elec R 49: 50-3 Ap '46
Production and decomposition of ozone by low pressure mercury vapor lamps. L. R. Koller. bibliog il J Ap Phys 16:816-20 D '45
Structure of ozone. W. H. Eberhardt. J Chem Phys 14:641 O '46
Structure of ozone. G. Glockler and G. Matlack. J Chem Phys 14:505-6 Ag '46
Ultraviolet absorption spectrum of ozone. W. H. Eberhardt and W. Shand, jr. bibliog J Chem Phys 14:525-30 S '46
Weathering of soft vulcanized rubber. J. Crabtree and A. R. Kemp. bibliog il diags Ind & Eng Chem 38:278-96 Mr '46
See also
Sewage disposal—
Ozone treatment

OZONIZATION
Allylic rearrangements; studies of the ozonization of allylic systems. W. G. Young and others. bibliog Am Chem Soc J 68: 293-6 F '46

OZONIZERS
Ozonators. il Consumers Res Bul 18:14-17 O '46
Simple laboratory ozonizer. K. Uhrig. diag J Chem Educ 22:582 D '45

P

PACE, Stephen, 1892-
Portrait. Bsns W p20 N 10 '45

PACIFIC advertising association. See Advertising association of the West

PACIFIC coast
See also
Agriculture—Pacific coast

Industries and resources
West coast looks for high volume of industrial activity. O. Murdock. Iron Age 157: 182+ Ja 3 '46

PACIFIC coast electrical association
Annual meeting, San Francisco, June 12-14. Edison Elec Inst Bul 14:261 Jl 14 '46; Elec West 97:76-88 Jl '46
Fresno conference; committees for 1945-46. Elec West 95:98+ N '45
Joint meeting of north and south groups, Fresno, Dec. 7-8. Elec West 96:82-7 Ja '46

PACIFIC coast gas association
Annual meeting, San Francisco, Sept. 10-12. Am Gas J 165:65-6 O '46; Am Gas Assn Mo 28:460-1 O '46; Gas Age 98:116-17+ O 3 '46

PACIFIC countries
Intra-Pacific trade. P. Wiers. il map(p8) For Comm W 24:9-12+ Ag 17 '46

PACIFIC fire insurance company
Mid-18th century era marks Pacific founding. Spectator (Property ed) 12:21 S 12 '46

PACIFIC gas and electric company
Annual report. Comm & Fin Chr 163:2162 Ap 22 '46
Bonds offered. Comm & Fin Chr 164:2290 N 4 '46

PACIFIC grape products company
Frozen in cans. Bsns W p80+ O 19 '46

PACIFIC islands. See Islands of the Pacific

PACIFIC mills
Pacific mills' net to show big gain. Barron's 26:7 Je 3 '46

PACIFIC mutual life insurance company
Misunderstanding about Pacific Mutual clarified; new company vs. old company. J. M. Gantz. Nat Underw 50:29 Ap 18 '46; Same. Nat Underw (Life ed) 50:14 Ap 19 '46
Seek to restore full benefits to Pacific Mutual policies; mutualization committee asks commission to approve plan. Nat Underw (Life ed) 50:3 Mr 29; 5 Ap 5 '46

PACIFIC ocean
Drowned ancient islands of the Pacific basin. H. H. Hess. bibliog map Am J Sci 244:772-91 N '46
See also
Islands of the Pacific
World war, 1939-1945
—Pacific ocean

PACIFIC research foundation
Organization, aims, etc. Product Eng 17:499 Je '46

PACIFIC science conference. See National research council

PACIFIC states savings and loan company
Claimants get $9,000,000 more; interest to be settled by court. Comm & Fin Chr 163: 2296 Ap 29 '46

PACIFIC telephone and telegraph company
Debentures offered. Comm & Fin Chr 162: 2950-1 D 17 '45
$75,000,000 debentures publicly offered. Comm & Fin Chr 164:1876 O 14 '46

PACKAGE design
Armour repackages full line to gain fresh shelf appeal and family identity. F. W. Specht. il Sales Management 55:40-2 D 1 '45
Art work and design help packages sell. il Ptr Ink 217:44-5 O 18 '46
Better product, but it looks like cheaper rivals; what to do? Libbey Glass heat-treated tumbler. K. C. White. il Sales Management 56:60+ Mr 1 '46
Candy looks ahead to better packaging. il Mod Packaging 20:104-10+ S '46
Design laboratory; Bartolucci-Waldheim coordinates drafting, testing and display facilities in remodeling these package design workrooms for Container corporation of America. il plan Arch Forum 84:102-3 F '46
Design laboratory visualizes the package at work; Container corporation. il Mod Packaging 19:95-100 Ap '46
Developer packs, first under new Kodak plan. il Mod Packaging 19:112-13 Ja '46
Displays and packaging features that do some silent selling. il Ptr Ink 215:36-7 My 31 '46
Dried milk; test of consumer acceptance. H. L. Cook and R. W. Hoecker. il Mod Packaging 19:110-13+ D '45
Face-lifting for the Whitehall family. il Mod Packaging 19:106-10 F '46
Family resemblance in design for General Mills' new department. W. A. MacDonough. il Ptr Ink 215:33-4+ Ap 12 '46
Feminine letter writers set styles for stationery box wraps. il Mod Packaging 19: 112-17+ Je '46
Flowers by air in eye appeal packages. il Mod Packaging 19:100-3 Ja '46
For her highness, the secretary; new convenience in carbon paper boxes. il Mod Packaging 19:166-7 Mr '46
For Yale & Towne, a modern merchandising package. il Mod Packaging 19:103-9+ Je '46
G-E lamp cartons redesigned to provide dealers with a better merchandising tool. il Mod Packaging 19:124-5+ Je '46
Hitched to a starlet; Margaret O'Brien cosmetic line for little girls. il Mod Packaging 19:122-3 Jl '46
Job of package in self-service selling. L. B. Steele. Ptr Ink 215:88+ Ap 19 '46
L is for Loft; it ties the package to the store. il plan Mod Packaging 19:92-5 N '45
Lamp shade prepackaged with gift appeal; Celanese-Lumarith lamp shade. il Mod Packaging 19:125 Ap '46
Merchandising to a timid market; men's toiletry items. E. M. Housman. il Ptr Ink 213:24-7+ N 30 '45
Metal lithography; the case for decorated containers. W. P. Murray. il Mod Packaging 19:104-6+ N '45
Middleton squares; distinctive tobacco tins. il Mod Packaging 20:96-8 O '46
New package design can be used in other promotion; symbols and pattern for sportswear package appear in labels, price tags and stationery. C. J. Swan. il Ptr Ink 216: 36-7 Jl 19 '46

PACKAGE design—*Continued*
New packaging design helps merchandising; G-E lamps. il Ind Marketing 31:38-9+ Ap '46
One-ounce barn, it sells tobacco seed. il Mod Packaging 19:125 Mr '46
Package design; shall it be individual or uniform for whole line? Ptr Ink 214:86+ Mr 22 '46
Package design trends and standards; abstract. W. F. Deveneau. Mod Packaging 19:150-1 Ap '46
Package identification quiz. Ptr Ink 214:32 Mr 29; 215:86 Ap 12 '46
Package needn't be static. E. J. Cunningham. il Ptr Ink 215:38-40 Je 7 '46
Packaging picture; another year of grappling with material shortages; American management association's packaging conference. T. Armstrong. Sales Management 56:65-6 Ap 15 '46
Paint labels that sell name and product. il Mod Packaging 19:118-19 N '45
Post re-styles cereal packages to gain family identity. il Sales Management 56:112+ Ap 1 '46
Redesigned for use; Cameo cleanser. il diag Mod Plastics 23:122-3 F '46
Research guides new Yale & Towne packaging. M. Johnson. il Ind Marketing 31:45-6+ Jl '46
Solid geometry for McKelvy cosmetic packages. il Mod Packaging 20:100-1 O '46
Success story from Cape Cod; Bayberry Mist. il Mod Packaging 19:112-13+ N '45
Sunglasses boxed for sex appeal. il Mod Packaging 19:113+ My '46
These new packages are silent salesmen. il Ptr Ink 216:44-5 Ag 2 '46
300,000 parts packaged under one trademark; International harvester co. il plan Mod Packaging 19:94-9 Ja '46
Toys demand better pre-packs and eye appeal. il Mod Packaging 19:98-102 My '46
12 trade names reduced to 1; Pyrene fire extinguisher. il Mod Packaging 19:116-19 Ag '46
When is a family-style package a sales handicap? Nyal re-designing all packages. D. G. Baird. il Sales Management 56:64+ Ap 1 '46
See also
Package goods—New packages

PACKAGE designers
Role of the designer. il Mod Packaging 19:89-94+ Jl '46

PACKAGE goods
Branding lifts yam sales from dribbles to carloads; Dezauche & son, Opelousas, La. R. McDaniel. il Sales Management 56:59-60+ My 20 '46
Interest in packaging revives. il Ptr Ink 215:38-9 Ap 19 '46
Package as a sales hypo; entertainment or utility value sometimes added. il Ptr Ink 215:56+ My 17 '46
Package evaluator for graphic analysis. R. F. Hansen. il Mod Packaging 19:109-11+ Jl '46
Package planning, a panel session. Mod Packaging 19:142-4 D '45
Packaging for the Latin-American market; problems, legal, linguistic and protective, for the exporter. B. G. Taines. il Ptr Ink 215:59-62+ My 10 '46
Part packages play in self-service selling. L. B. Steele. Adv & Sell 39:92+ Je '46
Responsibility of the package in self-service selling; abstract. L. B. Steele. Mod Packaging 19:151-2 Ap '46
Textiles, a field day for new packaging. il Mod Packaging 19:93-9+ Je '46
This package has to educate women to new way of buying; Cannon mills pre-sealed purse-size packages of hosiery. E. J. Cunningham. il Ptr Ink 214:23-4 F 15 '46
What a good package should do; check list based on requirements for new Yale hardware packages. C. J. Swan. il Ptr Ink 215:37-9 Je 21 '46
What's expected in new packaging; sizes, shapes, designs, labels, materials, market testing. E. J. Cunningham. il Ptr Ink 214:24-7+ Mr 15 '46
Yams in packages, air delivered; Dezauche & son, Opelousas, La. il Mod Packaging 20:106-7+ O '46
Young market, how should you package for it? il Mod Packaging 19:87-92+ D '45
See also
Bottled goods
Candy trade
Canned food
Cigarets
Coffee
Containers
Food packages
Labels
Package design
Packaging
Packaging machinery
Packaging materials

Advertising
Case histories of business paper advertising campaigns; Johns-Manville 3 products-in-one-package promotion. il Ptr Ink 215:42+ My 10 '46
11-point program for telling the trade about new packages; Yale & Towne. C. J. Swan. Ptr Ink 215:44-5 Je 28 '46
Kellogg co. to use Book of knowledge features on new package for cereal. il Ptr Ink 214:121 F 15 '46
New package design can be used in other promotion; symbols and pattern for sportswear package appear in labels, price tags and stationery. C. J. Swan. il Ptr Ink 216:36-7 Jl 19 '46

Color
Armour's color chart for perfect match. il Mod Packaging 20:110 S '46
Brilliant reproduction; new technique for fine printing on boxboard. W. B. Banks. il Mod Packaging 19:93-5 D '45
When is a family-style package a sales handicap? Nyal re-designing all packages. D. G. Baird. il Sales Management 56:64+ Ap 1 '46

Combination packages
Case histories of business-paper advertising campaigns; Johns-Manville 3-products-in-one-package promotion. il Ptr Ink 215:42+ My 10 '46
Combination cereal package. Ptr Ink 215:128 My 3 '46
Package promotion sells two vacuum cleaners and a tool kit at one throw. il Mod Packaging 19:124-5 Ag '46

Gift packages
Cosmetics, a Christmas season of splendor. il Mod Packaging 20:98-103+ S '46
Gift forecast. il Mod Packaging 19:87-102 My '46
Mass market gift sets; Pond's has eight. il Mod Packaging 20:136 O '46

New packages
About face! General Foods introduces the changeover package for Post cereal family. il Mod Packaging 19:96-9 F '46
Accent on Bayer; spotlights the brand name. il Mod Packaging 19:104-5+ Ag '46
Carborundum, one name for the family. il Mod Packaging 19:120-3 Je '46
11-point program for telling the trade about new packages; Yale & Towne. C. J. Swan. Ptr Ink 215:44-5 Je 28 '46
Esso shows employes how to cash in on new packages. Sales Management 56:120 Mr 15 '46
Face-lifting for the Whitehall family. il Mod Packaging 19:106-10 F '46
Family design for an ethical line; Bristol laboratories. il Mod Packaging 19:101-3+ N '45
Montgomery Ward; master plan of packaging. il Mod Packaging 19:93-8+ Ag '46
Package at work, a salesman for Schrader's tire valve cores and caps. il Mod Packaging 20:114-18 S '46
Paint labels that sell name and product. il Mod Packaging 19:118-19 N '45
Quaker oats modernizes a 69-year-old character. il Mod Packaging 19:126-31 Mr '46
Teen-age jury to steer sales policy of Seventeen cosmetics. E. M. Kelley. il Sales Management 55:40-2 N 15 '45
These new packages are silent salesmen. il Ptr Ink 216:44-5 Ag 2 '46
Yale & Towne discard mousy dress for hardware; repackage entire line. T. Armstrong. il Sales Management 57:45-6+ Jl 1 '46

PACKAGE goods—New packages—*Continued*
Your trademark, are you making the most of it? McQuade & co., paint manufacturer, redesigns entire family of labels. il Mod Packaging 20:105 O '46

Protection

Dynamics of package cushioning. R. D. Mindlin. il diags Bell System Tech J 24:353-461 Jl '45
Fighting contamination, it's part of the packaging job. il Mod Packaging 19:138-41 Je '46
Food packaging studies; water-vapor protection by certain non-metal packages. R. E. Thomas and others. Mod Packaging 19:143+ Jl '46
Fungistatic vapors for control of mold in packages and equipment. T. C. Scheffer and C. G. Duncan. Ind & Eng Chem 38:619-21 Je '46
Moisture protection; abstract. C. E. Waring. Mod Packaging 19:143 Ap '46
Packaging appraisal. F. B. Speyer. Paper Ind 28:385-6 Je '46

See also
Bottles—Protection
Food packages—Protection
Packing for shipment

Size

Bin size for the jobber's convenience. il Mod Packaging 19:106-8 Jl '46
Fixed flour sizes; a simplification achievement. W. F. Janssen. il map Mod Packaging 19:96-7+ D '45
It's easier to sell people what they want. R. D. Crisp. Ptr Ink 215:36 Je 7 '46

Testing

Mechanical tightness; a package-testing method. T. A. Schwarz. il Mod Packaging 19: 147-51+ Je '46

PACKAGING
AMA packaging conference. R. W. Lahey. Chem & Eng N 24:1129-30 Ap 25 '46
Are prepackaged frozen meats ready for the retailer? F. W. Specht. il Food Ind 18:1192-3+ Ag '46
Ceramic plants should look at packaging. R. A. Schmidt. Cer Ind 47:54-5 Jl '46
Delivering laundry in economical, multiple-trip cartons; Mayfair laundry, Providence, R.I. il Mod Packaging 20:112-13 O '46
Divided packets protect and identify piston rings. il Mod Packaging 20:123+ O '46
Engineering approach; a war lesson. A. L. Rowe. il diags Mod Packaging 19:118-19+ D '45
Export conference; packaging experts report to the Merchant marine. Mod Packaging 19:126+ N '45
From the user's viewpoint; abstract. W. J. Byrd. Mod Packaging 19:137 D '45
Future of frozen foods depends on proper packaging. A. P. Dearing. il Food Ind 18: 1196-7+ Ag '46
Grower packaging of produce; California leads the way. il plan Mod Packaging 19: 103-9+ My '46
How processors can test and improve their own packages. A. L. Pitman. il diag Food Ind 18:1038-40+ Jl '46
How Sylvania's market research molded a new package pattern. il Sales Management 55:179 D 1 '45
Laundry; ready for better packaging. il Mod Packaging 19:91-5+ F '46
Mechanical tightness; a package-testing method. T. A. Schwarz. il Mod Packaging 19: 147-51+ Je '46
Packaging and shipping. T. P. Callahan. il Chem Ind 58:102+ Ja '46 [cont monthly]
Packaging display, a plus in public relations. D. B. Stone. il Mod Packaging 19:118-21+ F '46
Packaging metal parts; corrosion prevention starts on the production line. C. E. Waring. il Mod Packaging 19:135-9 Ja; 143-7 F; 204-7 Mr '46
Packaging of bearings; tremendous trifles; model of care and cleanliness. il Mod Packaging 19:124-9+ My '46
Packaging tries to catch up. Bsns W p86+ Ap 13 '46
Packaging's opportunity: problem at Kodak; abstract. K. R. Marvin. Mod Packaging 19:138-9 D '45
Postwar packaging for chemicals. il Chem Ind 57:840-5 N '45
Postwar packaging survey. Mod Packaging 19:144+ N '45
Pre-packaging: produce growers' reply to processed competition? A. L. Martin. il Sales Management 56:70+ F 1 '46
Prospect for 1946. il Mod Packaging 19:87-93 Ja '46
Protective packaging. O. C. Rutledge. il Gen Elec R 48:16-19 D '45
Revolution brewing in container field. M. Moses. Dom Comm 34:24-5 Ap '46
Serve and sell; Barber-Colman's new packaging for cutting tools, utilizing plastic strip-coating; Protecto-coat. il Mod Packaging 20:102-4+ O '46
Spray coatings for heavy-duty packaging; vinyl resin solution with webbing agent, polyvinyl chloride for packaging navy equipment. il Mod Plastics 23:152-3 Ap '46
300,000 parts packaged under one trademark; International harvester co. il plan Mod Packaging 19:94-9 Ja '46
Top management approach to packaging; abstract. R. D. Elwell. Mod Packaging 19: 141-2 Ap '46
Tubular bandages easy for the doctor to use. il Mod Packaging 19:185 Mr '46
Visualizing the package speeds production. W. J. Byrd. il diags Mod Packaging 19: 131-3 F '46
Well-dressed birds for a broader poultry market. il Mod Packaging 19:122-4+ F '46

See also
Bottling plants
Closures (containers)
Department stores—Gift wrapping
Food packages
Hosiery boxes
Packaging machinery
Packaging materials
Packing for shipment
Sealing
Vegetables—Prepackaging

Exhibitions

Packaging conference and exposition, Atlantic City, April 2-5. Mod Packaging 19:139-54 Ap '46
Packaging show is ready; Atlantic City exposition and conference, April 2-5. il fold pl Mod Packaging 19:122-4 Mr '46

History

From cracker barrel to supermarket; significance of packaging in American economy. il Mod Packaging 19:108-15+ Ag '46

Laws and regulations

Fixed flour sizes; a simplification achievement. W. F. Janssen. il map Mod Packaging 19:96-7+ D '45

Patents

U.S. patent digest. H. A. Levey. Published in monthly numbers of Modern packaging

Quality control

Function of quality control as applied to postwar packaging; abstract. D. M. Brown. Mod Packaging 19:139-42 D '45
Quality control means better packaging. D. M. Brown. il Food Ind 18:350-1 Mr '46

Standards

Propose study of packaging to use wartime standards. Ind Stand 17:85 Ap '46

Terminology

For better usage; films, foils and sheeting. C. A. Southwick, jr. Mod Packaging 19:131-2 N '45
For better usage; terminology of water-vapor transmission testing. C. A. Southwick, jr. Mod Packaging 19:137-9+ Jl '46
For better usage; yield values. C. A. Southwick, jr. Mod Packaging 19:191-2+ Mr '46

PACKAGING committees
Committee approach to industrial packaging; Black & Decker mfg., Towson, Md. il Mod Packaging 19:130-2 Ap '46

PACKAGING conference. See American management association—Packaging conference

PACKAGING departments
Filling-weight control with X and R charts. H. P. Goode and F. B. MacKenzie. il Mod Packaging 20:118-22+ O '46

PACKAGING engineers association of America, Industrial. See Industrial packaging engineers association of America

PACKAGING institute
Annual meeting, 7th, New York, Nov. 26-27. Mod Packaging 19:129 D '45
Contribution of plastics to packaging. R. W. Lahey. Chem & Eng N 24:1968 Jl 25 '46

PACKAGING machinery
Chips don't chip; new, high-speed, accurate weigher permits packaging of potato chips and similar products with minimum breakage. il Mod Packaging 19:116-19 My '46
Cracker operation; high-speed forming, filling and sealing. il Mod Packaging 19:104-6 Ap '46
Dried fruit packaging. il Mod Packaging 20: 122-7+ S '46
Machines automatiques à envelopper les petits produits de consommation. M. Moser. il diags Génie Civil 123:265 O 1 '46
Molded and wrapped in one operation; Lorophyn suppositories. C. Weckesser. il plan Mod Packaging 19:100-2 Je '46
Package machinery; Triangle machinery. Soap & San Chem 21:71+ D '45
Packaging machinery situation today; abstract. F. B. Fairbanks. Mod Packaging 19:153 Ap '46
Reconversion and new techniques in packaging machinery, a panel session. Mod Packaging 19:133-5 D '45

See also
Filling machines
Labeling machines
Sealing machines
Wrapping machines

PACKAGING materials
Accessory functions of adhesives. F. C. Campins. Mod Packaging 19:148-50 O '45; Same cond. Paper Ind 27:1420+ D '45; Discussion. Mod Packaging 19:150-1 O '45
Application of plastics to peacetime usages. R. P. Dinsmore. il India Rubber World 113: 395-6 D '45; Abstract. Chem & Eng N 24: 93 Ja 10 '46
Cushioning materials. H. H. Berk. il diags Mod Packaging 20:146-50+ O; 148-51+ N '46
Flavor retention with organic packaging materials. E. C. Crocker. il Mod Packaging 19:147-50 D '45
Food packaging studies; non-metal materials for bulk packaging. R. E. Thomas and others. Mod Packaging 19:152-4 Je; 143+ Jl; 144-5+ Ag; 20:147-9 S '46
For better usage; films, foils and sheeting. C. A. Southwick, jr. Mod Packaging 19: 131-2 N '45
For better usage; yield values. C. A. Southwick, jr. Mod Packaging 19:191-2+ Mr '46
Gift supplies; beautiful but scarce. il Mod Packaging 19:92-6 My '46
Industrial use of petroleum waxes. J. C. Dean. il Pet Refiner 25:87-91 My '46
Low-cost plastic sheet by extrusion. il Mod Packaging 19:110-12 My '46
New plastic films; their packaging qualities. W. H. Aiken. Mod Packaging 19:141-4+ My '46
Non-woven textiles; their packaging applications; Webril, Bonnlinn and Masslinn for silica gel bags, tea bags and closures for multi-wall paper bags. il diag Mod Packaging 19:100-5+ F '46
Outlook on critical packaging materials; abstract. E. J. Detgen. Mod Packaging 19: 139-41 Ap '46
Pack it in plastics. C. A. Breskin. il Sci Am 175:60-2 Ag '46
Packages engineered by Forest products laboratory. il Mod Packaging 19:122-5 Ja '46
Packaging appraisal. F. B. Speyer. Paper Ind 28:385-6 Je '46
Packaging equipment; preparing machines for shipment or storage; vinyl resin and asphalt-gilsonite spray coatings. il Steel 119:134+ S 23 '46
Packaging metal parts; strip coatings. C. E. Waring. il Mod Packaging 19:204-7 Mr '46
Packaging picture; another year of grappling with material shortages; American management association's packaging conference. T Armstrong. Sales Management 56: 65-6 Ap 15 '46
Penetration of wrapping materials by molds; abstract. C. G. Lavers and W. I. Illman. Food Ind 18:1122+ Jl '46
Plastics packaging; abstract. E. L. Hobson. Mod Packaging 19:131 D '45
Polyethylene, a new plastic and a new material for packaging. J. W. Shackleton. il Mod Packaging 20:130-4+ S '46
Polyethylene film, first packaging use. il Mod Packaging 19:107+ N '45
Prospect for 1946. il Mod Packaging 19:87-93 Ja '46
Specialty papers; modern theory and practice. R. H. Mosher. diags Mod Packaging 19:137-40+ Ag '46
Use of paperboard as a sorptive material in protective packaging. R. C. Rietz and L. O. Anderson. Paper Tr J 122:47-50 Mr 14 '46; Same abr. Mod Packaging 19.200-3+ Mr '46
Viscose cellulose film for a sterilizable package; intravenous administration sets. il Mod Packaging 19:132 Ap '46
What are the potentialities of new films and foils? F. I. Hanmer, jr. il Food Ind 18: 1365-7+ S '46

See also
Adhesives
Aluminum foil
Cellophane
Glassine
Packing for shipment
Paper, Waxed
Paper board
Waxes
Wrapping materials
Wrapping paper

Exhibitions
Looking ahead in Detroit; new packagings on exhibit. il Mod Packaging 19:101-3 D '45

Moisture content
Food packaging studies; significance of WVTR in protecting frozen meat. D. Metcalf and others. Mod Packaging 20:147-9 S '46
Food packaging studies; significance of WVTR of non-metal packages for dehydrated foods. R. F. Brooks and G. J. Hucker Mod Packaging 19:144-5+ Ag '46
Food packaging studies; water-vapor protection by certain non-metal packages. R. E. Thomas and others. Mod Packaging 19:143+ Jl '46

Patents
U.S. patent digest. H. A. Levey. Published in monthly numbers of Modern packaging

Specifications
Improving peacetime packages; work of Paper section, National bureau of standards. B. W. Scribner. il Dom Comm 34:14-16 Je '46

Testing
Adhesiveness of seals and closures for packages. diags Paper Tr J 123:42-3 Jl '46
Blocking resistance of paper and flexible materials; TAPPI tentative standard T 477 m-46. Paper Tr J 122:39-40 Je 13 '46
Determining the moisture equilibrium curves of hygroscopic materials. W. A. Wink. il diag Ind & Eng Chem Anal ed 18:251-2 Ap '46
Films for produce; their physical characteristics and requirements. H. Platenius. il Mod Packaging 20:139-43+ O '46
For better usage; terminology of water-vapor transmission testing. C. A. Southwick, jr. Mod Packaging 19:137-9+ Jl '46
Isostatic method for determining the gas permeability of sheet materials. D. W. Davis. bibliog il diags Paper Tr J 123:33-40 Ag 29 '46; Same cond. Mod Packaging 19: 145-9+ My '46
Packaging institute standard test methods for water-vapor permeability at 0 deg F. diags Mod Packaging 19:140-2+ Jl '46
PI standard test methods; for heat-sealing strengths and characteristics of thermoplastic substances. il diag Mod Packaging 20:150-1+ S '46
PI standard test methods for water-vapor permeability at 100 deg. F. il Mod Packaging 19:146-7+ Ag '46
PI standard test methods; gas permeability of low-permeability films. il diag Mod Packaging 20:151-2+ O '46
Plastic dips for paper packages; Institute of paper chemistry program of evaluation. T. A. Howells. il Mod Packaging 20:144-5+ O '46

PACKAGING research

Improving peacetime packages; work of Paper section, National bureau of standards. B. W. Scribner. il Dom Comm 34:14-16 Je '46

Research guides new Yale & Towne packaging. M. Johnson. il Ind Marketing 31:45-6+ Jl '46

Testing case liners. H. A. Wolsdorf and E. G. Mullen. il Mod Packaging 18:131-5 My; 19:154-5+ D '45

PACKING

Desalting of petroleum by use of fiberglas packing. T. A. Burtis and C. G. Kirkbride. bibliog flow diag Am Inst Chem Eng Trans 42:413-37 Je '46; Abstracts. Chem & Met Eng 53:258+ Ap '46; Nat Pet N 38 pt 2: R492+ Jl 3 '46; Discussion. Am Inst Chem Eng Trans 42:438-9 Je '46

Desalting of petroleum with fiberglas packing. C. G. Kirkbride. flow diag Pet Refiner 25: 95-103 Jl '46

Distilling efficiency improved; Fiberglas tower packing. Franklin Inst J 240:396 N '45

Extractive distillation of hydrocarbon mixtures in a packed column. R. S. Dicks and C. S. Carlson. bibliog il diag Am Inst Chem Eng Trans 41:789-803 D '45

Fiberglas tower packing helps Atlantic engineers speed production of high octane gasoline. Franklin Inst J 240:432 N '45

Flexible fluid coupling uses O-ring packings. il diag Product Eng 17:19 Ja '46

Injection of plastic packing stops valve leak, keeps unit on-stream; has other uses. diag Pet Processing 1:17-18 S '46

Limiting capacity of dumped tower packings. W. E. Lobo and others. bibliog Am Inst Chem Eng Trans 41:693-710 D '45

Renewing packing grommets on economizer cleanout plug; accident. Marine Eng 51:134 Ag '46

Robot packing retainer. il Ry Mech Eng 120: 324 Je '46; Ry Age 120:1144 Je 8 '46

Split lantern rings in pump packing glands reduce oil losses, increase life of packing. A. B. Stevens. diags Nat Pet N 38 pt 2: R254 Ap 3 '46

See also
Gaskets

PACKING for shipment

Aero parts packaging task speeded by SAE committee. il S A E J 54:sup22+ My '46

Bad packing serious factor in port of Manila pilferage losses. East Underw 47:21 My 31 '46

Cushioning materials. H. H. Berk. il diags Mod Packaging 20:146-50+ O; 148-51+ N '46

Dynamics of package cushioning. R. D. Mindlin. il diags Bell System Tech J 24:353-461 Jl '45

Fresh shrimp by air in a protective package; heat-sealed pliofilm pouch. il Mod Packaging 20:121 O '46

Fungistatic vapors for control of mold in packages and equipment. T. C. Scheffer and C. G. Duncan. Ind & Eng Chem 38:619-21 Je '46

Furniture protection; new performance standards and packing methods to cut down the staggering total of $5,500,000 lost during the year 1945 through freight damage claims. il Mod Packaging 19:180-3 Mr '46

Iceless pack for seafood, air-borne. S. A. Larsen. il Mod Packaging 19:104-7 D '45

Industrial packaging for export; basic rulings and requirements. F. M. Gidion. Weekly Underw 154:1673-4 Je 29 '46

Insufficient packing annoys underwriters; dispute reaches British court. Weekly Underw 155:314 Ag 10 '46

Is it well-packed? railroads, worried over big damage bill. Bsns W p36 F 23 '46

Lost: $100,000,000; faulty packing and careless handling chief causes of 1945's loss and damage toll. C. H. Dietrich. il Ry Age 120:189-93 Ja 19 '46

Metal articles; abstract. W. T. Black. Mod Packaging 19:143 Ap '46

New handling methods speed packing, cut costs. il Factory Management 104:70-1 Ap '46

1946 industrial packaging exposition; I.P.E.A.A. conference. Mod Packaging 19: 137-8+ My '46

Packaging of bearings; tremendous trifles; model of care and cleanliness. il Mod Packaging 19:124-9+ My '46

Packaging tries to catch up. Bsns W p86+ Ap 13 '46

Palletizing of portland cement. R. L. Rhodes. il Comp Air Mag 50:286-7 N '45

Protective films in new merchandising roles. F. C. Edelston. il Mod Packaging 19:156-8 Mr '46

Protective packaging. O. C. Rutledge. il Gen Elec R 48:16-19 D '45

Research speeds materials handling by Navy's Bureau of ordnance. il Nat Safety N 53:24-6+ Ap '46

Shipping sheet with more efficient packaging. il Mod Packaging 19:120-1 D '45

Shock cushioning; how much and where? A. M. Underhill. il Mod Packaging 19:141-3 Ag '46

Silica gel did its war work well; munitions, etc. protected from corrosion and moisture. R. G. Skerrett. il Comp Air Mag 50:280-5 N '45

Specialization cuts costs in packing and shipping hose. J. W. Hughes. il Textile World 96:145+ F '46

Transition from wartime to peacetime packaging; abstract. E. F. Tomiska. Mod Packaging 19:135-7 D '45

Use of paperboard as a sorptive material in protective packaging. R. C. Rietz and L. O. Anderson. Paper Tr J 122:47-50 Mr 14 '46; Same abr. Mod Packaging 19:200-3+ Mr '46; Excerpts. Paper Ind 28:1050-1 O '46

See also
Containers (for shipping)
Paper boxes
Shipment of goods
Packaging machinery

PACKING houses

Meat packing plants; refrigeration and applied practices. R. Sprague. bibliog plans diags Refrig Eng 51:sup1-7 Je '46

See also
Smokehouses

Accidents

Work injuries in the slaughtering and meat-packing industry, 1943. F. S. McElroy and G. R. McCormack. Mo Labor R 61:955-71, 1153-68 N-D '45; Same, with addition. U S Bur Labor Statistics Bul 855:1-58; pa 15c Supt. of doc. '45

Employees

Annual wage for packers? packinghouse workers' new contracts. Bsns W p86+ Jl 6 '46

Recent developments in earnings in slaughtering and meat packing. E. J. Polinsky. Mo Labor R 63:45-53 Jl '46

Equipment

Application of unit coolers in the meat packing industry. K. E. Wolcott. il Refrig Eng 50:530-2+ D '45

Sanitation

Packing plant sanitation calls for good housekeeping. M. L. Laing and J. P. Barrett. il Food Ind 18:1354-7+ S '46

PACKING industry

Big Board steaks and chops. Bsns W p99 My 4 '46

Cold trucks cover state delivering sausage; water ice refrigeration used by Mickelberry's. il map diags Food Ind 18:518-19 Ap '46

Meat packers avoid inventory trouble. Barron's 26:15 Mr 11 '46

One man's meat; Samuel Slotkin and Hygrade Food Products. il Fortune 33:96-9+ My '46

Shift in slaughtering is index to black market. Bsns W p20 Ap 13 '46

Will chains stay in packing? Bsns W p75-7 N 24 '45

See also
Canned meat
Meat industry and trade

Accounting

Cost accounting for beef and hog operations. A. J. E. Child. J Account 82:51-9 Jl '46

PAGE, Sir Frederick Handley
Portrait. Roy Aeronautical Soc J 50:front Ja '46

PAINT
Abstracts of papers presented before paint and varnish group, American chemical society meeting. Paint Oil & Chem R 109: 44-5 Ap 18 '46
Cellulose derivatives in water paints; abstract. J. Harman Oil Paint & Drug Rep 148:41 N 12 '45
Colloid chemistry and the paint industry. Paint Oil & Chem R 108:16+ D 13 '45
House paint extenders; abstract. W. G. Vannoy. Oil Paint & Drug Rep 148:41 N 12 '45
Measuring coverage and film thickness of printing ink and paint films. R. Buchdahl and M. F. Polglase. Ind & Eng Chem Anal ed 18:115-17 F '46
Shrinkage and mechanical destruction of paint films; abstract. Paint Oil & Chem R 109:14+ Jl 25 '46
Silver flake paints. A. F. Knoll. Materials & Methods 24:425 Ag '46
Solvents in the paint industry. R. B. Pollak. bibliog Paint Oil & Chem R 108:9 Ag 9; 9 Ag 23; 22+ S 6; 10 S 20; 14+ O 4; 20+ N 29; 12+ D 13 '45; 109:12+ Ja 10; 9-10+ Ja 24; 10+ F 7; 10+ F 21; 5-7 Mr 7; 16+ Mr 21; 12+ Ap 4; 18+ Ap 18; 12+ My 2; 8-10 My 30; 10+ Je 27; 9-10+ Jl 25; 22+ Ag 8; 40+ Ag 22; 14+ S 5 '46
Synthetic vehicle for paint helps solve current shortages; Pliolite S-5. Arch Forum 85:185 O '46
Viscosity and stability of paint emulsions; abstract. H. Wagner. Paint Oil & Chem R 109:46 Ag 22 '46

See also
Factories—Painting
Lacquer and lacquering
Pigments
Varnish and varnishing

Bacteriology
Bacteria in paint; types of damage and suggested remedies. H. J. Bunker. Chem Age (Lond) 53:571-2 D 15 '45

Cleaning
Paint and wallpaper cleaners. M. A. Lesser. bibliog Soap & San Chem 21:37-40 D '45

Color
Color to order; paint mixing and matching system. il Sci Am 174:219-20 My '46
Martin-Senour color system takes heartaches out of paint-mixing. il Sales Management 57:78-9 Jl 1 '46
Plastics simplify color matching; acrylics, vinyl sheets and polyester resins. il Mod Plastics 23:133-6 Ap '46
Proposed standards for determining the degree of color change of paints, by Philadelphia paint and varnish club. Paint Oil & Chem R 108:141 N 1 '45

Drying
Automatic baking doubles production per man-hour; Raymersion infrared electric oven at factory of Trumbull electric mfg. co. il diag Elec World 125:100+ Ap 27 '46
Convection drying of paint. Gas J (Lond) 248:310 Ag 21 '46
Conveyorised paint drying; production of steel container known as the Jerrican. F. H. Slade. il plan Mech Handling 32:702-6 D '45
Determining drying time; abstract. J. Schueppen. Paint Oil & Chem R 109:47 Ag 22 '46
Dry trailer bodies in ten minutes with infrared radiation. P. R. Smith and A. L. Potter. il Elec World 126:130 O 12 '46
Drying industrial finishes on metals. H. R. Clauser il Materials & Methods 24:910-14 O '46 (to be cont)
Infra-red lamp heating equipment in the aircraft industry. il Mech Handling 33:75-7 F '46; Electrician 135:680 D 14 '45; Automobile Eng 36:133-4 Mr '46
Infra-red paint drying; N. C. Joseph & sons. il Gas J (Lond) 248:679 O 23 '46
Infra-red versus convection heating. C. C. Eeles. Am Gas Assn Proc 1945:189-97; Same. Am Assn Mo 27:281-6 Je '45; Same cond. Gas J (Lond) 246:339+, 375 S 5-12 '45
Metal finishing with infra-red heat; White motor company. J. Parina, jr. il Steel 118: 94-6+ Mr 11 '46

Manufacture
Manufacture of pigment-in-oil pastes; abstract. A. F. Schmutzler and D. F. Othmer. Chem Eng 53:238 S '46
Paints made without drying oils; abstract. H. J. Phelts. Chem & Met Eng 53:208 Je '46
Preparation of synthetic resin enamels with Baker Perkins dispersion mixer. E. M. Schmiel. il Paint Oil & Chem R 109:6-8 My 2 '46
Use of cellulose derivatives in water paints, by Philadelphia paint and varnish production club. Paint Oil & Chem R 108:122-3 N 1 '45

Moisture absorption
Water absorption of paint and varnish films; abstract. R. J. Ledwith, J. B. G. Lewin and G. A. Newell. Paint Oil & Chem R 109:28 O 31 '46

Prices
Paint in the price picture. C. Bowles. Paint Oil & Chem R 108:28 N 1 '45

Removal
Reconditioning storage-tank surfaces. V. M. Coulson. il Oil & Gas J 44:80-1+ Ja 5 '46

Standards
A.S.M.T. standards on paint, varnish, lacquer, and related products; specifications, methods of testing, definitions of terms. 528p pa $2.75 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '46

Testing
Color stability of olive drab infrared-reflecting camouflage finishes. E. E. Jukkola and R. Cohen. bibliog il Ind & Eng Chem 38: 927-30 S '46
Determination of hiding and contrast-obliterating power of paints. P. F. Luft. bibliog il Ind & Eng Chem Anal ed 18:484-93 Ag '46
Durability tests with new paint materials; abstract. J. Rinse. Paint Oil & Chem R 109:20 Ap 4 '46
Hegman fineness gauge. J. M. Purdy. il diag Paint Oil & Chem R 109:14+ Ag 22 '46
Paint, varnish, lacquer tests discussed at ASTM meeting. Oil Paint & Drug Rep 149: 7+ Mr 4 '46
Probability calculations in paint testing; abstract. H. J. Tadema. Paint Oil & Chem R 109:9 Ap 18 '46
Scratch hardness tester; abstract. Paint Oil & Chem R 109:14 Jl 25 '46
Shop-built equipment aids in studying highway paints. il Eng N 137:602 O 31 '46
Survey of methods used in South and Southwest for the testing of paints and varnishes, by Dallas paint and varnish production club. Paint Oil & Chem R 108:145+ N 1 '45
Testing paint with the Erichsen machine; abstract. H. Niesen and W. Roehrs. Paint Oil & Chem R 109:28 Jl 11 '46

Transportation
Report of N.P.V. & L.A. traffic committee. Paint Oil & Chem R 108:108-10 N 1 '45

PAINT, Anti-fouling
Action of antifouling paints; maintenance of leaching rate of antifouling paints formulated with insoluble, impermeable matrices. J. D. Ferry and B. H. Ketchum. diag Ind & Eng Chem 38:806-10 Ag '46
Action of antifouling paints; maintenance of leaching rate of antifouling paints formulated with soluble matrices. B. H. Ketchum, J. D. Ferry and A. E. Burns, jr. bibliog il diag Ind & Eng Chem 38:931-6 S '46
Action of antifouling paints; solubilities of antifouling toxics in sea water. J. D. Ferry and G. A. Riley. bibliog Ind & Eng Chem 38:699-701 Jl '46
Action of antifouling paints; solubility and rate of solution of cuprous oxide in sea water. J. D. Ferry and D. E. Carritt. bibliog Ind & Eng Chem 38:612-17 Je '46
Baffling the barnacle. R. G. Skerrett. il Comp Air Mag 51:264-9 O '46

PAINT, Anti-fouling—*Continued*
DDT as a marine antifouling agent. J. F. Marchand. Science 104:74 Jl 26 '46
Hot plastic paints for ship bottoms. R. P. Devoluy. Marine Eng 51:129-31 Ap '46
Interaction between antifouling paints and ships' bottoms. Marine Eng 51:138 Je '46
Under-water paints and the fouling of ships; summary and discussion. J. E. Harris and W. A. D. Forbes. Engineer 181:421-2 My 10 '46; Engineering 161:498-9 My 24 '46

Testing

Water absorption of paint and varnish films; abstract. R. J. Ledwith, J. B. G. Lewin and G. A. Newell. Paint Oil & Chem R 109:28 O 31 '46

PAINT, Fungicidal
Mildew control in the paint industry. R. C. Harnden. il Paint Oil & Chem R 108:32-4 N 15 '45; Excerpt. Oil Paint & Drug Rep 148:46 N 5 '45
Use of fungicides in paint and varnish; abstracts. A. Minich. Can Chem & Process Ind 29:745 N '45; Oil Paint & Drug Rep 148:45-6 N 12 '45

PAINT, Insecticidal
Use of DDT in paint. L. L. Carrick. Paint Oil & Chem R 108:104-5 N 1 '45; Excerpt. Oil Paint & Drug Rep 148:44-5 N 5 '45

PAINT, Light-sensitive
Transfer of stress grid to metal; use of light-sensitive paint; Transfax. N. C. Ferguson. Metal Prog 50:300-2 Ag '46

PAINT, Luminous
Black light and color magic. il diags Arch Rec 100:115-19 S '46
Instrument panel lighting design and development. T. B. Holliday. il Product Eng 16: 838-40 D '45
Luminous paints and tapes. Consumers Res Bul 17:21-2 Je '46

PAINT, Protective
Bacteria in paint; types of damage and suggested remedies. H. J. Bunker. Chem Age (Lond) 53:571-2 D 15 '45
Bituminous protective paints and compounds; abstract and discussion. J. W. Craggs and R. Fraser. Chem & Ind p157 Ap 13 '46
Chemical reaction in metal protective paints. E. J. Dunn, jr. il Paint Oil & Chem R 109:5-8 Jl 25 '46
Drying oils and their use in protective coatings. R. Mansell. Paint Oil & Chem R 109:9-10 S 19 '46
Fire-retardant paints for steel surfaces, by New York paint and varnish production club. Paint Oil & Chem R 108:129-36 N 1 '45; Abstract. Oil Paint & Drug Rep 148: 43-4 N 12 '45
Future chemical needs of the protective coating industry; abstract. R. F. Ruthruff. Chem & Met Eng 53:258+ Mr '46
Heat-resistant paints; abstract. H. W. Rudd. Paint Oil & Chem R 109:24 My 2 '46
High heat-resistant finishes (250°-800° F.) a progress report. Paint Oil & Chem R 108:140-1 N 1 '45
Insulation of dissimilar metal faying surfaces; tests of Ryan aeronautical co. B. W. Floersch. il Automotive & Aviation Ind 95: 37+ O 1 '46
Laboratory evaluation of corrosion resistant pigments and vehicles. H. Zahn. diag Paint Oil & Chem R 109:6-9 S 5 '46
Measurement of the porosity of non-conducting coatings on iron; abstract. Paint Oil & Chem R 109:26+ S 19 '46
Passivating effect of metal protective paints; abstract. Paint Oil & Chem R 109:14 Jl 25 '46
Phosphoric acid vs. materials of chemical plant construction; vinyl plastics, paint. D. F. Siddall. Chem Eng 53:206+ Ag '46
Preparation of metals for painting. R. E. Gwyther. Steel 119:158+ O 14 '46
Preparing and repainting outdoor electrical equipment. E. B. Curdts. il Elec World 124:84-6 N 24; 128-30 D 8 '45
Protection of structural steel with paint. G. Diehlman. bibliog Paint Oil & Chem R 109: 12+ Jl 11 '46
Protective action of lead compounds. J. E. O. Mayne. bibliog Soc Chem Ind J 65:196-204 Jl '46
Protective organic coatings. J. J. Mattiello. Chem Ind 59:277+ Ag '46
Relationship between the anticorrosive properties of paint films and their pigment content; abstract. O. E. Hintze. Paint Oil & Chem R 109:18 Ja 10 '46
Selling preservatives. E. Salas. Paint Oil & Chem R 108:70+ N 1 '45
Special maintenance finishes for specific problems. W. F. Kuster. Paint Oil & Chem R 108:74+ N 1 '45
Special organic coatings for protection against corrosion. R. P. Devoluy. il Paint Oil & Chem R 109:12+ Ag 8 '46
What protective coating makers would like from the chemical industry. R. F. Ruthruff. il Chem Ind 58:241-5 F '46
Zinc yellow, a corrosion-inhibitive pigment. W. F. Spengeman and D. H. Lawson. il Paint Oil & Chem R 108:9-10+ O 4 '45

See also
Car painting and finishing
Metal protection
Paint, Anti-fouling
Paint, Fungicidal
Paint, Insecticidal

Testing

Detection of pores in protective coatings; abstract. Paint Oil & Chem R 109:40+ O 3 '46
Effect of spray technique upon the porosity of metal coatings; abstract. A. Glazunow and L. Jenicek. Paint Oil & Chem R 109: 40 O 3 '46
Formulation of anti-corrosive compositions for ships' bottoms and underwater service on steel; effect of the pigment and of the medium. F. Fancutt and J. C. Hudson. Iron & Steel Inst J 150:269-333, pl 25-6; Discussion. 333-8 no 2 '44
Natural and synthetic iron oxides in linseed oil primers; abstract. Paint Oil & Chem R 109:30 Mr 21 '46
Water immersion testing of metal protective paints; role of osmosis in water absorption and blistering. W. W. Kittelberger and A. C. Elm. bibliog Ind & Eng Chem 38:695-9 Jl '46

PAINT, Temperature indicating
Report on thermocolour paints; abstract. V. C. Bidlack. Chem & Met Eng 53:212 Je '46

PAINT and varnish production clubs, Federation of. See Federation of paint and varnish production clubs

PAINT brushes
Hog bristles back. Bsns W p24-6 Ap 20 '46
Paint brush manufacturers caution industry on quality of present supply. Am Bld 68: 116 S '46

Advertising

Coordination is key to this advertising success; new Rubberset nylon paint brush. E. R. Brown. il Ptr Ink 217:59-60 O 18 '46
Research, teamwork, follow-through; Rubberset company's campaign for nylon brushes won NIAA award. W. Doty. il Ind Marketing 31:51-2+ S '46

PAINT cans
Picture labels that pinch hit for the salesman; Devoe & Raynolds co. new labels for specialty paints and household chemicals. il Mod Packaging 19:133-5 Ap '46
What's ahead in raw materials; paint and the can situation. H. F. White. Paint Oil & Chem R 108:40+ N 1 '45

PAINT factories
Management and the task of plant modernization. E. E. Hoffman. Paint Oil & Chem R 109:15-16 Ap 18 '46

Equipment

Layout of a modern paint and varnish plant, by Montreal paint and varnish production club. plans Paint Oil & Chem R 108:14+ N 15 '45
New machinery and equipment for plants. T. R. Collins. Paint Oil & Chem R 108:30 N 1 '45

Fires and fire protection

Fire protection for the paint plant. Safety Eng 92:29 Jl '46

Layout

Layout of a modern paint and varnish plant, by Montreal paint and varnish production club. plans Paint Oil & Chem R 108:14+ N 15 '45

PAINT factories—Layout—*Continued*
New aids in production reported to paint chemists. plan Can Chem & Process Ind 29:742-3 N '45

Safety measures
Solvents in the paint industry; toxicity and safety first. R. B. Pollak. Paint Oil & Chem R 108:10 S 20; 14+ O 4; 20+ N 29 '45

PAINT industry and trade
America's great merchant marine and paint. E. S. Land. Paint Oil & Chem R 108:15 N 1 '45
CPA industry advisory committee meeting. E. T. Trigg. Paint Oil & Chem R 109:10-11 Mr 7 '46
Color as a sales factor and what to do about it. C. Deutsch. Paint Oil & Chem R 108:62+ N 1 '45
Deferred maintenance market for paint for homes, factories and utilities. R. A. Plumb. Paint Oil & Chem R 108:78-9 N 1 '45
Disposal of surplus paints, varnishes and lacquers by Reconstruction finance corporation. L. P. Evans. Paint Oil & Chem R 108: 18 N 1 '45
Export opportunities for paint. F. B. Hillhouse. Paint Oil & Chem R 108:80-1 N 1 '45
Farm market for paints. H. R. Tolley. Paint Oil & Chem R 108:26 N 1 '45
Forecasts progress in the industry for 1946. R. W. Elton. Paint Oil & Chem R 109:32+ F 21 '46
How Glidden crashed 42 major markets with Spred Luster. L. S. Fulton. il Sales Management 57:44-5 Jl 15 '46
How to keep customers happy though unsatisfied; Kurfees paint co. passes U.S. oils quota on to dealers. A. R. Remmers. Sales Management 56:81 Je 15 '46
Merchandising of trade sales; sales reconversion. W. H. Mathews. Paint Oil & Chem R 108:46-7 N 15 '45
Modern trends in the paint industry; abstract. L. A. Walker. Chem & Ind p389 D 15 '45
Opportunity for paint sales through F.H.A. H. P. Daugherty. Paint Oil & Chem R 108: 16 N 1 '45
Paint dealers can prosper! R. W. Lindsay. Paint Oil & Chem R 108:116-17 N 1 '45
Paint industry hopes for first billion-dollar year. S. G. Ebert. Barron's 26:20 Ap 1 '46
Paint labels that sell name and product. il Mod Packaging 19:118-19 N '45
Paints lagging; lead and linseed oil shortages. Bsns W p26+ O 5 '46
Plan now for paint export markets. H. F. Hetrick. map Paint Oil & Chem R 109:9-10 Ja 10 '46
Progress, 1926-1946; paints, varnishes. il Am Bld 68:120+ O '46
Protective coatings industry; paints, varnishes, and lacquers; review of year's activities. V. C. Bidlack. bibliog Chem & Eng N 24: 344-6 F 10 '46
Selling preservatives. E. Salas. Paint Oil & Chem R 108:70+ N 1 '45
Selling quality finishes. P. S. Kennedy. Paint Oil & Chem R 108:88-9 N 1 '45
Toward a billion dollar industry. E. T. Trigg. Paint Oil & Chem R 108:20+ N 1 '45
War paint stays; water-mixed brands. Bsns W p73-4 My 4 '46
Your trademark, are you making the most of it? McQuade & co., paint manufacturer, redesigns entire family of labels. il Mod Packaging 20:105 O '46

Accounting
Cost figuring for producing and selling specialized production finishes. W. R. Sieplein. Paint Oil & Chem R 108:138-9 N 1 '45

Advertising
Devoe & Raynolds has time-saving mat service. il Ptr Ink 214:23 Mr 15 '46
Paint industry looks to advertising. E. D. Peck. Paint Oil & Chem R 108:11-12 N 1 '45
Paint industry raises fund for $500,000 ad drive. Ptr Ink 215:132 Ap 19 '46

Directories
Machine finishes producers. Machine Design 18:248-50+ O '46

Exhibitions
Detroit association holds industry exhibit. il Paint Oil & Chem R 109:38-9+ My 30 '46

Securities
Potentials and problems in the paint industry; with statistics on leading producers. S. Devlin. Mag of Wall St 79:28-9+ O 12 '46

Statistics
Paint, varnish, lacquer sales, 1945. Oil Paint & Drug Rep 149:69 F 18 '46

Germany
Paint, varnish and lacquer industry of Germany. H. O. Farr, jr. diag Paint Oil & Chem R 109:5-7+ My 30; 13-14+ Je 13; 46+ Je 27; 40+ Jl 11; 44-7 Ag 8 '46

Great Britain
Public relations; abstract. N. J. Campbell. Chem Age (Lond) 54:667-8 Je 15 '46

PAINT laboratories
Glidden company opens research laboratory in Cleveland. il Paint Oil & Chem R 109:22 Mr 21 '46

PAINT materials
Allyl ether of starch; abstract. W. S. Penn. Paint Oil & Chem R 109:28 O 31 '46
Chemical market researchers are told of ideal materials; abstract. R. F. Ruthruff. Oil Paint & Drug Rep 148:3+ D 17 '45
Composition of some trade name solvents used for cleaning and degreasing, and for thinning paints; tabulation. A. D. Brandt and others. Pub Health Rep 61:132-43 F 1 '46
Evaluation of resins; symposium in London. Chem Age (Lond) 53:613-17 D 29 '45
Glycerine as essential raw material of the paint industry; alkyd resins. G. Leffingwell and M. A. Lesser. bibliog Paint Oil & Chem R 109:14+ O 3 '46
Influence of thinner upon the thickness of films obtained by dipping; abstract. E. J. Goldstein and W. B. Bak. Paint Oil & Chem R 109:40 Ag 8 '46
Paint, varnish and lacquer industry of Germany. H. O. Farr, jr. diag Paint Oil & Chem R 109:5-7+ My 30; 13-14+ Je 13; 46+ Je 27; 40+ Jl 11; 44-7 Ag 8 '46
Paints lagging; lead and linseed oil shortages. Bsns W p26+ O 5 '46
Protective coatings industry; paints, varnishes, and lacquers; review of year's activities. V. C. Bidlack. bibliog Chem & Eng N 24:344-6 F 10 '46
Raw material survey issued by National paint, varnish and lacquer association. Paint Oil & Chem R 109:11-12 Mr 7 '46
Solvents in the paint industry; alcohols. R. B. Pollak. Paint Oil & Chem R 109:18+ Ap 18 '46
Solvents in the paint industry; coal tar hydrocarbons. R. B. Pollak. bibliog Paint Oil & Chem R 109:10+ F 21 '46
Solvents in the paint industry; ketones. P. B. Pollak. bibliog Paint Oil & Chem R 109: 8-10 My 30 '46
Solvents in the paint industry; nitroparaffins. R. B. Pollak. bibliog Paint Oil & Chem R 109:22+ Ag 8 '46
Solvents in the paint industry; petroleum thinners. R. B. Pollak. bibliog Paint Oil & Chem R 108:12+ D 13 '45; 109:12+ Ja 10; 9-10+ Ja 24; 10+ F 7 '46
Solvents in the paint industry; rules of solubility. R. B. Pollak. bibliog Paint Oil & Chem R 109:40+ Ag 22 '46
Solvents in the paint industry; terpenes and terpene substitutes. R. B. Pollak. Paint Oil & Chem R 109:16+ Mr 21 '46
Solvents in the paint industry; the chlorinated hydrocarbons. R. B. Pollak. bibliog Paint Oil & Chem R 109:12+ Ap 4 '46
Solvents in the paint industry; the esters. R. B. Pollak. bibliog Paint Oil & Chem R 109:12+ My 2 '46
Solvents in the paint industry; the furans. R. B. Pollak. Paint Oil & Chem R 109:9-10+ Jl 25 '46
Solvents in the paint industry; turpentine. R. B. Pollak. bibliog Paint Oil & Chem R 109:5-7 Mr 7 '46

PAINT materials—*Continued*
Synthetic resin developed from rubber chemistry; Pliolite S-5. L. B. Sebrell. il Paint Oil & Chem R 109:9-10 My 2 '46
Viscosity-temperature relationships of paint vehicles; abstract. P. G. Meerman. Paint Oil & Chem R 109:20 Ap 4 '46
What protective coating makers would like from the chemical industry. R. F. Ruthruff. il Chem Ind 58:241-5 F '46
What's ahead in raw materials. H. Smith and others. Paint Oil & Chem R 108:32-62 N 1 '45

See also
Carbon black
Drying oils
Finishing materials
Linseed oil
Pigments
Tall oil
Titanium oxides
Tung oil
Varnish and varnishing

PAINT removers
Paint and varnish removers. M. A. Lesser. bibliog(41 references) Soap & San Chem 22:153-5+ Je '46

Rating
Paint, varnish, and shellac removers. Consumers Res Bul 17:12-14 Ap '46

PAINT research
Borderline emulsion paints; abstract. Paint Oil & Chem R 109:26 S 19 '46
Cooperative study of gloss measurements. Paint Oil & Chem R 108:106 N 1 '45
Flow properties of pigment/oil mixtures; abstract. W. Carr. Paint Oil & Chem R 109: 32 Je 27 '46
Olive drab tint retention. Oil Paint & Drug Rep 148:45 N 12 '45
Study of primers for ferrous metals in atmospheric exposure; progress report no. 1, by New England paint and varnish production club. Paint Oil & Chem R 108:136-7 N 1 '45
Tall oil in surface coatings, by Golden Gate paint and varnish production club. Paint Oil & Chem R 108:144-5 N 1 '45

PAINT spraying
Automatic spray painting; abstract. R. H. Wallace. Materials & Methods 22:1516+ N '45
Carbon bushes on spraying plant conveyors. F. L. Gray. il Mech Handling 33:72-4 F '46
Clean air reduces product rejects; dial painting, Weston electrical instrument corp. C. D. Goodsell. diag Factory Management 104:143-4 F '46
Conveyorized enameling of castings; I-T-E circuit breaker co. H. Chase. il diag Iron Age 157:53-5 F 14 '46
Dodge sprays paint automatically on fenders and hoods. R. LeGrand. il diags Am Mach 90:133-5 O 10 '46
Electrostatic processes. J. H. Jupe. diag Electrician 136:1093-4 Ap 26 '46
Electrostatic processes cut finishing costs; applied to dip and spray painting. il diags Elec World 124:115-17 D 8 '45
Loading the conveyor right increases take-home pay; paint spraying operation, General Electric plant. H. C. Geppinger. il plan diag Factory Management 103:121-3 D '45
Paint spraying car exteriors and interiors. il Ry Mech Eng 120:357 Jl '46
La peinture au pistolet. Génie Civil 123:178 Jl 1 '46
Recirculating spray booth exhaust. F. P. Jung. diag Heat & Ven 43:62-4 My '46
Spray painting farm and residential property. W. J. Pitt. Paint Oil & Chem R 108: 142-3 N 1 '45
Static saves sprayed paint; conveying parts through electrostatically charged field. E. P. Miller. il Am Mach 90:141-4 Je 20 '46

Bibliography
Spray painting; bibliography of articles appertaining to automobiles, 1938-1944. R. Steele, comp. Automobile Eng 35:536 D '45

Booths
Design of exhaust systems. F. H. Stebbins. diags Sheet Metal Worker 37:49-51 Jl; 47-8+ Ag; 46-8+ S '46
Spray-booth lighting. W. H. Kahler. Safety Eng 90:62 Jl '45; Same, with il. Sheet Metal Worker 36:45+ Ag '45; Same. Ry Mech Eng 120:42 Ja '46; Abstract. Steel 117:146 O 15 '45

PAINT thinners. See Paint materials

PAINTING, Factory. See Factories—Painting

PAINTING, Industrial
Effect of surface preparation on the durability of organic coatings; abstract. V. M. Darsey. Steel 119:106+ Jl 8 '46
Electrostatic processes cut finishing costs; applied to dip and spray painting. il diags Elec World 124:115-17 D 8 '45
Flame cleaning of steel, using gas; preparation for painting. A. J. Pfetzing. il Gas Age 96:13-14 N 29 '45
Paint for production. J. A. Meacham. il Sci Am 175:123-5 S '46
Painting machine parts; abstract. C. R. Syer. Materials & Methods 24:182 Jl '46
Pre-treating metals for finish; abstract. G. C. Close. Materials & Methods 22:1832 D '45
Static makes dipped coatings shed tears. E. P. Miller. il diags Am Mach 90:90-2 Ag 29 '46; Same abr. Mech Eng 68:910-11 O '46
Use of a tin undercoat to improve the corrosion resistance of painted steel. E. S. Hedges and others. il Engineering 160:505-8 D 14 '45; Same, without il. bibliog Steel 118:103+ Ap 22 '46; Abstract. Iron Age 156: 64 D 6 '46
White paint aids good housekeeping. J. L. Yates. il Foundry 74:106-9+ Jl '46

See also
Airplanes—Painting
Car painting and finishing
Factories—Painting
Gas holders—Painting
Lacquer and lacquering
Machinery—Painting
Paint, Protective
Paint spraying
Stains and staining (wood)
Varnish and varnishing

PAINTINGS

See also
Advertisements, Pictorial—Paintings

PALEOBOTANY
Progress in paleontological research on the Pacific coast, 1917-1944. C. Stock. Geol Soc Bul 57:333-6 bibliog(p351-3) Ap '46

See also
Pollen, Fossil

Cretaceous
Age of the Canadian Kootenay formation. W. A. Bell. bibliog pl Am J Sci 244:513-26 Jl '46
Fossil plants and Jurassic-cretaceous boundary in Montana and Alberta. R. W. Brown. bibliog Am Assn Pet Geologists Bul 30:238-48 F '46

Jurassic
Fossil plants and Jurassic-cretaceous boundary in Montana and Alberta. R. W. Brown. bibliog Am Assn Pet Geologists Bul 30: 238-48 F '46

Tertiary
Walnuts from the late tertiary of Ecuador. R. W. Brown. bibliog Am J Sci 244:554-6, pl 1 Ag '46

Alberta
Age of the Canadian Kootenay formation. W. A. Bell. bibliog pl Am J Sci 244:513-26 Jl '46
Fossil plants and Jurassic-cretaceous boundary in Montana and Alberta. R. W. Brown. bibliog Am Assn Pet Geologists Bul 30:238-48 F '46

Ecuador
Walnuts from the late tertiary of Ecuador. R. W. Brown. bibliog Am J Sci 244:554-6, pl 1 Ag '46

Montana
Fossil plants and Jurassic-cretaceous boundary in Montana and Alberta. R. W. Brown. bibliog Am Assn Pet Geologists Bul 30:238-48 F '46

Oregon
Postglacial forest succession and climate in the Oregon Cascades. H. P. Hansen. bibliog maps Am J Sci 244:710-34 O '46

PALEOBOTANY—*Continued*

Pennsylvania

Pennsylvanian florule from the Forkston coal in the Dutch mountain outlier, northeastern Pennsylvania. C. B. Read. diag U S Geol S Professional Pa 210-B:17-25, pl 1-2; pa 15c Supt. of doc. '46

PALEOCLIMATOLOGY

Age of Jerome bog, a Carolina bay. M. F. Buell. bibliog Science 103:14-15 Ja 4 '46

Postglacial forest succession and climate in the Oregon Cascades. H. P. Hansen. bibliog maps Am J Sci 244:710-34 O '46

PALEOGEOGRAPHY

Submarine slumping and location of oil bodies. R. W. Fairbridge. bibliog diags Am Assn Pet Geologists Bul 30:84-92 Ja '46

California

Age of Lake Cahuilla. T. D. A. Cockerell. Science 103:235 F 22 '46

PALEONTOLOGICAL research

Progress in paleontological research on the Pacific coast, 1917-1944. C. Stock. Geol Soc Bul 57:319-54 bibliog(p338-54) Ap '46

PALEONTOLOGISTS

Expanding activities of paleontologists. J. R. Sandidge. bibliog Am Assn Pet Geologists Bul 30:1088-94 Jl '46

See also

Merriam, John
Campbell

PALEONTOLOGY

Abstracts and index (July-December); papers before Geological society of America and other societies. Geol Soc Bul 56:1143-1225 pt 2 D '45

Society of economic paleontologists and mineralogists; abstracts of annual meeting papers. Oil & Gas J 44:93-4+ Ap 6 '46

Trends and developments in vertebrate paleontology. C. L. Camp. Geol Soc Bul 57: 541-5 Je '46

See also

Chalicotheres
Coprolite
Micropaleontology
Mollusks, Fossil
Paleobotany
Reptiles, Fossil
Trilobites

Bibliography

Progress in paleontological research on the Pacific coast, 1917-1944. C. Stock. Geol Soc Bul 57:338-54 Ap '46

Nomenclature

Neotypes. G. G. Simpson. bibliog Am J Sci 243:680-94 D '45

Cambrian

Revision of some late upper Cambrian trilobites from New York, Vermont and Quebec. F. Rasetti. bibliog Am J Sci 244:537-46, pl 1 Ag '46

Revision of the upper Cambrian faunas of New Jersey. B. F. Howell. (Memoir 12) 46p 8 pls bibliog(p30-1) Geological soc. of America, 419 W. 117th st, New York 27 '45

Two upper Cambrian (trempealeau) trilobites from Dutchess county, New York. C. Lochman. bibliog Am J Sci 244:547-53, pl 1 Ag '46

Cretaceous

Micropaleontology of upper cretaceous and paleocene in western Ecuador. H. E. Thalmann. bibliog map Am Assn Pet Geologists Bul 30:337-47 Mr '46

Upper cretaceous foraminifera of the Gulf coastal region of the United States and adjacent areas. J. A. Cushman. bibliog U S Geol S Professional Pa 206:1-241, pl 1-66; pa $1 Supt. of doc. '46

Eocene

Eocene faunas from the Department of Bolivar, Colombia. B. L. Clark and J. W. Durham. (Memoir 16) 126p, pl 1-28 bibliog(p84-7) Geological soc. of America, 419 W. 117th st, New York 27 '46

Jurassic

Knoxville series in the California mesozoic. F. M. Anderson. Geol Soc Bul 56:909-1014, pl 1-15 bibliog(p993-8) O '45

Paleozoic

Conodonts as paleozoic guide fossils. S. P. Ellison, jr. il Am Assn Pet Geologists Bul 30:93-110 Ja '46

Permian

Marine early Permian of the central Andes and its fusuline faunas. C. O. Dunbar and N. D. Newell. bibliog map diags Am J Sci 244:377-402, 457-491 12pl Je-Jl '46

Permian fusulinids of California. M. L. Thompson and others. (Memoir 17) 77p, pl 1-18 Geological soc. of America, 419 W. 117th st, New York 27 '46

Permian Pease River group of Texas. R. Roth. bibliog maps Geol Soc Bul 56:893-907, pl 1-8 O '45

Permian studies at the Smithsonian institution, Washington. Science 104:15-16 Jl 5 '46

Permian Word formation; its faunal and stratigraphic correlatives, Texas. R. L. Clifton. bibliog Am Assn Pet Geologists Bul 29:1766-76 D '45

Pleistocene

Paleontology of the pleistocene molluscan fauna of the Newport Bay area, California. S. C. Bruff. Univ of Calif Bul of Dept of Geol Sci v 27, no 6:213-40 bibliog(p237-40) '46 (pa 35c)

Pleistocene fossil excavations at Blue Licks Spring, Kentucky. W. R. Jillson. Science 103:58-9 Ja 11 '46

Tertiary

Evolution of reef corals in East Indies since miocene time. J. H. F. Umbgrove. bibliog Am Assn Pet Geologists Bul 30:23-31 Ja '46

Mollusca of the tertiary formations of northeastern Mexico. J. Gardner. (Memoir 11) 332p, pl 1-28 Geological soc. of America, 419 W. 117th st, New York 27 '45

Tertiary foraminifera from St Croix, Virgin Islands. J. A. Cushman and D. J. Cederstrom. bibliog map diag U S Geol S Professional Pa 210-A:1-17, insert; pa 20c Supt. of doc. '46

Triassic

Conodonts from the triassic of Sinai (Egypt). D. B. Eicher. Am Assn Pet Geologists Bul 30:613-16 Ap '46

Triassic freshwater gastropods from southern Utah. T. Yen and J. B. Reeside, jr. pl Am J Sci 244:49-51 Ja '46

Bolivia

Marine early Permian of the central Andes and its fusuline faunas. C. O. Dunbar and N. D. Newell. bibliog map diags Am J Sci 244:377-402, 457-491 12pl Je-Jl '46

California

Geology and paleontology of Palos Verdes Hills, California. W. P. Woodring and others. U S Geol S Professional Pa 207: 1-145, pl 1-37 bibliog(p3-8); pa $1.50 Supt. of doc. '46

Knoxville series in the California mesozoic. F. M. Anderson. Geol Soc Bul 56:909-1014, pl 1-15 bibliog(p993-8) O '45

Paleontology of the pleistocene molluscan fauna of the Newport Bay area, S. C. Bruff. Univ of Calif Bul of Dept of Geol Sci v 27, no 6:213-40 bibliog(p237-40) '46 (pa 35c)

Permian fusulinids of California. M. L. Thompson and others. (Memoir 17) 77p, pl 1-18 Geological soc. of America, 419 W. 117th st, New York 27 '46

Colombia

Eocene faunas from the Department of Bolivar. B. L. Clark and J. W. Durham. (Memoir 16) 126p, pl 1-28 bibliog(p84-7) Geological soc. of America, 419 W. 117th st, New York 27 '46

East Indies

Evolution of reef corals in East Indies since miocene time. J. H. F. Umbgrove. bibliog Am Assn Pet Geologists Bul 30:23-31 Ja '46

Ecuador

Micropaleontology of upper cretaceous and paleocene in western Ecuador. H. E. Thalmann. bibliog map Am Assn Pet Geologists Bul 30:337-47 Mr '46

PALEONTOLOGY—*Continued*

Egypt

Conodonts from the triassic of Sinai (Egypt). D. B. Eicher. Am Assn Pet Geologists Bul 30:613-16 Ap '46

Gulf Coast region

Upper cretaceous foraminifera of the Gulf coastal region of the United States and adjacent areas. J. A. Cushman. bibliog U S Geol S Professional Pa 206:1-241, pl 1-66; pa $1 Supt. of doc. '46

Iowa

Brachiopoda of the Independence shale of Iowa. M. A. Stainbrook. (Memoir 14) 74p, 6 pls bibliog(p60-1) Geological soc. of America, 419 W. 117 st, New York 45

Kentucky

Pleistocene fossil excavations at Blue Licks Spring. W. R. Jillson. Science 103:58-9 Ja 11 '46

Mexico

Mollusca of the tertiary formations of northeastern Mexico. J. Gardner. (Memoir 11) 332p, pl 1-28 Geological soc. of America, 419 W. 117th st, New York 27 '45

New Jersey

Revision of the upper Cambrian faunas of New Jersey. B. F. Howell. (Memoir 12) 46p 8 pls bibliog(p30-1) Geological soc. of America, 419 W. 117th st, New York 27 '45

New York (state)

Revision of some late upper Cambrian trilobites from New York, Vermont and Quebec. F. Rasetti. bibliog Am J Sci 244:537-46, pl 1 Ag '46

Two upper Cambrian (trempealeau) trilobites from Dutchess county, New York. C. Lochman. bibliog Am J Sci 244:547-53, pl 1 Ag '46

Oregon

Stratigraphy of upper Nehalem River basin, northwestern Oregon. W. C. Warren and H. Norbisrath. bibliog maps Am Assn Pet Geologists Bul 30:213-37 F '46

Pacific coast

Progress in paleontological research on the Pacific coast, 1917-1944. C. Stock. Geol Soc Bul 57:319-54 bibliog(p338-54) Ap '46

Peru

Marine early Permian of the central Andes and its fusuline faunas. C. O. Dunbar and N. D. Newell. map diags Am J Sci 244: 377-402 Je '46

Quebec

Revision of some late upper Cambrian trilobites from New York, Vermont and Quebec. F. Rasetti. bibliog Am J Sci 244:537-46, pl 1 Ag '46

United States

Smithsonian: pioneer in American geology. R. S. Bassler. Science 104:125-9 Ag 9 '46

Utah

Triassic freshwater gastropods from southern Utah. T. Yen and J. B. Reeside, jr. pl Am J Sci 244:49-51 Ja '46

Venezuela

Geology of Maracaibo basin, Venezuela. F. A. Sutton. bibliog maps diags Am Assn Pet Geologists Bul 30:1621-741, fold map(pl 1) pl 2-9 O '46

Vermont

Revision of some late upper Cambrian trilobites from New York, Vermont and Quebec. F. Rasetti. bibliog Am J Sci 244:537-46, pl 1 Ag '46

Wyoming

Coprolites from the Bridger formation of Wyoming; their composition and microörganisms. W. H. Bradley. bibliog Am J Sci 244:215-39, pl 1-4 Mr '46

Paleocene freshwater mollusks from Sheridan county. T. Yen. bibliog Am J Sci 244:41-8 Ja '46

PALESTINE

Final settlement for Palestine? Economist 151:164-5 Ag 3 '46

Frustration in Palestine. Economist 150:831-2, 876-7 My 25-Je 1 '46

Joint Palestine study planned by U.S. and Britain. Comm & Fin Chr 162:2500 N 22 '45

Palestine dilemma. Economist 151:45-6 Jl 13 '46

Palestine: Jewish homeland? J. E. Johnsen, comp. Ref Shelf v 18, no 6:1-342 bibliog(p312-42) '46 ($1.25)

Postponement in Palestine; question of Jewish immigration. Economist 149:708-10 N 17 '45

Report on Palestine. Economist 150:699-700 My 4 '46

See also

Akaba canal (proposed)
Concrete products industry—Palestine
Electric apparatus industry—Palestine
Petroleum industry and trade—Palestine

Commerce

Arab boycott. Economist 150:86 Ja 19 '46

Economic conditions

Economy of Palestine; with statistical tables. Economist 151:298-300 Ag 24 '46

News by countries. For Comm W 23:30-1 Je 1 '46

PALLADIUM

Platinum's younger sister. Fortune 33:210+ My '46

Analysis

Detection of palladium using pararosaniline hydrochloride; a spot test procedure. P. W. West and E. S. Amis. bibliog Ind & Eng Chem Anal ed 18:400-2 Je '46

PALLETS

Aluminum pallet for shipping; with cost data. T. O. Palmer. il Steel 119.125-6 Jl 1 '46

Aluminum pallets. il Mech Eng 68:650 Jl '46

Aluminum pallets cut material handling cost. il Iron Age 158:66-7 Ag 8 '46

Aluminum pallets save handling weight and expense. il Mach 52:156 Jl '46

Built-in pallets cut scrap-handling time; Allis-Chalmers supercharger plant. F. MacDonald. il diag Factory Management 103: 92-3 N '45

Industry must find the way to palletized shipping. A. J. Martin, jr. and J. F. Roberts. il Factory Management 104:121-5 Ja '46

Jig facilitates handling on pallets. il Steel 118:122+ F 11 '46

Looking ahead in Detroit; new packagings on exhibit. il Mod Packaging 19:101-2 D '45

Modern materials handling and warehousing techniques; abstract. C. H. Barker, jr. Mod Packaging 19:145-6 Ap '46

Modern materials-handling methods; industrial trucks. H. S. Wharen. diags Am Mach 90:128-33 Je 20 '46

Palletization. N. L. Cahners. il Chem Ind 59:294 Ag '46

Palletized food shipments; shipment of canned citrus juices for the armed forces. B. W. Skinner. il Food Ind 18:1020-1+ Jl '46

Palletizing comes into its own. T. P. Callahan. il Chem Ind 57:1106+ D '45

Palletizing of portland cement. R. L. Rhodes. il Comp Air Mag 50:286-7 N '45

Planning the pallet system. A. J. Martin, jr. and J. F. Roberts. il diags Factory Management 104:97-108 Mr '46

Research speeds materials handling by Navy's Bureau of ordnance. il Nat Safety N 53:24-6+ Ap '46

Truck method of handling spike kegs. il Steel 118:117+ Mr 11 '46

PALM oil

Belgian Congo as a fats-and-oils source. M. D. Hall. il For Comm W 24:3-4+ Ag 24 '46

PALMER, Robert W.

Bob Palmer retires. por Ptr Ink 215:17 Je 28 '46

PALMITIC acid

Radiochemical changes in some fatty acids. R. E. Honig. Science 104:27-8 Jl 12 '46

PALUDRINE
Discovery of paludrine. F. H. S. Curd and F. L. Rose. Chem & Ind p75-7 F 16 '46; Discussion. p88-9 F 23 '46
Formula of paludrine. Science 103:452 Ap 12 '46
New antimalarial; important British discovery. Chem Age (Lond) 53:431 N 10 '45
Progress in drugs, fine chemicals and biological products during 1945. G. C. Green. Chem Age (Lond) 54:209-10 F 23 '46

PAMAQUINE. See Plasmochin

PAMPHLETS
Bibliography
Index to American Catholic pamphlets. v. 3, (August, 1942—May, 1946). E. P. Willging, comp. 107p pa $1.25 Eugene P. Willging, Box 631, Scranton 2, Pa. '46

PANAGRA. See Pan American-Grace airways

PANAMA
See also
Airports—Panama
Building—Panama
Petroleum industry and trade—Panama
Petroleum pipe lines—Panama
Commercial policy
Provisions approved in connection with nationalization of commerce; individuals and corporations which may engage in retail trade. For Comm W 22:17 Mr 16 '46
Economic conditions
Latin America's economy as world conflict ended. For Comm W 24:55-6 Jl 13 '46
News by countries. For Comm W 22:27 Mr 2; 23:32 My 25; 24:31 Jl 6; 28 Ag 3; 21 S 7; 25:19-20 O 5; 17-18 N 2 '46

PANAMA canal
Isthmus vs. atom; how to enlarge and defend Panama canal. il Bsns W p21-2 F 2 '46
Panama canal discussions envisage 135-ft. dredging. Eng N 136:441 Mr 28 '46
Seek survey of Panama Canal needs. Eng N 135:695 N 22 '45
Urge speedy Panama canal expansion. Eng N 137:205 Ag 15 '46

PANAMA Canal Zone
Liner Panama ready for Canal zone service. il Marine Eng 51:112+ O '46

PANAMA jungle. See Jungle

PAN AMERICAN airways
PAA asks domestic routes; proposes high speed travel. map Air Transport 4:60 O '46
Pan-Am charges TACA subterfuge. Aviation N 5:31 My 27 '46

PAN AMERICAN conferences
Industrial relations charter for the Americas; third Regional labor conference of American countries. H. S. Roberts. Mo Labor R 62:907-11 Je '46

PAN AMERICAN-Grace airways
Panagra case remanded to CAB on derivative action principle. Aviation N 5:37 F 11 '46

PAN AMERICAN highway
Finish Pan-American road bridge to link Argentine, Brazilian highways. il map Eng N 135:692 N 22 '45
Pan-American highway; how much of it is open to travel? M. E. Gilmore. il maps Eng N 136:276-81 F 21 '46
Pan-American highway, South American sections. M. E. Gilmore. il For Comm W 21: 12-13+ N 24 '45

PAN AMERICANISM
As allies of humanity, we must expand the horizon of America. H. A. Wallace. For Comm W 24:22 S 14 '46
Inter-American affairs, 1945; annual survey no. 5. A. P. Whitaker, ed. 328p bibliog(p245-54) $3.75 Columbia univ. press, Morningside heights, New York '46
Latin America's food; "Servicios" aid advance. W. C. Brister. il For Comm W 23:10-13+ My 25 '46
U.S. proposal for inter-American defense pact. Comm & Fin Chr 163:170 Ja 10 '46

PANCREAS
Pancreatic enzymes and liver fat. C. H. Best. Science 103:207 F 15 '46

PANEL system of heating. See Electric heating—Panel system; Heating—Panel system; Hot water heating—Panel system

PANHANDLE eastern pipeline company
Annual report. Comm & Fin Chr 163:1163 Mr 4 '46
Debentures offered. Comm & Fin Chr 163: 2585 My 13 '46
FPC finds a way; barrier to direct sale of gas by Panhandle to Ford. Bsns W p18 Mr 30 '46
Panhandle scores; State court rules pipeline company may sell natural gas to Ford. Bsns W p52-4 O 26 '46

PANHANDLE producing and refining company
Panhandle row; new group of directors takes over oil concern. Bsns W p48 My 25 '46
Special report. Comm & Fin Chr 164:1255 S 2 '46
Variety in oil; construction is added to diversified Panhandle lines. Bsns W p72+ D 29 '45

PANHORST, Frederick W. 1893-
Sketch. por Civil Eng 15:571 D '45

PANORAMIC receivers. See Radio receiving apparatus

PANTOTHENIC acid
Growth inhibition of lactic acid bacteria by N-(α,γ-dihydroxy-β,β-dimethylvaleryl)-β-alanine and its reversal by pantothenic acid. W. Drell and M. S. Dunn. bibliog Am Chem Soc J 68:1868 S '46

PANTOYLTAURINE
Antagonism of salicylate by pantoyltaurine. P. G. Stansly and C. M. Alverson. bibliog Science 103:398-9 Mr 29 '46

PANTS, Infants'
Rating
Training pants. Consumers Res Bul 17:7-9 Je '46

PAPAIN
Splitting of human gamma globulin antibodies by papain and bromelin. M. L. Petermann. bibliog Am Chem Soc J 68:106-13 Ja '46

PAPER
American chemical society; 110th meeting; abstracts of papers in connection with the cellulose or paper industries. Paper Ind 28: 1024+ O '46
Bulk density factor nomograph. D. S. Davis. Paper Ind 28:538 Jl '46
Cellulosic materials and the plastics industry; wood, woodpulp and paper for manufacture of plastic materials. S. W. Blake. il Pulp & Pa of Can 46:925-7 N '45
Converter needs more than paper. L. M. Perry. Paper Ind 28:864+ S '46
Functional papers. R. H. Mosher and R. S. Bracewell. Paper Tr J 122:60-2 Ap 18 '46; Same cond. Paper Ind 28:293-4 My '46
Physical aspects of working papers. L. H. Pilié. J Account 82:248-9 S '46
Specialty papers; modern theory and practice. R. H. Mosher. diags Mod Packaging 19:137-40+ Ag '46
Technical filing system for the pulp and paper industry. J. D. Clark. Paper Ind 27:1359+ D '45
See also
Carbon paper
Cigaret paper
Filter paper
Glassine
Newsprint paper
Paper board
Probability paper
Vulcanized fiber
Waste paper
Wood pulp
Wrapping paper
Air resistance
Air resistance of paper; revision of TAPPI tentative standard T 460 m-44. Paper Tr J 121:39-40 D 6 '45
Analysis
Application of the Herzberg stain to nitrated cotton and nitrated paper fibres. A. Mackie. Chem & Ind p373-4 O 12 '46
Qualitative identification of synthetic resins. J. H. Graff. Paper Tr J 122:41-3 Ja 31 '46
Rosin in paper and paperboard; revision of TAPPI Standard T 408 m-44. Paper Tr J 122:57-8 Ap 25 '46
Brightness
Simple method for predicting the brightness of mixed pulp furnishes. W. J. Foote. bibliog Paper Tr J 122:35-7 F 21 '46

PAPER—*Continued*

Color

Fading of groundwood by light; inhibition of fading through the use of ultraviolet absorbing compounds. P. A. Nolan. Paper Tr J 121:35-9 D 6 '45

Fading of groundwood by light; search for an inhibitor to prevent the fading of groundwood. E. A. Reineck and H. F. Lewis. Paper Tr J 121:27-30 N 15 '45

Quantitative measurement of fading by the photoelectric tristimulus method; abstract. R. S. Hunter. Pulp & Pa of Can 47:89 Ag '46

Yellowing of pulp; abstract. H. W. Giertz. Paper Ind 27:1428 D '45

Creasing

Moldability (crease retention) of wrapping paper; revision of TAPPI official standard T 466 m-42. Paper Tr J 123:28 O 17 '46

Curling

Curling of lithographic papers. R. F. Reed. il Paper Tr J 123:37-42 Jl 4 '46

Erasing qualities

Erasing quality of paper; TAPPI suggested method T478 sm-46. diags Paper Tr J 123: 62-3 S 26 '46

Insect resistance

Insect resistance of packages, paper, and paperboard; TAPPI suggested method T 473 sm-46. Paper Tr J 122:63-4 Ap 18 '46

Manufacture

See Paper making

Moisture content

Curling of lithographic papers. R. F. Reed. il Paper Tr J 123:37-42 Jl 4 '46

Wrinkling, lost register. Inland Ptr 117:72 Je '46

Opacity

Titanium dioxide renders lightweight paper stock opaque. E. Schmatolla. il Inland Ptr 117:51 My '46

Optical properties

Light scattering and absorption coefficients from reflectance data. W. B. Campbell and J. Benny. Pulp & Pa of Can 47:74-8 Je '46

Simple method for predicting the brightness of mixed pulp furnishes. W. J. Foote. bibliog Paper Tr J 122:35-7 F 21 '46

Permeability

Instrumentation studies; penetration of papers by water vapor. bibliog il diags Paper Tr J 116:11-15 Ap 8; 10-13 Je 10; 16-19 Je 17; 117:12-15 Jl 1 '43; 118:23-31 Ja 13 '44; 121:68+ S 27; 33-42 O 18 '45; 122: 35-44 Ja 3; 37-42 F 7; 41-6 F 21 '46

Water-vapor permeability tester. F. T. Carson and V. Worthington. il plan diags Paper Ind 27:1799-1805+ Mr '46

Prices

Index numbers of wholesale prices of paper and pulp. Mo Labor R 63:122 Jl '46

See also

Paper, Government

Printing properties

Coated papers and the offset process. R. E. Beadle. Inland Ptr 117:57-60 Ap '46

Evaluation of paper surfaces for printability. V. V. Vallandigham. diags Pulp & Pa of Can 46:921-5 N '45; Same. Paper Ind 27: 1258-60+ N '45

Forecasting printability by oil absorption measurements; use of photo electric absorption meter. V. V. Vallandigham. Paper Tr J 123:39-41 O 24 '46

Lessons from a failure; how a printer profited from experience. Pulp & Pa of Can 46:920 N '45

Measurement of tone reproduction of halftone prints and uniformity of solid prints. R. Buchdahl and others. bibliog il Paper Tr J 122:41-5 My 2 '46

Picking is a wintertime problem. E. St John. Inland Ptr 116:66-7 O '45

Pressman wants printing quality and pressroom production. Pulp & Pa of Can 47:86-7 My '46

Problems of the printer and how the paper industry can cooperate with him. G. H. Petersen. Paper Tr J 122:147-9 Je 20 '46; Same cond. Paper Ind 28:568+ Jl '46

Proof press evaluation of paper. A. T. Gardner. Pulp & Pa of Can 47:78-9 Ag '46

Speed of penetration of printing ink into paper. A. Voet and J. S. Brand. bibliog diag Paper Tr J 122:34-9 Je 13 '46; Same abr. Paper Ind 28:428+ Je '46

What lies ahead in coated papers for letterpress? F. Rundell. Inland Ptr 116:48-9 F '46

Your part in lithography's future. W. E. Griswold. Paper Tr J 122:84+ Je 20 '46

Bibliography

Review of the literature relating to printability and allied subjects, 1944-1945. S. M. Chapman. bibliog Pulp & Pa of Can (Convention no) 47:267-73 [F] '46; Same cond. Paper Ind 27:1704-9 F '46

Smoothness measurement

Proposed methods of test for smoothness of paper. Am Soc T M Proc 45:260-4 '45

Standards

Report of standards committee for 1945. R. C. Griffin. Paper Tr J 122:55 Mr 21 '46

Strength

Chemicals imparting wet strength; analysis of dilute melamine resin solution. B. Ivarsson and B. Steenberg. bibliog diag Chem Age (Lond) 54:391-6 Ap 13 '46

Effect of chlorides and iron salts on bursting strength; abstract. L. G. Cottrall and J. L. Gartshore. Paper Ind 27:1910 Mr '46

Instrumentation studies; determination of the bonding strength of paper. il diags Paper Tr J 123:24+ O 31; 24+ N 7 '46

New wet strength resin; Uformite 470. Paper Ind 28:900 S '46

Wet strength in Uformite. Paper Tr J 121: 26 D 27 '45

Testing

Abrasion resistance of paper and paperboard; TAPPI suggested method T 476 sm-46. Paper Tr J 123:47-8 Jl 11 '46

Air resistance of paper; revision of TAPPI tentative standard T 460 m-44. Paper Tr J 121:39-40 D 6 '45

Aluminum foil now available to standardize Mullen tester. Paper Tr J 122:28 My 16 '46; Same. Paper Ind 28:63 Ap '46

Developments in the physical testing of paper during 1944-45. B. W. Scribner. bibliog Paper Tr J 122:130+ F 28 '46

Erasing quality of paper; TAPPI suggested method T478 sm-46. diags Paper Tr J 123: 62-3 S 26 '46

Evaluation of paper surfaces for printability. V. V. Vallandigham. diags Pulp & Pa of Can 46:921-5 N '45; Same. Paper Ind 27: 1258-60+ N '45

Forecasting printability by oil absorption measurements; use of photo electric absorption meter. V. V. Vallandigham. Paper Tr J 123:39-41 O 24 '46

Ink-line test for the determination of degree of sizing in writing paper. M. O. Schur and R. M. Levy. il diag Paper Tr J 122:47-51 Mr 21 '46

Insect resistance of packages, paper, and paperboard; TAPPI suggested method T 473 sm-46. Paper Tr J 122:63-4 Ap 18 '46

Instrumentation studies; determination of the bonding strength of paper. il diags Paper Tr J 123:24+ O 31; 24+ N 7 '46

Instrumentation studies; penetration of papers by water vapor. bibliog il diags Paper Tr J 116:11-15 Ap 8; 10-13 Je 10; 16-19 Je 17; 117:12-15 Jl 1 '43; 118:23-31 Ja 13 '44; 121:68+ S 27; 33-42 O 18 '45; 122:35-44 Ja 3; 37-42 F 7; 41-6 F 21 '46

Paper testing committee report, 1945; Technical association of the pulp & paper industry. Paper Tr J 122:132+ F 28 '46

Rigidity, stiffness, and softness of paper and paperboard; revision of TAPPI tentative standard T 451 m-44. diag Paper Tr J 121: 31-2 N 15 '45

PAPER—Testing—*Continued*
Water-vapor permeability tester. F. T. Carson and V. Worthington. il plan diags Paper Ind 27:1799-1805+ Mr '46
See also
Paper—Printing properties

Transportation
See also
Newsprint paper—Transportation

Weight
MM system greatly simplifies the designation of paper weights. Inland Ptr 116:35-6 O '45
Papermaker states his objections to MM plan. J. T. Backus. Inland Ptr 116:81-2 D '45-Ja '46
Printer who's unhappy with the MM paper plan. L. A. Braverman. Inland Ptr 117:53 Ap '46
P. I. A. promotes MM plan. Inland Ptr 116:87 D '45-Ja '46

PAPER, Asphalt coated
Bleeding resistance of asphalted paper; TAPPI tentative standard T 475 m-46. Paper Tr J 122:33 Je 13 '46

PAPER, Building
Busting bottle-necks in building materials; Building products limited. il Pulp & Pa of Can 46:989-92 D '45
Suggestion for the grading of sheathing papers. J. D. Babbitt and J. Hyland. bibliog Pulp & Pa of Can 47:82-5 Ap '46

PAPER, Cigaret. See Cigaret paper

PAPER, Coated
Coated papers and implications thereof; abstract. W. H. Graebner. Mod Packaging 19: 132-3 D '45
Coated papers and the offset process. R. E. Beadle. Inland Ptr 117:57-60 Ap '46
What lies ahead in coated papers for letterpress? F. Rundell. Inland Ptr 116:48-9 F '46
Your part in lithography's future. W. E. Griswold. Paper Tr J 122:84+ Je 20 '46
See also
Paper, Metal coated

PAPER, Effect of light on
Fading of groundwood by light; inhibition of fading through the use of ultraviolet absorbing compounds. P. A. Nolan. Paper Tr J 121:35-9 D 6 '45
Fading of groundwood by light; search for an inhibitor to prevent the fading of groundwood. E. A. Reineck and H. F. Lewis. Paper Tr J 121:27-30 N 15 '45

PAPER, Filter. See Filter paper

PAPER, Government
Congress awards contracts for government's paper. Paper Tr J 122:7+ Je 27 '46
Congress awards paper contracts. Paper Tr J 122:21 Mr 28 '46
Congress contracts for government's paper. Paper Tr J 123:23, 46 S 26 '46
Congressional committee opens paper bids. Paper Tr J 121:21-2+ D 13 '45
Congressional committee opens paper bids. Paper Tr J 122:26+ Mr 21 '46
Government as a user of paper; abstracts. A. E. Giegengack. Paper Tr J 122:8+ Ap 4 '46; Paper Ind 28:110+ Ap '46
Joint congressional committee makes awards for government paper. Paper Tr J 121:18 D 20 '45

PAPER, Greaseproof
Glassine; its improved packaging properties. C. W. Hoffman and E. G. Penn. il Mod Packaging 19:136-9 N '45

PAPER, Hand-made
Hand paper making in Japan. C. G. Weber. il Paper Ind 28:377-81 Je '46

PAPER, Insulating
Development of paper from caroa fiber. R. C. Sproull. il Paper Tr J 120:127-8 Je 21 '45; 123:142+ O 10 '46
Inside of electrical machines. R. H. Robinson. diags Electrician 136:1371-4, 1515-18 My 24, Je 7 '46
Paper capacitors containing chlorinated impregnants; effects of sulfur. D. A. McLean, L. Egerton and C. C. Houtz. bibliog diag Ind & Eng Chem 38:1110-16 N '46
Paper capacitors containing chlorinated impregnants; mechanism of stabilization. L. Egerton and D. A. McLean. bibliog il Ind & Eng Chem 38:512-17 My '46

Testing
Studies of dielectric properties of chemical pulps. C. Delevanti, jr., P. B. Hansen and D. O. Adams. bibliog diags Paper Tr J 121:35-43 D 27 '45; 122:43-52 F 14 '46; Excerpts, pt 1. Paper Ind 28:288-90 My '46; Same cond, pt 2. Paper Ind 27:1894-8 Mr '46

PAPER, Laminated
Combining or laminating machines; their design and application. F. W. Egan. diags Paper Ind 27:1030-3 O '45
Effect of mildew on caseliming material. B. W. Scribner and E. Abrams. Paper Tr J 123:132+ O 10 '46
Laminating adhesives and their applications. A. Biddle. Paper Tr J 122:34-40 Je 6 '46
Lignin-filled, laminated-paper plastics; cooperative report. Paper Tr J 122:35-42 Ap 4 '46; Same. Paper Ind 27:1683-9 F '46
Paper-base laminates. E. S. Bauer. Pulp & Pa of Can 47:75-7 My '46
Possible methods for combining synthetic resins with paper directly on the paper machine. R. H. Mosher. Paper Tr J 121:47-9 D 20 '45
Structural plastics in low-cost housing; panels of aluminum skinned expanded paper core plastic material. il Mod Plastics 23: 114-15 Jl '46

Testing
Fatigue tests of a laminated Mitscherlich-paper plastic. W. N. Findley. il diags Am Soc T M Proc 45:878-903 bibliog(p902-3); Discussion. 904-9 '45
Standards for case liners; materials tested and methods of testing. B. W. Scribner and others. bibliog il diags Mod Packaging 19:161-5 Ap; 150-4 My '46

PAPER, Lithographic
Curling of lithographic papers. R. F. Reed. il Paper Tr J 123:37-42 Jl 4 '46

PAPER, Metal coated
Manufacture of metalized paper fixed capacitor units by the Robert Bosch co., Stuttgart, Germany; abstract. F. E. Henderson. Product Eng 17:117-18 S '46

PAPER, Newsprint. See Newsprint paper

PAPER, Recording
Electronic shutter-testers; photoelectric system produces recording on Teledeltos paper. R. F. Redemske. il diags Electronics 19: 128-34 F '46; Same. Soc Motion Picture Eng J 46:409-23 My '46

PAPER, Waxed
Bleeding of breadwrapper inks. E. F. Carman. bibliog Paper Ind 27:1367+ D '45
Industrial relations in the waxed paper industry; abstract. P. J. Massey. Paper Ind 28:282-4 My '46
Industrial use of petroleum waxes. J. C. Dean. il Pet Refiner 25:87-91 My '46; Abstract. Sci Am 175:117-19 S '46
Microcrystalline waxes, their manufacture, properties and uses in the paper industry. B. H. Clary. flow chart il Paper Ind 27: 1679-82 F '46
Moldable paper products. H. R. Alley. diags Paper Ind 28:262+ My '46; Same. Paper Tr J 122:120+ Je 20 '46
Sealing temperature and WVP; a correlation in effectiveness of waxed papers. W. Rabak and J. B. Stark. il Mod Packaging 19:157-60 Ap '46
Tensile strength of paraffin waxes. F. W. Padgett and R. B. Killingsworth. bibliog il diags Paper Tr J 122:37-43 My 9 '46
Waxed paper machines; their development and operation. E. E. Ferguson. diags Paper Ind 28:979-84 O '46
Wrap-carton, a new kind of package; Mullinix for butter, bacon and sausage. il Mod Packaging 19:138-43 Mr '46

Rating
Waxed papers. Consumers Res Bul 18:23-4 Jl '46

PAPER associations
American paper and pulp association and affiliated associations 69th annual meeting, New York. Paper Tr J 122:92+ F 28 '46; Paper Ind 27:1821-2 Mr '46
Divisional group meetings and elections, New York, Feb. 25-28. Paper Ind 27:1836+ Mr '46

PAPER bags
Multiwall bag care. Chem Ind 58:828+ My '46
Paper bag, an old container keeps pace. il Mod Packaging 19:132-5+ Je '46
Production of grained ammonium nitrate fertilizer; conditioning treatments and moistureproof bags. P. Miller and others. bibliog il Ind & Eng Chem 38:709-18 Jl '46

PAPER board
Cardboard salvage from refuse reduces bulk on landfills in Seattle. il Eng N 137:308 S 5 '46
New developments in paperboard packages; abstract. J. D. Malcolmson. Mod Packaging 19:130 D '45
Rosin in paper and paperboard; revision of TAPPI Standard T 408 m-44. Paper Tr J 122:57-8 Ap 25 '46
TAPPI and the strawboard industry. R. G. Macdonald. Paper Tr J 123:35-7 S 19 '46
See also
Paper boxes

Manufacture
Combining or laminating machines; their design and application. F. W. Egan. diags Paper Ind 27:1030-3 O '45
Double-flow head box; its development and application to Fourdrinier machines. G. R. Tennent. diag Paper Ind 27:1357-8 D '45
Method for ascertaining the rate of drying of paper and paperboard under machine conditions. V. S. Burstein. diags Paper Tr J 122:35-42 Mr 7 '46; Excerpts. Paper Ind 27:1900-2 Mr '46
Sulphite for box board manufacture. C. S. V. Hawkings. Pulp & Pa of Can 47:58-9+ Mr '46
See also
Paper board, Corrugated—Manufacture
Paper board mills

Testing
Abrasion resistance of paper and paperboard; TAPPI suggested method T 476 sm-46. Paper Tr J 123:47-8 Jl 11 '46
Bending quality of paperboard; TAPPI suggested method T 474 sm-46. Paper Tr J 122:60 My 16 '46
Compression resistance of paperboard (ring crush test) TAPPI tentative standard T 472 m-46. Paper Tr J 122:43 Mr 28 '46
Flexural resistance and deflection of fiberboard; revision of TAPPI suggested method T 469 sm-45. diag Paper Tr J 121:43-4 D 27 '45
Insect resistance of packages, paper, and paperboard; TAPPI suggested method T 473 sm-46. Paper Tr J 122:63-4 Ap 18 '46
Rigidity, stiffness, and softness of paper and paperboard; revision of TAPPI tentative standard T 451 m-44. diag Paper Tr J 121:31-2 N 15 '45
Testing rigidity of paper boards; abstract. T. H. Farebrothers. Paper Ind 28:134 Ap '46

Water resistance
Use of paperboard as a sorptive material in protective packaging. R. C. Rietz and L. O. Anderson. Paper Tr J 122:47-50 Mr 14 '46; Same abr. Mod Packaging 19:200-3+ Mr '46; Excerpts. Paper Ind 28:1050-1 O '46
Water resistance of shipping containers; TAPPI suggested method T 805 sm-45. diag Paper Tr J 121:49-50 D 13 '45
Weatherproof fibreboard drum. il Mod Packaging 19:128 N '45

PAPER board, Corrugated

Manufacture
Electrical drive for corrugators. J. L. Van Nort. il diags Paper Ind 27:1690-3 F '46

PAPER board industry
Box makers hit; lack of raw material. Bsns W p49 Jl 27 '46
Gypsum industry will receive 11,000 tons of liner monthly. Paper Tr J 122:10 My 9 '46

Statistics
Paperboard industry sets up five years of record production. G. Whiting. Paper Tr J 122:46-8+ F 28 '46

PAPER board mills
Experience at an English paperboard mill throughout the war. S. F. Smith. Paper Tr J 122:45-8 My 23 '46; Same cond. Paper Ind 28:430-3 Je '46
Forced-draft ventilation removes process heat; Gair-Bogota plant. C. Nelson. il Factory Management 104:146-8 Mr '46

Electric equipment
Electrical drive for corrugators. J. L. Van Nort. il diags Paper Ind 27:1690-3 F '46

Employees
Supervisors are paid bonus for improved operation; Sonoco Products. W. H. Miller, jr. il Factory Management 104:92-6 Je '46

Equipment
Benefits of the board machine air system. W. K. Metcalfe. Paper Ind 28:698+ Ag '46
Combining or laminating machines; their design and application. F. W. Egan. diags Paper Ind 27:1030-3 O '45
Drives, vats and screens for board machines. A. A. Lowe. Paper Tr J 122.68+ Je 20 '46; Same cond. Paper Ind 28:708+ Ag '46
Insulation of rotary straw cookers. J. T. MacDonald. Pulp & Pa of Can 47:103 S '46
Stock inlet for paper and paperboard machines. S. A. Staege. diags Paper Ind 28:878+ S '46; Same cond. Paper Tr J 122:43-4 Ap 4 '46

PAPER box industry
Box makers hit; lack of raw material. Bsns W p49 Jl 27 '46

Canada
Present situation and prospects in paper box industry. C. V. Hodder. Pulp & Pa of Can 47:64-8 Je '46

PAPER boxes
Best folding boxes judged by F.P.B.A. members. il Mod Packaging 19:112-13+ Ap '46
Brilliant reproduction; new technique for fine printing on boxboard. W. B. Banks. il Mod Packaging 19:93-5 D '45
Fiber shipping containers in war and peace. J. D. Malcolmson. Paper Ind 27:1412+ D '45
For Yale & Towne, a modern merchandising package. il Mod Packaging 19:103-9+ Je '46
Highest flying package carries a robot weatherman 15 miles into the stratosphere; fibreboard box, coated with aluminum foil or cellulose acetate. il Mod Packaging 20:126-7 O '46
Shipping glass damage-free; bonded-block method of loading. il diags Cer Ind 47:56+ O '46
Simplified boxes and trays. il Mod Packaging 19:112-14+ Jl '46
Smartly styled parcels replace pallid mail order cartons. il Sales Management 57:117-18+ N 1 '46
See also
Hosiery boxes

Manufacture
Stripping paperboard boxes with air. A. S. Park. il Comp Air Mag 51:162-4 Je '46

Testing
Compression test of fiberboard shipping containers; TAPPI tentative standard T 804 m-45. Paper Tr J 121:33-4 N 29 '45
Container laboratories sets compression test standards. Paper Tr J 122:32 My 2 '46

PAPER chemicals
American chemical society; 110th meeting; abstracts of papers in connection with the cellulose or paper industries. Paper Ind 28:1024+ O '46

PAPER chemicals—*Continued*
Comparison of the possible bases which may be used for sulphite pulping, and the economics of recovery. R. S. Hatch. bibliog diags Pulp & Pa of Can 47:80-4 Ag '46
Corpolin compares its qualities to those of glycerin. Paper Tr J 122:136+ Je 20 '46
Nonfibrous raw materials report, 1945. E. N. Poor. Paper Tr J 123:35-40 Jl 25 '46
Papermaking chemicals in heavy demand with output high in past year. Paper Tr J 122:86+ F 28 '46
Pulp and paper chemicals. R. W. Kumler. Chem Ind 59:276 Ag '46

PAPER coating
Casein industry faces knotty problems to meet paper needs. Paper Tr J 123:18-19 O 17 '46
Coating with polyvinyl chloride latex. M. S. Moulton. il diags Mod Plastics 24:117-20 O '46
Functional papers. R. H. Mosher and R. S. Bracewell. Paper Tr J 122:60-2 Ap 18 '46; Same cond. Paper Ind 28:293-4 My '46
Moisture-proof paper packs. il Chem Age (Lond) 54:167 F 9 '46
Properties of Saran coating latex. G. W. Stanton and W. A. Henson. il Paper Tr J 123:48-52 Ag 8 '46
Saran coating latex; properties and uses. G. W. Stanton and W. A. Henson. il Mod Packaging 19:194-9 Mr '46
Saran F-122 latex; abstract. W. A. Henson. il India Rubber World 114:390 Je '46
Specialty papers; modern theory and practice. R. H. Mosher. diags Mod Packaging 19:137-40+ Ag '46
Starch usage in the paper industry. J. P. Casey. Paper Ind 28:268+ My '46
Supercalendering of paper machine coated paper. E. E. Thomas. Paper Tr J 122:33-5 My 30 '46

Bibliography
TAPPI survey of paper coating literature for 1945. C. G. Landes. Paper Tr J 123:39-44 bibliog(142 titles, p43-4) Ag 15 '46
Zein, its use in coatings; annotated bibliography. T. T. Collins, jr. Paper Ind 27:1694-7, 1810-16 F-Mr '46

Testing
Film properties and utilization of resin-starch. C. C. Kesler and others. bibliog Paper Tr J 122:39-43 Mr 28 '46; Same cond. Paper Ind 28:712+ Ag '46

PAPER containers
Fibre can and its peacetime prospects. D. G. Magill. il Mod Packaging 19:122-5+ N '45
Frozen milk; it keeps for months in paper cartons. il Mod Packaging 19:128-30 Ja '46
Improved paper container for bulk shortening. F. L. Toof. il Food Ind 18:1346-7 S '46
Milk container; paper and glass. A. Morrow. bibliog il Mod Packaging 19:95-7+ Jl '46
Plastic dips for paper packages; Institute of paper chemistry program of evaluation. T. A. Howells. il Mod Packaging 20:144-5+ O '46

See also
Paper bags
Paper boxes

Manufacture
Sanitary code for food wrappings. J. R. Sanborn. Pulp & Pa of Can 47:83-5 My '46

PAPER currency. See Paper money

PAPER cutting knives
Knives may be ruined in grinding. diags Paper Ind 27:1700 F '46

PAPER cutting machines
Cyclic cutting of continuous paper webs. H. C. Cook. diags Machine Design 18:123-4 Ag '46

PAPER drying
Factors affecting the drying of machine-made paper; use of steam. Paper Ind 27:1566-8 Ja '46
Forced-draft ventilation removes process heat; Gair-Bogota plant. C. Nelson. il Factory Management 104:146-8 Mr '46
Heat transfer calculations for paper machines. A. E. Montgomery. diag Paper Tr J 123:29-32 O 3 '46
Method for ascertaining the rate of drying of paper and paperboard under machine conditions. V. S. Burstein. diags Paper Tr J 122:35-42 Mr 7 '46; Excerpts. Paper Ind 27:1900-2 Mr '46
Paper machine dryer head insulation. J. T. MacDonald. Pulp & Pa of Can 47:85-6 Ag '46
Press section of a newsprint machine. F. A. Garrett. bibliog Paper Tr J 122:53-9 Ap 18 '46

PAPER finishing
Paper plastics surfacing. W. B. Darling. Mod Plastics 24:97-100 O '46
Possible role of shear in calendering. J. A. Van den Akker. bibliog diags Paper Ind 28:57-9 Ap '46
Supercalendering of paper machine coated paper. E. E. Thomas. Paper Tr J 122:33-5 My 30 '46

See also
Paper coating
Paper sizing

PAPER handling
History of the lift truck in the paper industry. T. F. Moriarty. il Paper Ind 28:226-9 My '46
Lift trucks conserve time, space. il Paper Tr J 121:122 N 22 '45
Thirty-five years of lift-truck growth. T. F. Moriarty. il Paper Tr J 121:76+ N 22 '45

PAPER hangers' trimmers. See Trimmers, Paper hangers'

PAPER industry and trade
Bottlenecks in the paper industry make prospects none too bright. G. C. Compton. Inland Ptr 117:37-9 Ap '46
Chemical engineering progress for peace; pulp and paper prospects. il Chem & Met Eng 53:129-30 F '46
Export trade is beset by problems too. J. F. Strub. Paper Tr J 123:28+ O 24 '46
International trade and the pulp and paper industry. C. G. Parker. Pulp & Pa of Can 46.993-4+ D '45
Lift pulp prices. Bsns W p105-6 Ap 27 '46
Marketing research, partner of technical research. R. S. Aries. bibliog Paper Tr J 121: 51-6 D 13 '45
New law suits affecting the paper industry. L. T. Parker. Paper Ind 28:657-9+ Ag '46
New paper and pulp law suits. L. T. Parker. Paper Ind 27:1027-9 O '45
Paper supply of future; abstract. W. Wilcox. Mod Packaging 19:130 D '45
Progress in pulp and paper; annual C.P.P.A. technical sessions in Montreal. Can Chem & Process Ind 30:29-30 F '46
Relationships between the chemical industry and the paper industry; Welland chemical works described; ammonium nitrate production. G. I. Hoover. il Pulp & Pa of Can (Convention no) 47:226-8+ [F] '46

See also
Newsprint paper
Paper board industry
Paper mills

Finance
Paper companies must prepare for the uncertain future. C. Davidson. Paper Ind 28: 803-5 S '46

History
Early papermaking in New York state. H. Elliott. il Paper Ind 28:663-4 Ag '46

Securities
Today's outlook for paper stocks; with position of leading stocks. P. Dobbs. Mag of Wall St 77:589+ F 16 '46

Statistics
Here is how the 48 states stand in the use of commercial printing papers. Inland Ptr 117:60 Ap '46
Imports of paper and paper stock. Published in weekly numbers of Paper trade journal
Kraft paper production rose 50,000 tons. W. J. Dixon. Paper Tr J 122:84 F 28 '46; Same. Paper Ind 27:1889-90 Mr '46
Paper and paperboard production, 1945. Paper Ind 27:1478 Ja '46
Paper industry heading for record year; 1945 statistics. M. C. Dobrow. Paper Tr J 122: 43-5+ F 28 '46

PAPER industry and trade—Statistics—*Cont.*
Paper output near record; production in 1945. Paper Tr J 122:50 Ja 24 '46
Thirty years of production; data compiled by Bureau of census. Paper Tr J 122:34 F 7 '46

Australia

Australia looks to research for future of its industry. Paper Tr J 123:28 Jl 11 '46
Australia takes count of its pulp and paper industry. Paper Tr J 123:21 O 31 '46
Australian market continues growth. Paper Tr J 122:22 Ap 18 '46

Austria

As a paper mill man views wreckage in Austria. A. S. Cosler. Paper Tr J 123:30+ Jl 18 '46

Belgium

Paper business today in France and low countries. W. L. Gooch. il For Comm W 23:8-9+ Je 8 '46

British Columbia

Powell river company explains its operations. Paper Tr J 122:31+ Ap '46

Canada

Attractive newsprint offers tempt Canada's pulp mills. Paper Tr J 123:7+ S 5 '46
Canada looks into cartel question. Paper Tr J 121:64+ N 22 '45
Prospects of pulp and paper in the reconversion period. R. M. Fowler. Pulp & Pa of Can 47:35-7 Ja '46
Revolutionary changes on way in Canadian pulp and paper industry. C. L. Sibley. Paper Tr J 122:60+ F 28 '46
Year-end review of the pulp and paper industry. D. Emmerson. il Pulp & Pa of Can 47:38-40 Ja '46

Dominican Republic

Dominican Republic imports of paper and manufactures, 1935-45. For Comm W 23:43 Ap 27 '46

Europe

Conditions in the paper industry in Europe. G. Balko. Pulp & Pa of Can (Convention no) 47:175-6 [F] '46
Impressions of the European pulp and paper industry 1945. W. B. Campbell. Pulp & Pa of Can (Convention no) 47:171-3 [F] '46
Pulp and paper notes from foreign trade journals. Paper Ind 28:475-6 Jl '46

Finland

Finnish pulp industry. For Comm W 24:49 Ag 17 '46

France

French paper situation. Pulp & Pa of Can 46:968 N '45
Paper business today in France and low countries. W. L. Gooch. il For Comm W 23:8-9+ Je 8 '46
Some observations on the French and German paper industry. O. Kress. Paper Ind 27:1207-8 N '45

Germany

German pulp and paper industry. Paper Ind 28:696 Ag '46
Manufacture of high alpha pulps in wartime Germany. J. N. McGovern. bibliog Paper Ind 28:988-90 O '46
Manufacture of sulphite pulp in western Germany. J. N. McGovern and G. K. Dickerman. Pulp & Pa of Can 47:80-2 My '46
Some observations on the French and German paper industry. O. Kress. Paper Ind 27:1208-9 N '45

Great Britain

Experience at an English paperboard mill throughout the war. S. F. Smith. Paper Tr J 122:45-8 My 23 '46; Same cond. Paper Ind 28:430-3 Je '46
Situation in industry, United Kingdom. For Comm W 24:30-1 Ag 24 '46
War-time paper making in Britain and its lessons for peace-time production. T. T. Potts. Pulp & Pa of Can (Convention no) 47:163-5 [F] '46
Wiggins Teape and company (1919), limited, annual general meeting, London. Economist 151:114 Jl 20 '46

Italy

Italian cellulose industry; a note on the present position. Chem Age (Lond) 54:313-14 Mr 23 '46
Italy's paper industry, facing obstacles, is slow to get going. For Comm W 23:40 Je 1 '46

Japan

Hand papermaking in Japan. C. G. Weber. il Paper Ind 28:377-81 Je '46
Japanese pulp and paper industry. For Comm W 24:49-50 Ag 17 '46
Pulp and paper industry survey. A. Chamberlain. Paper Ind 28:279 My '46

Netherlands

Netherlands paper situation. For Comm W 24:40 Jl 6 '46
Paper business today in France and low countries. W. L. Gooch. il For Comm W 23:8-9+ Je 8 '46

Norway

Norwegian pulp and paper industry. For Comm W 24:23 Ag 31 '46

Russia

Paper industry, U.S.S.R. For Comm W 24:24 Ag 31 '46
Soviet paper and cellulose industry. A. Izvekov. Pulp & Pa of Can 46:1034 D '45

Sweden

Chemical and allied industry in Sweden; importance of wood and water power. il Chem Age (Lond) 55:251-5 Ag 31 '46
Some observations on Swedish newsprint mills and London pressrooms. G. L. Larocque. Pulp & Pa of Can (Convention no) 47:180 [F] '46
Sulphate pulp manufacture in Sweden. N. M. Anderson. Pulp & Pa of Can (Convention no) 47:174+ [F] '46
Sweden's pulp and paper position and prospects. il For Comm W 23:10-11+ Ap 13 '46

United States

Cause for reassurance; paper making progress in meeting demands. E. W. Tinker. Paper Tr J 123:9+ O 24 '46
Industry is vulnerable; abstract. E. W. Tinker. Paper Tr J 122:7+ Je 6 '46
Paper demand exceeds supply. W. L. Neubrech. Dom Comm 34:20-1 Ap '46
Paper demand remains greater than supply despite easing of government restrictions. Inland Ptr 116:62 N '45
Paper industry facing problems. W. L. Neubrech. Paper Ind 27:1414-15 D '45
Paper mills plan to spend over $150,000,000 for new plants and equipment. S. Taylor. il Paper Tr J 121:53-4+ N 22 '45
Price ceilings threaten cut in U.S. paper supply; Swedish and Canadian pulp makers lured by higher foreign bids. Barron's 26:11 F 25 '46
Pulp and paper industry. R. K. Ferguson. Comm & Fin Chr 162:2327+ N 15 '45
Pulp and paper; trends in 1946. W. L. Neubrech. il Dom Comm 34:38 Ja '46
Task group sees no increase in U.S. newsprint output. Pulp & Pa of Can 46:956+ N '45
Wartime achievements of the pulp and paper industry and the reconversion outlook. J. A. Krug. Paper Ind 27:1094-6 O '45

PAPER laboratories
Grinding the beating surfaces of the standard laboratory beater. L. V. Forman and D. D. Niemeyer. Paper Ind 28:722 Ag '46

PAPER lining
Effect of mildew on caselining material. B. W. Scribner and E. Abrams. Paper Tr J 123:132+ O 10 '46
Planning comparative tests on case liners; abstract. H. A. Wolsdorf. Paper Ind 27:1104+ O '45

PAPER making
Abridgments from papers presented at annual meeting of Technical association of the pulp and paper industry, New York, Feb. 25-28, 1946. Paper Ind 27:1894-902+; 28:114+, 284-95, 422+, 576+, 712+, 878+, 1043-6+, 1499-507 Mr-O '46, Ja '47

PAPER making—*Continued*

Abridgments from papers presented at annual meeting of Technical section of the Canadian pulp and paper association, Jan. 23-25, 1946. Paper Ind 27:1570-9+, 1704-20, 1890-3 Ja-Mr '46

Abridgments of papers presented by title at annual meeting of Technical association of the pulp and paper industry, New York, Feb. 19, 1945. Paper Ind 26:1660+; 27:88+, 252+, 422+, 592+, 754+, 934-46+, 1415-20+ Mr-S, D '45

American made paper for your cigarettes. J. A. Lee. flow sheet(p138-41) il Chem & Met Eng 53:94-7 Je '46

Cigarette paper industry. L. Roberts. Paper Ind 28:810-12 S '46

Condensations of papers presented at 1946 TAPPI meeting. Pulp & Pa of Can 47:88-91 Ag; 106-9 S '46

Developments in newsprint manufacture. W. G. McNaughton. Paper Ind 28:720+ Ag '46

La fabrication du papier de paille par macération peut être améliorée selon les travaux de MM. le professeur Gabriel Bertrand et Jean Delga. R. Blondel. Chimie & Ind 55: 106-7 F '46

Foam in the pulp and paper industry. E. P. McGinn. bibliog il Paper Ind 27:1368-9+ D '45

Functional papers. R. H. Mosher and R. S. Bracewell. Paper Tr J 122:60-2 Ap 18 '46; Same cond. Paper Ind 28:293-4 My '46

Hardwood paper; semichemical process promises economies. il Bsns W p54+ D 15 '45

Le mécanisme de la fabrication du papier de paille par macération. G. Bertrand and J. Delga. Génie Civil 123:26-7 Ja 15 '46

Mechanism of paper manufacture from straw digestion; abstract. G. Bertrand and J. Delga. Paper Ind 28:592 Jl '46

Morden methods of stock preparation. C. W. Morden. Paper Ind 28:574+ Jl '46

Possible methods for combining synthetic resins with paper directly on the paper machine. R. H. Mosher. Paper Tr J 121: 47-9 D 20 '45

Problems of the printer and how the paper industry can cooperate with him. G. H. Petersen. Paper Tr J 122:147-9 Je 20 '46; Same cond. Paper Ind 28:568+ Jl '46

Rapid measurement of an index of fibre length. R. de Montigny and P. Zborowski. diag Pulp & Pa of Can (Convention no) 47:99-112, 115 [F] '46; Same cond. Paper Ind 28:882+ S '46; Correction. Pulp & Pa of Can (Convention no) 47:294 [F] '46

Related industries; comparison between paper making and wire weaving industries. A. W. Doig. diags Pulp & Pa of Can 46:1006-7 D '45

Remote control engineering of stock preparation equipment. J. W. Couture. Paper Tr J 122:150-1 Je 20 '46

Removal of carbon from hot caustic solution. A. J. Luettgen, K. S. Whisler and H. D. Bauman. il Ind & Eng Chem 38:832-4 Ag '46

Some observations on the French and German paper industry. O. Kress. Paper Ind 27:1207-9 N '45

Specialty papers; modern theory and practice. R. H. Mosher. diags Mod Packaging 19:137-40+ Ag '46

Use of guar in paper manufacture. B. W. Rowland. il Paper Ind 27:1398+ D '45; Same. Pulp & Pa of Can 47:79-83 Je '46; Abstract. Paper Tr J 121:38+ D 20 '45

Use of hydrotropic solutions in industry. R. H. McKee. bibliog Ind & Eng Chem 38:384 Ap '46

Utilization of wood wastes; pulp for paper. J. K. Russell. bibliog Pulp & Pa of Can (Convention no) 47:277-8 [F] '46

War-time paper making in Britain and its lessons for peace-time production. T. T. Potts. Pulp & Pa of Can (Convention no) 47:163-5 [F] '46

Wearing quality of experimental currency-type papers. F. T. Carson and M. B. Shaw. pl diags J Res Nat Bur Stand 36:249-68 Mr '46

White mineral oil and petroleum in the manufacture of specialty papers. R. K. Rhodes. Paper Tr J 123:59-62 S 26 '46

See also

Digesters (paper making)
Felts (paper making)
Paper board—Manufacture
Paper coating
Paper drying
Paper making machinery
Paper making materials
Paper mills
Paper sizing
Pulpstones
Wood pulp

Bacteria control

Control of bacteria and fungi in paper mills. L. J. Rampel. bibliog Paper Tr J 121:27-9 N 29 '45

Micro-organisms in paper. J. W. Appling. Mod Packaging 20:143-6+ S '46

Peroxide bleaching of mechanical pulps; influence of bacteria and enzymes. J. S. Reichert and others. bibliog Paper Tr J 122: 37-40 Ja 31; 54-8 My 16 '46; Same abr(pt 2) Paper Ind 28:124+ Ap '46

Relative toxicity of disinfectants recommended for use in the paper industry; inhibiting concentrations for bacillus mycoides and aspergillus niger. J. W. Appling and J. F. McCoy. bibliog Paper Tr J 121:37-40 Jl 19; 29-32 N 8 '45; Same cond. (pt 1) Paper Ind 27:290+ My '45; Excerpts. (pt 2) Paper Ind 28:294-5 My '46

Sanitary code for food wrappings. J. R. Sanborn. Pulp & Pa of Can 47:83-5 My '46

Beating

Beating process; abstract. J. Strachan. Paper Ind 28:1056 O '46

Continuous beating and refining. D. M. Sutherland. il Paper Ind 28:860+ S '46

Modern continuous beating and refining system. D. M. Sutherland. il Paper Tr J 123: 51-5 Jl 18 '46

Review of the cellulose-water relationship and pulp beating theories. H. B. Marshall and A. M. Johnson. Pulp & Pa of Can 47:65-6+ Mr '46

Bibliography

Index, Technical section, Paper trade journal, volume 121, July to December, 1945. C. J. West, comp. Paper Tr J 122:44-6 Ja 31 '46

Index, Technical section, Paper trade journal, volume 122, January to June, 1946. C. J. West, comp. Paper Tr J 123:47-50 Ag 15 '46

Bleaching

Bleaching and chlorine production at KVP. W. J. White. il Pulp & Pa of Can 47:86-7 O '46

Bleaching aspen neutral sulphite semichemical pulp with sodium peroxide. R. M. Kingsbury and others. bibliog Paper Tr J 123:50-4 S 12 '46

Bleaching of pulp. J. Richter. diags Pulp & Pa of Can 47:43-58 F '46

Bleaching of sulphate pulp. J. N. Swartz. bibliog diags Pulp & Pa of Can (Convention no) 47:203-20 [F] '46

Effective bleach liquor system for rag half-stock bleaching. L. A. Moss. diag Paper Tr J 122:45-6 Ap 4 '46; Same, without diag. Paper Ind 28:896+ S '46

High density bleaching of mechanical pulp with hydrogen peroxide. R. L. McEwen. diag Paper Tr J 122:49-53 Ap 25 '46

Peroxide bleaching of mechanical pulps; influence of bacteria and enzymes. J. S. Reichert and others. bibliog Paper Tr J 122: 37-40 Ja 31; 54-8 My 16 '46; Same abr(pt 2) Paper Ind 28:124+ Ap '46

Production of bleachable sulphate pulps from rapid-growth Douglas fir. J. S. Martin. Paper Tr J 122:37-44 My 30 '46

Pulp bleaching. L. E. Russell. diags Paper Ind 28:528-32+ Jl '46

Sodium chlorite in pulp bleaching. G. P. Vincent and others. Paper Tr J 121:25-6 N 15 '45

Sulphate and sulphite bleaching. F. Kraft. Pulp & Pa of Can (Convention no) 47: 177+ [F] '46

PAPER making—*Continued*

By-products

Industrial uses of alkali lignin. E. B. Brookbank. bibliog Paper Tr J 122:44-6 Mr 28 '46; Same cond. Paper Ind 28:714+ Ag '46
Trim waste line; paper industry is getting big tonnage yield of byproducts. Bsns W p32+ N 24 '45

See also
Tall oil

Dirt problem

Dirt removing systems and improvements; use of Nichols Freeman Vortrap. H. E. Ingalls. Paper Tr J 122:76+ Je 20 '46

Fillers

Planned career in the paper industry. D. C. Yates. Pulp & Pa of Can 47:63-5 My '46

Freeness testing

Effect of salts on the freeness; abstract. Paper Ind 28:134 Ap '46

History

Matthias Koops material in the paper museum of M.I.T. D. Hunter. il Paper Ind 28:219-23 My '46
Ohio's pioneer paper mills. D. Hunter. il Paper Ind 28:98+ Ap '46

See also
Crane museum, Dalton, Massachusetts

Patents

Papermaking patents in the United States. J. Atkins, comp. Published in monthly numbers of Paper industry and paper world
United States patents of papermaking; first quarter, 1946. C. J. West, comp. Paper Tr J 122:44-6 My 9 '46
United States patents of papermaking, third and fourth quarters, 1945. C. J. West, comp. Paper Tr J 122:49-52 Ja 17 '46
United States patents on papermaking, second quarter, 1946. C. J. West, comp. Paper Tr J 123:42-4 Ag 1 '46

Slime problem

Control of bacteria and fungi in paper mills. L. J. Rampel. bibliog Paper Tr J 121:27-9 N 29 '45
Slime control agent; Pyridose. Chem & Met Eng 53:153 Jl '46
Technical approach to pulp and paper mill slime control. J. A. Holmes. il Pulp & Pa of Can (Convention no) 47:221-5 [F] '46; Same cond, without ils. Paper Ind 27:1574-6 Ja '46

Soda process

Some aspects of pulp mill engineering. G. R. Wadleigh. Paper Tr J 122:29-33 Je 13 '46; Same cond. Paper Ind 28:284-8 My '46

Study and teaching

See also
Lawrence college—Institute of paper chemistry

Sulfate process

Bleaching of sulphate pulp. J. N. Swartz. bibliog diags Pulp & Pa of Can (Convention no) 47:203-20 [F] '46
Carbon brick for digester linings in sulphate mills. E. F. Tucker and L. C. Werking. bibliog il diags Paper Ind 28:60-3 Ap '46
Clarification of green liquor. E. G. Kominek and J. M. Kahn. bibliog Paper Tr J 123:45-6 Ag 15 '46
Collector for sulphate soap for production of tall oil. W. P. Thielens and R. R. Fuller. diags Paper Tr J 123:33-4 O 31 '46; Same cond, without diags. Paper Ind 28:440-1 Je '46
Consumption of NaOH and Na_2S in kraft pulping. P. B. Borlew and T. A. Pascoe. bibliog Paper Tr J 123:178-80 O 10 '46
Diffuser washing of sulphate pulps; abstract. C. B. Björkman. Paper Ind 28:592 Jl '46
Dilution factor in brown stock washing. J. R. Lientz. flow sheet il diag Paper Ind 28:806-9 S '46
Effect of alkaline pulping on the acetylating properties of wood pulp. J. W. McKinney. bibliog Paper Tr J 122:58-62 Ja 24 '46
Effect of continuous liquor flow in pulping by the sulphate process. S. L. Schwartz and M. W. Bray. bibliog diag Paper Tr J 123:42-8 O 24 '46
Effects of diluent black liquor in sulphate pulping. H. C. Crandall and G. F. Enderlein. bibliog diag Paper Tr J 123:40-3 Jl 11 '46
Improved heat and chemical recovery in the alkaline pulping processes. G. H. Tomlinson and others. diags Pulp & Pa of Can 47:71-7 Ag '46
Kraft digester circulating and indirect heating systems. J. M. Wilcox. Paper Tr J 122:53-4 My 23 '46; Same cond. Paper Ind 28:434+ Je '46
Kraft mill maintenance. W. McIntosh, jr. Paper Tr J 123:180-2 O 10 '46; Same abr. Paper Ind 28:1040-2 O '46
Kraft paper production rose 50,000 tons. W. J. Dixon. Paper Tr J 122:84 F 28 '46; Same. Paper Ind 27:1889-90 Mr '46
Potentiometric determination of sodium sulphide in sulphate pulp black liquor. P. B. Borlew and T. A. Pascoe. bibliog Paper Tr J 122:31-4 Mr 7 '46
Production of bleachable sulphate pulps from rapid-growth Douglas fir. J. S. Martin. Paper Tr J 122:37-44 My 30 '46
Quality of process water used in kraft paper manufacture. L. M. Miller. Paper Tr J 122:59-60 My 16 '46; Same cond. Paper Ind 28:576+ Jl '46
Rapid measurement of an index of fibre length; relationships of fibre length index in pulp properties; use for stock preparation control. R. de Montigny and P. Zborowski. Pulp & Pa of Can (Convention no) 47:107-12, 115 [F] '46
Review of alkaline pulping procedures in Canadian mills. G. F. Allo. Pulp & Pa of Can (Convention no) 47:116-18 [F] '46; Same cond. Paper Ind 27:1709-11 F '46
Soluble synthetic salt cake. V. Woodside. Paper Tr J 121:30-2 N 29 '45
Some aspects of pulp mill engineering. G. R. Wadleigh. Paper Tr J 122:29-33 Je 13 '46; Same cond. Paper Ind 28:284-8 My '46
Some aspects of the economics of evaporation. H. B. Caldwell and W. D. Kohlins. diags Am Inst Chem Eng Trans 42:495-509 Je '46
Specifications for chemical composition of process water for kraft paper manufacture; TAPPI tentative standard E 601 s-46. Paper Tr J 123:50 Ag 15 '46
Stain for the identification of bleached sulphite and bleached kraft. F. W. Stocker and L. G. Durant. col pl Pulp & Pa of Can 47:67-9 Ap '46; Same cond, without pl. Paper Ind 27:1711-13 F '46
Sulphate pulp manufacture in Sweden. N. M. Anderson. Pulp & Pa of Can (Convention no) 47:174+ [F] '46
Sulphate pulp mill at KVP. T. Iverson. il Pulp & Pa of Can 47:79-84 O '46
Sulphate pulp mill; Brompton pulp and paper company. R. E. Costello and others. flow sheets il Pulp & Pa of Can 47:68-83 Jl '46
Washing of sulphate pulp in Swedish mills; abstract. Paper Ind 27:1910 Mr '46

Sulfite process

Acid plant instrumentation. A. J. Legault. Pulp & Pa of Can 47:104-5 S '46
Bleaching aspen neutral sulphite semi-chemical pulp with sodium peroxide. R. M. Kingsbury and others. bibliog Paper Tr J 123:50-4 S 12 '46
Comments on yield in the manufacture of sulphite pulp. N. Bernheimer. Pulp & Pa of Can 47:99-102 O '46
Comparison of the possible bases which may be used for sulphite pulping, and the economics of recovery. R. S. Hatch. bibliog diags Pulp & Pa of Can 47:80-4 Ag '46
Effect of damaged chips on pulp quality. C. A. Anderson. Pulp & Pa of Can 47:43 Ja '46
Evaluation and classification of sulphite pulps. E. G. Ingalls. Paper Tr J 122:47-8 Ap 25 '46; Same. Paper Ind 28:892+ S '46
Evaluation and reduction of pitch trouble in sulphite pulp and pulping. O. Kress and P. E. Nethercut. bibliog il diags Paper Tr J 122:31-4 Je 27 '46; Excerpts. Paper Ind 27:1898-1900 Mr '46

PAPER making—Sulfite process—*Continued*
Evaluation of sulphite pulp from the papermaker's viewpoint; abstract. M. Martinson. Paper Ind 28:592 Jl '46
Experimental sulphite pulping of eastern white pine. C. O. Skoggard and C. E. Libby. bibliog Paper Tr J 123:41-6 Jl 25 '46
Few predominant problems in acid pulping and their sources. G. C. E. Johanson. Paper Tr J 122:29-30 Je 6 '46
Hard and soft woods will be used by St Regis at Deferiet mill. Paper Ind 27:1322 D '45
Jonsson knotter screen and its operation on sulphite pulp. F. J. Lang. il diags Pulp & Pa of Can 47:65-6 Ap '46
Magnesium-base sulfite pulping process; one solution of problems involved in stream pollution. H. R. Murdock. Ind & Eng Chem 38:sup83-4 My '46
Manufacture of sulphite pulp in western Germany. J. N. McGovern and G. K. Dickerman. Pulp & Pa of Can 47:80-2 My '46
Modern concepts of sulphite technology. E. G. Ingalls. bibliog Paper Ind 28:387-90 Je '46
Refined neutral sulphite semichemical pulps from Douglas fir. H. E. Peterson and others. il Paper Tr J 121:37-42 Jl 12 '45; Same cond. Paper Ind 27:1418-20 D '45
Stain for the identification of bleached sulphite and bleached kraft. F. W. Stocker and L. G. Durant. col pl Pulp & Pa of Can 47:67-9 Ap '46; Same cond, without pl. Paper Ind 27:1711-13 F '46
Suitability of yellow birch for glassine paper manufacture. J. A. Feola and C. E. Libby. bibliog il diag Paper Tr J 123:64-72 S 26 '46
Sulphite for box board manufacture. C. S. V. Hawkings. Pulp & Pa of Can 47:58-9+ Mr '46
Sulphite process; its position in chemical and paper fields today R. Vincent. Paper Tr J 122:136+ F 28 '46
Sulphite pulp production records; their value, significance, and extent. H. W. Bialkowsky. Paper Tr J 123:29-33 O 17 '46
Sulphite pulping and pulps. S. E. Ekman. diag Paper Tr J 123:46-50 Ag 22 '46; Same cond, without diag. Paper Ind 28:888+ S '46
Sulphite pulps; handling after the digester. G. H. McGregor. Paper Tr J 122:49-53 My 16 '46; Same abr. Paper Ind 28:114+ Ap '46
Sulphite yield from wood. J. C. W. Evans. bibliog Pulp & Pa of Can 47:55-7 Mr '46
Survey of pulping variables in the sulphite process. T. R. Moore and F. H. Yorston. bibliog Pulp & Pa of Can (Convention no) 47:113-15 [F] '46; Same cond. Paper Ind 27:1570-2 Ja '46
Thoughts on acid making. A. H. Lundberg. Pulp & Pa of Can 47:98-103 S '46
Treatment of waste white water at Beach & Arthur paper co. A. W. Redlin and J. J. Gilbert. flow diag il diags Paper Ind 28:49-52 Ap '46
Use of liquid sulphur dioxide in fortifying sulphite cooking liquors. diags Paper Ind 27:1102+ O '45
Use of Vortraps on sulphite pulp. J. Foster. Pulp & Pa of Can 47:70 Ap '46

See also
Sulfite liquor

Bibliography

Review of the literature on the sulphite process, 1943-Aug. 1945. G. J. C. Potter. bibliog Pulp & Pa of Can (Convention no) 47:280-2 [F] '46; Same. Paper Ind 27:1715-18 F '46

Tables, calculations, etc.

Determinations and calculations of physical constants of water suspensions of pigments. W. V. Torrey. Paper Tr J 122:53-4 F 14 '46

PAPER making machinery
Automatic wire guide for paper machines. il diag Chem & Met Eng 53:139-40 Jl '46
Benefits of the board machine air system. W. K. Metcalfe. Paper Ind 28:698+ Ag '46
Case for Dilts stock preparation systems. R. F. Vokes. Paper Ind 28:876+ S '46
Continuous beating and refining. D. M. Sutherland. il Paper Ind 28:860+ S '46
Conversion of wood waste to usable fiber with the Bauer refiner. D. H. Kincaid. il diags Pulp & Pa of Can (Convention no) 47:195-202 [F] '46; Excerpt. Paper Ind 27:1893 Mr '46
Dirt removing systems and improvements; use of Nichols Freeman Vortrap. H. E. Ingalls. Paper Tr J 122:76+ Je 20 '46
Double-flow head box; its development and application to Fourdrinier machines. G. R. Tennent. diag Paper Ind 27:1357-8 D '45
Downingtown improved suction cylinder couch. il Paper Tr J 121:124 N 22 '45
Drives, vats and screens for board machines. A. A. Lowe. Paper Tr J 122:68+ Je 20 '46; Same cond. Paper Ind 28:708+ Ag '46
Electrolytic corrosion of Fourdrinier wire seams. il Paper Ind 28:53-6 Ap '46
Grinding the beating surfaces of the standard laboratory beater. L. V. Forman and D. D. Niemeyer. Paper Ind 28:722 Ag '46
Heat transfer calculations for paper machines. A. E. Montgomery. diag Paper Tr J 123:29-32 O 3 '46
Jonsson knotter screen and its operation on sulphite pulp. F. J. Lang. il diags Pulp & Pa of Can 47:65-6 Ap '46
Leather belting on paper mill machinery. J. E. Rhoads. Paper Tr J 123:33-4 Ag 1 '46
Method for ascertaining the rate of drying of paper and paperboard under machine conditions. V. S. Burstein. diags Paper Tr J 122:35-42 Mr 7 '46; Excerpts. Paper Ind 27:1900-2 Mr '46
Modern continuous beating and refining system. D. M. Sutherland. il Paper Tr J 123:51-5 Jl 18 '46
New British mill has novel features; abstract. D. McNeill. diags Pulp & Pa of Can 47:78-9 My '46
Paper machine dryer head insulation. J. T. MacDonald. Pulp & Pa of Can 47:85-6 Ag '46
Press section of a newsprint machine. F. A. Garrett. bibliog Paper Tr J 122:53-9 Ap 18 '46
Remote control engineering of stock preparation equipment. J. W. Couture. Paper Tr J 122:150-1 Je 20 '46
Stock inlet for paper and paperboard machines. S. A. Staege. diags Paper Ind 28:878+ S '46; Same cond. Paper Tr J 122:43-4 Ap 4 '46
Suction equipment for high speed cylinder machines. O. E. S. Hedbring. diags Pulp & Pa of Can 46:918-19 N '45
Use of Vortraps on sulphite pulp. J. Foster. Pulp & Pa of Can 47:70 Ap '46
Waxed paper machines; their development and operation. E. E. Ferguson. diags Paper Ind 28:979-84 O '46

See also
Electric driving—
Paper mills

Lubrication

Clean oil and its value to the paper industry. B. F. Hunter. il diag Paper Ind 27:1530-1 Ja '46
Lubrication of antifriction bearings. D. T. Achorn. Paper Tr J 122:152-3 Je 20 '46

PAPER making materials
Development of paper from caroa fiber. R. C. Sproull. il Paper Tr J 120:127-8 Je 21 '45; 123:142+ O 10 '46
Fibrous agricultural residues committee of the Technical association of the pulp and paper industry, 2d annual conference, Peoria, April 26. Paper Tr J 122:46-8 My 2 '46
First cut linter cotton for papermaking. W. H. Jones. bibliog Paper Tr J 123:29-32 Ag 29 '46
Industrial utilization of agricultural residues. E. C. Lathrop. Pulp & Pa of Can 46:927-8 N '45
Meeting of fibrous agricultural residues committee. Paper Tr J 121:50-4 D 20 '45
Meeting of TAPPI fibrous agricultural residues committee; report. Paper Tr J 123:48-9 S 12 '46
Paper mill demand for waste fibrous materials heavy throughout 1945. Paper Tr J 122:88+ F 28 '46

PAPER making materials—*Continued*
Pulping fibrous raw materials of France and Africa; abstract. G. Dupont and R. Escourou. Paper Ind 28:904 S '46
Relation of the chemical composition of fibres to their papermaking properties. J. M. Limerick and A. J. Corey. bibliog Pulp & Pa of Can 47:62-4+ Mr '46
Report on fiber identification symposium. F. A. Burningham. Paper Tr J 121:33-4 D 6 '45
Spent licorice root; abstract. P. A. Houseman. Paper Ind 27:1910 Mr '46
Wilson stain for identification of papermaking fibers. J. H. Graff. Paper Ind 27:1363 D '45

See also
Bamboo
Cellulose
Cotton stalks
Flax straw
Paper chemicals
Paper pulp
Paper sizing
Pine
Rags
Ramie
Straw
Wood pulp
Wood waste

PAPER mills
Abridgments from papers presented at the TAPPI engineering conference, Milwaukee, Oct. 2-4. Paper Ind 28:1038+ O '46
Birds-eye view of the Ontario paper company. il Pulp & Pa of Can 46:997-8 D '45
Brompton's background. J. N. Stephenson. Pulp & Pa of Can 47:61 Jl '46
Expansion news; summary of new projects and modernization programs reported since August 1945. Paper Ind 27:1743-4+ Mr '46
K-C wadding mill in Canada is now in full operation. il Paper Ind 27:1171-2 N '45
New crepe wadding mill in operation; Kimberly-Clark installation at Kapuskasing. W. F. Cook. il Pulp & Pa of Can 46:995-6 D '45
Paper mills plan to spend over $150,000,000 for new plants and equipment. S. Taylor. il Paper Tr J 121:53-4+ N 22 '45
Personal Products presents model wadded crepe plant. il Paper Tr J 123:36 Jl 18 '46
Photography in the pulp and paper mill. G. Schnitzer. il Paper Ind 28:215-18+ My '46
TAPPI, 1st Engineering conference, Milwaukee, Oct. 2-4. Paper Tr J 123:65-7+ O 10 '46

See also
Paper board mills
Paper making

Accidents

Safety contest winners in the Paper and pulp section. Paper Ind 27:1064+ O '45

Costs

Paper mill operating efficiencies. H. H. Brown. Paper Tr J 123:44-5 Ag 22 '46; Same cond. Paper Ind 28:872+ S '46

Electric equipment

Application of motors to chippers. G. L. Oscarson. il Paper Ind 27:1519-21+ Ja '46
Electrical installation at Red Rock. W. K. Dow. Pulp & Pa of Can 47:85+ Jl '46
Electronic air filtration. H. J. Noles. il diag Paper Ind 27:1025-7 O '45
KVP electrical installation. J. F. Boucher. il Pulp & Pa of Can 47:91-2 O '46
Lightning protection of electric equipment. E. G. Merrick. diags Paper Ind 27:1034-7 O '45
New electronic applications in the paper industry. D. B. Gearhart. il Paper Tr J 121:66+ N 22 '45
Thirty-five years of lift-truck growth. T. F. Moriarty. il Paper Tr J 121:76+ N 22 '45
Use of radio and electronics in the pulp and paper industry. K. R. Swinton. il diags Pulp & Pa of Can (Convention no) 47:181-7 [F] '46

Employees

Challenge to management; house organ's part in employee relations. M. Brown. Pulp & Pa of Can 47:68-9 Ag '46
Employee education in the paper industry. W. G. Hendrich. Paper Ind 28:660-2 Ag '46
Foreman's part in veteran rehiring. L. Stessin. Paper Ind 27:1217-18 N '45
Health program; Thilmany pulp & paper company. H. H. Leedke. il plan Paper Ind 28:651-6 Ag '46
Industrial nurse; her function in the paper making industry. H. W. Noble. il Pulp & Pa of Can 46:912-14+ N '45
Industrial relations in the waxed paper industry; abstract. P. J. Massey. Paper Ind 28:282-4 My '46
Is one of the applicants for that job a veteran? G. G. Blackburn. il Pulp & Pa of Can 47:59-62 My '46
Kimberly-Clark's program for re-employing returning veterans. M. J. Schulenberg. il Paper Ind 27:1213-16 N '45
Man in the middle; the foreman. E. A. Jackman. Paper Ind 28:564+ Jl '46
Personnel and townsite; Red Rock division of Brompton pulp and paper co. E. E. Barlow. il Pulp & Pa of Can 47:83-5 Jl '46
Planned career in the paper industry. D. C. Yates. Pulp & Pa of Can 42:599-601, 652-3, 659-60, 727-8, 769-70; 43:17-21, 250-2, 301-3, 361-2 S '41-Ap '42; 47:63-5 My; 83-5 D '46; 48:61-6 Mr '47
Recreational activities in industry. C. Skillman. il Paper Ind 28:382-5 Je '46
Report of Industrial relations committee of the Waxed paper institute. Paper Ind 28:856+ S '46
Research chemist takes his hair down. E. Sutermeister. Paper Ind 27:1515-18 Ja '46
Some reflections on the responsibilities of supervisors in the field of labor relations. G. R. Schenck. Paper Tr J 122:143-6 Je 20 '46
Thorold celebrations. Pulp & Pa of Can 47:36-9 F '46
To work together. D. Ross-Ross. Pulp & Pa of Can 47:66-8 Ag '46
You need job evaluation. N. Pratt. Paper Ind 28:523-5 Jl '46

Equipment

Bleaching of pulp. J. Richter. diags Pulp & Pa of Can 47:43-58 F '46
Busting bottle-necks in building materials; Building products limited. il Pulp & Pa of Can 46:989-92 D '45
Collector for sulphate soap for production of tall oil. W. P. Thielens and R. R. Fuller. diags Paper Tr J 123:33-4 O 31 '46; Same cond, without diags. Paper Ind 28:440-1 Je '46
Corrosion in Briner economizers. J. T. MacDonald. Pulp & Pa of Can 47:60-1 Mr '46
Dilution factor in brown stock washing. J. R. Lientz. flow sheet il diag Paper Ind 28:806-9 S '46
Effective bleach liquor system for rag half-stock bleaching. L. A. Moss. diag Paper Tr J 122:45-6 Ap 4 '46; Same, without diag. Paper Ind 28:896+ S '46
Evaporator heat balance. G. E. Seavoy. il diags Paper Ind 27:1795-8 Mr '46
Further expansion in Newfoundland; Corner Brook. il map Pulp & Pa of Can 47:73-81 S '46
History of the lift truck in the paper industry. T. F. Moriarty. il Paper Ind 28:226-9 My '46
Hydraulic barker saves manpower and wood. H. E. Bukowsky. il diag Paper Tr J 121:70+ N 22 '45
Instrumentation in pulp and paper mills. J. N. Franklin. il plan Paper Tr J 123:56-62 Jl 18 '46
Kanto knot separator. diag Pulp & Pa of Can 46:1003 D '45
New boiler gives needed capacity and reduces steam costs 20%; E. B. Eddy co. il diags Power 90:286-9+ My '46
New developments to combat corrosion in paper and pulp industries; liquid neoprene, nitrocote, and durofilm; rubber pipe joint. K. P. Chamberlain. Paper Tr J 123:126+ O 10 '46
New roll handling system at Waldorf. N. H. Sandberg. il Paper Ind 27:1370-1 D '45
Nickel and high nickel alloys; their use in the pulp and paper industry. H. O. Teeple. flow sheet il diag Paper Ind 27:1522-9 Ja '46
Paper mills; Brompton pulp and paper company. F. D. Taylor. il Pulp & Pa of Can 47:75-7 Jl '46
Pipe with rubber lining; pipes used to carry caustic in paper mill. il Heat & Ven 42:99-100 D '45

PAPER mills—Equipment—*Continued*

Production and fuel rates of rotary kilns burning lime sludge. R. Gibbs. diags Paper Tr J 122:37-40 My 2 '46; Same cond. Paper Ind 28:422+ Je '46

Recovery of waste heat with heat pumps. C. E. Simpson. diags Pulp & Pa of Can (Convention no) 47:135-8+ [F] '46; Excerpts. Paper Ind 27:1714-15 F '46

Some aspects of pulp mill engineering. G. R. Wadleigh. Paper Tr J 122:29-33 Je 13 '46; Same cond. Paper Ind 28:284-8 My '46

Stock consistency regulation. J. C. W. Evans. il diags Pulp & Pa of Can 47:73-8 Ap '46

Sulphate pulp mill at KVP; Groundwood department, pulp drying and shipping; KVP company. T. V. Iverson and others. il Pulp & Pa of Can 47:79-94 O 31 '46

Sulphate pulp mill; Brompton pulp and paper company. R. E. Costello and others. flow sheets il Pulp & Pa of Can 47:68-83 Jl '46

Sulphite pulps; handling after the digester. G. H. McGregor. Paper Tr J 122:49-53 My 16 '46; Same abr. Paper Ind 28:114+ Ap '46

Supertherm heating system for paper mill process. S. Senko. il diag Paper Tr J 123: 175-8 O 10 '46

Trend for alloy-lined equipment in the paper industry. H. A. Schmitz, jr. il Paper Ind 28:230-1 My '46

Use of absorption towers for recovery of pressure relief gases. A. G. Hellstrom. diags Pulp & Pa of Can (Convention no) 47:119-22 [F] '46; Same cond. Paper Ind 27:1572-4 Ja '46

Use of propeller for stock circulation and agitation. J. J. Keon. il diags Pulp & Pa of Can (Convention no) 47:188-94 [F] '46

See also

Digesters (paper making)
Paper making machinery

Fires and fire protection

Fire protection of pulpwood. O. W. Stewart. il diag Pulp & Pa of Can 47:82-5 S '46

Problems of storing coal. M. O. Neilson. Pulp & Pa of Can (Convention no) 47:139-41 [F] '46; Same cond. Paper Ind 27:1718-21 F '46

Heating and ventilation

Supplementary summer cooling in paper machine rooms. L. G. Janett. il Paper Ind 28: 986-8 O '46

Layout

Flow sheets in pulp and paper mill design. E. T. Jones. flow diag Paper Ind 28:224-5 My '46

Maintenance and repair

Kraft mill maintenance. W. McIntosh, jr. Paper Tr J 123:180-2 O 10 '46; Same abr. Paper Ind 28:1040-2 O '46

Organization and functioning of the maintenance department G. H. Pringle. Paper Tr J 123:171-3 O 10 '46

Management

Paper mill operating efficiencies. H. H. Brown. Paper Tr J 123:44-5 Ag 22 '46; Same cond. Paper Ind 28:872+ S '46

Traffic suggestions for production executives. C. E. Jones. Paper Ind 28:985-6 O '46

Power

B. T. U. in the paper industry. G. R. Wadleigh. Paper Ind 28:535-7 Jl '46

Experiences with a spreader stoker installation; Rothschild plant of the Marathon corporation. A. Urban. Paper Tr J 123:167-71 O 10 '46; Same cond. Paper Ind 28:1042-3 O '46

Relative merits of 200, 400, 600 and 1200 pound pressure plants for process steam and power generation. F. E. Laramore. Paper Ind 28: 1038+ O '46; Same abr. Paper Tr J 123:173-4 O 10 '46

Steam generation at KVP. F. D. Beaudry. Pulp & Pa of Can 47:87-9 O '46

Records

Sulphite pulp production records; their value, significance, and extent. H. W. Bialkowsky. Paper Tr J 123:29-33 O 17 '46

Safety measures

Exposure eliminated; new distributor makes it unnecessary for men to enter bins; Mosinee paper mills company. il Nat Safety N 54:27 Jl '46

Waste

Activities of the National council for stream improvement, inc. H. W. Gehm. il Water & Sewage Works 93:289-93 Jl '46

Clarification of green liquor. E. G. Kominek and J. M. Kahn. bibliog Paper Tr J 123: 45-6 Ag 15 '46

Collector for sulphate soap for production of tall oil. W. P. Thielens and R. R. Fuller. diags Paper Tr J 123:33-4 O 31 '46; Same cond, without diags. Paper Ind 28:440-1 Je '46

Effects of diluent black liquor in sulphate pulping. H. C. Crandall and G. F. Enderlein. bibliog diag Paper Tr J 123:40-3 Jl 11 '46

Magnesium-base sulfite pulping process; one solution of problems involved in stream pollution. H. R. Murdock. Ind & Eng Chem 38:sup83-4 My '46

Potentiometric determination of sodium sulphide in sulphate pulp black liquor. P. B. Borlew and T. A. Pascoe. bibliog Paper Tr J 122:31-4 Mr 7 '46

Present status of the pulp, paper, and paperboard industry's stream improvement program. R. L. Winget. Paper Tr J 122:124+ F 28 '46; Same cond. Paper Ind 28:433-4 Je '46

Production and fuel rates of rotary kilns burning lime sludge. R. Gibbs. diags Paper Tr J 122:37-40 My 2 '46; Same cond. Paper Ind 28:422+ Je '46

Progress in the treatment of waste waters in the region of the Mulden-Wassergenossenschaft; abstract. Kunze. Am Water Works Assn J 38:793 Je '46

Proteins from wood. Chem & Eng N 24:1570 Je 10 '46

Reclaimer treatment of white and waste waters. S. B. Applebaum. il diags Paper Tr J 122:31-3 Je 6 '46; Same cond. Paper Ind 28:582+ Jl '46

Treatment of waste white water at Beach & Arthur paper co. A. W. Redlin and J. J. Gilbert. flow diag il diags Paper Ind 28:49-52 Ap '46

White water reuse and disposal. H. A. Morrison. bibliog diags Paper Tr J 122:41-3 Ap 11 '46; Same cond. Paper Ind 28:580+ Jl '46

See also

Bark
Sulfite liquor

Water supply

See Water supply for paper mills

Austria

Impressions of an interned French papermaker. J. Ribière-Raverlat. Pulp & Pa of Can 46:907-8 N '45

British Columbia

Powell River developments. il(p910) Pulp & Pa of Can 46:911-12 N '45; Same cond. Paper Tr J 121:28 D 20 '45

Story of a pulp and paper town; Ocean Falls. il Pulp & Pa of Can 47:63-6 Ag '46

Germany

Impressions of an interned French papermaker. J. Ribière-Raverlat. Pulp & Pa of Can 46:907-10 N '45

Newfoundland

Further expansion in Newfoundland; Corner Brook. il map Pulp & Pa of Can 47:73-81 S '46

Ohio

Ohio's pioneer paper mills. D. Hunter. il Paper Ind 28:98+ Ap '46

Ontario

Marathon builds a mill and a town in a Canadian wilderness. il Paper Ind 28:930, 936-8 O '46

Paper mill and power project planned in northern Ontario. map Eng N 136:429 Mr 21 '46

PAPER mills—Ontario—*Continued*
Re-incarnation of a paper mill; KVP company limited, mill at Espanola, Ontario. D. W. Emmerson and others. il maps Pulp & Pa of Can 47:71-95 O '46

Quebec

Millionth ton and what it means to Canada; Quebec north shore paper company at Baie Comeau. A. K. Cook. il Pulp & Pa of Can 47:85-6+ S '46
Trip to Anglo Canadian pulp and paper mills. D. W. Emmerson. il Pulp & Pa of Can 47:71-3 Je '46

PAPER money
Wearing quality of experimental currency-type papers. F. T. Carson and M. B. Shaw. pl diags J Res Nat Bur Stand 36:249-68 Mr '46

PAPER patents. See Paper making—Patents

PAPER products
Converter needs more than paper. L. M. Perry. Paper Ind 28:864+ S '46
Moldable paper products. H. R. Alley. diags Paper Ind 28:262+ My '46; Same. Paper Tr J 122:120+ Je 20 '46
Molded fiber articles. M. P. Chaplin. Paper Ind 28:704+ Ag '46
Paper sleeping bag invented in Sweden. For Comm W 22:15 Ja 19 '46

See also
Paper boxes
Paper containers
Wadding

PAPER pulp
Manufacture of flax pulp from flax fibre. H. S. Spencer. Pulp & Pa of Can 47:95-7 S '46
Pulping fibrous raw materials of France and Africa; abstract. G. Dupont and R. Escourou. Paper Ind 28:904 S '46
Washing of deinked stock; results of sodium hexametaphosphate treatment. H. P. Bailey and A. H. Nadelman. bibliog diag Paper Tr J 122:47-8 Mr 28 '46

See also
Wood pulp

PAPER research
Chlorite holocellulose, its fractionation and bearing on summative wood analysis and on studies on the hemicelluloses. L. E. Wise and others. bibliog Paper Tr J 122: 35-43 Ja 10 '46
Fading of groundwood by light; search for an inhibitor to prevent the fading of groundwood. E. A. Reineck and H. F. Lewis. Paper Tr J 121:27-30 N 15 '45
Microscopy committee report. F. A. Burningham. Paper Tr J 122:54 Mr 21 '46
Place for physicists in the pulp and paper industry. R. N. Griesheimer and R. H. Savage. Paper Tr J 122:54-7 Ap 25 '46; Same cond. Paper Ind 28:437-8 Je '46
Relation of the chemical composition of fibres to their papermaking properties. J. M. Limerick and A. J. Corey. bibliog Pulp & Pa of Can 47:62-4+ Mr '46
Your part in lithography's future. W. E. Griswold. Paper Tr J 122:84+ Je 20 '46

See also Lawrence college—Institute of paper chemistry

PAPER rolls
New roll handling system at Waldorf. N. H. Sandberg. il Paper Ind 27:1370-1 D '45

PAPER sizing
Ground-nut protein in paper sizing; abstract. C. Singh and K. Singh. Paper Ind 28:1056 O '46
Planned career in the paper industry. D. C. Yates. Pulp & Pa of Can 47:63-5 My '46
Starch usage in the paper industry. J. P. Casey. Paper Ind 28:268+ My '46
Studies of rosin sizing; use of sulfuric acid. D. Price and D. D. Cameron. bibliog Pulp & Pa of Can (Convention no) 47:142-8 [F] '46; Excerpts. Paper Ind 27:1890-3 Mr '46
Tall oil size; substitute for rosin; abstract. V. V. Juvonen. Paper Ind 28:728 Ag '46

Analysis

Qualitative identification of synthetic resins. J. H. Graff. Paper Tr J 122:41-3 Ja 31 '46; Abstract. Chem & Met Eng 53:264+ Mr '46

Testing

Film properties and utilization of resin-starch. C. C. Kesler and others. bibliog Paper Tr J 122:39-43 Mr 28 '46; Same cond. Paper Ind 28:712+ Ag '46
Ink-line test for the determination of degree of sizing in writing paper. M. O. Schur and R. M. Levy. il diag Paper Tr J 122: 47-51 Mr 21 '46
Mechanism of the ink penetration tests. W. S. Wilson. Paper Ind 28:438-9 Je '46
Modified pen and ink sizing test. B. W. Smith. Paper Tr J 120:134+ F 22 '45; Same abr. Paper Ind 27:1415-16 D '45

PAPILIONACEAE
Papilionaceous alkaloids; lupinus macounii, Rydb. L. Marion. Am Chem Soc J 68:759-60 My '46

PAR collection of checks. See Federal reserve banks—Par collection of checks

PARABOLIC mirrors. See Mirrors, Parabolic

PARACHUTES
Chute plants plan non-aviation items. Aviation N 5:21 Ja 14 '46
Dynamic tensile tests of parachute webbing. A. H. Stang and others. 3pl J Res Nat Bur Stand 36:411-19 Ap '46
Storpedo, a parachute delivery container. il Mod Packaging 19:126-8 D '45
Use of parachutes on airlines discounted. Aviation N 5:37 Mr 4 '46

See also Airlines—Freight service—Parachute delivery

PARACYMENE. See Cymene

PARADES
Milwaukee transit floats capture top honors in Centurama parade. D. Kayser. il Mass Transportation 42:404 S '46

PARAFFIN
Crystal behavior of paraffin wax. S. W. Ferris and H. C. Cowles. bibliog il Ind & Eng Chem 37:1054-62 N '45
Industrial use of petroleum waxes. J. C. Dean. il Pet Refiner 25:87-91 My '46
Neutron beam spectrometer studies of boron, cadmium, and the energy distribution from paraffin. J. Rainwater and W. W. Havens, jr. bibliog plan Phys R 70:136-53 Ag 1 '46
Permanence of flame-proofed fabrics. S. A. Rulon and others. Am Dyestuff Rep 35: 489-92+ O 21 '46
Production of high melting point paraffin waxes from California crude waxes; abstract. R. A. David and P. M. Huemmer. flow sheet(p86) Pet Processing 1:87 O '46
Recent advances in the chlorinated paraffins. R. Strauss. bibliog Pet Refiner 25:124-5 Ja '46
Recovery and utilization of oil from oil-field waste emulsion. J. W. Horne and others. U S Bur Mines Rep of Invest 3869:1-16, pl 1-11 '46; Abstract. Oil & Gas J 44:134-5 My 4 '46
Resonance absorption by nuclear magnetic moments in a solid. E. M. Purcell and others. Phys R 69:37-8 Ja 1 '46
Removable wax disks salvage polishing laps. J. W. Weeton. il Am Mach 90:105 Ja 31 '46

Analysis

New method to determine paraffin wax in asphalt. J. Muller and D. Wandycz. diag Pet Refiner 24:132-4 N '45
Wax saturation in oil sands. J. C. Calhoun and S. T. Yuster. bibliog Pennsylvania State College Mineral Industries Exp Sta Bul 41:5-20 '46

Testing

Tensile strength of paraffin waxes. F. W. Padgett and R. B. Killingsworth. bibliog il diags Paper Tr J 122:37-43 My 9 '46

PARAFFINS
Alkylation of alkanes. G. Egloff and G. Hulla. bibliog(56 references) flow diags Chem R 37:323-99 D '45
Alkylation of isoparaffins; application of the carbonium-ion theory. F. G. Ciapetta. bibliog Ind & Eng Chem 37:1210-16 D '45
Alkylation of paraffins in the presence of homogeneous catalysts; synthesis of neohexane and triptane. A. A. O'Kelly and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:462-7 My '46

PARAFFINS—*Continued*
Catalytic dehydrocyclization of paraffins. H. Steiner. Am Chem Soc J 67:2052-4 N '45
Cracking of paraffins; abstract. R. C. Hansford. Oil & Gas J 45:60 S 14 '46
Equation relating density, refractive index, and molecular weight for paraffins and naphthenes. M. R. Lipkin and C. C. Martin. bibliog Ind & Eng Chem Anal ed 18:380-2 Je '46
Equilibrium constants for methane in paraffin mixtures. G. H. Hanson, M. J. Rzasa and G. G. Brown. bibliog Ind & Eng Chem 37:1216-17 D '45
Hydrogen fluoride-paraffin systems; significance of liquid-phase equilibria in the hydrogen fluoride alkylation process. E. B. Butler, C. B. Miles and C. S. Kuhn, jr. diags Ind & Eng Chem 38:147-55 F '46
Liquid-phase isomerization of normal paraffins using a fluid salt catalyst. S. H. McAllister and others. bibliog flow diag il Am Inst Chem Eng Trans 42:33-52; Discussion. 53 F '46
Mechanism of paraffin isomerization. H. S. Bloch, H. Pines and L. Schmerling. Am Chem Soc J 68:153 Ja '46
Physical constants of paraffin hydrocarbons. Pet Refiner 25:130 My '46
Selective demethylation of paraffin hydrocarbons. V. Haensel and V. N. Ipatieff. Am Chem Soc J 68:345-6 F '46
Vapor-liquid equilibria in three hydrogen-paraffin systems. M. R. Dean and J. W. Tooke. bibliog diag Ind & Eng Chem 38: 389-93 Ap '46
See also
Isoparaffins

Analysis
Analysis for naphthene ring in mixtures of paraffins and naphthenes. M. R. Lipkin, C. C. Martin and S. S. Kurtz, jr. bibliog Ind & Eng Chem Anal ed 18:376-80 Je '46

PARAGUAY
See also
Petroleum industry and trade—Paraguay

Commercial policy
Recent exchange-control developments in Paraguay. J. J. Magurn. il For Comm W 24:10-11+ S 21 '46

Economic conditions
Latin America's economy as world conflict ended. For Comm W 24:43 Jl 27 '46
News by countries. For Comm W 23:30-1 My 11; 31-2 Je 1; 24:29 Ag 3; 27-8 S 14; 25:20-1 O 5; 18 N 2 '46

PARALDEHYDE
Pyridines; aldehyde-collidine and 5-ethyl-2-vinylpyridine. R. L. Frank and others. bibliog Am Chem Soc J 68:1368-9 Jl '46

PARALLELS
Marley thread-measuring parallels. il diag Engineering 161:297 Mr 29 '46
Milled parallels for holding work on magnetic table of grinding machine. F. Horack. diags Mach 52:197 Je '46

PARALYSIS
See also
Infantile paralysis

PARAMAGNETISM. See Magnetism

PARAMECIUM
Method of growing dense cultures of paramecium. J. Stanley. Science 103:115 Ja 25 '46

PARAMOUNT pictures, inc.
Earnings rising. Barron's 25:10 D 10 '45
Government contends exhibition should be divorced from production and distribution. Comm & Fin Chr 164:426 Jl 22 '46

PARAPETS
Parapet walls; methods of obviating cracks; time-saver standards. diags Arch Rec 99: 129, 131 F '46

PARAPROL
Paraprol in industrial dermatitis. T. Dobbins. bibliog Ind Med 15:13-14 Ja '46

PARASITES
Correction on the nomenclature of human plasmodium. C. W. Sabrosky. Science 104: 401-2 O 25 '46
Method of conducting the 50 percent hemolysis and point complement-fixation test for parasitic diseases. J. Bozicevich and others. Pub Health Rep 61:529-34 Ap 12 '46
See also
Bacteria, Pathogenic
Blood—Parasites
Filariasis
Fungi, Pathogenic
Insects, Injurious and beneficial
Litomosoides carinii
Mites

Birds
Blood parasites of the blue grouse. C. D. Fowle. Science 103:708-9 Je 14 '46

PARASITOLOGISTS, American society of. See American society of parasitologists

PARATHYROID glands
Welding and the parathyroids; abstract. J Ind Hygiene 28:sup12 Ja '46

PARCEL post
Parcel post rates may jump sharply. Bsns W p28 Ja 5 '46

PARCHMENT paper
Propionate treatment of parchment to inhibit mold. J. C. Olson, jr. and H. Macy. bibliog il Mod Packaging 19:166-9+ Ap '46

PARIS
Bridges
Neuilly bridge, Paris. il diags Engineer 181: 584 Je 28 '46

Rapid transit
New plan for Paris public transport. For Comm W 23:39 Je 8 '46

Water supply
Variety of treatment methods utilized by French water company. M. N. Baker. il diags Eng N 137:380-1 S 19 '46

PARIS conference of foreign ministers. See International conferences—Paris, 1946

PARIS peace conference. See Peace conference, 1946, Paris

PARKERIZING. See Metal protection

PARKING. See Automobile parking

PARKINSON, Thomas I. 1881-
Wins brokers award. Nat Underw (Life ed) 50:6 N 1 '46

PARKS
Grounds maintenance and vegetation for airports, highways and park areas. il Pub Works 77:23-4 Ap '46
See also
Boston—Parks
Chicago—Parks

PARKS, National. See National parks and reserves

PARKS air college airline
Parks air college non-profit airline; managed by advanced Aviation operators engineering school students. G. Kropf. il Air Transport 4:55-6+ Jl '46

PARKS aircraft sales and service, inc.
Stock offered. Comm & Fin Chr 163:317 Ja 21 '46

PARKWAYS
Begin grading operations on 18-mile Baltimore-Washington, D.C., parkway. map Eng N 135:841 D 20 '45
Concrete spiral stairway connects parkway bridges in Los Angeles. il diags Eng N 136:845 My 30 '46
Design of Wilbur Cross parkway bridges. J. F. Willis. il map diags Eng N 136:792-7 My 16 '46
Lake drained to build cut-off; dike roadway eliminates kink in Southern state parkway on Long Island. il map diag Roads & Sts 89:68-9 Je '46
Los Angeles freeway contracts let; bids on section of Santa Ana parkway. map diag Roads & Sts 89:86-7 F '46
New Jersey steps out; freeway and parkway program. H. K. Glidden. il Roads & Sts 89: 80-4 Jl '46
What can be done about traffic congestion? urban parkways and expressways. W. S. Chapin. il Civil Eng 16:151-3 Ap '46

PARMELEE, Cullen Warner, 1874-
Photograph presented to Rutgers university by his former students. Am Cer Soc Bul 25:66-7 F 15 '46

PARMELEE transportation company
Builds new value. Barron's 26:16 Ap 15 '46

PARRISH, Amos, 1892-
Prophet with honor; Amos Parrish's semi-annual retailing clinics. por Bsns W p72+ N 2 '46

PARRY process. See Gas manufacture

PARSONS, Charles Lathrop, 1867-
Addresses given at Parsons testimonial banquet. M. T. Bogert, H. W. Stoke and others. Chem & Eng N 24:1204-8 My 10 '46
Retires after 39 years of service. C. A. Browne. pors Chem & Eng N 24:28-30 Ja 10 '46

PART time employment
Spare-time employment; employers' action against rival concern. F. E. Sugden. Elec R (Lond) 139:63 Jl 12 '46

PARTEN, Jubal Richard, 1896-
Portrait. Bsns W p7 Je 29 '46

PARTICIPATING policies. See Insurance, Fire —Participating policies

PARTICLES
Centrifugal sedimentation method for particle size distribution. A. E. Jacobsen and W. F. Sullivan. bibliog il Ind & Eng Chem Anal ed 18:360-4 Je '46
Chemical engineering symposium held at Brooklyn Polytech. Chem & Eng N 24:153-5 Ja 25 '46
Determination of particle sizes from Tyndall spectra. W. Heller and others. J Chem Phys 14:566 S '46
Discriminating particles and working bubbles; flotation process. A. M. Gaudin. il Tech R 48:491-4+ Je '46
Electronic counting and size determination of particles in aerosols. A. C. Guyton. diags J Ind Hygiene 28:133-41 Jl '46
Estimation of the surface area of solid particles. H. M. Cassel. bibliog J Chem Phys 14:217 Mr '46
Filmless sample mounting for the electron microscope. J. H. L. Watson. il J Ap Phys 17:121-7 F '46
Fundamental study of clay; effect of particle size on properties of casting slips. S. S. Kocatopcu. bibliog Am Cer Soc J 29:99-107 Ap 1 '46
Graphical method for determining particle trajectories. W. E. Parkins and E. C. Crittenden, jr. J Ap Phys 17:447-9 Je '46
Hegman fineness gauge. J. M. Purdy. il diag Paint Oil & Chem R 109:14+ Ag 22 '46
Manufacturing control employing X-ray diffraction method. F. G. Firth. Am Cer Soc J 28:363 D 1 '45
Measurement of the size characteristics of powders by photo-extinction methods. H. E. Rose and H. B. Lloyd. bibliog diags Soc Chem Ind J 65:52-8 F; 65-74 Mr '46
Measuring the distribution of particle size in dispersed systems. W. M. Dotts. bibliog diag Ind & Eng Chem Anal ed 18:326-8 My '46
Methods of mechanical analysis of portland cements. H. E. Rose. diags Engineering 161: 457-9, 483-4 My 17-24 '46
Micrometer-graticule combination for particle determination. S. C. Blacktin. Chem & Ind p154 Ap 13 '46
Mist and dust collection in industry and buildings; methods of analyzing dust particles. C. E. Lapple. bibliog il Heating-Piping 17:611-15 D '45
Mist and dust collection in industry and buildings; methods of representing particle size. C. E. Lapple. bibliog Heating-Piping 18:108-13 F '46
Motion of a particle in a temperature gradient; thermal repulsion as a radiometer phenomenon. P. Rosenblatt and V. K. La-Mer. bibliog diags Phys R 70:385-95 S 1 '46
Particle size by spectral transmission. E. D. Bailey. bibliog diag Ind & Eng Chem Anal ed 18:365-70 Je '46
Particle size determination. A. A. Vernon. bibliog J Chem Educ 23:448-50 S '46
Particle size determination from X-ray line broadening. L. S. Birks and H. Friedman. bibliog il J Ap Phys 17:687-92 Ag '46
Photoelectric instrument for light scattering measurements and a differential refractometer. P. P. Debye. il diags J Ap Phys 17:392-8 My '46
Preparation of electron microscope specimens for determination of particle size distribution in aqueous suspensions. A. M. Cravath and others. il J Ap Phys 17: 309-10 Ap '46
Preparation of slides for measurement of dust particle size. W. E. McCormick. bibliog pl Pub Health Rep 61:129-32 F 1 '46
Production of particle energies beyond 200 Mev. L. I. Schiff. bibliog diags R Sci Instr 17:6-14 Ja '46
Rapid method for determining specific surface of fine particles. A. Pechukas and F. W. Gage. bibliog diags Ind & Eng Chem Anal ed 18:370-3 Je '46
Rapid method for the determination of the specific surface and mean particle size of black powders. F. Frith and R. A. Mott. Soc Chem Ind J 65:81-7 Mr '46
Solubility and melting point as functions of particle size. L. Harbury. bibliog J Phys Chem 50:190-9 My '46
Study of distortion in electron microscope projection lenses. J. Hillier. il diags J Ap Phys 17:411-19 Je '46
Two-dimensional form of flocculation; photographs of flocculates that can be mistaken for single particles. H. Green. il Ind & Eng Chem 38:679-82 Jl '46
Use of ultra-fine particles in powder metallurgy. H. H. Hausner. Materials & Methods 24:98-102 Jl '46

See also
Brownian movements
Colloids
Dispersion
Dust
Electrophoresis
Powders
Sand
Sediments
Suspensions

PARTITIONS
Building materials research laboratory features novel movable partitions; Johns-Manville corp. il diag Eng N 137:169-71 Ag 8 '46
Progress, 1926-1946; walls, partitions. il Am Bld 68:106-9 O '46
Today's house; economics in partitions. il diags Arch Forum 85:120 Jl '46

PARTNERSHIP
Agency partnership contracts. C. F. Merrell and C. J. Barnhill. Rough Notes 89:18+ Ap '46
Converting partnerships back to corporations; abstract. L. H. Carter. J Account 81: 418 My '46
Partnership cases; Supreme court action upon Tower and Lusthaus. F. E. Seidman. J Account 81:503 Je '46
Paul on the partnership cases. bibliog J Account 80:390-1 N '45

See also
Insurance, Business—Partnership interest

Accounting
Accounting treatment of drafts issued by partnership. J Account 81:242-3 Mr '46
How taxes affect partnerships; withdrawals change capital status; credit aspects. L. F. Hufnagel. Credit & Fin Management 48: 7-9+ F '46
Tax benefit rule. C. W. Tye. bibliog J Account 82:68-9 Jl '46

Business liquidation agreements
Effect of section 126 on business-liquidation agreements. E. T. Roehner. bibliog J Account 80:364-8 N '45

Taxation
Family partnerships since the Tower and Lusthaus decisions. G. Simons. J Account 82:130-5 Ag '46
Tax liability of professional partnerships. J Account 82:343-8 O '46

PASCOE, Clifford Norman, 1912-
Pascoe's progress. por Fortune 34:156+ S '46

PASHLEY, W. Earle
Personalities in industrial advertising. por Ind Marketing 31:176+ Ja '46

PASS books. See Bank books, Depositors'
PASSANO, Edward B. 1872-1946
Sketch. por Inland Ptr 117:73 Ag '46
PASSENGER cars. See Cars
PASSENGER traffic officers, American association of. See American association of passenger traffic officers
PASSIVITY
Passivation of stainless steel. E. M. Mahla and N. A. Nielsen. il diag Electrochem Soc Trans 89 (preprint 27):319-41 bibliog (p339-41) '46
PASTE
Rating
Adhesive pastes. Consumers Res Bul 17:21 Je '46
PATENT laws and legislation
Case histories in patent law. H. A. Toulmin, jr. Product Eng 17:400, 470 My-Je; [no 8]129 Ag; 152 O; 104 N '46
See also
Trade marks
Australia
Australian patents; revolutionary innovation. Chem Age (Lond) 55:326 S 14 '46
France
Patents in France; post-war regulations established; abstract. S. Mittler. Chem Age (Lond) 54:14 Ja 5 '46
La prorogation de la durée de validité des brevets d'invention français. Génie Civil 123:77 Mr 15 '46
Les répercussions de la guerre sur la législation de la propriété industrielle. G. Beau De Loménie. Chimie & Ind 55:224-7 Mr '46
Great Britain
Amended patent act. S. T. Madeley. Mech Handling 33:457-8 Jl '46
British patents; abstract. Chem & Ind p214 Je 1 '46
British patents and war damage. S. T. Madeley. Mech Handling 32:710-12 D '45
Invention and patents. W. E. Burnand. Elec R (Lond) 137:687-8 N 9 '45
New patent bill. Elec R (Lond) 138:423-4 Mr 15 '46
New patent legislation. S. Mittler. Chem Age (Lond) 54:337-8 Mr 30 '46
New U.S. patents bill; comparison with current British proposals. S. Mittler. Chem Age (Lond) 54:493-4 My 4 '46
Patent law proposals. Engineer 181:513-15 Je 7 '46
Patent law reform. Chem Age (Lond) 55:203-4 Ag 17 '46
Patent law reform; memorandum prepared by Joint chemical committee of the Association on patents. Engineer 182:194 Ag 30 '46
United States
Army, navy strongly criticize patent provisions of science bill. W. Kroger. Aviation N 5:9 Ap 22 '46
Boykin bill defines war-lost patent rights. M. W. Levy. il Chem Ind 58:577-9 Ap '46
Final report of the National patent planning commission; summary. Inst Radio Eng Proc 34 [Waves & Electrons 1]:198 Ap '46
Hearings on scientific legislation. Chem & Eng N 23:1987-98 N 10 '45
NAM explains aim of campaign to reform U.S. patent system. Iron Age 158:166+ O 17 '46
New U.S. patents bill; comparison with current British proposals. S. Mittler. Chem Age (Lond) 54:493-4 My 4 '46
Patent policy in the United States; possible effects on British-owned patents. S. Mittler. Chem Age (Lond) 53:457-9 N 17 '45
Patent reform and the technical man. W. H. Kenyon, jr. Paper Tr J 123:39-43 Ag 22 '46
Patent situation and society. E. R. Posnack. Mech Eng 68:720-2 Ag '46
Patents; how to get them, use them and protect the rights they provide. B. W. Corrado. diags Am Mach 90:126-8 Je 6 '46
Patents pacts recording bill passes House. Oil Paint & Drug Rep 149:7 Ap 8 '46
Plight of our patent system. C. G. Galston. Product Eng 17:156-7 F '46
Research, industry, and government. B. K. Brown. Am Pet Inst Proc 25(1):60-5 '45; Same cond. Chem & Eng N 23:2328-30+ D 25 '45
United States patent system; present status and proposed reforms. C. W. Ooms. il Product Eng 17:265-7 Ap '46
See also
Contracts, Government—Patent provisions
PATENT pooling. See Patents—Licensing
PATENTS
American patent system; its relation to technical library techniques. C. W. Ooms. J Chem Educ 23:478-81 O '46
Can corporate research patent inventions? abstract. A. W. Deller. Chem & Met Eng 53:282+ Ap '46
Can the patent decline be checked? M. F. Hill. Am Mach 90:202+ S 12 '46
Company policy on employee patents; abstract. W. N. Dailey. Management R 34: 479-80 D '45
Creation of patent courts for complicated problems urged; abstract. C. W. Ooms and others. Iron Age 156:122+ D 27 '45
Foreign patent protection for American industry. H. A. Toulmin, jr. il Product Eng 17: [no7] 148-9 Jl '46
How to disclose your invention for maximum legal protection. W. K. Rieber. diags Product Eng 17:428-9 My '46
How to protect machine improvements. G. V. Woodling. diags Machine Design 17:133-6 N '45
Inventions of scientists; the legal position of scientific discovery. S. Mittler. Chem Age (Lond) 53:592-4 D 22 '45
Looks for reform in patent situation. R. J. Dearborn. Comm & Fin Chr 163:10 Ja 3 '46
Neglected aspect of research; preliminary library research. T. Coulson. Franklin Inst J 241:187-93 Mr '46
Ooms outlines patent reforms at Chicago section meeting. Chem & Eng N 24:59-60 Ja 10 '46
Patent policies for sponsored research. R. A. Morgen. J Eng Educ 36:618-20 Je '46
Patent situation and society. E. R. Posnack. Mech Eng 68:720-2 Ag '46
Patents are outgrown, not suppressed; abstract. E. R. Weidlein. Chem & Met Eng 53:270+ My '46
Patents available to manufacturers. T. P. Reynolds. Dom Comm 34:14 My '46
Patents; how to get them, use them and protect the rights they provide. B. W. Corrado. diags Am Mach 90:117-28 Je 6 '46
Patents; recent news. Electronics 19:228+ My '46
Patents reflect nation's progress. C. W. Ooms. Dom Comm 34:10 Ja '46
Philosophy of the American patent. W. M. Whitten. Chem & Eng N 24:2345 S 10 '46
Problems involving patents; abstract. C. W. Ooms. Iron Age 156:95 D 27 '45
Suppression of patents; abstract. A. Morrow. Product Eng 17:127 F '46; Discussion. 17:502 Je '46
What's new. il diags Dom Comm 34:17-19 Je; 73-9 Ag '46 [cont monthly]
See also
Acoustic patents
Aeronautics—Patents
Chemical patents
Gas turbines—Patents
Glass manufacture—Patents
Inventions
Oil shales—Distillation—Patents
Packaging—Patents
Paper making—Patents
Patent laws and legislation
Petroleum refining—Patents
Plastic materials—Patents
Radio apparatus—Patents
Rayon—Patents
Refrigerators, Electric—Patents
Rolling mills—Patents
Rubber—Patents
Rubber, Artificial—Patents
Rubber goods—Patents
Sewage disposal—Patents
Steel—Patents
Steel, Stainless—Patents
Textile patents
Trade marks
United States—Patent office
Water purification—Patents
Welding—Patents

PATENTS—*Continued*

Dedication

Dedicated patents. T. P. Reynolds. diags Dom Comm 34:83-7 Jl '46

Enemy ownership

See Enemy property

Government ownership

Utah goes into business; perfection, promotion, and obtaining of patent on power transmission device. Bsns W p45 Ja 26 '46

History

U.S. no. 1 patent was issued 110 years ago; locomotive device patented by J. Ruggles. Mach 53:167 O '46

Licensing

Court acts in glass case; Frank C. Kniffen to determine royalties of Hartford-Empire co. Bsns W p21 My 25 '46

Listing of patents available for licensing lower than anticipated. Steel 118:68-9+ F 11 '46

Patent grab bag; International harvester co. offers patents to all comers. Bsns W p28+ N 24 '45

Patent pact; Aluminum co. gives Reconstruction finance corp. free use of patents. Bsns W p35 Ja 19 '46

Patents; how to get them, use them and protect the rights they provide. B. W. Corrado. Am Mach 90:125-6 Je 6 '46

Threat of communization of patent system; compulsory licensing of drug patents. T. G. Klumpp. Can Chem & Process Ind 30:44 O '46

See also
Contracts, Government—Patent provisions

Germany

German patent office documents. Chem & Eng N 24:1393 My 25 '46

Seized German patents freed by accord. Chem & Eng N 24:2234 Ag 25 '46

Great Britain

British patents in enemy countries; statement by the Chartered Institute. Chem Age (Lond) 55:170 Ag 10 '46

Patents and income tax; explanatory notes by the Board of inland revenue. Chem Age (Lond) 54:705-6+ Je 22 '46

PATERSON, New Jersey

See also
Electric utilities—Paterson, New Jersey

PATHOGENIC bacteria. See Bacteria, Pathogenic

PATHOGENIC fungi. See Fungi, Pathogenic

PATMAN housing bill. See Housing laws—United States

PATTERN making

Cast phenolic patterns for duplicating. il Iron Age 157:86 Ap 4 '46

Casting patterns in phenolic resins. C. R. Simmons. il Foundry 74:224+ F '46

Matchplate patterns from phenolic casting resin. C. R. Simmons. il Foundry 74:123-4+ N '46

Patternmaking industry needs organization. F. Cech. Foundry 74:136 Ja '46

Precision casting with plastic patterns; Illinois precise casting co. C. T. Post. il diags Iron Age 156:54-9 N 15 '45

Recommends changes in pattern color standards. F. C. Cech. Foundry 74:148 O '46

Shops need pine for pattern makers. Bsns W p56+ My 4 '46

See also
Sheet metal work—Pattern making

PATTERN storage

Pattern vaults require planning. F. C. Cech. il Foundry 74:66-71+ S; 86-7+ O '46

PATULIN

Experiments relating to the synthesis of patulin; a study of hydrogenated γ-pyrones. J. Attenburrow and others. Chem Soc J p571-7 S '45

Experiments relating to the synthesis of patulin; derivatives of 2 : 3-diketo-4-acetyltetrahydrofuran. E. T. Borrows and B. A. Hems. Chem Soc J p577-8 S '45

PAUL, Arthur, 1898-

Wallace names Arthur Paul his assistant to direct Department's international trade activities. For Comm W 21:15 D 15 '45

PAULEY, Edwin Wendell, 1903-

California Standard deal for Petrol property related as Pauley hearings are reopened. R. E. Bjorkback. Nat Pet N 38: 6-7 F 27 '46

Decks cleared for action in Pauley case after introduction of Ickes' memoranda. R. E. Bjorkback. por Nat Pet N 38:4-7 F 13 '46

Friction over petroleum matters developed at Pauley hearing. H. D. Ralph. por Oil & Gas J 44:61 F 9 '46

Pauley confident as probe gets set to reopen. Nat Pet N 38:4-5 Mr 6 '46

Pauley continues fight for navy post. R. E. Bjorkback. Nat Pet N 38:8 Mr 13 '46

Senator Moore terms battle against appointment of Pauley an attempt to besmirch oil industry. R. E. Bjorkback. Nat Pet N 38: 60-1 Mr 20 '46

Verbal fireworks fly as Senate committee wades through testimony in Pauley hearing. R. E. Bjorkback. Nat Pet N 38:3-5 F 6 '46

PAULI, Wolfgang, 1900-

Encomium. H. Weyl. Science 103:216-18 F 22 '46

Nobel prize award; introductory remarks. F. Aydelotte. Science 103:215-16 F 22 '46

PAULI exclusion principle

History of the exclusion principle. W. Pauli. Science 103:213-15 F 22 '46

PAULING, Linus Carl, 1901-

ACS candidates for 1947. por Chem & Eng N 24:2745 O 25 '46

Linus Pauling awarded Gibbs medal. por Chem & Eng N 24:1787 Jl 10 '46

PAVEMENTS

Design and construction procedures for airfield pavements. B. J. Bell. il Pub Works 77:25-6+ F '46

Effect of frost conditions on load carrying capacity of pavements. Pub Works 77:33 Jl '46

Speeding up of ground traffic. il plans Roads & Sts 89:86-90 Jl '46

See also
Airports—Surfaces
Bridges—Floors
Roads
Streets

Design

Tests of flexible pavement for airfield runways. il diags Eng N 137:36-40, 113-17 Jl 11, 25 '46

Foundations

Stability of runway soils determined by ground-water vapor. H. H. Houk. diags Civil Eng 16:446-7 O '46

Soil-cement

Good equipment paid on runway repair job. il plan Roads & Sts 88:86-9 N '45

Maintenance and repair

Maintenance of airfields and airfield runways. E. C. Todd and O. H. Hays. il Roads & Bridges 84:64-5+ O '46

Slipperiness

See also
Walks, Concrete—Heating

Subgrades

See also
Roads—Subgrades

PAVEMENTS, Asphalt

Asphalt plant for an island airbase. A. Keirsey. il Eng N 135:669-71 N 15 '45

Bangor renews its streets with hot asphalt paving. J. L. MacLeod. il Pub Works 77: 29 Ap '46

Uncompacted mass asphalt paving for river banks and levees. A. B. Pickett. il diag Civil Eng 16:451-3 O '46

See also
Pavements, Bituminous

PAVEMENTS, Asphaltic concrete. See Pavements, Bituminous concrete

PAVEMENTS, Bituminous
Airfield paving by U.S. army engineers; abstract. B. J. Bell. Eng N 136:705-6 My 2 '46
Good equipment paid on runway repair job. il plan Roads & Sts 88:86-9 N '45
Rapid determination of the bitumen content in pavements; abstract. H. Arnfelt. Am Concrete Inst J 17:730-1 Je '46
Study of bituminous-coated corrugated sheet metal culverts. J. Y. Welborn and P. J. Serafin. il Pub Roads 24:227-38 Jl '46
Waterproofing bituminous mixes. H. P. Pearson. il Roads & Bridges 84:68-9+ O '46
See also
Roads, Bituminous

Maintenance and repair
Cincinnati protects its streets by extensive resurfacing and sealing; with cost data. il Eng N 137:302-6 S 5 '46

Testing
Tests of flexible pavement for airfield runways. il diags Eng N 137:36-40, 113-17 Jl 11, 25 '46

PAVEMENTS, Bituminous concrete
Bridge deck modernized by adding median strip and resurfacing; bridge at Toledo. il Roads & Sts 89:94-6 Ap '46
Building an airbase in the Azores. J. S. Bragdon. il Eng N 137:250-3 Ag 22 '46
Inspection of hot-mix, hot-laid asphaltic concrete paving; revised manual of instructions. il Roads & Bridges 83:70-2+ N '45

Testing
Tests of flexible pavement for airfield runways. il diags Eng N 137:36-40, 113-17 Jl 11, 25 '46

PAVEMENTS, Concrete
Air-entraining concrete for pavements and bridges. il diags Roads & Bridges 84:72-3+ S '46
Le bétonnage des pistes de l'aéroport de Heathrow, près de Londres. diags Génie Civil 123:280-1 O 15 '46
Designing and building a concrete apron at the Duluth airport. A. W. Tewes. il plans Pub Works 77:22-3+ S '46
Durability of concrete at an airfield. il Eng N 136:292-3 F 21 '46
Effect of air entrainment on the durability of concrete pavement in Ohio; abstract. J. F. Barbee. Rock Prod 49:69-70 Mr '46
Effect of freezing and thawing on concrete pavements. il Roads & Bridges 84:65-8+ Ja '46
Major heavy-duty concrete runway with no expansion joints; Fairfield-Suisun airbase. il diags Eng N 137:504-5 O 17 '46
Massive new runway under construction at Wright field for the B-36 and its kind. il diags Roads & Sts 89:74-5+ S '46
Pioneer concrete pavements survive 35 years of hard service; Sioux City, Iowa. K. C. Gaynor. il Eng N 136:923-4 Je 13 '46
Railroad bridge redecked for vehicles. J. W. Green. diag Eng N 137:53 Jl 11 '46
Recent experiences with air-entraining portland cement concrete in the northeastern states. L. E. Andrews. Am Concrete Inst J 17:621-4 Je '46
Roadways concreted at Proviso repair track. il Ry Mech Eng 120:352-3+ Jl '46
Stewart field demonstrates value of air entrainment. il Concrete 54:8-9+ O '46
See also
Concrete-wood slabs
Floors, Concrete
Pavements, Bituminous concrete
Roads, Concrete
Sidewalks, Concrete
Walks, Concrete

Heating
Radiant heat keeps loading area free of snow; circulation of hot anti-freeze liquid. J. Montagnes. il Factory Management 104: 106-7 Ag '46

Joints
Concrete pavement design. H. F. Clemmer. il diags Roads & Bridges 84:73-5+ Ap '46; Discussion. J. M. Breen. 84:57-8+ My '46; Discussion (Quebec's experience with concrete pavements). J. A. Gratton. 84:54-6 Je '46
Joints and cracks in concrete pavements. E. C. Sutherland. bibliog il maps Pub Roads 24:179-205 Ja '46
Slab joint practice in the 48 states; results of questionnaire tabulated. Concrete 54:17-19+ Mr; 22-3+ My '46

Maintenance and repair
High early strength concrete for utility openings and other repairs in cement concrete pavements. F. D. Woodruff. il diags Pub Works 77:19-21+ My '46
Raising sagging pavements and runways by subsealing with asphalt. H. A. Wallace. il Roads & Bridges 83:65-7+ N '45

Reinforcement
Action of steel in reinforced concrete pavement; abstract. W. R. Wooley. Am Concrete Inst J 17:562-3 Ap '46

Scaling
Damage on concrete pavements by wintertime salt treatment; abstract. H. Arnfelt. Am Concrete Inst J 17.731-2 Je '46

Testing
Airfield load tests in progress at Selfridge field; tests to determine effect of frost conditions. il Roads & Sts 89:94-5 My '46
Test coring concrete pavement at Idlewild airport. il Roads & Sts 89:92 Mr '46

PAVEMENTS, Soil-cement
Soil cement in aerodrome construction; abstract. W. C. Andrews. Am Concrete Inst J 17:729-30 Je '46
Soil-cement paving methods for the construction of low-traffic roads or secondary airport runways. R. A. Crysler. il Roads & Bridges 83:60-3+ D '45
Soil-cement streets for subdivisions, Alexandria, Virginia. D. A. Loftus. il Roads & Sts 89:84-5 F '46

PAVEMENTS, Steel
Tests on new type open bridge floor. H. C. Tammen and C. W. Muhlenbruck. il diag Eng N 135:890-1 D 27 '45

PAVING machines
New type of travel plant for road paving, Hetherington & Berner Moto-paver. Roads & Bridges 84:119-20 Ja '46

PAYMENT
Sufficiency of check as tender where objection not expressly taken at time of tender. Banking Law J 63:553-7 Jl '46
See also
Acceptances, Trade
Checks
Collecting of accounts
Instalment plan
Wage payment plans

PAYROLL checks. See Checks

PAYROLL deductions. See Wage deductions

PAYROLLS
Adjusted manufacturing series of employment and pay rolls; revised monthly estimates by major industry group from January 1944 to December 1945. Mo Labor R 63:297-301 Ag '46
Case against retroactive pay adjustments. E. Stevens. N A C A Bul 27:778-80 My 1 '46
Factory employment and pay rolls, by industries (without seasonal adjustment) monthly, Sept.-Nov. 1944 and July-Oct. 1945. Fed Res Bul 32:73-4 Ja '46 [cont monthly]
Labor's increasing share of industry's income; payrolls, dividends and savings of manufacturing corporations; chart. Automotive & Aviation Ind 94:65 Mr 15 '46
Production-worker employment and pay rolls in manufacturing industries, monthly average, 1944-1945 and monthly figures, Jan. 1944-Feb. 1945; revised series. Survey of Cur Bsns 26:24 Jl '46
See also
Labor cost
Wages

PAYROLLS—*Continued*

Accounting

Accounting for payroll deductions. D. A. Hamilton. Am Gas Assn Proc 1945:105-6
Case study of a payroll system. F. L. Haskell. N A C A Bul 27:451-63 Ja 15 '46
Case study of payroll practices and procedures. I. J. N. Zavodney. N A C A Bul 27:549-66 F 15 '46
Check handling made easier; sorting by use of punched checks. R. Conley. il Am Bsns 16:14-15 Ja '46
Distribution of payroll charges. J. A. Schultz. Am Gas Assn Proc 1945:107-8
Moraine Products improves payroll with new check. il Am Bsns 16:36 S '46
Payroll accounting. A. N. W. LaRose. Am Gas Assn Proc 1945:98-102
Payroll audit. J Account 82:250-1 S '46
Payroll constants save overseer's time; calculation of spinners' wages. F. H. Gunther and M. Gross. Textile World 96:116 Jl '46
Payroll work speeded by modern machine equipment. J. C. McNeil. il Coal Age 51:92-6 Ag '46
Red tape gets gate at Shotwell manufacturing company; simplified pay plan. H. Roeser. il Am Bsns 15:16-17+ D '45
Simple formula for the accrual of the vacation pay. C. W. Bendel. N A C A Bul 27: 916-22 My 15 '46
Simplified method for figuring payrolls. M. E. Mengel. N A C A Bul 27:1020-6 Je 15 '46

Records

Comments on manual payroll systems. O. Ullery. Am Gas Assn Proc 1945:103-5
Machines speed Aldens payroll. P. Eastman. Am Bsns 16:16-17+ Je '46
Operate more profitably; payroll record for plumbing trade. G. M. Carson. Dom Eng 168:120-2+ S '46
Simplified payroll system cuts costs in Pontiac state hospital. L. I. Scott. Am Bsns 16:16-17+ Mr '46
Skip-step payroll writing plan; George K. Garrett company, Philadelphia. R. F. Shaw. Am Bsns 16:19+ O '46

Taxation

State unemployment insurance taxes; a controllable element of cost. B. W. Roberts. N A C A Bul 27:966-78 Je 1 '46

PEACE

America's responsibility and world security H. V. Johnson. Comm & Fin Chr 163:3201+ **Je 13 '46**
Anglo-American cooperation a bulwark for peace; radio address. Earl of Halifax. Comm & Fin Chr 163:2643+ My 16 '46
Atomic bomb and future peace. J. F. Byrnes. Comm & Fin Chr 162:2497+ N 22 '45
Atomic energy and free enterprise; condemns control of scientific materials or processes by private interests. H. J. Laski. Comm & Fin Chr 162:2699+ D 6 '45
Cooperation of big five a peace essential. C. Hull. Comm & Fin Chr 163:1346+ Mr 14 '46
From war to peace; advocates outlawing atomic bomb. H. E. Stassen. Comm & Fin Chr 162:2369+ N 15 '45
How's business? Barron's 26:1 S 23 '46
Importance of economic relations to world peace. W. L. Clayton. Comm & Fin Chr 163:2072+ Ap 18 '46
Let's cut our military costs with trade, travel and the facts. P. D. Reed. Comm & Fin Chr 164:2385+ N 7 '46
Organizing for peace and world trade; role of international agencies. Index 26 no 3:49-57 [S] '46
Peace may require long series of international parleys. E. Kaskeline. Barron's 26:3 Je 3 '46
Peacetime problems and fiscal policy. F. M. Vinson. Comm & Fin Chr 162:2575+ N 29 '45
Pleads for united Europe. W. Churchill. Comm & Fin Chr 164:1545+ S 26 '46
Policy for peace. J. F. Byrnes. Comm & Fin Chr 163:1496+ Mr 21 '46
Problems of permanent peace. A. H. Vandenberg. Comm & Fin Chr 164:1139+ Ag 29 '46
Road to world peace. E. A. Johnston. Comm & Fin Chr 163:1786+ Ap 4 '46
Russian embassy says influential selfish groups oppose peace. Comm & Fin Chr 163:2795+ My 23 '46
Science and world order. R. G. Gustavson. Comm & Fin Chr 164:202+ Jl 11 '46
Sinews of peace. W. Churchill. Comm & Fin Chr 163:1214+ Mr 7 '46
Treasury for the free world. B. Baeburn. ed. 417p $3.50 Arco pub. co, 480 Lexington av, New York 17 '46
UN's struggle for peace; address at opening of General assembly, Oct. 23, 1946. H. S. Truman. Comm & Fin Chr 164:2073+ O 24 '46
We must split the atom of peace. F. Eberstadt. Comm & Fin Chr 164:79+ Jl 4 '46
Why this peace should work; in the economic skies there are hopeful portents. W. L. Clayton. Fortune 33:123-5 My '46
World government to enforce peace. O. J. Roberts. Comm & Fin Chr 163:2213+ Ap 25 '46

PEACE conference, 1946, Paris

Byrnes reports on peace conference. Comm & Fin Chr 164:2133+ O 24 '46
Cleavage widens. Economist 151:297 Ag 24 '46; Same. Iron Age 158:109+ S 5 '46
Conclusion in Paris. Economist 151:610-12 O 19 '46; Same abr. Iron Age 158:109+ N 7 '46
Is it peace? western Democracy-Soviet struggle. C. Hodges. Comm & Fin Chr 164:746+ Ag 8 '46
Observations; Paris peace-making proceeds without consistent principle. A. W. May. Comm & Fin Chr 164:878+ Ag 15 '46
Peace conference delays. Economist 151:257-8 Ag 17 '46
Peace without honour. Economist 151:121-3 Jl 27 '46
Power politics in Paris. Economist 151:217-18 Ag 10 '46; Same. Iron Age 158:109 Ag 22 '46

PEACHES

Compartments for peaches; cell-type box permits marketing of tree-ripened fruits. T. A. Merrill. il Mod Packaging 19:128-30 F '46
Freezing point data sheets and cooling curves. Food Ind 18:1370 S '46

PEACHES, Frozen

Stored frozen stock produces better preserves. H. H. Thompson and others. bibliog il Food Ind 18:1341-3+ S '46

PEANUT butter

Peanut butter improved by changing flavor and texture by addition of sugars and hydrogenated oils. J. G. Woodroof and others. il Food Ind 18:525-6+ Ap '46

PEANUT meal

Peanut-meal plywood glue. R. S. Burnett and E. D. Parker. bibliog A S M E Trans 68: 751-6 O '46

PEANUT oil

Maintenance of penicillin blood levels after a single intramuscular injection of penicillin in various oils. A. B. Cannon, K. Lindstrom and A. G. Ospeck. Science 104: 414 N 1 '46
Solvent extraction of cottonseed and peanut oil; effect of heat on cottonseed oil miscellas. H. L. E. Vix and others. bibliog il diag Ind & Eng Chem 38:635-42 Je '46
Unique plant produces tung and peanut oils; Continental commodities corp. Madagascar plant. D. Gordon. flow sheet Chem & Met Eng 52:106-7 N '45
Viscosities and densities of solvent-vegetable oil mixtures. F. C. Magne and E. L. Skau. bibliog diags Ind & Eng Chem 37:1097-1101 N '45

PEANUTS

Ground-nut protein in paper sizing; abstract. C. Singh and K. Singh. Paper Ind 28:1056 O '46
Improvement in the color of peanut and cottonseed proteins. T. D. Fontaine, S. B. Detwiler, jr. and G. W. Irving, jr. bibliog Ind & Eng Chem 37:1232-6 D '45
Manufacture and use of peanut protein. R. S. Burnett. bibliog flow diag il Chem & Eng N 24:478-80 F 25 '46

PEANUTS—*Continued*
New agricultural products used in candy; oil-seed, cereal and legume products. H. H. Hall and others. il Food Ind 18:1008-10+ Jl '46
New peanut fiber. Bsns W p58 My 4 '46
No, this product isn't just peanuts; world production. For Comm W 21:29 N 10 '45
Peptization of peanut and cottonseed proteins; effect of dialysis and various acids. T. D. Fontaine, G. W. Irving, jr. and K. S. Markley. bibliog Ind & Eng Chem 38:658-62 Je '46
Science and transportation combine to save the South's peanut crop; Kryocide delivered by plane. il Manuf Rec 115:47+ O '46
World's 1945 peanut crop shows 6 percent reduction. For Comm W 23:41 Je 1 '46

Moisture content

Why moisture in peanuts should be controlled. J. G. Woodroof. il Food Ind 17: 1302-4 N '45

PEARL HARBOR investigations and reports
Fortune survey. Fortune 32:309 D '45
Pearl Harbor hearings ended. Comm & Fin Chr 163:1333 Mr 11 '46
Pearl Harbor inquiry in Congress; testimony of Hull, Grew and Richardson. Comm & Fin Chr 162:2798-9 D 6 '45

PEARS

Diseases and pests

Effect of 2,4-dichlorophenoxyacetic acid on the development of Anjou pear scald. E. Hansen. Science 104:399-400 O 25 '46

Storage

Cold storage design for apples and pears. W. V. Hukill and E. Smith. plan diags Refrig Eng 51:419-22 My '46

PEAS
Foil package extends merchantable life of peas. C. A. Sumner. il Food Ind 18:1538-9+ O '46
Freezing point data sheets and cooling curves. Food Ind 18:1370-1 S '46
Vitamin content of peas; effect of freezing, canning, and dehydration. C. H. Mahoney and others. bibliog Ind & Eng Chem 38:654-7 Je '46

Analysis

Nutritive value of canned foods; comparison of vitamin values obtained by different methods of assay. N. B. Guerrant, M. G. Vavich and O. B. Fardig. bibliog Ind & Eng Chem Anal ed 17:710-13 N '45

PEAS, Dried
Vitamin content of peas; effect of freezing, canning, and dehydration. C. H. Mahoney and others. bibliog Ind & Eng Chem 38:654-7 Je '46

PEAS, Frozen
Blanching vegetables for freezing; abstract. F. A. Lee and J. Whitcombe. Food Ind 18:769 My '46
Effect of freezing rate on vegetables; appearance, palatability, and vitamin content of peas and snap beans. F. A. Lee, W. A. Gortner and J. Whitcombe. bibliog il Ind & Eng Chem 38:341-6 Mr '46
Vitamin content of peas; effect of freezing, canning, and dehydration. C. H. Mahoney and others. bibliog Ind & Eng Chem 38:654-7 Je '46

PEAT
Ester waxes from British lignite and peat. C. M. Cawley and J. G. King. Soc Chem Ind J 64:237-42 S '45
Peat combustion for industrial steam heating. A. J. Woods. il Engineer 181:228-9 Mr 8 '46; Abstract. Engineering 161:223 Mr 8 '46
Peat; undeveloped raw material of Scotland. A. G. Clement and R. H. S Robertson. Chem Age (Lond) 55:129-32 Ag 3 '46
Rights to dehydrated peat coal offered by Swedish inventor. For Comm W 23:29 Je 15 '46
Sweden's new machine for the superior processing of peat. For Comm W 22:24 F 9 '46

PEAT moss
Canada's peat moss industry. W. M. Goodwin. il Can Min J 67:169-71 Mr '46

PEBBLE heaters
Pebble heater; a new heat-transfer apparatus. C. L. Norton, jr. il diags Am Cer Soc J 29:187-93 Jl 1 '46; Same. Chem & Met Eng 53:116-19 Jl '46
Pebbles heat gas. Bsns W p72 Ag 24 '46

PEBBLES
Pebbles and mill liners produced by Harris granite quarries co. H. E. Swanson. il Rock Prod 49:78+ F '46

PECTINIC acids
Effect of salts on the viscosity of pectinic acid solutions. H. Lotzkar and others. bibliog J Phys Chem 50.200-10 My '46
Influence of method of deësterification on the viscosity and acid behavior of pectinic acid solutions. T. H. Schultz and others. bibliog J Phys Chem 49:554-63 N '45
Shape and size of pectinic acid molecules deduced from viscometric measurements. H. S. Owens and others. bibliog Am Chem Soc J 68:1628-32 Ag '46

PECTINS
Characterization of pectin. C. H. Hills and R. Speiser. Science 103:166-7 F 8 '46
Effect of molecular weight and method of deësterification on the gelling behavior of pectin. R. Speiser and C. R. Eddy. bibliog Am Chem Soc J 68:287-93 F '46
How sugars affect dispersibility of pectins in gel powders. C. W. Woodmansee and others. bibliog il Food Ind 18:356-7 Mr '46
Kinetics of deësterification of pectin. P. Speiser and others. bibliog J Phys Chem 49:563-79 N '45
Kinetics of the deësterification of pectin. R. C. Merrill and M. Weeks. bibliog J Phys Chem 50:75-87 Mr '46
Low ester pectin from apple pomace. H. H. Mottern and C. H. Hills. bibliog Ind & Eng Chem 38:1153-6 N '46
Low-ester pectins in ready-to serve salads. J Chem Educ 23:459 S '46
Thermal degradation of pectin. R. C. Merrill and M. Weeks. bibliog Am Chem Soc J 67:2244-7 D '45
X-ray diffraction investigation of sodium pectate. K. J. Palmer and M. B. Hartzog. bibliog il Am Chem Soc J 67:2122-7 D '45

PEDESTRIANS
Designing highways to meet pedestrian needs. C. B. McCullough. il Roads & Bridges 83:60-1+ N '45

PEELING machines
Rotary machine solves lye peeler problems; details of construction. F. H. Thurber and P. W. Bohne. il diag Food Ind 18:10-11+ Ja '46

PEENING
Effect of peening upon residual welding stresses. E. P. DeGarmo and others. il diags Welding J 25:sup616-23 O '46
Peen straighten steel by hammering. diags Steel 117:96 D 24 '45
Shot peening and the fatigue of metals; abstract. H. F. Moore. Product Eng 17:321-2 Ap '46

PEGMATITES
Beryl-tantalite pegmatites of northeastern Brazil. W. D. Johnston, jr. bibliog il maps diags Geol Soc Bul 56:1015-69, pl 1-5 N '45

PELLAGRA
Nicotinic acid; vitamin becomes an industry. Chem Ind 57:1057 D '45
Pellagra paradox. Tech R 48:416-18 My '46

PELLETS
New pellet dryer for TCC catalyst offers diverse postwar uses. J. W. Payne and C. H. Lechthaler. diags Chem & Met Eng 52: 105-7 D '45

PENCIL leads
Flip lid; plastic containers for pencil leads. il Mod Packaging 19:131 Jl '46

PENCILS

Manufacture

Manufacture of wood-cased pencils. C. R. Nichols, jr. diags Mech Eng 68:956-60 N '46

Rating

Special marking pencils. Consumers Res Bul 17:26 Ja '46

PENDRED, Loughnan St Lawrence, 1870-
Retires from editorship of Engineer. por Engineer 181:295 Mr 29 '46

PENDULUM
Machinability testing methods using pendulum machines. A. S. Kenneford. diags Engineering 161:599-600 Je 21 '46

PENETRON
Gamma ray inspection method; Penetron used to determine loss in wall thickness of equipment serving gas-distillate wells. E. H. Short, jr. il Oil & Gas J 45:119+ Je 29 '46
Refinery electronics. V. Zeluff. il diags Sci Am 173:278-80 N '45

PENICILLIC acid
Compounds related to penicillic acid; ethyl β-propionylacrylate and its formylation product. J. S. Moffatt, G. Newbery and W. Webster. Chem Soc J p451-4 Je '46
Synthesis of benzene derivatives structurally similar to penicillic acid. E. D. Amstutz, E. A. Fehnel and C. R. Neumoyer. bibliog Am Chem Soc J 68:349-54 Mr '46

PENICILLIN
Absorption of orally administered penicillin. W. McDermott and others. bibliog Science 103:359-61 Mr 22 '46
Antibacterial action of penicillin, penicillin X, and streptomycin on hemophilus influenzae. W. L. Hewitt and M. Pittman. bibliog Pub Health Rep 61:768-78 My 31 '46
Blood levels of penicillin after oral administration with various antacids. L. D. Seager. bibliog Science 103:353-5 Mr 22 '46
Brain involvement as a possible cause of relapse after treatment in spirochetal relapsing fever. V. T. Schuhardt and E. C. Hemphill. Science 103:422-3 Ap 5 '46
Chemistry of penicillin; abstract. W. Baker. Chem & Ind p78 F 16 '46
Crystalline sodium penicillin announced by Commercial Solvents corp. Chem & Met Eng 53:145 Ap '46
Desiccant for drugs; guards the potency of oral penicillin. il Mod Packaging 19:121 Ja '46
Effect of corn steep liquor ash on penicillin production. S. G. Knight and W. C. Frazier. Science 102:617-18 D 14 '45
Effect of penicillin on growth of alcaligenes fecalis. M. Fulton and others. Science 103: 361-2 Mr 22 '46
Effect of penicillin on seed germination. W. J. Smith. Science 104:411-13 N 1 '46
Effect of phenylacetic acid derivatives on the types of penicillin produced by penicillium chrysogenum Q176. K. Higuchi and others. Am Chem Soc J 68:1669 Ag '46
Heat stable penicillin. il Chem Ind 58:600 Ap '46
Hemolytic streptococcal sore throat; antibody response following treatment with penicillin, sulfadiazine, and salicylates. L. A. Rantz, P. J. Boisvert and W. W. Spink. bibliog Science 103:352-3 Mr 22 '46
Heyden develops new form of penicillin; white crystalline penicillin. Oil Paint & Drug Rep 150:63 O 28 '46
Impurity in some commercial penicillin preparations which interferes with the diazo reaction in determining blood phenols. J. C. Hartnett. Science 103:114-15 Ja 25 '46
Inactivation of penicillin by zinc salts. H. Eisner and B. Porzecanski. Science 103: 629-30 My 17 '46
Injection molded hypodermic for penicillin. il Mod Plastics 23:117 Je '46
Intestinal absorption of penicillin. G. V. P. Seeberg and others. bibliog Science 104: 342-3 O 11 '46
Low therapeutic activity of penicillin K relative to that of penicillins F, G, and X, and its pharmacological basis. H. Eagle and A. Musselman. bibliog Science 103: 618-20 My 17 '46
Maintenance of penicillin blood levels after a single intramuscular injection of penicillin in various oils. A. B. Cannon, K. Lindstrom and A. G. Ospeck. Science 104:414 N 1 '46
Medicine from earth; penicillin, streptomycin, and other new antibiotics. il Fortune 34: 98-105+ Jl '46
Method for continuous parenteral administration of penicillin and other drugs. B. G Noble. diag Science 103:759 Je 28 '46
New mold produces penicillin. Chem Ind 59: 90+ Jl '46
Newer uses of topical penicillin in the treatment of dermatologic infections. F. R. Ferlaino. bibliog Ind Med 15:569-75 O '46
OSRD penicillin program. Chem & Eng N 24:828-9 Mr 25 '46
Oral penicillin, a comparison of various modes of administration. A. H. Free and others. bibliog Science 102:666-8 D 28 '45
Oral penicillin X. M. Meads and others. bibliog Science 103:501-3 Ap 26 '46
Penicillin action on the germination of seeds D. F. Ribeiro. Science 104:18 Jl 5 '46
Penicillin blood-level determinations with a streptococcus dysgalactiae resistant to normal blood inhibitors. J. C. Kakavas and E. G. Scott. bibliog Science 104:327-8 O 4 '46
Penicillin development; glycerine as source of carbon. Chem Age (Lond) 54:505 My 4 '46
Penicillin efficacy reported diminished. Oil Paint & Drug Rep 149:3+ Ap 8 '46
Penicillin find; Q-176, new mold strain. Bsns W p58+ Mr 23 '46
Penicillin for the public; progress outlined by Minister of supply. il Chem Age (Lond) 54:525 My 11 '46
Penicillin in Germany; attempts at manufacture. Chem Age (Lond) 53:536 D 8 '45
Penicillin production by a superior strain of mold. M. J. Johnson and others. Science 103:504 Ap 26 '46
Penicillin, wartime accomplishment. R. D. Coghill and R. S. Koch. bibliog il Chem & Eng N 23:2310-16 D 25 '45
Penicillin yields from new mold strains. M. P. Backus, J. F. Stauffer and M. J. Johnson. Am Chem Soc J 68:152-3 Ja '46
Preliminary report on the production and use of crude penicillin solution in a naval dispensary. A. R. Agmar. bibliog Ind Med 15:300-3 Ap '46
Present status of penicillin. W. S. Priest. Ind Med 15:434-6 Jl '46
Procter medal given to Dr. A. N. Richards. Oil Paint & Drug Rep 149:3+ F 4 '46
Production of penicillin X in submerged surface cultures; the fermenter. E. Stice and R. Pratt. bibliog diag Science 103:535-7 Ap 26 '46
Progress in drugs, fine chemicals and biological products during 1945. G. C. Green. Chem Age (Lond) 54:157-61, 181-4 F 9-16 '46
Progress in penicillin. il Chem & Eng N 24: 1114 Ap 25 '46
Reciprocal sensitivities of staphylococcus aureus to streptomycin, streptothricin, and penicillin. M. Sullivan and others. Science 104:397 O 25 '46
Relative effectiveness of pure penicillins G, X, and K. R. D. Coghill and others. Science 103:709-10 Je 14 '46
Some pharmaceutical developments in 1945. E. H. Volwiler and D. W. MacCorquodale. Chem & Eng N 24:346-7 F 10 '46
Structure of penicillin; abstract. R. B. Woodward. Chem & Eng N 24:1055 Ap 25 '46
Summary of results obtained, Committee on medical research, Washington, and Medical research council, London. Science 102:627-9 D 21 '45
Thermal stability of sodium penicillin. E. B. Hodge and others. Chem & Eng N 24:2177 Ag 25 '46
Thromboplastic studies on hemophilia; reply to Moldavsky, Hasselbrook and Cateno. D. I. Macht and M. Ostro. Science 103:402 Mr 29 '46
Urinary recovery of penicillin after oral administration with antacids and buffers. M. J. Golden and F. M. Neumeier. bibliog Science 104:102-4 Ag 2 '46

Analysis
Determination of penicillin K by partition chromatography. H. Fischbach and others. bibliog Science 104:84-5 Jl 26 '46
Iodometric method for the assay of penicillin preparations. J. F. Alicino. bibliog Ind & Eng Chem Anal ed 18:619-20 O '46

PENICILLIN—*Continued*

Laws and regulations

Penicillin agreement between British and United States governments. Chem Age (Lond) 54:330 Mr 30 '46
Penicillin export procedure revised. Oil Paint & Drug Rep 150:5+ Jl 1 '46
Penicillin export quotas set. Oil Paint & Drug Rep 149:5 My 6 '46
Penicillin production estimated for 1945. Oil Paint & Drug Rep 149:5 Ja 21 '46
Penicillin restored to export licensing. Oil Paint & Drug Rep 148:5+ D 3 '45

Manufacture

All electronic penicillin drying system. Franklin Inst J 241:165-6 F '46
British penicillin production; abstract. E. L. Smith. Chem & Ind p214 Je 1 '46
Inhibition of sludge digestion by penicillin manufacturing wastes; abstract. F. W. Gilcreas. Water & Sewage Works 93:327 Ag '46
Nine pounds of penicillin; cost of the commercial development and weight of output; abstract. R. D. Coghill. Franklin Inst J 241: 248 Mr '46
Pilot plant equipment for submerged production of penicillin. J. J. Stefaniak and others. bibliog flow diag il diags Ind & Eng Chem 38:666-71 Jl '46
Processing penicillin. F. C. Whitmore and others. diags Ind & Eng Chem 38:942-8 S '46
Production of penicillin in France. For Comm W 22:39 Ja 19 '46
Radio-frequency dehydration of penicillin solution. G. H. Brown and others. il diag Inst Radio Eng Proc 34 [Waves & Electrons 1]:58W-65W F '46
Solvent extraction of penicillin. D. Rowley, H. Steiner and E. Zimkin. Soc Chem Ind J 65:237-40 Ag '46

Statistics

Domestic production by months, 1943-June 1946; graph. Dom Comm 34:63 O '46
Penicillin exports greatly exceed sales within U.S. M. Merrell. For Comm W 24:9 Ag 24 '46
Penicillin G sales rules easing planned. Oil Paint & Drug Rep 150:3+ S 23 '46
We send penicillin to foreign lands; tables. M. Merrell. il For Comm W 23:3-4+ Ap 6 '46

Testing

Differentiation of penicillins G and K by an assay method in vivo. M. Buck and others. Science 104:370-1 O 18 '46
Dropping device for cylinder plate assay of penicillin. V. L. Chandler and R. D. Shaw. diag Science 104:275 S 20 '46
Method for determining bacterial resistance and susceptibility to sulfonamides and penicillin. R. D. Reid and D. T. Anderson. Science 103:454-5 Ap 12 '46

PENICILLIUM
Continuous cultivation of micro-organisms. W. A. Moor. diags Science 102:594-5 D 7 '45

PENINSULAR and Oriental steam navigation company
Peninsular & Oriental steam navigation company. il maps Fortune 34:120-7+ S '46

PENINSULAR telephone company
Financing completed. Comm & Fin Chr 163: 2297 Ap 29 '46

PENN mutual life insurance company
$1,000,000,000 in assets. Weekly Underw 153: 1158 N 17 '45
Sets up policyowners bureau. East Underw 47:14 Je 28 '46

PENNEY, J. C., company
To show big rise in profit. Barron's 26:7 N 11 '46

PENNROAD corporation
Annual report. Comm & Fin Chr 163:1163 Mr 4 '46

PENNSYLVANIA
See also
Coal—Pennsylvania
Sewerage—Pennsylvania

PENNSYLVANIA casualty company
Manufacturers Casualty reinsures business of Pennsylvania casualty co. except two lines. Weekly Underw 155:318 Ag 10 '46

PENNSYLVANIA central airlines
Annual report. Comm & Fin Chr 163:2445 My 6 '46
Out of a Pittsburgh pasture. G. Herrick. il map Air Transport 4:22-8 Ja '46

PENNSYLVANIA-DIXIE cement corporation
Capital revamped. Barron's 26:8 Ja 14 '46

PENNSYLVANIA electric company
Securities offered. Comm & Fin Chr 164:149 Jl 8 '46

PENNSYLVANIA grade crude oil association
Annual meeting, Pittsburgh. Oil & Gas J 45: 65-6+ Jl 6 '46

PENNSYLVANIA power and light company
Common stock offered. Comm & Fin Chr 162:2951 D 17 '45
Plan approved by SEC. Comm & Fin Chr 162:2311 N 12 '45
Profits rise. Barron's 26:6 Jl 8 '46

PENNSYLVANIA railroad
Annual report. Comm & Fin Chr 163:1032-3 F 25 '46
Annual report. Ry Age 120:408 F 23 '46
Pennsy becomes a centenarian. il map Bsns W p44+ Ap 6 '46
Pennsy' cements traffic relations by publicizing industries it serves. Ind Marketing 31:39-40 O '46
Pennsylvania is 100 years old. il map Ry Age 120:756-64 Ap 13 '46
Pennsylvania railroad marks hundredth year. A. S. Park. il Comp Air Mag 51:136-8 My '46
Stocks for 1946 re-investment. Mag of Wall St 77:356+ D 22 '45

PENNSYLVANIA state college
New laboratory of applied geophysics and geochemistry. Science 104:422 N 1 '46

School of mineral industries

Opportunities for productive work through mineral industries research. (Circ. 20) 36p Pennsylvania state college, School of mineral industries, State College, Pa. '45

PENNSYLVANIA university

Psychological clinic

50th anniversary of founding. Science 104:249 S 13 '46

Thermodynamics research laboratory

Central engineering laboratory converted into a University of Pennsylvania thermodynamics research laboratory. Science 103: 560 My 3 '46

PENROSE medal
Presentation of Penrose medal to Felix Andries Vening Meinesz. Geol Soc Proc 1945: 121-7 Je '46

PENS
See also
Fountain pens

PENSACOLA, Florida

Industries

New center of southern activity. B. Ball. il Comm & Fin Chr 163:399+ Ja 24 '46

PENSION trusts
Explodes 22 pension trust fallacies. M. M. Goldstein. Nat Underw (Life ed) 50:4+ Je 28 '46
Michigan leaders body ponders pension and business covers G. E. Lackey and others. Nat Underw (Life ed) 50:3 My 10 '46
Must consult union before changing of pension trust plans; ruling of National war labor board in Pacific telephone and telegraph company contract. East Underw 47: 1+ Ja 25 '46
Pension and profit-sharing plans; Manufacturers trust company booklet. East Underw 46:3+ N 30 '45
Pension plan filings total 9,700. Nat Underw (Life ed) 50:3 Jl 12 '46
Pension plan for financial institutions; Penco plan. W. L. Case, jr. Trusts & Estates 83: 367-70 O '46

PENSION trusts—*Continued*
Pension plans being revised; some shifting to less expensive basis; real problem for agent. M. M. Goldstein. Nat Underw (Life ed) 50:5 N 8 '46
Pension plans from underwriters' viewpoint; joint opportunities for trustees and insurance men. W. N. Watson. Trusts & Estates 81:467-70 D '45
Pension trust experts face quiz barrage; abstracts. S. Zeigen and others. Nat Underw (Life ed) 50:3+ Ap 26 '46; East Underw 47: 15 Ap 26 '46
Pension trusts offer firms opportunities to achieve labor relations objectives. G. C. Green. Weekly Underw 154:48-50 sec 2 My 11 '46
Pension trusts require careful advance surveys; abstracts. D. Marks, jr. Nat Underw (Life ed) 50:1+ S 13 '46; Weekly Underw 155:564 S 7 '46
Predicts war-time pension plans will stay in force. E. M. Davis. Nat Underw (Life ed) 49:23 N 30 '45
Rule on suspending pension payments. Nat Underw (Life ed) 50:24 Ag 9 '46
Specimen pension trust agreement (wholly insured type); Committee on pension and profit-sharing trusts, American bar association. Trusts & Estates 82:57-71 Ja '46
Steps in termination of pension trust plans given by Internal revenue commissioner. E. I. McLarney. Nat Underw (Life ed) 50:6 Jl 5 '46
Trust pension approach method. D. Marks, jr. Nat Underw (Life ed) 50:4 Ap 5 '46
Use of insurance contracts in profit-sharing retirement plans. P. W. Danforth. East Underw 47:54 pt 2 O 4 '46

See also
Employees' trusts

Income tax deductions

More pension trust tax rules. Nat Underw (Life ed) 50:5 Jl 12 '46
Pension trust taxation from employee's viewpoint. F. J. Amer. Trusts & Estates 83: 65-73 Jl '46
Prescribe terms for tax treatment of employe annuity. Nat Underw (Life ed) 50:7 Je 7 '46
Treasury rule on deduction of contribution to trust. East Underw 47:10 Je 7 '46

PENSIONS

See also
Congressmen—Pensions
Old age pensions
Pension trusts

PENSIONS, Industrial
Alternatives for pension design. H. S. Koster. Trusts & Estates 81:387 N '45
Des Moines pension and retirement system. Am Water Works Assn J 38:589-94 My '46
Employee pension retirement systems. D. L. Maflitt. Am Water Works Assn J 38:911-13 Ag '46
Group annuities and trust fund plan; profit-sharing plans. E. B. Gardner and others. Nat Underw (Life ed) 50:2 S 20 '46
Keen competition looms in mass pension field. Nat Underw (Life ed) 50:13 Je 28 '46
Manufacturers trust company proposes pension plan. H. D. Gibson. Comm & Fin Chr 162:3054 D 20 '45
Operations and plants of International nickel company of Canada; retirement system. Can Min J 67:517-19 My '46
Pension accounting. A. T. Gardner. Am Gas Assn Proc 1945:109-12; Same. Am Gas Assn Mo 27:453-5 O '45
Pension methods of 188 companies analyzed in report of Bankers trust co. of New York. Nat Underw (Life ed) 50:4 O 4 '46
Pension plan factors to consider; abstract. W. B. Dunckel. Burroughs Clearing House 30:11 Je '46
Pension plans for key men. P. F. Millett. Trusts & Estates 83:345-8, 524-7 O-N '46
Pension problems arising from purchase or sale of a going concern; Towers, Perrin, Forster & Crosby. East Underw 47:52+ pt 2 O 4 '46
Pension trends. C. P. Dawson. Nat Underw (Life ed) 50:1+ Mr 15 '46
Philadelphia pension conference covers wide range. W. S. Fliess and others. Nat Underw (Life ed) 50:2+ N 8 '46
Profit sharing and employee benefit programs. M. Scott. Weekly Underw 155:659-61 S 14 '46
Profit-sharing, savings and retirement plan; Sylvania electric products. E. W. Robbins. Management R 34:446-8 N '45
Reduction of costs through employee benefit planning; combined pension and profit sharing plan. G. Simons. N A C A Bul 27: 464-72 Ja 15 '46; Abstract. Management R 35:132-3 Ap '46
Reserve pension plans. H. P. Mills. Gas Age 98:28-31+ Jl 25 '46
Should employees contribute to pension plans? Trusts & Estates 81:466 D '45
Study of pension plans of industries; Bankers trust company of New York. Comm & Fin Chr 164:1994 O 17 '46
Trends in employee benefit plans; profit sharing inadequate for pension benefits. J. H. Shreiner. Trusts & Estates 82:417-19 Ap '46
Union resistance to age 65 terminus. Nat Underw (Life ed) 50:2 Jl 19 '46
Vesting provisions pension plans; abstract. Management R 35:353 Ag '46

See also
Insurance companies—Employees' pensions
Railroads—Pensions

Finance

Pool for pensions; Pennsylvania co.'s plans. Bsns W p87-8+ S 28 '46
Who should pay for the pension plan? H. C. Kwasha. Management R 35:196 My '46

See also
Pension trusts

PENSIONS, Military
House bill increases veterans' disability benefits 10% to 25%; peacetime pension rates for service-connected disability increased; Kelley bill. East Underw 47:1 Je 14 '46
Pension benefits for veterans. A. H. Dalzell. Nat Underw (Life ed) 50:20-1 Jl 19 '46
Pension rights for veterans' families. Life Ins Courant 51:66-7 F '46

PENSIONS, Old age. See Old age pensions

PENSTOCKS
Penstocks and power house damaged as result of falling boulder. diag Eng N 136: 934 Je 13 '46

PENTACHLOROETHANE
Reaction between amines and pentachloroethane. W. H. C. Rueggeberg and M. M. Falkof. Am Chem Soc J 67:2052 N '45

PENTADECYLCATECHOL
3-*n*-Pentadecylcatechol. C. R. Dawson, D. Wasserman and H. Keil. bibliog Am Chem Soc J 68:534-5 Mr '46

PENTAERYTHRITOL
Pentaerythritol dichloride. H. Rapoport. bibliog Am Chem Soc J 68:341 F '46
Phlegmatized P.E.T.N; abstract. A. A. Swanson. Chem & Met Eng 53:214 Ap '46

PENTAERYTHRITYLBROMIDE
Reduction of pentaerythrityl tetrabromide in ethanol with zinc; isolation of spiropentane. V. A. Slabey. bibliog Am Chem Soc J 68: 1335-6 Jl '46

PENTANAL. See Valeraldehyde

PENTANE
Isomerization of alkanes; effect of oxygen upon the isomerization of *n*-butane and *n*-pentane in the presence of aluminum bromide and aluminum chloride. H. Pines and R. C. Wackher. diag Am Chem Soc J 68:599-605 Ap '46
Isomerization of light hydrocarbons. S. F. Perry. flow plans Am Inst Chem Eng Trans 42:639-46 Ag '46
Liquid-phase isomerization of normal paraffins using a fluid salt catalyst. S. H. McAllister and others. bibliog flow diag il Am Inst Chem Eng Trans 42:33-52; Discussion. 53 F '46

PENTANE—*Continued*
Modern refining processes; isomerization and isoforming, pentane. G. Armistead, jr. bibliog diag Oil & Gas J 45:80+ O 5 '46
Primary process in pyrolysis of pentenes. E. Gorin, A. G. Oblad and R. F. Schmuck. bibliog diag Ind & Eng Chem 38:1187-93 N '46
60 per cent yield in liquid-phase isomerization of pentane. L. S. Galstaun. flow diag il Oil & Gas J 44:56-9+ Ja 5 '46

PENTANEDIOL
Dehydrogenation of 1,4-pentanediol. L. P. Kyrides and F. B. Zienty. bibliog Am Chem Soc J 68:1385 Jl '46
Preparation of dihydropyran, δ-hydroxyvaleraldehyde and 1,5-pentanediol from tetrahydrofurfuryl alcohol. L. E Schniepp and H. H. Geller. bibliog Am Chem Soc J 68:1646-8 Ag '46

PENTANEDIONE
Dissociation constants of acetylacetone, ethyl acetoacetate and benzoylacetone. M. L. Eidinoff. bibliog Am Chem Soc J 67:2072-3 D '45
Tautomeric equilibria in partially neutralized solutions of acetylacetone and benzoylacetone. M. L. Eidinoff. Am Chem Soc J 67: 2073-5 D '45

PENTENE
Condensations by sodium; the metalation of olefins and the preparation of β,γ-unsaturated acids. A. A. Morton and others. bibliog Am Chem Soc J 67:2224-8 D '45
Primary process in pyrolysis of pentenes. E. Gorin, A. G. Oblad and R. F. Schmuck. bibliog diag Ind & Eng Chem 38:1187-93 N '46

PENTITOLS
Sugar interconversion under reducing conditions. M. L. Wolfrom, B. W. Lew and R. M. Goepp, jr. bibliog Am Chem Soc J 68: 1443-8 Ag '46
Synthesis of some C-substituted pentitols. J. English, jr. and P. H. Griswold, jr. bibliog Am Chem Soc J 67:2039-41 N '45

PENTYNE
Heats, equilibrium constants, and free energies of formation of the acetylene hydrocarbons through the pentynes, to 1,500° K. D. D. Wagman and others. bibliog J Res Nat Bur Stand 35:467-96 D '45

PEOPLES gas light and coke company
Income account, 1942-1945. Comm & Fin Chr 163:1164 Mr 4 '46

PEOPLES light and power company
Consummation of the amended plan of reorganization; consolidated income statement, year ended Dec. 31, 1945. Comm & Fin Chr 163:1164+ Mr 4 '46

PEOPLE'S songs, inc.
Roll the union on. Fortune 34:184 N '46

PEORIA, Illinois
Flood for Peoria; Silex co. market absorption plan. Bsns W p70+ Je 15 '46
Learning what the post-boom sales potential will be; Silex co. market saturation test in Peoria. Ptr Ink 215:37 Je 14 '46

PEPPERMINT oil
Mint oil survey indicates output drop. Oil Paint & Drug Rep 150:4 S 16 '46

Analysis
Determination of menthol in peppermint oil; acetic anhydride and pyridine as reagent. J. S. Jones and S. C. Fang. bibliog Ind & Eng Chem Anal ed 18:130-1 F '46

PEPSI-COLA
Advertising
Pepsi contest winners provide calendar art. il Ptr Ink 213:46 N 23 '45

PEPSI-COLA company
Pepsi-Cola breaks with one-product policy; adds Everyess, a table water. il Ptr Ink 214:70+ Ja 18 '46

PEPSIN
Peptic digestion of human gamma globulin. W. B. Bridgman. bibliog Am Chem Soc J 68:857-61 My '46

PEPSODENT
Charles Luckman assumes presidency of British-owned Lux, Rinso, Lifebuoy, and Pepsodent. il Fortune 34:120-4+ Jl '46

PEPTIC ulcers. See Stomach—Diseases

PEPTIDES
Hydrolysis of peptide linkages in the preparation of gelatin. W. M. Ames. bibliog Soc Chem Ind J 64:242-3 S '45

PEPTONE
Glutamine-rich peptone for cultivation of hemolytic streptococci. N. Grossowicz and N. Lichtenstein. bibliog Science 102:509-10 N 16 '45
Use of charcoal treated peptone in microbiological assays. H. Isbell. Science 102:671 D 28 '45

PERACETIC acid
Hydroxylation and epoxidation of some 1-olefins with per-acids: D. Swern, G. N. Billen and J. T. Scanlan. bibliog Am Chem Soc J 68:1504-7 Ag '46

PER acids
Convenient preparation of per-acids. F. P. Greenspan. Am Chem Soc J 68:907 My '46
Studies in the detoxication of catalyst poisons; the detoxication of cystein with metallic per-acids. E. B. Maxted and A. Marsden. Chem Soc J p766-8 N '45

PERCHLORATES
Hazards from chlorates and perchlorates in mixtures with reducing materials. I. Kabik. bibliog U S Bur Mines Information Circ 7340:1-6 '45

PERCHLORIC acid
Lead dioxide cell containing various electrolytes. J. P. Schrodt and others. il Electrochem Soc Trans 90 (preprint 21):281-92 '46
Use of perchloric acid as an oxidizing agent. E. G. Young and R. B. Campbell. Science 104:353 O 11 '46

PER compounds
Manufacture of per-compounds. Chem Age (Lond) 54:495-6 My 4 '46

PER esters
Studies in organic peroxides; *t*-butyl peresters. N. A. Milas and D. M. Surgenor. bibliog Am Chem Soc J 68:642-3 Ap '46

PERCENTAGE
Math tips. P. Swain. Power 89:857 D '45

PERE MARQUETTE railway
Annual report. Comm & Fin Chr 163:2163 Ap 22 '46
Directors approve merger. Comm & Fin Chr 162:2823 D 10 '45
Highlights from the annual report to stockholders, 1945. Mag of Wall St 78:175 My 11 '46

PEREIRA, William Leonard, 1909-
William, the conqueror, swings a double-edged career of blueprints and movie film. pors Arch Forum 85:114-16+ S '46

PERELLE, Charles William, 1903-
Chuck Perelle. por Fortune 34:138+ Ag '46

PEREZ, Elsa
Petroleum engineering and refining are her strong suit. por Nat Pet N 38:14 Je 12 '46

PERFORATED sheet metal. See Sheet metal, Perforated

PERFUMERY
Another example of trend toward diversification; dress manufacturers enter perfume and cosmetic field. E. M. Housman. il Ptr Ink 214:81-2+ F 8 '46
Australian perfume industry on upgrade. For Comm W 25:41 O 19 '46
Introduces new product by smashing traditions; Para Ti advertising, pricing and distribution. il Ptr Ink 216:44-5 S 20 '46
Perfume packages go transparent. il Mod Plastics 23:103-4 Je '46
Transparency returns to the cosmetic field. il Mod Packaging 19:154-5+ Mr '46
See also
Soap manufacture
—Perfuming

Advertising
Four ads in one issue introduce new perfume. il Ptr Ink 215:87 Ap 5 '46
Mass medium like radio for luxury item? success of Stradivari campaign. V. J. Dallaire. il Ptr Ink 215:41-2 Je 7 '46

PERFUSION apparatus
Pulsating perfusing apparatus. J. A. Long. diag Science 103:170 F 8 '46

PERILLA oil
Specific heats of vegetable oils from 0° to 280° C. P. E. Clark, C. R. Waldeland and R. P. Cross. bibliog diag Ind & Eng Chem 38:350-3 Mr '46

PERIMIDINE
Preparation and chromoisomerism of 4 : 5-dinitro-1-naphthylamine, and some perimidines and perinones from 4-chloro- and 4-bromo-1 : 8-naphthylenediamine. H. H. Hodgson and D. E. Hathway. Chem Soc J p543-5 Ag '45

PERIODATES
Periodate oxidation of certain active methylene groups. C. F. Huebner, S. R. Ames and E. C. Bubl. bibliog Am Chem Soc J 68:1621-8 Ag '46

PERIODIC acid
Oxidation of lignin sulfonic acids by periodic acid. D. Pennington and D. M. Ritter. Am Chem Soc J 68:1391 Jl '46

Reaction of periodic acid on the difructose anhydrides. E. J. McDonald and R. F. Jackson. bibliog J Res Nat Bur Stand 35: 497-500 D '45

South African fish products; periodic acid as a reagent in the analysis of the unsaponifiable fractions of natural fats. M. L. Karnovsky and W. S. Rapson. bibliog Soc Chem Ind J 65:138-40 My '46

PERIODIC system
Historic researches; classification of the elements. Engineer 182:268-70, 292-3 S 27-O 4 '46

PERIODICALS
American periodicals 1800-1825; University microfilms commences a new series; with checklist of 500 titles. R. E. Booth. Library Journal [New York] 71:156-63+ F 1 '46

Circulation bust; overflowing news stands. Bsns W p71-2+ My 11 '46

Expansion trends in the publishing industry; prospects of individual companies appraised. H. S. Coffin. il Mag of Wall St 77:201-2+ N 24 '45

Magazines for school libraries. L. K. Martin. rev & enl ed 206p $1.90 H. W. Wilson co, New York '46

Political handbook of the world; parliaments, parties and press as of January 1, 1946. W. H. Mallory, ed. 202p $3 Council on foreign relations, inc, 58 E 68th st, New York 21 '46

Timely survey of publishing and broadcasting stocks; with statistics on leading companies. G. L. Merton. Mag of Wall St 79: 89-91 O 26 '46

See also
Advertising mediums—Periodicals
Aeronautics—Periodicals
Business periodicals
Employees' magazines
House organs
Insurance—Periodicals
Newspapers
Trade journals
Trade unions—Periodicals
Women's periodicals

Advertising

Copy that clicked; True magazine Christmas ad. R. Manville. il Ptr Ink 216:46 Jl 26 '46

More use of direct mail looms as magazines study circulation and ad linage drives. N. Kelne. Ptr Ink 217:121+ O 11 '46

Bibliography

Handlist of South African periodicals. A. M. L. Robinson, comp. 41p pa 3s 6d South African pub. lib., Cape Town '46

New periodicals. Published in monthly numbers of New York public library bulletin

Union lists

British union catalogue of periodicals; rules and definitions. J Doc 2:92-8 S '46

Current serials in chemistry. J. G. Hodgson, comp. (Library bul. no. 17) 51p Colorado agricultural and mechanical college lib, Fort Collins, Colo. '45

Union list of serials in libraries of the United States and Canada; 2d ed Supplement January 1941-December 1943. G. E. Malıkoff, ed. 1123p H. W. Wilson company, New York '45

Circulation

Magazine publishers scoff at rumors of circulation sag. D. Bruner. Ptr Ink 215: 103+ Je 21 '46

War and circulation trends. Adv & Sell 39: 120+ Ag '46

Format

Publisher points out some of the advantages of square magazine; Food preview. il Inland Ptr 117:36 Jl '46

Indexes

Agricultural index, October 1942—September 1945. 1537p H. W. Wilson, New York 52 '46

Annual magazine subject-index, 1944; including as part II, the Dramatic index, 1944. A. C. Sutherland, ed. 322p, 251p, 70p F. W. Faxon co, 83 Francis st, Boston 15 '45

Education index, July 1945-June 1946. 723p H. W. Wilson co, New York 52 '46

Electronic engineering master index; a subject index to electronic engineering periodicals, January, 1925 to June, 1945. F. A. Petraglia, ed. 318p $17.50 Electronics research pub. co, 238 E. 44th st, New York '45

Subject index to periodicals, 1944. 394p £3 17s Library assn, Chaucer house, Malet place, London, W.C.1 '46

Printing

Know how and methods peculiar to the field required in magazine work. K. B. Butler. il Inland Ptr 117:37-43 Je '46

Standardizing color, inks, stocks, and sequences. J. T. Wrigley. il Inland Ptr 116: 37-8 N '45

Reader interest

McCall corp. issues qualitative study of magazine readership. Ptr Ink 217:86+ O 18 '46

Transportation

More news by air; publications trying out faster distribution methods. Bsns W p86 F 16 '46

Use in teaching

Newsstand textbook; Saturday evening post went to college for the mutual benefit of the editors and students. J. Stone. il Adv & Sell 39:78+ Mr '46

South Africa

Handlist of South African periodicals. A. M. L. Robinson, comp. 41p pa 3s 6d South African pub. lib., Cape Town '46

PERIODICALS, Comic. See Comics (books, strips, etc.)

PERIQUE. See Tobacco

PERKIN medal
Award to Francis C. Frary. Science 103:335 Mr 15 '46

Perkin medal awarded Frary by Society of chemical industry. Chem & Eng N 24:150-2 Ja 25 '46

Perkin medal presented to F. C. Frary in recognition of outstanding achievement in applied chemistry. il Ind & Eng Chem 38: 124 F '46

PERLITE
Perlite, source of synthetic pumice. O. C. Ralston. bibliog U S Bur Mines Information Circ 7364:1-11 '46

PERMALLOY
Applications of thin permalloy tape in wide-band telephone and pulse transformers. A. G. Ganz. bibliog il Elec Eng 65:Trans 177-83 Ap '46

Electrical resistance of iron wires and permalloy strips at radiofrequencies. A. W. Smith and others. bibliog diag J Ap Phys 17:33-6 Ja '46

PERMANENT molds. See Molds (for casting)—Permanent molds

PERMANENT science fund. See Scientific research—Finance

PERMANENT wave kits

Rating

Home permanent waves, are they safe and satisfactory? Consumers Res Bul 17:17-19 Mr '46

PERMANENTE foundation hospital. See Hospitals, Industrial

PERMANENTE metals corporation

Kaiser pays RFC; Permanente setup cleared. Bsns W p38+ D 8 '45

PERMANGANATE number

Investigation of T.S. (TAPPI) permanganate number. R. Bourgon. Pulp & Pa of Can (Convention no) 47:125-8 [F] '46; Excerpts. Paper Ind 27:1713-14 F '46

PERMANGANATES

Chemical propellants; analytical studies and characteristics of the system hydrogen peroxide-permanganate. F. Bellinger and others. bibliog diag Ind & Eng Chem 38: 627-30 Je '46

Chemical propellants; system hydrogen peroxide-permanganate. F. Bellinger and others. il diags Ind & Eng Chem 38:160-9 F '46

PERMEABILITY

Determination of specific surface by permeability measurements. W. F. Keyes. bibliog Ind & Eng Chem Anal ed 18:33-4 Ja '46

Diffusion of vapors through polymers. P. Doty. bibliog J Chem Phys 14:244-51 Ap '46

Films for produce; their physical characteristics and requirements. H. Platenius. il Mod Packaging 20:139-43+ O '46

For better usage; terminology of water-vapor transmission testing. C. A. Southwick, jr. Mod Packaging 19:137-9+ Jl '46

Gas permeability; an isostatic test method. D. W. Davis. il diags Mod Packaging 19: 145-9+ My '46

Improved methods of preparation of permselective collodion membranes combining extreme ionic selectivity with high permeability. H. P. Gregor and K. Sollner. bibliog diag J Phys Chem 50:53-70 Ja '46

Isostatic method for determining the gas permeability of sheet materials. D. W. Davis. bibliog il diags Paper Tr J 123:33-40 Ag 29 '46; Same cond. Mod Packaging 19:145-9+ My '46

Packaging institute standard test methods for water-vapor permeability at O deg F. diags Mod Packaging 19:140-2+ Jl '46

PI standard test methods for water-vapor permeability at 100 deg. F. il Mod Packaging 19:146-7+ Ag '46

PI standard test methods; gas permeability of low-permeability films. il diag Mod Packaging 20:151-2+ O '46

Permeability of brick-mortar assemblages; abstract. J. W. McBurney. Franklin Inst J 242:146-7 Ag '46

Rapid method for determining specific surface of fine particles. A. Pechukas and F. W. Gage. bibliog diags Ind & Eng Chem Anal ed 18:370-3 Je '46

Temperature dependence of water vapor permeability of organic polymer films. P. M. Doty, W. H. Aiken and H. Mark. bibliog diag Ind & Eng Chem 38:788-91 Ag '46

See also
Paper—Permeability
Textile fabrics—Permeability

PERMEABILITY, Magnetic. See Magnetic permeability

PERMEAMETERS

Double-yoke plate permeameter. W. F. Brown, jr. and S. M. Rubens. diags J Ap Phys 16:713-17 N '45

PERMSELECTIVE (term)

Improved methods of preparation of permselective collodion membranes combining extreme ionic selectivity with high permeability. H. P. Gregor and K. Sollner. bibliog diag J Phys Chem 50:53-70 Ja '46

PEROT, Henry F. 1909-

Traditions unbroken for nine generations. por Bsns W p30 F 9 '46

PEROXIDASES

Enzyme activity; index of quality in frozen vegetables. M. A. Joslyn. bibliog(50 references) Food Ind 18:1204-10+ Ag '46

PEROXIDES

Bleaching textiles with peroxides. R. Mills. Am Dyestuff Rep 35:388-9+ Ag 12 '46

Manufacture of per-compounds. Chem Age (Lond) 54:495-6 My 4 '46

Organic peroxide; Uniperox. Chem & Met Eng 53:145 Ap '46

Peroxide compounds by oxidation of alkali amalgams. W. G. Cass. Chem & Eng N 24:1426 My 25 '46

Photochemical reactions in sunlight; (a) formation of triarylmethyl peroxides by the action of oxygen on triarylmethanes; (b) dehydrogenation effected by oxygen; (c) dehydrogenation effected by *p*-benzoquinone and phenanthraquinone. A. Schönberg and A. Mustafa. Chem Soc J p657-60 O '45

Relation of octane number and peroxide content of catalytic gasolines. H. Velde. Pet Refiner 25:137-40 Je '46

Removal of peroxides from organic solvents. W. Dasler and C. D. Bauer. bibliog Ind & Eng Chem Anal ed 18:52-4 Ja '46

Review of the mechanism of the oxidation of liquid hydrocarbons. P. George and A. Robertson. bibliog Inst Pet J 32:382-91 Jl '46

Studies in organic peroxides; *t*-amyl hydroperoxide and di-*t*-amyl peroxide. N. A. Milas and D. M. Surgenor. Am Chem Soc J 68:643-4 Ap '46

Studies in organic peroxides; *t*-butyl hydroperoxide and di-*t*-butyl peroxide. N. A. Milas and D. M. Surgenor. bibliog Am Chem Soc J 68:205-8 F '46

Studies in organic peroxides; *t*-butyl peresters. N. A. Milas and D. M. Surgenor. bibliog Am Chem Soc J 68:642-3 Ap '46

Studies in organic peroxides; molecular refractivity and the structure of organic peroxides. N. A. Milas, D. M. Surgenor and L. H. Perry. Am Chem Soc J 68:1617-19 Ag '46

Synthesis and thermal decomposition of di-triethylmethyl, *t*-butyl pentamethylethyl and *t*-butyl 1-methylcyclohexyl-1 peroxides. N. A. Milas and L. H. Perry. bibliog Am Chem Soc J 68:1938-40 O '46

Vinyl alcohols; cleavage of enol peroxides. R. C. Fuson, E. W. Maynert and W. J. Shenk, jr. Am Chem Soc J 67:1939-41 N '45

See also
Benzoyl peroxide
Hydrogen peroxide

Analysis

Determination of hydroperoxides in rubber and synthetic polymers. H. A. Laitinen and J. S. Nelson. bibliog Ind & Eng Chem Anal ed 18:422-5 Jl '46

Determination of organic peroxides in hydrocarbons. E. M. Tanner and T. F. Brown. bibliog Inst Pet J 32:341-50 Je '46

Iodometric method of analysis for organic peroxides. K. Nozaki. Ind & Eng Chem Anal ed 18:583 S '46

PERPHOSPHORIC acid

Studies in the detoxication of catalyst poisons; the use of various oxidising agents for the detoxication of cystein. E. B. Maxted. Chem Soc J p763-6 N '45

PERRIER, Georges, 1872-1946

Le général Georges Perrier. Génie Civil 123: 88 Ap 1 '46

PERRIN, Edwin M.

Personalities in industrial advertising. por Ind Marketing 31:72+ O '46

PERSIA

See also
Drug trade—Persia
Petroleum industry and trade—Persia

Commercial policy

Exchange control strengthened in Iran. For Comm W 21:20 D 1 '45

Regulations governing exports. For Comm W 25:33 O 19 '46

PERSIA—*Continued*

Foreign relations

Holds Iran needs constructive interference. A. C. Millspaugh. Comm & Fin Chr 163: 1937 Ap 11 '46; Reply. A. Nabil. 1936 Ap 11 '46

Iran must remain a sovereign state. C. C. Hart. Comm & Fin Chr 163:1937 Ap 11 '46

Old drama is re-enacted, in the same setting. map Bsns W p114 D 8 '45

Russia

Iran; settlement hinges on what Russia wants; share in oil wealth can be granted easily if that's Kremlin's aim. P. Wohl. Barron's 26:3+ Mr 25 '46

Politics and government

Hesitations in Persia. Economist 150:57 Ja 12 '46

PERSONAL accident and health underwriters, Bureau of. See Bureau of personal accident and health underwriters

PERSONAL finance. See Finance, Personal

PERSONAL injuries

Court holds government can't collect for injury to soldier. Nat Underw 50:27 Mr 7 '46

Damage without redress; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:28-9 N 8 '45

Damnum absque injuria; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:46-7 Mr 14 '46

Experiences on investigation and litigation of personal accident claims; problems of railroad carriers. D. P. Donovan. East Underw 46:27+ N 23 '45

Liability of theatre owners; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:38-40 F 28 '46

Liability to rescuer; right to recover damages for injuries. Nat Underw 50:20 O 31 '46

Res ipsa loquitur; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:36-7 Mr 28 '46

Res ipsa loquitur; riding academies; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12:68+ O 10 '46

Workmen's compensation law does not bar action against employer for wilful and wanton assault on employee. Weekly Underw 155:707-9 S 21 '46

PERSONAL property floater. See Insurance, Inland marine—Policies—Personal property floater

PERSONALITY

Aid to selection of salesmen; determination by constitutional types; body structure and facial characteristics. G. E. Fosbroke. il Ptr Ink 215:40-2+ Ap 19 '46

Personality problems in managerial groups. H. Meltzer. bibliog Ind Med 15:429-34 Jl '46

PERSONALITY tests

Brief personality appraisal technique. L. E. Himler. Ind Med 15:81-5 F '46

First steps in learning how to use aptitude tests for salesmen; drug manufacturer analyzes characteristics of presently employed men and compares findings with performance records. R. S. Schultz. Sales Management 56:113+ Ja 15 '46

Good man is hard to find; O.S.S. learned how. il Fortune 33:92-5+ Mr '46

Method for evaluating supervisory personnel; Interaction Chronograph. E. D. Chapple and G. Donald, jr. Harvard Bsns R 24 no2:197-214 [Ja] '46

PERSONNEL departments. See Employment departments

PERSONNEL management. See Employment management

PERSONNEL service in education

Bibliography

Guide to guidance. M. E. Hilton, ed. v8 58p $1 Syracuse university press, Syracuse 10, New York '46

PERSPIRATION

Action of antiperspirant creams on fabrics. R. R. Bien. Am Dyestuff Rep 35:269-71+ Je 3 '46

PERSULFATES

Persulphate-iodide reaction; specific effects of univalent and bivalent cations; activation energy of the reaction. W. J. Howells. Chem Soc J p203-6 Mr '46

PERU

See also

Finance—Peru
Geology—Peru
Petroleum industry and trade—Peru
Rayon industry—Peru
Rubber industry and trade—Peru

Commercial policy

Consular certification of shipping documents. For Comm W 24:30-1 S 21 '46

Economic conditions

Latin America's economy as world conflict ended. il For Comm W 24:10+ Ag 3 '46

News by countries. For Comm W 23:32-3 My 25; 34 Je 22; 24:23-4 Jl 27; 22 Ag 24; 25-6 S 28; 25:35-6 O 19 '46

Industries and resources

Eastern Peru speeds economic development; operations of Sindicato Amazónico. For Comm W 21:20 D 15 '45

Peru developing natural resources. C. A. Howard. il Comp Air Mag 51:12-14 Ja '46

Peruvian government to continue manual-industries development. For Comm W 24:31 Jl 27 '46

Politics and government

Peruvian progress. Economist 150:457 Mr 23 '46

PESTROY. See DDT (dichlorodiphenyltrichloroethane)

PESTS

See also

Cockroaches
Household pests
Insects, Injurious and beneficial
Rats—Extermination

PETERSEN earth coil

Ground-fault neutralizer establishes its place on electric power systems. N. H. Meyers. bibliog il diags Gen Elec R 49:37-44 O '46

100-kv and 13-kv ground-fault neutralizers. L. M. Robertson. il Gen Elec R 49:14-16 S '46

Practical experience of arc-suppression coils; discussion. Electrician 136:657-8 Mr 15 '46; Same. Inst E E J 93 pt 1:354 Ag '46

PETITGRAIN oil

Production and exports of petitgrain oil, Paraguay. For Comm W 23:42 Je 8 '46

PETRILLO, James Caesar, 1892-

Command performance for the old music master. por Bsns W p92 Je 22 '46

Petrillo again; ban on foreign music broadcasts and musician-quota demand. Bsns W p84-6 Ja 5 '46

Petrillo defiant. Bsns W p98 Ap 20 '46

Video ban hit; NBC attacks Petrillo's orders as retarding television. Bsns W p94 My 11 '46

PETROGRAPHY. See Rocks

PETROLATUM

Corrosion in crevices. E. H. Wyche and others. bibliog il diag Electrochem Soc Trans 89 (preprint 23):265-78 Ap '46

White mineral oil and petrolatum in the manufacture of specialty papers. R. K. Rhodes. Paper Tr J 123:59-62 S 26 '46

PETROLEUM

Fundamentals of consistency and viscosity. J. J. Bikerman. bibliog diags Pet Refiner 24:119-24 D '45; 25:111-17 Ja; 120-6 F '46

Isothermal and adiabatic compressibilities of oil. A. Cameron. bibliog Inst Pet J 31: 421-7 N '45; Correction. 31:494 D '45

Life-blood of the world. R. Hogin. il Sci Am 173:263-70+ N '45

Oil migration. J. Frost. bibliog Inst Pet J 31:486-93 D '45

Petroleum industry; review of 1945. M. L. Haider and others. Min & Met 27:115-24 F '46

Viscosity of crude oils. W. L. Nelson. Oil & Gas J 44:70 Ja 5; 87 Ja 12 '46

Viscosity of oils. W. L. Nelson. Oil & Gas J 45:163 My 18 '46

PETROLEUM—*Continued*

Wichita holds eleventh petroleum meeting. Chem & Eng N 24:1801-2 Jl 10 '46

See also

Gas, Natural
Gasoline
Hydrocarbons
Kerosene
Liquefied petroleum gas
Liquid fuel
Oil fuel
Oil lands
Oil reserves (United States navy)
Oil shales
Petroleum distillation and other headings beginning Petroleum

Acidation of wells

Dissolving mud sheaths by acidizing. diags Oil & Gas J 44:109-10 N 10 '45

Selective acidization procedures at Carthage field result in greater productivity, larger ultimate recovery. N. Williams. il Oil & Gas J 44:56-8+ D 22 '45

Selective acidizing increases well capacity. P. L. Shelton and J. M. Clark. diags Pet Eng 17:235-6 My '46

Tests for acid solubility; spent acid-water. diag Oil & Gas J 44:295 N 17 '45

Analysis

Basic petroleum chemistry for refinery employes; chemical composition of crude petroleum. J. J. Stadtherr. bibliog Pet Refiner 25:116-18 My '46

Colorimetric determination of phenols; application to petroleum and allied products. L. Lykken, R. S. Treseder and V. Zahn. Ind & Eng Chem Anal ed 18:103-9 F '46

Crude oil assays prove valuable working tool for refiner's design engineers and plant operators. J. L. Petersen. Pet Processing 1:113-14+ O '46

Determination of aromatics, naphthenes, and paraffins by refractometric methods. R. M. Gooding, N. G. Adams and H. T. Rall. bibliog Ind & Eng Chem Anal ed 18:2-13 Ja '46

Interpretation of laboratory analytical and volumetric data, in terms of field measurements. R. H. Olds and others. bibliog diag Oil & Gas J 44:75+ Ja 19 '46

Bibliography

Directory of geological material in North America. J. V. Howell and A. I. Levorsen. Am Assn Pet Geologists Bul 30:1321-1432 pt 2 Ag '46

Chemistry

Abstracts of papers presented before Division of petroleum chemistry, American chemical society, Chicago, Sept. 9-14. Pet Refiner 25:169-70+ S '46

American chemical society, Petroleum division, meeting, Atlantic City; abstracts of papers. Nat Pet N 38 pt 2:R333-6 My 1 '46; Pet Refiner 25:164+ My '46

Analysis of oil-soluble petroleum sulfonates; extraction-adsorption method. F. Brooks, E. D. Peters and L. Lykken. diags Ind & Eng Chem Anal ed 18:544-7 S '46

Basic petroleum chemistry for refinery employes. J. J. Stadtherr. bibliog diags Pet Refiner 25:115-16 Mr; 152-4 Ap; 116-18 My; 131-3 Je; 109-14 Jl; 136-42 Ag; 123-8 O '46

Chemistry and constitution of asphalts. B. A. Murphy. bibliog Inst Pet J 31:475-85 D '45

Course of the reaction at 100° C in the system aromatic-free mineral oil/oxygen. D. J. W. Kreulen. bibliog diag Inst Pet J 32:515-24 Ag '46

Course of the reaction at 100° C in the systems xylene/oxygen and aromatic-free mineral oil/xylene/oxygen. D. J. W. Kreulen. bibliog Inst Pet J 32:525-8 Ag '46

Effects of radioactivity on a naphthenic acid. I. A. Breger and V. L. Burton. bibliog Am Chem Soc J 68:1639-42 Ag '46

Effects of radioactivity on fatty acids. C. W. Sheppard and V. L. Burton. bibliog diags Am Chem Soc J 68:1636-9 Ag '46

Method for predicting phase equilibrium constants. C. G. Kirkbride. bibliog Pet Refiner 24:97-104 D '45

Olefins used to make huge chemical tonnage in 1945; American institute of chemical engineers annual meeting; abstracts of petroleum papers. Oil & Gas J 44:159 D 29 '45

Petro-chemical plant making materials for synthetic fabric manufacture. il Pet Refiner 24:160 N '45

Petroleum as a chemical industry; abstract. G. Egloff. Chem & Met Eng 52:252+ D '45

Petroleum's role in chemical field emphasized by West coast meeting of American institute of chemical engineers, San Francisco, Aug. 25-28; with abstracts of papers. Nat Pet N 38:60 S 4 '46; Pet Processing 1:83-90 O '46

Pure hydrocarbons; story of API project 46. R. L. Demmerle. il Chem & Eng N 24: 2020-8 Ag 10 '46

Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in cyclohexene and gasoline. H. F. Lewis and others. bibliog il Ind & Eng Chem 37:1108-11 N '45

Review of the mechanism of the oxidation of liquid hydrocarbons. P. George and A. Robertson. bibliog Inst Pet J 32:382-91 Jl '46

Concessions

International politics background of Iranian concession history. L. S. Thompson. il map Oil & Gas J 45:60-3 Ag 31 '46

Sinclair Panama given 20-year concession for Isthmian production. W. W. Burns. Oil & Gas J 45:42 O 5 '46

See also

Mexico—Expropriation policy

Conservation

Five-point program for maintaining oil reserves. W. B. Heroy. Oil & Gas J 45:70 My 11 '46

Dehydration

Low-gravity crude oil successfully treated by central steam heating for fuel use. N. Williams. il diag Oil & Gas J 45:110-12+ Jl 20 '46

Observations on the chemical demulsification of crude oil. L. T. Monson. Pet Eng 17: 69-70+ S '46

Emulsions

Observations on the chemical demulsification of crude oil. L. T. Monson. Pet Eng 17: 69-70+ S '46

Recovery and utilization of oil from oilfield waste emulsion. J. W. Horne and others. U S Bur Mines Rep of Invest 3869: 1-16, pl 1-11 '46; Abstract. Oil & Gas J 44:134-5 My 4 '46

Venezuela's largest chemical emulsion treating plant. P. Reed. flow diag il Oil & Gas J 45:93 My 11 '46

Gas mixtures

American petroleum institute, Eastern district of Production division meeting; abtracts of papers. Oil & Gas J 45:121-2+ Je 22 '46

Gas recovery systems. D. Rogers, jr. bibliog il diags Pet Eng (Ref annual) 17:196+ Jl 1 '46

Interpretation of laboratory analytical and volumetric data, in terms of field measurements. R. H. Olds and others. bibliog diag Oil & Gas J 44:75+ Ja 19 '46

Geology

American association of petroleum geologists; abstracts of annual meeting papers. Oil & Gas J 44:87-8+ Ap 6 '46

American association of petroleum geologists, Pacific Coast section, annual meeting. Pet Eng 17:96+ D '45

Appraisal of Iranian oil. L. S. Thompson. il maps Oil & Gas J 45:64-8 Je 29 '46

Buried pre-Cambrian hills in northeastern Barton county, central Kansas. R. F. Walters. maps fold pl Am Assn Pet Geologists Bul 30:660-710 My '46

Classification of petroleum reservoirs. O. Wilhelm. bibliog diags Am Assn Pet Geologists Bul 29:1537-80 N '45; Same cond. Oil & Gas J 44:171-2+ F 23; 93-4 Mr 2; 91 Mr 9; 121 Mr 16; 115 Mr 23; 139 Ap 6; 119 Ap 13; 163 Ap 20; 147 Ap 27 '46

Clay research and oil development problems. J. C. Griffiths. bibliog Inst Pet J 32:18-31 Ja '46

PETROLEUM—Geology—*Continued*

Discoveries and development of west Texas; pre-Permian reaching major proportions. C. J. Deegan. maps Oil & Gas J 44:139+ F 23 '46

Drilling in California's West Newport field. W. E. Dunlap and A. L. Hunter. plan diags Oil & Gas J 45:95-6+ Ag 10 '46

Expanding activities of paleontologists. J. R. Sandidge. bibliog Am Assn Pet Geologists Bul 30:1088-94 Jl '46

Explanation of pinch-out and erosional unconformity. O. Wilhelm. diag Oil & Gas J 44:275 Mr 30 '46

Formation of hydrocarbons from fatty acids by alpha-particle bombardment. C. W. Sheppard and W. L. Whitehead. bibliog il diags Am Assn Pet Geologists Bul 30:32-51 Ja '46

Functions of bacteria in the formation and accumulation of petroleum; abstract. C. E. ZoBell. Inst Pet J 32:sup232-3 Ag '46

Future oil possibilities of New Mexico. R. L. Bates. map diag Oil & Gas J 44:52-4+ F 2 '46

Geological attack. M. G. Cheney. bibliog Am Assn Pet Geologists Bul 30:1077-87 Jl '46; Abstract. Oil & Gas J 44:84+ Ap 6 '46

Geological occurrence of oil in United Kingdom with reference to present exploratory operations. H. R. Lovely. fold chart maps Am Assn Pet Geologists Bul 30:1444-1516 S '46

Geology of Maracaibo basin, Venezuela. F. A. Sutton. bibliog maps diags Am Assn Pet Geologists Bul 30:1621-1741, fold map(pl 1) pl 2-9 O '46

Geology of oil basins of East Indian archipelago. H. M. Schuppli. map diag Am Assn Pet Geologists Bul 30:1-22 Ja '46

Geology of the Guayaquil estuary, Ecuador. G. Sheppard. 5pls diags Inst Pet J 32:492-511 bibliog(p511); Discussion. 512-14 Ag '46

Grain roundness, a valuable geologic tool. G. Rittenhouse. bibliog diags Am Assn Pet Geologists Bul 30:1192-7 Jl '46

Gramp's field, Archuleta county, Colorado. W. A. Waldschmidt. Am Assn Pet Geologists Bul 30:561-80, pl 1-4 Ap '46

Is Delhi only the first of many? Oil & Gas J 45:155 Je 15 '46

Kinderhook dolomite of Sedgwick county, Kansas. W. A. Ver Wiebe. diags Am Assn Pet Geologists Bul 30:1747-55 O '46

Mineralogy of late upper cretaceous, paleocene, and eocene sandstones of Los Banos district, west border of San Joaquin valley, California. S. N. Daviess. bibliog map diag Am Assn Pet Geologists Bul 30:63-83 Ja '46

Oil fields of Carpathian region. R. P. Walters. maps Am Assn Pet Geologists Bul 30:319-36 Mr '46

Operators in Hull and Silk field study repressuring program. C. H. Keplinger and J. M. Wanenmacher. plan diag Oil & Gas J 45:76+ Ag 31 '46

Outline for regional classification of oil possibilities. F. Reeves. Am Assn Pet Geologists Bul 30:111-15 Ja '46

Petroleum geology of Aquitaine basin, France. A. J. Eardley. bibliog maps Am Assn Pet Geologists Bul 30:1517-45 S '46

Porosity through dolomitization. K. K. Landes. bibliog map Am Assn Pet Geologists Bul 30:305-18 Mr '46

Practical application of geology to reservoir analysis. W. W. Wilson. maps diags Pet Eng 17:152+ S '46

Production geology; role of bacteria. F. B. Plummer. Min & Met 27:116-17 F '46

Rangely, one-time shallow field, now Rocky Mountains' most active area. C. R. Thomas. bibliog map diag Oil & Gas J 44:90-2+ N 24 '45

Les recherches de pétrole dans les Petites Pyrénées; l'utilisation du gaz naturel. Marceau. bibliog map Génie Civil 123:126-9 My 15 '46

Review of petroleum geology in 1945. F. M. Van Tuyl and others. bibliog map Colorado School of Mines [Golden] Quarterly 41 no 3: 1-203 Jl '46 (pa $2)

Rosiclare-Fredonia contact in and adjacent to Hardin and Pope counties, Illinois. F. E. Tippie. il diags map Am Assn Pet Geologists Bul 29:1654-63 N '45

San Pedro oil field, province of Salta, northern Argentina. L. C. Reed. maps Am Assn Pet Geologists Bul 30:591-605 Ap '46

Schist production is new development at Edison. L. P. Stockman. plan Oil & Gas J 44: 165 D 29 '45

Siluro-Devonian strata in central Kansas. H. Taylor. 4 pls maps diags Am Assn Pet Geologists Bul 30:1221-54 Ag '46

Society of economic paleontologists and mineralogists; abstracts of annual meeting papers. Oil & Gas J 44:93-4+ Ap 6 '46

Stratigraphy and oil-producing zones of the pre-San Andres formations of southeastern New Mexico. R. E. King. bibliog New Mexico School of Mines, State Bur of Mines and Mineral Resources (Socorro) Bul 23: 1-34, pl 1-3 '45 (pa 50c)

Studies on redox potential of marine sediments. C. E. ZoBell. diags Am Assn Pet Geologists Bul 30:477-513 bibliog(p510-13) Ap '46

Submarine slumping and location of oil bodies. R. W. Fairbridge. bibliog diags Am Assn Pet Geologists Bul 30:84-92 Ja '46

TXL is representative of new pre-Permian fields; promises major reserve. G. Weber. il map diag Oil & Gas J 45:81-2+ Ag 24 '46

Transformation of organic material into petroleum under geological conditions. B. B. Cox. bibliog(68 titles) Am Assn Pet Geologists Bul 30:645-59 My '46

West Virginia Geological survey collection of drill cuttings. J. H. C. Martens and F. W. Truscott. Am Assn Pet Geologists Bul 30:350-2 Mr '46

See also
Salt domes

Bibliography

Directory of geological material in North America. J. V. Howell and A. I. Levorsen. Am Assn Pet Geologists Bul 30:1321-1432 pt 2 Ag '46

Important developments of the year. Colorado School of Mines [Golden] Quarterly 41 no 3: 145-203 Jl '46 (pa $2)

Terminology

Geological terminology in classification of oil and gas accumulations. I. O. Brod. bibliog diags Am Assn Pet Geologists Bul 29:1738-55 D '45

Measurement

Computing quantities of oil production and pipe line runs. W. F. Martin. il Pet Eng 17:113-14 F '46

Pipe line gauging, sampling, and testing. J. A. Sleeth. il Pet Eng 17:144+ Mr '46

Mud fluids

Chemical treatment of drilling fluids. P. E. Chaney and W. F. Oxford, jr. bibliog Pet Eng 17:158+ Je '46

Chemistry of drilling fluids. H. T. Kennedy. bibliog Oil & Gas J 45:181-2+ Jl 27 '46

Contaminated mud dumped before it reaches shale shaker and pit. il Oil & Gas J 44:102 F 9 '46

Dissolving mud sheaths by acidizing. diags Oil & Gas J 44:109-10 N 10 '45

Drilling fluids end refresher courses at Texas A. & M. E. H. Short, jr. diag Oil & Gas J 45:105-6 My 25 '46

Drilling mud control in the Gulf Coast area. F. L. Wallace. Pet Eng 17:196+ Ja '46

Improved drilling muds containing carboxymethylcellulose. H. H. Kaveler. Pet Eng (Ref annual) 17:93-4+ Jl 1 '46; Same abr. Oil & Gas J 45:81-2+ Jl '46

Improvements are needed for pumping compressible rotary mud. J. M. Shimer. il plan diag Pet Eng 17:131-2+ Ag '46

Oil-base mud. E. H. Short, jr. il Oil & Gas J 45:64-5 Je 1 '46

Recovery of barite from rotary drilling mud by centrifugal separation; abstract. C. A. Lindsay. flow sheet Oil & Gas J 45:91 O 12 '46

Results and use of oil base fluids in drilling and completing wells. G. V. Kersten. Pet Eng (Ref annual) 17:80+ Jl 1 '46; Same cond. Oil & Gas J 44:135-6+ Ap 27 '46

PETROLEUM—Mud fluids—*Continued*
Special mud used in Venezuela's deepest well. D. B. Williams. Oil & Gas J 44:63 Ja 19 '46
Use of oil-base mud at Elk Hills naval reserve no. 1. R. W. Stuart. Oil & Gas J 45:128-9+ My 25 '46
Water-base mud; review of developments. W. R. Kelley and others. bibliog Oil & Gas J 45:117-19+ My 11 '46

Paraffin problem

Mobile unit to service paraffined wells. W. J. Davis. il Pet Eng 17:220+ N '45

Pressure maintenance

See Petroleum—Production methods

Pressure measurement

Fluid power makes subsurface production data automatically available. K. B. Barnes. il diags Oil & Gas J 45:94+ Je 29 '46
World's highest-pressure well gages 8,225 pounds; McCarthy's recently completed well in Blue Lake field, Brazoria county, Texas. E. H. Short, jr. il diags Oil & Gas J 44:131-2 My 4 '46

Prices

Attacks against price control pressed on triple front. Oil & Gas J 44:127-8 Mr 30 '46
Complete freedom with no strings sought from OPA by oil industry. Nat Pet N 38:7 Mr 27 '46
Economics of the Pacific Coast petroleum industry; pt. 2, Price behavior and competition. J. S. Bain. 438p bibliog(p435-6) $6 Univ. of Calif. press, Berkeley 4 '45
Industry groups demand full decontrol; with text of report. Nat Pet N 38:14, 16+ My 8 '46

Production costs

Capital requirements of crude oil production. J. E. Pogue and F. G. Coqueron. Min & Met 27:501-4 O '46
Investment value of injection gas. M. L. Arnold. bibliog Pet Eng 17:142, 145-6+ S '46

Production estimates

Acre-foot recoveries from oil fields. S. F. Shaw. Pet Eng 17:86+ F; 254+ Mr '46
Effect of well spacing an oil recovery. R. C. Craze and S. E. Buckley. Oil & Gas J 45:97+ Ag 24 '46
Increasing rates of depletion. P. J. Jones. Oil & Gas J 44:116-18 D 15 '45
Notes on estimating crude oil reserves. K. M. Fagin. Pet Eng 17:92+ S '46
Oil yield per acre-foot may guide well spacing; importance of adequate records. K. M. Fagin. Pet Eng 17:72+ D '45
Predictions of behavior in air-gas drive. R. J. Day and S. T. Yuster. Pennsylvania State College Mineral Industries Exp Sta Bul 41:31-42 '46
Present value of a reserve. P. J. Jones. Oil & Gas J 44:279-80+ N 17 '45
Production characteristics for increasing rates of depletion. P. J. Jones. Oil & Gas J 44: 63+ D 22 '45
Production characteristics for uniform depletion rates. P. J. Jones. Oil & Gas J 44:105+ D 8 '45
Production decline and economic limits. P. J. Jones. Oil & Gas J 44:60+ Ja 5 '46
Rate of oil production for descreasing depletion rates. P. J. Jones. Oil & Gas J 44: 300-1+ D 29 '45
Reserve recoverable before production starts declining. P. J. Jones. Oil & Gas J 44:87+ D 1 '45
Uniform production and depletion rates. P. J. Jones. Oil & Gas J 44:91-2+ N 10 '45

Production methods

A.P.I. digests of papers presented at meeting of Mid-continent section, Production division. Oil & Gas J 45:120+ Je 15 '46
American petroleum institute, Eastern district of Production division meeting; abstracts of papers. Oil & Gas J 45:121-2+ Je 22 '46
American petroleum institute, Pacific Coast section, Production division, meeting, Los Angeles, April 11-12; abstracts of papers. Oil & Gas J 44:158+ Ap 20 '46
Application of petroleum engineering to drilling and production work. B. Thomas. Pet Eng (Ref annual) 17:174+ Jl 1 '46
Behavior of water-input wells. P. A. Dickey and K. H. Andresen. bibliog Oil & Gas J 44:205-6+ N 17 '45
Case for extended research in field of secondary recovery. E. Lamm Nat Pet N 38:9 Ag 14 '46
Curves summarize investment and operating costs for water-injection plants. L. T. Gibbs. il Oil & Gas J 44:74+ Mr 2 '46
Economics of water flooding. K. B. Nowels. Pet Eng (Ref annual) 17:190+ Jl 1 '46
Effect of well spacing on water flood operations and economics. K. M. Fagin. il map Pet Eng 17:64+ Je '46
Efficiency of water drive in Illinois sand reservoirs. A. W. Baucum and W. D. Steinle. Oil & Gas J 45:199+ Jl 27 '46
Electronic analyzer predicts pressure behavior of oil reservoirs; offered royalty free. il Nat Pet N 38:51-2 My 8 '46
Experimental flowing of oil wells on air-injection projects in Pennsylvania. B. F. Grant and R. B. Bossler. bibliog diags Pet Eng 17:103-4+ Jl '46
Field effective permeabilities and shot well radii. S. T. Yuster. Pennsylvania State College Mineral Industries Exp Sta Bul 41:43-64 '46
Graphical prediction of water flooding intakes. S. T. Yuster Pennsylvania State College Mineral Industries Exp Sta Bul 41: 65-79 '46
History of water-flooding of oil sands in north Texas. P. Grandone and others. bibliog 42pls maps U S Bur Mines Rep of Invest 3906:1-117 '46
How to inject gas into limestone-dolomite reservoirs. J. A. Barnett and M. H. Soyster. map Oil & Gas J 44:161-2+ F 23 '46
Importance of research in secondary recovery by water flooding. R. V. Hughes. bibliog Pet Eng 17:180+ Ag '46
Interactions between interstitial and injected water; a review. A. J. W. Headlee. Oil & Gas J 44:219-20+ N 17 '45
Investment value of injection gas. M. L. Arnold bibliog Pet Eng 17:142, 145-6+ S '46
Laboratory for production problems. R. Sneddon. il Pet Eng 17:178+ S '46
Material-balance method of evaluating pressure-maintenance by internal gas injection in tight, volumetrically controlled reservoirs; abstract. E. C. Patton, jr. Oil & Gas J 45:96 O 5 '46
Mechanics and economics of dual completions. H. C. Laird. il diags Pet Eng 17: 165-6+ Ag '46
Mid-continent's shallowest water-drive project. R. O. Bankson. il plan Oil & Gas J 45:109+ Je 29 '46
Modern pressure-maintenance plants being built in eastern Venezuela. F. R. Staley. flow diag il map Oil & Gas J 44:276-7+ D 29 '45
North Coles levee pressure maintenance project control of gas expansion. W. J. Travers, jr. diags Pet Eng (Ref annual) 17:144+ Jl 1 '46; Same abr. Oil & Gas J 45:91+ Jl 20 '46
Oficina field is scene of Venezuela's first water-flooding experiment. P. Reed. il diag Oil & Gas J 45:137-8 My 18 '46
Oil-pool analyzer. W. A. Bruce. bibliog il Oil & Gas J 45:90-2 My 11 '46
Oil production by water. P. J. Jones. Oil & Gas J 45:64-5 N 2; 88-90 N 9 '46
Oil reservoir energy; analyzing its source. K. M. Fagin. Pet Eng 17:218+ Ja '46
Oklahoma's first triple-zone completion. N. Williams. il diag Oil & Gas J 44:104-6 Ap 6 '46
Operators in Hull and Silk field study repressuring program. C. H. Keplinger and J. M. Wanenmacher. plan diag Oil & Gas J 45:76+ Ag 31 '46
Penn state secondary recovery conference; abstracts of papers. Oil & Gas J 45:85 N 2 '46
Pennsylvania grade crude oil association, annual meeting, Pittsburgh. Oil & Gas J 45: 65-6+ Jl 6 '46

PETROLEUM—Production methods—*Continued*

Plastic plug renews oil well production. diags Product Eng 17:149 Ag '46

Plastics in well-remedial work; how an actual job is designed. A. C. Polk, jr. and D. F. Saurenman. il Oil & Gas J 45:154-6 My 18 '46

Practical economic problems of secondary recovery. J. P. Jones and H. Rich. Pet Eng (Ref annual) 17:140+ Jl 1 '46

Pressure maintenance by water injection, Midway field, Arkansas. W. L. Horner. bibliog diag Oil & Gas J 44:135-8+ N 17 '45; Same. Pet Eng 17:133-4+ F '46

Process improvements mark design and operation of Abercrombie plant; pressure-maintenance plant, Old Ocean field; gasoline and other liquid products produced in the operation. flow chart il Oil & Gas J 44: 88-90+ D 15 '45

Relation between well spacing and recovery. W. V. Vietti and others. bibliog diag Oil & Gas J 45:77-8+ Je 1 '46; Same. Pet Eng (Ref annual) 17:51-60 Jl 1 '46

Repressuring operations in west Texas pool. E. H. Short, jr. il Oil & Gas J 44:85+ F 9 '46

Research and the shoe string producer. F. R. Cozzens. Pet Eng 17:248+ Mr '46

Reservoir engineering in 1945. M. Muskat. bibliog(41 titles) Pet Eng 17:51-4 Ja '46

Secondary recovery engineering. N. van Wingen and N. Johnston. bibliog Oil & Gas J 45:93+ Jl 13 '46

Secondary-recovery research progress is chronicled; abstracts of papers, meeting of the School of mineral industries, Pennsylvania state college. Oil & Gas J 44:167 N 17 '45

Selective control featured in recent choke installations. E. H. Short, jr. flow chart il Oil & Gas J 44:102-3+ Ap 6 '46

Some problems encountered during well shooting operations in the Nottinghamshire oilfields. J. F. Waters. diags Inst Pet J 32: 119-26; Discussion. 127-32 Mr '46

South Coles levee unit pressure maintenance and cycling project. L. P. Foote. flow sheet il map Pet Eng 17:146+ Ag; 106+ S '46; Same cond. flow diag Oil & Gas J 45:70-3+ Ag 3 '46

Study of some factors affecting gun perforating; abstract. S. C. Oliphant and R. F. Farris. Oil & Gas J 45:92+ O 5 '46

Trends and developments in petroleum production enginering. S. E. Buckley. bibliog Am Assn Pet Geologists Bul 30:1131-9 Jl '46; Same. Pet Eng (Ref annual) 17:154+ Jl 1 '46

Trinidad Leaseholds applies advanced methods in drilling and production. P. Reed. il map Oil & Gas J 45:44-6+ O 5 '46

Triple-zone completions in eastern Venezuela. il diags Oil & Gas J 44:227+ D 29 '45

Unitized portable compressor plant as used for pressure maintenance. F. L. Kallam. il Pet Eng 17:70+ My '46

Unusual pressure conditions solved in Oklahoma's second triple-zone completion. E. H. Short, jr. il diag Oil & Gas J 45:87 Ag 17 '46

Use of plastics in consolidating loose sands in wells; abstract. R. H. Smith and A. C. Polk, jr. Oil & Gas J 45:95-6 O 5 '46

Water-flooding engineers initiate conferences on technical problems. K. B. Barnes. Oil & Gas J 44:44 F 2 '46

See also

Petroleum—Acidation of wells
Petroleum—Mud fluids
Petroleum—Pumping
Petroleum—Unit operation of pools
Petroleum—Well drilling

Production rate

Optimum rate of production of oil, condensate, and natural gas (cont). P. J. Jones. Oil & Gas J 44:87+ D 1; 105+ D 8; 116-18 D 15; 63+ D 22; 300-1+ D 29 '45; 60+ Ja 5; 89+ Ja 12; 90+ Ja 19; 288-91 Ja 26; 72+ F 2; 88+ F 9; 94+ F 16 '46

See also

Petroleum—Production estimates

Prospecting

Arctic oil exploration; transporting, setting up, and maintaining radio communications. J. H. Roberts. il map Radio N 35:25-8 Mr '46

Canada has intense exploration program. R. Sneddon. map Pet Eng 18:145+ O '46

Clay research and oil development problems. J. C. Griffiths. bibliog Inst Pet J 32:18-31 Ja '46

Combined surface and seismic exploration party. R. L. Geyer. Am Assn Pet Geologists Bul 29:1781-2 D '45

Cost of discovering new petroleum reserves continued to increase in 1945. H. J. Struth. Pet Eng 17:51-6+ F '46

Cradle of civilization scene of oil search by Standard of Egypt. W. W. Burns. il Oil & Gas J 45:95-6 O 19 '46

Creole starts research department to study exploration and production. P. Reed. il Oil & Gas J 44:63-4 My 4 '46

Creole to exploit new concessions promptly. A. T. Proudfit. Oil & Gas J 45:92 My 25 '46

Developments in Rocky Mountain region in 1944. R. M. Larsen. Am Assn Pet Geologists Bul 29:1593-1604 N '45

Egyptian exploration is being conducted on broadest front in history. C. O. Willson. il map diag Oil & Gas J 44:56-8 D 1; 62-5 D 8 '45

Emanometric oil and gas prospecting. S. J. Pirson. bibliog diags Pet Eng 17:132+ Ja '46

Esso 1 state; Cape Hatteras, nation's most easterly test exemplifies modern exploratory operations. N. Williams. il maps Oil & Gas J 45:114-17+ My 18 '46

Exploration of Orinoco delta fraught with difficulties of terrain and climate. P. Reed. il map Oil & Gas J 45:64-6 S 14 '46

Exploratory drilling in 1945. F. H. Lahee. maps Am Assn Pet Geologists Bul 30:813-28 Je '46

French research emphasizing oil exploration and utilization of petroleum gas. P. Guillaumat. il map Oil & Gas J 44:98-100 Ap 27 '46

Geological attack. M. G. Cheney. bibliog Am Assn Pet Geologists Bul 30:1077-87 Jl '46; Abstract. Oil & Gas J 44:84+ Ap 6 '46

Geological data-hole drilling. E. H. Short, jr. il Oil & Gas J 45:82-3+ Ag 3 '46

Geological occurrence of oil in United Kingdom with reference to present exploratory operations. H. R. Lovely. fold chart maps Am Assn Pet Geologists Bul 30:1444-1516 S '46

Guarico's 1946 exploration program is most extensive in Venezuela. P. Reed. il maps Oil & Gas J 44:66+ Mr 16 '46

Outline for regional classification of oil possibilities. F. Reeves. Am Assn Pet Geologists Bul 30:111-15 Ja '46

Postwar exploration. Oil & Gas J 44:59 Ap 13 '46; Discussion. 45:86+ My 11 '46

Review of exploratory drilling statistics, 1938-1944. F. H. Lahee. bibliog map Am Assn Pet Geologists Bul 29:1581-92 N '45

Search for gas and oil is aided by welded equipment. il Pet Eng 17:138+ Je '46

Socony-Vacuum explores Barinas, Venezuela's largest concessions. P. Reed. il map Oil & Gas J 45:62-3 Ag 10 '46

Submarine prospecting; using bathysphere. R. Sneddon. il Pet Eng 17:222+ My '46

Two promising tests revive interest in Florida wildcatting. H. David. map Oil & Gas J 45:50+ Je 1 '46

Venezuela's most ambitious exploratory campaign in history well under way. M. C. Cody. maps Oil & Gas J 44:74+ Ap 13 '46

Wildcat drilling in 1945. F. H. Lahee. maps Oil & Gas J 44:64-6 Ap 13 '46

Electric methods

Electrical methods in oil exploration. V. G. Gabriel. bibliog Pet Eng 18:216+ O '46

Present status of electrical prospecting. V. G. Gabriel. bibliog Pet Eng 17:66+ Ja '46

Geophysical methods

Airborne magnetometer. J. R. Balsley, jr. bibliog il maps Pet Eng 17:77-8+ Jl; 104+ Ag '46

PETROLEUM—Prospecting—Geophysical methods—*Continued*
Airborne magnetometer; new geophysical tool. E. A. Eckhardt. il Oil & Gas J 45:78-9+ Je 8 '46
Development and applications of airborne magnetometers in the U.S.S.R. A. A. Logachev. bibliog maps Pet Eng (Ref annual) 17:211-12+ Jl 1 '46
Electronics in the petroleum industry. V. G. Gabriel. bibliog il diags Pet Eng 17:107+ Je '46
Evaluation of new geophysical methods. W. M. Rust, jr. Pet Eng (Ref annual) 17:203+ Jl 1 '46; Same. Am Assn Pet Geologists Bul 29:865-71 Jl '45; Abstract. Oil & Gas J 43: 62 Ap 7 '45
Exploring for oil in radar ship in ocean bed off the Bahamas; illustrations with text. Pet Eng 18:114+ O '46
Exploring the continental shelf; various types of diving bells. C. J. Deegan. il map diags Oil & Gas J 45:98-101 Je 15 '46
Flying eye, which helped defeat Axis subs, expected to open up era of aerial oil surveys; airborne magnetometer. il Nat Pet N 38:6 Je 5 '46
Geophysical activities in 1945 and the geophysicists' part in the war. C. A. Heiland. il Min & Met 27:109-14 F '46; Abstract. Oil & Gas J 44:58 Mr 2 '46
Geophysical operations in Kuwait. P. H. Boots and A. H. McKee. il Pet Eng 18: 155+ O '46
Geophysical prospecting equipment. D. Sheffet. il diags Electronics 18:116-23 D '45
Oil exploration from the air; flying eye, or airborne magnetometer. il Diesel Power 24: 1221+ O '46
Operational procedure for the airborne magnetometer. H. Jensen. diags Oil & Gas J 45:80-3 Jl 13 '46
Publication of geophysical case histories. H. C. Cortes. Am Assn Pet Geologists Bul 30: 1095-8 Jl '46
Review of geophysical methods, devices, and procedures. C. H. Dresbach and P. Weaver. Oil & Gas J 45:79+ N 2 '46
Society of exploration geophysicists; abstracts of annual meeting papers. Oil & Gas J 44:97-8+ Ap 6 '46
Trial runs of aerial magnetometer completed. Nat Pet N 38:16 Jl 10 '46

Pumping
Elements of gas lift practices. L. P. Conner. Pet Eng 17:127-8+ N '45
Factors influencing the selection of equipment for artificial lift; abstract. J. H. Field. Oil & Gas J 45:95 O 12 '46
Fluid power makes subsurface production data automatically available. K. B. Barnes. il diags Oil & Gas J 45:94+ Je 29 '46
Oil-well pump. E. A. Stephenson. diags Oil & Gas J 45:105-6 S 14 '46
Principle of the oil-well pump. E. A. Stephenson. diag Oil & Gas J 45:105 Ag 31 '46
Problems relating to elementary principles of the pump. E. A. Stephenson. diag Oil & Gas J 45:109 S 7 '46
Producing oil with quantities of water; with cost data. S. F. Shaw. Pet Eng 17:100+ Je '46
Production versus strokes and pump sizes; chart. E. A. Stephenson. Oil & Gas J 45:149 O 19 '46
Pumping directionally drilled wells. il Pet Eng 17:230 Je '46
Pumping equipment, 1946. Oil & Gas J 44: 174-5 Ja 26 '46
Pumping forecast. Oil & Gas J 45:149 Jl 27 '46
Stretch of sucker rods. E. A. Stephenson. Oil & Gas J 45:301-2 S 21; 113 S 28; 113 O 5; 109 O 12 '46
Trends in surface pumping equipment design; abstract. E. M. Fetzer. Oil & Gas J 45:92 O 12 '46

Pumping, Electric
Central electric power plant solves pumping problem at Gilbertown. N. Williams. il Oil & Gas J 44:276-8 N 17 '45
Electrification of Smackover wells lowers lifting costs 36 per cent. G. Weber. il Oil & Gas J 44:115-16 Ap 27 '46
Pumping wells with electric power. J. H. Field. Oil & Gas J 45:125+ Je 15; 106+ Je 22 '46
See also
Petroleum pipe lines—Pumping stations, Electric

Salt content
See also
Petroleum refining—Salt removal

Sampling
Eagle single compartment bottom sampler. R. G. Mitchell and S. A. Hunn. diags Inst Pet J 31:415-17 O '45
Pipe line gauging, sampling, and testing. J. A. Sleeth. il Pet Eng 17:144+ Mr '46

Secondary recovery
See Petroleum—Production methods

Statistics
Average gas-oil ratio of Nation's oil fields. K. M. Fagin. Pet Eng 17:51-4 N '45
104 major fields yield 54.34 per cent of nation's oil. C. J. Deegan. Oil & Gas J 45: 146-8 Jl 27 '46
PAW program division predicts strong demand situation starting in 1946. H. S. Norman. Oil & Gas J 44:52-5+ D 1 '45
Production, 1945. W. P. Haynes. Min & Met 27:117-20 F '46
World production approaching 8,000,000 barrels daily. W. W. Burns. map Oil & Gas J 45:138-9 Jl 27 '46
See also
Petroleum industry and trade—Statistics
Petroleum supply

Stripper well subsidies
Texas producers group declares against stripper payment. Oil & Gas J 45:60 Ag 24 '46

Stripper wells
72 per cent of U.S. wells are strippers. E. G. Dahlgren and G. Pasquella. map Oil & Gas J 44:59-60 Ja 19 '46

Sulfur content
Sulfur in light petroleum products. E. T. Scafe. map Pet Refiner 25:87-92 S '46
Sulfur in petroleum; nomenclature of the sulfur compounds in petroleum. J. S. Ball and W. E. Haines. Chem & Eng N 24:2765-9 O 25 '46

Testing
Pipe line gauging, sampling, and testing. J. A. Sleeth. il Pet Eng 17:144+ Mr '46

Tideland development
Confiscation of tidelands would benefit speculators, Californians charge. Nat Pet N 38:14+ Ja 30 '46
Drilling well at sea; in open gulf waters, Magnolia is exploring toward 12,000 feet. il Oil & Gas J 45:62-3, 87 N 2 '46
Esso 1 state; Cape Hatteras, nation's most easterly test exemplifies modern exploratory operations. N. Williams. il maps Oil & Gas J 45:114-17+ My 18 '46
Exploration of Orinoco Delta fraught with difficulties of terrain and climate. P. Reed. il map Oil & Gas J 45:64-6 S 14 '46
Exploring the continental shelf; various types of diving bells. C. J. Deegan. il map diags Oil & Gas J 45:98-101 Je 15 '46
Favorable vote indicated on tidelands quitclaim resolution. W. D. Laudeman. Nat Pet N 38:13+ F 13 '46
Heavy duty propelling and steering device aids in marine operations of oil industry. il Pet Eng 17:228+ My '46
Ickes presses plea for federal control of ocean tidelands. Oil & Gas J 44:60 F 9 '46
Service craft built at Texas shipyard; for ferrying workers and supplies to off-shore drilling rigs. il Marine Eng 51:99 S '46
Steel diving chamber for use by Union oil company for gravity-meter surveys off the Louisiana coast; abstract. G. M. Wilson. il Mech Eng 68:648 Jl '46

PETROLEUM—Tideland development—*Cont.*
Submarine prospecting; using bathysphere. R. Sneddon. il Pet Eng 17:222+ My '46
Tidelands issue now up to U.S. Supreme court after Congress fails to override Truman veto. Nat Pet N 38:17 Ag 7 '46
Tidelands ownership battle gets underway with Ickes registering vigorous protest. W. D. Laudeman. Nat Pet N 38:5 F 6 '46
Title to the tidelands. E. Adams. il Pet Eng 17:51-4 S '46
Trinidad to exploit submarine area. Oil & Gas J 44:44 Ja 5 '46
Truman cites Supreme court case in vetoing tideland resolution. Oil & Gas J 45:58 Ag 10 '46
Truman vetoes tidelands bill; sustained by House. Comm & Fin Chr 164:807 Ag 8 '46

Transportation

America's oil industry saw a transportation miracle while a global war demanded its products swiftly and surely. W. A. Jones. Nat Pet N 37:18+ N 28 '45
Great Lakes tankers emerged from global war's trying test with a shining past and an experience-tested future. J. R. Dean. il Nat Pet N 37:28+ D 19 '45
U.S. government continues to hold tanker rates at well-defined levels. W. W. Burns. il Oil & Gas J 45:130-1 Jl 27 '46

See also
Petroleum pipe lines
Petroleum shipping terminals
Tank cars
Tank ships
Tank trucks

Unit operation of pools

Economics of complete unitization of fields. K. M. Fagin. Pet Eng 17:144+ F '46
Elk basin unitization plan gets nod from Department of interior. Oil & Gas J 45:56 Je 8 '46

Water flooding

See Petroleum—Production methods

Water problem

Annulus method of locating water in oil well. J. S. Hagestad. Pet Eng 17:198+ D '45
Injection of water into underground reservoirs in Michigan. W. E. Schoeneck. il map Oil & Gas J 44:193-4+ N 17 '45
Interstitial water by the capillary pressure method; abstract. O. F. Thornton and D. L. Marshall. diag Oil & Gas J 45:97 O 5 '46
Latest improvements incorporated into Conroe salt-water disposal plant. E. H. Short, jr. flow sheet il map Oil & Gas J 44:95+ Ja 12 '46
Optimum producing rates for Arbuckle limestone wells; by P. T. Amstutz, jr. and E. A. Stephenson; Review by A. S. Bunte. Am Assn Pet Geologists Bul 29:1783 D '45
Plastics demonstrate value in plugging back east Texas wells. G. Weber. diags Oil & Gas J 45:80-1+ Je 8 '46
Producing oil with quantities of water; with cost data. S. F. Shaw. Pet Eng 17:100+ Je '46
Reduction of sulphates in oil-field water. F. B. Plummer and I. W. Walling. bibliog il Pet Eng (Ref annual) 17:169+ Jl 1 '46
Salt water disposal in East Texas field. W. S. Morris. bibliog il diags Oil & Gas J 45: 72-5 Ag 10; 89-91+ Ag 17; 86+ Ag 24; 92+ Ag 31 '46
Scales in oil-producing equipment; their occurrence and causes. L. C. Case. bibliog il Oil & Gas J 45:76-7+ S 28; 68-9+ O 5 '46
Wartime regulation of the east Texas field. H. J. Gruy. Pet Eng 17:168+ D '45
Water invasion controlled by gas injection in Bahrein Island operations. diag Oil & Gas J 44:286+ D 29 '45
West Edmond salt water disposal plant initiates service to member operators. W. J. Davis. il Pet Eng 17:106+ D '45

See also
Petroleum—Well cementing and plugging

Well casing

Casing-cementing practices improved in Illinois-Indiana-Kentucky completions. J. L. Rogers. il Oil & Gas J 45:98-100+ Jl 13 '46
Casing landing practice. J. P. De Hetre. Pet Eng (Ref annual) 17:104+ Jl 1 '46; Same abr. Oil & Gas J 45:139+ My 18 '46
Drilling in Rangely; operations group themselves into three stages. N. Williams. il Oil & Gas J 44:72-3 Ja 19 '46
Method of locating a leak in casing. H. E. Gross. diag Pet Eng 17:93 My '46
Permian basin fights corrosion. G. Weber. il diags Oil & Gas J 45:76-7+ S 14 '46
Study of some factors affecting gun perforating; abstract. S. C. Oliphant and R. F. Farris. Oil & Gas J 45:92+ O 5 '46
Unusual pressure conditions solved in Oklahoma's second triple-zone completion. E. H. Short, jr. il diag Oil & Gas J 45:87 Ag 17 '46
Warm-worked casing, new oil country product, resistance to pressure. J. J. Dunn. Pet Eng 17:96+ S '46

Well cementing and plugging

Baker Multiplex cementing collars. diags Pet Eng 17:274 Mr '46
Casing-cementing practices improved in Illinois-Indiana-Kentucky completions. J. L. Rogers. il Oil & Gas J 45:98-100+ Jl 13 '46
Investigation of oil well cementing. A. J. Teplitz and W. E. Hassebroek. bibliog Pet Eng (Ref annual) 17:114+ Jl 1 '46
New multi-stage cementing technique. R. Sneddon. diags Pet Eng 17:152+ Je '46
Phenolics stop seepage in oil wells; Resinox. E. S. Bauer. il diags Mod Plastics 23:103-6 Ag '46; Abstract. Oil & Gas J 45:88-9 Ag 31 '46
Selective plugging by smokes in air-gas drive. R. F. Nielsen and S. T. Yuster. diag Pet Eng (Ref annual) 17:134+ Jl 1 '46

Well control

Capped; 65,000,000 cu. ft. well loose at surface hole. diags Oil & Gas J 45:87+ S 28 '46
Pressure-controlled intermitters. G. Weber. il diag Oil & Gas J 45:94-5+ O 26 '46

Well drilling

Application of petroleum engineering to drilling and production work. B. Thomas. Pet Eng (Ref annual) 17:174+ Jl 1 '46
California drilling practices. F. N. Kellogg. Oil & Gas J 45:140-4+ O 19 '46
Combination drive adapted to unitized drilling power plant. N. Williams. il plan diag Oil & Gas J 45:83-4+ Je 29 '46
Completions in Rangely field are complicated by tight formations. N. Williams. il Oil & Gas J 44:77-8+ F 9 '46
Deep development in Illinois basin poses drilling problems for operators. N. Williams. il map Oil & Gas J 45:85-6+ S 14 '46
Deep drilling in Oklahoma. L. L. Jones, jr. il Oil & Gas J 45:74+ Ag 3 '46
Deep drilling revives Rangely field, Colorado. E. F. Estergren. bibliog maps diag Pet Eng 17:79+ D '45
Deep rotary drilling applied to the Appalachians. B. R. Miller. il Oil & Gas J 45: 90+ Jl 6 '46
Deep test at Signal Hill. N. A. D'Arcy, jr. il Pet Eng 17:74+ My '46
Deeper drilling necessitates that greater emphasis be placed on drill-pipe testing. G. Weber. il Oil & Gas J 45:72-5+ Ag 31 '46
Deepest producing well; Weeks Island field, New Iberia Parish, Louisana. E. H. Short jr. il Oil & Gas J 44:104-5 My 4 '46
Development of Delhi oil field. A. S. Rhea. il Pet Eng 17:158+ N '45
Development, use, and care of drilling equipment. F. F Murray. Oil & Gas J 45:100 O 5 '46
Developments in Rocky Mountain region in 1944. R. M. Larsen. Am Assn Pet Geologists Bul 29:1593-1604 N '45
Drill-pipe cutting job in Signal Hill made at 14,601 ft. il Oil & Gas J 45:73 S 7 '46
Drill-pipe yield strength lowered by severe drilling service. W. O. Clinedinst. il diag Oil & Gas J 45:76-7 N 2 '46
Drilling and completions, 1945; forecasts for 1946. Oil & Gas J 44:158-65 Ja 26 '46
Drilling at Mattoon. il plan Oil & Gas J 45:80-3+ S 7 '46
Drilling equipment needs. D. Ragland. Pet Eng (Ref annual) 17:72+ Jl 1 '46
Drilling in Rangely; operations group themselves into three stages. N. Williams. il Oil & Gas J 44:70-3 Ja 19 '46

PETROLEUM—Well drilling—*Continued*

Drilling mud control in the Gulf Coast area. F. L. Wallace. Pet Eng 17:196+ Ja '46

Drilling time reduced in Permian basin. G. Weber. Oil & Gas J 45:108-9+ Ag 17 '46

Economics of deep drilling. I. W. Alcorn. Pet Eng 17:75+ Ja '46

Engineering refinements feature new heavy rig. G. Weber. il Oil & Gas J 45:95-6+ My 11 '46

Experimental well on Atlantic coast; illustrations with text. Pet Eng 17:144+ Ap '46

Exploratory drilling in 1945. F. H. Lahee. maps Am Assn Pet Geologists Bul 30:813-28 Je '46

Fifty oil wells drilled safely; Creole petroleum corp., Caripito, Venezuela. W. E. Moore. il Nat Safety N 52:60 D '45

Geological data-hole drilling. E. H. Short, jr. il Oil & Gas J 45:82-3+ Ag 3 '46

Hard-rock rotary drilling. F. L. Scott. il Oil & Gas J 45:74-6 O 5 '46

Improved layout for steam drilling rig. W. J. Davis. il diags Pet Eng 17:104+ Mr '46

Improved techniques and methods in controlled directional drilling. G. Jackson. il Pet Eng 17:84+ My '46

Independent turbo-electric rotary drive for steam rig. C. H. Eckel and K. M. Fagin. il diag Pet Eng 17:82+ Ap '46

Laying down drill pipe; illustrations with text. W. J. Davis. Pet Eng 17:63-4 F '46

Modern deep well drilling rigs Dieselized. M. D. Pugh. il Diesel Power 24:584-7 My '46

Modern Diesel-electric drilling rig equipment. T. R. Rhea. bibliog il diags Elec Eng 65: Trans 447-53 Jl '46

More oil from wells; horizontal drilling. il Sci Am 173:360+ D '45

New rotary tool is used to keep drill pipe free. K. M. Fagin. il diags Pet Eng 18:272+ O '46

Oil-base mud. E. H. Short, jr. il Oil & Gas J 45:64-5 Je 1 '46

Penetration rates in hard formation drilling. J. E. Warren and R. B. Schabarum. il Oil & Gas J 45:82-3+ Je 8 '46

Problems encountered in drilling abnormal pressure formations. E. Cannon and R. S. Sullins. Oil & Gas J 45:120+ My 25 '46

Results and use of oil base fluids in drilling and completing wells. G. V. Kersten. Pet Eng (Ref annual) 17:80+ Jl 1 '46; Same cond. Oil & Gas J 44:135-6+ Ap 27 '46

Review of exploratory drilling statistics, 1938-1944. F. H. Lahee. bibliog map Am Assn Pet Geologists Bul 29:1581-92 N '45

Schist production is new development at Edison. L. P. Stockman. plan Oil & Gas J 44: 165 D 29 '45

Shell's rig makes successful attack on west Texas chert. E. H. Short, jr. il Oil & Gas J 45:76-80 O 12 '46

Shooting at a target three miles down. R. Sneddon. il Pet Eng 17:116+ F '46

Spudder drills to 6,198 ft. in Gibson county, Ind. il Oil & Gas J 44:111 F 16 '46

Summary of the investigation of drill-pipe failures in the Permian basin. L. R. Jackson and others. Oil & Gas J 45:75 Ag 31 '46

Time budget for drilling operations. W. K. Powell. Pet Eng 17:68+ F '46

Trinity's big rig capable of drilling to 20,000 ft. in west Texas area. E. H. Short, jr. il Oil & Gas J 44:90-1 F 16 '46

Unitized mobilized drilling. K. B. Barnes. il Oil & Gas J 44:76-7 N 10 '45

Use of oil-base mud at Elk Hills naval reserve no. 1. R. W. Stuart. Oil & Gas J 45:128-9+ My 25 '46

Venezuelan drilling expansion facing many obstacles. il Oil & Gas J 44:61+ Ap 6 '46

Wells 12,000 feet and deeper; with tabulated data. E. Adams. map Pet Eng 17:93-4+ Ja '46

World's deepest cable-tool test is completed in Mercer township, Butler county, Pennsylvania. J. T. Galey. il Oil & Gas J 44: 266-7+ Mr 30 '46

See also

Petroleum—Mud fluids

also American association of oilwell drilling contractors

Cost

Capital expenditures in the oil-well drilling industry. D. I. Siskind. il Dom Comm 34: 38-43 Ag '46

Trends in drilling costs in California. R. W. Marshall and R. C. Sharp. Pet Eng (Ref annual) 17:61+ Jl 1 '46

Sampling

Field effective permeabilities and shot well radii. S. T. Yuster. Pennsylvania State College Mineral Industries Exp Sta Bul 41: 43-64 '46

Investigation of factors that affect fluid flow in porous media. R. Sneddon. il Pet Eng 17:55-8 Ja '46

New method for measurement of oil saturation in cores; abstract. R. L. Boyer and others. diag Oil & Gas J 45:90+ O 5 '46

Porosity of drill cuttings tested by new method. M. A. Westbrook and J. F. Redmond. il diag Oil & Gas J 44:127-9 Ap 6 '46

Predictions of behavior in air-gas drive. R. J. Day and S. T. Yuster. Pennsylvania State College Mineral Industries Exp Sta Bul 41:31-42 '46

Special diamond coring recovers nearly 100 per cent in lime formations. K. B. Barnes. il diag Oil & Gas J 44:98-101 N 24 '45

Wax saturation in oil sands. J. C. Calhoun and S. T. Yuster. bibliog Pennsylvania State College Mineral Industries Exp Sta Bul 41:5-20 '46

Well drilling, Indoor

Seaboard explores Los Angeles city area; enclosed drilling equipment. R. Sneddon. il Pet Eng 17:147+ N '45

Well drilling, Subaqueous

Oil from Davy Jones' locker. R. M. Hyatt. Pub Util 37:477-82 Ap 11 '46

Portable mast takes to water. P. C. Courtney. il Oil & Gas J 44:141-2 Ap 20 '46

Possibilities and problems of drilling beyond the continental shelves. H. E. Gross. bibliog map diags Pet Eng 18:186+ O '46; Excerpts. Oil & Gas J 44:57 Mr 2 '46

See also

Petroleum—Tideland development

Well liners

Shell runs new well-screening device. W. S. Crake diags Oil & Gas J 45:65-6 O 5 '46

Well logging

Investigation of oil well cementing. A. J. Teplitz and W. E. Hassebroek. bibliog Pet Eng (Ref annual) 17:114+ Jl 1 '46

Vets attend short refresher course in well logging. E. H. Short, jr. il diag Oil & Gas J 44:73-5 Mr 23 '46

Well logging methods. H. Guyod. Pet Eng 17: 62+ Ag '46

Well logging methods studied at Texas A & M. H. Guyod. Pet Eng 17:218 Ap '46

Well pressure

Behavior of water-input wells. P. A. Dickey and K. H. Andresen. bibliog Oil & Gas J 44:205-6+ N 17 '45

Determining weighted average bottom-hole pressure in east Texas field. L. J. Meyer. map Oil & Gas J 44:67-8+ D 1 '45

Electronic analyzer predicts pressure behavior of oil reservoirs; offered royalty free. il Nat Pet N 38:51-2 My 8 '46

Extending the application of electric analogy in oil reservoir studies; abstract. H. Schaefer. Oil & Gas J 45:90 O 5 '46

Oil-pool analyzer. W. A. Bruce. bibliog il Oil & Gas J 45:90-2 My 11 '46

Problems encountered in drilling abnormal pressure formations. E. Cannon and R. S. Sullins. Oil & Gas J 45:120+ My 25 '46

Warm-worked casing, new oil country product, resistance to pressure. J. J. Dunn. Pet Eng 17:96+ S '46

Well records

Oil yield per acre-foot may guide well spacing; importance of adequate records. K. M. Fagin. Pet Eng 17:72+ D '45

PETROLEUM—*Continued*

Well spacing

Effect of well spacing on oil recovery. R. C. Craze and S. E. Buckley. Oil & Gas J 45: 97+ Ag 24 '46

Effect of well spacing on water flood operations and economics. K. M. Fagin. il map Pet Eng 17:64+ Je '46

Kansas orders 20-acre spacing for wells less than 4,000 ft. Oil & Gas J 44:57 My 4 '46

Oil yield per acre-foot may guide well spacing; importance of adequate records. K. M. Fagin. Pet Eng 17:72+ D '45

Proposed bill would establish spacing regulations in Kentucky. H. David. Oil & Gas J 44:71 Mr 23 '46

Relation between well spacing and recovery. W. V. Vietti and others. bibliog diag Oil & Gas J 45:77-8+ Je 1 '46; Same. Pet Eng (Ref annual) 17:51-60 Jl 1 '46

Well-interference studies are important in spacing, drainage problems. K. B. Barnes. bibliog Oil & Gas J 44.92-4 Ap 13; 136-9 Ap 20; 107-8+ My 4; 45:120-1+ My 18 '46; Discussion. J. H. Abernathy and others. 45:73+, Jl 20; 110-12 Ag 10 '46

Well surveying

Shooting at a target three miles down. R. Sneddon. il Pet Eng 17:116+ F '46

Well testing

Annulus method of locating water in oil well. J. S. Hagestad. Pet Eng 17:198+ D '45

Proposed design for field-testing unit; equipment and its arrangement in commercial vehicle. M. S. Watson, jr. plan diags Pet Eng 17:84+ Je '46

Well-interference studies are important in spacing, drainage problems. K. B. Barnes. bibliog Oil & Gas J 44:92-4 Ap 13; 136-9 Ap 20; 107-8+ My 4; 45:120-1+ My 18 '46

Why well tests must be made accurately. K. M. Fagin. Pet Eng 17:75-6 Mr '46

Well tubing

Tubing corrosion in the Erath field; abstract. W. D. Yale. Oil & Gas J 45:92 My 18 '46

Alabama

Pre-Selma upper cretaceous stratigraphy of western Alabama. W. H. Monroe and others. map diags Am Assn Pet Geologists Bul 30:187-212 F '46

Vick formation of pre-Tuscaloosa age of Alabama coastal plain. L. C. Conant. bibliog map Am Assn Pet Geologists Bul 30:711-15 My '46

See also

Petroleum industry and trade—Alabama

Alaska

Arctic oil exploration; transporting, setting up, and maintaining radio communications. J. H. Roberts. il map Radio N 35:25-8 Mr '46

Far northern oil. map Bsns W p31-2+ Jl 6 '46

House approves program to develop Naval reserve no. 4 in Alaska. H. D. Ralph. Oil & Gas J 45:39 Je 1 '46

Navy continues oil exploration work on petroleum reserve no. 4 in Alaska. Nat Pet N 38:30 Ja 23 '46

Recent investigations by United States geological survey of petroleum possibilities in Alaska. J. C. Reed. il 4pls maps Am Assn Pet Geologists Bul 30:1433-43 S '46

Seabees who drilled Point Barrow, Alaska, Umiat well fought cold, mud but found oil. P. Wollstadt. Nat Pet N 37:14 N 14 '45

U.S. navy seeks new oil reserves in Alaska. il map Pet Eng 17:214+ Ja '46

Alberta

Cretaceous stratigraphy of Vermilion area. A. W. Nauss. bibliog map diags Am Assn Pet Geologists Bul 29:1605-29 N '45

Appalachian area

Developments in Appalachian area in 1945. maps Am Assn Pet Geologists Bul 30:861-78 Je '46

West Virginia Geological survey collection of drill cuttings. J. H. C. Martens and F. W. Truscott. Am Assn Pet Geologists Bul 30: 350-2 Mr '46

Argentina

San Pedro oil field, province of Salta, northern Argentina. L. C. Reed. maps Am Assn Pet Geologists Bul 30:591-605 Ap '46

Arizona

Developments in Arizona, western New Mexico, and northern New Mexico in 1945. R. L. Bates. map Am Assn Pet Geologists Bul 30: 958-62 Je '46

Arkansas

Developments in south Arkansas and north Louisiana in 1945. W. S. Hoffmeister and V. D. Robinson. maps Am Assn Geologists Bul 30:1007-19 Je '46

Brazil

Brazil shows good geologic possibilities of commercial quantities of petroleum. K. J. Langley. il Oil & Gas J 44:162-4 D 29 '45

California

Developments in California in 1945. G. B. Moody. maps Am Assn Pet Geologists Bul 30:829-50 Je '46

Drilling in California's West Newport field. W. E. Dunlap and A. L. Hunter. plan diags Oil & Gas J 45:95-6+ Ag 10 '46

Mineralogy of late upper cretaceous, paleocene, and eocene sandstones of Los Banos district, west border of San Joaquin valley, S. N. Daviess. bibliog map diag Am Assn Pet Geologists Bul 30:63-83 Ja '46

North Coles Levee pressure maintenance project control of gas expansion. W. J. Travers, jr. diags Pet Eng (Ref annual) 17:144+ Jl 1 '46; Same abr. Oil & Gas J 45:91+ Jl 20 '46

Production report, Salt Creek pool. H. S. Norman. Oil & Gas J 45:136+ O 19 '46

Canada

Development in Canada in 1945. G. S. Hume. maps Am Assn Pet Geologists Bul 30:851-60 bibliog(p857+) Je '46

China

Mineral resources of China. V. C. Juan. bibliog map Econ Geol 41:419-24 pt 2 Je '46

Universal oil products co. to play part in petroleum refining industry in China. Chem & Eng N 24:359 F 10 '46

Colombia

Geology of Maracaibo basin, Venezuela. F. A. Sutton. bibliog maps diags Am Assn Pet Geologists Bul 30:1621-1741, fold map(pl 1) pl 2-9 O '46

Colorado

Colorado gusher; Rangely field. il map Bsns W p22+ Ag 31 '46

Correlation of paleozoic rocks across Las Animas arch in Baca, Las Animas, and Otero counties, Colorado. J. C. Maher. map diag Am Assn Pet Geologists Bul 30:1756-63 O '46

Gramp's field, Archuleta county, Colorado. W. A. Waldschmidt. Am Assn Pet Geologists Bul 30:561-80, pl 1-4 Ap '46

List of wells; well sample collection, the Colorado school of mines. E. Wirges, comp. 61p pa Colorado school of mines, Golden, Colo. '46

Oil rush on in northwest Colorado. il Pet Eng 17:224 Ja '46

Rangely, one-time shallow field, now Rocky Mountains' most active area. C. R. Thomas. bibliog map diag Oil & Gas J 44: 90-2+ N 24 '45

Selected well logs of Colorado; report of investigations conducted under the Petroleum division of the Colorado industrial development research, House bill no. 575. C. F. Barb. fold map Colorado School of Mines [Golden] Quarterly 41 no 1:1-435 Ja '46 (pa $2)

See also

Petroleum industry and trade—Colorado

PETROLEUM—*Continued*

Ecuador

Geology of the Guayaquil estuary, Ecuador. G. Sheppard. 5pls diags Inst Pet J 32:492-511 bibliog(p511); Discussion. 512-14 Ag '46

Egypt

Cradle of civilization scene of oil search by Standard of Egypt. W. W. Burns. il Oil & Gas J 45:95-6 O 19 '46

Europe

Oil fields of Carpathian region. R. P. Walters. maps Am Assn Pet Geologists Bul 30:319-36 Mr '46

Florida

Two promising tests revive interest in Florida wildcatting. H. David. map Oil & Gas J 45:50+ Je 1 '46

France

Petroleum geology of Aquitaine basin, France. A. J. Eardley. bibliog maps Am Assn Pet Geologists Bul 30:1517-45 S '46

Les recherches de pétrole dans les Petites Pyrénées; l'utilisation du gaz naturel. Marceau. bibliog map Génie Civil 123:126-9 My 15 '46

Germany

Status of German oil fields. F. Reeves. bibliog maps diags Am Assn Pet Geologists Bul 30:1546-84 S '46

Great Britain

Geological occurrence of oil in United Kingdom with reference to present exploratory operations. H. R. Lovely. fold chart maps Am Assn Pet Geologists Bul 30:1444-1516 S '46

Illinois

Deep development in Illinois basin poses drilling problems for operators. N. Williams. il map Oil & Gas J 45:85-6+ S 14 '46

Developments in Eastern Interior basin in 1945. A. H. Bell. map Am Assn Pet Geologists Bul 30:879-85 Je '46

Rosiclare-Fredonia contact in and adjacent to Hardin and Pope counties. F. E. Tippie. il diags map Am Assn Pet Geologists Bul 29:1654-63 N '45

Indiana

Deep development in Illinois basin poses drilling problems for operators. N. Williams. il map Oil & Gas J 45:85-6+ S 14 '46

Developments in Eastern Interior basin in 1945. A. H. Bell. map Am Assn Pet Geologists Bul 30:879-85 Je '46

Kansas

Buried pre-Cambrian hills in northeastern Barton county, central Kansas. R. F. Walters. maps fold pl Am Assn Pet Geologists Bul 30:660-710 My '46

Developments in North Mid-continent in 1945. V. B. Cole and E. A. Koester. Am Assn Pet Geologists Bul 30:895-901 Je '46

Kinderhook dolomite of Sedgwick county, Kansas. W. A. Ver Wiebe. diags Am Assn Pet Geologists Bul 30:1747-55 O '46

Siluro-Devonian strata in central Kansas. H. Taylor. 4 pls maps diags Am Assn Pet Geologists Bul 30:1221-54 Ag '46

Well-interference effects tested on 83 wells in six different areas in Kansas at distances that varied from 660 to 2,640 feet. K. B. Barnes. Oil & Gas J 44:136-9 Ap 20 '46

Kentucky

Developments in Eastern Interior basin in 1945. A. H. Bell. map Am Assn Pet Geologists Bul 30:879-85 Je '46

Kuwait

Geophysical operations in Kuwait. P. H. Boots and A. H. McKee. il Pet Eng 18: 155+ O '46

Gulf finds high fuel-oil yield in refining Kuwait crude. il Oil & Gas J 45:162 S 21 '46

Latin America

Caribbean and Middle East enlarge stature as oil sources. W. W. Burns. Oil & Gas J 44:276 Ja 26 '46

Louisiana

Developments in Louisiana Gulf Coast in 1945. F. W. Bates and J. B. Wharton, jr. map Am Assn Pet Geologists Bul 30:999-1006 Je '46

Developments in south Arkansas and north Louisiana in 1945. W. S. Hoffmeister and V. D. Robinson. maps Am Assn Pet Geologists Bul 30:1007-19 Je '46

Is Delhi only the first of many? Oil & Gas J 45:155 Je 15 '46

Michigan

Developments in Michigan in 1945. H. J. Hardenberg. map Am Assn Pet Geologists Bul 30:886-94 Je '46

Near East

Caribbean and Middle East enlarge stature as oil sources. W. W. Burns. Oil & Gas J 44:276 Ja 26 '46

Oil and diplomacy; petroleum reserves a basic issue in Iranian dispute. map Bsns W p17-18 Ap 6 '46

Russia, oil, and power in the Middle East. Min & Met 27:251-2 My '46

Nebraska

Boice shale, new Mississippian subsurface formation in southeast Nebraska. E. C. Reed. Am Assn Pet Geologists Bul 30:348-9 Mr '46

Developments in North Mid-continent in 1945. V. B. Cole and E. A. Koester. Am Assn Pet Geologists Bul 30:895-901 Je '46

New Mexico

Developments in Arizona, western New Mexico, and northern New Mexico in 1945. R. L. Bates. map Am Assn Pet Geologists Bul 30:958-62 Je '46

Developments in west Texas and southeastern New Mexico in 1945. E. H. Woods and others. bibliog map Am Assn Pet Geologists Bul 30:930-57 Je '46

Future oil possibilities of New Mexico. R. L. Bates. map diag Oil & Gas J 44:52-4+ F 2 '46

Stratigraphy and oil-producing zones of the pre-San Andres formations of southeastern New Mexico. R. E. King. bibliog New Mexico School of Mines, State Bur of Mines and Mineral Resources (Socorro) Bul 23:1-34, pl 1-3 '45 (pa 50c)

North Carolina

East coast oil; still sought off Carolina shores. Sci Am 175:14 Jl '46

Oklahoma

Developments in Oklahoma in 1945. J. L. Borden. map Am Assn Pet Geologists Bul 30: 902-11 Je '46

Persia

Appraisal of Iranian oil. L. S. Thompson. il maps Oil & Gas J 45:64-8 Je 29 '46

Rocky Mountain region

Developments in Rocky Mountain region in 1945. E. W. Krampert. bibliog Am Assn Pet Geologists Bul 30:912-24 Je '46

Russia

Baku's crisis. Fortune 34:216 Jl '46

L'Institut des combustibles minéraux de l'Académie des sciences de l'U.R.S.S. Génie Civil 123:115 My 1 '46

Russian oil squeeze. Fortune 33:195 F '46

South America

Tectonic framework of northwestern South America. F. E. von Estorff. bibliog maps Am Assn Pet Geologists Bul 30:581-90 Ap '46

Southeastern states

Developments in southeastern states in 1945. C. W. Alexander. map Am Assn Pet Geologists Bul 30:1020-50 Je '46

Texas

Determining weighted average bottom-hole pressure in east Texas field. L. J. Meyer. map Oil & Gas J 44:67-8+ D 1 '45

Development economics of Hawkins oil field. K. M. Fagin. map Pet Eng 17:92+ Ag '46

PETROLEUM—Texas—*Continued*
Development in south Texas in 1945. B. Scrafford. map Am Assn Pet Geologists Bul 30:972-9 Je '46
Developments in east Texas during 1945. T. H. Shelby, jr. and G. J. Loetterle. map Am Assn Pet Geologists Bul 30:980-90 Je '46
Developments in north and west-central Texas in 1945. map Am Assn Pet Geologists Bul 30:63-71 Je '46
Developments in Texas Panhandle in 1945. P. A. Montgomery, jr. and L. Fugitt. bibliog Am Assn Pet Geologists Bul 30:925-9 Je '46
Developments in upper Gulf Coast of Texas in 1945. D. M. Davis and C. F. Beilharz. map Am Assn Pet Geologists Bul 30:991-8 Je '46
Developments in west Texas and southeastern New Mexico in 1945. E. H. Woods and others. bibliog map Am Assn Pet Geologists Bul 30:930-57 Je '46
Devonian(?) producing zone, TXL pool, Ector county, Texas. M. David. Am Assn Pet Geologists Bul 30:118-19 Ja '46
Discoveries and development of west Texas; pre-Permian reaching major proportions. C. J. Deegan. maps Oil & Gas J 44:139+ F 23 '46
Geology of Katy field, Waller, Harris, and Ford Bend counties. A. P. Allison and others. maps Am Assn Pet Geologists Bul 30:157-80 F '46
Island of indeterminate size attracts oil hunters; Padre island, Texas. map Bsns W p22 Jl 20 '46
Merigale field, Wood county. A. C. Wright. map Am Assn Pet Geologists Bul 29:1779-80 D '45
Mississippian oil in Permian basin. Oil & Gas J 45:105 N 2 '46
Permian Pease River group of Texas. R. Roth. bibliog maps Geol Soc Bul 56:893-907. pl 1-8 O '45
Pickton field, Hopkins county. T. H. Shelby, jr. map Am Assn Pet Geologists Bul 29: 1777-9 D '45
TXL is representative of new pre-Permian fields; promises major reserve. G. Weber. il map diag Oil & Gas J 45:81-2+ Ag 24 '46
See also
Petroleum industry and trade—Texas

United States
Wells 12,000 feet and deeper; with tabulated data. E. Adams. map Pet Eng 17:93-4+ Ja '46
See also
Petroleum industry and trade—United States
Petroleum supply—United States

Venezuela
Geology of Maracaibo basin, Venezuela. F. A. Sutton. bibliog maps diags Am Assn Pet Geologists Bul 30:1621-1741, fold map(pl 1) pl 2-9 O '46

PETROLEUM administration for war. See United States—Petroleum administration for war

PETROLEUM coke
Cat-cracking feed stock improved by delayed coking. R. B. Tuttle. flow diag Oil & Gas J 44:109 Ap 6 '46
Coking of hydrocarbon oils. G. Armistead, jr. bibliog diags Oil & Gas J 44:103+ Mr 16 '46
Company finds outlet for petroleum coke; Union oil company of California. R. Sneddon. il Pet Eng 17:69+ Ag '46
Decoking heater tubes with steam, air saves time, gives satisfactory results. diag Nat Pet N 38 pt 2:R577-8 Ag 7 '46
Furnace tube decoking with steam and air. H. Bottomley. diags Pet Refiner 25:109-10 Ag '46
Hydraulic decoking; abstract. A. V. Welsh. Oil & Gas J 45:99 O 12 '46
New coking unit adds versatility, increases yields at Pure's refinery. A. L. Foster. flow diags il Oil & Gas J 45:74-6+ S 7 '46
Thermal cracking of petroleum; effect of time, temperature, pressure, and type of charging stock on products. H. C. Sung, G. G. Brown and R. R. White. bibliog Ind & Eng Chem 37:1153-61 D '45

PETROLEUM cooperative associations
Consumers co-operative assn. reports new records set in business volume for '44-'45. Nat Pet N 38:36 Ja 2 '46
Co-op challenges private business with station clean-up and service campaign. Nat Pet N 38:64+ Mr 13 '46
Co-op plans to expand operations in the petroleum industry. H. A. Cowden. Nat Pet N 38:30+ Ag 28 '46
Co-ops make big plans for the future. E. Lamm. il Nat Pet N 38:32-4 Ja 30 '46
National Co-op meeting sets up groundwork for huge expansion; urges world oil co-op. Nat Pet N 38:24 S 18 '46

PETROLEUM distillation
Allowable radiant absorption rates. W. L. Nelson. Oil & Gas J 45:305 S 21 '46
Application of experimental vapor-liquid equilibria to an analysis of the operation of a commercial unit for the purification of toluene from petroleum. H. G. Drickamer and H. H. Hummel. diags Am Inst Chem Eng Trans 41:607-29 O '45
Application of fluid catalytic cracking in present refinery operations; with cost data. D. Read. Oil & Gas J 44:243-4+ Mr 30 '46
Avon fluid catalytic cracking plant continues longest run. C. K. Viland. il Pet Eng 17: 131-2+ My '46
Basic petroleum chemistry for refinery employes. J. J. Stradtherr. bibliog diags Pet Refiner 25:131-3 Je; 109-14 Jl; 136-42 Ag '46
Carrier distillation process; simplified flow diagram. W. L. Nelson. Oil & Gas J 45: 103+ Je 29 '46; Discussion (Reboiling by circulating a residue.) 45:96 Ag 3 '46
Cat-cracking feed stock improved by delayed coking. R. B. Tuttle. flow diag Oil & Gas J 44:109 Ap 6 '46
Catalytic cracking for production of motor gasoline. G. Armistead, jr. bibliog il diag Oil & Gas J 44:60-3+ Mr 2 '46
Catalytic cracking of pure hydrocarbons; cracking of naphthenes. B. S. Greensfelder and H. H. Voge. bibliog Ind & Eng Chem 37:1038-43 N '45
Catalytic refining. flow charts il Oil & Gas J 44:136-66 Mr 30 '46
Conditions for maximum topping-tower capacity. W. L. Nelson. Oil & Gas J 44:293 N 17 '45
Control of fractionation columns. D. M. Boyd, jr. diags Pet Refiner 25:147-51 Ap '46
Cracking of heavy petroleum stocks over heated surfaces. A. Y. Larin. diags Nat Pet N 38 pt 2:R286+ Ap 3 '46
Cracking of paraffins; abstract. R. C. Hansford. Oil & Gas J 45:60 S 14 '46
Desulfurization and superfractionation make products of high octane number. T. W. Legatski and H. R. Legatski. flow charts il diag Oil & Gas J 45:99-100+ My 11 '46; Same. Pet Refiner 25:109-12 My '46
Developments in fluid catalytic cracking. J. F. Walter. flow diag diag Inst Pet J 32:295-303; Discussion. 303-12 Je '46
Efficient operation obtained in east Texas refinery; Independent refining company. L. S. Daniels. il diag Pet Refiner 25:104-8 Jl '46
Fluid-catalyst technique. L. S. Daniels. il diags Pet Refiner 25:109-16 S '46
Fractional distillation. R. R. White. diags Pet Processing 1:151-5+ O; 230+ N '46
Heat absorption and radiant section. W. L. Nelson. Oil & Gas J 45:111 S 28 '46
Heat balance of pipe stills. W. L. Nelson. Oil & Gas J 45:111 O 5 '46
Instrumenting the fractionator for a catalytic cracking unit. flow diag Pet Processing 1: 52-4 S '46
Liquid-charge technique in TCC processing. T. P. Simpson and others. bibliog flow diags il diags Am Pet Inst Proc 25(3):43-52 '45; Same. Pet Refiner 24:110-16 N '45; Same, without diags. Oil & Gas J 44:119+ N 24 '45; Same cond. Nat Pet N 37 pt 2: R977+ D 5 '45

PETROLEUM distillation—*Continued*

Mechanism of catalytic cracking; abstract. R. C Hansford. Pet Processing 1.147 O '46

Mechanism of flow in fluid catalyst cracking. H. P. Wickham. flow sheet il diags Mech Eng 68:237-40 Mr '46

Modern refining processes; gas reversion and polyform processes. G. Armistead, jr. diags Oil & Gas J 45:189+ Jl 27 '46

Newly developed process secures pure hydrocarbons from petroleum; Distex process. flow diags Nat Pet N 38 pt 2 R283-4 Ap 3 '46

No peace for fractionators. P. J. Harrington and others. diag Am Pet Inst Proc 25(3): 9-14 '45; Same. Oil & Gas J 44:135-7+ N 24 '45; Same. Nat Pet N 37 pt 2:R965-6+ D 5 '45; Same. Pet Refiner 24:114-18 D '45

Pipe-still combustion charts. W. L. Nelson. Oil & Gas J 45:127 Ag 24 '46

Pure hydrocarbons from petroleum; composition and separation of a straight-run heptane fraction by the Distex process. J. Griswold and C. F. Van Berg. flow diag il diag Ind & Eng Chem 38:170-7 F '46

Pure hydrocarbons from petroleum; separation of straight-run fractions by Distex process. J. Griswold and others. bibliog flow diags Ind & Eng Chem 38:65-70 Ja '46

Routing of fluids. W. L. Nelson. diag Oil & Gas J 44:91 Mr 2 '46

Simplified design for precise fractionation of light hydrocarbons. F. H. Stone. flow diag il Pet Refiner 25:124-8 Ap '46

Simplified flow diagram; Brugma distillation process. W. L. Nelson. Oil & Gas J 44:123 Ap 27 '46

Some mechanical difficulties of high temperatures cracking and suggested solutions; abstract. E. W. Griscom diag Oil & Gas J 45:88 O 12 '46

Synthesis of toluene by hydroforming and recovery by azeotropic distillation. F. L. Hartley. flow diags Pet Eng 17:156+ D '45

Testing of cracking catalysts; abstract. M. E. Conn and G. C. Connolly. Pet Processing 1: 148 O '46

Thermal cracking of petroleum; effect of time, temperature, pressure, and type of charging stock on products. H. C. Sung, G. G. Brown and R. R. White. bibliog Ind & Eng Chem 37:1153-61 D '45

Topping-plant economy. W. L. Nelson. diag Oil & Gas J 44:147-8 N 24 '45

Turnarounds in fluid catalytic cracking units. L. R. Hill and J. W. Moorman. il Pet Eng 17:98+ F '46

Vacuum distillation, chemical treating make quality lubricating oils. A. L. Foster. flow chart il Oil & Gas J 45:78-9+ S 28 '46

Vapor-liquid equilibria in phenol-hydrocarbon systems. H. G. Drickamer and others. bibliog(p603) diags Am Inst Chem Eng Trans 41:555-605 O '45

Vapor phase oxidizing cracking of oil products. L. I. Berents and V. E. Glushnev. bibliog Nat Pet N 37 pt 2:R912+, R1014-16+ N 7, D 5 '45

See also

Houdry process
Oil shales—Distillation
Petroleum refineries
Petroleum refining

Tables, calculations, etc.

Calculation of minimum reflux ratio for multicomponent distillation. F. D Mayfield and J. A. May. bibliog diags Pet Refiner 25: 101-8 Ap '46; Correction. 25:140 O '46

Pipe still transfer line. W. L. Nelson. Oil & Gas J 45:85-6 O 5 '46

PETROLEUM engineering

Abstracts of papers presented at A.I.M.E. Petroleum division meeting, Chicago, Feb. 24-28. Oil & Gas J 44:57-9 Mr 2 '46

AIME, Petroleum division meeting, Galveston, abstracts of papers. Oil & Gas J 45: 88-90+ O 5 '46

A.I.M.E. Petroleum division meeting, Los Angeles, Oct. 24-25; abstracts of papers. Oil & Gas J 45:110+ O 26; 53+ N 2 '46

A.S.M.E. meeting, Tulsa, conference on petroleum mechanical engineering. Oil & Gas J 45:88-9+ O 12 '46

Application of laboratory data on phase behavior to evaluation of condensate reserves. E. W. McAllister. Pet Eng 17:90+ D '45; Same. Oil & Gas J 44:92+ F 9 '46

Application of petroleum engineering to drilling and production work. B. Thomas. Pet Eng (Ref annual) 17:174+ Jl 1 '46

Development economics of Hawkins oil field. K. M. Fagin. map Pet Eng 17:92+ Ag '46

Difficult drilling and high costs attend development of Rangely field. N. Williams. il Oil & Gas J 44:44-5+ D 22 '45

Efficient deep development program is demonstrated in Russell field, west Texas. E. H. Short, jr. il diag Oil & Gas J 44:126-7 F 23 '46

Engineering activity is at high peak. K. B. Barnes. il Oil & Gas J 45:153+ Jl 27 '46

Engineering developments in southwest Texas. J. W. Crutchfield and H. T. Pruett. Pet Eng 18:208+ O '46

First Cadman memorial lecture. W. Fraser. 4pls maps Inst Pet J 32.241-55 My '46

Impact of wartime conditions on the petroleum producing industry. L. C. Uren. Pet Eng 17:203-4+ Ja '46

Oklahoma at important threshold with new deep pools. K. B. Barnes. bibliog diags Oil & Gas J 44:76-80 D 8 '45

Operations in world's highest field; Wilson Creek field. N. Williams. il Oil & Gas J 44:84-7 Ap 13 '46

Practical application of geology to reservoir analysis. W. W. Wilson. maps diags Pet Eng 17:152+ S '46

Production engineering; improvement in details of technique and equipment. E. G. Trostel. Min & Met 27:115-16 F '46

Technology factor in South American oil development. W. A. Sawdon. il map Pet Eng 18:57-60 O '46

Trends and developments in petroleum production engineering. S. E. Buckley. bibliog Am Assn Pet Geologists Bul 30:1131-9 Jl '46; Same. Pet Eng (Ref annual) 17:154+ Jl 1 '46

See also

Petroleum—Production methods
Petroleum—Prospecting
Petroleum—Pumping
Petroleum—Well drilling
Petroleum distillation
Petroleum pipe lines
Petroleum refining

Accounting

Investment, present value and payout for uniform rates of production. P. J. Jones. Oil & Gas J 44:89+ Ja 12 '46

Optima for a given producing and operating method investment, producing rate and present value. P. J. Jones. Oil & Gas J 44:94+ F 16 '46

Power

Combination drive adapted to unitized drilling power plant. N. Williams. il plan diag Oil & Gas J 45:83-4+ Je 29 '46

Diesels and the oil industry. A. W. McKinney. Diesel Power 24:853+ Jl '46; Same. Pet Eng 17:221 Je '46

Engineering refinements feature new heavy rig. G. Weber. il Oil & Gas J 45:95-6+ My 11 '46

Hydraulic torque converters and couplings. N. A. D'Arcy, jr. il Pet Eng 17:68+ N '45

Improved layout for steam drilling rig. W. J. Davis. il diags Pet Eng 17:104+ Mr '46

Independent turbo-electric rotary drive for steam rig. C. H. Eckel and K. M. Fagin. il diag Pet Eng 17:82+ Ap '46

Large rig pneumatically controlled. K. M. Fagin. il Pet Eng 17:51-4 My '46

Maintenance procedure in field for internal-combustion engines. L. Billington. il Pet Eng 17:74+ S '46

Modern deep well drilling rigs Dieselized. M. D. Pugh. il Diesel Power 24:584-7 My '46

Modern Diesel-electric drilling rig equipment. T R. Rhea. bibliog il diags Elec Eng 65: Trans 447-53 Jl '46

Multispeed rig gives high flexibility between rotary table and pumps. K. B. Barnes. il Oil & Gas J 45:133-4 Je 15 '46

Oil rush on in N.W. Colorado. il Diesel Power 24:864+ Jl '46

Packaged power features new rig design. K. B. Barnes. il Oil & Gas J 45:207+ Jl 27 '46

Selection of internal-combustion engines for field use. J. Moon. Pet Eng 17:57-8 S '46

PETROLEUM engineering—Power—*Continued*
Trinity's big rig capable of drilling to 20,000 ft. in west Texas area. E. H. Short, jr. il Oil & Gas J 44:90-1 F 16 '46

See also
Petroleum—Pumping, Electric
Petroleum pipe lines—Pumping stations, Electric

Radio communication

FM radio takes to the oil fields. G. Weber. il diag Oil & Gas J 45:62-4+ O 5 '46

Safety measures

For safety, use safety factor. H. W. Boggess. diags Oil & Gas J 45:119 My 25 '46

See also
Petroleum industry and trade—Safety measures
Petroleum refineries—Safety measures

Study and teaching

Adoption of educational standards and fundamental textbook recommended. B. C. Craft. Min & Met 27:123 F '46

Tables, calculations, etc.

Behavior of water-input wells. P. A. Dickey and K. H. Andresen. bibliog Oil & Gas J 44:205-6+ N 17 '45
Period of development. P. J. Jones. Oil & Gas J 44:102+ N 24 '45
Petroleum engineer's continuous tables. Published in monthly numbers of Petroleum engineer
Practical petroleum engineering; fluid flow; graphic solutions of design problems (cont). P. Buthod and B. W. Whiteley. charts Oil & Gas J 44:76-7+ D 1; 92-3+ D 8; 112-14 D 15; 70-2 D 22; 305-8 D 29 '45; 74-6 Ja 5 '46

PETROLEUM engineering committees
Function and use of petroleum engineering committees. D. V. Carter. bibliog map Pet Eng 17:88+ Jl; 74+ Ag; 128+ S '46; Same cond. Oil & Gas J 44:92+ Mr 23 '46
Operation and cost of an engineering cooperative. A. M. Crowell. Pet Eng 17:136+ S '46; Same cond. Oil & Gas J 44:101-2 Mr 23 '46
Petroleum engineering committees; their present activities and their potentialities. D. V. Carter. Oil & Gas J 44:92+ Mr 23 '46

PETROLEUM equipment industries
British loan terms aid world trade; oil equipment exports to rise. H. D. Ralph. map Oil & Gas J 45:122-3 Jl 27 '46
Huge oil-well-supply center under construction in Houston. plan Oil & Gas J 45:90 S 28 '46

PETROLEUM geologists. See Geologists, Petroleum

PETROLEUM industry and trade
Address before Missouri independent oil jobbers assn. B. L. Majewski. Nat Pet N 38:34+ F 27 '46
Impact of wartime conditions on the petroleum producing industry. L. C. Uren. Pet Eng 17:203-4+ Ja '46
Oil companies content to be chemical suppliers; researchers open new lines, but big firms stick to fuel. G. B. Walker. Barron's 26:23 S 16 '46
Oil industry outlook. M. Pescatello. Comm & Fin Chr 163:972+ F 21 '46
Petroleum industry facing new problems and opportunities. J. D. Gill. Min & Met 27: 120-1 F '46
Petroleum industry in 1945. B. K. Brown. Chem & Eng N 24:330-3 F 10 '46
Postwar issues in the petroleum industry. W. H. Voskuil. bibliog Ill U Bur of Econ and Business Res, Business Studies 3:1-32 '46
President's address. W. R. Boyd, jr. Am Pet Inst Proc 25(1):12-15 '45
Second conference of oil trade-association executives on public relations. Am Pet Inst Proc 25(1):87-106 '45
Statements forecast active year ahead, with reservations. Oil & Gas J 44:47-8 Ja 5 '46
Ten-year forecast of world oil picture is optimistic; abstract. H. W. Page. Oil & Gas J 44:50 Mr 9 '46
Valediction; war accomplishments and future of oil. R. K. Davis. Am Pet Inst Proc 25(1):16-19 '45; Same cond. Nat Pet N 37: 7-9 N 21 '45

See also
Electricity in the petroleum industry
Gasoline industry
Oil fuel industry
Petroleum laws and regulations
Petroleum supply

Accidents

None of them just happened; oil-well drilling accidents. il Nat Safety N 54:28-9+ S '46

Accounting

Oil accounting. J. D. Farnan. Pet Eng 17: 237-8+ S; 18:204+ O '46
Provisions of income tax law and regulations affecting owners of oil and gas properties. F. T. Terry. J Account 81:217-26 Mr '46; Discussion (Taxation of oil and gas properties; depletion allowance). 82:333-4 O '46

See also
Petroleum engineering—Accounting
Petroleum refineries—Accounting

Costs

Cost of discovering new petroleum reserves continued to increase in 1945. H. J. Struth. Pet Eng 17:51-6+ F '46
Curves summarize investment and operating costs for water-injection plants. L. T. Gibbs. il Oil & Gas J 44:74+ Mr 2 '46
Electric generating plants; discussion of installation costs. J. H. Field. Oil & Gas J 45:106+ Je 22 '46

Employees

See Petroleum workers

Equipment and supplies

Baked-on plastic coatings prevent corrosion; tubular goods and other oil-field equipment. E. H. Short, jr. il Oil & Gas J 45:88-9+ Ag 10 '46
Construction of concrete foundations for oil well derricks and pumping equipment. F. B. Plummer. diags Oil & Gas J 44:103 D 1; 113 D 8; 129 D 15 '45
Corrosion-resisting plastic material applied to oil-field equipment in place. E. H. Short, jr. il Oil & Gas J 44:59-60 D 22 '45
Deeper drilling necessitates that greater emphasis be placed on drill-pipe testing. G. Weber. il Oil & Gas J 45:72-5+ Ag 31 '46
Development, use, and care of drilling equipment. F. F. Murray. Oil & Gas J 45:100 O 5 '46
Development work to prevent corrosion. B. B. Morton. il Pet Eng 17:134+ N '45
Drill-pipe yield strength lowered by severe drilling service. W. O. Clinedinst. il diag Oil & Gas J 45:76-7 N 2 '46
Drilling equipment needs. D. Ragland. Pet Eng (Ref annual) 17:72+ Jl 1 '46
Efficient reconditioning and material handling program developed at warehouse; Phillips petroleum co. P. Reed. il Oil & Gas J 44:81-2+ Ja 12 '46
Electronics in the petroleum industry. V. G. Gabriel. bibliog il diags Pet Eng 17:107+ Je '46
Equipment patents review. diags Pet Processing 1:122+ O '46 [cont monthly]
Improved layout for steam drilling rig. W. J. Davis. il diags Pet Eng 17:104+ Mr '46
Learn the A, B, C's of corrosion if you would get longer life from your equipment. F. A. Prange. il Oil & Gas J 45:88-90+ S 14 '46
Making retired wire lines deliver. H. Allen. il Pet Eng 17:90 Mr '46
Materials of construction in the petroleum industry. T. M. Jasper. Mech Eng 68:423-4+ My '46
Metals and alloys in the petroleum industry. J. H. Wilson. Inst Pet J 32:230-40 Ap '46
Modern pressure-maintenance plants being built in eastern Venezuela. F. R. Staley. flow diag il map Oil & Gas J 44:276-7+ D 29 '45
New rotary tool is used to keep drill pipe free. K. M. Fagin. il diags Pet Eng 18: 272+ O '46
Non-destructive field testing. C. D. Havens. il Pet Eng 17:127-8 Ap '46

PETROLEUM industry and trade—Equipment and supplies—*Continued*
Oil and gas equipment digest (cont). K. B. Barnes and others. il diags Oil & Gas J 44:153-6 N 24; 117-20 D 8; 97-100 D 22 '45; 91-4 Ja 5; 107-10 Ja 19; 95-8 F 2; 135-8 F 16; 99-102 Mr 2; 127-30 Mr 16; 119-22 Mr 23; 125-8 Ap 13; 151-4 Ap 27; 45:131-4 My 11; 145-8 My 25; 109-12 Je 8; 137-40 Je 22; 111-14 Jl 6; 127-30 Jl 20; 111-14 Ag 3; 121-4 Ag 17; 107-10 Ag 31; 109-12 S 14; 115-18 S 28; 115-18 O 12; 131-4 O 26 '46
Permian basin fights corrosion. G. Weber. il diags Oil & Gas J 45:76-7+ S 14 '46
Petroleum industry uses of air cooling. K. D. Demarest. il Pet Eng 17:145+ Ja '46
Plastics in well-remedial work; how an actual job is designed. A. C. Polk, jr. and D. F. Saurenman. il Oil & Gas J 45:154-6 My 18 '46
Pressure-controlled intermitters. G. Weber. il diag Oil & Gas J 45:94-5+ O 26 '46
Proposed design for field-testing unit; equipment and its arrangement in commercial vehicle. M. S. Watson, jr. plan diags Pet Eng 17:84+ Je '46
Scales in oil-producing equipment; their occurrence and causes. L. C. Case. bibliog il Oil & Gas J 45:76-7+ S 28; 68-9+ O 5 '46
Search for gas and oil is aided by welded equipment. il Pet Eng 17:138+ Je '46
Shrink thread drill pipe and tool joints. N. A. Rebarick and C. Swartsfager. il Pet Eng 17:86+ Mr '46
Survey of modern centrifugal pump practice for oilfield and oil refinery services. N. Tetlow. diags Inst Mech Eng J & Proc 150: Proc 121-34 F '44; Discussion. 152:Proc 303-14 D '45
Unitized equipment for pipe-line gathering service. W. Law. il Oil & Gas J 44:290+ N 17 '45

See also
Airplanes in the petroleum industry
Drills, Oil well
Petroleum engineering—Power
Petroleum equipment industries
Petroleum refineries—Equipment

Finance
Amerada plays them close to the chest. il Fortune 33:128-32+ Ja '46
Capital requirements of crude oil production. J. E. Pogue and F. G. Coqueron. Min & Met 27:501-4 O '46
Special charges reduce 1945 earnings. F. J. Sansone. Oil & Gas J 45:109-10 My 18 '46

See also
Gulf oil corporation
Petroleum industry and trade—Securities

Fires and fire protection
Modern fire protection training. R. Sneddon. il diag Pet Eng 17:68+ Ap '46

History
First Cadman memorial lecture. W. Fraser. 4pls maps Inst Pet J 32:241-55 My '46
He drilled the first oil well for Col. Drake; Uncle Billy Smith. Nat Pet N 38:34 Mr 13 '46
History looks at oil. P. H. Giddens. Am Pet Inst Proc 25(1):66-70 '45
Two veteran oil wells. E. Adams. il map Pet Eng 17:100+ N '45

International aspects
Anglo-American oil treaty; an aid in preserving peace. G. A. Miller. Min & Met 27: 18-21 Ja '46
Anglo-American petroleum agreement. A. M. Landon. Comm & Fin Chr 163:1346+ Mr 14 '46
Design for petroleum expansion outside the United States. R. G. Greene. il Oil & Gas J 45:84+ Je 15 '46
Hail and farewell; with discussion of the Anglo-American agreement. H. L. Ickes. Am Pet Inst Proc 25(1):35-40 '45
Increase of 23 per cent forecast in foreign demand by 1950. H. W. Page. il Oil & Gas J 45:68-9+ Jl 20 '46
International petroleum outlook in relation to operations in the United States. C. O. Willson. map Oil & Gas J 45:65-9 Je 8 '46
International politics background of Iranian concession history. L. S. Thompson. il map Oil & Gas J 45:60-3 Ag 31 '46
Misconceptions in oil-treaty language. R. K. Davies. Oil & Gas J 44:86 N 24 '45
Objections to ratification of proposed oil agreement. P. C. Spencer. Nat Pet N 38: 40+ F 13 '46
Oil and diplomacy; petroleum reserves a basic issue in Iranian dispute. map Bsns W p17-18 Ap 6 '46
Oil in the Middle East; Russia needs more production. E. Adams. map Pet Eng 17:93-4+ Ap '46
Oil in United States' foreign policy. J. A. Loftus. map Oil & Gas J 45:74-6 Ag 17 '46
Oil men apprehensive over terms of Russo-Iranian concession. Oil & Gas J 44:70 Ap 13 '46
Oil men who have been in Middle East see compromise now, showdown later. F. P. S. Glassey. Nat Pet N 38:4 Mr 20 '46
Oil on the waters? Economist 150:481-2 Mr 30 '46; Excerpt. Iron Age 157:132+ Ap 11 '46
Oil treaty is not dead, Davies says; Montana opposes Anglo-American oil treaty. Nat Pet N 38:16 Mr 13 '46
Pay-off in Iran; Russia's oil company plan. Bsns W p110 Ap 13 '46
Relative oil strength of major powers. H. M. Tremaine. il map Mag of Wall St 78:84-6+ Ap 27 '46
Rival Middle East oil companies show way to international cooperation. L. S. Thompson. il Oil & Gas J 45:58-60 S 7 '46
Sinclair's views on ratification of oil treaty draw fire. W. W. Burns. Oil & Gas J 44:64 F 9 '46
State department officials promote international oil-control body. Oil & Gas J 45: 58 Ag 24 '46
Top planners of State dept. ANPB air U.S. oil policy. Nat Pet N 38:16-17 Ag 21 '46
UN control of world's oil resources urged by International Co-op group. Nat Pet N 38:41 O 23 '46
U.N. names petroleum adviser amid speculation over world oil-control plans. W. W. Burns. il Oil & Gas J 45:80-1 O 26 '46
World oil picture today. H. M. Tremaine. Mag of Wall St 77:253-5+ D 8 '45
World wide oil organization under UN won't improve U.S. supplies. P. C. Spencer. Nat Pet N 38:26+ S 18 '46

Regulation
See Interstate oil compact commission; Petroleum industry and trade—United States—Government relations; Petroleum laws and regulations

Safety measures
Field safety program developed by American association of oilwell drilling contractors. Pet Eng 17:38 D '45
Fifty oil wells drilled safely; Creole petroleum corp., Caripito, Venezuela. W. E. Moore. il Nat Safety N 52:60 D '45
Mechanical safeguards on equipment. H. W. Boggess. Oil & Gas J 45:81 N 2 '46
Safe field practices. H. W. Boggess. il Oil & Gas J 44:131 Ap 27 '46
Safe practices for hand tools. D. Attaway. il Pet Eng 17:55-8 Ap '46
Safe practices for orifice meter repair and operation. D. Attaway. il Pet Eng 17:47-50 Ag '46
Safety is a way of thinking. G. F. Prussing. Pet Eng 17:247-9 S '46

Securities
Changing oil picture; with position of leading stocks. H. M. Tremaine. Mag of Wall St 77:638-40+ Mr 2 '46
Realistic survey of the oils; with pertinent statistics on petroleum stocks. H. S. Coffin. il Mag of Wall St 78:519-21+ Ag 3 '46

Service
See also
Oil companies—Travel bureaus

PETROLEUM industry and trade—*Continued*

Statistics

Acre-foot recoveries from oil fields. S. F. Shaw. Pet Eng 17:86+ F; 254+ Mr '46
Completions up 7.2 per cent first half. H. David. Oil & Gas J 45:142-5 Jl 27 '46
Exploratory and development drilling, where it occurred and the results; tabulation by states. Oil & Gas J 44:233-4+ Ja 26 '46
Facts, figures and forecasts; drilling, completions, discoveries, production, reserves, refinery operations, natural gas and gasoline. maps Oil & Gas J 44:156-86 Ja 26 '46
14,522 new wells projected for last half of 1946. H. David. Oil & Gas J 45:140-1 Jl 27 '46
International section; statistical survey of world refining and production. maps Oil & Gas J 44:168-82 D 29 '45
Oil demand one fourth greater than in 1941; statistics for first half of 1946. L. J. Logan. Pet Refiner 25:154-6+ Ag '46
Review of exploratory drilling statistics, 1938-1944. F. H. Lahee. bibliog map Am Assn Pet Geologists Bul 29:1581-92 N '45
Trends in petroleum operations. R. J. Gonzalez. Oil & Gas J 44:49 D 22 '45

Taxation

Questions about taxation. S. Thompson. Pet Eng 17:110 F '46
Tax problems of independent operators; questions and answers. S. Thompson. Pet Eng 17:252 Mr '46

Terminology

List of definitions. Inst Pet J 30:266-70; 31: 188-90; 32:289-91 S '44, Je '45, My '46

War problems

America's oil industry saw a transportation miracle while a global war demanded its products swiftly and surely. W. A. Jones. Nat Pet N 37:18+ N 28 '45
Oil industry competitors unite to do the impossible; story of PIWC. Nat Pet N 37:19-20+ N 14 '45
Oil men weigh war supply experiences, act to prepare industry for any eventuality. Nat Pet N 38:28+ Ag 7 '46
Oil's role in an atomic war; OQMG views problems, solutions. Nat Pet N 38:11 Jl 24 '46
Oil's war story: plenty, when and where needed. H. D. Ralph and C. J. Deegan. Oil & Gas J 44:172-84 N 17 '45
Petroleum war team; government and industry; organization chart. Oil & Gas J 44:170-1 N 17 '45

Alabama

Central electric power plant solves pumping problem at Gilbertown. N. Williams. il Oil & Gas J 44:276-8 N 17 '45

Alberta

Alberta oil review for 1945. J. L. Irwin. il Can Min J 67:91-6 F '46

Appalachian area

Deep rotary drilling applied to the Appalachians. B. R. Miller. il Oil & Gas J 45:90+ Jl 6 '46

Arabia

Bonanza fields of Saudi Arabia; illustrations with text. Pet Eng 18:61+ O '46
Plans under way to make Qatar a major source of petroleum. C. O. Willson. map Oil & Gas J 44:80-1 D 15 '45

Argentina

Argentine export controls lifted; all operations to expand. Oil & Gas J 44:86 Ap 20 '46

Arkansas

Pressure maintenance by water injection, Midway field, Arkansas. W. L. Horner. bibliog diag Oil & Gas J 44:185-8+ N 17 '45; Same. Pet Eng 17:133-4+ F '46

Austria

Concern felt that Austria may seize oil industrial properties. W. W. Burns. il Oil & Gas J 44:55 Mr 2 '46
Russia's attitude toward American business; Socony Vacuum's Austrian properties. H. P. Rudinger. Comm & Fin Chr 164:1940 O 17 '46
War developments of the oil industry in Austria and Roumania; abstract. L. J. Grunder. S A E J 54:sup32 Je '46

Bahrein Island

Water invasion controlled by gas injection in Bahrein Island operations. diag Oil & Gas J 44:286+ D 29 '45

Bolivia

Bolivia resuming $17,000,000 development program. Oil & Gas J 45:128-9 Jl 27 '46

See also
Petroleum pipe lines—Bolivia

California

California drilling practices. F. N. Kellogg. Oil & Gas J 45:140-4+ O 19 '46
Confiscation of tidelands would benefit speculators, Californians charge. Nat Pet N 38:14+ Ja 30 '46
Deep test at Signal Hill. N. A. D'Arcy, jr. il Pet Eng 17:74+ My '46
First 25 years of Signal Hill. R. Sneddon. bibliog il Pet Eng 17:52+ Jl '46
Schist production is new development at Edison. L. P. Stockman. plan Oil & Gas J 44: 165 D 29 '45
South Coles levee unit pressure maintenance and cycling project. L. P. Foote. flow sheet il map Pet Eng 17:146+ Ag; 106+ S '46; Same cond. flow diag Oil & Gas J 45:70-3+ Ag 3 '46
Trends in drilling costs in California. R. W. Marshall and R. C. Sharp. Pet Eng (Ref annual) 17:61+ Jl 1 '46
Wilmington field maintaining position as California's no 1 proven reserve. H. S. Norman. il map Oil & Gas J 45:70-3 S 7 '46

Canada

Canada has intense exploration program. R. Sneddon. map Pet Eng 18:145+ O '46
Canada vigorously pushing oil search, concentrating on western plains. W. H. Burns. il Oil & Gas J 45:94-6 My 25 '46
Canadian developments, 1946. F. K. Beach. il map Pet Eng 18:67+ O '46
Large exploration campaign under way in Canada. C. J. Deegan. Oil & Gas J 44:274 D 29 '45

Central America

Three Central American republics favorable to foreign capital; Nicaragua, Costa Rica, and Panama. C. Vinson. Oil & Gas J 44:67 Mr 23 '46

China

China, its future in petroleum. A. D. Small. il map Pet Eng 18:98+ O '46
War's end brings accelerated activity in Yumen, China's only oil field. K. C. Lu. map Oil & Gas J 44:253+ D 29 '45

Colombia

Applications for concessions in Colombia cover 40 million acres. K. J. Langley. Oil & Gas J 44:245-7+ D 29 '45
Colombia may encourage exploration by a more liberal concession policy. W. W. Burns. il Oil & Gas J 45:64-6 Je 22 '46
Colombian president asks intensive oil development. Oil & Gas J 45:58 Ag 31 '46
Colombian's operations in Barco concession continue expansion. Oil & Gas J 44:245 D 29 '45
International will increase drilling in Peru, Colombia, and Ecuador. il Oil & Gas J 44:236-7+ D 29 '45

Colorado

Completions in Rangely field are complicated by tight formations. N. Williams. il Oil & Gas J 44:77-8+ F 9 '46
Deep drilling revives Rangely field. E. F. Estergren. bibliog maps diag Pet Eng 17: 79+ D '45
Difficult drilling and high costs attend development of Rangely field. N. Williams. il Oil & Gas J 44:44-5+ D 22 '45

PETROLEUM industry and trade—Colorado—*Continued*
Drilling in Rangely; operations group themselves into three stages. N. Williams. il Oil & Gas J 44:70-3 Ja 19 '46
Oil rush on in N.W. Colorado. il Diesel Power 24:864+ Jl '46
Operations in world's highest field; Wilson Creek field. N. Williams. il Oil & Gas J 44:84-7 Ap 13 '46

Ecuador

International will increase drilling in Peru, Colombia, and Ecuador. il Oil & Gas J 44:236-7+ D 29 '45

Egypt

Egyptian exploration is being conducted on broadest front in history. C. O. Willson. il map diag Oil & Gas J 44:56-8 D 1; 62-5 D 8 '45

Europe

Europe's crude-oil output hit by war's disruptions. W. N. Small. il For Comm W 23:6-7+ Je 29 '46

Far East

Far Eastern oil picture clarifying. W. W. Burns. il maps Oil & Gas J 45.60-2 Jl 6 '46

Fiji Islands

Quantity and value of petroleum products imported into the Fiji Islands from the United States, 1940-44. For Comm W 22:31 F 9 '46

France

French company to get initially 16,000 bbl. daily of Pantepec oil. W. W. Burns. Oil & Gas J 45:93 O 19 '46
French imports of petroleum products gain. Nat Pet N 38:52 Mr 20 '46
French oil industry slowly emerging from war's wreckage. C. O. Willson. il Oil & Gas J 44:73-5 N 10 '45
French research emphasizing oil exploration and utilization of petroleum gas. P. Guillaumat. il map Oil & Gas J 44:98-100 Ap 27 '46

Germany

Destruction of enemy oil plants a lesson to be remembered in future strategy. H. H. Arnold. Nat Pet N 37:40 N 21 '45
FEA recommends elimination of German synthetic-fuel industry and limitation of petroleum imports. Oil & Gas J 44:155-6 D 29 '45
German oil industry's secrets now available to public. For Comm W 21:30 N 10 '45
Investigation by the U.S. government technical oil mission. W. J. Schroeder. Am Pet Inst Proc 25(3):24-9 '45; Same cond. Oil & Gas J 44:112+ N 24 '45

Great Britain

England tries to focus peace-oil picture, finds distance clear, foreground blurred. S. S. Gampell. Nat Pet N 37:42 D 19 '45
Extensive prospecting licenses promise further exploration in Britain. W. A. Macfadyen. il map Oil & Gas J 45:164-6 S 21 '46

Guatemala

Passage of favorable legislation to open search for oil in Guatemala. W. W. Burns. Oil & Gas J 45:60 O 12 '46

Hungary

Russia seizes Jersey properties in Hungary's Lispe field. Oil & Gas J 44:146 Ja 26 '46

Illinois

Drilling at Mattoon. il plan Oil & Gas J 45:80-3+ S 7 '46
Efficiency of water drive in Illinois sand reservoirs. A. W. Baucum and W. D. Steinle. Oil & Gas J 45:199+ Jl 27 '46

Iraq

Construction program under way in Iraq will triple present crude output. C. O. Willson. flow chart il maps Oil & Gas J 44:60-4+ N 10 '45

Italy

Italian interests negotiating for oil products from Mexico, Russia. A. Giordano. il Oil & Gas J 45:56-7 S 7 '46
Italian refining capacity down to only 40 per cent of prewar. A. Giordano. il Oil & Gas J 45:46-7 Je 1 '46

Japan

Japanese petroleum industry. J. G. Schaafsma. il map Pet Eng 18:110+ O '46
Japan's postwar petroleum needs estimated at less than half those of prewar. W. W. Burns. il Oil & Gas J 45:70-1 Jl 13 '46

Kansas

Mid-continent's shallowest water-drive project. R. O. Bankson. il plan Oil & Gas J 45:109+ Je 29 '46

Latin America

Help Latin America develop oil resources. G. Duke. Nat Pet N 38:48 Je 12 '46

Louisiana

Cotton Valley, five years later. G. Weber. bibliog il map Oil & Gas J 45:94-5+ S 7 '46
Deepest producing well; Weeks Island field, New Iberia Parish, Louisiana. E. H. Short, jr. il Oil & Gas J 44:104-5 My 4 '46
Development of Delhi oil field. A. S. Rhea. il Pet Eng 17:158+ N '45

Mexico

Desulfurization project planned for Poza Rica field. C. Vinson. il Oil & Gas J 44:54 Ja 19 '46
Great progress recorded in 1945 in Mexico's program of streamlining oil industry. C. Vinson. il Oil & Gas J 44:197+ D 29 '45
Interest in Mexican settlement case centered on appraisers. C. Vinson. Oil & Gas J 44:51 Mr 2 '46
Mexican ministry asserts oil policy unchanged by Sinaloa offer. C. Vinson. Oil & Gas J 45:72-3 Ag 17 '46
Mexico looks ahead; abstract. L. J. Logan. Mech Eng 68:260 Mr '46
Mexico modernizing refineries in enlarging oil facilities. L. J. Logan. il Pet Refiner 24:155-6+ D '45
Mexico offers first property for private development since 1938. W. W. Burns. il Oil & Gas J 45:62+ Ag 3 '46
Mexico slated to have one of world's largest refineries. C. Vinson. il Oil & Gas J 44: 42-3 Ja 5 '46
Mexico today; exploration and production. O. B. Irizarry and W. Rives. il map Oil & Gas J 45:42-4 N 2 '46

See also
Mexico—Expropriation policy

Michigan

Injection of water into underground reservoirs in Michigan. W. E. Schoeneck. il map Oil & Gas J 44:193-4+ N 17 '45

Mississippi

Story of Mississippi. il Manuf Rec 115:87-8 Ja '46

Near East

Middle East; its present and future. C. O. Willson. il map Oil & Gas J 44:183-6+ D 29 '45
Oil in the Middle East; Russia needs more production. E. Adams. map Pet Eng 17:93-4+ Ap '46
Oil men who have been in Middle East see compromise now, showdown later. F. P. S. Glassey. Nat Pet N 38:4 Mr 20 '46
Rival Middle East oil companies show way to international cooperation. L. S. Thompson. il Oil & Gas J 45:58-60 S 7 '46

Netherlands Indies

Dutch-Shell group restoring East Indies properties demolished on eve of invasion. il map Oil & Gas J 45:62-4 O 12 '46
Flow of N.E.I. oil awaits only settlement of postwar political problems. il map Oil & Gas J 45:76-8 My 11; 95-7 My 18 '46
Restoration of Standard-Vacuum's N.E.I. oil properties may cost $60,000,000. W. W. Burns. il Oil & Gas J 44:92-4+ Ap 20 '46
Status of U.S. properties in N.E.I. still cloaked in mystery. W. W. Burns. il Oil & Gas J 44:72-3 F 16 '46

PETROLEUM industry and trade—*Continued*

New Jersey

Esso 1 state; Cape Hatteras, nation's most easterly test exemplifies modern exploratory operations. N. Williams. il maps Oil & Gas J 45:114-17+ My 18 '46

New Mexico

Drilling time reduced in Permian basin. G. Weber. Oil & Gas J 45:108-9+ Ag 17 '46

Oklahoma

Deep drilling in Oklahoma. L. L. Jones, jr. il Oil & Gas J 45:74+ Ag 3 '46
Oklahoma at important threshold with new deep pools. K. B. Barnes. bibliog diags Oil & Gas J 44:76-80 D 8 '45
Oklahoma's first triple-zone completion. N. Williams. il diag Oil & Gas J 44:104-6 Ap 6 '46
Townsite drilling campaign latest development in complex Cement pool. K. B. Barnes. bibliog il Oil & Gas J 44:70+ Mr 9 '46
Unusual pressure conditions solved in Oklahoma's second triple-zone completion. E. H. Short, jr. il diag Oil & Gas J 45:87 Ag 17 '46
West Edmond oil field of Oklahoma. E. G. Dahlgren and D. O. Howard. Min & Met 26:607-10 D '45
West Edmond salt water disposal plant initiates service to member operators. W. J. Davis. il Pet Eng 17:106+ D '45

Pacific coast

Economics of the Pacific Coast petroleum industry. J. S. Bain. 2v 221p; 438p bibliog (p435-6) v 1 $2.75; v 2 $6 Univ. of Calif. press, Berkeley 4 '44-'45

Palestine

90,000-barrel Haifa refinery largest in Mediterranean area. C. O. Willson. flow sheet il Oil & Gas J 44:160-6 N 17 '45

Panama

Sinclair Panama given 20-year concession for Isthmian production. W. W. Burns. Oil & Gas J 45:42 O 5 '46

Paraguay

Union explores Paraguayan Chaco. R. Sneddon. il map Pet Eng 18:166+ O '46

Pennsylvania

Here's why jobbers can't get enough Pennsylvania grade oil. H. Ridder. Nat Pet N 38:14-16 Jl 3 '46
World's deepest cable-tool test is completed in Mercer township, Butler county. J. T. Galey. il Oil & Gas J 44:266-7+ Mr 30 '46

Persia

Anglo-Iranian oil company, limited, thirty-seventh ordinary general meeting, London. W. Fraser. Economist 151:193 Ag 3 '46
International politics background of Iranian concession history. L. S. Thompson. il map Oil & Gas J 45:60-3 Ag 31 '46
Iran's petroleum industry grows despite entanglements. F. P. S. Glassey. Nat Pet N 38:12-13 Mr 27 '46
Pay-off in Iran; Russia's oil company plan. Bsns W p110 Ap 13 '46

Peru

International will increase drilling in Peru, Colombia, and Ecuador. il Oil & Gas J 44:236-7+ D 29 '45

Portugal

Portugal's oil imports show heavy increase. Oil & Gas J 45:63 Je 8 '46

Rocky Mountain region

Developments in Rocky Mountain region in 1944. R. M. Larsen. Am Assn Pet Geologists Bul 29:1593-1604 N '45

Rumania

Romanian oil: Soviet unknown. Bsns W p97-8 Ag 17 '46
Romanian production still short of prewar total. Oil & Gas J 45:44 Je 1 '46
War developments of the oil industry in Austria and Roumania; abstract. L. J. Grunder. S A E J 54:sup32 Je '46

Russia

Development and applications of airborne magnetometers in the U.S.S.R. A. A. Logachev. bibliog maps Pet Eng (Ref annual) 17:211-12+ Jl 1 '46
Russia expands; abstract. W. B. Hill. Mech Eng 68:260 Mr '46

South America

Production in South America continues expansion. Oil & Gas J 44:100 Ap 27 '46
Technology factor in South American oil development. W. A. Sawdon. il map Pet Eng 18:57-60 O '46

Texas

Drilling time reduced in Permian basin. G. Weber. Oil & Gas J 45:108-9+ Ag 17 '46
Efficient deep development program is demonstrated in Russell field, west Texas. E. H. Short, jr. il diag Oil & Gas J 44:126-7 F 23 '46
Engineering developments in southwest Texas. J. W. Crutchfield and H. T. Pruett. Pet Eng 18:208+ O '46
Geological data-hole drilling. E. H. Short, jr. il Oil & Gas J 45:82-3+ Ag 3 '46
History of water-flooding of oil sands in north Texas. P. Grandone and others. bibliog 42pls maps U S Bur Mines Rep of Invest 3906:1-117 '46
Latest improvements incorporated into Conroe salt-water disposal plant. E. H. Short, jr. flow sheet il map Oil & Gas J 44:95+ Ja 12 '46
Operators in Hull and Silk field study repressuring program. C. H. Keplinger and J. M. Wanenmacher. plan diag Oil & Gas J 45:76+ Ag 31 '46
Petroleum and gas. il Manuf Rec 115:125-9 Jl '46
Repressuring operations in west Texas pool. E. H. Short, jr. il Oil & Gas J 44:85+ F 9 '46
Salt water disposal in East Texas field. W. S. Morris. bibliog il diags Oil & Gas J 45:72-5 Ag 10; 89-91+ Ag 17; 86+ Ag 24; 92+ Ag 31 '46
Shell's rig makes successful attack on west Texas chert. E. H. Short, jr. il diags Oil & Gas J 45:76-80 O 12 '46

See also
Petroleum laws and regulations—Texas

Trinidad

Trinidad Leaseholds applies advanced methods in drilling and production. P. Reed. il map Oil & Gas J 45:44-6+ O 5 '46
Trinidad to exploit submarine area. Oil & Gas J 44:44 Ja 5 '46

United States

Are we importing too much oil? H. J. Struth. il Pet Eng 18:52-6 O '46
Glance into the future; views of oil industry officials. Nat Pet N 38:23-5+ O 30 '46
Hail and farewell; with discussion of the Anglo-American agreement. H. L. Ickes. Am Pet Inst Proc 25(1):35-40 '45
Location, depth, and initial production of discovery wells, 1945; listed by names of wells under names of fields. Oil & Gas J 44:214+ Ja 26 '46
Oil industry forecasts 1946 demand at prewar rate. G. B. Walker. Barron's 26:11+ Ja 21 '46
Oil men happy; released from price control; rising market. Bsns W p22+ Ag 3 '46
Petroleum industry; review of 1945. M. L. Haider and others. Min & Met 27:115-24 F '46
Production, 1945. Oil & Gas J 44:168-73 Ja 26 '46
Rieber's rebound. Bsns W p20-1 Ag 10 '46
Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. Iron Age 157:114-16 Ja 3 '46

See also
American petroleum institute
Gulf oil corporation
Panhandle producing and refining company

PETROLEUM industry and trade—United States—*Continued*

Anti-trust suit

Answers in "Mother Hubbard" case indicate finish fight in court. Oil & Gas J 45:124 Jl 27 '46

Antitrust defendants demand clarification of U.S. charges. Nat Pet N 38:13 Jl 24 '46

Sun's reply to Justice dept. demands details. Nat Pet N 38:17-18 Jl 31 '46

Foreign properties

Conditions of operating in foreign countries. E. DeGolyer. Oil & Gas J 45:90+ My 25 '46

Design for petroleum expansion outside the United States. R. G. Greene. il Oil & Gas J 45:84+ Je 15 '46

Restoration of Standard-Vacuum's N.E.I. oil properties may cost $60,000,000. W. W. Burns. il Oil & Gas J 44:92-4+ Ap 20 '46

Status of U.S. properties in Netherlands East Indies still cloaked in mystery. W. W. Burns. il Oil & Gas J 44:72-3 F 16 '46

Government relations

API's new National oil policy committee has opportunity; oil industry can serve country without working through bureaucracy; editorials. Nat Pet N 38:21-2, 24 Ag 14 '46; Discussion. 38:25+ S 4; 22+ S 11; 19 S 18; 20 S 25; 22 O 2 '46

Government supports existing foreign contracts; imports held supplement to U.S. output. C. B. Rayner. Oil & Gas J 45:36-7 N 2 '46

Industry can thrive only under stimulus of free enterprise, committee is told; hearing before Senate committee on petroleum resources. Oil & Gas J 44:56-8+ D 8 '45

National council of independent petroleum assns. asks O'Mahoney committee to study monopoly and competition laws. Nat Pet N 38:23+ Ja 30 '46

O'Mahoney report may shape oil policy for years ahead. H. D. Ralph. Oil & Gas J 44: 120-1 Mr 30 '46

PAW dissolved: Krug creates Oil and gas division in Interior department. H. D. Ralph. Oil & Gas J 45:68 My 11 '46

Senate group warned against government staying in oil business. W. A. Jones. Nat Pet N 37:38 N 21 '45

Senate petroleum resources committee hearings. Nat Pet N 37:4 N 21; 14+ D 5 '45; 38:5-6 Mr 20; 15-16 Mr 27 '46

Title to the tidelands. E. Adams. il Pet Eng 17:51-4 S '46

U.S. policy defended; abstract. A. Jacobsen. Oil & Gas J 44:49 Ap 6 '46

See also United States—Interior, Department of—Oil and gas division

Venezuela

Creole starts research department to study exploration and production. P. Reed. il Oil & Gas J 44:63-4 My 4 '46

Creole to exploit new concessions promptly. A. T. Proudfit. Oil & Gas J 45:92 My 25 '46

Deep potentialities to be tested at Amana. il Oil & Gas J 44:293+ D 29 '45

Demand for Venezuelan oil in 1945 is supplied despite some complications. M. C. Cody. il Oil & Gas J 44:215+ D 29 '45

Development of Amana field in Venezuela. R. Watson. il map Pet Eng 18:93-4, 96 O '46

Exploration of Orinoco Delta fraught with difficulties of terrain and climate. P. Reed. il map Oil & Gas J 45:64-6 S 14 '46

French company to get initially 16,000 bbl. daily of Pantepec oil. W. W. Burns. Oil & Gas J 45:93 O 19 '46

Guarico's 1946 exploration program is most extensive. P. Reed. il maps Oil & Gas J 44:66+ Mr 16 '46

Many sands, variety of crudes complicate exploitation in West Guara, Venezuela. P. Reed. il map Oil & Gas J 45:66+ Ag 24 '46

Modern pressure-maintenance plants being built in eastern Venezuela. F. R. Staley. flow diag il map Oil & Gas J 44:276-7+ D 29 '45

Oficina field is scene of Venezuela's first water-flooding experiment. P. Reed. il diag Oil & Gas J 45:137-8 My 18 '46

Opportunities for the use of small aircraft in Venezuela. H. R. Moorman. Oil & Gas J 45:63+ S 7 '46

Petroleum highlights in Venezuela. H. H. Power. il map Pet Eng 18:124+ O '46

Socony-Vacuum explores Barinas, Venezuela's largest concessions. P. Reed. il map Oil & Gas J 45:62-3 Ag 10 '46

Three additional U.S. offers made for Venezuelan royalty oil. M. C. Cody. Oil & Gas J 45:68 Jl 13 '46

Triple-zone completions in eastern Venezuela. il diags Oil & Gas J 44:227+ D 29 '45

U.S. independents study Venezuelan royalty oil for crude supply. W. W. Burns. Oil & Gas J 45:40 N 2 '46

Venezuela imposes excess-profit tax in surprise decree. M. C. Cody. Oil & Gas J 44:58 Ja 12 '46

Venezuelan drilling expansion facing many obstacles. il Oil & Gas J 44:61+ Ap 6 '46

Venezuelan output still exceeding 1945 figures in first quarter of 1946. Oil & Gas J 45:82 Je 15 '46

Venezuela's largest chemical emulsion treating plant. P. Reed. flow diag il Oil & Gas J 45:93 My 11 '46

Venezuela's most ambitious exploratory campaign in history well under way. M. C. Cody. maps Oil & Gas J 44:74+ Ap 13 '46

Venezuela's 1946 exploratory program biggest in history. il Oil & Gas J 44:265+ D 29 '45

PETROLEUM industry war council

Oil industry competitors unite to do the impossible; story of PIWC. Nat Pet N 37:19-20+ N 14 '45

Personnel. Oil & Gas J 44:176-8 N 17 '45

Story of the technical oil mission. A. E. Miller. Am Pet Inst Proc 25(3):15-23 '45

Technical advisory committee finale is on a note of victory. pors Nat Pet N 38 pt 2: R24-5 Ja 2 '45

PETROLEUM laboratories

Identifying hydrocarbon mixtures; Universal oil products co. laboratories. il Oil & Gas J 44:66+ Mr 9 '46

Improved petroleum products; development of a chemical research station at Sunbury. A. E. Dunstan and D. A. Howes. il Chem Age (Lond) 54:531-3 My 11 '46

Industry's research facilities undergoing substantial expansion. il Oil & Gas J 44:123 F 23 '46

Laboratory for production problems. R. Sneddon. il Pet Eng 17:178+ S '46

Laboratory studies give aid in obtaining greatest ultimate values from petroleum; Universal oil products company laboratories. il Pet Eng 17:96+ Jl '46

Lubricating-oil research in Socony-Vacuum laboratories. F. R. Staley. il Oil & Gas J 44:105+ Mr 23 '46

Navy petroleum lab in Aleutians found to be well equipped. P. Wollstadt. Nat Pet N 37: 30 N 21 '45

New lab to test bottom-hole services to 10,000 psi.; Dowell incorporated at Tulsa. il Oil & Gas J 45:72 S 28 '46

Petroleum research develops new products and wider markets for the Texas company; Beacon laboratories, house organ, booklets. il diags Ind Marketing 31:44-5+ Mr '46

Physics laboratory heads new Universal oil products research facilities. A. L. Foster. il Oil & Gas J 45:71 Ag 10 '46

Physics research division broadens its activities; Universal oil products company. G. M. Webb and others. layout plan Pet Eng 17: 61-2+ S; 18:224+ O '46; Same cond. Pet Processing 1:44+ S '46

Shell oil co.'s research center in Houston to be ready by spring. il Nat Pet N 37:38 N 14 '45; Manuf Rec 114:50+ D '45; Oil & Gas J 44:71 N 10 '45

UOP formally opens physics laboratory at its Riverside plant. il Pet Refiner 25:176+ S '46

See also

Petroleum refineries—Laboratories

Employees

Careful utilization of non-technical personnel stretches supply of technical workers. Nat Pet N 38 pt 2:R42-3 Ja 2 '46

Equipment

Bottle-washing unit designed for laboratory sample bottles. il diag Oil & Gas J 44:145 N 24 '45

PETROLEUM laboratories—Equipment—*Cont.*
New field opening for exploring hydrocarbons by utilization of physical methods of analysis; Universal oil products co. il Nat Pet N 38:50 Ag 7 '46

PETROLEUM laws and regulations

Kansas

Kansas orders 20-acre spacing for wells less than 4,000 ft. Oil & Gas J 44:57 My 4 '46

Kentucky

Proposed bill would establish spacing regulations. H. David. Oil & Gas J 44:71 Mr 23 '46

Texas

Texas yields to pressure and boosts crude production. Oil & Gas J 44:101 Ap 20 '46
Wartime regulation of the east Texas field. H. J. Gruy. Pet Eng 17:168+ D '45

United States

Federal mineral leasing act. E. Carper. Pet Eng 17:194+ N '45

PETROLEUM patents. See Petroleum refining—Patents

PETROLEUM pipe lines

America's oil industry saw a transportation miracle while a global war demanded its products swiftly and surely. W. A. Jones. Nat Pet N 37:18+ N 28 '45
Big-Inch and Little Inch flow charts. H. W. Lambert. Oil & Gas J 45:222-4 S 21 '46
Big-Inch lines recommended as natural-gas carriers; report made to the Reconstruction finance corp. by Ford, Bacon & Davis, inc.; with cost data. Oil & Gas J 44:45-6 Ja 5; 62-3+ Ja 12 '46
Big Inch, Little Big Inch should be kept in petroleum service to protect against another emergency, SPA asserts; with estimated cost data. il Nat Pet N 38:18+ Ja 9 '46
Disposition of government owned facilities; petroleum refineries and pipe lines. Oil & Gas J 44:80-2 N 24 '45
Economic pattern of oil pipe lines; abstract. G. L. Shanks. Oil & Gas J 44:58 Mr 2 '46
Economics of crude lines. C. J. Deegan. map Oil & Gas J 45:170-2 S 21 '46
Engineering firm says Big Inch, Little Big Inch will net government greater return if converted to natural gas service. W. D. Laudeman. Nat Pet N 37:18+ D 26 '45
Growth of the pipe-line industry; 1880-1896, tabulation. Oil & Gas J 45:173 S 21 '46
Half of 34-mile pipeline is laid under water between Saudi Arabia and Bahrein. il Nat Pet N 38 pt 2:R53 Ja 2 '46
Inch by Inch. Fortune 32:274 D '45
Inches are for oil. Bsns W p19-20 Ag 10 '46
Inches stay oily. Bsns W p26+ My 25 '46
Jobs for Inches; to carry natural gas to New York-Philadelphia area. Bsns W p19 D 29 '45
New construction methods for pipe lines used on Great Lakes project. P. Reed. il Oil & Gas J 44:82+ Ja 19 '46
1946 pipe-line construction program one of largest in peacetime history. R. B. Tuttle. il Oil & Gas J 45:159+ Jl 27 '46
1946 trends in pipe-line practices. W. G. Heltzel. il Oil & Gas J 45:182-3+ S 21; 81-2+ S 28 '46
Oil future urged for Inches. Bsns W p19-20 Ja 12 '46
Peacetime pipe lines. W. R. Finney. Oil & Gas J 45:178-9 S 21 '46
Pipe line capacity increased by looping. F. H. Love. il Pet Eng 17:57-60 D '45
Pipe line dispatcher. R. Sneddon. il Pet Eng 17:116+ S '46
Pipe line gauging, sampling, and testing. J. A. Sleeth. il Pet Eng 17:144+ Mr '46
Price organization has worked on 16,000 miles of pipe line in 25 years of existence. N. Williams. Oil & Gas J 45:261+ S 21 '46
Rangely line operates at high pressure. W. J. Davis. il map plan Pet Eng 17:207-8+ Ja '46
Role for Big Inch and Little Inch; carrying natural gas could be profitable. Barron's 26:13 S 9 '46
Senate committee appears satisfied pipelines should not be used for peacetime oil flow. Nat Pet N 37:4 N 21 '45
Some performance data on 20 and 24-in. fluid lines; abstract. A. N. Horne and R. P. Lennart. Oil & Gas J 45:96 O 12 '46
Stanolind increases capacity. F. H. Love. il Pet Eng 18:267-8+ O '46
SPA urges retention in oil service of Big-Inch lines. Oil & Gas J 44:56-7 Ja 19 '46
Telemetering and remote control. H. J. Keeling. bibliog Pet Refiner 25:128-9 Ja '46
Use of thinner pipe walls provides increased capacity. W. J. Wilkins. Oil & Gas J 45: 263+ S 21 '46
Viscosity at pipe line temperature. W. L. Nelson. Oil & Gas J 44:87 Ja 12 '46
War assets administration to take at least month to decide on 16 bids submitted for Big and Little Inch pipelines. Nat Pet N 38:11-14 Ag 7 '46
Wide variety of terms, conditions found in 16 Big-Inch bids. H. D. Ralph. Oil & Gas J 45:54+ Ag 10 '46

Finance

Earnings of 44 pipeline companies off 8.8% in first quarter of 1946. Nat Pet N 38:57 Je 19 '46
Transportation revenue and traffic of large oil pipe line companies and carriers having annual operating revenues of more than $500,000; tabulation. Nat Pet N 37:54 D 12 '45

Gathering lines

Unitized equipment for pipe-line gathering service. W. Law. il Oil & Gas J 44:290+ N 17 '45

Maintenance and repair

Air patrol of pipe lines. M. W. Balfour. il Pet Eng 17:229-31 Ja '46
Controlling pipe-line leaks. W. R. Reed. Oil & Gas J 45:273-4+ S 21 '46
Device expedites removal of old pipe lines. P. Reed. il Oil & Gas J 44:116 Mr 16 '46
Humble joins companies using airplanes to spot trouble on long miles of pipeline. Nat Pet N 37:35 N 28 '45; Pet Eng 17:178 D '45
Maintenance and repair of oil pipe lines. O. Wildman. Welding J 24:1019-21 N '45; Discussion. 25:46-7 Ja '46
Pipe-line reclaimer removes pipe without use of ditcher. diag Oil & Gas J 45:145 Je 8 '46
Reconditioning north Oklahoma pipe line; illustrations with text. W. J. Davis. Pet Eng 17:150+ D '45
Reconditioning pipe line under pressure. F. H. Love. il Pet Eng 17:186+ N '45
Shell's pipe-line patrol averages 15,000 miles per month. H. H. Anderson. il Oil & Gas J 45:243-4+ S 21 '46
Unusual problems solved in repairing pipeline river crossing. W. J. Wilkins. il plan diags Oil & Gas J 44:76-9 Mr 23 '46

Maps

Maps of crude oil and products pipe lines. Oil & Gas J 45:insert S 21 '46

Multiple fluid lines

Calculation of throughput when several liquids flow simultaneously through a pipe line. B. Miller. Oil & Gas J 44:64-5 Mr 2 '46
Closed pipe line operation and ultra-modern technique. F. H. Love. il map diags Pet Eng 17:51-4 Ag '46
Economics of product lines. Oil & Gas J 45: 174-5 S 21 '46

Protection

Control method on gravity-flow line in metropolitan area. A. J. Downey. Oil & Gas J 45:226+ S 21 '46

Pumping stations

Closed pipe line operation an ultra-modern technique. F. H. Love. il map diags Pet Eng 17:51-4 Ag '46

Pumping stations, Electric

Big Inch paid $9,000,000 for kilowatts in one year. J. L. King. il diag Power 90:81-4 F '46
New East Houston delivery station. L. F. Scherer and C. L. McNeese. il plan diags Pet Eng 17:243-4+ S '46
Standardized electrification pattern for pipeline pumping stations. B. M. Mills. il diag Oil & Gas J 45:217+ S 21 '46

PETROLEUM pipe lines—*Continued*

River crossing

Unusual problems solved in repairing pipeline river crossing. W. J. Wilkins. il plan diags Oil & Gas J 44:76-9 Mr 23 '46

Terminals

Ohio Oil's new terminal features safety, efficiency. il Nat Pet N 38:37 Ap 17 '46

Pipe line terminal dismantled, salvaged. T. H. Menaugh. il Pet Eng 17:185-6+ Mr '46

Testing

Controlling pipe-line leaks. W. R. Reed. Oil & Gas J 45:273-4+ S 21 '46

Arabia

New problems presented by submarine pipe line from mainland Saudi Arabia to island of Bahrein. R. Sneddon. il Pet Eng 17:131-2 Mr '46

Bolivia

Bolivia awards contract for 255-mile, 6,000-bbl. pipe line. W. W. Burns. map Oil & Gas J 44:52 Mr 9 '46

California

Construction innovations used on California's Stanpac pipe line. L. P. Stockman. il Oil & Gas J 44:62-3 Mr 23 '46

New $4,000,000 California pipe line. il Pet Eng 17:224B+ Mr '46

Precise engineering features new California crude line. H. S. Norman. il Oil & Gas J 45:230+ S 21 '46

India—Burma—China

Colonels Kinsolving and Morse built 3500 miles of CBI pipelines with kadalies and baskets. il Nat Pet N 38:38+ My 15 '46

Our P.O.L. pipelines to China. il map Eng N 136:708-10 My 2 '46

Panama

Pipe-line technicians overcome unusual obstacles in building Panama trans-Isthmian artery. P. Reed. il Oil & Gas J 44:52-4+ Ja 5 '46

PETROLEUM products

A.P.I. hydrometer indication table; high-temperature extension for heavy oils. J. Griswold, comp. Pet Refiner 25:136a-136c Je '46

American institute of chemical engineers, regional meeting, San Francisco, Aug. 25-28; abstracts of papers. Pet Processing 1:83-90 O '46

Aromatics from petroleum; Catarole process. map Chem Age (Lond) 55:405-6, 433-5 O 5-12 '46; Same cond. bibliog Pet Eng 18: 119+ O '46

Bonding properties of mixtures of petroleum extracts and linseed oil and of the extracts themselves. W. Davies and W. J. Rees. diags Iron & Steel Inst J 150:49-68 no 2 '44

Busy future for petroleum chemist. B. K. Brown. Pet Refiner 25:152+ O '46; Abstract. Oil & Gas J 45:157 S 21 '46

Calculation of solvent extraction equilibria. V. A. Kalichevsky. bibliog Ind & Eng Chem 38:1009-12 O '46; Same. Pet Refiner 25:99-103 O '46

Calculation of specific dispersion of pure hydrocarbons and petroleum fractions. M. R. Lipkin and C. C. Martin. bibliog Ind & Eng Chem Anal ed 18:433-6 Jl '46

DDT possibilities for oil industry explained; interview with M. J. Rentschler. H. Ridder. Nat Pet N 38:22+ F 13 '46

Farmers need marketers' help; statistics on consumption of products; abstract. R. Shaw. Nat Pet N 38:18 Ap 17 '46

Filling stations, tank wagons split farm auto and truck business, but the wagons get 70% of the tractor trade; survey by Successful farming magazine. F. C. Sturtevant. graphs Nat Pet N 37:46, 48 D 19 '45

Fundamentals of consistency and viscosity. J. J. Bikerman. bibliog diags Pet Refiner 24:119-24 D '45; 25:111-17 Ja; 120-6 F '46

Hydraulic oils for industrial equipment. J. C. Van Gundy. il Mach 52:158-66 Ag '46

Improved petroleum naphthas and solvents are finding many new industrial uses. B. H. Weil. bibliog il Nat Pet N 38 pt 2:R65-9 Ja 2 '46

Increase of 23 per cent forecast in foreign demand by 1950. H. W. Page. il Oil & Gas J 45.68-9+ Jl 20 '46; Abstract. Nat Pet N 38: 15 Jl 17 '46

Larviciding with oil sprays. Nat Pet N 38 pt 2:R491 Jl 3 '46

Mass consuming markets forecast for new petrochemical products. H. P. Hohenadel. il Nat Pet N 38 pt 2:R8-9 Ja 2 '46

Meet Tempo J: the well-oiled muscle behind navy's punch; Navy fuels division. R. E. Bjorkback. Nat Pet N 37:53-4+ N 14 '45

Mineral oil films in relation to mosquito control. A. Crossfield and G. F. Hazzard. 2pls diag Inst Pet J 32:323-39 bibliog(p339); Discussion. 339-40 Je '46

Molecular weight; physical property correlation for petroleum fractions. I. W. Mills, A. E. Hirschler and S. S. Kurtz, jr. bibliog diag Ind & Eng Chem 38:442-50 Ap '46

New petroleum product for plastics; plasticized vinyl paste or plastisol. Mod Plastics 24:198 O '46

Oil companies content to be chemical suppliers; researchers open new lines, but big firms stick to fuel. G. B. Walker. Barron's 26:23 S 16 '46

Petrochemical industry in the Southwest builds for growing peacetime markets. D. P. Thornton, jr. bibliog il map Nat Pet N 38 pt 2:R3-8 Ja 2 '46

Petroleum in plastics processing. il Sci Am 173:294-6 N '45

Petroleum in wartime. F. H. Garner. 2 pls diag Inst Pet J 32:256-68 My '46

Petroleum industry research helps agriculture to minimize crop losses; Union oil company laboratory to study control of insects, fungi, and bacteria. R. Sneddon. il Pet Eng 17:77-8+ Je '46

Petroleum, natural gas and agriculture. G. Egloff. Pet Refiner 25:146+ Jl '46

Petroleum process products. J. C. Dean. il Sci Am 174:213-15 My '46

Petroleum products. R. Sneddon. il Pet Eng 17:82+ Ag '46

Petroleum provides new hydrocarbons for the chemical industry. C. C. Crawford. il Chem Ind 59:469-73 S '46

Petroleum specialties; chance for marketers to expand sales field. B. H. Weil. il Nat Pet N 38:30+ Ap 10 '46

Petroleum's myriad uses make it vital to U.S.; use of wax emulsions; abstract. J. C. Dean. Nat Pet N 38:26 Ja 9 '46

Phthalic anhydride from petroleum. F. R. Staley. il Oil & Gas J 45:118-19 My 25 '46

Phthalic anhydride from petroleum breaks a coal-tar tradition. J. R. Callaham. flow sheet (p138-41) il Chem Eng 53:116-19 Ag '46

Polystyrene on petroleum horizon. J. D. Constance. Oil & Gas J 44:317-18 D 29 '45

Processes for making nitrile compounds patented by three oil companies. D. P. Thornton, jr. Nat Pet N 38 pt 2:R221-4 Mr 6 '46

Recommends exclusive use of petroleum feedstock plants for synthetic rubber. Nat Pet N 38:57-8 Mr 20 '46

Refinery engineering. W. Miller. Min & Met 27:121-3 F '46

Shell Oil's research center. il Sales Management 57:130 N 1 '46

Shell starts operation of agricultural lab and experimental farm as proving ground for Shell products. il Oil & Gas J 45:166 S 21 '46

Socony-Vacuum announces new postwar industrial products. Oil & Gas J 45:64 Jl 13 '46

Steady increase in demands for oil seen in next 5 years. J. W. Boatwright. Nat Pet N 38:43-4+ O 16 '46

Sulfur in light petroleum products. E. T. Scafe. map Pet Refiner 25:87-92 S '46

White mineral oil and petrolatum in the manufacture of specialty papers. R. K. Rhodes. Paper Tr J 123:59-62 S 26 '46

World demand for petroleum products exceeds wartime peak. Oil & Gas J 45:135 Jl 27 '46

PETROLEUM products—*Continued*

World supplies of gasoline, kerosene, and burning oils. S. P. Coleman. Am Pet Inst Proc 25(2):9-13 '45; Abstract. Oil & Gas J 44:61+ D 1 '45

See also

Butadiene
Gasoline
Hydrocarbons
Kerosene
Liquefied petroleum gas
Lubricating greases
Lubricating oils
Oil fuel
Paraffin
Petroleum coke
Petroleum distillation
Petroleum refining—By-products
Toluene

Analysis

Spectroscopic analysis in the petroleum industry. F. Gill and R. R. Gordon. diags Pet Refiner 25:141-7 Je '46

Prices

OPA authorizes temporary price rise on certain needed products. T. F. Smiley. Oil & Gas J 44:40 F 2 '46

Statistics

Oil demand one fourth greater than in 1941; statistics for first half of 1946. L. J. Logan. Pet Refiner 25:154-6+ Ag '46

Output of synthetic chemicals from oil up, U.S. report shows. Nat Pet N 38 pt 2:R70 Ja 2 '46

Terminology

Third list of definitions by Standardization sub-committee no. 11; nomenclature. Inst Pet J 32:289-91 My '46

Testing

See also

Lubricating oils—Testing

Transportation

Postwar oil transportation; for-hire tank truck operations vs. private carriers; discussion at National petroleum assn. convention. Nat Pet N 38:47 O 2 '46

PETROLEUM refineries

Disposition of government owned facilities; petroleum refineries and pipe lines. Oil & Gas J 44:80-2 N 24 '45

French oil industry slowly emerging from war's wreckage. C. O. Willson. il Oil & Gas J 44:73-5 N 10 '45

Industry group raps SPA avgas plant report. Nat Pet N 38:28 F 27 '46

Mexico modernizing refineries in enlarging oil facilities. L. J. Logan. il Pet Refiner 24:155-6+ D '45

Mexico slated to have one of world's largest refineries. C. Vinson. il Oil & Gas J 44:42-3 Ja 5 '46

Refiners chart course; views of executives and technicians. Oil & Gas J 44:131-4 Mr 30 '46

Refining; all operating divisions expand from prewar levels. Oil & Gas J 45:150 Jl 27 '46

Sell government-built avgas plants to wartime operators, SPA urges in report to Congress. Nat Pet N 38:7 Ja 16 '46

Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. Iron Age 157:114-16 Ja 3 '46

Texaco goes East; refinery planned for Philadelphia area. Bsns W p56 My 25 '46

What's happened to the avgas plants? Pet Processing 1:9+ S '46

See also

Gasoline—Manufacture
Lubricating oils—Manufacture
Petroleum distillation
Petroleum refining

Accounting

Cost accounting in refinery construction. R. C. Lewis. il Pet Refiner 25:118-23 Ja '46

Construction

Cost accounting in refinery construction. R. C. Lewis. il Pet Refiner 25:118-23 Ja '46

Corrosion

Aluminum bronze and corrosion. Oil & Gas J 45:153 My 18 '46

Cathodic protection in the refinery. D. Holsteyn. bibliog Pet Eng 17:154+ My '46

Corrosion by hydrofluoric acid. W. Z. Friend and H. O. Teeple. bibliog flow sheet il Oil & Gas J 44:87+ Mr 16 '46

Corrosion in hydrofluoric acid alkylation. F. A. Prange and R. A. Findlay. il Pet Refiner 25:85-8 Mr '46

Corrosion limits metals that can be used for construction of HF alkylation units. il Nat Pet N 38 pt 2:R618+ Ag 7 '46

Corrosion of refinery equipment; abstract. E. E. Kerns. Oil & Gas J 45:96 O 12 '46

Economic aspects of refinery corrosion problems. F. A. Rohrman. Nat Pet N 38 pt 2: R637 Ag 7 '46

How to locate corrosion in refinery tubes. il Pet Eng 17:74 Je '46

Mechanical and metallurgical control of sulfuric acid corrosion in petroleum processes; abstract. E. R. Wilkinson. Oil & Gas J 45:96 O 12 '46

Physical and corrosion-resistant properties of Hastelloy alloys. Oil & Gas J 44:156 Ap 20 '46

Resistance of nickel-containing alloys to corrosives encountered in the petroleum refineries. B. B. Morton. il diag A S M E Trans 68:229-35 Ap '46

Stop tube failure in superheater by adding corrosion inhibitors. E. Q. Camp and others. flow diag il diag Nat Pet N 38 pt 2: R192+ Mr 6 '46

Study of corrosion pattern in still tubes results in reduction of metal losses. W. F. Kramer. diags Nat Pet N 38 pt 2:R17-18+ Ja 2 '46

Sulfide corrosion complicates tank-cleaning operation in Tampico refinery. F. R. Staley. il diag Oil & Gas J 44:250 D 29 '45

Costs

Peacetime utility of wartime petroleum refining processes. F. D. Parker. bibliog Pet Refiner 24:117-23 N '45; Same. Pet Eng 17: 116+ D '45

Directories

North American operating refineries, capacities and locations; U.S. by states, Canada by provinces, Mexican refineries; government synthetic rubber plants, etc. Oil & Gas J 44:254+ Mr 30 '46

Electric equipment

Electrical robot in laboratory model measures stress in piping systems. L. C. Andrews. il Nat Pet N 38 pt 2:R108+ F 6 '46

Motor-operated valves on Sun Houdry unit in continuous service since 1937. F. R. Staley. il Oil & Gas J 44:215+ Mr 30 '46

Motor voltage considerations in refineries. E. Kun. Nat Pet N 38 pt 2:R132-3 F 6 '46; Same. Pet Eng 17:66 F '46; Same. il Pet Refiner 25:113-14 F '46; Same. Oil & Gas J 44:86+ Mr 2 '46

Pioneering in electrical design; Torrance refinery. R. B. Bryant and F. M. Dorey. il plan Elec West 97:66-8 Ag '46

Utilization of electrical equipment. R. B. Bryant and F. M. Dorey. il diags Pet Eng 17:178+ My '46

Employees

Basic petroleum chemistry for refinery employes. J. J. Stadtherr. bibliog diags Pet Refiner 25:115-16 Mr; 152-4 Ap; 116-18 My; 131-3 Je; 109-14 Jl; 136-42 Ag; 123-8 O '46

Classroom plus on-the-job training pays its way in instrument course; Baton Rouge refinery. D. P. Thornton, jr. il Pet Processing 1:136-9 O '46

How the union disillusioned us; Sinclair company. D. T. Pierce. il Factory Management 104:94-7 Ja '46

Manpower problem in petroleum refineries solved by job evaluation and wage incentive. Pet Refiner 24:170+ N '45

Oil wage panel meets again amid O.W.I.U. charges that companies delay settlements. Nat Pet N 38:5-6 Ja 9 '46

Oil wage panel recommends 18% increase; with text of report. Nat Pet N 38:4-5, 44+ Ja 16 '46; Excerpt. Oil & Gas J 44:53 Ja 19 '46

Operators told why as well as how in program to cut plant operating costs; Standard oil co. of New Jersey, pump maintenance course. W. F. Bland. il Pet Processing 1:3-6 S '46

PETROLEUM refineries—Employees—*Cont.*

Panel begins study of causes of refinery-wage disputes. H. D. Ralph. Oil & Gas J 44:59 Ja 12 '46

Refiners training program; illustrations. J. E. Hill. Pet Eng 17:120+ My '46

Refinery workers' output per manhour skids to seven-year low; unit costs soar; Bureau of labor statistics report. D. L. Harbour. Nat Pet N 38:46 Jl 3 '46

Scheduling board shows employes available for special jobs, when they are on duty. Nat Pet N 38 pt 2:R172 Mr 6 '46

Teaching plant men new techniques in the mechanical crafts; training program of Standard Oil (N.J.). il Nat Pet N 38 pt 2: R323-5 My 1 '46

Training operators for refinery efficiency. J. B. Hamblen and W. A. Sullender. diags Oil & Gas J 44:236+ Mr 30 '46

Trends in refinery training. H. T. Fort. il Pet Eng 18:194+ O '46

Equipment

Addition of one coil increases cracker's efficiency by two thirds. R. B. Tuttle. flow diag il Oil & Gas J 44:83-4+ D 1 '45

Alcohol from petroleum; pictured flowsheet. Chem & Met Eng 52:136-9 N '45

Automatic can filler and crimper shuts off grease flow at proper weight. il Nat Pet N 38 pt 2:R258 Ap 3 '46

Automatic control of a fluid catalytic cracking unit. M. MacDonald. flow diag diags Pet Refiner 25:87-90 O '46

Buyers' guide of refinery equipment. Oil & Gas J 44:B1-104 sec 2 Mr 30 '46

Chemical cleaning of refinery equipment. W. J. Davis. il Pet Eng 17:51-4 Je '46

Commercial T.C.C. operations on partially vaporized charge stock. H. D. Noll and others. flow diag il diags Oil & Gas J 45: 116+ O 19 '46; Same. Pet Refiner 25:165-71 N '46; Abstract. Pet Processing 1:211+ N '46

Continental oil co. streamlines Wichita Falls refinery. R. B. Tuttle. il diag Oil & Gas J 45:84-6+ Ag 17 '46

Control of fractionation columns. D. M. Boyd, jr. diags Pet Refiner 25:147-51 Ap '46

Design of instrument-air-supply system for the process industry. W. C. Ludi. diag Pet Refiner 25:94-8 O '46

Design of structural details for high towers. J. Yeakel. diags Pet Refiner 24:125-6 D '45

Drying of liquids with adsorbents. W. L. Nelson. flow diag Oil & Gas J 45:72 Je 1 '46

Economic and successful operation obtained at HF alkylation plant; Sinclair refining co.'s Corpus Christi refinery. J. A. Scott and R. M. Cooper. flow diags Oil & Gas J 44:204+ Mr 30 '46

Efficient operation obtained in east Texas refinery; Independent refining company. L. S. Daniels. il diag Pet Refiner 25:104-8 Jl '46

18,000 b/d refinery spends $750,000 to remodel facilities, improve products; Cosden petroleum corp. flow sheets flow diag il Nat Pet N 38 pt 2:R570-2+ Ag 7 '46

Electric welding built a wartime refinery; Tutwiler plant at Lake Charles, La. E. G. Woolman. il diags Nat Pet N 38 pt 2:R351-2+ My 1 '46

Erecting a 145-ft. deisobutanizing tower; illustrations with text. D. Attaway. Pet Eng 17:102+ My '46

Ethyl alcohol made from refinery ethylene; Standard Oil's Baton Rouge plant. il Chem & Met Eng 52:96-8 N '45

Exchanger design. W. L. Nelson. diags Oil & Gas J 45:117-18 Jl 20 '46

Exchanger tubes. W. L. Nelson. Oil & Gas J 44:113 Mr 23 '46

Exchanger types, shell and tube bundle. W. L. Nelson. diags Oil & Gas J 44:111 F 9 '46

Exhaust steam condenser built from scrap is typical of home made refinery gadgets. R. W. Machen. il Nat Pet N 38 pt 2:R500 Jl 3 '46

Fin-tube exchanger units. W. L. Nelson. Oil & Gas J 45:127 Je 29 '46

Fluid-catalyst technique. L. S. Daniels. il diags Pet Refiner 25:109-16 S '46

Fluid catalytic cracking unit for the small refiner. D. Read. flow diags Nat Pet N 38 pt 2:R313-17 Ap 3 '46; Same. Oil & Gas J 44:144+ Ap 20 '46; Same. Pet Refiner 25: 119-22 My '46; Same. Pet Eng (Ref annual) 17:256+ Jl 1 '46

Fouling factors; crude oil and water; heat-transfer surfaces. W. L. Nelson. Oil & Gas J 45:141 My 25 '46

Fouling factors; oil products. W. L. Nelson. Oil & Gas J 45:95 Je 1 '46

Fundamentals of control equipment. C. Cortelyou. Pet Refiner 25:126-8 Ja '46

Furnace tube decoking with steam and air. H. Bottomley. diags Pet Refiner 25:109-10 Ag '46

Heat duty of exchangers. W. L. Nelson. Oil & Gas J 44:299 Ja 26 '46

High-capacity operations on fluid cracking units. E. V. Murphree and others. flow sheet il diags Am Pet Proc 25(3):57-64 '45; Same abr. Pet Refiner 24:97-100 N '45; Same abr. Pet Eng 17:136+ D '45; Same abr. Nat Pet N 37 pt 2:R972+ D 5 '45; Abstract. Oil & Gas J 44:158 N 17 '45; Discussion. Am Pet Inst Proc 25(3):64-5 '45

How big an exchanger? W. L. Nelson. Oil & Gas J 44:111 D 8 '45

Hydraulic decoking; abstract. A. V. Welsh. Oil & Gas J 45:99 O 12 '46

Hydrogen sulfide removed from cracking-plant gases. il Pet Refiner 25:121-2 O '46

Idle isomerization unit converted to produce polymer gasoline. W. R. Newman. il diags Pet Refiner 25:91-3 O '46

Improved design of Houdry reactor results in higher gasoline output. R. C. Lassiat and C. H. Thayer. flow diag diags Oil & Gas J 45:84+ Ag 3 '46; Same. Pet Eng 17:82+ S '46; Same. Pet Refiner 25:127-30 S '46; Same cond. Pet Processing 1:37+ S '46

Improved fluid catalytic cracking unit reduces maintenance costs. B. J. Flock. il Oil & Gas J 45:72+ O 5 '46

Improved mixing device for large charge stock tanks. E. H. Atwood. diag Pet Refiner 25:125-6 Mr '46

Increase output of alkylate over 600% by removing equipment bottlenecks. G. B. Ryan and D. G. Stevens. il diags Nat Pet N 38 pt 2:R411-12+ Je 5 '46

Installing settlers at 45-degree angle facilitates pumping out PbS sludge; Arabian American oil co.'s refinery at Ras Tanura. il Nat Pet N 38 pt 2:R424 Je 5 '46

Instrumenting the fractionator for a catalytic cracking unit. flow diag Pet Processing 1: 52-4 S '46

International derrick and equipment co. has triangular flare tower. il Gas Age 97:56 Ja 10 '46

Materials of construction in the petroleum industry. T. M. Jasper. Mech Eng 68:424+ My '46; Discussion. 68:993-4 N '46

Mechanical barrel washer launders 60-80 drums an hour. flow diag il diags Nat Pet N 38 pt 2:R502-3 Jl 3 '46

Mechanism of flow in fluid catalyst cracking. H. P. Wickham. flow sheet il diags Mech Eng 68:237-40 Mr '46

New coking unit adds versatility, increases yields at Pure's refinery. A. L. Foster. flow diags il Oil & Gas J 45:74-6+ S 7 '46

New design of downspout for bubble trays separates liquid from foam and vapors. diags Nat Pet N 37 pt 2:R990 D 5 '45

New MS-type 'cat cracker' can be installed at cost comparable to price of 2-coil unit. Nat Pet N 38:41 Ja 23 '46

New 1000 b/d catalytic cracker operates on fluid principle; with cost data. flow sheet il Nat Pet N 37 pt 2:R939-42 D 5 '45

90,000-barrel Haifa refinery largest in Mediterranean area. C. O. Willson. flow sheet il Oil & Gas J 44:160-6 N 17 '45

No peace for fractionators. P. J. Harrington and others. diag Am Pet Inst Proc 25(3): 9-14 '45; Same. Oil & Gas J 44:135-7+ N 24 '45; Same. Nat Pet N 37 pt 2:R965-6+ D 5 '45; Same. Pet Refiner 24:114-18 D '45

Non-destructive testing of refinery equipment. C. D. Havens. il Pet Eng 17:92+ Je '46

One boss for the instruments; special division at Baytown plant of Humble handles installation, maintenance and repair. D. P. Thornton, jr. il Nat Pet N 38 pt 2:R329-32 My 1 '46

PETROLEUM refineries—Equipment—*Cont.*
Open-type coolers and boxes. W. L. Nelson. Oil & Gas J 45:119 Jl 13 '46
Permanent gin pole for tower top. F. B. Savage. il Oil & Gas J 45:66 Je 1 '46
Pipe still arrangements. W. L. Nelson. diags Oil & Gas J 45:128 Ag 24 '46
Pipe-still duty. W. L. Nelson. Oil & Gas J 45:117 Ag 17 '46
Plant welder does good job lining flash chamber with stainless steel. il Pet Refiner 25:154+ Je '46
Poly plant converts to peace. H. E. Chambers and W. L. Pursell. flow chart il Oil & Gas J 45:118-19+ My 18 '46
Pressure vessels made with welded nickel alloy linings. T. H. Menaugh. il diags Materials & Methods 23:1289-92 My '46
Principles of reactor design. C. O. Reiser and others. bibliog flow plans flow diag diags Nat Pet N 38 pt 2:R260+, R388-90+, R439+, R545-6+, R629-30+ Ap 3, My 1, Je 5, Jl 3, Ag 7 '46; [cont as] Pet Processing 1:67+ S '46
Refinery electronics. V. Zeluff. il diags Sci Am 173:278-80 N '45
Results of alkylation plant modification. J. H. Kunkel. il Pet Eng 17:168+ N '45
Return bends; pipe stills. W. L. Nelson. Oil & Gas J 45:107 S 7 '46
Selection and application of refinery instruments. A. Krieg. il diags Pet Eng 17:120+ Ja; 74+ F; 93-4+ Mr; 164+ Ap; 108+ My; 120+ Je; 64+ Jl; 114+ Ag '46
Selection, installation and maintenance of refinery process control instruments. E. Bainbridge. diags Pet Refiner 25:101-8 Mr; 155-60 Ap '46
Shell and tube passes in exchangers. W. L. Nelson. diags Oil & Gas J 44:99 Ja 19 '46
Shell-still heaters. diag Oil & Gas J 45:213 Jl 27 '46
Shells and baffles. W. L. Nelson. diag Oil & Gas J 44:93 Mr 9 '46
Shop fabricated tower for the fluid catalytic cracking plant of Standard of Indiana. il Nat Pet N 38 pt 2:R250 Ap 3 '46
Simplicity and flexibility of thermofor catalytic cracking. H. D. Noll and others. flow diags Nat Pet N 38 pt 2:R304-8+ Ap 3 '46; Same. Oil & Gas J 44:110+ Ap 6 '46; Same. Pet Refiner 25:123-9 My '46; Same. Pet Eng (Ref annual) 17:221-2+ Jl 1 '46
Simplified catalytic cracking unit meets requirements of smaller refiners; with cost data. N. K. Anderson and M. J. Sterba. flow chart il Oil & Gas J 44:77+ D 22 '45; Same. Pet Refiner 24:109-13 D '45; Same. Pet Eng 17:62+ D '45
60 per cent yield in liquid-phase isomerization of pentane. L. S. Galstaun. flow diag il Oil & Gas J 44:56-9+ Ja 5 '46
Small fluid cat cracker designed to compete with units of larger capacity; with cost data. flow chart Oil & Gas J 45:97+ Je 8 '46
Small fluid catalytic cracking unit; Kellogram. flow sheet Pet Refiner 25:150 Je '46
Stainless and heat resisting steels. J. S. Ewing. il Pet Eng 17:124+ F '46
Stainless steel in the petroleum industry. J. S. Ewing. Pet Eng 17:108+ Jl '46; Same abr. il Nat Pet N 38 pt 2:R243-6 Ap 3 '46
Study of tower plate hydraulics made with air and water tests. il Nat Pet N 38 pt 2:R43-4 Ja 2 '46
Surface required for exchangers. W. L. Nelson. Oil & Gas J 44:145 Ap 27 '46
Survey of modern centrifugal pump practice for oilfield and oil refinery services. N. Tetlow. diags Inst Mech Eng J & Proc 150:Proc 121-34 F '44; Discussion. 152:Proc 303-14 D '45
Types of exchangers; double pipe. W. L. Nelson. diags Oil & Gas J 44:129 F 16 '46
Unit built specially to use new catalyst; Shell oil company's plant at Houston. il Pet Eng 17:251 S '46
Upping octane within cost limits poses $64 question for refiners. D. P. Thornton, jr. Nat Pet N 37 pt 2:R942-3 D 5 '45
Waste heat recovery in refinery process equipment. G. Armistead, jr. diags Oil & Gas J 45:100+ Ag 10 '46
Welded pressure vessels in the oil industry. J. C. Holmberg. il Welding J 25:329-32 Ap '46

Experimental plants
Modern approach to pilot plant operation. W. E. Bradley. il Pet Eng 17:190+ My '46
Pilot-plant and commercial desalting. M. J. See and others. il diags Pet Refiner 25:137-40 S '46

Fires and fire protection
Automatic fire system guards gasoline plant. J. C. Albright. il Pet Refiner 25:114 Ag '46
Professor Fire; training plan at Beaumont, Texas refinery. H. T. Fort. il diag Nat Safety N 53:18-19+ Je '46
Role of water in conquering fire in refining plants. D. Powell. il Pet Refiner 25:129-32 O '46

Fuel
Equivalent heating value of refinery fuels. W. L. Nelson. Oil & Gas J 45:111-12 O 12 '46
Liquefied propane storage insures refinery fuel supply; Wilshire oil company. il diag Pet Refiner 25:104-5 O '46

Laboratories
Refinery waste disposal problems handled in special laboratory; Atlantic refining co. W. F. Bland. il Nat Pet N 38 pt 2:R177-8+ Mr 6 '46

Maintenance and repair
Arc welding permits field repairs on corroded pressure vessel. F. G. Clark. il Nat Pet N 37 pt 2:R995-6 D 5 '45
Check your tube-still refractory-lining maintenance program. H. O. Johanson. diags Oil & Gas J 45:69+ Je 1 '46
Complete Houdry case inspection during regular catalyst change; use of Tubescope. W. C. Uhl. il Pet Processing 1:65-6 S '46
Data sheets, sketches aid in organizing refinery inspections, minimize delays. Nat Pet N 38 pt 2:R254+ Ap 3 '46
Decoking heater tubes with steam, air saves time, gives satisfactory results. diag Nat Pet N 38 pt 2:R577-8 Ag 7 '46
Fluid catalytic cracking units present complex problems in maintenance. il Oil & Gas J 44:239-41 Mr 30 '46
Four trouble points in a catalytic cracker and how one refinery has solved them. diags Nat Pet N 38 pt 2:R578-9 Ag 7 '46
How to organize instrument maintenance and repair department. A. Krieg. il Nat Pet N 38 pt 2:R113+ F 6 '46
Injection of plastic packing stops valve leak, keeps unit on-stream; has other uses. diag Pet Processing 1:17-18 S '46
Simple device saves 51 hours in maintenance of compressors. diags Nat Pet N 38 pt2:R10 Ja 2 '46
TCC unit turnaround procedure; inspecting, cleaning, and repairing of thermofor catalytic cracking unit. J. B. Godwin and R. B. Kennedy. Pet Eng 17:93-4+ N '45
Tower inspection. W. L. Nelson. Oil & Gas J 44:101 D 1 '45

Management
Efficient turnaround results from using graphical method to allocate man-hours; Eastern states petroleum co. Pet Process-1:98-9 O '46
How to organize instrument maintenance and repair department. A. Krieg. il Nat Pet N pt 2:R113+ F 6 '46
Plant practices for refinery superintendents and foremen. Nat Pet N 38 pt 2:R170-1 Mr 6 '46
Technical service pays its way. Nat Pet N 38 pt 2:R403-7 Je 5 '46
Turnarounds in fluid catalytic cracking units. L. R. Hill and J. W. Moorman. il Pet Eng 17:98+ F '46

Power
Combustion-gas turbine in the Houdry process. J. E. Evans and R. C. Lassiat. bibliog il diag Pet Refiner 24:135-40 N '45; Same cond. Power Pl Eng 50:118+ Mr '46
Portable power unit useful in refinery. diag Oil & Gas J 44:269 Mr 30 '46
Steam and power generation in the American refinery. W. F. Ryan. il diags Oil & Gas J 45:78-81 Je 29; 76-8 Jl 6; 85+ Jl 13; 97-8+ Jl 20 '46

Safety measures
Chemical health hazards in modern petroleum refining. R. G. Benson and P. M. Van Arsdell. bibliog il Oil & Gas J 45:95-7+ Ag 17 '46

PETROLEUM refineries—Safety measures—*Continued*
Chemicals that crack oil; hazards and safety measures. R. G. Benson. bibliog il Nat Safety N 54:24-5+ Ag '46
Employes contribute suggestions to refinery safety manual. F. R. Staley. Oil & Gas J 45:112+ Jl 13 '46
How effective is your program of safety inspection? G. Armistead, jr. Oil & Gas J 44:150+ Ap 20 '46
Planned yard conferences enlist workers in maintaining Baton Rouge refinery's good safety record. A. J. Ferguson. il Pet Refiner 25:112-16 Je '46
They did it with color; use of paints and tinted glass, machine shop at El Segundo. B. Klein. il Nat Safety N 53:20-1 F '46

Statistics

Refining industry trends to larger unit capacity. A. L. Foster. Oil & Gas J 44:251+ Mr 30 '46

Waste

Boiler experience burning refinery waste fuels. E. G. Gothberg. il Elec World 126: 52-3 Ag 3 '46
Disposal of petroleum refinery wastes. W. B. Hart. bibliog diags Nat Pet N 38 pt 2:R11-14+, R97+, R225+, R292-4+, R371-2+, R467-73, R512-14+, R587-8+ Ja 2, F 6, Mr 6, Ap 3, My 1, Je 5, Jl 3, Ag 7 '46; [cont as] Pet Processing 1:21-2+, 102-3+ S-O '46
Disposal of refinery wastes. L. C. Burroughs. il plans Pet Refiner 25:81-8 Jl '46; Abstract. Oil & Gas J 45:71 Je 29 '46
Operational details of Talco's waste-water disposal plant. C. G. Rook, jr. plan Oil & Gas J 45:75 N 2 '46
Reclamation of waste at Beaumont refinery of Magnolia petroleum company. J. L. Heath and P. Giblin. il diag Pet Refiner 25:117-20 S '46
Refinery waste disposal problems handled in special laboratory; Atlantic refining co. W. F. Bland. il Nat Pet N 38 pt 2:R177-8+ Mr 6 '46
Wastes reclaimed; used as cooling water. C. G. Rook. il diag Pet Processing 1:92-3 O '46

See also
Petroleum refining—By-products

PETROLEUM refining
American chemical society, Wichita section, 11th annual meeting. Oil & Gas J 45:96 Je 15 '46
Applications of the mass spectrometer to refinery process control. W. S. Young. bibliog il diag Nat Pet N 38 pt 2:R212-14+ Mr 6 '46
Basic petroleum chemistry for refinery employes; petroleum impurities and treating methods. J. J. Stadtherr. bibliog diags Pet Refiner 25:123-8 O '46
Calculation of solvent extraction equilibria. V. A. Kalichevsky bibliog Ind & Eng Chem 38:1009-12 O '46; Same. Pet Refiner 25:99-103 O '46
Catalytic reforming process of Standard oil company of California. E. O. Saegebarth. il diag Pet Eng 17:95-6+ My '46
Chemical requirements of the petroleum refining industry; Chem. & Met. report. il Chem & Met Eng 53:139-46 Ja '46 [reprint 25c]
Composition of raffinate and extract layers in selective solvent refining V. A. Kalichevsky. Nat Pet N 38 pt 2:R613+ Ag 7 '46
Crude oil assays prove valuable working tool for refiner's design engineers and plant operators. J. L. Petersen. Pet Processing 1:113-14+ O '46
Development of the postwar petroleum refining picture. E. R. Smoley and V. O. Bowles. Pet Refiner 25:172+ Ap '46; Same. Pet Eng 17:59+ Ap '46
Distex process; simplified flow diagram. W. L. Nelson. Oil & Gas J 45:127 Je 22 '46
Experiences in the commercial application of the hydrogen fluoride alkylation process. E. M. Skinner. flow sheet Am Inst Chem Eng Trans 41:647-70 D '45; Discussion. 42: 467-70 Je '46
Hydrogen fluoride-paraffin systems; significance of liquid-phase equilibria in the hydrogen fluoride alkylation process. E. B. Butler, C. B. Miles and C. S. Kuhn, jr. diags Ind & Eng Chem 38:147-55 F '46
Improved catalyst and new desalting method are revealed by Indiana Standard scientists. Nat Pet N 38:44 My 22 '46
Improved techniques for chemical refining of petroleum reported at ACS meeting. Pet Processing 1:146-8+ O '46
International section; statistical survey of world refining and production. Oil & Gas J 44:168-73 D 29 '45
Italian refining capacity down to only 40 per cent of prewar. A. Giordano. il Oil & Gas J 45:46-7 Je 1 '46
Jet planes, Dieselization of trucks may check drive for higher octanes. E. K. Brown. Nat Pet N 38:44 S 11 '46
Modern refining processes. G. Armistead, jr. bibliog il diags Oil & Gas J 44:60-3+ Mr 2; 76+ Mr 9; 103+ Mr 16, 81-2+ Mr 23; 131-4+ Ap 6; 97+ Ap 13; 150+ Ap 20; 124+ Ap 27; 115+ My 4; 45:108-11 Jl 13; 189+ Jl 27; 100+ Ag 10; 85-7+ Ag 31; 93-4+ S 28; 80+ O 5 '46
New equipment, improved operating practices stressed in technical sessions at WPRA; abstracts of papers. Nat Pet N 38: 19-20 Ap 3 '46
Peacetime utility of wartime petroleum refining processes. F. D. Parker. bibliog Pet Refiner 24:117-23 N '45; Same. Pet Eng 17: 116+ D '45; Same. Nat Pet N 38 pt 2:R27-32 Ja 2 '46
Petroleum as a chemical industry; abstract. G. Egloff. Chem & Met Eng 52:252+ D '45
Plan operations to use natural gas products or suffer profit loss. E. O. Thompson. Nat Pet N 38:14+ Ap 3 '46
Postwar refinery operations capitalize on skills developed during emergency. A. L. Foster. il Oil & Gas J 45:160+ Jl 27 '46
Principles of reactor design. C. O. Reiser and others. bibliog flow plans flow diag diags Nat Pet N 38 pt 2:R260+, R388-90+, R439+, R545-6+, R629-30+ Ap 3, My 1, Je 5, Jl 3, Ag 7 '46; [cont as] Pet Processing 1:67+ S '46
Refiners chart course; views of executives and technicians. Oil & Gas J 44:131-4 Mr 30 '46
Refinery engineering. W. Miller. Min & Met 27:121-3 F '46
Refining; prewar and postwar trends, etc. Oil & Gas J 44:180-3 Ja 26 '46
Refrigeration applications in petroleum processing. C. W. Cannon. diags Refrig Eng 51:130-4+ F '46
Some developments in the refining of transformer oils. J. C. Wood-Mallock. bibliog Inst Pet J 32:365-81 Jl '46
Standard of Indiana groups exchange technical data. Oil & Gas J 45:110 My 25 '46
Story of diisopropyl. R. C. Alden and others. bibliog flow diag il Oil & Gas J 44:70-3+ F 9 '46
Wartime refinery operations and their effect upon motor and aviation fuels. W. M. Holaday. diags S A E J 54:303-9 Je '46

See also
Gasoline—Manufacture
Lubricating oils—Manufacture
Petroleum distillation
Petroleum refineries

Asphalt removal

Lubricant stocks improved by propane deasphalting. J. T. Dickinson and N. R. Adams. flow chart il Oil & Gas J 44:185+ Mr 30 '46
Propane deasphalting process. C. W. Kraemer. flow chart il Oil & Gas J 44:228+ Mr 30 '46

Bibliography

Science and technology abstracts. Pet Refiner 25:174+ Ja '46 [cont monthly]
Semi-annual index of refining technology articles, July-December, 1945. Nat Pet N 37 pt 2:R1021-4+ D 5 '45

By-products

By-product bonuses. J. C. Dean. il Sci Am 175:12-14 Jl '46

PETROLEUM refining—By-products—*Cont.*
Petroleum byproducts, a big factor in organic chemical industry; Chem & Met report. bibliog il Chem & Met Eng 52:121-8 D '45 [reprint 25c]
See also
Petroleum coke

Patents

Digest of United States patents (cont). H. Heinemann, comp. Pet Refiner 24:172+ D '45 [cont monthly]
Patent trends in petroleum refining (cont). P. J. Gaylor. flow sheet flow diag diags Nat Pet N 37 pt 2:R986+; 38 pt 2:R71-2, R149-52, R190-1, R251-2, R377-8, R474-6, R538+, R584+ D 5 '45, Ja 2, F 6, Mr 6, Ap 3, My 1, Je 5, Jl 3, Ag 7 '46; [cont as] Pet Processing 1:55-6, 111-12 S-O '46

Salt removal

Basic petroleum chemistry for refinery employes; petroleum impurities and treating methods. J. J. Stadtherr. diag Pet Refiner 25:123-4 O '46
Crude oil de-salting in refinery operations. F. D. Fuqua. flow diag il Pet Refiner 25: 140-6 Ap '46; Same. Nat Pet N 38 pt 2: R363-4+ My 1 '46; Same. Oil & Gas J 44: 105+ Ap 13 '46; Same. Pet Eng (Ref annual) 17:268+ Jl 1 '46
Desalting of petroleum by use of fiberglas packing. T. A. Burtis and C. G. Kirkbride. bibliog flow diag Am Inst Chem Eng Trans 42:413-37 Je '46; Abstracts. Chem & Met Eng 53:258+ Ap '46; Nat Pet N 38 pt 2: R492+ Jl 3 '46; Discussion. Am Inst Chem Eng Trans 42:438-9 Je '46
Desalting of petroleum oils. G. Armistead, jr. bibliog diags Oil & Gas J 44:81-2+ Mr 23 '46
Desalting of petroleum with fiberglas packing. C. G. Kirkbride. flow diag Pet Refiner 25:95-103 Jl '46
Pilot-plant and commercial desalting. M. J. See and others. il diags Pet Refiner 25:137-40 S '46

Sulfur removal

Catalytic desulfurization of high sulfur stocks by the cobalt molybdate process; abstract. C. Berg and others. flow sheet Pet Processing 1:89-90 O '46
Desulfurization; chemical versus catalytic. W. L. Nelson. Oil & Gas J 44:85 Mr 2 '46
Desulfurization of petroleum and its products; catalytic method. flow chart il Oil & Gas J 44:162-3 Mr 30 '46
Desulfurization of petroleum hydrocarbons. R. M. Reed. bibliog flow chart il Oil & Gas J 44:219-20+ Mr 30 '46
Desulfurization project planned for Poza Rica field. C. Vinson. il Oil & Gas J 44:54 Ja 19 '46
Recent advances in Perco catalytic desulfurization. G. M. Brooner and M. W. Conn. bibliog il diag Oil & Gas J 45:96-8+ O 26 '46
Sulfur in light petroleum products. E. T. Scafe. map Pet Refiner 25:87-92 S '46
Superiority of desulfurized gasoline. W. L. Nelson. Oil & Gas J 44:284 N 17; 75 D 22 '45

Tables, calculations, etc.

Catalytic refining. flow charts il Oil & Gas J 44:136-66 Mr 30 '46
Coefficient of expansion. W. L. Nelson. Oil & Gas J 44:121 Ap 13 '46
Handy refinery engineering data. Oil & Gas J 44:B99-104 sec 2 Mr 30 '46
Heat rates outside tubes. W. L. Nelson. Oil & Gas J 45:123-4 My 11 '46
Method for predicting phase equilibrium constants. C. G. Kirkbride. bibliog Pet Refiner 24:97-104 D '45
Pressure drop through tube bundle of exchanger. W. L. Nelson. Oil & Gas J 45:129-30 Je 22 '46
Pressure drop through tube side. W. L. Nelson. Oil & Gas J 45:137 Je 15 '46
Transfer rates inside tubes. W. L. Nelson. Oil & Gas J 44:139 My 4 '46
Velocity in shells of exchangers; with chart. W. L. Nelson. Oil & Gas J 44:165-6 Ap 20 '46
Viscosity blending chart. W. L. Nelson. Oil & Gas J 45:107 Jl 6 '46
0°-50° A.P.I. versus specific gravity; conversion table. W. L. Nelson. Oil & Gas J 45:107 S 14 '46

Vapor recovery

Hydrogen sulfide removed from cracking-plant gases. il Pet Refiner 25:121-2 O '46
Single-stage vapor compressor adds engine to field service. il Pet Refiner 24:166+ N '45

Wax removal

Develop new spring-loaded pipe scraper for removing wax in lube oil plant. T. E. Schley. il Nat Pet N 38 pt 2:R416 Je 5 '46

PETROLEUM research
AAF and petroleum research: airplane engine fuel; rocket propellants. D. L. Putt. Am Pet Inst Proc 25(3):30-7 '45
Case for extended research in field of secondary recovery. E. Lamm. Nat Pet N 38:9 Ag 14 '46
Compressibility of liquid hydrocarbons. E. W. Jacobson and others. bibliog Oil & Gas J 44:109-10 Mr 23 '46
Cracking of heavy petroleum stocks over heated surfaces. A. Y. Larin. diags Nat Pet N 38 pt 2:R286+ Ap 3 '46
Creole starts research department to study exploration and production. P. Reed. il Oil & Gas J 44:63-4 My 4 '46
Engineering research; increased activity in postwar period should reduce production costs. H. H. Kaveler. Min & Met 27:123-4 F '46
Importance of research in secondary recovery by water flooding. R. V. Hughes. bibliog Pet Eng 17:180+ Ag '46
Improved petroleum products; development of a chemical research station at Sunbury. A. E. Dunstan and D. A. Howes. il Chem Age (Lond) 54:531-3 My 11 '46
Investigation by the U.S. government technical oil mission. W. J. Schroeder. Am Pet Inst Proc 25(3):24-9 '45; Same cond. Oil & Gas J 44:112+ N 24 '45; Excerpts. Chem & Met Eng 53:220+ Ja '46
Investigation of factors that affect fluid flow in porous media. R. Sneddon. il Pet Eng 17:55-8 Ja '46
Ninth technical conference on petroleum production, November 2-3, 1945 at State college. Pennsylvania State College Mineral Industries Exp Sta Bul 41:1-79 '46 (pa $1)
Petroleum products. R. Sneddon. il Pet Eng 17:82+ Ag '46
Petroleum research goes electronic. R. Sneddon. il Pet Eng 17:59-60+ N '45
Postwar oil research; industry allocates more funds for laboratory facilities than ever before. H. Ridder. il Nat Pet N 38:25+ Ap 17 '46
Radioactivity may be clue to added petroleum resources; research at Massachusetts institute of technology. Nat Pet N 38:48 Ap 17 '46
Radiochemical changes in some fatty acids. R. E. Honig. Science 104:27-8 Jl 12 '46
Report of Petroleum and natural-gas division, fiscal year 1944. R. A. Cattell and others. bibliog 9pls U S Bur Mines Information Circ 7358:1-29 '46
Research and the shoe string producer. F. R. Cozzens. Pet Eng 17:248+ Mr '46
Researches of Mellon institute, 1945-1946; researches for petroleum technology. Chem & Eng N 24:910-11 Ap 10 '46
Use of fissionable materials studied by oil companies. Pet Processing 1:94-5 O '46
See also
Petroleum laboratories

PETROLEUM shipping terminals
Plant efficiency; Shell east coast terminal. F. P. S. Glassey. il Nat Pet N 38:30-1 My 8 '46
Submarine loading-line replacement. R. P. Howell. il map diag Oil & Gas J 44:108-11 Ap 27 '46

PETROLEUM sulfonates. See Sulfonates

PETROLEUM supply
Future oil finds placed at 490 billion barrels; abstract. J. E. Pogue. Oil & Gas J 45:59 Ag 3 '46

PETROLEUM supply—*Continued*
International section; statistical survey of world refining and production. maps Oil & Gas J 44:168-82 D 29 '45
Looking forward. E. Holman. Oil & Gas J 44: 81 Ap 6 '46
PAW program division predicts strong demand situation starting in 1946. H. S. Norman. Oil & Gas J 44:52-5+ D 1 '45
PAW sees world oil demands growing after reaching mid-'46 low. Nat Pet N 37:4-6 N 28 '45
Relative oil strength of major powers. H. M. Tremaine. il map Mag of Wall St 78:84-6+ Ap 27 '46
World oil picture today. H. M. Tremaine. Mag of Wall St 77:253-5+ D 8 '45

China

Chinese reserves still a mystery. map Pet Eng 17:184 N '45

Germany

German methods of protecting petroleum stocks during war effective but costly; helped preserve much usable equipment. A. F. Holler. il Nat Pet N 38:30+ Mr 13 '46
War developments of the oil industry in Austria and Roumania; abstract. L. J. Grunder. S A E J 54:sup32 Je '46

Russia

Estimates of Russian oil resources. E. Adams. map Pet Eng 18:178+ O '46

United States

Annual and cumulative production, remaining reserves by fields; tabulations. Oil & Gas J 44:202+ Ja 26 '46
Average gas-oil ratio of Nation's oil fields. K. M. Fagin. Pet Eng 17:51-4 N '45
Crude oil reserves increase in 1945; API report. Nat Pet N 38:54+ Mr 6 '46
Discoveries in 1945. Oil & Gas J 44:166-7 Ja 26 '46
Domestic production only 3 per cent lower than at wartime peak. C. J. Deegan. Oil & Gas J 45:136-7 Jl 27 '46
Exploratory drilling in 1945. F. H. Lahee. maps Am Assn Pet Geologists Bul 30:813-28 Je '46
Exposing a fallacy. C. J. Deegan. Oil & Gas J 44:44-6 Mr 2 '46
In search of oil. Bsns W p31 Ap 13 '46
Independents plead for conditions favorable to finding new oil; hearing before Senate petroleum resources committee. Oil & Gas J 44:55 Mr 23 '46
Is our oil position sound? radio discussion. E. Holman; J. C. O'Mahoney. Comm & Fin Chr 164:1140+ Ag 29 '46
New reserves; discoveries, new pays, and extensions in 1945, their size, and where located. maps Oil & Gas J 44:187-92+ Ja 26 '46
Oil from Davy Jones' locker. R. M. Hyatt. Pub Util 37:477-82 Ap 11 '46
104 major fields yield 54.34 per cent of nation's oil. C. J. Deegan. Oil & Gas J 45: 146-8 Jl 27 '46
Petroleum reserves continue to decline as peacetime use exceeds predictions. W. B. Heroy. il Min & Met 27:429-30 Ag '46
Reserves. Oil & Gas J 44:176-9 Ja 26 '46
72 per cent of U.S. wells are strippers. E. G. Dahlgren and G. Pasquella. map Oil & Gas J 44:59-60 Ja 19 '46
Substantial oil imports will be needed. J. A. Krug. Oil & Gas J 45:67-8 Ag 17 '46; Discussion. 45:62-3 Ag 24 '46

PETROLEUM waste
Recovery and utilization of oil from oil-field waste emulsion. J. W. Horne and others. U S Bur Mines Rep of Invest 3869:1-16, pl 1-11 '46

See also
Petroleum refineries —Waste

PETROLEUM workers
Authority of fact-finding panel challenged at labor parley. H. D. Ralph. Oil & Gas J 44: 40-1 D 22 '45
Average hourly earnings in oil industry 46.7c above January, 1941, figures. Nat Pet N 38:14 Mr 27 '46
Lay your cards on public opinion table; management and oil workers union urged. Nat Pet N 37:3 N 28 '45
Management marshals facts for panel, runs into welter of conflicting data. Nat Pet N 37:3-5 D 12 '45
Oil school is born; Edwy R. Brown school of petroleum, Marietta college. H. Ridder. il Nat Pet N 38:25+ Jl 10 '46
Personnel training on repressuring project, West Pampa pool of Texas. J. Woodruff. Oil & Gas J 44:147 F 23 '46
Pipe line dispatcher. R. Sneddon. il Pet Eng 17:116+ S '46
Price, profit questions stymie panel; experiment with fact-finding plan for settlement of wage disputes; with text of O.W.I.U. proposal. Nat Pet N 37:3-5, 66 D 19 '45
Submit wage figures in crude cost study. Nat Pet N 38:4 Mr 13 '46
Thirty years of labor peace; Standard oil company (New Jersey) unique relationship with its workers. il Fortune 34:166-71 N '46
Wider application of Fair labor standards act to petroleum marketing looms; Wage-hour division weighs two court rulings. R. E. Bjorkback. Nat Pet N 38:11-12 Jl 17 '46

See also
Oil companies—Employees
Oil workers international union
Petroleum laboratories—Employees
Petroleum refineries —Employees

PETROPOLIS, Brazil

Hotels

Brazil's wonder hotel and casino. A. J. Boase. il diags Eng N 136:24-8, 112-16 Ja 10, 24 '46

PEW, James Edgar, 1870-
API, past living president. por Nat Pet N 38:53-4 O 30 '46

PFIZER, Charles, and company
Investment securities for capital building. Mag of Wall St 78:149-50 My 11 '46
Pfizer plans for further growth. Barron's 25: 15 D 17 '45
Thumbnail stock appraisal. Mag of Wall St 78:751 S 28 '46

PHAGOCYTOSIS
Surface phagocytosis; its relation to the mechanism of recovery in pneumococcal pneumonia. W. B. Wood, jr. and others. bibliog Science 104:28-9 Jl 12 '46

PHANOTRON
What you should know about industrial electronics. il Am Mach 90:104 F 28 '46

PHARIS tire and rubber company
Stocks with leverage possibilities. Mag of Wall St 78:393, 422 Jl 6 '46

PHARMACEUTICAL education
Drug trade conference upholds educational standards. Oil Paint & Drug Rep 148:7+ D 17 '45

PHARMACEUTICAL laboratories
Research laboratory for Hoffmann-La Roche inc., Nutley, N.J. il plans Arch Rec 98:104-11 N '45

PHARMACEUTICAL manufacturers' association, American. See American pharmaceutical manufacturers' association

PHARMACEUTICAL research
Antimalarial program of the Office of scientific research and development. R. C. Elderfield. Chem & Eng N 24:2598-2602 O 10 '46
Antimalarials; α-alkyl and dialkylaminomethyl-2-phenyl-4-quinolinemethanols. R. E. Lutz and others. bibliog Am Chem Soc J 68:1813-31 S '46
Reduction of sympathetic synaptic transmission as an index of inhibition at adrenergic junctions in general. A. S. Marrazzi. bibliog Science 104:6-8 Jl 5 '46
Rules for the John J. Abel prize in pharmacology. Science 104:393 O 25 '46
Scientific research in the pharmaceutical industry; abstract. C. W. Dunn. Oil Paint & Drug Rep 148:7+ D 17 '45

See also Sterling-Winthrop research institute

PHARMACISTS
Pharmaceutical survey progress reported. Oil Paint & Drug Rep 150:7+ O 21 '46

PHARMACOLOGY
Metabolite antagonists. R. O. Roblin, jr. bibliog(484 references) diags Chem R 38: 255-377 Ap '46
Some pharmaceutical developments in 1945. E. H. Volwiler and D. W. MacCorquodale. Chem & Eng N 24:346-9 F 10 '46
See also
Antispasmodics
Chemistry, Medical and pharmaceutical
Chemotherapy
Drugs

PHARMACY
Study and teaching
Country-wide survey of pharmaceutical education. Science 104:32 Jl 12 '46

PHASE adjusters
Phase-shifter nomograph. R. E. Lafferty. diags Electronics 19:158 My '46
Single-phase to three-phase conversion by the Ferraris-Arno system. A. H. Maggs. diags Inst E E J 93 pt 2:133-6 Ap '46

PHASE indicators
Sequence indicator for primary circuits. M. F. Wider. il diag Elec World 126:92 Jl 20 '46
Shows phase rotation of secondary circuits. M. F. Wider. il Elec World 126:106+ Jl 6 '46

PHASE rule and equilibrium
Active amyl-isoamyl alcohol system; vapor-liquid equilibrium at 760 mm. pressure. E. R. Hafslund and C. L. Lovell. bibliog il Ind & Eng Chem 38:556-9 My '46
Carbon dioxide in a natural gas-condensate system. F. H. Poettmann and D. L. Katz. diag Ind & Eng Chem 38:530-4 My '46
Composition of vapors from boiling binary solutions; apparatus for determinations under pressure. D. F. Othmer and F. R. Morley. bibliog diags Ind & Eng Chem 38:751-7 Jl '46
Determination of coexisting phases in heterogeneous systems of many components. P. A. Beck. J Ap Phys 16:808-15 D '45
Equilibrium constants for methane in paraffin mixtures. G. H. Hanson, M. J. Rzasa and G. G. Brown. bibliog Ind & Eng Chem 37:1216-17 D '45
Gas hydrate composition and equilibrium data. E. M. Frost, jr. and W. M. Deaton. bibliog Oil & Gas J 45:170+ Jl 27 '46
Interpretation of phase diagrams of ternary systems. L. A. Dahl. diags J Phys Chem 50:96-119 Mr '46
Liquid-vapor equilibria in the acetylmethylcarbinol-water system. R. H. Blom and A. Efron. bibliog il Ind & Eng Chem 37: 1237-40 D '45
Methods for predicting phase equilibrium constants. C. G. Kirkbride. bibliog Pet Refiner 24:97-104 D '45
Phase changes of Bose-Einstein fluid models. L. Goldstein. bibliog J Chem Phys 14:276-82 Ap '46
Phase equilibria in hydrocarbon systems; *n*-butane—decane system in the condensed region. H. H. Reamer, B. H. Sage and W. N. Lacey. bibliog diag Ind & Eng Chem 38: 986-9 O '46
Phase equilibrium relations in a portion of the system Na_2O-CaO-Al_2O_3-SiO_2. K. T. Greene and R. H. Bogue. bibliog J Res Nat Bur Stand 36:185-207 F '46
Phase relations and hydrocarbon-water systems; abstract. J. J. McKetta, jr. and D. L. Katz. Oil & Gas J 45:97-8 O 5 '46
Phase rule and topology. I. Levin. diags J Chem Educ 23:183-5 Ap '46
Recent work in the field of high pressures; phase changes under pressure. P. W. Bridgman. bibliog Rs Mod Phys 18:27-44 Ja '46
Recognition of phase transitions in adsorbed films on solids. D. H. Bangham. J Chem Phys 14:352 My '46
Rectification in ternary systems containing binary azeotropes. R. H. Ewell and L. M. Welch. bibliog Ind & Eng Chem 37:1224-31 D '45
Representation of the vapour-liquid equilibrium relation by means of a new graphical method. A. L. Bloomfield. Inst Chem Eng Trans 20:78-92 bibliog(p92); Discussion. 92-6 '42
Studies in vapor-liquid equilibria. T. T. Puck and H. Wise. bibliog diag J Phys Chem 50: 329-39 Jl '46
Surfaces of solids; a first- and a second-order phase change in the adsorbed film of *n*-heptane on graphite. G. Jura and others. bibliog J Chem Phys 14:344-7 My '46
Surfaces of solids; a unitary thermodynamic theory of th adsorption of vapors on solids and of insoluble films on liquid subphases. G. Jura and W. D. Harkins. bibliog Am Chem Soc J 68:1941-52 O '46
Surfaces of solids; first-order phase changes of adsorbed films on the surfaces of solids: the film of *n*-heptane on ferric oxide. G. Jura and others. bibliog J Chem Phys 14: 117-23 Mr '46
System acetone-water-1,1,2-trichloroethane; ternary liquid and binary vapor equilibria. R. E. Treybal, L. D. Weber and J. F. Daley. bibliog Ind & Eng Chem 38:817-21 Ag '46
System iron-oxygen; equilibrium and thermodynamics of liquid oxide and other phases. L. S. Darken and R. W. Gurry. bibliog il Am Chem Soc J 68:798-816 My '46
Systems containing isobutanol and tetrachloroethane; liquid-vapor and liquid-liquid equilibria. R. H. Fritzsche and D. L. Stockton. bibliog diags Ind & Eng Chem 38:737-40 Jl '46
Thermodynamic equilibria of higher order. E. F. Lype. bibliog Phys R 69:652-65 Je 1 '46
Thermodynamic evaluation of binary and ternary liquid systems. K. Wohl. bibliog Am Inst Chem Eng Trans 42:215-49 Ap '46
Vapor-liquid equilibria in non-ideal solutions. R. R. White. bibliog Am Inst Chem Eng Trans 41:539-54 O '45
Vapor-liquid equilibria in phenol-hydrocarbon systems. H. G. Drickamer and others. bibliog(p603) diags Am Inst Chem Eng Trans 41:555-605 O '45
Vapor-liquid equilibria in three hydrogen-paraffin systems. M. R. Dean and J. W. Tooke. bibliog diag Ind & Eng Chem 38: 389-93 Ap '46
Vapor-liquid equilibria of binary hydrocarbon systems. J. M. Harrison and L. Berg. Ind & Eng Chem 38:117-20 Ja '46
Vapor-liquid equilibrium; benzene-methanol mixtures. G. Scatchard, S. E. Wood and J. M. Mochel. bibliog Am Chem Soc J 68:1957-60 O '46
Vapor-liquid equilibrium; carbon tetrachloride-methanol mixtures. G. Scatchard, S. E. Wood and J. M. Mochel. bibliog Am Chem Soc J 68:1960-3 O '46
Vapor-liquid equilibrium still for miscible liquids. D. T. C. Gillespie. bibliog diags Ind & Eng Chem Anal ed 18:574-7 S '46
Vapor-phase equilibrium cell aids condensate-field studies. C. J. Deegan. il Oil & Gas J 45:128+ My 18 '46
Vapor pressure and vapor-liquid equilibria in the system furfural—2-methylfuran. R. F. Holdren and R. M. Hixon. diags Ind & Eng Chem 38:1061-2 O '46
Volumetric behavior of 1-butene. R. H. Olds, B. H. Sage and W. N. Lacey. bibliog Ind & Eng Chem 38:301-3 Mr '46
See also
Chemical equilibrium

PHASITRON
New modulation tube for frequency modulation. il diags Electronics 19:204+ F '46
Phasitron F-M transmitter. F. M. Bailey and H. P. Thomas. il diags Electronics 19:108-12 O '46

PHELLANDRAL
Carbonyl constituents of eucalyptus oils; constitution of phellandral; *d*-, *l*-, and *dl*-β-*iso*-propyladipic acids. G. Burger and A. K. Macbeth. Chem Soc J p145-7 Mr '46

PHEMITONE
Phemitone. M. A. Phillips. Chem & Ind p393-4 D 15 '45

PHENANTHRAQUINONE. See Phenanthrenequinone

PHENANTHRENE
Antibacterial action of phenanthrene-related substances. W. Raab. bibliog Science 103: 670-1 My 31 '46

PHENANTHRENE—*Continued*
Aromatic cyclodehydration; phenanthrene derivatives by the cyclization of ketones. C. K. Bradsher and L. J. Wissow. bibliog Am Chem Soc J 68:1094-6 Je '46
Cyclization of di- and triaryl carbinols; contribution to the mechanism of cyclization reactions. F. Bergmann and S. Israelashwili. bibliog Am Chem Soc J 68:1-5 Ja '46
2'-Ketodihydro-3,4-cyclopentenophenanthrene and derivatives of phenanthro[4.3-*b*]-furan. A. L. Wilds and W. J. Close. bibliog Am Chem Soc J 68:83-6 Ja '46
Synthesis of 1-keto-1,2,3,4,9,10-hexahydrophenanthrene. W. S. Johnson, H. C. E. Johnson and B. Petersen. bibliog Am Chem Soc J 68:1926-9 O '46
Synthesis of 9-phenanthrylmethyldichlorophenol and related compounds. D. S. Tarbell and Y. Sato. bibliog Am Chem Soc J 68:1091-4 Je '46
9-Vinylphenanthrenes; di- and tetraphenanthrylethylenes. F. Bergmann and S. Israelashwili. bibliog Am Chem Soc J 67: 1951-6 N '45

PHENANTHRENEACETONE
Derivatives of acetyl hydroxy furans and their conversion into substituted acetones. A. L. Wilds, W. J. Close and J. A. Johnson, jr. bibliog Am Chem Soc J 68:89-92 Ja '46

PHENANTHRENEQUINONE
Photochemical reactions in sunlight; (a) formation of triarylmethyl peroxides by the action of oxygen on triarylmethanes; (b) dehydrogenation effected by oxygen; (c) dehydrogenation effected by *p*-benzoquinone and phenanthraquinone. A. Schönberg and A. Mustafa. Chem Soc J p657-60 O '45
Photochemical reactions in sunlight; (a) reaction of ethylenes with phenanthraquinone and with benzil; (b) a new type of photochemical equilibrium. A. Schönberg and A. Mustafa. Chem Soc J p551-3 S '45
Reactions of phenanthraquinone with aromatic aldehydes and ammonia in alkaline media. E. A. Steck and A. R. Day. bibliog Am Chem Soc J 68:771-2 My '46

PHENANTHROFURAN
Derivatives of acetyl hydroxy furans and their conversion into substituted acetones. A. L. Wilds, W. J. Close and J. A. Johnson, jr. bibliog Am Chem Soc J 68:89-92 Ja '46
2'-Ketodihydro-3,4-cyclopentenophenanthrene and derivatives of phenanthro[4.3-*b*]-furan. A. L. Wilds and W. J. Close. bibliog Am Chem Soc J 68:83-6 Ja '46

PHENANTHROIN
Ultraviolet absorption spectrum of 9,9'-phenanthroin. R. N. Jones. Am Chem Soc J 67:1956-7 N '45

PHENANTHROLINE
Attempts to find new antimalarials; derivatives of *o*-phenanthroline (7 : 8 : 3' : 2'-pyridoquinoline). B. E. Halcrow and W. O. Kermack. Chem Soc J p155-7 Mr '46
Colorimetric determination of iron in water with *o*-phenanthroline. D. H. Caldwell and R. B. Adams. bibliog Am Water Works Assn J 38:727-30 Je '46
Determination of hydroperoxides in rubber and synthetic polymers. H. A. Laitinen and J. S. Nelson. bibliog Ind & Eng Chem Anal ed 18:422-5 Jl '46
Phenanthroline di-N-oxides. F. Linsker and R. L. Evans. Am Chem Soc J 68:403 Mr '46
Rapid photometric determination of iron in aluminum alloys. M. S. Pepi. bibliog Ind & Eng Chem Anal ed 18:111-12 F '46
Some substituted 1,10-phenanthrolines. H. R. Snyder and H. E. Freier. Am Chem Soc J 68:1320-2 Jl '46

PHENANTHROYL chloride
Oxidative ring closure in the Friedel-Crafts reaction; condensation of aromatic acid chlorides with naphthalene derivatives. G. D. Buckley. Chem Soc J p564-6 S '45

PHENANTHRYL methyldichlorophenol
Synthesis of 9-phenanthrylmethyldichlorophenol and related compounds. D S. Tarbell and Y. Sato. bibliog Am Chem Soc J 68: 1091-4 Je '46

PHENAZINE
New syntheses of heterocyclic compounds; triazafluorenes and azaphenazines from 4-chloro-3 : 5-dinitropyridine. V. A. Petrow and J. Saper. Chem Soc J p588-91 Jl '46

PHENOL
Action of methanol on phenol in the presence of alumina; formation of anisole, methylated phenols, and hexamethylbenzene. N. M. Cullinane and S. J. Chard. diag Chem Soc J p821-3 N '45
Condensation of diethylamine and formaldehyde with phenol, *o*-, *m*- and *p*- cresols. G. F. Grillot and W. T. Gormley, jr. Am Chem Soc J 67:1968-9 N '45
Phenol handling and shipping. T. P. Callahan. il Chem Ind 58:310-11 F '46
Reaction of fatty oils with phenol in the presence of sulfur dioxide or sulfuric acid; abstract. Paint Oil & Chem R 109:18 Mr 7 '46
Some preliminary investigations of the phenol-formaldehyde reaction; abstract. T. T. Jones. Chem & Ind p 19-20 Ja 12 '46
Vapor-liquid equilibria in phenol-hydrocarbon systems. H. G. Drickamer and others. bibliog(p603) diags Am Inst Chem Eng Trans 41:555-605 O '45

PHENOL condensation products
Dielectric properties of phenolic resins and molded compositions; Novolaks. L. M. Deibng. Electrochem Soc Trans 90: (preprint 3):23-46 '46
Dielectric properties of some homogeneous materials at high electric stress. A. E. W. Austen. bibliog diags Inst E E J 92 pt 1: 373-7 O '45
Improved synthetic ion exchange resin. W. C. Bauman. bibliog il Ind & Eng Chem 38:46-50 Ja '46
Phenolic resin picture. C. T. O'Connor. Paint Oil & Chem R 109:24+ Je 27 '46

PHENOLPHTHALEIN
Changing phenolphthalein from colorless to pink by adding acids. L. McCulloch. J Chem Educ 23:473 O '46

PHENOLS
Absorption of phenol vapors by plants. E. G. Beinhart. Science 103:207-8 F 15 '46
Action of methanol on phenol in the presence of alumina; formation of anisole, methylated phenols, and hexamethylbenzene. N. M. Cullinane and S. J. Chard. diag Chem Soc J p821-3 N '45
Cashew nut shell liquid; an application of the Prevost reagent to alkenyl phenols. M. Sletzinger and C. R. Dawson. Am Chem Soc J 68:345 F '46
Chemistry of dicyclopentadiene; addition of alcohols and phenols. H. A. Bruson and T. W. Riener. Am Chem Soc J 68:8-10 Ja '46
Effect of substituent groups upon the course of the condensation reaction between benzenediazonium salts and phenols. J. C. Colbert and R. M. Lacy. bibliog Am Chem Soc J 68:270-1 F '46
Fungicidal activity of bisphenols as mildew preventives on cotton fabric. P. B. Marsh and M. L. Butler. bibliog il Ind & Eng Chem 38:701-5 Jl '46
Hindered phenols. G. H. Stillson, D. W Sawyer and C. K. Hunt bibliog diag Am Chem Soc J 67:303-7 F '45; Correction, 68: 722 Ap '46
Removal of phenols from gas works ammoniacal liquor. D. G. Murdoch and M. Cuckney. il Chem Age (Lond) 55:493-6 O 26 '46
Resins from phenol and acetylene; report at 23d Kuko (Plastics committee) meeting in Frankfort. Hecht. Mod Plastics 23:152 Jl '46
Some aryl di-β-amidinoethyl ethers. A. H. Cook and K. J. Reed. Chem Soc J p920-1 D '45
Technologie; un exemple de récupération et de traitement des phénols dans une importante distillerie de goudron. M. Suprin. diags Chimie & Ind 55:7-15 Ja '46

See also
Dinitrophenol

Analysis
Colorimetric determination of phenols; application to petroleum and allied products. L. Lykken, R. S. Treseder and V. Zahn. Ind & Eng Chem Anal ed 18:103-9 F '46

PHENOLS—Analysis—*Continued*
Quantitative determination of phenolic fungicides. S. Gottlieb and P. B. Marsh. bibliog Ind & Eng Chem Anal ed 18:16-19 Ja '46

PHENOLSULFONATES
Salt effects of potassium nitrate, sodium sulfate and trisodium citrate on the activity coefficients of *p*-phenolsulfonate buffers. R. G. Bates and others. bibliog J Res Nat Bur Stand 37:251-61 O '46

See also
Potassium phenolsulfonate

PHENOLSULFONIC acid
Improved synthetic ion exchange resin. W. C. Bauman. bibliog il Ind & Eng Chem 38: 46-50 Ja '46

PHENOTHIAZINE
New syntheses of heterocyclic compounds; 3-azaphenthiazines. V. A. Petrow and E. L. Rewald. Chem Soc J p591-3 S '45

PHENOXYACETONE
Aryloxyacetones. C. D. Hurd and P. Perletz. bibliog Am Chem Soc J 68:38-40 Ja '46

PHENOXYAMINOQUINOLINE
Syntheses of certain derivatives of phenylpropylamino)-quinoline. W. M. Lauer and others. Am Chem Soc J 68:1548 Ag '46

PHENYLACETIC acid. See Toluic acid

PHENYLALANINE
Synthesis of certain derivatives of phenylalanine and of auramine in studies of antimalarial action. L. Hellerman and others. bibliog Am Chem Soc J 68:1890-3 O '46

Analysis

Determination of tryptophane, phenylalanine, and methionine; a rapid procedure. W. C. Hess and M. X. Sullivan. bibliog Ind & Eng Chem Anal ed 17:717 N '45

PHENYLAMINOQUINOLINE
Synthesis of simple 2-phenyl-8-aminoquinoline derivatives. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1589-91 Ag '46

PHENYLAZO cresol
2-Phenylazo-*p*-cresol, a photometric standard for vitamin A. H. R. Kreider. bibliog Ind & Eng Chem Anal ed 17:694-5 N '45

PHENYLBENZOYLPROPIONIC acid
Preparation of α-phenyl-β-benzoylpropionic and α,γ-diphenylbutyric acids. R. H. Baker and W. W. Jenkins. Am Chem Soc J 68:2102 O '46

PHENYL butanedione
Dissociation constants of acetylacetone, ethyl acetoacetate and benzoylacetone. M. L. Eidinoff. bibliog Am Chem Soc J 67:2072-3 D '45

Tautomeric equilibria in partially neutralized solutions of acetylacetone and benzoylacetone. M. L. Eidinoff. Am Chem Soc J 67:2073-5 D '45

PHENYLCHLOROFLUORENE
Electrolyte catalysis in the ammonolysis of 9-phenyl-9-chlorofluorene by liquid ammonia, alkaline-earth nitrates. W. F. Roper, R. C. Anderson and G. W. Watt. Am Chem Soc J 67:2269-70 D '45

PHENYLCHLOROQUINOLINE
3-Phenyl-4-chloro- and 3-phenyl-4,7-dichloroquinoline. R. C. Elderfield and J. B. Wright. Am Chem Soc J 68:1276-7 Jl '46

Synthesis of 2-phenyl-4-chloroquinolines. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1272-6 Jl '46

PHENYLCYCLOHEXANE carboxylic acid
1-Arylcyclohexanecarboxylic acids. M. Rubin and H. Wishinsky. Am Chem Soc J 68: 828-32 My '46

PHENYLCYCLOHEXANOL
Two new effective insect repellents, NMRI-201 and NMRI-448. L. A. Jachowski, jr. and M. Pijoan. Science 104:266-9 S 20 '46

PHENYLDICHLOROQUINOLINE
3-Phenyl-4-chloro- and 3-phenyl-4,7-dichloroquinoline. R. C. Elderfield and J. B. Wright. Am Chem Soc J 68:1276-7 Jl '46

PHENYLEICOSANE
High molecular weight hydrocarbons; eicosane, 1-phenyleicosane and 3-ethyloctadecane. K. W. Sherk, M. V. Augur and M. D. Soffer. bibliog Am Chem Soc J 67: 2239-40 D '45

PHENYLHYDRAZONES. See Hydrazones

PHENYLIODOSO acetate
Decomposition of phenyliodoso acetate. R. B. Sandin and W. B. McCormack. Am Chem Soc J 67:2051-2 N '45

PHENYLISOCYANATE
α-Methylenic reactivity in olefinic systems; the reaction between olefins and phenyl *iso*cyanate; evidence relating to the catalytic action of stannic chloride. J. W. Baker and J. B. Holdsworth. pl diag Chem Soc J p724-32 N '45

PHENYLMETHACRYLYLUREA
Methacrylylurea and N-phenyl-N'-methacrylylurea. R. A. Jacobson. Am Chem Soc J 67:1998-9 N '45

PHENYLNAPHTHYLAMINE

Analysis

Quantitative determination of some inhibitors in polymers by ultraviolet light absorption. F. W. Banes and L. T. Eby. diag Ind & Eng Chem Anal ed 18:535-8 S '46

PHENYLOSAZONE
Studies on sugar osazones; a comparison of the phenylosazones prepared from 3 : 6-anhydro-*d*-glucose and 3 : 6-anhydro-*d*-galactose with the anhydro-osazones prepared from *d*-galactosazone and *d*-glucosazone by the method of Diels and Meyer. E. G. V. Percival. Chem Soc J p783-6 N '45

PHENYLPHENACYL esters
Separation of acids by chromatographic adsorption of their *p*-phenylphenacyl esters. J. G. Kirchner, A. N. Prater and A. J. Haagen-Smit. bibliog Ind & Eng Chem Anal ed 18:31-2 Ja '46

PHENYLPROPENYL carbinol
Kinetics of anionotropic rearrangement; oxotropic formation of the styrene system. E. A. Braude, E. R. H. Jones and E. S. Stern. diag Chem Soc J p396-404 My '46

PHENYLPROPYLAMINE
Synthesis of arylpropylamines; from nuclear nitration. T. M. Patrick, jr., E. T. McBee and H. B. Hass. Am Chem Soc J 68:1153-5 Jl '46

PHENYLQUINAZOLINE
Quinazoline derivatives; synthesis of 4-(4'-diethylamino-1'-methylbutylamino)-quinazoline (SN 11,534) and corresponding 2-phenylquinazoline (SN 11,535). M. M. Endicott and others. bibliog Am Chem Soc J 68:1299-1301 Jl '46

PHENYLSUCCINONITRILE
Preparation of phenylsuccinonitrile. D. T. Mowry. Am Chem Soc J 68:2108 O '46

PHENYLVINYL carbinol
Kinetics of anionotropic rearrangement; oxotropic formation of the styrene system. E. A. Braude, E. R. H. Jones and E. S. Stern. diag Chem Soc J p396-404 My '46

PHILADELPHIA
See also
Wages—Philadelphia

Streets

Fact findings by Philadelphia committee for the relief of traffic congestion. Mass Transportation 41:367+ D '45

What can be done about traffic congestion? traffic engineering and enforcement methods. R. A. Mitchell. il Civil Eng 16:260-2 Je '46

Water supply

Dredge cleans waterworks basin without interrupting service. il diags Eng N 137: 314-15 S 5 '46

Philadelphia looks to upland sources for its new water supply. map Eng N 136:138-9 Ja 24 '46

Survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:277-305 F '46

PHILADELPHIA bibliographical center and Union library catalogue
Philadelphia bibliographical center. R. Hirsch. J Doc 1:21-5 Je '45

PHILADELPHIA stock exchange
Business at home; Philadelphia brokers appoint full-time executive. Bsns W p62+ My 11 '46

PHILADELPHIA transportation company
Bonds offered. Comm & Fin Chr 162:2952 D 17 '45

PHILANTHROPY
Pause for inquiry; philanthropic organizations look into their management and expenditures. Bsns W p17-18 Jl 6 '46

PHILCO corporation
Introduces expanded line of products. J. Ballantyne. Comm & Fin Chr 162:2463 N 22 '45
Preferred stock offered. Comm & Fin Chr 164:284 Jl 15 '46

PHILIP Morris and company. See Morris, Philip, and company

PHILIPPINE ISLANDS
Chances for success of new Philippine nation good. R. Masiello. Barron's 26:9 S 2 '46
FCAB issues full report on war damage in Philippines. East Underw 47:17 Je 28 '46
New Philippines war damage bill. Nat Underw 49:4 N 29 '45
Philippine damage fund increased in House amendments. Nat Underw 50:4+ Ap 18 '46
Philippine independence. Economist 151:4-5 Jl 6 '46
Propose half billion for Philippine war damage; recommendations of special investigators' report. Nat Underw 49:5-6 N 8 '45
Truman signs bills for money aid to Philippines and giving Islands preferential market in U.S. Comm & Fin Chr 163:2559 My 9 '46
U.S. sovereignty over Philippines ends; republic born. Comm & Fin Chr 164:256 Jl 13 '46

See also
Advertising—Philippine Islands
Furniture industry and trade—Philippine Islands
Gold mines and mining—Philippine Islands
Labor laws and legislation—Philippine Islands
Public health—Philippine Islands
Roads—Philippine Islands
Science—Philippine Islands
Sugar industry and trade—Philippine Islands
Tobacco industry and trade—Philippine Islands
World war, 1939-1945—Philippine Islands

Commerce

Coconut oil import duty lifting asked. Oil Paint & Drug Rep 149:5+ Ap 1 '46

Economic conditions

News by countries. For Comm W 21:30-1 N 17; 24-5 D 15 '45; 22:29 Ja 19; 23:33-5 My 18 '46
Philippine economy in liberation year. J. B. Richards. il For Comm W 23:3-7+ Ap 27 '46

Foreign relations

United States consular services on behalf of the Republic of the Philippines. For Comm W 24:23 Ag 3 '46

Industries and resources

Coconut palms, 120,000,000 of them. H. Leopold. il Food Ind 18:1535-7+ O '46
New island republic offers 4-year tax exemption to American firms. il Steel 119:75 N 4 '46
Philippine agency will seek out goods to restore island industries. Bsns W p110+ My 25 '46

PHILLIPS, Alexander Roy, 1880-1945
Sketch. East Underw 46:21 N 16 '45; por Nat Underw 49:3 N 15 '45

PHILOSOPHY, Political. See Political philosophy

PHOENIX, Arizona

Water supply

Phoenix, Arizona studies major water expansion. Eng N 136:900 Je 13 '46

PHONETICS
Basic phonetic principles of visible speech. G. A. Kopp and H. C. Green. il Acoustical Soc Am J 18:74-89 Jl '46

PHONOGRAPH
Measurement of recording characteristics by means of light patterns. B. B. Bauer. il diags Acoustical Soc Am J 18:387-95 O '46
Non-electrical phonograph. E. N. Kaufman and A. B. Kaufman. il diags Radio N 35:53+ Je '46
Unique phono amplifier. C. E. Peit, jr. il diags Radio N 35:50-1+ My '46
Volume expander compressor preamplifier; for application to phonograph play-back and recording amplifiers. R. C. Mosses. il diags Radio N 35:32-4+ Je '46

Pickup

Carbon phonograph pickup. A. B. Kaufman and E. N. Kaufman. il diag Electronics 19:162+ S '46
Improved modulated oscillator pickup. H. Kalmus. diags Electronics 19:182+ Jl '46
Phonograph reproducer design. W. S. Bachman. diags Elec Eng 65:Trans 159-62 Mr '46
Pickup with low mechanical impedance. H. P. Kalmus. bibliog il diags Electronics 19:140-5 Ja '46
Torsional magnetostriction pickup. S. R. Rich. il diags Electronics 19:107-9 Je '46

Radio pickup

Music for the home; radio-phonograph combination. il Fortune 34:156-63+ O '46

Rating

Report of tests on three radio receivers and a phonograph record player. Consumers Res Bul 17:18 Je '46

Record changers

Remote record-selection system. F. M. Berry. il diags Electronics 19:104-6 Je '46
Simple rack speeds record changer repairs. il diags Radio N 35:86 Je '46

PHONOGRAPH, Automatic
Juke box bonanza. Bsns W p37 F 16 '46
More plastics in juke boxes. il Mod Plastics 23:75-9 My '46
Pin-ball proving ground; plastics can endure rough treatment. C. A. Breskin. il Sci Am 175:25-6 Jl '46

Testing

Juke box analyzer. R. P. Turner. il diags Radio N 36:41-4+ S '46

PHONOGRAPH in education
Spotting and repeating record player; for teaching foreign languages. R. H. Bailey. il Radio N 35:29+ F '46

PHONOGRAPH in sales training
$200 stunt made our salesmen wild about this selling tool; Remington Rand sales brochure wins sales department's enthusiastic acceptance. S. Hiles. il Ptr Ink 217:50-1 O 18 '46

PHONOGRAPH needles
Diamond phonograph needle. diags Consumers Res Bul 17:9-10 Je '46
Four phonograph needles with sapphire tips. Consumers Res Bul 17:15-17 F '46
Good reproduction vs. wear of records; a study of phonograph needles. Consumers Res Bul 17:23-5 Mr '46
Phonograph needles. il Consumers Res Bul 16:22-3 D '45; Correction. 17:14 F '46
Phonograph needles of precious metal alloys. diags Consumers Res Bul 17:19-20 Ja '46

PHONOGRAPH records
Colorful cart merchandises children's records. il Ptr Ink 215:112 Ap 12 '46
Doubleday sees records and books as profitable retail teammates. Sales Management 56:78 F 1 '46
Novel marketing idea increases record sales; Arrow electric co., retailer, Passaic. il Ptr Ink 217:41 O 11 '46
Outlook for 1946. J. Kapp. Comm & Fin Chr 163:568 Ja 31 '46
Record makers see 1947 sales up 60% to 100%. E. R. Abrams. Barron's 26:11 N 4 '46
Retail self-service bares rich new sales lode for record makers. B. E. Schiffman. il Sales Management 56:89-90+ Ja 15 '46

PHONOGRAPH records—*Continued*
Retailers to be briefed in music record selling. Ptr Ink 216:132 S 13 '46
Self-service record shop; super-market methods in New Orleans store. il Ptr Ink 214:62 Ja 11 '46
Serviceman's recording studio. R. Paige. il Radio N 35:35+ Ap '46
Why Columbia record dealers never starve for promotion ideas. il Sales Management 57:44-6+ S 1 '46

Rating

Phonograph records. W. F. Grueninger. Published in monthly numbers of Consumers research bulletin

PHORMIUM tenax
Preliminary study of the polyuronide hemicellulose of phormium tenax (N.Z. flax). R. J. McIlroy, G. S. Holmes and R. P. Mauger. Chem Soc J p796-9 N '45

PHOSGENE
Benzoic acid from phosgene and benzene. W. H. C. Rueggeberg, R. K. Frantz and A. Ginsburg. Ind & Eng Chem 38:624-6 Je '46
Density and thermal expansion of liquid phosgene. C. N. Davies. bibliog J Chem Phys 14:48-9 Ja '46

PHOSPHATASES
Drying of wheat; phosphatase activity as an index of heat damage in cereals. J. B. Hutchinson and R. G. Booth. bibliog Soc Chem Ind J 65:235-7 Ag '46
Phosphatase activity as an index of heat damage in cereals; abstract and discussion. J. B. Hutchinson and R. G. Booth. Chem & Ind p149 Ap 6 '46
Possibility of a histochemical method for localizing adenosinetriphosphatase. F. Moog and H. B. Steinbach. bibliog Science 103:144 F 1 '46; Reply. D. Glick. 103:599 My 10 '46

PHOSPHATE coating
Chemical treatment of highly finished metal surfaces; manganese iron phosphate as coating. Mach 52:167 Jl '46
Chromating and phosphating prior to painting; abstract. A. R. King. Paint Oil & Chem R 109:32+ Je 27 '46
Corrosion of metals; new phosphating methods of protection. W. G. Cass. Chem Age (Lond) 54:373-4 Ap 6 '46
Finish durability improved with vitreous phosphate coating; Banox process. C. T. Roland and H. I. Rosenbloom. il Steel 118: 122+ Je 17 '46
German low temperature phosphating of metal. W. G. Cass. Chem & Eng N 24:1126 Ap 25 '46
How Ford automobile bodies are phosphate-coated. C. O. Herb. il Mach 53:150-4 S '46
New phosphate coating protects metal; Banox process. Blast F & Steel Pl 34:751-2 Je '46
Phosphating metallic surfaces. W. G. Cass. Chem Age (Lond) 55:5-8, 35-8, 67-70, 101-4 Jl 6-27 '46
Preparation of metals for painting. R. E. Gwyther. Steel 119:162+ O 14 '46
Rustproof coating of glassy phosphate; Banox process. il Steel 118:155 My 6 '46; Mech Eng 68:653 Jl '46; Heat & Ven 43:108 Ag '46

PHOSPHATE industry and trade
Federal trade commission report on international phosphate cartels. Chem Ind 59:86+ Jl '46

PHOSPHATE rock
Phosphate; annual review and forecast. J. A. Barr. il Min Cong J 32:70-1 F '46

See also
Railroads—Rates—Phosphate rock

Canada

Phosphate in 1944. Can Min J 67:258 Ap '46

Morocco

Phosphate rock in French Morocco. J. J. Howell. il For Comm W 23:12-13+ Ap 13 '46

PHOSPHATES
Carbohydrate phosphoric esters; the alkaline hydrolysis of α-methylglucopyranoside-6-phosphate, methylglucofuranoside-3-phosphates and *iso*-propylidene glucofuranose-3- and -6-phosphates. E. E. Percival and E. G. V. Percival. Chem Soc J p874-6 D '45
Effect of various acids on the stability of aerating powders. R. W. Morris and M. G. Read. bibliog Soc Chem Ind J 64:291-2 O '45
Les engrais phosphatés. C. Saint-Jacques. Génie Civil 123.113 My 1 '46
Phosphates and phosphorus; abstract. P. Logue. Chem & Met Eng 52:224+ D '45
Russian and Japanese phosphates. Chem Ind 58:990 Je '46
Scale and corrosion prevention by chemical conditioning of water; polyphosphates used by army. R. T. Hanlon and D. Newton. flow diags Pub Works 77:31-4+ Ap '46
Thermal defluorination of superphosphate. E. J. Fox and others. bibliog Ind & Eng Chem 38:329-34 Mr '46

See also
Sodium phosphates
Tributyl phosphate

Manufacture

Phosphate philosophy. A. R. Maas. flow sheet Chem & Met Eng 52:112-14 D '45
Superphosphate manufacture; new continuous process. S. Nordengren. diag Chem Age (Lond) 54:691-3 Je 22 '46

PHOSPHATIDES
Antioxidant properties of vegetable phosphatides; abstract. C. I. Bibby. Food Ind 18: 770+ My '46
Biological incorporation of a choline homologue into liver phospholipids. C. S. McArthur. bibliog Science 104:222 S 6 '46
Changes in stored dried eggs; role of phospholipides and aldehydes in discoloration. B. G. Edwards and H. J. Dutton. bibliog Ind & Eng Chem 37:1121-2 N '45
Phosphatides in coffee. Food Ind 18:769 My '46

PHOSPHAZO compounds
Phosphazo compounds and their use in preparing amides. H. W. Grimmel, A. Guenther and J. F. Morgan. il Am Chem Soc J 68:539-42 Ap '46

PHOSPHITES
Esters containing phosphorus. H. G. Cook, H. McCombie and B. C. Saunders. Chem Soc J p873-4 D '45
Isomerization of alkyl phosphites; the synthesis of phosphonoacetic and phosphonomalonic esters. G. M. Kosolapoff. Am Chem Soc J 68:1103-5 Je '46
Isomerization of alkyl phosphites; the synthesis of some alkaryl phosphonic acids and esters. G. M. Kosolapoff. Am Chem Soc J 67:2259-60 D '45
Studies on phosphorylation; the reaction of dialkyl phosphites with polyhalogen compounds in presence of bases; a new method for the phosphorylation of amines. F. R. Atherton, H. T. Openshaw and A. R. Todd. Chem Soc J p660-3 O '45

PHOSPHOLIPIDES. See Phosphatides

PHOSPHONATES

See also
Chlorophosphonates

PHOSPHONIC acids
Isomerization of alkyl phosphites; the synthesis of phosphonoacetic and phosphonomalonic esters. G. M. Kosolapoff. Am Chem Soc J 68:1103-5 Je '46
Isomerization of alkyl phosphites; the synthesis of some alkaryl phosphonic acids and esters. G. M. Kosolapoff. Am Chem Soc J 67:2259-60 D '45

PHOSPHOR bronze. See Bronze

PHOSPHORESCENCE. See Luminescence

PHOSPHORIC acid
Acetylation of cellulose in phosphoric acid solution; abstract. E. Heuser and others. Am Dyestuff Rep 35:461 S 23 '46
Defecation of refinery sirups; phosphoric acid and lime as pipe line defectants. G. G. Halvorsen and A. R. Bollaert. bibliog diag Ind & Eng Chem 38:385-9 Ap '46
Ethylation of benzene in presence of solid phosphoric acid. V. N. Ipatieff and L. Schmerling. bibliog Ind & Eng Chem 38: 400-2 Ap '46
*p*H control in dyeing processes. E. I. Noble. Soc Dyers & Col J 61:328-33 D '45

PHOSPHORIC acid—*Continued*
Phosphoric acid vs. materials of chemical plant construction. W. E. Pratt and others. il Chem & Met Eng 53:221-2+ Jl '46; [cont as] Chem Eng 53:203-4+ Ag; 203-4+ S '46
Polytreating of catalytically cracked gasolines. V. Haensel and V. N. Ipatieff. diag Ind & Eng Chem 38:1045-7 O '46
System ammonia-phosphoric acid-water at 75°. J. C. Brosheer and J. F. Anderson, jr. bibliog diags Am Chem Soc J 68:902-4 My '46

See also
Metaphosphoric acid

Manufacture

Phosphate philosophy. A. R. Maas. flow sheet Chem & Met Eng 52:112-14 D '45

PHOSPHORS. See Luminescence

PHOSPHORUS
Effect of cooking on the creatine-creatinine, phosphorus, nitrogen and pH values of raw lean beef. J. R. Bendall. Soc Chem Ind J 65:226-30 Ag '46
Esters containing phosphorus. H. McCombie and others. Chem Soc J p380-2, 873-4, 921-2 Je, D '45
Fused tricalcium phosphate fertilizer; possible animal feed supplement. D. E. Williams and others. bibliog Ind & Eng Chem 38.651-4 Je '46
Perturbations in the ultraviolet band spectrum of P_2. E. J. Marais. bibliog il Phys R 70:499-510 O 1 '46
Phosphates and phosphorus; abstract. P. Logue. Chem & Met Eng 52:224+ D '45
Surface measurements of radioactive phosphorus in breast tumors as a possible diagnostic method. B. V. A. Low-Beer. Science 104:399 O 25 '46

Analysis

Determination of inorganic phosphorus in plant materials. W. A. Pons, jr. and J. D. Guthrie. bibliog Ind & Eng Chem Anal ed 18:184-6 Mr '46
Determination of nitrogen, phosphorus, and potassium in leaf tissues; application of micromethods. R. H. Cotton. bibliog Ind & Eng Chem Anal ed 17:734-8 N '45
Determination of nitrogen, phosphorus, potassium, calcium, and magnesium in plant tissue; semimicro wet-digestion method for large numbers of samples. O. J. Kelley, A. S. Hunter and A. J. Sterges. bibliog diag Ind & Eng Chem Anal ed 18:319-22 My '46
Morgan method of soil testing; use of the Spekker absorptiometer for estimating phosphate. J. Tinsley and N. H. Pizer. bibliog Soc Chem Ind J 65:208-11 Jl '46
Rapid photometric determination of iron and copper in red phosphorus. J. A. Brabson and others. bibliog Ind & Eng Chem Anal ed 18:554-6 S '46

Isotopes

Disintegration of Na^{24} and P^{32} K. Siegbahn. bibliog diags Phys R 70:127-32 Ag 1 '46
Future of atomic energy; biological phase. W. E. Chamberlain. Chem & Eng N 24: 1352-6 My 25 '46

Statistics

Phosphorus data issued for 1943-45. Oil Paint & Drug Rep 150:54 Ag 5 '46

PHOSPHORUS bromides

See also
Phosphorus tribromide

PHOSPHORUS chlorothiocyanate
Phosphorus chlorothiocyanate and chlorodiisocyanate; silicon methoxythiocyanate. H. H. Anderson. bibliog Am Chem Soc J 67:2176-7 D '45

PHOSPHORUS halides
Experiments on the interaction of hydroxy compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases. W. Gerrard and M. J. Richmond. Chem Soc J p848-57 D '45

PHOSPHORUS pentachloride
Chlorination of starch with phosphorus pentachloride. H. N. Barham, E. S. Stickley and M. J. Caldwell. Am Chem Soc J 68:1018-24 Je '46

PHOSPHORUS poisoning
Chronic phosphorus poisoning. H. Heimann. bibliog(57 titles) il J Ind Hygiene 28:142-50 Jl '46

PHOSPHORUS sulfides
Use of phosphorus sulfide organic reaction products as lube oil additives. G. G. Pritzker. Nat Pet N 37 pt 2:R1001-2 D 5 '45

PHOSPHORUS tribromide
Experiments on the interaction of hydroxy compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases. W. Gerrard and M. J. Richmond. Chem Soc J p848-57 D '45

PHOSPHORYLASE
Midwest award to the Coris; address for the medalists; isolation and synthesis of phosphorylase. C. F. Cori. bibliog Chem & Eng N 24:895-6 Ap 10 '46

PHOSPHORYLATION
Physical, chemical and immunological properties of phosphorylated crystalline horse serum albumin. M. Mayer and M. Heidelberger. bibliog Am Chem Soc J 68:18-25 Ja '46
Studies on phosphorylation; the reaction of dialkyl phosphites with polyhalogen compounds in presence of bases; a new method for the phosphorylation of amines. F. R. Atherton, H. T. Openshaw and A. R. Todd. Chem Soc J p660-3 O '45

PHOTOCERAMICS
Photo ceramics; basic processes and formulas. Cer Ind 45.54-5 D '45; 46:54-5 F '46

PHOTOCHEMISTRY
Fluorescence and photochemistry of glass. W. A. Weyl. Glass Ind 27:395-7 Ag '46
Formation of tetravalent uranium during the uranyl-sensitized photochemical decomposition of oxalic acid. J. J. McBrady and R. Livingston. bibliog diag J Phys Chem 50:176-90 My '46
High velocity fragments in secondary photochemical processes. R. A. Ogg, jr. and R. R. Williams, jr. J Chem Phys 13:586 D '45
Mercury photosensitized reactions of 1-butene and 2-butene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 14:581-5 O '46
Mercury photo-sensitized reactions of diethyl ether. B. D. Darwent and others. J Chem Phys 14:551-7; Discussion. 557-9 S '46
Mercury photo-sensitized reactions of isobutene. H. E. Gunning and E. W. R. Steacie. J Chem Phys 14:544-51 S '46
Mercury photosensitized reactions of propane at low pressures. B. D. Darwent and E. W. R. Steacie. bibliog J Chem Phys 13:563-71 D '45
Photochemical investigations; the photolysis of unsymmetrical dimethylhydrazine. J. D. Overman and E. O. Wiig. Am Chem Soc J 68:320-1 F '46
Photochemical polymerization of butadiene. D. H. Volman. J Chem Phys 14:467-74 Ag '46
Photochemical reactions in sunlight; (a) formation of triarylmethyl peroxides by the action of oxygen on triarylmethanes; (b) dehydrogenation effected by oxygen; (c) dehydrogenation effected by *p*-benzoquinone and phenanthraquinone. A. Schönberg and A. Mustafa. Chem Soc J p657-60 O '45
Photochemical reactions in sunlight; (a) reaction of ethylenes with phenanthraquinone and with benzil; (b) a new type of photochemical equilibrium. A. Schönberg and A. Mustafa. Chem Soc J p551-3 S '45
Preliminary study of the photochemical system uranyl-iodide. J. J. McBrady and R. Livingston. bibliog J Phys Chem 50:339-45 Jl '46
Production and decomposition of ozone by low pressure mercury vapor lamps. L. R. Koller. bibliog il J Ap Phys 16:816-20 D '45
Pyrethrin I determination; effect of light in causing variations in experimental results. N. Green and R. H. Carter. bibliog Soap & San Chem 22:148a+ Jl '46
Quantum yield in the photo-reaction between methyl iodide and nitric oxide. T. Iredale and E. R. McCartney. bibliog Am Chem Soc J 68:144-5 Ja '46

PHOTOCHEMISTRY—*Continued*
Reaction of hydrogen atoms with acetone. G. M. Harris and E. W. R. Steacie. J Chem Phys 13:554-9 D '45
Reaction of hydrogen atoms with dimethyl mercury. G. M. Harris and E. W. R. Steacie. bibliog J Chem Phys 13:559-62 D '45
Reactions of thermochromic ethylenes. A. Schönberg, A. F. A. Ismail and W. Asker. Chem Soc J p442-6 Je '46

PHOTO-CONDUCTIVE cells. See Photoelectric cells

PHOTOCONDUCTIVITY. See Electric conductivity

PHOTOELASTICITY
Photoelasticity solves a knotty snapring problem; to retain a shaft on the strapping tool. R. E. Orton. il diags Machine Design 18: 115-16 F '46
Stress analysis methods. W. M. Murray. il Materials & Methods 23:1003-4 Ap '46

PHOTOELECTRIC cells
Behavior of a new blue-sensitive phototube in theater sound equipment. J. D. Phyfe. Soc Motion Picture Eng J 46:405-8 My '46
Calculated frequency spectrum of the shot noise from a photo-multiplier tube. R. D. Sard. diags J Ap Phys 17:763-77 O '46
Commercial use of direct reading spectrochemical analysis of magnesium alloys. J. L. Saunderson and T. M. Hess. il plan diag Metal Prog 49:947-55 bibliog(p954) My '46
Electronic spectroscopy. G. C. Sziklai and A. C. Schroeder. il diags J Ap Phys 17:763-7 O '46
Fundamentals of electron tubes. R. B. Immel. Power Pl Eng 50:104+ Ja '46
New electrolytic selenium photo-cell. A. von Hippel and others. bibliog diags J Ap Phys 17:215-24 Ap '46
Photoelectric aid for the blind; beam of light reflected by objects within 20-foot radius creates coded tone signals in earphone. il Electronics 19:204+ Ja '46
Photoelectric instrument for direct spectrochemical analysis. J. L. Saunderson and others. il plan diags Opt Soc Am J 35:681-97 N '45
Photo-electronic organ. R. E. Campbell and L. E. Greenlee. il diags Radio N 35:25-7+ Je; 36:36-7+ Jl '46
Phototube for dye image sound track. A. M. Glover and A. R. Moore. bibliog il Soc Motion Picture Eng J 46:379-86 My '46
Radio progress during 1945; electron tubes. bibliog Inst Radio Eng Proc 34 [Waves & Electrons 1]:171-2 Ap '46
Reading aid for the blind; letters converted into distinctive sounds. V. K. Zworykin and L. E. Flory. il diags Electronics 19:84-7 Ag '46
Report of the SMPE committee on color; importance of new high sensitivity caesium-antimony phototubes. Soc Motion Picture Eng J 45:397-400 D '45
Sensory aid for the blind; photoelectric ranging device gives aural indication of distance of obstacle. L. Cranberg. il diags Electronics 19:116-19 Mr '46
Thallous sulfide photo-conductive cells. A. von Hippel and others. bibliog il diags J Chem Phys 14:355-78 Je '46

Control uses

Electric-eye flame cutter. il Iron Age 157:41 Ja 24 '46; Same. Blast F & Steel Pl 34:144-5 Ja '46
Electric eye tracing in machine cutting. W. Bergerow. il diags Welding J 24:941-8 O '45; Discussion. 25:58 Ja '46
Electronic bloodhound guides cutting torches accurately. G. V. Slottman. il diags Am Mach 90:94-6 Ja 3 '46
Electronic register control for multicolor printing. W. D. Cockrell. il diags Elec Eng 65:Trans 617-22 Ag-S '46
Electronic tracing device; control of cutting torch with electric eye, follows outline of drawn patterns, eliminating templates. il Steel 118:94+ Ja 14 '46
Electronics actuates tracer control; pantograph type oxyacetylene cutting machines. R. F. Helmkamp. il diags Machine Design 18:137-42 Ap '46
Fifty-foot lightbeam controls rotating mandrel; making heavy hose at Hewitt rubber corporation. il Electronics 19:164 Ap '46
Light rays and coke ovens; device for correcting mis-alignment of ram and guide machines. C. R. Plant. il diags Electrician 136:1381-4 My 24 '46
Multiple street lighting with electronic control. il Elec World 125:150 Ap 13 '46
Photoelectric controlled welding; Pullman-Standard car mfg. co. il Steel 119:72 S 30 '46
Photoelectric controls for color printing. J. Robins and L. E. Varden. il diags Electronics 19:110-15 Je '46
Photoelectric protection for electric generators. C. O. von Dannenberg. diag Power Pl Eng 49:104-5 O '45
Photoelectric sight for solar telescope; control of drive mechanism of Harvard college observatory solar coronagraphic telescope. W. O. Roberts. il diags Electronics 19:100-3 Je '46
Photoelectric street lighting control. C. E. Marshall. il diags Electronics 19:134-6 S '46
Photoelectric switch gives remote control for huge machine. il Sci Am 175:23 Jl '46
Phototube weft straightening in textile industry. il diags Electronics 18:316+ N '45; Abstract. Sci Am 174:61 F '46
Phototubes provide edge control. S. J. Deitz. diags Machine Design 18:115-16 Ap '46
Safe controls. C. E. Marshall. il Safety Eng 91:43+ Mr '46
Sand drying expedited by photo-cell control. Sci Am 174:157 Ap '46
Sensitive photoelectric control. K. M. Laing. il Electronics 19:174+ O '46
Spectrograph exposure control. J. R. Cosby. bibliog il diags Electronics 19:123-5 Ap '46
Telemeter uses photocell. diag Elec World 124:60 D 22 '45
What you should know about industrial electronics; photoelectric relay. il diags Am Mach 90:132 S 26 '46

Cooling

Cooling photosensitive cells. E. F Coleman. diag Electronics 19.220+ Je '46

Industrial applications

Automatic assembly gives watthour meter accuracy; photo-electronic method. F. Strattner. il Elec World 126:79-80 O 12 '46
Automatic beverage inspection machine electronically guards quality; Coca-Cola company. il diags Product Eng 17:362-5 My '46
Automatic inspection of bottled beverages; machine developed by RCA for Coca-Cola company. il diag Machine Design 18:107-8 Jl '46
Automatic salesman delivers commercial; Ad vox merchandiser. il Ptr Ink 215:34 Ap 26 '46
Electronic fire and flame detector. P. B. Weisz. il diag Electronics 19:106-9 Jl '46
Electronic shutter-testers; photoelectric system produces recording on Teledeltos paper. R. F. Redemske. il diags Electronics 19:128-34 F '46; Same. Soc Motion Picture Eng J 46:409-23 My '46
Photoelectric fish counter. L. V. Whitney and A. D. Hasler. diags Electronics 19:178+ Mr '46
Photoelectric tone generator; patterns rotated through light beams generate fundamental and nine harmonics. L. E. Greenlee. il diags Electronics 19:93-5 S '46
Phototube sees X-rays; inspection of parts for internal defects. diag Electronics 19: 180+ N '46
700 tons of food sorted daily by electron tubes. il Elec World 125:136 My 25 '46; diag Electronics 19:152 Jl '46
Small arms ammunition; photo-electric device for testing. R. S. Spilsbury and A. Felton. il diag Electrician 135:739-43 D 28 '45

Measurement uses

Electronic micrometer for thin materials. diag Electronics 19:190+ O '46
Forecasting printability by oil absorption measurements; use of photo electric absorption meter. V. V. Vallandigham. Paper Tr J 123:39-41 O 24 '46

PHOTOELECTRIC cells—Measurement uses— *Continued*
Interference-free weatherometer; accelerated weathering applied to plastic and rubber and measured with photoelectric equipment. W. B. R. Agnew. il diag Electronics 18:160-1 D '45
Measurement of helios with a barrier-layer cell. Y. G. Hurd. diags Illum Eng 41:306-11 Ap '46
Photoelectric instrument for light scattering measurements and a differential refractometer. P. P. Debye. il diags J Ap Phys 17:392-8 My '46
Quantitative measurement of fading by the photoelectric tristimulus method; abstract. R. S. Hunter. Pulp & Pa of Can 47:89 Ag '46
Simple photo-electric absorptiometer. H. R. Clayson and B. A. Scott. bibliog il diags Soc Chem Ind J 65:97-101 Ap '46
Spectral intensity measurements with phototubes and the oscillograph. G. H. Dieke and others. diags Opt Soc Am J 36:185-91 Ap '46

See also
Photometers, Photoelectric

Testing

Photometric equipment for blocking-layer light-sensitive cells. H. T. Wrobel and H. H. Chamberlain. il diags Gen Elec R 49: 25-9 Ap '46

PHOTOELECTRIC effect
Electron emission and the photovoltaic effect; study of the photovoltaic effect for the electrode: solution of sodium in liquid ammonia. A. L. Ferguson and G. H. Kissin. bibliog il diags Electrochem Soc Trans 89 (preprint 21):245-54 '46
Influence of polarized light on the falling-off effect of the limiting potential of Einstein's photoelectric law. E. Marx. bibliog diags Phys R 69:523-9 My 1 '46
Nuclear photo-effect. G. Wataghin. bibliog Phys R 69:33-4 Ja 1 '46
Photoelectric effect in metal-ammonia solutions. R. A. Ogg, jr. bibliog J Chem Phys 14:295 Ap '46
Photoelectric properties of metals in a finely divided state. L. J. Reimert. bibliog Opt Soc Am J 36:278-83 My '46

PHOTOELECTRIC photometers. See Photometers, Photoelectric

PHOTOELECTRIC refractometers. See Refractometers, Photoelectric

PHOTOELECTRIC spectrophotometers. See Spectrophotometers, Photoelectric

PHOTOELECTRICITY

See also
Photoelectric cells

PHOTOENGRAVING
Infra-red burn-in oven is outstanding new product for photoengraving plates. il Inland Ptr 116:63 O '45
Measurement of tone reproduction of halftone prints and uniformity of solid prints. R. Buchdahl and others. bibliog il Paper Tr J 122:41-5 My 2 '46
Ultimate goal of research; automatic production of printing plates. G. C. Compton. il Inland Ptr 116:27-30 Mr '46

Standards

Standardizing color, inks, stocks, and sequences. J. T. Wrigley. il Inland Ptr 116: 37-8 N '45

PHOTOFLASH electric lamps. See Electric lamps, Photoflash

PHOTOGRAMMETRY. See Photographic surveying

PHOTOGRAPH frames. See Picture frames

PHOTOGRAPHERS

Directories

Photographers' association of America classified membership directory, 1945-46. 207p Photographers' assn. of America, 520 Caxton bldg, Cleveland 15 '46

PHOTOGRAPHERS association of America
Classified membership directory, 1945-46. 207p Photographers' assn. of America, 520 Caxton bldg, Cleveland 15 '46

PHOTOGRAPHIC chemistry
Aluminum and chromium as gelatin hardeners. H. L. Baumbach and H. E. Gausman. bibliog diag Soc Motion Picture Eng J 47:22-54 Jl '46
Desensitizing by dyes in relation to optical sensitizing of the silver halides. S. E. Sheppard and others. bibliog(29 references) J Phys Chem 50:210-22 My '46
Site of reaction in direct photographic development. T. H. James. bibliog J Chem Phys 14:536-9 S '46

See also
Dyes and dyeing, Photographic
Photographic emulsions
Photography—Developing and developers

PHOTOGRAPHIC emulsions
Magic emulsion; process by which metal, wood, cloth, leather, plastics or other surfaces can be made usable for photographic reproduction. Gen Elec R 49:60 Ap '46; Rubber Age 58:708 Mr '46; Elec World 125: 114+ Je 22 '46; Steel 119:120 Jl 1 '46
New photographic emulsions showing improved tracks of ionizing particles. P. Demers. Phys R 70:86 Jl 1 '46
New process makes possible direct photographic transfer to many surfaces. il Arch Forum 84:192 Mr '46
Photographic reproductions now possible on almost all surfaces; emulsion developed by G. L. Martin co. Rubber Age 58:708 Mr '46
Studies in the sensitivity of photographic materials. A. P. H. Trivelli. bibliog il diags Franklin Inst J 239:269-84; 241:1-21, 85-96, 315-22; 242:103-10 Ap '45, Ja-F, My, Ag '46

PHOTOGRAPHIC films. See Moving picture films; Photography—Films; Slide films

PHOTOGRAPHIC finishing, Commercial

Rating

Commercial mail-order photographic developing and printing. Consumers Res Bul 18: 19-20 Jl '46

PHOTOGRAPHIC lenses. See Lenses, Photographic

PHOTOGRAPHIC measurements
Photographic granularity and graininess. L. A. Jones and G. C. Higgins. bibliog il diags Opt Soc Am J 35:435-57; 36:203-27 Jl '45, Ap '46

PHOTOGRAPHIC optics
Lens calibrating system. C. R. Daily. il diags Soc Motion Picture Eng J 46:343-56 My '46
Photographic granularity and graininess. L. A. Jones and G. C. Higgins. bibliog il diags Opt Soc Am J 35:435-57; 36:203-27 Jl '45, Ap '46

PHOTOGRAPHIC printing service. See Photographic finishing, Commercial—Rating

PHOTOGRAPHIC records
Automatic oscillograph with a memory; for obtaining photographic records of randomly occurring transients. A. M. Zarem. il diags Elec Eng 65:Trans 150-4 Mr '46
System for rapid production of photographic records. F. M. Brown and others. il diags Franklin Inst J 242:203-12 S '46
Why Best Foods photocopies monthly sales records. E. A. Lovelock. il Food Ind 18: 345-6 Mr '46

See also
Microfilm records

PHOTOGRAPHIC reproduction and projection

See also
Microfilms

PHOTOGRAPHIC surveying
Aerial photographs speed reconnaissance work; advantages in the tropics. J. Edwin. il Eng & Min J 147:88-9 Je '46
Economics of photogrammetry; with cost data. L. T. Eliel. Am Soc C E Proc 71:287-96 Mr '45; Discussion. 71:907-15, 1282-8, 1565-6; 72:401-4 Je, O, D '45, Mr '46
Space resection problems in photogrammetry. P. H. Underwood. Am Soc C E Proc 72: 939-62 S '46
Trimetrogon aerial photography; oil industry's newest surveying tool. R. W. Disney. il map diags Oil & Gas J 45:112-15 O 19 '46

PHOTOGRAPHS
Mass, precision, symmetry; seven colored photographs by Ezra Stoller taken at Upjohn co., manufacturing pharmacists. Fortune 34:125-8 Jl '46

Collections

Air forces' collection of aerial photographs. F. R. Fosberg. Science 102:538-9 N 23 '45

PHOTOGRAPHS, Stereoscopic
QM's visual inspection gages. H. F. Schonenfelder. il Textile Col 68:22-3+ Jl '46

PHOTOGRAPHY
Choice of photographic materials for scientific purposes; abstract. H. Baines. Chem & Ind p365 N 24 '45
Hypersensitizing and latensification; a preliminary survey. S. E. Sheppard and others. bibliog Franklin Inst J 240:439-68 D '45
Know how to be your own photographer? F. B. Koss. il Ind Marketing 31:34-5+ Ap '46

See also
Cameras
Color photography
Graininess (photography)
Microfilms
Moving picture photography
Photographic surveying
Photomicrography
Radiography
Slide films
Spectrography
Television—Photographic aspects

Apparatus and supplies

Automatic recording of photographic densities. J. G. Frayne and G. R. Crane. il diags Soc Motion Picture Eng J 45:370-9 N '45
Redesign improves appearance and reduces tray syphon cost. il Product Eng 17:462 Je '46
Transfer mechanism employs differential drive; film developing machine. R. Sardeson. il diags Machine Design 17:120-2 D '45
Variable timing up to thirty seconds; instrument for controlling exposure time in photographic printing or enlarging. D. G. Haines. diag Electronics 19:154+ Jl '46

See also
Cameras
Densitometers
Photography—Films

Developing and developers

Developer packs, first under new Kodak plan. il Mod Packaging 19:112-13 Ja '46
New photographic developer for picture negatives. J. R. Alburger. Soc Motion Picture Eng J 45:459-65 D '45
Photographic development by ferrous iron in alkaline solution. T. H. James. Am Chem Soc J 67:1908-11 N '45
Precise timer and temperature controller for photographic processing. L. E. Owen. il diag R Sci Instr 17:155-6 Ap '46
Site of reaction in direct photographic development. T. H. James. bibliog J Chem Phys 14:536-9 S '46

See also
Photographic finishing, Commercial

Films

Atomic bomb blamed for film fogging. Bsns W p20 My 25 '46
Improvement of photographic color rendering by correction filters. A. van Kreveld. Opt Soc Am J 36:412-15 Jl '46
New lines of film from surplus stocks freed by armed services. il Bsns W p93-4 N 10 '45

See also
Moving picture films
Slide films

Fixing

Aluminum and chromium as gelatin hardeners. H. L. Baumbach and H. E. Gausman. bibliog diag Soc Motion Picture Eng J 47:22-54 Jl '46

Industrial applications

Cavitation criteria shown photographically; stroboscopic pictures of turbine runners. il Elec World 125:133 Ap 13 '46
Fixed-angle photos simplify explosion sketches. R. B. Wittman. il diags Am Mach 90:90-2 Ja 3 '46
Photographic representation of street lighting installations. R. G. Hopkinson. il Illum Eng 41:169-79 F '46
Photography in the pulp and paper mill. G. Schnitzer. il Paper Ind 28:215-18+ My '46
Ryan's photo template process. D. E. Clark. il Aero Digest 53:78-9+ Ag '46
Survey of phototemplate methods. F. Davis. il Soc Motion Picture Eng J 46:134-56 F '46
Technique of macrography; photographic apparatus and procedure. Chem Age (Lond) 53:411-13 N 3 '45
Use of sensitized metal in engineering. A. Batley. Chem & Ind p378-80; Discussion. 380 D 8 '45
Visual study of cylinder lubrication. M. C. Shaw and T. J. Nussdorfer. il diags S A E J 54:68-72 O '46
Yarn finishing aided by photography. C. M. Bowden. il Textile World 96:137+ Mr '46

Latent image

Studies in the sensitivity of photographic materials; the effective grain surface of latent-image formation. A. P. H. Trivelli. bibliog il Franklin Inst J 242:103-10 Ag '46

Lighting

Photographic use of electrical discharge flashtubes. H. E. Edgerton. bibliog il diags Opt Soc Am J 36:390-9 Jl '46

See also
Electric lamps, Photoflash

Scientific applications

Light measurement cameras. Gen Elec R 48:67 D '45
System for rapid production of photographic records. F. M. Brown and others. il diags Franklin Inst J 242:203-12 S '46
Timing a Meteor aircraft; systems used for world speed record flights at Herne bay. Electrician 135:591-2 N 30 '45

See also
Photography, Submarine

Sensitometry

Circuit for the control of an electromagnetic shutter for a sensitometer. W. R. Jewell and J. M. Blair. diag Opt Soc Am J 36:177 Mr '46
New standards to simplify sensitometric work on films. M. E. Russell. il Ind Stand 17:133-4 Je '46
Sensitometric evaluation of reversible color film. R. H. Bingham. bibliog Soc Motion Picture Eng J 46:368-78 My '46
Studies in the sensitivity of photographic materials. A. P. H. Trivelli. bibliog il diags Franklin Inst J 239:269-84; 241:1-21, 85-96, 315-22; 242:103-10 Ap '45, Ja-F, My, Ag '46

Standards

Film color sensitivity identified; American standard spectral-sensitivity indexes and group numbers. D. R. White. il Ind Stand 17:136-7 Je '46
New standards to simplify sensitometric work on films. M. E. Russell. il Ind Stand 17:133-4 Je '46
New transmission density standard basis for photography measurements. C. N. Nelson and M. H. Sweet. il diags Ind Stand 17: 138-41 Je '46

Studios and darkrooms

Designing the darkroom; home, professional and community; with time-saver standards. N. C. Ferguson. plans Arch Rec 100:124-5+ S '46
Photo studio lighting attracts patronage. R. A. Potter. il Elec World 124:170 D 8 '45

Yearbooks

American annual of photography, 1946. F. R. Fraprie and F. I. Jordan, eds. v60 200p $3; pa $2 American photographic pub. co. 353 Newbury st, Boston '45

PHOTOGRAPHY, Aerial
Aerial cameras; their history and development. T. Abrams. Mech Eng 68:866-70 O '46

PHOTOGRAPHY, Aerial—*Continued*
Aerial photographs speed reconnaissance work; advantages in the tropics. J. Edwin. il Eng & Min J 147:88-9 Je '46
Engineering applications of aerial reconnaissance. D. J. Belcher. il Geol Soc Bul 57: 727-33, pl 1-6 Ag '46
Photographic reconnaissance and the invasion of England. A. C. Bell. Engineering 161:568-9, 580-1 Je 14-21 '46
Planning of aerial photographic projects; with cost data. F. J. Sette. map Am Soc C E Proc 72:357-73 Mr '46; Discussion. 72: 1029-31, 1130-2 S-O '46
Preliminary observations on geological use of aerial photographs. F. A. Melton. diags Am Assn Pet Geologists Bul 29:1756-65 D '45
Some developments in aerial photography during the war. L. E. Nugent, jr. Am Assn Pet Geologists Bul 30:725-9 My '46

See also
Surveying, Aerial

PHOTOGRAPHY, Astronomical. See Astronomical photography

PHOTOGRAPHY, Ceramic. See Photoceramics

PHOTOGRAPHY, Flashlight
Light source for ultra-high speed photography; Microflash. il R Sci Instr 17:116 Mr '46

See also
Electric lamps, Photoflash

PHOTOGRAPHY, Military
Photographic reconnaissance and the invasion of England. A. C. Bell. Engineering 161:568-9, 580-1 Je 14-21 '46
System for rapid production of photographic records. F. M. Brown and others. il diags Franklin Inst J 242:203-12 S '46

See also
Moving pictures—Military use

PHOTOGRAPHY, Stereoscopic
New techniques for the inspection of textiles. H. F. Schoenfelder. diags Rayon 27: 483-5, 546-8 S-O '46; Same. Ind Stand 17: 255-60 O '46
Twin-eye cameras. Bsns W p56+ D 8 '45

PHOTOGRAPHY, Submarine
Photography of the ocean bottom. M. Ewing and others. bibliog il diags Opt Soc Am J 36:307-21 Je '46

PHOTOGRAPHY in industry
For better industrial photography; don't take pictures, think them. K. Hedrich. il Ind Marketing 31:40-2 Ag '46
Standard Oil (N.J.) offers photo service. il Sales Management 55:71 N 15 '45
Substitute for sample; Textron's viewer box shows products in use in full color. E. M. Housman. il Ptr Ink 213:23-4 D 21 '45

See also
Advertisements, Pictorial—Photographs
Moving pictures in industry
Photography—Industrial applications
Slide films

PHOTOGRAPHY of documents

See also
Microfilms

PHOTOGRAPHY of fossils
Photography of megafossils. J. E. Eaton. diag Am Assn Pet Geologists Bul 29:1494-1511 O '45; Discussion. F. K. Beach. il 30: 620-4 Ap '46

PHOTOGRAPHY of projectiles
Wide angle 35-mm high-speed motion picture camera. J. H. Waddell. il diags Soc Motion Picture Eng J 46:87-102 F '46

PHOTOGRAPHY on ceramic materials. See Photoceramics

PHOTOLITHOGRAPHERS, National association of. See National association of photolithographers

PHOTOMECHANICAL processes
Layout reproduction system; direct contact negatives and prints produced without camera or projector. A. H. Allen. il Steel 117:96-8 N 26 '45
Preparation of extensive bibliographies. J. A. Shaw and E. Fisher. Science 104:180 Ag 23 '46
Reprint economies for today's production problems; photographic processes. H. C. Latimer. Ptr Ink 216:48+ Jl 26 '46
Strain analysis by photogrid method. W. F. Brown, jr. and M. H. Jones. il Iron Age 158:50-5 S 12 '46; Excerpt. Mech Eng 68: 987 N '46
Survey of phototemplate methods. F. Davis. il Soc Motion Picture Eng J 46:134-56 F '46

See also
Photoengraving

PHOTOMETERS
Comparator-photometer for routine inspection of light-transmitting covers for aircraft lights; abstract. J. A. Bartelt and F. L. Douglas. bibliog Opt Soc Am J 36: 363 Je '46
Illuminagraphic camera measures light in given area. il Sci Am 174:172 Ap '46
Improved method of flame photometry. J. W. Berry, D. G. Chappell and R. B. Barnes. diags Ind & Eng Chem Anal ed 18:19-24 Ja '46
Indirect calibration of the filter photometer by means of the spectrophotometer; considerations on use of standards. C. L. Comar bibliog Ind & Eng Chem Anal ed 18:626-8 O '46
Influence of the Stiles-Crawford effect on measurements with the Pulfrich photometer. G. Hansen. bibliog diags Opt Soc Am J 36:321-5 Je '46
Multi-step sector photometer. J. A. Van den Akker. bibliog il diags Opt Soc Am J 36:561-8 O '46
Simple monochromation source. R. B. Barnes and others. diag Opt Soc Am J 36:52 Ja '46
Solution intake unit for improved operation of the flame photometer. A. T. Myers. diags Ind & Eng Chem Anal ed 18:585 S '46

See also
Densitometers
Spectrophotometers

PHOTOMETERS, Photoelectric
Cosine response of photocells and the photometry of linear light sources. C. A. Morton. Light & Lighting 38:157-60 N '45
Direct-reading photoelectric colorimeter. B. T. Barnes. diags R Sci Instr 16:337-9 D '45
General method of color grading. R. H. Osborn and W. C. Kenyon. bibliog Ind & Eng Chem Anal ed 18:523-30 S '46
Glossmeter for smoothness comparisons of machine-finished surfaces. R. S. Hunter. il diag Opt Soc Am J 36:178-81 Mr '46
Logarithmic photometer. M. H. Sweet. bibliog il diags Electronics 19:105-9 N '46
Measurement of helios with a barrier-layer cell. Y. G. Hurd. diags Illum Eng 41:306-11 Ap '46
Measurement of the size characteristics of powders by photo-extinction methods; the experimental investigation of the photo-extinction laws. H. E. Rose and H. B. Lloyd. bibliog diags Soc Chem Ind J 65:65-74 Mr '46
Measurement of the size characteristics of powders by photo-extinction methods; theoretical considerations. H. E. Rose and H. B. Lloyd. bibliog diags Soc Chem Ind J 65:52-8 F '46
New measuring device compensates for fluctuations in the intensity of light; Luxometer. il Inland Ptr 116:43 Mr '46
New procedure to measure accurately illumination, at large angles of incidence, with a barrier-layer cell. I. Goodbar. il Illum Eng 40:830-5 N '45
Photelometric analysis; Cenco-Sheard-Sanford photelometer. J. Parina, jr. bibliog il Steel 118:110-11+ Je 17 '46
Photometric calibration of lens apertures. A. E. Murray. bibliog il diags Soc Motion Picture Eng J 47:142-51 Ag '46
Photometric equipment. F. W. Sansom. diags Gas J (Lond) 247:759 My 8 '46
Photometric equipment for blocking-layer light-sensitive cells. H. T. Wrobel and H. H. Chamberlain. il diags Gen Elec R 49:25-9 Ap '46

See also
Spectrophotometers, Photoelectric

PHOTOMETRY

Approximations to Planckian distributions. P. Moon and D. E. Spencer. bibliog J Ap Phys 17:506-14 Je '46

Arc as a standard of light. J. T. MacGregor-Morris. diags Light & Lighting 39:101-3 Je '46

Carbon arc as a standard of light and radiation. Light & Lighting 39:44 Mr '46

Cosine response of photocells and the photometry of linear light sources. C. A. Morton. Light & Lighting 38:157-60 N '45

Light measurement cameras. Gen Elec R 48: 67 D '45

Photometric calibration of lens apertures. A. E. Murray. bibliog il diags Soc Motion Picture Eng J 47:142-51 Ag '46

Photometry and colorimetry of electric discharge lamps. G. T. Winch. Light & Lighting 39:41-2; Discussion. 43 Mr '46

Radiation in a diffusing medium. F. Benford. diags Opt Soc Am J 36:524-54 S '46

Tranmission and reflection by a diffusing medium; based on Radiation in a diffusing medium. [Opt Soc Am J 36:524-54 S '46] F. Benford. Gen Elec R 49:46-52 O '46

Use of heterochromous lines in spectrographic photometry. S. Levy and O. W. Christine. Opt Soc Am J 36:503-6 S '46

See also

Color
Color measurement
Colorimeters and colorimetry
Lighting—Tables, calculations, etc.
Optics
Photometers
Spectrophotometry

PHOTOMICROGRAPHY

Detergency studied by photomicrographic movie technique. il Soap & San Chem 22: 52-3 Je '46

Light-field ultramicrophotography of lyogels. E. A. Hauser and D. S. le Beau. il Am Chem Soc J 68:153-4 Ja '46

Microdensitometer for quantitative determination of relative densities of photographic negatives of tissue cells. T. Enns. il diag Franklin Inst J 242:151-3 Ag '46

Microscopic studies of lyogels: preparation of samples for ultra-illumination by incident light. E. A. Hauser and D. S. le Beau. bibliog il Ind & Eng Chem 38:335-8 Mr '46

Monochromatic light absorption by normal chicken erythrocytes. J. O. Ely and M. H. Ross. il Franklin Inst J 242:85-9 Jl '46

Multiple light source microscope. G. I. Lavin. il Science 104:61 Jl 19 '46

Photography in the pulp and paper mill. G. Schnitzer. il Paper Ind 28:215-18+ My '46

Practical method of selecting the correct type of cast iron. K. R. Geist and W. A. Hambley. bibliog il Iron Age 158:64-70 O 17; 58-64 O 24 '46

Surface finish; what surface profile is really like, as shown by ordinary and electron microscopes. L. H. Milligan. il diag Diesel Power 24:336-8 Mr '46

Upright type of microscope in metallography. J. R. Vilella. il Metal Prog 49:113-16 Ja '46

See also

Electron microscope
Microscope and microscopy
Photography—Scientific applications

PHOTONS

Production of photons in a Townsend gap in air, nitrogen, and argon. L. H. Fisher. Phys R 68:279 D 1 '45

PHOTOSYNTHESIS

Light and life; photosynthesis. C. B. van Niel. Chem & Eng N 24:1363-5 My 25 '46

PHOTOTELEGRAPHY

Improved phototelegraphy; equipment designed at Post office research station. il diag Electrician 136:734-6 Mr 22 '46

More work needed to develop facsimile weather map network. A. McSurely. Aviation N 5:29 Ap 15 '46

Picture transmission; equipment and methods exhibited. Elec R (Lond) 138:931 Je 14 '46

See also

Radio facsimile

PHOTOTHERAPY

See also

Heliotherapy

PHTHALAMIDES

Application of the Hofmann reaction to the synthesis of heterocyclic compounds; synthesis of 3-alkyl-2 : 4-diketo-1 : 2 : 3 : 4-tetrahydroquinazolines from *N*-alkylphthalamides. F. S. Spring and J. C. Woods. Chem Soc J p625-8 S '45

PHTHALAZINE

Preparation of some phthalazines and related substances. W. R. Vaughan and S. L. Baird, jr. bibliog Am Chem Soc J 68:1314-16 Jl '46

Synthetic antimalarials; some 1-(4-diethylamino-1-methylbutylamino)-phthalazines. N. L. Drake and R. M. Peck. Am Chem Soc J 68:1313-14 Jl '46

PHTHALEINS

Preparation of 2-(4-hydroxybenzoyl)-benzoic acid. M. H. Hubacher. bibliog Am Chem Soc J 68:718-19 Ap '46

PHTHALIC acid

First dissociation constant of *o*-phthalic acid and related pH values of phthalate buffers from 0° to 60° C. W. J. Hamer and others. bibliog J Res Nat Bur Stand 35:539-64 D '45

Second dissociation constant of *o*-phthalic acid and related pH values of phthalate buffers from 0° to 60° C. W. J. Hamer and S. F. Acree. bibliog J Res Nat Bur Stand 35:381-416 N '45

Analysis

Complete analysis of alkyd resins; abstract. C. P. A. Kappelmeier and W. R. van Goor. Paint Oil & Chem R 109:10 Ap 18 '46

PHTHALIC anhydride

First plant to make phthalic anhydride from petroleum at Richmond, Calif. il Nat Pet N 38:42 F 6 '46

Hexachlorobenzene from phthalic anhydride. M. N. Dvornikoff, D. G. Sheets and F. B. Zienty. Am Chem Soc J 68:142 Ja '46

Phthalic anhydride from ortho-xylene; abstract. H. Vesper and G. L. Parkhurst. flow diag Pet Processing 1:84-5 O '46

Phthalic anhydride from o-xylene; Oronite chemical co. il diag Chem Ind 59:68-9 Jl '46

Phthalic anhydride from petroleum. F. R. Staley. il Oil & Gas J 45:118-19 My 25 '46

Phthalic anhydride from petroleum breaks a coal-tar tradition. J. R. Callaham. flow sheet (p138-41) il Chem Eng 53:116-19 Ag '46

PHTHALIMIDES

N-alkamine substituted phthalimides. M. B. Moore and R. T. Rapala. bibliog Am Chem Soc J 68:1657-8 Ag '46

PHTHIOIC acid

Monomethyldecoic acids. C. V. Wilson. bibliog Am Chem Soc J 67:2161-2 D '45

PHYSICAL constants

Chemical propellants; analytical studies and characteristics of the system hydrogen peroxide-permanganate. F. Bellinger and others. bibliog diag Ind & Eng Chem 38: 627-30 Je '46

Determinations and calculations of physical constants of water suspensions of pigments. W. V. Torrey. Paper Tr J 122:53-4 F 14 '46

General physical constants. R. T. Birge. Chem Soc J p219-22 Mr '46

Induction and dielectric heating data. Elec West 96:61 Ja '46; Excerpt (Physical constants of metals) tabulation. Rayon 26:670 D '45; Same. Materials & Methods 22:1783 D '45; Same. Aviation 45:123 Ja '46

Molecular constants and chemical theories; some remarks on physical constants and theories of higher valence states. R. Samuel. bibliog J Chem Phys 13:572-84 D '45

Molecular weight; physical property correlation for petroleum fractions. L. W. Millls, A. E. Hirschler and S. S. Kurtz, jr. bibliog diag Ind & Eng Chem 38:442-50 Ap '46

Physical constants of paraffin hydrocarbons. Pet Refiner 25:130 My '46

Purification and physical constants of aromatic hydrocarbons. L. C. Gibbons and others. Am Chem Soc J 68:1130-1 Je '46

PHYSICAL constants—*Continued*
Vapor pressures and saturated liquid and vapor densities of the isomeric hexanes. W. B. Kay. bibliog diag Am Chem Soc J 68: 1336-9 Jl '46

See also
Boiling points
Dielectric constants
Freezing points
Melting points
Refractive index
Specific gravity
Specific heat
Specific volume
Units

PHYSICAL examinations
Findings from the examination of 500 industrial employees; abstract. N. P. Larsen. Ind Med 14:818-19 O '45
Industrial medical centre; with particular reference to pre-employment and periodic medical examinations. E. Dwyer. bibliog Ind Med 15:152+ F '46
Mass health surveys in industry; abstract. Nat Safety N 52:102 O '45
Necessity for having a definite schedule for periodic re-examination of all employees including salaried group and management group. C. D. Samuelson. Ind Med 15:566-9 O '46
Physical exams fall short in hiring new employees. R. R. Simmons. Nat Underw (Life ed) 50:3 My 17 '46
Physical inventories; pre-employment and periodic medical examinations. P. W. Rush. il Nat Safety N 53:24-5+ Je '46
Preliminary physical examination for industry. V. Brito A. and A. La Corte. Ind Med 15:143+ F '46
Pre-placement X-ray examination of the lower back. P. N. Barton and J. H. Biram. il Ind Med 15:319-22 My '46

See also
Chest
Eye—Examination
Medical service, Industrial

PHYSICAL geography
See also
Geology
Geophysics
Lakes
Paleogeography
Rivers
Volcanoes
Water, Underground

North Carolina

See also
Carolina bays

PHYSICAL instruments
Petroleum research goes electronic. R. Sneddon. il Pet Eng 17:59-60+ N '45

See also
Balances
Chemical apparatus
Electric apparatus and appliances
Electric instruments
Geophysical instruments
Magnetic instruments
Meteorological instruments
Optical instruments
Pressure gages
Radio instruments
Sound—Apparatus
Stroboscopic instruments
Surveying instruments

also names of instruments, e.g. Cyclotron; Goniometers; Manometers; Micrometers; Oscillographs; Spectrometers; Spectrophotometers; Thermometers and thermometry; Viscosimeters

Exhibitions

Physical society's exhibition. il diags Engineer 181:23, 36-7, 70-1, 81-2, 105-7 Ja 4-F 1 '46; Engineering 161:40-2, 89-91, 114-15 Ja 11, 25-F 1 '46; Chem & Ind p17-18, 30 Ja 12-19 '46; Electrician 135:729-31; 136:35-8 D 28 '45-Ja 4 '46; Elec R (Lond) 138:43-50 Ja 11 '46; Wireless Eng 23:58-62 F '46

PHYSICAL laboratories
Laboratory for nuclear science and engineering at the Massachusetts institute of technology. J. R. Zacharias. R Sci Instr 17:120-2 Mr '46

PHYSICAL measurments
Theory of scales of measurement. S. S. Stevens. Science 103:677-80 Je 7 '46

See also
Electric measurements
Magnetic measurements
Physical constants
Pressure gages
Pressure measurements
Radio measurements
Temperature—Measurement
Vibration—Measurement
Viscosity—Measurement

PHYSICAL medicine. See Physical therapy

PHYSICAL research
50 years of physics. G. F. Hull. Elec Eng 65: 378-83 Ag-S '46
Merging of sciences in electrical engineering. J. L. Miller. Inst E E J 93 pt 1:87-90 F '46; Abstracts. Electrician 135:342-3 O 5 '45; Elec R (Lond) 137:479-80 O 5 '45
Nuclear physics and chemistry at Harvard university. Science 102:472-3 N 9 '45
Recent work in the field of high pressures. P. W. Bridgman. bibliog(674 titles) diags Rs Mod Phys 18:1-93 Ja '46

See also
Great Britain—National physical laboratory, Teddington
Radar research
Radio research

History

Historic researches. Engineer 180:452-4, 476-7; 182:92-4, 114-16, 136-8, 158-61, 268-70, 292-3 D 7-14 '45, Ag 2-23, S 27-O 4 '46

PHYSICAL societies
Adequacy of the existing physics societies. P. H. Miller, jr. and others. R Sci Instr 16:58-9, 387-8 Mr, D '45
Proposal for the formation of a world association of physicists or nuclear scientists. G. F. Hull. Science 102:672 D 28 '45

PHYSICAL therapy
Physical medicine in industrial injuries. S. L. Osborne. bibliog il Ind Med 14:830-4 N '45

See also
Rest

PHYSICIANS
Consultant in relation to the plant physician. C. Leggo. Ind Med 14:834-5 N '45
Doctors and the health service. Economist 150:324-6 Mr 2 '46
Doctor's guild; Southern Pacific hospital staff organize; abstract. Ind Med 14:802+ O '45
Doctors' pay. Economist 150:794 My 18 '46
How I got into industrial practice and what I think of it; six doctors tell of their careers. Ind Med 15:44+ Ja '46
Impact of the war on medicine. A. N. Richards. Science 103:575-8 My 10 '46
Industry and the general practitioner. E. W. Bogardus. Ind Med 15:149+ F '46
Postwar outlook for physicians. J. Grunfel. Mo Labor R 61:1094-1111 D '45; Same, with additional data. U S Bur Labor Statistics Bul 683:1-21 '46
Relationships between the industrial physician and the community practitioner. C. Leggo. Ind Med 15:187-8 Mr '46

See also
Medical ethics
Medical service
Ramazzini, Bernardino

Advertising

California medics to sponsor state-wide promotion drive; to sell California physicians' service, and to push health insurance plans. Sales Management 55:186+ N 15 '45

Netherlands

Resistance of the medical profession during German occupation. W. F. N. Hegt. Ann Am Acad 245:162-8 My '46

PHYSICIANS' assistants
Physicians' and dentists' assistants. M. W. Zapoleon and E. Katcher. il U S Women's Bur Bul 203, no 11:1-15 bibliog(p14-15); pa 10c Supt. of doc. '45

PHYSICIANS' offices
Clinic on a sloping lot accommodates ten doctors in five suites. il plans Arch Forum 85: 129 O '46
House includes doctor's office and generous living space. il plans Arch Forum 84:112-13 Mr '46

PHYSICISTS
50 years of physics. G. F. Hull. Elec Eng 65: 378-83 Ag-S '46
Physical thinking and social problems. G. Bateson. Science 103:717-18 Je 21 '46
Physicists after the war; abstract. L. Bragg. Am Cer Soc J 29 (Cer A [25]):59 Mr 1 '46

PHYSICISTS—*Continued*
Place for physicists in the pulp and paper industry. R. N. Griesheimer and R. H. Savage. Paper Tr J 122:54-7 Ap 25 '46; Same cond. Paper Ind 28:437-8 Je '46
Proposal for the formation of a world association of physicists or nuclear scientists. G. F. Hull. Science 102:672 D 28 '45

See also
Coblentz, W. W.
Pauli, Wolfgang

PHYSICS
Physics of the solid state. G. Busch. Engineering 160:490-1 D 14 '45
Proceedings of the American physical society, meeting at Berkeley, Calif. July 12-13, 1946; with abstracts of papers. Phys R 70:443 S 1 '46
Proceedings of the American physical society meeting at New York, Jan. 24-26, 1946; with abstracts of papers. Phys R 69: 246-60 Mr 1 '46
Proceedings of the American physical society meeting at St Louis, Nov. 30-Dec. 1, 1945; with abstracts of papers. Phys R 69:44-54 Ja 1 '46
Proceedings of the American physical society meeting of New York state section at Hamilton, April 13, 1946; with abstracts of papers. Phys R 69:674-702 Je 1 '46
Proceedings of the American physical society; minutes of the meeting at Chicago, June 20-22, 1946; with abstracts of papers. Phys R 70:99-119 Jl 1 '46
Report on the Wilson cloud chamber and its applications in physics. N. N. Das Gupta and S. K. Ghosh. il diags Rs Mod Phys 18: 225-90 bibliog(p285-90) Ap '46

See also
Atoms
Chemistry, Physical and theoretical
Compressibility
Cosmic rays
Cyclotron
Diffusion
Dynamics
Elasticity
Electrodynamics
Electrons
Evaporation
Expansion (heat)
Fluids
Fluorescence
Friction
Gases
Geophysics
Heat
Heat transmission
Hydraulics
Hydrodynamics
Ionization, Electrolytic
Ionization, Gaseous
Ions
Light
Liquids
Mathematical physics
Mechanics
Meteorology, Aeronautic
Molecules
Optics
Particles
Pauli exclusion principle
Physical research
Plasticity
Pressure
Quantum theory
Radiation
Radioactivity
Reflection (optics)
Relativity (physics)
Sound
Statistical mechanics
Steam
Strains and stresses
Temperature
Thermodynamics
Thermometers and thermometry
Vibration
Viscosity
Wave mechanics
Weights and measures

Bibliography
Book reviews. Published in Review of scientific instruments April and October
Current literature of physics. R Sci Instr 17: sup 1-6 Ja '46 [cont monthly]

History
Fifty years of physics; a study of contrasts. G. F. Hull. Science 104:238-44 S 13 '46

Philosophy
Emergent energy. G. Strömberg. bibliog Franklin Inst J 241:323-39 My '46
Pyramid of physics. M. Herzberger. Franklin Inst J 241:229-42 Mr '46

Study and teaching
Engineering physics as a college curriculum. J Eng Educ 36:439-46 Mr '46
See also California university—Division of medical physics

Germany
War physics in Germany. S. A. Goudsmit. R Sci Instr 17:49-52 Ja '46

PHYSICS, Medical
University of California announces establishment of a new Division of medical physics. Science 103:15 Ja 4 '46

PHYSIOGNOMY
Aid to selection of salesmen; determination by constitutional types; body structure and facial characteristics. G. E. Fosbroke. il Ptr Ink 215:40-2+ Ap 19 '46

PHYSIOLOGICAL apparatus
Indwelling arterial needle for use in the radial artery. J. P. Henry and others. diags Science 104:299-300 S 27 '46
Modification of metabolism apparatus. W. J. Leach. diag Science 103:341-2 Mr 15 '46
Photographic method for recording ureteral kinetics in situ. D. R. Peterson. il diag Science 103:55-6 Ja 11 '46
Small mica window Geiger-Müller counter for measurements of radioactive isotopes in vivo. E. Strajman. diags R Sci Instr 17: 232-4 Je '46

See also
Biological apparatus
Electrokymograph
Electrophysiology—Apparatus
Ergographs
Perfusion apparatus
Respiratory apparatus
Respirometers
Spirometers

PHYSIOLOGICAL chemistry
Chemical characteristics and physiological rôles of glutamine. R. M. Archibald bibliog(309 references) Chem R 37:161-208 O '45
Determination of total body water and solids with isotopes. F. D. Moore. bibliog Science 104:157-60 Ag 16 '46
Molecular architecture and biological reactions. L. Pauling. bibliog Chem & Eng N 24:1375-7 My 25 '46

See also
Anesthetics
Anoxemia
Biological chemistry
Blood—Analysis
Carbohydrates
Chemistry, Medical and pharmaceutical
Cholesterol
Enzymes
Hormones
Immunity
Metabolism
Muscle
Nutrition
Poisons
Poisons, Industrial
Proteins
Toxins and antitoxins
Urine
Vitamins

PHYSIOLOGICAL research
Cooperative research in properties and therapeutic values of protein hydrolysates and amino acids. W. H. Cole. Science 103:205 F 15 '46

PHYSIOLOGICAL society, Canadian. See Canadian physiological society

PHYSIOLOGY
Recent work in medical science reported at Canadian physiological society annual conference; abstracts of papers. Can Chem & Process Ind 29:787-90+ N '45

See also
Blood
Diet
Electrophysiology
Fatigue
Hygiene
Longevity
Metabolism
Muscles
Nervous system
Nutrition
Old age
Respiration
Respiratory organs
Shock
Solvents—Physiological effect
Temperature—Physiological effect
Tissues

PHYTOFLUENE
Phytofluene; isolation from canned tomato paste. L. Zechmeister and A. Sandoval. bibliog Am Chem Soc J 68:197-201 F '46

PHYTOPATHOLOGICAL society, American See American phytopathological society

PIANO
Piano strung on aluminum instead of iron. il Bsns W p58 N 10 '45
Pianos that stay tuned; plastics replace wood in piano action; Permat. il Mod Plastics 24: 119-20 S '46

PIANO industry and trade
Lectures and dealer tie-ins boost sales of pianos and teaching methods; dealer-publishing house cooperation. N. Kelne. Ptr Ink 216:86+ Ag 9 '46

PIANO players
Glorifying chopsticks with plastics; Playano. il Mod Plastics 23:99 Ag '46

PIATT, William McKinney, 1879-
Sketch. por Civil Eng 15:571 D '45

PICKETING
Detroit authorities rule home picketers out of bounds. il Bsns W p94 My 25 '46
Picketing versus the rights of management and the public. P. E. Anderson. Comm & Fin Chr 164:1261+ S 5 '46

PICKLING (metals)
Acid recovery from pickle liquor; methods at recent British plants; abstract. N. Swindin. Am Water Works Assn J 38:796-7 Je '46
Analysis of hydrofluoric-nitric acid stainless steel pickling bath. W. E. McKee and W. F. Hamilton. bibliog Ind & Eng Chem Anal ed 17:310-12 My '45; Same. Metal Finishing 43:332-3+ Ag '45; Abstract. Steel 118:110-12 Je 10 '46
Automatic mechanical pickler; Superior drawn steel co. J. D. Knox. il diag Steel 118:123-4 Ap 29 '46
Checking pickle room operations. il Cer Ind 45:60-1 N '45; 47:72+ O '46
Cleaning and pickling before vitreous enameling. L. E. Punderson. plan Cer Ind 46:63 My '46
Combination of acids employed in pickling process. E. W. Mulcahy. diags Steel 118: 122-4 Ap 15 '46
Continuous spray-pickle machine. E. H. Rollfs. il diag Cer Ind 47:66-7 S '46
Hot-dip galvanizing practice. W. H. Spowers, jr. il Steel 119:118+ O 21 '46
Mechanical pickler. il Blast F & Steel Pl 34:1030-1 Ag '46
Pickling acid consumption reduced; abstract. P. de Lattre. Iron Age 157:71 My 2 '46
Pickling and bright dipping copper-zinc alloys. G. B. Hogaboom. diags Metal Finishing 44:198-201 My '46
Pickling of steel and iron alloys; abstract. P. De Lattre. Materials & Methods 24:458+ Ag '46
Relation of enameling iron preparation and accessory conditions to copperhead-type defects. W. H. Pfeiffer and R. S. Sheldon. Am Cer Soc J 29:235-9 S 1 '46
Semi-mechanized pickling in United States plants. P. A. Huppert. diags Cer Ind 47: 58-60 Jl '46
Sodium hydride descaling. L. W. Townsend. il Steel 117:122-3+ N 12 '45
Submerged combustion in industry; abstract. W. G. See. Steel 119:131 O 14 '46
Treatment of spent pickling liquors [résumé of two papers in Industrial and engineering chemistry, March, 1944 and June, 1945] R. D. Hoak, C. J. Lewis and W. W. Hodge. Steel 118:104+ F 11 '46
Ways to utilize spent pickle liquor. H. R. Murdock. Ind & Eng Chem 38:sup81-2 Ap '46
Youngstown welding develops new type mechanical pickler. Iron Age 157:176 My 2 '46

PICKUP. See Phonograph—Pickup

PICKUP equipment. See Airplanes—Pickup equipment

PICKUP service. See Airlines—Pickup service

PICOLINE
Addition compounds of sulfur dioxide with pyridine and the picolines. K. R. Hoffman and C. A. VanderWerf. bibliog Am Chem Soc J 68:997-1000 Je '46
Compound formation between the picolines and *o*-chlorophenol. L. V. Lemmerman, A. W. Davidson and C. A. VanderWerf. bibliog Am Chem Soc J 68:1361-4 Jl '46
Reactions of acetophenone and iodine with some nitrogenous bases. L. C. King and M. McWhirter. bibliog Am Chem Soc J 68: 717 Ap '46
Studies in coal tar bases; separation of β-and-γ-picolines and 2:6-lutidine. E. A. Coulson and J. I. Jones. Soc Chem Ind J 65:169-75 Je '46

Analysis

Method for purifying beta-picoline and a test for purity. G. Riethof and others. Ind & Eng Chem Anal ed 18:458-9 Jl '46

PICRAMIC acid
Preferential reduction of nitro-groups in polynitro-compounds; picric acid and 3 : 5-dinitro-*o*-cresol; an almost quantitative preparation of picramic acid. H. H. Hodgson and E. R. Ward. Chem Soc J p663-5 O '45

PICRIC acid
Preferential reduction of nitro-groups in polynitro-compounds; picric acid and 3 : 5-dinitro-*o*-cresol; an almost quantitative preparation of picramic acid. H. H. Hodgson and E. R. Ward. Chem Soc J p663-5 O '45

PICTURE frames and framing
Frames by the thousands. il Mod Plastics 23:152 D '45

Advertising

Advertising went on the rocks before company achieved success; New York frame and picture co. Ptr Ink 215:120 Ap 19 '46

PIERCE, Curtis W. 1880-
New president of NFPA. por East Underw 47:22 Je 14 '46

PIERCE, John B., foundation
Liquid heat powers domestic utilities; Pierce foundation proves practicability of a single energy-source for the house. il diags Arch Forum 84:212-14 Ap '46

PIERS
Cyclopean pier construction; explosives loading pier, Long Beach, Calif. K. P. Peel. il diags Eng N 136:282-4 F 21 '46
Design data on permeable concrete piers; protecting Lake Michigan shore. il Concrete 53:6-8 N '45
Pier doors; principles and types. il Arch Rec 100:123 S '46
Piers and jetties of precast concrete. S. P. Lathrop. il diags Rock Prod 49:136-7 F '46
Piers and wharves on steel cylinders. E. H. Harlow. il Eng N 137:33-5 Jl 11 '46

Fires and fire protection

Constant efforts being made to lessen chief pier fire hazards. Weekly Underw 154:386+ F 9 '46
Large pier fires. il Safety Eng 92:56 Jl '46
$600,000 Staten Island pier loss analyzed; New York Board points out need of proper construction. Nat Underw 50:9 Mr 28 '46

PIERS (foundations)
Design of concrete piers for horizontal storage tanks. O. L. Garretson and H. R. Zeigler. il Pet Refiner 25:131-3 S '46
See also
Bridges—Foundations and piers

PIETZKER'S formula. See Ship plates

PIEZOELECTRIC crystals. See Crystals, Piezoelectric

PIEZOELECTRICITY
General dynamical considerations applied to piezoelectric oscillations of a crystal in an electrical circuit. W. F. G. Swann. diags Franklin Inst J 242:167-95 S '46

PIG iron
Carbon in pig iron. W. H. White. chart Foundry 74:109 Je '46
Government to pay premiums on merchant iron as output spur. Steel 119:77 S 23 '46
NHA drafting $8 a ton bonus plan to step up pig iron output. K. Rannells. Iron Age 158:110 S 12 '46
Pig iron squeeze; dispute between CPA and Wyatt. Bsns W p20 S 28 '46
Wyatt launches bonus plan for increasing pig iron output. K. Rannells. Iron Age 158:109-10 S 26 '46
See also
Cast iron
Iron founding

Prices

Basic foundry and charcoal pig iron, monthly, 1931-1945; tabulations. Iron Age 157:236+ Ja 3 '46
Composite pig iron price, monthly, 1926-1945; tabulation. Iron Age 157:224 Ja 3 '46

Statistics

Pig iron production, monthly, 1929, 1939-1945; tabulation. Steel 118:353 Ja 7 '46

PIG iron—Statistics—*Continued*
Steel industry statistics; comp. by the American iron and steel institute. Steel 117: insert S 1-3 D 17 '45
United States pig iron production, monthly, 1901-1945; tabulation. Iron Age 157:172 Ja 3 '46
World production of pig iron and ferroalloys, by countries, 1929-1945; tabulation. Steel 118:347 Ja 7 '46

PIGMENTATION. See Color of animals

PIGMENTS
Ancient Greek pigments. E. R. Caley. J Chem Educ 23:314-16 Jl '46
Application of crystallographic techniques to titanium pigments. C. H. Moore, jr. bibliog diags Can Chem & Process Ind 30:40-4 O '46
Black light and color magic. il diags Arch Rec 100:115-19 S '46
Chemical reaction in metal protective paints. E. J. Dunn, jr. il Paint Oil & Chem R 109: 5-8 Jl 25 '46
Color and solarization of glasses containing combinations of coloring oxides. L. V. Gagin and others. Glass Ind 27:500-1+ O '46
Color stability of olive drab infrared-reflecting camouflage finishes. E. E. Jukkola and R. Cohen. bibliog il Ind & Eng Chem 38:927-30 S '46
Colouring of plastics. C. R. M. Oehlcke. bibliog Soc Dyers & Col J 61:306-10 D '45
Comparison of mineral pigments in GR-S. R. E. Morris and others. il diag Rubber Age 58:331-7 D '45
Continuous process for GR-S master batches with nonblack pigments; Buca A clay incorporated. diag Ind & Eng Chem 38:1013-16 O '46
Determinations and calculations of physical constants of water suspensions of pigments. W. V. Torrey. Paper Tr J 122:53-4 F 14 '46
Dyeing of cotton with mineral khaki; the effect of exposure to weathering agencies on yarns pigmented with copper, chromium and iron compounds. E. Race and F. M. Rowe. bibliog il diags Soc Dyers & Col J 62:19-29 Ja '46
Dyeing of cotton with mineral khaki; the incorporation of copper with chromium and iron in mineral khaki for the production of an effective fungicide and bactericide. E. Race, F. M. Rowe and J. B. Speakman. bibliog il Soc Dyers & Col J 62:9-19, pl 1-2 Ja '46
Evaluation of dispersions by a novel rheological method. F. K. Daniel and P. Goldman. bibliog il Ind & Eng Chem Anal ed 18:26-31 Ja '46
Factors which cause or prevent agglomeration of pigment particles; presented by Rhode Island section. il Am Dyestuff Rep 35:3-12 Ja 14 '46
Formulation of anti-corrosive compositions for ships' bottoms and underwater service on steel; effect of the pigment and of the medium. F. Fancutt and J. C. Hudson. Iron & Steel Inst J 150:269-333, pl 25-6; Discussion. 333-8 no 2 '44
Laboratory evaluation of corrosion resistant pigments and vehicles. H. Zahn. diag Paint Oil & Chem R 109:6-9 S 5 '46
Lead pigment industry sales practices defended. Oil Paint & Drug Rep 149:5+ Je 3 '46
Pigments on textiles; use of resinous binders. Rayon 26:606 N '45
Principles and uses of luminescent, fluorescent and phosphorescent materials. M. Harwood. Rayon 27:265-6 My '46
Relationship between the anticorrosive properties of paint films and their pigment content; abstract. O. E. Hintze. Paint Oil & Chem R 109:18 Ja 10 '46
Ultra-fine pigment particles basis of new lacquer; Metalli-chrome. il Chem Ind 59:57 Jl '46
Vibrating muller for the preparation of dispersions of fine pigments for electron microscopy. H. C. O'Brien, jr. diag Science 103:429 Ap 5 '46
What's ahead in raw materials; lead pigments. F. E. Worinser. Paint Oil & Chem R 108:48+ N 1 '45
What's ahead in raw materials; titanium pigments. D. K. Pickens. Paint Oil & Chem R 108:44+ N 1 '45
What's ahead in raw materials; zinc pigments. E. V. Gent. Paint Oil & Chem R 108:52 N 1 '45
Zinc yellow, a corrosion-inhibitive pigment. W. F. Spengeman and D. H. Lawson. il Paint Oil & Chem R 108:9-10+ O 4 '45

See also
Carbon black
Cyanines
Dyes and dyeing
Lead oxides
Melamine
Paint
Titanium oxides

Statistics
Mineral pigments output, 1944-45. Oil Paint & Drug Rep 149:74 Je 17 '46

PIGMENTS, Biological
Leaf pigments. S. E. Kamerling. bibliog J Chem Educ 23:202-4 Ap '46
Linkage and crossing-over between black pigmentation and susceptibility to induced fibrosarcoma in mice. L. C. Strong. Science 103:554 My 3 '46
Osage orange pigments; complete structures of osajin and pomiferin. M. L. Wolfrom and others. bibliog Am Chem Soc J 68: 406-18 Mr '46

See also
Carotenoids

PILE fabrics
Carpet manufacture; Brussels, Wilton and Axminster carpets. W. J. Hopkins. pl diags Textile Inst J 37:P61-71 Ap '46
Knitting pile fabrics on circular or warp machines. H. Wignall. diags Textile World 96:111+ O '46

PILE pulling
Special equipment developed to pull long concrete piles. il Eng N 137:500-1 O 17 '46

PILES and pile driving
Air jetting aids pile sinking. E. E. Howard. diag Civil Eng 16:402 S '46
Driving timber piles. F. D. Hartford. il Eng N 135:735-7 N 29 '45
42,000 piles driven on project; Stuyvesant town, Metropolitan Life's housing project. il diags Arch Rec 100:121 Ag '46
Piers and wharves on steel cylinders. E. H. Harlow. il Eng N 137:33-5 Jl 11 '46
Piles and pile foundations. R. D. Chellis. il diags Eng N 136:774-8, 863-5, 914-19 My 16, 30, Je 13 '46

See also
Cofferdams
Concrete piling
Pile pulling
Sheet piling

Concrete encased piles
Drives shotcrete-encased piles; Southern railway's method of protecting waterfront foundations against teredo and limnoria. il Ry Age 119:888-9 D 1 '45

PILOT plants. See Chemical plants—Experimental plants; Metallurgical plants—Experimental plants; Petroleum refineries—Experimental plants; Rayon mills—Experimental plants

PIMARIC acid
Synthesis of the monoacid chloride and the monoalkyl esters of the maleic acid anhydride addition product of *l*-pimaric acid. M. M. Graff. bibliog Am Chem Soc J 68: 1937-8 O '46

PINACYANOL chloride
Critical concentration for the formation of micelles as indicated by the absorption spectrum of a cyanine dye. M. L. Corrin and others. J Chem Phys 14:216-17 Mr '46
Determination of critical concentrations for the formation of soap micelles by the spectral behavior of pinacyanol chloride. M. L. Corrin and others. bibliog J Chem Phys 14: 480-6 Ag '46

PINANE
Studies in the terpene series; method for the determination of rings in bicyclic dihydroterpenes; isomerization of pinane in the presence of dilute aqueous salt solutions. V. N. Ipatieff and H. Pines. Am Chem Soc J 67:1931-4 N '45

PINE
Chemistry of western pines; distribution and nature of acetone soluble extractives in ponderosa pine. A. B. Anderson. bibliog il Ind & Eng Chem 38:450-4 Ap '46
Chemistry of western pines; effect of solvents on extractives from ponderosa pine. A. B. Anderson. Ind & Eng Chem 38:759-61 Jl '46
Composition of gum turpentine of Coulter pine. N. T. Mirov. bibliog Ind & Eng Chem 38:405-8 Ap '46
Experimental sulphite pulping of eastern white pine. C. O. Skoggard and C. E. Libby. bibliog Paper Tr J 123:41-6 Jl 25 '46
Fibrous holocellulose from softwoods. E. L. Lovell. bibliog il Ind & Eng Chem 37:1034-7 N '45
Resin impregnation of catfaces; effect of new methods of turpentining upon the resin content of slash pine. H. Skolnik and A. G. Snow, jr. Paper Tr J 122:52-3 Mr 21 '46
Shops need pine for pattern makers. Bsns W p56+ My 4 '46
Staybwood; heat-stabilized wood. A. J. Stamm, H. K. Burr and A. A. Kline. bibliog Ind & Eng Chem 38:630-4 Je '46
Studies on odor elimination in apple storage; removal of pine wood volatiles. C. R. Gross and R. M. Smock. bibliog Refrig Eng 50: 535-7 D '45
Viscosity of pine gum. W. J. Runckel and I. E. Knapp. bibliog il Ind & Eng Chem 38:555-6 My '46

PINE oil
Use of pine oil in disinfectant manufacture increasing. Chem & Eng N 24:993 Ap 10 '46

Analysis
Determination of the terpene alcohol content of steam-distilled pine oil. V. E. Grotlisch and H. N. Burstein. bibliog Am Soc T M Proc 45:1015-22 '45

PINEAPPLES
Applications of science to food production. H. A. White. il Tech R 48:559-60+ Jl '46
Estimated Cuban pineapple production, 1940-1946. For Comm W 22:31 F 23 '46
Flower formation in the pineapple plant as controlled by 2,4-D and naphthaleneacetic acid. J. van Overbeek. Science 102:621 D 14 '45

PINENE
Continuous thermal isomerization of α-pinene in the liquid phase. T. R. Savich and L. A. Goldblatt. bibliog diag Am Chem Soc J 67: 2027-31 N '45
Nopol; the reaction of β-pinene with formaldehyde. J. P. Bain. bibliog Am Chem Soc J 68:638-41 Ap '46

PINIONS. See Gearing

PINS, Machinery
Machine pins; standard approved by A.S.M.E.; reference book sheet. diags Am Mach 90: 197, 199 Ja 17 '46
Rubber-ring fastener for link pins. H. S. Sizer. il diags Machine Design 18:91-2 O '46

See also
Taper pins

PIPE bending
Bending pipe in field requires experience. il Nat Pet N 38 pt 2:R339+ My 1 '46
Cold-bending of pipe and metal shapes. E. J. DeWitt and H. S. Nachman. il diags Mach 52:141-50 Ap '46
Faults in pipe and tube bends and their correction; data sheet. Mach 52:249 Ap '46
Hydraulic circuit in bending machines. E. J. DeWitt and H. S. Nachman. diag Mach 52:149-51 Je '46
Simple tube bending tool developed by Glenn L. Martin co. il Iron Age 157:47 Mr 21 '46
Tools for use in bending machines. E. J. DeWitt and H. S. Nachman. diags Mach 52: 188-91 My '46

PIPE bends
Formulæ for the calculation of pipe-bend angles. G. Hookham. diags Engineering 161: 507-8 My 31 '46
Return bends; pipe stills. W. L. Nelson. Oil & Gas J 45:107 S 7 '46
Templet for making stove-pipe bends; illustrated instructions. il diags Paper Ind 28:1022-3 O '46
Welded pipe bends. il Engineer 182:120 Ag 9 '46

PIPE coating
Baked-on plastic coatings prevent corrosion; tubular goods and other oil-field equipment. E. H. Short, jr. il Oil & Gas J 45:88-9+ Ag 10 '46
Cement mortar linings and coatings for cast-iron, wrought-iron and steel pipe lines. M. W. Loving. il Concrete 53:18-20+ D '45
Pacific coast pipe coating and reconditioning. T. R. Flynn. il Pet Eng 17:98+ Ap '46
Resin baking coatings by induction heating; abstract. R. J. Moore. diag Nat Pet N 37 pt 2:R992+ D 5 '45
Special equipment expedites pipe-line coating. P. Reed. il Oil & Gas J 44:73 Mr 2 '46
Spot reconditioning pipe lines. W. H. T. Thornhill. il Pet Eng 17:228-9 Je '46
Study of bituminous-coated corrugated sheet metal culverts. J. Y. Welborn and P. J. Serafin. il Pub Roads 24:227-38 Jl '46

PIPE coils. See Coils, Pipe

PIPE coverings
Health survey of pipe covering operations in constructing naval vessels. W. E. Fleischer and others. J Ind Hygiene 28:9-16 Ja '46
Surfacing techniques for thermal insulation on hot and cold pipes and ducts. E. T. Cope. il diags Heating-Piping 17:513-18 O-N '45

See also
Steam pipe coverings

PIPE cutting
New method for cutting cast-iron pipe. W. R. LaDue. plan Am Water Works Assn J 38:345-7 Mr '46
Pipe-cutting attachment. il Mech Eng 68:822 S '46; Heating-Piping 18:88 Ag '46; Iron Age 158:58 Ag 22 '46
This attachment makes pipe cutting easy. il Power Pl Eng 50:104 O '46

PIPE fitting
Good design, proper fabrication make high temperature piping system safe. S. Crocker. il diags Power 90:652-5, 732-5+ O-N '46
Miles of glass piping fabricated in field at Oak Ridge. B. W. Whitehurst. il Chem & Met Eng 53:112-15 Jl '46; Same. Food Ind 18:1348-50+ S '46

See also
Gas fitting
Pipe joints
Plumbing

PIPE fittings
Equipment advances 1944-45; pipe and fittings. Chem Ind 57:861 N '45
Mechanized casting of soil pipe and fittings; Warden-King ltd. P. Dwyer. il diag Foundry 74:110-12+ Je; 102-4+ Jl '46
Pattern for double angle two-way Y-branch rectangle to round O. W. Kothe. diags Sheet Metal Worker 37:90+ O '46
Quick solution of piping offset and branch connection dimensions. diags Heat & Ven 43:76-7+ F '46
Resistance of valves and fittings to flow of fluids; diags and chart. Power Pl Eng 50:112 O '46
Review of power and mechanical equipment; piping, fittings and valves. il diags Power 89:902-3 Mid-D '45
Welded fittings; Diesel-or steam-locomotive piping. il Ry Age 121:92 Jl 20 '46

PIPE flanges
Bolting for pipe flanges and pressure vessels. S. Crocker. il Power Pl Eng 50:75-8+ My '46
Calcul des brides d'assemblage des tuyauteries de vapeur à haute pression. H. de Koenigswarter. diags Génie Civil 123:6-7, 22-4 Ja 1-15 '46

PIPE hangers
Short cut formulas for designing structural steel frames; angles (angle iron) to support ducts, piping, heat exchangers and other equipment. S. Reibel. Heat & Ven 43:68+ Ag '46
Standard springs for pipe hangers; table; data sheet. Power 90:343 My '46

PIPE joints

Cement joints minimize leakage in cast-iron water lines at Dallas. K. F. Hoefle. il Eng N 136:726-7 My 2 '46

Change-over switch for pipe systems. il Engineer 182:18 Jl 5 '46

Chlorination of mains and the defects of yarn as a jointing material. E. W. Taylor and L. C. Whiskin. diags Water & Sewage 84:28-9+ Je; 25-6+ Ag '46; Abstract. Am Water Works Assn J 38:890-1 Jl '46; Correction. 38:1218 O '46

Design of first flexible pipe joint resulted from study of lobster's tail; James Watt's invention used in Clyde River pipe line in 1810. M. N. Baker. il diags Eng N 136: 722-3 My 2 '46

Do swing joints swivel or bend? T. W. Reynolds. diags Heat & Ven 43:72-3 O '46

Drinkwater Presto-lock couplings. il Am Gas J 163:44 D '45

Flareless fitting for joining metal tubing. il Steel 19:87 S 30 '46

Installation standards for plastic pipe. S. A. Bradfield. il diag Am Gas Assn Mo 28:453-7 O '46

Laclede uses cast-iron mechanical joints in laying new mains. R. Latimer. il Gas Age 98:33 Jl 25 '46

New developments to combat corrosion in paper and pulp industries; liquid neoprene, nitrocote, and durofilm; rubber pipe joint. K. P. Chamberlain. Paper Tr J 123:130 O 10 '46

Refrigerant cannot escape from a flawless pipe joint. G. Holman. il Power 90:111-13 F '46

Reinforcement prevents breakage at pipe-tank connections. H. W. Shepherd. diags Am Mach 90:139-40 O 10 '46

Tentative standard specifications for field welding of steel water pipe joints. Am Water Works Assn J 38:391-400 Mr '46

See also
Pipe flanges

Testing

Reinforcement of branch pieces. J. S. Blair. il diags Engineering 162:1-4, 217-21, 228 Jl 5, S 6 '46 (to be cont)

Sewer test for tightness. I. R. Riker. il diag Pub Works 77:20-1+ Ag '46

PIPE laying

Application of pressure welding to overland pipe lines. E. P. Jones. bibliog il Welding J 25:27-31 Ja '46

Canadian practice in installation and maintenance of sewer connections. N. MacNicol. Water & Sewage 83:120+ N '45

Concrete pipe jacked under a railroad. il Eng N 137:299-301 S 5 '46

Construction innovations used on California's Stanpac pipe line. L. P. Stockman. il Oil & Gas J 44:62-3 Mr 23 '46

Current procedures in pipe line welding. A. F. Davis. il Pet Eng 17:177-8 Mr '46

Doing it with air; Southern counties gas company of California. il Comp Air Mag 51: 134-5 My '46

Economical mechanization for a widespread gas area; with cost data. J. E. C. Currens. il Am Gas J 165:35-8+ O '46

High pressure pipe lines transport valuable helium. J. J. Reynolds. il diags Oil & Gas J 45:84-6+ O 12 '46

How to install a drain; one easy lesson; illustrations. Civil Eng 16:314 Jl '46

How to prevent breaks in cast-iron pipe. T. F. Wolfe. diags Am Water Works Assn J 38:765-71 Je '46

Humble completes first Gulf coast-Dallas products line. P. Reed. il Oil & Gas J 45: 184-5+ S 21 '46

Latest equipment expedites construction of loop on Panhandle Eastern line. P. Reed. il Oil & Gas J 44:124-5 D 15 '45

New construction methods for pipe lines used on Great Lakes project. P. Reed. il Oil & Gas J 44:82+ Ja 19 '46

New $4,000,000 California pipe line. il Pet Eng 17:224B+ Mr '46

New pipe line outlet for Carthage. F. H. Love. il Pet Eng 17:252+ My '46

Pipe line capacity increased by looping. F. H. Love. il Pet Eng 17:57-60 D '45

Pipe-line technicians overcome unusual obstacles in building Panama trans-Isthmian artery. P. Reed. il Oil & Gas J 44:52-4+ Ja 5 '46

Pressure welding's flexibility solves alloy pipe problems. E. P. Jones. il Oil & Gas J 45: 238+ S 21 '46

Price organization has worked on 16,000 miles of pipe line in 25 years of existence. N. Williams. Oil & Gas J 45:261+ S 21 '46

Products line construction features. F. H. Love. il Pet Eng 17:169-70+ S '46

Stanolind increases capacity. F. H. Love. il Pet Eng 18:267-8+ O '46

Start-to-finish construction report for Alberta gas-line extension. B. W. Snyder. il map Oil & Gas J 45:251-2+ S 21 '46

See also
Pipe lines
Sewerage
Water distribution

Cost

Economical mechanization for a widespread gas area; with cost data. J. E. C. Currens. il Am Gas J 165:37-8 O '46

PIPE laying, Subaqueous

Design of first flexible pipe joint resulted from study of lobster's tail; James Watt's invention used in Clyde River pipe line in 1810. M. N. Baker. il diags Eng N 136: 722-3 My 2 '46

Half of 34-mile pipeline is laid under water between Saudi Arabia and Bahrein. il Nat Pet N 38 pt 2:R53 Ja 2 '46

Laying three 1,000-ft. steel pipe lines in a submerged culvert. il diags Eng N 136:538-9 Ap 18 '46

New problems presented by submarine pipe line from mainland Saudi Arabia to island of Bahrein. R. Sneddon. il Pet Eng 17:131-2 Mr '46

Submarine loading-line replacement. R. P. Howell. il map diag Oil & Gas J 44:108-11 Ap 27 '46

See also
English Channel pipe line

PIPE lines

Application of pressure welding to overland pipe lines. E. P. Jones. bibliog il Welding J 25:27-31 Ja '46

Current procedures in pipe line welding. A. F. Davis. il Pet Eng 17:177-8 Mr '46

High pressure pipe lines transport valuable helium. J. J. Reynolds. il diags Oil & Gas J 45:84-6+ O 12 '46

1946 trends in pipe-line practices. W. G. Heltzel. Oil & Gas J 45:182-3+ S 21; 81-2+ S 28 '46

Pipe line for liquid carbon dioxide eliminates handling, shipping problems. il Heating-Piping 18:96 Ag '46

See also

Aqueducts
Electric conduits
Gas distribution
Gas, Natural—Pipe lines
Gasoline pipe lines
Petroleum pipe lines
Pipe joints
Pipe laying
Piping (power plants)
Sewerage
Water pipes

Cleaning

See Pipes—Cleaning

Communication systems

Communications control and signal electronics in pipe line operations. L. E. Adler. il Pet Eng 17:220+ Mr '46

FCC opens door for permanent radio licenses in operational work of pipeline companies. Nat Pet N 38:54 S 4 '46

Mid-Continent streamlines Tel-and-Tel with unitized dispatcher's control table. E. T. W. Hall and L. C. Lamer. il Oil & Gas J 45:266+ S 21 '46

Radio for the gas industry. W. T. Bulla. Pet Eng 17:134 Mr '46

United gas pipe line co. installs radiotelephone network. il map Gas Age 97:47-50+ My 2 '46

United Gas Pipe Line's new radiotelephone network speeds company communications. O. C. Irvine. il map Pet Eng 17:142+ Je '46

PIPE lines—Communication systems—*Cont.*
Use of radiotelephone on pipe line systems. il Pet Eng 17:102+ D '45

Corrosion

See also
Pipe lines—Protection

Cost

Big-Inch lines recommended as natural-gas carriers; report made to the Reconstruction finance corp. by Ford, Bacon & Davis, inc.; with cost data. Oil & Gas J 44:45-6 Ja 5; 62-3+ Ja 12 '46
Big Inch, Little Big Inch should be kept in petroleum service to protect against another emergency, SPA asserts; with estimated cost data. il Nat Pet N 38:18+ Ja 9 '46

Damage from floods

Pipelining in the Rockies; Colorado interstate gas co. protection against floods. G. F. Brunston. il Gas Age 98:105-7+ O 3 '46

Detection

Electronic pipe locators, leak detectors. H. A. Fore. il Pet Eng 17:206+ Mr '46
Locating lost sewers and manholes; use of M-Scope. E. T. Cranch. plan Water & Sewage Works 93:149 Ap '46

Law

Problems of interstate natural gas pipe lines with respect to state and federal regulation. A. T. Shotwell. Gas Age 97:24-8+ F 21 '46

Maintenance and repair

Spot reconditioning pipe lines. W. H. T. Thornhill. il Pet Eng 17:228-9 Je '46

Protection

Bacteria in paint; types of damage and suggested remedies. H. J. Bunker. Chem Age (Lond) 53:571-2 D 15 '45
Cathodic protection in the refinery. D. Holsteyn. bibliog Pet Eng 17:154+ My '46
Cathodic protection of pipe lines; abstract. F. M. Ruffing. Water Works & Sewerage 92:328 N '45
Cathodic protection on large diameter pipe lines; with cost data. N. K. Senatoroff. Gas Age 98:18-19+ Jl 25 '46
Cement mortar linings and coatings for cast-iron, wrought-iron and steel pipe lines. M. W. Loving. il Concrete 53:18-20+ D '45
Galvanic couples and cathodic protection. M. C. Miller. diags Pet Eng 17:55-8 My '46
How cathodic protection prevents pipe and tank corrosion. bibliog diags Power Pl Eng 50:83-5+ Je '46
Magnesium anodes for the cathodic protection of underground structures; abstract. H. A. Robinson. Nat Pet N 38 pt 2:R452 Je 5 '46
Magnesium for cathodic protection of pipe lines. R. M. Hutchison. diag Pet Eng 17: 213+ Mr '46
Magnesium gives high cathodic protection to pipelines and buried structures. L. M. Oldt. Nat Pet N 38 pt 2:R186-7 Mr 6 '46
Magnesium rods used to prevent corrosion of Alice-Corpus Christi pipe line. Am Gas Assn Mo 27:482 N '45
Measurement of cathodic protection currents in submarine pipe lines. W. R. Hill. Pet Eng 17:168+ Mr '46
Protection of two 8-in. coated pipe lines with magnesium. A. Smith, jr. il diag Oil & Gas J 45:195-6+ S 21 '46
Results obtained from five years of cathodic protection on 24 in. gas line rapidly deteriorating from bacterial corrosion; abstract. W. E. Huddleston. Nat Pet N 38 pt 2:R452 Je 5 '46
Selenium rectifiers for cathodic protection; abstract. W. F. Bonner. Nat Pet N 38 pt 2:R450+ Je 5 '46
Soil corrosion and pipe protection. T. H. Gilbert. bibliog diags Pet Eng 17:82+ N '45
Use of fibrous glass in underground pipe protection; abstract. J. A. Grand and S. M. Peek. Nat Pet N 38 pt 2:R453 Je 5 '46
Use of magnesium for cathodic protection of the Katy pipe line. P. Hart and O. Osborn. bibliog il diag Pet Eng 17:136+ Ag '46

See also
Water pipes—Protection

River crossing

Construction of 3200-ft. natural gas pipe line suspension bridge over Red river. G. R. Lunt. il Pet Eng 17:198+ Mr '46
Crossing the Whangpoo at Shanghai; military pipe line. F. E. Hangs. il map Pet Eng 18: 174+ O '46
Pipelining in the Rockies; Colorado interstate gas co. protection against floods. G. F. Brunston. il Gas Age 98:105-7+ O 3 '46
United solves difficult problems in Red River suspension bridge. N. Williams. il plan Oil & Gas J 44:68-9+ F 2 '46

Tables, calculations, etc.

Calculation of throughput when several liquids flow simultaneously through a pipe line. B. Miller. Oil & Gas J 44:64-5 Mr 2 '46
Economical alignments for pipe lines. P. Bryan. diags Pet Eng 18:212+ O '46

Testing

Electronic pipe locators, leak detectors. H. A. Fore. il Pet Eng 17:206+ Mr '46

PIPE lines, Military. See Military pipe lines

PIPE lines, Portable
Sydney S. Smith presented high U.S. award for army pipe line. Oil & Gas J 45:56 O 12 '46
Sydney Smith of Shell gets Nation's highest civilian medal for work on portable pipeline. Nat Pet N 38:44 O 9 '46

See also
Military pipe lines

PIPE lines, Subaqueous
Measurement of cathodic protection currents in submarine pipe lines. W. R. Hill. Pet Eng 17:168+ Mr '46

See also
Pipe laying, Subaqueous

PIPE lining
Electroplated pipe interiors. S. G. Bart. il Steel 118:96-7+ Je 24 '46
Pipe with rubber lining; pipes used to carry caustic in paper mill. il Heat & Ven 42: 99-100 D '45
Rubber-lined pipe resists abrasion in mill circuits. J. Casale. Eng & Min J 146:100-1 D '45

PIPE scrapers. See Scrapers, Pipe

PIPE threads
Positioning fixture permits tapping to 4½-in. depth an unmachined heavy walled pipe. il Steel 118:111 F 11 '46
Shrink thread drill pipe and tool joints. N. A. Rebarick and C. Swartsfager. il Pet Eng 17:86+ Mr '46

Standards

New edition of pipe thread standard. A. M. Houser. il Ind Stand 17:199-202 Ag '46

PIPE wrenches. See Wrenches

PIPER aircraft corporation
12,000 plane backlog bolsters Piper production; now 58 a day. A. McSurley. Aviation N 6:13-14 S 9 '46

PIPERAZINE
Geometrically isomeric piperazine derivatives containing two quaternary nitrogen atoms. W. E. Hanby and H. N. Rydon. Chem Soc J p833-5 N '45

PIPERAZINEPROPYLAMINE
Synthesis of alicyclic diamines. L. C. Behr and others. Am Chem Soc J 68:1296-7 Jl '46

PIPERIDINE
Addition of secondary amines to dibromopropanol. F. C. Whitmore and others. Am Chem Soc J 68:531 Mr '46
Experiments in the piperidine series. R. M. Anker, A. H. Cook and I. M. Heilbron. Chem Soc J p917-20; p58-60 D '45, Ja '46

PIPERIDINE—*Continued*
Piperidine derivatives; C-alkylation of 1-benzoyl-3-carbethoxy-4-piperidone; synthesis of ethyl 3-ethyl-4-piperidylacetate (*dl*-ethyl cincholoiponate). G. Stork and S. M. McElvain. Am Chem Soc J 68:1053-7 Je '46
Piperidine derivatives; the preparation of 1-benzoyl-3-carbethoxy-4-piperidone; a synthesis of guvacine. S. M. McElvain and G. Stork. bibliog Am Chem Soc J 68:1049-53 Je '46

PIPERIDINOMETHYLNAPHTHOL
p-Aminobenzoates of piperidino- and morpholinomethylnaphthols. R. L. Shriner, G. F. Grillot and W. O. Teeters. Am Chem Soc J 68:946-7 Je '46

PIPES
Birmingham prominent as center for cast iron pipe production. il Manuf Rec 114:38-9+ N '45
Efficient reconditioning and material handling program developed at warehouse; Phillips petroleum co. P. Reed. il Oil & Gas J 44:81-2+ Ja 12 '46
Equipment advances 1944-45; pipe and fittings. Chem Ind 57:861 N '45

See also
Air pipes
Electric conduits
Gas pipes
Heating pipes
Mechanical equipment of buildings
Petroleum pipe lines
Pipe fittings
Pipe joints
Pipe laying
Pipe lines
Piping
Piping (power plants)
Plumbing
Soil pipes
Steam pipes
Tubes
Water pipes

Cleaning

Chemical removal of scales, sludges and oxides. G. F. Williams. bibliog il diags Heating-Piping 18:108-11 Ag '46
Pacific coast pipe coating and reconditioning. T. R. Flynn. il Pet Eng 17:98+ Ap '46
Pipe crawler; neoprene ball enclosed in chain. il Steel 118:124 Mr 18 '46
Prevention and removal methods for scales in oil-producing equipment. L. C. Case. bibliog il Oil & Gas J 45:68-9+ O 5 '46

See also
Water pipes—Cleaning

Embedding in concrete

See Concrete construction—Pipe embedding

Manufacture

Foundry research at American cast iron pipe co. E. Bremer. il Foundry 74:96-9+ Jl '46

See also
Pipes, Concrete—Manufacture
Pipes, Steel—Manufacture

Prices

Cast iron pipe at New York; monthly, 1929-1945; tabulation. Iron Age 157:172 Ja 3 '46

Statistics

Some help for construction; production of cast iron soil pipe starts up; graph. Bsns W p39 F 9 '46

Tables, calculations, etc.

Chart for determination of equivalent pipes. J. R. Arbuthnot. Water & Sewage Works 93:306-7 Ag '46
Equalization of piping; data sheets. Factory Management 104:164, 166 F '46
Flow of gases in pipes at low pressures. G. P. Brown and others. J Ap Phys 17:802-13 O '46
Friction charts for gases including correction for temperature, viscosity and pipe roughness. R. D. Madison and W. R. Elliot. Heating-Piping 18:107-12 O '46
Frictional pressure loss nomogram. J. R. Ernst. Engineer 182:5-6, supp Jl 5 '46
Heat transfer in annuli. C. Y. Chen and others. bibliog diags A S M E Trans 68:99-106 F '46
Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. bibliog 71:1141-7, 1415-24; 72: 857-63 S, N '45, Je '46
Pipe gage takes measurements over wide range in tight places. il Sci Am 174:278 Je '46
Pipe wall thickness based on total combined stress. O. W. Page. Heating-Piping 18:81-5 Mr '46; Discussion. A. McCutchan. il 18: 77-8 My '46; Reply. O. W. Page. 18:86-8 Je '46
Power required to overcome 100 lineal feet of pipe friction; chart. B. Maddock. Power Pl Eng 50:116 Mr '46
Practical petroleum engineering; fluid flow; graphic solutions of design problems (cont) P. Buthod and B. W. Whiteley. charts Oil & Gas J 44:76-7+ D 1; 92-3+ D 8; 112-14 D 15; 70-2 D 22; 305-8 D 29 '45
Quick solution of piping offset and branch connection dimensions. diags Heat & Ven 43:76-7+ F '46
Resistance coefficients and flow of liquids in pipe systems. V. Tatarinov. diags Product Eng 17:406-11 My '46
Thermal accommodation coefficients. M. L. Wiedmann and P. R. Trumpler. bibliog il A S M E Trans 68:57-64 Ja '46
Universal chart gives speedy answers to problems in fluid flow. W. C. Woodman. Power 90:297-9 My '46
Useful all purpose pipe chart. W. F. Schaphorst. Water & Sewage Works 93:160-1 Ap '46

PIPES, Aluminum
Aluminum ducts in model home. il plans diag Sheet Metal Worker 37:56+ My '46

PIPES, Brass

See also
Water pipes, Brass

PIPES, Concrete
Concrete pipe sections jacked vertically provide machinery foundations. J. B. Hoffmier. il Eng N 136:856-7 My 30 '46

See also
Water pipes, Concrete
also American concrete pipe association

Manufacture

American concrete pipe association, 38th annual meeting, Chicago, April 11-12. Concrete 54:14-16+ My '46
Material handling speeded up with conveyors; Lamar pipe and tile co. H. E. Swanson. il Rock Prod 49:134-5 F '46
Open new pipe plant; Gibson's concrete pipe. il Rock Prod 48:152 D '45

PIPES, Copper
Silver alloy brazing of copper tubing. J. C. Powers, jr. and H. D. Lucas. il diags Steel 118:112-14+ Mr 18 '46

PIPES, Corrugated
Study of bituminous-coated corrugated sheet metal culverts. J. Y. Welborn and P. J. Serafin. il Pub Roads 24:227-38 Jl '46

PIPES, Glass
Recent developments in glass piping; abstract. J. B. Blizard. Chem & Met Eng 53: 272+ Ja '46

Manufacture

Miles of glass piping fabricated in field at Oak Ridge. B. W. Whitehurst. il Chem & Met Eng 53:112-15 Jl '46; Same. Food Ind 18:1348-50+ S '46

PIPES, Plastic
Installation standards for plastic pipe. S. A. Bradfield. il diag Am Gas Assn Mo 28:453-7 O '46
Properties and applications of saran pipe. D. R. Williams. Chem & Met Eng 52:112-13 N '45

PIPES, Steel
Electroplated pipe interiors. S. G. Bart. il Steel 118:96-7+ Je 24 '46
Laying three 1,000-ft. steel pipe lines in a submerged culvert. il diags Eng N 136: 538-9 Ap 18 '46
Pressure welding's flexibility solves alloy pipe problems. E. P. Jones. il Oil & Gas J 45:238+ S 21 '46
Procedure for attaching nozzle to a length of lead lined steel pipe. il Paper Ind 28: 259 My '46

PIPES, Steel—*Continued*

Steel industry statistics; finished steel; comp. by the American iron and steel institute. Steel 117.insert S 12-13 D 17 '45

Summary of the investigation of drill-pipe failures in the Permian basin. L. R. Jackson and others. Oil & Gas J 45:75 Ag 31 '46

Use of thinner pipe walls provides increased capacity. W. J. Wilkins. Oil & Gas J 45: 263+ S 21 '46

Warm-worked casing, new oil country product, resistance to pressure. J. J. Dunn. Pet Eng 17:96+ S '46

Welding alloy steel piping E. R. Seabloom. il diags Heating-Piping 18 67-70 O '46

See also
Tubes, Steel
Water pipes, Steel

Graphitization

See also
Piping (power plants)—Graphitization

Manufacture

40-foot 1,000,000-amp butt weld; production of large diameter pipe; A. O. Smith corp. il Steel 118:120-3+ F 4 '46

Heavy wall pipe; problems encountered in manufacturing. E. C. Wright. Steel 117:70+ D 31 '45

Hot extrusion of steel pipe; Mannesmann co. at Witten, Germany. S. Tour. Iron Age 157: 38 My 30 '46

Hot extrusion of steel tubing; Mannesmann tube works, Germany. G. M. Butler. diags Steel 118:126+ Je 3 '46

Manufacture of large heavy wall pipe. E. C. Wright. il Power Pl Eng 49:94-5+ D '45

Pipemaker starts large improvement program; National tube co. J. D. Knox. il Steel 119:132-4+ Ag 19 '46

Protection

See also
Pipe coating
Pipe lines—Protection

Standards

Which specifications for steel pipe shall I use? S. Crocker. il table Heating-Piping 18:89-98 Ja '46

Testing

Deeper drilling necessitates that greater emphasis be placed on drill-pipe testing. G. Weber. il Oil & Gas J 45:72-5+ Ag 31 '46

Drill-pipe yield strength lowered by severe drilling service. W. O. Clinedinst. il diag Oil & Gas J 45:76-7 N 2 '46

PIPES, Tobacco

Advertising

Marxman Pipes and Warner brothers cooperate in ad-promotion tie-in. il Ptr Ink 215:104 Je 21 '46

PIPES, Vitrified clay

Minimum supporting strength of clay pipe for various foundations. diags Brick & Clay Rec 109:31 Ag '46

Two year program requires 4,300,000 tons of clay pipe. Brick & Clay Rec 108:39 Ja '46

PIPES, Wooden

Wood stave pipe chamfer tool. il Can Min J 67:776-7 Ag '46

See also
Sewer pipes, Wood

PIPETS

New automatic pipette; double-action precision instrument. I. C. P. Smith. il diags Chem Age (Lond) 55:413-15 O 5 '46

PIPING

Centrifugal pump for power engineers; suction and discharge piping; questions and answers. I. J. Karassik and R. Carter. diags Power 90:194+ Mr '46

Change-over switch for pipe systems. il Engineer 182:18 Jl 5 '46

Equalization of piping; data sheets. Factory Management 104:164, 166 F '46

Flow failure control in piping circuits. M. A. Ramsey. il diags Heating-Piping 18: 78-81 Ag '46

Improved layout for steam drilling rig. W. J. Davis. il diags Pet Eng 17:104+ Mr '46

Laboratory service piping; time-saver standards. plans Arch Rec 98:143+ N '45

Methods of making piping flexibility analyses. S. Crocker and others. il diags Heating-Piping 18:69-73 bibliog(63 titles, p70-1) Je; 78-81 Jl; 83-8 S '46

Piping carbon dioxide for fire protection. W. W. Voss. il diags Heating-Piping 18:73-9 Ap '46

Piping for distribution of oxygen and acetylene cuts manufacturing costs; installation at Modine mfg. co. M. W. Hippe. il Heating-Piping 18:97-9 F '46

Valves, piping and design data for control of hydraulic systems V. M. Weitzien. il diags Product Eng 17:86-9 O '46

See also
Pipes
Plumbing
Ships—Piping

Models

Electrical robot in laboratory model measures stress in piping systems. L. C. Andrews. il Nat Pet N 38 pt 2:R108+ F 6 '46

PIPING (power plants)

Design of mechanical auxiliaries for TVA hydroelectric plants H. J. Petersen. il diags A S M E Trans 68.663-6 O '46; Same. Power Pl Eng 50:82-3+ Ag '46

Good design, proper fabrication make high-temperature piping system safe. S. Crocker. il diags Power 90:652-5, 732-5+ O-N '46

High-pressure pipe lines. W. Kienast and W. Müller. il diags Mech Eng 68:249-52 Mr '46

High-pressure valves. il diags Steel 118:120 Mr 18 '46

How to select, install and care for valves. diags Power Pl Eng 49:109-10 N '45

Methods of making piping flexibility analyses. S. Crocker and others. il diags Heating-Piping 18:69-73 bibliog(63 titles, p70-1) Je; 78-81 Jl; 83-8 S '46

Modernized piping and heating services aid plant efficiency. H. M. Nobis. il diags Heating-Piping 17:549-52 O-N '45

Pipe wall thickness based on total combined stress O. W. Page. Heating-Piping 18:81-5 Mr '46; Discussion. A. McCutchan. il 18: 77-8 My '46; Reply. O. W. Page. 18:86-8 Je '46

Square-bend expansion loop; chart; data sheet. H. Horelick. Power 90:561 Ag '46

Graphitization

Comparative graphitization of some low-carbon steels with and without molybdenum and chromium. G. V. Smith and others. bibliog il A S M E Trans 68:589-95 Ag '46

Fundamental investigation of graphitization of piping; progress report. Edison Elec Inst Bul 14:48-50 F '46

Further observation of graphitization in aluminum-killed carbon-molybdenum-steel steam piping. R. W. Emerson and M. Morrow. bibliog il plan A S M E Trans 68: 597-607 Ag '46

Good design, proper fabrication make high-temperature piping system safe. S. Crocker. Power 90:796a+ N '46

Graphitization in some cast steels. A. J. Smith and others. bibliog il Welding J 25: sup257-68 My '46; Same. A S M E Trans 68:609-20 bibliog(p620); Discussion. 621-4 Ag '46

Graphitization of carbon-molybdenum steel in high-temperature steam piping. G. A. Timmons. bibliog Welding J 25:sup1-6; Discussion. sup6-8 Ja '46

Influence of heat-treatment upon the susceptibility to graphitization of high-aluminum-deoxidized carbon-molybdenum steel. F. Eberle. il Welding J 25:sup307-12 My '46; Same. A S M E Trans 68:625-30 Ag '46

Preventing graphitization in power plant steam pipes; abstract. S. L. Hoyt. Steel 118:146 Ja 28 '46

Progress report on graphitization of steam lines. S. L. Hoyt and R. D. Williams. bibliog il Welding J 34:sup274-82 My '45; Abstract. Metal Prog 49:384+ F '46

PIPING (power plants)—Graphitization—*Cont.*
Studies on susceptibility of casting steels to graphitization. J. J. Kanter. il A S M E Trans 68:581-7 Ag '46
Study of austenitic welding for control of graphitization in steel. I. A. Rohrig. bibliog il Welding J 25:sup90-9; Discussion. 99-101 F '46
Summary report on the joint E.E.I.-A.E.I.C. investigation of graphitization of piping. S. L. Hoyt and others. bibliog il Welding J 25:sup332-9 Je '46; Same. A S M E Trans 68:571-7 bibliog(p577); Discussion. 577-80 Ag '46

Specifications

Pipe specifications; chemical compositions, physical properties, and allowable stresses: tabulation; data sheet. S. Crocker. Heating Piping 18:101-2 Je '46

Standards

Which specifications for steel pipe shall I use? S. Crocker. il table Heating-Piping 18: 89-98 Ja '46

Welding

Comparative graphitization of some low-carbon steels with and without molybdenum and chromium. G. V. Smith and others. bibliog il A S M E Trans 68:589-95 Ag '46
Electrodes for welding chromium-molybdenum steel. D. L. Mathias and G. M. Leigh. bibliog il Welding J 25:399-405 My '46
Study of austenitic welding for control of graphitization in steel. I. A. Rohrig. bibliog il Welding J 25:sup90-9; Discussion. 99-101 F '46

PIPING (refrigerating plants)
Determination of refrigerant pipe size. H. M. Hendrickson. Refrig Eng 52:317-25 O '46
Refrigerant cannot escape from a flawless pipe joint. G. Holman. il Power 90:111-13 F '46

PIRANI gauge. See Manometers

PISTON rings
Analysis of the lubrication between the piston rings and cylinder wall of a running engine. J. S. Courtney-Pratt and G. K. Tudor. Engineering 161:69-71 Ja 18 '46; Same cond. Engineer 180:469-71; Discussion. 459-60 D 7 '45
Chrome plated piston rings. L. Doty. il diag Bus Transportation 25:54-6 Jl '46
Divided packets protect and identify piston rings. il Mod Packaging 20:123+ O '46
Investigation of piston-ring sticking in high-duty aero-engines. A. Lahiri and E. Mikolajewski. bibliog 4pls Inst Pet J 32:59-77; Discussion. 78-89 F '46
Mechanical factors affecting ring gumming in petrol engines, with particular reference to the rating of lubricating oils. B. Pugh. Engineer 180:491-3 D 14 '45; Same. Engineering 161:93-4 Ja 25 '46; Discussion. Engineer 180:480-2 D 14 '45
1946 passenger cars, pistons, rings and connecting rods; specifications tabulated. Automotive & Aviation Ind 94:101 Mr 15 '46
Observations on oil control rings. F. Black. diags Pet Eng 17:55-6 Je '46; Same. Diesel Power 24:708-9+ Je '46
Oil control rings and their effects on lubricating oil consumption in Diesel engines. J. A. Worthington. diags Diesel Power 24: 474-5 Ap '46
Packard adopts oil ring with oil expander spring and sintered type bearing for car engines. il Automotive & Aviation Ind 93: 24 N 15 '45
Piston ring in Diesel engines. Diesel Power 24:334-5+ Mr '46
Piston rings in the war. D. M. Smith. diags S A E J 53:521-30 S '45; Same. Automobile Eng 36:29-35 Ja '46; Discussion. 36:147-8 Ap '46

Manufacture

Muskegon makes piston rings; illustrations with text. Diesel Power 24:44-8 Ja '46
Porous chromium plating adds to piston ring life. T. C. Jarrett and R. D. Guerke. il Materials & Methods 23:1293-7 My '46

Testing

Measuring piston ring wall thrust. B. Pugh. il Engineering 161:94-5 Ja 25 '46; Same cond. Engineer 180:471-2 D 7 '45
Methods of ascertaining closing load and tensile strength. Automobile Eng 36:442 O '46

PISTON rods
Induction hardening steam hammer piston rods. il Steel 118:121+ Mr 25 '46; Same. Materials & Methods 23:1350 My '46

PISTONS
Jaru compensating piston. diags Engineer 181:594 Je 28 '46
1946 passenger cars, pistons, rings and connecting rods; specifications tabulated. Automotive & Aviation Ind 94:101 Mr 15 '46
Piston lubrication phenomena in a motored glass cylinder engine. S. J. Beaubien and A. G. Caltaneo. il diags S A E J 54:60-7 O '46; Abstract. Automotive & Aviation Ind 94:36 Je 15 '46
Reversed stress testing of piston materials at high temperatures to determine their usefulness. K. Wellinger and G. Staehli. diags Automotive & Aviation Ind 94:20-3+ F 15 '46

Manufacture

Advanced tooling at piston and crankshaft departments reorganized by Ford. J. Geschelin. il layout plans diag Automotive & Aviation Ind 95:18-23+ O 1 '46
Conveyors increase efficiency of Ford piston line. il diags Am Mach 90:106-9 S 12 '46
How the Ohio piston company produces pistons up to 12 in. diameter. J. Geschelin. il Automotive & Aviation Ind 94:20-4 Ap 1 '46
Permanent-mold casting of pistons by Chrysler's high-production methods. C. H. Wick. il plan Mach 53:148-57 N '46
Taper form grinding of piston skirts. il diags Iron Age 158:56-7 O 17 '46

Testing

Piston temperatures in an air-cooled engine for various operating conditions. E. J. Manganiello. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:413-21 '41

PITCH
Binders and base materials for active carbon; functions of sugars, coal tar pitch, anthracite, and cellulose. J. J. Morgan and C. E. Fink. bibliog il diag Ind & Eng Chem 38: 219-28 F '46
Evaluation and reduction of pitch trouble in sulphite pulp and pulping. O. Kress and P. E. Nethercut. bibliog il diags Paper Tr J 122:31-4 Je 27 '46; Excerpts. Paper Ind 27:1898-1900 Mr '46
Mold coatings. C. R. Funk. diag Blast F & Steel Pl 34:1255-6 O '46

PITCH as fuel
Foundry firing; electrical heating of high-viscosity creosote-pitch fuel. il Elec R (Lond) 137:615-19 N 2 '45

PITCHBLENDE
Production of radium. E. F. Mactaggart. flow sheets Inst Chem Eng Trans 20:65-70 bibliog(p70); Discussion. 70-1 '42

PITOMETERS
Checking the distribution system; pitometer surveys. H. Breimeister. Am Water Works Assn J 38:239-43 F '46
Present-day scope of pitometer surveys. E. S. Cole. Am Water Works Assn J 37:181-8 F '45; Same cond. il Water & Sewage Works 93:137-9 Ap '46

PITTSBURGH
No smoking; Pittsburgh puts smoke ban into effect. Arch Forum 85:24 O '46

See also
Steel industry and trade—Pittsburgh

Rapid transit

See also
Pittsburgh railways company

PITTSBURGH award
Warner receives Pittsburgh award, 1945. Chem & Eng N 24:621-3 Mr 10 '46

PITTSBURGH consolidation coal company
Coal mines sold; Pittsburgh Consolidation takes over Hanna's bituminous properties in Ohio. Bsns W p54 Je 29 '46
Merged coal firm has low debt charge. Barrons 26:1+ Ap 15 '46

PITTSBURGH plate glass company
Thumbnail stock appraisal. Mag of Wall St 78:274 Je 8 '46

PITTSBURGH railways company
Underlier trouble; have to reorganize or be liquidated. Bsns W p46 Ap 13 '46
Unscrambling Pittsburgh railways. J. G. Daggy. Comm & Fin Chr 163:377+ Ja 24 '46

PITTSBURG, Shawmut & northern railroad
Opened book; 40 years of receivership get a judicial airing. map Bsns W p79 N 17 '45

PITTSBURGH university. Mellon institute of industrial research
Research activities at the Mellon institute. Can Chem & Process Ind 30:37-8 Ap '46
Research progress in Mellon institute, 1945-46. W. A. Hamor. Science 104:83 Jl 26 '46
Researches of Mellon institute, 1945-1946. il Chem & Eng N 24:906-15, 926-7 Ap 10 '46

PITUITARY body
Studies on pituitary lactogenic hormone; reactions with ketene. Choh Hao Li and A. Kalman. bibliog il Am Chem Soc J 68:285-7 F '46

PIUS XII (Eugenio Pacelli) pope
Yuletide message of Pope Pius hits totalitarianism as foremost threat to peace. Comm & Fin Chr 163:291 Ja 17 '46

PIVOTS
Meter and instrument jewels and pivots. G. F. Shotter. il diags Inst E E J 93 pt 2:15-32 F '46; Abstracts. Elec R (Lond) 136:691 My 11 '45; Electrician 134:445 My 18 '45; Discussion. Inst E E J 93 pt 2:32-6; 94 pt2: 25-6 F '46, F '47; Elec R (Lond) 136:691-3 My 11 '45; Electrician 134:445-6 My 18 '45

PLACEMENT of workers. See Employment agencies; Employment systems

PLACEMENT service of colleges. See Engineering colleges—Placement service

PLACER mining. See Gold mines and mining—Placer mining

PLAGUE
Effect of temperature on the sex ratio of xenopsylla cheopis recovered from live rats. L. C. Cole. bibliog Pub Health Rep 60: 1337-42 N 9 '45
Evaluation of three plague vaccines against infection in guinea pigs induced natural and artificial methods. N. E. Wayson and others. Pub Health Rep 61:1511-18 O 18 '46
Plague infection reported in the Territory of Hawaii during 1944 and summary of human cases, 1899-1944. B. C. Hampton. Pub Health Rep 60:1365-7 N 16 '45
Plague infection reported in the United States during 1944 and summary of human cases, 1900-44. B. C. Hampton. Pub Health Rep 60:1361-5 N 16 '45
Streptomycin in experimental plague. J. W. Hornibrook. Pub Health Rep 61:535-8 Ap 12 '46
Study of rodent ectoparasites in Mobile, Ala. L. C. Cole and J. A. Koepke. bibliog (40 titles) map Pub Health Rep 61:1469-87 O 11 '46

PLANCK'S equation
Approximations of Planckian distributions. P. Moon and D. E. Spencer. bibliog J Ap Phys 17:506-14 Je '46

PLANE curves. See Curves, Plane

PLANETS
Weather cycles and their causes. H. P. Gillette. Roads & Sts 89:104+ Ap '46

PLANIMETERS
Use of a planimeter in volume studies of early embryos J. H. Venable. Science 102: 670-1 D 28 '45

PLANK, Ewart G.
Our engineer generals. por Eng N 135:625+ N 8 '45

PLANKTON
Culture method for certain marine algae. J. C. Strickland. Science 103:112-13 Ja 25 '46
Effect of sewage-plant effluents on growth of plankton. J. B. Lackey. Water & Sewage 84:32+ Mr '46
Plankton productivity of certain southeastern Wisconsin lakes as related to fertilization. J. B. Lackey and C. N. Sawyer. Water & Sewage 84:18+ F '46
Problems of the spring overturn in stratified lakes. E. S. Deevey, jr. bibliog N E Water Works Assn J 60:182-7 Je '46

PLANNING
Case study of production and cost control; Iron fireman manufacturing co., Portland, Ore. C. J. Peters. flow chart N A C A Bul 27.891-916 My 15 '46
Coordination of company financial planning with external economic conditions. H. G. Peterson, jr. N A C A Bul 27:575-87 Mr 1 '46
Pity the poor planner. A. O. Mann. Personnel J 25:50-4 Je '46
Planned execution; the issue of scientific management. H. S. Person. Advanced Management 10:131-8 D '45
Planned maintenance, means of increasing profits. V. W. Wilson. diag Chem Ind 59: 484-6 S '46
Planning and scheduling system for development projects H. R. Collins. Product Eng 17:144-8 N '46
Production planning and marketing for profit. D. R. G. Cowan. Ind Marketing 30:62+ D '45
Setting up for a new product. L. S. Whitson. il Iron Age 158:58-63 N 7 '46
Stabilized production despite fluctuating demand; Armstrong Cork. R. L. Bowles. il Factory Management 104:106-12 Je '46
Too many surveys? damn the torpedoes! A. C. Buehler. Sales Management 57:51 Jl 1 '46
Tool-engineer training helps prevent production errors; AC spark plug division, General motors corporation. W. F. Eitel. il diag Am Mach 90:104-7 Mr 28; 114-16 Ap 11 '46

See also
Advertising—Planning
Budget, Business
City planning
Economic planning
Factories—Reconversion
Regional planning
Schedules

PLANNING, City. See City planning

PLANNING, Economic. See Economic planning

PLANNING, Regional. See Regional planning

PLANT cells and tissues

See also
Chloroplasts

PLANT growth
Investigation of plant-growth substances (auxins) in sewage products. C. A. Chaplin and C. J. Regan. Soc Chem Ind J 64:331-2 D '45
Progress in drugs, fine chemicals and biological products during 1945; members of the phenoxyacetic acid series. G. C. Green. Chem Age (Lond) 54:230 Mr 2 '46
Status of plant-growth substances and herbicides in 1945. F. A. Gilbert. bibliog(175 titles) Chem R 39:199-218 O '46

PLANT pigments. See Pigments, Biological

PLANTS
Plants hold the basic patents. E. W. Sinnott. J Chem Educ 23:35-6 Ja '46

See also
Botany
Dyes and dyeing—Natural dyes
Grasses
Poisonous plants
Roadside planting
Rubber plants and planting
Weeds

Chemical analysis
Chloride content of conifers. B. C. Brunstetter and others. bibliog Science 104:415-16 N 1 '46
Determination of inorganic phosphorus in plant materials. W. A. Pons, jr. and J. D. Guthrie. bibliog Ind & Eng Chem Anal ed 18:184-6 Mr '46
Determination of nitrogen, phosphorus, and potassium in leaf tissue; application of micromethods. R. H. Cotton. bibliog Ind & Eng Chem Anal ed 17:734-8 N '45

PLANTS—Chemical analysis—*Continued*
Determination of nitrogen, phosphorus, potassium, calcium, and magnesium in plant tissue; semimicro wet-digestion method for large numbers of samples. O. J. Kelley, A. S. Hunter and A. J. Sterges. bibliog diag Ind & Eng Chem Anal ed 18:319-22 My '46
Determination of tocopherol in plant tissue. M. E. Wall and E. G. Kelley. bibliog Ind & Eng Chem Anal ed 18:198-201 Mr '46
Flame method of spectrochemical analysis. W. A. Roach. il diags Soc Chem Ind J 65: 33-9 F '46

Sand culture

Automatic surface application of nutrient solution for the sand culture of plants. W. G. Templeman. Chem & Ind p348-9 S 21 '46

Soilless culture

Note of clarification on hydroponics. W. F. Gericke. il Comp Air Mag 50:295-6 N '45
Substitute for the good earth. Bsns W p48+ Ap 27 '46

PLANTS, Effect of gases on
Damage to vegetation due to gas leakage; method of detecting past contact of the soil with gas. diag Gas Age 96:23+ D 27 '45

PLANTS, Effect of light on
Fluorescent tubes used for propagation of cuttings and seedlings. Elec World 125: 134+ Mr 16 '46
Lamp application research. L. C. Porter and J. E. Davenport. il Gen Elec R 49:9-10 O '46

PLASKON
Metal test specimens mounted in urea. il Mod Plastics 24:121 O '46

PLASMOCHIN
Contributions to the chemistry of synthetic antimalarials; tetrahydropamaquin. H. J. Barber and W. R. Wragg. Chem Soc J p610-13 Jl '46
N-oxides of atabrine and plasmoquine. F. Linsker and M. T. Bogert. bibliog Am Chem Soc J 68:192-3 F '46
Study of plasmochin and the occurrence of rearrangements in the preparation of certain plasmochin analogs. R. C. Elderfield and others. Am Chem Soc J 68:1516-23 Ag '46

PLASMOCHIN, Analogs of
Alkylaminoalkyl derivatives of 8-aminoquinoline. R. C. Elderfield and others. Am Chem Soc J 68:1524-9 Ag '46
Contributions to the chemistry of synthetic antimalarials; open ring analogue of tetrahydropamaquin. H. J. Barber, F. W. Major and W. R. Wragg. Chem Soc J p613-16 Jl '46
Sulfur analog of the plasmochin type; 8-(γ-diethylaminopropylamino)-6-quinolyl methyl sulfide. H. Gilman and others. Am Chem Soc J 68:1577-9 Ag '46
Synthesis of 8-(3-diethylaminopropylamino)-6-methoxy-5-phenylquinoline. H. R. Snyder and N. R. Easton. Am Chem Soc J 68: 1549-51 Ag '46
Synthetic antimalarials; some derivatives of 8-aminoquinoline. N. L. Drake and others. Am Chem Soc J 68:1536-43 Ag '46
Two 6-β-hydroxyethoxy-8-diethylaminoalkylaminoquinolines. M. S. Morgan and L. H. Cretcher. bibliog Am Chem Soc J 68:781-4 My '46

PLASMODIUM
Note on staining plasmodia. A. W. Ratcliffe. Science 103:630-1 My 17 '46
Plasmodium gallinaceum infection characterized by predominance of exo-erythrocytic forms. V. H. Haas and others. Pub Health Rep 61:921-8 Je 21 '46

PLASMOQUINE. See Plasmochin

PLASTER casts
Built-in jacks for plaster casts. J. Stanley. diags Science 104:59 Jl 19 '46
Plaster casts check roll design; templets for correcting tool drawings for forming rolls. O. A. Muller. il diags Am Mach 89:101 D 6 '45

PLASTER molds. See Molds (for casting)—Plaster molds

PLASTER of Paris
Effect of water contents on the strength of calcium sulphate plaster products. H. Andrews. Soc Chem Ind J 65:125-8 My '46
Physical properties of resin-impregnated plaster. J. Delmonte. il A S M E Trans 68: 241-6 Ap '46; Same cond. Materials & Methods 23:1011-15 Ap '46
Plaster and plastics. Sci Am 175:204 N '46
Resin-strengthened plaster of Paris. il Mod Plastics 23:216 D '45
Study of the action of borax in retarding the setting of plaster of Paris. A. S. Buchanan and H. K. Worner. il Soc Chem Ind J 65: 23-6 Ja '46
Tooling possibilities of plaster of Paris impregnated with synthetic resins. J. Delmonte. il Automotive & Aviation Ind 93:32-3+ D 1 '45; Excerpts. Iron Age 156:72-4 N 22 '45; Abstracts. Materials & Methods 22:1808 D '45; Machine Design 18:174 Ja '46

PLASTIC armor. See Armor, Plastic

PLASTIC boxes. See Boxes, Plastic

PLASTIC canoes. See Canoes, Plastic

PLASTIC containers. See Containers, Plastic

PLASTIC dies. See Dies, Plastic

PLASTIC handles. See Handles, Plastic

PLASTIC hose. See Hose, Plastic

PLASTIC industries
Boston opens plastic center as service to buyers and sellers. il Sales Management 56:54 My 1 '46
Dow plastics expansion. Chem & Eng N 23: 2098 N 25 '45
Engineering interpretation of the economic and financial aspects of American industry. v. 7, Plastics and the plastics industry. 83p George S. Armstrong & co, 52 Wall street, New York '46
Glamour child's growing pains. il Bsns W p21-2 Ap 27 '46
Integrating plastic and rubber industries; parts made from polyvinyl plastics and acrylonitrile-butadiene type synthetic rubbers. R. P. Kenney. il Mod Plastics 24: 106-7 S '46
Make-it-yourself kit seeks market among Nation's hobbyists. il Sales Management 55: 82 D 15 '45
Materials supply outlook for 1946 and 1947; abstracts. F. H. Carman. India Rubber World 113:678 F '46; Chem Ind 58:52-3+ Ja '46
Plastic materials supply situation. W. S. Landes. Mod Plastics 23:116a-116d My '46; Same cond. Chem & Met Eng 53:144 My '46
Plastics group offers labeling guide; use is voluntary. Sales Management 55:84 D 15 '45
Plastics in 1946. C. A. Breskin. il Sci Am 174:107-9 Mr '46
Plastics in 1946; abstract. J. R. Turnbull. Chem & Met Eng 53:266+ My '46
Plastics industry and gas research. diags Chem Age (Lond) 55:79-80 Jl 20 '46
Plastics set pace for chemical growth. J. V. Sherman. Barron's 26:21-2 S 16 '46
Plastics, the modern materials of construction. V. E. Yarsley. Chem Age (Lond) 55: 341-5 S 21 '46
Retailer's and consumer's need for knowledge of plastics; abstract. C. M. Edwards, jr. Mod Plastics 23:112 My '46
There's a big market in premiums; plastic sales aids. il Mod Plastics 23:93-101 F '46
What's ahead for high pressure laminates? bibliog il Mod Plastics 24:91-8 S '46
What's ahead for 1946. il Mod Plastics 23:91-106 Ja '46

See also
Society of the plastics industry

Advertising

Case histories of business-paper advertising campaigns; Du Pont plastics campaign to create awareness of product's potentialities. il Ptr Ink 215:41-2 My 10 '46
CFAC honor industrial campaigns; Elmer E. Mills corporation. Ind Marketing 31:41-2+ Je '46
Mailings pull 45% from designers and engineers; Bakelite brochures. il Sales Management 57:108 S 15 '46

PLASTIC industries—Advertising—*Continued*
Maker of raw material controls use of product through consumer advertising; Celanese plastics corp. il Ptr Ink 216:42-3 Jl 26 '46
Myriad markets in plastics; Durez campaign. T. B. Munch. Ind Marketing 31:45+ Je '46
Tests television with booklet offer; Durez experiment shows present status of medium. R. Manville. il Ptr Ink 214:71-2 Ja 25 '46

Bibliography

Advances in plastics during 1945. G. M. Kline. Mod Plastics 23:164+ Ja '46

Directories

Custom molders of plastics; addresses of companies, types of materials and names of parts customarily molded. Machine Design 18:242-7 O '46
Plastics listed by tradenames and by type; list of producing companies. Machine Design 18:207-17 O '46

Insurance requirements

Fidelity bonds covering plastic industry. V. Cullen. Weekly Underw 155:761-2 S 28 '46

Safety measures

Code for the prevention of dust explosions in the plastics industry ASA Z12.16, 1945). diags 22p pa 25c National fire protection assn, 60 Batterymarch st, Boston 10 '45
For safety in the plastics industry; new standard tells how to prevent dust explosions. H. R. Brown. il Ind Stand 17:52-5 Mr '46
Plastics and safety. W. J. Connelly. il Nat Safety N 53:22-3+ Je '46

Statistics

Plastics and rayon prepare for peacetime progress. Chem & Met Eng 53:106-7 Ja '46
Plastics production statistics for 1945. Mod Plastics 24:124-5 O '46
Shipments and consumption of plastics and resins; second quarter of 1946; tabulation. India Rubber World 114:829 S '46
Statistics on production of plastics, 1944. Mod Plastics 23:134-6 D '45
Where are the plastics? Bsns W p56+ O 26 '46

Terminology

Glossary of plastic processes and materials. Bsns W p20 Ap 27 '46

Georgia

Georgia plant makes screen, cloth from plastics; Chicopee manufacturing corp. il Manuf Rec 115:54+ O '46

Germany

Advances in plastics in the United States and Germany. W. C. Goggin. il Chem & Eng N 24:339-43 F 10 '46
German plastic industry during the war. M. Jelling. India Rubber World 113:242 N '45
German plastics industry, 1939-1945. il Product Eng 17:218-20 Mr '46
Manufacture of laminates in Germany; based on the production manual of Dynamit A.-G. il diags Mod Plastics 24:147-9+, insert O '46
Plastics in Germany. Franklin Inst J 240:413-14 N '45
Plastics in Germany, 1939-1945. G. M. Kline. il Mod Plastics 23:152A-152P O; 157-72 D '45

Great Britain

British plastics federation; speeches at annual luncheon. Chem Age (Lond) 54:429-30 Ap 20 '46
Report from England. I. Thomas. il Mod Plastics 23:214+ F '46

South America

Plastics picture in South America; abstract. C. C. Concannon. Mod Plastics 23:115-16 My '46

Sweden

Sweden active in plastic-products field. For Comm W 21:28 N 24 '45

PLASTIC insect cages. See Insect cages, Plastic

PLASTIC lamps. See Lamps, Plastic

PLASTIC lenses. See Lenses, Plastic

PLASTIC luggage. See Luggage, Plastic

PLASTIC materials
Advances in plastics during 1945. G. M. Kline. il Mod Plastics 23:161-4+ bibliog(287 titles, p164+) Ja '46
Advances in plastics in the United States and Germany. W. C. Goggin. il Chem & Eng N 24:339-43 F 10 '46
American chemical society; abstracts of papers given before Division of paint, varnish and plastics chemistry. India Rubber World 114:226-8 My '46
Application of plastics to peacetime usages. R. P. Dinsmore. il India Rubber World 113: 395-7 D '45
Automotive industry; what it needs from the plastics industry. W. B. Stout. Mod Plastics 23:107-9 Ja '46.
Beauty and utility; highlighting some of the newer and more unusual uses of plastics in fashion. il Mod Plastics 23:91-5 Jl '46
Brief review of plastics chemistry. R. P. Courtney. J Chem Educ 23:306-9 Je '46
Cellulose propionate plastic. Chem Ind 57: 870 N '45
Chemical resistance of plastics; abstract. J. Delmonte. Materials & Methods 23:794 Mr '46
Combining plastics with other materials; molded plywood. R. C. Scull. il Mod Plastics 23:130-1 Ag '46
Competitive position of structural plastics materials; abstract. F. Z. Pearson. Mod Plastics 23:113 My '46
Contribution of plastics to packaging. R. W. Lahey. Chem & Eng N 24:1968 Jl 25 '46
Corrosion-resistant plastic coating applied to plating room equipment. il Steel 118:114+ Mr 11 '46
Develop gilsonite as binder for plastics. Bsns W p67 Ja 12 '46
Electrical and allied developments of 1945; plastics and chemicals. G. Bartlett. il Gen Elec R 49:60-1 Ja '46
Equipment and technique of extrusion; details of processing extruded sheets, tubing and wire coating. R. B. Akin. il diags Mod Plastics 24:134-42 O '46
Fashion in eye glasses; for work and play. il Mod Plastics 23:96-8 Jl '46
Films for produce; their physical characteristics and requirements. H. Platenius. il Mod Packaging 20:139-43+ O '46
Flame sprayed plastics. M. J. Gurdin. il Iron Age 158:64-5 Ag 22 '46
Frictional heat speeds welding, bonding, and molding of plastics. C. A. Breskin. il Sci Am 174:20-2 Ja '46
Future chemical needs of the plastics industry; abstracts. S. L. Brous. Chem & Eng N 24:52-3 Ja 10 '46; India Rubber World 114:85 Ap '46
German plastic industry during the war. M. Jelling. India Rubber World 113:242 N '45
Glamour child's growing pains. il Bsns W p21-2 Ap 27 '46
Heat sealing thermoplastics. W. D. Wenger. il diags Mod Plastics 23:135-9 Jl '46
High fidelity in model trains. M. Frisbie. il Mod Plastics 23:133-5 Ag '46
Hot plastic paints for ship bottoms. R. P. Devoluy. Marine Eng 51:129-31 Ap '46
How to work with plastics. H. L. Flynn. diags Am Mach 90:117-36 Ap 11 '46
Infra-red examination of plastics; abstract. G. B. B. M. Sutherland. Chem & Ind p167 Ap 20 '46
Injection of plastic packing stops valve leak, keeps unit on-stream; has other uses. diag Pet Processing 1:17-18 S '46
Integrating plastic and rubber industries; parts made from polyvinyl plastics and acrylonitrile-butadiene type synthetic rubbers. R. P. Kenney. il Mod Plastics 24:106-7 S '46
Moldable Palestic. il Bsns W p66 F 2 '46
More plastics in juke boxes. il Mod Plastics 23:75-9 My '46
New lustrous plastic; cellulose propionate, Forticel. Mod Packaging 19:140 N '45
New materials and techniques broaden plastics applications. il diags Product Eng 17: 297-312 Ap '46
New plastics parts boost refrigerator efficiency. il Mod Plastics 23:104-5 Mr '46
New trends in lighting. il Mod Plastics 23: 91-3 Mr '46

PLASTIC materials—*Continued*

Nonmetallic materials, 1945. K. Rose. il Materials & Methods 23:96-8 Ja '46

Packaging equipment; preparing machines for shipment or storage; vinyl resin and asphalt-gilsonite spray coatings. il Steel 119:134+ S 23 '46; Power 90:760-1 N '46

Packaging the United States reserve fleets; sprayed plastics and dehumidifiers for protection. il Engineering 162:132, 138-40 Ag 9 '46

Partners of light; plastics ideally suited for diffusers, shields, fixtures, and glowing radiant panels. C. A. Breskin. il Sci Am 174:197-200 My '46

Pianos that stay tuned; plastics replace wood in piano action; Permat. il Mod Plastics 24:119-20 S '46

Pin-ball proving ground; plastics can endure rough treatment. C. A. Breskin. il Sci Am 175:24-6 Jl '46

Plastic-aluminum houses. il Mech Eng 68:898 O '46

Plastic chimney coating resists heat and acid; Heresite. il Iron Age 157:64 My 23 '46

Plastic dips for paper packages; Institute of paper chemistry program of evaluation. T. A. Howells. il Mod Packaging 20:144-5+ O '46

Plastic lined furnace doors. J. N. Hornak. Blast F & Steel Pl 34:900 Jl '46

Plastic material for protection and insulation. il Gen Elec R 49:48 S '46

Plastic materials of interest to the electrical man (cont). J. Taylor. Electrician 136:33-4 Ja 4 '46

Plastic materials supply situation. W. S. Landes. Mod Plastics 23:116a-116d My '46; Same cond. Chem & Met Eng 53:144 My '46

Plastic protective coating applied on-the-job. il Product Eng 17:158 N '46

Plastics as engineering materials. J. Sherman. il Materials & Methods 23:982-6 Ap '46

Plastics demonstrate value in plugging back east Texas wells. G. Weber. diags Oil & Gas J 45:80-1+ Je 8 '46

Plastics dishes, plastics compass, clothes hook. il Sci Am 174:22 Ja '46

Plastics for conveyor systems. P. I. Smith. il Mech Handling 33:271-3 My '46

Plastics improve design of compass for land vehicles. D. J. Faustman. il diag Machine Design 18:133-4+ Ja '46

Plastics in Britain's postwar homes; recently developed Plimber plastic timber. il Mod Plastics 23:108-10 Mr '46

Plastics in four home appliances; Philco radio receivers, electric refrigerators, air conditioning equipment and deep freeze boxes. il Mod Plastics 24:108-10 S '46

Plastics in Germany, 1939-1945. G. M. Kline. il Mod Plastics 23:152A-152P O; 157-72 D '45

Plastics in packaging; abstract. R. P. Dinsmore. Chem & Eng N 24:93 Ja 10 '46

Plastics in radio. C. A. Breskin. il Sci Am 174:56-7 F '46

Plastics in the rubber industry. H. A. Winkelmann. bibliog India Rubber World 113:799-804 Mr '46

Plastics in well-remedial work; how an actual job is designed. A. C. Polk, jr. and D. F. Saurenman. il Oil & Gas J 45:154-6 My 18 '46

Plastics industry conference. Can Chem & Process Ind 30:65-7 F '46

Plastics listed by tradenames and by type; list of producing companies. Machine Design 18:207-17 O '46

Plastics molding materials; classification, applications, fabrication. Machine Design 18: 159-63 Je '46

Plastics packaging; abstract. E. L. Hobson. Mod Packaging 19:131 D '45

Plastics, the modern materials of construction. V. E. Yarsley. Chem Age (Lond) 55: 341-5 S 21 '46; Abstract. Electrician 137:802 S 20 '46

Premiums in plastics. C. A. Breskin. il Sci Am 174:158-60 Ap '46

Problem of fungal growth as it affects synthetic resins, plastics and plasticizers. A. E. Brown. il Mod Plastics 23:189-95+ Ap '46

Production and application of plastics in the war effort; abstract. N. J. L. Megson. Chem & Ind p181 My 4 '46

Progress in engineering knowledge during 1945; plastics. P. L. Alger and others. Gen Elec R 49:9-10 bibliog(p63) F '46

Progress in plastics. A. E. Williams. il diags Engineer 182:206-7, 229-32 S 6-13 '46

Railroading in miniature. J. L. Bonnano and J. E. Currier. il Mod Plastics 23:102-5 F '46

Recent significant developments in plastics. R. J. Moore. bibliog il India Rubber World 113:674-8 F '46; Same. Mech Eng 68:531-6 Je '46; Abstract. Chem Ind 59:264-5 Ag '46

Review of plastic materials; with tabulated physical and electrical properties, trade names, manufacturers, etc. H. L. Brouse. bibliog Inst Radio Eng Proc 33:825-34 D '45

Rubber companies diversify; turn to plastics. Bsns W p56-8 Mr 23 '46

Sampling the markets; illustrations. Mod Plastics 23:115-31 Ap '46

Society of plastics engineers 2d annual meeting, Detroit, Jan. 7-9. Chem & Eng N 24:178-9+ Ja 25 '46

Stone-like plastic formed by molding; G. E. mycalex. T. C. Du Mond. il Materials & Methods 24:87-9 Jl '46

Structural plastics. Sci Am 175:216 N '46

Summary of ASTM specifications; tabulated; engineering file facts. R. S. Burpo, jr. comp. Materials & Methods 23:1047, 1049, 1051 Ap '46

Synthetic lignin resin and plastic. A. J. Bailey and O. W. Ward. bibliog Ind & Eng Chem 37:1199-1202 D '45

Synthetic rubber and plastics as materials of construction in the chemical industry. M. G. Fontana. bibliog il Am Inst Chem Eng Trans 42:359-77 Ap '46; Same. Chem & Met Eng 53:102-5+ Ap '46

Templets from plastic sheet; abstract. P. Glanzer. Materials & Methods 23:510 F '46

Time to play. il Mod Plastics 23:95-101 D '45

Unsupported films and sheetings. C. W. Patton. Am Dyestuff Rep 35:277-8+ Je 3 '46

Use of plastics in civil engineering. E. S. Childs. Boston Soc C E J 33:82-101 Ap '46

Use of plastics in consolidating loose sands in wells; abstract. R. H. Smith and A. C. Polk, jr. Oil & Gas J 45:95-6 O 5 '46

Waste wood bark provides powdered cork-type materials. il Chem Ind 59:486 S '46

Wood fiber base plastic; Duron. il Mod Plastics 23:248 Ap '46

X-ray studies of the structure of plastics. W. T. Astbury. Soc Dyers & Col J 62:3, pl 1-2 Ja '46

Year in plastics engineering. il diags Mod Plastics 23:125-35+ Ja '46

See also

Airplanes—Materials—Plastics
Bakelite
Cellulose acetate
Cellulose acetate butyrate
Cement
Clay
Color in plastic materials
Ethyl cellulose
Gums and resins
Haveg
Koroseal
Lumarith
Melamine resins
Methyl methacrylate
Molded products
Molding
Paper, Laminated
Plasticizers
Polythene
Printing on plastics
Resinous products
Rubber
Rubber, Artificial
Saran
Styrene
Teflon

Bibliography

Advances in plastics during 1945. G. M. Kline. Mod Plastics 23:164+ Ja '46

Design articles on plastics appearing in Product engineering during 1942-1945. Product Eng 17:298 Ap '46

Plastics digest. Published in monthly numbers of Modern plastics

Cutting

Fabricating with metal working machines. G. Becker. diags Mod Plastics 23:146-7 Ag '46

Fabrication of high-pressure laminates. il Mod Plastics 23:148-53 F '46

High velocity simplifies band sawing. H. J. Chamberland. il Mod Plastics 23:146-7 Mr '46

PLASTIC materials—Cutting—*Continued*
How to cut transparent plastics. W. W. Farr. il diags Am Mach 90:131-2 S 12 '46; Same cond. Mech Eng 68:985-6 N '46
How to work with plastics; machining. H. L. Flynn. diags Am Mach 90:131-4 Ap 11 '46
Machining plastics. K. Rose. Materials & Methods 22:1457 N '45
Machining with diamond tools. R. Maxfield. il Mod Plastics 23:131-5 Mr '46
Plastic laminates as engineering materials. K. Rose. il Materials & Methods 24:664 S '46
Spaghetti cutter makes plastic tubing cutting easy. V. F. Rayser. il Am Mach 90:147 Ap 11 '46

Electric properties

Electrical insulating materials; a symposium. W. C. Goggin and others. il diags Ind & Eng Chem 38:1090-1129 N '46
New plastic composition for dielectric applications; abstract. W. C. Goggin and R. F. Boyer. Product Eng 17:[no 7] 120 Jl '46
Plastics and the electrical industry. P. R. S. Gibson. bibliog il diags Electrician 137:443-5, 517-20, 582-5, 649-52 Ag 16-S 6 '46
Plastics in electrical applications. J. Delmonte. il Machine Design 18:114-18+ Jl '46

Expansion and contraction

Dimensional stability of plastics. R. Burns. Am Soc T M Proc 45:926-34 '45
Thermal-expansion stresses in reinforced plastics; polystyrene and aluminum oxide; phenol-formaldehyde resin and glass fibers; plywood, etc. P. S. Turner. J Res Nat Bur Stand 37:239-50 O '46

Fillers

Uses of cocoanut products; fillers for plastic: cocoanut flour, coir dust and fibers. G. B. E. Schueler. Mod Plastics 23:118-19 Je '46

Finishing

Coatings for plastics, by Pittsburgh paint and varnish production club. Paint Oil & Chem R 108:114-15 N 1 '45
How to work with plastics; finishing. H. L. Flynn. Am Mach 90:135-6 Ap 11 '46
Sanding recommendations for plastics; reference book sheet. Am Mach 90:143 Ag 15 '46

Fire hazards

Plastics and fires. F. D. Snell. il Sci Am 175: 201-3 N '46
Plastics introduce no new hazard into the work of firemen; abstracts. F. D. Snell. Nat Safety N 54:166 O '46; Chem Eng 53: 248 S '46
Toxicity hazards of burning plastics; abstract. Chem Eng 53:248 S '46

Glass reinforcement

Fiberglas converts for peace. il Chem & Eng N 24:2070-1 Ag 10 '46
Glass-plastic car bodies; Fiberglas. Barron's 25:5 D 24 '45
1946 Scarab, developed by W. B. Stout; new material, fiberglass-and-plastic. il Steel 118:121-2 My 6 '46
Plastic bands and slabs reinforced with glass fibers; abstract. A. K. Burov. Glass Ind 27: 294+ Je '46
Precision labeling with reinforced plastics. P. Fuller. il Mod Plastics 23:98-9 My '46
Production of honeycomb cores. J. D. Lincoln. il Mod Plastics 23:127-9 My '46

See also
Plastic materials, Laminated—Glass reinforcement

Joining

Cementing of thermoplastics. il Mod Plastics 23:167-71 Ap '46
Electronic seamer for thermoplastic films. il Rubber Age 60:68 O '46
Friction welding of plastics; abstract. R. N. Freres. Product Eng 17:405 My '46
Friction welding of thermoplastics. K. Rose. il Materials & Methods 22:1728-30 D '45
Laminated edge attachment for acrylics. E. H. Snyder. il diags Mod Plastics 24:138-45 S '46; Same. A S M E Trans 68:767-71 O '46
Plastics stick together. C. A. Breskin. il Sci Am 175:114-16 S '46
Seal cellulose acetate with high frequency. E. K. Cliver. Elec World 126:98+ O 26 '46
Selecting a hinge or latch design for plastic parts. il diags Mod Plastics 23:174-7 Ap '46
Singer electric bonding machine for thermoplastic materials. il Rayon 27:240 My '46
Singer heat sealing machine. il Rubber Age 59:702 S '46
Welding thermoplastics; abstract. G. Haim and H. P. Zade. Materials & Methods 24: 694 S '46

Joining to metal

Metal-plastic composites. C. R. Simmons. il diags Materials & Methods 22:1426-7 N '45
Thermal-expansion stresses in reinforced plastics; polystyrene and aluminum oxide; phenol-formaldehyde resin and glass fibers; plywood, etc. P. S. Turner. J Res Nat Bur Stand 37:239-50 O '46

Manufacture

Acetylene as the basis of new plastics. W. Reppe. diag Mod Plastics 23:169-76+ F '46
Cellulose ester plastic sheeting produced by nonsolvent continuous extrusion. il diag Mod Plastics 23:132-6 My '46
Cellulosic materials and the plastics industry; wood, woodpulp and paper for manufacture of plastic materials. S. W. Blake. il Pulp & Pa of Can 46:925-7 N '45
Petroleum in plastics processing. il Sci Am 173:294-6 N '45

Moisture content

Determination of the saturation water content of protein plastics. E. F. Mellon. Ind & Eng Chem Anal ed 17:743 N '45

Patents

United States plastics patents. Published in monthly numbers of Modern plastics

Plating

Metal coated plastics. diags Steel 118:92-5+ F 18 '46
Metallizing non-conductors. B. Shomberg. il Metal Finishing 44:157-60 Ap '46 (to be cont)
Silvering of plastics. H. Narcus. bibliog il Metal Finishing 44:240-2 Je '46

Preforming

Pulp preforms; abstract. H. C. Martin. Paper Ind 28:300 My '46

Reinforcement

Reinforced plastics go to town. il Bsns W p46+ Mr 2 '46
Thermal-expansion stresses in reinforced plastics; polystyrene and aluminum oxide; phenol-formaldehyde resin and glass fibers; plywood, etc. P. S. Turner. J Res Nat Bur Stand 37:239-50 O '46

Standards

S.P.I. standard for tolerances on molded plastics parts. Product Eng 17:172-6 F '46

Strength

Correlation between strength properties in test specimens and molded phenolic parts. P. S. Turner and R. H. Thomason. il diags Mod Plastics 23:146-54+ My; 154:8+ Jl '46
Effect of temperature and humidity on mechanical properties of molded cellulose acetate. W. E. Welch and others. Mod Plastics 23:159-64+ Ag '46
Effect of width and of span-depth ratio on the flexural strength of laminated plastics. E. M. Schoenborn and others. il Am Soc T M Proc 45:910-23; Discussion. 923-5 '45

Temperature effects

Measuring heat distortion of plastics. G. Lubin. il diag Mod Plastics 23:163-4+ Mr '46

Testing

Developments in the field of testing procedures for the evaluation of natural and synthetic rubbers and plastic elastomers, sponsored by Bureau of ships, Navy department. T. A. Werkenthin. bibliog il diags Rubber Age 59:173-9, 317-23, 445-50, 579-83, 697-702; 60:74-8, 197-202 My-N '46

PLASTIC materials—Testing—*Continued*
Dielectric properties vs. temperature of thermosetting molding material preforms at radio frequencies. T. Hazen. bibliog Electrochem Soc Trans 90 (preprint 13):193-204 '46
Dimensional stability of plastics. R. Burns. Am Soc T M Proc 45:926-34 '45
Flexural properties of plastics. W. A. Zinzow. il Am Soc T M Proc 45:376-88; Discussion. P. S. Turner. 389-90 '45
Hercules plans new plastics laboratory. Elec World 124:228 D 8 '45
Interference-free weatherometer; accelerated weathering applied to plastic and rubber and measured with photoelectric equipment. W. B. R. Agnew. il diag Electronics 18:160-1 D '45
Measuring flow of thermosetting plastics. L. A. Sontag and E. F. Borro. il diag Mod Plastics 23:200-2+ Ap '46
PI standard test methods; for heat-sealing strengths and characteristics of thermoplastic substances. il diag Mod Packaging 20:150-1+ S '46
Q-meter for dielectric measurements on polyethylene and other plastics at frequencies up to 50 megacycles. A. P. Wangsgard and T. Hazen. il diags Electrochem Soc Trans 90 (preprint 11):177-91 '46
Resistance of plastics to abrasive particles. M. E. Marks and P. Conrad. il diags Mod Plastics 23:165-8+ Mr '46
Simple extensometer for plastics. A. D. Ross. diags Engineering 161:241 Mr 15 '46
Testing by sound; Brush hypersonic testing machine. il Mod Plastics 23:143 F '46
Testing machine for rigid plastics. il Engineer 181:582 Je 28 '46
Testing-machine grip designed for plastics. il Iron Age 157:63 F 21 '46

Water absorption

Water absorption of plastics molded from acylated casein. W. G. Gordon, A. E. Brown and C. M. McGrory. bibliog Ind & Eng Chem 38:90-4 Ja '46

PLASTIC materials, Cellular
Cellular plastics in aircraft. C. C. Sachs. bibliog Mech Eng 68:233-6 Mr '46; Same cond. Mod Plastics 23:173-6 D '45
See promise in low-density core for aircraft laminate components. R. E. Maier. il Aviation 45:72-3 Jl '46

PLASTIC materials, Decorative
Contact resins in decorative surfacing. il Mod Plastics 23:132-3 Jl '46
Designing for a single material; Mavco compacts. il Mod Plastics 23:110-13 Ja '46
New acrylic contact laminate; fabric and paper, laminated to acrylic sheet. il Mod Plastics 24:122-3 O '46

PLASTIC materials, Laminated
Applications of low-density core materials; abstract. R A. Hoffer. Mod Plastics 23:114 My '46
Cementing phenolic laminates; abstract. J. Delmonte. Materials & Methods 24:442 Ag '46
Comparison of laminated materials; Formica comparator. J. C. Pitzer. Mod Plastics 23:126, insert My '46
Contact resins in decorative surfacing. il Mod Plastics 23:132-3 Jl '46
Core materials for laminates; abstract. B. M. Axilrod and E. Koenig. Materials & Methods 24:966 O '46
Data on low-pressure laminating resins. fold charts Mod Plastics 23:144-5 Je; 146-7 Jl '46
Deep drawn laminates; ice saver buckets; Andover Kent, new process. il Mod Plastics 23:100-2 Mr '46
Design and performance of plastic rolling mill bearings. O. K. Graef. il Steel 118:116-18+ My 27 '46
Doron armor; achievement and a promise in plastics. E. C. Fetter. il Chem & Met Eng 53:154-7 F '46
Electrical resistivity of resin-treated wood and laminated hydrolyzed-wood and paper-base plastics. R. C. Weatherwax and A. J. Stamm. bibliog diag Elec Eng 64:Trans 833-8 D '45
Fabric base plastics; abstract. F. T. Barwell. Chem & Ind p411-12 D 29 '45
Fabric base plastics; reconnaissance. K. W. Pepper and others. il diag Soc Chem Ind J 65:153-64 Je '46
Laminated edge attachment for acrylics. E. H. Snyder. il diags Mod Plastics 24:138-45 S '46; Same. A S M E Trans 68:767-71 O '46
Laminated plastic for machine table ways. Iron Age 157:50 Ap 25 '46
Laminated window designs forecast by plastic domes. L. M. Purdue and G. E. Hughes. il Aviation 45:81-3 Ja '46
Lamp shade prepackaged with gift appeal; Celanese-Lumarith lamp shade. il Mod Packaging 19:125 Ap '46
Layer-cake plastics. C. A. Breskin. il Sci Am 175:160-2 O '46
Light-directing acetate sheet displays. il Mod Plastics 23:144-5 Ap '46
Lignin-filled, laminated-paper plastics; cooperative report. Paper Tr J 122:35-42 Ap 4 '46; Same. Paper Ind 27:1683-9 F '46
Low pressure molding of laminates; abstract. J. E. Stokes. Product Eng 17:115 S '46
Molded luggage. il Mod Plastics 23:147-50 Ap '46
Molding laminated foot appliances. il Mod Plastics 23:114-16 Je '46
New acrylic contact laminate; fabric and paper, laminated to acrylic sheet. il Mod Plastics 24:122-3 O '46
New laminating resin; low-pressure type developed by I.C.I. Chem Age (Lond) 54: 364 Ap 6 '46
Non-woven cotton webs in laminates. S. Williams and others. il Mod Plastics 24: 153-9 S '46
Paper-base laminates. E. S. Bauer. Pulp & Pa of Can 47:75-7 My '46
Plastic board; electrical applications to the manufacture of Holoplast. il diag Elec R (Lond) 138:795-9 My 24 '46
Plastic laminates as engineering materials. K. Rose. il Materials & Methods 24:653-64 S '46
Plastic molds for electronic vulcanizing; resin-impregnated glass fiber fabric molds. il Mod Plastics 23:142-5 Jl '46
Post-forming developments during the war and their applications to peace-time products. W. I. Beach. il India Rubber World 113:825-7 Mr '46; Same cond. Product Eng 17:118-19 S '46
Present products in the low-pressure molded laminates; abstract. W. J. Connelly. Product Eng 17:404 My '46
Progress in the development of laminates. H. Kline. India Rubber World 113:529-31 Ja '46
Renovating rail cars with plastics. il Mod Plastics 23:100-1 Je '46
See promise in low-density core for aircraft laminate components. R. E. Maier. il Aviation 45:72-3 Jl '46
Silicone resin bonded laminates. L. V. Larsen and others. il Mod Plastics 23:160-2+ Mr '46
Tooling and production methods for low-pressure reinforced plastics; abstract. J. J. Townsend. Mod Plastics 23:114 My '46
Vinyl bags for low-pressure molding. il Mod Plastics 23:133-4 F '46
What the laminates offer; abstract. J. D. Nelson and L. V. Larsen. Materials & Methods 24:166 Jl '46
What's ahead for high pressure laminates? il Mod Plastics 24:91-8 S '46

Glass reinforcement

Engineering properties of fiberglas reinforced plastics; abstract. G. Slayter. Product Eng 17:[no 7] 117-19 Jl '46
Glass laminates and their application to aircraft structures. G. B. Rheinfrank, jr. and W. A. Norman. il Aeronautical Eng R 5: 10-14+ Ja '46
Melamine-bonded fiberglas laminates; abstract. G. A. Albert. Materials & Methods 23:496 F '46
Melamine glass-cloth laminates properties and machinability. P. C. Fuller. il Product Eng 17:142-5 F '46
Precision labeling with reinforced plastics. P. Fuller. il Mod Plastics 23:98-9 My '46
Production of honeycomb cores. J. D. Lincoln. il Mod Plastics 23:127-9 My '46

PLASTIC materials, Laminated—Glass reinforcement—*Continued*
Properties and fabrication of glass reinforced plastics. G. Slayter and H. W. Collins. il Materials & Methods 23:720-4 Mr '46

Manufacture

Fabrication of high-pressure laminates. R. M. Lane. il Mod Plastics 23:146-8 D; 148-53 F '46
Forming laminated plastic material. il Engineer 181:177 F 22 '46
Forming of bakelite laminated sheet. il Engineering 161:248-9 Mr 15 '46
Laminated plastics; utilisation of resins in their manufacture. C. Kant. il Chem Age (Lond) 55:281-4 S 7 '46
Manufacture of laminates in Germany; based on the production manual of Dynamit A.-G. il diags Mod Plastics 24:147-9+, insert O '46
Modern laminating plant; General Electric facilities at Lynn, Mass. il Mod Plastics 24:180 S '46

Testing

Effect of width and of span-depth ratio on the flexural strength of laminated plastics. E. M. Schoenborn and others. il Am Soc T M Proc 45:910-23; Discussion. 923-5 '45
Fatigue tests of a laminated Mitscherlich-paper plastic. W. N. Findley. il diags Am Soc T M Proc 45:878-903 bibliog(p902-3); Discussion. 904-9 '45

PLASTIC materials, Translucent
Acrylic and acetate in the Ice follies. il Mod Plastics 23:124-5 Je '46
Fluorescent fixtures. il Mod Plastics 23:94-6 Mr '46
Plastics for railway car lighting. L. Schepmoes. il Ry Age 121:176-7 Ag 3 '46
Railroad car lighting. il Mod Plastics 23: 97-8 Mr '46

PLASTIC materials, Transparent
Acetate adhesion; welding with solvents. il Mod Packaging 19:120-1+ Jl '46
Acrylics and wood combined. il Mod Plastics 23:130-1 D '45; Abstract. Sci Am 174:58 F '46
Automotive glazing with plastics; abstract. G. B. Watkins and J. D. Ryan. Automotive & Aviation Ind 94:38 Je 15 '46
Bombers to bathrooms. il Arch Rec 98:20 N '45
Cast plastics for precision optics. il Mod Plastics 23:116-18 Ja '46
Clear butyral coating for upholstery; transparency, low modulus and adhesive properties. il Mod Plastics 24:126-7 S '46
Compartments, and transparent. il diags Mod Packaging 19:110-11 N '45
Design tolerances for transparent acrylic plastics. il diags Product Eng 17:[no 7] 110-11 Jl '46
Designing for a single material; Mavco compacts. il Mod Plastics 23:110-13 Ja '46
Designing with acrylics; some considerations. D. A. Rothrock. il diags Mod Packaging 19:112-15 F '46
Dream suite, Plexiglas applications to home construction. il Arch Forum 83:242 N '45
Fighter canopies. B. Jones and R. Mayne. il diags Aeronautical Eng R 5:23-9 O '46
From fighting planes to dressing rooms; transparent plastic adapted to home construction. il Am Bld 67:89-91 D '45
Guards you can see through. il Safety Eng 91:38-9+ Mr '46
How to cut transparent plastics. W. W. Farr. il diags Am Mach 90:131-2 S 12 '46; Same cond. Mech Eng 68:985-6 N '46
Laminated window designs forecast by plastic domes. L. M. Purdue and G. E. Hughes. il Aviation 45:81-3 Ja '46
Mammoth acrylic display dome; in downtown Detroit, carrying out Ford slogan. il Mod Plastics 24:106-7 O '46
New plastic films; their packaging qualities. W. H. Aiken. Mod Packaging 19:141-4+ My '46
Optical glass substitute. R Sci Instr 17:44 Ja '46
Pan-shaped polystyrene light shields; troffer fluorescent lighting system. C. T. Masterson. il diag Mod Plastics 23:107 Ag '46
Perfume packages go transparent. il Mod Plastics 23:103-4 Je '46
Piping light with acrylic materials. H. Pearson. il diags Mod Plastics 23:123-7 Ag '46
Plastic bearings; transparent models and colored oils aid designers. il Mech Eng 68: 897-8 O '46
Plastic dome for ignition testing at high altitude. il Aero Digest 51:95+ D 1 '45
Plastic optics; abstract. E. H. Land. Opt Soc Am J 36:349 Je '46
Plastic training aids; transparent models used at Ordnance school, Aberdeen proving ground; abstract. E. D. Roberts. Mech Eng 68:253 Mr '46
Plastic works for safety; devices made of Plexiglas. il Safety Eng 91:57 F '46
Plastics simplify color matching; acrylics, vinyl sheets and polyester resins. il Mod Plastics 23:133-6 Ap '46
Protective films in new merchandising roles. F. C. Edelston. il Mod Packaging 19:156-8 Mr '46
Protective vinyl covers; drawer cases and closet accessories. il Mod Plastics 23:99 Mr '46
Seeing through a subject; printing pictures or drawings of different parts on separate transparent cellulose acetate sheets and superimposing. il Mod Plastics 23:132 F '46
Tailored allyl ester. S. L. Brous. il Mod Plastics 23:107-10 D '45
Tailoring the product to the material; men's accessories and display fixtures, using Lucite or Plexiglas. il Mod Plastics 23:116 Jl '46
Take care of those airplane eyes; maintenance of transparent plastic windshields and enclosures. J. J. Rodgers and N. Harlan. diags Aviation 44:131-3+ D '45
Transparency returns to the cosmetic field. il Mod Packaging 19:154-5+ Mr '46
Transparent models for construction and test purposes. A. H. Jennings. il Mod Plastics 23:130-2 Je '46
Transparent plastic plant models in three-dimensional layout. il Factory Management 104:108-9 Ag '46
Transparent plastic tank and cover for the Warburg manometric apparatus. W. Robbie and others. diags Science 103:144-5 F 1 '46
War-born plastic goes civilian; Krene. il Sales Management 57:41 S 15 '46
Wartime substitutes for optical glass. Chem & Met Eng 52:113 N '45
Your home in plastics. il Sci Am 173:338-40 D '45

See also
Cyclohexyl methacrylate
Lumarith
Methyl methacrylate

Testing

Films for produce; their physical characteristics and requirements. H. Platenius. il Mod Packaging 20:139-43+ O '46

PLASTIC pipes. See Pipes, Plastic

PLASTIC research. See Plastics research

PLASTIC screens. See Screens, Plastic

PLASTIC sculpture
Artist looks at plastics. il Mod Plastics 23: 120-7 D '45

PLASTIC tableware. See Tableware, Plastic

PLASTIC tiles. See Tiles, Plastic

PLASTIC tools. See Tools, Plastic

PLASTIC toys. See Toys, Plastic

PLASTIC tubes. See Tubes, Plastic

PLASTICITY
Measuring flow of thermosetting plastics. L. A. Sontag and E. F. Borro. il diag Mod Plastics 23:200-2+ Ap '46
Plastic strain in isotropic strain-hardening material. H. W. Swift. diags Engineering 162:381-4 O 18 '46
Recent work in the field of high pressures; effect on plastic flow and similar phenomena. P. W. Bridgman. bibliog il diag Rs Mod Phys 18:49-55 Ja '46
Shrinkage and plastic flow of pre-stressed concrete. H. R. Staley and D. Peabody, jr. Am Concrete Inst J 17:229-43 Ja '46
Stress and strain in plastic flow. W. P. Roop. bibliog diags Welding J 25:799-823 S '46

PLASTICITY—*Continued*
Structure and plasticity of undried cotton fibers. E. E. Berkley and T. Kerr. bibliog il Ind & Eng Chem 38:304-9 Mr '46
Studies of plastic flow of steel, especially in two-dimensional compression. P. W. Bridgman. il diags J Ap Phys 17:225-43 Ap '46
Study of coarse-graded base-course materials. E. A. Willis. il Pub Roads 24:239-43 Jl '46; Same. Roads & Bridges 84:75-6+ N '46
Viscosity and plasticity; abstract. E. N. da C. Andrade. Chem Age (Lond) 53:543-4 D 8 '45

See also
Creep of materials
Plastometers
Rheology
Viscosity

PLASTICIZERS
Agricultural residues in plastics; plasticizers and inorganic extenders in 25-percent phenolics. R. V. Williamson and others. fold tab Mod Plastics 23:177-80+ F '46
Comparison of German plasticizers with standard softener for GR-S. India Rubber World 113:528 Ja '46
Comparison of recently developed plasticizers for nitrocellulose, by Chicago paint and varnish production club. bibliog Paint Oil & Chem R 108:124-9 N 1 '45
Dicyclopentyl phthalate. Oil Paint & Drug Rep 149:7 Mr 18 '46
Diffusion of plasticisers from polyvinyl chloride compositions; abstract and discussion. P. A. Small. Chem & Ind p125 Mr 16 '46
Future chemical needs of the plastics industry; abstracts. S. L. Brous. Chem & Eng N 24:52-3 Ja 10 '46; India Rubber World 114: 85 Ap '46
New Amecco plasticizers. India Rubber World 113:243 N '45
New petroleum product for plastics; plasticized vinyl paste or plastisol. Mod Plastics 24:198 O '46
New solvents and plasticizers for surface coatings; abstracts. W. A. Woodcock. Can Chem & Process Ind 29:744-5 N '45; Oil Paint & Drug Rep 148:41-2 N 12 '45
Oven for measurement of volatility of plasticizers in polyvinyl chloride and chloride-acetate copolymer compositions. D. K. Rider and J. K. Sumner. il Ind & Eng Chem Anal ed 17:730-3 N '45
Pigments and plasticizers for upholstery. il Mod Plastics 23:93-4 Ag '46
Plasticizer production, 1944. Chem & Eng N 24:112 Ja 10 '46
Plasticizers and the flammability of nitrocellulose lacquers; abstract. A. Kraus. Paint Oil & Chem R 109:40 Ag 8 '46
Plasticizers for nitrocellulose caulking and sealing compounds. India Rubber World 113: 528 Ja '46
Plasticizing agent; Santicizer 160. il Chem Eng 53:142 S '46
Problem of fungal growth as it affects synthetic resins, plastics and plasticizers. A. E. Brown. il Mod Plastics 23:189-95+ Ap '46
Properties of Saran coating latex. G. W. Stanton and W. A. Henson. il Paper Tr J 123:48-52 Ag 8 '46; Same cond. Ind & Eng Chem 38:468-72 My '46
Saran coating latex. G. W. Stanton and W. A. Henson. il Ind & Eng Chem 38:468-72 My '46
Unsupported films and sheetings. C. W. Patton. Am Dyestuff Rep 35:277-8+ Je 3 '46

Analysis

Determination of ethers and esters of ethylene glycol; modified alkoxyl analysis. P. W. Morgan. bibliog diag Ind & Eng Chem Anal ed 18:500-4 Ag '46

Testing

Behaviour of plasticizers in nitrocellulose films. H. L. Tuthill. Paint Oil & Chem R 108:7-10+ D 13 '45

PLASTICS engineers, Society of. See Society of plastics engineers

PLASTICS research
Massachusetts institute of technology plastic research project of P.M.M.A; abstract. F. H. Carman. Mod Plastics 23:115 My '46
Plastics research at MIT. Chem & Eng N 24:664 Mr 10 '46
Plastics research program set up at Princeton. Chem & Met Eng 53:155 Ap '46

PLASTILOCK 500. See Adhesives

PLASTOMETERS
Theory and application of the parallel plate plastometer; polyethylene resins and plasticized vinyl chloride-acetate resin systems. G. J. Dienes and H. F. Klemm. bibliog il diags J Ap Phys 17:458-71 Je '46

PLATE glass
Flat glass industry files answer to anti-trust suit. Glass Ind 27:292+ Je '46
Method of utilizing waste from plate glass grinding; patent. diags Glass Ind 27:78-9 F '46
Resistance of plate glass to alkaline solutions. M. S. Tarnopol and A. E. Junge. Am Cer Soc J 29:36-9 F 1 '46; Abstract. Glass Ind 27:191 Ap '46

PLATE glass insurance. See Insurance, Plate glass

PLATFORMS
All-purpose workstand for aircraft; Pacific Engineering's Aerostands. il Aero Digest 51:70 D 15 '45
Dock for DC-4's and DC-6's; shop platforms cut overhaul time; United air lines. M. B. Crawford. il Air Transport 4:35-41 F '46

PLATING
Polystyrene for plating baths. il Mod Plastics 23:138 Ja '46
Two-in-one materials. il Sci Am 173:342-4 D '45

See also
Chromium plating
Copper plating
Electroplating
Iron plating
Lead plating
Nickel plating
Silver plating
Water supply for plating
Zinc plating

PLATING shops

Employees

Plating and polishing industry; straight-time average hourly earnings. E. B. Harris and others. Metal Finishing 43:454-6 N '45
Wage structure of commercial job electroplating shops. G. W. Grupp. Metal Finishing 44:486-7 N '46

Equipment

Corrosion-resistant plastic coating applied to plating room equipment. il Steel 118:114+ Mr 11 '46
Engineering an anodizing installation. R. S. Herwig. diag Metal Finishing 44:423-5 O '46
Gas-fired immersion heaters speed up plating production; Chemical plating company. il Metal Finishing 44:382-3 S '46
Job plating in volume; flashlight reflectors; Gerity Michigan die casting co. H. Chase. il Steel 119:102-6+ Ag 19 '46
Plating auto hardware; Ternstedt plant of General motors corp. H. Chase. il Iron Age 158:59-61 S 19 '46

PLATINUM
Accommodation coefficients for heat conduction between gas and bright platinum, for nine gases between 80° K (or their boiling points) and 380° K. E. R. Grilly and others. bibliog J Chem Phys 14:435-40 Jl '46
Adsorption of fatty acids on nickel and platinum catalysts. H. A. Smith and J. F. Fuzek. bibliog diag Am Chem Soc J 68: 229-31 F '46
Amperometric microtitration of very dilute chromate solutions using the rotating platinum electrode. I. M. Kolthoff and D. R. May. Ind & Eng Chem Anal ed 18:208-9 Mr '46
Amperometric titration of chloride, bromide, and iodide using the rotating platinum electrode. H. A. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:355-8 Je '46
Amperometric titration of cyanide with silver nitrate, using the rotating platinum electrode. A. H. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:574-5 S '46

PLATINUM—*Continued*
Amperometric titration of mercaptans with silver nitrate using the rotating platinum electrode. I. M. Kolthoff and W. E. Harris. bibliog diags Ind & Eng Chem Anal ed 18: 161-2 Mr '46
Amperometric titration of mixtures of halides using the rotating platinum electrode. H. A. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:358-9 Je '46
Application of platinum resistance thermometry to some industrial physicochemical problems. D. R. Stull. bibliog il diags Ind & Eng Chem Anal ed 18:234-42 Ap '46
Pressure dependence of accommodation coefficients; values for ten gases on platinum. I. Amdur. bibliog J Chem Phys 14:339-42 My '46
Welding precious metals. F. W. Meyers, jr. il Iron Age 158:59-62 Ag 22 '46

Analysis

Precipitation of platinum metals by organic monosulfides; determination of platinum with thiophenol and rhodium with thiobarbituric acid. J. E. Currah and others. bibliog Ind & Eng Chem Anal ed 18:120-2 F '46

PLATINUM metallurgy
Platinum refining and melting; possibilities of electric method. C. C. Downie. Metal Prog 50:483-4 S '46

PLATINUM metals
Operations and plants of International nickel company of Canada; copper refining; recovery of secondary metals. Can Min J 67: 454-5 My '46
Platinum metals in 1945; abstracts. C. Englehard. Can Chem & Process Ind 29:827 D '45; R Sci Instr 17:78 F '46
Platinum metals, 1945. H. W. Davis. Eng & Min J 147:85-6 F '46
Platinum metals refinery at Acton, London. flow sheets. il Can Min J 67:541-4 My '46
Platinum metals used extensively in production of war materials. Steel 118:421 Ja 7 '46
Precipitation of platinum metals by organic monosulfides; determination of platinum with thiophenol and rhodium with thiobarbituric acid. J. E. Currah and others. bibliog Ind & Eng Chem Anal ed 18:120-2 F '46

PLATTEVILLE formation
Quimbys mill, new member of Platteville formation, upper Mississippi valley. A. F. Agnew and A. V. Heyl, jr. diag Am Assn Pet Geologists Bul 30:1585-7 S '46

PLAYGROUNDS
See also
Badminton courts

PLAYING cards. See Cards

PLAYWRIGHT'S company
Lives of John F. Wharton. Fortune 33:192+ My '46

PLEXIGLAS. See Plastic materials, Transparent

PLIOFILM
Fresh shrimp by air in a protective package; heat-sealed pliofilm pouch. il Mod Packaging 20:121 O '46
Waterproof fabric woven from pliofilm thread. Chem & Met Eng 53:148 Ap '46
What about pliofilm? it's coming back. il Mod Packaging 19:116-17+ N '45

PLIOLITE
Chemical derivatives of synthetic isoprene rubbers. J. D. D'Ianni and others. bibliog Ind & Eng Chem 38:1171-81 N '46
Styrene-diene resins in rubber compounding. A. M. Borders, R. D. Juve and L. D. Hess. bibliog il Ind & Eng Chem 38:955-8 S '46
Synthetic vehicle for paint helps solve current shortages; Pliolite S-5. Arch Forum 85:185 O '46

PLIOTRON
What you should know about industrial electronics; grid control of electronic tubes. il diags Am Mach 90:111 Mr 28; 142 Ap 11 '46

PLOTZ foundation. See Ella Sachs Plotz foundation for the advancement of scientific investigation

PLOWS
Deep-tilling plow has two bases. il diags Product Eng 17:[no 7]103 Jl '46

PLUM pudding. See Pudding

PLUMBERS
Opportunity unlimited for apprentices in our industry. Dom Eng 167:132 Mr '46
See also
Plumbing trade
Women as plumbers

PLUMBING
Adequate pipe sizing. N. J. Radder. Dom Eng 167:104-6 My; 168:86-7+ Jl '46
Cross-connection and plumbing hazard elimination in Ann Arbor. H. H. Caswell. plans diags Pub Works 77:24-6 Ag '46
Facts for a better piping program; with cost data. Dom Eng 167:98-9 F; 98-9+ Mr '46
Our industry meets the public and tells its story. E. B. Hauser. il Dom Eng 167:111-13+ F '46
Plumbing and air conditioning in TVA hydroelectric plants. H. J. Petersen. il Power Pl Eng 50:128+ O '46
Plumbing installations at Los Angeles postwar house. il Dom Eng 167:92-4+ My '46
Potential hazards to the purity of a building's water supply; position of shut-off valve and drainage. Dom Eng 167:117+ Ap '46
Public health is stressed at 53d annual convention of Illinois master plumbers assn. Dom Eng 167:104-6+ F '46
Safety in plumbing and heating; standards to eliminate hazards in planning, building or remodeling homes. il Dom Eng 166:131+ N '45
Some points on hydraulics in the program for adequate piping. L. H. Kessler il Dom Eng 167:110-13+ Je; 168:88-91+ Ag; 118-19+ S '46
See also
Bathrooms
Drainage, House
Drinking water systems
Faucets
Gas fitting
Heating
Hot water supply
Lavatories
Mechanical equipment of buildings
Pipes
Plumbing fixtures
Plumbing shops
Plumbing trade
Sanitary engineering
Sewerage
Solder and soldering

Patents

News of new patents. Published in monthly numbers of Domestic engineering

Study and teaching

Journeymen in the making across the sea; Warton American technical school, near Preston, England. il Dom Eng 166:128 N '45

PLUMBING fixtures
Porcelain, a boon to the bathroom. L. E. Barringer. il diag Am Cer Soc Bul 25:78-82 Mr 15 '46
Producing formed steel plumbing fixtures. H. E. Linsley. il Iron Age 158:54-7 N 7 '46
Progress, 1926-1946; plumbing. il Am Bld 68: 127 O '46
See also
Bathtubs

Prices

Price increases announced. Dom Eng 167: 117+ F '46

PLUMBING laboratories
Southern California cross connection research laboratory seeks the solution to water pollution. il Dom Eng 168.98-101+ Ag '46

PLUMBING laws and regulations
Uniform plumbing code will cover 11 western states. Dom Eng 166:128+ D '45

PLUMBING shops
Accent on the times; shop and showroom of H. H. Smart. il plans Dom Eng 167:88-91+ My '46
Contractor has a grand opening; Litvin plumbing company. il Dom Eng 167:120-1 Ap '46
Merchandising is big business; showroom and shop of Thomas J. Killian. il plans Dom Eng 167:112-15+ Ja '46

PLUMBING shops—*Continued*
Philadelphia merchandising story; Merchant plumbers assn. of Philadelphia. il Dom Eng 167:90-5+ Je '46
Plumbing and heating sales are increased when large traffic item is added to this store; abstract. H. Lowe. il Dom Eng 167: 110-11 Mr '46
Repairs and remodeling, his specialty; C. L. Bishop, Des Plaines, Ill. plumbing and heating contractor. il Dom Eng 167:116+ F '46
San Francisco dealer has modern new quarters; shop of H. Bertram. il floor plans Dom Eng 167:108-9+ My '46
Saves time on welding and lead melting; Berg and Strain, Fresno, Calif.; acetylene and electro-welding facilities on trailer. il Dom Eng 167:120+ F '46
Store location and sales volume. Dom Eng 168:95-7+ Ag '46
Wholesaler's display; Dallman supply co. il Dom Eng 168:109 S '46

Equipment

Myers display fixtures. il diags Dom Eng 168: 161 Jl '46

Heating and ventilation

New showroom is radiant heated; shop of W. M. Scott. il Dom Eng 167:139+ My '46

Lighting

Better selling with better lighting. H. H. Green. il Dom Eng 166:119+ N '45
Utilizing showroom nights with big spotlights; Kitzman plumbing and heating company. il plan Dom Eng 168:106-8+ S '46

Management

Basic operating systems, records and equipment for the minimum essentials of merchandising. Dom Eng 167:112-13 Ap '46
Build an organization to build a business; Kenyon heating and appliance company. il Dom Eng 168:154-5+ S '46
Firm looks ahead with modern telescope, merchandising; Ahlbach & Mayer. il plan Dom Eng 168:132-5+ O '46
In town of 900 his customers number 5000; shop of C. E. Winkelman. il Dom Eng 167: 125-6 My '46
Increase their business 25 percent by merchandising; Zindle plumbing and heating company. Dom Eng 167:134+ Mr '46
Is this your first try at merchandising? here are some basic ideas. il Dom Eng 167:100-1+ Mr '46
Plumbing repairs for $11.00 annual fee; Zien plumbing and heating co., Milwaukee. il Dom Eng 167:96-9+ My '46

Records

How and why of job cost records. G. M. Carson. Dom Eng 168:108-10+ Jl '46

Show windows

Window displays and ads bring $20,000; L. J. Wanous, Wood River Ill. contractor-dealer. il Dom Eng 168:104-5+ Ag '46

Showrooms

Contractors see bigger business in attractive showrooms; survey statistics. Dom Eng 167:122-3 F '46
Dealers' views on maximum efficiency from showroom displays. il plan Dom Eng 168: 102-5+ S '46
Merchandise feature; use live displays for more sales; Knab plumbing and heating co. il plan Dom Eng 167:114-15+ Ap '46
Up-to-date showroom helps this dealer merchandise appliances; Praechter plumbing company. il plan Dom Eng 168:129-31+ O '46
Use this check list to bring your showroom up-to-date. Dom Eng 168:126-8 O '46
Utilizing showroom nights with big spotlights; Kitzman plumbing and heating company. il plan Dom Eng 168:106-8+ S '46

PLUMBING supplies industry
Antitrust action in the plumbing industry. Bsns W p21 Mr 30 '46
Central supply assn. annual meeting, Chicago, Nov. 8-9. Dom Eng 166:116-21+ D '45
Industry leaders tell story on what's ahead for materials. Dom Eng 168:120-4+ O '46
What is a manufacturers' representative? Dom Eng 166:186+ D '45

See also
Plumbing shops

Advertising

Long-range institutional campaign is among mail leaders; Schaible co., Cincinnati. Ptr Ink 214:96+ Ja 18 '46

PLUMBING trade
Around the country with the contractor-dealer. il Dom Eng 166:120-8 N '45
Do you need an apprentice program? il Dom Eng 167:100-1 Je '46
Five contractor-dealers talk about their business. il Dom Eng 166:132+ D '45
Look at your letterhead (everybody else does). il Dom Eng 166:124-5 D '45
Merchandising, today and tomorrow. Dom Eng 167:112-13+ My '46
Our industry's place in the home building plan. Dom Eng 167:94-5 Mr '46
Polio program becomes greatest joint effort ever undertaken by plumbing industry. il Dom Eng 168:96-8+ S '46
Prizes, Domestic Engineering merchandising contest. il Dom Eng 166:110-17 N; 110-15 D '45; 167:116-19+ Ja '46
Story of adequate piping should be told to public. N. J. Radder. il plan Dom Eng 167: 98-103 Ap; 104-6 My; 168:86-7+ Jl '46
You may find increased profits in domestic water conditioning. il map Dom Eng 168:138-41+ O '46
Your next letterhead. il Dom Eng 168:116-17 S '46

See also
Gas industry and the plumbing trade
Plumbing supplies industry
Plumbing shops

Accounting

Basic operating systems, records and equipment for the minimum essentials of merchandising. Dom Eng 167:112-13 Ap '46
Know your overhead costs. G. M. Carson. Dom Eng 167:103+ My; 114-15+ Je; 168:108-10+ Jl; 106-7+ Ag; 120-2+ S; 136-7+ O '46

Advertising

Advertise for business; various mediums and methods. il Dom Eng 167:106-11+ Mr '46
How to protect your direct mail advertising, if undeliverable. Dom Eng 168:119-20 Ag '46

Farm market

Around the country with the contractor-dealer. il Dom Eng 166:126-8 N '45
Huge rural market for plumbing is foreseen as water systems sales rise. Dom Eng 167: 121+ F '46
7,000,000 potential market for electric water systems; abstract. C. D. Leiter. Dom Eng 167:107+ My '46
Tips on selling water systems. Dom Eng 168: 101-7+ Jl '46

Records

Well planned forms prove their worth; forms for plumbing and heating contractor-dealers. il Dom Eng 167:114-15+ F '46

Remodeling

Big remodeling market. il plan Dom Eng 167:102-4 Mr '46
Kitchens in the modern manner. il plans Dom Eng 167:106-9+ Ap '46
Our industry has a big role in the new FHA program; remodel for veterans. Dom Eng 167:104-5+ Ap '46
Some unusual decorative opportunities offered in bathroom remodeling. il Dom Eng 167: 110-11 Ap '46

PLUTONIUM
Building the Hanford plutonium plant. F. T. Matthias. il Eng N 135:784-90 D 13 '45
Chemical and radioactive properties of the heavy elements. G. T. Seaborg. Chem & Eng N 23:2190-3 D 10 '45; Abstract. Chem & Met Eng 53:268+ F '46
Development of atomic energy. A. W. Kramer. diags Power Pl Eng 49:99-100+ D '45

PLUTONIUM—*Continued*
How to make plutonium; abstract. F. T. Matthias and F. A. Valente. Chem & Met Eng 53:258+ Ja '46
Impact of nuclear chemistry; the heavy elements. G. T. Seaborg. il diags Chem & Eng N 24:1192-8 My 10 '46
Petroleum vs. plutonium. C. Goodman. diags Am Pet Inst Proc 25(1):71-83 '45; Same. Pet Refiner 24:101-9 N '45; Same. Oil & Gas J 44:227-8+ N 17 '45; Excerpt. Automotive & Aviation Ind 93:18-19+ D 1 '45; Abstract. Chem & Met Eng 53:260+ F '46
Power system development for service to Hanford plutonium plant. B. V. Hoard and J. R. Curtin. map diags Elec Eng 65:Trans 773-8 N '46
Properties of 94(239). J. W. Kennedy and others. Phys R 70:555-6 O 1 '46
Purity requirements of nucleonics materials. R. L. Doan. Chem & Eng N 24:1907-9 Jl 25 '46
Synthesis of the new elements neptunium and plutonium. L. S. Foster. bibliog J Chem Educ 22:619-23 D '45
Transuranium elements. G. T. Seaborg. bibliog il diags Science 104:379-86 O 25 '46
Ultra-micro balance for plutonium study. Chem Ind 57:1114 D '45
Uranium fission plant in Canada. Engineering 160:491 D 14 '45

PLYWOOD
Combining plastics with other materials; molded plywood. R. C. Scull. il Mod Plastics 23:130-1 Ag '46
Design of plywood I-beams. H. J. Hansen. bibliog Am Soc C E Proc 72:749-58 Je '46
Electronic heating in the furniture industry. E. S. Winlund. il diags Electronics 19:108-13 My '46
Future of wood gluing. T. D. Perry. Mech Eng 68:543 Je '46
Giant plywood panels shipped by Washington veneer co. il Am Bld 67:144+ D '45
Manufacture of compreg in Germany. R. Richardson and G. M. Kline. il Mod Plastics 23:155-9 Mr '46
New materials from wood; combinations with plastics. Barron's 26:5 Mr 18 '46
Nonmetallic materials, 1945. K. Rose. il Materials & Methods 23:98-9 Ja '46
Paper plastics surfacing. W. B. Darling. Mod Plastics 24:97-100 O '46
Peanut-meal plywood glue. R. S. Burnett and E. D. Parker. bibliog A S M E Trans 68: 751-6 O '46
Phenolic resin glue line as found in yellow birch plywood. C. A. Farrow, D. H. Hamly and E. A. Smith. bibliog il Ind & Eng Chem Anal ed 18:307-10 My '46
Plastics and plywood in a private plane. il Mod Plastics 23:158-60 Ap '46
Plywood airplanes. Mech Eng 68:40 Ja '46
Plywood amphibian plane. il Mod Plastics 23:128-9 Ag '46
Plywood as an engineering material. E. L. Cady. il Materials & Methods 24:359-62 Ag '46
Plywood cooperage, a British innovation; brewers' cask. il diag Mod Packaging 20: 114-15 O '46
Regional sales and display office; plywood construction in lobby; U.S. plywood corp. il plans Arch Forum 83:117-19 D '45
Remodeled office building for U.S. plywood corporation; use of plywood and allied laminated products demonstrated. il plans diag Arch Forum 85:111-13 S '46
Taking the curves with plywood. il Mod Plastics 23:112-13 F '46
Thermosetting adhesives for wood; properties, techniques and applications. P. C. Fuller and R. L. Hiller. il diags Product Eng 17:[no 7]84-9 Jl '46
What potentials in the plywood industry? with earnings record of leading producers. G. W. Mathis. il Mag of Wall St 78:458-9+ Jl 20 '46
Wood vs metal construction in aircraft. H. Rawdon. il diags S A E J 53:691-712+ D '45

Testing
Effect of molding pressure and resin on results of short-time tests and fatigue tests of Compreg. W. N. Findley and others. il diags A S M E Trans 68:317-25 bibliog(p325-6); Discussion. 326-7 My '46
Effect of specimen shape on the compressive strength properties of laterally supported plywood specimens. J. A. Liska. il diags Am Soc T M Proc 45:935-42 '45

PNEUMATIC control
Air controls provide feel in operation. W. M. Huston. il diag Machine Design 18:111-14 Ja '46
Air fixtures and air controls; abstracts. S. Johnson, jr. il Automotive & Aviation Ind 94:38 F 1 '46; S A E J 54:sup22 Mr '46
Air-operated combustion controls. H. Stanley. il diag Comp Air Mag 51:42-5 F '46
Air-operated fixtures. S. Johnson, jr. il Steel 118:95-6+ My 13 '46
Air power, a useful metalworking tool. B. C. Brosheer. il Am Mach 89:107-10 N 22 '45
Air pressure inspector simulates working load. C. Toffel. diags Am Mach 90:135 Ag 15 '46
Air valve designed to meet specific need; machinery for making tires. il Comp Air Mag 51:195 Jl '46
Case for the full-pneumatic system for aircraft auxiliary systems. J. L. Dooley. diags Aviation 45:68-72 My '46 (to be cont)
Compound adjustments made to linkage output with movable fulcrums. il diags Product Eng 17:92-3 S '46
Compressed air aids automotive parts production; Midland steel products co. il Steel 118:90-1+ F 25 '46
Compressed air devices aid in speeding up loading and handling shells. il Steel 117: 128 N 19 '45
Design of instrument-air-supply system for the process industry. W. C. Ludi. diag Pet Refiner 25:94-8 O '46; Abstract. Power 90:763 N '46
Engineering refinements feature new heavy rig. G. Weber. il Oil & Gas J 45:95-6+ My 11 '46
Handling of colliery tub traffic; pneumatic plant. il Mech Handling 33:473-5 Ag '46
Intermittent motion for changing timing interval for air-valve functioning. diags Mach 52:182 My '46
Labor-saving by the use of pneumatic work fixtures. C. H. Wick. il diags Mach 53:137-45 O '46
Large rig pneumatically controlled. K. M. Fagin. il Pet Eng 17:51-4 My '46
Operators for sliding doors. il Ry Age 120:1067 My 25 '46
Pneumatic device operates standard machine tools. il diag Comp Air Mag 51:277 O '46
Pneumatic power and control; where they fit; comparison with hydraulic; cost data. R. E. Becker. il diags Machine Design 18: 107-12 Ap '46
Pneumatic slide speeds press assembly operations. D. M. Grimm. il diags Am Mach 89: 126-7 D 6 '45
Power-feed attachments take wobble out of hand drilling. E. W. Cooper. il diag Am Mach 90:96-8 F 28 '46

PNEUMATIC conveying
Air loading simplifies bulk shipments; brewer's trucks transfer grain from rail siding to plant bins. il diags Food Ind 18:870-1 Je '46
Design of exhaust systems; low pressure blowing. F. H. Stebbins. il diags Sheet Metal Worker 36:59-60+ N '45
Dustless pneumatic conveying system. diag Brick & Clay Rec 108:66 Ap '46
Pattern for an angled Y-branch; conveying powders. O. W. Kothe. diags Sheet Metal Worker 37:55+ S '46
Pneumatic scrap collection. il diag Steel 117: 121+ N 12 '45
Pneumatic transfer cylinder for foundry mechanization. F. J. Howard. il diags Mech Handling 33:428-30 Jl '46
Unique sawdust handling system; fan material handling duct. il Sheet Metal Worker 37:44+ Ag '46
What the power engineer needs to know about the pneumatic conveyor. W. G. Hudson. il diags Power Pl Eng 50:70-2 Ja '46

PNEUMATIC machinery
Air power in production of bimetal brake linings. il Comp Air Mag 51:244-5 S '46
Air-powered assembly tools; manufacture of washing machines; Apex electrical mfg. co. il Steel 119:100-2+ Jl 1 '46

PNEUMATIC machinery—*Continued*
Electro-pneumatic loom is developed in Brazil. H. E. Reed. il diags Textile World 96: 129+ My '46
New pneumatic fatigue testing development described at meeting; abstracts. F. B. Quinlan. Iron Age 158:134+ Ag 15 '46; Mech Eng 68:831 S '46
Pneumatic equipment for roadbuilder. diag Comp Air Mag 51:141 My '46
Pneumatic fatigue test for gas turbine buckets. il diags Steel 119:112-13+ S 9 '46
Pneumatic power and control; where they fit; comparison with hydraulic; cost data. R. E. Becker. il diags Machine Design 18: 107-12 Ap '46
Portable pneumatic machine bores locomotive cylinders. E. Kisko. diag Am Mach 90: 160 Je 20 '46
Tube-ends of ⅜-to 3-in. diameter beaded in automatic-cycle machines; North American aviation, inc. E. W. Cooper. il diags Am Mach 90:126-8 Mr 14 '46

See also
Air compressors
Compressed air
Pneumatic control
Pneumatic conveying

PNEUMATIC tools
Acoustic mines fired by pneumatic-tool beats. R. G. Skerrett. il Comp Air Mag 51:160-1 Je '46
Doing it with air; Southern counties gas company of California. il Comp Air Mag 51:134-5 My '46
Labor saving through air tools. il diag Sheet Metal Worker 37:93-5+ Ja '46
Pneumatic impact wrenches. il diags Engineering 162:128-9 Ag 9 '46
Pneumatic sawing and filing tool is simple and compact design. il Product Eng 17:286 Ap '46
Stripping paperboard boxes with air. A. S. Park. il Comp Air Mag 51:162-4 Je '46

Advertising

Cleveland Pneumatic's basic ad program. E. L. Oldham. il Ind Marketing 31:37+ Mr '46
Putting the peak on a pyramid of industrial advertising; basic technics of Cleveland Pneumatic campaign. N. Bayless. il Ind Marketing 31:36+ Mr '46

History

Early pneumatic tools. il Comp Air Mag 51: 77-9 Mr '46

Safety measures

Handling the airgun. il Safety Eng 91:20 My '46

PNEUMATIC tools, Portable
Portable pneumatic machine faces blind flanges. J. Wilson and J. Zahler. il Am Mach 90:143 S 12 '46

PNEUMATIC transmission
Case for the full-pneumatic system for aircraft auxiliary systems. J. L. Dooley. diags Aviation 45:68-72 My; 76-80 Je '46

PNEUMOCOCCI
Capsular polysaccharide of rhizobium radicicolum. E. Schlüchterer and M. Stacey. Chem Soc J p776-83 N '45

PNEUMONIA
Epidemic of a severe pneumonitis in the bayou region of Louisiana; etiology. B. J. Olson and C. L. Larson. bibliog Pub Health Rep 60:1488-1503 D 14 '45
Epidemic of a severe pneumonitis in the bayou region of Louisiana; comparative study of the viruses of lymphogranuloma venereum, psittacosis, and Louisiana pneumonitis. C. L. Larson and B. J. Olson. bibliog Pub Health Rep 61:69-78 Ja 18 '46
Epidemic of a severe pneumonitis in the bayou region of Louisiana; histopathology in laboratory animals. G. L. Fite and others. bibliog Pub Health Rep 61:1100-15 Jl 26 '46
Lobar pneumonia in the shipbuilding industry; a review of five hundred and forty-four cases over a one-year period. C. M. Grossman. J Ind Hygiene 28:233-6 S '46
Relation between epidemics of acute bacterial pneumonia and influenza. bibliog Science 102:561-3 N 30 '45
Surface phagocytosis; its relation to the mechanism of recovery in pneumococcal pneumonia. W. B. Wood, jr. and others. bibliog Science 104:28-9 Jl 12 '46
Tularemic pneumonia; treatment with streptomycin. R. L. Peterson and R. R. Parker. Pub Health Rep 61:1231-4 Ag 23 '46

PNEUMONITIS. See Pneumonia

PODOCARPIC acid
Podocarpic acid; synthesis of 6- and 7-methoxy - 1 : 12-dimethyloctahydrophenanthrene-1-carboxylic acids. R. D. Haworth and B. P. Moore. Chem Soc J p633-6 Jl '46

PODOPHYLLIN
Similarity of the effect of podophyllin and colchicine and their use in the treatment of condylomata acuminata. L. S. King and M. Sullivan. Science 104:244 S 13 '46

POETRY

Indexes

Granger's index to poetry and recitations; supplement, 1938-1944. E. Granger. 415p $10 Columbia univ. press, New York '45

POISON ivy
Cashew nut shell liquid; an application of the Prevost reagent to alkenyl phenols. M. Sletzinger and C. R. Dawson. Am Chem Soc J 68:345 F '46
Relation of hypersensitiveness to poison ivy and to the pure ingredients in cashew nut shell liquid and related substances. H. Keil and others. bibliog Ind Med 14:825-30 N '45

POISONOUS plants
Protection from plant poisoning. H. W. Boggess. il Oil & Gas J 45:105 O 5 '46

POISONS
Packaging of poisonous solids. T. P. Callahan. Chem Ind 58:466+, 826+ Mr, My '46
Specific poisons; progress shown in discovery and synthesis. R. E. Slade. il Can Chem & Process Ind 30:29-31+ Ja '46
Toxicity of 3-fluoro-*d*(+)- and *l*(—)-tyrosine. C. Niemann and M. M. Rapport. Am Chem Soc J 68:1671-2 Ag '46
Toxicology of 1,2-dichloroethane (ethylene dichloride) effects of daily inhalations. L. A. Heppel and others. bibliog J Ind Hygiene 28:113-20 Jl '46
Trichlorethylene; physiological effects. Nat Safety N 53:64+ Ja '46

See also
Arsenic
Beryllium poisoning
Carbon monoxide poisoning
DDT—Physiological effect
Dinitrophenol
Gases, Asphyxiating and poisonous
Insecticides
Lead poisoning
Methyl bromide poisoning
Radium poisoning
Toxins and antitoxins
Venom

POISONS, Industrial
Chemical health hazards in modern petroleum refining. R. G. Benson and P. M. Van Arsdell. bibliog il Oil & Gas J 45:95-7+ Ag 17 '46
Chemicals that cause trouble; toxic, irritating and flammable substances create safety and health problems in manufacture of electric lamps and electronic tubes. A. Korbelak. Nat Safety N 53:37-8+ My '46
Chemicals that crack oil; hazards and safety measures. R. G. Benson. bibliog il Nat Safety N 54:24-5+ Ag '46
Comparison of the chronic toxicity of triethylene glycol with that of diethylene glycol. O. G. Fitzhugh and A. A. Nelson. bibliog J Ind Hygiene 28:40-3 Mr '46
Comparison of the physiological effects of monomethylaniline and xylidene; abstract. J. F. Treon. Ind Med 15:483 Ag '46
Control occupational hazards through industrial hygiene. N. V. Hendricks. il Chem & Met Eng 53:124-5+ Ja '46
Dividends of industrial disease prevention. B. C. Hutchins. il Chem Ind 58:250-1 F '46
Ethyl ether (diethyl oxide); hazards and precautions. bibliog Nat Safety N 54:39-40+ Jl '46
In scrapping our ships never scrap safety; poisonous fumes, hazard in oxyacetylene cutting. W. R. Stewart. il Safety Eng 91: 20-1 Ja '46

POISONS, Industrial—*Continued*
L'intérêt des analyses toxicologiques de l'atmosphère dans les industries insalubres- J. Auffret and H. Bour. Chimie & Ind 55: 219-23 Mr '46

Letter a day; information on poisons, fumes and vapors, alphabetically arranged. il Safety Eng 91:67-70 Mr '46

Observations on the effects of gamma-valerolactone upon experimental animals. W. B. Deichmann and others. il diag J Ind Hygiene 27:263-8 N '45

Prevention of poisoning in industry; abstract. S. H. Wilkes. Chem & Ind p8 Ja 5 '46

Protecting workers from the effects of toxic organic solvent vapors. Chem & Met Eng 53:124 Mr '46

Save your breath; industrial poisons absorbed by respiration. L. Greenburg and S. Moskowitz. il Safety Eng 92:14-16+ Ag; 42-4+ S '46

Studies of the effects of ammonium picrate on man and certain experimental animals. F. W. Sunderman and others. bibliog il J Ind Hygiene 27:241-8 N '45

Toxicity of some of the newer plastics. A. G. Cranch. Ind Med 15:168-70 F '46

Toxicology of 1,2-dichloropropane (propylene dichloride); studies on effects of daily inhalations. L. A. Heppel and others. bibliog J Ind Hygiene 28:1-8 Ja '46

Toxicology of newer metals; abstract. L. Fairhall. Ind Med 15:474 Ag '46

See also
Antimony poisoning
Benzene poisoning
Beryllium poisoning
Carbon tetrachloride poisoning
Cyanide poisoning
Lead poisoning
Manganese poisoning
Mercury poisoning
Methyl chloride poisoning
Naphthalene poisoning
Phosphorus poisoning
Radium poisoning
Tetrachloroethane
Trinitrotoluene poisoning

POISSON-BOLTZMANN equation
Poisson-Boltzmann equation derived from the transfer of momentum. A. S. Coolidge and W. Juda. Am Chem Soc J 68:608-11 Ap '46

POISSON'S ratio
Poisson's ratio of some structural alloys for large strains. A. H. Stang and others. bibliog pl J Res Nat Bur Stand 37:211-21 O '46

Simple method of determining Poisson's ratio. R. J. Wilkins. il diags Engineering 162:52 Jl 19 '46

POKE welding. See Electric welding

POLAND
See also
Cooperation—Poland
Food supply—Poland
Textile industry—Poland

Economic policy

Poland's planned economy. Bsns W p109 O 12 '46

Polish economic system; three-year plan. Economist 151:587-8 O 12 '46

Industries and resources

Polish industry rises again. Bsns W p109-13 Ap 13 '46

Politics and government

Mikolajczyk's lost opportunity. Economist 150: 842-3 My 25 '46

Poland after the referendum. Economist 151: 98 Jl 20 '46

POLANDERS in Great Britain
Non-repatriable; demobilised Polish soldiers in Britain. Economist 151:286-7 Ag 24 '46

POLAR regions
Nuclear energy and the polar icecap. R. T. Ellickson. Science 103:316 Mr 8 '46

See also
Aviation—Transpolar flight

POLARIMETERS
Rapid-filling capillary polarimeter tube. D. Smith and S. A. Ehrhardt. Ind & Eng Chem Anal ed 18:81 Ja '46

Rudolph routine polarimeter. il R Sci Instr 17:115 Mr '46

POLARIZATION (light)
Influence of polarized light on the falling-off effect of the limiting potential of Einstein's photoelectric law. E. Marx. bibliog diags Phys R 69:523-9 My 1 '46

Inhomogeneous light polarizing systems. H. Osterberg. diags Opt Soc Am J 36:469-77 Ag '46

POLARIZATION (sound)
Refinements in supersonic reflectoscopy; polarized sound. F. A. Firestone and J. R. Frederick. il diags Acoustical Soc Am J 18:200-11 Jl '46

POLARIZATION, Dielectric
Dielectric properties of liquid mixtures. G. Oster. bibliog Am Chem Soc J 68:2036-41 O '46

Electrolytic dissociation processes; the ionisation of a carbon-halogen bond by inorganic halides. F. Fairbrother. diag Chem Soc J p503-9 Ag '45

Molar polarisation of solutions of aniline in benzene. H. G. Emblem and C. A. McDowell. Chem Soc J p641-2 Jl '46

POLARIZATION of rays
Correction of diffraction amplitudes for Lorentz and polarization factors. M. J. Buerger and G. E. Klein. bibliog J Ap Phys 17:285-306 Ap '46

POLAROGRAPH
Advantages of high-speed electronic recording in industrial process measurements. D. M. Considine and D. P. Eckman. il diag Am Inst Chem Eng Trans 42:713-16 Ag '46; Same. il diags Chem Ind 58:982-4 Je '46; il diags Steel 118:94-6 My 27 '46

Photoelectric recording polarograph with unitized constant-temperature cell assembly. L. Lykken, D. J. Pompeo and J. R. Weaver. bibliog il diags Ind & Eng Chem Anal ed 17:724-8 N '45

POLAROGRAPHIC analysis
2,4 Dinitrophenol poisoning; a case report. J. B. Gisclard and M. M. Woodward. J Ind Hygiene 28:47-51 Mr '46

Effect of reaction between mercury and oxygen upon polarographic waves of certain metals at small concentrations. E. R. Smith and others. bibliog J Res Nat Bur Stand 37:151-5 S '46

Lead in smelter products; a rapid polarographic method. W. Hered and G. R. Hered. bibliog diag Ind & Eng Chem Anal ed 17:780-1 D '45

Photoelectric recording polarograph with unitized constant-temperature cell assembly. L. Lykken, D. J. Pompeo and J. R. Weaver. bibliog il diags Ind & Eng Chem Anal ed 17:724-8 N '45

Polarographic analysis of streptomycin. G. B. Levy, P. Schwed and J. W. Sackett. Am Chem Soc J 68:528-9 Mr '46

Polarographic analysis of zinc in aluminum alloys. F. R. De Paola. il Iron Age 158:36-40 O 3 '46

Polarographic determination of acetaldehyde; application to routine determination in complex mixtures. P. J. Elving and E. Rutner. bibliog Ind & Eng Chem Anal ed 18:176-9 Mr '46

Polarographic determination of nickel in steel and nickel ore. P. W. West and J. F. Dean. diag Ind & Eng Chem Anal ed 17:686-8 N '45

Polarography; electrochemical analysis of metals. L. Sanderson. diags Chem Age (Lond) 55:289-92 S 7 '46

Routine control of brass plating processes; polarographic, electrochemical, and chemical analysis of plating solutions and deposits. H. E. Zentler Gordon and E. R. Roberts. bibliog diag Electrochem Soc Trans 90 (preprint 2)9-22 '46

Simultaneous determination of ethylene and 1,2-propylene glycols. B. Warshowsky and P. J. Elving. bibliog Ind & Eng Chem Anal ed 18:253-4 Ap '46

Systematic polarographic metal analysis; determination of tin, lead, nickel, and zinc in copper-base alloys. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 18:429-32 Jl '46

Use of an ion-exchange resin in determination of traces of copper with special reference to powdered and fluid milk. H. A. Cranston and J. B. Thompson. Ind & Eng Chem Anal ed 18:323-6 My '46

POLAROGRAPHIC analysis—*Continued*
Use of the polarograph in the determination of small amounts of nitrate in sodium nitrite. J. Haslam and L. H. Cross. bibliog diag Soc Chem Ind J 64:259-60 S '45

POLAROGRAPHY
Fundamental studies with the dropping mercury electrode; empirical modification of the Ilkovic equation. J. J. Lingane and B. A. Loveridge. bibliog Am Chem Soc J 68:395-7 Mr '46
Polarographic reduction of carbon dioxide; description and interpretation of the waves. P. Van Rysselberghe, G. J. Alkire and J. M. McGee. Am Chem Soc J 68:2050-5 O '46
Polarographic reduction of carbon dioxide; polymerization and adsorption at the dropping mercury cathode. P. Van Rysselberghe. bibliog Am Chem Soc J 68:2047-9 O '46
Polarography of uranium; polarography in strongly acid solution. I. M. Kolthoff and W. E. Harris. Am Chem Soc J 68:1175-9 Jl '46
Stability of chelate compounds; polarographic reduction of copper chelates. M. Calvin and R. H. Bailes. bibliog Am Chem Soc J 68:949-54 Je '46

POLAROID plastics. See Plastic materials, Transparent

POLES
French have new method for preserving telephone and telegraph poles. For Comm W 22:40 F 23 '46
Wood preservation up slightly in 1945. il Ry Age 121:472-4 S 21 '46
See also
Electric lines—Poles and towers
Gin poles

POLES, Concrete
Reinforced-concrete poles. H. F. Lidster. il Elec R (Lond) 138:559-63 Ap 12 '46
Supports for overhead lines. D. A. Stewart. diags Engineering 162:233-4 S 6 '46

POLETTI, Charles, 1903-
Former governor gets top arbitration job. por Bsns W p108 Mr 30 '46

POLICE
Role of police in controlling group prejudice. D. McEntire and J. E. Weckler. Ann Am Acad 244:82-9 Mr '46
See also
Radio telephone—Police uses

POLICE, Private
See also
Railroads—Police

POLICE radio stations. See Radio stations, Police

POLIOMYELITIS. See Infantile paralysis

POLISHING
Buffing small parts. H. Moore. Metal Finishing 44:247+ Je '46
Electroplating, polishing and buffing at the U.S. naval gun factory, Washington, D.C. A. L. Fry. il Metal Finishing 44:467-71+ N '46
Felt for polishing and buffing. W. Colwell. il Materials & Methods 23:193 Ja '46
Gear-tooth finish improved by burnishing. G. H. Sanborn. il Am Mach 90:88-9 Ja 3 '46
Liquid polishing and buffing compounds. H. J. McAleer. Iron Age 158:60 Jl 25 '46
Methods for polishing metallographic specimens; abstract. F. G. Anderson and R. E. McGraw. Steel 119:183 N 11 '46
New socket polishing fixture; abstract. G. E. Stedman. Materials & Methods 22:1524+ N '45
Polishing and buffing die cast auto hardware. H. Chase. il Iron Age 158:58-61 S 5 '46
Polishing and plating Oldsmobile three-piece bumpers. C. O. Herb. il Mach 53:158-65 N '46
Polishing methods. E. W. Wells. Metal Finishing 44:291-2+ Jl '46
Preparing die castings for plating; Die casting division of Electric auto-lite co. H. Chase. il Iron Age 157:58-61 My 23 '46
Pre-polishing cuts plating time 40%; main landing gear piston on P-38. G. R. Makepeace. il Am Mach 90:79 Ja 31 '46
Simple, fast metallographic polishing method. R. B. McCauley, jr. and L. F. Mondolfo. il Materials & Methods 23:1583-6 Je '46
Tool for polishing internal curves of symmetrical parts. H. E. Murphey. diags Mach 53:189 O '46
Universal metallographic polishing procedure. W. C. Coons. il Metal Prog 49:956-9 My '46
Wage structure of electroplating and polishing industry, January 1945. J. W. Bloch. Mo Labor R 62:767-76 My '46
See also
Abrasives
Metal finishing
Sand blast

POLISHING, Electrolytic
Bath to electrobrighten aluminum-silicon alloys. Elec World 125:132+ My 11 '46
Brightening the surface. F. P. Peters. il Sci Am 175:197-200 N '46
Buehler-Waisman electro-polisher. il Blast F & Steel Pl 34:1174 S '46
Electropolishing metals to obtain surface finish; with cost data. C. L. Faust. il diags Product Eng 17:449-51 Je '46
Electropolishing of silver. Iron Age 158:49 Ag 1 '46; Elec Eng 65:383 Ag-S '46
Electropolishing without rounding the edges. J. M. Kiefer. Metal Prog 49:537 Mr '46
Glycerine in metal treatment. G. Leffingwell and M. A. Lesser. bibliog il Materials & Methods 22:1434 N '45
New silver polishing process. D. R. Turner. il Materials & Methods 24:426 Ag '46; Mech Eng 68:658 Jl '46; Iron Age 157:65 Je 6 '46; Chem Ind 59:304+ Ag '46; il Sci Am 175:137 S '46
Polissage électrolytique du cadmium; abstracts. J. Liger. Chimie & Ind 55:121 F '46; (Electrolytic polishing of cadmium). Chem & Met Eng 53:268 Je '46
Practical aspects of electropolishing. C. L. Faust. il Iron Age 158:68-9 Ag 8 '46; Abstracts. Steel 119:104+ Jl 8 '46; Metal Finishing 44:284 Jl '46
Silver polished in plating bath. il Bsns W p61 Jl 20 '46
Surface finishes for aluminum. J. F. Mason. il Iron Age 158:52 S 5 '46
True story, for inventors only; Dennis R. Turner's electroplating of silver plate. il Elec West 97:70 Ag '46

POLISHING machines
Telescope mirror grinding and polishing machine of the vertical-spindle, hand-lever type. H. Paul. il Sci Am 174:47-8 Ja '46
Where are the polishers; improvements in methods and machines is answer to labor supply shortage. E. E. Oathout. il Metal Finishing 44:68-70 F '46
See also
Lapping machines
Polishing wheels

POLISHING materials
Polishes. L. C. Cartwright. Chem Ind 59:270 Ag '46
See also
Floor wax
Furniture polish
Silver polish

POLISHING wheels
Bobs recoated automatically at 500 per hour. il diag Am Mach 89:138 D 20 '45
Polishing methods. E. W. Wells. Metal Finishing 44:291-2+ Jl '46
Removable wax disks salvage polishing laps. J. W. Weeton. il Am Mach 90:105 Ja 31 '46

POLITICAL action committee. See Congress of industrial organizations—Political action committee; National citizens' political action committee

POLITICAL parties
Political handbook of the world; parliaments, parties and press as of January 1, 1946. W. H. Mallory, ed. 202p $3 Council on foreign relations, inc, 58 E. 68th st, New York 21 '46

Belgium
Christian social party (P.S.C.). A. E. De Schryver. Ann Am Acad 247:5-11 S '46

Europe
Post-fascist politics. Economist 149:780-2 D 1 '45

POLITICAL parties—*Continued*

Great Britain

See also
Conservative party (Great Britain)
Labor party (Great Britain)

Southern states

Opinion samplings indicate Southern voters would prefer political competition. Iron Age 158:101+ Jl 11 '46

United States

Union-led third party movement receives little public support; Republican strength moves West; Gallup poll. Iron Age 157:109 Mr 7 '46

See also
Communist party (United States)
Democratic party
Republican party

POLITICAL philosophy

Not peace but a sword; crisis of modern man is spiritual. Fortune 33:97-9 Ja '46

See also
Natural law

POLITICAL science

See also
Administration, Public
Civil service
Commercial policy
Democracy
Economic policy
Government regulation of industry
Industry and state
Law
Liberalism
Railroads and state
State governments
Taxation

POLITICS, Practical

Science knocks at the door of American politics. M. L. Cooke. Advanced Management 10:126-30 D '45

See also
Political parties

POLLEN

Pollen in the air. A. C. Stern. il diag Heat & Ven 42:63-6 N '45

POLLEN, Fossil

Absolute pollen chronology in Switzerland; review of paper by M. Welten. Am J Sci 244:442-7 Je '46

Postglacial forest succession and climate in the Oregon Cascades. H. P. Hansen. bibliog maps Am J Sci 244:710-34 O '46

POLONIUM

Crystal structure of polonium. W. H. Beamer and C. R. Maxwell. J Chem Phys 14:569 S '46

Probability of excitation of the nucleus ^{206}Pb in the α-disintegration of polonium. N. Feather. bibliog Phys R 70:88 Jl 1 '46

Study of the alpha-particles from Po with a cyclotron-magnet alpha-ray spectrograph. W. Y. Chang. bibliog diags Phys R 69:60-77 F 1 '46

POLYAMIDES. See Amides

POLYCYTHEMIA

Effect of transfusions of red blood cells on the hypoxia tolerance of normal men. N. Pace and others. bibliog Science 102:589-91 D 7 '45

POLYENES

Phytofluene; isolation from canned tomato paste. L. Zechmeister and A. Sandoval. bibliog Am Chem Soc J 68:197-201 F '46

Studies in the polyene series; condensation of the C_{14}-aldehyde [3-(2′ : 6′ : 6′-trimethylcyclohexenyl)-1-methylcrotonaldehyde] with 1-hexyne and 2-methoxyhex-3-en-5-yne. J. Cymerman and others. Chem Soc J p500-3 Je '46

Studies in the polyene series; condensations between methyl propargyl ether and αβ-unsaturated carbonyl compounds. I. M. Heilbron, E. R. H. Jones and R. N. Lacey. Chem Soc J p27-30 Ja '46

Twenty years and onwards. I. M. Heilbron. Chem & Eng N 24:1035-9 Ap 25 '46

POLYETHYLENE. See Polythene

POLYGLOT glossaries, phrasebooks, etc.

Business phrases in six languages; for writing letters in English, Spanish, French, Dutch, German, Russian. D. de Levie, comp. 135p $1.75 Pitman pub. corp, 2 W. 45th st, New York 19 '46

POLYGON formations (geology)

Polygon nets and their physical development. V. Conrad. bibliog Am J Sci 244:277-96, pl 1-2 Ap '46

POLYMERIZATION

Absolute rate constants in the polymerization of liquid vinyl acetate. P. D. Bartlett and C. G. Swain. Am Chem Soc J 67:2273-4 D '45

Additive hetero-polymerization. M. Gordon. Chem & Ind p363 N 24 '45

Allyl ethers of carbohydrates; preparation and polymerization of β-methallyl ethers. P. L. Nichols, jr., A. N. Wrigley and E. Yanovsky. bibliog Am Chem Soc J 68:2020-2 O '46

Applications of infra-red methods in the structural examination of synthetic rubber. J. E. Field and others. il J Ap Phys 17: 386-92 My '46

Catalytic cracking of pure hydrocarbons; secondary reactions of olefins; isomerization, hydrogen transfer, polymerization, and aromatization. H. H. Voge, G. M. Good and B. S. Greensfelder. Ind & Eng Chem 38: 1033-40 O '46

Catalytic isomerization of vegetable oils; evaluation of oils in bodying, varnishes and alkyd resins. L. B. Falkenburg and others. bibliog il Ind & Eng Chem 38:1002-9 O '46

Chain initiation in catalyzed polymerization. M. S. Matheson. bibliog J Chem Phys 13: 584-5 D '45

Chain length measurements on nitrated cellulosic constituents of wood. R. L. Mitchell. bibliog il Ind & Eng Chem 38:843-50 Ag '46

Condensations by sodium; the metalation of olefins and the preparation of β,γ-unsaturated acids. A. A. Morton and others. bibliog Am Chem Soc J 67:2224-8 D '45

Copolymerization of styrene and allyl chloride. T. Alfrey and J. G. Harrison, jr. bibliog Am Chem Soc J 68:299-301 F '46

Copolymerization of styrene and maleic anhydride. T. Alfrey and E. Lavin. Am Chem Soc J 67:2044-5 N '45

Copolymerization of systems containing three components. T. Alfrey and G. Goldfinger. J Chem Phys 14:115-16 F '46

Copolymerization; the composition distribution curve. I. Skeist. bibliog Am Chem Soc J 68:1781-4 S '46

Correlation of tensile strength with brittle points of vulcanized diene polymers. A. M. Borders and R. D. Juve. bibliog Ind & Eng Chem 38:1066-70 O '46

Depolymerization of 3,4,5,5-tetramethyl-2-hexene and 3,5,5-trimethyl-2-heptene in relation to the dimerization of isoamylenes. F. C. Whitmore and W. A. Mosher. bibliog Am Chem Soc J 68:281-4 F '46

Determination of 4-vinyl-1-cyclohexene (butadiene dimer) in recycle styrene. H. A. Laitinen, A. S. O'Brien and S. Wawzonek. bibliog Ind & Eng Chem Anal ed 17:769-72 D '45

Digest of United States patents on polymerization of hydrocarbons. H. Heinemann, comp. Pet Refiner 25:212+ Je '46

Drying oil polymerization since 1930. Paint Oil & Chem R 108:18+ D 13 '45

Emulsion polymerization of ethylene; report presented at 26th Kuko (Plastic committee) meeting in Ludwigshafen, Feb. 18, 1943. Hopff and Kern. Mod Plastics 23:153-60+ Je '46

Fatty acid soaps in emulsion polymerization. L. W. Rainard. India Rubber World 114:67-9 Ap '46

Fischer-Tropsch synthesis considered as a polymerization reaction. E. F. G. Herington. bibliog Chem & Ind p346-7 S 21 '46

Fundamental principles of condensation polymerization. P. J. Flory. bibliog(92 references) Chem R 39:137-97 Ag '46

General theory of the reaction loci in emulsion polymerization. W. D. Harkins. J Chem Phys 13:381-2; 14:47 S '45, Ja '46

High polymer forum; American chemical society. India Rubber World 114:223-6 My '46

High pressure polymerization of ethylene. G. M. Kline. flow diags il Mod Plastics 23:141-5+ My '46

Idle isomerization units converted to produce polymer gasoline. W. R. Newman. il diags Pet Refiner 25:91-3 O '46

POLYMERIZATION—*Continued*
Inhibition of myrcene polymerization during storage. W. J. Runckel and L. A. Goldblatt. bibliog Ind & Eng Chem 38:749-51 Jl '46
Inter-polymerization of isobutene and 2-methyl-2-butene using an alumina-silica catalyst; composition of the hydrogenated nonenes. G. C. Johnson and F. S. Fawcett. bibliog Am Chem Soc J 68:1416-19 Ag '46
Kinetics of the thermal polymerization of styrene. C. Walling, E. R. Briggs and F. R. Mayo. bibliog Am Chem Soc J 68:1145-9 Jl '46
Loci of emulsion polymerization; diffusion of organic molecules from emulsion droplets through an aqueous phase into polymer latex particles. W. D. Harkins and R. S. Stearns. J Chem Phys 14:215-16 Mr '46
Loci of emulsion polymerization; the diffusion of organic molecules from emulsion droplets through an aqueous phase into soap micelles. R. S. Stearns and W. D. Harkins. J Chem Phys 14:214-15 Mr '46
Manufacture and application of lubricants in Germany. M. E. Spaght. bibliog Pet Processing 1:126+ O '46
Mechanism of modifier action in the GR-S polymerization. H. R. Snyder and others. bibliog Am Chem Soc J 68:1422-31 Ag '46
Mercury photosensitized reactions of 1-butene and 2-butene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 14:581-5 O '46
Nomograph for calculation of olefin conversion in catalytic plant. E. G. Glass, jr. Nat Pet N 38 pt 2:R33 Ja 2 '46
Nonselective catalytic polymerization has important postwar utility. G. Armistead, jr. bibliog diags Oil & Gas J 44:131-4+ Ap 6 '46
Photochemical polymerization of butadiene. D. H. Volman. J Chem Phys 14:467-74 Ag '46
Polarographic reduction of carbon dioxide; polymerization and adsorption at the dropping mercury cathode. P. Van Rysselberghe. bibliog Am Chem Soc J 68:2047-9 O '46
Polymer properties as functions of conversion. F. T. Wall. Am Chem Soc J 67:1929-31 N '45
Polymerization of allyl compounds; peroxide-induced copolymerization of allyl acetate with maleic anhydride. P. D. Bartlett and K. Nozaki. bibliog Am Chem Soc J 68:1495-1504 Ag '46
Polymerisation of allyl esters. W. Simpson. bibliog Soc Chem Ind J 65:107-11 Ap '46
Polymerization of alpha-methylstyrene. A. B. Hersberger, J. C. Reid and R. G. Heiligmann. bibliog il diag Ind & Eng Chem 37: 1073-8 N '45
Polymerization of *d-s*-butyl *p*-vinylbenzoate. C. S. Marvel and C. G. Overberger. Am Chem Soc J 68:2106-7 O '46
Polymerization of *p*-chlorostyrene in the presence of polymethylacrylate. R. B. Carlin and N. E. Shakespeare. Am Chem Soc J 68:876-8 My '46
Polymerization of drying oils; rubberlike product from vegetable oils, Norepol. J. C. Cowan, W. C. Ault and H. M. Teeter. bibliog flow sheet il Ind & Eng Chem 38:1138-44 N '46
Polymerization of olefins; the depolymerization of olefins in relation to intramolecular rearrangements. F. C. Whitmore and E. E. Stahly. bibliog Am Chem Soc J 67:2158-60 D '45
Polymerisation of styrene; experiments with high-frequency currents. N. V. Shorygina and E. I. Petrova. Chem Age (Lond) 55:43 Jl 13 '46
Polymerization process, flow charts il Oil & Gas J 44:164-5 Mr 30 '46
Polymerization; the reaction of organosodium compounds with butadiene. A. A. Morton and others. Am Chem Soc J 68:93-6 Ja '46
Polystrene plastics as high frequency dielectrics. A. von Hippel and L. G. Wesson. bibliog il diags Ind & Eng Chem 38:1121-9 N '46
Polytetrafluoroethylene. W. E. Hanford and R. M. Joyce. pl Am Chem Soc J 68:2082-5 O '46
Preparation and polymerization of *p*-cyanostyrene, *p*-vinylbenzoic acid and its methyl ester. C. S. Marvel and C. G. Overberger. bibliog Am Chem Soc J 67:2250-2 D '45
Preparation and polymerization of four isomeric dimethylstyrenes. C. S. Marvel, J. H. Saunders and C. G. Overberger. bibliog Am Chem Soc J 68:1085-8 Je '46
Preparation and polymerization of some alkyl styrenes. C. S. Marvel, R. E. Allen and C. G. Overberger. bibliog Am Chem Soc J 68: 1088-91 Je '46
Preparation and polymerization of some substituted styrenes. C. S. Marvel and others. bibliog Am Chem Soc J 68:736-8 My '46
Preparation and polymerization of the six nuclear isomeric dichlorostyrenes. C. S. Marvel and others. bibliog Am Chem Soc J 68:861-4 My '46
Preparation of cross-linked polystyrenes; report at 26th Kuko (Plastics committee) meeting in Ludwigshafen. H. Hopff and E. Eckardt. Mod Plastics 23:153+ Jl '46
Production of lubricating oils from the olefines produced in the Fischer-Tropsch synthesis. D. Gall. bibliog Soc Chem Ind J 65:185-9 Jl '46
Production of synthetic lubrication oil by condensation and polymerization. G. G. Pritzker. bibliog Nat Pet N 38 pt 2:R606+ Ag 7 [cont as] Pet Processing 1:58-9+ S '46
Radical chain processes in vinyl and diene reactions. H. S. Taylor and A. V. Tobolsky. bibliog Am Chem Soc J 67:2063-7 D '45
Reactions of sulfur dioxide with unsaturated hydrocarbons. O. Grummitt and A. Ardis. bibliog il J Chem Educ 23:73-7 F '46
Regulator theory in emulsion polymerization; chain transfer of low molecular weight mercaptans in emulsion and oil-phase. W. V. Smith. bibliog Am Chem Soc J 68:2059-64 O '46
Regulator theory in emulsion polymerization; control of reaction rate by diffusion for high molecular weight mercaptans. W. V. Smith. Am Chem Soc J 68:2064-9 O '46
Regulator theory in emulsion polymerization; regulator reaction in copolymerizing systems. W. V. Smith. Am Chem Soc J 68:2069-71 O '46
Relative efficiency of some polymerization inhibitors. R. L. Frank and C. E. Adams. Am Chem Soc J 68:908 My '46
Structure of soap micelles as indicated by X-rays and interpreted by the theory of molecular orientation; solubilization of hydrocarbons and other oils in aqueous soap solutions. W. D. Harkins and others. J Chem Phys 13:534-5 N '45
Structure of urea—formaldehyde resins. C. S. Marvel and others. bibliog Am Chem Soc J 68:1681-6 S '46
Thermal cracking of petroleum; effect of time, temperature, pressure, and type of charging stock on products. H. C. Sung, G. G. Brown and R. R. White. bibliog Ind & Eng Chem 37:1153-61 D '45
Thermal polymerization of drying oils. H. E. Adams and P. O. Powers. bibliog J Ap Phys 17:325-37 My '46
Thermal polymerization of methyl methacrylate. C. Walling and E. R. Briggs. bibliog diag Am Chem Soc J 68:1141-5 Jl '46
See also
Polymers

POLYMERIZATION, Heat of
Heats of polymerization; some esters of α-methylacrylic acid. L. K. J. Tong and W. O. Kenyon. bibliog diag Am Chem Soc J 68: 1355-7 Jl '46

POLYMERS
Application of the methods of molecular distribution to solutions of large molecules. B. H. Zimm. bibliog diag J Chem Phys 14:164-79 Mr '46
Behavior of macromolecules in inhomogeneous flow. H. A. Kramers. J Chem Phys 14:415-24 Jl '46
Contribution to the solution character of a few rubbery polymers. H. Naidus and H. Mark. India Rubber World 113:229-30 N '45
Copolymers of dimethylstyrene vinyl fatty esters with butadiene. P. O. Powers. Ind & Eng Chem 38:837-9 Ag '46

POLYMERS—*Continued*

Correlation of tensile strength with brittle points of vulcanized diene polymers. A. M. Borders and R. D. Juve. bibliog Ind & Eng Chem 38:1066-70 O '46

Depolarization of light scattered from polymer solutions. P. Doty and H. S. Kaufman. bibliog diag J Phys Chem 49: 583-95 N '45

Dielectric constants of dimethyl siloxane polymers. E. B Baker, A. J. Barry and M. J. Hunter. bibliog il Ind & Eng Chem 38:1117-20 N '46

Diffusion of vapors through polymers. P. Doty. bibliog J Chem Phys 14:244-51 Ap '46

Effect of polymolecularity on deformation of butyl polymers. R. L. Zapp and F. P. Baldwin. bibliog Ind & Eng Chem 38:948-55 S '46

Effects of molecular structure on physical properties of butyl rubber. P. J. Flory. bibliog diags Ind & Eng Chem 38:417-36 Ap '46

Elastic loss and relaxation times in cross-linked polymers. J. G. Kirkwood. bibliog J Chem Phys 14:51-6 F '46

Experimental studies on the fractionation of high polymers. D. R. Morey and J. W. Tamblyn. bibliog J Phys Chem 50:12-22 Ja '46

Fractionation of high-polymeric substances. L. H. Cragg and H. Hammerschlag. bibliog(312 references) Chem R 39:79-135 Ag '46

High polymer division, American physical society, meeting, New York, Jan. 24-26; abstracts of papers. Rubber Age 58:596-600 F '46; India Rubber World 113:819-22 Mr '46

High polymer forum; American chemical society. India Rubber World 114:223-6 My '46

High polymers, a new field of science. Franklin Inst J 241:244-5 Mr '46

Intrinsic viscosity of polymer solutions. P. Debye. diags J Chem Phys 14:636-9 O '46

Light scattering of high polymer solutions. J. Waser and others. J Chem Phys 14:43-5 Ja '46

Molecular complexes with 2,4,7-trinitrofluorenone. M. Orchin and E. O. Woolfolk. bibliog Am Chem Soc J 68:1727-9 S '46

Molecular structure and mechanical properties of high polymers; abstract. H. Mark. Chem & Ind p247 Je 29 '46

Molecular weight distribution data on high polymers; graphical representation. R. F. Boyer. bibliog(52 references) Ind & Eng Chem Anal ed 18:342-8 Je '46

New approach to the theory of relaxing polymeric media. M. S. Green and A. V. Tobolsky. bibliog J Chem Phys 14:80-92 F '46

Organo-silicon polymers; the cyclic dimethyl siloxanes. M. J. Hunter and others. bibliog Am Chem Soc J 68:667-72 Ap '46

Osmotic pressure measurements with polydimethylsilicone fractions. D. W. Scott. bibliog Am Chem Soc J 68:1877-9 O '46

Oven for measurement of volatility of plasticizers in polyvinyl chloride and chloride-acetate copolymer compositions. D. K. Rider and J. K. Sumner. il Ind & Eng Chem Anal ed 17:730-3 N '45

Plastics and their application to textiles. C. D. Weston. bibliog diag Textile Inst J 37:P25-37 F '46

Polymer properties as functions of conversion. F. T. Wall. Am Chem Soc J 67:1929-31 N '45

Polymeric compounds formed by the decomposition of 2,4,6-tribromo-3-fluorophenol bromide and the sodium salt of 2,4,6-tribromo-3-fluorophenol. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 68:397-400 Mr '46

Polymerization of *p*-chlorostyrene in the presence of polymethylacrylate. R. B. Carlin and N. E. Shakespeare. Am Chem Soc J 68: 876-8 My '46

Polymers and viscosity index; abstract. H. C. Evans and D. W. Young. Pet Processing 1:148+ O '46

Polytetrafluoroethylene; heat-resistant, chemically inert plastic. M. M. Renfrew and E. E. Lewis. bibliog il Ind & Eng Chem 38:870-7 S '46

Postwar research forges ahead; plastic materials and polymers. R. J. Moore. Chem Ind 59:264-5 Ag '46

Quantitative determination of some inhibitors in polymers by ultraviolet light absorption. F. W. Banes and L. T. Eby. Ind & Eng Chem Anal ed 18:535-8 S '46

Regenerated fibres from natural polymers. D. Entwistle. bibliog 2pls diags Soc Dyers & Col J 62:261-72 S '46

Relation between specific refractivity of polymers and atomic structure of polymer unit. R. H. Wiley. bibliog Ind & Eng Chem 38:959-60 S '46

Size and shape of macromolecules in solution; methods based on ultracentrifuge, on osmotic pressure, on light scattering, and on streaming birefringence. P. M. Doty and H. Mark. bibliog(41 references) Ind & Eng Chem 38:682-6 Jl '46

Special issue on high polymers; papers presented at second regular meeting of Division of high polymer physics of American physical society at Columbia university, January 24-26, 1946. J Ap Phys 17:314-407 My '46

Statistical mechanics of linear association equilibria. P. J. Flory. bibliog J Chem Phys 14:49-50 Ja '46

Structure of copolymers; abstract. F. T. Wall. India Rubber World 113:240 N '45; Same. Chem & Met Eng 52:222+ D '45

Styrene copolymers; a study of their uses in surface coatings. D. H. Hewitt and F. Armitage. Chem Age (Lond) 54:315-16 Mr 23 '46

Surface film thicknesses of polymeric substances in relation to molecular structure. F. T. Wall and M. Zelikoff. bibliog Am Chem Soc J 68:726 Ap '46

Temperature dependence of water vapor permeability of organic polymer films. P. M. Doty, W. H. Aiken and H. Mark. bibliog diag Ind & Eng Chem 38:788-91 Ag '46

Tensile strength in relation to molecular weight of high polymers. P. J. Flory. Am Chem Soc J 67:2048-50 N '45

Thermal evidence of crystallinity in linear polymers. W. O. Baker and C. S. Fuller. bibliog Ind & Eng Chem 38:272-7 Mr '46

Thermal expansion and second-order transition effects in high polymers. R. F. Boyer and R. S. Spencer. bibliog J Ap Phys 15: 398-405; 16:594-607; 17:398-404 Ap '44, O '45, My '46

Thermodynamics of dilute solutions of high polymers. P. J. Flory. bibliog diags J Chem Phys 13:453-65 N '45

Use of polymers to make wool unshrinkable; anhydrocarboxyglycine. A. W. Baldwin and others. bibliog Soc Dyers & Col J 62:4-9 Ja '46

See also
Polythene
Rubber—Chemistry
Rubber, Artificial

POLYMORPHISM

Freezing points and polymorphism of the eight C_9H_{12} alkylbenzenes. A. E. Hirschler and W. B. M. Faulconer. bibliog Am Chem Soc J 68:210-13 F '46

Polymorphism of sulfapyridine. R. N. Castle and N. F. Witt. il Am Chem Soc J 68: 64-6 Ja '46

POLYNOMIALS

Nomographic representation of polynomials. W. H. Burrows. J Eng Educ 36:361-75 Ja '46; Excerpts. Product Eng 17:402-3 My '46

POLYSACCHARIDES

Capsular polysaccharide of rhizobium radicicolum. E. Schlüchterer and M. Stacey. Chem Soc J p776-83 N '45

Chemistry of gum tragacanth; methylated polysaccharide. S. P. James and F. Smith. Chem Soc J p749-51 N '45

Some problems of polysaccharide chemistry. E. L. Hirst. Chem & Ind p110-11 Mr 9 '46; Abstract. Chem Age (Lond) 54:307 Mr 23 '46

Structure function and synthesis of polysaccharides; abstract. W. N. Haworth. Soc Dyers & Col J 62:254-5 Ag '46

See also
Algin

POLYSTYRENE. See Styrene

POLYTETRAFLUOROETHYLENE. See Teflon

POLYTHENE

Developments in solid dielectric r.f. transmission lines; use of polythene. R. C. Graham. il diags Radio N 36:46-8+ O '46

POLYTHENE—*Continued*
High pressure polymerization of ethylene. G. M. Kline. flow diags il Mod Plastics 23:141-5+ My '46
Moisture-proof paper packs. il Chem Age (Lond) 54:167 F 9 '46
Plastics and the electrical industry; polythene as a high frequency dielectric. il Electrician 137:649-52 S 6 '46
Polyethylene, a new plastic and a new material for packaging. J. W. Shackleton. il Mod Packaging 20:130-4+ S '46
Polyethylene; abstract. G. M. Kline. Chem & Met Eng 53:216 F '46
Polyethylene combines excellent electrical properties with insensitivity to moisture. A. F. Randolph. il Product Eng 17:311-12 Ap '46
Polyethylene film, first packaging use. il Mod Packaging 19:107+ N '45
Polyethylene in radio antenna tubing. il Mod Plastics 24:196 O '46
Polyethylene tubing in the greenhouse; electric heating of seed boxes, hot beds and frames; Tenatherm. il diags Mod Plastics 23:108-9 Ag '46
Polythene; address in Paris. F. A. Freeth. Chem Age (Lond) 55:401-3 O 5 '46; Abstract. Engineer 182:277 S 27 '46
Polythene applications. R Sci Instr 16:322 N '45
Properties and uses of polythenes; abstract. E. Hunter and W. G. Oakes. Mod Plastics 23:178 D '45
Q-meter for dielectric measurements on polyethylene and other plastics at frequencies up to 50 megacycles. A. P. Wangsgard and T. Hazen. il diags Electrochem Soc Trans 90 (preprint 11):177-91 '46
Resonance methods of dielectric measurement at centimetre wavelengths. F. Horner and others. diags Inst E E J 93 pt 3:53-68 Ja '46
Theory and application of the parallel plate plastometer; polyethylene resins and plasticized vinyl chloride-acetate resin systems. G. J. Dienes and H. F. Klemm. bibliog il diags J Ap Phys 17:458-71 Je '46
Thermal evidence of crystallinity in linear polymers. W. O. Baker and C. S. Fuller. bibliog Ind & Eng Chem 38:272-7 Mr '46

POMACE, Apple. See Apples

POMIFERIN
Osage orange pigments; complete structures of osajin and pomiferin. M. L. Wolfrom and others. bibliog Am Chem Soc J 68:406-18 Mr '46

PONTIFICAL academy of science
Compiles report of scientific research from 1939 to the present day. Science 103:47 Ja 11 '46

PONTOONS
Pontoon manufacture in the Pacific. H. W. Risteen. il plans Mech Eng 68:215-20 Mr '46
Pontoons for raising sunken airplanes. il Comp Air Mag 51:98-9 Ap '46

POOLING (railroads). See Railroads—Pooling

POOR laws

Great Britain

End of the poor law? National assistance bill. Economist 150:956-8 Je 15 '46

POPCORN flour
Pop corn flour. Bsns W p74+ Ag 24 '46

POPLAR
Easily hydrating pulp from poplar wood. K. W. Fries. Paper Tr J 122:43-4 My 23 '46; Same. Paper Ind 28:120+ Ap '46
Effect of age on poplar wood on its pulping properties; abstract. G. Jayme and F. Reh. Paper Ind 28:300 My '46
Extractives in poplar wood and in chemical pulps from poplar; abstract. G. Jayme and L. Rothamel. Paper Ind 28:300 My '46

POPULATION
Le vieillissement de la population française et la prolongation de la vie active. Génie Civil 123:250 S 15 '46

See also
Birth rate
Cities and towns—Growth
Immigration and emigration
Migration
Migration of workers
Refugees
also subdivision Population under names of cities, e.g. New York (city)—Population

Statistics

Punched card method for presenting, analyzing and comparing many series of statistics for areas. B. J. Black and E. B. Olds. Am Stat Assn J 41:347-55 S '46
Sales Management 1946 survey of buying power; estimates of population, total retail sales, sales by three major store groups, effective buying income, gross and net, gross farm income, wholesale sales, sales-advertising controls for the Nation, sections, states, counties and cities. il maps Sales Management 56:19-412 My 10 '46; Correction. 56:112 Je 15 '46

See also
Apportionment
Census

Canada

Canada's future population. Economist 150: 458 Mr 23 '46
Future population of Canada. (Bul. no. F-4) 61p pa 50c Canada. Dominion bur. of statistics, Ottawa '46

Great Britain

Estimated civilian population of the United Kingdom, June 30, 1945. Economist 150:434 Mr 16 '46

Ireland

Population and employment in Eire. Economist 150·642 Ap 20 '46

See also
Immigration and emigration—Ireland

Turkey

Turkish census shows population increase. For Comm W 21:25 D 15 '45

United States

Census preview. Bsns W p44-6+ Mr 9 '46
Intercounty migration of the civilian population; number 4, third series. W. P. Burn. map Ptr Ink 213:25-30+ D 7 '45
Population trends and city growth. A. J. Jaffe. bibliog Ann Am Acad 242:18-24 N '45

PORCELAIN
British laboratory and technical porcelain; a warning from history. il Chem Age (Lond) 54:458-60 Ap 27 '46
Characteristics of zircon porcelains; abstract. R. Russell, jr. and W. C. Mohr. Cer Ind 46:55 My '46
Illite, montmorillonite, halloysite, and volcanic ash as whiteware body ingredients. L. Mattyasovszky-Zsolnay. Am Cer Soc 29:254-60 S 1 '46
Porcelain, a boon to the bathroom. L. E. Barringer. il diag Am Cer Soc Bul 25:78-82 Mr 15 '46
Porcelain glazes. C. W. Parmelee. bibliog Cer Ind 46:120+ Ap; 76+ My; 76+ Jl '46

PORCELAIN, Insulating
Electrical and technical ceramic industry of Germany. R. Russell, jr. Cer Ind 46:106+ Ap '46
Electrical porcelain bodies; recipes. Cer Ind 46:148 Ja '46

Testing

Dielectric properties of steatite porcelain; dielectric test results of round robin by test procedure in Jan-1-10, 1944. G. N. Howatt, comp. Am Cer Soc J 29:117-23 My 1 '46
Investigation of porcelain insulators at high altitudes. C. V. Fields and C. L. Cadwell. bibliog diags Elec Eng 65:Trans 656-60 O '46
Porcelain insulators; testing for deterioration. G. L. Mason. Elec R (Lond) 139:99-100 Jl 19 '46
Steatite tests reveal properties at high heat. R. W. Ferguson. Elec World 125:92+ Ap 27 '46

PORCELAIN enamel institute
Annual meeting, Pittsburgh, Oct. 24-25. Cer Ind 45:56-8 N '45
Forum, 7th annual, reviews enameling practices. Cer Ind 45:58-9 D '45

PORK
Trichinae killed by 120-deg. F. dehydration. L. A. Spindler and others. il Food Ind 18: 342-4+ Mr '46

PORK—*Continued*
Vitamin retention in processed meat; effect of storage. J. F. Feaster and others. bibliog Ind & Eng Chem 38:87-90 Ja '46

PORK products
Exports of bacon and fresh pork from Denmark, 1939-1944. For Comm W 21:31 D 15 '45

POROFOR N
Porofor N; abstract. F. J. Curtis and M. F. Fogler. Chem & Met Eng 53:216 F '46

POROSITY
Detection of pores in protective coatings; abstract. Paint Oil & Chem R 109:40+ O 3 '46
Effect of spray technique upon the porosity of metal coatings; abstract. A. Glazunow and L. Jemicek. Paint Oil & Chem R 109:40 O 3 '46
Microporosity in magnesium alloy castings. H. Dobkin. bibliog il Foundry 74:98-101+ O; 84-5+ N '46
Porosity and shrinkage in nonferrous castings. W. A. Baker. Iron Age 156:36L-36N Ag 30 '45; Same cond. Metal Prog 49:138+ Ja '46
Porosity in navy G and M metals and red brasses. W. B. George. diags Iron Age 156: 68-70 N 15 '45
Porosity through dolomitization. K. K. Landes. bibliog map Am Assn Pet Geologists Bul 30:305-18 Mr '46

Measurement
Apparatus for measuring the green porosity of ceramic bodies. S. S. Kocatopcu. bibliog diag Am Cer Soc Bul 25:53-5 F 15 '46
Macropore-size distributions in some typical porous substances. L. C. Drake and H. L. Ritter. bibliog Ind & Eng Chem Anal ed 17:787-91 D '45
Measurement of the porosity of non-conducting coatings on iron; abstract. Paint Oil & Chem 109:26+ S 19 '46
Pore-size distribution in porous materials; pressure porosimeter and determination of complete macropore-size distributions. H. L. Ritter and L. C. Drake. bibliog il diags Ind & Eng Chem Anal ed 17:782-6 D '45

POROUS materials
Absorption of sound by coated porous rubber wallcovering layers. C. W. Kosten. bibliog diags Acoustical Soc Am J 18:457-71 O '46
Investigation of factors that affect fluid flow in porous media. R. Sneddon. il Pet Eng 17:55-8 Ja '46
Macropore-size distributions in some typical porous substances. L. C. Drake and H. L. Ritter. bibliog Ind & Eng Chem Anal ed 17:787-91 D '45
Pore-size distribution in porous materials; pressure porosimeter and determination of complete macropore-size distributions. H. L. Ritter and L. C. Drake. bibliog il diags Ind & Eng Chem Anal ed 17:782-6 D '45
Simplified flow resistance measurements. R. W. Leonard. diags Acoustical Soc Am J 17:240-1 Ja '46
Sorption of condensable vapours by porous solids; linear isothermals and the Langmuir equation. A. G. Foster. bibliog Chem Soc J p773-6 N '45
Sorption of condensable vapours by porous solids; multimolecular adsorption. A. G. Foster. Chem Soc J p769-73 N '45

PORPHYRINS
Nature of the N-H bond in the porphyrins. J. G. Erdman and A. H. Corwin. bibliog Am Chem Soc J 68:1885-9 O '46

PORPHYRY
Emplacement of the Uncle Sam porphyry, Tombstone district, Arizona. J. Gilluly. bibliog maps Am J Sci 243:643-66, pl 1-2 D '45

PORT terminals. See Terminals

PORTABLE concrete plants. See Concrete plants, Portable

PORTABLE conveying machinery. See Conveying machinery, Portable

PORTABLE electric tools. See Electric tools, Portable

PORTABLE hangars. See Hangars, Portable

PORTABLE power plants. See Power plants, Portable

PORTABLE radio. See Radio receiving apparatus, Portable; Radio telephone, Portable

PORTABLE repair shops. See Repair shops, Portable

PORTABLE scaffolding. See Scaffolding, Portable

PORTABLE tools. See Electric tools, Portable

PORTAL-to-portal pay. See Wages—Law

PORTER, Claude R. 1872-1946
Sketch. por Ry Age 121:351 Ag 24 '46

PORTER, John William, 1873-
Sketch. por Explosives Eng 24:102-3 Jl '46

PORTER, Russell W. 1872-
Portrait. Sci Am 174:285 Je '46

PORTERS
Porters protest; sleeping car union wins delay. Bsns W p86 Jl 13 '46

PORTLAND, Maine

Water supply
Survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:255-76 F '46

PORTLAND, Oregon

Industries
Business activity in Portland. H. E. Waterbury. il Dom Comm 34:19+ Ap '46
Progress report from Portland. E. Whitmore. il Am Bsns 16:22-4+ Ag '46
They put the port in Portland. il maps Fortune 33:19-21 Mr '46

Rapid transit
Trolley coach finds favor in Portland. Mass Transportation 42:214 My '46

Sewerage
Diversion structure for combined sewer picks up sanitary flow. B. S. Morrow. diags Civil Eng 16:358 Ag '46
Portland sewage disposal project plans are nearing completion. Eng N 136:139 Ja 24 '46

PORTLAND cement association
Announces expansion of cement and concrete research. F. T. Sheets. Concrete 54:20 Jl '46
PCA makes important personnel shifts. Concrete 54:13+ Je '46

PORTLAND electric power company
Portland Electric's liquidation nearer. Barron's 26:11 F 25 '46
Reorganization plan approved by SEC. Comm & Fin Chr 163:317 Ja 21 '46

PORTS
Chile; port construction and repair. For Comm W 24:14 Ag 10 '46
Clarke City proposed as winter seaport; reprinted from Canadian Century, 1910. W. Wallace. il Pulp & Pa of Can 47:68-70 Je '46
Les destructions et la reconstruction du port de Marseille. J. Thomas. il maps diags Génie Civil 123:45-8, 185-8 F 15, Jl 15 '46
Improvements at Malmo's port of entry and its free port. For Comm W 21:24 N 24 '45
Sea-land transfer. R. J. Neutra. il plans Arch Rec 100:74-87 S '46
Terminal authority, Chicago's postwar need. J. D'Esposito. Western Soc E J 50:123-32 S '45
War-racked French ports progress toward normalcy. R. C. Leslie. il Comm W 24:3-4+ Ag 10 '46

See also
Free ports and zones
Harbors
Shipping
Terminals

also names of ports, e.g.
Dairen, China
Hamburg, Germany
New Orleans
Nuevitas, Cuba
Rio de Janeiro

PORTS of embarkation
Army industrial medical program at a port of embarkation. J. S. Felton. il plans diag Ind Med 14:854+ N '45
Port of aerial embarkation; permanent base for military air transportation on Pacific coast. plans Arch Forum 84:104-6 Ja '46

PORTSMOUTH steel corporation
New steel company formed. Blast F & Steel Pl 34:869-71 Jl '46
Stock offered. Comm & Fin Chr 164:284+ Jl 15 '46

PORTUGAL
See also
Electricity supply—Portugal
Water power—Portugal

Economic conditions
Portuguese look back. Economist 150:218+ F 9 '46

POSITION finding. See Direction finding apparatus

POSITRONIUM
Positronium. A. E. Ruark. Phys R 68:278 D 1 '45
Remarks on the fine structure of positronium. G. Beck. Phys R 69:532 My 1 '46

POSITRONS
Experimental test of beta-ray theory for the positron emitters Na^{22}, V^{48}, Mn^{52}, Co^{58}. W. M. Good and others. bibliog diag Phys R 69:313-20 Ap 1 '46
Positive particles appearing near beta-ray emitters. L. Smith and G. Groetzinger. Phys R 70:96-7 Jl 1 '46
Single scattering and annihilation of positrons. Ho Zah-wei. il Phys R 70:224-5 Ag 1 '46

POST exchange and ships service store (periodical)
PX magazine still serves billion dollar business. il Sales Management 57:136+ Jl 15 '46

POST exchanges
PX sales sagging. Bsns W p80 Ja 19 '46

Accounting
Internal control procedures for army exchanges. M. A. H. Wakely. J Account 80: 375-86 N '45

POST offices, Traveling. See Postal service, Highway

POSTAGE stamps
F.D.R. stamp sale. Bsns W p36+ Ap 13 '46
Philatelic boom; Roosevelt collection for public auction. il Bsns W p24+ D 22 '45
Philatelic paradise. Fortune 33:230 Ja '46
Postage stamps do affect results of your mailing; color, slanting your printed permit; third-class metering. E. N. Mayer, jr. Ptr Ink 217:91 O 4 '46

POSTAL buses. See Postal service, Highway

POSTAL cards
Reply cards
Business card as business reply card. D. M. Cleary. il Ptr Ink 215:89 Je 21 '46

POSTAL laws and regulations
All false matter sent by mail can be evidence; issuance of false financial statements. M. S. Mattuck. Credit & Fin Management 48:9+ Jl '46

POSTAL rates
Mail rate fight; plan to make entire system self-sustaining. Bsns W p28+ Ja 5 '46

POSTAL savings banks
Postal savings system, assets and depositors' balances, yearly 1939-1943, monthly, Nov. 1944-Nov. 1945. Fed Res Bul 32:50 Ja '46 [cont monthly]

POSTAL service
Packages for scientific workers in Europe. Chem & Eng N 24:918 Ap 10 '46

United States
Mail rate fight; plan to make entire system self-sustaining. Bsns W p28+ Ja 5 '46
Story of a monopoly; Post office department, 1945 operations. Bsns W p26 My 4 '46
See also
Air mail service

POSTAL service, Highway
Highway post office and airmail. H. K. Gilbert, jr. il plan Air Transport 4:33-6 Je '46

POSTERS
Hercules promotes peacetime production with timely poster; 1946 calendar-painting. il Ind Marketing 31:35 Ja '46
Infrared nearly triples poster output; Bentley poster print. D. O. Bergy. il Elec World 124: 168+ N 10 '45
Plant posters take place of annual report to employees. il Ptr Ink 214:25 Mr 1 '46
Selling the new layout to employees; posters prepared by Raytheon manufacturing co. G. DeVries. il plan Factory Management 103:116-17 N '45
Shop poster cartoons aid in conservation of carbide tools; Firth-Sterling steel company. il Ind Marketing 31:70 My '46
These posters improved employee attitudes; Delco Products. il Factory Management 104: 94-5 S '46

POSTERS, Safety. See Safety posters

POSTWAR public works planning commission. See New York (state)—Postwar public works planning commission

POTASH
New Mexico
Diamond drilling of potash reserves in Eddy county. W. R. Storms. bibliog U S Bur Mines Rep of Invest 3861:1-11, pl 1-4 '46

POTASH industry and trade
Potash; annual review and forecast. J. A. Barr. il Min Cong J 32:69-70 F '46
Potash industry; resources, operations and prospects; excerpts from reports by S. H. Dolbear, J. Backman, J. W. Turrentine. Chem Eng 53:112-14 S '46

Statistics
Potash industry statistics, 1943-45. Oil Paint & Drug Rep 149:43 Je 24 '46

POTASH soap industry. See Soap industry and trade

POTASSIUM
Metalation of cumene by ethylpotassium. H. Gilman and L. Tolman. Am Chem Soc J 68:522 Mr '46
Structure in the X-ray *K* absorption edge of metallic potassium. J. B. Platt. bibliog Phys R 69:337-46 Ap 1 '46

Analysis
Determination of nitrogen, phosphorus, and potassium in leaf tissues; application of micromethods. R. H. Cotton. bibliog Ind & Eng Chem Anal ed 17:734-8 N '45
Determination of nitrogen, phosphorus, potassium, calcium, and magnesium in plant tissue; semimicro wet-digestion method for large numbers of samples. O. J. Kelley, A. S. Hunter and A. J. Sterges. bibliog diag Ind & Eng Chem Anal ed 18:319-22 My '46
Indirect method of determining potassium. G. A. Rhame. Water & Sewage Works 93:20 Ja '46
Routine analysis of sodium-potassium alloys. S. L. Walters and R. R. Miller. diags Ind & Eng Chem Anal ed 18:468-9 Ag '46

Isotopes
β-Ray spectrum of K^{40}. B. Dželepow and others. bibliog Phys R 69.538-9 My 1 '46
Concentration of ^{39}K and ^{41}K by balanced ion migration in a counterflowing electrolyte. A. K. Brewer and others. diags Science 104: 156-7 Ag 16 '46
Efficiency of the electrolytic separation of potassium isotopes. D. A. Hutchison. bibliog J Chem Phys 14:401-8 Jl '46

POTASSIUM alum. See Alum

POTASSIUM amide
Action of bases on organic halogen compounds; the reaction of potassium amide with the naphthyl halides. R. S. Urner and F. W. Bergstrom. Am Chem Soc J 67:2108-9 D '45

POTASSIUM bromate
Use of bromate in volumetric analysis; determination of arsenic and antimony by the Győry method. G. F. Smith. bibliog Am Cer Soc J 29:143-5 My 1 '46

POTASSIUM bromide
Reinvestigation of the conductance of aqueous solutions of potassium chloride, sodium chloride, and potassium bromide at temperatures from 15° to 45°C. G. C. Benson and A. R. Gordon. J Chem Phys 13:473-4 N '45

POTASSIUM butoxide
Study of alternate methods for the alkylation of acetoacetic esters. W. B. Renfrow and A. Renfrow. bibliog Am Chem Soc J 68: 1801-4 S '46

POTASSIUM chloride
Effect of KCl, NaCl and Na_2SO_4 on the aqueous solubility of acetanilide. T. S. Logan. Am Chem Soc J 68:1660-1 Ag '46
Equilibria in saturated solutions; the ternary systems $CaCl_2$-$MgCl_2$-H_2O, $CaCl_2$-KCl-H_2O, and $MgCl_2$-KCl-H_2O at 35°. W. J. Lightfoot and C. F. Prutton. diags Am Chem Soc J 68:1001-2 Je '46
First dissociation constant of *o*-phthalic acid and related pH values of phthalate buffers from 0° to 60° C. W. J. Hamer and others. bibliog J Res Nat Bur Stand 35:539-64 D '45
Fundamental studies with the dropping mercury electrode; empirical modification of the Ilkovic equation. J. J. Lingane and B. A. Loveridge. bibliog Am Chem Soc J 68:395-7 Mr '46
Reinvestigation of the conductance of aqueous solutions of potassium chloride, sodium chloride, and potassium bromide at temperatures from 15° to 45°C. G. C. Benson and A. R. Gordon. J Chem Phys 13:473-4 N '45
Some effects of salts on true cholinesterase. B. Mendel and H. Rudney. bibliog Science 102:616-17 D 14 '45
System potassium perrhenate-potassium chloride-water. W. T. Smith, jr. bibliog Am Chem Soc J 58:394-5 Mr '46
See also
Carnallite
Sylvite

POTASSIUM chromate
Chromates in animal nutrition. W. G. Gross and V. G. Heller. bibliog J Ind Hygiene 28:52-6 Mr '46

POTASSIUM cyanide
Amperometric titration of cyanide with silver nitrate, using the rotating platinum electrode. A. H. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:574-5 S '46

POTASSIUM dihydrogen phosphates. See Potassium phosphates

POTASSIUM ethyl xanthate
Chemistry and xanthic acid derivatives; the interaction of carboxylic acid chlorides and potassium ethyl xanthate. G. Bulmer and F. G. Mann. Chem Soc J p677-80 O '45
Chemistry of xanthic acid derivatives; the interaction of sulphonyl chlorides and potassium ethyl xanthate. G. Bulmer and F. G. Mann. Chem Soc J p680-6 O '45

POTASSIUM ferricyanide
Determination of reducing sugars; mathematical expression of reducing action in the Lane and Eynon and volumetric ferricyanide methods. F. W. Zerban, W. J. Hughes and C. A. Nygren. bibliog Ind & Eng Chem Anal ed 18:64-5 Ja '46

POTASSIUM hydroxide
Caustic potash. J. E. Ferris. Soap & San Chem 22:41-3+ Mr '46
Characteristics of the silver oxide-zinc-alkali primary cell. J. C. White and others. Electrochem Soc Trans 90 (preprint 20):273-9 '46
Rare-earth metal oxides; their precipitation from potassium hydroxide melts. J. K. Marsh. Chem Soc J p20-3 Ja '46
Rust determination in presence of steel; preferential solvent and its application. F. Gibadlo. bibliog Iron Age 157:58-9 Ap 18 '46

POTASSIUM in the body
Determination of total body water and solids with isotopes. F. D. Moore. bibliog Science 104:157-60 Ag 16 '46

POTASSIUM iodide
Preliminary study of the photochemical system uranyl-iodide. J. J. McBrady and R. Livingston. bibliog J Phys Chem 50:339-45 Jl '46
Solubility of potassium iodide in acetone. R. Livingston and R. R. Halverson. bibliog J Phys Chem 50:1-6 Ja '46
Thermal decomposition of ethylene iodide catalyzed by iodide ions. T. Iredale and T. R. Stephan. bibliog J Phys Chem 49:595-601 N '45
See also
Nessler's reagent

POTASSIUM laurate
Critical concentration for the formation of micelles as indicated by the absorption spectrum of a cyanine dye. M. L. Corrin and others. J Chem Phys 14:216-17 Mr '46
Solubilization of insoluble organic liquids by detergents. J. W. McBain and P. H. Richards. bibliog Ind & Eng Chem 38:642-6 Je '46
Solubilization of water-insoluble dye in soap solutions; effects of added salts. J. W. McBain and A. A. Green. bibliog Am Chem Soc J 68:1731-6 S '46

POTASSIUM metabisulfite
Materials of construction in a metabisulphite plant. G. S. Wheaton and R. S. Sunderlin. flow sheet il Chem & Met Eng 52:231-2+ N '45; Same cond. Chem Age (Lond) 54:115-16 Ja 26 '46

POTASSIUM metaperiodate
Electrical conductance of aqueous solutions; potassium metaperiodate and potassium perrhenate at 25°. J. H. Jones. bibliog Am Chem Soc J 68:240-1 F '46

POTASSIUM myristate
Critical concentration for the formation of micelles as indicated by the absorption spectrum of a cyanine dye. M. L. Corrin and others. J Chem Phys 14:216-17 Mr '46

POTASSIUM nitrate
Corrosion of steel salt-bath pots by molten alkali nitrates, used for heat treatment of duralumin. R. J. Box and B. A. Middleton. Engineering 160:523-4 D 21 '45
Salt effects of potassium nitrate, sodium sulfate and trisodium citrate on the activity coefficients of *p*-phenolsulfonate buffers. R. G. Bates and others. bibliog J Res Nat Bur Stand 37:251-61 O '46
Solubility and density isotherms; potassium and ammonium nitrates in isopropanol solutions. A. R. Thompson and M. C. Molstad. bibliog Ind & Eng Chem 37:1244-8 D '45

Analysis

Spectrophotometric determination of nitrates in plating baths. A. Dolance and P. W. Healy. Ind & Eng Chem Anal ed 17:718-19 N '45

POTASSIUM permanganate
Chemical propellants; system hydrogen peroxide-permanganate. F. Bellinger and others. il diags Ind & Eng Chem 38:160-9 F '46
Determination of chlorine in 2,2'-dihydroxy-5,5-dichlorodiphenylmethane. D. M. Jenkins, K. L. Waters and G. D. Beal. bibliog Ind & Eng Chem Anal ed 18:609-10 O '46
Method for the determination of iron in welding fume samples. R. G. Keenan and B. L. Minderman. bibliog J Ind Hygiene 28:32-6 Mr '46

POTASSIUM perrhenate
Electrical conductance of aqueous solutions; potassium metaperiodate and potassium perrhenate at 25°. J. H. Jones. bibliog Am Chem Soc J 68:240-1 F '46
System potassium perrhenate-potassium chloride-water. W. T. Smith, jr. bibliog Am Chem Soc J 68:394-5 Mr '46

POTASSIUM persulfate
Anomalous behavior of some oxidizing agents. R. K. McAlpine. J Chem Educ 23:301-5 Je '46
Studies in the detoxication of catalyst poisons; the use of various oxidising agents for the detoxication of cystein. E. B. Maxted. Chem Soc J p763-6 N '45

POTASSIUM phenolsulfonate
Ultraviolet spectra and dissociation constants of *p*-hydroxybenzoic acid, methyl, ethyl, *n*-butyl, and benzyl *p*-hydroxybenzoate and potassium *p*-phenolsulfonate. E. E. Sager and others. bibliog J Res Nat Bur Stand 35:521-38 D '45

POTASSIUM phosphates
Elastic, piezoelectric, and dielectric constants of potassium dihydrogen phosphate and ammonium dihydrogen phosphate. W. P. Mason. bibliog diags Phys R 69:173-94 Mr 1 '46

POTASSIUM phthalate
First dissociation constant of o-phthalic acid and related pH value of phthalate buffers from 0° to 60° C. W. J. Hamer and others. bibliog J Res Nat Bur Stand 35:539-64 D '45

pH standards at various temperatures; aqueous solutions of acid potassium phthalate. W. J. Hamer and others. bibliog J Res Nat Bur Stand 36:47-62 Ja '46

Second dissociation constant of o-phthalic acid and related pH values of phthalate buffers from 0° to 60° C. W. J. Hamer and S. F. Acree. bibliog J Res Nat Bur Stand 35:381-416 N '45

POTASSIUM sulfates
See also
Alunite
Langbeinite
Potassium persulfate

POTASSIUM tartrate
Rust determination in presence of steel; preferential solvent and its application. F. Gibadlo. bibliog Iron Age 157:58-9 Ap 18 '46

POTASSIUM thiocyanate
Ternary systems $NaSCN-Ca(SCN)_2-H_2O$, $KSCN-Ca(SCN)_2-H_2O$, $NH_4SCN-Ca(SCN)_2-H_2O$ and $Ca(SCN)_2-AgSCN-H_2O$ at 25°. A. K. McKerrow, V. J. Occleshaw and F. Drabble. Chem Soc J p1-5 Ja '46

POTASSIUM xanthate
Chemistry of xanthic acid derivatives; the interaction of carboxylic acid chlorides and potassium ethyl xanthate. G. Bulmer and F. G. Mann. Chem Soc J p677-80 O '45

POTATO association of America
Business meeting, St Louis, March 27. Science 103:521-2 Ap 26 '46

POTATO bread. See Bread

POTATO chips
Chips don't chip; new, high-speed, accurate weigher permits packaging of potato chips and similar products with minimum breakage. il Mod Packaging 19:116-19 My '46

POTATO flour
La fabrication de la farine de pommes de terre. diags Génie Civil 123:28 Ja 15 '46

POTATO starch
Enzymic synthesis and degradation of starch; the amylolytic function of the Q-enzyme of the potato. E. J. Bourne, A. Macey and S. Peat. Chem Soc J p882-8 D '45

Enzymic synthesis and degradation of starch; the synthesis of amylopectin. E. J. Bourne and S. Peat. Chem Soc J p877-82 D '45

Production of starch from sweet potatoes. il Chem & Eng N 24:474-5 F 25 '46

Starch plant uses curved corners for cleanliness; Clewiston, Fla. plant of U.S. sugar corp. il diag Arch Forum 85:103 O '46

Sweet potato starch. R. F. Gould. il Chem & Eng N 24:1518-20 Je 10 '46

Sweet potato starch becomes a domestic industry. il Chem Ind 58:416-19 Mr '46

U.S. Sugar begins operations at $7,000,000 starch plant. il Manuf Rec 115:38-9+ F '46

POTATOES
Preservation of potatoes for human consumption. T. Rendle. il Chem & Ind p354-9 N 17 '45
See also
Sweet potatoes

Peeling

Removing potato skins; U.S. patent. Food Ind 18:1478 S '46

Rotary machine solves lye peeler problems; details of construction. F. H. Thurber and P. W. Bohne. il diag Food Ind 18:10-11+ Ja '46

Storage

Selecting and storing potatoes to avoid darkening; influence on finished product of reducing sugars. A. F. Ross and others. il Food Ind 18:1011-13+ Jl '46

Storehouse or burying ground? potatoes stored in woods. il Bsns W p24 Jl 20 '46

POTATOES, Dried
Commercially dehydrated vegetables; oxidative enzymes, vitamin content, and other factors. M. F. Mallette and others. bibliog Ind & Eng Chem 38:437-41 Ap '46
See also
Potato flour

POTENTIAL, Electric
Activity coefficients of sulfuric acid in aqueous solutions of ethanol at 25°C. H. D. Crockford and S. A. Wideman. J Phys Chem 50: 418-22 S '46

Activity of 1-*n*-dodecanesulfonic acid in aqueous solutions. H. F. Walton. bibliog Am Chem Soc J 68:1180-2 Jl '46

Amortisseur action of the squirrel cage. E. Bretch. diags Elec Eng 65:255-8 Je '46

Anaerobic corrosion of iron in soil; with particular consideration of soil redox potential as indicator of corrosiveness. R. L. Starkey and K. M. Wight. bibliog(203 titles) il diags Am Gas Assn Proc 1945:307-412

Analysis of the streaming potential method of measuring the potential at the interface between solids and liquids. L. A. Wood. bibliog Am Chem Soc J 68:432-7 Mr '46

Calculation of the binding energies of H^3 and He^4 with a new potential. M. Wang. Phys R 70:492-4 O 1 '46

Electrical potential at the interface between vitreous silica and solutions of barium chloride. L. A. Wood and L. B. Robinson. bibliog J Chem Phys 14:251-7 Ap '46

Galvanic couples and cathodic protection. M. C. Miller. diags Pet Eng 17:55-8 My '46

Measurement of surface potential or contact potential differences. A. A. Frost. diag R Sci Instr 17:266-8 Jl '46

Measurement of the potential at the interface between vitreous silica and pure water. L. A. Wood. bibliog diag Am Chem Soc J 68:437-41 Mr '46

Method for measuring effective contact e.m.f. between a metal and a semi-conductor. W. E. Stephens and others. Phys R 69:42-3 Ja 1 '46; Correction. 69:244 Mr 1 '46

Modified Kelvin method for measuring contact potential differences. W. E. Meyerhof and P. H. Miller, jr. diags R Sci Instr 17: 15-17 Ja '46

Modified Zisman apparatus for measuring contact potential differences in air; plate driven by radio loudspeaker and null point determined with oscillograph instead of earphones. S. Rosenfeld and W. M. Hoskins. diags R Sci Instr 16:343-5 D '45

Protection of pilot wires from induced potentials. R. B. Killen and G. G. Law. map diags Elec Eng 65:Trans 267-70 My '46

Relation between the oxidation-reduction potentials of quinones and the resonance energies of quinones and of hydroquinones. E. Berliner. bibliog Am Chem Soc J 68:49-51 Ja '46

Reproducibility of the lead electrode and the electromotive force of the lead stick-lead amalgam cell at 0° to 60° C. R. G. Bates and others. bibliog diags J Res Nat Bur Stand 36:159-70 F '46

Standard electrode potentials of the mercury-mercurous sulfate electrode in methanol at 20, 25, 30 and 35°. E. W. Kanning and M. G. Bowman. bibliog Am Chem Soc J 68: 2042-6 O '46

Standard potential of the cell, $H_2|HCl(m)|AgCl\text{-}Ag$, in 50% glycerol-water solution from 0-90°. H. S. Harned and F. H. M. Nestler. bibliog Am Chem Soc J 68:665-6 Ap '46

Standard potentials of hydrogen-silver-silver chloride cells in ethylene glycol solutions at 25°. S. B. Knight, J. F. Masi and D. Roesel. bibliog Am Chem Soc J 68:661-5 Ap '46

Studies on redox potential of marine sediments. C. E. ZoBell. diags Am Assn Pet Geologists Bul 30:477-513 bibliog(p510-13) Ap '46

Test of Langmuir's interpretation of the Jones-Ray effect. L. A. Wood and L. B. Robinson. bibliog J Chem Phys 14:258-62 Ap '46

Thermodynamic study of the tin-antimony system. R. O. Frantik and H. J. McDonald. bibliog Electrochem Soc Trans 88 (preprint 21):219-27 '45

POTENTIAL, Electric—*Continued*
Thermodynamics of aqueous solutions of calcium chloride at temperatures from 15-35° from e.m.f. measurements on cells with transference. H. G. McLeod and A. R. Gordon. bibliog Am Chem Soc J 68:58-60 Ja '46

POTENTIAL, Theory of
Some integral equations of potential theory. H. Bateman. bibliog J Ap Phys 17:91-102 F '46

POTENTIOMETERS
Advantages of high-speed electronic recording in industrial process measurements. D. M. Considine and D. P. Eckman. diag Am Inst Chem Eng Trans 42:707-10 Ag '46; Same. il diags Chem Ind 58:785-7 My '46; Same. Steel 118:114-16+ My 20 '46; Same. Rayon 27:267-8 My '46; Abstract. Chem & Met Eng 53:284+ Ap '46
Effect of measurement dead time in control of certain processes. D. P. Eckman. bibliog diags Pet Eng 17:59-60+ F '46; Same. Pet Refiner 25.117-20 Mr '46; Same. A S M E Trans 68:707-10; Discussion. 710-11 O '46
Electronically balanced recorder for flight testing and spectroscopy. A. J. Williams, jr. and others. il diags Elec Eng 65:Trans 205-8 Ap '46
Modified Kelvin method for measuring contact potential differences. W. E. Meyerhof and P. H. Miller, jr. diag R Sci Instr 17: 15-17 Ja '46
Potentiometers. L. A. Nettleton and F. E. Dole. il diags R Sci Instr 17:356-63 O '46
Simple potentiometer circuit for production of the tangent function. R. Hofstadter. diag R Sci Instr 17:298-300 Ag '46
Ten microvolt readings possible with new Autopot. il Elec World News ed 126:20 O 5 '46

POTHEADS
Pothead on crossarm provides more clearance. diag Elec World 124:102+ D 22 '45

POTOFSKY, Jacob Samuel, 1895-
Head of Amalgamated clothing workers of America. por Bsns W p92 Jl 20 '46

POTOMAC Edison company
Preferred stock offered. Comm & Fin Chr 163:467-8 Ja 28 '46

POTOMAC electric power company
Library
Fiction in a special library. I. A. Zink. Special Lib 37:150-3 My-Je '46

POTOMAC river
Water standards for Potomac River basin. map Eng N 136:991-2 Je 27 '46

POTOMETERS
Potometer for rapid measurements of ingestion by haustellate insects. M. R. Frings and H. Frings. il Science 103:22-3 Ja 4 '46

POTTER, Andrey Abraham, 1882-
Celebrating twenty-five years of service at Purdue university. R. N. Shreve. J Eng Educ 36:592-4 My '46

POTTERIES
Ceramic plant is result of lemon juice gadget; Charles Reid pottery works. il Cer Ind 46:77 F '46
Electric equipment
Potters' mills; changing over to electrical operation. il diag Elec R (Lond) 139:559-63 O 11 '46
Equipment
Art potters look to modernization. plans Cer Ind 45:80+ D '45
Electronic temperature control. C. H. Joy. il diags Cer Ind 47:89-90 S '46
More progress with better equipment; potteries, enameling plants, etc.; illustrations with text. Cer Ind 46:52-3 F '46
New gas-fired production line dryer. R. Martin. il plans diags Cer Ind 47:70+ Jl '46
Streamlined figurine production; U.S. novelty pottery co. il Cer Ind 46:75-7 F '46
Successful dust-removal installation. A. M. Morris. il Cer Ind 47:84+ Ag '46
Laboratories
Small potters need laboratories. L. F. McCarty. il Cer Ind 46:160+ Ja '46

POTTERY
Abstracts of ACS convention papers. Cer Ind 46:86-92 Je '46
Artware pottery gossip from southern California. J. E. Tufft. il Cer Ind 46:59 Ja '46
Design, a challenge to the manufacturer. M. I. Deutsch. il Cer Ind 46:80+ Mr '46
Pewabic records. M. C. Stratton. il Am Cer Soc Bul 25:364-5 O 15 '46
Trends to watch in tomorrow's design. il Cer Ind 46:114+ Ap '46

See also
Ceramic materials
Ceramics
Clay
Cooking ware
Enamel and enameling
Glazes
Kilns
Potteries
Tableware
Teapots
Tiles

Decoration
Overglaze decorating. il Cer Ind 45:92+ D '45
Surface decoration on terra sigillata and on Greek black-painted vases. E. F. Prins de Jong and A. J. Rijken. bibliog Am Cer Soc Bul 25.5-7 Ja 15 '46
Underglaze decal, paint and silk screen decorating. il Cer Ind 45.90+ N '45
Water spotting of semivitreous dinnerware in the decorating process. W. D. Spore. Am Cer Soc Bul 25:82-5 Mr 15 '46
Manufacture
Different methods of slip casting. S. S. Kocatopcu. bibliog Am Cer Soc Bul 25:51-2 F 15 '46
Illite, montmorillonite, halloysite, and volcanic ash as whiteware body ingredients. L. Mattyasovszky-Zsolnay. Am Cer Soc J 29: 254-60 S 1 '46
Incorporation of an infrared dryer into a continuous casting system; abstract. H. Hoare. Cer Ind 46:54 My '46
Infrared dries pottery before firing. P. H. Krupp. il Elec World 125:96 Mr 30 '46
Infrared drying in the ceramic industry; abstract. C. L. Bullock. Brick & Clay Rec 108: 50 My '46
Infrared; suppliers, plant operators answer questions. il Cer Ind 46:102+ Ap '46
Pottery bodies; recipes. Cer Ind 46:144+ Ja '46

See also
Saggers

POTTERY containers
Pottery; appeal of hand craftsmanship in an era of mass production. il Mod Packaging 19:132-6 Mr '46

POTTERY industry
Art potters need creative selling; work of Clem and Nixon Hall. Cer Ind 46:84-5 F '46
Design division symposium on future of American ceramics. Am Cer Soc Bul 25:369-80 O 15 '46
Get ready for a buyers' market! W. K. Perkins. il Cer Ind 47:92+ O '46
California
Artware pottery gossip from southern California. J. E. Tufft. il Cer Ind 47:92 S; 98 O '46
California potters and the public. D. Rhodes. Am Cer Soc Bul 25:46-8 F 15 '46
Colombia
Colombian pottery market. For Comm W 21: 38 N 24 '45
Great Britain
Prescription for pottery. Economist 150:848-50 My 25 '46
Lebanon
Pottery industry of Syria and Lebanon. For Comm W 22:38 F 23 '46
Syria
Pottery industry of Syria and Lebanon. For Comm W 22:38 F 23 '46

POULTRY
Apparent antagonism between vitamin A and carotenoids in the fowl. M. Rubin and H. R. Bird. bibliog Science 103:584-6 My 10 '46

POULTRY—*Continued*

Feeding

Activity of synthetic folic acid in purified rations for the chick. T. D. Luckey and others. bibliog Science 103:682-4 Je 7 '46

Purchasing

How to buy a chicken. I. L. Williams and B. W. Gardner. Consumers Res Bul 17:27-30 Mr '46

How to buy poultry; live, dressed or eviscerated? analysis of costs. I. L. Williams and B. W. Gardner, jr. il Food Ind 18:872-3 Je '46

Transportation

Baby chicks fly the Pacific. For Comm W 25:45 O 19 '46

POULTRY, Frozen

Well-dressed birds for a broader poultry market. il Mod Packaging 19:122-4+ F '46

POULTRY brooders

Rubber which conducts electricity brings heat to baby chicks. Elec World 125:95 F 16 '46

Turkey brooder. map plan diag Arch Forum 83:167 N '45

POULTRY dressing

Conveyors speed evisceration of poultry. il Food Ind 18:499-501 Ap '46

POULTRY houses

Chicken and egg farm near North Hollywood, Calif. map plans Arch Forum 83:166 N '45

Tender chickens go to market from tile poultry houses. il diags Brick & Clay Rec 107: 31 O '45

Heating and ventilation

Heat and ventilation in the design of poultry houses. J. L. Strahan. il plan diags Heat & Ven 43:51-6 Jl '46

Poultry house heating. il Elec R (Lond) 137: 623 N 2 '45

Radiant heated chickens; panel heating in chicken house; with cost data. il Dom Eng 168:164-5 O '46

Lighting

Lamp application research; sunlamps and germicidal lamps for poultry. L. C. Porter and J. E. Davenport. il Gen Elec R 49:10-11 O '46

POULTRY industry and trade

Poultry gamble; farmers spurn warning to cut their flocks. Bsns W p50+ Ja 12 '46

Poultry surplus. Bsns W p41-2 N 10 '45

Hungary

Hungarian poultry industry. For Comm W 21:31 D 15 '45

Mexico

Mexico's poultry industry. For Comm W 21:28 D 1 '45

Netherlands

Come-back of Holland's poultry flocks. For Comm W 22:32 F 2 '46

POWDER welding. See Welding

POWDERED aluminum. See Aluminum, Powdered

POWDERED copper. See Copper, Powdered

POWDERED glass. See Glass, Powdered

POWDERED iron. See Iron, Powdered

POWDERED metals. See Metal powders

POWDERED milk. See Milk, Dried

POWDERED nickel. See Nickel, Powdered

POWDERED soap. See Soap, Powdered

POWDERED steel. See Steel, Powdered

POWDERS

Applying plastic coatings; new flame spraying process, Powder weld. il Mod Plastics 23: 194 Je '46

Determination of the density of a fine powder. W. R. Ruby and R. P. Loveland. bibliog il diags J Phys Chem 50:345-63 Jl '46

Evaluation of dispersions by a novel rheological method. F. K. Daniel and P. Goldman. bibliog il Ind & Eng Chem Anal ed 18: 26-31 Ja '46

Flame sprayed plastics. M. J. Gurdin. il Iron Age 158:64-5 Ag 22 '46

Measurement of the size characteristics of powders by photo-extinction methods. H. E. Rose and H. B. Lloyd. bibliog diags Soc Chem Ind J 65:52-8 F; 65-74 Mr '46

Methods of mechanical analysis of portland cements. H. E. Rose. diags Engineering 161:457-9, 483-4 My 17-24 '46

Parafocusing properties of microcrystalline powder layers in X-ray diffraction applied to the design of X-ray goniometers. J. C. M. Brentano. bibliog il diags J Ap Phys 17: 420-34 Je '46

Pattern for an angled Y-branch; conveying powders. O. W. Kothe. diags Sheet Metal Worker 37.55+ S '46

Preparation of powdered materials for electron microscopy. M. C. Schuster and E. F. Fullam. bibliog Ind & Eng Chem Anal ed 18:653-7 O '46

Rapid method for the determination of the specific surface and mean particle size of black powders. F. Frith and R. A. Mott. Soc Chem Ind J 65:81-7 Mr '46

Size grading of diamond powder. B. L. Steierman and others. 5pl diag J Res Nat Bur Stand 36:469-78 My '46

Some physico-chemical problems in construction. E. K. Rideal. Chem & Ind p210-13 Je 1 '46

See also

Dust
Flour
Metal powders
Particles
Pulverizers

Analysis

Water content of powders determined by rapid method. W. P. Turner, jr. bibliog il diag Food Ind 18:502-5 Ap '46

POWDERS, Metal. See Metal powders

POWELL River company, limited

Powell River developments. il(p910) Pulp & Pa of Can 46:911-12 N '45; Same cond. Paper Tr J 121:28 D 20 '45

POWER (mechanics)

Power required to overcome 100 lineal feet of pipe friction; chart. B. Maddock. Power Pl Eng 50:116 Mr '46

Power sources other than atomic with future possibilities; abstract. E. Podolsky. Mech Eng 68:655-6 Jl '46

Sources of energy for heat, light and power. J. Eccles. Engineering 162:199 Ag 30 '46

See also

Airplanes—Auxiliary power
Atomic power
Chemical plants—Power
Coal mines and mining—Power
Compressed air
Dynamometers
Electric power
Horsepower
Load factor
Machinery
Mining engineering—Power
Petroleum engineering—Power
Power factor
Power plants
Power transmission
Radio receiving apparatus—Power supply
Rolling mills—Power
Servomechanisms
Ship propulsion
Steam
Steel works—Power
Television receiving apparatus—Power supply
Tidal power
Water power
Wind power

POWER contracts

Hydro-electric power and Ontario gold mining. R. E. Foster. Can Min J 67:871-4 S '46

POWER cost

Big Inch paid $9,000,000 for kilowatts in one year. J. L. King. il diag Power 90:81-4 F '46

Combined light and power systems for industrial plants. D. L. Beeman. il diags Gen Elec R 49:28-35 Mr '46; Same. Elec Eng 65:Trans 76-83 F '46

Does a laundry cut costs by buying or by generating its electricity? J. G. Berger. il Power 90:457-9 Jl '46

Electric generating plants; discussion of installation costs. J. H. Field. Oil & Gas J 45:106+ Je 22 '46

Electric power supply for steel mill loads. F. W. Cramer. Blast F & Steel Pl 34:583+ My '46

Formulas for conductor size according to cost of resistance loss. H. B. Dwight. Elec Eng 65:Trans 22-5 Ja '46

POWER cost—*Continued*
Hydro electric power and Ontario gold mining. R. E. Foster. Can Min J 67:867-74 S '46
Reorganization of industrial factory steam and power supply; with cost data. G. D. Arden. diag Inst E E J 93 pt 1:140-1 Mr '46
Shunt capacitors for reduced cost, increased capacity. W. H. Cuttino. il diag Blast F & Steel Pl 34:368-9+ Mr '46; Same. Eng & Min J 147:76-8 My '46; Same cond. Cer Ind 46:52-3 Mr '46
Will an atomic power plant pay? C. F. Wagner and J. A. Hutcheson. Power Pl Eng 50:118+ O '46

See also
Electricity on the farm—Cost

POWER factor
Calibration method for electrodynamic power factor meters. P. MacGahan. il diags Power Pl Eng 49:87+ O '45
Drop-compensator gives circuit power factor. C. N. Teed. Elec World 125:109 My 25 '46
Homemade calculator gives power factor. J. H. Kerr, jr. il Power 90:689-90 O '46
Industrial power factor corrected by current control. G. Kohlweiler. diags Elec World 126:89 S 14 '46
Power and power factor in arc furnace operation; abstract. E. H. Browning. Iron Age 158:63 O 17 '46
Power factor correction. H. Andrewes. il diag Electrician 137:375-80 Ag 9 '46
Power-factor correction; calculations for induction motors. H. Neale. Elec R (Lond) 139:213-14 Ag 9 '46
Self-correction by industry; presenting power factor studies to customers. D. K. Grandey. Elec West 96:57-9 My '46
Series capacitors raise power factor of resistance welders. R. E. Marbury. il diags Factory Management 104:149-53 F '46
Two rotating standards determine power factor. J. Bowles. diag Elec World 126:90 Ag 17 '46
Unbalanced three-phase loads; wattmeter measurement of power factor. G. W. Stubbings. diag Elec R (Lond) 138:647-8 Ap 26 '46

See also
Reactive power

POWER factor, Dielectric
Electrical insulating materials; power factor-temperature characteristics and dielectric constant (S.I.C.); tabulation. Elec World 125:126 F 16 '46
End leakage in cable power-factor measurement. A. Rosen. diags Inst E E J 93 pt 2: 383-6 Ag '46
Paper capacitors containing chlorinated impregnants; effects of sulfur. D. A. McLean, L. Egerton and C. C. Houtz. bibliog diag Ind & Eng Chem 38:1110-16 N '46
Q-meter for dielectric measurements on polyethylene and other plastics at frequencies up to 50 megacycles. A. P. Wangsgard and T. Hazen. il diags Electrochem Soc Trans 90 (preprint 11):177-91 '46
Resonance methods of dielectric measurement at centimetre wavelengths. F. Horner and others. diags Inst E E J 93 pt 3:53-68 Ja '46
Some physical properties of mica; power factors. E. L. Hall. J Res Nat Bur Stand 35: 342-4 O '45

POWER plant auxiliaries. See Electric driving—Power plant auxiliaries

POWER plant insurance. See Insurance, Power plant

POWER plants
ASME fall meeting; abstracts of power plant papers. Power 90:754-5 N '46
American society of mechanical engineers, semi-annual meeting, Detroit, June 17-20. Power Pl Eng 50:128+ Ag '46
American society of mechanical engineers, semi-annual meeting, Detroit; abstracts of power plant papers. il diags Power 90:528-31+ Ag '46
American society of mechanical engineers 66th annual meeting, New York, Nov. 26-29. Power 89:909-18 Mid-D '45; Power Pl Eng 50:73-5 Ja '46
Building a power plant in ten months; Clinton engineer works. J. D. Watson. il Eng N 135:807-10 D 13 '45
5000 kw standard power plant. Mech Eng 68: 907 O '46
Midwest power conference, Chicago, April 3-5. Power 90:319-22+ My '46; Power Pl Eng 50:79-81+ My '46
Modern plant survey. Power 90:371-89 Je '46
New techniques in teaching power plant operation; power plant unit for use by engineering colleges. F. H. Pumphrey. diags Power Pl Eng 49:92-4 N '45
Power plant construction; some principles of organisation. I. D. Campbell. Elec R (Lond) 137:893-5 D 21 '45
Power utilization on a medium sized gasworks. S. Ashworth. Gas J (Lond) 247: 482+ Mr 20 '46
Reduction of noise in the power house. N. T. Pef. Power Pl Eng 50:97-8 Ag '46
Six years at 600 pounds at General Electric; design, cost, and performance data. L. R. Biggs. il diags Power Pl Eng 50:70-7 S '46
Standardized unit substations help solve industrial power problems. L. W. Long. il diags Power 90:583-5 S '46

See also
Boiler plants
College buildings—Power plants
Electric plants
Hydroelectric plants
Piping (power plants)
Steam plants
Water supply for power plants

Accounting
B.T.U. in the paper industry. G. R. Wadleigh. Paper Ind 28:535-7 Jl '46
Interest and depreciation rates; chart; data sheet. B. G. A. Skrotzki. Power 90:131 F '46

Costs
Electric generating plants; discussion of installation costs. J. H. Field. Oil & Gas J 45:106+ Je 22 '46
How to calculate incremental production costs. M. J. Steinberg. Power 90:444-6+ Jl '46

Diesel engine plants
Cutlery company cuts power costs; Western states cutlery co. H. J. Barbour. il Diesel Power 24:448 Ap '46
Dieselizing the big top; power for Ringling circus. W. B. Tyrrell. il Diesel Power 24: 838-41+ Jl '46
Diesels provide low-cost power for cold storage. F. A. Westbrook. il Power Pl Eng 50:97 My '46
Father Knickerbocker looks ahead. il map Diesel Power 24:1070-4, 1330-3+, 1452-5+ S, N-D '46
Large Diesels in Panama Canal plants unique for automatic-starting scheme. J. L. King. il plan diag Power 90:613-16 S '46
Modern Diesel-electric drilling rig equipment. T. R. Rhea. bibliog il diags Elec Eng 65:Trans 447-53 Jl '46
Navy put Diesel plant in underground chamber at two small bases in the Pacific. M. S. Fitzwilliam. plans diags Elec World 125:58-9 Mr 30 '46
Stationary Diesel power plant for the Chicago, Rock Island & Pacific shops. il Ry Mech Eng 119:610-12 D '45
Typical Diesel and gas engine plants installed or on order since April, 1941; tabulation. Power 90:382-3 Je '46

Employees
Call to arms; organizing, training and licensing of power plant engineers. T. W. Benson. Power Pl Eng 50:110+ My '46
Suggested educational courses for steam power-plant operating engineers. J. D. Swenson. il Power 90:183-4 Mr '46
Training new personnel in the power plant. G. L. Radamaker. Power Pl Eng 50:98-9 S '46
Training of practical engineers. F. D. Mosher. Power Pl Eng 49:102-4 O '45; Discussion. 50:108 Ja '46

Equipment
Bucket elevator for coal and ash handling. W. G. Hudson. il diags Power Pl Eng 50: 68-71 F '46

POWER plants—Equipment—*Continued*

Central electric power plant solves pumping problem at Gilbertown, N. Williams. il Oil & Gas J 44:276-8 N 17 '45

Combination drive adapted to unitized drilling power plant. N. Williams. il plan diag Oil & Gas J 45:83-4+ Je 29 '46

Corrosion of plant equipment by steam and water. R. C. Ulmer. il Power Pl Eng 50: 72-5+ O; 90-2 N '46; 51:108-9+ Ja '47

Electrical engineering in 1945. il Engineer 181:55-7, 90-1, 99-101 Ja 18-F 1 '46

Few German practices found in advance of American. H. J. Scholz and C. F. Wagner. il diags Elec World 124:110-13 N 10 '45

Fibrous glass in the power plant. H. R. Hogendobler. il Power Pl Eng 50:88-90+ Jl '46

Helpful bulletins containing answers to many operating and maintenance problems. Published in monthly numbers of Power plant engineering

Inter-communication system for power plants. L. A. Randall. il Power Pl Eng 50:86-8 Ag '46

Measuring and controlling temperature and pressure; special section. E. W. Feller. il diags Power 90:215-46 Ap '46

Modernization of power plant produces high fuel savings; Rossford, Ohio, plant of Libbey-Owens-Ford glass company. W. E. Hopkins. flow diag il Power Pl Eng 49:66-8 O '45

Motor-driven automatic timer matches generator voltage with process cycle; power for anodizing. A. R. Wismer. il diag Power 90:161-3 Mr '46

New bulletins; 478 items covering equipment and supplies used by power engineers. Power 89:918A-918B+ Mid-D '45

1946 directory of manufacturers; buyers' guide of over 400 power products. Power 89:sup199-298 Mid-D '45

Power plant for Esna barrage. il Electrician 136:1173-4 My 3 '46

Power plant services for 3 new G-M assembly plants. F. L. Einberger. diags Power Pl Eng 50:76-8 O '46

Review of power and mechanical equipment. il diags Power 89:877-908 Mid-D '45

Simplicity and controls are keynotes of postwar plant. R. C. Roe. diags Elec World 125:55-7 Ja 5 '46

Steam and blast-furnace air for Fontana. H. H. Hyde. il diags Power Pl Eng 49:74-80 D '45

Typical industrials above 200 psi installed or under construction since September, 1941; tabulation. J. C. McCabe, comp. Power 90: 376-9 Je '46

Typical industrials 200 psi and under built or on order since September, 1941; tabulation. J. C. McCabe, comp. Power 90:380-1 Je '46

Waste heat powers cement plant; Universal atlas cement co. flow diag il Power 90: 393-6 Je '46

What power engineers need to know about rotameters. diags Power Pl Eng 50:96-9 Je '46

What the power engineer needs to know about bins, bunkers, and silos for coal. W. G. Hudson. il diags Power Pl Eng 50:90-1 My '46

What the power engineer needs to know about the continuous-flow conveyor for power plant coal handling. W. G. Hudson. il diags Power Pl Eng 49:95-9 N '45

What the power engineer needs to know about the hydraulic conveyor. W. G. Hudson. il Power Pl Eng 50:74-5 Mr '46

What the power engineer needs to know about the pneumatic conveyor. W. G. Hudson. il diags Power Pl Eng 50:70-2 Ja '46

What the power engineer needs to know about the screw conveyor. W. G. Hudson. il diag Power Pl Eng 50:84-6 Ap '46

See also

Boilers
Coal handling
Condensers (steam)
Electric driving—Power plant auxiliaries
Steam plants—Equipment

Fuel

Boiler fireman's handbook; flexibility in firing equipment; converting from one fuel to another. J. R. Darnell. Power Pl Eng 50: 97-9 Jl '46

Five reasons for the employment of underbunker conveyors. A. V. Stock. il diags Power Pl Eng 50:80-2 Je '46

Practical proposal on fuel forums. C. E. Miller. Power 89:839 D '45

Gas engine plants

Diesel engine users association; visit to Beenham's Heath pumping station. il Engineer 181:585 Je 28 '46

Gas engine and gas producer practice in Australia. W. N. Dunstan. diags Engineer 180:400-1 N 16 '45

Gas engine power for sewage treatment plants. A. J. Burdoin. bibliog fold pl diags Boston Soc C E J 33:29-52 Ja '46; Same. Water & Sewage 84:19-23+ Ag '46

Typical Diesel and gas engine plants installed or on order since April, 1941; tabulation. Power 90:382-3 Je '46

Gas turbine plants

Allis-Chalmers announces operation of gas turbine plant, suitable for both land and marine practice. il Iron Age 157:146 F 28 '46

British gas turbine; installation at Parsons works. il diag Elec R (Lond) 139:173-4 Ag 2 '46

Experimental gas turbines for stationary installations. il diags Electrician 137:233-5 Jl 26 '46

Gas turbines; operation, plant design, performance, etc. L. N. Rowley and B. G. A. Skrotzki. il plans diags Power 90:667-86 O '46

Hot-air turbine power plant. J. Ackeret and C. Keller. il diags Engineering 161:1-4, 12, 25-6, 49-53 Ja 4-18 '46; Abstract. Mech Eng 68:362-3 Ap '46

Use of gas turbines in Sun Oil refineries. A. E. Pew, jr. il diags Nat Pet N 37 pt 2: R635-6+ Ag 1 '45; Same. Mech Eng 67: 594-8 S '45; Discussion. 68:165-6 F '46

Where gas turbines will fit in future power fields; development and application of units built in Switzerland. H. Pfenninger and S. A. Tucker. il diags Power 90:728-31 N '46

Lighting

See also

Electric plants (central stations)—Lighting

Maintenance and repair

Draw up those flange bolts more uniformly. L. H. Carr. il diags Power 90:78-80 F '46

Management

Constant appraisal promotes active plant betterment; Forstmann woolen co. il Power 90:154-6 Mr '46

Engineer's gold mine; value of technical data file. H. E. Brooks. Power Pl Eng 50:100 S '46

Industrial power-plant operation. K. R. Hodges. Mech Eng 68:314-16 Ap '46

Modernization of the small power plant. C. M. Garland. Blast F & Steel Pl 34:494-7 Ap '46

Models

Model serves many purposes; model power plant made of Lucite. il Power 90:688 O '46

Piping

See Piping (power plants)

Safety measures

Safety aspects of power equipment shown by slide films. L. S. Metcalfe. il Power Pl Eng 50:98 Ag '46

Well-chosen alarm and shutdown instruments guard life and equipment. C. S. Beard. il diags Power 90:310-13, 366-7 My-Je '46

What you can do to prevent power plant casualties. R. H. Emerick. il Power Pl Eng 50:88-91 O '46

POWER plants, Floating

Alaskan port has a novel power plant. il Comp Air Mag 51:247 S '46

POWER plants, Floating—*Continued*
Army engineers develop and operate floating power plant. Heat & Ven 42:76 N '45
Belgium gets electricity from floating plant. Blast F & Steel Pl 33:1399-1400 N '45
Floating power. W. N. Oberly. il diag Power Pl Eng 50:66-7+ F '46
Need for floating plants brings WAA 11 bidders. Elec World 126:106 S 14 '46
Seapower; floating power plant; operation and performance overseas. C. W. Cutler. il Power Pl Eng 50:66-9 My '46
There's power in Pearl Harbor; power vessel, Jacona. H. Heinrich. il Elec West 97:57-8 Jl '46

POWER plants, Portable
Dieselizing the big top; power for Ringling circus. W. B. Tyrrell. il Diesel Power 24:838-41+ Jl '46
Diesels to the rescue; railcar mounted substation and auxiliary generating equipment ordered by Russian government. il Diesel Power 24:601 My '46
Mobile navy power plant goes on line as drought cuts Arizona hydro output. il Elec World News ed 126:9 Ag 10 '46
Self-propelled mobile power station; developed by Lang wheels manufacturers, ltd. il Engineer 182:37-8 Jl 12 '46; Elec R (Lond) 139:65 Jl 12 '46; Electrician 137:99-100 Jl 12 '46
Transportable boiler unit; developed by International combustion ltd. il Engineer 182:151 Ag 16 '46; Mech Handling 33:563-4 S '46; Elec R (Lond) 139:298 Ag 23 '46; Electrician 137:381 Ag 9 '46
Transportable power station. il diags Engineer 182:297-9 O 4 '46
250-kw mobile generating plant and workshop. il Engineering 162:66 Jl 19 '46
2500-kw. transportable power station. il Engineer 181:404-6 My 3 '46; Engineering 161:463-5; 468 My 17 '46; Elec R (Lond) 138:701-3 My 3 '46; Electrician 136:1158-61 My 3 '46
Water-tube boiler for transportable power station. il Engineering 162:270 S 20 '46

See also
Boiler plants, Portable
Power plants, Floating

POWER plants, Underground
German underground power plant survives war bombardment. F. K. McQueary and K. S. Oliphant. il plan diags Power 90:466-8 Jl '46
London underground power station. il Engineer 181:111-13 F 1 '46; Abstracts. Engineering 161:92-3 Ja 25 '46; Elec R (Lond) 138:71 Ja 11 '46; Electrician 136:103-4 Ja 11 '46; Comp Air Mag 51:167 Je '46; Eng N 136:927 Je 13 '46
Navy put Diesel plant in underground chamber at two small bases in the Pacific. M. S. Fitzwilliam. plans diags Elec World 125:58-9 Mr 30 '46

POWER pools. See Electric plants—Interconnection

POWER ships. See Power plants, Floating

POWER trains. See Railroads—Power trains

POWER transmission
Drives, vats and screens for board machines. A. A. Lowe. Paper Tr J 122:68+ Je 20 '46
Electric traction engineer's experience with railcars fitted with mechanical transmission; with cost data. K. N. Eckhard. Inst E E J 93 pt 1:70-3 F '46
Engineering of involute splines. G. L. McCain. diags S A E J 54:245-60 My '46; Excerpts. Automotive & Aviation Ind 94:24-7 My 15 '46; Discussion. C. H. Stanard, A. S. Beam and others. il S A E J 54:310-24 Je '46
Engineers' symposium. il diags Machine Design 18:113-20 Ap '46
Friction drive solves problem; machine used for X-ray inspection of artillery shells. F. Rumble. il diag Machine Design 18:116-17 Ap '46
Mechanical power transmission equipment. il Factory Management 104:162+ Ag '46
New equipment. il Iron Age 156:79-82 N 22 '45; 157:65-6 F 21; 65-8 My 23; 158:67-70 Ag 1 '46
Power transmission an important factor in costs and quality of textiles. il Rayon 27:377-9 Jl '46
Power transmission by V-belt drives in textile mills. T. Hall. Textile Inst J 37:P109-16 Je '46
Review of power and mechanical equipment; mechanical transmission, materials handling. il diag Power 89:884-6 Mid-D '45
Substitute for crankshaft cuts vibration, side-thrust. diags Bsns W p62 F 2 '46
33d annual review number; power and transmission units. il diags Am Mach 90:193-6 Ja 17 '46
Unidirectional drive; patent assigned to Westinghouse corp. diag Machine Design 18:166 Mr '46

See also
Automobiles—Transmission
Bearings
Belting
Chain gear
Clutches
Compressed air
Couplings
Electric driving
Electric transmission
Gearing
Hydraulic transmission
Joints, Universal
Machinery
Motor buses—Transmission
Motor trucks—Transmission
Power (mechanics)
Pulleys
Servomechanisms
Shafting
Speed variation
Tanks, Military—Transmission
Torque converters

Tables, calculations, etc.
Chart for efficiencies of worm drives; reference book sheet. J. H. K. Kao. Product Eng 17:155, 157 O '46
Handy belt transmission chart. W. F. Schaphorst. Pet Eng 17:102 Mr '46
Horsepower ratings for silent chain drives. Mach 52:168-71 Mr '46

POWERS, John Robert, 1896-
Cinderella: commercial model; John Robert Powers organization. F. Smith. por Adv & Sell 39:46+ S '46

PRACTICAL jokes
Adams' ribs aren't missing; Sam Adams fabricates metals, plastics and other materials into tricks. E. J. Tangerman. il diags Am Mach 90:106-9 Ag 15 '46
Is horseplay being condoned? W. E. Dillon. il Safety Eng 91:28+ Je '46

PRANDTL number
Method of estimating the Prandtl number of liquids. K. G. Denbigh. Soc Chem Ind J 65:61-3 F '46

PRASEODYMIUM
Rare-earth metal oxides; the direct oxidation of praseodymium and terbium sesquioxides. J. K. Marsh. Chem Soc J p15-17 Ja '46

PRATT and Lambert, inc.
Thumbnail stock appraisal. Mag of Wall St 77:209 N 24 '45

PRATT'S fresh frozen foods, inc.
Stock offered. Comm & Fin Chr 163:1289 Mr 11 '46

PRECIOUS metals
Bombay bullion boom. Economist 150:550 Ap 6 '46
Precious sweep stakes; Irvington smelting and refining works. J Chem Educ 23:287-8 Je '46

PRECIOUS stones
Dictionary of gems and gemology; including ornamental, decorative and curio stones. R. M. Shipley and others. 2d ed 258p $5.50 Gemological institute of America, 541 South Alexandria, Los Angeles 5 '45

See also
Rubies

PRECIPITATION
Contamination of precipitated barium sulfate by univalent cations. G. Walton and G. H. Walden, jr. bibliog Am Chem Soc J 68:1742-50 S '46
Experimental studies on the fractionation of high polymers. D. R. Morey and J. W. Tamblyn. bibliog J Phys Chem 50:12-22 Ja '46
Fractionation of high-polymeric substances. L. H. Cragg and H. Hammerschlag. bibliog(312 references) Chem R 39:79-135 Ag '46

PRECIPITATION—*Continued*
Interactions between interstitial and injected water; a review. A. J. W. Headlee. Oil & Gas J 44:219-20+ N 17 '45
Methods of separation and tests for purity. H. G. Cassidy. bibliog diags J Chem Educ 23:427-33 S '46
Nature of the variable hydration of precipitated barium sulfate. G. Walton and G. H. Walden, jr. bibliog Am Chem Soc J 68:1750-3 S '46
Precipitation and saponification using surface-active agents. E. M. Losee. Can Chem & Process Ind 30:90+ S '46
Pressure and specific precipitation. D. H. Campbell and F. H. Johnson. Am Chem Soc J 68:725 Ap '46
Protective colloid action by cellulose xanthate. P. C. Scherer. Rayon 27:409-14 Ag '46
Sensitivity of precipitation reactions of dilute electrolytes. R. K. McAlpine. J Chem Educ 23:28-34 Ja '46
Structure of cellulosic rayons; solubility and fractionation of secondary cellulose acetate. F. Howlett and A. R. Urquhart. bibliog Textile Inst J 37:T89-112 Ap '46

See also
Cloud point
Electric precipitation

PRECIPITRON. See Electric precipitation

PRECISION casting (Lost wax process). See Lost wax process

PREDISSOCIATION
Predissociations in nitric oxide. P. J. Flory and H. L. Johnston. bibliog J Chem Phys 14:212-13 Mr '46

PREFABRICATED bridges. See Bridges, Prefabricated

PREFABRICATED home manufacturers institute
PHMI provides leadership, coordinates activities of prefabricators. Am Bld 68:85 Je '46

PREFABRICATED houses. See Houses, Prefabricated

PREFERRED numbers
Filter design tables based on preferred numbers. H. Jefferson. diags Wireless Eng 23: 26-8, 197-9 Ja, Jl '46
Guide for the designer in deciding upon product sizes. J. Gaillard. il Ind Stand 16:247-51 N '45
Note on the use of preferred number series in aircraft. H. G. Conway. Roy Aeronautical Soc J 50:416-20 My '46

PREFERRED stocks. See Stocks, Preferred

PREHEATERS. See Air preheaters

PREJUDICE
New trends in the investigation of prejudice. R. Lippitt and M. Radke. bibliog Ann Am Acad 244:167-76 Mr '46

PRE-MAKEREADY. See Printing, Practical—Presswork

PREMIUMS (merchandizing)
Avoid these pitfalls when you give premiums. Ptr Ink 216:44-5 Jl 26 '46
Dealer participation in premium offers. Ptr Ink 215:36-7+ Je 28 '46
Featuring premiums in radio advertising. il Ptr Ink 216:48+ Jl 12 '46
Featuring the premium in printed advertising. il Ptr Ink 216:55-6+ Jl 5 '46
54 merchandising jobs that premiums can perform. il Ptr Ink 215:39-41+ My 24 '46
Five basic considerations guide the choice of premiums; timeliness, sentiment, value, fitness and imagination. il Ptr Ink 215:40-3 My 31 '46
Gallery; Pied Piper of box tops; Duane Jones. J. Lucas. Adv & Sell 39:120+ Ap '46
Make-your-own-hat premium offer on coffee sales swamps I.G.A. H. R. Gerhard. il Sales Management 56:68+ Ap 15 '46
Nylons, no. 1 sales bait, used as premiums, charge account openers, door prizes. il Ptr Ink 213:53+ N 23 '45
Premium users and their offers. il Ptr Ink 215:83-5+ My 10 '46
Premiums can be pre-tested but not for quantity needed. Ptr Ink 213:107-9 D 28 '45
Premiums in plastics. C. A. Breskin. il Sci Am 174:158-60 Ap '46
Premiums that prevent a let-down aftermath; series of premiums to juveniles. S. H. Labow. Ptr Ink 216:85 Ag 16 '46
Pre-testing the premium. Ptr Ink 215:47-8+ Je 7 '46
Return of competitive selling creates big demand for jewelry premiums. Ptr Ink 216: 126 Ag 16 '46
Return to the use of premiums. H. W. Dunk. Adv & Sell 38:60+ N '45
Selecting the premium plan. il Ptr Ink 215: 48+ Je 21 '45
Success with premiums. D. Jones. Adv & Sell 39:98+ F '46
There's a big market in premiums; plastic sales aids. il Mod Plastics 23:93-101 F '46
Three ways to distribute premiums successfully; distribution stations, mail or through dealers. Ptr Ink 216:44-5 Jl 19 '46
12 yardsticks for self-liquidating premiums. D. Jones. Ptr Ink 215:44-5 Je 14 '46

PRESIDENTIAL candidates, 1948
Fortune survey; early favorites for 1948. Fortune 33:6+ Je '46

PRESIDENTS (United States)

Powers and duties
War powers stay. Bsns W p16-17 D 22 '45

PRESS

See also
Newspapers
Periodicals

PRESS parties. See Publicity

PRESS wireless, inc.
Bid by shortwave; Press Wireless asks to deliver network programs to stations. Bsns W p32+ Jl 20 '46

PRESSED metal
Pressed metal exposition. il Steel 118:130+ Mr 4 '46

PRESSED steel car company
Preferred stock taken. Comm & Fin Chr 163: 110 Ja 7 '46
Shares offered. Comm & Fin Chr 163:2012 Ap 15 '46
Thumbnail stock appraisal. Mag of Wall St 77:453 Ja 19 '46

PRESSES
Automatic press holds gears and prevents distortion during quenching. il diags Product Eng 17:94-5 S '46
E. H. Jones unit power press. il Automobile Eng 36:410-11 S '46; Engineer 182:129 Ag 9 '46
Giant Bliss-Toledo rail press built for automotive industry. il Mach 52:200 D '45
High-speed perforating of sheet metal; E. W. Bliss co. press. il Mach 52:186-7 Ap '46; Iron Age 157:56 My 2 '46; Steel 118:109+ Je 17 '46
Hydraulic link protects press. D. A. Rogers. il diag Machine Design 18:118 Ap '46
Making small parts at high speed; Ford motor co. il Steel 117:124-5+ N 12 '45
New equipment. il Iron Age 156:62-4 D 27 '45
New equipment; stamping and forming presses. il Iron Age 157:81-6 My 9; 158:55-8 O 3 '46
Special presses expedite assembly work. il Comp Air Mag 50:329 D '45
Strauss hot press produces dense powder-metal test pieces. il Am Mach 90:156 O 24 '46
33d annual review number. il Am Mach 90: 147-53 Ja 17 '46

See also
Dies
Hydraulic presses
Printing presses

Safety devices
Automatic press feeder prevents accidents. il Iron Age 158:56 O 31 '46
Guard the power press. G. H. Calhoun. Safety Eng 91:28-9 Ja '46
Handling finished pieces at punch presses. il Nat Safety N 54:39-40 Ag '46
Junkin safety guard for power presses. il Mach 53:183 S '46
Pneumatic slide speeds press assembly operations. D. M. Grimm. il diags Am Mach 89: 126-7 D 6 '45

PRESSURE
Autoclave for visual observations of high pressure reactions. W. F. Caldwell. il diags Ind & Eng Chem 38:572-5 Je '46
Composition of vapors from boiling binary solutions; apparatus for determinations under pressure. D. F. Othmer and F. R. Morley. bibliog diags Ind & Eng Chem 38:751-7 Jl '46
Correlating viscosities of gases with temperature and pressure. D. F. Othmer and S. Josefowitz. bibliog Ind & Eng Chem 38: 111-16 Ja '46
Determination of the pressure-viscosity coefficient and molecular weight of lubricating oils by means of the temperature-viscosity equations of Vogel and Eyring. A. Cameron. bibliog Inst Pet J 31:401-14 O '45
Effect of pressure on the melting of crystalline rubber. L. A. Wood and others. bibliog J Chem Phys 13:475-7 N '45; Same. J Res Nat Bur Stand 35:375-80 N '45
Heat of vaporization as a function of pressure and temperature. J. E. Haggenmacher. bibliog Am Chem Soc J 68:1633-4 Ag '46
Heat transfer to liquids boiling under pressure. M. T. Cichelli and C. F. Bonilla. bibliog Am Inst Chem Eng Trans 41:755-87 D '45
Instrument for determining the partial pressure of oxygen in a gas. L. Pauling, R. E. Wood and J. H. Sturdivant. diags Am Chem Soc J 68:795-8 My '46; Abstract. Science 103:338 Mr 15 '46
Internal pressure chart for round steel tubing; reference book sheet. B. Ostlind. Product Eng 16:891 D '45
Pressure dependence of accommodation coefficients; values for ten gases on platinum. I. Amdur. bibliog J Chem Phys 14:339-42 My '46
Pressure-volume relation for cylindrical tubes with elastometric walls; the human aorta. A. L. King. bibliog J Ap Phys 17:501-5 Je '46
Pressure-volume relations of the gaseous methylamines at 0° and reduced pressures. J. C. Arthur with W. A. Felsing. bibliog Am Chem Soc J 68:1883-5 O '46
Pressures against which oils will spread on solids. E. R. Washburn and E. A. Anderson. bibliog J Phys Chem 50:401-6 S '46
Rapid estimation of effect of pressure upon boiling points of organic compounds. C. Bordenca. Ind & Eng Chem Anal ed 18: 99-101 F '46
Recent work in the field of high pressures. P. W. Bridgman. bibliog(674 titles) diags Rs Mod Phys 18:1-93 Ja '46
Viscosity of lubricants under high pressure. M. D. Hersey and R. F. Hopkins. bibliog(48 titles) Mech Eng 67:820-4 D '45; Discussion. 68:576-83 Je '46

See also
Atmospheric pressure
Compressibility
Dalton's law
Earth pressure
Osmotic pressure
Pressure gages
Spectrum—Pressure effects
Strains and stresses
Vapor pressure
Wind pressure

PRESSURE cookers
New fourth zone cooker; Vendo low pressure steam cooker. il Am Gas Assn Mo 28:156-7 Ap '46; Same. Gas Age 97:37+ Ap 4 '46
Popular saucepan. Bsns W p88 Ja 5 '46
Thousands of demonstrations launch Ekco's new pressure cooker. F. Keller. il Sales Management 57:45-6+ N 1 '46

Advertising
Ads to quell fear of pressure cookers. Ptr Ink 215:110 Je 14 '46

Rating
Pressure saucepans. il Consumers Res Bul 17:5-9 Mr; 18:11-13 Ag '46

PRESSURE gages
Autoclave for visual observations of high pressure reactions. W. F. Caldwell. il diags Ind & Eng Chem 38:572-5 Je '46
Check list for steam gauges in textile mill usage. E. W. Fair. Rayon 27:381 Jl '46
Ionization gauge of simple construction. C. M. Fogel. bibliog diag Inst Radio Eng Proc 34: 302-5 My '46
Measuring and controlling temperature and pressure; pressure elements. E. W. Feller. diags Power 90:216-20 Ap '46
New instruments for measuring vacuum and a new titrimeter are now available. R. H. Munch. il Ind & Eng Chem 37:sup91-2 N '45
SR-4 pressure gauge and control. il Chem Ind 57:900 N '45
Selection, installation and maintenance of refinery process control instruments. E. Bainbridge. il Pet Refiner 25:159-60 Ap '46
Sensitive dial-type absolute pressure indicators. R. H. Munch. diag Ind & Eng Chem 38:sup75-6 Jl '46
Use of the slope gauge in meter shop practice. F. L. Morgan. Gas Age 98:35+ S 19 '46

See also
Manometers
Vacuum gages

Testing
Device for calibrating pressure gages simultaneously saves time and energy. diag Pet Processing 1:98-9 O '46
Manifolded gage tester permits quicker, more accurate check of pressure gages. il diags Nat Pet N 38 pt 2:R418+ Je 5 '46

PRESSURE measurement
Analysis of pressure losses in lubricant and fuel pumps. B. R. Walsh. diags Product Eng 17:126-8 N '46
Determination of pressures within a siphon spillway. I. M. Nelidov. Am Soc C E Proc 71:297-306 Mr '45; Discussion. il diags 71: 1537-44; 72:557-8 D '45, Ap '46
Developments in hydrographical apparatus. il diags Engineering 162:313 O 4 '46
Dynamic pressure transmitter calibrator. R. D. Meyer. il diag R Sci Instr 17:199 My '46
Effect of exit-slot position and opening on the available cooling pressure for N.A.C.A. nose-slot cowlings. G. W. Stickle and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:163-74 '41
Electromagnetic pressure recorder. H. H. Baxter. il diags Electrician 135:691-3 D 21 '45
Gasoline explosion pressures. M. S. Plesset and F. R. Gilmore. bibliog diag A S M E Trans 68:89-97 F '46
Graphical method of determining pressure distribution in two-dimensional flow. R. T. Jones and D. Cohen. bibliog diags U S Nat Advisory Com for Aeronautics 1941:313-19 '42
Hagan totalizer; used to add or subtract loading pressures received from external sources. il Blast F & Steel Pl 33:1560 D '45
Heat transfer and pressure drop of liquids in double-pipe fin-tube exchangers. B. De Lorenzo and E. D. Anderson. bibliog il diags A S M E Trans 67:697-702 N '45
How fury of Bikini blasts will be measured. Machine Design 18:104 Jl '46
Instrument reveals oil circuit breaker tank pressures. A. R. Miller. diag Elec World 125:90 Ja 5 '46
Measuring and controlling temperature and pressure; special section. E. W. Feller. il diags Power 90:215-46 Ap '46
Pressure available for cooling with cowling flaps. G. W. Stickle and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:283-93 '42
Pressure distribution over an NACA 23021 airfoil with a slotted and a split flap. T. A. Harris and J. G. Lowry. bibliog diags U S Nat Advisory Com for Aeronautics 1941:241-66 '42
Pressure indicator traces operating conditions of machinery on tube screen. Sci Am 175:132 S '46
Pressure sensing unit developed from strain gage. Electronics 18:252+ D '45
Pressure-time curves in electronic observation of engines. W. F. Brown. il diags Electronics 19:168+ F '46
Pressuregraph for electric pressure testing. Aeronautical Eng R 5:87 Jl '46
Recent work in the field of high pressures. P. W. Bridgman. bibliog Rs Mod Phys 18:6-8 Ja '46
Shock wave pressures in water produced by impact of small spheres. J. H. McMillen. bibliog il diags Phys R 68:198-209 N 1 '45

PRESSURE measurement—*Continued*
Sound-pressure measurement standard. F. Massa. il diags Electronics 19:218+ My '46
Sylvania gas pressure measuring tube. il Iron Age 157:52 Mr 21 '46
Tool for gaging pressure exerted by brushes on commutators of motors. A. M. Thomas. il Mach 53:180 S '46

See also
Manometers
Pressure gages

PRESSURE regulation
Absorber pressure increase of 200 lb. reduces repressuring horsepower 37%. H. N. Wade. diag Oil & Gas J 44:120+ Ap 20 '46; Same. Pet Eng (Ref annual) 17:235+ Jl 1 '46
Design of mechanical auxiliaries for TVA hydroelectric plants. H. J. Petersen. il Power Pl Eng 50:134 S '46
Flow failure control in piping circuits. M. A. Ramsey. il diags Heating-Piping 18:78-81 Ag '46

PRESSURE regulators
Aids accurate metering of volatile liquids; patent. diags Pet Processing 1:124 O '46
Automatic control for the glass industry. H. Ziebolz. diags Cer Ind 45:70+ D '45
Automatic control of furnace temperature and pressure. il diags Engineer 182:321-2 O 11 '46
Combatting the noise problem in gas pressure regulators. W. A. La Violette. il plan Gas Age 98:101-4+ O 3 '46
Di- and triethylene glycols as manostat fluids. W. J. Runckel and D. M. Oldroyd. Ind & Eng Chem Anal ed 18:80-1 Ja '46
Gas welding regulator upkeep. il diags Aero Digest 52:82-3 F '46
Hagan totalizer; used to add or subtract loading pressures received from external sources. il Blast F & Steel Pl 33:1560 D '45
Hot water bath prevents hydrate formation at pressure controls. il Pet Refiner 25:142+ Ja '46
Measuring and controlling temperature and pressure; special section. E. W. Feller. il diags Power 90:215-46 Ap '46
Mercury-balance pressure regulator. A. J. Bailey. bibliog diags Ind & Eng Chem Anal ed 15:283-4 Ap 15 '43; Same. Pet Refiner 25:127-8 Mr '46
Selection and application of refinery instruments. A. Krieg. diags Pet Eng 17:120+ Ja '46
Selection and application of refinery instruments; diaphragm control valves. A. Krieg. diags Pet Eng 17:108+ My '46
Theory and operation of a Cartesian diver type of manostat. R. Gilmont. diags Ind & Eng Chem Anal ed 18:633-6 O '46
Valves, piping and design data for control of hydraulic systems. V. M. Weltzien. il diags Product Eng 17:86-9 O '46
Variable pressure manostat. H. B. Donahoe, R. R. Russell and C. A. VanderWerf. diag Ind & Eng Chem Anal ed 18:156 F '46
Wartime distribution developments at Perth. N. Baird. il map diags Gas J (Lond) 248:602+ O 9 '46

See also
Gas governors
Valves, Hydraulic

PRESSURE vessels
Bolting for pipe flanges and pressure vessels. S. Crocker. il Power Pl Eng 50:75-8+ My '46
Pressure vessel research committee to employ full-time secretary. Mech Eng 68:279 Mr '46
Report on investigations by fuels and lubricants teams at the I. G. Farbenindustrie, A. G., works, Ludwigshafen and Oppau; Wickel and other pressure vessels. R. Holroyd, ed. 5pls U S Bur Mines Information Circ 7375:60-6 '46

See also
Air compressors
Ammonia compressors
Boilers
Caissons
Dust collectors
Evaporators
Gas holders
Rendering tanks

Design
Note on design stresses in class I welded pressure vessels. S. F. Dorey. Inst Mech Eng J & Proc 154:32-3 Je '46; Same. Engineer 178:489-90 D 22 '44; Discussion. Inst Mech Eng J & Proc 154:33-51, pl 1-2 Je '46
Simplified methods for calculating stresses in pressure vessels. C. F. Boe. Chem & Met Eng 53:114-16 Mr '46; Discussion. 53:182+ Jl '46
Some considerations in the design of class I pressure vessels. E. J. Heeley. il diags Pet Refiner 24:141-50 N '45; Same. Inst Mech Eng J & Proc 154:22-31 Je '46; Same cond. Engineer 178:490-1, 508-9 D 22-29 '44; Discussion. Inst Mech Eng J & Proc 154:33-51, pl 1-2 Je '46

Failures
Chemical process vessel explosion causes $50,000. damage. Locomotive 46:68+ Jl '46
Cracks in dished heads. il Locomotive 46:48-9 Ap '46
Failures of miscellaneous pressure vessels. il Locomotive 46:10-13 Ja '46
Fundamental causes of failures of boilers and pressure vessels. W. D. Halsey. il Locomotive 46:69-79 Jl '46

Manufacture
Fabrication of welded steel pressure vessels; abstract. O. R. Carpenter. Materials & Methods 23:1382+ My '46
Hot-spinning heavy tank heads. C. H. Wick. il diags Mach 53:141-7+ S '46
Pressure vessels made with welded nickel alloy linings. T. H. Menaugh. il diags Materials & Methods 23:1289-92 My '46
Some results of advances in welding and radiography on the welding of pressure vessels. O. R. Carpenter. il diag Welding J 25:531-42 Je '46
Welded pressure vessels in the oil industry. J. C. Holmberg. il Welding J 25:329-32 Ap '46
Welding multi-layer steel pressure vessels; A. O. Smith corp.; illustrations with text. Materials & Methods 23:1578-82 Je '46
Welding of nickel-alloy steels. T. N. Armstrong. bibliog Iron Age 157:71-4 F 7 '46

Repair
Arc welding permits field repairs on corroded pressure vessel. F. G. Clark. il Nat Pet N 37 pt 2:R995-6 D 5 '45

Safety measures
Avoid false security by careful selection and testing of safety valves. W. E. Rossnagel. diags Power 90:591-3 S '46

Testing
Vigilant inspection keeps unfired pressure vessels safe. W. E. Rossnagel. diags Power 90:453-5 Jl '46

PRESTRESSED concrete. See Concrete—Prestressing

PRESUMPTION of survivorship. See Survivorship, Presumption of

PREVENTOL GD. See Dihydroxydichlorodiphenyl methane

PREVOST reagent
Cashew nut shell liquid; an application of the Prevost reagent to alkenyl phenols. M. Sletzinger and C. R. Dawson. Am Chem Soc J 68:345 F '46

PRICE, Byron, 1891-
Portrait. Bsns W p24 D 15 '45

PRICE, Charles Coale, 1913-
ACS award in pure chemistry. por Chem & Eng N 24:2458 S 25 '46

PRICE, Gwilym Alexander, 1895-
Portrait. Bsns W p29 F 9 '46
Sketch. por Mag of Wall St 78:645 Ag 31 '46
Westinghouse's 50-year-old chief. por(cover) Bsns W p8 Mr 16 '46

PRICE, H. C., company
Price organization has worked on 16,000 miles of pipe line in 25 years of existence. N. Williams. Oil & Gas J 45:261+ S 21 '46

PRICE, Julian, 1867-1946
Sketch. por East Underw 47:12 N 1 '46; Nat Underw (Life ed) 50:4+ N 1 '46

PRICE cutting
Combination offers. il Ptr Ink 215:42-3 My 3 '46
No ceiling, no floor. Fortune 34:136+ Ag '46
Special offers to introduce new products; from price reduction to trial packages. il Ptr Ink 215:40-1 Ap 26 '46
Truck tire price cuts may be augury for other industries when supply tops demand. Barron's 26:1 Je 3 '46
See also
Special sales—One-cent sales

PRICE discrimination
F.T.C. cosmetic order. Adv & Sell 38:62 D '45
See also
Department stores—Manufacturers' demonstrations
Retail trade—Manufacturers' demonstrations

Patman law
Competitive discrimination; Elizabeth Arden decision. Adv & Sell 39:104 F '46
Demands horse sense in price competition; in Standard Oil dissent accuses FTC of tinkering with Robinson-Patman act. L. B. Mason. Ptr Ink 216:40-2 Ag 16 '46
FTC adopts own attorney's ideas in Indiana Standard case; modified order draws dissent from L. E. Mason. Nat Pet N 38:11-16 Ag 14 '46
FTC files motion to change order in Indiana Standard Detroit area case. Nat Pet N 38: 3-4 Ja 30; 12+ F 6; 3-4 F 27; 11 Mr 6 '46
FTC takes Detroit case under advisement. Nat Pet N 38:5-6 My 1 '46
FTC's Detroit decision; text of letter by National council of independent petroleum association. Nat Pet N 38:12+ Ja 23 '46
Next move may be up to refiners if court upholds order of FTC. D. Klepper. Nat Pet N 37:14 N 28 '45
Test campaigns and the law. Ptr Ink 216:96 S 6 '46

PRICE fixing
Freight-equalization systems condemned by Appellate court. Oil Paint & Drug Rep 149:7 Ja 21 '46
Lead pigment industry sales practices defended. Oil Paint & Drug Rep 149:5+ Je 3 '46
Union indicted; West coast C.I.O. fishermen charged with coercing dealers. Bsns W p46 S 14 '46

PRICE fixing, Resale
Costly victory; wholesale druggists fined $87,000 on no-contest pleas. Bsns W p92+ Ja 12 '46
Fair trade blast; FTC's condemnation of resale price maintenance. Bsns W p81-2 D 29 '45
Fair trade row of druggists. Bsns W p86+ D 22 '45
Fair trade seen balking consumer panic, bulwark against erratic merchandising. il Ptr Ink 216:96+ Jl 12 '46
Shall we place our products under fair trade contracts? reports from Corning Glass, Tailor-town dresses, Sacony fashions, and Beauty-Rest mattresses. Sales Management 57:116+ S 15 '46

PRICE marks
Price tickets, who should put them on? il Mod Packaging 19:89-91 N '45
Shall we display and advertise price? public says yes! Sales Management 56:46+ F 15 '46
See also
Marking devices

PRICE policies
Advises manufacturers on prices; letter to members of NAM. I. Mosher. Comm & Fin Chr 164:70 Jl 4 '46
Basing-point price use upheld in FTC cement case. Oil Paint & Drug Rep 150:3+ S 30 '46
Basing-point systems curb competition in business. E. L. Davis. Dom Comm 34:3-7 Jl '46
Basing points survive; Chicago federal court upholds portland makers' basing-point system. Bsns W p15-16 S 28 '46
Circuit court upholds basing point pricing in cement industry case. W. M. Rooney. Steel 119:33-4+ S 30 '46
Determination of rates of mark-off. W. H. Meserole. Dom Comm 34:22-3 F '46
Determining selling prices for industrial products. C. O. Wellington. Steel 119:114-16+ S 9 '46
Figure the odds before cutting your printing prices. A. C. Kiechlin. Inland Ptr 116:77-8 D '45-Ja '46
For value received; pricing policies in electric shops. K. Hampton. il Elec West 97:99-101 S '46
It's easier to sell people what they want, and where and how they want it. R. D. Crisp. Ptr Ink 215:37 Je 7 '46
Just what is the Clayton formula? pricing surplus machine tools. Mach 52:174-5 F '46
Markup variations by price lines. E. O. Schaller. J Retailing 22:60-1 Ap '46
Postwar pricing and cost accounting. H. E. Howell. N A C A Bul 27:215-32 N 15 '45
Problems involved in pricing postwar products. A. E. Grover. N A C A Bul 27:483-94 F 1 '46
Product-pricing formula; Price control extension act of 1946 and supplementary order. J Account 82:348-55 O '46
Sales strategy that opened a rich new market for Rit. P. H. Schatz. il Sales Management 57:37-41 Ag 1 '46
Shall we display and advertise price? public says yes! Sales Management 56:46+ F 15 '46
What do you know about retail pricing? J Retailing 21:116, 121-2 O '45
See also
Discount, Cash
Discount, Trade
Price discrimination
Price fixing, Resale
Sales policies—Free goods
Special sales—One-cent sales

PRICE tags. See Price marks

PRICES
Cost-price-profit relationships. Survey of Cur Bsns 26:5+ Ja '46
Disharmonies between costs and prices. W. E. Spahr. Comm & Fin Chr 163:1225+ Mr 7 '46
Labor's policy; watch prices. Bsns W p15-16 Jl 20 '46
Price trouble ahead; everyday consumer needs are headed for period of price competition. J. H. Rehm. Adv & Sell 38:41+ D '45
Profit margin in cost-price squeeze. B. Ravits. Mag of Wall St 78:740-1+ S 28 '46
Weighing world price trends. V. L. Horoth. il Mag of Wall St 78:450-1+ Jl 20 '46
Will pattern of 27 years ago repeat? W. J. Campbell. Steel 119:79-80 O 7 '46
See also
Cost of living
Electric rates
Gas rates
Index numbers (economics)
Inflation (finance)
Money
Motor trucks in freight service—Rates
Price fixing
Printing trade—Rates
Railroads—Rates
Special sales—One-cent sales
Stocks—Price indexes and averages
Wages
also subdivision Prices under various subjects, e.g.
Chemicals
Farm produce
Stocks
Wine

Economic aspects
Are we facing a permanently higher price level? H. B. Dorsey. Comm & Fin Chr 164: 1777+ O 10 '46
Current price developments. Fed Res Bul 32: 833-43 Ag '46
Free price system indispensable to full production; NAM monograph; abstract. Comm & Fin 164:1309+ S 5 '46
Productivity, prices, and a sound wage level; economic equilibrium must be based on a proper correlation. J. D. Gill and B. A. Stainton Min & Met 27:463-5 S '46
Wages and prices; effects of wars on the economy. A. W. Gray. Credit & Fin Management 59:20-4 S '46

Forecasting
Industry looks for price increases averaging 17.1%. Steel 118:sup10-11 Ja 7 '46
Postwar price structure. S. M. Livingston. Survey of Cur Bsns 25:12-22 N '45; Same. Comm & Fin Chr 162:3132+ D 27 '45

PRICES—Forecasting—*Continued*
Sees lower price rise than in 20's. C. A. R. Wardwell. Comm & Fin Chr 162:2713 D 6 '45

Regulation

Actual consumers take over subsidy burden as commodity prices rise. Barron's 26:11 Jl 8 '46
Are price controls necessary for the unprotected? F. A. Harper. Comm & Fin Chr 163:1631+ Mr 28 '46
Backing for OPA; supporting legislation in 80 cities and 4 states. Bsns W p78 Mr 16 '46
Believes removal of price control would precipitate danger of runaway inflation. V. D. Reed. Comm & Fin Chr 164:399 Jl 18 '46
Break in OPA roof is made; selectively. Bsns W p100 Ap 13 '46
Bricks without straw. H. L. Lutz. Comm & Fin Chr 163:1493+ Mr 21 '46
Britain views OPA veto. P. Einzig. Comm & Fin Chr 164:197+ Jl 11 '46
Business man looks at the national economy. R. R. Wason. Comm & Fin Chr 164:608+ Ag 1 '46
Ceiling on corporate profits; effects of OPA formula basing profits on net worth. H. F. Travis. Mag of Wall St 78:14-15+ Ap 13 '46
Charts price control and fiscal policy in quarterly report to President and Congress; At the crossroads; abstract. J. R. Steelman. Comm & Fin Chr 164:338+ Jl 18 '46
Checkup on 580 by OPA. Bsns W p74-5 Je 15 '46
Collective bargaining under price control. V. H. Rothschild, 2d. Comm & Fin Chr 163:1343+ Mr 14 '46
Common sense of the people proof against price control. W. K. Jackson. Comm & Fin Chr 164:346+ Jl 18 '46
CIO views price rises. Comm & Fin Chr 164:882+ Ag 15 '46
CIO's position on price control; statement before Price decontrol board. P. Murray. Comm & Fin Chr 164:1010+ Ag 22 '46
Controls cripple production. R. A. Seidel. Comm & Fin Chr 163:2073+ Ap 18 '46
Controls eyed; administration surveys its powers to halt runaway price boom. Bsns W p17-18 Jl 13 '46
Cost absorption in textile industry. S. B. Sells. Comm & Fin Chr 163:1784+ Ap 4 '46
Cost accounting in price determination. M. L. Black, jr. and H. B. Eversole. J Account 82:367-72 N '46
Crisis in the stabilization policy. C. Bowles. Comm & Fin Chr 163:1349+ Mr 14 '46
Decisions of the Decontrol Board; radio address. R. L. Thompson. Comm & Fin Chr 164:1133+ Ag 29 '46
Decontrol board reports; with text of decision restoring control over meats, fats and oils. Comm & Fin Chr 164:1011+ Ag 22 '46
Decontrol board's decision; radio address. R. J. Watt. Comm & Fin Chr 164:1141 Ag 29 '46
Disaster without price control. H. A. Wallace. Comm & Fin Chr 163:3349 Je 20 '46
Discussion of OPA; profits not guaranteed in new law. J. Count. Credit & Fin Management 48:7-9 S '46
Dubious of new OPA act; message to Congress. H. S. Truman. Comm & Fin Chr 164:609+ Ag 1 '46
Economy in war and transition; prices and control of inflation. Survey of Cur Bsns 26:26-8 F '46
Effect of the new wage-price policy on the electrical manufacturing industry. Elec World News ed 125:12-13 Mr 23 '46
Effectiveness of price control in the dairy industry. G. Hadary. J Bsns 19:76-81 Ap '46
Efficacy of price control. T. H. McKittrick. Comm & Fin Chr 164:1539+ S 29 '46
End of price control. Economist 151:53 Jl 13 '46; Iron Age 158:104+ Jl 25 '46
European experiences with price control. L. von Mises. Comm & Fin Chr 162:3001+ D 20 '45
Executive order on prices and wages. H. S. Truman. Steel 118:57+ F 25 '46
Extension of the emergency Price control act of 1942; Eccles statement before the Banking and currency committee of the Senate on May 8, 1946. Fed Res Bul 32:573 Je '46
Fact-facing; OPA relaxes producer controls. Bsns W p17-18 Mr 16 '46
Fear campaign to perpetuate controls. B. B. Hickenlooper. Comm & Fin Chr 163:3344+ Je 20 '46
Fixed price utilities and rails may be hit by cost increases with end of OPA. Barron's 26:1 Jl 8 '46
Fortune survey; price control. Fortune 33:8+ Je '46
Free markets in a free society. O. H. Lamborn. Comm & Fin Chr 163:2557+ My 9 '46
General business conditions; new price control bill. Nat City Bank p85-9 Ag '46; Excerpt. Comm & Fin Chr 164:755+ Ag 8 '46
General business conditions; operation of new Price control extension act. Nat City Bank p97-100 S '46; Same. Comm & Fin Chr 164:1268+ S 5 '46
General maximum price regulation. U S Bur Labor Statistics Bul 879:1-57; pa 15c Supt. of doc. '46
Government propaganda on price control. R. Robey. Comm & Fin Chr 163:2914+ My 30 '46
Grocery manufacturers' chief scares Decontrol board. P. S. Willis. Comm & Fin Chr 164:1141+ Ag 29 '46
Help for retailers; OPA relaxes policy of cost absorption. Bsns W p81 F 2 '46
Hold line during transition. Steel 117:75-6 D 17 '45
Hold OPA responsible for steady flow of many scarce commodities to foreign lands. Comm & Fin Chr 163:3206+ Je 13 '46
Horrible examples; retailers demonstrate inequities of OPA's policies. Bsns W p84+ N 17 '45
House group approves amended OPA extension. Comm & Fin Chr 163:2135 Ap 18 '46
How long government controls? H. Hazlitt. Comm & Fin Chr 164:2070+ O 24 '46
How to end price control. P. G. Hoffman. Sales Management 56:87 My 1 '46
I am not afraid of the future; radio broadcast. C. Bowles. Comm & Fin Chr 164:70+ Jl 4 '46
Industrial profits in a Bowles market. J. L. Beals. Barron's 26:3+ Mr 18 '46
Inflation control or price control? E. P. Schmidt. Comm & Fin Chr 163:2224+ Ap 25 '46
Inflation? housewives will bust it! A. H. Hood; Housewives are helpless! E. Roosevelt. Sales Management 56:89 My 1 '46
Inflation under price controls. A. H. Temple. Comm & Fin Chr 163:1631+ Mr 28 '46
Labor's wage policy in our transitional controlled price economy. S. Barkin. Advanced Management 11:17-20 Mr '46
Let free enterprise prove its worth. A. Wiley. Comm & Fin Chr 164:347+ Jl 18 '46
Let's stop inflation now; OPA a failure. R. R. Wason. Comm & Fin Chr 164:755+ Ag 8 '46
Modification of wage-price policy during transition period. Mo Labor R 62:397-8 Mr '46
Modified wage-price policy; statement by the President and text of executive order. Comm & Fin Chr 163:1005+ F 21 '46
More statistical miasma in statement of Commerce department showing rise in prices during inactivity of OPA. A. M. Sakolski. Comm & Fin Chr 164:607+ Ag 1 '46
New postwar price policy for machinery. Iron Age 156:111-12 D 6 '45
New price policy hits profits; wage-price policy. Bsns W p15-17 F 23 '46
New wage-price policy; comments on President Truman's address. J. Backman. Trusts & Estates 81.345-7 N '45
New wage-price policy will help material flow; questions and answers on regulations. Iron Age 157:112-14 Mr 14; 114+ Mr 21 '46
OPA actions under new law; statement of policy. P. A. Porter. Comm & Fin Chr 164:610+ Ag 1 '46
OPA balks at price increases. S. E. Cohen. Ind Marketing 31:29+ F '46

PRICES—Regulation—*Continued*
OPA buffer; West Coast firm acts as service bureau. Bsns W p34+ Ag 24 '46
OPA must be strengthened! J. B. Carey. Comm & Fin Chr 163:2355+ My 2 '46
OPA program dangerous. L. P. Ayres. Comm & Fin Chr 163:1685+ Mr 28 '46
OPA program realistic. P. Porter. Comm & Fin Chr 163:1933+ Ap 11 '46
OPA sets regulation for price rises. Iron Age 157:97-8 F 28 '46
OPA speeds decontrol of industrial products. S. E. Cohen. Ind Marketing 31:42+ S '46
OPA statement on prices and control of imported commodities. For Comm W 25:26 O 5 '46
OPA veto; causes of the wage-price spiral. Nat City Bank p73-5 Jl '46
OPA will hold the line. P. A. Porter. Comm & Fin Chr 163:1087+ F 28 '46
OPA's control policy. G. Baker. Comm & Fin Chr 163:2224+ Ap 25 '46
Plea for continued price control. C. Bowles. Comm & Fin Chr 163:1783+ Ap 4 '46
Policies of the Price decontrol board. R. L. Thompson. Comm & Fin Chr 164:1645+ O 3 '46
Policy defined; Bowles outlines procedure for seeking price relief and wage-increase approval. Bsns W p97-8+ Mr 16 '46
Policy takes shape; amplifying new wage-price program. Bsns W p17 Mr 2 '46
Political and economic aspects of new OPA and its effects upon business. W. Gates. Mag of Wall St 78:616-18+ Ag 31 '46
Post-war economic policy; statement before House banking and currency committee. B. M. Baruch. Comm & Fin Chr 163:1633+ Mr 28 '46
Pre-approval of wage increases is still required for pricing purposes. Steel 118:90-1 Je 17 '46
President's wage-price executive order; text. Factory Management 104:222+ Ap '46
Pressure for price decontrols. C. Bowles. Comm & Fin Chr 162:2881+ D 13 '45
Price administration and the postwar fact finder; basic information about price control useful to accountants. C. V. Burns. J Account 81:372-6 My '46
Price chaos cuts production. Bsns W p21-2 Ag 17 '46
Price control and control of inflation. E. M. H. Lloyd. R Econ Stat 27:149-55 N '45
Price control and inflation; statement before Senate Banking and currency committee. F. M. Vinson. Comm & Fin Chr 163:2508+ My 9 '46
Price control and rationing in foreign countries during the war. F. M. Williams and others. Mo Labor R 61:882-99 N '45
Price control and reconversion; statement before House Banking and currency committee and Detroit address. J. W. Snyder. Comm & Fin Chr 163:1085+ F 28 '46
Price control bill is in for a tough time. Bsns W p18 Ap 13 '46
Price-control exemptions are set forth by OPA. Oil Paint & Drug Rep 150:5+ Ag 19 '46
Price control extension act of 1946. Survey of Cur Bsns 26:6-8 Ag '46
Price control in reconversion period. R. A. Taft. Comm & Fin Chr 162:2877+ D 13 '45
Price control; new administrative procedures. P. A. Porter. Comm & Fin Chr 163:2508+ My 9 '46
Price control prolongs inflation. H. Hazlitt. Adv & Sell 39:100 My '46
Price control successful; statement before House banking and currency committee. F. M. Vinson. Comm & Fin Chr 163:1838+ Ap 4 '46
Price control ties down the safety valve; Guaranty trust company of New York. Comm & Fin Chr 163:1796 Ap 4 '46
Price control winning out. Bsns W p15-17 Ja 19 '46
Price controls should continue. H. J. Kaiser. Comm & Fin Chr 163:1216+ Mr 7 '46
Price controls to combat inflation; statement before House Banking and currency committee. C. Bowles. Comm & Fin Chr 163: 957+ F 21 '46
Price inflation, a symptom of "give me." R. E. Hannegan. Comm & Fin Chr 163:3343+ Je 20 '46
Price maladjustments due to retention of wartime controls. R. F. Bryan. Comm & Fin Chr 164:1544+ S 26 '46
Price trends and price control in foreign countries since VE-day. Mo Labor R 62: 777-90 My '46
Prices and rents in months ahead. C. Bowles. Comm & Fin Chr 163:2785+ My 23 '46
Prices to be kept to legal minimum; radio address. P. A. Porter. Comm & Fin Chr 164:748+ Ag 8 '46
Product-pricing formula; Price control extension act of 1946 and supplementary order. J Account 82:348-55 O '46
Production or unrealistic controls? R. A. Seidel. Comm & Fin Chr 163:1631+ Mr 28 '46
Progress of hold-the-line order; government war control administrators report to president. C. Bowles and others. Comm & Fin Chr 163:1927+ Ap 11 '46
Prosperity in handcuffs; radio address. K. S. Wherry. Comm & Fin Chr 163:3347+ Je 20 '46
Quick action, no red tape, to govern OPA price adjustments. P. A. Porter. Comm & Fin Chr 164:882+ Ag 15 '46
Reasons for OPA price increases; radio address. P. A. Porter. Comm & Fin Chr 164: 1011+ Ag 22 '46
Relation of price and wage control; statement by chairman of the National wage stabilization board. Mo Labor R 63:104-5 Jl '46
Reluctantly recommends continuation of OPA; House special committee on postwar economic policy and planning. Comm & Fin Chr 163:1349+ Mr 14 '46
Removal of price control. Z. L. Potter. Comm & Fin Chr 163:1087+ F 28 '46
Reproves Decontrol board. P. Murray. Comm & Fin Chr 164:1141 Ag 29 '46
Research staff of CED proposes extension of price controls to 1947. Iron Age 157:160+ Mr 7 '46
Retailer and OPA. B. H. Namm. Comm & Fin Chr 163:3063+ Je 6 '46
Retailers walk a tight rope. il Bsns W p17-18 My 4 '46
Retaining price control the best choice; statement before the Senate Banking and currency committee. C. Bowles. Comm & Fin Chr 163:2073+ Ap 18 '46
Senate committee approves OPA extension bill. Comm & Fin Chr 163:3263 Je 13 '46
Speeded-up and simplified price control plan. R. E. Flanders. Comm & Fin Chr 163:1216+ Mr 7 '46
Stabilization office issues regulations on wage-price policy. Comm & Fin Chr 162:2881+ D 13 '45
Statements on wage-price policy; with text of supplementary wage salary regulations. C. Bowles. Comm & Fin Chr 163:1397+ Mr 14 '46
Text of new OPA bill. Comm & Fin Chr 164: 609+ Ag 1 '46
Truman vetoes OPA extension bill; Senator Taft defends vetoed OPA bill. Comm & Fin Chr 164:69+ Jl 4 '46
U.S. gets C.I.O.'s demands. Bsns W p17 Ag 24 '46
Upholds OPA cost absorption principle. J. C. Collet. Comm & Fin Chr 162:2715+ D 6 '45
Vegetable oils price controls suspended. Oil Paint & Drug Rep 150:5+ O 21 '46
Wage-price formula, will it work? W. Gates. il Mag of Wall St 77:686-8+ Mr 16 '46
Wage-price policy. Survey of Cur Bsns 26:4-6 Mr '46
Wages and prices. H. Hazlitt. Comm & Fin Chr 163:2070+ Ap 18 '46
Wartime price control in peacetime. Trusts & Estates 82:139-40 F '46
Wartime prices, price control, and rationing in foreign countries; reprinted from Monthly Labor Review, Oct. and Nov. 1945, with additional data. U S Bur Labor Statistics Bul 851:1-36; pa 10c Supt. of doc. '45
What price price-control? Factory Management 104:82-9 My '46
What price price control? Fortune 33:100-1+ My '46
What price, unrealistic price control? R. A. Seidel. Comm & Fin Chr 163:121+ Ja 10 '46

PRICES—Regulation—*Continued*
Will higher prices bring a crash? comparisons with 1920. E. Whitmore. il Am Bsns 16:8-9+ Mr '46
World competition for raw materials forces U.S. to raise price ceilings. Barron's 26:5 Je 10 '46
See also
United States—Price administration, Office of

Canada
Controls eased. Bsns W p88-9 F 9 '46
Recent changes in Canada's price controls. For Comm W 23:3-4+ Je 15 '46

Netherlands
Price policies during German occupation. G. Brouwers. Ann Am Acad 245:39-47 My '46

Statistics
Commodity price trends abroad. Nat City Bank p80-3 Jl '46
Economy in war and transition; prices and control of inflation. Survey of Cur Bsns 26: 26-8 F '46
Index of consumers' prices in large cities, October 1945. Mo Labor R 61:1222-5 D '45 [cont monthly]
NAM criticizes data on price rises during OPA suspension. Comm & Fin Chr 164: 1010+ Ag 22 '46
Price trends and price control in foreign countries since VE-day. Mo Labor R 62: 777-90 My '46
Prices in the third quarter of 1945. Mo Labor R 61:1204-19 D '45
Prices in fourth quarter and year 1945. Mo Labor R 62:357-73 Mr '46
Prices in the first quarter of 1946. Mo Labor R 62:947-62 Je '46
Prices in the second quarter of 1946. Mo Labor R 63:409-23 S '46
Prices; war and postwar record; graph. Bsns W p21 S 28 '46
Recent changes in the price structure; comparing two wars. Survey of Cur Bsns 26:8 Ag '46
Recent price changes. Survey of Cur Bsns 26:5-9 Je '46
See also
Cost of living—Statistics
Demand curve
Prices, Wholesale—Statistics
Stocks—Price indexes and averages

Brazil
Brazil attacks price spiral. Bsns W p101-2 Ag 10 '46

Germany
American price control in Germany. H. Bratter. il Banking 39:42-4 N '46

Latin America
Latin-American price trends. S. P. Bernstein. For Comm W 24:9 Jl 27 '46 [cont monthly]

United States
Coming recession; an economists' consensus. Management R 35:404-5 O '46
Commerce department reports price spurt of 25% since OPA ceased functioning. Comm & Fin Chr 164:491 Jl 25 '46
Commodity prices and inflation in the year ahead. A. W. Zelomek. Comm & Fin Chr 163:2911+ My 30 '46
Current price developments. Fed Res Bul 32:833-43 Ag '46
Factors in changing price levels. F. C. Rathje. Comm & Fin Chr 164:198+ Jl 11 '46
How high are prices? E. W. Axe. Comm & Fin Chr 164:2202+ O 31 '46
Index of consumers' prices in large cities, October 1945. Mo Labor R 61:1222-5 D '45 [cont monthly]
Interest rates and commodity prices. Trusts & Estates 82:307 Mr '46
Postwar price structure. S. M. Livingston. Survey of Cur Bsns 25:12-22 N '45; Same. Comm & Fin Chr 162:3132+ D 27 '45
Price truce; how long? Bsns W p15+ Jl 13 '46
Prices in the third quarter of 1945. Mo Labor R 61:1204-19 D '45
Prices in fourth quarter and year 1945. Mo Labor R 62:357-73 Mr '46
Prices in the first quarter of 1946. Mo Labor R 62:947-62 Je '46
Prices in the second quarter of 1946. Mo Labor R 63:409-23 S '46
Rising prices chief threat to economic stability; excerpts from quarterly report. J. R. Steelman. Comm & Fin Chr 164:1778+ O 10 '46
What about prices? R. W. Babson. Comm & Fin Chr 163:2783+ My 23 '46

PRICES, Wholesale
Mixed trends in commodity price outlook. Mag of Wall St 78:742-3+ S 28 '46

Statistics
Commodity price trends abroad. Nat City Bank p80-3 Jl '46
Daily wholesale price index of 30 basic commodities. Published in monthly numbers of Dun's statistical review; summary in Dun's review
Economist index number of wholesale prices, yearly average, 1929, 1939, 1942-1945, monthly 1945; and British wholesale prices, Aug. 1939 and end of year, 1929, 1943-1944, and monthly 1945. Economist 150:sup16 Mr 23 '46
Index of consumers' prices in large cities, October 1945. Mo Labor R 61:1222-5 D '45 [cont monthly]
Price movements in principal countries; all commodities, 1926, 1932-1944, and monthly, Nov. 1944-Nov. 1945. Fed Res Bul 32:104 Ja '46 [cont monthly]
Recent changes in the price structure; comparing two wars. Survey of Cur Bsns 26:8 Ag '46
Wholesale prices. Published in Monthly labor review
Wholesale prices, groups of commodities in United States, Canada, United Kingdom, Germany, 1926, 1932-1944 and monthly Nov. 1944-Nov. 1945. Fed Res Bul 32:104 Ja '46 [cont monthly]

Great Britain
Economist index number of wholesale prices, yearly average, 1929, 1939, 1942-1945, monthly 1945; and British wholesale prices, Aug. 1939 and end of year, 1929, 1943-1944, and monthly 1945. Economist 150:sup16 Mr 23 '46

United States
Wholesale prices, by groups of commodities, yearly 1929-1944, by months and by weeks, 1945. Fed Res Bul 32:83 Ja '46 [cont monthly]

PRIESTLEY, Joseph, 1733-1804
New honors of discovery for Dr Joseph Priestley. W. D. Trow. Franklin Inst J 242:197-202 S '46
Sketch. Engineer 182:114-16 Ag 9 '46

PRIESTLEY medal
Roger Adams presented the Priestley medal. Chem & Eng N 24:2486-9 S 25 '46
Sir Ian Heilbron, Priestley medalist, 1946. R. Robinson. Chem & Eng N 24:1034-5 Ap 25 '46

PRIME movers. See Diesel engines; Gas turbines; Internal combustion engines; Steam engines; Steam turbines

PRIMITIVE medicine. See Medicine, Primitive

PRINCE, David Chandler, 1891-
David C. Prince, Lamme medalist; presentation addresses. C. M. Laffoon, H. E. Strang; response by D. C. Prince. por Elec Eng 65: 435-41 O '46
David C. Prince of G.E. to get 1945 Lamme medal. por(cover) Elec World News ed 125:8 Je 15 '46

PRINCE RUPERT, British Columbia
Canadian National port one of war's secret cities; Prince Rupert, British Columbia, sub-port of embarkation. il Ry Age 120: 823-4 Ap 20 '46

PRINCETON university
Celebration of bicentennial. Science 104:294 S 27 '46

PRINTED radio circuit. See Radio circuits—Printed circuits

PRINTERS

Attract youth to printing by human personal appeal. R. Haywood. Inland Ptr 116:31-3 N '45

California craftsman wins a top state post. F. McCaffrey. Inland Ptr 117:73-4 S '46

Chicago is battle ground in employing printers' stand against. I.T.U. demands. Inland Ptr 118:29-31 N '46

Chicago typographical union ends long strike. Inland Ptr 116:72 O '45

Discussions of labor problem and employe training hold Lithographers' national association convention spotlight. Inland Ptr 117: 44-6 Je '46

Donnelley truce. Bsns W p100 Ap 20 '46

Franklin association distributes protests against demands of union. Inland Ptr 117: 52 S '46

Grave shortage of apprentice compositors is revealed by study of I.T.U. statistics. Inland Ptr 117:51-2 S '46

Is management as blind as labor? J. W. DeVine. Inland Ptr 117:63-4 Ap '46

Jurisdictional labor problem; Foote and Davies case, Atlanta, and Adcraft or Pacific press case, Los Angeles; abstract. H. O'Brien. Inland Ptr 117:44-5 Je '46

Los Angeles is doing something about apprentices! il Inland Ptr 116:70-1 D '45-Ja '46

1946 presidents of Craftsmen's clubs; portraits. Inland Ptr 117:69-72 S '46

Philadelphia plan places ex-servicemen with printers. Ptr Ink 213:159 D 14 '45

Printing trade associations plan jobs for war vets and relief for the industry's manpower shortage. Inland Ptr 116:46 F '46

Selling printing as a career; Los Angeles using printed material to interest students in high schools. il Ptr Ink 213:156+ D 14 '45

Two major labor union questions loom on horizon of U.S. graphic arts industry. Inland Ptr 117:31-2 Jl '46

Union wages and hours in the printing trades, July 1, 1945. D. H. Gerrish and H. M. Abowitz. Mo Labor R 62:631-42 Ap '46; Same, with additional data. U S Bur Labor Statistics Bul 872:1-15; pa 10c Supt. of doc. '46

See also

Barnes, William Harrison
Christensen, Edward H.
Crain, Rolla L.
Cuneo, John F.
Darnaby, Robert E.
DePuy, Milton W.
Donnelley, Thomas Elliott
Fricke, O. G.
Ortleb, George
Radcliffe, B. Walter
West, James
Woodis, Winifred
Arthur

also International typographical union

PRINTERS' Ink (periodical)

50 years ago in Printers' Ink; memorabilia, curios and gems of wisdom. il Ptr Ink 214:103-4+ Ja 25 '46 [cont monthly]

Printers' Ink jury of marketing opinion and how it functions. Ptr Ink 214:23 F 8 '46

PRINTING

Future trends in requirements by users of printing. W. C. Huebner. Paper Tr J 123: 33-6 Jl 4 '46; Same cond. Paper Ind 28: 1048-50 O '46

New printing methods will mean better advertising. J. M. Secrest. Ptr Ink 216:112+ S 6 '46

Revolutionary realities and imminent developments in the printing industry. J. L. Frazier. il Inland Ptr 117:31-7 My '46

See also

Advertising, Mail—Printing
Book industry and trade
Business cards
Calendars
Christmas printing
Collotype
Color printing
Electrotyping
Ink
Lithography
Newspapers—Printing
Newsprint paper
Paper
Periodicals—Printing
Photography
Photomechanical processes
Posters
Printers
Printing machinery
Printing offices
Printing presses
Printing trade
Private presses
Proofreading
Publishing
Road maps—Printing
Silk screen printing
Textile printing
Type and type founding
Typesetting
United nations—Charter—Printing

Bibliography

Graphic arts summary. Published monthly by Research library, Printing industry of America, 719 15th st, NW Washington 5, D.C.

Design

Make it big and keep it simple. J. L. Frazier. il Inland Ptr 116:60-1 O '45

Victor Hammer, master printer, has created and cut a new uncial type design. P. Standard. il Inland Ptr 116:57-8 Mr '46

See also

Initials

Exhibitions

Typocrafters have traveling exhibition. il Inland Ptr 116:56 Mr '46

Patents

Enemy alien patents are made available. Inland Ptr 116:86 D '45-Ja '46

Rates

See Printing trade—Rates

Specimens

Colmar collection. il Inland Ptr 116:48 Mr '46

Richard Hoffman of the Los Angeles City college. il Inland Ptr 116:49 Mr '46

Mississippi

Bibliography

Bibliography of Mississippi imprints, 1798-1830. D. C. McMurtrie. 168p $7.50 Charles F. Heartman, Beauvoir community, Route 2, Box 115, Biloxi, Miss. '45

PRINTING, Offset

Adjust offset platemaking technique to the weather. H. A. Beechem. Inland Ptr 117: 67 Jl '46

Basic texts for apprentices in lithography. 79p bibliog(p77) Lithographic technical foundation, 220 E. 42d st, New York 17 '45

Coated papers and the offset process. R. E. Beadle. Inland Ptr 117:57-60 Ap '46

Coatings for deep-etch offset. C. F. King. Inland Ptr 117:45-8 Ap '46

Developers and deep-etching materials. C. F. King. Inland Ptr 117.53-6 Je '46

Final steps important in platemaking. C. F. King. Inland Ptr 117·49-52 Ag '46

How much equipment printer contemplates purchasing determines cost of installing offset department. Inland Ptr 117:48-52 Je '46

How should plates be handled in pressroom? R. E. Beadie. il Inland Ptr 116:31-5 Mr '46

Individual plant requirements basis upon which to determine advisability of letterpress and offset combination. R. M. Ong. Inland Ptr 117:44 Ap '46

Lithoprinting for reproducing research materials in limited-copy editions. J. W. Edwards. J Doc 2:32-4 Je '46

Newspapers by offset. Inland Ptr 117:84 Je '46

Offset press requires experienced hand. R. E. Beadie. Inland Ptr 116:75-8 F '46

Planning the offset department. R. E. Beadie. plans Inland Ptr 118:63-6 N '46

Solutions for deep-etch platemaking. C. F. King. Inland Ptr 117:55-8 S '46

Some help for offset platemaking personnel. R. E. Beadie. Inland Ptr 116:63-6 D '45-Ja '46

Standard layout and stripping procedures. R. E. Beadie. diags Inland Ptr 116:68-71 N '45

Tips on preparing advertising for offset; when to provide spreads of facing pages; when to furnish text or photograph on acetate. W. D. Molitor. Ptr Ink 213:41-2 N 23 '45

PRINTING, Practical

Craftsmen meet in Montreal to discuss mutual problems. Inland Ptr 118:45-50 N '46

Future of printing as we see it. F. A. Weymouth. bibliog Paper Tr J 122:51-3 Mr 14 '46; Same cond. Paper Ind 28:290-3 My '46

PRINTING, Practical—*Continued*
Offset and combination plant owners should know how letterpress process color plates are converted to lithographic reproduction. G. C. Compton. il Inland Ptr 117:48-50 S '46
Picking is a wintertime problem. E. St John. Inland Ptr 116:66-7 O '45
Problems of the printer and how the paper industry can cooperate with him. G. H. Petersen. Paper Tr J 122:147-9 Je 20 '46; Same cond. Paper Ind 28:568+ Jl '46

See also
Color printing
Initials
Ink
Paper—Printing properties
Printing plates
Printing presses
Printing trade
Proofreading
Type and type founding
Typesetting

Copy preparation
Half-page method of manuscript preparation. W. A. Price. Am Assn Pet Geologists Bul 30:1198-9 Jl '46
How to prepare copy for the printer. W. D. Molitor. Ptr Ink 213:25 D 21 '45

Layout
Standard layout and stripping procedures. R. E. Beadie. diags Inland Ptr 116:68-71 N '45

Make-up
Time-saving ideas for the composing room. plan Inland Ptr 116:47 F '46

Presswork
Die-cutting the occasional job on a platen press. C. E. Baker. diags Inland Ptr 118:50 O '46
Getting road map ready for press. il Inland Ptr 116:60-1 Mr '46
How should plates be handled in pressroom? R. E. Beadie. il Inland Ptr 116:31-5 Mr '46
More wrinkles to combat stock wrinkling. J. Kovec. Inland Ptr 118:56 O '46
Offset press requires experienced hand. R. E. Beadie. Inland Ptr 116:75-8 F '46
Offset prevention methods and the overprinting of gold and silver inks. Inland Ptr 116: 75-6 D '45-Ja '46
Over-packing the cylinder to compensate for paper stretch. D. McKinney. Inland Ptr 116:47-8 N '45
Pre-makeready methods. V. Letouzey; G. M. van Wagtendonk. Inland Ptr 117:49-50 Ap '46

Spacing
Formulas won't solve the problems of letterspacing. H. K. Keel and H. W. Smith. il Inland Ptr 116:64-6 N '45; 50-1 F '46
No formula for letterspacing. B. J. Voss. Inland Ptr 117:60 Jl '46

Study and teaching
Educators hold annual conference. Inland Ptr 117:71 Jl '46
Rochester employing printers, with printing crafts union, have developed outstanding training programs for war veterans and other beginners. il Inland Ptr 117:77-8 Je '46

Style
Appropriate styling is essential. E. N. Teall. Inland Ptr 116:40-1 N '45

Style manuals
Stylebook of the encyclopedia Americana. E. Sharp. 259p Americana corp, 2 W. 45th st, New York 19 '46

Tables, calculations, etc.
More rule-of-thumb help for quick estimate of type area. Ptr Ink 214:74+ F 1 '46
Refining on rule-of-thumb type casting. A. R. Hopper. Ptr Ink 214:26 Ja 11 '46; Reply. C. Sinatra. 214:88 F 8 '46
Simple method of estimating copy for books. E. Thie and F. Kaupa. Inland Ptr 117:66 Jl '46
Time-saving way to gauge type area; 1½ inches equals 25 characters. C. Sinatra. diags Ptr Ink 213:28-9 N 30 '45

PRINTING, Public
See also
United States—Government printing office

PRINTING associations
See also International association of printing house craftsmen; Printing industry of America

PRINTING endowment fund. See Carnegie institute of technology—Printing endowment fund

PRINTING for blind. See Blind, Printing for

PRINTING house craftsmen, International association of. See International association of printing house craftsmen

PRINTING industry of America, inc.
Annual meeting, 59th, Pittsburgh, Oct. 4-5. Inland Ptr 116:45-50 O '45
P.I.A. publishes annual report on ratios for printing management. Inland Ptr 117:80 Je '46
Sixtieth annual convention. Inland Ptr 118: 37-41 N '46

PRINTING ink. See Ink

PRINTING ink makers, National association of. See National association of printing ink makers

PRINTING ink research institute
Printing ink research institute selects Lehigh university. Oil Paint & Drug Rep 149:7 Mr 18 '46

PRINTING machinery
New metals; new materials; new methods may influence future design of typesetting and printing machinery. Inland Ptr 116: 56 F '46
Revolutionary realities and imminent developments in the printing industry. J. L. Frazier. il Inland Ptr 117:31-7 My '46

See also
Printing presses
Typesetting machines

PRINTING machinery industry
Production of printing presses and heavy printing equipment now well under way. il Inland Ptr 116:55-8 D '45-Ja '46

PRINTING offices
Check your office against these important pointers. E. W. Fair. Inland Ptr 116:47 Mr '46

Air conditioning
Air conditioning helps to improve art of printing; Newman-Rudolph lithographing company. Dom Eng 166.162+ N '45
Printer contemplating construction of new plant seeks information on air-conditioning and lighting. Inland Ptr 117:55-6 Ap '46

Costs
How much equipment printer contemplates purchasing determines cost of installing offset department. Inland Ptr 117:48-52 Je '46

Employees
Aptitude tests. G. C. Compton. il Inland Ptr 117:39-42 My '46
Handbook lifts employe morale; W. F. Hall printing company. Inland Ptr 117:74 Ap '46
New York printers on-the-job veteran training program shows good progress. G. C. Compton. Inland Ptr 117:52-3 Ap '46
Pay proper wages, it's cheaper. Inland Ptr 117:53-4 Ag '46
Provide wage scales information; printing plants' contract provisions. Inland Ptr 117: 80 Je '46

See also
Printers

Equipment
Some tried and proven methods for truck leveling. M. E. Powers. diags Inland Ptr 118: 57 O '46
Storing giant slugs. il Inland Ptr 117:70 My '46

See also
Printing machinery

PRINTING offices—*Continued*

Heating and ventilation

Case studies show need of supply air in plant ventilation. J. B. Skinner and W. M. Pierce. il plan diag Heat & Ven 43:57-8, 61 My '46

Layout

Planning the offset department. R. E. Beadie. plans Inland Ptr 118:63-6 N '46

Time-saving ideas for the composing room. Inland Ptr 116:47 F '46

Lighting

Printer contemplating construction of new plant seeks information on air-conditioning and lighting. Inland Ptr 117:55-6 Ap '46

Management

Individual plant requirements basis upon which to determine advisability of letterpress and offset combination. R. M. Ong. Inland Ptr 117:44 Ap '46

Know how and methods peculiar to the field required in magazine work. K. B. Butler. il Inland Ptr 117:37-43 Je '46

Salesman's corner. F. Rundell. Inland Ptr 116:43-4 N '45 [cont monthly]

Shipping department is the traffic center of most printing plants. M. E. Powers. Inland Ptr 118:37-8 O '46

Waverly press creates own precision methods; efficiency standards, based upon careful time and motion studies. G. C. Compton. Inland Ptr 116:38-40 O '45

Work simplification plan highly successful at G.P.O. G. C. Compton. il Inland Ptr 117: 40-4 Ag '46

Safety measures

London school of printing stresses importance of accident prevention. Inland Ptr 117:44-5 Jl '46

PRINTING offices, Private

Weigh pros and cons of company-owned printing plants. Nat Underw 50:10 Jl 11 '46; Same. Nat Underw (Life ed) 50:6 Je 7 '46

PRINTING on plastics

Printing on plastics. Inland Ptr 117:72 Je; 57 Jl '46

Seeing through a subject; printing pictures or drawings of different parts on separate transparent cellulose acetate sheets and superimposing. il Mod Plastics 23:132 F '46

PRINTING plates

Adjust offset platemaking technique to the weather. H. A. Beechem. Inland Ptr 117:67 Jl '46

Coatings for deep-etch offset. C. F. King. Inland Ptr 117:45-8 Ap '46

Developers and deep-etching materials. C. F. King. Inland Ptr 117:53-6 Je '46

Evaluation of the roughness of lithographic printing plates. G. A. H. Elton and G. Macdougall. bibliog il Soc Chem Ind J 65:212-15 Jl '46

Final steps important in platemaking. C. F. King. Inland Ptr 117:52 Ag '46

How should plates be handled in pressroom? R. E. Beadie. il Inland Ptr 116:31-5 Mr '46

Rust. Inland Ptr 116:76-7 F '46

Solutions for deep-etch platemaking. C. F. King. Inland Ptr 117:55-8 S '46

Some help for offset platemaking personnel. R. E. Beadie. Inland Ptr 116:63-6 D '45-Ja '46

Ultimate goal of research; automatic production of printing plates. G. C. Compton. il Inland Ptr 116:27-30 Mr '46

PRINTING plates, Plastic

New printing methods will mean better advertising. J. M. Secrest. Ptr Ink 216:112+ S 6 '46

Sheet vinyl electrotype processing. il Mod Plastics 23:111-13 Jl '46

PRINTING presses

Future trends in requirements by users of printing. W. C. Huebner. Paper Tr J 123: 33-6 Jl 4 '46; Same cond. Paper Ind 28:1048-50 O '46

Offset press requires experienced hand. R. E. Beadie. Inland Ptr 116:75-8 F '46

Production of printing presses and heavy printing equipment now well under way. il Inland Ptr 116:55-8 D '45-Ja '46

What's new in the graphic arts? il Inland Ptr 117:82-3 Ap '46

Control

Electronic register control for multicolor printing. W. D. Cockrell. il diags Elec Eng 65:Trans 617-22 Ag-S '46

Maintenance and repair

Cylinder presses (like all machinery) must have careful maintenance. C. E. Baker. diags Inland Ptr 118:32 N '46

Press adjustment for good register. J. Kovec. Inland Ptr 118:58 N '46

PRINTING rates. See Printing trade—Rates

PRINTING supplies industry

See also
Printing machinery industry

Directories

Inland Printer's 1946 directory of equipment and supplies. Inland Ptr 116:95-137 D '45-Ja '46

PRINTING trade

Aren't we forgetting something? craftsmanship. H. G. Wolfe. Inland Ptr 117:29-30 Jl '46

Discuss problems of industry at conference held in New England. Inland Ptr 117:84-5 Je '46

Don't refuse jobs in Spanish; they're easier than they seem. P. R. Russell. Inland Ptr 117:76 Ap '46

How advertising trends will affect printing and publishing. P. B. B. Andrews. Ptr Ink 216:79-80+ Jl 12 '46

Most printers foresee New Year as period of exceptional activity. Inland Ptr 116:49 D '45-Ja '46

1946 in the printing industry. A. E. Giegengack. Inland Ptr 116:58 D '45-Ja '46

1946 will be a big year for advertising printing. D. Craig. Inland Ptr 116:53 D '45-Ja '46

Present printing conditions affecting advertisers and publishers. F. S. Beatty. Ind Marketing 30:33+ N '45

Printing increase of 30 per cent seen. Inland Ptr 116:52 O '45

Printing industry of America has a historic meeting in Pittsburgh. Inland Ptr 116:45-50 O '45

Printing is big business. F. S. Beatty. Inland Ptr 117:64-7 My '46

Three men on paper plates; Lithomat corp. of Cambridge, Mass. il Fortune 33:149-52+ F '46

See also
International trade composition association
Printers
Printing supplies industry

Accounting

Budgeting is essential to maximum profits in printing business today. A. C. Kiechlin. Inland Ptr 117:66-7 Je '46

P.I.A. publishes annual report on ratios for printing management. Inland Ptr 117:80 Je '46

Play it safe with ample reserves. A. C. Kiechlin. Inland Ptr 117:73-4 Ap '46

Turning the spotlight on turnover. A. C. Kiechlin. Inland Ptr 116:73-4 N '45

Advertising

Printer initiates swing back to normal. il Inland Ptr 116:64 O '45

Salesman's corner. F. Rundell. Inland Ptr 117:58-9 Ag '46

Time to take inventory of your sellevision. A. C. Kiechlin. Inland Ptr 118:39-40 O '46

Advertising service

Salesman's corner; suggestions on writing copy. F. Rundell. Inland Ptr 116:72-3 D '45-Ja '46

Rates

Figure the odds before cutting your printing prices. A. C. Kiechlin. Inland Ptr 116:77-8 D '45-Ja '46

Publication or advertising printing? F. Rundell. Inland Ptr 117:42-3 Ap '46

Salesman's corner. F. Rundell. Inland Ptr 116:68-9 F '46

PRINTING trade—*Continued*

Salesmen

Commission compensation plans for printing salesmen. Inland Ptr 116:44-6 Mr '46
How Canadian printer trains veterans as salesmen. Ptr Ink 213:130 N 30 '45
Salary plan for compensation of printing salesmen presents case. Inland Ptr 116:43-6 F '46
Salesman's corner. F. Rundell. Inland Ptr 116: 43-4 N '45 [cont monthly]
Salesman's corner; what selling will do for the salesman himself. F. Rundell. Inland Ptr 116:38-9 Mr '46
Snowball plan of ideas. Inland Ptr 117:53-4 S '46
So you want to hire a salesman? F. Rundell. Inland Ptr 118:33-5 O '46
Some of the types of printing salesmen you and I have met. H. Ahrendt. Inland Ptr 117:55 Jl '46
What is the best plan for compensating printing salesmen? Inland Ptr 117:34-6 Jl '46

Service

Offers library service on promotion pieces; Davis, Delaney, New York printers. Sales Management 57:112 Ag 1 '46

Canada

Life begins at 80 for this ambitious Canadian printer, Rolla L. Crain. Inland Ptr 117:52 My '46
Why not a Canadian export printing industry? A. Merrill. il Pulp & Pa of Can 47: 55-6 Ap '46

Chicago

Chicago printing is big business. Inland Ptr 117:54-5 Ag '46

Great Britain

U.S. methods impress English visitors. Inland Ptr 117:72 Jl '46

Los Angeles

Los Angeles is doing something about apprentices! il Inland Ptr 116:70-1 D '45-Ja '46

Netherlands

Dutch printers need American equipment. G. M. van Wagtendonk. For Comm W 23:5 My 25 '46
Dutch printers study graphic arts plant in Chicago. Inland Ptr 117:75-6 Jl '46
Dutch were helped by underground printing. il Inland Ptr 117:85 Je '46

New Guinea

Supervises rebuilding a New Guinea printing plant. J. A. Kingsbury. por Inland Ptr 118: 68 N '46

Philippine Islands

Army printer. W. P. Wentzy. Inland Ptr 116: 39-40 N '45

South Africa

South Africa settles its industrial difficulties by conciliatory methods; National industrial council. O. H. Frewin. Inland Ptr 118:43-4 O '46

PRIORITIES and allocations, Industrial

Soap fat and oil quotas. Soap & San Chem 22:36-9+ F '46

PRISMS

Calibration of a set of master wedges. D. H. Rank. diags Opt Soc Am J 36:116-19 F '46
Small prism infra-red spectrometry; Perkin-Elmer infra-red spectrometer. R. B. Barnes and others. il diag J Ap Phys 16:77-86 F '45; Correction. 17:532 Je '46
Testing the angles of reflecting prisms. W. F. C. Ferguson. Opt Soc Am J 36:244 Ap '46

PRISON industries

Production of federal prison industries, 1944-45. Mo Labor R 63:217-18 Ag '46

PRISONERS

Statistical study of 500 psychopathic prisoners; Medical center for federal prisoners, Springfield, Mo. H. Cason and M. J. Pescor. bibliog Pub Health Rep 61:557-74 Ap 19 '46

PRISONERS of war

German prisoners of war. Economist 151:444-5 S 21 '46; Same. Iron Age 158:107+ O 24 '46

Employment

Postwar policies regarding foreign workers and prisoners of war. Mo Labor R 61:910-11 N '45

PRISONERS of war, Returned

Feeding returned prisoners of war. Nat Safety N 53:80+ Ja '46

PRIVATE brands

Small business uses private-label firms. L. A. Barber. il Dom Comm 34:28-9 Mr '46
There is a place for all good brands. W. R. Barry. Adv & Sell 39:57-8+ Ag '46

PRIVATE flying. See Airplanes—Private ownership

PRIVATE presses

Golden Hind press. G. C. Compton. il Inland Ptr 116:42-4 O '45

PRIVATE printing plants. See Printing offices, Private

PRIZE contests

See also
Advertising—Prize contests
Show windows—Contests

PRIZES. See Rewards, prizes, etc.

PROBABILITIES

New approach to probability problems in electrical engineering. H. A. Adler and K. W. Miller. Elec Eng 65:Trans 630-2 O '46
Note on sampling probabilities. H. Working. Am Stat Assn J 41:238-9 Je '46
Performance guarantees; applying theory of probability. E. T. Norris. Inst E E J 93 pt 2:140-5 Ap '46
Probability and quality control. E. Goddess. Am Mach 90:110-11 Ag 15; 118-19 Ag 29 '46
Probability distributions of sinusoidal oscillations combined in random phase. M. Slack. Inst E E J 93 pt 3:76-86 bibliog(p80) Mr '46
Pulse distribution; the probability distribution of distortion magnitudes due to interchannel interference in multi-channel pulse-transmission systems. D. G. Tucker. diags Inst E E J 93 pt 3:323-34 bibliog(p332-3) S '46
Theory of probabilities applied to the manufacture of Diesel engines; abstract. W. S. Everett. S A E J 54:sup28+ Ap '46

See also
Frequency distribution (statistics)
Sampling (statistical methods)
Probability paper

PROBABILITY paper

Graphical solutions of statistical problems; applications of probability graph paper. F. Levi. Engineer 182:338-40, 362-4 O 18-25 '46

PROBATE law

Model probate code; commentary on provisions. R. G. Patton. Trusts & Estates 82: 73-8 Ja '46
1945 state legislation affecting trusts and estates. W. L. Cloutier. Trusts & Estates 82:99-105 Ja '46
Trust and probate decisions, 1944-1945. E. S. Lindemann. Trusts & Estates 82:81-9 Ja '46

See also
Executors and administrators
Inheritance tax
Wills

Bibliography

Trust and probate literature, 1944-1945. F. H. Schauer. Trusts & Estates 82:92-8 Ja '46

PROCESS serving

Failure to forward summons; company notified by telephone; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12: 34-6 Jl 25 '46

PROCTER, William, Jr, medal

Procter medal given to Dr. A. N. Richards. Oil Paint & Drug Rep 149:3+ F 4 '46

PROCTER and Gamble company

Guaranteed pay faces a crisis; pace-setting plans at Hormel and Procter & Gamble. Bsns W p92+ O 19 '46
Procter and Gamble vs. Colgate-Palmolive. E. A. Barnes. Mag of Wall St 79:92-3+ O 26 '46

PROCTOR electric company
Proctor's policy; how and to whom it will sell. il Bsns W p88+ D 8 '45

PRODUCE terminals
Cities plan terminal markets; modern produce sales-storage sites. Bsns W p76+ D 22 '45
Engineers plan new wholesale produce market for New York. C. F. Loyd. map diag Civil Eng 16:392-4 S '46
Kansas City wholesale fruit and vegetable market. H. G. Wales. J Bsns 19:161-75 Jl '46

PRODUCER gas. See Gas, Producer

PRODUCERS, Gas. See Gas producers

PRODUCERS' council
Annual meeting, 25th, New York, Sept. 24-25. Eng N 137:420-1 O 3 '46; Sheet Metal Worker 37:82+ O '46
Semi-annual meeting, Cleveland, Nov. 7-9. Concrete 53:2-4 D '45

PRODUCTION
American productivity; audit of the war years and a prediction. C. R. Walker. il Fortune 33:150-6+ Ja; 130-3+ F '46
American productivity our protection and our danger. J. Hirsch. Comm & Fin Chr 163:1214+ Mr 7 '46
Battle for production. G. K. Creighton. J Retailing 22:23-30 F '46
Bottlenecks in to-day's economic picture. W. Gates. il Mag of Wall St 79:8-10 O 12 '46
Challenge to America, get to work! A. J. Lord. Factory Management 104:276+ Mr '46
Customers don't know the facts about shortages. H. Slator. Ptr Ink 215:33-4 Ap 26 '46
Elusive dream of full production. M. Palyi. Comm & Fin Chr 163:517+ Ja 31 '46
Expect greatest peacetime production year in history. Steel 118:sup4-5 Ja 7 '46
Goods-shortage situation. J. D. Small. Comm & Fin Chr 163:121+ Ja 10 '46
How long will scarcities last? H. Owen. Mag of Wall St 77:506-7+ F 2 '46
How to create jobs in a free economy; abstracts. J. L. Trecker. Mach 52:189-90 D '45; Automotive & Aviation Ind 93:17+ D 15 '45
Increased production and inflation. W. S. Salant. Comm & Fin Chr 163:961+ F 21 '46
Increased production the solution to economic problems; abstract. J. L. Trecker. Mach 52: 178 Jl '46
Industrial output advances following drop in munitions production. Fed Res Bul 31:1184-5 D '45
Labor's responsibility for full production. V. A. Bittner. Comm & Fin Chr 162:2876+ D 13 '45
Management's responsibility for full production. F. C. Crawford. Factory Management 104:300+ Ja '46
Marketing men; a production must in the years just ahead. C. V. Kinter. Ind Marketing 31:29-30 Mr '46
More and balanced production; statement to the press. W. A. Harriman. Comm & Fin Chr 164:1785+ O 10 '46
NAM lays production losses to OPA. R. R. Wason. Comm & Fin Chr 164:338+ Jl 18 '46
Need for production. Nat City Bank p130 D '45
Nine-point program for full production. L. H. Brown. Factory Management 104:228+ Ap '46
Our economic future; production, the answer to inflation T. T Harrison. Credit & Fin Management 48:5-6 O '46
Outlook for production and prices. D. W. Michener. Comm & Fin Chr 163:334+ F 14 '46
Present production problems. H. Ford, 2d. Comm & Fin Chr 163:339+ F 14 '46
Production and profits at peak; radio address. J. R. Steelman. Comm & Fin Chr 164:1011 Ag 22 '46
Production, money supply and inflation. A. M. Sakolski. Comm & Fin Chr 163:2213+ Ap 25 '46
Production moves ahead; 6th report to the President, the Senate & the House of representatives. 56p Bur. of special services, Bur. of the budget, 1400 Pennsylvania av. NW, Washington 25, D.C. '46
Production or unrealistic controls? R. A. Seidel. Comm & Fin Chr 163:1631+ Mr 28 '46
Production reaches for peak. Bsns W p15-16 Ag 17 '46
Production record is excellent; radio address. C. Bowles. Comm & Fin Chr 163:3346+ Je 20 '46
Production record since V-J day J. R. Steelman. Comm & Fin Chr 164:881+ Ag 15 '46
Production trends; durable and nondurable goods. Survey of Cur Bsns 25:3-6 D '45
Production vs. monetary controls as inflation curbs. D. W. Matthews. Comm & Fin Chr 163:3199+ Je 13 '46
Record production and its investment implications. W. Gates. il Mag of Wall St 78:678-80+ S 14 '46
Reports on year's gains. J. L. Steelman. Comm & Fin Chr 164:1307 S 5 '46
Reports production high. J. D. Small. Comm & Fin Chr 164:1311 S 5 '46
Strikes handicap full production efforts. J. D. Small. Comm & Fin Chr 163:8+ Ja 3 '46
Supply, demand and control picture. J. D. Small. Comm & Fin Chr 163:3058+ Je 6 '46
Tertiary production as a postwar international economic problem. A. G. B. Fisher. R Econ Stat 28:146-51 Ag '46
Trade unions and production. Economist 150:522-4 Ap 6 '46
Use of sales and production forecasts in the determination of variances. S. Z. Bronner. N A C A Bul 27:623-34 Mr 15 '46
Utopia is production; strikes can be avoided by proper cooperation and adjustment. E. Johnston. Comm & Fin Chr 164:485+ Jl 25 '46
Varying impact of shortages on individual companies. K. Wynne. Mag of Wall St 78: 441-3+ Jl 20 '46
Wartime unity of purpose; object lessons for administration and management. C. L. Richey. Advanced Management 11:62-9 Je '46
What Ford told Bowles about low production. Factory Management 104:232+ Ap '46
What labor can gain by boosting output. Factory Management 104:214+ pt 1 Ap '46
Where is our record production going? H. M. Tremaine. Mag of Wall St 79:129-31+ N 9 '46
Why production potentials preclude boom and bust. J. D. C. Weldon. il Mag of Wall St 77:752-4+ Mr 30 '46

See also
Economics
Efficiency, Industrial
Factory management
Labor productivity
Manufactures
Quantities (in production)
Routing systems
Supply and demand
also United States—Civilian production administration

Statistics
Business indexes; industrial production, construction contracts, employment, etc; index totals, 1919-1944, monthly Nov. 1942-Nov. 1945. Fed Res Bul 32:68 Ja '46 [cont monthly]
Economy in war and transition; national income and national product. Survey of Cur Bsns 26:4-9 F '46
Industrial production, by industries (adjusted and unadjusted indexes), Oct. 1944-Nov. 1945. Fed Res Bul 32.69-72 Ja '46 [cont monthly]
Industrial production; first quarter trends and outlook. Survey of Cur Bsns 26:5-7 Ap '46
Measures of national income and product; abstract. Trusts & Estates 83:125 Ag '46
Mileposts on the reconversion road; charts. Bsns W p16 My 4 '46
Postwar output at full employment; a rebuttal. R. S. Tucker. R Econ Stat 27:192-6 N '45
Postwar output in the United States at full employment. L. H. Bean. R Econ Stat 27: 202-3 N '45
Shipments or production of selected consumer goods, Sept. 1945-March 1946 and comparisons with base periods. Survey of Cur Bsns 26:4 My '46

PRODUCTION—Statistics—*Continued*
Shipments or production of selected consumer goods, Jan.-July 1946 and comparisons with base periods. Survey of Cur Bsns 26:3 S '46
Statement on Federal reserve index of industrial production by Director of Division of research and statistics. Fed Res Bul 32: 472-3 My '46
Transition to peacetime production, second quarter 1946. Survey of Cur Bsns 26:3-8 Jl '46

PRODUCTION and sales, Coordination of
Stabilized production despite fluctuating demand; Armstrong Cork. R. L. Bowles. il Factory Management 104:106-12 Je '46

PRODUCTION committees. See Employees representation in management

PRODUCTION control
Case study of production and cost control; Iron fireman and manufacturing co., Portland, Ore. C. J. Peters. flow chart N A C A Bul 27:891-916 My 15 '46
Closer control with machine load board; Grinnell corporation. G. K. Lowe. il Factory Management 104:125-7 F '46
Efficient production and cost control; Lockheed aircraft corp. W. M. Mirisch. il Factory Management 103:109-13 O '45
One-card graphic system for close control of materials; RCA Victor division. N. N. Barish. il Factory Management 104:149-52 My '46
Pity the poor planner. A. O. Mann. Personnel J 25:50-4 Je '46
Production control for small plants. R. A. Trumpis. Iron Age 158:49-51 Jl 25 '46
Production-control system aids hosiery finishing; Chester H. Roth, inc. il Textile World 96:108-9 Ja '46
Putting production control to work; National radiator co. J. A. Coltrin. il Iron Age 157: 40-3 My 16 '46
Simplified order procedure saves time, reduces errors; Allen manufacturing company. A. C. Crownfield, jr. il Factory Management 104:109-12 Mr '46

See also
Factory management—Quality control
Production and sales, Coordination of Schedules

PRODUCTIVITY. See Labor productivity; Production

PRODUCTS, Certification of
Damper on seals; Good Housekeeping isn't expected to reinstate its labels. Bsns W p94+ N 10 '45
Food marketing co-op sets policies for selling Your Certified brand. D. Paulhamus. il Sales Management 56:44+ Ja 15 '46
Grade labelers go national; canned fruits and vegetables, produced under continuous government inspection. Bsns W p86+ N 10 '45
Study shows stamps of approval influence women in buying; 62.4% of respondents to Good Housekeeping survey say product endorsements guide selection. Ptr Ink 213:157 D 7 '45

PRODUCTS, Diversified
Mail-order catalog relieves salesmen of large-line selling; American Type Founders plan. J. A. Murphy. il Ptr Ink 217:46-7 O 4 '46

See also
Diversification in industry
Family of products

PRODUCTS, Improved
Better product, but it looks like cheaper rivals; what to do? Libbey Glass heat-treated tumbler. K. C. White. il Sales Management 56:60+ Mr 1 '46
50 product maybes for increased business. P. J. Howe. Adv & Sell 38:58 N '45
Milkmaid makes cosmetic news with color-constant lipstick. T. Armstrong. il Sales Management 55:43-4 D 1 '45

PRODUCTS, Molded. See Molded products

PRODUCTS, New
Alphabetical list of new products developed since Nov. 1944; dyestuffs and pigments, textile chemicals, equipment. il Am Dyestuff Rep 34:477-90 D 3 '45
Check list to help you introduce your new industrial products. U S Bur For & Dom Com, Economic Ser 53:1-26; pa 10c Supt. of doc. '46
Coming competitive clash; diversification plans. J. D. C. Weldon. Mag of Wall St 79:127-8+ N 9 '46
Committees ease new products headaches by coordinating departmental activities; Westinghouse electric corporation. R. F. Bisbee. Am Mach 90:113-15 S 12 '46
Crosbys unearth products for pint-size firms to make and sell. il Sales Management 55: 85+ N 15 '45
Firms getting into new lines to alter face of post-war competition; new industrial products. Sales Management 55:98-9 O 1; 106+ D 15 '45; 56:131-2+ Ja 15 '46
Horatio Alger story; how advertising developed a weakling into a giant; Taylor-Reed Cocoa Marsh. E. M. Housman. il Ptr Ink 216:33-5 S 20 '46
How market research can help you with development of new products. K. G. Fuller. Ind Marketing 31:37-8+ Je '46
How Schick dramatized the kickoff for new product, Shaverest. il Sales Management 56: 41 Je 1 '46
Industrial trends set the pattern for research. R. P. Soule. Chem & Met Eng 53:124-6+ Jl '46
Industry designs new items for consumers' use. il Dom Comm 34:27-32 Jl '46
Introduces new product by smashing traditions; Para Ti advertising, pricing and distribution. il Ptr Ink 216:44-5 S 20 '46
Make-it-yourself kit seeks market among Nation's hobbyists. il Sales Management 55:82 D 15 '45
New products in minority at furniture show. Ptr Ink 214:74 Ja 25 '46
Overcoming resistance to new type of product; many new items will face problem of instant coffees. E. M. Housman. il Ptr Ink 214:24-6+ Mr 29 '46
Pepsi-Cola breaks with one-product policy; adds Evervess, a table water. il Ptr Ink 214:70+ Ja 18 '46
Planning and scheduling system for development projects. H. R. Collins. Product Eng 17:144-8 N '46
Production clinic. E. G. Thomssen. Soap & San Chem 22:85+ Je '46
Setting up for a new product. L. S. Whitson. il Iron Age 158:58-63 N 7 '46
So you're designing a new product! G. K. Hendrick. Iron Age 158:36-40 O 31 '46
Solves problem of sustaining interest in new product; previews of Launderall. il Ptr Ink 217:102 O 11 '46
Special offers to introduce new products; from price reduction to trial packages. il Ptr Ink 215:40-1 Ap 26 '46
This time it's his own money agency executive spends; step-by-step merchandising procedure for his own invention; LumiNite automatic switch light. T. L. Wheeler, jr. il Ptr Ink 215:38-9 My 31 '46
Wash day blues inspire birth of spring-built clothes pin. il Sales Management 56:109 Ja 15 '46
What's new; products and packages that are currently being introduced. il Ptr Ink 214: 32 Ja 25 '46 [cont monthly]

See also
Side lines

Advertising
Co-ordinated campaign for new product; case history of Thompson truform grinders. E. H. Mook. il Ptr Ink 215:42-3+ Ap 26 '46
Coordination is key to this advertising success; new Rubberset nylon paint brush. E. R. Brown. il Ptr Ink 217:59-60 O 18 '46
How much of new product budget for trade media? P.I. study. Ptr Ink 215:74+ Ap 12 '46
How new product budget is set by months; media changes and preliminary testing. Ptr Ink 215:43-4+ Ap 19 '46
Interest in teaser technique revives. E. J. Cunningham. il Ptr Ink 214:25-7+ Ja 18 '46
Most advertisers plan new product program a full year ahead; P.I. budget study. Ptr Ink 215:31-2+ Ap 5 '46

PRODUCTS, New—Advertising—*Continued*
Porter-Cable's marketing campaign solves problem of new product promotion; wet belt machines. W. F. Schleicher. il Ind Marketing 30:48-9+ D '45
Selling to the Army air forces. N. S. Atwell. new product. Ptr Ink 214:21-2+ Mr 22; 31-2+ Mr 29 '46
Seven-point program for introducing a new product; Minneapolis-Honeywell two-year campaign on Moduflow pulls inquiries. H. E. Green. il Ptr Ink 214:24-5+ Mr 8 '46
Wartime product gets all-round promotion to civilian market; asbestos-cement all-purpose building board, Stonewall. C. J. Dunham. il Ptr Ink 213:20-1 N 16 '45

Testing

Ethyl cleaner hits market after two-year test. E. J. Dever, jr. il Ptr Ink 214:73-4+ Mr 29 '46
How new product budget is set by months; media changes and preliminary testing. Ptr Ink 215:43-4+ Ap 19 '46

PRODUCTS liability insurance. See Insurance, Products liability

PROFESSIONAL advertising
See also
Lawyers—Advertising

PROFESSIONAL associations
Use of research by professional associations in determining program and policy. E. L. Brown. 39p pa 25c Russell Sage foundation, 130 E. 22d st, New York '46

PROFESSIONAL education
See also
Engineering education
Library schools and training
Medical education
Mining schools and education
Public health—Study and teaching

PROFESSIONAL engineers and scientists, Canadian council of. See Canadian council of professional engineers and scientists

PROFESSIONAL ethics
Professional ethics and social change. M. L. Cooke. Advanced Management 11:85-92 S '46
Professional responsibilities of the chemist. W. C. Fernelius. Chem & Eng N 24:1664-5 Je 25 '46; Same. Can Chem & Process Ind 30:56-7 S '46
See also
Accounting ethics
Engineering ethics
Medical ethics
Professional service

PROFESSIONAL service
Report of the Committee on academic tenure, professional service and responsibility. J. R. Killian, jr. and others. J Eng Educ 36: 605-6 Je '46
See also
Legal service
Medical service

PROFESSIONAL workers
ASCE seeks Wagner act clarification on rights of professional employees. Eng N 137:89 Jl 25 '46
Canadian council of professional engineers and scientists re collective bargaining. Can Chem & Process Ind 30:55-7 O '46
Collective bargaining for professional employees. R. L. Forshay. Mech Eng 68:968-70+ N '46
Engineering employees meet to form national agency. Eng N 137:487 O 17 '46
Profession of personnel administration. Personnel J 24:265-9 Ja '46
Professional bargaining units form national organization; National professional association of engineers, architects, and scientists. Civil Eng 16:480 N '46
Professional income. Economist 150:404-6 Mr 16 '46
Professional problems; abstract. J. M. Weiss. Chem & Met Eng 53:278+ Ap '46
Pseudo-scientists in industry. E. G. Thomssen. Soap & San Chem 22:81+ Ag '46
Qualities of a profession; endless horizons. V. Bush. J Eng Educ 36:463-8 Mr '46
Society asks freedom for professional men in collective bargaining process; Congressional committee requested to change existing labor law. Civil Eng 16:339 Ag '46
Supply and demand in the professions in Canada. 67p pa 25c Canada. Dominion bur. of statistics, Ottawa '45
See also
Accountants
Architects
Chemists
Engineering colleges—Professors and instructors
Engineers
Lawyers
Librarians
Librarians, Special
Nurses and nursing
Physicians

PROFESSIONS
Professional behavior and industrial society. P. Meadows. J Bsns 19:145-50 Jl '46

PROFILING machines
Duplicating complicated forms with a profiling machine. il Steel 119:126 S 2 '46

PROFIT
Assaying profit margins for individual companies. W. C. Hanson. Mag of Wall St 79: 68-70+ O 26 '46
Ceiling on corporate profits; effects of OPA formula basing profits on net worth. H. F. Travis. Mag of Wall St 78:14-15+ Ap 13 '46
Changing trends in investment returns; with ratios of earnings on invested capital by representative industries and companies. W. Gates. Mag of Wall St 77:316-18+ D 22 '45
Cheap money and competition make return to industry's 1941 profit margins unlikely. Barron's 26:1 Jl 1 '46
Corporate earnings in 1945; with table giving net income of leading corporations by industrial groups for the years 1944 and 1945. Nat City Bank p45-7 Ap '46
Corporate profits for the first half of 1946; with chart showing percentage change in reported profits after taxes for 1,114 corporations, by selected industry groups, first half 1946 from first half 1945. Survey of Cur Bsns 26:8-9+ S '46
Corporate profits in manufacturing compared with value added by manufacture, 1923-1929 average, and yearly figures, 1930-1944. Survey of Cur Bsns 25:21 N '45
Corporate profits, 1929-1946; table and chart. Automotive & Aviation Ind 94:71 Mr 15 '46
Corporate prosperity insured this year and next; pictograph. Sales Management 57:65 Jl 15 '46
Cost-price-profit relationships. Survey of Cur Bsns 26:5+ Ja '46
Earnings picture is still ragged; January-June earnings. Bsns W p70 Ag 3 '46
Earnings picture still confused; first-quarter earnings reports. Bsns W p48 My 4 '46
Fair profit by big and small business? nation-wide cross-section poll. Trusts & Estates 82:234 F '46
Fourth quarter profits helped by end of abnormal wartime charges. Barron's 26:1 F 4 '46
How sales managers can increase company profits; conversion cost as a yardstick. F. L. Heath. Ind Marketing 30:52+ D '45
Index numbers and analysis of gross profit variation as a management tool. C. F. Axelson. J Account 81:463-5 Je '46
Industrial corporation earnings; with table giving preliminary summary of manufacturing earnings in 1944 and 1945. Nat City Bank p31-5 Mr '46
Industrial profits, first quarter, 1946. Economist 151:473 S 21 '46
Industrial profits; fourth quarter, 1945. Economist 150:691 Ap 27 '46
Industrial profits in a Bowles market. J. L. Beals. Barron's 26:3+ Mr 18 '46
Industrial profits, 1945 and comparisons 1935-1944. Economist 150:sup3-4 Mr 23 '46
Industrial profits, second quarter, 1945. Economist 149:925 D 22 '45
Industrial profits, third quarter, 1945. Economist 150:238 F 9 '46
Industry opposes basing factory wage rates on company profits. L. Westrate. Automotive & Aviation Ind 93:17+ N 15 '45
Marketing for profit by controlling production and selective selling. F. L. Heath. Ind Marketing 31:49-50+ Je '46
Menace of declining profits. A. M. Sakolski. Comm & Fin Chr 162:3129+ D 27 '45

PROFIT—*Continued*
Net profits of 629 corporations, quarterly figures, 1941-1944; revised data. Survey of Cur Bsns 26:31 O '46
1936-39; a floor or a ceiling for profits? tabulation. Bsns W p16 F 23 '46
1942 corporate profits by size of firm. J. L. McConnell. Survey of Cur Bsns 26:10-16+ Ja '46
Peak in corporate profits; graph. Bsns W p18 O 12 '46
Profit-action figures. T. R. Elsman. N A C A Bul 27:711-26 Ap 15 '46
Profit margin in cost-price squeeze. B. Ravits. Mag of Wall St 78:740-1+ S 28 '46
Profit; spark plug of enterprise. W. K. Jackson. Comm & Fin Chr 164:2339+ N 7 '46
Profitability and payrolls. Trusts & Estates 83:306-9 O '46
Profitless prosperity. A. M. Sakolski. Comm & Fin Chr 164:1929+ O 17 '46
Profits before taxes as percentage of net worth, 2,152 manufacturing corporations, 1936-39 average, 1941, 1944; chart. Survey of Cur Bsns 26:5 Mr '46
Profits in payroll terms; getting down to earth in explaining profits to employees. F. Wallace. Trusts & Estates 82:466-7 My '46
Profits of U.S. corporations reported by Commerce dept. Comm & Fin Chr 163:3265 Je 13 '46
Profits policy. Economist 151:124-5 Jl 27 '46
Reported corporate profits, first quarter 1946. Survey of Cur Bsns 26:9-11 Je '46
Sample of industry profits; comments on Mr Bowles' illustrations. Nat City Bank p52-3 My '46
Strikes and taxes juggle profits; graph. Bsns W p68 Jl 27 '46
Stubborn facts and foolish fancies about industry's profits. A. Court. Automotive & Aviation Ind 95:17+ N 1 '46
Third quarter corporate earnings; with table showing net income of leading corporations for first nine months, 1945-1946. Nat City Bank p123-4 N '46
Third quarter earnings; with table showing net income of leading corporations for first nine months, 1944-1945. Nat City Bank p121-3 N '45
Trend of corporate profit, 1929-45; with tabulations by industries. G. F. Derrickson. Survey of Cur Bsns 26:9-19 Ap '46; Excerpt. Trusts & Estates 82:555-6 Je '46

See also
Excess profits tax
Income
Interest
Investments
Profiteering

PROFIT and loss statements
There's no accounting for profits. W. H. Franklin. N A C A Bul 28:207-14 O 1 '46

PROFIT sharing
Direct incentives for labor the key to industrial peace. W. G. Lightbowne. Comm & Fin Chr 163:724+ F 7 '46
Eastman Kodak wage-dividend plan. Personnel J 25:15-17 My '46
Employees profit sharing; a reappraisal. Trusts & Estates 83:117-21 Ag '46
Eric Johnston establishes profit-sharing plan in his Spokane concerns. Comm & Fin Chr 163:48 Ja 3 '46
Experience with profit sharing; abstract. F. B. Brower. Management R 35:227-9 Je '46
Group annuities and trust fund plan. E. B. Gardner and others. Nat Underw (Life ed) 50:2 S 20 '46
How Eric Johnston plans to share profits. E. J. Strickland. il Factory Management 104: 94-6 My '46
How to cut prices 80% at a profit; Lincoln electric co. plan. Sales Management 57:71 O 15 '46
Johnston divides. Bsns W p100 Ja 5 '46
Prerequisites to profit-sharing; labor views collective bargaining as basic to success. G. M. Harrison. Trusts & Estates 82:361-3 Ap '46
Profit sharing. R. L. Dixon. bibliog J Account 82:10-17 Jl '46
Profit sharing and employee benefit programs. M. Scott. Weekly Underw 155:659-61 S 14 '46; Excerpt. Nat Underw (Life ed) 50:21 S 20 '46
Profit sharing and stock ownership for wage earners and executives. B. M. Stewart and W. J. Couper. 142p bibliog(p141-2) pa $1.25 Industrial relations counselors, 1270 6th av, New York 20 '45
Profit-sharing; current vs. deferred distribution. H. S. Koster. Trusts & Estates 82: 218 F '46
Profit sharing for a balanced economy. R. C. McKenna. Factory Management 104: 302+ Mr '46
Profit sharing for the wage earner. 20p Dartnell corporation, 4660 Ravenswood av, Chicago 40 '46
Profit-sharing in metal working plants; pros and cons. B. Finney. Am Mach 90:117-24 S 12 '46
Profit sharing is good business. D. R. Thompson. N A C A Bul 27:334-41 D 15 '45
Profit-sharing plans. S. L. Zeigen. East Underw 47:59+ pt 2 O 4 '46
Profit-sharing plans are not a cure-all; survey of National industrial conference board. Factory Management 104:272+ Ag '46
Profit-sharing plans blossom in prosperity. P. A. Johnston. Barron's 26:3+ Ag 5 '46
Profit-sharing plans with retirement benefits. F. P. McKenzie. East Underw 47:52 pt 2 O 4 '46
Profit-sharing, savings and retirement plan; Sylvania electric products. E. W. Robbins. Management R 34:446-8 N '45
Profit sharing via loss reserves. Trusts & Estates 82:135-6 F '46
Profit sharing vs production incentives. A. Ramond. Automotive & Aviation Ind 95: 15+ Ag 15 '46; Same cond. Factory Management 104:288+ Je '46
Profits more likely if they're shared; trend of earnings and expenses seen dooming private ownership unless labor is given incentive. W. Wyer. Ry Age 120:873-5 Ap 27 '46
Profits shared; Eric Johnston's plan. Bsns W p96 Ja 26 '46
Reduction of costs through employee benefit planning; combined pension and profit sharing plan. G. Simons. N A C A Bul 27:464-72 Ja 15 '46; Abstract. Management R 35:132-3 Ap '46
Sharing the profits; plan inaugurated by Cincinnati and Lake Erie transportation company. Bus Transportation 25:52-3 My '46
60% of profit sharing plans have been abandoned says National industrial conference board; abstract. Comm & Fin Chr 163:3398 Je 20 '46
Trends in employees' trusts; deferred profit-sharing plans desirable. E. B. Gardner. Trusts & Estates 82:169-72 F '46
Unique pact; pledges union to use influence for wage reduction in bad years; contract between South Atlantic gas co. and International union of operating engineers. Bsns W p87 Je 22 '46
Use of insurance contracts in profit-sharing retirement plans. P. W. Danforth. East Underw 47:54 pt 2 O 4 '46
Utility employees' profit-sharing plan; Waukesha, Wis. A. P. Kuranz. Am Water Works Assn J 38:451-4 Ap '46; Same. Water & Sewage Works 93:143-4 Ap '46

Jobber and dealer
Retail profit sharing works; distributor-dealer arrangement. Bsns W p50+ O 5 '46

PROFIT-sharing trusts. See Employees' trusts

PROFITEERING
Currency black markets; trading in dollars prevalent throughout central Europe. H. M. Bratter. Comm & Fin Chr 164:1925+ O 17 '46
Free markets in a free society. O. H. Lamborn. Comm & Fin Chr 163:2557+ My 9 '46
War department official on occupation currency; letter to Senator Green. J. W. Martyn. Comm & Fin Chr 162:2572+ N 29 '45
War profiteering. J. M. Mead. Comm & Fin Chr 164:1139+ Ag 29 '46

PROGESTERONE
Synthetic analogues of progesterone. W. C. J. Ross. Chem Soc J p536-8 Ag '45

PROGRESS
Human progress. C. T. Weller. Elec Eng 65: 521-2 N '46

PROJECTILES
Approximate calculation of the range of a winged jet projectile. M. Z. Krzywoblocki. J Ap Phys 17:515-19 Je '46
Gate circuit for chronographs; device used in determining velocity of projectiles. L. B. Tooley. diags Electronics 19:144-5 My '46
Generator-powered proximity fuze. R. D. Huntoon and B. J. Miller. il diags Electronics 18:98-103 D '45
German carbide-cored projectiles. il Iron Age 157:57 Ap 18 '46
Proximity fuse; explodes projectile as soon as it comes close enough to target to inflict damage. il Radio N 34:51+ D '45
Proximity fuze tubes; abstract. M. A. Acheson. il Electronics 19:228+ Ja '46
Proximity fuzes for artillery. H. Selvidge. il diags Electronics 19:104-9 F '46
Radio proximity fuze; abstract. H. Trotter, jr. Electronics 19:226+ Ja '46

See also
Ballistics
Bombs, Aerial
Photography of projectiles
Shells (projectiles)
Torpedoes

Testing
Small arms ammunition; photo-electric device for testing. R. S. Spilsbury and A. Felton. il diag Electrician 135:739-43 D 28 '45

PROJECTION apparatus
Continuous slide film projector has electrical timing device. il diags Product Eng 17:98 S '46
New sales promotion aid on market this month; Dunning animatic sound projector. il Ptr Ink 216:102 S 13 '46
Slide projector employs aspheric lenses. il diags Machine Design 18:98 O '46
SIP optical profile projector projects contours or surfaces. il Am Mach 89:160 D 20 '45
Training gadget makes chalk dust passé. Nat Underw (Life ed) 50:6 N 8 '46

See also
Measuring instruments, Optical

PROJECTION of light. See Light projection

PROJECTION rooms. See Moving picture theaters—Projection rooms

PROJECTORS, Moving picture. See Moving picture machines

PROMISSORY notes
Action on written contract precluded where notes delivered. Banking Law J 63:505-10 Je '46
Amendment changing cause of action precludes recovery on note. Banking Law J 63:493-8 Je '46
Assignment of past due note. C. R. Rosenberg, jr. Burroughs Clearing House 30:47 S '46
Assumption of obligation to pay note by others does not render makers sureties thereafter. Banking Law J 63:396-8 My '46
Burden of proof of failure of consideration on maker of note. Banking Law J 63:563-6 Jl '46
Burden of proof on holder where defense of fraud alleged. Banking Law J 63:336-41 Ap '46
Burden of showing extent of partial want of failure of consideration of note on maker; holder entitled to recover face value of note. Banking Law J 62:970-7 D '45
Executory contract for sale of land held good consideration for note. Banking Law J 63:416-20 My '46
Indebtedness of co-maker held sufficient consideration for execution of note. Banking Law J 63:150-4 F '46
Indorsement of note in blank fraudulently obtained. Banking Law J 62:788-96 O '45
Indorser liable where implied waiver of notice of presentment and dishonor of note. Banking Law J 63:635-42 S '46
Law of place of payment governs note unless contrary is apparent. Banking Law J 62:902-6 N '45
Maker also signing as indorser not precluded from asserting defense invalidating note. Banking Law J 63:148-50 F '46
Non-delivery of note to payee precludes recovery on note. Banking Law J 63:427-30 My '46
Note containing provision for payment in gold coin of United States not void. Banking Law J 62:883-90 N '45
Note discharged and paid by payment to agent of holder in due course. Banking Law J 63:597-602 Ag '46
Note not outlawed by statute of limitations. C. R. Rosenberg, jr. Burroughs Clearing House 30:53 Ag '46
Note outlawed by acceleration clause. C. R. Rosenberg, jr. Burroughs Clearing House 30:45 D '45
Oral promise to pay debt on note held invalid and not a novation. Banking Law J 63:659-64 S '46
Ownership of negotiable notes transferable by methods other than indorsement under N.I.L. Banking Law J 63:431-6 My '46
Payee of note not precluded from recovery against maker (wife) of note where proceeds are given to husband. Banking Law J 63:537-41 Jl '46
Proof of execution and delivery of lost note by testimony of witness. Banking Law J 63:405-7 My '46
Prosecution of suit on note by assignee of alien enemy payee not barred by provision of Trading with the enemy act. Banking Law J 62:965-6 D '45
Purchaser of notes knowing of defect in title not holder in due course. Banking Law J 63:399-404 My '46
Qualified signature on face of note held gratuitous surety. Banking Law J 62:796-806 O '45
Recovery on new note executed by maker for unpaid balance of old note held not precluded by provisions of Federal farm loan act. Banking Law J 63:19-30 Ja '46
Statute of limitations not tolled against United States as holder in due course of notes. Banking Law J 62:881-3 N '45

See also
Indorsement

PROMIZOLE
Promizole treatment of leprosy. G. H. Faget and others. bibliog Pub Health Rep 61:957-60, pl 1-3 Je 28 '46

PRONY brake. See Dynamometers

PROOFREADING
Advice for the proofroom novice. E. N. Teall. Inland Ptr 116:50-1 N '45
Never query anything without an intelligible explanation of reason for doing so. E. N. Teall. Inland Ptr 117:62 S '46
Proofreader can smooth the path or cause friction between printer and his customers. E. N. Teall. Inland Ptr 116:62 Mr '46
Unnecessary proofreading queries waste time and money for printer and publisher. E. N. Teall. Inland Ptr 116:52 F '46

PROPAGANDA
See also
Government publicity

PROPAMIDINE
Bromination of 4 : 4'-diamidino-αγ-diphenoxypropane and of 4 : 4'-diamidinostilbene. A. J. Henry. Chem Soc J p870-3 D '45

PROPANE
Catalytic gasification of higher hydrocarbons. C. H. Riesz and others. bibliog diags Am Gas Assn Mo 28:159-64+ Ap '46
Chemicals from lighter hydrocarbons. J. E. Bludworth. Pet Refiner 25:102-5 My '46; Same abr. Nat Pet N 38 pt 2:R531+ Jl 3 '46
Consolidated Edison installs propane-air peak load plants. G. Calabrese. il map diag Gas Age 98:89-92+ O 3 '46
Consolidated Edison installs propane plant for peak. Gas Age 96:30 N 29 '45
Conversion from coal gas to 100% propane-air gas. H. K. Seeley. flow diag il Am Gas J 163:35-9 N '45
Extinction of propane and butane flames by dichlorodifluoromethane. G. W. Jones and F. E. Scott. pl U S Bur Mines Rep of Invest 3908:1-8 '46
Fluorinated derivatives of propane and propylene. A. L. Henne and T. P. Waalkes. bibliog Am Chem Soc J 68:496-7 Mr '46

PROPANE—*Continued*
How the Pittsburgh group plans to use propane; meeting peak load when supply of natural gas is inadequate. A. B. Lauderbaugh. Gas Age 98:108-9 O 3 '46
Immersion freezing of foods offers possible propane market. Pet Processing 1:8 S '46
LP-air-manufactured gas mixtures. D. W. Price. Gas Age 97:33-4 F 7 '46; Same. Am Gas J 164:14-15 F '46
LP gas-air and manufactured gas mixtures. W. E. Churchill. Am Gas J 164:11-13 F '46
Liquefied propane storage insures refinery fuel supply; Wilshire oil company. il diag Pet Refiner 25:104-5 O '46
Lubricant stocks improved by propane deasphalting. J. T. Dickinson and N. R. Adams. flow chart il Oil & Gas J 44:185+ Mr 30 '46
Memphis uses propane. il Gas Age 98:20+ Jl 25 '46
Mercury photosensitized reactions of propane at low pressures. B. D. Darwent and E. W. R. Steacie. bibliog J Chem Phys 13: 563-71 D '45
Mollier diagram for hydrocarbons. Oil & Gas J 44:109 F 9 '46
Ohio Fuel Gas installs propane-air plants. maps Gas Age 98:25+ Ag 22 '46
Plan operations to use natural gas products or suffer profit loss. E. O. Thompson. Nat Pet N 38:14+ Ap 3 '46
Possibilities of storing natural gas in the form of a solid hydrate. B. Miller and E. R. Strong, jr. il diag Am Gas Assn Proc 1945:80-94; Same abr. Am Gas Assn Mo 28: 63-7+ F '46
Practical refrigeration for natural-gasoline plants. R. W. Heath and others. bibliog flow sheets il Oil & Gas J 44:128-9+ F 23 '46; Same. Nat Pet N 38 pt 2:R202-4+ Mr 6 '46; Same. Pet Refiner 25:93-100 Mr '46; Same. Pet Eng 17:162+ My '46
Principles of reactor design; pyrolysis of propane. P. S. Myers and K. M. Watson. bibliog Nat Pet N 38 pt 2:R388-90+, R439+ My 1, Je 5 '46
Projection of laboratory reaction velocity data into commercial design. J. H. Hirsch, C. L. Crawford and C. Holloway, jr. bibliog Ind & Eng Chem 38:885-90 S '46
Propane deasphalting process. C. W. Kraemer. flow chart il Oil & Gas J 44:228+ Mr 30 '46
Properties of propane; tabulation. Oil & Gas J 44:B102 sec 2 Mr 30 '46
Recording gravitometers in accounting for propane-butane production. K. B. Barnes. il Oil & Gas J 44:103-4 Ja 12 '46
Synthetic estrogenic compounds; trialkyl derivatives of 1,3-di-(*p*-hydroxyphenyl)-propane; benzestrol. A. H. Stuart and others. bibliog Am Chem Soc J 68:729-33 My '46
Thermodynamic properties of propane and butane. Oil & Gas J 44:89-90 F 2 '46

PROPELLERS
Cycloidal propellers installed on the navy LMS 458. il Machine Design 18:105-6 Jl '46
Development of cycloidal propeller. il Marine Eng 51:108-10 Je '46
For better maneuvering. il Bsns W p32 Ap 20 '46
Rapid milling of propeller-shaft bearings. il Mach 52:180 Ag '46
Rubber propeller shaft bearings. il Marine Eng 50:224 N '45
Straightening bent propeller shafts. il diags Steel 118:108 Ja 21 '46
Transient performance of propellers and ships during backing and reversal. R. Rüdenberg. bibliog diags Franklin Inst J 240:193-227, 347-78 S, N '45
Welding of 3½% Ni-0.40% carbon class An steel forgings; repairing damaged propeller shafting. B. Ronay. il diags Welding J 25: 495-503 Je '46

See also
Airplane propellers
Ship propulsion

PROPELLERS, Airplane. See Airplane propellers

PROPENE
Condensations by sodium; the metalation of olefins and the preparation of β,γ-unsaturated acids. A. A. Morton and others. bibliog Am Chem Soc J 67:2224-8 D '45
Mechanism of the alkylation of paraffins; alkylation of isobutane with propene, 1-butene and 2-butene. L. Schmerling. bibliog Am Chem Soc J 68:275-81 F '46

PROPERTY
We are in the highest boom of all time. J Hirsch. Barron's 26:3+ S 2 '46

See also
Community property
Estates, Decedents'
Income
Real property

PROPERTY, Enemy. See Enemy property

PROPERTY and liability underwriters, American institute for. See American institute for property and liability underwriters

PROPHYLAXIS. See Immunity

PROPIONALDEHYDE
New aldehyde synthesis. M. L. Wolfrom and J. V. Karabinos. bibliog Am Chem Soc J 68:1455 Ag '46

PROPIONIC acid
Liquid-liquid extraction in spray towers. H. F. Johnson, jr. and H. Bliss. bibliog flow sheet diags Am Inst Chem Eng Trans 42: 331-58 Ap '46
New fungicide; propionate-propionic acid product proves effective in control of athlete's foot and other fungus diseases. F. Owens. bibliog Soap & San Chem 22:126-9+ My '46

PROPIONIC anhydride
Water absorption of plastics molded from acylated casein. W. G. Gordon, A. E. Brown and C. M. McGrory. bibliog Ind & Eng Chem 38:90-4 Ja '46

PROPIONYLACRYLIC acid
Compounds related to penicillic acid; ethyl β-propionylacrylate and its formylation product. J. S. Moffatt, G. Newbery and W. Webster. Chem Soc J p451-4 Je '46

PROPIOPHENONE
Synthesis of 2,4-dichloropropiophenone. J. T. Sheehan. Am Chem Soc J 68:1672 Ag '46

PROPORTIONING equipment
Automatic dispensing equipment for air-entraining agents. R. R. Kaufman. il diag Am Concrete Inst J 17:669-72 Je '46
Dewey and Almy air-entraining agent meter. il Rock Prod 49:59 Jl '46
Electronics in automatic chemical feed systems. R. T. Sheen. flow sheet il diags Am Inst Chem Eng Trans 42:725-39 Ag '46
Mechanical dispensing devices for air-entraining agents. E. M. Brickett. il Am Concrete Inst J 17:673-6 Je '46
Metering and proportioning pump. il diags Engineer 182:40 Jl 12 '46; Chem Age (Lond) 55:76 Jl 20 '46
Proportioning pumps powered by take-off. il Pet Refiner 25:132 My '46
Proportioning purifier air; installation in a water-gas plant. D. L. Dowling. il diag Am Gas Assn Mo 28:429-31 O '46
Should there be a final automatic check on glass batch correctness. il diags Cer Ind 45:64+ N '45

PROPRIETARY association of America
Annual convention, 64th, New York, May 13-15. Oil Paint & Drug Rep 149:7+ My 20 '46
Semi-annual meeting of the scientific section. Oil Paint & Drug Rep 148:3+ D 10 '45

PROPYL trichlorosilicane
Reactivity with alkali of chlorine-carbon bonds alpha, beta and gamma to silicon. L. H. Sommer and others. Am Chem Soc J 68:488-9 Mr '46

PROPYLAMINE
Synthesis of arylpropylamines, from allyl chloride. T. M. Patrick, jr., E. T. McBee and H. B. Hass. bibliog Am Chem Soc J 68:1009-11 Je '46
Synthesis of arylpropylamines, from chloroacetone. T. M. Patrick, jr., E. T. McBee and H. B. Hass. Am Chem Soc J 68:1135 Je '46
Synthesis of arylpropylamines; from nuclear nitration. T. M. Patrick, jr., E. T. McBee and H. B. Hass. Am Chem Soc J 68:1153-5 Jl '46

PROPYLENE

Commercial scale manufacture of allyl chloride and allyl alcohol from propylene; abstract. A. W. Fairbairn, H. A. Cheney and A. J. Cherniavsky. flow diag il Pet Processing 1:87-8 O '46

Fluorinated derivatives of propane and propylene. A. L. Henne and T. P. Waalkes. bibliog Am Chem Soc J 68:496-7 Mr '46

Heat content, free energy function, entropy, and heat capacity of ethylene, propylene, and the four butenes to 1,500°K. J. E. Kilpatrick and K. S. Pitzer. bibliog J Res Nat Bur Stand 37:163-71 S '46

Kinetics and mechanism of the isomerization of cyclopropane. E. S. Corner and R. N. Pease. bibliog Am Chem Soc J 67:2067-71 D '45

Mercury photosensitized reactions of propylene and isoprene. H. E. Gunning and E. W. R. Steacie. J Chem Phys 14:57-61 F '46

Petroleum byproducts, a big factor in organic chemical industry; Chem & Met report. bibliog il Chem & Met Eng 52:121-8 D '45 [reprints 25c]

Syntheses of glycerol and propylene glycol from propylene, and ethylene glycol from ethylene. D. M. Newitt and P. S. Mene. Chem Soc J p97-100 F '46

Manufacture

Low temperature processing of light hydrocarbons. A. W. Pratt and N. L. Foskett. il diag Am Inst Chem Eng Trans 42:149-61; Discussion. 161-3 F '46

PROPYLENE dichloride. See Dichloropropane

PROPYLENE glycol

Effect of soaps on mutual solubility of organic liquids. S. R. Palit and J. W. McBain. bibliog diags Ind & Eng Chem 38:741-4 Jl '46

Reaction of propylene oxide with alcohols. H. C. Chitwood and B. T. Freure. bibliog Am Chem Soc J 68:680-3 Ap '46

Simple vaporizing device for the attainment of bactericidal concentrations of glycol vapors in air. T. N. Harris and J. Stokes, jr. bibliog diag Science 104:423-5 N 1 '46

Solvent action and co-solvency; lecture demonstration. S. R. Palit. J Chem Educ 23: 182 Ap '46

Syntheses of glycerol and propylene glycol from propylene, and ethylene glycol from ethylene. D. M. Newitt and P. S. Mene. Chem Soc J p97-100 F '46

Analysis

Determination of 1,2-propylene glycol in ethylene glycol. R. C. Reinke and E. N. Luce. bibliog Ind & Eng Chem Anal ed 18: 244-5 Ap '46

Simultaneous determination of ethylene and 1,2-propylene glycols. B. Warshowsky and P. J. Elving. bibliog Ind & Eng Chem Anal ed 18:253-4 Ap '46

PROPYLENE oxide

Control of microbiological food spoilage by fumigation with epoxides. R. Whelton and others. bibliog il Food Ind 18:174-6+ F '46

Reaction of propylene oxide with alcohols. H. C. Chitwood and B. T. Freure. bibliog Am Chem Soc J 68:680-3 Ap '46

PROSPECT lists

Customers hand-picked by new distribution industry; air-freight salesmen develop prospect list. il Ptr Ink 217:54+ O 25 '46

How to find prospects for your product. Ptr Ink 216:57-8+ S 27 '46

Prospect list is life blood of selling by mail; how to remove non-prospects and eliminate duplications. M. Rogers. Ptr Ink 213:24 N 16 '45

Prospects for homes learn values thru Home planners' institute, New Orleans. Sales Management 57:48 Ag 15 '46

To create prospects, show proper use of your product; educational work in schools and before organized groups. Ptr Ink 217: 89-90+ O 11 '46

See also

Follow-up systems

PROSPECTING

Aerial photographs speed reconnaissance work; advantages in the tropics. J. Edwin. il Eng & Min J 147:88-9 Je '46

Exploration of Glass Buttes mercury deposit, Lake county, Oregon. G. C. Reed. 3pls U S Bur Mines Rep of Invest 3926:1-4 '46

Exploration of Spirit mountain nickel prospect, Canyon Creek, lower Copper river region, Alaska. H. C. Pierce. 3pls U S Bur Mines Rep of Invest 3913:1-8 '46

Exploration of the Mount Hope mine, Eureka county, Nevada. E. J. Matson. 16pls U S Bur Mines Rep of Invest 3928:1-7 '46

Locating uranium with the ultraviolet lamp. J. DeMent. bibliog il Min Cong J 32:26-30 My '46

Mineral exploration and the outlook for metal supplies. G. F. Laycock. Engineer 182:10-11, 38-9 Jl 5-12 '46

Mining geology; review of 1945. H. E. McKinstry. Min & Met 27:62-5 F '46

Mining in Manitoba in 1945. J. P. de Wet. Can Min J 67:97-100 F '46

New drilling technique on Marquette range. S. A. Tyler. Eng & Min J 147:119-21 F '46

Record exploration efforts boom Canadian mining areas. R. D. Hoffman and A. Hoffmann. il maps Eng & Min J 147:80-4+ Ag '46

Whence our future ore reserves? G. M. Fowler. il Min Cong J 32:34-5 My '46

See also

Petroleum—Prospecting

Electric methods

Study of fault determinations by geophysical methods in the fluorspar areas of western Kentucky. F. W. Lee and S. J. Hemberger. bibliog 36pls U S Bur Mines Rep of Invest 3889:1-27 '46

Geophysical methods

Aerial doodle bug. il Sci Am 175:80 Ag '46

Airborne magnetometer. il plan Min Cong J 32:48-50+ Jl '46

Airborne magnetometer, new aid to geophysics. A. W. Knoerr. il diags Eng & Min J 147:70-5 Je '46

Application of geophysics to the problems of the pre-Cambrian shield. T. Koulomzine. il maps diag Can Min J 67:933-40 O '46

Controlling plane position in aerial magnetic surveying. H. Jensen and J. R. Balsley, jr. il diags Eng & Min J 147:94-5+ Ag '46

Detailed magnetometer surveys quickly made from helicopters. il Min & Met 27:474 S '46

Employ helicopter for geophysical surveying. Eng & Min J 147:90 Ag '46

Geophysical activities in 1945 and the geophysicists' part in the war. C. A. Heiland. il Min & Met 27:109-14 F '46

Magnetic reconnaissance in north-central Minnesota in 1945. E. Y. Dougherty and E. F. Fitzhugh, jr. 10pls U S Bur Mines Rep of Invest 3919:1-17 '46

Minnesota iron ore survey. R. R. Sayers. Blast F & Steel Pl 34:1297 O '46

Navy's airborne detector speeds prospecting for iron ore, oil. il Steel 118:59 Je 10 '46

New airborne magnetometer demonstrated in Ottawa; experimental flights in northern Quebec and Ontario. il diag Can Min J 67:953-6 O '46

New prospecting aid; airborne magnetic detector. Comp Air Mag 51:192 Jl '46

See also

Petroleum—Prospecting—Geophysical methods

Bibliography

Geophysical abstracts 122, July-September 1945. V. Skitsky, comp. U S Bur Mines Information Circ 7349:1-49 '46

Geophysical abstracts 123, October-December 1945; with an index to abstracts 120-123. V. Skitsky, comp. U S Bur Mines Information Circ 7355:1-78 '46

PROSPECTORS

Trail breakers of Canada's golden pre-Cambria. B. MacGregor. Can Min J 67:13-19 Ja '46

PROSPECTS for life insurance. See Insurance, Life—Prospects

PROSPECTUSES. See Securities—Advertising

PROSPERITY

From a bewildered small business man. Nat City Bank p28-9 Mr '46

Full employment plus for America. I. Mosher. il Dun's R 53:11-14+ N '45

Full production means full employment, plus; address before National association of manufacturers. I. Mosher. Comm & Fin Chr 162:2697+ D 6 '45; Excerpts. Factory Management 104:262+ F '46

How long will prosperity last? H. A. Bullis. Comm & Fin Chr 164:2385+ N 7 '46

Long prosperity ahead. M. Palyi. Comm & Fin Chr 164:1005+ Ag 22 '46

National prosperity; whose responsibility? P. G. Hoffman. Comm & Fin Chr 162:2575+ N 29 '45

Our job; prosperity for all. E. Schram. Comm & Fin Chr 162:2617+ N 29 '45

Profitless prosperity. A. M. Sakolski. Comm & Fin Chr 164:1929+ O 17 '46

Prosperity and employment. I. Wright. Comm & Fin Chr 163:1220+ Mr 7 '46

Prosperity is ahead if cards are played right. A. H. Johnson. Nat Underw (Life ed) 49:3+ N 16 '45

Prosperity, we can have it if we want it. M. Shields. Comm & Fin Chr 164:2206+ O 31 '46

Road to abundance. Z. Jeffries. Comm & Fin Chr 164:2212+ O 31 '46

Today's needs: production and confidence. S. J. Broad. il Dun's R 54:11-14+ Mr '46

See also

Business cycles

PROSTHESIS

Better prosthetic devices. Mech Eng 68:818 S '46

See also

Artificial limbs

PROTACTINIUM. See Protoactinium

PROTAMINES

Antibacterial activity of protamine zinc insulin. C. H. Bollenback and S. W. Fox. Science 103:445-6 Ap 12 '46

Improved methods of preparation of electropositive permselective protamine collodion membranes. H. P. Gregor and K. Sollner. bibliog J Phys Chem 50:88-96 Mr '46

PROTECTIVE clothing. See Clothing, Protective

PROTECTIVE coatings branch. See United States—War production board—Protective coatings branch

PROTEINASES

Nomenclature of proteolytic enzymes. T. Winnick and D. M. Greenberg. Science 102: 648-9 D 21 '45

PROTEINS

Action of sulfating agents on proteins and model substances; concentrated sulfuric acid. H. C. Reitz and others. bibliog Am Chem Soc J 68:1024-31 Je '46

Action of sulfating agents on proteins and model substances; pyridine-chlorosulfonic acid. H. C. Reitz and others. bibliog Am Chem Soc J 68:1031-5 Je '46

Activity of modified proteins as antigens in cultures of a yeast. S. W. Fox and M. J. Ward. Am Chem Soc J 68:2118 O '46

Amino acid and protein deficiencies as causes of corneal vascularization; a preliminary report. V. P. Sydenstricker and others. bibliog Science 103:194-6 F 15 '46

Binding of organic ions by proteins. I. M. Klotz, F. M. Walker and R. B. Pivan. bibliog Am Chem Soc J 68:1486-90 Ag '46

Chemicals in South Africa; protein concentrates. Chem Age (Lond) 53:546 D 8 '45

Combination of wool protein with heavy metal salts as a function of pH. K. S. LeFleur. bibliog il Am Dyestuff Rep 35:383-6+ Ag 12 '46

Cooperative research in properties and therapeutic values of protein hydrolysates and amino acids. W. H. Cole. Science 103:205 F 15 '46

Effect of concentrated urea solution on the precipitating power of antiovalbumin; significance of formation of protein complexes. D. H. Campbell and J. E. Cushing. bibliog Science 102:564-6 N 30 '45

Fibrous proteins; symposium of the Society of dyers and colorists. Am Dyestuff Rep 35:452-5 S 23 '46; Abstract. Chem Age (Lond) 54:703-4 Je 22 '46

Fractionation of proteins by electrophoresis-convection. L. E. Nielsen and J. G. Kirkwood. diag Am Chem Soc J 68:181-5 F '46

Improvement in the color of peanut and cottonseed proteins. T. D. Fontaine, S. B. Detwiler, jr. and G. W. Irving, jr. bibliog Ind & Eng Chem 37:1232-6 D '45

Interactions between proteins and azosulfonamides. I. M. Klotz and others. Science 104:264 S 20 '46

Intravenous utilization of partial acid hydrolysates of proteins. W. C. Risser and others. Science 103:362 Mr 22 '46

Lime hydrolysis of soybean protein; foaming properties of the hydrolyzate. J. M. Perri, jr. and F. Hazel. bibliog diags Ind & Eng Chem 38:549-54 My '46

Linseed proteins; alkali dispersion and acid precipitation. A. K. Smith, V. L. Johnsen and A. C. Beckel. bibliog Ind & Eng Chem 38:353-6 Mr '46

Manufacture and use of peanut protein. R. S. Burnett. bibliog flow diag il Chem & Eng N 24:478-80 F 25 '46

Nutritive value of wheat flour proteins. H. C. H. Graves. bibliog Chem & Ind p261-3 Jl 13 '46

Optical methods in electrophoresis; principles, apparatus, determination of apparatus constants, and application to refractive index measurements. L. G. Longsworth. bibliog il diags Ind & Eng Chem Anal ed 18:219-29 Ap '46

Peptization of peanut and cottonseed proteins; effect of dialysis and various acids. T. D. Fontaine, G. W. Irving, jr. and K. S. Markley. bibliog Ind & Eng Chem 38:658-62 Je '46

Preparation and properties of serum and plasma proteins; a system for the separation into fractions of the protein and lipoprotein components of biological tissues and fluids. E. J. Cohn and others. bibliog Am Chem Soc J 68:459-75 Mr '46

Protein feed from sulphite waste liquor; production of Torula yeast. R. D. Walker, jr. and R. A. Morgen. bibliog diag Paper Tr J 123:43-7 Ag 8 '46

Protein hydrolyzates and burns. Ind Med 14: 823-4 O '45

Protein hydrolysates; flavor ingredients for foods; acid digestion of casein, corn or wheat gluten. L. A. Hall. flow sheet il Food Ind 18:681-4+ My '46

Proteins from wood. Chem & Eng N 24:1570 Je 10 '46

Rate of enzymic digestion of proteins as a factor in nutrition. D. Melnick and others. bibliog Science 103:326-9 Mr 15 '46

Reaction of formaldehyde with proteins; participation of the guanidyl groups and evidence of crosslinking. H. Fraenkel-Conrat and H. S. Olcott. bibliog Am Chem Soc J 68:34-7 Ja '46

Soybean protein production; effects of temperature and water-flake ratio. A. C. Beckel, P. A. Belter and A. K. Smith. bibliog Ind & Eng Chem 38:731-4 Jl '46

Studies on protein denaturation; electrophoretic study kinetics at neutrality of heat denaturation of β-lactoglobulin. D. R. Briggs and R. Hull. bibliog Am Chem Soc J 67:2007-14 N '45

Ultra-high frequency denaturation of proteins. G. A. Boyd. J Chem Phys 14:351 My '46

Water resistance of proteins; improvement through chemical modification. H. S. Olcott and H. Fraenkel-Conrat. bibliog Ind & Eng Chem 38:104-6 Ja '46

See also

Albumin
Amino acids
Casein
Ferritin
Gelatin
Globulins
Keratin
Tryptophan
Zein

Analysis

Amino acid composition of proteins. H. B. Vickery and H. T. Clarke. Science 102:454-6 N 2 '45; Reply. R. J. Block and D. Bolling. 103:431-2 Ap 5 '46; Discussion (Amino acids in food materials. E. B. Hart). 103:432+ Ap 5 '46

PROTEINS—Analysis—*Continued*
Deproteinization by metaphosphoric acid; review of its value for the analyst. A. A. Horvath. bibliog(50 references) Ind & Eng Chem Anal ed 18:229-33 Ap '46
Determination of the saturation water content of protein plastics. E. F. Mellon. Ind & Eng Chem Anal ed 17:743 N '45
Determination of tryptophane, phenylalanine, and methionine; a rapid procedure. W. C. Hess and M. X. Sullivan. bibliog Ind & Eng Chem Anal ed 17:717 N '45
Electrophoresis; technique for analysis of blood protein mixtures. il diag Electronics 19:196+ S '46

Industrial applications

Proteins as industrial raw materials. A. K. Smith. bibliog il Chem Ind 58:974-7 Je '46

PROTEST (law)
See also
Checks—Protest

PROTOACTINIUM
Fine structure of the α-rays from protactinium. S. Tsien and others. bibliog Phys R 69:39 Ja 1 '46

PROTONS
Mono-energetic protons from a cyclotron. E. C. Creutz and R. R. Wilson. diags R Sci Instr 17:385-8 O '46
Nuclear induction experiment. F. Block and others. il diags Phys R 70:474-85 O 1 '46
Relativistic correction in calculating the magnetic moment of the deuteron. P. Caldirola. Phys R 69:608-10 Je 1 '46

Scattering

High energy neutron-proton scattering and the meson theory of nuclear forces with strong coupling. J. L. Lopes. bibliog Phys R 70:5-15 Jl 1 '46
Nuclear spectroscopy and energy distribution of charged particles inelastically scattered by nuclei. E. Guth. Phys R 68:280 D 1 '45

PROTOTYPE design. See Architecture—Designs and plans

PROTOZOA
Agar technique for arresting movement in protozoa. W. S. Bullough. Science 104:227 S 6 '46

PROVISIONAL international civil aviation organization
First PICAO general assembly. il Aero Digest 53:23+ Ag '46
Work of the interim council of the PICAO. E. Warner. Aero Digest 52:24-5+ Mr '46

PROVITAMINS
See also
Carotene

PROXIMATE cause (law)
Proximate cause; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:36-7 My 9 '46

PROXIMITY fuse. See Fuses

PROZONES. See Blood—Agglutination

PRUDENTIAL assurance company
Review at 97th annual general meeting. G. L. Barstow. Economist 150:610 Ap 13 '46

PRUDENTIAL insurance company of America
Annual business conference, Newark. East Underw 47:1, 3-4 Mr 15 '46; Nat Underw (Life ed) 50:3+ Mr 15 '46
How Prudential handles 82,000 letters daily. J. Turner. il Am Bsns 16:22-4 My '46
New dividend scale for 1946; interest rates also revised. Life Ins Courant 51:90-3 F '46
Prudential hunts real estate. il Bsns W p62+ Ja 5 '46
Prudential writes group insurance for groups of less than 50 lives. Life Ins Courant 51: 244-5 My '46; Nat Underw (Life ed) 50:7+ Mr 29 '46
Resumes in Texas after 39 years' lapse. Nat Underw (Life ed) 50:8+ Mr 22 '46; East Underw 47:5+ Mr 22; 1+ Jl 26 '46
Text of U.S. Supreme court decision in Prudential vs. Benjamin; South Carolina premium tax law upheld. Nat Underw (Life ed) 50:9-11+ Je 7 '46; Nat Underw 50:3+ Je 6 '46

PRUNES, Dried
Production of and trade in dried prunes, Union of South Africa, 1936-1943. For Comm W 23:39 Je 1 '46

PSEUDOIONONE
Cyclization of pseudoionone by acidic reagents. E. E. Royals. bibliog Ind & Eng Chem 38:546-8 My '46

PSEUDOMORPHS
Some notes on micro-pseudomorphism. C. Schouten. bibliog il diags Econ Geol 41:348-82 Je '46

PSEUDOSANTONIN
Constitution of ψ santonin. G. R. Clemo and W. Cocker. Chem Soc J p30-9 Ja '46

PSITTACOSIS
Epidemic of a severe pneumonitis in the bayou region of Louisiana; comparative study of the viruses of lymphogranuloma venereum, psittacosis, and Louisiana pneumonitis. C. L. Larson and B. J. Olson. bibliog Pub Health Rep 61:69-78 Ja 18 '46

PSYCHIATRIC hospitals. See Hospitals, Psychiatric

PSYCHIATRY, Industrial
Emotional first aid stations in industry. G. M. Lott. Ind Med 15:419-22 Jl '46
Emotional first aid stations in industry. L. H. Whitney; J. C. Kindred. Ind Med 15:336-9 My '46
Establishing an industrial psychiatric program. L. E. Himler. Ind Med 14:912+ N '45
Industrial psychiatry in the community of Oak Ridge. C. Leggo and others. bibliog Ind Med 15:243-53 Ap '46
Mental rehabilitation of the worker. K. M. Bowman. Ind Med 15:517-18 S '46
Off the job; the industrial patient in the hospital. J. C. Kindred. Ind Med 15:338-9 My '46
Psychoneurosis, its impact on industry; are psychoneurotics employable? G. A. Eadie. Ind Med 15:325-30 My '46
Traumatic neuroses of industry. J. Biernoff. Ind Med 15:109-12 F '46

PSYCHIATRY, Military
Army demonstrates value of psychiatry. Nat Safety N 53:44 Ap '46

PSYCHODA. See Sewage filter fly

PSYCHOLOGICAL clinic. See Pennsylvania university—Psychological clinic

PSYCHOLOGISTS
New opportunities and new responsibilities for the psychologist. J. G. Jenkins. Science 103.33-8 Ja 11 '46; Reply. T. D. A. Cockerell. 103:280-1 Mr 1 '46
Program for training critically needed clinical psychologists. Science 104:250 S 13 '46
See also
Holt, Edwin Bissell

PSYCHOLOGY
See also
Ability tests
Advertising—Psychology
Attitude (psychology)
Color—Psychology

Dictionaries and encyclopedias

Encyclopedia of psychology. P. L. Harriman, ed. 897p $10 Philosophical library, 15 E. 40th st, New York '46

PSYCHOLOGY, Applied
Human factor in product design. J. W. Dunlap. Management R 35:367-71 S '46
Leadership by persuasion. D. C. Prince. Mech Eng 68:435-7 My '46
New opportunities and new responsibilities for the psychologist. J. G. Jenkins. Science 103.33-8 Ja 11 '46; Reply. T. D. A. Cockerell. 103:280-1 Mr 1 '46

PSYCHOLOGY, Industrial
Building a sound personnel policy; interview with D. G. Humm. E. Whitmore. Am Bsns 16:8-9+ O '46
Factory mind. E. J. Redmon. Personnel J 25: 59-61 Je '46
Fruitful errors of Elton Mayo, who proposes to management and labor a social basis for industrial peace. il Fortune 34:180-3+ N '46
How to get along with the boss. J. Garth. Am Bsns 15:28+ D '45

PSYCHOLOGY, Industrial—*Continued*
Increasing mine production; psychological factors affect efficiency of mechanized mining. J. Hyslop. Min & Met 27:548-50 N '46
Labor's dilemma. L. K. Johnson. Personnel J 25:114-20 O '46
Pajamas and the ego; psychology at the Harwood plant, Marion, Va. Fortune 34:140 Ag '46
Play it safe executive; how to force him to act. J. Garth. Am Bsns 16:42-5 Ja '46
Timmie versus industrial psychology. B. H. Hopkins. Chem & Met Eng 53:147-9 F '46

See also
Ability tests
Advertising—Psychology
Employment management
Fatigue
Incentives in industry
Mental hygiene, Industrial
Music in industry
Personality tests
Safety devices and measures—Psychological aspects

PSYCHOLOGY of color. See Color—Psychology

PSYCHROMETRIC charts. See Humidity

PSYCHROMETRY. See Humidity

PSYCHOTHERAPY
Hostile dependent behavior in rehabilitation. A. P. Solomon. Ind Med 15:307-11 My '46

PSYLLIUM
Medicinals and crude drugs. For Comm W 24:47 Ag 17 '46

PUBLIC accountants. See Accountants, Public

PUBLIC address systems. See Loud speaking apparatus

PUBLIC administration. See Administration, Public

PUBLIC buildings
Architectural program to make public buildings accessible to physically handicapped. il Arch Forum 83:240 N '45
Federal building program. W. E. Reynolds. il Civil Eng 16:252-3 Je '46
Master plans for master politicians. G. Howe. il Arch Rec 98:95-9 D '45

See also
Community centers
Municipal buildings
School buildings

PUBLIC buildings administration. See United States—Public buildings administration

PUBLIC contracts. See Contracts, Government

PUBLIC debts. See Debts, Public

PUBLIC funds. See Bank deposits, Government

PUBLIC health
Health instruction yearbook, 1946. O. E. Byrd, comp. 399p bibliog(p367-88) $3 Stanford univ. press, Stanford university, Calif. '46
Public health aspects of industrial waste disposal. F. M. Stead. Eng N 137:598 O 31 '46
Subject headings for public health. 147p Public health division, Municipal reference lib, Los Angeles pub. lib. '45

See also
Air pollution
City planning
Diseases—Statistics
Disinfection and disinfectants
Dust removal
Epidemics
Factory sanitation
Food supply
Health centers
Hospitals
Housing—Hygienic aspects
Hygiene, Industrial
Infectious diseases
Insurance, Health
Medical service
Mortality
Mosquitoes—Extermination
Nurses and nursing, Industrial
Nutrition
Physical examinations
Refuse disposal
Safety devices and measures
Sanitation
Sewage disposal
Sickness
Tuberculosis
Venereal diseases
Ventilation
Water pollution
Water purification
Water supply
World health organization

Bibliography
Bibliography of the technical work of the Health organisation of the League of Nations, 1920-1945. 235p pa $1.50 Columbia univ. press, 2960 Broadway, New York 27 '45
Books on public health; selected from publications of current year. Munic Ref Lib Notes [N.Y. Pub. Lib] 29:175-80 D '45
Public health service publications; list of publications issued during the period January-December 1945. Pub Health Rep 61: 1034-43 Jl 12 '46

Study and teaching
Training public health workers; programs sponsored by state health departments under title VI of the Federal social security act and the Federal venereal disease control act (1936-44). J. W. Mountin and E. K. Hankla. Pub Health Rep 61:725-48 bibliog (p739) My 24 '46

Alaska
Tularemia; first case to be reported in Alaska. R. B. Williams. Pub Health Rep 61:875-6 Je 14 '46

Australia
Recommendations for medical care service in Australia. Int Labour R 53:266-9 Mr-Ap '46

Belgium
Health problems. R. Sand. Ann Am Acad 247:92-7 S '46

Burma
Serological study of 37 cases of tsutsugamushi disease (scrub typhus) occurring in Burma and the Philippine Islands. I. A. Bengtson. Pub Health Rep 61:887-94 Je 14 '46

Canada
Socialized health services; a plan for Canada. 52p bibliog(p51-2) pa $1 Co-operative commonwealth federation, Literature dept, Woodsworth house, 565 Jarvis st, Toronto '46

Denmark
Tuberculosis control in Denmark. J. Holm. Pub Health Rep 61:1426-43 O 4 '46

Europe
Sanitation and public-health experiences in Europe; Sicily, southern Italy, Sardinia, and southern France. L. W. Trager. N E Water Works Assn J 60:43-53 Mr '46

Far East
Health conditions in certain large cities of the Far East after liberation. H. R. O'Brien. map Pub Health Rep 61:1339-50 S 13 '46

Great Britain
Bill of health. Economist 150:483-4 Mr 30 '46
Health bill. Economist 151:163-4 Ag 3 '46
Health debate. Economist 150:701-2 My 4 '46
Public health during six years of war; comments on Chief medical officers report; with selected statistical tables. Economist 151: 404-5, 434-5 S 14 '46

See also
Great Britain—Industrial health research board

Hawaii
Plague infection reported in the Territory of Hawaii during 1944 and summary of human cases, 1899-1944. B. C. Hampton. Pub Health Rep 60:1365-7 N 16 '45

Louisiana
Epidemic of a severe pneumonitis in the bayou region of Louisiana. B. J. Olson and others. bibliog map Pub Health Rep 59: 1299-1311, 1331-50, pl 1-3, 1363-74, pl 1-10; 60:1488-1503; 61:69-78, 1100-15 O 6-20 '44, D 14 '45, Ja 18, Jl 26 '46

Mobile, Alabama
Study of rodent ectoparasites in Mobile, Ala. L. C. Cole and J. A. Koepke. bibliog(40 titles) map Pub Health Rep 61:1469-87 O 11 '46

Netherlands
Food shortage and public health, first half of 1945. C. Banning. Ann Am Acad 245:93-110 My '46

PUBLIC health—*Continued*

New York (state)

Greater New York hospital assn. approves Pink's health plan. Weekly Underw 153:1533 D 29 '45

Offers N.Y. state health plan; abstracts. L. H. Pink. Nat Underw 49:21 D 13 '45; Nat Underw (Life ed) 49:9 D 21 '45; Weekly Underw 153:1419 D 15 '45

Okinawa

Complement-fixing and neutralizing antibodies against Japanese B virus in the sera of Okinawan horses. H. L. Hodes and others. Science 103:357-9 Mr 22 '46

Palestine

Malaria and rainfall periodicity in Palestine. E. H. Adkerknecht and G. F. Carter. Science 103:342-4 Mr 15 '46

Philippine Islands

Serological study of 37 cases of tsutsugamushi disease (scrub typhus) occurring in Burma and the Philippine Islands. I. A. Bengtson. Pub Health Rep 61:887-94 Je 14 '46

Russia

Medical care in the U.S.S.R. Int Labour R 53:269-71 Mr-Ap '46

Saskatchewan

Saskatchewan plans for extensive health insurance coverage. F. Jordan. East Underw 47:34 Ja 11 '46

Texas

Complement-fixation tests for American trypanosomiasis in Texas. D. J. Davis and T. D. Sullivan. Pub Health Rep 61:1083-4 Jl 19 '46

United States

Five-point national health program proposed by President Truman. Pub Health Rep 60: 1428-30 N 30 '45

Health care program for all laid out by President Truman. Oil Paint & Drug Rep 148:3 N 26 '45

Medical services by government, local, state, and federal. B. J. Stern. 208p $1.50 Commonwealth fund, 41 E. 57th st, New York '46

Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; extent of immunization against smallpox, diphtheria, and typhoid fever. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 61:97-109 Ja 25 '46

President Truman's message on federal health insurance. Comm & Fin Chr 162:2497+ N 22 '45

Washington (state)

Coordination of official industrial hygiene program with other agencies. L. M. Farner. Ind Med 15:381-3 Je '46

Wisconsin

Administrative aspects of mass radiography. P. A. Brehm. Ind Med 15:391-3 Je '46

PUBLIC health administration

Administrative aspects of mass radiography. P. A. Brehm. Ind Med 15:391-3 Je '46

Coordination of official industrial hygiene program with other agencies; Washington (state); with text of agreement. L. M. Farner. Ind Med 15:381-3 Je '46

Expansion of industrial hygiene programs in official agencies. J. G. Townsend. Ind Med 15:423-5 Jl '46

Health and welfare services. E. C. Potter. bibliog Ann Am Acad 242:139-48 N '45

Health education in the public health program. M. Derryberry. Pub Health Rep 60:1394-1402 N 23 '45

Local health units for the Nation, by H. Emerson and M. Luginbuhl. Review, by G. T. Palmer. Pub Health Rep 60:1368-72 N 16 '45

Public health program for rural areas. F. D. Mott. Pub Health Rep 61:589-98 Ap 26 '46

Review of tuberculosis control demonstrations and the program of grants-in-aid. F. J. Weber. Pub Health Rep 61:643-8 My 3 '46

See also

Public health departments

Sanitary districts

PUBLIC health centers. See Health centers

PUBLIC health departments

Division of industrial hygiene (Indiana) annual report, year ended June 30, 1945. Ind Med 14:917-19 N '45

Full-time public health positions in local health departments. M. E. Altenderfer. bibliog Pub Health Rep 61:866-74 Je 14 '46

Services of new State health department branches, Indiana. L. E. Burney. Am Water Works Assn J 38:1046-50 S '46

Surplus property purchase procedure; instructions to eligible public health claimants. Am Water Works Assn J 38:371-5 Mr '46

Directories

Changes in state and territorial health authorities. Pub Health Rep 61:1386-7, 1544-7, 1701-3 S 20, O 25, N 22 '46

Directory of state and territorial health authorities, 1945. (Public health rep supp 180) rev 54p U.S. Public health service, Washington; pa 15c Supt. of doc. '46

Records

Devices for reducing health department records and reports. J. W. Mountin and E. Flook. (Public health rep supp 187) 67p U.S. Public health service, Washington, D.C. '45; Review. Pub Health Rep 60:1353-4 N 9 '45

Tuberculosis record systems. Pub Health Rep 61:625-6 My 3 '46

PUBLIC health laboratories

Public health service laboratory dedicated at Bethesda, Md. Oil Paint & Drug Rep 150: 64 O 28 '46

PUBLIC health laws

Christian Science statement on health legislation. Weekly Underw 154:237 Ja 19 '46

Health bill submitted by Taft. Oil Paint & Drug Rep 149:3+ My 13 '46

PUBLIC health officers

Directories

Changes in state and territorial health authorities. Pub Health Rep 61:1386-7, 1544-7, 1701-3 S 20, O 25, N 22 '46

Directory of state and territorial health authorities, 1945. (Public health rep supp 180) rev 54p U.S. Public health service, Washington; pa 15c Supt. of doc. '46

PUBLIC health research

National institute of health research fellowships. Science 104:323 O 4 '46

PUBLIC health surveys

How does housing affect health? M. A. Pond. bibliog Pub Health Rep 61:665-72 My 10 '46

PUBLIC health workers

Full-time public health positions in local health departments. M. E. Altenderfer. bibliog Pub Health Rep 61:866-74 Je 14 '46

Health service for official agencies at the state level. L. W. Spolyar. Ind Med 15: 530-1 S '46

Training public health workers; programs sponsored by state health departments under title VI of the Federal social security act and the Federal venereal disease control act (1936-44). J. W. Mountin and E. K. Hankla. Pub Health Rep 61:725-48 bibliog(p739) My 24 '46

PUBLIC lands

Farms and homes from surplus military lands. A. T. M. Lee. J Land & Pub Util Econ 21:331-8 N '45

See also

Oil reserves (United States navy)

Sweden

Squandering the public domain in Sweden; 1820-1870. R. Freund. maps J Land & Pub Util Econ 22:119-30 My '46

PUBLIC laundries. See Laundries, Public

PUBLIC officers
Bureaucrat meets payroll. Fortune 33:226 Ja '46
Manpower wanted in the high places in Washington. Esns W p7 Ja 26 '46
Note on turnover in government personnel; United States shipping board after World war I and United States maritime commission after World war II. J. W. Culliton. Harvard Bsns R 24 no 4:512-17 [J1] '46
Politburo; who they are and how they work. V. Kravchenko. il Fortune 34:93-9+ S '46
President's men. Fortune 33:86 My '46

Directories
Federal and state bureaus and officials concerned with mineral resources; U.S. and Canada. Min & Met 27:136-9 F '46
Government officials in charge of Canadian public water supply and sewerage undertakings. Water & Sewage 84:20 J1 '46

PUBLIC officials bonds. See Insurance, Surety and fidelity—Public officials bonds

PUBLIC opinion
Attitude polls, servants or masters? E. L. Bernays. Mass Transportation 42:210-11 My '46
Fortune survey. Published in monthly numbers of Fortune
Industry and public opinion. J. R. York. Am Pet Inst Proc 25(1):92-8 '45
Is your advertising in tune with public opinion? A.N.A. studies summarized. P. S. Ellison. Ptr Ink 213:25-6+ N 16 '45
OPA receives enthusiastic public support; Gallup poll. Iron Age 157:119+ Mr 14 '46
Public favors congressional action on strikes. Iron Age 157:99+ F 28 '46
Public wants bomb test results kept secret; will give up food for Europe; Gallup polls. Iron Age 157:105+ Mr 21 '46
Republicans labeled party of wealth; Gallup poll. Iron Age 157:99+ F 21 '46
Strikes against electric utilities; opinion of the customers; results of survey. Elec World 125:77-91 My 25 '46
Strikes and their impact on public opinion. T. R. Sills. Am Pet Inst Proc 25(1):99-103 '45
Student opinion and the atomic bomb. T. F. Lentz. J Retailing 21:154-6 D '45
Voters think President turns to leftward course. Iron Age 157:117+ F 14 '46
Weekly Gallup polls. Iron Age 157:113+ Ja 31 '46 [cont weekly]
What the public thinks; public opinion on industrial and related topics presented in graphic form. Iron Age 157:92-103 Ja 3 '46

See also Committee on the measurement of opinion, attitudes, and consumer wants

PUBLIC relations
Advertising and public relations. P. B. West. Ind Marketing 30:39+ D '45
Allocate 10% of ad budgets to educate public to need of management-labor teamwork. H. W. Steinkraus. Ptr Ink 215:35-7 My 3 '46
APRA presents 44 annual awards for outstanding achievements. L. Ross. il Ind Marketing 31:50-1+ My '46
Annual reports go 4-color; prove effective public relations. Ptr Ink 216:52 Ag 9 '46
Battle of industry; business should sell itself to public. R. K. Strassman. Comm & Fin Chr 164:2215+ O 31 '46
Better public relations through accident prevention. J. H. Wright. Nat Safety N 54: 18-19+ S '46
Books, a new kind of public relations advertising. D. L. Parsons. il Ptr Ink 214: 26-8 Mr 1 '46
Business faces a challenge. W. Lippmann. Adv & Sell 38:34 D '45
Business looks at public relations. E. Whitmore. il Am Bsns 16:8-9+ Ap; 20-1+ My '46; Discussion. 16:26+ Je '46
Business maladies and public opinion. C. Robinson. Trusts & Estates 82:113-15 Ja '46
Community-plant relations director in every plant city. G. H. Allen. Ptr Ink 215:48+ Je 14 '46
Community relations; Caterpillar tractor co.'s program. L. J. Fletcher. il Foundry 74:156-7+ My '46
Dealers sensitive; auto sales agencies start public relations program. Bsns W p24 Ag 24 '46
Don't neglect women in your public relations efforts. W. Jordan. Ptr Ink 217:92+ N 8 '46
Enterprise needs a two-way concourse; five years of A.N.A. opinion research. P. S. Ellison. Trusts & Estates 82:229-30 F '46
Faith that makes public relations. A. O. Buckingham. Comm & Fin Chr 164:754+ Ag 8 '46
Films for schools: public relations tool for industry. H. Kerkow. il Sales Management 56:68+ Mr 1 '46
Firm with home-town pride; Caterpillar Tractor; abstract. D. Layne. Management R 35:217-18 Je '46
Grass roots approach to better understanding of business. F. Rudge. Comm & Fin Chr 164:1016+ Ag 22 '46
Heart of business; must we keep silent much longer? W. C. North. Credit & Fin Management 48:16 O '46
High-falutin' language won't sell private enterprise. G. Kerr. Ptr Ink 216:80+ S 13 '46
Home guard for business; community relations to protect free enterprise and property rights. L. B. Lundborg. Trusts & Estates 82:117-18 Ja '46
How business aids the community; as told in annual reports. il Trusts & Estates 83: 323-7 O '46
How does your community like your company? il map Factory Management 104: 128-34 Ag '46
How faulty public relations slow up advertising; need of building up employees' good will. W. H. Foster. Ptr Ink 214:81-2 Mr 8 '46
How industry can make friends for itself. H. Parkes. Ry Age 119:1053-4 D 29 '45
Human side of business. R. W. Miller. Trusts & Estates 82:119 Ja '46
ILG tacks up a welcome sign on the factory's big front door. L. B. Colby. il Sales Management 57:40-2 Jl 15 '46
Industry needs new salesmen; educating public as essential as selling goods. L. R. Waller. Credit & Fin Management 48:6-8+ My '46
Industry should stress goals. C. Robinson. Trusts & Estates 82:283-4 Mr '46
Let's give the U.S.A. back to the American people. E. E. Wilson. Factory Management 104:90-3 My '46
Lyon metal products; where public relations is practiced at the community level. D. D. McMahon. Ind Marketing 31:47+ Ja '46
Management's responsibility to itself; NAM policy to save private enterprise. W. B. Weisenburger. Comm & Fin Chr 162:3169+ D 27 '45
Packaging display, a plus in public relations. D. B. Stone. il Mod Packaging 19:118-21+ F '46
Plant-city relations ads win welcoming response; Rubberset announces its coming to Salisbury. Ptr Ink 216:38 S 6 '46
Private enterprise can have a Pearl Harbor too. Trusts & Estates 81:423-4 D '45
Program for a small-town company; abstract. R. W. Staud. Trusts & Estates 83:332 O '46
Program for community relations; abstract. W. Geist. Management R 35:258-60 Jl '46
Public economic illiteracy; corporate management's problem. F. G. Clark. Pub Util 37: 706-9 My 23 '46
Public relations; address to paint manufacturers; abstract. N. J. Campbell. Chem Age (Lond) 54:667-8 Je 15 '46
Public relations committee appointed for shipowners. Marine Eng 51:140 F '46
Public relations important to business and industrial executives. P. Garrett. Sci Am 174:78 F '46
Public relations in foreign markets; manufacturers build good-will in Latin America. J. C. Burt and B. G. Taines. il Ptr Ink 214:27-9+ F 22 '46
Public relations is not all-inclusive. H. E. Fry. Ptr Ink 213:130+ N 16 '45
Public relations journal. Published monthly by American council on public relations, 369 Pine st, San Francisco 4
Public relations need reconversion too. H. L. Harrison. Ind Marketing 30:74 D '45

PUBLIC relations—*Continued*
Regaining financial leadership; community program to protect profits. Trusts & Estates 82:5 Ja '46
Relations with the public; which public, consumers or citizens? W. H. Chase. Ptr Ink 213:118+ N 23 '45
Reynolds Metals tells what it is doing to fill pay envelopes in Louisville; public relations series directed to employes and the community. D. P. Reynolds. il Ind Marketing 31:50+ F '46
Second conference of oil trade-association executives on public relations. Am Pet Inst Proc 25(1):87-106 '45
Smash-hit press party: news sense and showmanship make it. A. B. Ecke. il Sales Management 56:48+ Ja 1 '46
So you want to get into public relations. R. H. Potter. Ptr Ink 214:92+ Ja 25 '46
Speak up, or be shut up; roll call of American leaders urges business to tell its story. Trusts & Estates 82:445-8 My '46
Standard Oil (N.J.) offers photo service. il Sales Management 55:71 N 15 '45
Strike advertising is not like competitive product copy. L. Graves. il Ptr Ink 214: 52+ Mr 1 '46
Strike advertising shows lack of know-how. F. Rudge. il Ptr Ink 214:21-2+ F 1 '46
These are the new advisers; advertising and public relations increasingly important. A. Ecclesine. Adv & Sell 39:110 Mr '46
To hold open house is good public relations; but sponsor should be good promoter, good host and bit of a showman. Ptr Ink 217:68+ N 1 '46
Tying employee recreation into the community; Dow chemical company. G. L. Shipps. il Factory Management 104:149-51 Je '46
West Coast labor studies public relations. Ptr Ink 214:66 Ja 11 '46
What should a business do about public relations? it should tell its own story, not try to speak for economic system. A. W. Page and K. S. McHugh. Adv & Sell 39:41-2+ O '46
What's right with public relations? G. Griswold. Ptr Ink 216:42-4 S 13 '46
Where public relations begins. C. C. Carr. Trusts & Estates 83:317-20 O '46

See also
Advertising, Institutional
Anniversaries, Company
Banks and banking—Public relations
Customer relations
Electric utilities—Public relations
Engineers—Public relations
Insurance companies—Public relations
Public utilities—Public relations
Publicity
Railroads—Public relations
Telephone companies—Public relations
Trade unions—Public relations
Visitors

PUBLIC relations association, American. See American public relations association

PUBLIC schools
If I had a son; I could not educate him in the public schools. C. E. Abbott. J Chem Educ 23:438 S '46

PUBLIC service
Public or private service. Economist 151:572-3, 613-14 O 12-19 '46

PUBLIC service company of Colorado
Net rises. Barron's 26:7 Je 17 '46

PUBLIC service company of Indiana
Annual report. Comm & Fin Chr 163:1436 Mr 18 '46
Preferred stock offered. Comm & Fin Chr 163: 2446-7 My 6 '46
Utility's savings bring higher dividend. Barron's 26:16 Ap 15 '46

PUBLIC service company of New Hampshire
Preferred stock offered. Comm & Fin Chr 163: 2298 Ap 29 '46
Public utility securities. Comm & Fin Chr 163:2512 My 9 '46
Refinancing plan. Comm & Fin Chr 162:3198 D 31 '45

PUBLIC service corporation of New Jersey
Annual report. Comm & Fin Chr 163:1574 Mr 25 '46
Costs to rise. Barron's 26:6 My 20 '46
Files dissolution plan with SEC. Comm & Fin Chr 164:1125 Ag 26 '46
To recapitalize. Barron's 26:6 Je 24 '46

PUBLIC speaking
Demonstration techniques for home service workers. R. A. Shank. il Am Gas Assn Mo 28:371-3 S '46
15 rules for handling notes for your talk. E. J. Hegarty. Ptr Ink 216:76 S 20 '46
How to speak effectively in public. A. R. Rommel. Min & Met 27:544-7 N '46
Public speaking as a business asset. L. Lewis. Banking 39:106 Jl '46
Technical tedium or otherwise; reprinted from American concrete institute journal, April 1941. R. W. Crum. Civil Eng 16:318-19 Jl '46
These pointers may make a public speaker out of you. E. J. Hegarty. Ptr Ink 215:45-7 My 24 '46
Two dozen ways to put an audience to sleep. J. F. Bender. Sales Management 57: 42-4 N 1 '46

PUBLIC utilities
Problems ahead for utilities. A. M. Sakolski. Comm & Fin Chr 163:2911+ My 30 '46
Public utility planning for growth. D. W. Hansen and others. Western Soc E J 51:3-24 Mr '46
What the state commissioners are thinking about; excerpts and digests from reports and addresses at the annual convention of the National association of railroad and utilities commissioners. Pub Util 37:42-51 Ja 3 '46

See also
Airlines
Carriers
Corporation law
Corporations
Electric utilities
Gas, Natural—Pipe lines
Gas companies
Motor bus lines
Motor trucks in freight service
Petroleum pipe lines
Public utility districts
Railroads
Railroads and state
Street railroads
Telegraph companies
Telephone companies
Waterworks

Accounting
Amortization of intangible assets in public utility accounting. J Account 80:409-11 N '45
Control of accounting as a means of regulation. F. E. Benton. Pub Util 38:277-85 Ag 29 '46
Depreciation and utility security analysis; abstract. A. W. Hastings. Pub Util 36: 715-16 N 22 '45
Depreciation problem. H. E. Riggs. Pub Util 38:333-44, 410-20, 528-38 S 12-26, O 24 '46
High construction costs as a rate factor. O. Ely. Pub Util 37:38-9 Ja 3 '46
Industrial property records for accounting and valuation uses. C. V. Armstrong. bibliog Iowa Eng Exp Sta (Ames) Bul 160:1-96 '44; Abstract. Pub Util 36:793 D 6 '45
Need the straight-line reserve be excessive? H. M. Long. Pub Util 37:399-411 Mr 28 '46
Original cost and corporate cost; United States Supreme court; US et al. v. New York telephone company. G. O. May. J Account 81:351 Ap '46
Original cost techniques threaten utility equities. W. T. Hyde, jr. Comm & Fin Chr 163:1497+ Mr 21 '46; Discussion. E. A. Sunstrom. 163:2076+; Reply. W. T. Hyde, jr. 2090-1 Ap 18 '46
Types of utility rate bases under depreciation reserve accounting. W. S. Krebs. 85p $1.50 Washington university, St Louis '46

See also
Gas companies—Accounting
Railroads—Accounting

Advertising
Product expenditures of newspaper advertisers in 1945; public utilities. Ptr Ink 215: 72+ My 3 '46
Public relations ads glorify employees, not the company; Louisiana power & light company. Ptr Ink 216:106 S 13 '46
Public utilities on the radio. M. Ford. Pub Util 38:73-83 Jl 18 '46

PUBLIC utilities—Advertising—*Continued*
What an advertising agent thinks of public utility advertising; abstract. C. D. Reach. Pub Util 37:856-8 Je 20 '46

Appliance selling

See also
Electric utilities—Appliance selling
Gas companies—Appliance selling

Employees

Impact of labor disturbances on public utilities. L. R. Nash. Pub Util 38:399-409 S 26 '46
Labor-management relations in public utilities; New Jersey's law safeguarding against public utility strikes. W. E. Edge. Pub Util 38:69-72 Jl 18 '46
Pittsburgh looks to Lewis; group of Duquesne light co.'s striking workers asks charter in U.M.W.'s district 50. Bsns W p104 O 12 '46
Plant training in a public utility. H. C. Walker. Elec Eng 65:13-16 Ja '46
Possible labor difficulties in the utility field. R. C. Simpson. Pub Util 38:345-51 S 12 '46
Practical methods produce results in training utility employees; abstract. W. H. Senyard. Pub Util 38:176-9 Ag 1 '46
Public favors law to prohibit utility strikes. Iron Age 157:109 Ap 25 '46
State's right? curbs on strikes in public utilities. il Bsns W p98+ Ap 6 '46

See also
Electric utilities—Employees
Railroads—Employees
Gas companies—Employees

Equipment

Depreciation schedule; U.S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment, bridges, waterworks, gas and electric plant. Eng N 136:601+ Ap 18 '46

Finance

Clouding horizons for utility companies; with 1945 key statistics and ratios on important utility companies and systems. K. T. Wynne. Mag of Wall St 78:332-6+ Je 22 '46
Earnings in 1946. O. Ely. Pub Util 36:843-4+ D 20 '45
Not for dividends? higher return as result of excess-profits tax repeal may be dashed by pressure for rate cuts. Bsns W p74+ D 8 '45
Public utility financing in the third quarter of 1945. O. P. Deuel. J Land & Pub Util Econ 21:386-8 N '45
Public utility financing in the fourth quarter of 1945 and a summary of the year 1945. O. P. Deuel. J Land & Pub Util Econ 22:78-85 F '46
Public utility financing in the first quarter of 1946. R. G. Dudley and H. L. Miller. J Land & Pub Util Econ 22:190-2 My '46
Public utility financing in the second quarter of 1946. H. L. Miller. J Land & Pub Util Econ 22:303-6 Ag '46
Sharp gains in utility company earnings reflect tax and interest savings. Barron's 26:1 Mr 25 '46
Utilities face rate slashes. Bsns W p81-2+ S 28 '46
Utilities; one of the postwar winners. Bsns W p93 Ag 24 '46
Utility financing in 1945. O. Ely. Pub Util 37:302 F 28 '46
Utility financing, selected years, 1919-1943, monthly averages, 1944-1945; graphs. Pub Util 37:179 Ja 31 '46

See also
Electric utilities—Finance
Public utilities—Securities
Railroads—Finance
also Associated gas and electric system

Government ownership

See Government ownership

Law

Holding company and other acts should be revised. E. Friedman. Pub Util 37:267-81 F 28 '46
Investment banking company owning gas stock not a gas company. Pub Util 38:445 S 26 '46

See also
Holding companies—Laws and regulations
Motor bus lines—Laws and regulations
Public utilities—Regulation
Railroad law

Public relations

Recent utility annual reports feature community interests. Pub Util 38:433-7 S 26 '46
Selling utility companies to their stockholders; stockholders' report and what it should contain. H. H. Young. Pub Util 36:679-87 N 22 '45

See also
Electric utilities—Public relations
Railroads—Public relations

Rates

Bulk gas rivals; Edison refund in Detroit area. Bsns W p30+ D 29 '45
Established rate base not to be upset for original cost claims; Consolidated gas, electric light and power company of Baltimore. Pub Util 36:867-8 D 20 '45
OPA and public utility rates. R. A. Nixon. Pub Util 37:597-602 My 9 '46
Original cost techniques threaten utility equities. W. T. Hyde, jr. Comm & Fin Chr 163:1497+ Mr 21 '46; Discussion. E. A. Sunstrom. 163:2076+; Reply. W. T. Hyde, jr. 2090-1 Ap 18 '46
Trends in utility regulation. L. E. Yoder. Gas Age 97:22+ Je 27 '46
Types of utility rate bases under depreciation reserve accounting. W. S. Krebs. 85p $1.50 Washington university, St Louis '46
Utilities upheld; retroactive rate-setting loses in Michigan. Bsns W p36+ S 21 '46

See also
Electric rates
Gas rates
Telephone—Rates
Water rates

Regulation

Control of accounting as a means of regulation. F. E. Benton. Pub Util 38:277-85 Ag 29 '46
Public utility holding company under federal regulation. R. A. Finlayson bibliog J Bsns 19 pt 2:1-41 Jl '46
Significance of some recent developments in the regulation of public utilities. C. O. Ruggles. Gas Age 97:25-6+ Ap 4 '46
Trends in regulation. J. C. Hammer. Pub Util 37:289-90 F 28 '46
Wanted: a new federal policy on utilities. E. M. Friedman. Comm & Fin Chr 163:242+ Ja 17 '46

See also
Gas, Natural—Laws and regulations
Public utilities—Rates
Public utilities commissions
Public utilities districts
Waterworks—Laws and regulations

Reports

Annual reports of utilities trend toward graphic style. Pub Util 37:636-43 My 9 '46
Excerpts from annual reports of utilities. Pub Util 37:636-43, 851-6; 38:433-7 My 9, Je 20, S 26 '46

Securities

Bright prospects for utility investments. H. H. Young. Comm & Fin Chr 162:2698+ D 6 '45
Columbia divests. Bsns W p48+ Je 15 '46
Competitive security bidding required by California railroad commission. Bus Transportation 25:61 Ap '46
Electric-gas holding company stocks; tabulation. Pub Util 37:41, 369, 846; 38:300 Ja 3, Mr 14, Je 20, Ag 29 '46
First quarter financing. O. Ely. Pub Util 37:568-9 Ap 25 '46
High grade utility bonds for yield; six bonds selling above call prices can recover premium in year or less. W. Andrews. Barron's 26:14+ F 25 '46

PUBLIC utilities—Securities—*Continued*
High rate utility preferreds face call. Barron's 26:1+ Ja 28 '46
Huge total of prospective utility offerings to test market's absorptive power. Barron's 26:1 Ag 26 '46
Low-priced utilities reappraised; with statistical data on leading utility holding companies. E. A. Barnes. il Mag of Wall St 77:203-5+ N 24 '45
Original cost techniques threaten utility equities. W. T. Hyde, jr. Comm & Fin Chr 163:1497+ Mr 21 '46; Discussion. E. A. Sunstrom. 163:2076+; Reply. W. T. Hyde, jr. 2090-1 Ap 18 '46
Outlook for the utilities. T. W. Locke. Comm & Fin Chr 164:1008+ Ag 22 '46
Plungers ride cheap utilities. Bsns W p62+ N 24 '45
Postwar prospects for utilities; with position of leading stocks. E. A. Barnes. Mag of Wall St 77.522-5+ F 2 '46
Profit opportunities in public utility stocks. E. Etherington. Comm & Fin Chr 164: 745+ Ag 8 '46
Public utility financing in the first quarter of 1946. R. G. Dudley and H. L. Miller. J Land & Pub Util Econ 22:190-2 My '46
Public utility security offerings in second half of 1945; tabulation. Pub Util 37:237 F 14 '46
Refinancing preferred stock; reduction in the dividend rate of Rochester gas and electric corporation. E. J. Howe. Pub Util 37:603-13 My 9 '46
Revision of utility capital change plans likely as huge stock offerings glut market. W. T. Hyde, jr. Barron's 26:1+ S 16 '46
Sees enlarged public utility financing; IBA public service securities committee report. Comm & Fin Chr 162:2729 D 6 '45
Simplifying prospectus requirements. O. Ely. Pub Util 38:618-20 N 7 '46
Today's possibilities in public utility stocks. H. H. Young. Comm & Fin Chr 164:1454+ S 19 '46
Trends in public utility values. H. H. Young. Comm & Fin Chr 163:963+, 1342+ F 21, Mr 14 '46
Utility analyses by Wall Street firms. O. Ely. Pub Util 37:366-7, 431-3, 502-3, 630-2, 699-701, 779+; 38:166-70, 235-6+, 491-2, 299-300, 555-6 Mr 14-Ap 11, My 9-Je 6, Ag 1-29, O 10-24 '46
Utility common stock offerings first half of 1946. Comm & Fin Chr 164:491 Jl 25 '46
Utility refinancing drags. Bsns W p64+ O 19 '46
Widow's estate in public utilities. Comm & Fin Chr 162:2336 N 15 '45

See also
Electric utilities—Securities
Gas companies—Securities
Holding companies—Securities
Railroads—Securities

Taxation

Charges in lieu of taxes; income taxes as utility operating expenses, even though neither paid nor payable. R. E. Stromberg. Pub Util 37:685-8 My 23 '46
Cities eye utility taxes. B. Jones. Pub Util 38:311-13 Ag 29 '46
1946 utility tax savings; with tabulation by company. O. Ely. Pub Util 36:712-14 N 22 '45
Utility tax killed; Ohio cities study income-payroll levy. Bsns W p67 Jl 27 '46

See also
Electric utilities—Taxation
Railroads—Taxation

War problems

War isn't over for utilities; materials and skilled labor shortages, and other war-born operating problems. L. D. Farrar. Pub Util 38:212-17 Ag 15 '46

California

Competitive security bidding required by California railroad commission. Bus Transportation 25:61 Ap '46
Disposition of California gross utility revenues in 1945 for twelve major companies; tabulation. Pub Util 38:285 Ag 29 '46
Regulation by slide rule; engineer and technician settle most cases for the California railroad commission. J. H. Collins. Pub Util 38:201-11 Ag 15 '46

Germany

De Forest replaces Cisler as German utilities head. Elec World News ed 124:5 D 15 '45

Great Britain

Public utility associations; annual meeting of conjoint conference. Electrician 136:336 F 8 '46
Town and country planning; utilities and compulsory purchase of land. L. F. Stemp. Elec R (Lond) 139:301-2 Ag 23 '46

United States

Game-end rally; public power bloc probably will push through major legislation. Bsns W p28+ Je 29 '46
Washington utility outlook for 1946. F. X. Welch. Pub Util 37:3-13 Ja 3 '46

PUBLIC utilities advertising association
Annual meeting, Atlantic City, June 10-11. Gas Age 98:21-3 Jl 11 '46; Elec World News ed 125:5-6 Je 15 '46

PUBLIC utilities commissions
Can the state commissions regulate REA co-ops? F. X. Welch. Pub Util 38:588-92 N 7 '46
Regulation by slide rule; engineer and technician settle most cases for the California railroad commission. J. H. Collins. Pub Util 38:201-11 Ag 15 '46

PUBLIC utility districts
FPC rules public power district must pay license fee for hydro project. Elec World News ed 126:5 Jl 27 '46
Portland utility turns over property to P.U.D. Elec World News ed 125:8 Ja 26 '46
Premium bonds; offered by Sacramento utility district. Bsns W p73-4 Jl 20 '46
Puget Sound Power sale preparations move ahead Elec World News ed 125:5 Ap 6 '46
Right of P.U.D. to compete with Seattle City Light challenged by Olympia lawyer. Elec World News ed 126:5 Ag 24 '46

PUBLIC welfare
Health and welfare services. E. C. Potter. bibliog Ann Am Acad 242:139-48 N '45

See also
Public health
Social welfare

Michigan

Social security and related services in Michigan, their administration and financing. C. R. Tharp. (Mich. governmental studies no. 16) 180p bibliog(p156-76) pa 75c Univ. of Mich. Bur. of government, Ann Arbor, Mich. '46

PUBLIC works

See also
Aqueducts
Bridges
Earthquakes and public works
Flood control
Highway departments
Hydroelectric plants
Irrigation
Municipal engineering
Municipal improvement
Pavements
Refuse disposal
Roads
Sewage disposal
Sewerage
Streets
Unemployment—Relief measures—Public works
Waterworks
also American public works association

Cost

Contractors' bids vs. engineers' estimates; study of public works projects. Concrete 54:7 Mr '46
Future costs and their effects on engineering budgets. L. R. Howson. Am Soc C E Proc 72:337-46 Mr '46

Economic aspects

Dovetailing rural public works into employment policy. E. J. Howenstine, jr. R Econ Stat 28:165-9 Ag '46
Engineers, contractors urged to assume construction leadership; urges institute for study of construction economics. A. P. Greensfelder. il Civil Eng 16:429-30 O '46

PUBLIC works—Economic aspects—*Continued*
Place of public works in the national economy. W. F. Stettner. Comm & Fin Chr 164:1269+ S 5 '46
Timing of public works seen as construction aid; Public works construction advisory committee reports to Federal works administrator; abstracts. Eng N 135:685+ N 22 '45; Civil Eng 15:575-7 D '45

Federal loans and grants
Airport funds; federal aid seems likely. Bsns W p19-20 Mr 30 '46
Community facilities program of the Federal works agency. L. A. Gillett. N E Water Works Assn J 59:348-55 D '45

Finance
Chicago's public works to cost nearly 300 million in seven years. L. M. Johnson. Civil Eng 16:398-9 S '46
Cities finance public works on pay-as-you-go basis. Eng N 137:501 O 17 '46
Helping cities to help themselves; New York state program of providing funds for local-works planning. J. O. Heck. il Eng N 137: 163-6 Ag 8 '46
New capital for civil engineering construction, 1945. Eng N 136:sup49 Ja 24 '46
OWMR allows $1.2 billion for federal construction. il Eng N 137:543 O 24 '46
Planning of public investment in Australia. R. I. Downing. bibliog Int Labour R 52:352-79 O '45
Pork-barrel juggle. Bsns W p31 N 2 '46
Senate grants $336 million financing for army engineers' civil works program. Eng N 136: 443 Mr 28 '46
States build reserve shelf of public works. P. B. Fleming. il Civil Eng 16:486-8 N '46
Who will pay for the Central Valley project of California? A. D. Angel. bibliog J Land & Pub Util Econ 22:266-72 Ag '46
See also
Sewerage—Finance

Statistics
Proposed engineering construction backlog and advance to active status. Eng N 136: sup51 Ja 24 '46

Australia
Planning of public investment in Australia. R. I. Downing. bibliog Int Labour R 52: 352-79 O '45
Planning of public investment in Australia; third meeting of the National works council. Int Labour R 53:402-4 My-Je '46

Bolivia
Bolivia building irrigation works. Eng N 136: 215 F 7 '46

California
Postwar public construction. Rock Prod 48:83 D '45

Chile
Chile accelerates hydro projects. Eng N 136: 211-12 F 7 '46

Dominican Republic
Dominican Republic pushes public works. il Eng N 137:382-3 S 19 '46

Ecuador
Ecuador needs water works and bridges. Eng N 136:215 F 7 '46

Europe
Impoverished Europe faces slow comeback. P. B. Fleming. il Eng N 136:203-8 F 7 '46

Mexico
Construction in Mexico; programs and prospects. F. M. Coston. il For Comm W 23:14-15+ My 4 '46
Mexico plans much federal work. il Eng N 136: 214 F 7 '46

New England
Community facilities program of the Federal works agency. L. A. Gillett. N E Water Works Assn J 59:348-55 D '45

New York (state)
Helping cities to help themselves; New York state program of providing funds for local-works planning. J. O. Heck. il Eng N 137: 163-6 Ag 8 '46
New York state's plans are ready; projects of the Postwar public works planning commission. T. E. Dewey. il plans Arch Rec 98:83-94 D '45
New York's contracting policy. C. H. Sells. Roads & Sts 88:73 D '45

Peru
Peru aims for industrialization. il Eng N 136: 212-13 F 7 '46

Sweden
Sweden's planned investments in public works; large shelf of projects ready for use in emergency. For Comm W 22:23 Ja 5 '46

United States
Major projects provided funds under deficiency bill. Eng N 136:4 Ja 3 '46
Moratorium on public works covers power agencies. Pub Util 38:288-90 Ag 29 '46
L'organisation industrielle aux États-Unis. J. Trouiller. il Génie Civil 123:93-6 Ap 15 '46
Public works expenditure to rise. J. E. Webb. Comm & Fin Chr 164:1538 S 26 '46
Public works must wait. Arch Rec 98:10+ N '45
Status of major projects, 1946. il Eng N 136: 227-36 F 7 '46
Timed public works; Senator J. E. Murray's proposal. Arch Forum 83:16 N '45
See also
Federal works agency

Venezuela
Venezuela keeps contractors busy. il Eng N 136:216 F 7 '46
Venezuela pushing many new construction plans. il For Comm W 22:9-10+ F 9 '46

PUBLIC works, Rural
Dovetailing rural public works into employment policy. E. J. Howenstine, jr. R Econ Stat 28:165-9 Ag '46

PUBLICITY
Business looks at public relations. E. Whitmore. il Am Bsns 16:8-9+ Ap; 20-1+ My '46; Discussion. 16:26+ Je '46
Guide for meeting the press. Ptr Ink 216:82 Ag 23 '46
Men, mechanics and management for technical news; analysis of technical news handling by the industrial marketer. H. W. Smith, jr. Ind Marketing 30:36+ O '45
Profitable publicity. A. Q. Smith. Am Gas Assn Mo 28:450-2 O '46
Public relations need reconversion too. H. L. Harrison. Ind Marketing 30:74 D '45
Railroad press relations. D. Welch. Ry Age 120:242-3 Ja 26 '46
Recipe for commercial publicity, make it brief; send mailings infrequently. R. M. Ross. Ptr Ink 214:111 Mr 22 '46
Smash-hit press party: news sense and showmanship make it. A. B. Ecke. il Sales Management 56:48+ Ja 1 '46
Why most publicity hits the waste basket; seven errors in preparing releases to trade press. F. J. Serdahely. Ptr Ink 216:44+ Ag 9 '46
See also
Advertising
Government publicity
Library publicity
Public relations

PUBLICKER industries, inc.
Challenges distilling leaders. Barron's 26:6 O 7 '46
Publicker packs a punch. Bsns W p17 S 28 '46

PUBLISHERS

Advertising
Product expenditures of newspaper advertisers in 1945; publications. Ptr Ink 215:70+ My 3 '46

Directories
Literary market place, 1946. 6th ed 180p pa $2.50 R. R. Bowker co, 62 W. 45th st, New York 19 '46

PUBLISHERS' offices
Alvin Lustig designs offices for Reporter publications. il plan diag Arch Forum 84: 109-13 My '46

PUBLISHING
Expansion trends in the publishing industry; prospects of individual companies appraised. H. S. Coffin. il Mag of Wall St 77:201-2+ N 24 '45
Goodwill of publishing company. J Account 80:398-9 N '45
How advertising trends will affect printing and publishing. P. B. B. Andrews. Ptr Ink 216:79-80+ Jl 12 '46
Timely survey of publishing and broadcasting stocks; with statistics on leading companies. G. L. Merton. Mag of Wall St 79: 89-91 O 26 '46

See also
Book industry and trade
Copyright
House organs
Music publishing
Newspapers
Periodicals
Printing
Reprints
also Curtis publishing company

Germany
Present status of German scientific publications. Chem & Eng N 24:790-2 Mr 25 '46

PUBLISHING buildings
See also
Newspaper offices

PUDDING
Canned plum pudding process put on continuous basis. W. Reiman and N. H. Volle. flow sheet il Food Ind 17:1286-90 N '45

PUERTO RICO
Government of Puerto Rico opens Washington office. For Comm W 24:22 Jl 6 '46

Industries and resources
Development Company aids private industries. For Comm W 25:17 O 5 '46
Puerto Rican government corporation spurs industrialization. P. A. Johnston. Barron's 26:9 N 4 '46

PUGET SOUND power and light company
Puget Sound Power sale preparations move ahead. Elec World News ed 125:5 Ap 6 '46
Right of P.U.D. to compete with Seattle City Light challenged by Olympia lawyer. Elec World News ed 126:5 Ag 24 '46

PULLEYS
History of the pulley, basic form of power transmission, is traced from its first applications to modern use. C. O. Brown. il Ind & Eng Chem 37:sup85-6 D '45
Pulley design for modern planes. R. R. Richolt. il Aero Digest 52:54-5+ Ja '46
Speeds with standard pulleys; tables; data sheet. Power 90:713, 791 O-N '46

PULLMAN companies
Anti-trust lawyers appeal Pullman sale. Ry Age 120:520+ Mr 9 '46
Court acts in final Pullman sale decree. Ry Age 120:155+ Ja 12 '46
Four bidding groups file Pullman briefs. Ry Age 119:934-5+ D 8 '45
New Young plan? Bsns W p16-17 D 29 '45
Otis sleeper bid is Justice department's pick; consideration of the disposition of the Pullman company. Ry Age 119:993-5 D 15 '45
Plan to buy Pullman submitted to I.C.C. Ry Age 121:194+ Ag 3 '46
Pullman choice; wants to sell to railroads, but Justice dept. is for Young's group. Bsns W p19-20 D 15 '45
Pullman, eighty-year-old service is sold to the railroads. il Manuf Rec 115:106-7+ Ja '46
Pullman incorporated; annual report for 1945. Ry Age 120:791-3 Ap 13 '46
Pullman sale to railroads endorsed by court. Ry Age 119:1026 D 22 '45
Sale to railroad group of sleeping car business approved by court. Comm & Fin Chr 162:3080 D 24 '45
Thumbnail stock appraisal. Mag of Wall St 78:212 My 25 '46

PULP. See Wood pulp

PULPSTONES
Artificial pulpstones and their use. W. Dick. Pulp & Pa of Can 47:96-8 O '46
Function of the pulpstone grinding surface. I. H. Andrews and others. Pulp & Pa of Can (Convention no) 47:91-8 [F] '46; Same cond. Paper Ind 27:1578-9+ Ja '46
Stone surface conditioning in a miniature grinder. S. A. Collicutt. Pulp & Pa of Can 47:95-8 Jl '46

PULPWOOD. See Wood pulp

PULSE generators. See Oscillators

PULSE time modulation. See Radio pulse time modulation

PULVERIZED coal. See Coal, Pulverized

PULVERIZERS
Coal atomizer; new method of pulverizing and drying coal. J. I. Yellott and A. D. Singh. bibliog diags Power Pl Eng 49:82-6 D '45
Equipment advances 1944-45; grinding. S. B. Kanowitz. Chem Ind 57:852-3 N '45
Fifty years of progress; advances made in processing and machinery. il diags Rock Prod 49:93-5 Je '46
Modern machines for dry size reduction in fine size range. C. E. Berry. bibliog il diags Ind & Eng Chem 38:672-8 Jl '46
Potters' mills; changing over to electrical operation. il diag Elec R (Lond) 139:559-63 O 11 '46

See also
Ball mills

PULVERIZING machinery company
Small-plant program for good employee relations. C. G. Wyder. il Factory Management 104:126-30 Ja '46
Small-plant services for efficient production. C. G. Wyder. il Factory Management 104: 145-9 Ja '46

PUMICE
Les gisements de pierre ponce du Puy-de-Dôme. V. Charrin. map Génie Civil 123: 283 O 15 '46
Perlite, source of synthetic pumice. O. C. Ralston. bibliog U S Bur Mines Information Circ 7364:1-11 '46

PUMPING
Certain aspects of high-pressure centrifugal pumping cycles. I. J. Karassik. diags A S M E Trans 68:65-71; Discussion. 71-4 Ja '46
How control village water system from pressure? diags Power Pl Eng 49:124+ N '45
Improvements are needed for pumping compressible rotary mud. J. M. Shimer. il plan diag Pet Eng 17:131-3+ Ag '46
Twinned pumps solve high pressure pumping problem. E. Sterrett. il Power Pl Eng 50:97-8 F '46

See also
Air lifts
Mine pumping
Petroleum—Pumping
Pumping stations
Pumps
Sewage pumping

Tables, calculations, etc.
Problems relating to elementary principles of the pump. E. A. Stephenson. diag Oil & Gas J 45:109 S 7 '46
Pump capacity chart. B. Maddock. Power Pl Eng 50:112 F '46
Pumps for viscous fluids. P. J. Olmstead. diags Heat & Ven 43:82-8 S '46
Selecting centrifugal pumps. P. J. Olmstead. il diags Heat & Ven 43:83-90 F '46
Specific speed curves; single stage centrifugal and mixed flow pumps. Water & Sewage Works 93:R80-2 Ap '46
Theoretical discharge of nozzles in U.S. gallons per minute; table. Power Pl Eng 50:116 My '46

PUMPING machinery
Emergency handling of steel plant water service. G. E. Stedman. il Steel 119:122-4 Jl 8 '46
History and development of Fen drainage and pumping. L. E. Harris. bibliog il map diags Engineer 182:171-3, 180-2 Ag 23-30 '46
Pumps and auxiliary equipment reviewed by Factory during past 12 months. il Factory Management 104:112+ Ap '46

See also
Gasoline pumps
Pumps
Petroleum—Pumping
Sewage pumping

Control
Carrier supervisory control of pumping station over power cable; starch plant of United States sugar corporation. W. A. Derr and others. il diags Elec Eng 65:Trans 699-705 N '46

PUMPING machinery, Electric
Another water system problem; redesign the control. diags Power Pl Eng 50:100+ Ap; 108 Je '46
Application of electric motors to power station auxiliaries. A. E. Beardmore. il Power Pl Eng 50:62-5 Ap '46
Applying 400 cycle motors to accessories. R. G. Holt. il Steel 118:94+ Ja 21 '46
Automatic operation of a small filtration plant; Boone county coal corp. F. H. Greenwald and H. E. Davis. diags Am Water Works Assn J 38:348-54 Mr '46
Automatic pressure water systems. C. Neitzke. Edison Elec Inst Bul 14:307-10 S '46
Beenham's Heath pumping station of the Mid-Wessex water company. Engineering 162:53 Jl 19 '46
Bunyan shaded; mighty pumps and turbines for Coulee. Bsns W p48+ Jl 20 '46
Chicago's south district filtration plant placed in partial operation. W. W. DeBerard and J. R. Baylis. il map diags Civil Eng 16:197-200 My '46
Codes of practice; electricity-driven pumps for hot-water services. Electrician 136:1244 My 10 '46
Electrical devices aid hot water supply; Newark Evening News building. diag Elec World 125:113 My 11 '46
Evolution of the water works booster pump; abstract and discussion. J. P. Hallam. Am Water Works Assn J 38:443-4 Mr '46
Grand Canyon's unique water pumping plant. G. L. Davenport, jr. il Water & Sewage Works 93:375-7 O '46
Grand Coulee pumps, 1600 cfs each. diags Power Pl Eng 50:76-7 Mr '46
Higher compressor speed and larger pumps give more refrigeration; process for synthesis of neoprene. J. D. Constance. diag Power 90:325-6 [issue p 103-4] My '46
Huge rural market for plumbing is foreseen as water systems sales rise. Dom Eng 167: 121+ F '46
Meters chart the way to efficient operation of waterworks pumps at Hamilton, Ontario. J. A. Coulden. il Power 89:843-5 D '45
Partial electrification of Plattmouth's pumping plant. R. Cappell. il Pub Works 76:26 D '45
Pump drive for waterworks in the Rand. il Electrician 135:435 O 26 '45; Same. Engineer 180:331 O 26 '45
Pumped-storage plant at Palü generating station. diags Engineering 161:536 Je 7 '46
Pumping plants for the Rand water board. il Engineering 161:152-3 F 15 '46
Pumps; big ones to lift Columbia River water from Lake Roosevelt into Grand Coulee. Bsns W p57 N 10 '45
7,000,000 potential market for electric water systems; abstract. C. D. Leiter. Dom Eng 167:107+ My '46
Six of the world's largest pumps protect Cincinnati against floods. il diags Power 90: 511-13 Ag '46; Excerpt. Mech Eng 68:988-9 N '46
Sturrock graving dock, Cape Town; dock pumping machinery. D. E. Paterson. il Engineer 181:144-5 F 15 '46
Unique propeller pump installation increases flow in gravity water tunnel at Washington, D.C. D. M. Radcliffe. il diag Eng N 136: 724-6 My 2 '46

See also
Mine pumping, Electric
Petroleum—Pumping, Electric
Petroleum pipe lines —Pumping stations, Electric

Control
Electronics in automatic chemical feed systems. R. T. Sheen. flow sheet il diags Am Inst Chem Eng Trans 42:725-39 Ag '46

PUMPING stations
Grand Canyon's unique water pumping plant. G. L. Davenport, jr. il Water & Sewage Works 93:375-7 O '46
Milwaukee's 73-year old water tower gets face lifting. J. E. Hubel. il Water & Sewage Works 93:378-9 O '46
Planned improvements for St Louis; with cost data. T. J. Skinker and E. E. Easterday. plans diags Am Water Works Assn J 38:826-37 Jl '46
Reservoir and pumping station with special features; facilities in Montreal. A. Brisset Des Nos. il plans Water & Sewage 84:27-30+ Mr '46
Tapping a wet well under pressure; using tremie-placed concrete seal; pumping station, Chicago. il diag Eng N 136:719-21 My 2 '46

See also
Petroleum pipe lines —Pumping stations
Sewage pumping

Equipment
Beenham's Heath pumping station of the Mid-Wessex water company. Engineering 162.53 Jl 19 '46
Check-valves end water-hammer risk, H. A Knudson. il Eng N 137:310-12 S 5 '46
Chicago water filtration plant designed to pump 700 million gallons a day. il Power Pl Eng 50:77 Jl '46
Meters chart the way to efficient operation of waterworks pumps at Hamilton, Ontario. J. A. Coulden. il Power 89:843-5 D '45

Power
Diesel engine users association; visit to Beenham's Heath pumping station. il Engineer 181:585 Je 28 '46
Partial electrification of Plattsmouth's pumping plant. R. Cappell. il Pub Works 76:26 D '45
Pump drive for waterworks in the Rand. il Electrician 135:435 O 26 '45; Same. Engineer 180:331 O 26 '45

PUMPS
Acid pumps; abstract. J. Sprecher. diags Mech Eng 68:828-9 S '46
Autometric positive displacement pump. il diags Engineer 181:172-3 F 22 '46
Autometric pump. diag Automobile Eng 36: 215 My '46
Bolivian market for pumps; with table showing imports, 1937-43. For Comm W 22:35 F 23 '46
Can we sell more pumps for Brazilian homes and farms? il For Comm W 22:12-13 Ja 26 '46
Cavitation in pumps. R. W. Angus. il diags Water & Sewage Works 93:125-8 Ap '46
Chilean market for pumps; market for pumps in Venezuela. For Comm W 23:33 Ap 13 '46
Dimethyl-silicone-polymer fluids and their performance characteristics in hydraulic systems. V. G. Fitzsimmons and others. il A S M E Trans 68:361-9 My '46
Dowty live line hydraulic system. il diag Mech Handling 32:636-8 N '45
Ecuadoran market for water pumps. For Comm W 22:34-5 F 2 '46
Equipment advances 1944-45; pumps and compressors. Chem Ind 57:862-3 N '45
Exhaust pump for engine cooling. C. de Ganahl. il diag Aeronautical Eng R 5:34-7 Ag '46
Graphical method for analyzing hydraulic pump and motor data. O. E. Teichmann. diag Product Eng 17:230-5 Mr '46
High-pressure gear pumps. T. E. Beacham. il diags Engineering 161:284-5, 310-12, 334-5 Mr 22-Ap 5 '46; Same cond. Engineer 181: 182-4 F 22 '46; Discussion. Engineering 161: 185-6 F 22 '46; Engineer 181:180-2 F 22 '46
High-pressure radial hydraulic pump. il diag. Product Eng 17:21 Ja '46
Home water-supply systems in Colombia; what is the outlook for larger sales of pumps? G. W. Caldwell, jr. For Comm W 22:7+ Mr 16 '46
Improved laboratory diaphragm pump. F. C. Trager. diag Chem & Eng N 24:686 Mr 10 '46
Ingenious pump circulates leaching solutions. diags Eng & Min J 146:104-5 D '45
Leakage in capillary seals of hydraulic valves and pumps. P. G. Exline. Product Eng 17: 290-6 Ap '46
Mechanical seals. D. R. Lewis. il diag Machine Design 18:125-8 S '46

PUMPS—*Continued*

Metering and proportioning pump. il diags Engineer 182:40 Jl 12 '46; Chem Age (Lond) 55:76 Jl 20 '46

Modern direct-hydraulic system. F. H. Towler. diags Inst Mech Eng J & Proc 154: 178-89, pl 1-4 S '46; Same cond. Engineer 179:397-400, 415-17 My 18-25 '45; Discussion. Inst Mech Eng J & Proc 154:189-208 S '46; Engineer 179:394-5 My 18 '45

Oil gear type DH hydraulic steering gear pumps. il Marine Eng 50:266 N '45

Pumping equipment, Uruguay; potential market. For Comm W 23:26 Ap 20 '46

Pumping molten magnesium. M. M. Moyle. il diag Metals & Alloys 22:716-20 S '45; Excerpts. Mech Eng 68:253 Mr '46

Reciprocating pump; questions and answers for power engineers. E. F. Wright. il diags Power 90:628+, 704+, 782+ S-N '46 (to be cont)

Review of power and mechanical equipment; pumps. il diags Power 89:904-5 Mid-D '45

Seco fluid power pumps for hydraulic systems. il Mach 52:204 D '45; Am Mach 89:154 D 20 '45

Selecting a rotary pump. W. E. Wilson. Oil & Gas J 44:63-5 Mr 9 '46

Split lantern rings in pump packing glands reduce oil losses, increase life of packing. A. B. Stevens. diags Nat Pet N 38 pt 2: R254 Ap 3 '46

Superdraulic high pressure hydraulic pump. il Iron Age 157:80-1 F 7 '46; Bsns W p58+ F 2 '46; Mach 52:228 Ap '46; Product Eng 17:370 My '46

Swift high-pressure gear pump. il diags Engineering 161:8-9 Ja 4 '46

Water pumps for farms and homes in Mexico. il For Comm W 22:10-11+ Mr 23 '46

See also

Air lifts
Gasoline pumps
Heat pump
Mine pumps
Oil pumps
Pumping stations
Pumps, Centrifugal
Vacuum pumps

Design

Design analysis of rotary pumps to obtain maximum efficiency. W. E. Wilson. diag Product Eng 17:138-41 F '46

Displacement correction factors for rotary spur gear pumps. W. B. Erichson. diags Product Eng 17:440-3 Je '46

Eccentric position controls full range of pump output. il diags Product Eng 17:94-5 O '46

Hydraulic power; design and construction principles in small, radial-type plunger pump. A. H. Allen. il Steel 118:134+ Mr 4 '46

Rotary-pump theory. W. E. Wilson. bibliog (46 titles) diags A S M E Trans 68:371-84 My '46

Twin ellipses provide unique pump action; Superdraulic pump. A. H. Allen. il Machine Design 18:141-2+ Mr '46

Maintenance and repair

Getting results in maintaining coal-preparation plants. F. W. Richart. il diags Coal Age 50:90-3 N '45

Operators told why as well as how in program to cut plant operating costs; Standard oil co. of New Jersey, pump maintenance course. W. F. Bland. il Pet Processing 1:3-6 S '46

Purchase and maintenance of deep-well pumps. L. J. Alexander. Am Water Works Assn J 38:1197-1207; Discussion. T. E. Larson. 1207-9 O '46

Manufacture

Conversion of cast steel plunger crosshead to welded design; with cost data. J. R. Morrill. il diags Welding J 25:448-9 My '46

Jigs and fixtures designed for milling gear-pump body cavities. diags Mach 52:196-8 Ap '46

Priming

Centrifugal pump questions and answers for power engineers; priming methods and equipment. I. J. Karassik and R. Carter. il diags Power 90:264-5+ Ap '46

How to prime centrifugal pumps. R. Carter. il diags Power Pl Eng 50:81-4 Mr; 74-7 Ap; 70-4+ My '46

PUMPS, Centrifugal

Centrifugal pump questions and answers for power engineers (cont). I. J. Karassik and R. Carter. il diags Power 89:854-5+; 90:52+, 122+, 194+, 264-5+, 335, 408+, 480+, 552+ D '45-Ag '46

Centrifugal pumps; an alternative theory. H. H. Anderson. Engineer 182:106-7 Ag 2 '46

Centrifugal pumps and blowers. J. Jennings. Engineering 160:74 Jl 27 '45; Discussion. G. U. Reid. 162:16 Jl 5 '46

Certain aspects of high-pressure centrifugal pumping cycles. I. J. Karassik. diags A S M E Trans 68:65-71; Discussion. 71-4 Ja '46

Efficiency and cavitation of fluid machines. H. H. Anderson. bibliog Engineering 162: 334-5 O 4 '46

Fundamental characteristics of the centrifugal pump. J. J. Woolfenden. Heating-Piping 18:74-6 S; 72-5 O '46

Grand Coulee pumps, 1600 cfs each. diags Power Pl Eng 50:76-7 Mr '46

Graphical method for determining maximum flow in systems using centrifugal pumps. B. C. Phenix, jr. diags Oil & Gas J 45:72-4+ N 2 '46

Hints on the operation of centrifugal pumps. Paper Ind 28:260-1 My '46

How axial thrust is balanced in single-stage centrifugal pumps. A. Brkich. diags Power 90:16-18 Ja '46

How hydraulic axial thrust is balanced in multistage centrifugal pumps. A. Brkich. il diags Power 90:107-10 F '46

How to prime centrifugal pumps. R. Carter. il diags Power Pl Eng 50:81-4 Mr; 74-7 Ap; 70-4+ My '46

Hydraulics for the practical water works man. R. W. Angus. diag Water & Sewage Works 93:337-8 S '46

Magnetic drive; device adapted to variable speed centrifugal pumping. C. W. Camp. il diags Water & Sewage Works 93:243-6 Je '46

Pumps for viscous fluids. P. J. Olmstead. diags Heat & Ven 43:82-8 S '46

Selecting centrifugal pumps. P. J. Olmstead. il diags Heat & Ven 43:83-90 F '46

Selecting deep well centrifugal pumps. A. O. Fabrin. diags Water Works & Sewerage 91:348-52, 371-6; 92:161-7 O-N '44, My '45; [cont as] Water & Sewage Works 93:111-14 Mr '46

Survey of modern centrifugal pump practice for oilfield and oil refinery services. N. Tetlow. diags Inst Mech Eng J & Proc 150: Proc 121-34 F '44; Discussion. 152:Proc 303-14 D '45

Maintenance and repair

Equipment reconversion inventory; centrifugal pumps, V-belt drives and electric motors. Diesel Power 23:1478+ D '45

PUMPS, Feed water

Application of electric motors to power station auxiliaries. A. E. Beardmore. il Power Pl Eng 50:62-5 Ap '46

Certain aspects of high-pressure centrifugal pumping cycles. I. J. Karassik. diags A S M E Trans 68:65-71; Discussion. 71-4 Ja '46

Chart for determining boiler feed suction pressures. B. Maddock. Power Pl Eng 50: 116 Ja '46

Press-temp boiler feed cycle. I. J. Karassik. diags Power Pl Eng 50:110-11 S '46

Variable-stroke triplex high-pressure main feed pump of simplified design by Worthington pump and machinery corp. il diag Marine Eng 50:206-7 N '45

PUMPS, Fuel

Analysis of pressure losses in lubricant and fuel pumps. B. R. Walsh. diags Product Eng 17:126-8 N '46

Check fuel-injection equipment to insure peak Diesel efficiency. il Power 90:304-6 My '46

S.U. petrol injection pump. il diags Automobile Eng 35:529-36 D '45

Stewart Warner fuel pump independent of engine. il diags Product Eng 17:99 N '46

Manufacture

Making petrol injection pumps. il diags Automobile Eng 36:55-64 F '46

PUMPS, Fuel—Manufacture—*Continued*
Practical precision in miniature; Hamilton Watch, American Bosch, and Kollsman Instrument reveal secrets involved in drilling 0.004-in. holes and tapping 0.008-in. ones. H. S. Wharen. il diags Am Mach 90:103-7 My 23 '46

Testing
Apparatus for measuring rates of discharge of a fuel-injection system. F. J. Dutee. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:193-200 '42

PUMPS, Mine. See Mine pumps

PUMPS, Submergible
Selecting deep well centrifugal pumps. A. O. Fabrin. diags Water Works & Sewerage 91:348-52, 371-6; 92:161-7 O-N '44, My '45; [cont as] Water & Sewage Works 93:111-14 Mr '46

PUMPS, Turbine
Corrosion in vertical turbine pumps. T. E. Larson. Power Pl Eng 50:80-1+ S '46
Vertical turbine pumps for mine use. F. E. Dunn. il Min Cong J 32:65-7 Ag '46

PUNCHED card system
Asymmetric rotor; punched-card methods of constructing band spectra. G. W. King, P. C. Cross and G. B. Thomas. bibliog J Chem Phys 14:35-42 Ja '46
Billing plan aids all departments in wholesale grocer's warehouse; Tom Boy cooperative merchandising. A. T. Lawson. il Am Bsns 16:16-17 Ja '46
Check handling made easier; sorting checks for reconciling payroll accounts by use of punched checks. R. Conley. il Am Bsns 16: 14-15 Ja '46
Customers' billing in an electric utility. J. D. Elliott. Edison Elec Inst Bul 13:354-6+ D '45
Indexing union contracts. M. Hoag. Special Lib 37:106-10 Ap '46; Discussion. C. D. Gull. 37:223 S '46
Insurance accountants urged to use card system. Nat Underw (Life ed) 50:7 My 17 '46
Machine methods promote efficiency in mine accounting. J. C. McNeil. il Coal Age 50: 109-14 N '45
Milwaukee's street inventory record will facilitate predictions of future pavement requirements and reconstruction. R. W. Gamble. il diags map Eng N 136:63-7 Ja 10 '46
Moraine Products improves payroll with new check. il Am Bsns 16:36 S '46
Novel system mechanizes all car records; hook-up of teletype and card-punch machines on New Haven. J. L. Barngrove, jr. il Ry Age 120:394-8 F 23 '46
Payroll work speeded by modern machine equipment. J. C. McNeil. il Coal Age 51:92-6 Ag '46
Pencil entries now recorded automatically on punched cards. J Account 81:332 Ap '46
Punch card machines aid studies of flutter and vibration in planes. CAA J 7:2 Ja 15 '46
Punch card techniques and applications. R. S. Casey and others. bibliog diags J Chem Educ 23:495-9 O '46
Punch cards for indexing scientific data. C. F. Bailey and others. bibliog Science 104:181 Ag 23 '46
Punch cards in correlation studies. D. E. H. Frear. il Chem & Eng N 23:2077 N 25 '45
Punched card identification of ore minerals. E. E. Fairbanks. bibliog Econ Geol 41:761-8 N '46
Punched card method for presenting, analyzing and comparing many series of statistics for areas. B. J. Black and E. B. Olds. Am Stat Assn J 41:347-55 S '46
Punched card method for the bibliography, abstracting, and indexing of chemical literature. C. D. Gull. il J Chem Educ 23: 500-7 O '46
Punched-card technique for computing means, standard deviations, and the product-moment correlation coefficient and for listing scattergrams. N. R. Bartlett. Science 104:374-5 O 18 '46
Punched cards on library symposium. N. C. Hill and J. W. Perry. Chem & Eng N 24: 2182 Ag 25 '46
Tabulating card control of meters. C. D. Otcasek. il Am Gas Assn Mo 28:173-6 Ap '46
Taking a big bite out of costs; two-story office and warehouse building, Brunswig drug company, wholesalers, Los Angeles. il Am Bsns 16:18-19 S '46
This record reveals extra skills of workers; Fisher body division of General motors corporation. R. G. French. il Am Bsns 15: 12-13+ D '45

PUNCHES
Shimmy dies; straight edge trimming, with or without notches and projections done in one operation on Brehm dies. J. Parina, jr. il diags Steel 117:76-7+ D 24 '45
Solid die and stripper solves punch breakage. F. Sutz. diag Am Mach 90:127 Ag 29 '46
Transfer punch makes alignment marks. H. C. De Heer. diag Am Mach 90:150 My 23 '46

PUNCHING
Effect of hydrostatic pressure on plastic flow under shearing stress. P. W. Bridgman. diag J Ap Phys 17:692-8 Ag '46
Hole duplicator. il Steel 118:148 My 6 '46
Special developments solve a difficult punching problem. H. R. Hageman. diags Am Mach 90:140 Mr 14 '46
Three-stage positioning assures accurate punching. H. R. Hageman. diags Am Mach 90:142 My 9 '46

PUNCHING machinery
See also
Dies

PUNCTUATION
Punctuation problems concern printing industry. E. N. Teall. Inland Ptr 116:46-7 Mr '46

PURCELL, Charles Henry, 1883-
Sketch. por Civil Eng 16:39 Ja '46

PURCHASER railway corporation
Purchase of Illinois terminal railroad properties authorized; to issue new securities. Comm & Fin Chr 162:2823 D 10 '45

PURCHASING
Buying policy should please also. K. Hampton. Elec West 96:79-80 My '46
Escalator clauses in purchase contracts; abstract. C. E. Mack. Management R 35:350-2 Ag '46
Essentials of good purchasing. R. Y. Matley. Automotive & Aviation Ind 94:33+ Je 15 '46
Fortune survey; chances for prosperity. Fortune 33:220-1 Ja '46
From industrial advertising to industrial buying and vice versa. J. Barrington. Ind Marketing 30:57-8+ O '45
How quality engineering helps the purchasing agent; abstract. E. Goddess. Materials & Methods 23:1668 Je '46
Placing of orders for steel on mills and warehouses; abstract. C. A. Livesey. Iron Age 157:94-6 My 30 '46
Purchasing office supplies; American brake shoe company; abstract. G. Buckley. Management R 35:372-3 S '46
Purchasing practice for the mining operations at Climax. L. A. Cowan. Min & Met 27:353-5 Je '46
They never thought of cancellations; customers are still placing multiple orders. H. Flarsheim. Adv & Sell 39:100 Mr '46
X ray standards for purchasing castings. L. W. Ball. il Iron Age 156:62-4 N 22 '45
See also
Airlines—Purchasing
Chain stores—Purchasing
Consumers
Consumption (economics)
Department stores—Purchasing
Instalment plan
Machinery, Replacement of
Merchandizing
Railroads—Purchasing
Retail trade—Stock
Vendors and purchasers

Advertising aids
Department store describes Dayton's prospects in booklets for suppliers. Ptr Ink 214:36 F 8 '46
Metal manufacturing company offers to swap its products for raw steel. il Ind Marketing 31:76 S '46

PURCHASING—Advertising aids—*Continued*
One way to find scarce material; Lyon Metal Products campaign of advertising and promotion to find steel supplies. il Am Bsns 16:20-1 S '46
Retailer uses business-paper ads to reach suppliers; Van Antwerp's sporting goods store, Mobile, Ala. I. W. Tyson. il Ptr Ink 214:54+ F 8 '46

Treatment of salesmen

New note in industrial buying procedures; automatic interior telephone system gives salesmen speedy interviews; Automatic electric company, Chicago. Am Bsns 16:38 O '46

PURCHASING, Cooperative
Automobile dealers organize purchasing group to buy supplies, including petroleum products. Nat Pet N 38:30-1 Jl 24 '46
Car dealers unite; Denver firms organize new group-buying plan for supplies, oil, gasoline, and tires. Bsns W p86+ Ja 5 '46
N.Y. buying groups increase department store memberships in 1946. Sales Management 56: 68+ My 1 '46

See also
Monitor equipment corporation
Voluntary chain systems

PURCHASING, Government
In peacetime, too; negotiated contracts will be used if army and navy have their way. Bsns W p26+ Mr 2 '46
Monopoly and the public dollar; address before National institute of government purchasing. E. P. Hodges. Comm & Fin Chr 164:1181+ Ag 29 '46
New Federal specifications board drafts government buying standards. Ind Stand 16:252 N '45
Selling to the army air forces. N. S. Atwell. Aero Digest 52:26-7+ Mr; 53:28-9+ O '46
State trading in Europe; its status and prospects. H. Chalmers. For Comm W 21:3-4+ N 10 '45
Streamlining of peacetime procurement policies is underway. G. Hardy. Iron Age 157: 120-1 F 14 '46

See also
Contracts, Government
Purchasing commissions

PURCHASING, Household
How to buy a chicken. I. L. Williams and B. W. Gardner. Consumers Res Bul 17:27-30 Mr '46

See also
Budget, Household

PURCHASING agents
Purchasing agent's-eye view of business. Oil Paint & Drug Rep 149:7+ Ja 28 '46 [cont monthly]
Supply, demand and control picture. J. D. Small. Comm & Fin Chr 163:3058+ Je 6 '46
White-collar man; H. F. Hansjergen. il Fortune 33:124-7+ Je '46

See also
Purchasing commissions

PURCHASING agents, National association of. See National association of purchasing agents

PURCHASING commissions
Foreign purchasing missions maintained in U.S. Steel 118:72 Mr 11 '46; Same. Bsns W p102 Mr 9 '46
Philippine agency. Bsns W p110+ My 25 '46

PURCHASING departments
Buyer, beware! role of purchasing department in industrial health maintenance. A. H. Phelps. Safety Eng 90:66-7 D '45
Policies to insure better purchasing. E. Caldwell. il Am Bsns 15:12-13+ N '45
Purchasing and traffic; Brompton pulp and paper company. V. R. Mackey. Pulp & Pa of Can 47:79-80 Jl '46
This business of procurement. H. T. Lewis. Harvard Bsns R 24 no 3:377-93 [Ap] '46

PURCHASING power. See Consumption (economics)

PURDIE, Donald, 1909-1943
Sketch. F. G. Mann. Chem Soc J p417-18 My '46

PURDY, Ross Coffin, 1875-
Ross Coffin Purdy retires. por Am Cer Soc Bul 25:147-50 Ap 15 '46

PURINES
Experiments on the synthesis of purine nucleosides; the synthesis of 9-*d*-xylopyranosido-2-methylthioadenine and its conversion into 9-*d*-xylopyranosidoadenine. G. A. Howard, B. Lythgoe and A. R. Todd. Chem Soc J p556-61 S '45

PYCNOMETERS
Pycnometer holder. R. E. Ledley, jr. il diag Ind & Eng Chem Anal ed 18:72 Ja '46

PYEATT, John Samuel, 1874-1946
Sketch. por Ry Age 121:766 N 9 '46

PYRACIN
Effect of β-pyracin and the lactobacillus casei factor upon hemoglobin regeneration following hemorrhage. M. L. Scott and others. Science 103:303-4 Mr 8 '46

PYRAHEXYL compound
Studies on marihuana and pyrahexyl compound. E. G. Williams and others. bibliog Pub Health Rep 61:1059-83 Jl 19 '46

PYRANOSIDES
Carbohydrate phosphoric esters; the alkaline hydrolysis of α-methylglucopyranoside-6-phosphate, methylglucofuranoside-3-phosphates and *iso*-propylidene glucofuranose-3- and -6-phosphates. E. E. Percival and E. G. V. Percival. Chem Soc J p874-6 D '45

PYRAZINE
Pyrimido [4,5-b] pyrazines; synthesis of 6,7-symmetrically substituted derivatives. C. K. Cain, M. F. Mallette and E. C. Taylor, jr. bibliog Am Chem Soc J 68:1996-9 O '46
Syntheses in the pyrazine series; preparation of 2,5-dicyanopyrazine and the diacetyl diamide of pyrazine dicarboxylic acid-2,5. I. J. Krems and P. E. Spoerri. bibliog Am Chem Soc J 68:527-8 Mr '46
Synthesis in the pyrazine series; the preparation and properties of the pyrazyl halides. A. E. Erickson and P. E. Spoerri. bibliog Am Chem Soc J 68:400-2 Mr '46

PYRAZOLE
Derivatives of 1,2,4-triazole and of pyrazole. D. B. Sharp and C. S. Hamilton. bibliog Am Chem Soc J 68:588-91 Ap '46

PYRETHRINS
Determination of pyrethrins deterioration; solubility in dichlorodifluoromethane. W. A. Gersdorff and W. F. Barthel. Soap & San Chem 22:155+ O '46
Insecticide toxicity studies; experimental results on the comparative toxicity of benzene hexachloride, DDT and pyrethrum. W. A. Gersdorff and E. R. McGovran. Soap & San Chem 21:117+ N '45
Pyrethrin content studies. R. H. Carter and others. Soap & San Chem 22:157 Ap '46

Analysis

Pyrethrin I determination; effect of light in causing variations in experimental results. N. Green and R. H. Carter. bibliog Soap & San Chem 22:148a+ Jl '46

PYRETHROLONE
Structure of pyrethrolone and related compounds. T. F. West. Chem Soc J p463-6 Je '46

PYRETHRUM
Aerosol formulation; laboratory tests with pyrethrum and DDT aerosols against the common malaria mosquito and the housefly. A. W. Lindquist and others. il Soap & San Chem 22:135+ My '46
Antioxidants for pyrethrum powders. R. C. Bushland and others. Soap & San Chem 21: 119+ N '45
DDT against house flies; the comparative toxicity to houseflies of *p,p'* DDT, *o,p'* DDT, and pyrethrum extract. W. A. Gersdorff. Soap & San Chem 22:126-7 Mr '46
Effect of fly food on resistance to insecticides containing DDT or pyrethrum. E. R. McGowan and W. A. Gersdorff. Soap & San Chem 21:165+ D '45
Evaluating pyrethrum extract; a comparison of chemical and biological methods. W. F. Barthel and others. bibliog Soap & San Chem 22:129+ Mr '46

PYRETHRUM—*Continued*
Imports of pyrethrum; average monthly imports, 1939-1944 and actual monthly imports, 1944 and Jan. 1945; chart. For Comm W 21:26 D 8 '45
Pyrethrum; lethal flowers generate significant trade. V. Kinnard. il For Comm W 24:5-7+ Ag 10 '46
Pyrethrum reenters civilian market. V. Kinnard. Dom Comm 34:22-3 Ap '46
Roach powder tests: sodium fluoride, pyrethrum, DDT and the gamma isomer of benzene hexachloride. E. R. McGovran and P. G. Piquett. Soap & San Chem 22:157+ Ag '46
See also
Pyrethrins

PYREX
Facilitating the melting and plaining of pyrex-type glass; abstract. I. I. Kitaigorodskii and others. Am Cer Soc J 29 (Cer A[25]):79 My 1 '46
High temperature sodium chloride to glass vacuum seal for infra-red cells. G. L. Simard and J. Steger. R Sci Instr 17:156-7 Ap '46
Miles of glass piping fabricated in field at Oak Ridge. B. W. Whitehurst. il Chem & Met Eng 53:122-15 Jl '46

PYRIDINE
Action of sulfating agents on proteins and model substances; pyridine-chlorosulfonic acid. H. C. Reitz and others. bibliog Am Chem Soc J 68:1031-5 Je '46
Addition compounds of sulfur dioxide with pyridine and the picolines. K. R. Hoffman and C. A. VanderWerf. bibliog Am Chem Soc J 68:997-1000 Je '46
Cinnolines; reaction between pyridine, acetic anhydride, and 4-hydroxycinnoline-3-carboxylic acid. K. Schofield and J. C. E. Simpson. Chem Soc J p472-9 Je '46
Contributions to the chemistry of synthetic antimalarials; some δ-diethylamino-α-methylbutylamino-derivatives of pyridine and thiazole. J. N. Ashley and J. F. Grove. Chem Soc J p768-9 N '45
Determination of menthol in peppermint oil; acetic anhydride and pyridine as reagent. J. S. Jones and S. C. Fang. bibliog Ind & Eng Chem Anal ed 18:130-1 F '46
Iodinated dialkylaminoalkyl pyridyl ethers. A. Burger and M. S. Bailey. Am Chem Soc J 68:520 Mr '46
Near ultraviolet absorption of pyridine vapor. H. Sponer and H. Stücklen. bibliog il J Chem Phys 14:101-12 F '46
Pyridines; aldehyde-collidine and 5-ethyl-2-vinylpyridine. R. L. Frank and others. bibliog Am Chem Soc J 68:1368-9 Jl '46
Pyridoquinoxalines. F. Linsker and R. L. Evans. bibliog Am Chem Soc J 68:874-6 My '46
Pyrryl derivatives of pyridine, quinoline and acridine. H. Gilman, C. G. Stuckwisch and J. F. Nobis. bibliog Am Chem Soc J 68: 326-8 F '46
Reactions of acetophenols with iodine and pyridine and the preparation of hydroxybenzoic acids. L. C. King, M. McWhirter and D. M. Barton. Am Chem Soc J 67:2089-92 D '45
Some pyridine and quinoline derivatives. V. A. Petrow. Chem Soc J p927-8 D '45

PYRIDINIUM compounds
Pyridinium analogs of the pressor amines; benzene series. B. Riegel and H. Wittcoff. bibliog Am Chem Soc J 68:1805-6 S '46
Pyridinium analogs of the pressor amines; the guaiacol series. B. Riegel and H. Wittcoff. bibliog Am Chem Soc J 68:1913-17 O '46
Reactions of alkyl*iso*formanilides; reactions with pyridinium salts. E. B. Knott. Chem Soc J p120-2 F '46

PYRIDOACRIDINE
Attempts to find new antimalarials; derivatives of 3 : 4 : 2′ : 3′-pyridoacridine and 1 : 2 : 2′ : 3′-pyridoacridine. J. Dobson and W. O. Kermack. Chem Soc J p150-5 Mr '46

PYRIDYL compounds
Some pyridyl analogues of triphenylmethane. H. J. Kahn and V. A. Petrow. Chem Soc J p858-61 D '45
Synthesis of antimalarials; the synthesis of certain quinacrine analogs having N-heterocyclic groups in the α-position of the side chain. M. S. Bloom, D. S. Breslow and C. R. Hauser. bibliog Am Chem Soc J 67: 2206-8 D '45

PYRIMIDINE
p-Aminobenzenesulphonamide derivatives of pyrimidine as antibacterial agents. F. L. Rose and G. A. P. Tuey. Chem Soc J p81-5 F '46
2-*p*-Aminobenzenesulphonamidopyrimidines; preparation by a novel route. F. L. Rose and G. Swain. Chem Soc J p689-92 O '45
Preparation of some hexahydropyrimidines from nitroparaffins. M. Senkus. bibliog Am Chem Soc J 68:1611-13 Ag '46
Synthetic antimalarials; pyrimidine derivatives. F. H. S. Curd, F. L. Rose and others. Chem Soc J p343-84 My '46

PYRIMIDO pyrazine
Pyrimido [4,5-b] pyrazines; synthesis of 6,7-symmetrically substituted derivatives. C. K. Cain, M. F. Mallette and E. C. Taylor, jr. bibliog Am Chem Soc J 68:1996-9 O '46

PYRITES
Diamond drilling features Mountain Copper's mining. J. B. Huttl. flow sheet il diags Eng & Min J 147:64-8 S '46
See also
Cirsenopyrite

PYROCATECHIN
Pyrocatechin from wood creosote; abstract. B. P. Sumarokov, C. C. Ryilkin and E. E. Kurmileva. Chem & Met Eng 53:286+ Ap '46

PYROGENS
Destruction of pyrogens by hydrogen peroxide. D. H. Campbell and A. Cherkin. bibliog Science 102:535-6 N 23 '45

PYROLYSIS
Primary process in pyrolysis of pentenes. E. Gorin, A. G. Oblad and R. F. Schmuck. bibliog diag Ind & Eng Chem 38:1187-93 N '46
Principles of reactor design; pyrolysis of propane. P. S. Myers and K. M. Watson. bibliog Nat Pet N 38 pt 2:R388-90+, R439+ My 1, Je 5 '46
Principles of reactor design; pyrolytic dealkylation and concentration of aromatics. C. O. Reiser and K. M. Watson. diags Nat Pet N 38 pt 2:R260+ Ap 3 '46

PYROMETERS and pyrometry
Flame radiation measuring instrument; efficiency of open-hearth furnace checked with vacuum-tube voltmeter connected to radiation pyrometer. E. M. Yard. bibliog il diags Electronics 19:102-4 N '46
Flame-temperature measurements in internal-combustion engines; theory, development, and calibration of an electro-optical pyrometer. O. A. Uyehara and others. bibliog il diags A S M E Trans 68:17-28; Discussion. 28-30 Ja '46
Hot-dip galvanizing practice; pyrometry in hot galvanizing. W. H. Spowers, jr. il Steel 119:136-8+ S 9 '46
Immersion pyrometer. il Blast F & Steel Pl 34:620 My '46
Improvement in design of immersion pyrometers for liquid steel temperatures. D. Manterfield and J. R. Thurston. Metal Prog 50:504+ S '46
Industrial use of radiation pyrometers under non-blackbody conditions. T. R. Harrison. bibliog Opt Soc Am J 35:708-23 N '45; Abstract. Glass Ind 27:454 S '46
New surface pyrometer developed by U.S. Steel. il diag Iron Age 158:64 O 24 '46
Pyrometry of liquid iron and steel; abstract. H. T. Clark. Materials & Methods 23:1376+ My '46
Radiation pyrometer for openhearth bath measurements; abstract. H. T. Clark and S. Feigenbaum. diag Iron Age 157:63-4 Mr 7 '46
Significance of emittance in radiation pyrometry. T. R. Harrison. Opt Soc Am J 35: 706-8 N '45
Spectral emissivities of oxidized and unoxidized surfaces. T. R. Harrison. Elec World 125:112 Je 22 '46

PYROMETERS and pyrometry—*Continued*
Temperature measurement of liquid steel. D. Manterfield. bibliog il diags Iron Age 158: 52-7 Jl 25 '46

See also
Thermocouples

PYRONE
Experiments relating to the synthesis of patulin; a study of hydrogenated γ-pyrones. J. Attenburrow and others. Chem Soc J p571-7 S '45
Reactivity of γ-pyrone quaternary salts. R. M. Anker and A. H. Cook. Chem Soc J p117-20 F '46

PYRROLE
Color and constitution; pyrrolocyanines. L. G. S. Brooker and R. H. Sprague. Am Chem Soc J 67:1869-74 N '45
New 2,5-dimethylpyrrole derivatives. W. S. Bishop. bibliog Am Chem Soc J 67:2261-2 D '45
Pyrryl derivatives of pyridine, quinoline and acridine. H. Gilman, C. G. Stuckwisch and J. F. Nobis. bibliog Am Chem Soc J 68: 326-8 F '46

PYRROLIDINE
Failure of the Doebner reaction with 2-chloro-5-aminopyridine; synthesis of a pyrrolidine derivative. M. J. Weiss and C. R. Hauser. Am Chem Soc J 68:722-3 Ap '46

PYRROLINE
Synthesis of Δ¹-pyrrolines. J. V. Murray and J. B. Cloke. bibliog Am Chem Soc J 68: 126-9 Ja '46
2-Tolylpyrrolines and the rearrangement and hydrolysis of aryl cyclopropyl ketimines. J. B. Cloke and others. bibliog Am Chem Soc J 67:2155-8 D '45

PYRUVIC acid
Condensation of pyruvic acid and formamide. W. Shive and G. W. Shive. bibliog Am Chem Soc J 68:117-19 Ja '46

PYTHAGOREAN proposition
Pythagorean chart; application of theorem to alternating-current calculations. G. F. Freeman. Elec R (Lond) 137:929-31 D 28 '45

Q

Q fever
Outbreak of Q fever in the United States. J. V. Irons and others. Pub Health Rep 61: 784-5 My 31 '46

Q meter. See Radio instruments

QUAGMIRES. See Marshes

QUALITATIVE analysis. See Chemistry, Analytic—Qualitative

QUALITY control. See Factory management—Quality control; Packaging—Quality control

QUALITY of products
Advertisers have big good-will opportunity as consumers mobilize; product standards and labeling. H. E. Green. Ptr Ink 214:49+ F 22 '46
Hard to get; Blum's San Francisco confectionery. Fortune 34:175 O '46
How quality engineering helps the purchasing agent; abstract. E. Goddess. Materials & Methods 23:1668 Je '46
How to protect a quality label; Stroock fabrics guard prestige by limiting outlets, by educational advertising and by constant vigilance. E. M. Murphy. il Ptr Ink 215:59-60+ Ap 5 '46
Reputation is a living thing. F. A. Soderberg. Paper Ind 27:1404+ D '45
This merchandising stunt has been good for 60 years; Sweet-Orr proves quality of merchandise by staging tug-o'-war battles. R. L. Sweet. Ptr Ink 217:50-1 O 11 '46
Working with the manufacturer; Koroseal licensee and distributor gives advice and service, promoting various items made from its product and guarding quality standards. E. M. Housman. il Ptr Ink 214:62+ Ja 25 '46

See also
Factory management—Quality control
Labels
Products, Certification of
Standardization

QUANTITIES (in production)
How not to go broke on setup costs. G. J. Oberst. Am Mach 90:99-103 F 14 '46
How to determine economical batch sizes. S. E. Andersen. Chem & Met Eng 53:137 Jl '46

QUANTOMETER. See Spectrographs

QUANTUM theory
Interaction of radiation and matter. P. Havas. Phys R 68:214-26 N 1 '45
Method of second quantization. R. Becker and G. Leibfried. Phys R 69:34 Ja 1 '46
Molecular constants and chemical theories; some remarks on physical constants and theories of higher valence states. R. Samuel. bibliog J Chem Phys 13:572-84 D '45
Theory of the electron and of the nucleon. A. Pais. bibliog Phys R 68:227-8 N 1 '45
Theory of the slowing down of neutrons in heavy substances. G. Placzek. bibliog Phys R 69:423-38 My 1 '46

See also
Pauli exclusion principle
Wave mechanics

QUARRIES and quarrying
Mining and quarrying Greenbrier limestone; Acme limestone company. R. H. Counts. il Explosives Eng 24:9-12+ Ja '46
New ideas and experiences discussed at operating session, National crushed stone assn. Rock Prod 49:72-3+ Mr '46
One hundred years of quarrying; Moores lime co. J. M. Daugherty. il Explosives Eng 24: 137-8 S '46
Sells stone business on royalty; Monon crushed stone co. il Rock Prod 48:100-1+ O '45
Twenty million years of primary crushing; Granite rock co., Watsonville, Calif. R. E. Fowle. il diag Rock Prod 48:119-20+ D '45
Typical aggregates operations, Oklahoma. N. C. Rockwood and H. E. Swanson. il Rock Prod 49:102 F '46

Accidents
National safety competition of 1945, Bureau of mines; with list of winners, 1925-1945; honorable mention awards, 1945. F. T. Moyer. il Explosives Eng 24:105-8+ Jl '46

Electric equipment
Improved heavy-duty quarry shovel. J. O. Oates. il Mech Handling 33:231-5 Ap '46

Equipment
Ball stone breaker. il Rock Prod 48:58 N '45
Big rock protects harbor; Basalt rock co. has contract for jetty at Alameda naval air base. il map diags Rock Prod 48:92-5+ D '45
Diesel-electric units operate crushing plant; Sours quarries. il Rock Prod 49:60-1 Jl '46
Fifty years of progress; quarrying conditioned by size of crusher. il Rock Prod 49:100-2 Je '46
43-year-old air compressors still serve quarries. il Comp Air Mag 51:2-5 Ja '46
Impact primary produces cubical products; McCorkle stone co. produces agricultural limestone. R. S. Torgerson. il Rock Prod 48:66-7+ N '45
Modernize mill and quarry with plant in production; Giant portland cement company. D. E. Koch. il Rock Prod 49:108-11+ Ag '46
Primary crusher in quarry cuts haulage costs; Avondale stone co. H. E. Swanson. flow sheet il Rock Prod 48:76-7 O '45
Produce agricultural limestone; by-product in quarrying cement rock; Carney co. R. S. Torgerson. il Rock Prod 49:110-12 Ja '46
Reduce oversize stone with drop ball. T. C. Cooke. il Rock Prod 49:56-7 S '46
Speed up quarry production; National stone co. H. E. Swanson. il Rock Prod 48:84-5 N '45
Two plants in one; Campbell limestone co. H. E. Swanson. il flow sheet Rock Prod 49:58-9+ S '46

Safety measures
Eliminate quarry accidents; safety practices at quarry of Universal atlas cement co. A. W. Worcester. il Rock Prod 48:98-9+ O '45

QUARRIES and quarrying—Safety measures— *Continued*
Quarry safety awards; list. Rock Prod 49:78 O '46

QUARTERMASTER corps. See United States—Quartermaster corps

QUARTERMASTER food and container institute for the armed forces
Objects of the Institute. Chem & Eng N 24: 1393 My 25 '46
QMC forms institute to study food needs. Food Ind 18:896+ Je '46

QUARTZ
Elastic deficiency and color of natural smoky quartz. C. Frondel. bibliog Phys R 69:543-4 My 1 '46
Grain-shape fabrics of clastic quartz. R. A. Rowland. bibliog diags Geol Soc Bul 57: 547-63 Je '46
Photoelectric spectrophotometer for the Schumann region. E. P. Little. diags Opt Soc Am J 36:168-71 Mr '46
Preparation of microscopic spheres from quartz. A. Salazar and L. Silverman. il diag J Ind Hygiene 27:231-3 O '45
Quartz crystal deposits of western Arkansas. A. E. J. Engel. bibliog il maps diags Econ Geol 41:598-618 S '46
Quartz crystal in Brazil. W. D. Johnston, jr. and R. D. Butler. bibliog maps diags Geol Soc Bul 57:601-49, pl 1-11 Jl '46
Quartz crystals in war and peace. F. Connor. J Chem Educ 22:546-7 N '45
Simple refractoscope for liquids. G. W. Willard. diags R Sci Instr 16:340-2 D '45
Surface layers on quartz and topaz. D. D'Eustachio. bibliog il diags Phys R 70: 522-8 O 1 '46
Symposium on quartz oscillator plates. C. Frondel and others. Am Cer Soc Bul 24 (Cer A 24):205-6, 210-11 N 15 '45
Thermal recrystallization of quartz. D. D'Eustachio and S. Greenwald. il Phys R 69:532-3 My 1 '46
See also
Silica

QUARTZITE
Massive quartzite; a refractory material for handling molten iron and steel. A. R. Blackburn. bibliog il Ohio State U Eng Exp Sta Bul 124:1-34 '45 (pa 50c)

QUAYS. See Wharves, Concrete

QUEBEC
See also
Gold mines and mining—Quebec

QUENCHING
Influence of quenching temperature on corrosion resistance of aluminum-zinc-magnesium forging alloy; abstract. W. Bungardt. Metal Prog 49:1028+ My '46
Precision quenching. il Sci Am 173:274-6 N '45
Tank quenching of heat treated aluminum; abstract. Metal Prog 49:180+ Ja '46

QUENCHING of steel. See Steel, Quenching of

QUESTIONNAIRES
Checks consumer questionnaire against dealers and salesmen; General motors corp. il Ptr Ink 213:135 D 7 '45
Five features helped this mail questionnaire pull from 60 to 70%; magazine to its readers; with cost data. R. Robinson. Ptr Ink 214:25-6 F 22 '46
Gripe about questionnaires. Food Ind 18:303 F '46
How about a pay plan opinion survey? ask salesmen what they think about remuneration. K. J. Solon. Ptr Ink 214:28-9 Ja 18 '46
How to conduct employee opinion surveys. T. N. Boggs and L. L. Maness. Factory Management 104:90-4 Mr '46
Intelligent questionnaires okay, but. W. R. Northlich. Ptr Ink 217:140 N 1 '46
Light treatment increases response to questionnaire and sales manuals. G. Brown. Ptr Ink 217:107-8+ O 18 '46
Policy behind Lightolier's selective distribution program. M. Loebelson. Sales Management 57:96+ N 1 '46
Pre-testing gets big response to long questionnaire; 460 construction truck operators each spent an hour or more answering 200 and more questions for McGraw-Hill. R. H. Ganly. il Ptr Ink 214:29-31 Mr 1 '46
Radio station makes inexpensive sales surveys for clients; gets druggists to fill out questionnaires in return for spot announcements. T. R. Cox, jr. Ptr Ink 216:43-4 Ag 30 '46
Simple method proves readers like technical house organ; Foote mineral co. uses humorous approach and easy-to-mark reply card. J. N. Johnston. Ptr Ink 216:43 Ag 16 '46
Store questions customers about gripes, media, brands. Ptr Ink 215:84 Ap 12 '46
Unearthing and measuring markets for new industrial products; preliminary mail questionnaires. R. L. Edsall. Ptr Ink 214:56+ F 1 '46
Use of mail questionnaires in industrial market research. J. C. Spurr. il Ind Marketing 31:47-8+ Jl '46; Abstract. Chem & Met Eng 53:254+ Jl '46
What railroad employees think about the railroad industry; results of survey. Ry Age 120:445-56, 617-28 Mr 2, 23 '46; Same abr. Ry Mech Eng 120:167-79 Ap '46

QUICKSAND
Repairing a sewer laid in quicksand. R. G. Coulter. il Pub Works 76:19-20 D '45

QUICKSILVER. See Mercury

QUILL, Michael Joseph, 1905-
And meanwhile Gotham held its breath. por Bsns W p98 Mr 2 '46

QUINACRINE
Quinacrine hydrochloride; improvements in manufacturing processes. R. G. Jones, G. L. Shaw and J. H. Waldo. Ind & Eng Chem 37:1044-6 N '45
Synthesis of antimalarials; the synthesis of certain compounds related to quinacrine. D. S. Breslow and others. bibliog Am Chem Soc J 68:100-2 Ja '46
Synthesis of antimalarials; the synthesis of certain quinacrine analogs having N-heterocyclic groups in the α-position of the side chain. M. S. Bloom, D. S. Breslow and C. R. Hauser. bibliog Am Chem Soc J 67:2206-8 D '45

QUINALDIC acid
Determination of copper in cast iron and steels with quinaldic acid. J. F. Flagg and D. W. Vanas. bibliog Ind & Eng Chem Anal ed 18:436-8 Jl '46

QUINALDIL
Quinaldil, quinaldoin and diquinolylhydantoin. F. Linsker and R. L. Evans. Am Chem Soc J 68:947-8 Je '46

QUINAMINE
Quinamine. T. A. Henry, K. S. Kirby and G. E. Shaw. Chem Soc J p524-8 Ag '45
Quinamine; constitution. K. S. Kirby. Chem Soc J p528-30 Ag '45

QUINAZOLINE
Application of the Hofmann reaction to the synthesis of heterocyclic compounds; synthesis of 3-alkyl-2 : 4-diketo-1 : 2 : 3 : 4-tetrahydroquinazolines from *N*-alkylphthalamides. F. S. Spring and J. C. Woods. Chem Soc J p625-8 S '45
4-(4′-Diethylamino-1′-methylbutylamino)-7-chloroquinazoline. C. C. Price, N. J. Leonard and D. Y. Curtin. Am Chem Soc J 68:1305-6 Jl '46
Quinazoline derivatives; synthesis of 4-(4′-diethylamino-1′-methylbutylamino)-6-methoxyquinazoline (SN 12,253). M. E. Smith, E. Elisberg and M. L. Sherrill. Am Chem Soc J 68:1301-3 Jl '46
Quinazoline derivatives; synthesis of 4-(4′-diethylamino-1′-methylbutylamino)-quinazoline (SN 11,534) and corresponding 2-phenylquinazoline (SN 11,535). M. M. Endicott and others. bibliog Am Chem Soc J 68:1299-1301 Jl '46
Quinazoline derivatives; the synthesis of 4-(3′-diethylaminopropoxy)-6-chloroquinazoline (SN 12,254). M. M. Endicott, B. W. Alden and M. L. Sherrill. Am Chem Soc J 68:1303-4 Jl '46
Quinazolines; properties of 4-substituted quinazolines. A. J. Tomisek and B. E. Christensen. bibliog Am Chem Soc J 67: 2112-15 D '45
Quinazolines; syntheses of 4-alkylaminoquinazolines. B. E. Christensen, B. Graham and A. J. Tomisek. Am Chem Soc J 68: 1306-8 Jl '46

QUINAZOLINE—*Continued*
Quinazolines; synthesis of an amino alcohol derived from quinazoline. B. E. Christensen, B. Graham and A. M. Griffith. Am Chem Soc J 67:2001-2 N '45
Some basically substituted quinazolines. R. L. McKee, M. K. McKee and R. W. Bost. bibliog Am Chem Soc J 68:1902-3 O '46

QUINAZOLONE
New synthesis of 4-quinazolones. H. W. Grimmel, A. Guenther and J. F. Morgan. bibliog Am Chem Soc J 68:542-3 Ap '46

QUINBY, Edwin Jay, 1894-
Queer case of Quinby. R. Schram. por Mass Transportation 42:62-5 F '46; Discussion. 42:324-5+ Ag '46

QUININE
6'-Methoxy-8-oximino-3-propylrubatoxanone. C. F. Koelsch. Am Chem Soc J 68:146-7 Ja '46
Quinine monopoly; the Dutch acknowledge its ending. Chem Age (Lond) 54:601 Je 1 '46
Spectrophotometric estimation of methoxycinchona alkaloids. M. M. Stimson and M. A. Reuter. Am Chem Soc J 68:1192-6 Jl '46

QUININONE
Autoxidation of quininone. W. E. Doering and J. D. Chanley. Am Chem Soc J 68: 586-8 Ap '46

QUINOLINE
8-Amino-6-quinolyl methyl sulfone. H. Gilman and A. E. Lindblad. bibliog Am Chem Soc J 68:982-3 Je '46
Antimalarials; α-alkyl and dialkyaminomethyl-2-phenyl-4-quinolinemethanols. R. E. Lutz and others. bibliog Am Chem Soc J 68:1813-31 S '46
6-Methoxy-8-amino-1,2,3,4-tetrahydroquinoline. C. C. Price and H. F. Herbrandson. Am Chem Soc J 68:910-11 My '46
New synthesis of 7,8-diaminoquinoline. F. Linsker and R. L. Evans. bibliog Am Chem Soc J 68:149-50 Ja '46
Pyrryl derivatives of pyridine, quinoline and acridine. H. Gilman, C. G. Stuckwisch and J. F. Nobis. bibliog Am Chem Soc J 68: 326-8 F '46
Quinolines; some bz-iodo-3-methyl-4-(1'-methyl-4'-diethylaminobutylamino)-quinolines. E. A. Steck, L. L. Hallock and A. J. Holland. Am Chem Soc J 68:1241-3 Jl '46
Quinolines; the synthesis of 5- and 7-chloro- and bromo-3-methyl-4-dialkylaminoalkylaminoquinolines. E. A. Steck, L. L. Hallock and A. J. Holland. bibliog Am Chem Soc J 68:380-3 Mr '46
Quinolines; the synthesis of 3-methyl-4-(1'-methyl-4'-diethylaminobutylamino)-quinoline and some 6-substituted derivatives. E. A. Steck, L. L. Hallock and A. J. Holland. bibliog Am Chem Soc J 68:129-32 Ja '46
Quinolines; the synthesis of 8-substituted 3-methyl-4-(1'-methyl-4'-diethylaminobutylamino)-quinolines. E. A. Steck, L. L. Hallock and A. J. Holland. Am Chem Soc J 68:132-3 Ja '46
Reactions of acetophenone and iodine with some nitrogenous bases. L. C. King and M. McWhirter. bibliog Am Chem Soc J 68: 717 Ap '46
Some isomeric (methoxy)-(2,5-dimethylpyrryl-1)-quinolines. H. Gilman and L. Fullhart. bibliog Am Chem Soc J 68:978-9 Je '46
Some methylquinolines patterned as open models of atebrin. H. Gilman, J. L. Towle and S. M. Spatz. Am Chem Soc J 68:2017-19 O '46
Some pyridine and quinoline derivatives. V. A. Petrow. Chem Soc J p927-8 D '45
Some quinolines patterned as open models of a modified atebrin. H. Gilman, R. V. Christian and S. M. Spatz. Am Chem Soc J 68:979-81 Je '46
Studies in the quinoline series; preparation of some substituted lepidylamines. K. N. Campbell and others. Am Chem Soc J 68: 1851-2 S '46
Studies in the quinoline series; quinolyl mercaptans and sulfides. A. G. Renfrew. bibliog Am Chem Soc J 68:1433-6 Ag '46
Studies in the quinoline series; some derivatives of 4-styrylquinoline. M. A. Clapp and R. S. Tipson. bibliog Am Chem Soc J 68: 1332-4 Jl '46
Studies in the quinoline series; some 6-β-hydroxyethoxy-8-(ω-monoalkylaminoalkylamino)-quinolines. M. S. Morgan and R. S. Tipson. Am Chem Soc J 68:1569-72 Ag '46
Studies in the quinoline series; the preparation of some 8-(ω-alkylamino-alkylamino)-quinolines. K. N. Campbell and others. Am Chem Soc J 68:1556-9 Ag '46
Studies in the quinoline series; the preparation of some 5-amino-8-(ω-dialkylaminoalkylamino)-quinolines. K. N. Campbell and others. bibliog Am Chem Soc J 68:1559-62 Ag '46
Studies in the quinoline series; the preparation of some dialkylaminomethyl-4-quinoline methanols K. N. Campbell and J. F. Kerwin. Am Chem Soc J 68:1837-40 S '46
Studies in the quinoline series; the preparation of some α-dialkylaminomethyl-2-quinolinemethanols. K. N. Campbell, C. H. Helbing and J. F. Kerwin. bibliog Am Chem Soc J 68:1840-3 S '46
Studies in the quinoline series; the preparation of some α-dialkylaminomethyl-8-quinolinemethanols. K. N. Campbell and others. Am Chem Soc J 68:1844-6 S '46
Synthesis of 3-alkyl-4-methylquinolines. A. L. Searles and H. G. Lindwall. bibliog Am Chem Soc J 68:988-90 Je '46
Synthesis of antimalarial compounds related to niquidine. T. S. Work. Chem Soc J p194-200 Mr '46
Synthesis of 2-phenyl-4-chloroquinolines. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1272-6 Jl '46
Synthetic antimalarials; the preparation and properties of 7-chloro-4-(4-diethylamino-1-methylbutylamino-quinoline (SN-7618). N. L. Drake and others. Am Chem Soc J 68:1214-16 Jl '46

See also
Skraup reaction

QUINOLINEDIOL
Some 3-alkyl-2,4-quinolinediols. R. H. Baker, G. R. Lappin and B. Riegel. Am Chem Soc J 68:1284-5 Jl '46

QUINOLINEMETHANOL
Antimalarials; α-alkyl and dialkylaminomethyl-2-phenyl-4-quinolinemethanols. R. E. Lutz and others. bibliog Am Chem Soc J 68:1813-31 S '46
α-Dialkylaminomethyl-4-quinolinemethanols substituted in the 2-position. S. Winstein and others. Am Chem Soc J 68:1831-7 S '46
α-(3-Dialkylaminopropyl)-2-phenyl-6-methoxy-4-quinolinemethanols. H. Gilman, F. J. Marshall and R. A. Benkeser. Am Chem Soc J 68:1849-50 S '46
α-(2-Diethylaminoethylmercaptomethyl)-6-methoxy-2-phenyl-4-quinolinemethanol and a homolog. H. Gilman, R. A. Benkeser and L. Tolman. Am Chem Soc J 68:1848-9 S '46
Preparation of aryldialkylaminomethylcarbinols. D. R. V. Golding and W. H. McNeely. Am Chem Soc J 68:1847-8 S '46
Studies in the quinoline series; the preparation of some dialkylaminomethyl-4-quinoline methanols. K. N. Campbell and J. F. Kerwin. Am Chem Soc J 68:1837-40 S '46
Studies in the quinoline series; the preparation of some α-dialkylaminomethyl-2-quinolinemethanols. K. N. Campbell, C. H. Helbing and J. F. Kerwin. bibliog Am Chem Soc J 68:1840-3 S '46
Studies in the quinoline series; the preparation of some α-dialkylaminomethyl-8-quinoline methanols. K. N. Campbell and others. Am Chem Soc J 68:1844-6 S '46

QUINOLINOL
Decarboxylation of nitro substituted 3-carboxy-4-quinolinols by pyrolysis of their silver salts. R. H. Baker and others. Am Chem Soc J 68:1267 Jl '46
Synthesis of 3-(3-cyclohexylpropyl)-4-quinolinol. R. H. Baker and R. M. Dodson. bibliog Am Chem Soc J 68:1283-4 Jl '46
Synthesis of 4-hydroxyquinolines; 3-(di-*n*-butylaminomethyl)-7-methoxy-2-methyl-4-quinolinol. C. C. Price and W. G. Jackson. bibliog Am Chem Soc J 68:1282-3 Jl '46
Synthesis of some 4-quinolinols and 4-chloroquinolines by the ethoxymethylenemalonic ester method. B. Riegel and others. bibliog Am Chem Soc J 68:1264-6 Jl '46

QUINOLYL sulfides
Studies in the quinoline series; quinolyl mercaptans and sulfides. A. G. Renfrew. bibliog Am Chem Soc J 68:1433-6 Ag '46

QUINONE
Chromatographic resolution of the quinone oximes. D. K. Gullstrom, H. P. Burchfield and J. N. Judy. bibliog diag Ind & Eng Chem Anal ed 18:613-16 O '46

2,5-Diamino-1,4-benzoquinones. J. H. Billman, D. G. Thomas and D. K. Barnes. Am Chem Soc J 68:2103 O '46

Photochemical reactions in sunlight; (a) formation of triarylmethyl peroxides by the action of oxygen on triarylmethanes; (b) dehydrogenation effected by oxygen; (c) dehydrogenation effected by *p*-benzoquinone and phenanthraquinone. A. Schönberg and A. Mustafa. Chem Soc J p657-60 O '45

Studies in light absorption; *p*-benzoquinones. E. A. Braude. Chem Soc J p490-7 Ag '45

Studies in the synthesis of the antirachitic vitamins; Δ^5-androstenol-3 and its partial dehydrogenation with benzoquinone. N. A. Milas and C. R. Milone. bibliog Am Chem Soc J 68:738-40 My '46

Vulcanization reactions in butyl rubber; action of dinitroso, dioxime, and related compounds. J. Rehner, jr. and P. J. Flory. bibliog Ind & Eng Chem 38:500-6 My '46

QUINONES
Reaction between quinones and metallic enolates; bromo-*m*-xyloquinone and sodio ethyl malonate. L. I. Smith and P. F. Wiley. Am Chem Soc J 68:894 My '46

Reaction between quinones and metallic enolates; second paper on bromotrimethylquinone and sodio malonic esters. L. I. Smith and P. F. Wiley. il Am Chem Soc J 68:887-93 My '46

Relation between the oxidation-reduction potentials of quinones and the resonance energies of quinones and of hydroquinones. E. Berliner. bibliog Am Chem Soc J 68: 49-51 Ja '46

QUINOSOL
Controlling orange decay; thiourea, thioacetamide, 2-aminothiazole, and quinosol in aqueous solution. J. F. L. Childs and E. A. Siegler. bibliog Ind & Eng Chem 38:82-7 Ja '46

QUINOXALINE
New potential chemotherapeutic agents; derivatives of aminoquinoxalines. F. E. King and R. J. S. Beer. Chem Soc J p791-4 N '45

Pyridoquinoxalines. F. Linsker and R. L. Evans. bibliog Am Chem Soc J 68:874-6 My '46

Structure and antimalarial activity; *iso*alloxazines, quinoxalines, and quinoxalo*cyclo*pentadienes. D. M. Hall and E. E. Turner. Chem Soc J p699-702 O '45

Substituted sulfaquinoxalines; the isolation and synthesis of 3-hydroxy-2-sulfanilamidoquinoxaline and of related quinoxalines. J. R. Stevens, K. Pfister, 3d and F. J. Wolf. Am Chem Soc J 68:1035-9 Je '46

Syntheses of 2-monosubstituted and 2 : 3-disubstituted quinoxalines. A. H. Gowenlock, G. T. Newbold and F. S. Spring. Chem Soc J p622-5 S '45

QUINOXALOCYCLOPENTADIENE
Structure and antimalarial activity; *iso*alloxazines, quinoxalines, and quinoxalo*cyclo*pentadienes. D. M. Hall and E. E. Turner. Chem Soc J p699-702 O '45

QUITENINE
Use of ultraviolet light in tracing the course of a drug through the body. C. H. Taft. Science 103:340-1 Mr 15 '46

R

RAABE, Meinhardt
Pickle peddler from Lilliput finds pint size no sales handicap. pors Sales Management 56:54 Je 15 '46

RABBIT skins
French rabbit fur skins: changes mark today's activities. For Comm W 22:33 Ja 5 '46

RACE differences
Notes on the results of army intelligence testing in World war I; Negro-white differences in intelligence. F. L. Marcuse and M. E. Bitterman. Science 104:231-2 S 6 '46

RACE discrimination
Elimination of discrimination; excerpts from Fair employment practices committee annual report. Personnel J 24:255-9 Ja '46

Fair employment practice. G. H. Fisher. Manuf Rec 115:120+ Ja '46

Good neighbors; California judge knocks out race restrictive covenant in Los Angeles residential area as unconstitutional. Arch Forum 84:16+ Ja '46

Law and race relations. W. Maslow. bibliog Ann Am Acad 244:75-81 Mr '46

Massachusetts fair employment practice act of 1946. Mo Labor R 63:20 Jl '46

Negro progress and racial bias. H. A. Wallace. Comm & Fin Chr 163:1981+ Ap 11 '46

New York state rulings on discrimination in help-wanted ads. Ptr Ink 215:108+ Ap 12 '46

Nondiscrimination in the federal services. J. A. Davis. bibliog Ann Am Acad 244:65-74 Mr '46

Personnel practices and wartime changes. F. J. Haas and G. J. Fleming. Ann Am Acad 244:48-56 Mr '46

Six months' operation of New York law against discrimination. Mo Labor R 62:593-4 Ap '46

State legislation on labor relations and discrimination in employment, 1945. R. S. Spitz. Mo Labor R 61:984-91 N '45

States debate fair employment practices. B. Jones. Barron's 26:8 Je 24 '46

See also
Negroes—Employment
Negroes—Housing

RACE prejudice
Anatomy of racial intolerance. G. B. de Huszar, comp. bibliog Ref Shelf v 18, no 5:1-283 '46 ($1.25)

Controlling group prejudice. G. W. Allport, ed. bibliog Ann Am Acad 244:1-182 Mr '46

Match-book messages on racial intolerance may extend to other media; liquor distributor to test before-and-after effect. E. Cunningham. il Ptr Ink 213:24 D 7 '45

See also
Jews

Bibliography

Racial tension and intercultural education. S. G. Cole. Booklist [ALA] 42:190-4 F 15 '46

RACE problems
Controlling group prejudice. G. W. Allport, ed. bibliog Ann Am Acad 244:1-182 Mr '46

Directory of agencies in race relations, national, state and local. 124p pa Julius Rosenwald fund, 4901 Ellis av, Chicago 15 '45

See also
Negroes
Race discrimination
Race prejudice
South Africa—Race problems

RACE track buildings
Designed to serve a city of moderate size, all spectator conveniences at this course are in one building. il plans Arch Forum 84:117 F '46

RACE tracks
New business, at the track; bus services for Monmouth Park racetrack, Oceanport, N.J. il Bus Transportation 25:56-7 Ag '46

RACES
See also
Airplane races
Automobile racing

RACINE, Wisconsin
Crippled city; effects of prolonged walk-outs. Bsns W p97 Jl 20 '46

RACKETEERING
Your song is wonderful; please send $30. G. Morse. il Adv & Sell 39:48+ My '46

RACKS

Special racks handle heavy material economically. il Iron Age 158:51 O 24 '46

RADAR

Absorption of one-half centimeter electromagnetic waves in oxygen. R. Beringer. diags Phys R 70:53-7 Jl 1 '46

Applications of thin permalloy tape in wideband telephone and pulse transformers. A. G. Ganz. bibliog il Elec Eng 65:Trans 177-83 Ap '46

Cavity magnetrons; basic transmitting tube of American and British microwave radar sets. il Electronics 19:126-31 Ja '46

Characteristics of vacuum tubes for radar intermediate frequency amplifiers. G. T. Ford. il diags Bell System Tech J 25:385-407 Jl '46

Controlling plane position in aerial magnetic surveying. H. Jensen and J. R. Balsley, jr. il diags Eng & Min J 147:94-5+ Ag '46

Development of pulse triodes and circuit to give one megawatt at 600 megacycles. R. R. Law and others. il diag RCA R 7:253-64 Je '46

Evolution of radiolocation. R. Watson-Watt. Inst E E J 93 pt 1:374-82 S '46; Same cond. Engineer 181:319-21, 330-1 Ap 5-12 '46; Abstract. Engineering 161:306-8 Mr 29 '46

Exploring for oil in radar ship in ocean bed off the Bahamas; illustrations with text. Pet Eng 18:114+ O '46

Factors affecting the range of radar sets. L. R. Quarles and W. M. Breazeale. diags Elec Eng 65:Trans 546-8 Ag-S '46

Future of radar; abstract. L. A. DuBridge. Electronics 19:254+ Ja '46

Gas-discharge transmit-receive switch. A. L. Samuel and others. il diags Bell System Tech J 25:48-101 Ja '46

Luminescence and tenebrescence as applied in radar. H. W. Leverenz. bibliog il diags fold chart RCA R 7:199-239 Je '46

Magnetically-controlled gas discharge tubes. R. E. B. Makinson and others. bibliog diags J Ap Phys 17:567-72 Jl '46

Magnetron as a generator of centimeter waves. J. B. Fisk and others. il diags Bell System Tech J 25:167-348 Ap '46

Magnetron; this is the tube that makes radar pulse. il diag Fortune 34:142-3 O '46

Manufacturer's radar display; exhibition staged by Ferranti, ltd. il Electrician 135: 659-60 D 14 '45

Physical processes in the recovery of TR tubes. H. Margenau and others. il diags Phys R 70:349-57 S 1 '46

Plastic compositions for dielectric applications. W. C. Goggin and R. F. Boyer. bibliog il Ind & Eng Chem 38:1090-6 N '46

Polythene; address in Paris. F. A. Freeth. Chem Age (Lond) 55:401-3 O 5 '46

Proceedings at the radiolocation convention. Inst E E J 93 pt 1:242-7 Je '46

Les progrès de la haute fréquence pendant la guerre. M. Y. Rocard. Génie Civil 123:176-7 Jl 1 '46

Properties of radar echoes from shell splashes. H. Goldstein. Phys R 70:232-3 Ag 1 '46

Radar. il Diesel Power 23:1336-7+ N '45

Radar. E. G. Schneider. il diags Inst Radio Eng Proc 34:528-78 Ag '46

Radar; abstracts of I.R.E. papers. il Electronics 19:102-3 Mr '46

Radar; abstracts of papers at AIEE winter meeting. il diag Electronics 19:254+ Ap '46

Radar; illustrations with text. Radio N 34:35-7 N '45

Radar and the magnetron; abstract. J. T. Randall. Electrician 136:537-8 Mr 1 '46

Radar; basic principles. diags Machine Design 17:123-6 N '45

Radar, boon to weather blinded transportation. il Manuf Rec 115:48-9+ My '46

Radar camera for use in photographing radar images. Aeronautical Eng R 4:135+ N '45

Radar echoes from the moon. J. Mofenson. il diags Electronics 19:92-8 Ap '46

Radar fundamentals for engineers. il diags Product Eng 16:813-16 D '45

Radar in war and peace. L. N. Ridenour. il Elec Eng 65:202-7 My '46

Radar; industrial giant. R. M. Hyatt. Pub Util 37:23-7 Ja 3 '46

Radar reaches the moon. T. Gootée. il diag Radio N 35:25-7+ Ap '46

Radar shows promise in mapping; symposium. P. Kissam and others. il map diag Civil Eng 16:294-9 Jl '46

Radar systems considerations. D. A. Quarles. il Elec Eng 65:Trans 209-15 Ap '46

Radiolocation and co-ordinated effort. Engineering 161:317 Ap 5 '46

Radiolocation convention, London. Elec R (Lond) 138:541-5 Ap 5 '46; Electrician 136: 798-810, 887-92 Mr 29-Ap 5 '46; Engineering 161:306-8, 319, 367, 289 Mr 29-Ap 5, Ap 19-26 '46

Radiolocation; development of radar. F. B. Llewellyn. Engineer 181:296-7 Mr 29 '46; Same. Inst E E J 93 pt 1:382-4 S '46

Recording radar signals. H. Goldstein. Tech R 48:415-16 My '46

Rotary wave radar. W. van B. Roberts. il diags Electronics 19:130-3 Jl '46

Shoran for maps. Bsns W p36 My 4 '46; Electronics 19:295-6+ Je '46

Shoran for world mapping. C. I. Aslakson. diag Radio N 36:112-13 Ag '46

Shoran precision radar. S. W. Seeley. il diag Elec Eng 65:Trans 232-40 Ap '46; Abstract. Oil & Gas J 45:74-5+ Jl 6 '46

Skiatron; radar display tube; cathode-ray tube with microcrystalline potassium chloride screen. Electronics 19:216+ O '46

Some considerations in the design of wideband radio-frequency amplifiers for television, radar and similar applications. J. E. Cope. bibliog il diags Inst E E J 92 pt 3: 237-46 D '45

Some precision circuit techniques used in wave-form generation and time measurement. B. Chance. il diags R Sci Instr 17:396-415 O '46

Technical and tactical features of radar. J. H. DeWitt, jr. il diags Franklin Inst J 241:97-123 F '46

Transient delay line useful in radar, television, or test oscilloscope work. J. M. Lester. il diags Electronics 19:147-9 Ap '46

See also

Sodar

Antenna and scanning mechanism

Aerials and wave guides for radar; abstracts of papers at Radiolocation convention. Electrician 136:799-800 Mr 29 '46

Design of radar antenna housings. E. B. McMillan and others. bibliog il diag Aero Digest 52:89-90+ Mr; 53:80-1+ Ag '46

Scanning equipment for ground radar. D. Taylor and W. H. Penley. il diags Engineering 162:337-8 O 11 '46

Torsional oscillating motion with self-synchronized impulse; mechanical resonant scanner for radar. D. B. Nichinson. il diags Product Eng 17:110-12 Ag '46

Aviation use

See Radar aids to aviation

Countermeasures

Electronic warfare; radar countermeasures. il diag Product Eng 17:72-4 Ja '46

Radar countermeasure techniques. il Aero Digest 51:49+ D 15 '45

Radar countermeasures. il Electronics 19:92-7 Ja '46

Radar countermeasures. Engineer 180:460-1 D 7 '45

Radar's bogies; two weaknesses that made countermeasures effective. il Bsns W p54+ D 8 '45

Secret weapon that threatened disaster; medical electrical apparatus used to defeat German radar; abstract. O. G. Lywood. Electrician 136:1179 My 3 '46

History

Early fire-control radars for naval vessels. W. C. Tinus and W. H. C. Higgins. il diags Bell System Tech J 25:1-47 Ja '46

Interference

Extratropospheric influences in ultra-short wave radar operation; interference originating in ionosphere, Milky way and sun; abstract. E. Appleton. Engineering 161:319 Ap 5 '46

RADAR—*Continued*

Meteorological use

Meteoric impact ionization observed on radar oscilloscopes. O. P. Ferrell. bibliog Phys R 69:32-3 Ja 1 '46

Radar for weather man. Electronics 19:210+ Je '46

Spotting hurricanes and thunderstorms by radar. S. R. Winters. il Radio N 35:45+ Mr '46

Weather forecasting by radio and radar. H. B. Brooks. il Electronics 19:84-7 O '46

Military use

L'application du radar à la balistique; l'obus à fusée radar. diag Génie Civil 123:63 Mr 1 '46

Army and navy making progress in development of new weapons. il Steel 119:55 O 28 '46

Battle performance of radar demonstrated; abstract. J. A. Hutcheson. Franklin Inst J 241:313-14 Ap '46

British electrical engineers and the second World war. P. Dunsheath. Inst E E J 93 pt 1:21-5 Ja '46; Same cond. Engineering 160:360-1, 383-4 N 2-9 '45; Same cond. Engineer 180:302-4 O 19 '45

Early fire-control radars for naval vessels. W. C. Tinus and W. H. C. Higgins. il diags Bell System Tech J 25:1-47 Ja '46

Electronics at Bikini; telemetering, radio and radar monitoring, television and stratovision measured effects of atomic bombs. D. G. Fink and C. L. Engleman. il Electronics 19:84-9 N '46

Fundamentals of radar and countermeasures. L. H. Stanford. diags Western Soc E J 50:167-76 D '45

Generator-powered proximity fuze. R. D. Huntoon and B. J. Miller. il diags Electronics 18:98-103 D '45

High speed rain abrasion of glass cloth laminates. R. M. Robertson, R. J. Lobisser and R. E. Stein. il diag Ind & Eng Chem 38: 590-1 Je '46

Japanese magnetrons. M. Hobbs. il Electronics 19:114-15 My '46

Naval airborne radar. L. V. Berkner. il diags Inst Radio Eng Proc 34:671-706 S '46

Navy bat, homing guided missile, is potent anti-shipping weapon. W. Kroger. il Aviation N 6:9-10 O 21 '46

Navy radio and electronics during World war II. J. B. Dow. Inst Radio Eng Proc 34:284-7 My '46

Proximity fuse; explodes projectile as soon as it comes close enough to target to inflict damage. il Radio N 34:51+ D '45

Proximity fuze tubes; abstract. M. A. Acheson. il Electronics 19:228+ Ja '46

Proximity fuzes for artillery. H. Selvidge. il diags Electronics 19:104-9 F '46

Radar for blind bombing. J. V. Holdam and others. il diags Electronics 19:138-43 My; 142-9 Je '46

Radar for carrier-based planes. C. B. Barnes. il diags Electronics 19:100-5 O '46

Radar-guided bombs launched by navy planes. Electronics 19:268+ F '46

Radar on 50 centimeters. H. A. Zahl and J. W. Marchetti. il diags Electronics 19:98-104 Ja; 98-103 F '46

Radio proximity fuze; abstract. H. Trotter, jr. Electronics 19:226+ Ja '46

SCR-584 radar. il diags Electronics 18:104-9 N; 104-9 D; 19:110-17 F '46

Short survey of Japanese radar. R. I. Wilkinson. il diags Elec Eng 65:370-7, 455-63 Ag, O '46

Though nature hides the flat-top, radar homes its planes. il Aviation 45:43+ S '46

Trainer for fighter pilots; radar trainer. il Aero Digest 51:114 D 15 '45

Tube for SCR 270 radar. il Electronics 18:308+ D '45

V-2 rocket tests; use of radar equipment. il Electronics 19:262+ Jl '46

Study and teaching

Technology's radar school. W. H. Radford. il Tech R 48:227-31+ F '46

Ultrasonic trainer circuits for teaching use of airborne radar for bombing or navigation. F. J. Larsen. il diags Electronics 19:126-9 Je '46

Testing

Artificial radar target. diag Electronics 19: 214+ F '46

High Q resonant cavities for microwave testing. I. G. Wilson and others. bibliog il diags Bell System Tech J 25:408-34 Jl '46

Techniques and facilities for microwave radar testing. E. I. Green and others. bibliog il diags Elec Eng 65:Trans 274-90 My '46; Same. Bell System Tech J 25:435-82 Jl '46

RADAR aids to aviation

Airborne radar equipment. il Electrician 137: 718 O '46

Air-borne radar for navigation and obstacle detection. R. C. Jensen and R. A. Arnett. il map diags Elec Eng 65:Trans 307-13 My '46

Aircraft electronics progress. L. LeKashman. Aero Digest 53:63 Jl '46

Aircraft radar; Teleran, GCA, Lanac, Loran. V. Zeluff. il plan Sci Am 174:204-6 My '46

All-weather flying. il Electronics 19:84-7 S '46

CAA has three radar projects under development. il CAA J 7:41+ Ap 15 '46

Civilian application of radar moves forward on two fronts. il Aviation N 5:12 F 11 '46

Evaluation of hyperbolic radio avigation. Aviation 45:51+ Ag '46

Fair to foul weather flying. E. E. Aldrin. il diags Aeronautical Eng R 5:26-9 Jl '46

First CAA radar-equipped control tower unveiled at Indianapolis. il CAA J 7:72 Je 15 '46

Flight and traffic control aids; Navaglobe, Navar, Navaglide and Navascreen. L. LeKashman. il map Aero Digest 53:42-3 S '46

F-M radar altimeter. il diags Electronics 19: 130-4 Ap '46

General use of radar by airlines considered still 2-3 years away. M. Mickel. Aviation N 5:27 Mr 18 '46

Ground control approach system; combination of radar and communications devices. J. K. McDuffie. il Radio N 36:38-40+ Jl '46

Ground controlled approach for commercial aviation; radar landing control. il Electronics 19:160+ My '46

Pulse-type radio altimeter; high-altitude altimeter using radar techniques. A. Goldman. il diags Electronics 19:116-19 Je '46

Sizing up radar; airlines move slowly. Bsns W p22 Ag 24 '46

Standardized system expected in instrument landing dispute; private flyers and segments of industry criticize CAA opposition to radar-based method. W. Kroger. il Aviation N 4:9-10 D 10 '45

Teleran for air traffic control. R. LeKashman. il diags Aero Digest 52:82-4 Ja '46

Teleran proposal; system of navigation and traffic control, utilizing existing television and radar. P. J. Herbst and others. plan diags Electronics 19:124-7 F '46

Television-radar air navigation; Teleran. diags Product Eng 17:498 Je '46

Tool for traffic control, Teleran; traffic maps and aircraft located by radar could be televised to planes. il map diag Air Transport 4:73-4+ Ja '46

RADAR aids to navigation

Advantages of radar on merchant ships. E. Lawrence, jr. Weekly Underw 153:1134+ N 17 '45

Coast artillery radar used for navigation. il Product Eng 17:150 F '46

Conduct radar tests in Fjords of Norway. Weekly Underw 155:375 Ag 17 '46

Decca navigation system for ships and planes. il Electronics 19:174+ S '46

Demonstration of a marine Metropolitan-Vickers radar set. il Engineer 181:583-4 Je 28 '46; Engineering 162:79-80 Jl 26 '46; Electrician 136:1453, 1674 My 31, Je 21 '46

Electronic marine navigator first commercial radar product. il diags Product Eng 17: 69-71 Ja '46

Electronic navigator on Lakes steamer pierces darkness and fog. il Marine Eng 51:152+ Ag '46

Fire-control radar MPG-1; designed to enable coast artillery to hit maneuvering PT boats; control of harbor traffic in peacetime. H. A. Straus and others. il diags Electronics 18:92-7 D '45; 19:110-17 Ja; 140-7 Mr '46

RADAR aids to navigation—*Continued*
Marine radar announced by Raytheon manufacturing company. R Sci Instr 16:381 D '45
Marine radar equipment; exhibition. il Engineer 181:527 Je 7 '46
Marine radar for peacetime use. L. H. Lynn and O. H. Winn. il map diags Elec Eng 65: Trans 65:271-3 My '46
Merchant marine radar. I. F. Byrnes. il diag RCA R 7:54-66 Mr '46
Merchant vessels' radar subject of conference. Weekly Underw 153:1403 D 15 '45
Private radar installation; on merchant vessel, the Tunaholm. il Mech Eng 68:560 Je '46
Radar being installed on Chesapeake Bay vessel il Manuf Rec 115:47+ Mr '46
Radar, f.o.b. Schenectady; Electronic Navigator, is now being offered for sale to merchant ship owners as an obstacle detector at night and in fog. il Bsns W p68+ D 1 '45
Radar in navigation. Franklin Inst J 241: 311-12 Ap '46
Le radar; nouveau dispositif radioélectrique de repérage et de navigation. M. Adam and R. Rapault. il diags Génie Civil 123:1-3 Ja 1 '46
Radar navigation; abstracts of papers read before I.E.E. radio section. Electrician 136: 1245-6 My 10 '46
Radar on the Queen Elizabeth. il Electrician 137:600 Ag 30 '46
Radar to safeguard old Bay Line boat. il Marine Eng 51:126-7 Mr '46; Excerpt. Electronics 19:164+ Ap '46
Radio aids to marine navigation; demonstration on H.M.S. Fleetwood. il Engineer 181: 426-7 My 10 '46; Abstract. Engineering 161: 451-2 My 10 '46
Raytheon simplified radar. il Marine Eng 50:214 N '45
Safety features for passenger ships. il diag Marine Eng 50:165-6 N '45
Sea marker buoy; tank containing receiver-transmitter radar gear. Elec R (Lond) 138: 66 Ja 11 '46
Seek marine rate cut for radar on merchant ships; owners point to reduction of collison hazard to result; potential value of radar in air. Nat Underw 50:3 Jl 11 '46
Vessel held liable for failure to use radar. East Underw 47:27 Ag 2 '46
What's behind airborne radar? D. M. Skidmore and C. R. Chambers. il diags Machine Design 18:107-10 Ja; 149-54 Ap '46

RADAR receiving apparatus

Noise

Noise in microwave receivers. W. W. Breazeale. il Tech R 48:551-2+ Jl '46

RADAR research
Expanded horizons; work of M.I.T. radiation laboratory in developing microwave radar systems for military purposes. L. A. du Bridge and L. N. Ridenour. il Tech R 48: 23-6+ N '45
History and activities of the Radiation laboratory of the Massachusetts institute of technology. L. A. DuBridge. R Sci Instr 17: 1-5 Ja '46
Introduction to loran. J. A. Pierce. maps Inst Radio Eng Proc 34:216-20 My '46; Abstract. Inst E E J 93 pt 3:243-5; Discussion. diags 245-50 Jl '46
M.I.T. radar research leads to extensive engineering series; publication of series of books on physics and electrical engineering arranged. Iron Age 156:164+ D 13 '45
Naval airborne radar. L. V. Berkner. il diags Inst Radio Eng Proc 34:671-706 S '46
Radar in war and peace. R. Watson-Watt. Can Chem & Process Ind 30:68-9+ F '46
Services of M.I.T. radiation laboratory revealed. Aeronautical Eng R 4:145 N '45
Story of radar; M.I.T. Radiation laboratory. L. A. du Bridge. il Tech R 48:355-8+ Ap '46

RADCLIFFE, B. Walter
Sketch. por Inland Ptr 118:57 N '46

RADCLIFFE college
Management training program. Personnel J 24:362-8 Ap '46

RADIANT heating. See Heating—Panel system

RADIATION
Approximations to Planckian distributions. P. Moon and D. E. Spencer. bibliog J Ap Phys 17:506-14 Je '46
Atmospheric absorption measurements with a microwave radiometer. R. H. Dicke and others. bibliog diags Phys R 70:340-8 S 1 '46
Biological applications of nucleonics. H. J. Curtis. Chem & Eng N 24:897-9 Ap 10 '46
Calorimetric experiment on the radiation losses of 2-Mev electrons. W. W. Buechner and R. J. Van de Graaff. bibliog diag Phys R 70:174-7 Ag 1 '46
Health physics; new science, developed for protection of workers against penetrating radiations on atomic energy projects. K. Z. Morgan. Nat Safety N 53:25-6 My '46
Industrial use of radiation pyrometers under non-blackbody conditions. T. R. Harrison. bibliog Opt Soc Am J 35:708-23 N '45; Abstract. Glass Ind 27:454 S '46
Interaction of radiation and matter. P. Havas. Phys R 68:214-26 N 1 '45
Ocular effects of radiant energy. C. F. Kutscher. diags Ind Med 15:311-16 My '46
Propagation of radiation in a medium with random inhomogeneities. P. G. Bergmann. diags Phys R 70:486-92 O 1 '46
Radiation from large circular loops. E. B. Moullin. diag Inst E E J 93 pt 3:345-51 S '46
Radiation in a diffusing medium. F. Benford. diags Opt Soc Am J 36:524-54 S '46
Radiation losses in the induction electron accelerator. J. P. Blewett. Phys R 69:87-95 F 1 '46
Reaction of radiation on electron scattering and Heitler's theory of radiation damping. H. A. Bethe and J. R. Oppenheimer. Phys R 70:451-8 O 1 '46
Some properties of very intense shock waves. R. G. Sachs. Phys R 69:514-22 My 1 '46
Spectrums; radio, ether, audible, photographic. Electronics 19B:insert facing p80 (Buyers guide no) Je 15 '46
Theory of a microwave spectroscope. W. E. Lamb, jr. bibliog diag Phys R 70:308-17 S 1 '46
Theory of ionization yield of radiations in different substances. U. Fano. bibliog Phys R 70:44-52 Jl 1 '46
Transmission and reflection by a diffusing medium; based on Radiation in a diffusing medium. [Opt Soc Am J 36:524-54 S '46] F. Benford. Gen Elec R 49:46-52 O '46
Water vapor absorption of electromagnetic radiation in the centimeter wave-length range. G. E. Becker and S. H. Autler. diag Phys R 70:300-7 S 1 '46

See also

Absorption of rays	Luminescence
Alpha rays	Quantum theory
Beta rays	Radioactivity
Black body	Radiography
Cosmic rays	Solar radiation
Gamma rays	Sound
Heat radiation	Spectrum
Infrared rays	Ultraviolet rays
Light	X rays

Terminology

Some suggestions for the nomenclature of radiation. E. Q. Adams. Opt Soc Am J 36:429 Jl '46

RADIATION laboratory. See Massachusetts institute of technology—Radiation laboratory

RADIATION pyrometers. See Pyrometers and pyrometry

RADIATOR cleaners. See Automobile engines—Radiator cleaners

RADIATORS
Theory and design of steam-system vent valves. F. Jehle. diags Product Eng 17:142-6 O '46

RADIATORS, Airplane. See Airplane engines—Radiators

RADICALS (chemistry)
Demonstration of the existence of a free radical. L. Michaelis. J Chem Educ 23:317 Jl '46
Free radical determination in biacetyl photolysis. R. G. Ascah and others. J Chem Phys 14:487-94 Ag '46

RADICALS (chemistry)—*Continued*
Kinetics of OH radicals as determined by their absorption spectrum; attempt to trace OH radicals in the thermal hydrogen-oxygen reaction. O. Oldenberg and others. bibliog J Chem Phys 14:16-18 Ja '46
Researches on asphaltenes; radical reactions. F. J. Nellensteyn and J. Dorleyn. pl diag Inst Pet J 32:582-6 S '46
Some recent developments in the chemistry of free radicals. W. A. Waters. bibliog Chem Soc J p409-15 My '46

RADIO advertisers
Network advertisers since 1939; listed. B. W. Lyndon. Ptr Ink 214:43-4+ F 1 '46
Radio cancellations reflect shortages but nets sign renewals, new business. D. Bruner. Ptr Ink 215:93+ My 24 '46

RADIO advertising
Agency radio advertising. E. S. Anderson. Rough Notes 88:55 N '45
Are you trying to sell razor blades to children? S. Gill. Adv & Sell 39:38+ Ja '46
Building an agency by radio; J. Gordon Gaines agency, Akron, Ohio. H. M. Van Doren. Rough Notes 89:19-20 O '46
Don't forget to sign your name; public service radio advertising. J. A. Ecclesine. Adv & Sell 39:49+ Ap '46
Featuring premiums in radio advertising. il Ptr Ink 216:48+ Jl 12 '46
Frankness, intimacy spark selling power of sponsor-kidding radio commercials. W. R. Bruner. Ptr Ink 214:96 Ja 4 '46
Go by bus; radio program promotes riding and builds good will for Salt Lake City buses. E. Bly and G. L. Stanley. il Bus Transportation 25:59-62 Mr '46
How Esso has built flexible radio promotion. R. M. Gray. maps Adv & Sell 38:38+ N '45
How radio commercials got as good as they are and how they can be further improved. J. A. Moran. Ptr Ink 215:79-80+ Ap 19 '46
How to work with stations to get more out of your radio investment. T. R. Cox, jr. il Sales Management 57:69-70+ N 1 '46
Look at the radio record. J. B. Mack, jr. Banking 38:42-3+ My '46
Mass medium like radio for luxury item? success of Stradivari campaign. V. J. Dallaire. il Ptr Ink 215:41-2 Je 7 '46
Musical recordings popularize gas and promote good will; Southern California gas co. F. A. Herr. il Am Gas J 164:39-41 F '46
NAB hits FCC's criticism of radio advertising and soap operas. Ptr Ink 214:115+ Mr 15 '46
Network heads make plea for better radio advertising. W. S. Paley and N. Trammell. Ptr Ink 217:42-3 N 1 '46
New network advertisers since 1939; more than 300 advertisers featuring new products not previously on the nets during nine years (1931-39). B. W. Lyndon. Ptr Ink 214:43-4+ F 1 '46
New radio program for National Board. East Underw 47:20 O 18; 20 O 25 '46
Portland builders' association radio program huge success. Am Bld 67:95 N '45
Public utilities on the radio. M. Ford. Pub Util 38:73-83 Jl 18 '46
Radio advertising discussed at LAA meeting. W. S. Hedges and others. East Underw 46:16-17 N 16 '45
Radio advertising snaps back. Bsns W p66+ Je 15 '46
Radio (including commercials) fares well in new public reaction survey. Ptr Ink 214: 119+ Mr 22 '46
Radio program Quizzing the wives wins many friends for Boston Gas. il Am Gas Assn Mo 28:271 Je '46
Radio station merchandising should be tailor-made. S. Levitan. Ptr Ink 214:74+ Mr 15 '46
Responsibilities of a commercial radio sponsor. S. C. Gale. Adv & Sell 39:220 Ja '46
Star of Broadway musical comedy studies advertising on the side; Wilbur Evans. Ptr Ink 214:66 Ja 25 '46
Story behind Standard Oil's radio broadcasts for students. il Sales Management 55:35-7 D 15 '45
Top-budget mystery show continues U.S. Steel's public relations program. V. J. Dallaire. Ptr Ink 215:36 Je 21 '46
Union Pacific salutes steel industry; advertising campaign. Blast F & Steel Pl 34: 377-8 Mr '46
Woman with a recorder; Nancy Gray over the Milwaukee Journal's radio station. C. Pullin. il Adv & Sell 38:164+ D '45

See also
Radio broadcasting—Serials
Television advertising

Awards
Winners of radio awards announced by City college. Ptr Ink 215:116 Ap 26 '46

Contracts
Crosby's contract. Bsns W p87 Ja 26 '46
Sponsor vs. star; radio talent contract, Kraft Foods and Bing Crosby. Adv & Sell 39:104+ F '46
Standard contract form revised by NAB committees. Ptr Ink 213:67+ D 14 '45

Copy writers
How to write a better commercial. J. A. Ecclesine. Adv & Sell 39:90+ Ja '46

Cost
How to evaluate your radio program; nomogram can simplify calculating cost per point of ratings. E. L. Deckinger. Adv & Sell 39:62+ Ap '46

Coverage
BMB introduces itself. Adv & Sell 39:116+ Ag '46
15 cities top 99% in radio families, BMB study shows. Ptr Ink 216:78 Ag 30 '46
McCann-Erickson's report. Adv & Sell 39: 156+ My '46
Nielsen lists 12 indictments against telephone radio survey methods. Ptr Ink 214: 95+ Mr 29 '46
Nine ways BMB helps radio advertisers. C. Franco. Adv & Sell 39:47-8 O '46
Radio coverage maps not enough! F. A. South. Ptr Ink 213:140 N 16 '45
Radio market guide. Published monthly by Radio market guide pub. co, 360 N. Michigan av, Chicago 1
32,500,000 radio-owning families; analysis of nation's listeners by counties; market exploration. W. P. Burn. map Ptr Ink 215: 49-52 My 3 '46
What radio's Broadcast measurement bureau will measure, and why. J. M. Allen. Ptr Ink 214:66+ Mr 8 '46

Dealer cooperation
Esso plugs local pride in radio spots; booklets show dealers selling job of radio program. map Sales Management 56:101 F 15 '46
How to talk to dealers about radio advertising. T. Cox, jr. Sales Management 57:103-4 Ag 15 '46

Dealer helps
How to sample commercials; Payne furnace co. includes a record in dealer helps. Ptr Ink 216:56 Ag 9 '46

Measurement
How to evaluate your radio program; nomogram can simplify calculating cost per point of ratings. E. L. Deckinger. Adv & Sell 39:62+ Ap '46
McCann-Erickson's report. Adv & Sell 39: 156+ My '46

Moving picture tie-in
Movie and radio show trade plugs; American safety razor corp., Brooklyn. Ptr Ink 216: 110 S 13 '46

Pocket radios
New pocket radio system to carry commercials. Ptr Ink 215:97+ Je 7 '46

Prize contests
Network and competitive sponsors join in promoting one contest on four shows. D. Bruner. Ptr Ink 217:124 O 11 '46
Tagged fish win prizes for anglers as Minneapolis radio station boosts state tourism. Ptr Ink 215:126 My 17 '46

RADIO advertising—*Continued*

Program advertising

Druggists urged to push radio-advertised products; Miles laboratories mailing goes to 50,000 retailers. il Ptr Ink 215:43 My 31 '46

Radio hypos audience promotion. D. Bruner. Ptr Ink 217:98+ N 1 '46

Research

Eighth annual Iowa radio study queries listeners on annoying commercials. V. J. Dallaire. Ptr Ink 214:61 Ja 11 '46

How advertisers can use BMB. Sales Management 56:148+ Je 1 '46

Radio station makes inexpensive sales surveys for clients; gets druggists to fill out questionnaires in return for spot announcements. T. R. Cox, jr. Ptr Ink 216:43-4 Ag 30 '46

Some factors in radio measurement (cont). M. Harper, jr. Adv & Sell 38:43-4+ N; 56+ D '45

What radio's Broadcast measurement bureau will measure, and why. J. M. Allen. Ptr Ink 214:66+ Mr 8 '46

Spot radio

Spot radio campaign gets cooperation of dealers; Esso wants rest rooms clean; spot radio plug was dealer premium. Ptr Ink 217:37 N 1 '46

Suggests agency clearing house for spot radio. N. C. Rorabaugh. Ptr Ink 215:115 Ap 12 '46

Statistics

ABC, CBS and Mutual networks report 1945 billings. Ptr Ink 214:48+ Ja 18 '46; Same. Adv & Sell 39:125 F '46

Leading advertisers of 1945 and their expenditures; 653 companies invested $446,928,447 in magazines, farm papers and network radio; tabulation 1942-1945. Ptr Ink 214:31-2+ Mr 22 '46; Correction. 215:94 Ap 5 '46

Store programs

Musical shopping; patrons of grocery chain listen to commercial also. il Bsns W p60+ Jl 13 '46

Problems of technique beset in-store radio advertising; National marketcasting co., Los Angeles. il Sales Management 57:110+ S 15 '46

Syndicated programs

Cooperative radio programs; syndicated radio; summary of current status; advantages, trends, methods and variations. P. Murray. Ptr Ink 213:44+ D 21 '45

Testing

Checking radio commercials against the book; how Cresta Blanca stood up in listener tests and by book of rules. S. D. Gregory. Ptr Ink 213:28+ N 23 '45

Small budget test of media. T. Ridgway. Ptr Ink 216:40 S 20 '46

Canada

Radio idea pays; programs written solely for French Canadians. Bsns W p117 D 15 '45

Great Britain

English-speaking commercial broadcasts to resume. B. Tolk. Ptr Ink 216:86 Ag 9 '46

Latin America

How short-wave radio is influencing Latin American markets. J. W. G. Ogilvie. il Ind Marketing 30:90+ O '45

RADIO advertising, Cooperative

Major radio networks' co-op business boasts 1,200 local sponsors footing bill. Ptr Ink 215:100 Je 7 '46

Network and competitive sponsors join in promoting one contest on four shows. D. Bruner. Ptr Ink 217:124 O 11 '46

See also

Radio advertising—Syndicated programs

RADIO aids to aviation

Aircraft electronics progress. L. LeKashman. Aero Digest 53:63 Jl '46

All-weather flying. il Electronics 19:84-7 S '46

Automatic air traffic control. L. LeKashman. il Aero Digest 52:46-7+ Mr; 53:40-2+ Ag '46

Automatic altimeter setting; remote control radio device. Air Transport 4:90 Ag '46

Automatic instrument approach. W. F. McDonald. il plan Air Transport 4:70-1 Ag '46

Aviation communication systems. D. W. Rentzel. il Elec Eng 64:387-91 N '45

Bendix corp. unveils automatic plotter. il Aviation N 6:10 O 28 '46

Bendix using three lightplanes in demonstration-test of VHF. il Aviation N 5:13 Ap 22 '46

Change to VHF will be easy on private flyers. T. P. Wright. Aviation N 5:17 F 18 '46

CAA instrument landing system to be ready for airline use by next winter. CAA J 7:85+ Jl 15 '46

CAA promises gradual change to vhf facilities for aircraft communications. T. P. Wright. Electronics 19:318-19+ Ap '46

CAA speeds work on vhf radio aids for private flying. il CAA J 7:29 Mr 15 '46

CAA would hold advances in electronics for future use. B. Stubblefield. Aviation N 4:44-5 D 3 '45

CAA's blind landing system put into use. CAA J 7:72+ Je 15 '46

Communications system, effective at 40,000 feet, aided B-29s against Japs. T. C. Rives. Steel 117:88 N 26 '45

Comprehensive navigation systems; Federal telephone & radio's Navaglobe, Navar, Navaglide, and Navascreen. R. Le Kashman. il Air Transport 4:55-6+ O '46

Electronic control of plane in landing approach; Sperry A-12 Gyropilot. diag Aviation 45:80 O '46

Electronic flight trainer; computing system. il Electronics 19:170+ S '46

Evaluation of hyperbolic radio avigation. Aviation 45:51+ Ag '46

Fair to foul weather flying. E. E. Aldrin. il diags Aeronautical Eng R 5:26-9 Jl '46

Flight and traffic control aids; Navaglobe, Navar, Navaglide and Navascreen. L. LeKashman. il maps Aero Digest 53:42-3 S '46

Ground control approach system; combination of radar and communications devices. J. K. McDuffie. il Radio N 36:38-40+ Jl '46

Ground controlled approach for commercial aviation; radar landing control. il Electronics 19:160+ My '46

Highway in the sky. A. R. Boone. il Radio N 36:35 Jl '46

New accuracies attained with radio altimeters. il diags Aviation 45:85+ Jl '46

New telecommunications code written, 3d Inter-American radio conference, Rio de Janeiro, Sept. 3-27. Aviation N 4:44 D 17 '45

100 towers to get VHF by June 1. Aviation N 5:16 My 6 '46

Overseas radio aids to be maintained. Aviation N 5:12 Ap 15 '46

PICAO communications and traffic committees report. Air Transport 4:85 F '46

PICAO technicians viewing U.S. radio navigation aids. CAA J 7:125-6 O 15 '46

Radio teletype in the AACS. R. Lambe. il Radio N 35:52-3+ Mr '46

Recording CAA traffic control instructions. K. M. MacIlvain. il diags Electronics 19:116-19 My '46

Safe flight major consideration; Civil aeronautics administration's experimental station at Indianapolis. il CAA J 7:12 Ja 15 '46

Search-rescue plans progress at Dublin; North Atlantic route service conference. Aviation N 5:30 Mr 25 '46

Society of British aircraft constructors exhibition; examples of airfield lighting; communications equipment. il Electrician 137:647-8 S 6 '46

Standardized system expected in instrument landing dispute; private flyers and segments of industry criticize CAA opposition to radar-based method. W. Kroger. il Aviation N 4:9-10 D 10 '45

Status of civil aviation in 1946. H. Self. Roy Aeronautical Soc J 50:749-53 O '46

RADIO aids to aviation—*Continued*
Ultra-high-frequency radio range with sector identification and simultaneous voice. A. Alford and others. il diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:9W-17W Ja '46

See also
Airlines—Radio communication
Airways—Traffic control
Direction finding apparatus
Loran system
Radar aids to aviation
Radio apparatus on aircraft
Radio beacons
Radio meteorographs

RADIO aids to navigation
Auxiliary pilot guides ships; radio marker buoy. Electronics 19:154+ Ag '46
Decca navigation system for ships and planes. il Electronics 19:174+ S '46
Hyperbolic navigation. J. A. Pierce. Elec R (Lond) 138:138 Ja 25 '46
Interference considerations affecting channel-frequency assignments. M. Reed and S. H. Moss. diags Inst E E J 93 pt 3:355-61 S '46
Merchant marine radar. I. F. Byrnes. il diag RCA R 7:54-66 Mr '46
Navigation aids; abstracts of I.R.E. papers. diag Electronics 19:97-8 Mr '45
Race on for navigation aids; Loran and Decca navigator. Bsns W p56-7+ Je 29 '46
Radar, f.o.b. Schenectady; Electronic Navigator, is now being offered for sale to merchant ship owners as an obstacle detector at night and in fog. il Bsns W p68+ D 1 '45
Radar in navigation. Franklin Inst J 241: 311-12 Ap '46
Radio aids to marine navigation; demonstration on H.M.S. Fleetwood. il Engineer 181: 425-7 My 10 '46; Abstract. Engineering 161: 451-2 My 10 '46
Radio marker buoy. il Electrician 136:108 Ja 11 '46

See also
Direction finding apparatus
Loran system
Radar aids to navigation
Radio apparatus on ships
Radio telephone on ships

RADIO amplifiers. See Amplifiers, Vacuum tube

RADIO antennas
Accuracy of the earth-flattening approximation in the theory of microwave propagation. C. L. Pekeris. Phys R 70:518-22 O 1 '46
Aerial impedance measurements. L. Essen and M. H. Oliver. diags Wireless Eng 22: 587-93 D '45
Aerial resistance and cable impedance. G. W. O. Howe. Wireless Eng 23:65-6 Mr '46
Aerial-to-line couplings; cathode-follower and constant-resistance network. R. E. Burgess. diags Wireless Eng 23:217-21 Ag '46
Antenna design; abstracts of I.R.E. papers. il diags Electronics 19:100-2 Mr '46
Concerning Hallén's integral equation for cylindrical antennas. S. A. Schelkunoff. bibliog diags Inst Radio Eng Proc 33:872-8 D '45; Discussion. 34:265-9 My '46
Cooperative two-station antenna system for CHLT and CKTS. L. McManus. diag Electronics 19:154+ N '46
Effective length of a half-wave dipole. G. W. O. Howe. Wireless Eng 23:95-6 Ap '46
Elimination of interference-type fading at microwave frequencies with spaced antennas. R. Bateman. diags Inst Radio Eng Proc 34:662-3 S '46
500ft aerial mast at Brookman's park. il Engineer 182:378 O 25 '46
Iron-cored loop receiving aerial. R. E. Burgess. bibliog Wireless Eng 23:172-8 Je '46
Loop-antenna coupling-transformer design. W. S. Bachman. diags Inst Radio Eng Proc 33:865-7 D '45
Low impedance loop antenna for broadcast receivers. L. O. Vladimir. Electronics 19: 100-3 S '46
Magnetic antenna. L. Page. Phys R 69:645-8 Je 1 '46
Measured impedance of cylindrical dipoles. D. D. King. il diags J Ap Phys 17:844-52 O '46
New antenna type for F-M and facsimile. il Electronics 19:204 F '46
Polyethylene in radio antenna tubing. il Mod Plastics 24:196 O '46
Power for aerials; abstract. F. C. McLean and F. D. Bolt. Elec R (Lond) 137:825-6 D 7 '45
Principal and complementary waves in antennas. S. A. Schelkunoff. bibliog diags Inst Radio Eng Proc 34:23P-32P Ja '46
Radiation field of an unbalanced dipole. W. Kelvin. Inst Radio Eng Proc 34:440-4 Jl '46
Radiation from large circular loops. E. B. Moullin. diag Inst E E J 93 pt 3:345-51 S '46
Radiation of ship stations on 500 kc/s. J. Marique. bibliog diags Wireless Eng 23:146-51 My '46
Radio progress during 1945; antennas. bibliog Inst Radio Eng Proc 34 [Waves & Electrons 1]:175-6 Ap '46
Railroad antennas. il Ry Age 121:180 Ag 3 '46
Remote indicating antenna ammeter. C. R. Cox. il diag Electronics 19:210+ Ja '46
Review of the chapter on antennas in Transmission lines, antennas and wave guides, by S. A. Schelkunoff. R. W. P. King. R Sci Instr 17:47-8 Ja '46
Simplifications in the consideration of mutual effects between half-wave dipoles in collinear and parallel orientations. K. J. Affanasiev. diags Inst Radio Eng Proc 34:635-8 S '46
Some experiments with linear aerials. J. S. McPetrie and J. A. Saxton. diags Wireless Eng 23:107-14 Ap '46
Ten-meter vertical coaxial antenna. C. V. Hays. diag Radio N 36:38+ N '46
Thin cylindrical antenna; a comparison of theories. D. Middleton and R. King. bibliog J Ap Phys 17:273-84 Ap '46
Three new antenna types and their applications. A. G. Kandoian. bibliog il diags Inst Radio Eng Proc 34 [Waves & Electrons 1]: 70W-5W F '46
Vhf antenna for trains. E. G. Hills. diags Electronics 19:134-6 N '46

See also
Radar—Antenna and scanning mechanism

Directional antennas
Controlling the beam antenna; applying Wheatstone bridge principle. E. Harris. diags Radio N 36:60+ Ag '46
Current distribution for broadside arrays which optimizes the relationship between beam width and side-lobe level. C. L. Dolph. Inst Radio Eng Proc 34:335-48 Je '46
Four element 144 mc. rotary beam antennas. H. S. Brier. diags Radio N 36:64+ S '46
Lens antenna. il Sci Am 175:29 Jl '46
Metal lens focuses microwaves. il diags Product Eng 17:[no 7] 136 Jl '46
Motor-driven antenna; republished from Radio news, Oct. 1938. R. J. Long. il diags Radio N 35:38-9+ Je '46
Self-synchronous transmission system; many amateur applications, particularly in rotating directional antennas. E. Hansen. il diags Radio N 35:38-9+ F '46
Special aspects of balanced shielded loops. L. L. Libby. diags Inst Radio Eng Proc 34:641-6 S '46
Symmetrical antenna arrays. C. W. Harrison, jr. bibliog Inst Radio Eng Proc 33:892-6 D '45
Theory for three-element broadside arrays. C. W. Harrison, jr. diags Inst Radio Eng Proc 34:204-9 Ap '46

RADIO apparatus
Analysis of three self-balancing phase inverters. M. S. Wheeler. diags Inst Radio Eng Proc 34:67P-70P F '46
Deka-Xtal holder. P. M. Ohlinger. il Radio N 36:76+ Ag '46
Electrical and allied developments of 1945; electronics. G. Bartlett. il maps Gen Elec R 49:54-8 Ja '46
Electrical contact springs; radio section discussion meeting. Inst E E J 93 pt 3:242 Jl '46
Ham radio; preview of parts and equipment to be used for a new era. R. Washburne and A. Williams. il diags Radio N 34:38-42+ D '45
Ionosphere measuring equipment. P. G. Sulzer. il diags Electronics 19:137-41 Jl '46

RADIO apparatus—*Continued*

Locating lost sewers and manholes; use of M-scope. E. T. Cranch. plan Water & Sewage Works 93:149-50 Ap '46

New dielectric and insulating materials in radio engineering; discussion. Engineering 161:571 Je 14 '46; Electrician 136:1519-20 Je 7 '46; Engineer 181:519 Je 7 '46

Les progrès de la haute fréquence pendant la guerre. M. Y. Rocard. Génie Civil 123:176-7 Jl 1 '46

Radio progress during 1945. bibliog Inst Radio Eng Proc 34 [Waves & Electrons 1]:164-84 Ap '46

Simple co-axial switch. E. Burgess. diags Radio N 34:58+ N '45

See also

Amplifiers, Vacuum tube
Direction finding apparatus
Microphones
Oscillators
Radar
Radio antennas
Radio apparatus industry
Radio circuits
Radio communication
Radio coils
Radio condensers
Radio control
Radio facsimile
Radio generators
Radio instruments
Radio loud speakers
Radio meteorographs
Radio receiving apparatus
Radio transformers
Radio transmitters
Vacuum tubes
Wavemeters

Bibliography

Abstracts and references. Published in monthly numbers of Wireless engineer; reprinted in Inst Radio Eng Proc beginning with June '46 issue [abstract 1144]

Manufacture

Case studies of production; raising productivity in plants manufacturing electronic gear. M. Lechner. il plans diags Electronics 18:140-6 D '45

Electroforming microwave components. F. Hassell and F. Jenks. il Electronics 19:134-8 Mr '46

One-card graphic system for close control of materials; RCA Victor division. N. N. Barish. il Factory Management 104:149-52 My '46

Problems in the manufacture of ultra-high-frequency solid-dielectric cable. A. J. Warner. il diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:31W-7W Ja '46

Work-savers that add up to low-cost production; Philco corporation. il Factory Management 104:113-15 My '46

Military use

Electronics at Bikini; telemetering, radio and radar monitoring, television and stratovision measured effects of atomic bombs. D. G. Fink and C. L. Engleman. il Electronics 19:84-9 N '46

German electronic equipment; exhibition. Elec R (Lond) 138:429 Mr 15 '46

Military applications; abstracts of I.R.E. papers. Electronics 19:92-3 Mr '46

Navy radio and electronics during World war II. J. B. Dow. Inst Radio Eng Proc 34: 284-7 My '46

Mounting

Vibration and shock testing of mobile equipment. J. H. Best. il diag Electronics 19: 126-9 Ap '46

Patents

Patent puzzle; over 6,000 patent applications covering microwave apparatus filed during war. D. K. Lippincott. Electronics 19:92-3 My '46

Patents; recent news. Electronics 19:228+ My '46

Wireless patents; summary of recently accepted specifications. Published in monthly numbers of Wireless engineer

Power supply

Conjugate-image impedances. S. Roberts. bibliog diags Inst Radio Eng Proc 34:198-204 Ap '46

Constant 6 volt d.c. supply. C. C. Springer. il diag Radio N 35:44-5+ Je '46

Multi-voltage regulated power supplies. J. R. Mentzer. diags Electronics 19:132-3 S '46

Oscillator power relations. R. E. Burgess. bibliog diag Wireless Eng 23:237-40 S '46

Power supply for communication equipment. J. J. Kennedy. il diag Ry Mech Eng 120: 149-50 Mr '46

Recent developments in heavy duty vibrator type power supplies. M. R. Williams. il diags Radio N 35:46-8+ Je '46

Thermoelectric generator for portable equipment. J. M. Lee. il Electronics 19:196+ My '46

See also

Radio receiving apparatus—Power supply
Radio transmitters—Power supply

Protection

Sealed electrical bushings for climate-proofing equipment; metal-to-ceramics seals, their manufacture, properties and applications. H. H. Hausner. bibliog il diag Product Eng 16:849-53 D '45

Repair

Aircraft radio serviceman. T. Wayne. il diags Radio N 35.28-31 + Ap '46

See also

Insurance, Radio
maintenance

Standards

Proposed standards of the Radio manufacturers association. Inst Radio Eng Proc 34 [Waves & Electrons 1]:198-200 Ap '46

Testing

Resonant-cavity measurements. R. L. Sproull and E. G. Linder. il diags Inst Radio Eng Proc 34:305-12 My '46

RADIO apparatus industry

Arrived yesterday; a buyer's market in radio sets; public not accepting unknown brands. Sales Management 57:80+ S 1 '46

Dealer survey sets radio sales strategy for Stromberg-Carlson. C. J. Hunt. Sales Management 56:85-6+ Mr 15 '46

High spots in Philco's merchandising. J. H. Carmine. il Ptr Ink 213:21-3+ D 28 '45

How dealers react when promised brand merchandise is not forthcoming; sample study in Lancaster. R. H. Ganly. Ptr Ink 214: 21-2+ F 22 '46

Income tax saving facts for radio dealers. H. J. Ashe. Radio N 36:58+ N '46

Proposed standards of the Radio manufacturers association. Inst Radio Eng Proc 34 [Waves & Electrons 1]:198-200 Ap '46

Radio firm broadens market; Stromberg-Carlson low-priced models. Bsns W p42+ S 7 '46

Radio makers face buyers' market. Barron's 26.6 Jl 22 '46

Radio; past and future. D. Sarnoff. Comm & Fin Chr 164:1783+ O 10 '46

Rise of Raytheon in Boston's suburbs. il Fortune 34:136-41+ O '46

Sets for the hams. Bsns W p41-2 N 24 '45

Should agencies be used to collect delinquent accounts? J. A. Harold. Radio N 36:126-7 N '46

They learned the latest lowdown; San Diego Bureau of radio & electric appliances conference. il Elec West 96:70-4 Ja '46

Transparent bag makes a package that sells; small radio hardware. W. L. Schott. il Ptr Ink 216:102+ S 20 '46

United Electrical's broadside; union charges of sitdown by radio and appliance makers. Bsns W p94+ D 29 '45

Why E.C.A. sells radios with informative labels. Sales Management 56:126+ Je 1 '46

See also Lewyt corporation

Advertising

Advertising promotion; Caldwell-Clements study distribution areas and quotas. Ptr Ink 214:68 Mr 29 '46

Build sales by building confidence in dealers; seven advertising devices. E. M. Housman. il Ptr Ink 217:38-9 N 1 '46

Five steps for conducting market research; plus methods for promoting resulting data; Sylvania Electric. P. S. Ellison. il Ptr Ink 216:39-41 S 13 '46

How RCA unearthed 50,000 leads for post-war sales to industry. H. L. Edsall. il Sales Management 56:42-4 My 20 '46

RADIO apparatus industry—Advertising— *Continued*
Promotion program to radio engineers. Ind Marketing 31:127 O '46
Research, sales and ad program pushes FM; General Electric's FM campaign. R. D. Jordan. il Ind Marketing 31:29-30 Ag '46
Service is the backbone of this sales organization; Philco recruiting 38,000 service men. W. A. McGarry. il Ptr Ink 217:52 O 25 '46
Sylvania Electric shows how market research pays its way. P. S. Ellison and others. Ind Marketing 31:42-4 O '46

Directories

Electronics buyers' guide. Electronics 19B: [305-416] insert D1-D112 Je 15 '46; Additions and corrections. 19:217-18 N '46

Exhibitions

Exposition technique des pièces détachées et des accessoires de radiophonie. (Paris, 6-8 février 1946.) M. Adam. Génie Civil 123: 100-1 Ap 15 '46
Les industries radioélectriques à la Foire de Paris, (25 mai-10 juin 1946). M. Adam. Génie Civil 123:178 Jl 1 '46

Materials

Permeability of ferromagnetic materials at frequencies between 10^5 and 10^{10} c/s. J. T. Allanson. bibliog diags Inst E E J 92 pt 3: 247-55 D '45
Plastics in radio. L. Laden. il Radio N 34:25-8 D '45
Resonance methods of dielectric measurement at centimetre wavelengths. F. Horner and others. diags Inst E E J 93 pt 3:53-68 Ja '46
Review of plastic materials; with tabulated physical and electrical properties, trade names, manufacturers, etc. H. L. Brouse. bibliog Inst Radio Eng Proc 33:825-34 D '45

Securities

Divergent potentials in radio stocks; with statistics on leading stocks. P. Dobbs. il Mag of Wall St 78:757-9+ S 28 '46
Radio companies face peacetime competition; with position of leading stocks. E. A. Barnes. Mag of Wall St 77:644-5+ Mr 2 '46

Service

Service is the backbone of this sales organization; Philco recruiting 38,000 service men. W. A. McGarry. il Ptr Ink 217:52 O 25 '46

Europe

European radio industry. L. Laden. il map Radio N 35:25-7+ My '46

Germany

Disposition of German electronic equipment industry. Electronics 19:276+ F '46

Ireland

Radio industry in Eire. For Comm W 24:38 Jl 20 '46

Switzerland

Subscription-lease plan; a merchandising success story from Switzerland. P. H. Wendel. il Radio N 36:54+ N '46

RADIO apparatus on aircraft
Aero Digest's sampler chart of personal aircraft radio. L. LeKashman. il Aero Digest 52:39-43+ Je '46
Aircraft radio serviceman. T. Wayne. il diags Radio N 35:28-31+ Ap '46
Army-navy precipitation-static project. R. Gunn and others. bibliog il diags Inst Radio Eng Proc 34:156-77, 234-54 Ap-My '46
Bendix lightplane vhf unit. il Aero Digest 52: 100 Ja '46
C-47 radio modified for single-pilot operation. il Aviation 45:81 S '46
CAA issues guide to radio builders for private plane. CAA J 6:133+ D 15 '45
Flightphone, a two-way communications unit. Aeronautical Eng R 5:97 Ap '46
Isolation amplifiers for aircraft. G. F. Rogers. il Electronics 19:122-3 Ag '46
Itinerant aircraft radio. H. T. Sagert. il Aeronautical Eng R 5:10-15 Mr '46
Low power aircraft transmitter. A. B. Kaufman. il diag Radio N 35:29+ Mr '46
New lightplane radio equipment will embody many advantages. A. McSurley. Aviation N 4:23-4 D 31 '45
New techniques nullify static. il Aviation 45: 52 Je '46
Personal plane radio by Galvin. il Aero Digest 52:91+ Ja '46
Planning an aircraft radio installation. J. D. Scalbom. il diag Radio N 36:25-7+ N '46
RCA model AVT-49 radio transmitter for aircraft communication. Aeronautical Eng R 5:129 My '46
Radio installation notes. il Aero Digest 52:69 My '46
Sea water battery powers locator buoy; aid in sea-rescue work. diags Product Eng 17:156 N '46
Signal corps on-and in-the air; airborne radioteletype communications system. C. E. Jackson. il Radio N 35:94+ Ja '46
Vibration and shock testing of mobile equipment. J. H. Best. il diag Electronics 19: 126-9 Ap '46
When Jones says. My radio's on the blink; extra dollars can be made by small airport operator. W. A. Burroughs, 3d. il diags Aviation 45:92-5 Ja '46

See also
Radio aids to aviation

RADIO apparatus on ships
Radiation of ship stations on 500 kc/s. J. Marique. bibliog diags Wireless Eng 23:146-51 My '46

See also
Radio aids to navigation
Radio telephone on ships

RADIO attenuators
Design of attenuation equalizers; generalized performance equations. H. N. Wroe. diags Wireless Eng 23:272-80 O '46

RADIO authorship
Soap opera. il Fortune 33:118-23+ Mr '46

RADIO batteries. See Radio receiving apparatus—Batteries

RADIO beacons
Omnidirectional radio-range system. D. G. C. Luck. il maps diag RCA R 7:94-117 Mr '46
Ultra-high-frequency radio range with sector identification and simultaneous voice. A. Alford and others. il diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:9W-17W Ja '46

RADIO broadcasting
Biggest radio network; 178 service radio stations have kept radio talent before soldiers and foreign civilians. T. H. A. Lewis. Ptr Ink 213:119 D 7 '45
Comes the revolution, where's broadcasting going? J. Southwell. il Adv & Sell 38:45-6+ D '45
Dutch regard stereophonic broadcasting experiment as significant for future. For Comm W 24:16 Ag 24 '46
From studio to master control; skill, speed, and cooperation required of broadcast engineers. H. J. Seitz. il diags Radio N 35: 47-9+ Ja '46
Radio, 25, looks at the future; frequency modulation broadcasting nearest to realization, but facsimile and television over networks are in sight. Bsns W p32+ N 10 '45
Radio views itself. Bsns W p38+ N 2 '46

See also
Radio advertising
Radio broadcasting stations
Radio communication—Interference elimination
Radio receiving apparatus
Television broadcasting

Agricultural programs

KMBC helps rural listeners solve problems of practical farming; model farm serves as Agricultural university of the air. T. Armstrong. il Sales Management 57:125+ O 15 '46

Audience participating programs

Rise of audience participation programs. D. K. Grant. il Adv & Sell 39:45+ Je '46

RADIO broadcasting—*Continued*

Control

Instantaneous program switching. J. Zelle. il diags Electronics 19:142-4 F '46

Finance

ABC, CBS and Mutual networks report 1945 billings. Ptr Ink 214:48+ Ja 18 '46; Same. Adv & Sell 39:125 F '46

Timely survey of publishing and broadcasting stocks; with statistics on leading companies. G. L. Merton. Mag of Wall St 79: 89-91 O 26 '46

Frequency modulation system

See Radio frequency modulation

Frequency standards

Measuring and monitoring broadcast frequencies. L. S. Cole. il diags Electronics 19:110-11 Jl '46

Listening service

See Radio reports, inc.

Music

Chicago music; Muzak invades new market. Bsns W p57 F 9 '46

Musical recordings popularize gas and promote good will; Southern California gas co. F. A. Herr. il Am Gas J 164:39-41 F '46

Petrillo again; ban on foreign music broadcasts and musician-quota demand. Bsns W p84-6 Ja 5 '46

Story behind Standard Oil's radio broadcasts for students. il Sales Management 55:35-7 D 15 '45

Truman signs bill to curb Petrillo. Comm & Fin Chr 163:2272 Ap 25 '46

News

Bid by shortwave; Press Wireless asks to deliver network programs to stations. Bsns W p32+ Jl 20 '46

Radio news shows still attract listeners and advertisers despite war's ending. D. Bruner. Ptr Ink 216:78+ Ag 2 '46

WHCU cooperates with weeklies to improve rural newspaper content. Ptr Ink 216:90 Jl 26 '46

Performers

Philco signs Bing. Bsns W p40-1 Ag 31 '46

Program monitoring

Bridging amplifier for f-m monitoring. G. E. Beggs, jr. bibliog il diag Electronics 19:152-5 Ja '46

Program rating

Hooper, CAB underrate audience, Zeisel finds in analysis of rating reliability. Ptr Ink 215:125+ Ap 19 '46

How to evaluate your radio program; nomogram can simplify calculating cost per point of ratings. E. L. Deckinger. Adv & Sell 39:62+ Ap '46

Radio profiles; new methods of analyzing air shows. Bsns W p74-6 S 21 '46

Three-man committee calls for ending of CAB's present program rating service. Ptr Ink 215:117+ Ap 12 '46

Who's listening? C.A.B. may drop Crossley ratings. Bsns W p94+ Ap 13 '46

Program writing

See Radio authorship

Programs

Radio's rural ears; survey of what farmer likes to hear. Bsns W p78+ D 22 '45

Some factors in radio measurement; response to commercials in comedy programs. M. Harper, jr. Adv & Sell 38:56+ D '45

See also

Radio broadcasting—Audience participating programs

Radio broadcasting—Serials

Public attitude

Radio (including commercials) fares well in new public reaction survey. Ptr Ink 214: 119+ Mr 22 '46

Pulse time modulation

See Radio pulse time modulation

Regulation

See Radio laws and regulations

Serials

Soap opera. il Fortune 33:118-23+ Mr '46

Social aspects

Radio as an agency of national unity. L. Bryson and D. Rowden. Ann Am Acad 244: 137-43 Mr '46

Telephone transmission

Telephone amplifier for telephone lines used by broadcasters. H. K. Van Jepmond. diag Electronics 19:139 Mr '46

Time signals

See Time signals, Radio

Trade union programs

Voice of labor. Bsns W p108+ Ja 12 '46

War uses

Listening to the world; BBC's famous monitor service. C. Cross. il Radio N 35:64+ Ja '46

Wired radio

Broadcasting piped music in bus terminal waiting rooms. Bus Transportation 25:62 Ap '46

Chicago music; Muzak invades new market. Bsns W p57 F 9 '46

Telediffusion in Sweden. L. Silk. Electronics 19:323+ Ap '46

See also

Radio communication—Wire connections

Australia

Radio Australia. K. R. Boord, comp. il Radio N 36:49+ O '46

Canada

FM in Canada. D. Holloway. il Radio N 35: 30-1+ Ja '46

Verdict on radio. Bsns W p95 Jl 13 '46

France

Le programme de travaux de la radiodiffusion française. Génie Civil 123:52 F 15 '46

Great Britain

British radio carries on. Bsns W p105 Jl 27 '46

New station techniques; British broadcasting corporation. il Electronics 19:169-70+ N '46

Netherlands

Radio chaos in Holland. Economist 151:500 S 28 '46

Sweden

Telediffusion in Sweden. L. Silk. Electronics 19:323+ Ap '46

United States

NAB hits FCC's criticism of radio advertising and soap operas. Ptr Ink 214:115+ Mr 15 '46

RADIO broadcasting stations

Atomic energy was used to start radio station in 1940; reprint of article published in Power plant engineering, Oct. 1940. diag Power Pl Eng 50:92 Ja '46

International short-wave; foreign stations, call letters, frequencies, time schedules (cont). K. R. Boord. il Radio N 34:52-3+ D '45 [cont monthly]

New station techniques; British broadcasting corporation. il Electronics 19:169-70+ N '46

Regains stations; World Wide's short-wave stations. Bsns W p51 My 11 '46

Warned by FCC; broadcasters renewals will be stricter. Bsns W p74 Mr 16 '46

Advertising

KSTP radio reporter builds listener audience. Sales Management 56:126+ Mr 1 '46

Radio hypos audience promotion. D. Bruner. Ptr Ink 217:98+ N 1 '46

Air conditioning

Electronic air-filter; Electro-Matic filter used at station WSM. B. F. Taylor. il Radio N 35:52-3+ My '46

RADIO broadcasting stations—*Continued*

Directories

Radio market guide. Published monthly by Radio market guide pub. co, 360 N. Michigan av, Chicago 1

Equipment

Design and use of radio-frequency open-wire transmission lines and switchgear for broadcasting systems. F. C. McLean and F. D. Bolt. il diags Inst E E J 93 pt 3:191-206 bibliog(p206); Discussion. 206-10 My '46

Instantaneous program switching. J. Zelle. il diags Electronics 19:142-4 F '46

See also
Radio antennas
Radio transmitters

Power

See also
Radio transmitters
—Power supply

Securities

Coming attraction: ABC issue; Edward J. Noble's big plans. Bsns W p46+ Je 29 '46

Service

KMBC helps rural listeners solve problems of practical farming; model farm serves as Agricultural university of the air. T. Armstrong. il Sales Management 57:125+ O 15 '46

Radio station makes inexpensive sales surveys for clients; gets druggists to fill out questionnaires in return for spot announcements. T. R. Cox, jr. Ptr Ink 216:43-4 Ag 30 '46

Radio station merchandising should be tailormade. S. Levitan. Ptr Ink 214:74+ Mr 15 '46

Tagged fish win prizes for anglers as Minneapolis radio station boosts state tourism. Ptr Ink 215:126 My 17 '46

RADIO broadcasting stations, Newspaper

Cooperative two-station antenna system for CHLT and CKTS. L. McManus. diag Electronics 19:154+ N '46

Newspaper-radio affiliations mount as WCAU is sold to Philadelphia Record. Ptr Ink 215: 132 My 17 '46

Philadelphia Record buys WCAU. Bsns W p82 My 18 '46

RADIO broadcasting studios

Broadcasting studio; novel acoustical treatment developed for NBC in Rockefeller Center. il plan diags Arch Forum 84:98-100 F '46

CBS experimental studio uses motorized walls to vary acoustics; Liederkranz clubhouse, New York city. il plan Arch Forum 85: 92-3 O '46

Equipment

CBS studio control-console and control-room design. H. A. Chinn. il plan diag Inst Radio Eng Proc 34:287-95 My '46

RADIO cabinets

1946 radio parade; illustrations with brief descriptions. Radio N 35:30-1 Mr '46

Plastics in radio. C. A. Breskin. il Sci Am 174:56-7 F '46

Plastics in radio. L. Laden. il Radio N 34: 25-8+ D '45

Tuning in on 1946 radios. il Mod Plastics 23: 102-6 D '45

Two-toned cast phenolic radio housing; Bendix radio. il Mod Plastics 24:96 O '46

RADIO circuits

Analysis of a resistance-capacitance parallel-T network and applications. A. E. Hastings. bibliog diags Inst Radio Eng Proc 34:126P-9P Mr '46

Application of modulation-frequency feedback to signal detectors. G. Builder. bibliog diags Inst Radio Eng Proc 34:130P-7P Mr '46

Asymmetrical butterfly circuit. A. Landman. diags Inst Radio Eng Proc 34:92P F '46

Calculation of the electromagnetic field, frequency and circuit parameters of high-frequency resonator cavities. H. Motz. bibliog diags Inst E E J 93 pt 3:335-43 S '46

Cathode-follower circuits. K. Schlesinger. bibliog diags Inst Radio Eng Proc 33:843-55 D '45

Cavity oscillator circuits. A. M. Gurewitsch. il diags Electronics 19:135-7 F '46

Circuit developments; abstracts of I.R.E. papers. diags Electronics 19:95-6 Mr '46

Circuit file; diagrams and parts lists. Radio N 35:60-1, 66, 76+ My; 62-3, 72+ Je; 36:64-5, 68 Jl; 64-5, 70+ Ag; 70-1, 76 S; 66-7, 72, 74 O; 64-5, 70 N; 64-5, 70 D '46; 37:62-3, 68 Ja; 70-1, 76 F; 72-3, 86 Mr '47

Circuit techniques for radiolocation; abstracts of papers at Radiolocation convention. Electrician 136:889-90 Ap 5 '46

Circuits for sub-miniature tube. il diags Electronics 19:154-6 My '46

Class C grid bias modulation. W. W. Smith. diags Radio N 35:55-6+ Ap; 70+ My '46

Coaxial butterfly circuits. E. E. Gross, jr. il diags Electronics 19:156-60 Ap '46

Composite tank circuit for uhf. P. L. Bargellini. bibliog il diags Electronics 19:115-19 S '46

Constant current circuits. O. T. Fundingsland and G. J. Wheeler. diags Electronics 19:130-3 N '46

Design of band-spread tuned circuits for broadcast receivers. D. H. Hughes. diags Inst E E J 93 pt 3:87-96 Mr '46; Discussion. 93 pt 3:459-60 N '46

Double-derived terminations; method for connecting filters. R. O. Rowlands. diags Wireless Eng 23:52-6 F '46

Extended employment of Thévenin's theorem. A. Lee and D. K. C. MacDonald. diags Wireless Eng 22:534-7 N '45

General formulas for "T"- and "Π"-network equivalents. M. B. Reed. diags Inst Radio Eng Proc 33:897-9 D '45

Linear frequency discriminator. J. R. Tillman. diags Wireless Eng 23:281-6 O '46

Loop-antenna coupling-transformer design. W. S. Bachman. diags Inst Radio Eng Proc 33:865-7 D '45

Modern home receiver design. Z. Benin. il diag Electronics 19:94-8 Ag '46

Multivibrator circuits. N. W. Mather. diags Electronics 19:136, 138 O '46

New angular-velocity-modulation system employing pulse techniques. J. F. Gordon. il diags fold chart Inst Radio Eng Proc 34:328-34 Je '46

New method of amplifying with high efficiency a carrier wave modulated in amplitude by a voice wave. S. T. Fisher. diags Inst Radio Eng Proc 34:3P-13P Ja '46

Node-pair method of circuit analysis. W. H. Huggins. bibliog Inst Radio Eng Proc 34: 661-2 S '46

Note on a parallel-T resistance-capacitance network. A. Wolf. diag Inst Radio Eng Proc 34:659 S '46

Oscillation hysteresis in grid detectors. E. E. Zepler. diags Wireless Eng 23:222-7 Ag '46

Phase inverters. H. A. Bustard. diags Radio N 35:57-8+ F '46

Pulse response of thyraton grid-control circuits. C. H. Gleason and C. Beckman. diags Inst Radio Eng Proc 34:71P-7P F '46

Pulse time modulation circuits. diags Electronics 19:140+ N '46

Push-pull circuit analysis. S. W. Amos. diag Wireless Eng 23:43-6 F '46

Radio progress during 1945; circuits. bibliog Inst Radio Eng Proc 34 [Waves & Electrons 1]:183-4 Ap '46

Simple transmission formula. H. T. Friis. Inst Radio Eng Proc 34:254-6 My '46

Single-stage F-M detector. W. E. Bradley. il diags Electronics 19:88-91 O '46

Surgeless volume expander. A. N. Butz, jr. diag Electronics 19:140+ S '46

Theory and application of parallel-T resistance-capacitance frequency-selective networks. L. Stanton. diags Inst Radio Eng Proc 34:447-56 Jl '46

Tracking permeability-tuned circuits. A. W. Simon. diags Electronics 19:138 S '46

Transient response of tuned-circuit cascades. D. G. Tucker. bibliog il diag Wireless Eng 23:250-8 S '46

Transmission of a frequency-modulated wave through a network. W. J. Frantz. bibliog il diag Inst Radio Eng Proc 34:114P-25P Mr '46

RADIO circuits—*Continued*
Two-terminal oscillator. M. G. Crosby. diags Electronics 19:136-7 My '46
Universal characteristics of triple-resonant-circuit band-pass filters. K. R. Spangenberg. diags Inst Radio Eng Proc 34:629-34 S '46
Universal optimum-response curves for arbitrarily coupled resonators. P. I. Richards. diags Inst Radio Eng Proc 34:624-9 S '46
Valve equivalent circuit conventions and negative feedback. G. W. O Howe. diags Wireless Eng 22:417-19 S '45; Discussion. H. Biefer. 23:91-2 Mr '46

See also
Radio lines
Radio receiving apparatus
Radio telephone
Radio waves
Vacuum tubes

Printed circuits

Mechanized wiring; printed circuits. J. Markus. il Sci Am 175:63-5 Ag '46
Printed circuit; silver metallic ink may replace wires in small radios. Bsns W p19 F 23 '46
Printed circuits. il Machine Design 18:106-8 Ag '46
Printed electric circuits. il Product Eng 17: [no 7]134 Jl '46
Printed electronic circuits; technique for printing wiring on steatite chassis block with silver solution; for pocket radios, personal telephones, miniature hearing aids, meteorological instruments, etc. C. Brunetti and A. S. Khouri. il diag Electronics 19: 104-8 Ap '46

RADIO clipping service. See Radio reports, inc.

RADIO coils
Iron powder cores and coils. H. W. Jaderholm. Inst Radio Eng Proc 33:904 D '45
Mutual inductance of concentric coils; nomograph. T. C. Blow. Electronics 16:138 N '46
R.f. chokes at u.h.f. W. J. Stolze. il diags Radio N 35:54-5+ Ja '46
Theory of the progressive universal winding. A. W. Simon. diags Inst Radio Eng Proc 33:868-71 D '45
Wire length of universal coils. A. W. Simon. Electronics 19:162 Mr '46

Testing

Measuring mutual inductance and capacitance. A. W. Simon. diags Electronics 19: 142+ Ag '46
Production testing of i-f coils. il Electronics 19:178+ S '46

RADIO communication
Communication; abstracts of papers at AIEE winter meeting. diag Electronics 19:236+ Ap '46
Communications; implement to peace. R. C. Wakefield. il Elec Eng 65:99-105 Mr '46
Effects of amplitude distortion upon the intelligibility of speech. J. C. R. Licklider. Acoustical Soc Am J 18:429-34 O '46
Practical radio course (cont). A. A. Ghirardi. il diags Radio N 34:56-8+ D '45; 35:57-8+ Ja; 50-2+ F; 46-7+ Mr; 46-8+ Ap; 48-9+ My; 55-6+ Je; 36:42-3+ Jl; 46-8+ Ag; 46-7+ S; 52-4+ O '46 (to be cont)
Those new frontiers. P. A. Porter. Inst Radio Eng Proc 34 [Waves & Electrons 1]:185-8 Ap '46

See also
Airlines—Radio communication
Electric utilities—Radio communication
Gas companies—Radio communication
Lumber camps—Radio communication
Petroleum engineering—Radio communication
Radio apparatus and other headings beginning Radio
Railroads—Radio communication

Bibliography

Abstracts and references. Published in monthly numbers of Wireless engineer; reprinted in Inst Radio Eng Proc beginning with June '46 issue [abstract 1144]
Index to abstracts and references published month by month in Wireless engineer during 1945. Wireless Eng 22:supl-41 [D] '45

Classification

Revised classification of radio subjects used in National bureau of standards. U S Nat Bur Stand Circ C385:1-87 '46

Emergency use

Experience with emergency FM radio communication; Union electric company of Missouri. J. P. Woodward and W. R. McMillan. Edison Elec Inst Bul 14:83-4 Mr; '46; Same. il Gas Age 97:22-4 My 16 '46

Interference

Analysis of radio interference phenomena; character, cause, type receivers affected, where prevalent, and service remedies; tabulation. Radio N 35:54 Je '46
Army-navy precipitation-static project. R. Gunn and others. bibliog il diags Inst Radio Eng Proc 34:156-77, 234-54 Ap-My '46
Beat-frequency interference chart. D. Barton. Electronics 19:162 Ap '46
Frequency-modulation distortion caused by multipath transmission. M. S. Corrington. bibliog il diags Inst Radio Eng Proc 33: 878-91 D '45
Interference considerations affecting channel-frequency assignments M Reed and S. H. Moss. diags Inst E E J 93 pt 3:355-61 S '46
Motor-car ignition interference. C. C. Eaglesfield. il diags Wireless Eng 23:265-72 O '46
Pulse distortion; the probability distribution of distortion magnitudes due to interchannel interference in multi-channel pulse-transmission systems. D. G. Tucker. diags Inst E E J 93 pt 3:323-34 bibliog(p332-3) S '46
Theoretical signal-to-noise ratios. J. E. Smith. diag Electronics 19:150-2+ Je '46

Interference elimination

Army-navy precipitation-static project; investigations of methods for reducing precipitation-static radio interference. G. D. Kinzer and J. W. McGee. bibliog il diag Inst Radio Eng Proc 34:234-40 My '46
Effectiveness of conduit as r-f shielding. S. L. Shive. il diags Electronics 19:160-2+ F '46
Interference troubles from industrial and medical apparatus; discussion by Radio section of Institution of electrical engineers. Electrician 136:1172 My 3 '46
New techniques nullify static. il Aviation 45:52 Je '46
Noise and output limiters. E. Toth. diags Electronics 19:114-19 N; 120-5 D '46
Production of ignition radio shields. F. T. Van Syckel. il Iron Age 158:56-8 Ag 29 '46
Radiation from r-f heating generators; details of shielded room and filter. A. G. Swan. diag Electronics 19:162+ My '46
Reduction of heterodyne interference. H. W. Belles. diags Electronics 18:150-1 D '45
Simple remote tuning device for receivers. E. L. Hannum, jr. il diag Radio N 35:76+ Ja '46

International aspects

New telecommunications code written, 3d Inter-American radio conference, Rio de Janeiro, Sept. 3-27. Aviation N 4:44 D 17 '45

Short wave

Bid by shortwave; Press Wireless asks to deliver network programs to stations. Bsns W p32+ Jl 20 '46
Components of uhf field meters. E. Karplus. il diags Electronics 19:124-9 N '46
Farm radio net; eastern Colorado experiment. Bsns W p46 My 18 '46
Installation and operation of v.h.f. ground transmitter and receiving station. A. R. Boone. Radio N 35:76+ Mr '46
International short-wave; foreign stations, call letters, frequencies, time schedules (cont). K. R. Boord. il Radio N 34:52-3+ D '45 [cont monthly]
Introduction to u.h.f. frequency measurements. G. Dexter. bibliog il diags Radio N 35:32-4+ Ja '46
Method of increasing the range of v.h.f. communication systems by multi-carrier amplitude modulation. J. R. Brinkley. maps plans diags Inst E E J 93 pt 3:159-66; Discussion, 167-76 My '46

RADIO communication—Short wave—*Cont.*
Microwave techniques; abstracts of I.R.E. papers. Electronics 19:103 Mr '46
Microwaves on the way; new impetus to television, radio telephony, telegraphy, and facsimile. H. Manchester. il Sci Am 174:28-32 Ja '46
Multi-channel vhf radio communications system; Pacific coast of Canada. J. B. Knox and C. H. Brereton. il map diag RCA R 7: 179-98 Je '46
Radio measurements in the decimetre and centimetre wavebands. R. J. Clayton and others. il diags Inst E E J 93 pt 3:97-117 bibliog(p116-17); Discussion. 93 pt 3:117-25, 457-9 Mr, N '46
Shortwave radio is key to post war progress; abstract. W. Evans. Franklin Inst J 241: 82-3 Ja '46
2,700-mc transceiver. il diags Electronics 19: 104-5 S '46
Two-way radio for everyone. S. Freedman. il Radio N 36:25-8+ S '46
Vhf antenna for trains. E. G. Hills. diags Electronics 19:134-6 N '46

See also
Radio frequency modulation
Radio receiving apparatus—Short wave
Radio transmitters—Short wave

Wire line connections
FM radio relay; can be used as connecting link between remote or isolated areas and existing telephone lines. J. M. Lee. il Radio N 34:54-5+ D '45

Alaska
Arctic oil exploration; transporting, setting up, and maintaining radio communications. J. H. Roberts. il map Radio N 35:25-8 Mr '46

Canada
Multi-channel vhf radio communications system; Pacific coast of Canada. J. B. Knox and C. H. Brereton. il map diag RCA R 7: 179-98 Je '46

Great Britain
Recent developments in communication engineering. A. H. Mumford. diags Inst E E J 93 pt 3:2-11 Ja '46; Same. Inst E E J 93 pt 1:41-50 Ja '46; Excerpts. Electrician 135: 437-8 O 26 '45; Abstract. Elec R (Lond) 137:557 O 19 '45

India
Telecommunications in India. Electrician 136: 111 Ja 11 '46

RADIO communication, Marine. See Radio aids to navigation; Radio telephone on ships

RADIO communication, Military
Army's radio relay equipment. A. R. Boone. il diags Radio N 35:25-8+ Ja '46
FM radio relay; can be used as connecting link between remote or isolated areas and existing telephone lines. J. M. Lee. il Radio N 34:54-5+ D '45
Infantry combat communications. R. E. Willey. il diag Elec Eng 65:1-7 Ja '46
Naval wartime communication problems. J. O. Kinert. Inst Radio Eng Proc 34 [Waves & Electrons 1]:193-5 Ap '46
Problems of high altitude communication. J. Weichbrod. Acoustical Soc Am J 18:161-6 Jl '46
Signal corps on-and in-the air; airborne radioteletype communications system. C. E. Jackson. il Radio N 35:94+ Ja '46
2,700-mc transceiver. il diags Electronics 19: 104-5 S '46
Vacuum-contained push-pull triode transmitter. H. A. Zahl and others. bibliog il diag Inst Radio Eng Proc 34 [Waves & Electrons 1]:66W-9W F '46

See also
Radio apparatus—Military use

RADIO condensers
Glass useful as insulating medium in electrical condensers for radio circuits; three Corning patents. Glass Ind 27:135 Mr '46
New-type condenser developed by Robert Bosch co., Stuttgart. Bsns W p60 Mr 16 '46

Testing
Judging mica quality electrically. K. G. Coutlee. bibliog il diags Elec Eng 64:Trans 735-41 N '45
Microfarad meters; their advantages and limitations. R. P. Turner. il diags Radio N 34:46-7+ D '45

RADIO conductors
Electrical resistance of iron wires and permalloy strips at radiofrequencies. A. W. Smith and others. bibliog diag J Ap Phys 17:33-6 Ja '46
Equalized delay lines. H. E. Kallmann. il diags Inst Radio Eng Proc 34:646-57 S '46
Transverse electric modes in coaxial cavities. R. A. Kirkman and M. Kline. diags Inst Radio Eng Proc 34:14P-17P Ja '46

See also
Radio lines
Wave guides

RADIO control
Army target plane controlled by radio transmitter. il Electronics 18:300 D '45; Radio N 35:66 Ja '46
Automatic flying with electronic equipment; automatic pilots, incorporating automatic airport approach facilities. Electronics 19: 186+ My '46
Automatic landing instrument; picks up beamed radio waves and follows them down to the landing strip. il Aero Digest 52:123 Ap '46
Continuously variable radio remote control. D. W. Moore, jr. il diags Electronics 19: 110-13 N '46
Development of precision radio-controlled dynamically similar flying models. E. G. Stout. bibliog il diags J Aeronautical Sci 13: 335-45 Jl '46; Abstract. Aeronautical Eng R 5:20-1 Ap '46
Drones; prelude to push-button warfare? O. Read. il map Radio N 36:25-9+ O '46
Evaluating operation crossroads; radio controlled bombers. S. Bangs. il Aviation 45: 38-41 Ag '46
Flying torpedo with an electric eye; written in April, 1934. V. K. Zworykin. diags RCA R 7:293-302 S '46
German flying bombs carried televisors and radio controls. Iron Age 157:162-3 My 9 '46
Navy demonstrates pilotless aircraft. Electronics 19:262+ F '46
Navy exhibits telemetering as pilotless testing technique. B. Stubblefield. il Aviation N 6:19 Ag 19 '46
New system of radio telemetering; aircraft flight testing and flying of radio-controlled aircraft. D. W. Moore, jr. il diags Aeronautical Eng R 5:30-1+ S '46
Pilotless plane run by radio. S. R. Winters. il Radio N 35:35+ My '46
Radio-controlled dynamic model augments hydrodynamic research. E. G. Stout. il Aviation 45:171-3 F '46
Radio-controlled Hellcat. Product Eng 17: 150 F '46
Radio operated airplane. S. R. Winters. il Radio N 35:29+ Ja '46
Remote radio control of test aircraft and transmission of flight data to recording instruments; equipment developed by ATSC and Bell Aircraft. il Steel 117:108+ N 19 '45; Aero Digest 52:53+ F '46; Aeronautical Eng R 5:115+ Ja '46; Machine Design 18: 107-10 Mr '46
Safe testing of supersonic planes seen in new radio control device. il Aviation N 4:11 N 19 '45
Television equipment for guided missiles. C. J. Marshall and L. Katz. bibliog il diags Inst Radio Eng Proc 34:375-401 Je '46
Will industrial electronic control use microwaves? W. C. White. il diags Gen Elec R 49:8-11 S '46

See also
Carrier current control

RADIO corporation of America
Annual report. Comm & Fin Chr 163:1201 Mr 4 '46

RADIO detection of airplanes. See Radar

RADIO detectors
Application of modulation-frequency feedback to signal detectors. G. Builder. bibliog diags Inst Radio Eng Proc 34:130P-7P Mr '46

RADIO detectors—*Continued*
Germanium crystal diodes. E. C. Cornelius. bibliog il diags Electronics 19:118-23 F '46
High-level detector; use of metallic-oxide rectifier. J. C. Rankin. diags Electronics 19: 212+ My '46
Micro-electromagnetic waves; spark-generated waves; description of detector. M. G. Kelliher and E. T. S. Walton. bibliog diags Wireless Eng 23:46-51 F '46
Oscillation hysteresis in grid detectors. E. E. Zepler. diags Wireless Eng 23:222-7 Ag '46
Portable precision amplifier-detector. F. A. Peachey and others. il diags Wireless Eng 23:183-92 Jl '46
Single-stage F-M detector. W. E. Bradley. il diags Electronics 19:88-91 O '46
Super-regenerative detector; an analytical and experimental investigation. F. R. W. Strafford. il diags Inst E E J 93 pt 3:23-8 Ja '46
Superregenerative detector selectivity. A. Easton. bibliog diags Electronics 19:154-7 Mr '46

RADIO engineering
Engineering approach to wave guides. T. Moreno. il Electronics 19:99-103 My '46
Institute of radio engineers; abstracts of papers at Rochester fall meeting. il diags Electronics 19:222+ Ja '46
Institute of radio engineers winter technical meeting, Jan. 23-26. Inst Radio Eng Proc 34 [Waves & Electronics 1]:80W-93W F '46; Electronics 19:92-108 Mr '46
Radio progress during 1945. bibliog Inst Radio Eng Proc 34 [Waves & Electrons 1]:164-84 Ap '46
Recent developments in communication engineering. A. H. Mumford. diags Inst E E J 93 pt 3:2-11 Ja '46; Same. Inst E E J 93 pt 1:41-50 Ja '46
Those new frontiers. P. A. Porter. Inst Radio Eng Proc 34 [Waves & Electrons 1]:185-8 Ap '46

See also
Radar

Bibliography
Abstracts and references. Published in monthly numbers of Wireless engineer; reprinted in Inst Radio Eng Proc beginning with June '46 issue[abstract 1144]
Index to abstracts and references published month by month in Wireless engineer during 1945. Wireless Eng 22:supl-41 [D] '45
Technical papers by RCA authors. RCA R 7: 281-3, 448-51 Je, S '46

Study and teaching
Post-graduate courses in electrical engineering, including radio; Radio section discussion meeting. Inst E E J 93 pt 3:363-4 S '46

Tables, calculations, etc.
Applications of matrix algebra to filter theory. P. I. Richards. bibliog diags Inst Radio Eng Proc 34:145P-50P Mr '46
Calculation of intermodulation products by means of a difference table. A. Bloch. Inst E E J 93 pt 3:211-16 My '46
Carrier-frequency amplifiers. C. C. Eaglesfield. diags Wireless Eng 22:523-32; 23:67-74 N '45, Mr '46
Current distribution for broadside arrays which optimizes the relationship between beam width and side-lobe level. C. L. Dolph. Inst Radio Eng Proc 34:335-48 Je '46
Equivalent capacitances of transformer windings. W. T. Duerdoth. diags Wireless Eng 23:161-7 Je '46
Extended employment of Thévenin's theorem. A. Lee and D. K. C. MacDonald. diags Wireless Eng 22:534-7 N '45
Filter design tables based on preferred numbers. H. Jefferson. diags Wireless Eng 23: 26-8, 197-9 Ja, Jl '46
General formulas for "T"- and "Π"-network equivalents. M. B. Reed. diags Inst Radio Eng Proc 33:897-9 D '45
Minimum attenuation in waveguides. E. N. Phillips. diags Electronics 19:137-9 Ja '46
Propagation characteristics of a uniform line. I. F. Macdiarmid and H. J. Orchard. Wireless Eng 23:168-71 Je '46
Solution of transmission-line problems in the case of attenuating transmission line. G. Glinski. diags Elec Eng 65:Trans 46-9 F '46
Steady-state operational calculus. D. L. Waidelich. bibliog diag Inst Radio Eng Proc 34:78P-83P F '46; Discussion. 34:579-80 Ag '46
Theoretical signal-to-noise ratios. J. E. Smith. diag Electronics 19:150-2+ Je '46
Theory and experimental behaviour of right-angled junctions in rectangular-section wave guides. J. T. Allanson and others. Inst E E J 93 pt 3:177-87 My '46
Theory for three-element broadside arrays. C. W. Harrison, jr. diags Inst Radio Eng Proc 34:204-9 Ap '46

See also
Absolute bel (term)

RADIO engineers
Electrical engineers trained during the war. G. H. Fett. Inst Radio Eng Proc 34:481-2 Jl '46
From studio to master control; skill, speed, and cooperation required of broadcast engineers. H. J. Seitz. il diags Radio N 35: 47-9+ Ja '46
How one group of engineers avoided a national union; Camden plant of the Radio corporation of America. M. S. Corrington. Min & Met 27:269-70 My '46; Same. Civil Eng 16: 282-3 Je '46

See also
Advertising—Radio engineers, Appeal to

RADIO facsimile
Chicago tribune radio facsimile makes debut. il Inland Ptr 117:46 Jl '46
Color television controversy creates opportunity for facsimile. il Ptr Ink 215:128+ My 17 '46
Compensating amplifier. C. N. Gillespie. diag Electronics 19:232+ Mr '46
Electronic newspaper by Broadcasters facsimile analysis. Gen Elec R 49:49 S '46
Facsimile broadcasting soon in 12 cities. Ptr Ink 216:96 Ag 9 '46
Facsimile over 4,000-mc relay system. il Electronics 19:146+ O '46
Facsimile synchronizing methods. D. Schulman. diags Electronics 19:131-3 Mr '46
Facsimile to moving train via vhf. il diags Electronics 19:168+ Jl '46
Facsimiles by radio transmission from wayside stations to moving trains; demonstration by Baltimore & Ohio. il Ry Age 120:1275-6 Je 29 '46
Improved facsimile systems demonstrated for the press. Elec Eng 65:292 Je '46
Possibilities of home facsimile. S. Feldman. il Radio N 36:49+ N '46
Radio newspaper; facsimile broadcasting. il Bsns W p31 Ap 27 '46
Radio progress during 1945; facsimile. Inst Radio Eng Proc 34 [Waves & Electrons 1]: 174-5 Ap '46
Radio recorder produces facsimile copy in home. il Elec World News ed 125:21 My 4 '46

RADIO filters
Applications of matrix algebra to filter theory. P. I. Richards. bibliog diags Inst Radio Eng Proc 34:145P-50P Mr '46
Double-derived terminations; method for connecting filters. R. O. Rowlands. diags Wireless Eng 23:52-6 F '46
Effect of incidental dissipation in filters. E. A. Guillemin. diags Electronics 19:130-5 O '46
Filter design tables based on preferred numbers. H. Jefferson. diags Wireless Eng 23: 26-8, 197-9 Ja, Jl '46
Graphical symbols for filters and correcting networks. G. H. Foot. diags Wireless Eng 23:103-6 Ap '46
Ideal low-pass filter in the form of a dispersionless lag line. M. J. E. Golay. diags Inst Radio Eng Proc 34:138P-44P Mr '46
New crystal channel filter for broad band carrier systems. E. S. Willis. il diags Elec Eng 65:Trans 134-8 Mr '46
Note on a parallel-T resistance-capacitance network. A. Wolf. diag Inst Radio Eng Proc 34:659 S '46

RADIO filters—*Continued*
Transient response of filters. D. G. Tucker. bibliog il diags Wireless Eng 23:36-42, 84-90 F-Mr '46
Transient response of tuned-circuit cascades. D. G. Tucker. bibliog il diag Wireless Eng 23:250-8 S '46
Universal characteristics of triple-resonant-circuit band-pass filters. K. R Spangenberg. diags Inst Radio Eng Proc 34:629-34 S '46

RADIO frequency
Frequency measurements at u.h.f. R. Endall. il diags Radio N 36:50-2+ S '46
Mixer frequency charts. R. S. Badessa. Electronics 19:138 Ag '46
Three-beam oscillograph for recording at frequencies up to 10,000 megacycles. G. M. Lee. bibliog il diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:121W-7W Mr '46

Allocation

FCC backtracks; hearing Jan. 18 to determine if FM will be reassigned to its old band in addition to present one. Bsns W p92 Ja 12 '46
FCC frequency allocations. Electronics 19B: 82-3 (Buyers guide no) Je 15 '46
FM set-aside for late-comers. Bsns W p33+ Jl 27 '46
Frequency service allocations. P. D. Miles. Inst Radio Eng Proc 34 [Waves & Electrons 1]:188-92 Ap '46
High FM band kept. Bsns W p82 F 2 '46
New rules permit use of mobile radio service in utility operation and maintenance. E. D. Glatzel. Edison Elec Inst Bul 14:299-301 S '46
Radio in the utility field. B. C. Burden. il diag Pub Util 37:343-51 Mr 14 '46

Control

Home built signal shifter. S. Heytow. il diag Radio N 35:48-50+ Mr '46
Practical radio course; automatic frequency control for adjusting oscillators. A. A. Ghirardi. il diags Radio N 35:46-8+ Ap '46
Practical radio course; minimizing and compensating for oscillator frequency drift. A. A. Ghirardi. il diags Radio N 35:46-7+ Mr '46

Crystal control

Crystal-controlled diathermy. R. L. Norton. il diag Electronics 19:113-15 O '46
Crystal-driven modulator for d-c amplifiers. J. A. Williams. diags Electronics 18:128-9 D '45
Delay line frequency modulator. D. Weighton. bibliog Wireless Eng 22:581-6 D '45
Frequency stabilization at 450 mc. P. B. Myers. Electronics 19:214+ Ap '46
New crystal channel filter for broad band carrier systems. E. S. Willis. il diags Elec Eng 65:Trans 134-8 Mr '46
Standard of frequency and its applications. C. F. Booth and F. J. M. Laver. diags Inst E E J 93 pt 3:223-36 bibliog(p236-6); Discussion. 236-41 Jl '46

RADIO frequency modulation
Army's radio relay equipment. A. R. Boone. il diags Radio N 35:25-8 Ja '46
Bridging amplifier for f-m monitoring. G. E. Beggs, jr. bibliog il diag Electronics 19: 152-5 Ja '46
Carrier-frequency amplifiers; transient conditions with frequency modulation. C. C. Eaglesfield. diag Wireless Eng 23:96-102, 258-9 Ap, S '46
CBS boosts FM. Bsns W p48+ My 11 '46
Delay line frequency modulator. D. Weighton. bibliog Wireless Eng 22:581-6 D '45
Design of F-M signal generator. D. M. Hill and M. G. Crosby. il diags Electronics 19: 96-101 N '46
Engines with ears; FM radio offers simpler execution of train orders. il Nat Safety N 52:40 N '45
Experience with emergency FM radio communication; Union electric company of Missouri. J. P. Woodward and W. R. McMillan. Edison Elec Inst Bul 14:83-4 Mr '46; Same. il Gas Age 97:22-4 My 16 '46
FCC backtracks; hearing Jan. 18 to determine if FM will be reassigned to its old band in addition to present one. Bsns W p92 Ja 12 '46
Frequency modulation. K. R. Sturley. bibliog(62 titles) patent list(31 references) diags Inst E E J 92 pt 3:197-213 S '45; Discussion. 92 pt 3:213-18; 93 pt 3:11-15 S '45, Ja '46
Frequency-modulation distortion caused by multipath transmission. M. S. Corrington. bibliog il diags Inst Radio Eng Proc 33: 878-91 D '45
FM for ham use. R. Frank. diags Radio N 34: 44-5 D '45
FM in Canada. D. Holloway. il Radio N 35: 30-1+ Ja '46
Frequency modulation mobile radiotelephone services. H. B. Martin. bibliog RCA R 7: 240-52 Je '46
F-M radar altimeter. il diags Electronics 19: 130-4 Ap '46
FM radio and its applications to woods operations. W. C. Fisher. il map Pulp & Pa of Can 47:109-11+ O '46
FM radio relay; can be used as connecting link between remote or isolated areas and existing telephone lines. J. M. Lee. il Radio N 34:54-5+ D '45
FM radio takes to the oil fields. G. Weber. il diag Oil & Gas J 45:62-4+ O 5 '46
Frequency-modulation technique. diags Electronics 19:208+ My '46
Fundamental principles of frequency modulation. B. van der Pol. Inst E E J 93 pt 3: 153-8 My '46
Journal of frequency modulation. Published monthly by Telecasting publications, 103 Park av, New York 17
Nonlinearity in frequency-modulation radio systems due to multipath propagation. S. T. Meyers. Inst Radio Eng Proc 34:256-65 My '46
Push-pull frequency modulated circuit and its application to vibratory systems; application to calibration of recording heads. A. Badmaieff. bibliog il diags Soc Motion Picture Eng J 46:37-51 Ja '46
Radio progress during 1945; frequency modulation. bibliog Inst Radio Eng Proc 34 [Waves & Electrons 1]:166 Ap '46
Radio, 25, looks at the future. Bsns W p32+ N 10 '45
Simplified frequency modulation. G. G. Bruck. diags Inst Radio Eng Proc 34:458 Jl '46
Spectrum of a phase- or frequency-modulated wave. R. E. Burgess. Wireless Eng 23: 203 Jl '46
Transmission networks for frequency modulation and television; with discussion of coaxial cable system. H. S. Osborne. il maps diags Elec Eng 64:392-7 N '45
Transmission of a frequency-modulated wave through a network. W. J. Frantz. bibliog il diag Inst Radio Eng Proc 34:114P-25P Mr '46
Twelve-tube F-M handie-talkie. J. M. Lee. il Electronics 19:194+ Mr '46
2,660-mc train communication system; Rock Island railroad. E. A. Dahl. il Electronics 19:118-22 Ja '46

See also
Radio receiving apparatus—Frequency modulation receivers
Radio transmitters—Frequency modulation transmitters

RADIO generators
All wave signal generator. A. A. Goldberg. il plans diags Radio N 36:32-4+ N '46
Buzzer signal generator for 3,000 mc. diag Electronics 19:140 O '46
Coaxial butterfly circuits. E. E. Gross, jr. il diags Electronics 19:156-60 Ap '46
Conjugate-image impedances. S. Roberts. bibliog diags Inst Radio Eng Proc 34:198-204 Ap '46
Design of F-M signal generator. D. M. Hill and M. G. Crosby. il diags Electronics 19: 96-101 N '46
Magnetron as a generator of centimeter waves. J. B. Fisk and others. il diags Bell System Tech J 25:167-348 Ap '46
135 to 500mc. signal generator. J. Wonsowicz and H. S. Brier. il diags Radio N 35:35-7+ Ja '45
Power pulse generator. M. Levy. diags Wireless Eng 23:192-6 Jl '46

See also
Oscillators

RADIO instruments
Clip-on antenna meter. diag Electronics 19: 158+ S '46
Components of uhf field meters. E. Karplus. il diags Electronics 19:124-9 N '46
Constructing a grid dip meter. H. Burgess. il diags Radio N 36:50-1 Ag '46
LCR meter for amateur use. W. B. Bernard. il diags Radio N 35:40-2+ Je '46
Labgear electronic fault tracer. il Engineer 181:276 Mr 22 '46
Method for extending range of Q-meter. G. F. Barnett. Elec World 125:78 Mr 30 '46
Microfarad meters; their advantages and limitations. R. P. Turner. il diags Radio N 34: 46-7+ D '45
New high-gain visual-aural signal tracer. M. Silver. il diags Radio N 36:36-7+ O '46
Per-cent modulation meter. R. P. Turner. il diags Radio N 35:43-5+ My '46
Precision resistance bridge. G. Dexter. il diags Radio N 36:36-7 S '46
Q-meter for dielectric measurements on polyethylene and other plastics at frequencies up to 50 megacycles. A. P. Wangsgard and T. Hazen. il diags Electrochem Soc Trans 90 (preprint 11):177-91 '46
Radio-frequency capacitance and conductance bridge. R. F. Proctor and E. G. James. il diags Inst E E J 92 pt 3:287-90 D '45
R.F.-I.F.-A.F. signal tracer. V. Cavaleri. il diags Radio N 35:50-1+ Ja; 66+ Ap '46
R.f. probe design; primarily for use with electronic voltmeter. D. F. McAvoy. il diags Radio N 35:35-7+ Mr '46
Reactance comparator. diags Electronics 19: 142+ N '46
Resonant-cavity measurements. R. L. Sproull and E. G. Linder. il diags Inst Radio Eng Proc 34:305-12 My '46
Service considerations in megacycle bands; test equipment. C. J. Sheridan. il diags Radio N 35:38-9+ Mr '46
Standing-wave indicator. G. E. Feiker, jr. il diags Gen Elec R 49:43-6 S '46
Universal test instrument. M. Silver. il diags Radio N 35:32-4+ F '46
Vacuum tube analyzer. L. G. Sands. il diags Radio N 34:38-40+ N '45
V.h.f. heterodyne frequency meter; application of split concentric-tuned oscillator. A. A. Goldberg. il diags Radio N 35:32-4+ Mr '46
VHF impedance measurements. D. S. Henry. il diags Electronics 18:156-9 D '45

See also
Oscillators
Radar
Radio meteorographs

RADIO-KEITH-ORPHEUM corporation
Stock sold. Comm & Fin Chr 164:958-9 Ag 19 '46

RADIO laboratories
Bureau of standards organizes radio work in new division; Central radio propagation laboratory. Ind Stand 17:235 S '46
Industrial group on the campus plan; Electronics park for General electric co., Syracuse, N.Y. il Arch Rec 98:116-17 N '45

RADIO laws and regulations
Challenge to FCC; broadcasters up in arms over regulation of stations' programing. Bsns W p31 O 12 '46
FCC criticized. Bsns W p36+ D 15 '45
Liability of broadcast sponsors. A. W. Gray. bibliog Adv & Sell 39:74+ S '46
NAB president urges radio to regulate self. V. J. Dallaire. Ptr Ink 217:102 N 1 '46
New rules permit use of mobile radio service in utility operation and maintenance. E. D. Glatzel. Edison Elec Inst Bul 14:299-301 S '46
Rules for train telephone service; F.C.C. proposes rules and regulations for governing use of radio. Ry Age 119:863-5 N 24 '45

See also
Federal communications commission

RADIO lines
Aerial resistance and cable impedance. G. W. O. Howe. Wireless Eng 23:65-6 Mr '46
Aerial-to-line couplings; cathode-follower and constant-resistance network. R. E. Burgess. diags Wireless Eng 23:217-21 Ag '46
Apparatus for measurements on balanced-pair high-frequency cables in the range 10-200 mc/s. J. C. Simmonds. diag Inst E E J 92 pt 3:282-6 D '45
Characteristic impedance of balanced lines. P. J. Sutro. Electronics 19:150 Jl '46
Composite tank circuit for uhf. P. L. Bargellini. bibliog il diags Electronics 19:115-19 S '46
Cylindrical shielding and its measurement at radio frequencies. A. R. Anderson. il diags Inst Radio Eng Proc 34:312-22 My '46
Design and use of radio-frequency open-wire transmission lines and switchgear for broadcasting systems. F. C. McLean and F. D. Bolt. il diags Inst E E J 93 pt 3:191-206 bibliog(p206); Discussion. 206-10 My '46
Design data for beaded coaxial lines. C. R. Cox. il diags Electronics 19:130-5 My '46
Development of an ultra low loss transmission line for television. E. O. Johnson. il RCA R 7:272-80 Je '46
Developments in solid dielectric r.f. transmission lines; use of polythene. R. C. Graham. il diags Radio N 36:46-8+ O '46
Equalized delay lines. H. E. Kallmann. il diags Inst Radio Eng Proc 34:646-57 S '46
Experimental behaviour of the coaxial line stub. J. Lamb. il diag Inst E E J 93 pt 3: 188-90 My '46
Graphical symbols for filters and correcting networks. G. H. Foot. diags Wireless Eng 23:103-6 Ap '46
High-impedance cable. H. E. Kallmann. diags Inst Radio Eng Proc 34:348-51 Je '46
Ideal low-pass filter in the form of a dispersionless lag line. M. J. E. Golay. diags Inst Radio Eng Proc 34:138P-44P Mr '46
Measurement of velocity of propagation in cable. B. Kramer and F. Stolte. il diags Electronics 19:128-9 Jl '46
Note on a reflection-coefficient meter. N. I. Korman. diags Inst Radio Eng Proc 34:657-8 S '46
Power rating (thermal) of radio-frequency cables. R. C. Mildner. bibliog Inst E E J 93 pt 3:296-304 Jl '46
Probe error in standing-wave detectors. W. Altar and others. diags Inst Radio Eng Proc 34:33P-44P Ja '46
Problems in the manufacture of ultra-high-frequency solid-dielectric cable. A. J. Warner. il diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:31W-7W Ja '46
Propagation characteristics of a uniform line. I. F. Macdiarmid and H. J. Orchard. Wireless Eng 23:168-71 Je '46
Radio-frequency resistors as uniform transmission lines. D. R. Crosby and C. H. Pennypacker. diags Inst Radio Eng Proc 34:62P-6P F '46
Radio measurements in the decimetre and centimetre wavebands. R. J. Clayton and others. il diags Inst E E J 93 pt 3:97-117 bibliog(p116-17); Discussion. 117-25 Mr '46
Resonance methods of dielectric measurement at centimetre wavelengths. F. Horner and others. diags Inst E E J 93 pt 3:53-68 Ja '46
Simple co-axial switch. E. Burgess. diags Radio N 34:58+ N '45
Solid dielectric coaxial cables; tabulations. Electronics 19B:86-90 (Buyers guide no) Je 15 '46
Solution of transmission-line problems in the case of attenuating transmission line. G. Glinski. diags Elec Eng 65:Trans 46-9 F '46
Some applications of field plotting. E. O. Willoughby. diags Inst E E J 93 pt 3:275-93 bibliog(p291) Jl '46
Theory and application of parallel-T resistance-capacitance frequency-selective networks. L. Stanton. diags Inst Radio Eng Proc 34:447-56 Jl '46
Transverse electric modes in coaxial cavities. R. A. Kirkman and M. Kline. diags Inst Radio Eng Proc 34:14P-17P Ja '46
Universal optimum-response curves for arbitrarily coupled resonators. P. I. Richards. diags Inst Radio Eng Proc 34:624-9 S '46
Vectorial treatment of transmission lines. J. P. Shanklin. diags Electronics 18:162+ D '45

See also
Radio conductors

RADIO listeners
Radio homes show gain; tabulation. Bsns W p72 Je 1 '46
Radio, movies, publications increase each other's audience. L. Handel. Ptr Ink 216: 42-3 Jl 19 '46
32,500,000 radio-owning families; analysis of nation's listeners by counties; market exploration. W. P. Burn. map Ptr Ink 215: 49-52 My 3 '46
What's wrong with radio? H. Morgan. Paper Ind 28:792 S '46
See also
Radio advertising—Coverage

RADIO loud speakers
Design of compact two-horn loudspeaker. P. W. Klipsch. bibliog il diags Electronics 19:156-9 F '46
See also
Loud speaking apparatus

RADIO maintenance insurance. See Insurance, Radio maintenance

RADIO measurements
Aerial impedance measurements. L. Essen and M. H. Oliver. diags Wireless Eng 22: 587-93 D '45
Amplifier-gain formulas and measurements. S. J. Haefner. bibliog diags Inst Radio Eng Proc 34:500-5 Jl '46
Apparatus for measurements on balanced-pair high-frequency cables in the range 10-200 mc/s. J. C. Simmonds. diag Inst E E J 92 pt 3:282-6 D '45
Calculation of the output from non-linear mixers. H. Stockman. bibliog J Ap Phys 17:110-20 F '46
Components of uhf field meters. E. Karplus. il diags Electronics 19:124-9 N '46
Concerning Hallén's integral equation for cylindrical antennas. S. A. Schelkunoff. bibliog diags Inst Radio Eng Proc 33:872-8 D '45; Discussion. 34:265-9 My '46
Cylindrical shielding and its measurement at radio frequencies. A. R. Anderson. il diags Inst Radio Eng Proc 34:312-22 My '46
Effect of incidental dissipation in filters. E. A. Guillemin. diags Electronics 19:130-5 O '46
Electrical properties of salt-water solutions over the frequency range 1-4000 mc/s. R. Cooper. bibliog diags Inst E E J 93 pt 3: 69-75 Mr '46
Equalized delay lines. H. E. Kallmann. il diags Inst Radio Eng Proc 34:646-57 S '46
Introduction to u.h.f. frequency measurements. G. Dexter. bibliog il diags Radio N 35:32-4+ Ja '46
Load lamp for microwave power measurements. J. E. Beggs. il diags Electronics 19: 204+ Je '46
Measurement of carrier circuit impedances. W. H. Blankmeyer. il diags Elec World 126:49-51 Ag 3 '46
Measurement of frequencies in the range 100 mc/s to 10 000 mc/s. L. Essen and A. C. Gordon-Smith. diags Inst E E J 92 pt 3: 291-5 D '45
Measurement of the activity of quartz oscillator crystals. A. J. Biggs and G. M. Wells. bibliog diags Inst E E J 93 pt 3:29-36 Ja '46
Measurement of thermal radiation at microwave frequencies; connection between Johnson noise and blackbody radiation. R. H. Dicke. diags R Sci Instr 17:268-75 Jl '46
Measurement of velocity of propagation in cable. B. Kramer and F. Stolte. il diags Electronics 19:128-9 Jl '46
Microfarad meters; their advantages and limitations. R. P. Turner. il diags Radio N 34:46-7+ D '45
Microwave dielectric loss measuring technique. W. R. MacLean. il J Ap Phys 17:558-66 Jl '46
New method for measuring dielectric constant and loss in the range of centimeter waves. S. Roberts and A. von Hippel. bibliog diags J Ap Phys 17:610-16 Jl '46
Note on a reflection-coefficient meter. N. I. Korman. diags Inst Radio Eng Proc 34:657-8 S '46
Power loss in electromagnetic screens. C. F. Davidson and others. Wireless Eng 23:8-15 Ja '46
Probe error in standing-wave detectors. W. Altar and others diags Inst Radio Eng Proc 34:33P-44P Ja '46
Propagation of 6-millimeter waves; measurements of attenuation due to rainfall and atmospheric gases. G. E. Mueller. Inst Radio Eng Proc 34:181-3 Ap '46
Radiation of ship stations on 500 kc/s. J. Marique. bibliog diags Wireless Eng 23:146-51 My '46
Radio measurements; application to radar; abstracts of papers at Radiolocation convention. Electrician 136:808-10 Mr 29 '46
Radio measurements in the decimetre and centimetre wavebands. R. J. Clayton and others. il diags Inst E E J 93 pt 3:97-117 bibliog(p116-17); Discussion. 93 pt 3:117-25, 457-9 Mr, N '46
Resonant-cavity measurements. R. L. Sproull and E. G. Linder. il diags Inst Radio Eng Proc 34:305-12 My '46
Resonant-cavity wavemeter. J. McQuay. il diags Radio N 35:36-7+ F '46
Simplifications in the consideration of mutual effects between half-wave dipoles in collinear and parallel orientations. K. J. Affanasiev. diags Inst Radio Eng Proc 34:635-8 S '46
Standing-wave indicator. G. E. Feiker, jr. il diags Gen Elec R 49:43-6 S '46
Table of the integral $\frac{2}{\pi}\int_0^\infty \frac{\tanh^{-1} t}{t}\,dt$. M. S Corrington. RCA R 7:432-7 S '46
Transient response of tuned-circuit cascades. D. G. Tucker. bibliog il diag Wireless Eng 23:250-8 S '46
Transmission of a frequency-modulated wave through a network. W. J. Frantz bibliog il diag Inst Radio Eng Proc 34:114P-25P Mr '46
VHF impedance measurements. D. S. Henry. il diags Electronics 18:156-9 D '45
Vhf receiver measurements. H. Gordon and L. George. diag Electronics 19:214+ Je '46
See also
Decibel (transmission unit)
Radio instruments

RADIO meteorographs
Highest flying package carries a robot weatherman 15 miles into the stratosphere; fibreboard box, coated with aluminum foil or cellulose acetate. il Mod Packaging 20: 126-7 O '46
Lead dioxide cell containing various electrolytes. J. P. Schrodt and others. il Electrochem Soc Trans 90 (preprint 21).281-92 '46
New cosmic ray radiosonde techniques. S. A. Korff and B. Hamermesh. il diags Franklin Inst J 241:355-68 Mr '46
Radiosonde telemetering systems. V. D. Hauck and others. bibliog il diag Electronics 19:120-3 My '46
Radio-sondes and thunderstorm forecasting. R. M. Poulter. Inst E E J 93 pt 1:167-9 Ap '46
Weather forecasting by radio and radar. H. B. Brooks. il Electronics 19:84-7 O '46

Manufacture
What! assemble instruments on a conveyor? Kollsman instrument div., Square D co. F. Dupre. il plan Factory Management 104: 113-16 Mr '46

Testing
Refrigerating a 29.3-inch vacuum at -130 F uses 35 horsepower per ton; calibration of radio meteorographs. il Power 90:325 [issue p 105] My '46

RADIO modulation
Class C grid bias modulation. W. W. Smith. diags Radio N 35:55-6+ Ap; 70+ My '46
Crystal-driven modulator for d-c amplifiers. J. A. Williams. diags Electronics 18:128-9 D '45
Exalted-carrier amplitude- and phase-modulation reception. M. G. Crosby. bibliog il diags Inst Radio Eng Proc 33:581-91 S '45; Discussion. 34:90P F '46
Features of grid and plate modulation in new system; portable radio transmitters. diag Electronics 19:192+ My '46

RADIO modulation—*Continued*
Method of increasing the range of v.h.f communication systems by multi-carrier amplitude modulation. J. R. Brinkley. maps plans diags Inst E E J 93 pt 3:159-66; Discussion. 167-76 My '46
Method of measuring the degree of modulation of a television signal. T. J. Buzalski. il diags RCA R 7:265-71 Je '46
Modulation by feedback. R. C. Shaw. diag Electronics 18:360+ D '45
Modulation percent from oscillograms; chart. N. Marchand. Elec World 125:90 Ap 27 '46
Modulation products; calculation from equidistant ordinates. A. Bloch. Wireless Eng 23:227-30 Ag '46
New angular-velocity-modulation system employing pulse techniques. J. F. Gordon. il diags fold chart Inst Radio Eng Proc 34: 328-34 Je '46
New method of amplifying with high efficiency a carrier wave modulated in amplitude by a voice wave. S. T. Fisher. diags Inst Radio Eng Proc 34:3P-13P Ja '46
Per-cent modulation meter. R. P. Turner. il diags Radio N 35:43-5+ My '46
Superheterodyne frequency conversion using phase-reversal modulation. E. W. Herold. bibliog diags Inst Radio Eng Proc 34:184-98 Ap '46

See also
Radio frequency modulation
Radio pulse time modulation

RADIO networks. See Radio lines

RADIO noise. See Radio receiving apparatus—Noise

RADIO operators, Amateur
Ham radio offers possible profit as well as public service. Sci Am 174:173 Ap '46
Ham radio; preview of parts and equipment to be used for a new era. R. Washburne and A. Williams. il diags Radio N 34:38-42+ D '45
Microwave pulse modulation for ham communications. R. Endall. il diags Radio N 35:41-4+ Ap '46
Milwaukee hams hold contest. J. H. Davis. il Radio N 35:72+ Mr '46
New rules governing amateur radio service. Radio N 35:144 Je '46
Wartime radio observing projects. Franklin Inst J 241:243-4 Mr '46

RADIO oscillators. See Oscillators

RADIO-phonograph combination. See Radio receiving apparatus—Phonograph combination

RADIO propagation laboratory, Interservice. See Interservice radio propagation laboratory

RADIO proximity fuze. See Fuses

RADIO pulse time modulation
Army's radio relay equipment. A. R. Boone. il diags Radio N 35:25-8+ Ja '46
Method of transmitting sound on the vision carrier of a television system. D. I. Lawson and others. il diags Inst E E J 93 pt 3:251-67; Discussion. 267-74 Jl '46
Microwave pulse modulation for ham communications. R. Endall. il diags Radio N 35:41-4+ Ap '46
Multichannel communication systems; based upon modulated pulses. F. F. Roberts and J. C. Simmonds. bibliog diags Wireless Eng 22:538-49, 576-80 N-D '45; Discussion. 23: 114-15, 231-3, 288-9 Ap, Ag, O '46
Pulse communication. C. W. Hansell. diags Electronics 19:226+ Je '46
Pulse-modulated radio relay equipment. J. J. Kelleher. il diags Electronics 19:124-9 My '46
Pulse modulating system. W. R. Greer. il plan diags Electronics 19:126-31 S '46
Pulse time modulation circuits. diags Electronics 19:140+ N '46
Pulse transmission in amplifiers. A. E. Newlon. diag Electronics 19:116-21 O '46
Radio-telephony; abstract. Mech Eng 68:260 Mr '46

RADIO receiving apparatus
Aerial-to-line couplings; cathode-follower and constant-resistance network. R. E. Burgess. diags Wireless Eng 23:217-21 Ag '46
Alignment of radio receivers. J. E. Cunningham. diags Radio N 36:38-9+ O '46
Analysis of a resistance-capacitance parallel-T network and applications. A. E. Hastings. bibliog diags Inst Radio Eng Proc 34: 126P-9P Mr '46
Analysis of radio interference phenomena; character, cause, type receivers affected, where prevalent, and service remedies; tabulation. Radio N 35:54 Je '46
Application of modulation-frequency feedback to signal detectors. G. Builder. bibliog diags Inst Radio Eng Proc 34:130P-7P Mr '46
Circuit file; diagrams and parts lists. Radio N 35:60-1, 66, 76+ My; 62-3, 72+ Je; 36:64-5, 68 Jl; 64-5, 70+ Ag; 70-1, 76 S; 66-7, 72, 74 O; 64-5, 70 N; 64-5, 70 D '46; 37:62-3, 68 Ja; 70-1, 76 F; 72-3, 86 Mr '47
Exalted-carrier amplitude- and phase-modulation reception. M. G. Crosby. bibliog il diags Inst Radio Eng Proc 33:581-91 S '45; Abstract. Electronics 18:296+ Mr '45; Discussion. Inst Radio Eng Proc 34:90P F '46
F-M and a-m receiver for comparison tests. W. F. Frankart. diag Electronics 19:168 Jl '46
Linear frequency discriminator. J. R. Tillman. diags Wireless Eng 23:281-6 O '46
Low impedance loop antenna for broadcast receivers. L. O. Vladimir. Electronics 19: 100-3 S '46
Midget receiver output circuit. W. R. Koch. diag Electronics 19:232+ Je '46
New selenium rectifiers for home receivers. G. Eannarino. il diag Radio N 36:45+ N '46
Novel 2-tube receiver. diag Radio N 36:124 Ag '46
Pentode vs. triode operation. H. S. Brier. diags Radio N 34:104 D '45
Phase inverters. H. A. Bustard. diags Radio N 35:57-8+ F '46
Plastics in four home appliances. il Mod Plastics 24:108-10 S '46
Plastics in radio. C. A. Breskin. il Sci Am 174:56-7 F '46
Practical radio course (cont). A. A. Ghirardi. il diags Radio N 34:56-8+ D '45; 35:57-8+ Ja; 50-2+ F; 46-7+ Mr; 46-8+ Ap; 48-9+ My; 55-6+ Je; 36:42-3+ Jl; 46-8+ Ag; 46-7+ S; 52-4+ O; 40-1+ D '46; 37:44-5+ Ja; 58-9+ Mr '47 (to be cont)
Radio-frequency spectrum analyzers. E. M. Williams. il Inst Radio Eng Proc 34:18P-22P Ja '46
Radio progress during 1945; radio receivers. bibliog Inst Radio Eng Proc 34 [Waves & Electrons 1]:167-8 Ap '46
Surgeless volume expander. A. N. Butz, jr. diag Electronics 19:140+ S '46
Tuning in on 1946 radios. il Mod Plastics 23: 102 D '45
Two-frequency i-f transformers for a-m/f-m receivers. R. T. Thompson. il Electronics 19:142+ S '46
Why E.C.A. sells radios with informative labels. Sales Management 56:126+ Je 1 '46

See also
Amplifiers, Vacuum tube
Radio antennas
Radio apparatus industry
Radio cabinets
Television receiving apparatus

Batteries
Radio batteries ready for peacetime markets. il Mod Packaging 19:184 Mr '46

Design
Designing the postwar receiver. B. Halligan. il diags Radio N 36:50-1+ O '46
Modern home receiver design. Z. Benin. il diag Electronics 19:94-8 Ag '46
Morale radio receivers of simplified design. il Product Eng 16:830 D '45
Radio design data presented in Chicago; conference sponsored by I.R.E. diag Electronics 19:216+ Ap '46

Fidelity
High fidelity receiver. il diags J. C. Hoadley. il diags Radio N 36:46-8 N '46

Frequency modulation receivers
Crystal mixer in f-m converter. il diag Electronics 19:190+ My '46

RADIO receiving apparatus—Frequency modulation receivers—*Continued*
FM reception stymied by government rulings. Consumers Res Bul 17:19-20 Mr '46
Intermodulation testing. J. K. Hilliard. diag Electronics 19:123-7 Jl '46
Meter type tuning indicator for FM receivers. F. Santangelo. diag Radio N 36:84 N '46
100mc. receivers require new servicing techniques. D. W. Gunn. il Radio N 35:36-7+ My '46
R.f. chokes at u.h.f. W. J. Stolze. il diags Radio N 35:54-5+ Ja '46
Simple F M converter. H. Kees. il plans diags Radio N 35:31+ My '46
Single-stage F-M detector. W. E. Bradley. il diags Electronics 19:88-91 O '46
Study of locking phenomena in oscillators. R. Adler. bibliog diags Inst Radio Eng Proc 34:351-7 Je '46
Tubeless converter for new F-M band. H. A. Audet. diags Electronics 19:140+ O '46

Installation

Ansley Paneltone; complete radio unit in compact 4½ inch steel cabinet is easily installed in new or existing buildings. il Arch Forum 84:159 F '46

Manufacture

Wiring shortcuts; radio manufacturers seek ways to cut labor costs. il Bsns W p52-4 My 11 '46

Noise

Effect of negative voltage feedback on power-supply hum in audio-frequency amplifiers. G. Builder. bibliog diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:140W-4W Mr '46
Fluctuations of electric current. D. A. Bell. bibliog Inst E E J 93 pt 3:37-44 Ja '46
Measurement of thermal radiation at microwave frequencies; connection between Johnson noise and blackbody radiation. R. H. Dicke. diags R Sci Instr 17:268-75 Jl '46
Noise and output limiters. E. Toth. diags Electronics 19:114-19 N; 120-5 D '46
Noise factor of valve amplifiers. N. R. Campbell and others. diags Wireless Eng 23: 74-83, 116-21 Mr-Ap '46
Rectification of signal and noise. V. J. Francis and E. G. James. diags Wireless Eng 23:16-25 Ja '46
Signal-noise ratio at v.h.f. M. J. O. Strutt and A. van der Ziel. bibliog diag Wireless Eng 23:241-9 S '46
Theory of valve and circuit noise. N. R. Campbell and V. J. Francis. bibliog diags Inst E E J 93 pt 3:45-52 Ja '46

Panoramic receivers

Alarm system for panoramic receivers. W. A. Anderson. il diags Electronics 19:92-5 Jl '46

Phonograph combination

Music for the home; radio-phonograph combination. il Fortune 34:156-63+ O '46

Power supply

Cathode follower; can be used to provide output power for small receivers. diag Electronics 19:204+ Ag '46
Effect of negative voltage feedback on power-supply hum in audio-frequency amplifiers. G. Builder. bibliog diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:140W-4W Mr '46
Rotary converter for portable power supplies. diag Electronics 19:142 Ag '46

Rating

1946 table model radio receiver; Admiral. Consumers Res Bul 17:26-7 Mr '46
Report of tests on three radio receivers and a phonograph record player. Consumers Res Bul 17:18 Je '46
Table-model radios. Consumers Res Bul 17: 7-9 Ap; 18 Je; 18:9-10 Ag '46

Renting

Subscription-lease plan; a merchandising success story from Switzerland. P. H. Wendel. il Radio N 36:54+ N '46

Repair

Servicing of radio and television receivers; Radio section discussion meeting. Inst E E J 93 pt 3:362-3 S '46

See also
Radio service shops

Selectivity

Superregenerative detector selectivity. A. Easton. bibliog diags Electronics 19:154-7 Mr '46

Short wave

Build your own v.h.f. FM-AM receiver. A. Rattray. il diag Radio N 34:29-31+ D '45
Combination noise limiter and preselector. G. Boles and A. Boles. il diags Radio N 36: 41+ Jl '46
Converting the SCR-522 receiver. R. Frank. il diags Radio N 36:35+ O '46
Home constructed 112mc. receiver. J. Gavin. il diags Radio N 34:29-31+ N '45
112 mc. converter. R. Frank. il diag Radio N 34:46-7+ N '45
Radio measurements in the decimetre and centimetre wavebands. R. J. Clayton and others. il diags Inst E E J 93 pt 3:97-117 bibliog(p116-17); Discussion. 117-25 Mr '46
Recent developments in communication engineering; simulation of fading in testing short-wave receivers. A. H. Mumford. diag Inst E E J 93 pt 3:5-7 Ja '46; Same. Inst E E J 93 pt 1:44-6 Ja '46
Signal-noise ratio at v.h.f. M. J. O. Strutt and A. van der Ziel. bibliog diag Wireless Eng 23:241-9 S '46
Super-regenerative 2 meter receiver. J. A. Kirk. il diags Radio N 36:30-1+ O '46
Super sensitive amateur receiver. C. V. Hays. il diags Radio N 36:32-4+ Jl '46
Super-3; three-tube regenerative type short-wave receiver. il diags Radio N 35:76+ Je '46
Tendencies in the design of the communication type of receiver. G. L. Grisdale and R. B. Armstrong. il diags Inst E E J 93 pt 3: 365-78 bibliog(p376); Discussion. 378-84 S '46
Transmitter-receiver for ham beginners. C. M. Sullivan. il diags Radio N 36:32-4+ Ag; 38-40+ S '46
Vhf receiver measurements. H. Gordon and L. George. diag Electronics 19:214+ Je '46
Wave guide transmission systems. T. Moreno. il diags Electronics 19:136-41 Je '46
Wide-range converter-receiver. B. E. Hargrove. il diag Radio N 35:40-2+ F '46

Superheterodyne

Beat-frequency interference chart. D. Barton. Electronics 19:162 Ap '46
Calculation of the output from non-linear mixers. H. Stockman. bibliog J Ap Phys 17:110-20 F '46
Oscillatorless superheterodyne. R. W. Woods. diags Electronics 19:224+ F '46
Practical radio course; electron-coupled, double electrode input; mixers and converters. A. A. Ghirardi. il diags Radio N 36:46-8+ Ag; 46-7+ S; 52-4+ O '46
Practical radio course; frequency conversion in superheterodynes. A. A. Ghirardi. il diags Radio N 35:48-9+ My; 55-6+ Je; 36: 42-3+ Jl '46
Superhet tracking formulas. J. Marshall. il diags Electronics 19:202+ O '46
Superheterodyne frequency conversion using phase-reversal modulation. E. W. Herold. bibliog diags Inst Radio Eng Proc 34:184-98 Ap '46

Superregenerative

Super-regenerative detector; an analytical and experimental investigation. F. R. W. Strafford. il diags Inst E E J 93 pt 3:23-8 Ja '46
Superregenerative detector selectivity. A. Easton. bibliog diags Electronics 19:154-7 Mr '46
Super-regenerative 2 meter receiver. J. A. Kirk. il diags Radio N 36:30-1+ O '46

Testing

New high-gain visual-aural signal tracer. M. Silver. il diags Radio N 36:36-7+ O '46

RADIO receiving apparatus—Testing—*Cont.*
Portable precision amplifier-detector. F. A. Peachey and others. il diags Wireless Eng 23:183-92 Jl '46
R.F.-I.F.-A.F. signal tracer. V. Cavaleri. il diags Radio N 35:50-1+ Ja; 66+ Ap '46
Service considerations in megacycle bands; test equipment. C. J. Sheridan. il diags Radio N 35:38-9+ Mr '46
Test oscillator, TS-47/APR. D. W. Moore, jr. il diags Radio N 35:32-4+ My '46
Universal test instrument. M. Silver. il diags Radio N 35:32-4+ F '46

Tuning

Design of band-spread tuned circuits for broadcast receivers. D. H. Hughes. diags Inst E E J 93 pt 3:87-96 Mr '46; Discussion. 93 pt 3:459-60 N '46
Practical radio course; automatic (push-button) station selector systems. A. A. Ghirardi. il diags Radio N 34:56-8+ D '45; 35:57-8+ Ja '46
Practical radio course; causes of drift in resonance frequency of tuned circuits. A. A. Ghirardi. il diags Radio N 35:50-2+ F '46
Simple remote tuning device for receivers. E. L. Hannum, jr. il diag Radio N 35:76+ Ja '46
Tracking permeability-tuned circuits. A. W. Simon. diags Electronics 19:138 S '46

RADIO receiving apparatus, Portable
Electronic time. Bsns W p32 D 1 '45
Matching pocket radio and luggage. il Mod Plastics 23:102 Je '46
Miniature radio, using subminiature tubes; pocket radio manufactured by Belmont radio corporation. diags Mech Eng 68: 734-6 Ag '46
New pocket radio system to carry commercials. Ptr Ink 215:97+ Je 7 '46
Printed circuit; silver metallic ink may replace wires in small radios. Bsns W p19 F 23 '46
Printed electronic circuits; technique for printing wiring on steatite chassis block with silver solution; for pocket radios, personal telephones, miniature hearing aids, meteorological instruments, etc. C. Brunetti and A. S. Khouri. il diag Electronics 19: 104-8 Ap '46

RADIO rectifiers
Crystal rectifiers. W. E. Stephens. diags Electronics 19:112-19 Jl '46
Crystal rectifiers; abstracts of I.R.E. papers. diags Electronics 19:104 Mr '46
High-level detector; use of metallic-oxide rectifier. J. C. Rankin. diags Electronics 19:212+ My '46
New selenium rectifiers for home receivers. G. Eannarino. il diag Radio N 36:45+ N '46
Rectification of signal and noise. V. J. Francis and E. G. James. diags Wireless Eng 23:16-25 Ja '46
Response of biased, saturated linear and quadratic rectifiers to random noise. D. Middleton. bibliog diags J Ap Phys 17:778-801 O '46

RADIO relay stations
Army's radio relay equipment. A. R. Boone. il diags Radio N 35:25-8+ Ja '46
Development of radio relay systems. C. W. Hansell. bibliog il diag RCA R 7:367-84 S '46
Drafting aids to relay profiling; Contourograph for profiling terrain along the line-of-sight television path between Washington and Philadelphia. il Electronics 18: 316+ D '45
Preview of the Western Union system of radio beam telegraphy. J. Z. Millar. il plans diags Franklin Inst J 241:397-413; 242:23-40, insert Je-Jl '46
Radio relays for telegraphy. F. B. Bramhall. il plan Elec Eng 65:516-20 N '46

RADIO reports, inc.
Radio clips; agency digests radio broadcasts. Bsns W p86 D 1 '45

RADIO research
Army-navy precipitation-static project. R. Gunn and others. bibliog il diags Inst Radio Eng Proc 34:156-77, 234-54 Ap-My '46
Conduction and dispersion of ionized gases at high frequencies. H. Margenau. bibliog Phys R 69:508-13 My 1 '46
Conjugate-image impedances. S. Roberts. bibliog diags Inst Radio Eng Proc 34:198-204 Ap '46
Effect of rain upon the propagation of waves in the 1- and 3-centimeter regions. S. D. Robertson and A. P. King. bibliog Inst Radio Eng Proc 34:178-80 Ap '46
Electrical properties of soil at wavelengths of 5 metres and 2 metres. J. S. McPetrie and J. A. Saxton. Inst E E J 92 pt 3:256-8 D '45
Experimental behaviour of the coaxial line stub. J. Lamb. il diag Inst E E J 93 pt 3: 188-90 My '46
Investing in science for the future. W. R. Maclaurin. il diags Tech R 48:423-6+ My '46
2-Mc sky-wave transmission. J. A. Pierce. diags Electronics 19:146-53 My '46
Observations and comparisons on radio telegraph signaling by frequency shift and on-off keying. H. O. Peterson and others. il diags RCA R 7:11-31 Mr '46
Plea for the scientific method. L. Hoffer. Inst Radio Eng Proc 34 [Waves & Electrons 1]:56W-7W F '46
Some experiments with linear aerials. J. S. McPetrie and J. A. Saxton. diags Wireless Eng 23:107-14 Ap '46
Theory and experimental behaviour of right-angled junctions in rectangular-section wave guides. J. T. Allanson and others. Inst E E J 93 pt 3:177-87 My '46

Bibliography

Radio progress during 1945; radio wave propagation. Inst Radio Eng Proc 34 [Waves & Electrons 1]:176-9 Ap '46

RADIO resistors
Radio-frequency resistors as uniform transmission lines. D. R. Crosby and C. H. Pennypacker. diags Inst Radio Eng Proc 34:62P-6P F '46

RADIO resonators
Calculation of the electromagnetic field, frequency and circuit parameters of high-frequency resonator cavities. H. Motz. bibliog diags Inst E E J 93 pt 3:335-43 S '46
High Q resonant cavities for microwave testing. I. G. Wilson and others. bibliog il diags Bell System Tech J 25:408-34 Jl '46
Universal optimum-response curves for arbitrarily coupled resonators. P. I. Richards. diags Inst Radio Eng Proc 34: 624-9 S '46

RADIO schools and training
Chicago boys club; radio training program. il Radio N 36:102 S '46
Marine radio school; established jointly by Metropolitan-Vickers electrical company and Siemens brothers and company. Engineering 161:514 My 31 '46
Profitable servicing; training program, Donaldson radio & electric company. G. Lowry. il Radio N 36:48-9 S '46

RADIO serials. See Radio broadcasting—Serials

RADIO service shops
For the defense; people vs. servicemen. J. M. Bartels. Radio N 36:70+ Jl '46
Hospitalization for radios; Carrillo's year's service on receivers. O. I. Sprungman. il Radio N 36:45+ Ag '46
Let's look to the future of radio servicing. J. Rider. Radio N 35:35+ F '46
Let's talk shop (cont). J. Marty. Radio N 34:35 D '45; 35:53+ F '46
Patterns in selling radio service. P. H. Wendel. il plans Radio N 36:25-7+ Jl '46
Profitable servicing; training program, Donaldson radio & electric company. G. Lowry. il Radio N 36:48-9 S '46
Serviceman's recording studio. R. Paige. il Radio N 35:35+ Ap '46
Sound conditioning spurs sales. J. J. Rowland. il diags Radio N 36:30-1+ N '46

RADIO signals
New method of locating cable faults, particularly on high-frequency cables. F. F. Roberts. diags Engineer 181:222-3 Mr 8 '46
Radio-frequency spectrum analyzers. E. M. Williams. il Inst Radio Eng Proc 34:18P-22P Ja '46

RADIO signals—*Continued*
Recording ocean currents by radio; current meter records radio-transmitted dots and dashes on a chronographic tape. il Eng N 136:118-19 Ja 24 '46
Reduction of heterodyne interference. H. W. Belles. diags Electronics 18:150-1 D '45

RADIO speaking
Training for voice communication; improving intelligibility of army air force personnel in talking over the interphone and radio. J. W. Black and H. M. Mason. Acoustical Soc Am J 18:441-5 O '46

RADIO standards
Standard of frequency and its applications. C. F. Booth and F. J. M. Laver. diags Inst E E J 93 pt 3:223-36 bibliog(p235-6); Discussion. 236-41 Jl '46

RADIO static direction finder. See Meteorological instruments

RADIO stations
See also
Radio broadcasting stations
Radio relay stations

Emergency stations
New radio dispatching system; police, fire department, and other emergency services of Milwaukee. J. E. Hubel. il Radio N 35: 68+ Mr '46

Location
Installation and operation of v.h.f. ground transmitter and receiving station. A. R. Boone. Radio N 35:76+ Mr '46

RADIO stations, Amateur
FM for ham use. R. Frank. diags Radio N 34:44-5 D '45

RADIO stations, Government
Listening to the world; BBC's famous monitor service. C. Cross. il Radio N 35:64+ Ja '46

RADIO stations, Municipal
New radio dispatching system; police, fire department, and other emergency services of Milwaukee. J. E. Hubel. il Radio N 35: 68+ Mr '46

RADIO stations, Police
Selective calling system; positive control of remote communications equipment in police, taxi or other mobile fleets. J. K. Kulansky. il diags Electronics 19:96-9 Je '46

RADIO symbols
Graphical symbols for filters and correcting networks. G. H. Foot. diags Wireless Eng 23:103-6 Ap '46
See also
Electronics—Symbols

RADIO telegraph
Code practice oscillator. N. L. Chalfin. il diags Radio N 36:29+ S '46
Continuous wave break-in monitor. H. B. Bard, jr. il diags Radio N 36:45-6+ Jl '46
Development of radio relay systems. C. W. Hansell. bibliog il diag RCA R 7:367-84 S '46
Electronic code translator. H. W. Babcock. il diag Electronics 19:120-2 Je '46
Interference considerations affecting channel-frequency assignments. M. Reed and S. H. Moss. diags Inst E E J 93 pt 3:355-61 S '46
Method of oscillator keying. H. T. Miller. diags Radio N 36:116+ S '46
Microwave radio relay to replace telegraph lines. il Electronics 18:300+ D '45
Observations and comparisons on radio telegraph signaling by frequency shift and on-off keying. H. O. Peterson and others. il diags RCA R 7:11-31 Mr '46
Preview of the Western Union system of radio beam telegraphy. J. Z. Millar. il plans diags Franklin Inst J 241:397-413; 242:23-40, insert Je-Jl '46
Pulse distortion; the probability distribution of distortion magnitudes due to inter-channel interference in multi-channel pulse-transmission systems. D. G. Tucker. diags Inst E E J 93 pt 3:323-34 bibliog(p332-3) S '46
Radio relays for telegraphy. F. B. Bramhall. il plan Elec Eng 65:516-20 N '46

Rates
Cut-rate news; American Cable proposes worldwide radio transmission of press dispatches. Bsns W p42+ D 29 '45

RADIO telephone
At home abroad; Bell system installs telephones in moving vehicles. Fortune 34: 140+ Ag '46
Farm radio net; eastern Colorado experiment. Bsns W p46 My 18 '46
Frequency modulation mobile radiotelephone services. H. B. Martin. bibliog RCA R 7: 240-52 Je '46
Outlook for radio relaying; abstract. R. Brown. Product Eng 17:404 My '46
Pulse modulating system. W. R. Greer. il plan diags Electronics 19:126-31 S '46
Radio in the utility field. B. C. Burden. il diag Pub Util 37:343-51 Mr 14 '46
Radiotelephone service will link cars in 35 cities. il Am Bsns 16:21 Je '46
Rural telephone service by radio to be tested in vicinity of Cheyenne Wells, Colorado. diag Pub Util 37:841-2 Je 20 '46
St Louis is scene of commercial radio service to mobile 'phones. il Manuf Rec 115:46-7+ Je '46
Three more intercity highways added to routes of Bell system. Pub Util 38:163-4 Ag 1 '46
Two-way radio for everyone. S. Freedman. il Radio N 36:25-8+ S '46
Two-way radiotelephone has automatic recorder; Union sulphur co. operation of pipe line. il Elec World 125:128+ My 11 '46
Two-way vehicular telephone service planned by A.T.&T. plan Product Eng 16:859 D '45
United gas pipe line co. installs radiotelephone network. il map Gas Age 97:47-50+ My 2 '46
United Gas Pipe Line's new radiotelephone network speeds company communications. O. C. Irvine. il map Pet Eng 17:142+ Je '46
Use of radiotelephone on pipe line systems. il Pet Eng 17:102+ D '45
See also
Amplifiers, Vacuum tube
Motor bus lines—Radio telephone
Taxicab companies—Radio communication
Telephone, Carrier current

Costs
Cost of FM radio phone units. Elec World 126:92 Ag 17 '46

Highway department uses
Removing more snow with fewer plows. il diag Pub Works 77:29+ Ag '46
Two-way radio saves money on snow removal; abstracts. W. B. Chilson. Pub Works 77:31 Mr '46; Eng N 136:855 My 30 '46

Laws and regulations
See Radio laws and regulations

Multiplex system
Multicarrier communication. Electronics 19: 192+ S '46
Multichannel communication systems; based upon modulated pulses. F. F. Roberts and J. C. Simmonds. bibliog diags Wireless Eng 22:538-49, 576-80 N-D '45
Pulse-modulated radio relay equipment. J. J. Kelleher. il diags Electronics 19:124-9 My '46
Pulse modulating system. W. R. Greer. il plan diags Electronics 19:126-31 S '46
Recent developments in communication engineering; amplitude and frequency modulated, multi-channel radio links. A. H. Mumford. diags Inst E E J 93 pt 3:9-11 Ja '46; Same. Inst E E J 93 pt 1:48-50 Ja '46

Police uses
Method of increasing the range of v.h.f. communication systems by multi-carrier amplitude modulation. J. R. Brinkley. maps plans diags Inst E E J 93 pt 3:159-66; Discussion. 167-76 My '46
Mobile radio for the police force. il Engineer 181:174 F 22 '46
New radio dispatching system; police, fire department, and other emergency services of Milwaukee. J. E. Hubel. il Radio N 35: 68+ Mr '46

RADIO telephone—Police uses—*Continued*
Radio in the public service; mobile equipment for police and fire use. il Electrician 137:318 Ag 2 '46
Selective calling system; positive control of remote communications equipment in police, taxi or other mobile fleets. J. K. Kulansky. il diags Electronics 19:96-9 Je '46

RADIO telephone, Portable
Carryphone in service on Pennsylvania; portable inductive telephone. W. R. Triem. il Ry Age 121:764-6 N 9 '46
Mighty midget; tiny two-way radio brought back from Germany. il Radio N 36:58 Ag '46
Radiopaging; mobile message service introduced by Telephone answering service. Pub Util 38:366 S 12 '46
Twelve-tube f-m handie-talkie. J. M. Lee. il Electronics 19:194+ Mr '46
2,700-mc transceiver. il diags Electronics 19: 104-5 S '46

RADIO telephone in factories
Two-way radio speeds palletized storage; Eastman Kodak company. il Factory Management 104:126-7 Ag '46

RADIO telephone on aircraft
Problems of high altitude communication. J. Weichbrod. Acoustical Soc Am J 18:161-6 Jl '46

RADIO telephone on railroads
See also
Railroads—Radio communication

RADIO telephone on ships
Radiotelephone for small pleasure craft. il Marine Eng 51:212 Ap '46
Radiotelephone for use on inland waterway. il Marine Eng 51:117 Ap '46
Selective calling system; positive control of remote communications equipment in police, taxi or other mobile fleets. J. K. Kulansky. il diags Electronics 19:96-9 Je '46

RADIO time signals. See Time signals, Radio

RADIO towers
Quick method of tower demolition keeps wreckage near base area. il Eng N 135: 688-9 N 22 '45

RADIO transformers
Applications of thin permalloy tape in wideband telephone and pulse transformers. A. G. Ganz. bibliog il Elec Eng 65:Trans 177-83 Ap '46
Equivalent capacitances of transformer windings. W. T. Duerdoth. diags Wireless Eng 23:161-7 Je '46
Loop-antenna coupling-transformer design. W. S. Bachman. diags Inst Radio Eng Proc 33:865-7 D '45
Two-frequency i-f transformers for a-m/f-m receivers. R. T. Thompson. il Electronics 19:142+ S '46
Waveguide-output magnetrons with quartz transformers. L. Malter and J. L. Moll. diags RCA R 7:414-21 S '46

RADIO transmission
Accuracy of the earth-flattening approximation in the theory of microwave propagation. C. L. Pekeris. Phys R 70:518-22 O 1 '46
Basic radio propagation predictions for October 1946, three months in advance. (CRPL-D23) 7p, 16pls pa 15c Supt. of doc, Washington 25 '46
Effect of rain upon the propagation of waves in the 1- and 3-centimeter regions. S. D. Robertson and A. P. King. bibliog Inst Radio Eng Proc 34:178-80 Ap '46
Frequency-modulation distortion caused by multipath transmission. M. S. Corrington. bibliog il diags Inst Radio Eng Proc 33: 878-91 D '45
Ionosphere tells radio "weather". F. W. Connor. Dom Comm 34:11-12 F '46
2-Mc sky-wave transmission. J. A. Pierce. diags Electronics 19:146-53 My '46
Moon radio. il Sci Am 175:31 Jl '46
Nonlinearity in frequency-modulation radio systems due to multipath propagation. S. T. Meyers. Inst Radio Eng Proc 34:256-65 My '46
Propagation of 6-millimeter waves; measurements of attenuation due to rainfall and atmospheric gases. G. E. Mueller. Inst Radio Eng Proc 34:181-3 Ap '46
Pulse distortion; the probability distribution of distortion magnitudes due to interchannel interference in multi-channel pulse-transmission systems. D. G. Tucker. diags Inst E E J 93 pt 3:323-34 bibliog(p332-3) S '46
Pulse transmission in amplifiers. A. E. Newlon. diag Electronics 19:116-21 O '46
Reflection of sound signals in the troposphere. G. W. Gilman and others. bibliog il diags Acoustical Soc Am J 18:274-83 O '46
Simple transmission formula. H. T. Friis. Inst Radio Eng Proc 34:254-6 My '46
Solution of transmission-line problems in the case of attenuating transmission line. G. Glinski. diags Elec Eng 65:Trans 46-9 F '46
Transmission of a frequency-modulated wave through a network. W. J. Frantz. bibliog il diag Inst Radio Eng Proc 34:114P-25P Mr '46
Transmission of television sound on the picture carrier. G. L. Fredendall and others. bibliog il diags Inst Radio Eng Proc 34: 49P-61P F '46
See also
Radio antennas
Radio broadcasting
Radio communication—Interference
Radio lines
Radio pulse time modulation
Radio relay stations
Radio telephone
Radio transmitters
Radio waves

Bibliography
Radio progress during 1945; radio wave propagation. Inst Radio Eng Proc 34 [Waves & Electrons 1]:176-9 Ap '46

Fading
Elimination of interference-type fading at microwave frequencies with spaced antennas. R. Bateman. diags Inst Radio Eng Proc 34:662-3 S '46
Recent developments in communication engineering; simulation of fading in testing short-wave receivers. A. H. Mumford. diag Inst E E J 93 pt 3:5-7 Ja '46; Same. Inst E E J 93 pt 1:44-6 Ja '46
Sunspots and radio communication. Franklin Inst J 241:369-71 My '46; Same cond. Electronics 19:291 Je '46

RADIO transmitters
Analysis of parasitic oscillations in radio transmitters. J. S. Jackson. diags Radio N 35:68+ F '46
Class C grid bias modulation. W. W. Smith. diags Radio N 35:55-6+ Ap; 70+ My '46
Effect of surface finish and wall thickness on the operating temperature of graphite radio-tube anodes. L. L. Winter and H. G. MacPherson. il diag Inst Radio Eng Proc 33:834-7 D '45
Method of oscillator keying. H. T. Miller. diags Radio N 36:116+ S '46
New angular-velocity-modulation system employing pulse techniques. J. F. Gordon. il diags fold chart Inst Radio Eng Proc 34:328-34 Je '46
New method of amplifying with high efficiency a carrier wave modulated in amplitude by a voice wave. S. T. Fisher. diags Inst Radio Eng Proc 34:3P-13P Ja '46
Radio progress during 1945; radio transmitters. bibliog Inst Radio Eng Proc 34 [Waves & Electrons 1]:164-6 Ap '46

Control
All purpose transmitter remote control system. P. Johnson. diag Radio N 35:68+ Je '46

Frequency modulation transmitters
Design of f-m transmitter for 88-108 mc. S. L. Sack. diags Electronics 19:184+ Mr '46
FM for ham use. R. Frank. diags Radio N 34:44-5 D '45
Intermodulation testing. J. K. Hilliard. diag Electronics 19:123-7 Jl '46
New exciter unit for frequency modulated transmitters. N. J. Oman. il diags RCA R 7:118-30 Mr '46

RADIO transmitters—Frequency modulation transmitters—*Continued*
New modulation tube for frequency modulation; Phasitron. il diags Electronics 19:204+ F '46
Phasitron F-M transmitter. F. M. Bailey and H. P. Thomas. il diags Electronics 19:108-12 O '46

Power supply

Application of high-voltage steel-tank mercury-arc rectifiers to broadcast transmitters. P. A. T. Bevan. il diags Inst E E J 92 pt 2:469-89 O '45; Summary. Elec R (Lond) 136:805 Je 1 '45; Discussion. Inst E E J 92 pt 2:490-4 O '45; Elec R (Lond) 136:805-6 Je 1 '45; Electrician 134:493-4 Je 1 '45
Grounded-grid power amplifiers. E. E. Spitzer. bibliog diags Electronics 19:138-41 Ap '46
High-voltage rectified power supply using fractional-mu radio-frequency oscillator. R. L. Freeman and R. C. Hergenrother. diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:145W-7W Mr '46
High-voltage steel-tank mercury-arc rectifier equipments for radio transmitters. J. C. Read. il diags Inst E E J 92 pt 2:453-68 O '45; Summary. Elec R (Lond) 136:805 Je 1 '45; Discussion. Inst E E J 92 pt 2:490-3 O '45; Elec R (Lond) 136:805-6 Je 1 '45; Electrician 134:493-4 Je 1 '45

Short wave

Coil-neutralized vacuum-tube amplifier at very-high frequencies. R. J. Kircher. bibliog Inst Radio Eng Proc 33:838-43 D '45
Compact 75 watt transmitter. R. Lewis. il diag Radio N 36:28-9+ Jl '46
Composite tank circuit for uhf. P. L. Bargellini. bibliog il diags Electronics 19:115-19 S '46
Converting the SCR-522 transmitter. R. Frank. il diag Radio N 36:35+ N '46
Crystal controlled two meter transmitter. W. D. Speight. il diag Radio N 36:36-7+ Ag '46
Low power aircraft transmitter. A. B. Kaufman. il diag Radio N 35:29+ Mr '46
Midget phone-c.w. transmitter. R. P. Turner. il plan diags Radio N 36:32-4+ O '46
New transmitter for amateur radio. W. Bruene and N. Hale. il diag Radio N 36:39+ N '46
100 watt-28 mc. transmitter. N. Lefor. il diag Radio N 35:50-1 Ap '46
1000 watt r.f. amplifier for the ham. H. D. Hooton. il plans diags Radio N 35:28-30+ My '46
RCA model AVT-49 radio transmitter for aircraft communication. Aeronautical Eng R 5:129 My '46
350 watt-5 band transmitter. H. S. Brier. il diags Radio N 35:40-3+ Mr '46
Transmitter for 2 meters. E. F. Crowell and R. L. Parmenter. il diags Radio N 35:28-30+ Je '46
Transmitter-receiver for ham beginners. C. M. Sullivan. il diags Radio N 36:32-4+ Ag; 38-40+ S '46
200 watt all-band transmitter. H. D. Hooton. il plans diags Radio N 36:40-3+ N '46
Unusual transmitter for 28-54mc. R. P. Turner. il diags Radio N 35:40-2+ Ja '46
Vacuum-contained push-pull triode transmitter. H. A. Zahl and others. bibliog il diag Inst Radio Eng Proc 34 [Waves & Electrons 1]:66W-9W F '46
Wave guide transmission systems. T. Moreno. il diags Electronics 19:136-41 Je '46

Testing

Clip-on antenna meter. diag Electronics 19:158+ S '46
Per-cent modulation meter. R. P. Turner. il diags Radio N 35:43-5+ My '46

RADIO transmitters, Portable
Features of grid and plate modulation in new system; portable radio transmitters. diag Electronics 19:192+ My '46
Flea power voice transmitter. A. B. Kaufman. il diag Radio N 36:35+ Ag '46

RADIO tubes. See Radio apparatus; Vacuum tubes

RADIO waves
Absorption of microwaves by gases. W. D. Hershberger and J. E. Walter. diag J Ap Phys 17:495-500, 814-22 Je, O '46
Accuracy of the earth-flattening approximation in the theory of microwave propagation. C. L. Pekeris. Phys R 70:518-22 O 1 '46
Anomalous attenuation in waveguides. J. Kemp. diags Wireless Eng 23:211-16 Ag '46; Discussion. D. A. Bell. 23:287-8 O '46
Effect of rain upon the propagation of waves in the 1- and 3-centimeter regions. S. D. Robertson and A. P. King. bibliog Inst Radio Eng Proc 34:178-80 Ap '46
Electrical properties of soil at wavelengths of 5 metres and 2 metres. J. S. McPetrie and J. A. Saxton. Inst E E J 92 pt 3:256-8 D '45
Lowering of electrical breakdown field strength at microwave frequencies due to externally-applied magnetic field. D. Q. Posin. Phys R 69:541 My 1 '46
Measurement of velocity of propagation in cable. B. Kramer and F. Stolte. il diag Electronics 19:128-9 Jl '46
Micro-electromagnetic waves; spark-generated waves; description of detector. M. G. Kelliher and E. T. S. Walton. bibliog diags Wireless Eng 23:46-51 F '46
Microwaves on the way; new impetus to television, radio telephony, telegraphy, and facsimile. H. Manchester. il Sci Am 174:28-32 Ja '46
Perturbation theory of the normal modes for an exponential *M*-curve in non-standard propagation of microwaves. C. L. Pekeris. J Ap Phys 17:678-84 Ag '46
Power sources other than atomic with future possibilities. E. Podolsky. Mech Eng 68:655 Jl '46
Principal and complementary waves in antennas. S. A. Schelkunoff. bibliog diags Inst Radio Eng Proc 34:23P-32P Ja '46
Probe error in standing-wave detectors. W. Altar and others. diags Inst Radio Eng Proc 34:33P-44P Ja '46
Propagation of 6-millimeter waves; measurements of attenuation due to rainfall and atmospheric gases. G. E. Mueller. Inst Radio Eng Proc 34:181-3 Ap '46
Propagation studies; abstracts of I.R.E. papers. Electronics 19:106 Mr '46
Radiation of gravitational waves by electromagnetic waves; abstract. L. M. Brekhovskich. Electronics 19:220 O '46
Radio echoes from the planets; microwave absorption. W. D. Hershberger. Science 103:371 Mr 22 '46
Resonant-cavity wavemeter. J. McQuay. il diags Radio N 35:36-7+ F '46
Review of problems in centimetre wavelength range; abstracts of papers at Radiolocation convention. Electrician 136:801-2 Mr 29 '46
Short wave radio emission from the sun. Engineering 161:164 F 15 '46
Thermal and acoustic effects attending absorption of microwaves by gases. W. D. Hershberger and others. bibliog il RCA R 7:422-31 S '46

Bibliography

Radio progress during 1945; radio wave propagation. Inst Radio Eng Proc 34 [Waves & Electrons 1]:176-9 Ap '46

Physiological effect

Will h-f heat cure colds? Elec West 96:106 Je '46

RADIO workers
Radio jobs for G.I. Joe. T. Wayne. il Radio N 34:25-8+ N '45

RADIO writing. See Radio authorship

RADIOACTIVE substances
Conference report on international inspection of radioactive mineral production. 15p pa 10c Carnegie endowment for international peace, Committee on atomic energy, 405 W. 117 st, New York 27, New York; Geological soc. of Am, 419 W. 117th st, New York 27 '46
Petrography and radioactivity of four paleozoic magma series in New Hampshire. M. P. Billings and N. B. Keevil. bibliog maps Geol Soc Bul 57:797-828 S '46

RADIOACTIVE substances—*Continued*

Radioactive element 94 from deuterons on uranium. G. T. Seaborg and others. Phys R 69:366-7 Ap 1 '46

Radioactivity in the earth's crust. J. Alexander. Min & Met 27:449 Ag '46

What's future of uranium and kin? W. Janssen. Dom Comm 34:19-21 F '46

See also

Radioactivity
Radium
Thorium
Uranium

Safety measures

Atomic bomb health hazards. H. D. Smyth. Nat Safety N 52:56+ D '45

RADIOACTIVITY

Activity of N^{16} and He^{6}. H. S. Sommers, jr. and R. Sherr. bibliog Phys R 69:21-30 Ja 1 '46

Annual report of the Biochemical research foundation of the Franklin institute. E. McDonald. Franklin Inst J 241:23-9 Ja '46

Arrangement with small solid angle for measurement of beta rays. L. F. Curtiss and B. W. Brown. diags J Res Nat Bur Stand 37: 91-4 Ag '46

Atomic byproducts for medicinal research. Oil Paint & Drug Rep 149:5+ Je 17 '46

Automatic sample changer to be used for measuring radioactive samples. W. C. Peacock and W. M. Good. diags R Sci Instr 17:255-61 Jl '46

Autoradiographic detection of aluminum. W. E. Stephens and M. N. Lewis. il Phys R 69:43 Ja 1 '46

Availability of radioactive isotopes; announcement from headquarters, Manhattan project, Washington, D.C. Science 103:697-705 Je 14 '46

Chemical and radioactive properties of the heavy elements. G. T. Seaborg. Chem & Eng N 23:2190-3 D 10 '45

Chemical forms assumed by C^{14} produced by neutron irradiation of nitrogenous substances. P. E. Yankwich and others. bibliog J Chem Phys 14:131-40 Mr '46

Corrected tables of radioactive isotopes and their properties. R Sci Instr 17:348-51 S '46

Design of beta-ray and gamma-ray Geiger-Muller counters. W. Good and others. il diags R Sci Instr 17:262-5 Jl '46

Disintegration schemes of radioactive substances; Co^{60}. M. Deutsch and others. bibliog Phys R 68:193-7 N 1 '45

Disintegration schemes of radioactive substances; Mn^{52} and V^{48}. W. C. Peacock and M. Deutsch. bibliog Phys R 69:306-13 Ap 1 '46

Effects of radioactivity on a naphthenic acid. I. A. Breger and V. L. Burton. bibliog Am Chem Soc J 68:1639-42 Ag '46

Effects of radioactivity on fatty acids. C. W. Sheppard and V. L. Burton. bibliog diags Am Chem Soc J 68:1636-9 Ag '46

Evidence of increased radioactivity of the atmosphere after the atomic bomb test in New Mexico. A. W. Coven. Phys R 68:279 D 1 '45

Experimental comparison of the chemical effects of deuterons and of alpha particles on methane and *n*-butane. R. E. Honig and C. W. Sheppard. bibliog il diags J Phys Chem 50:119-43 Mr '46

Experimental test of beta-ray theory for the positron emitters Na^{22}, V^{48}, Mn^{52}, Co^{55}. W. M. Good and others. bibliog diag Phys R 69:313-20 Ap 1 '46

Future of atomic energy; biological phase. W. E. Chamberlain. Chem & Eng N 24: 1352-6 My 25 '46; Abstract. Metal Prog 49: 1205-6 Je '46

Health physics; new science, developed for protection of workers against penetrating radiations on atomic energy projects. K. Z. Morgan. Nat Safety N 53:25-6 My '46

Impact of nucleonics on medicine. R. S. Stone. Chem & Eng N 24:482-3+ F 25 '46

New units for the measurement of radioactivity. S. C. Lind. Science 103:761 Je 28 '46

New units for the measurement of radioactivity; rutherford and roentgen-per-hour at one meter. E. U. Condon and L. F. Curtiss. R Sci Instr 17:249 Je '46; Same. Phys R 69:672-3 Je 1 '46; Same. Science 103: 712 Je 14 '46; Same. J Chem Phys 14:399 Je '46; Same. Chem & Eng N 24:1802 Jl 10 '46

Operation welfare; radioactive chemicals for research now available. il Chem Ind 59: 64-7 Jl '46

Portable radioactivity detector; development of Geophysical instrument company. il R Sci Instr 17:455 O '46

Preparation of high specific induced radioactivity by neutron bombardment of metal chelate compounds. R. B. Duffield and M. Calvin. Am Chem Soc J 68:1129 Je '46

Prior use of the Rutherford unit. J. Alexander. Science 104:276 S 20 '46

Radii of the nuclei of natural α-emitters. M. A. Preston. bibliog Phys R 69:535 My 1 '46

Radioactive hydrocarbons. A. V. Grosse and S. Weinhouse. Science 104:402 O 25 '46

Radioactive light sources. M. Blau and I. Feuer. diag Opt Soc Am J 36:576-80 O '46

Radioactive products of atomic fission may revolutionize medicine. R. S. Stone. Can Chem & Process Ind 30:86 Je '46

Radioactive studies; analytical method for determination of long-life carbon C^{14}. F. C. Henriques, jr. and C. Margnetti. bibliog diag Ind & Eng Chem Anal ed 18:417-19 Jl '46

Radioactive studies; analytical procedure for measurement of long-lived radioactive sulfur, S^{35}, with a Lauritzen electroscope and comparison of electroscope with special Geiger counter. F. C. Henriques, jr. and others. bibliog diags Ind & Eng Chem Anal ed 18:349-53 Je '46

Radioactive studies; analytical procedure for measurement of radioactive arsenic of 90-day half-life. F. C. Henriques, jr. and C. Margnetti. diag Ind & Eng Chem Anal ed 18:415-17 Jl '46

Radioactive studies; analytical procedure for measurement of radioactive hydrogen (tritium). F. C. Henriques, jr. and C. Margnetti. bibliog diag Ind & Eng Chem Anal ed 18:420-2 Jl '46

Radioactive studies; utilization of the radioactive isotope dilution procedures for special types of chemical problems; quantitative determination of the three individual components of mixtures of dibenzyl sulfide, sulfoxide, and sulfone as an illustrative example. F. C. Henriques, jr. and C. Margnetti. bibliog Ind & Eng Chem Anal ed 18:476-8 Ag '46

Radioactive Te from Sb bombardment. J. E. Edwards and M. L. Pool. bibliog il Phys R 69:140-4 Mr 1 '46

Radio-active tracer atoms; abstract. F. Fairbrother. Chem & Ind p181 My 4 '46

Radioactivity may be clue to added petroleum resources; research at Massachusetts institute of technology. Nat Pet N 38:48 Ap 17 '46

Radioactivity of Be^{10}. E. M. McMillan and S. Ruben. Phys R 70:123-6 Ag 1 '46

Radiochemical changes in some fatty acids. R. E. Honig. Science 104:27-8 Jl 12 '46

Relative probability of the (d,p) and the (d,n) reactions in bombarded bismuth. J. M. Cork. Phys R 70:563 O 1 '46

Silver half dollar made radioactive with hundred million volt betatron; abstract. Franklin Inst J 241:456-7 Je '46

Study of the alpha-particles from Po with a cyclotron-magnet alpha-ray spectrograph. W. Y. Chang. bibliog diags Phys R 69:60-77 F 1 '46

Synthesis by nuclear recoil. A. F. Reid. Phys R 69:530 My 1 '46

Trace tagged atoms. Franklin Inst J 241:186 Mr '46

Use of radioactive tracers in industrial medicine. S. T. Cantril. Ind Med 15:37-8 Ja '46

See also

Alpha rays
Atoms—Disintegration
Beta rays
Electrons
Gamma rays
Ionization, Gaseous
Radiography
Radium
X rays

RADIOACTIVITY—*Continued*

Physiological effect

Destruction from atomic bomb continues after explosion in form of radioactivity. P. Swain. Elec World 126:80 Ag 17 '46

Footnotes to the Bikini bombs. R. L. Taylor. il Chem Ind 59:476-8 S '46

Gamma-ray anomaly following the atomic bomb test of July 1, 1946. G. Herzog. Phys R 70:227 Ag 1 '46

See also
Radiotherapy

RADIOCARBON. See Carbon

RADIOGRAPHY

Absorption measurements for broad beams of 1- and 2-million volt X-rays. G. Singer and others. bibliog J Res Nat Bur Stand 37:147-50 Ag '46

Accurate interpretation of radiographs. H. R. Clauser. il diags Materials & Methods 22: 1418-22 N '45

Administrative aspects of mass radiography. P. A. Brehm. Ind Med 15:391-3 Je '46

Aircraft quality castings; use of radiography and fluoroscopy; Northrop aircraft inc. T. E. Piper. il diags Foundry 74:96-101+ Je '46; Same cond. Iron Age 157:46-9 My 2 '46

Application of radiography to the improvement of foundry technique. R. Jackson. diags Iron & Steel Inst J 151:225-59 bibliog(p258-9) pl 17-28 no 1 '45; Excerpts. Engineer 180:35-8 Jl 13 '45; Discussion. Iron & Steel Inst J 151:259-71 no 1 '45; Engineer 180:53-4 Jl 20 '45; Engineering 160:54 Jl 20 '45

Application of the betatron to practical radiography. J. P. Girard and G. D. Adams. bibliog il diags Elec Eng 65:Trans 241-6 My '46

Characteristics of commercial X-ray intensifying screens. Pub Health Rep 61:1324 S 6 '46

Duplicate radiographs; abstracts. S. D. Herbein and J. F. McKenna, jr. Materials & Methods 22:1534+ N '45; Steel 117:68 D 31 '45

Exposure chart for radiography of steel; data sheet. H. R. Isenburger. Metal Prog 49:760C-760D Ap '46

High-voltage radiography; 1 and 2 million-volt equipment permits examination of steel sections up to 12 in. thick. D. Goodman. il diags Iron Age 157:58-61 F 21 '46

Improved methods for the preparation of the X-ray contrast media iodoxyl and diodone for visualisation of urinary tract. R. H. Hackman and R. Lemberg. bibliog Soc Chem Ind J 65:204-5 Jl '46

Interpretation of radiographs of spot welds in Alclad 25S-T and 75S-T aluminum alloys. R. C. McMaster and F. C. Lindvall. bibliog il Welding J 25:707-23 Ag '46; Abstract. Steel 119:104-7 O 14 '47

Interpretation of radiographs; particularly of aircraft parts. L. W. Ball. il Am Soc for Metals Trans 34:545-75 bibliog(p575) '45; Same cond. Machine Design 16:135-40 D '44; Same cond. Foundry 73:82-5+ F '45; Discussion. Am Soc for Metals Trans 34:575-88 '45

Light, compact X-ray generator of high efficiency for mass radiography of the chest. R. H. Morgan and E. G. Murphy. diags Pub Health Rep 61:982-9, pl 1-2 Jl 5 '46

Miniature photofluorography of the clothed subject. I. Lewis. Pub Health Rep 61:1002-4 Jl 5 '46

Motion radiography of mold pouring. S. L. Fry. il Foundry 74:92-6 F '46

New eye for industry; millionth of a second X-ray equipment. E. L. Cady. il Sci Am 174:110-12 Mr '46

New films available on administration of mass radiography programs. Pub Health Rep 61: 829 Je 7 '46

Non-destructive testing methods; radiographic inspection. R. Le Grand. il diags Am Mach 90:120-4 My 23 '46

Photofluorographic roll-film viewers; comparison of direct viewers and projectors. I. Lewis. Pub Health Rep 61:294-7, pl 1-2 Mr 1 '46

Radiographic inspection and foundry operations; abstract. T. E. Caldwell. Materials & Methods 23:1106 Ap '46

Radiographic inspection fits into work-processing schedules; Steam division, Westinghouse electric corporation. R. Le Grand. il diags Am Mach 90:134-7 N 7 '46

Radiographic studies of metals and materials subject of meeting sponsored by American industrial radium and X-ray society. Steel 118:128+ F 18 '46

Radiography of spot welds in light alloy and ferrous sheet materials. R. C. McMaster and F. C. Lindvall. il Welding J 25:851-60 S '46

Radiography with multimillion-volt X-rays. H. R. Clauser. bibliog il Materials & Methods 23:706-9 Mr '46

Scanner reduces X ray distortion. il diag Iron Age 157:70 Ap 25 '46

Single-exposure technic for radiographic inspection of bronze castings. S. A. Brosky. Materials & Methods 24:149 Jl '46

Some results of advances in welding and radiography on the welding of pressure vessels. O. R. Carpenter. il diag Welding J 25:531-42 Je '46

Statistical analysis of 100,000 examinations of the chest by the photoroentgen method; abstract. P. Zanca and F. K. Herpel. J Ind Hygiene 28:sup3 Ja '46

Super-speed X-ray exposures study body distortions fliers endure; abstract. C. M. Slack. Franklin Inst J 242:218 S '46

Technique of gamma radiography. R. Halmshaw. diags Engineering 162:169-70 Ag 23 '46

Two-million volt industrial radiography. L. Cardenas. il Iron Age 157:52-5 Je 13 '46

Use and abuse of radiographs in the diagnosis of mouth infection. E. H. Thomas. Ind Med 15:9-13 Ja '46

X-ray movies in the foundry; abstract. S. L. Fry. Metal Prog 49:812+ Ap '46

X-ray snapshots used in atomic bomb production; abstract. C. M. Slack. Electronics 19:164 Ja '46

See also
Metallography
Metals—X ray inspection

RADIOGRAPHY, Stereoscopic

Precise measurements and inspection by stereoscopic radiography. B. J. DeSimone. il diags Metal Prog 50:71-4 Jl '46

RADIOLOCATOR. See Radar

RADIOMETEOROGRAPHS. See Radio meteorographs

RADIOMETERS

Atmospheric absorption measurements with a microwave radiometer. R. H. Dicke and others. bibliog diags Phys R 70:340-8 S 1 '46

Integrating radiation meter. C. G. Montgomery and D. D. Montgomery. Franklin Inst J 241:55-8 Ja '46

Measurement of thermal radiation at microwave frequencies; connection between Johnson noise and blackbody radiation. R. H. Dicke. diags R Sci Instr 17:268-75 Jl '46

Motion of a particle in a temperature gradient; thermal repulsion as a radiometer phenomenon. P. Rosenblatt and V. K. La-Mer. bibliog diags Phys R 70:385-95 S 1 '46

Radiation meter. il R Sci Instr 17:313 Ag '46

See also
Bolometers

RADIOMICROMETER. See Radiometers

RADIOSCOPIC diagnosis. See Diagnosis, Radioscopic

RADIOSONDE. See Radio meteorographs

RADIOTHERAPY

Future of atomic energy; biological phase. W. E. Chamberlain. Chem & Eng N 24:1352-6 My 25 '46; Abstract. Metal Prog 49:1205-6 Je '46

RADIOTYPEWRITER. See Teletype

RADIUM

Production of radium. E. F. Mactaggart. flow sheets Inst Chem Eng Trans 20:65-70 bibliog(p70) '42; Abstract. Chem & Met Eng 50:178-81 Jl '43; Discussion. Inst Chem Eng Trans 20:70-1 '42

RADIUM—*Continued*
Radium-type vacuum gage. G. L. Mellen. bibliog il diags Electronics 19:142-6 Ap '46
Uranium and radium in the postwar period. S. C. Lind. Electrochem Soc Trans 89 (preprint 14):167-9 '46

See also
Gamma rays
Radioactivity
Radiography

Physiological effect

Fluorescence of radium burns. J. De Ment. Science 103:631 My 17 '46

See also
Radium poisoning

Safety measures

Invisible industrial hazard. S. R. Warren, jr. bibliog il diag Elec Eng 65:499-507 N '46
Radiation intensity meter. il R Sci Instr 17: 283-4 Jl '46

RADIUM D
γ-Rays of radium D. S. Tsien. bibliog Phys R 69:38 Ja 1 '46

RADIUM foil
Preventing the fungus fouling of optical instruments. R. E. Vicklund. il diag Ind & Eng Chem 38:774-9 Ag '46

RADIUM poisoning
New X-ray code to protect workers. S. Dahlberg and R. P. Gleason. il Ind Stand 17: 110-12 My '46; Same. Nat Safety N 54:35-7 Ag '46
Radium dial painting control methods. F. J. Willard, jr. il Ind Med 15:170-2 F '46
Radium dial painting; medical status of workers. I. R. Tabershaw. bibliog J Ind Hygiene 28:212-16 S '46

RADIUM sulfate
Preventing the fungus fouling of optical instruments. R. E. Vicklund. il diag Ind & Eng Chem 38:774-9 Ag '46

RADON
Alphatron radon ointment in industrial practice. H. H. Jordan. bibliog il Ind Med 14: 964-7 D '45
Radioactivation of colloidal gamma ferric oxide. M. Blau and others. bibliog diag Science 103:744-8 Je 28 '46

RAGS
Effective bleach liquor system for rag half-stock bleaching. L. A. Moss. diag Paper Tr J 122:45-6 Ap 4 '46; Same, without diag. Paper Ind 28:896+ S '46

RAGWEED
Control of ragweed pollen production with 2,4-dichlorophenoxyacetic acid. F. G. Smith and others. bibliog Science 103:473-4 Ap 19 '46
Growth of ragweed for its medicinal virtues in the Dominican Republic. H. A. Allard and H. F. Allard. Science 104:429-30 N 1 '46
Pollen in the air. A. C. Stern. il diag Heat & Ven 42:63-6 N '45

RAIL joints

Welding

Back-up clips improve welded rail joints. il diag Coal Age 50:124+ N '45

RAIL motor cars. See Motor cars (railroad)

RAIL removal. See Street railroads—Track reclamation

RAILINGS, Bridge. See Bridge railings

RAILROAD accidents. See Railroads—Accidents

RAILROAD adjustment board, National. See National railroad adjustment board

RAILROAD and utilities commissioners, National association of. See National association of railroad and utilities commissioners

RAILROAD associations

See also
Car department officers' association

RAILROAD bridges. See Bridges, Railroad

RAILROAD engineering
American railway engineering association 45th annual meeting, Chicago, March 12-14. Ry Age 120:546-63 Mr 16 '46
Locomotive engineering and the chief mechanical engineer. O. V. S. Bulleid. Engineer 182:375, 398-400 O 25-N 1 '46
Many problems ahead for engineers; abstract. B. H. Prater. Ry Age 120:640 Mr 23 '46
Progress in railway mechanical engineering, 1944-1945. il diags Mech Eng 68:107-22 F '46
Unusual methods for big trackwork job; important crossing at Chicago. T. H. Beebe. il diag Ry Age 121:684-6 O 26 '46

See also
Bridges, Railroad
Cars
Locomotives
Railroad research
Railroads—Construction
Railroads—Maintenance and repair
Railroads—Track

Study and teaching

Cooperation with universities; A.R.E.A. committee report. Ry Age 120:551-2 Mr 16 '46

RAILROAD insurance association
Issues 1946 fire prevention week poster; aiding railroads to cut losses. East Underw 47:28 O 11 '46

RAILROAD labor. See Railroads—Employees

RAILROAD laboratories. See Railroads—Laboratories

RAILROAD land grants
Land grant rate elimination to affect competitive setup. L. W. Moffett. map Iron Age 157:108-10 Ja 17 '46
Land-grant rates, affording lower tariff on U.S. shipments, abolished. Steel 118:114-15 My 6 '46

RAILROAD law
Arguments against the Bulwinkle bill. H. A. Wallace. Comm & Fin Chr 163:2083+ Ap 18 '46
Banking control of railroads; violations of the law; abstract. R. R. Young. Ry Age 121: 178-9 Ag 3 '46
Committee would bail out equities; approves Reed bill. Ry Age 120:739+ Ap 6 '46
Commodities clause distorted by court; application of Chesapeake & Ohio for authority to construct line from Jenkins, Ky. into Virginia. Ry Age 120:1151-2 Je 8 '46
Contract rates on government traffic; resemble agreed rates applicable to commercial traffic in Britain and Canada; British practice. G. L. Wilson. Ry Age 121:729-31 N 2 '46
Defects of Wheeler bill. D. M. Liddell, jr. Comm & Fin Chr 163:2913+ My 30 '46
Insurers favor bill to ward off railroad receiverships; S. 1253. Nat Underw (Life ed) 50:9 Ja 18 '46
Jolt for the rails; Reed proposal to return roads to old stockholders. Bsns W p52+ D 1 '45
President Truman and railroad reorganization; Wheeler-Reed bill. E. M. Friedman. Comm & Fin Chr 164:1134+ Ag 29 '46
Railroad reorganization; new government policy. E. M. Friedman. Comm & Fin Chr 163: 1637+ Mr 28 '46
Railroad revamp bill passed by Congress; final version blend of Wheeler, Reed, and Hobbs proposals. Ry Age 121:196+ Ag 3 '46
Railway gauge act, 1846. Engineering 162: 160-1 Ag 16 '46
Rules fertilizer is not military freight. Ry Age 119:1032 D 22 '45
Senate interstate commerce committee hearings on Bulwinkle bill. Ry Age 120:654, 691+, 739-41, 783-5, 835-6, 885+, 927+, 971+ Mr 23-My 11 '46
79th Congress closes last regular session; summary of legislation of interest to railroads. Ry Age 121:234+ Ag 10 '46
Truman kills Wheeler-Reed railroad reorganization bill. Comm & Fin Chr 164:895 Ag 15 '46; Same abr. Ry Age 121:305+ Ag 17 '46
Tubes test a law; tie-up of Hudson and Manhattan railroad. Bsns W p98+ Je 8 '46
Wheeler bill on future railroad reorganizations. E. M. Friedman. Comm & Fin Chr 162:2705+ D 6 '45

RAILROAD law—*Continued*
Wheeler is caustic on revamp process; hearing on bill to implement voluntary adjustment of railroad financial structures. Ry Age 120:475+ Mr 2 '46
See also
Railroads—Pensions
Railroads—Receiverships

RAILROAD motor cars. See Motor cars (railroad

RAILROAD porters. See Porters

RAILROAD rates. See Railroads—Rates

RAILROAD research
Customers' needs being intently studied by A.A.R. research group probes prospects for all important items of traffic, and how railroads can win such business. F. J. Wall. Ry Age 120:994-6 My 18 '46
Maintenance progress through research. J. B. Akers. il Ry Age 120:281-3 F 2 '46
Research and conservation; A.A.R. P.&S. division report. il Ry Age 121:291-2 Ag 17 '46
Research brings greater safety, speed and comfort. il Diesel Power 24:322-4+ Mr '46
Research pays big dividends; Chesapeake & Ohio control over materials and supplies. il Ry Age 121:93-6 Jl 20 '46
Results of research will guide railroads. W. J. Taft. Ry Age 120:6-8 Ja 5 '46

RAILROAD stations. See Railroads—Stations

RAILROAD strikes
Blood on the rails; fight over McNear's T.P.& W.R.R. il Bsns W p100+ F 16 '46
Co-ordinated air effort meets rail needs in 48 hour crisis; ATA, army, navy and nonscheduled carriers pool resources. B. Stubblefield. Aviation N 5:40+ Je 3 '46
Government seizes nation's railroads. Comm & Fin Chr 163:2833 My 23 '46
H. & M. strike ends when board approves unions' demands. Ry Age 120:1281 Je 29 '46
Hudson & Manhattan strikers boycott emergency board. Ry Age 120:1148 Je 8 '46
Many trains were run despite the strike. Ry Age 120:1103-5+ Je 1 '46
Plain speaking from President Truman; speeches on the radio and to Congress. Ry Age 120:1100-2 Je 1 '46
Railroad controversy results in 2-day stoppage. Mo Labor R 63:84-6 Jl '46
Railroads returned to owners after new Truman tactics end strike. Ry Age 120:1095-9+ Je 1 '46
Saved by interstate buses; Hudson & Manhattan railroad strike. il Bus Transportation 25:38-9 Jl '46
Saved for 1947; the fight over rail rules. Bsns W p16 Je 1 '46
Service or else; receiver for McNear's T.P.& W. Bsns W p84 Je 15 '46
Short lines also; Hudson & Manhattan railroad's acceptance of national rail settlement. Bsns W p92+ Je 29 '46
T.P.&W. in court. Bsns W p28+ Mr 2 '46
Tubes test a law; tie-up of Hudson and Manhattan railroad. Bsns W p98+ Je 8 '46
Wage compromise proposed by Truman. Ry Age 120:1052-5+ My 25 '46

RAILROAD supplies industry
Feast-or-famine business. Bsns W p111 Mr 2 '46
Organize to promote export market; railroad equipment manufacturers in group named by President to foster overseas market. Ry Age 121:229 Ag 10 '46
Rail equipment makers again forecast big business. S. Shane. Barron's 26:15 Ja 14 '46

Securities

Divergent trends in rail equipments; with position of leading makers. W. Beecher. Mag of Wall St 77:708-9+ Mr 16 '46
Evaluating position of rail equipments; with financial survey of leading companies. E. A. Barnes. il Mag of Wall St 78:638-9+ Ag 31 '46
Prospects for the railroad equipment industry. Comm & Fin Chr 163:1644 Mr 28 '46

RAILROAD ties
And now robot tie handlers; plant of the Southern wood preserving company. il diag Ry Age 121:55-8 Jl 13 '46
High and low of forest products; large-volume railway requirements. C. M. Burpee. Ry Age 120:36-8 Ja 5 '46
New process seasons ties overnight. flow diag il Ry Age 120:494-7, 538-41 Mr 9-16 '46
Proposes method for lengthening life of ties Ry Age 121:338+ Ag 24 '46
Railroad tie association, 28th annual meeting, Cincinnati, July 15-16. Ry Age 121:130-3 Jl 27 '46
Ties; A.R.E.A. committee report. Ry Age 120:557 Mr 16 '46
Wood preservation up slightly in 1945. il Ry Age 121:472-4 S 21 '46

Statistics

Tie renewals down 8.4 per cent. il Ry Age 121:137-9 Jl 27 '46

RAILROAD tracks. See Mine tracks; Railroads—Track

RAILROAD yards. See Railroads—Yards

RAILROADS
See also
Air brakes
Bridges, Railroad
Cableways
Cars
Electric railroads
Freight car service
Freight cars
Locomotives
Motor cars (railroad)
Mountain railroads
Railroad engineering
Railroad research
Railroad ties
Railroads and state
Rails
Railway mail service
Rapid transit
Steamboat lines—Railroad operation
Street railroads
Transportation

Abandonment

Abandonments drop still lower. G. E. Boyd. Ry Age 120:119-20 Ja 5 '46

Accidents

Accident attributed to defective hand brakes. Ry Mech Eng 120:331 Je '46
Accident caused by excessive speed on curve; derailment near Royalton, Pa. Ry Age 121:243 Ag 10 '46
Accident, January 1 near Oakland, Ky., attributed to defective brakes. Ry Age 120:835 Ap 20 '46
Accidents on British railways in 1944. Engineer 180:323 O 26 '45
Burlington tests show signals adequate at scene of Naperville, Ill. accident. il map Ry Age 120:959-60 My 11 '46
Burlington trains in rear-end collision. Ry Age 120:921 My 4 '46
Cab signals praised; investigation of Pennsylvania accident. Ry Age 121:492 S 21 '46
Collision at interlocking ascribed to main failure; Clarksburg, W.Va. accident. Ry Age 120:124-5 Ja 5 '46
Derailment due to excessive speed through turnout at Pilot, Nev. Ry Age 120:1078 My 25 '46
Engineer forestalls train-stop; collision follows near White Sulphur, Ga. Dec. 19, 1945. Ry Age 120:380 F 16 '46
Finds three roads at fault in accidents. Ry Age 120:693-5 Mr 30 '46
Head-end collision caused by failure to observe signals at Readville, Mass. Ry Age 121:69-70 Jl 13 '46
Hudson & Manhattan train hit drawbridge despite safety devices; accident Dec. 17, 1945, between Harrison, N.J. and Newark. Ry Age 120:379 F 16 '46
I.C.C. summarizes 1944 accident data. Ry Age 120:207+ Ja 19 '46
Lapse of tired, 69-year-old engineer causes collision near Grazier, Pa. Ry Age 121:536-7 S 28 '46
Railroads reduce accidents during demobilization; winners in railroad employees' National safety contest. Nat Safety N 53:33 Je '46
Railway accidents in 1945. Engineering 162:157-8 Ag 16 '46
Railway accidents report for 1945. Engineer 182:152 Ag 16 '46
Show cause order calls for signals; collision on St Louis Southwestern near Garland City, Ark. Ry Age 120:521 Mr 9 '46
Show cause proceedings after collisions. Ry Age 120:297-9 F 2 '46

RAILROADS—Accidents—*Continued*
Southern railway Haywards Heath accident report; abstract. A. C. Trench. Engineer 180:393 N 16 '45
Sun Bank railway accident, Llangollen. il plan diags Engineering 161:177-8, 180 F 22 '46
Troop train hit when following train misses signals; Baltimore & Ohio Chicago terminal. Ry Age 120:338 F 9 '46
Water-scoop operation leads to derailment and collision. Ry Age 120:165 Ja 12 '46

See also
Locomotives—Failure
Railroads—Wreck trains

Accounting

Accounting division of Association of American railroads, annual meeting, Bretton Woods, June 18-21. Ry Age 120:1252-7 Je 29 '46
Commodity statistics revised by the I.C.C. Ry Age 121:614-15 O 12 '46

See also
Waybills

Advertising

Advertises the territory it serves and its own contribution; Seaboard Railway's public relations copy. E. J. Dever, jr. il Ptr Ink 215:58+ Ap 19 '46
Copy clinic. il Adv & Sell 39:38 Ap '46
Pennsy cements traffic relations by publicizing industries it serves. Ind Marketing 31: 39-40 O '46
Phoebe Snow's inventor. E. E. Calkins. Adv & Sell 39:132+ Je '46
Rail advertising shows decline in 1945. F. Snow. il Adv & Sell 39:70+ Jl '46
Railroad seeks industrial harmony by advertising; Akron, Canton & Youngstown copy. Ptr Ink 215:54 Ap 19 '46
Railroad travel can be dressed up, sold through advertising; abstract. R. R. Young. Ptr Ink 214:91+ F 1 '46
Robert R. Young and his Chesapeake & Ohio ads. E. J. Dever, jr. il Ptr Ink 216:48-50+ Ag 16 '46
Sells its territory to sell itself; New Haven's advertising and public relations program emphasizes New England. E. J. Dever, jr. il Ptr Ink 214:63-4+ F 15 '46
Union Pacific salutes steel industry; advertising campaign. Blast F & Steel Pl 34:377-8 Mr '46

Air conditioning

See Car cooling; Cars—Air conditioning

Airline competition

Air travel is gaining on Pullman volume. Aviation N 6:33 N 4 '46
Business of airlines still on steep upgrade. Ry Age 121:653-4 O 19 '46
Planning body would foster air transport. Ry Age 120:877 Ap 27 '46
Relationship between rail and air transportation. C. R. Smith. Am Pet Inst Proc 25(1):20-4 '45

Airplane auxiliaries

Dominion okays air line control by RRs. C. D. Howe. Ry Age 121:345 Ag 24 '46
Howe changes mind on air-rail divorce. Aviation N 6:31 S 16 '46
Railroad-helicopter coordination? R. B. James. Aero Digest 53:105 Jl '46
Railroads should have air transport rights; A.A.R. committee report. Ry Age 120:1114-16 Je 1 '46

Ballast

See Ballast

Bibliography

Pioneer period of European railroads; a tribute to Mr. Thomas W. Streeter. (Kress lib. of business and economics no. 3) 71p pa 50c Harvard univ. Graduate school of business administration, Soldiers field, Boston '46

Braking

Recent developments in speed controls. C. D. Stewart. il Ry Age 121:604-7 O 12 '46

Bridge crossing

See Bridges, Railroad

Buildings and structures

American railway bridge and building association, annual meeting, Chicago, Sept. 17-19. Ry Age 121:561-5+ O 5 '46
Canadian national railways builds large ore dock at Port Arthur, Ont. il diag Ry Age 120:235-8 Ja 26 '46
Construction followed war pattern; U.S. and Canada. G. E. Boyd. il Ry Age 120:107-13 Ja 5 '46
Drives shotcrete-encased piles; Southern railway's method of protecting waterfront formations against teredo and limnoria. il Ry Age 119:888-9 D 1 '45
Icing plant speeds perishable traffic; new facility on Missouri Pacific. il plan diags Ry Age 120:870-2 Ap 27 '46
Must keep plant in step with progress. il Ry Age 120:1015-19 My 18 '46

See also
Bridges, Railroad
Car shops
Railroads—Shops
Railroads—Stations
Railroads—Terminals
Railroads—Trainsheds
Roundhouses

Car departments

A.A.R. price clerks. T. E. Hughes. Ry Mech Eng 120:419 Ag '46

See also
Car department officers' association

Cars

See Cars; Dining cars; Freight cars; Refrigerator cars; Sleeping cars

Centralized traffic control

See Railroads—Signals

Claims

Carman's part in claim prevention. J. Marshall. il Ry Mech Eng 120:84-6 F '46
Experiences on investigation and litigation of personal accident claims; problems of railroad carriers. D. P. Donovan. East Underw 46:27+ N 23 '45
Is it well-packed? railroads, worried over big damage bill. Bsns W p36 F 23 '46
Lost: $100,000,000; faulty packing and careless handling chief causes of 1945's loss and damage toll. C. H. Dietrich. il Ry Age 120:189-93 Ja 19 '46

Competitive transportation

Subsidized rivalry protested. J. J. Pelley. Ry Age 120:575+ Mr 16 '46
Toward a national transportation policy. Ry Age 119:892-9 D 1 '45
Transportation agencies as taxpayers; abstract. W. G. Vollmer. Ry Age 121:228 Ag 10 '46

See also
Railroads—Airline competition
Railroads—Motor vehicle competition
Railroads—Waterways competition

Concrete construction

American railway bridge and building association committee reports methods of improving strength, durability and wear resistance of concrete. Concrete 54:12-13+ O '46

Consolidation

A.C.L.'s child; A.B.& C. railroad is now western division of Coast line. Bsns W p74-6 Ja 26 '46
Bowman to head merged P.M.-C.&O. Ry Age 120:409 F 23 '46
Can Katy do it? Claughton group's plans for north-south rail artery. map Bsns W p68+ F 16 '46
Chicago & Eastern Illinois railroad merger? Bsns W p77 Ja 26 '46
Merger o.k.'d; Marquette and C. & O. Bsns W p77 My 18 '46
Rail merger plan for three roads; Katy proposes merger with Chicago & Eastern Illinois, and Chicago Great Western. map Am Bsns 16:11+ F '46

RAILROADS—Consolidation—*Continued*
Would approve P.M.-C.&O. merger; I.C.C. gets favorable report. Ry Age 121:737+ N 2 '46

Construction
Construction followed war pattern; U.S. and Canada. G. E. Boyd. il Ry Age 120:107-13 Ja 5 '46
1945 railroad construction indices. Ry Age 121:339 Ag 24 '46
See also
Railroads—Earthwork
Railroads—Track

Cost of construction
Railroad construction cost indexes, 1921-1944. Eng N 136:573 Ap 18 '46
Railroad for Garrison dam, North Dakota; unit prices. Eng N 136:874 My 30 '46

Costs
Capital expenditures up slightly in 1945. Ry Age 120:775 Ap 13 '46
Hot journal costs; abstract. P. J. Hogan. Ry Mech Eng 119:602 D '45
1945 expenditures near peak. Ry Age 120:808-10+ Ap 20 '46
Outlay for upkeep goes still higher. M. H. Dick. il Ry Age 120:22-7 Ja 5 '46
Relationship between wage payments and operating revenues; table. Ry Age 120:535 Mr 16 '46

Crossings
Flat-bottom switches and crossings on the L.N.E.R. il Engineer 182:86 Jl 26 '46
Unusual methods for big trackwork job; important crossing at Chicago. T. H. Beebe. il diag Ry Age 121:684-6 O 26 '46

Curves and turnouts
Manufacturing methods and tests on hub-wedge and curve greases as used on railroad equipment. A. E. Hickel. il Pet Refiner 25:134-6 O '46

Damage from floods, storms, etc.
Railroads suffer bridge damage from New York and Pennsylvania floods. il Eng N 136:881 Je 6 '46

Development work
Beating the bushes for freight; departments engage in development of new sources of traffic. il Ry Age 120:1000-4 My 18 '46

Earthwork
Frisco line changes improve operation; relocation projects in Missouri. il Ry Age 121:281-4 Ag 17 '46
Railroad tunnels daylighted by company forces; Southern Pacific tunnels eliminated by excavation or by line relocation. E. E. Mayo. il Civil Eng 16:9-12 Ja '46

Electric equipment
Automatic drying of electrical apparatus. R. G. Cazanjian. diag Ry Mech Eng 120:490-1 S '46
Electric sections, A.A.R., meeting, Chicago. Ry Age 121:756-60 N 9 '46
Electrical section, A.A.R. Engineering division; 1945 reports. il diags Ry Mech Eng 120:32-41 Ja '46; Excerpts. Ry Age 119:987-9 D 15 '45
Electrical service on wheels; mobile equipment for maintenance and construction developed by Chesapeake & Ohio. Ry Mech Eng 120:316-17+ Je '46
High voltage ignition rectifiers and inverters for railroad service. J. L. Boyer and C. G. Hagensick. bibliog diags Elec Eng 65:Trans 463-70 Jl '46; Excerpts. Ry Mech Eng 120:322-3 Je '46
More things being done electrically. A. G. Oehler. il Ry Age 120:47-9 Ja 5 '46
Revised distribution system of Chesapeake & Ohio. il Ry Mech Eng 119:606-7 D '45
See also
Railroads—Signals

Electrification
Electrification of railroads in the Pacific Northwest and surplus or idle power available from federal projects. E. R. Abrams. Pub Util 36:829-34 D 20 '45

Africa, British East
Kenya and Uganda railway; electrification possibilities. G. H. Lepper. Elec R (Lond) 137:785-6 N 30 '45

France
French railway electrification. Electrician 135:624 D 7 '45

Great Britain
Main-line electrification. Elec R (Lond) 138:445-7 Mr 22 '46
Railway electrification prospects. G. H. Lepper. Electrician 136:285-6 F 1 '46
Some aspects of railway electrification in Great Britain. R. Varley. Engineer 182:340-1 O 18 '46; Abstract. Electrician 137:999 O 11 '46

Netherlands
Netherlands expanding rail electrification. map Bsns W p97 Je 15 '46

South Africa
South African railways; electrification program. Electrician 136:464 F 22 '46

Switzerland
Electric traction hauled Swiss war traffic. Ry Age 119:873 N 24 '45
Electrification of the Brünig railway. il Engineering 160:514-16, 518 D 21 '45

Employees
College trained men, now or never; railways must act immediately to secure technically trained graduates. il Ry Age 120:670-1 Mr 30 '46
Court affirms its decision in Elgin, Joliet & Eastern vs. Burley case. Ry Age 120:693+ Mr 30 '46
Economic facts pictured for employees; New York Central system. C. R. Dugan. il Ry Age 120:918-19 My 4 '46
Fact finders follow arbitration pattern; emergency board recommends wage increase; also rules changes. Ry Age 120:878-80 Ap 27 '46
How not to operate a railroad; control of Mexico's railways by labor unions. O. M. Stevens. Ry Age 120:672-4 Mr 30 '46; Same. Western Soc E J 51:82-9 Je '46
How Rio Grande supervisors are kept posted. Ry Age 121:683 O 26 '46
Ideas from employee suggestion systems in use on railroads. Ry Age 119:890-1 D 1 '45
Injunction against Chicago Junction asked; connection with movement of live-stock from Chicago stock yards. Ry Age 120:414 F 23 '46
Long Island dispute nears showdown. Ry Age 121:482-4 S 21 '46
Management view on labor relations. W. White. Ry Age 121:713-15 N 2 '46
New contract settles Long Island dispute. Ry Age 121:652+ O 19 '46
Odd rail dispute; N.Y. Central's contract with trainmen exposes it to fellow lines' wrath. Bsns W p31 F 23 '46
Peace has not solved labor problems. il map Ry Age 120:9-16 Ja 5 '46
Postwar decrease in railroad employment of women. Mo Labor R 63:90-1 Jl '46
Profits more likely if they're shared; trend of earnings and expenses seen dooming private ownership unless labor is given incentive. W. Wyer. Ry Age 120:873-5 Ap 27 '46
Railroad management faces a decision; defense or appeasement. H. Stover. Ry Age 120:1221-2 Je 22 '46
Railroad retirement board issues annual report on retirement benefits and unemployment insurance. Ry Age 121:144 Jl 27 '46
Supervisors are only subordinate officials; I.C.C. decision brings group under labor act. Ry Age 121:235+ Ag 10 '46
Wartime railroad employment. Mo Labor R 62:753-4 My '46
What railroad employees think about the railroad industry; results of survey. Ry Age 120:445-56, 617-28 Mr 2, 23 '46; Same abr. Ry Mech Eng 120:167-79 Ap '46
See also
Porters
Railroad strikes
Railroads—Pensions
Railroads—Wages

RAILROADS—Employees—*Continued*

Training

Canadian Pacific fits car for rules instruction. il Ry Age 121:145 Jl 27 '46
Illinois Central starts school for dining-car employees. il Ry Age 121:90-1 Jl 20 '46
Illinois Central's training plans; school for dining car personnel. il Am Bsns 16:34 My '46
Mexican government railroad opens technical training school and correspondence courses for its 55,000 employees. For Comm W 22:23 Mr 23 '46
Road foreman's part in educating enginemen and firemen; abstract. T. Olson. Ry Mech Eng 120:573 O '46
Southern trains its Diesel forces; second instruction car for operating and mechanical personnel goes in service. il plan Ry Age 119:848-52 N 24 '45
Training employees in tactful behavior. il Ry Age 119:805-9 N 17 '45
Training in the railroad industry; report of Locomotive maintenance officers' association. Ry Age 121:438-42 S 14 '46; Same. Ry Mech Eng 120:522-5 O '46
Training prospective officers. L. L. White. Ry Age 121:257-9 Ag 17 '46; Same. Ry Mech Eng 120:446-8 S '46

Equipment and supplies

C.& N.W. uses highway wreck truck. il Ry Mech Eng 120:82-3 F '46
Erie railroad modernizes ore handling facilities. il Steel 118:114-16+ My 13 '46
Flame cutting, flame hardening and welding on railroads. J. W. Kenefic. il Welding J 25:299-307 Ap '46
Forest products; A.A.R. P.&S. division report. Ry Age 121:293 Ag 17 '46
High and low of forest products; large-volume railway requirements. C. M. Burpee. il Ry Age 120:36-9 Ja 5 '46
Material handling facilities; A.A.R. P.&S. division report. il Ry Age 121:290-1 Ag 17 '46
Modern steels in railroad construction. H. M. Priest. Welding J 25:646-9 Jl '46
New and improved products of the manufacturers. il diags Ry Age 120:565-74 Mr 16 '46
Railroad rehabilitation program lags. E. F. Ross. il Steel 119:51-3 Jl 22 '46
Rails modernize; equipment orders. Bsns W p34+ D 1 '45
Research pays big dividends; Chesapeake & Ohio control over materials and supplies. il Ry Age 121:93-6 Jl 20 '46
Rock Island opens new laboratories; devoted to scientific controls for selecting and purchasing materials and supplies. il plan Ry Age 120:359-65 F 16 '46
Simplification and standardization; A.A.R. P.&S. division report. Ry Age 121:294-5 Ag 17 '46
Work equipment has biggest year. G. E. Boyd. il Ry Age 120:19-21 Ja 5 '46
Wrecking cranes have new features. il Ry Age 119:904 D 1 '45

See also

Air brakes
Ballast
Cars
Freight cars
Locomotives
Railroad supplies industry
Railroad ties
Railroads—Ice supply
Railroads—Maintenance and repair
Railroads—Purchasing
Railroads—Rolling stock
Railroads—Scrap material
Railroads—Shops—Equipment
Railroads—Signals
Railroads—Stores systems
Railroads—Water supply
Railroads—Wreck trains
Rails

Equipment trust certificates

Rail equipment loans at low rates. Barron's 25:1 D 17 '45
Representative equipment trust issues sold in 1945; tabulation. J. G. Lyne. Ry Age 120:83 Ja 5 '46
World bank should finance transportation equipment. E. H. Weinwurm. Comm & Fin Chr 163:3054+ Je 6 '46

Fares

Dismisses complaint against Hell Gate route charge. Ry Age 120:940+ My 4 '46

Finance

Adequacy of capital funds; abstract. J. G. Lyne. Ry Age 120:1256-7 Je 29 '46
Better last half, I.C.C. bureau says; suggests first six months return was under usual ratio. Ry Age 121:306 Ag 17 '46
Borderline railroads of 1930's improve their status. A. Jansen. Barron's 26:11+ Je 3 '46
Capital funds outlook continues bright. J. G. Lyne. Ry Age 120:3-5 Ja 5 '46
Cash reserves dwindle. G. E. Getty. Ry Age 121:132-3 Jl 27 '46
Class I railroads gross earnings off over half billion dollars in 1945; net 23.2% lower. Comm & Fin Chr 163:1007 F 21 '46
Conditions affecting railroad values. A. C. Knies. Comm & Fin Chr 163:1497+ Mr 21 '46
Debt refundings cut interest 25.73%; annual charges reduced between June, 1944, and Dec. 1945. Ry Age 120:207-8 Ja 19 '46
Defense plant write-offs cutting railroads' earnings; but big offsetting tax credits will give roads new low-cost equipment. F. B. Dezendorf. Barron's 25:14 D 10 '45
Finances on mend, but not yet robust. J. G. Lyne. Ry Age 120:82-7 Ja 5 '46
Finds rails' 1945 under pre-war 1941; report of Bureau of transport economics and statistics of the Interstate commerce commission. Ry Age 120:415-16 F 23 '46
Great Northern's average interest rate reduced to 3.4 per cent. il map Ry Age 120: 634-8 Mr 23 '46
Gross and net earnings of U.S. railroads for the calendar year 1945. Comm & Fin Chr 163:2424 My 2 '46
I.C.C. staff figures post-war rail income. Ry Age 121:146+ Jl 27 '46
IBA railroad committee notes further gains in carrier credit. Comm & Fin Chr 162: 2727+ D 6 '45
Investors share inaccurately reported; criticism of I.C.C. statistical practices. Ry Age 121:556-60 O 5 '46
Late 1945 declines in railroad revenues foreshadow further drop this year. Barron's 26:1 F 18 '46
Mexican railways set earnings record. il Ry Age 120:67-8 Ja 5 '46
Net at 1940 level seen for this year. Ry Age 121:100-2 Jl 20 '46
1945's net income was $453,000,000. Ry Age 120:371 F 16 '46
Operating revenues and operating expenses of class I steam railways for the month of December 1945 and 1944 and for twelve months ended with December, 1945 and 1944 by districts. Ry Age 120:604 Mr 16 '46 [cont monthly]
Outlook for railroad bonds. W. W. Reuss. Comm & Fin Chr 163:254+ Ja 17 '46
Profits more likely if they're shared; trend of earnings and expenses seen dooming private ownership unless labor is given incentive. W. Wyer. Ry Age 120:873-5 Ap 27 '46
Rail downtrend. Bsns W p62+ Mr 2 '46
Rail earnings follow traffic downward despite help of income tax savings. Barron's 26:1 Ap 8 '46
Rail earnings pattern for 1946 cloudy, but taking form. A. Jansen. Barron's 26:5+ F 11 '46
Railroad outlook. R. W. Babson. Comm & Fin Chr 163:2085 Ap 18 '46
Railroad pessimism warranted? A. M. Sakolski. Comm & Fin Chr 164:2335+ N 7 '46
Railroad securities again at the cross-roads? W. W. Reuss. Comm & Fin Chr 163:963+ F 21 '46
Railroads' earnings forecasts in rate plea may be excessively conservative. Barron's 26:1+ S 30 '46
Railroads need lots of new capital. J. W. Barriger, 3d. Ry Age 120:1142-3 Je 8 '46
Railroads no longer economic stepchildren. H. Bridgman. Barron's 25:3+ D 31 '45
Railroads: whither now? Bsns W p63-4+ D 22 '45

RAILROADS—Finance—*Continued*
Re-appraisal of rail securities. G. W. Mathis. il Mag of Wall St 78:267-9+ Je 8 '46
Re-evaluating the rails for peacetime potentials; with statistical highlights of leading rails. R. Carleson. Mag of Wall St 77:447-9+ Ja 19 '46
Revenue per employee much lower than '43; I.C.C. study of wages and earnings trends. Ry Age 120:651-2 Mr 23 '46
Revenues and expenses of railways, month of December and twelve months of calendar year 1945; tabulation. Ry Age 120:430-4 F 23 '46 [cont monthly]
Revenues, expenses, and income of class 1 railroads, seasonally adjusted and unadjusted, monthly Aug. 1944-Oct. 1945. Fed Res Bul 32:77 Ja '46 [cont monthly]
Selected income and balance-sheet items of class I steam railways; 1946; 1945. Ry Age 120:887 Ap 27 '46
Shaking out those railroad featherbeds; tremendous earnings slump unlikely to follow pay raises. H. S. Taylor. Barron's 26:11+ Ap 1 '46
Sound financial roadbed needed. G. Metzman. Ry Age 121:569-70 O 5 '46
Toward a national transportation policy. Ry Age 119:892-9 D 1 '45
Traffic and earnings prospects. J. E. Monroe. Ry Age 121:509-10 S 28 '46
Transport policy needs implementing; A.A.R. report to House committee. Ry Age 120:1268-72+ Je 29 '46
Wage increase's cost put at $725,000,000. Ry Age 120:1193-4 Je 15 '46

See also
Railroads—Fares
Railroads—Pooling
Railroads—Rates
Railroads—Receiverships
Railroads—Securities
Railroads—Taxation
also names of railroads, e.g.
Atlantic coast line railroad
Baltimore and Ohio railroad
Denver and Rio Grande western railroad
Missouri-Kansas-Texas railroad
Reading company
Southern Pacific railroad
Union Pacific railroad

Fires and fire protection

Association of American railroads; Fire protection and insurance section, 3d annual meeting, Chicago, Oct. 22-23. Ry Age 121:720-2 N 2 '46
Diesel engine fires. il Safety Eng 91:38-9 Je '46
Extinguishers-on-rails safe-guard streamliners against fires. il Sci Am 174:34 Ja '46
Fire engine on rails; fire equipment for Diesel electric locomotives. M. A. Laswell. Safety Eng 90:34 N '45
Fire hazards in Diesel shops. W. S. Wicker. Ry Age 119:856-7 N 24 '45
Fires in Diesel-electric locomotives. W. S. Wicker. Ry Age 120:1107-8 Je 1 '46; Same. Ry Mech Eng 120:299-300 Je '46
Off-the-line fire protection; Diesel-electric locomotive shops. il Diesel Power 24:192-3+ F '46
Railroad fires and how to prevent them. H. I. Benjamin. il Ry Age 120:319-21 F 9 '46

Flood damage

See Railroads—Damage from floods, storms, etc.

Food service

Illinois Central starts school for dining car employees. Ry Age 121:90-1 Jl 20 '46
Illinois Central's training plans; school for dining car personnel. il Am Bsns 16:34 My '46

Freight

Another step towards uniform freight classification. F. L. Barton. J Land & Pub Util Econ 22:22-34 F '46
Co-ordination of road and rail freight transport. Engineer 182:87 Jl 26 '46
Fast freights on the Boston & Maine. il Diesel Power 24:449-52+ Ap '46
Faster freight. il Bsns W p28 Ap 27 '46
Freight carloadings, by classes. Published in monthly numbers of Federal reserve bulletin
Freight operating statistics of large steam railways, selected items for the month of December 1945 compared with December 1944. Ry Age 120:594-5 Mr 16 '46 [cont monthly]
Freight progress annual. il Ry Age 120:985-1026 My 18 '46
From war to peace in freight traffic. C. Layng. il Ry Age 120:43-6 Ja 5 '46
Loss and damage prevention; A.A.R. P.&S. division report. Ry Age 121:287 Ag 17 '46
Miners' strike truce lifts freight embargo. Ry Age 120:1028 My 18 '46
Modern power saves train-miles; use of modern Diesel and steam locomotives on Cotton Belt railroad. il map Ry Age 119:936-40 D 8 '45
Over the mountain with Diesel-electrics; Northern Pacific. il Ry Age 120:913-15 My 4 '46
Reconversion rapid on the T. & P. il Ry Age 120:962-4 My 11 '46

See also
Demurrage
Freight car service
Freight cars
Freight handling
Railroads—Motor vehicle auxiliaries
Railroads—Rates
Railroads—Terminals
Refrigerator cars
Tank cars
Waybills

Freight cars

See Freight cars

Freight solicitors

Selecting solicitors scientifically. H. Dawes. Ry Age 120:1181-2 Je 15 '46

Fuel

Report on fuel; A.A.R. P.&S. division. Ry Age 121:295 Ag 17 '46

See also
Locomotives—Fuel
Locomotives, Diesel—Fueling

Guideways system

Installation of a guideways transport system in India; single line of rail guides vehicles running on concrete path. Engineer 182:355 O 18 '46

History

1846 in British railway history. Engineering 161:566 Je 14 '46
Lehigh Valley rounds out a century. il map Ry Age 120:818-20 Ap 20 '46
Northern Pacific; first railroad to follow trail of Lewis and Clark. L. A. Luther. il Comp Air Mag 51:118-22 My '46
Pennsylvania is 100 years old. il map Ry Age 120:756-64 Ap 13 '46

Ice supply

Icing plant speeds perishable traffic; new facility on Missouri Pacific. il plan diags Ry Age 120:870-2 Ap 27 '46

Inspection

See also
Car inspection
Locomotives—Inspection

Laboratories

Color dynamics enters railroad field; being tried out in laboratories of Chesapeake & Ohio. il plans Ry Age 120:138-41+ Ja 12 '46
Railroad laboratory employs interior colors as safety devices; Rock Island's Chicago laboratory. il Arch Forum 85:101 O '46
Rock Island opens new laboratories; devoted to scientific controls for selecting and purchasing materials and supplies. il plan Ry Age 120:359-65 F 16 '46

See also
Cars, Laboratory

Law

See Railroad law

Lighting

Shop and office lighting. il Ry Mech Eng 120:364-7 Jl '46
Switchyard lighting speeds rail traffic; Denver and Rio Grande railroad. L. Ragle. il Elec World 124:127 D 8 '45

See also
Car lighting

RAILROADS—*Continued*

Loading rules

Report of Committee on loading rules; Car department officers' association. il Ry Mech Eng 120:545-6 O '46

Report on the loading rules; A.A.R. Mechanical division. Ry Age 121:269-70 Ag 17 '46; Same. Ry Mech Eng 120:464-5 S '46

Location

Frisco line changes improve operation; relocation projects in Missouri. il Ry Age 121: 281-8 Ag 17 '46

Railroad tunnels daylighted by company forces; Southern Pacific tunnels eliminated by excavation or by line relocation. E. E. Mayo. il Civil Eng 16:9-12 Ja '46

Maintenance and repair

Application of welding on the railroads. L. E. Grant. Welding J 25:644-5 Jl '46

Electrical service on wheels; mobile equipment for maintenance and construction developed by Chesapeake & Ohio. Ry Mech Eng 120:316-17+ Je '46

High level of activity forecast for construction and maintenance forces in 1946. il Ry Age 120:500-3+ Mr 9 '46

Outlay for upkeep goes still higher. M. H. Dick. il Ry Age 120:22-7 Ja 5 '46

Practical repair methods for disintegrated concrete tunnel lining. W. W. Morrison and E. E. Seelye. il diags Eng N 136:998-1001 Je 27 '46

Repairs Kingwood bore by novel methods. il diag Ry Age 120:1258-61 Je 29 '46

Work equipment has biggest year. G. E. Boyd. il Ry Age 120:19-21 Ja 5 '46

See also

Cars—Repair
Freight cars—Repair
Locomotives—Repair
Railroads—Shops
Railroads—Track

Management

American association of railroad superintendents; reports of committees. il Ry Age 121: 44-7 Jl 13 '46

Customers' needs being intently studied by A.A.R. research group probes prospects for all important items of traffic, and how railroads can win such business. F. J. Wall. Ry Age 120:994-6 My 18 '46

Let's not coast on our reputations. E. F. Lacey. Ry Age 120:989-90 My 18 '46

L.M.S. railway, 1923-1946. Engineer 181:220-1 Mr 8 '46

Looking ahead in railroading; with particular reference to the Illinois Central system. C. H. Mottier. il Western Soc E J 50:111-22 S '45

Must keep plant in step with progress. il Ry Age 120:1015-19 My 18 '46

Railroads' future and the engineer. C. H. Mottier. il Ry Age 119:1017-19 D 22 '45

Reconversion rapid on the T. & P. il Ry Age 120:962-4 My 11 '46

Richmond, Fredericksburg & Potomac keeps trains moving. il map Ry Age 120:273-6 F 2 '46

Supervisor's role in good railroading. L. W. Horning. Ry Age 120:322-4 F 9 '46

See also

Car inspection
Freight car service
Railroads—Employees
Railroads—Finance
Railroads—Maintenance and repair
Railroads—Public relations
Railroads—Purchasing
Railroads—Trains

Mechanical departments

See also Association of American railroads—Mechanical division

Mileage

See also

Railroads—Abandonment

Military use

And still they come; passenger traffic volume showed little signs of diminishing in 1945. C. Layng. il Ry Age 120:40-2 Ja 5 '46

Army freight charges found to be excessive. Ry Age 120:333+ F 9 '46

Canadian lines help on troop movements; abstract. J. M. Mead. Ry Age 120:121+ Ja 5 '46

Canadian National port one of war's secret cities; Prince Rupert, British Columbia, sub-port of embarkation. il Ry Age 120: 823-4 Ap 20 '46

E.T.O. army transportation. E. C. Ringberg. il Ry Mech Eng 120:245-8+ My '46

Navy's top honors for railroad land fleet; forty roads get certificates of achievement. Ry Age 121:692-3 O 26 '46

ODT orders fast troop train speeds. Ry Age 119:1032-3 D 22 '45

Railroads still have war job to finish; providing transportation for service men. il Ry Age 119:789-94 N 17 '45

Models

Doubled volume, lowered cost, by work simplification; Lionel toy trains. C. V. Gaimo. il Factory Management 104:146-9 Ag '46

High fidelity in model trains. M. Frisbie. il Mod Plastics 23:133-5 Ag '46

Railroading in miniature. J. L. Bonnano and J. E. Currier. il Mod Plastics 23:102-5 F '46

Show room of toy train wholesaler serves public and buyers alike; Lionel trains. il plan Arch Forum 85:142 O '46

Motor vehicle auxiliaries

Limits on rail trucks don't extend to buses. Ry Age 121:24 Jl 6 '46

Repair workshops; maintenance of road vehicles by the L.M.S. railway co. il plan Automobile Eng 36:87-9 F '46; Engineer 181: 102-4 F 1 '46; Mech Handling 33:107-9 F '46; Engineering 161:296 Mr 29 '46

Restates limits on rail-owned trucking; Interstate commerce commission report. Ry Age 120:650+ Mr 23 '46

Would leave Seaboard in trucking business; examiners uphold previous I.C.C. approval. Ry Age 121:653 O 19 '46

Would limit trucking to substitute service; proceedings involving certificates held by Texas & Pacific motor transport company, subsidiary of Texas & Pacific. Ry Age 121: 70-1 Jl 13 '46

Motor vehicle competition

Consolidating cases held sound practice; Supreme court approves I.C.C. procedure. Ry Age 120:583+ Mr 16 '46

Negro passengers

Three Negro women complain against segregation. Ry Age 121:494 S 21 '46

Office management

Efficiency and manners analyzed in novel telephone program by New York Central. Ry Age 121:410-11 S 7 '46

Passenger service

Aboard for coast; transcontinental Pullmans. Bsns W p20 Mr 23 '46

After all these years coast-to-coast no-change Pullmans. Am Bsns 16:24+ Ap '46

Can passenger traffic be held? Ry Age 120: 681 Mr 30 '46

Coast to coast; through Pullman service. Bsns W p34+ Mr 9 '46

Faster trains; better-than-prewar service. Bsns W p19-20 Ap 6 '46

Through trains? Bsns W p42+ Jl 20 '46

Trains speeded; cut running times and add trains. Bsns W p46 O 19 '46

What's behind C.& O.-Nickel Plate scheme for through sleeping car service from coast to coast? E. Whitmore. Am Bsns 16:10-11+; Reply. R. R. Young. 12+ Ja '46

Where do we go from here? accommodations for the post-war traveler. il Ry Age 119: 781-8 N 17 '45

Passenger traffic

And still they come; passenger traffic volume showed little signs of diminishing in 1945. C. Layng. il Ry Age 120:40-2 Ja 5 '46

See also American association of passenger traffic officers

Pensions

Committee trims the Crosser security bill. Ry Age 120:1027+ My 18 '46

RAILROADS—Pensions—*Continued*
Crosser security bill signed by president. Ry Age 121:194+ Ag 3 '46
High cost and favoritism in Crosser bill. East Underw 47:3 Jl 19 '46
One social benefit plan for all urged; separate railroad system makes for complications, says House staff study. Ry Age 120: 333+ F 9 '46
Original Crosser bill passed by the House. Ry Age 121:65+ Jl 13 '46
Pennsylvania posts employees on the Crosser law. Ry Age 121:572 O 5 '46
Pensions for higher-salaried employees; N.Y. Central introduces contributory plan. Ry Age 121:770 N 9 '46
Put up stout fight against new Crosser R.R. retirement bill. Nat Underw 50:22+ Jl 18; 15+ Jl 25 '46; Same. Nat Underw (Life ed) 50:2 Jl 19; 4-5 Jl 26 '46
Railroad A. & H. line hard hit by federal law; passage of Crosser bill expected to eliminate 80% of that coverage. Nat Underw 50:15 Ag 1 '46; Same. Nat Underw (Life ed) 50:4 Ag 2 '46
Report on actuarial cost estimates related to proposed amendments to Railroad retirement and unemployment insurance act. R. J. Myers. Ry Age 120:691+ Mr 30 '46
Study how to supplement Crosser bill benefits; insurers of R.R. employes see some salvage possibilities. Nat Underw 50:17+ Ag 8 '46; Same. Nat Underw (Life ed) 50:3+ Ag 9 '46

Pipe line competition

Parmelee and Duncan heard in gas inquiry. Ry Age 121:65-6 Jl 13 '46

Police

Association of American railroads, Protective section, 26th annual meeting, Asheville, Oct. 7-9. Ry Age 121:651 O 19 '46

Pooling

R.C.C. to repay last of ex parte 103 fund; money pooled in 1931 for aid to needy roads. Ry Age 121:769 N 9 '46

Power

From d.c. to a.c. with profit; Lackawanna changes power supply in Buffalo terminal. il Ry Mech Eng 120:487-9 S '46
Stationary Diesel power plant for the Chicago, Rock Island & Pacific shops. il Ry Mech Eng 119:610-12 D '45

See also
Locomotive shops—Power
Locomotives

Power trains

Mobile navy power plant goes on line as drought cuts Arizona hydro output. il Elec World News ed 126:9 Ag 10 '46
Power train is sealed for export shipment. G. L. Moses. Elec World 124:123 D 8 '45

Public relations

Diagnosis of railroad's public relations task. R. S. Henry. Ry Age 120:142-5 Ja 12 '46; Discussion (Railroad press relations). D. Welch. 120:242-3 Ja 26 '46
Public must help get good R.R. service. P. J. Neff. Ry Age 121:522, 527 S 28 '46
Public thinks railroads can do better; survey made by Opinion research corporation. Ry Age 121:342-4 Ag 24 '46
Railroad management faces a decision, defense or appeasement. H. Stover. Ry Age 120:1221-2 Je 22 '46
Sees railroad success in treating folks right. W. A. Johnston. Ry Age 120:203-4 Ja 19 '46
Sells its territory to sell itself; New Haven's advertising and public relations program emphasizes New England. E. J. Dever, jr. il Ptr Ink 214:63-4+ F 15 '46
Supervisor's role in good railroading. L. W. Horning. Ry Age 120:322-4 F 9 '46
Telling the public the facts; abstract. R. S. Henry. Ry Age 120:1257 Je 29 '46
Training employees in tactful behavior. il Ry Age 119:805-9 N 17 '45

Purchasing

Equipment buying sets the pace. C. M. Burpee. il Ry Age 120:54-7 Ja 5 '46
First half purchases top $732 millions. Ry Age 121:476-8 S 21 '46
March purchases $130,714,000; three months expenditures. Ry Age 120:1219-20+ Je 22 '46
Material buying tops billion; figures for August and first eight months of 1945. Ry Age 119:853 N 24 '45
1945 expenditures near peak. Ry Age 120: 808-10+ Ap 20 '46
Post-war buying off to good start. C. M. Burpee. Ry Age 120:79-81 Ja 5 '46
Procurement problems multiply. Ry Age 120: 1012-14 My 18 '46
Purchases well above pre-war levels; first four months of 1946. Ry Age 121:164-6 Ag 3 '46
Railway buying continues at fast pace. il Ry Age 121:642-3 O 19 '46

See also Association of American railroads—Purchases and stores division

Radio communication

Baltimore & Ohio radio installation; New Castle yard. il diag Ry Mech Eng 120: 213-15+ Ap '46; Same cond. Ry Age 120: 356-8 F 16 '46
Burlington shows two-way yard radio. Ry Age 121:523 S 28 '46
Carryphone in service on Pennsylvania; portable inductive telephone. W. R. Triem. il Ry Age 121:764-6 N 9 '46
Communications test employs film recorder. il Ry Mech Eng 120:41 Ja '46
Detroit, Toledo & Ironton tests radio in Detroit. il map Ry Age 120:916-17 My 4 '46
Editors listen in; demonstration of radio communication and signal system. il Diesel Power 24:712-14 Je '46
Engines with ears; FM radio offers simpler execution of train orders. il Nat Safety N 52:40 N '45
Facsimile to moving train via vhf. il diags Electronics 19:168+ Jl '46
Facsimiles by radio transmission from wayside stations to moving trains; demonstration by Baltimore & Ohio. il Ry Age 120: 1275-6 Je 29 '46
Farnsworth demonstrates railroad radio. W. B. Tyrrell. il Diesel Power 24:592-5+ My '46
First train radio warning tested on Atlanta-Birmingham stretch of Seaboard air line; Bendix Slowtone. il Manuf Rec 115:47+ Ap '46
Modern railroad communication. H. H. Hasselbacker. Comm & Fin Chr 162:3016+ D 20 '45
Modern signaling and communication to speed shippers' freight. il Ry Age 120:1022-3 My 18 '46
Motor alternator for train communication. il Ry Age 120:677 Mr 30 '46
Northern Pacific tests radio on freight trains. il Ry Mech Eng 120:484-6+ S '46; Same. Ry Age 121:479-81 S 21 '46
Power supply for communication equipment. J. J. Kennedy. il diag Ry Mech Eng 120: 149-50 Mr '46
Radio in railroad tunnels. Ry Age 121:373 Ag 31 '46; Same. Ry Mech Eng 120:518 O '46
Radio laboratory on the rails. il Diesel Power 24:135-6 F '46
Railroad communication systems. il Diesel Power 24:212-13 F '46
Railroad radio; from FCC to ICC. J. Courtney. il Electronics 19:92-4 Je '46
Railroad telegraph and telephone saw big change in 1945. J. H. Dunn. il Ry Age 120:114-18 Ja 5 '46
Railway communications. H. C. Towers. Electrician 136:1587-8 Je 14 '46
Railway communications on 2660 mc; Chicago, Rock Island railroad. il Electronics 18:256+ D '45
Recorder for train communication. il Ry Age 119:1050 D 29 '45
Rolling through Michigan; Pere Marquettes attract much attention. il Ry Age 121:401-2 S 7 '46
Rules for train telephone service; F.C.C. proposes rules and regulations for governing use of radio. Ry Age 119:863-5 N 24 '45
Seaboard tests train radio warning signal. il Ry Mech Eng 120:278 My '46; Same. Ry Age 120:1141 Je 8 '46

RAILROADS—Radio communication—*Cont.*
Train communication finding its place. L. J. Prendergast. map Ry Age 120:457-8+ Mr 2 '46; Same. il Ry Mech Eng 120:142-5+ Mr '46
Train communication squared away in 1945. J. H. Dunn. il Ry Age 120:62-6 Ja 5 '46
Train radio control; F.C.C. concedes regulation to I.C.C., but reserves licensing powers. Ry Age 120:295 F 2 '46
2,660-mc train communication system; Rock Island railroad. E. A. Dahl. il Electronics 19:118-22 Ja '46
Vhf antenna for trains. E. G. Hills. diags Electronics 19:134-6 N '46
Very high frequency space radio for train communication. P. B. Tanner. Comm & Fin Chr 162:3142+ D 27 '45
Waycar fourteen fifty-two calling Diesel thirty-two. il Diesel Power 24:204-6 F '46
Yard radio on the U.P. il Ry Age 121:773 N 9 '46
Yard radio tests on the Reading. il map Ry Age 120:509-11 Mr 9 '46

Rates

Agreed charges prove popular in Britain. G. L. Wilson. Ry Age 121:9-13 Jl 6 '46
Another step towards uniform freight classification. F. L. Barton. J Land & Pub Util Econ 22:22-34 F '46
Argument concluded in rate advance case. Ry Age 121:576-8 O 5 '46
Argument under way in ex parte no. 162. Ry Age 121:530-2 S 28 '46
Arguments against the Bulwinkle bill. H. A. Wallace. Comm & Fin Chr 163:2083+ Ap 18 '46
Army freight charges found to be excessive. Ry Age 120:333+ F 9 '46
Canadian roads ask 30% rate increase. Ry Age 121:652+ O 19 '46
Class rate litigation delays ex parte 162. Ry Age 120:1151 Je 8 '46
Contract rates on government traffic; resemble agreed rates applicable to commercial traffic in Britain and Canada; British practice. G. L. Wilson. Ry Age 121:729-31 N 2 '46
Decision expected on rate increases; I.C.C. concludes hearings on petition for relief. Ry Age 120:1028-30 My 18 '46
Defense states its case in Georgia suit. Ry Age 120:1188-9 Je 15 '46
Deficits feared by railroad executives; hearings in railways' request for increase in freight rates. Ry Age 121:140-1 Jl 27 '46
Delay ex parte 162 hearing and argument. Ry Age 121:346-8 Ag 24 '46
Favors barge line differential rates. Ry Age 120:650+ Mr 23 '46
Fear huge deficits without rate increase. Ry Age 121:489-91 S 21 '46
I.C.C. gets railroad rate rise petition. Ry Age 120:827-8 Ap 20 '46
I.C.C. interprets car spotting tariff. Ry Age 121:235+ Ag 10 '46
I.C.C. languor on rates. R. R. Young. Ry Age 121:511-12 S 28 '46
ICC rules railroads; hold freight rates over water traffic. Iron Age 156:76 D 27 '45
I.C.C. upheld on class rate changes. Ry Age 120:1027 My 18 '46
ICC's failure to raise rates an important cause of market decline. E. M. Friedman. Comm & Fin Chr 164:1530+ S 26 '46
Land grant rate elimination to affect competitive setup. L. W. Moffett. map Iron Age 157:108-10 Ja 17 '46
Land-grant rates, affording lower tariff on U.S. shipments, abolished. Steel 118:114-15 My 6 '46
Many briefs filed in ex parte no. 162. Ry Age 121:732-3 N 2 '46
N.I.T. league wants hearing on rate plea. Ry Age 120:878 Ap 27 '46
Need of higher rail rates. Comm & Fin Chr 164:2346 N 7 '46
One-year increase in express rates. Ry Age 121:738-9 N 2 '46
Pennsylvania railroad asks relief from mounting costs. Comm & Fin Chr 164:1848 O 10 '46
Political juggling of rates; Southern campaign; abstract. G. E. Mace. Ry Age 120:122-3 Ja 5 '46
Present position of stabilization program; urges delay in granting railroad rate increases. C. Bowles. Comm & Fin Chr 163:2652+ My 16 '46
Present rates mean less employment; hearings before panel of Interstate commerce commission. Ry Age 121:187-91 Ag 3 '46
Railroads disappointed in interim freight rate increase averaging 6 1/2%. Steel 119:71 Jl 1 '46
Railroads' earnings forecasts in rate plea may be excessively conservative. Barron's 26:1+ S 30 '46
Rails disappointed. Bsns W p81-2+ Jl 6 '46
Rate increase case opens before I.C.C. Ry Age 120:971-5 My 11 '46
Rates on iron ore called excessive. Ry Age 121:187, 234+ Ag 3-10 '46
Seek injunction in class rate order; petition filed in nine eastern states. Ry Age 119:944-5 D 8 '45
Senate interstate commerce committee hearings on Bulwinkle bill. Ry Age 120:654, 691+, 739-41, 783-5, 835-6, 885+, 927+, 971+ Mr 23-My 11 '46
Senator Taylor's blasts refuted by railroads; carriers declare they did not overcharge on wartime freight. Ry Age 121:236-8 Ag 10 '46
Sets hearing on plea for quick rate relief. Ry Age 120:927-9 My 4 '46
6.5 per cent rate increase authorized. Ry Age 120:1262-4+ Je 29 '46
Traffic and earnings prospects. J. E. Monroe. Ry Age 121:509-10 S 28 '46
Water-competitive rate probe denied. Ry Age 120:1230+ Je 22 '46
What advance in rates do railways need? Ry Age 121:749-50 N 9 '46
What the railways are facing today; income necessary for adequate service. S. O. Dunn. Ry Age 120:814-16 Ap 20 '46

Automobiles

Auto freight cut. Bsns W p31 D 1 '45

Citrus fruit

Water lines control Florida citrus rates. Ry Age 121:488 S 21 '46

Gasoline

Fight for lower railroad rates for gasoline is renewed. map Nat Pet N 37:5 N 21 '45

Grain

Water vs. rail; differential rate on grain settled. Bsns W p42+ D 8 '45

Live stock

Track agreements can't ban particular type of traffic; decision on Swift & company's complaint against the refusal of railroads to deliver shipments of livestock direct to packing plant. Ry Age 120:1196 Je 15 '46

Phosphate rock

Rules fertilizer is not military freight. Ry Age 119:1032 D 22 '45

Steel

Permissible freight charges on warehouse steel shipments clarified. Iron Age 158:104a Ag 8 '46
Steel product freight rate structure submitted to ICC. Iron Age 157:104-5 Ap 25 '46

Receiverships

Banker control and other criticisms; testimony before Senate committee on voluntary reorganization bill. R. R. Young. Ry Age 120:507-8+ Mr 9 '46
Banking control of railroads; violations of the law; abstract. R. R. Young. Ry Age 121:178-9 Ag 3 '46
Chicago Sun attacks Rock Island trustee. Ry Age 120:156-7 Ja 12 '46
Committee would bail out equities; approves Reed bill. Ry Age 120:739+ Ap 6 '46
Defects of Wheeler bill. D. M. Liddell, jr. Comm & Fin Chr 163:2913+ My 30 '46
Equity-saving bill approved by Senate. Ry Age 120:1231+ Je 22 '46
Finances on mend, but not yet robust. J. G. Lyne. Ry Age 120:84-5 Ja 5 '46

RAILROADS—Receiverships—*Continued*
Jolt for the rails; Reed proposal to return roads to old stockholders. Bsns W p52+ D 1 '45
Last gasp move in reorganization rails to preserve stockholders' equity; Reed resolution. Barron's 25:1 N 26 '45
Opened book; 40 years of receivership get a judicial airing. map Bsns W p79 N 17 '45
Potentials in receivership rails. R. Carleson. Mag of Wall St 78:151-2 My 11 '46
President Truman and railroad reorganization; Wheeler-Reed bill. E. M. Friedman. Comm & Fin Chr 164:1134+ Ag 29 '46
Railroad credit requires fair deal to stock; convertible bonds suggested as device to scale down debt. E. M. Friedman. Ry Age 119:980-3 D 15 '45
Railroad reorganization; new government policy. E. M. Friedman. Comm & Fin Chr 163:1637+ Mr 28 '46
Railroad revamp bill passed by Congress; final version blend of Wheeler, Reed, and Hobbs proposals. Ry Age 121:196+ Ag 3 '46
Railroad securities; Reed bill would affect reorganizations. Comm & Fin Chr 162:2584 N 29 '45
Reed bill; hope vs. arithmetic. H. S. Taylor. Barron's 26:12-13 Jl 29 '46
Revamp plans should reflect present trend; Senate committee asking authority to probe rail reorganizations. Ry Age 120:376-8 F 16 '46
Revision possible in Denver reorganization plan. A. Jansen. Barron's 26:11+ Ja 14 '46
Seaboard revamp plan gets I.C.C. clearance. Ry Age 121:24-6 Jl 6 '46
Susquehanna reorganization in closing stages. A. Jansen. Barron's 25:9+ N 19 '45
Truman kills Wheeler-Reed railroad reorganization bill. Comm & Fin Chr 164:895 Ag 15 '46; Same abr. Ry Age 121:305+ Ag 17 '46
War prosperity can't alter revamp plans; court bars relief for junior creditors. Ry Age 120:1193+ Je 15 '46
Wheeler bill on future railroad reorganizations. E. M. Friedman. Comm & Fin Chr 162:2705+ D 6 '45
Wheeler is caustic on revamp process; hearing on bill to implement voluntary adjustment of railroad financial structures. Ry Age 120:475+ Mr 2 '46

Records
Material stock inventory-pricing; A.A.R. P.&S. division report. Ry Age 121:301 Ag 17 '46
Micro-filming speeds waybill handling; Rock Island's installation of photographic equipment. il Ry Age 120:867-9 Ap 27 '46
Novel system mechanizes all car records; hook-up of teletype and card-punch machines on New Haven. J. L. Barngrove, jr. il Ry Age 120:394-8 F 23 '46

Relocation
See Railroads—Location

Reorganization
See Railroads—Receiverships

Reports
Making friends with the annual report. J. Silbermann. il Ry Age 119:1020-3 D 22 '45

Roadmasters
See also Roadmasters' and maintenance of way association

Rolling stock
Engineering outlook; locomotives and rolling stock. Engineering 161:220-2 Mr 8 '46
Equipment failures too high. W. J. Patterson. Ry Age 121:259-60 Ag 17 '46; Same. Ry Mech Eng 120:448-9 S '46
Equipment situation; not so good! Ry Age 121:174-5 Ag 3 '46
German equipment exhibited by army. Ry Age 120:576+ Mr 16 '46
Magnafluxing the railroads; overhaul of rolling stock. Diesel Power 24:238 F '46
Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. Iron Age 157:111-13 Ja 3 '46
See also
Cars
Dining cars
Freight cars
Locomotives
Motor cars (railroad)
Refrigerator cars
Sleeping cars
Tank cars

Roundhouses
See Roundhouses

Safety measures
Canadian Pacific fits car for rules instruction. il Ry Age 121:145 Jl 27 '46
Freight-car doors; hazards in opening and closing doors. il diag Nat Safety N 53:52+ Ja '46
National safety council, Steam railroad section, meeting, Chicago, Oct. 8-10. Ry Age 121:644-5 O 19 '46
New York Central develops hot-box alarm. il Ry Age 120:504-6 Mr 9 '46; Same. diags Ry Mech Eng 120:186-8+ Ap '46
Safer railways. Economist 149:855-6 D 15 '45
Safety and fire prevention; A.A.R. P.&S. division report. Ry Age 121:288 Ag 17 '46
Safety appliances. G. P. Lindahl. Ry Mech Eng 120:313-14 Je '46
Safety in the yards. B. Andrews. il Nat Safety N 54:18-19+ Jl '46
See also
Harriman memorial medals for safety
Railroads—Fires and fire protection
Railroads—Signals
also Interstate commerce commission—Bureau of safety

Schedules
California service sped by six lines. Ry Age 120:1069-70 My 25 '46
Faster coast-to-coast service. Ry Age 120:1147 Je 8 '46
M-K-T, Frisco speed southwestern trains. Ry Age 120:966+ My 11 '46
Missouri Pacific speeds its passenger trains. Ry Age 120:1149 Je 8 '46
Southeastern lines speed passenger trains. Ry Age 121:21 Jl 6 '46
Western lines to speed passenger trains. Ry Age 120:718-21 Ap 6 '46

Scrap material
Big market for used rail. il Ry Age 121:403-5 S 7 '46
General reclamation; A.A.R. P.&S. division report. il Ry Age 121:296-8 Ag 17 '46
Scrap handling at Aurora shops. il Ry Mech Eng 120:211-12 Ap '46

Securities
Considerations in selection of railroad investments. R. K. Paynter, jr. Comm & Fin Chr 163:2913+ My 30 '46
Finances on mend, but not yet robust. J. G. Lyne. Ry Age 120:82-7 Ja 5 '46
How do rail stocks look now? G. W. Mathis. Mag of Wall St 78:747-9 S 28 '46
ICC's failure to raise rates an important cause of market decline. E. M. Friedman. Comm & Fin Chr 164:1530+ S 26 '46
New Jersey amends savings banks' railroad bond purchase law. T. P. Reitinger. Comm & Fin Chr 163:2092+ Ap 18 '46
Outlook for railroad bonds. W. W. Reuss. Comm & Fin Chr 163:254+ Ja 17 '46
Outlook for railroad equities in second half year. H. F. Messner. Comm & Fin Chr 164:614+ Ag 1 '46
Pleads for railroad investor. R. R. Young. Comm & Fin Chr 164:1548 S 26 '46
Potentials in receivership rails. R. Carleson. Mag of Wall St 78:151-2 My 11 '46
Rail stocks' market swings and their duration over the last 50 years. J. H. Stallings. Barron's 26:15 My 13 '46
Railroad credit requires fair deal to stock; convertible bonds suggested as device to scale down debt. E. M. Friedman. Ry Age 119:980-3 D 15 '45
Railroad earnings and rail securities. C. Shipman. Comm & Fin Chr 163:255+ Ja 17 '46
Railroad securities again at the cross-roads? W. W. Reuss. Comm & Fin Chr 163:963+ F 21 '46

RAILROADS—Securities—*Continued*
Rails cut debt; use tenders to retire non-callable bond issues. Bsns W p73 F 2 '46
Rails numbered among postwar casualties. Bsns W p66 Ag 10 '46
Re-appraisal of rail securities. G. W. Mathis. il Mag of Wall St 78:267-9+ Je 8 '46
Re-evaluating the rails for peacetime potentials; with statistical highlights of leading rails. R. Carleson. Mag of Wall St 77:447-9+ Ja 19 '46
Rock bottom? low yield record set in Union Pacific bond issue. Bsns W p78-9 Mr 23 '46
Vicissitudes of railroad credit; elastic yardsticks replacing legal straitjacket. G. Garbutt. Trusts & Estates 83.243-6 S '46
See also
Railroads—Equipment trust certificates

Service

Customers' needs being intently studied by A.A.R. research group probes prospects for all important items of traffic, and how railroads can win such business. F. J. Wall. Ry Age 120:994-6 My 18 '46
Let's not coast on our reputations. E. F. Lacey. Ry Age 120:989-90 My 18 '46
See also
Freight car service
Railroads—Passenger service

Ship auxiliaries

See Steamboat lines—Railroad operation

Shops

Baltimore & Ohio Glenwood wheel shop. il layout plans Ry Mech Eng 120:389-93+ Ag '46
Baltimore & Ohio streamlines its shops; with col. pl. Ry Mech Eng 120:136 Mr '46
C & O. replaces boiler plant at Huntington, W.Va., without operations stops. il Manuf Rec 115:42-3+ S '46
Modern shop puts skill and efficiency in work equipment repairs; Northern Pacific shop at Livingston, Mont. il plan diag Ry Age 120:612-16 Mr 23 '46
Repair workshops; maintenance of road vehicles by the L.M.S. railway co. il plan Automobile Eng 36:87-9 F '46; Engineer 181: 102-4 F 1 '46; Mech Handling 33:107-9 F '46; Engineering 161:296 Mr 29 '46
Shop shots from the Erie system; illustrations with text. Am Mach 90:98-9 Jl 4 '46
Wheel shop centralization; report of Car department officers' association. layout plan diag Ry Mech Eng 120:542-4 O '46
Wheel shop practices. F. J. Holsinger. il plan Ry Mech Eng 120:204-9 Ap '46
See also
Car shops
Locomotive shops

Equipment

B. & O. machinery replacement program. il Ry Mech Eng 120:180-3 Ap '46
Markham wheel shop on the Illinois Central. F. J. Holsinger. Ry Mech Eng 119:601-2 D '45
Weigh bar for armature banding; Union Pacific's shops. il Ry Mech Eng 119:612 D '45

Lighting

Shop and office lighting. il Ry Mech Eng 120: 364-7 Jl '46

Signals

Association of American railroads, Signal section, 48th annual meeting, Swampscott, Oct. 14-16. Ry Age 121:680-3 O 26 '46
Automatic block with spring switches. il map Ry Age 121:134-6 Jl 27 '46
Big signal program on Canadian Pacific. il map diags Ry Age 120:863-6+ Ap 27 '46
Burlington tests show signals adequate at scene of Naperville, Ill. accident. il map Ry Age 120:959-60 My 11 '46
Cab signals praised; investigation of Pennsylvania accident. Ry Age 121:492 S 21 '46
C.T.C. on a 131-mile subdivision; Burlington route between Chicago and Denver. W. F. Zane. il diags Ry Age 121:443-5 S 14 '46
C.T.C. saves train time on the C. & O. il Ry Age 121:340-1 Ag 24 '46
Compulsory blocking suggested by I.C.C.; serves show cause order on Seaboard air line. Ry Age 120:334-5 F 9 '46
Cotton Belt installs 121 miles of centralized traffic control. il map Ry Age 120.232-4 Ja 26 '46
Editors listen in; demonstration of radio communication and signal system. il Diesel Power 24:712-14 Je '46
Emergency stop warning light at head and rear ends of trains. il diags Ry Age 119: 1024-5 D 22 '45; Same. Ry Mech Eng 120: 97-8 F '46
First train radio warning tested on Atlanta-Birmingham stretch of Seaboard air line; Bendix Slowtone. il Manuf Rec 115:47+ Ap '46
Five interlockings at Norfolk. il map Ry Age 120:1176-7 Je 15 '46
Joint operation aided by C.T.C.; installation on heavy grades on the Moffat tunnel route of the Denver & Salt Lake. il maps Ry Age 120:725-8 Ap 6 '46
L.N.E.R. signal gantry at Sheffield. il Engineer 180:447 N 30 '45
Modern signaling and communication to speed shippers' freight. il Ry Age 120:1020-3 My 18 '46
Overhaul of signal relays. il plan Engineer 182:189 Ag 30 '46
Radio and carrier controls for C.T.C. on Pennsylvania; use in emergencies. diags Ry Age 121:600-2 O 12 '46
Scientific developments aid signaling in 1945. J. H. Dunn. il Ry Age 120:50-3 Ja 5 '46
Seaboard tests train radio warning signal. il Ry Mech Eng 120:278 My '46; Same. Ry Age 120:1141 Je 8 '46
Signal construction increased during 1945. M. Peacock. il Ry Age 120:100-6 Ja 5 '46
Signaling and train communication save passenger train time. il Ry Age 119:822-3 N 17 '45
Specification of railroad signal colors and glasses. K. S. Gibson and others. bibliog diags Opt Soc Am J 35:772-95 D '45; Same. J Res Nat Bur Stand 36:1-30 Ja '46
See also
Railroads—Radio communication

Snow protection and removal

Barber-Greene snow melter. il Ry Age 120: 571-2 Mr 16 '46
Moving record war traffic in winter. il Ry Age 119:928-32 D 8 '45

Standards

Railway gauge act, 1846. Engineering 162: 160-1 Ag 16 '46

Stationery

Stationery and printing; A.A.R. P.&S. division report. Ry Age 121:292 Ag 17 '46

Stations

All the comforts of home for travelers; women's lounge in Chicago union station. il Ry Age 121:408-9 S 7 '46
Aluminum roof replaces tile on large Cincinnati terminal. il Iron Age 157:111 Ap 11 '46; Same. Sheet Metal Worker 37:46-8+ Ap '46; Same cond. Steel 119:132+ Ag 5 '46
Begin remodeling of Detroit station. il Ry Age 120:290 F 2 '46
Britain tries new type railway station. W. H. Hamlin. il diag Ry Age 120:1183-5 Je 15 '46
C & O's railroad station for Prince, W.Va. il plan Arch Forum 85:96-7 O '46
Grand Central sky rejuvenated; redecorating ceiling of concourse. il Ry Age 119:520-2 S 29 '45; Abstract. Mech Eng 68:156-7 F '46
Install radiant heat in West Virginia rail station. il Eng N 137:144 Ag 1 '46
L.M.S. experimental station building. il Engineer 181:149-50 F 15 '46; Engineering 161: 163 F 15 '46
Preformed aluminum roof is slipped on to concrete dome of Cincinnati's Union terminal. il Arch Forum 84:179 My '46
Small town station goes ultra-modern; Chesapeake & Ohio station, Prince, W. Va. il Ry Age 121:48-50 Jl 13 '46

RAILROADS—Stations—*Continued*
Station dome gets new aluminum cover; Cincinnati union terminal. il diags Ry Age 120:1109-11 Je 1 '46
Stations must go modern along with passenger trains. il plans Ry Age 119:816-21 N 17 '45
See also
Railroads—Train-sheds

Lighting
Lighting innovation at Victoria station. il Light & Lighting 39:111 Je '46

Statistics
Finds rails' 1945 under pre-war 1941; report of Bureau of transport economics and statistics of the Interstate commerce commission. Ry Age 120:415-16 F 23 '46
Freight operating statistics of large steam railways, selected items for the month of December 1945 compared with December 1944. Ry Age 120:594-5 Mr 16 '46 [cont monthly]
19th century train sheds in England and America. il plans diags Arch Forum 84: 104-9, 124+ F '46
Railway operations in 1945. J. H. Parmelee. Ry Age 120:69-78 Ja 5 '46
See also
Cars—Statistics
Freight cars—Statistics
Locomotives—Statistics
Railroads—Finance
Railroads—Purchasing

Stores systems
Diesel-electric locomotive parts; A.A.R. P.&S. division report. Ry Age 121:289 Ag 17 '46
Maintenance of way and construction materials; A.A.R. P.&S. division report. Ry Age 121:300 Ag 17 '46
Material stock inventory-pricing; A.A.R. P.&S. division report. Ry Age 121:301 Ag 17 '46
Mechanized equipment speeds deliveries; Union Pacific's Omaha stores. il Ry Age 121:761-3 N 9 '46
Stores organization; A.A.R. P.&S. division report. Ry Age 121:294 Ag 17 '46
See also
Railroads—Purchasing
also Association of American railroads—Purchases and stores division

Switches, frogs, etc.
Automatic block with spring switches. il map Ry Age 121:134-6 Jl 27 '46
Flat-bottom switches and crossings on the L.N.E.R. il Engineer 182:86 Jl 26 '46

Taxation
Kentucky seeks to collect heavy taxes from Southern Pacific. Ry Age 119:905-6 D 1 '45
Some aspects of railroad depreciation accounting for income tax purposes; abstract. R. C. Staebner. Ry Age 120:1255 Je 29 '46

Telegraph
Railroad telegraph and telephone saw big change in 1945. J. H. Dunn. il Ry Age 120: 114-18 Ja 5 '46
Teletypewriter switching network installed on Pennsylvania. il Ry Age 121:14 Jl 6 '46

Telephone
Efficiency and manners analyzed in novel telephone program by New York Central. Ry Age 121:410-11 S 7 '46
L.M.S. traffic control improvements. il Engineer 180:422-3 N 23 '45; Electrician 135: 558 N 23 '45; Engineering 160:337 O 26 '45
Railroad telegraph and telephone saw big change in 1945. J. H. Dunn. il Ry Age 120: 114-18 Ja 5 '46
Railway communications. H. C. Towers. il Electrician 136:1585-8 Je 14 '46
Signaling and train communication save passenger train time. il Ry Age 119:822-3 N 17 '45
See also
Railroads—Radio communication

Terminals
Five interlockings at Norfolk. il map Ry Age 120:1176-7 Je 15 '46
From d.c. to a.c. with profit; Lackawanna changes power supply in Buffalo terminal. il Ry Mech Eng 120:487-9 S '46
Handling of railway parcels traffic. F. H. Slade. il Mech Handling 33:277-81 My '46
Lawley Street goods shed, Birmingham. il plan Engineer 180:374-6 N 9 '45; Engineering 160:533, 538 D 28 '45
Mechanisation at reconstructed Birmingham goods depot. il plan Mech Handling 32:695-700 D '45
One rail station? Chicago study. Bsns W p44 D 22 '45
See also
Railroads—Stations
Railroads—Train-sheds
Railroads—Yards

Ticket scalping
Young vs. elders; Alleghany corp. chairman airs black market in Pullman space. Bsns W p20 My 25 '46

Tickets
Pullman's new refund rules are reducing cancellations. Ry Age 121:495 S 21 '46
Ticket buying plan under consideration. Ry Age 121:446 S 14 '46
Ticket machines on trial in New York stations. il Ry Age 121:232 Ag 10 '46
Ticket printing register. Ry Age 120:1223-4 Je 22 '46
See also
Ticket vending machines

Ties
See Railroad ties

Track
Atlantic Coast Line will soon be ready. il map Ry Age 120:461-6 Mr 2 '46
Carlisle-Kingsmoor widening on the L.M.S. railway. il maps diags Engineering 161:555-7 Je 14 '46
Chasing water pockets. il diags Sci Am 173: 298-300 N '45
Concrete pipe jacked under a railroad. il Eng N 137:299-301 S 5 '46
High level of activity forecast for construction and maintenance forces in 1946. il Ry Age 120:500-3+ Mr 9 '46
Maintenance progress through research. J. B. Akers. il Ry Age 120:281-3 F 2 '46
Mechanics of ballast; abstract. G. M. Magee. Rock Prod 49:108-10 Mr '46
Parliament and the rail gauge question; Royal commission of 1845. Engineer 182:232 S 13 '46
Railway gauge act, 1846. Engineering 162: 160-1 Ag 16 '46
Report on light car-repair tracks; Car department officers' association. il Ry Mech Eng 120:551-4 O '46
Roadway and ballast; A.R.E.A. committee report. Ry Age 120:555-7 Mr 16 '46
Solves problems on its Cairo bridge; Illinois Central lays continuous welded rails. il Ry Age 120:182-5 Ja 19 '46
Tailoring tracks for faster trains. il Ry Age 119:812-15 N 17 '45
Track; A.R.E.A. committee report. Ry Age 120:561-3 Mr 16 '46
Track and turnout engineering. C. M. Kurtz. 461p $5 Simmons-Boardman, New York '45
Track renewal on Southern Railway. Engineering 162:332 O 4 '46
Widening of Gloucester-Cheltenham railway. il maps Engineering 161:30-1 Ja 11 '46; Engineer 180:368-9 N 9 '45
See also
Ballast
Car retarders
Mine tracks
Railroad ties
Railroads—Construction
Railroads—Snow protection and removal
Rails

Track cleaning machinery
This ballast cleaner is different. il Ry Age 121:432-4 S 14 '46

RAILROADS—*Continued*

Track making machinery

What machines did for small rail gang. il Ry Age 120:811-13 Ap 20 '46

Traffic

1947-1950 will be good business years; A.A.R. report. Ry Age 120:1114+ Je 1 '46
Richmond, Fredericksburg & Potomac keeps trains moving. il map Ry Age 120:273-6 F 2 '46

See also
Freight car service
Railroads—Freight
Railroads—Passenger traffic

Train dispatching

Automatic OS reporting of trains by electronics on the Rock Island. il Ry Age 120: 666-7 Mr 30 '46
C.T.C. on a 131-mile subdivision; Burlington route between Chicago and Denver. W. F. Zane. il diags Ry Age 121:443-5 S 14 '46
C.T.C. saves train time on the C. & O. il Ry Age 121:340-1 Ag 24 '46
Cotton Belt installs 121 miles of centralized traffic control. il map Ry Age 120:232-4 Ja 26 '46
Joint operation aided by C.T.C.; installation on heavy grades on the Moffat tunnel route of the Denver & Salt Lake. il maps Ry Age 120:725-8 Ap 6 '46
L.M.S. traffic control improvements. il Engineer 180:422-3 N 23 '45; Electrician 135: 558 N 23 '45; Engineering 160:337 O 26 '45
Radio and carrier controls for C.T.C. on Pennsylvania; use in emergencies. diags Ry Age 121:600-2 O 12 '46
Scientific developments aid signaling in 1945. J. H. Dunn. il Ry Age 120:50-3 Ja 5 '46
Train position indicator. E. A. Dahl. il diags Electronics 19:122-4 O '46

Train speed

Eighty miles an hour sixty years ago. L. H. Fry. Ry Age 120:288 F 2 '46
M-K-T, Frisco speed southwestern trains. Ry Age 120:966+ My 11 '46
Swiss lightweight express passenger trains. Engineer 181:549 Je 14 '46

Trains

Missouri Pacific's Sunshine Special converts to Diesel. il Diesel Power 24:199-200 F '46
Modern power saves train-miles; use of modern Diesel and steam locomotives on Cotton Belt railroad. il map Ry Age 119:936-40 D 8 '45
Northern Pacific tests radio on freight trains. il Ry Mech Eng 120:484-6+ S '46; Same. Ry Age 121:479-81 S 21 '46
Over $100,000,000 being spent for cars. il Ry Age 119:824-30 N 17 '45
Rails modernize; equipment orders. Bsns W p34+ D 1 '45
Rolling through Michigan; Pere Marquettes attract much attention. il Ry Age 121:396-402 S 7 '46
Streamliners have done a war job. il Ry Age 119:810-11 N 17 '45
To run New York to Texas through train. Ry Age 120:1225 Je 22 '46
Where do we go from here? accommodations for the post-war traveler. il Ry Age 119: 781-8 N 17 '45

See also
Railroads—Power trains
Railroads—Wreck trains

Trainsheds

Illinois Central renovates two old train sheds il diags Ry Age 119:1046-50 D 29 '45
19th century train sheds in England and America. il plans diags Arch Forum 84: 104-9, 124+ F '46

Wages

Carriers and unions agree to arbitration. Ry Age 120:290-1 F 2 '46
Cost of wage raise estimated by I.C.C. Ry Age 120:783+ Ap 13 '46
Eyes on Chicago; railroad arbitration boards ponder wage demands. Bsns W p100 F 23 '46
Fact board recommends 16-cent hourly wage increase for 200,000 in two rail unions. Comm & Fin Chr 163:2235 Ap 25 '46
Hearings in wage arbitration. Ry Age 120: 469-70+, 513+, 514-15, 576-9, 641-4, 683-6 Mr 2-30 '46
Rail parley is on. Bsns W p104 D 1 '45
Rail unions ask new award. Bsns W p88+ Ap 27 '46
Railway wage changes, 1941-46. J. A. Hart. Mo Labor R 63:335-41 S '46
Railway wage truce. Bsns W p103 Ap 6 '46
Relationship between wage payments and operating revenues; table. Ry Age 120:535 Mr 16 '46
Shaking out those railroad featherbeds; tremendous earnings slump unlikely to follow pay raises. H. S. Taylor. Barron's 26:11+ Ap 1 '46
United front; rail unions demand higher wages. Bsns W p93-4 Mr 16 '46
Wage and rules case hearings. Ry Age 120: 641+, 683+, 731-4, 776-9 Mr 23-Ap 13 '46
Wage increase's cost put at $725,000,000; financial statistics. Ry Age 120:1193-4 Je 15 '46
Wage increases made by arbitration boards. Ry Age 120:730 Ap 6 '46
Wages of Cuba's railroad workers increased. For Comm W 21:23 N 24 '45
Would grant Pullman conductors' wage plea. Ry Age 121:449+ S 14 '46

War measures

See Railroads in war

Water supply

Can't neglect Diesel water facilities; cooling systems and steam heating equipment. G. E. Martin. il plan Ry Age 121:332-4 Ag 24 '46
Water service; A.R.E.A. committee report. Ry Age 120:553 Mr 16 '46
Water treatment benefits. il Ry Mech Eng 119:575-7+ D '45

Waterways competition

Feeder value of tributary waterways; reasoning employed by army engineers to justify project for improvement of Big Sandy river and its tributaries. C. S. Duncan. map Ry Age 120:668-9+ Mr 30 '46
ICC rules railroads; hold freight rates over water traffic. Iron Age 156:76 D 27 '45
Many interests fight St Lawrence seaway. Ry Age 120:476-8 Mr 2 '46
Water-competitive rate probe denied. Ry Age 120:1230+ Je 22 '46
Water lines control Florida citrus rates. Ry Age 121:488 S 21 '46

Wreck trains

Delaware & Hudson wreck train. il Ry Mech Eng 120:123-5 Mr '46

Yards

Baltimore & Ohio radio installation; New Castle yard. il diag Ry Mech Eng 120: 213-15+ Ap '46; Same cond. Ry Age 120: 356-8 F 16 '46
Burlington shows two-way yard radio. Ry Age 121:523 S 28 '46
Diesel trailers for hump operation; New York Central using Diesels, with supplementary motor capacity, as pushers. il Ry Age 120: 402-3 F 23 '46; Ry Mech Eng 120:146-8 Mr '46
Improvements at Welwyn Garden City railway station. il diag Engineering 162:9 Jl 5 '46
Loud-speaker yard communication. il diag Ry Age 121:364-6 Ag 31 '46
Roadways concreted at Proviso repair track. il Ry Mech Eng 120:352-3+ Jl '46
Safety in the yards. B. Andrews. il Nat Safety N 54:18-19+ Jl '46
Switchyard lighting speeds rail traffic; Denver and Rio Grande railroad. L. Ragle. il Elec World 124:127 D 8 '45
Yard radio tests on the Reading. il map Ry Age 120:509-11 Mr 9 '46

Africa, British East

See also
Railroads—Electrification—Africa, British East

RAILROADS—*Continued*

Alaska

Government competition with private shipping lines proposed; bill would authorize government-owned Alaska railroad to operate vessels. Marine Eng 51:136 F '46

Algeria

Operations of railways in Algeria. For Comm W 22:15 Mr 16 '46

Argentina

Anglo-Argentine agreement concerning railways. Economist 151:460-1 S 21 '46
Engineer looks at Argentina. R. Hammond. il maps diags Engineer 182:72-3, 94-7, 116-18, 138-41 Jl 26-Ag 16 '46
Mission to Argentina; problems affecting the British-owned railways. Economist 150:1012-13 Je 22 '46

Australia

Australia to rebuild railroad system; will convert to standard gage track. map Eng N 136:157 Ja 31 '46

Brazil

Operations of Great western of Brazil railway co. For Comm W 24:29 Jl 13 '46
San Paulo railway acquisition by Brazilian government. Economist 151:469 S 21 '46

British Columbia

Bid for traffic. map Bsns W p104-5 N 2 '46

Canada

Big signal program on Canadian Pacific. il map diags Ry Age 120:863-6+ Ap 27 '46
Canada's railways have fingers crossed. il Ry Age 120:58-61 Ja 5 '46
CNR prospects. Economist 149:795-6 D 1 '45
Moving record war traffic in winter. il Ry Age 119:928-32 D 8 '45
Rail comeback; Canadian National. Bsns W p114+ N 24 '45
Rail net drops. Bsns W p108 Ap 27 '46
Statistics of steam railways of Canada for the year ended December 31, 1944. 170p pa 50c Canada. Dominion bur. of statistics, Ottawa '46

See also
Canadian national railways
Canadian Pacific railway

China

Operations of railways. For Comm W 23:22-3 My 4 '46

Colombia

Colombia wants highways and railways. Eng N 136:213-14 F 7 '46

Cuba

Railway operations. For Comm W 22:19 Ja 5 '46

Czechoslovakia

Wanted: rolling stock. Bsns W p86+ F 9 '46

Europe

International transport organization. J. R. Hight. Iron Age 157:80+ Mr 28 '46

France

Railway conditions and operations. For Comm W 21:22 D 29 '45

See also
Railroads—Electrification—France

Germany

German development of locomotives and cars. Ry Mech Eng 120:184-5+ Ap '46
German equipment exhibited by army. Ry Age 120:576+ Mr 16 '46; Same abr. Ry Mech Eng 120:227-8 Ap '46

Great Britain

Accidents on British railways in 1944. Engineer 180:323 O 26 '45
Agreed charges prove popular in Britain. G. L. Wilson. Ry Age 121:9-13 Jl 6 '46
Britain tries new type railway station. W. H. Hamlin. il diag Ry Age 120:1183-5 Je 15 '46
British locomotive working in wartime. O. S. Nock. il diags Engineer 180:122-5, 144-6; 181: 374-5, 398-9, 466-7, 490-1; 182:60-2 Ag 17-24 '45, Ap 26-My 3, 24-31, Jl 19 '46
Carlisle-Kingsmoor widening on the L.M.S. railway. il maps diags Engineering 161:555-7 Je 14 '46
Coaches for the L.M.S. railway royal train. il Engineering 162:204, 212-13 Ag 30 '46; Engineer 182:186 Ag 30 '46
Cost of locomotive coal. Engineer 182:273 S 27 '46
1846 in British railway history. Engineering 161:566 Je 14 '46
Flat-bottom rails on the L.N.E.R. il Engineering 162:115 Ag 2 '46
Future of Britain's railways. Engineer 182:347 O 18 '46
Higher railway charges? Economist 150:714-15 My 4 '46
Improvements at Welwyn Garden City railway station. il diag Engineering 162:9 Jl 5 '46
London Midland and Scottish railway company; Great western railway company; annual general meetings. Economist 150:391-2 Mr 9 '46
L.M.S. railway, 1923-1946. Engineer 181:220-1 Mr 8 '46
L.M.S. traffic control improvements. il Engineer 180:422-3 N 23 '45; Electrician 135: 558 N 23 '45; Engineering 160:337 O 26 '45
L.N.E.R. centenary. Engineer 181:573 Je 21 '46
Manchester-Sheffield railway centenary. Engineer 180:533 D 28 '45
Merchant navy class locomotives of the Southern railway. O. V. S. Bulleid. il diags Engineering 162:21-4, 44-7 Jl 5-12 '46; Same cond. Engineer 180:512-14, 530-2 D 21-28 '45; Discussion. Engineering 160:542-3 D 28 '45; Engineer 180:510-11 D 21 '45
Oil-burning locomotives of the G.W.R. il diags Engineer 180:388-9 N 16 '45; Engineering 160:431 N 23 '45
Parliament and the rail gauge question; Royal commission of 1845. Engineer 182:232 S 13 '46
Present-day locomotive working in Great Britain. O. S. Nock. il diags Engineer 182: 314-16 O 11 '46
Railway accidents in 1945. Engineering 162: 157-8 Ag 16 '46
Railway accidents report for 1945. Engineer 182:152 Ag 16 '46
Railway locomotives of 1945. il Engineer 181: 16-18, suppl, 42-3 Ja 4-11 '46
Railway returns. Engineering 161:470 My 17 '46
Railway statistics, 1945. Engineering 162:86 Jl 26 '46
Recipe for transport. Economist 150:401-2 Mr 16 '46
Southern railway company annual general meeting. Economist 150:430 Mr 16 '46
Square deal redivivus; memorandum on coordination of road and rail freight transport. Economist 151:104-5 Jl 20 '46
Still dearer transport? Economist 151:421 S 14 '46
Sun Bank railway accident, Llangollen. il plan diags Engineering 161:177-8, 180 F 22 '46
Third-class coach, London Midland and Scottish railway. Engineering 160:544 D 28 '45
Widening of Gloucester-Cheltenham railway. il maps Engineering 161:30-1 Ja 11 '46; Engineer 180:368-9 N 9 '45

See also
Railroads—Electrification—Great Britain

Greece

Progress made in restoration of railways. For Comm W 22:23 Ja 5 '46

Hungary

Hungarian railroads face uncertain future. S. T. R. Abt. map For Comm W 25:7+ O 26 '46

India

Diesel traction on the North western railway (India); with cost data. H. W. Puttick. diags Inst Mech Eng Proc 151 no 1:87-98, pl 1-2 '44; Discussion. il 152:Proc 324-31 D '45

RAILROADS—India—*Continued*
Installation of a guideways transport system in India; single line of rail guides vehicles running on concrete path. Engineer 182:355 O 18 '46

Iraq

Kirkuk-Erbil railway extension. map Engineer 181:131 F 8 '46

Kentucky

Kentucky seeks to collect heavy taxes from Southern Pacific. Ry Age 119:905-6 D 1 '45

Manchuria

Russia uses a railway for dominance in Manchuria. map Ry Age 120:830 Ap 20 '46

Mexico

Diesel freight power for Mexican line. il Ry Age 121:226-8 Ag 10 '46
Mexican government railroad opens technical training school and correspondence courses for its 55,000 employees. For Comm W 22: 23 Mr 23 '46
Mexican rails, revamped, hit brisk postwar stride. A. E. Stuntz. il For Comm W 24: 5-7+ S 21 '46
Mexican railways set earnings record. il Ry Age 120:67-8 Ja 5 '46
Modernization of the Mexican government railway system. Diesel Power 24:208-9+ F '46
U.S. railway mission to Mexico. R. J. de Camp. il For Comm W 22:12-13+ F 23 '46

Netherlands

Les destructions causées par la guerre aux chemins de fer néerlandais. il Génie Civil 123:245 S 15 '46

New Zealand

New Zealand railways, 1945. Electrician 136: 160 Ja 18 '46

Northwestern states

Electrification of railroads in the Pacific Northwest and surplus or idle power available from federal projects. E. R. Abrams. Pub Util 36:829-34 D 20 '45
Great Northern hauls war freight; mountain operations on western lines aided by use of Diesel-electrics. il map Ry Age 120:440-3 Mr 2 '46
Over the mountain with Diesel-electrics; Northern Pacific. il Ry Age 120:913-15 My 4 '46
Steam, Diesel and electric power combine to handle increased traffic; western lines of the Milwaukee Road. il Ry Age 120:1174-5 Je 15 '46

Ontario

Ontario northland railway. Can Min J 67:249 Ap '46

Persia

Les chemins de fer de l'Iran. map Génie Civil 123:101 Ap 15 '46

Poland

Rebuilding Poland's railways. Engineer 181: 267 Mr 22 '46

Russia

Soviets look to new "okrugs" to heighten railway operating efficiency. For Comm W 24:17 S 7 '46

South Africa

New Beyer-Garratt locomotives for South African railways. il diag Engineer 181:195-6 Mr 1 '46

Southern states

See also
Nashville, Chattanooga and St Louis railway

Switzerland

Lötschberg railway's B_0-B_0 electric locomotive. F. Gerber. il diag Engineer 182:251-3 S 20 '46
Swiss federal railways 10-yr. works program to cost $176½ million. J. R. Hight. Iron Age 157:172-7 Mr 7 '46

Turkey

Railway construction plan modified. For Comm W 21:37-8 N 10 '45

United States

American railroads are not done. E. S. French. Comm & Fin Chr 164:82+ Jl 4 '46
Annual report, 59th, of the I.C.C. Ry Age 120:198-201 Ja 19 '46
Banker control and other criticisms; testimony before Senate committee on voluntary reorganization bill. R. R. Young. Ry Age 120:507-8+ Mr 9 '46
Economic and transportation trends; report of Committee of the Association of American railroads; abstract. Comm & Fin Chr 164:1020+ Ag 22 '46
Fair break for the railroads. W. G. Vollmer. Ry Age 121:435-8 S 14 '46; Same cond. Ry Mech Eng 120:521-2 O '46
Full speed ahead with railroads. S. Early. Comm & Fin Chr 163:1349+ Mr 14 '46
Looking ahead for the railroads. C. Hungerford. Comm & Fin Chr 164:885+ Ag 15 '46
Looking ahead in railroading; with particular reference to the Illinois Central system. C. H. Mottier. il Western Soc E J 50:111-22 S '45
Rail capital outlays are acts of faith. G. Metzman. Ry Age 120:640+ Mr 23 '46
Railroad ingenuity needs aid of capital. C. Hungerford. Ry Age 121:732+ N 2 '46
Railroad record in World war II. W. J. Cunningham. Ry Age 120:631-3 Mr 23 '46
Railroad traffic topics. E. G. Plowman. Comm & Fin Chr 163:2507+ My 9 '46
Railroading in 1945. J. J. Pelley. Ry Age 119:1058-9 D 29 '45; Same cond. Iron Age 157:145-7 Ja 10 '46
Railroads: fifty years past and to come. J. B. Ennis. Comm & Fin Chr 162:3137+ D 27 '45
Railroads' future and the engineer. C. H. Mottier. il Ry Age 119:1017-19 D 22 '45
Railroads: whither now? Bsns W p63-4+ D 22 '45
Railway operations in 1945. J. H. Parmelee. Ry Age 120:69-78 Ja 5 '46
Relationship between rail and air transportation. C. R. Smith. Am Pet Inst Proc 25(1): 20-4 '45
Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. Iron Age 157:111-13 Ja 3 '46
Steelman's report notes rail burdens. Ry Age 121:576+ O 5 '46
Transportation prospects. J. H. Parmelee. Comm & Fin Chr 162:2572+ N 29 '45
What the railways are facing today; income necessary for adequate service. S. O. Dunn. Ry Age 120:814-16 Ap 20 '46

See also
Interstate commerce commission
Railroads and state—United States
also names of railroads, e.g.
Pennsylvania railroad

Western states

Northern Pacific; first railroad to follow trail of Lewis and Clark. L. A. Luther. il Comp Air Mag 51:118-22 My '46
War problems were solved by teamwork. W. F. Kirk. Ry Age 120:821-2 Ap 20 '46
Western lines to speed passenger trains. Ry Age 120:718-21 Ap 6 '46

RAILROADS, Industrial

Track agreements can't ban particular type of traffic; decision on Swift & company's complaint against the refusal of railroads to deliver shipments of livestock direct to packing plant. Ry Age 120:1196 Je 15 '46

See also
Mine tracks

RAILROADS, Military

Program outlined on rail equipment for military purposes. P. F. Yount. Iron Age 158: 153-4 N 7 '46
Railroads in invasion of Europe. S. H. Bingham. Ry Age 119:865-6 N 24 '45
Transportation training centre, Royal engineers, Longmoor. il map Engineer 181:420-1, 444-5 My 10-17 '46; Abstract. Engineering 161:535, 540 Je 7 '46

RAILROADS, Mine. See Mine tracks

RAILROADS, Short line

See also American short line railroad association

RAILROADS, Toy. See Railroads—Models

RAILROADS and state
Contract rates on government traffic; resemble agreed rates applicable to commercial traffic in Britain and Canada; British practice. G. L. Wilson. Ry Age 121:729-31 N 2 '46
See also
Railway mail service

Canada
Canadian roads ask 30% rate increase. Ry Age 121:652+ O 19 '46

Great Britain
Propose coordination of British transport. Ry Age 121:375-6 Ag 31 '46

Mexico
How not to operate a railroad; control of Mexico's railways by labor unions. O. M. Stevens. Ry Age 120:672-4 Mr 30 '46; Same. Western Soc E J 51:82-9 Je '46

United States
Federal agencies act in transport crisis. Ry Age 121:374+ Ag 31 '46
Federal aid should cease. J. M. Johnson. Ry Age 120:475+ Mr 2 '46
New economic precepts balk progress. S. O. Dunn. Ry Age 121:223-5+ Ag 10 '46
Railroads' environment has changed. S. O. Dunn. Ry Age 119:858-61 N 24 '45
Senator Taylor's blasts refuted by railroads; carriers declare they did not overcharge government on wartime freight. Ry Age 121:236-8 Ag 10 '46
Toward a national transportation policy. Ry Age 119:892-9 D 1 '45
Transport policy needs implementing; A.A.R. report to House committee. Ry Age 120: 1268-72+ Je 29 '46

RAILROADS in war
Les destructions causées par la guerre aux chemins de fer néerlandais. il Génie Civil 123:245 S 15 '46
Missouri Pacific does its bit. il Ry Age 120: 284-7 F 2 '46
No fatalities during war from transport of explosives. Ry Age 120:833 Ap 20 '46
Railroad record in World war II. W. J. Cunningham. Ry Age 120:631-3 Mr 23 '46
Railroads: whither now? Bsns W p63-4+ D 22 '45
Steam, Diesel and electric power combine to handle increased traffic; western lines of the Milwaukee Road. il Ry Age 120:1174-5 Je 15 '46
War problems were solved by teamwork. W. F. Kirk. Ry Age 120:821-2 Ap 20 '46
Wartime rail service credited to teamwork; annual report of the Car service division, Association of American railroads. Ry Age 120:156+ Ja 12 '46
See also
Military railway service

RAILS
A.R.E.A. adopts three new rail designs. diags Ry Age 121:752-4 N 9 '46
Big market for used rail. il Ry Age 121:403-5 S 7 '46
Flat-bottom rails on the L.N.E.R. il Engineering 162:115 Ag 2 '46
Maintenance progress through research. J. B. Akers. il Ry Age 120:281-3 F 2 '46
Rail; A.R.E.A. committee report. Ry Age 120:559-60 Mr 16 '46
Rail replacement limited by shift in mill tonnage away from rails. Iron Age 156:112-13 D 6 '45
Steel rails for bank protection on Salinas river, California. H. F. Cozzens. il Civil Eng 16:113-15 Mr '46
See also
Rail joints
Railroads—Track

Failures
Eleventh progress report of the joint investigation of failures in railroad rails in service and their prevention. R. E. Cramer and R. S. Jenson. il In Ill U Eng Exp Sta Reprint Ser 32:4-21 '45
Progress report on the effect of the ratio of wheel diameter to wheel load on extent of rail damage. N. J. Alleman. il Ill U Eng Exp Sta Reprint Ser 33:1-19 '45 (pa 15c)
Progress report on web failures of rail. H. F. Moore and R. S. Jensen. il diags In Ill U Eng Exp Sta Reprint Ser 32:22-7 '45

Statistics
Rail output falls off in 1945. Ry Age 121:603 O 12 '46

Testing
Field tests for batter of end-hardened rails in service on the Chesapeake & Ohio railway. R. S. Jensen. In Ill U Eng Exp Sta Reprint Ser 32:16-20 '45
Measuring efficiency in rail testing; charts show results with detector cars. C. K. Mentz. il Ry Age 121:646-9 O 19 '46
Progress report on the effect of the ratio of wheel diameter to wheel load on extent of rail damage. N. J. Alleman. il Ill U Eng Exp Sta Reprint Ser 33:1-19 '45 (pa 15c)
Third progress report of the rolling-load tests of joint bars. N. J. Alleman. il In Ill U Eng Exp Sta Reprint Ser 32:39-48 '45
Third progress report of the Shelly rail studies at the University of Illinois. R. E. Cramer. il In Ill U Eng Exp Sta Reprint Ser 32:28-38 '45

Welding
See Rail joints—Welding

RAILS, Guard. See Guard rails

RAILWAY and light securities company
Annual report. Comm & Fin Chr 162:2990 D 17 '45

RAILWAY car export corporation of America
Freight car makers form export association. Oil Paint & Drug Rep 149:5 Je 17 '46

RAILWAY engineering association, American. See American railway engineering association

RAILWAY express agency
Argument concluded in ex parte no 163: Railway express agency seeks increase in rates. Ry Age 121:488+ S 21 '46
Better service for express customers. C. G. Peterson. il Ry Age 121:687-9 O 26 '46
Express agency asks increase in charges. Ry Age 121:195 Ag 3 '46
NWA signs cargo agreement with Railway express agency. Aviation N 5:33-4 My 6 '46
One-year increase in express rates. Ry Age 121:738-9 N 2 '46
Railway Express terminal gets public address system. il Ry Age 120:965 My 11 '46

Employees
On the ground, in the air; safety program. S. W. Todd. il Nat Safety N 52:19-21+ D '45

RAILWAY fuel and traveling engineers' association
Annual meeting, Chicago, Sept. 4-6. Ry Mech Eng 120:564-73 O '46

RAILWAY mail service
By rail or air? post office would speed both mail services. Bsns W p24+ My 4 '46

RAILWAY service, Military. See Military railway service

RAIN and rainfall
Design and analysis of methods for sampling microclimatic factors. H. G. Wilm. Am Stat Assn J 41:221-32 Je '46
Effect of rain upon the propagation of waves in the 1- and 3-centimeter regions. S. D. Robertson and A. P. King. bibliog Inst Radio Eng Proc 34:178-80 Ap '46
Evolution of rain. W. J. Humphreys. Franklin Inst J 241:391-6 Je '46
High speed rain abrasion of glass cloth laminates. R. M. Robertson, R. J. Lobisser and R. E. Stein. il diag Ind & Eng Chem 38: 590-1 Je '46
Propagation of 6-millimeter waves; measurements of attenuation due to rainfall and atmospheric gases. G. E. Mueller. Inst Radio Eng Proc 34:181-3 Ap '46
Rainfall periodicity in relation to malaria and agriculture in the Near East. H. de Terra. bibliog Science 101:629-31 Je 22 '45; Discussion. 103:342-4 Mr 15 '46

RAIN insurance. See Insurance, Rain

RAISINS
Australian dried vine-fruit industry. For Comm W 23:38 Ap 27 '46

RALSTON, Oliver Caldwell, 1887-
Sketch. por Min & Met 27:462 S '46

RAMAN effect
Electric circuit models for the vibration spectrum of polyatomic molecules. G. Kron. diags J Chem Phys 14:19-31 Ja '46
Fine structures in Raman spectra. D. H. Rank and J. A. Van Horn. bibliog diags Opt Soc Am J 36:454-9 Ag '46
Motions of molecules in condensed systems: selection rules, relative intensities, and orientation effects for Raman and infra-red spectra. R. S. Halford. J Chem Phys 14:8-15 Ja '46
Photoelectric Raman spectrograph for quantitative analysis. D. H. Rank and R. V. Wiegand. bibliog il diags Opt Soc Am J 36:325-34 Je '46
Raman and ultraviolet-absorption spectra of the dimethyl ether-boron trifluoride complex. F. V. Dunderman and S. H. Bauer. bibliog J Phys Chem 50:32-9 Ja '46
Structure of benzene; experimental methods for Raman spectroscopy, including a micromethod; revision of the Raman spectrum of hexadeuterobenzene. H. G. Poole. diags Chem Soc J p245-52 Ap '46
Structure of benzene; inactive fundamental frequencies of benzene, hexadeuterobenzene, and the partly deuterated benzenes. N. Herzfeld, C. K. Ingold and H. G. Poole. Chem Soc J p316-33 Ap '46
Structure of benzene; Raman and infra-red spectra of monodeuterobenzene; description and analysis. C. R. Bailey and others. Chem Soc J p299-316 Ap '46
Structure of benzene; Raman and infra-red spectra of 1 : 3 : 5-trideuterobenzene; description and analysis. C. R. Bailey and others. Chem Soc J p255-72 Ap '46
Structure of benzene; Raman spectra of 1 : 4-dideuterobenzene and 1 : 2 : 4 : 5-tetra deuterobenzene; description and analysis. N. Herzfeld and others. Chem Soc J p272-88 Ap '46

RAMAZZINI, Bernardino, 1633-1714
Bernardini Ramazzini; his life, deeds and book. R. T. Legge. bibliog por Ind Med 15:467-72 Ag '46

RAMAZZINI society
First meeting. Ind Med 15:438-41 Jl '46

RAMIE
Expansion in ramie production, Philippine Islands. For Comm W 21:37 D 29 '45
New decorticator seen boon to South's ramie growers. il Manuf Rec 115:126+ Ja '46
Progress in ramie developments. H. Nieman. Rayon 27:491 S '46
Ramie comeback; Whitney's Florida mill to process fiber for textile use. Bsns W p26-8 F 23 '46
Ramie has tantalized textile men for one hundred years. W. B. Dall. il Textile World 95:93-8+ D '45
Several millions in ramie investment. H. Wright. il Manuf Rec 115:41-2+ Ag '46

RAMPS
Ramps facilitate scraper-to-conveyor transfer; Phoenix coal co. diags Coal Age 51:122 Ap '46

Safety measures
Stairs and ramps; safety aspects. il Nat Safety N 53:104+ Mr '46

RAMSEY accessories manufacturing corporation
Into the tax-exemption fold. Bsns W p67-8+ Ja 26 '46

RANCH houses
Four-star veteran plans to build; Puget Sound house for General and Mrs Mark W. Clark. il plan Am Bld 68:79 S '46
House near Geyserville, Calif. il plan diag Arch Forum 83:98-100 D '45
Ranch house at Stevens Point, Wisconsin. il plans Am Bld 67:82-3 N '45

RANCHES
Western range flyers realize greatest lightplane utility. Aviation N 5:15 My 13 '46

RANCIDITY
Antioxidant properties of vegetable phosphatides; abstract. C. I. Bibby. Food Ind 18: 770+ My '46
Control of rancidity in stored fish; abstract. H. L. A. Tarr. Food Ind 18:968+ Je '46
How to retard rancidity in salt-cured fish. R. E. Silver. il Food Ind 17:1454-6+ D '45
Rancidity of bacon; effect of antioxidants. F. H. Smith, D. E. Brady and R. E. Comstock. bibliog Ind & Eng Chem 37:1206-9 D '45
Retarding rancidity in fats and oils; patent. Food Ind 18:1635 O '46

RANGE finders
Early fire-control radars for naval vessels. W. C. Tinus and W. H. C. Higgins. il diags Bell System Tech J 25:1-47 Ja '46
Fire-control radar MPG-1; designed to enable coast artillery to hit maneuvering PT boats; control of harbor traffic in peacetime. H. A. Straus and others. il diags Electronics 18.92-7 D '45; 19:110-17 Ja; 140-7 Mr '46
Naval gunnery radar; abstracts of papers at Radiolocation convention. Electrician 136: 891-2 Ap 5 '46

RANGE finding
Accurate determination of range with radar. J. S. Hall. il Civil Eng 16:299 Jl '46

RANGES
Carpeting ranges; cattle grazing lands will get new covering. Bsns W p36+ Mr 30 '46

RANGOON
Health conditions in certain large cities of the Far East after liberation. H. R. O'Brien. map Pub Health Rep 61:1339-50 S 13 '46

RANKINE-HUGONIOT equations
Some properties of very intense shock waves. R. G. Sachs. Phys R 69:514-22 My 1 '46

RANNEY water collectors
High iron content in the water of Crystal City, Mo.; Ranney well system for Pittsburgh plate glass co. W. Wheatly. il diags Pub Works 77:36+ Ja '46

RAPID construction. See Building—Rapid construction

RAPID transit
American transit association, annual meeting, Chicago, Sept. 16-17. Bus Transportation 25:39-50 O '46
Automobile; sacred cow of America. G. C. Hecker; J. L. Wilson. Mass Transportation 42:152-4 Ap '46
Can the ATA research advisory group hit? Mass Transportation 42:377-9 S '46
Cleveland's blueprint for modern transit. il maps Bus Transportation 24:62-6 N '45
Fundamental requirement number one; what can transit officials do to reduce traffic congestion? L. Williams. il Bus Transportation 25:91-2 S '46
How much subway expense would proper use of our streets save us? Mass Transportation 41:279-80 O '45
Is transit a victim of fringe phenomena, just muddling through? C. A. Stephenson. Mass Transportation 42:359-60 S '46
Letter from London transit man giving his impressions of American transit and management. H. S. Gordon. Mass Transportation 42:406+ S '46
Marked savings in travel time featured in transit plan; Cleveland's proposed rail and bus modernization. C. E. DeLeuw. il maps plan Civil Eng 16:308-11 Jl '46
Moving people and goods in tomorrow's cities. H. M. Mayer. bibliog Ann Am Acad 242:116-28 N '45
Off-street parking; transit traffic must speed up to overcome high costs. Mass Transportation 41:368-9 D '45
Progressive public transit essential to prosperous cities. C. E. Ebert. Pub Util 38: 375-7 S 12 '46
Too many Topsies in transit management. L. Spraggon. Mass Transportation 41:326+ N '45
Transit's creeping paralysis; traffic congestion and automobile parking. Mass Transportation 41:364-7 D '45
War and probable postwar urban transit. A. J. Lundberg. Pub Util 37:543-9 Ap 25 '46
What can be done about traffic congestion? new and modernized mass transit; Cleveland transit system. W. J. McCarter. il Civil Eng 16:204-6 My '46

RAPID transit—*Continued*
What kind of card will transit get when they ration street space? H. G. Morris. Mass Transportation 42:162-3 Ap '46
While auto folks build vast research labs, rich transit has only penurious program; report on research, American transit association. Mass Transportation 42:371-2 S '46

See also
Electric railroads
Motor bus lines
Railroads
Street railroads
Trolley buses
also subdivision Rapid transit under names of cities, e.g. Chicago—Rapid transit

Advertising

$40,000 celluloid bomb; General electric transportation division releases Lifestream of the city. Mass Transportation 42:72-4 F '46

Employees

Adjustments in top hourly wage rates of transit operators; effected since Aug. 18, 1945; tabulation. Mass Transportation 42:168+ Ap '46
Bargaining plan for civil service proposed in New York transit report. Eng N 137:353 S 19 '46
Bill Mahon; a labor man who knew the needs of transit men. W. A. Draper. Mass Transportation 42:367-8 S '46
Cleveland transit and union contract for labor umpire with no strikes. Mass Transportation 42:38 Ja '46
Do you think these statements should be printed or suppressed? H. Swift. Mass Transportation 42:196-8 My '46
Earnings of employes of urban transportation industry; compared with those in other industries; tabulation. Mass Transportation 42:159 Ap '46
Here are broad working plans; transit labor relations program. R. N. Graham. Mass Transportation 42:369, 386 S '46
Letters from transit house organ editors. Mass Transportation 41:370-2 D '45
Seattle transit system; 1944 revenue and expenses. Mass Transportation 42:77-8 F '46
Set-'em-up-in-other-alley-Zimring; negotiations in Cleveland. J. Griffin. Mass Transportation 42:112-14+ Mr '46
Tenderfoot from Arizona answers Zimring. H. S. Simpson. Mass Transportation 42:115+ Mr '46
To strike or not to strike. H. S. Simpson and J. A. Dash. Mass Transportation 42:382-5 S '46
Training and retraining. T. Wicker. il Mass Transportation 42:375-6 S '46
Transit teeter totter. Mass Transportation 42:326-7 Ag '46
What political appeasement is doing to Detroit's transit system; new contract proposal submitted by the AFL. Mass Transportation 42:82-3 F '46
Your system can be no better than the training of its workers. A. H. Nielsen. Mass Transportation 42:235-7 Je '46; Abstract. Bus Transportation 25:71 Jl '46

Fare collection

What coin insures most profitable fare collection nowadays? W. D. Lloyd. il Mass Transportation 42:88+ F '46

Fares

Flat fare jumps of '20s killed far too many short-haul and free-will rides. W. Jackson. Mass Transportation 42:361-2 S '46
Higher fares or what? F. E. Reifschneider. Mass Transportation 42:277 Jl '46
New York's vanishing 5c fare. D. Anderson; W. Jackson. Mass Transportation 42:118-20 Mr '46
OPA's Detroit report on 10-cent fare. H. Booth. Mass Transportation 42:122-4 Mr '46
San Francisco OPA; fare controversy. R. Brier. Mass Transportation 42:79-80 F '46
Statement to California railroad commission on application for fare increase by Los Angeles transit lines. R. Fitzgerald. Mass Transportation 42:290-3 Jl '46
Strong figure fights OPA arithmetic! San Francisco's mayor, R. D. Lapham, in fare controversy. Mass Transportation 42:68-71 F '46

Finance

Does Boston's annual report represent handwriting on wall? Mass Transportation 42:212-13+ My '46
Seattle transit system; 1944 revenue and expenses. Mass Transportation 42:77-8 F '46
Winnipeg opens its books on trolley coach cost for 1941-45; financial results of street car, motor bus and trolley bus operations per vehicle, 1941-1945. C. H. Dahl. Mass Transportation 42:298-9 Jl '46

Municipal ownership

America's next decade of labor philosophy in municipally operated transit is being formulated now; San Francisco strike. R. Lapham. Mass Transportation 42:288-9+ Jl '46

Public relations

How are your business manners? J. H. Wright. Mass Transportation 41:329 N '45
Look to the public; abstract. L. J. Mathieu. Bus Transportation 24:49-50 D '45
Matters we think about but seldom act upon; service standards. W. R. Pollard. Mass Transportation 41:314-15 N '45
Public will understand; be sure you understand it. W. C. McBrien. Mass Transportation 42:398+ S '46
Who is going to tell the story; meeting of ATA Public relations committee. Mass Transportation 42:66-7 F '46

Statistics

ATA tells transit's story for 1945; table and chart. Mass Transportation 42:370 S '46

Ticket selling

How do you sell a ride? C. H. Clancy. Mass Transportation 42:279-81 Jl '46

Latin America

Latin American transit. W. J. Beatty. il Mass Transportation 42:156-7 Ap '46

RARE chemicals, National registry of. See National registry of rare chemicals

RARE earth fluorides
Low fusing enamels for application to glass; patent. Glass Ind 27:188 Ap '46

RARE earth hydroxides
Rare-earth metal oxides; their precipitation from potassium hydroxide melts. J. K. Marsh. Chem Soc J p20-3 Ja '46

RARE earth metals
Electrochemistry of the rare earth group. B. S. Hopkins. bibliog Electrochem Soc Trans 89 (preprint 8):113-18 '46

See also
Cerium

Analysis

Observations on the rare earths; extraction of ytterbium from rare earth mixtures with sodium amalgam. T. Moeller and H. E. Kremers. bibliog Ind & Eng Chem Anal ed 17:798-800 D '45

RARE earth nitrates
Rare-earth metal oxides; a new study of oxide precipitation by nitrate fusion. J. K. Marsh. Chem Soc J p17-20 Ja '46

RARE earth sulfates
Observations on the rare earths; hydrolysis studies upon yttrium and certain rare earth(III) sulfate solutions at 25°C. T. Moeller. bibliog J Phys Chem 50:242-50 My '46

RARE earths
Rare-earth metal oxides. J. K. Marsh. Chem Soc J p15-23 Ja '46
Rare earths; abstract. J. N. Friend. Chem & Ind p50-1; Discussion. 51 F 2 '46

Analysis

Analytical chemistry of the rare earths; active-oxygen determination. G. L. Barthauer and D. W. Pearce. bibliog Ind & Eng Chem Anal ed 18:479-80 Ag '46
Rare-earth metal oxides; a new study of oxide precipitation by nitrate fusion. J. K. Marsh. Chem Soc J p17-20 Ja '46
Rare-earth metal oxides; their precipitation from potassium hydroxide melts. J. K. Marsh. Chem Soc J p20-3 Ja '46

RASMINSKY, Louis, 1908-
Executive director of the International monetary fund representing Canada and Norway. por Comm & Fin Chr 163:2915 My 30 '46

RAT fleas. See Fleas as carriers of infection

RAT poisons. See Rats—Extermination

RAT traps
Box trap for cotton rats. J. A. Scott. diag Science 102:567 N 30 '45

RATCHET mechanism
Meter ratchet has low-friction action. J. S. Lineback. diags Elec World 124:102 N 24 '45
Ratchet mechanism that converts reciprocating movement to continuous rotary motion. H. B. Schell. diags Mach 53:211 N '46
Straight ratchet; patent assigned to Vitarama corp. diag Machine Design 17:174+ D '45

RATHJE, Frank C. 1882-
Close-up appraisal; new A.B.A. president. H. J. Boone. por Burroughs Clearing House 30:15-17+ N '45
Rathje's 34,000 miles; visits to state association meetings. R. W. Kneebone. por Banking 39:40 Jl '46

RATIONING
Eire is continuing its rationing system. For Comm W 21:18 D 1 '45
Price control and rationing in foreign countries during the war. F. M. Williams and others. Mo Labor R 61:882-99 N '45

See also
Food—Rationing
Gasoline—Rationing

RATIOS, Financial. See Financial ratios

RATS
Development of litomosoides carinii filariid parasite of the cotton rat in the tropical rat mite. R. W. Williams and H. W. Brown. Science 102:482 N 9 '45
Impairment of reproduction in rats by ingestion of lead. G. Dalldorf and R. R. Williams. il Science 102:668-70 D 28 '45
Transmission of litomosoides carinii, filariid parasite of the cotton rat, by the tropical rat mite, liponyssus bacoti. R. W. Williams and H. W. Brown. Science 103:224 F 22 '46

Extermination

ANTU; a progress report detailing results obtained with this new and highly effective rodenticide. E. H. Rieman. il Soap & San Chem 22:135-7+ O '46
Comparative assays of rodenticides on wild Norway rats. S. H. Dieke and C. P. Richter. bibliog il Pub Health Rep 61:672-9 My 10 '46
Food plant sanitation is not just a chore. M. E. Parker. il Food Ind 18:335 Mr '46
Instructions for using ANTU as a poison for the common Norway rat. C. P. Richter and J. T. Emlen, jr. Pub Health Rep 61: 602-7 Ap 26 '46
Man against rats; effective new poisons, ANTU and 1080. Bsns W p37 N 24 '45
Natural occurrence of fluoroacetic acid, the acid of the new rodenticide 1080. C. W. Klingensmith. Science 102:622-3 D 14 '45
New rodenticides. Chem & Eng N 24:993 Ap 10 '46
Rodent control agents; abstract. J. C. Ward and D. C. Spencer. Chem & Eng N 24:1060 Ap 25 '46

See also
Rat traps

RATS as carriers of infection
Epidemiological significance of seasonal variations in rodent-ectoparasite distribution. A. S. Rumreich and J. A. Koepke. bibliog Pub Health Rep 60:1421-8 N 30 '45
Study of rodent ectoparasites in Mobile, Ala. L. C. Cole and J. A. Koepke. bibliog (40 titles) map Pub Health Rep 61:1469-87 O 11 '46

RAW materials
Difficulties of regulation in international raw material trade. F. Haussmann. Comm & Fin Chr 163:3342+ Je 20 '46
Economy in war and transition; raw material supplies. Survey of Cur Bsns 26:19-20 F '46
Producers and consumers urged to aid in allocating scarce items. J. R. Steelman. Oil Paint & Drug Rep 150:3+ Jl 15 '46
Raw-material problems and policies; pt 1, Problems, proposals and policies; pt 2, Lessons from the past. 116p Columbia univ. press, 2960 Broadway, New York '46
Raw material shortages. Economist 151:270 Ag 17 '46
Raw material supplies and prosperity. W. L. Batt. Comm & Fin Chr 162:2705+ D 6 '45
Raw materials in 1945. Economist 150:sup12-13 Mr 23 '46
RFC strategic materials listed. Oil Paint & Drug Rep 149:5+ Je 24 '46
World competition for raw materials forces U.S. to raise price ceilings. Barron's 26:5 Je 10 '46

See also
Cellulose
Ceramic materials
Chemicals
Clay
Coal
Cotton
Farm produce
Metals
Minerals
Mines and mineral resources
Oils and fats
Petroleum
Rubber
Textile fibers
Wood

RAY, Prafulla Chandra, 1861-1944
Sketch. J. N. Mukherjee. Chem Soc J p216-18 Mr '46

RAYLEIGH waves
Velocity of dilatation and Rayleigh waves in metal bars. J. H. McMillen. il diags Acoustical Soc Am J 18:190-9 Jl '46

RAYMOND, Arthur Emmons, 1899-
Portrait. Aeronautical Eng R 5:37 Mr '46

RAYON
Acetate rayon. H. D. Smith. Am Dyestuff Rep 35:71-2 F 11 '46; Same cond. Rayon 27:78-9 F '46
Alginate rayons are distinctive new fibers. P. Ripley. Textile World 95:112-13 D '45
Chemurgy and modern textiles. F. Bonnet. Rayon 27:236-7 My '46
Developments in viscose rayon. F. Bonnet. Am Dyestuff Rep 35:68-70 F 11 '46; Same cond. Rayon 27:76-7 F '46
English report on seaweed rayon. A. Johnson. Rayon 26:649-50 D '45
Hydrolysis and catalytic oxidation of cellulosic materials; structural components of various cellulosic materials. R. F. Nickerson and J. A. Habrle. Ind & Eng Chem 38: 299-301 Mr '46
Rayon structure. E. L. Lovell and O. Goldschmid. bibliog il diags Ind & Eng Chem 38:811-17 Ag '46
Regenerated fibres from natural polymers. D. Entwistle. bibliog 2pls diags Soc Dyers & Col J 62:261-72 S '46
Running rayon on the woolen system. J. T. Drennen and T. A. Boswell. il Textile World 95:100-1 D '45; 96:100-1+ Ja; 147+ F; 133+ Mr '46
Scaffolding threads in yarn and cloth structure; use of alginate rayon. A. Johnson. il Textile Inst J 36:P203-15; Discussion. P216 D '45
Some uses of calcium alginate rayon; simplified methods of making crêpes, astrakhans and pile fabrics. A. Johnson and J. B. Speakman. bibliog 4pl Soc Dyers & Col J 62:97-100 Ap '46
Structure of cellulosic rayons; chain-length determinations in cuprammonium solution. F. Howlett and others. bibliog Textile Inst J 37:T77-88 Ap '46
Structure of cellulosic rayons; solubility and fractionation of secondary cellulose acetate. F. Howlett and A. R. Urquhart. bibliog Textile Inst J 37:T89-112 Ap '46
When to use rayon; a difficult cotton-mill decision. M. R. Cooper and others. il Textile World 96:117 Mr '46

See also
Textile fibers, Synthetic

Bibliography

Review of periodicals. Published in monthly numbers of Rayon textile monthly

Dyeing

See Dyes and dyeing—Rayon

History

Sir Samuel Agar Salvage father of American rayon industry. F. A. Adams. Rayon 27: 394 Ag '46

RAYON—*Continued*

Knit goods

Physical properties of knitted fabric made of natural and synthetic fibers. H. M. Fletcher. bibliog il Rayon 27:309-12, 364-7 Je-Jl '46

Moisture content

Fine points of regain. L. L. Lewis. bibliog diag Rayon 27:305-7 Je '46

Moisture adsorption of textile yarns at low temperatures. R. C. Darling and H. S. Belding. bibliog Ind & Eng Chem 38:524-9 My '46

Patents

Cross linkages in cellulose and their practical implications; with review of effects of formaldehyde treatment upon properties of cellulose; claims of patent to Kantorowicz. E. Heuser. bibliog Paper Tr J 122:46-8 Ja 17 '46; Same cond. Paper Ind 27:1904 Mr '46

Flameproofing acetate rayon; British patent. Am Dyestuff Rep 35:503 O 21 '46

Patents digest of two-bath coagulating viscose process development. F. L. Durr. Rayon 27:126-8, 196-7, 246-7, 300-1, 357-8, 414-17 Mr-Ag '46

Rayon material; formaldehyde treatment for increasing water resistance; British patent. Am Dyestuff Rep 35:503 O 21 '46

RAYON, Effect of chlorine on

Effect of chlorine retention on rayon fabrics. W. Stump. il Rayon 27:189-90 Ap '46; Same. Am Dyestuff Rep 35:177-8 Ap 8 '46; Abstract. Textile World 96:121+ Mr '46

RAYON carding

Carding rayon-wool blends. B. McComb. Rayon 27:247-8 My '46

Rayon on woolen system; less carding required for rayon than for wool. J. T. Drennen and T. A. Boswell. il Textile World 96:147+ F '46

RAYON cords

B & W lines pares tire costs; advantages of rayon fabrics; abstract. G. Heiber. il Bus Transportation 25:70-2 My '46

Building industrial and consumer preference for rayon cord tires. B. M. Lewy. il Ind Marketing 31:43-4 F '46

Cotton vs. rayon cord test; abstract. India Rubber World 114:79 Ap '46

Fatigue failure of rayon tire cord. R. C. Waller and W. E. Roseveare. bibliog il J Ap Phys 17:482-91 Je '46

Moisture relations of tire cords in tires. H. Wakeham and others. il India Rubber World 113:659-62+ F '46

Place of rayon in tires. W. D. R. Straughn. bibliog Rayon 27:241-3, 291-2 My-Je '46; Same abr. Textile World 96:118-19+ F '46

Some technical aspects of the use of high-tenacity viscose process rayon in tires. W. W. Owen. il diags India Rubber World 114: 515-20 Jl '46

Survey shows motorists prefer rayon cord tires. Rubber Age 59:83 Ap '46

U.S. Rubber to stay in rayon tire cord. il Rayon 27:60-1 F '46

Manufacture

Automatic tramrail delivery to 87 machines; United States rubber company, rayon mill, Scottsville, Va. E. L. Johnson. il Factory Management 104:88-9 Ag '46

Dipping of rayon tire cord. C. H. Beaver. il Rayon 27:467-9 S '46

U.S. rubber company acquires rayon cord plant at Scottsville, Va. il Manuf Rec 114: 64+ D '45

Testing

Hysteresis and related elastic properties of tire cords. H. Wakeham and E. Honold. bibliog il J Ap Phys 17:698-711 Ag '46

RAYON drying

Finishing plant uses infrared on rayon. il diag Textile World 96:117 Ap '46

RAYON fabrics

Data on rayon broad woven goods. Rayon 27:67-9 F '46

Effect of denier on fabric blends. F. S. Culpepper. Textile Col 68:18+ Mr '46

500 weaves are standard for rayon fabrics. R. Bouvet. Textile World 96:135+ Jl '46

Linen-like fabrics can be woven from rayon. S. A. G. Caldwell. diag Textile World 96: 145+ Ap '46

McCampbell shows latest fashions. H. R. Mauersberger. il Rayon 27:115 Mr '46

Old cloth with new yarns; Himalaya cloth. P. G. Alexander. Rayon 27:407 Ag '46

Preparation and finishing of rayon piece goods. C. P. Atkinson. Textile Inst J 36: P171-6 N '45

Soap versus synthetics; abstract. P. H. Wigner. Soap & San Chem 22:75 Ap '46

Survey reveals consumers seek washability in fabrics; abstract. R. E. Sumner. Rayon 27:100 F '46

Synthetics broaden variety of fabrics. T. R. Hart. il Textile World 96:109-10 S '46

When to use rayon; a difficult cotton-mill decision. M. R. Cooper and others. il Textile World 96:117-19+ Mr '46

See also

Rayon weaving

Cotton mixtures

Synthetics broaden variety of fabrics. T. R. Hart. il Textile World 96:109-10 S '46

Defects

Creases due to stickers. H. E. Wenrich. Rayon 27:190-1 Ap '46

Formation of grey creases in rayon goods. H. E. Wenrich. il Rayon 27:138-40 Mr '46

Various reasons for broken picks. H. E. Wenrich. Rayon 27:28-30 Ja '46

Nylon mixtures

Spun nylon-rayon challenges cotton mills. P. M. Thomas. il Textile World 96:141+ My '46

Shrinkage

Fully shrunk spun rayon fabrics. E. Kornreich. Am Dyestuff Rep 35:429-31 S 9 '46

Problem of fabric shrinkage. F. Bonnet. Rayon 27:403 Ag '46

Recent developments in rayon stabilization. J. Epelberg. Am Dyestuff Rep 35:343-6 Jl 15 '46; Same. Rayon 27:355-6, 405-6 Jl-Ag '46; Abstract. Textile World 96:114-15 Je '46

Shrinkage and dimensional stability in rayon fabrics. J. G. Williams. Textile Inst J 37: P116-19 Je '46

Testing

Effect of chlorine retention on rayon fabrics. W. Stump. il Rayon 27:189-90 Ap '46; Same. Am Dyestuff Rep 35:177-8 Ap 8 '46; Abstract. Textile World 96:121+ Mr '46

RAYON fibers

Alginate fibers compared. C. K. Tseng. Textile World 95:113 D '45

Alginate rayons are distinctive new fibers. P. Ripley. Textile World 95:112-13 D '45

Carding and combing of staple fiber eliminated; Greenfield method. il diags Textile World 96:123+ Je '46

Dimensional and structural changes in swollen synthetic fibers. B. R. Roberts. bibliog Rayon 27:243-5, 297-9 My-Je '46

Drawing of rayon staple fiber on a pilot plant basis. B. McComb. Rayon 27:295-6 Je '46

Fibrillar structure of rayon fibers. L. M. Welch, W. E. Roseveare and H. Mark. bibliog il Ind & Eng Chem 38:580-2 Je '46

Germans specialized on viscose rayon fiber. Textile World 96:115 Ja '46

Increased cotton prices helps rayon staple fiber. Rayon 27:466 S '46

Processing rayon and wool fibers on cotton system. E. C. Gwaltney. Rayon 26:644-6 D '45; Same cond. Textile World 95:240+ N '45

Rayon is now cheapest of major textile fibers. W. B. Dall. Textile World 96:101-3 S '46

Report on the rayon staple fiber school at Denkendorf, Germany. E. K. Heard. il diags Rayon 26:575-8 N '45

Running rayon on the woolen system requires care in fiber selection. J. T. Drennen and T. A. Boswell. il Textile World 95:100-1 D '45; Discussion. 96:178+ F '46

RAYON fibers—*Continued*
Use of viscose rayon staple on the cotton system. F. S. Culpepper. Rayon 27:129-32 Mr '46

Blending

Synthetic blends; running synthetic fibers on cotton-system machinery; abstract. L. L. Cobb. il Textile World 96:143+ My '46
Synthetics predominate in three-fiber blends. C. M. Bowden. il Textile World 96:104-7 S '46

RAYON finishing
Cellulose ethers and their application to cellulose fibers; Ceglin. R. T. K. Cornwell and others. Am Dyestuff Rep 35:304-5 Je 17 '46; Same abr. Rayon 27:318-19 Je '46
Crease resistant finishes. A. R. Wachter. Am Dyestuff Rep 34:464-5 N 19 '45
Crease resistant finishes. C. C. Wilcock. Am Dyestuff Rep 34:465-6 N 19 '45
Finishing plant uses infrared on rayon. il diag Textile World 96:117 Ap '46
Laboratory controls rayon piece goods finishing; Capitol piece dye works. E. S. Dunlap. il Textile World 96:123+ O '46
Many finishes possible with Ceglin. Rayon 26: 656 D '45
Nonshrink rayons; new fiber-stabilizing processes. Bsns W p58+ Ja 12 '46
Preparation and finishing of rayon piece goods. C. P. Atkinson. Textile Inst J 36: P171-6 N '45
Rayon dyeing and finishing developments. W. F. Brosnan. Am Dyestuff Rep 34:491-2+ D 3 '45
Recent developments in rayon stabilization. J. Epelberg. Am Dyestuff Rep 35:343-6 Jl 15 '46; Same. Rayon 27:355-6, 405-6 Jl-Ag '46; Abstract. Textile World 96:114-15 Je '46
Recent new developments in rayon finishing. A. R. Wachter. Textile Col 68:20-1+ Ja '46
Shrinkage, what we are doing about it. D. H. Powers. Rayon 27:95-6, 149-51 F-Mr '46
Stabilized rayon produced by new chemical treatment. Sci Am 174:171 Ap '46
Stabilizing rayon finish. W. H. Scott. Textile Col 68:17+ Ja '46
What is happening to distribution methods? Uptown converters process rayon and silk griege goods. A. J. Cohen. Textile Col 68: 22-3+ S '46

See also
Dyes and dyeing—Rayon
Rayon printing
Rayon sizing

RAYON industry
Blended fabrics seen settling battle of the fibers question; reviews and forecasts by leading manufacturers. B. M. May and others. Rayon 27:2-4 Ja '46
Cotton and rayon supply picture for 1946. D. F. Tansill. Textile Col 67:118-19+ N '45
Look at the future of rayon. S. E. Seaman. Rayon 27:116-17 Mr '46
1945 rayon output at record level. Comm & Fin Chr 163:1010 F 21 '46
Post-war review of the rayon market and a preview of its future. M. Kurth. Rayon 27:531-2 O '46
Rayon and rubber; Industrial rayon co; abstract. J. W. Love. Chem & Met Eng 53: 246+ Mr '46
Revolution in rayon; a continous process for viscose yarn. il Fortune 34:100-7+ S '46
World production of rayon declines. Comm & Fin Chr 164:400 Jl 18 '46

See also
American viscose corporation
Celanese corporation of America

Advertising

Building industrial and consumer preference for rayon cord tires. B. M. Lewy. il Ind Marketing 31:43-4 F '46
This company's school material starts with six-year-olds; work with club women centers around portfolio; American viscose corporation. A. Ten Eyck. il Ptr Ink 216: 55-6+ Jl 26 '46

Finance

Cotton and rayon textile companies: an analysis of comparative investment values and opportunities. 92p pa $1 E. W. Axe & co, inc, 730 5th av, New York 19 '46

Regulation

Reviews government control of rayon industry. I. Blunt. Textile Col 68:24-5+ Mr '46

Service

Custom tailored product research, a four-way tool for management; Textile research department of American viscose corp. il Sales Management 56:42-5 F 15 '46

Statistics

Data on rayon broad woven goods. Rayon 27:67-9 F '46
Plastics and rayon prepare for peacetime progress. Chem & Met Eng 53:106-7 Ja '46
Rayon is now cheapest of major textile fibers. W. B. Dall. Textile World 96:101-3 S '46
Rayon production up ten percent, 1945. Chem Ind 58:503 Mr '46
U.S.A. rayon production, 1934-1945; chart. Rayon 27:5 Ja '46
World rayon production declines to lowest level in a decade; 1945. Rayon 27:396 Ag '46

Germany

General survey of the German rayon and staple fiber industry. Rayon 27:14-16, 70-2 F '46
German fibers. il Chem & Met Eng 53:162-3 F '46
German rayon industry. Mech Eng 68:657 Jl '46
Germans specialized on viscose rayon fiber. Textile World 96:115 Ja '46
Observations of the rayon weaving and throwing industry in Germany. E. C. Geier. diags Rayon 27:185-8, 238-40, 293-4 Ap-Je '46; Excerpt. Textile Col 68:28+ Ap '46
Report on German methods of rayon filaments and staple fiber manufacture. L. L. Leach. il Rayon 26:571-5, 631-6 N-D '45
Report on the rayon staple fiber school at Denkendorf. E. K. Heard. il diags Rayon 26:575-8 N '45

Great Britain

British factories convert to rayon. Rayon 27: 525 O '46
British rayon industry facing raw material problems. Rayon 27:199-200 Ap '46
Rayon statistics; production, exports and labor force; tables. Economist 149:698-9 N 10 '45
Report of British rayon weavers' delegation on its U.S. tour; abstract. Rayon 27:340-1 Jl '46
Story of Courtaulds, limited. C. H. Ward-Jackson. Rayon 27:349-50 Jl '46
United Kingdom average monthly production of rayon yarn and staple fiber, 1939-1945. For Comm W 21:36 D 29 '45

Italy

Report of Snia Viscosa. Chem Age (Lond) 54:731 Je 29 '46

Japan

Japan's rayon plants shrink. Bsns W p113 D 15 '45

Peru

Peru about to produce rayon yarn. Rayon 27:340 Jl '46

United States

Report of British rayon weavers' delegation on its U.S. tour; abstract. Rayon 27:340-1 Jl '46

RAYON machinery
Carding and combing of staple fiber eliminated; Greenfield method. il diags Textile World 96:123+ Je '46
Drawing of rayon staple fiber on a pilot plant basis. B. McComb. Rayon 27:295-6 Je '46
German rayon industry. Mech Eng 68:657 Jl '46
Observations of the rayon weaving and throwing industry in Germany; Kreuzwalke, E. C. Geier. diags Rayon 27:293-4 Je '46

RAYON manufacture
Economics of viscose rayon manufacturing. P. W. Frisk. Rayon 27:17-19 Ja '46
General survey of the German rayon and staple fiber industry. Rayon 27:14-16, 70-2 Ja-F '46

RAYON manufacture—*Continued*
History of Industrial rayon corporation's continuous process for the manufacture of viscose rayon. Rayon 27:173 Ap '46
Making artificial silk; unusual high-speed drives, British Enka. il Elec R (Lond) 139:127-31 Jl 26 '46
Patents digest of two-bath coagulating viscose process development. F. L. Durr. Rayon 27:126-8, 196-7, 246-7, 300-1, 357-8, 414-17 Mr-Ag '46
Process water for rayon. L. B. Miller. bibliog flow sheet il diags Rayon 26:657-62 D '45
Recovery and utilization of process chemicals in the viscose rayon industry. P. W. Frisk. il diag Rayon 27:461-3 S '46
Report on German methods of rayon filaments and staple fiber manufacture. L. L. Leach. il Rayon 26:571-5, 631-6 N-D '45
Some aspects of the economics of evaporation. H. B. Caldwell and W. D. Kohlins. diags Am Inst Chem Eng Trans 42:500, 503-6 Je '46

See also
Rayon finishing
Rayon mills

RAYON mills
Causes and consequences of mill converting. W. Greene. Textile Col 68:18-19+ Ap '46
Chute plants plan non-aviation items. Aviation N 5:21 Ja 14 '46
Complete conversion to rayon at Cowansville plant of Bruck silk mills. E. F. Mann. Rayon 27:20-1 Ja '46
Demand for mills affects quarter of industry; with list of mill mergers and acquisitions, Jan. 1944-June 1946. W. B. Dall. plan Textile World 96:101-6+ Jl '46
Prerequisites in establishing a viscose rayon plant. P. W. Frisk. il Rayon 27:73-5 F '46
Process water for rayon. L. B. Miller. bibliog flow sheet il diags Rayon 26:657-62 D '45
Textile industry knits itself; trend toward vertical integration of rayon and cotton mills emphasized by Textron's latest acquisition. Bsns W p68+ My 18 '46
Treatment and preparation of water in rayon textile mills. W. S. Habbart. il Rayon 26:579-81 N '45
U.S. rubber company acquires rayon cord plant at Scottsville, Va. il Manuf Rec 114:64+ D '45

Air conditioning

Modern textile mills make their own weather. il Rayon 27:433-5 Ag '46

Employees

Catch-all muffs; Lewis' raid on C.I.O. textile workers, American Viscose employees. Bsns W p98 Jl 6 '46

Equipment

Automatic tramrail delivery to 87 machines; United States rubber company, rayon mill, Scottsville, Va. E. L. Johnson. il Factory Management 104:88-9 Ag '46

Gummy loom heddles cleaned in soaking tanks. H. Mochrie. il Textile World 96:135 O '46

Present needs for lead in viscose rayon spinning. J. H. Torrence. il Rayon 27:471-2 S '46

Streamline production with mechanical materials handling. il Rayon 26:607-9 N '45

Experimental plants

Planning a pilot plant for spinning blended yarns. B. McComb. Rayon 27:133-5 Mr '46

RAYON oiling
Lubricating rayon, mixed ether-esters; British patent. Am Dyestuff Rep 35:476 O 7 '46

Rayon on woolen system; oiling rayon and wool is similar but opening differs. J. T. Drennen and T. A. Boswell. il Textile World 96:100-1+ Ja '46

RAYON patents. See Rayon—Patents

RAYON printing
Celanese; Fortisan dyeing and printing. A. Mellor. Soc Dyers & Col J 62:168-72 Je '46; Same. Am Dyestuff Rep 35:348-52 Jl 15 '46; Discussion. Soc Dyers & Col J 62:172-3 Je '46

Emphasis is on quality in print preparation. T. N. Patrick. il Textile World 96:127+ O '46
Faults in rayon screen printing. Rayon 27:428-32 Ag '46
Good blotch printing of spun rayons achieved with vat colors. T. N. Patrick. il Textile World 96:100-1+ Ja '46
Screen printing; with formulas. R. C. Geering. il diag Rayon 27:89-94 F '46
Vat printing. R. C. Geering. Rayon 27:553-7 O '46

RAYON research
DuPont makes research positions more attractive. Rayon 27:58-9 F '46
Protective colloid action by cellulose xanthate. P. C. Scherer. Rayon 27:409-14 Ag '46
Review of American Viscose's textile research department. G. G. Whytlaw. il Rayon 27:457-60 S '46

RAYON sizing
Dipping of rayon tire cord. C. H. Beaver. il Rayon 27:467-9 S '46
Effect of slashing on synthetics; abstract. H. Southers. Textile World 96:129+ Ja '46
Gelatin grades affect slashing of rayon yarns. H. B. Sweatt. il Textile World 96:141+ Mr '46
New sizing methods found for synthetic fibers in Germany. J. Melerhans. il Textile World 96:107-9 My '46
Outline on warp sizing of spun rayon. R. Hart. Am Dyestuff Rep 35:79-82 F 11 '46; Same. Rayon 27:192-5 Ap '46
Trouble spots in warp slashing. H. B. Sweat. Rayon 26:601-2 N '45

RAYON spinning
Continuous spinning and processing of viscose rayon. Rayon 27:418-20 Ag '46
Drawing of rayon staple fiber on a pilot plant basis. B. McComb. Rayon 27:295-6 Je '46
Flax system gives rayon linen-like appearance. S. A. G. Caldwell. il diag Textile World 96:125+ Ag '46
Foreign countries adopt continuous spinning process. M. P. Epstein. Rayon 27:339 Jl '46
Planning a pilot plant for spinning blended yarns. B. McComb. Rayon 27:133-5 Mr '46
Present needs for lead in viscose rayon spinning. J. H. Torrence. il Rayon 27:471-2 S '46
Processing rayon and wool fibers on cotton system. E. C. Gwaltney. Rayon 26:644-6 D '45; Same cond. Textile World 95:240+ N '45
Rayon on woolen system; lower draft needed for rayon than for wool. J. T. Drennen and T. A. Boswell. il Textile World 96:133+ Mr '46
Report on the rayon staple fiber school at Denkendorf, Germany. E. K. Heard. il diags Rayon 26:575-8 N '45
Tinting and fly plague; Bradford spinners using rayon. F. E. Cleyn. il Textile World 96:108 S '46

RAYON staple fiber. See Rayon fibers

RAYON throwing
Acetate organzine not difficult to throw. S. L. Miller. il Textile World 96:139 O '46
Observations of the rayon weaving and throwing industry in Germany. E. C. Geier. diags Rayon 27:238-9 My '46

RAYON weaving
Factors in warp-yarn breakage. H. E. Wenrich. il Rayon 27:473-4 S '46
500 weaves are standard for rayon fabrics. R. Bouvet. Textile World 96:135+ Jl '46
Formation of grey creases in rayon goods. H. E. Wenrich. il Rayon 27:138-40 Mr '46
Germans trailed U.S. in throwing and twisting. E. C. Geier. il diags Textile World 96:123+ Ap '46
How would you solve this weaving problem? Rayon 27:135 Mr '46
Light-weight contest scheduled for materials suppliers in textile field; shipping of warps to rayon mills. Sci Am 174:69 F '46
Linen-like fabrics can be woven from rayon. S. A. G. Caldwell. diag Textile World 96:145+ Ap '46

RAYON weaving—*Continued*
Observations of the rayon weaving and throwing industry in Germany. E. C. Geier. diags Rayon 27:185-8, 238-40, 293-4 Ap-Je '46; Excerpt. Textile Col 68.28+ Ap '46
Old cloth with new yarns; Himalaya cloth. P. G. Alexander. Rayon 27:407 Ag '46
Quality demands of narrow fabrics reduce loom efficiency; weaving World war II Victory ribbon. G. Grossgebauer. il Textile World 95:112-14 N '45
Shuttle furring and yarn tensioning. H. E. Wenrich. il Rayon 26:582-4 N '45
Synthetics broaden variety of fabrics. T. R. Hart. il Textile World 96:109-10 S '46
Various reasons for broken picks. H. E. Wenrich. Rayon 27:28-30 Ja '46
Wrong warp ends in warps. P. G. Alexander. Rayon 27:308 Je '46

RAYON yarn
Continuous spinning and processing of viscose rayon. Rayon 27:418-20 Ag '46
Dielectric heating cuts twist-setting and drying time. C. N. Batsel. il diag Textile World 96:139+ S '46
Economics of viscose rayon manufacturing. P. W. Frisk. Rayon 27:17-19 Ja '46
Effect of denier on fabric blends. F. S. Culpepper. Textile Col 68:18+ Mr '46
Factors in warp-yarn breakage. H. E. Wenrich. il Rayon 27:473-4 S '46
Flax system gives rayon linen-like appearance. S. A. G. Caldwell. il diag Textile World 96:125+ Ag '46
Practical effect of stretching synthetic yarns; presented by Piedmont section. Am Dyestuff Rep 35:26-8 Ja 14 '46; Same cond. Rayon 27:77-8 F '46
Problem in manufacture of rayon combination yarn. Rayon 27:542-3 O '46
Revolution in rayon; a continous process for viscose yarn. il Fortune 34:100-7+ S '46
Running rayon on the woolen system. J. T. Drennen and T. A. Boswell. il Textile World 95:100-1 D '45
Strong yarns require special filling bobbins. H. E. Wenrich. il Textile World 96:127+ Ja '46
Tinted yarn cakes reshaped with wooden cone. T. H. Smith. diag Textile World 96: 138+ Ag '46
Use of high tenacity specialty yarns growing. R. Levine Rayon 27:524 O '46
Use of viscose rayon staple on the cotton system. F. S. Culpepper. Rayon 27:129-32 Mr '46

Mixtures

Drawing of rayon staple fiber on a pilot plant basis. B. McComb. Rayon 27:295-6 Je '46

Tables, calculations, etc.

New additions in American rayon deniers and filament table; revised as of March, 1946. H. R. Mauersberger. Rayon 27:136-7 Mr '46
Post-war situation in rayon yarn deniers and filament numbers; revised tables as of September 1946. H. R. Mauersberger. Rayon 27:464-6 S '46

Wool mixtures

Carding rayon-wool blends. B. McComb. Rayon 27:247-8 My '46
Tinting and fly plague Bradford spinners using rayon. F. E. Cleyn. il Textile World 96:108 S '46

RAYS
See also
Absorption of rays
Alpha rays
Beta rays
Cosmic rays
Gamma rays
Infrared rays
Radiation
Ultraviolet rays
X rays

RAYTHEON manufacturing company
Merger of Submarine signal co. Barron's 26:7 Je 24 '46
Raytheon to hold some of wartime gains. Barron's 25:6 N 26 '45
Rise of Raytheon in Boston's suburbs. il Fortune 34.136-41+ O '46
Thumbnail stock appraisal. Mag of Wall St 78:341 Je 22 '46

RAZOR blades
One billion hits predicted for carbide dies; making razor blades. G. A. Barth. il diags Am Mach 90:142-3 Jl 18 '46

REACTIVE power
Reactive measurements. G. W. Stubbings. Electrician 136:656-7 Mr 15 '46
Sign of reactive power; AIEE committee report on proposed change. diags Elec Eng 65:512-16 N '46
Three-phase supplies of zero VA. G. W. Stubbings. Electrician 136:1088-9 Ap 26 '46

REACTORS
Guides for operation of transformers, regulators, and reactors. Elec Eng 64:Trans 797-805 N '45
Linear couplers, field tests and experience at York and Middletown, Pa. E. L. Harder and others. bibliog il diags Elec Eng 65:Trans 107-13 Mr '46
90-Mva reactors for the Central electricity board. il diags Engineering 162:344-5 O 11 '46
Nonlinear commutating reactors for rectifiers. A. Schmidt, jr. diags Elec Eng 65:Trans 654-6 O '46
Peak voltages induced by accelerated flux reversal in reactor cores operating above saturation density. T. Specht and E. C. Wentz. bibliog il diags Elec Eng 65:Trans 254-62 My '46
What you should know about industrial electronics; saturable reactor. il Am Mach 90: 130 Ag 1 '46
See also
Petersen earth coil

READ, Jess G. 1886-1946
Sketch. por East Underw 47:29 Jl 26 '46; Nat Underw 50:1 Jl 25 '46; Nat Underw (Life ed) 50:1 Jl 26 '46

READING company
Annual report, 48th, for year ended Dec. 31, 1945. Comm & Fin Chr 163:2447 My 6 '46
Condensed annual report. Ry Age 120:934 My 4 '46

READING glasses. See Magnifiers

READING machines
See also
Microfilm reading machines
Optophone

READY-mixed concrete. See Concrete mixing—Ready-mixed concrete

REAL estate business
Boom market. Arch Forum 85:7 Jl '46
Coming real estate values. R. H. Armstrong. Comm & Fin Chr 163:722+ F 7 '46
Crazy real estate market. R. W. Babson. Comm & Fin Chr 163:3485 Je 27 '46
Foresees higher real estate values. C. F. Noyes. Comm & Fin Chr 162:3135 D 27 '45
Grapefruit out of lemons; Webb & Knapp real estate business. Fortune 33:218 Ap '46
Inflation in real estate prices. E. V. Bell. Comm & Fin Chr 163:3476+ Je 27 '46
Outlook for the future real estate market. R. Wenzlick. Burroughs Clearing House 30:3 Ap '46
Real estate activities; report to Housing expediter Wyatt. Comm & Fin Chr 163:1836+ Ap 4 '46
Realty boom loses steam. Bsns W p15-16 O 19 '46
Some real estate men turn to insurance sales. Nat Underw 50:40 O 24 '46
See also
Building
Housing projects
Land—Subdivision
Mortgages
Rent

Accounting

Accounting for real estate corporation. J Account 81:426 My '46

Advertising

Real estate and other advertising. S. C. Saunders. Dom Comm 34:13+ Mr '46

Securities

Real estate securities. Published in weekly Thursday numbers of Commercial and financial chronicle

Chicago

That land again; sale of Morrison Hotel plot is less than final. Bsns W p30 Ja 19 '46

REAL estate business—*Continued*

Florida

As Miami goes, so goes the boom. Arch Forum 85:16+ O '46

Hawaiian Islands

Hawaiian realty boom. Bsns W p21 N 2 '46

New York (city)

Man over Manhattan; New York real estate is being pushed around by a new giant; Robert W. Dowling. Arch Forum 84:96-9 Ja '46

Southeastern states

Farm land values in the Southeast. D. Young. J Land & Pub Util Econ 22:213-22 Ag '46

REAL estate developments. See Suburban development

REAL estate foundation, National. See National real estate foundation

REAL estate management, Industrial. See Industrial real estate management

REAL property

See also

Farms
Land tenure
Land values
Mortgages
National real estate foundation
Real estate business
Rent
United States—Government property

Valuation

Practical ideas for appraising new homes for loans. il Bankers Mo 63:173-5 Ap '46

See also

Insurance, Fire—Valuation of property

REAMERS

Cutting action of reamers; abstract. T. F. Githens. Mach 53:175 S '46

Device for reaming underframe. il Ry Mech Eng 119:600 D '45

Taper reamer bores porcelain enamel without chipping. V. P. Thomas. diag Am Mach 90:141 S 26 '46

REAMING

Machining stainless steels. E. Von Hambach. diags Steel 119:66-7 S 30 '46

Speeds, feeds, and lubricants for reaming; abstract. T. F. Githens. Mach 52:157 Ag '46

RECEIVERS

Appointment of receiver of investment trust upheld where officers and trustees of trust are guilty of gross abuse of trust. Banking Law J 63:30-40 Ja '46

See also

Insurance companies—Receiverships
Railroads—Receiverships

RECIPROCAL insurance. See Insurance, Reciprocal

RECIPROCITY theorem

Violation of the reciprocity theorem in linear passive electromechanical systems. E. M. McMillan. diags Acoustical Soc Am J 18: 344-7 O '46

RECLAMATION association, National. See National reclamation association

RECLAMATION of land

Future of resource engineering. K. Markwell. il Civil Eng 16:53-6 F '46

Holland rushes work to reclaim farmland. il Eng N 136:8 Ja 3 '46

Reclamation and conservation of stripped-over lands. L. E. Sawyer; J. W. Bristow; R. T. Laing. il Min Cong J 32:26-36 Jl '46

See also

Drainage
Irrigation

RECONSTRUCTION (World war, 1939-1945)

American position in monetary equilibrium. P. Jacobsson. Comm & Fin Chr 163:3067+ Je 6 '46

Economic post-war problems in Denmark; employment, wage and financial policies. Int Labour R 53:186-94 Mr-Ap '46

Economic reconstruction in Europe. M. B. Folsom. Comm & Fin Chr 162:2576+ N 29 '45; Same revised. 163:1690+ Mr 28 '46

Europe's financial needs; mistakes of 1919. R. B. Warren. Comm & Fin Chr 162:2569+ N 29 '45

Financial reconstruction on the Continent. W. Dreyfus. Comm & Fin Chr 163:831+ F 14 '46

Foreign reconstruction. J. R. Hight. il Iron Age 157:160-3+ Ja 3 '46

France maps U.S. purchases. Bsns W p97-8 Je 22 '46

German crisis. Economist 150:527-32 Ap 6 '46

Greek reconstruction problems. Economist 151:56, 99, 180, 219 Jl 13-20, Ag 3-10 '46

Hungary; a test case. Economist 150:996-8 Je 22 '46

Impoverished Europe faces slow comeback. P. B. Fleming. il Eng N 136:203-8 F 7 '46

Norway's arctic problem; grim difficulties tackled. I. A. Jacobsen. il For Comm W 22:9-10+ Mr 2 '46

Not peace but a sword; crisis of modern man is spiritual. Fortune 33:97-9 Ja '46

Rebuilding Manila. H. Leopold. il maps Eng N 137:172-7 Ag 8 '46

Reconstruction in France. Engineer 181:76-7, 98-9 Ja 25-F 1 '46

Reconstruction work in the Netherlands. J. A. Ringers. Engineering 160:477 D 7 '45

Rehabilitation of ruined Manila. H. W. Richardson. il Eng N 136:221-6 F 7 '46

Relics of economic warfare. Economist 150: 574-5 Ap 13 '46

Report from Europe. P. Kelly. Arch Forum 84:105-6+ Mr '46

Towards industrial recovery in France. Economist 149:632-3 N 3 '45

Unfinished business of American democracy. L. Wirth. Ann Am Acad 244:1-9 Mr '46

U.S. economic policy toward Germany; statement by Secretary of state Byrnes. Comm & Fin Chr 162:3049+ D 20 '45

Warsaw's new plan. il maps plan Arch Forum 84:106-12+ Je '46

Why this peace should work; in the economic skies there are hopeful portents. W. L. Clayton. Fortune 33:123-5 My '46

World ahead. L. W. Douglas. Comm & Fin Chr 163:2639+ My 16 '46

See also

Finance, International
also United nations relief and rehabilitation administration

Bibliography

Postwar adjustment. Bulletin of Bibliography [F. W. Faxon co, Boston] 18:125-6, 174:6, 227-9 Ja, S '45, My '46

Relief work

Europe's winter. Economist 149:618-20 N 3 '45

Food scandal. il map Fortune 33:88-95 My '46

Let them eat grass? Fortune 33:85 My '46

Parcels overseas; introduce our brand names to Europeans. il Bsns W p22 Je 8 '46

Relief packages for scientific workers in western Europe. F. Verdoorn. Science 103:372-3 Mr 22 '46

Urges continuation of Russian relief. W. A. Harriman. Comm & Fin Chr 163:1498+ Mr 21 '46

RECONSTRUCTION finance corporation

Audit report on Reconstruction finance corporation. T. C. Andrews. J Account 82:265-8 S '46

Disposal of surplus paints, varnishes and lacquers. L. P. Evans. Paint Oil & Chem R 108:18 N 1 '45

Government loans to business. H. T. Bodman. Comm & Fin Chr 164:611+ Ag 1 '46

Hits government guarantee of loans. R. M. Hanes. Comm & Fin Chr 164:352 Jl 18 '46; Same abr. Banking 39:116 Ag '46

Loan agency offers credit for postwar industrial expansion. C. B. Henderson. Steel 117:42-5 D 31 '45

President's message for extension of life of RFC. Comm & Fin Chr 163:2562 My 9 '46

RFC help for small business. C. B. Henderson. Power Pl Eng 50:57 Ja '46

RFC makes plans to stay awhile longer. V. Royster. Barron's 26:3+ My 20 '46

RFC strategic materials listed. Oil Paint & Drug Rep 149:5+ Je 24 '46

RECONSTRUCTION finance corporation—*Continued*
RFC under fire; Comptroller General L. C. Warren's report. Bsns W p19 Je 29 '46

Small business division
Department of commerce and Reconstruction finance corp. set up new offices to service small business. Steel 119:60+ Jl 22 '46
RFC gets small business division. Comm & Fin Chr 163:3267 Je 13 '46

RECONSTRUCTION finance corporation mortgage company
RFC mortgage co. provides market for housing loans to veterans. Comm & Fin Chr 164:1702 O 3 '46

RECONVERSION. See Factories—Reconversion; Industrial demobilization

RECORDING instruments
Activity recorder charts weaver efficiency; total loom stops, warp and filling stops by machine. C. S. Parsons. Textile World 96:127+ Ap '46
Akron V-notch liquid recorder. il diag Water & Sewage 84:32 Ja '46
Bailey combustibles recorder-controller. diag Blast F & Steel Pl 33:1424+ N '45
Combustibles recorder-controller and the Penetron. R. H. Munch. il diag Ind & Eng Chem 38:sup79-80 Ja '46
Demand metering instruments; rate recorders developed by Peoples gas light and coke company. H. E. Ferguson. il diag Am Gas Assn Mo 27:529-32+ D '45
Measurement of ocean waves generated by atomic bombs; Bikini Atoll test plans. N. J. Holter. il diags Electronics 19:94-8 My '46
Torque screw pole tester graphs condition of standing poles. H. A. Stingle. il diag Elec World 126:69 Jl 6 '46
See also
Oscillographs
Telephone recorders
Wind recorders

RECORDING instruments, Electric
Advantages of high-speed electronic recording in industrial process measurements. D. M. Considine and D. P. Eckman. il diags Am Inst Chem Eng Trans 42:707-23 Ag '46; Same. Steel 118:114-16+ My 20; 94-6+ My 27 '46; Same abr. Chem Ind 58:785-7; 982-4 My-Je '46; Same. J Chem Educ 23:274-82 Je '46; Same cond. Rayon 27:267-71 My '46
Atmosphere dew-point recorder uses refrigerated reflector. il Am Mach 89:150 D 6 '45
Autographic method for obtaining load-extension records of high-speed tensile tests on sheet specimens at elevated temperatures. A. E. Flanigan and others. il diags J Aeronautical Sci 13:405-9 Ag '46
Automatic ticketer makes infallible records; makes possible placing of toll calls by direct dialing. il diags Machine Design 17: 147-50 N '45
Current-force recording in resistance welding. J. M. Popp. il diags Electronics 19: 166+ Ag '46
Data from activity-recording instruments applied to textile machinery. C. S. Parsons. il A S M E Trans 68:557-63; Discussion. 563-4 Jl '46
Electrodynamic direct-inking pen for inking wave forms of transients directly on a moving paper chart. H. B. Shaper. il Electronics 19:148-51 Mr '46
Electromagnetic pressure recorder. H. H. Baxter. il diags Electrician 135:691-3 D 21 '45
Electronically balanced recorder for flight testing and spectroscopy. A. J. Williams, jr. and others. il diags Elec Eng 65:Trans 205-8 Ap '46
High speed pulse recording circuit. B. E. Watt. diags R Sci Instr 17:338-42 S '46
Kelvin Bottomley and Baird electric barograph. il Engineer 182:109 Ag 2 '46
Mobile electronometer records stresses in vehicle road test by electric strain gage method. J Geschelin. il Automotive & Aviation Ind 95:28-31+ O 15 '46
Multelec potentiometric recorder. il Electrician 135:501 N 9 '45
Multiple record printing principles and design. A. H. Jordan and C. A. Vogelsang. il diags Pet Eng 17:124+ Ag '46
New electronic device checks production; Lectro-Count. il Steel 118:128 F 11 '46
New recorder for machine temperatures. H. S. Day. il diags Gen Elec R 49:30-2 S '46
Recorder-controller for temperature and humidity. V. D. Hauck and others. il diags Electronics 19:96-9 S '46
Recording device actuated by 3½ amp. at 1½ volts. diags Elec World News ed 126: 22 Jl 27 '46
Recording ocean currents by radio; current meter records radio-transmitted dots and dashes on a chronographic tape. il Eng N 136:118-19 Ja 24 '46
Recording residual chlorine. J. R. Baylis and others. il diag Am Water Works Assn J 38.1057-63 S '46
Sensitive ball bearing test unit measures small changes in torque. J. L. Snead and H. Gisser. il diags Product Eng 17:129-31 O '46
Three ways to speed up chart reading and folding. A. Payne. il Elec World 125:124 F 16 '46

RECORDING paper. See Paper, Recording

RECORDS
See also
Accounting
Airplane factories—Records
Banks and banking—Records
Card system in business
Corporations—Records
Employment departments—Records
Factories—Records
Files and filing (documents, etc.)
Forms and blanks, Business
Inventories
Medical service, Industrial—Records
Microfilm records
Production control
Punched card system
Railroads—Records
Sales records
Stores systems
Street departments—Records

RECORDS, Destruction of. See Files and filing (documents, etc.)

RECORDS, Microfilm. See Microfilm records

RECORDS, Preservation of
Waterproof coating for plant records. C. B. Westerhoff. Chem & Met Eng 52:120 D '45
See also
Microfilm records

RECORDS, Visible
Records put sales facts to work; visible-card sales record system, Solventol Chemical Products. R. G. French. il Am Bsns 16:16-17+ S '46

RECREATION
Educational, cultural, and recreational services to increase participation in community life. R. R. Isaacs. Ann Am Acad 242:129-38 N '45
Idea for a successful company party; American Mutual photo-fashion show. il Ptr Ink 216:39 Ag 16 '46
Letting employees run the recreation program; Winchester repeating arms company. T. I. S. Boak. il Factory Management 103: 118-20 D '45
Lighting for recreation; abstract. E. P. Mawson. Light & Lighting 38:142-3 O '45
Operations and plants of International nickel company of Canada; employee activities. il Can Min J 67:520-2 My '46
Recreational activities in industry. C. Skillman. il Paper Ind 28:382-5 Je '46
Tying employee recreation into the community; Dow chemical company. G. L. Shipps. il Factory Management 104:149-51 Je '46
See also
Reservoirs—Recreational use
Watersheds—Recreational use

RECREATION buildings
Amusement hall transformed into modern sports and relaxation center serving employes of Scovill manufacturing co. il plan Arch Forum 83:104-5 D '45
Arena floor is insulated with mascrete; Boston arena. C. Stiles. il Concrete 54:22-3 Ap '46
Living memorials; center for ex-servicemen, Union, N.J. il plans Am Bld 68:72-3 Ja '46

RECREATION buildings—*Continued*
Navy builds for recreation. il Arch Forum 84:132-3 Mr '46
Workers own and operate their recreation building; Allen B. Wrisley company, Chicago. il Factory Management 104:90-1 F '46
See also
Bowling alleys
Casinos
Skating rinks

RECREATION centers
Mexico city builds $10 million sport city. il plan Eng N 135:632 N 8 '45
See also
Community centers
Trade union buildings

RECREATION rooms
Attic hobby room utilizes waste space. il plan Am Bld 68:84 Ag '46

RECRUITING campaigns
Sales strategy behind the campaign for recruiting a peacetime army. T. Armstrong. il Sales Management 56:109+ Mr 15 '46

RECRYSTALLIZATION. See Crystallization

RECTIFICATION
Rectification in ternary systems containing binary azeotropes. R. H. Ewell and L. M. Welch. bibliog Ind & Eng Chem 37:1224-31 D '45
See also
Distillation

RECTIFIERS, Electric. See Electric rectifiers

RECTIFIERS, Radio. See Radio rectifiers

RED
Red, another second color that works wonders. G. J. Church. il Inland Ptr 117: 56 Ag '46

RED and white corporation
Better selling, better merchandising dominate Red & White expansion plan. R. O. Harb. il plan Sales Management 56:80+ F 1 '46

RED cross
Disaster; relief work of the American national Red cross. C. F. Rupprecht. il map Spectator (Life ed) 153:56-63+ N '45; Same. Spectator (Property ed) 11:10-15+ D 20 '45
Pause for inquiry; philanthropic organizations look into their management and expenditures. Bsns W p17-18 Jl 6 '46

REDOX potential. See Potential, Electric

REDUCTION, Chemical
Apparent anomalous monoreduction of 2:4-dinitrotoluene explained on the theory of hyperconjugation (the Baker-Nathan effect). H. H. Hodgson. bibliog Soc Dyers & Col J 62:114-15 Ap '46
Determining rates of deoxidation of iron oxide materials in reducing gases; loss-in-weight method. E. P. Barrett and C. E. Wood. diags Ind & Eng Chem Anal ed 18: 285-6 My '46
Flavanones and related compounds; the colored reduction products of polyhydroxyflavanones. T. A. Geissman and R. O. Clinton. bibliog Am Chem Soc J 68:700-6 Ap '46
Flavanones and related compounds; the reduction of luteolin and apigenin trimethyl ether with sodium amalgam. T. A. Geissman and R. O. Clinton. Am Chem Soc J 68:706-8 Ap '46
New aldehyde synthesis. M. L. Wolfrom and J. V. Karabinos. bibliog Am Chem Soc J 68:1455 Ag '46
Nickel plating on steel by chemical reduction. A. Brenner and G. E. Riddell. 2 pls diag J Res Nat Bur Stand 37:31-41 Jl '46
Preferential reduction of nitro groups in polynitro-compounds; the preparation of 4 : 5-dinitro-2-naphthylamine from 1 : 3 : 8-trinitronaphthalene and a comparison of sodium sulphide reductions of available dinitronaphthalenes. H. H. Hodgson and E. R. Ward. Chem Soc J p794-6 N '45
Production of metallic calcium by thermal reduction. C. C. Loomis. il Electrochem Soc Trans 89 (preprint 9):119-26 '46
Reaction vessel for maintaining constant pH by continuous electrometric titration during sodium amalgam reductions. N. Sperber and D. R. Briggs. diag Ind & Eng Chem Anal ed 18:74-5 Ja '46
Reducing properties of methane; experiments with metallic oxides. Chem Age (Lond) 54: 234 Mr 2 '46
Reduction by dissolving metals. A. J. Birch. Chem Soc J p430-6, 809-13, 593-7 S '44, N '45, Jl '46
Reduction of amide vinylogs. R. H. Baker and A. H. Schlesinger. bibliog Am Chem Soc J 68:2009-11 O '46
Reduction of ethyl α-benzylamino-β-methoxy-*n*-caproate with sodium and butyl alcohol. C. Niemann and C. T. Redemann. bibliog Am Chem Soc J 68:1932-4 O '46
Reduction of pentaerythrityl tetrabromide in ethanol with zinc; isolation of spiropentane. V. A. Slabey. bibliog Am Chem Soc J 68: 1335-6 Jl '46
Selective reduction of iron in chromite by methane-hydrogen and similar gas mixtures. F. S. Boericke. U S Bur Mines Rep of Invest 3847:1-14 '46
Stability of chelate compounds; polarographic reduction of copper chelates. M. Calvin and R. H. Bailes. bibliog Am Chem Soc J 68: 949-54 Je '46
See also
Reductors

REDUCTION, Electrolytic
Coulometric analysis. J. J. Lingane. diags Am Chem Soc J 67:1916-22 N '45
Electro-organic chemical preparations. S. Swann, jr. bibliog tables Electrochem Soc Trans 88 (preprint 23):237-54 '45
Influence of structure and strain in a metal cathode on the electrolytic reduction of nitrobenzene to aniline. D. N. Solanki. bibliog Electrochem Soc Trans 88 (preprint 18):197-202 '45
Sugar interconversion under reducing conditions. M. L. Wolfrom and others. bibliog Am Chem Soc J 68:122-6, 578-80, 1443-8 Ja, Ap, Ag '46

REDUCTORS
Regeneration of the Walden silver reductor. E. H. Huffman. Ind & Eng Chem Anal ed 18:273 Ap '46

REDWOOD
Redwood notes. D. H. Campbell. Science 104: 63 Jl 19 '46
Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in cyclohexene and gasoline. H. F. Lewis and others. bibliog il Ind & Eng Chem 37:1108-11 N '45
Wood for storage battery separators. L. V. Peakes, jr. and others. il Ind & Eng Chem 38:780-8 Ag '46

REECE bill. See Federal trade commission

REED, Ralph Thomas, 1890-
Head of American Express. por(cover) Bsns W p8 Jl 27 '46

REED, Robert Henry, 1895-
Portrait. Bsns W p52 S 28 '46

REED bill. See Railroads—Receiverships

REEFS
Algae reefs in cap rock of Ogallala formation on Llano Estacado plateau, New Mexico and Texas. W. A. Price and others. 4pls map Am Assn Pet Geologists Bul 30:1742-6 O '46

REEFS, Coral. See Coral reefs and islands

REELS
Wire reels; redesigned for fabrication from alloy steel. il diag Steel 117:108 N 26 '45

REEMPLOYMENT of seamen. See Seamen—Law

REEMPLOYMENT of veterans. See Veterans—Reemployment

REES, Walter James, 1879-
Rees retires from University of Sheffield, England. Am Cer Soc Bul 25:38 Ja 15 '46

REESE, Clarence Jack, 1900-
Portrait. Bsns W p48 Je 1 '46

REESER, Edwin B. 1873-
API, past living president. por Nat Pet N 38:52 O 30 '46

REFERENCE books
What reference books should admen have? personalized system of information. J. A. Murphy. Adv & Sell 39:102+ F '46

REFERENCE books—*Continued*

Bibliography

Business reference publications; trade directories, catalogs, cyclopedias and buyers' guides. Ind Marketing 30:133-4 O 25 '45

Some general desk reference books. M. Bateman. Assn of Sp Lib & Inf Bur Proc 1945: 84-6, 87-8; Discussion. 86-7

REFINERIES, Petroleum. See Petroleum refineries

REFLECTION (optics)

Cellulose-dyestuff complex; intensity of light reflected from dyed fibres. J. M. Preston and P. C. Tsien. bibliog il diag Soc Dyers & Col J 62:242-4+ Ag '46

Coated lenses; quarter-wave anti-reflection coatings. il Consumers Res Bul 17:17-20 My '46

Experimental and theoretical resins in two-layer low reflecting coatings for glass. P. King and L. B. Lockhart. Opt Soc Am J 36:513-17 S '46

Interreflection method of predetermining brightnesses and brightness-ratios; report no.3 of Committee on standards of quality and quantity for interior illumination, Illuminating engineering society. bibliog diags Illum Eng 41:361-85 My '46

Light scattering and absorption coefficients from reflectance data; optical properties of paper. W. B. Campbell and J. Benny. Pulp & Pa of Can 47:74-8 Je '46

Natural light reflected from the ceiling. B. F. Greene. diag Illum Eng 41:474-84 Je '46

Piping light with acrylic materials. H. Pearson. il diags Mod Plastics 23:123-7 Ag '46

Reflectance measuring attachment for the Beckman spectrophotometer. G. E. Pride. il diag Opt Soc Am J 36:510-13 S '46

Reflection control; coatings applied easily to glass and other materials. il Sci Am 174: 222 My '46

Reflection-control techniques developed by American optical company. il Am Cer Soc Bul 25:172 My 15 '46

Reflection factors in store windows. K. C. Welch. il diags Arch Rec 100:107-10 Jl '46

Theory of an efficient interference filter. R. L. Mooney. bibliog Opt Soc Am J 36:256-60 My '46

REFLECTOMETERS

Low cost reflectometer and method for comparing detergency. M. L. Hurwitz. bibliog diags Am Dyestuff Rep 35:83-4 F 11 '46

REFLECTORS

Glass and metal reflectors. Engineer 181:184 F 22 '46

High speed production of glass reflectors for sealed beam automobile headlights; patent. diags Glass Ind 27:242 My '46

Low-cost reflectors simplify runway lighting. R. H. Muehlberg. il Aviation 45:90 My '46

Searchlight developments; C. A. Parsons and co. production of reflectors. Electrician 136: 224 Ja 25 '46; Elec R (Lond) 138:127 Ja 25 '46

Vertical plane lighting. F. G. W. Tree. diag Electrician 135:459-60 N 2 '45

Manufacture

Job plating in volume; flashlight reflectors; Gerity Michigan die casting co. H. Chase. il Steel 119:102-6+ Ag 19 '46

Testing

Screen-line tests of paraboloidal reflectors. D. H. Hamsher. il diags Opt Soc Am J 36: 291-5 My '46

REFLECTOSCOPE

Detecting the invisible; non-destructive inspection with supersonic frequencies; electronic mine-detectors. J. Markus. il Sci Am 174:104-6 Mr '46

Flaws detected by supersonic waves. J. W. Dice. il diag Elec World 125:98+ F 2 '46

Inspecting forged axles at the Le Tourneau plant by means of supersonic waves. J. C. Smack. il diags Automotive & Aviation Ind 93:32-5+ N 15 '45

Instrument uses supersonic vibrations to determine quality prior to welding; Sperry supersonic reflectoscope. O. R. Carpenter. Blast F & Steel Pl 34:1147-8 S '46; Same abr. Steel 119:121 O 14 '46

Metal inspection by supersonic echoes; supersonic reflectoscope. il diags Diesel Power 24:312-15 Mr '46

Refinements in supersonic reflectoscopy; polarized sound. F. A. Firestone and J. R. Frederick. il diags Acoustical Soc Am J 18:200-11 Jl '46

Standing wave technique of thickness measurements. J. B. Butler and J. B. Vernon. bibliog Acoustical Soc Am J 18:212-15 Jl '46

Supersonic non-destructive testing; Sperry supersonic reflectoscope. il diag Product Eng 17:154 N '46

Supersonic reflectoscope for interior inspection. F. A. Firestone. il diags Metal Prog 48:505-12 S '45; Same. Acoustical Soc Am J 17:287-99 Ja '46

Supersonic testing in a steel plant; Sperry supersonic reflectoscope; Republic steel corp. J. V. Russell and H. E. Pellett. il Iron Age 157:38-43 Ja 31 '46

REFORM schools. See Reformatories

REFORMATORIES

Project for New York state agricultural and industrial school, Industry, N.Y. il plan Arch Rec 98:88-9 D '45

Reformatory, Framingham, Mass. il maps plans Arch Forum 83:112-13 N '45

REFRACTION, Molecular

Group and bond refractions in organosilicon liquids. R. O. Sauer. bibliog Am Chem Soc J 68:954-62 Je '46

Molecular refractions of the higher acetylenic hydrocarbons. G. F. Hennion and T. F. Banigan, jr. Am Chem Soc J 68:1381-2 Jl '46

Studies in organic peroxides; molecular refractivity and the structure of organic peroxides. N. A. Milas, D. M. Surgenor and L. H. Perry. Am Chem Soc J 68:1617-19 Ag '46

REFRACTIVE index

Analysis for naphthene ring in mixtures of paraffins and naphthenes. M. R. Lipkin, C. C. Martin and S. S. Kurtz, jr. bibliog Ind & Eng Chem Anal ed 18:376-80 Je '46

Analysis of ternary mixtures of methylcyclohexane-toluene-aniline. C. S. Carlson, A. E. Schubert and M. R. Fenske. Ind & Eng Chem Anal ed 18:109-11 F '46

Calculation of specific dispersion of pure hydrocarbons and petroleum fractions. M. R. Lipkin and C. C. Martin. bibliog Ind & Eng Chem Anal ed 18:433-6 Jl '46

Comparison of effect of TiO_2 and PbO on refractive index of glasses. W. Colbert. diags Am Cer Soc J 29:45-7 F 1 '46

Determination of aromatics, naphthenes, and paraffins by refractometric methods. R. M. Gooding, N. G. Adams and H. T. Rall. bibliog Ind & Eng Chem Anal ed 18:2-13 Ja '46

Effect of chemical composition on refractive index and Abbe value for ternary silicate glass systems. M. L. Huggins and others. Am Cer Soc J 29:159-61 Je 1 '46

Equation relating density, refractive index, and molecular weight for paraffins and naphthenes. M. R. Lipkin and C. C. Martin. bibliog Ind & Eng Chem Anal ed 18:380-2 Je '46

Molecular orientation and the tensile properties of cotton fibres. R. Meredith. bibliog diag Textile Inst J 37:T205-18 S '46

Optical methods in electrophoresis; principles, apparatus, determination of apparatus constants, and application to refractive index measurements. L. G. Longsworth. bibliog il diags Ind & Eng Chem Anal ed 18:219-29 Ap '46

Purification and properties of 29 paraffin, 4 alkylcyclopentane, 10 alkylcyclohexane, and 8 alkylbenzene hydrocarbons. A. F. Forziati and others. bibliog J Res Nat Bur Stand 35:129-36 F '46

Refractive index of ethanol-water mixtures and density and refractive index of ethanol-water-ethyl ether mixtures. T. A. Scott, jr. bibliog J Phys Chem 50:406-12 S '46

Refractive indices of soaps and detergents. H. B. Klevens. bibliog J Chem Phys 14:567-8 S '46

Relation between specific refractivity of polymers and atomic structure of polymer unit. R. H. Wiley. bibliog Ind & Eng Chem 38:959-60 S '46

REFRACTIVE index—*Continued*
Representation of density and optical properties of ternary silicate glass systems. K. Sun and others. bibliog Am Cer Soc J 29: 59-65 Mr 1 '46
Simple refractoscope for liquids. G. W. Willard. diags R Sci Instr 16:340-2 D '45
Use of refractive indices of dimethyl esters. D. F. Houston and J. S. Furlow. bibliog Ind & Eng Chem Anal ed 18:541-2 S '46
Wave equation in a medium with a variable index of refraction. P. G. Bergmann. Acoustical Soc Am J 17:329-33 Ap '46

REFRACTOMETERS
Differential refractometer; abstract. B. A. Brice and R. Speiser. Opt Soc Am J 36: 363-4 Je '46
Refractometer. T. C. Herndon. diags R Sci Instr 16:379-80 D '45

REFRACTOMETERS, Photoelectric
Photoelectric instrument for light scattering measurements and a differential refractometer. P. P. Debye. il diags J Ap Phys 17: 392-8 My '46
Photoelectric refractometer. E. Karrer and R. S. Orr. diags Opt Soc Am J 36:42-6 Ja '46

REFRACTORY concrete. See Concrete, Refractory

REFRACTORY industry
Brick from Kaiser. Bsns W p36+ N 10 '45
Dealer's refractory institution quadruples sales volume in 3 years; Cramer refractories co. display room and service. il Brick & Clay Rec 109:33-4 Jl '46
How a dealer can sell refractories. il Brick & Clay Rec 108:42 Ja '46
Refractory magnesia outlook. il Chem Ind 57: 1078+ D '45

Germany
Status report on the German ceramic, glass and refractories industries in the U.S. zone of occupation. J. M. Warde. maps Am Cer Soc Bul 25:321-32 S 15 '46

REFRACTORY materials
ACS refractories progress report; abstracts of papers. Brick & Clay Rec 108:63-4+ My '46
Attack on refractory clay pots by optical glasses. W. H. Parsons and H. Insley. bibliog J Res Nat Bur Stand 36:31-45, pl 1-15 Ja '46
Behavior of various types of open-hearth bottoms. R. B. Snow. Steel 119:112+ Jl 22 '46; Same. il Brick & Clay Rec 109:73-4 S '46
Canadian brucite as a material for the production of basic refractories. M. F. Goudge and J. G. Phillips. Am Cer Soc Bul 25:87-92 Mr 15 '46
Check your tube-still refractory-lining maintenance program. H. O. Johanson. diags Oil & Gas J 45:69+ Je 1 '46
Density of open-hearth bottoms. R. B. Snow. il Blast F & Steel Pl 33:1394-7 N '45
Development of cordierite in ceramic bodies. H. H. Hausner. bibliog Cer Ind 46:80+ My '46
Durability of refractory materials in the carbonizing industry. E. Heaton, F. H. Clews and A. T. Green. Gas J (Lond) 247: 605+ Ap 10 '46
Effect of compounds of sulfur on reheat volume change of fire-clay and high-alumina refractories. A. R. Lesar and others. bibliog il Am Cer Soc J 29:70-5 Mr 1 '46
Effect of molybdenum and other oxides on surface tension of silicate melts and on properties of refractories and abrasives. C. R. Amberg. bibliog diag Am Cer Soc J 29:87-93 Ap 1 '46
Expand use of basic refractories in glass tanks. il Cer Ind 45:67-8 N '45; Same. Brick & Clay Rec 107:61-2 N '45
Ladles and pouring practice; abstract. M. Corbman. Iron Age 156:75 D 13 '45
Massive quartzite; a refractory material for handling molten iron and steel. A. R. Blackburn. bibliog il Ohio State U Eng Exp Sta Bul 124:1-34 '45 (pa 50c)
New method of increasing retort tightness. A. G. Bird. il diags Gas J (Lond) 247:679-80+ bibliog(p684) Ap 24 '46; Discussion. 247:724+ My 1 '46
Outlook for an all-basic open hearth furnace. R. B. Sosman. Blast F & Steel Pl 34:251-3 F '46; Same. Brick & Clay Rec 108:56+ F '46
Pebble heater; a new heat-transfer apparatus. C. L. Norton, jr. il diags Am Cer Soc J 29:187-93 Jl 1 '46; Same. Chem & Met Eng 53:116-19 Je '46
Physical properties of some high-temperature refractory compositions. G. R. Pole and others. bibliog il diag Am Cer Soc J 29: 208-22 Ag 1 '46
Progress in the use of refractories in 1945. L. A. Smith. il diags Blast F & Steel Pl 34:241-3 F '46
Properties of sandstones as a refractory material. T. Chen and S. Hu. Am Cer Soc J 29:193-7 Jl 1 '46
Refractories and slag attack. T. F. E. Rhead. Gas J (Lond) 248:118 Jl 17 '46
Refractories for combustion turbine blades. Engineer 181:549-50 Je 14 '46
Refractories in the Texas area. F. K. Pence. Am Cer Soc Bul 25:86 Mr 15 '46
Refractories of the future. R. E. Birch. il Brick & Clay Rec 107:57-9 D '45
Refractories review for 1945. M. A. Fay. il Blast F & Steel Pl 34:105-7+ Ja '46
Refractories sessions; American foundrymen's association. Foundry 74:161+ Je '46
Refractory facts and trends discussed by steel makers. il diag Brick & Clay Rec 107:55-6+ O '45
Refractory materials and their development. L. Sanderson. Blast F & Steel Pl 33:1566 D '45
Role of refractories in peacetime production. il Brick & Clay Rec 108:67-72+ Ja '46
Some special refractories and their industrial application. W. H. Henson and C. W. Henson. il Brick & Clay Rec 108:71-2+ Mr; 60+ Ap; 48+ Je; 109:63-4+ Jl '46
Soviets develop new refractory material for glass furnaces; Thermomullite. For Comm W 24:33 S 28 '46

See also
Fire brick
Silica brick

Analysis
Method for chemical analysis of alumina-silica refractories; abstract. A. B. Williams and B. Hooper. Brick & Clay Rec 108:68 My '46

Manufacture
Calcined dolomite; convert from magnesium to refractory manufacture. il Rock Prod 48: 84-7 D '45
Hydraulic press forms large and intricate shapes; fast. il diags Brick & Clay Rec 109:56+ Ag '46

Testing
Laboratory corrosion tests of rotary lime-kiln refractories. G. R. Pole and A. W. Beinlich, jr. il Am Cer Soc J 28:357-60 D 1 '45
Testing of chrome-magnesite brick for resistance to iron oxide bursting. S. Zerfoss and H. M. Davis. bibliog il Am Cer Soc J 29:15-20 Ja 1 '46

REFRACTORY research
Abstract of annual report of American refractories institute fellowship. S. M. Phelps. Blast F & Steel Pl 34:1316+ O '46
Physical properties of some high-temperature refractory compositions. G. R. Pole and others. bibliog il diag Am Cer Soc J 29: 208-22 Ag 1 '46
Russian research on refractories; abstract. J. H. Chesters. Chem & Ind p133 Mr 23 '46

REFRACTOSCOPE
Simple refractoscope for liquids. G. W. Willard. diags R Sci Instr 16:340-2 D '45

REFRIGERANTS
Comparative engineering data on refrigerants given in new tables. Heating-Piping 16:337-8, 409, 478-80, 593-4; 17:256-8, 616-18 Je-Ag, O '44, My, D '45; 18:91-3 Mr; 83-5 My; 91-3 Ag '46
Methods of condensing refrigerants. H. J. Kinkade. diags Power Pl Eng 49:78-9 O '45

See also
Brine
Carbon dioxide, Solid
Chlorofluoromethanes
Sulfur dioxide

REFRIGERATING engineering

See also
Cold storage

Bibliography

A.S.R.E. publications; price list. Refrig Eng 51:441 My '46

Study and teaching

Education in refrigeration; opportunity for A.S.R.E. to promote sound training for veterans. R. C. Jordan. Refrig Eng 51:39-41 Ja '46

Educational guide to refrigeration and air conditioning training facilities in the U.S. Refrig Eng 51:supl-27 Ja '46

Training of refrigeration engineers; abstract. K. Lightfoot. Engineer 180:347 N 2 '45

Tables, calculations, etc.

Comparative engineering data on refrigerants given in new tables. Heating-Piping 16:337-8, 409, 478-80, 593-4; 17:256-8, 616-18 Je-Ag, O '44, My, D '45; 18:91-3 Mr; 83-5 My; 91-3 Ag '46

Determination of refrigerant pipe size. H. M. Hendrickson. Refrig Eng 52:317-25 O '46

Method of analyzing finned coil heat transfer performance. C. M. Ashley. bibliog Refrig Eng 51:529-32+ Je '46

REFRIGERATING engineering societies

See also
Institute of refrigeration

REFRIGERATING industries

Big farm market for refrigeration equipment. W. B. Henderson. Dom Eng 168:172 O '46

Statistics

National production statistics, January-June, 1945. Refrig Eng 52:43 Jl '46

New production statistics for the refrigeration industry. Refrig Eng 51:416-17+ My '46

Germany

German refrigeration; report of wartime equipment and processes. Refrig Eng 52: 233-5+ S '46

Reports on U-boat refrigeration features, German tank air conditioning studies. Heating-Piping 18:100 Mr '46

Los Angeles

New Los Angeles refrigeration code. Dom Eng 168:171+ O '46

REFRIGERATING plants

Application of ammonia compressors to low temperatures. W. W. Sandholt. il diag Refrig Eng 52:229-31 S '46

Herring freezing; refrigeration plant for storing surplus fish. il Elec R (Lond) 137:925-7 D 28 '45

See also
Cold storage
Cold storage warehouses
Refrigeration and refrigerating machinery

Corrosion

Brine corrosion in refrigerating systems. A. J. Phillips. Locomotive 46:4-7 Ja '46

Corrosion in the refrigerating industry and its control; abstract. A. Steinbach. Am Water Works Assn J 38:163-4 Ja '46

Equipment

How small refrigeration plants can operate with less water. W. E. Patten. diags Power Pl Eng 49:88-91 O '45

Fire and fire protection

New York city permits use of Freons 21, 22 and 113. Heating-Piping 18:96 S '46

REFRIGERATION and refrigerating machinery

Audels refrigeration and air conditioning guide. E. P. Anderson. 1242p $4 Theo. Audel & co, 49 W. 23d st, New York 10 '44

Capillary tube heat exchangers. R. H. Swart. diags Refrig Eng 52:221-4+ S '46

Efficient operation of the refrigerant condenser. G. Holman. diags Power Pl Eng 50:96-7 Ap '46

Evacuation and dehydration of field installations. H. A. Blair and J. N. Calhoun. il diags Refrig Eng 52:125-9+ Ag '46

Freezer-heater; quick-defrost refrigerating machine. il Bsns W p68 Ap 6 '46

Le froid artificiel en brasserie. A. Maringé. Chimie & Ind 55:16-22 Ja '46

Function of the evaporator in practical refrigeration. G. Holman. il diags Power Pl Eng 50:94-7 Mr '46

German refrigeration; report of wartime equipment and processes. Refrig Eng 52: 233-5+ S '46

Heat pump; installation of Bell company, Basel, Switzerland. diag Mech Eng 68:458 My '46

Heat pump; some Swiss installations. B. Wood. il diags Elec R (Lond) 138:675-8 My 3 '46

High speed airliners need refrigeration. J. T. Fisher. il diag Refrig Eng 52:303-5 O '46

Higher compressor speed and larger pumps give more refrigeration; process for synthesis of neoprene. J. D. Constance. diag Power 90:325-6[issue p103-4] My '46

How does level indicator work on brine cooler? F. M. Bennett. diag Power Pl Eng 49:124+ D '45

Ice bank reduces refrigeration peak load in milk plants. C. H. Minster. diag Food Ind 18.1016-17 Jl '46

Industrial refrigeration. Sci Am 175:223 N '46

Low temperature rooms for communication equipment study; Signal corps laboratory of Fort Monmouth, N.J. G. Mackas. diag plans Refrig Eng 51:121-2+ F '46

Meat packing plants; refrigeration and applied practices. R. Sprague. bibliog plans diags Refrig Eng 51:supl-7 Je '46

Methods of condensing refrigerants. H. J. Kinkade. diags Power Pl Eng 49:78-9 O '45

Novel form of refrigerator. J. R. Roebuck. diags J Ap Phys 16:285-95 My '45; Discussion. 16:551-2, 642-3; 17:62 S-O '45, Ja '46

Practical refrigeration for natural-gasoline plants. R. W. Heath and others. bibliog flow sheets il Oil & Gas J 44:128-9+ F 23 '46; Same. Nat Pet N 38 pt 2:R202-4+ Mr 6 '46; Same. Pet Refiner 25:93-100 Mr '46; Same. Pet Eng 17:162+ My '46

Refrigerating a 29.3-inch vacuum at -130 F uses 35 horsepower per ton; calibration of radio meteorographs. il Power 90:325[issue p105] My '46

Refrigerating practice; thermoexpansion valve as it behaves in service. G. Holman. il diags Power Pl Eng 49:110-12 D '45

Refrigeration applications in petroleum processing. C. W. Cannon. diags Refrig Eng 51:130-4+ F '46

Refrigeration for air conditioning pressurized transport aircraft. B. L. Messinger. il diags S A E J 54:93-106+ Mr '46; Same cond. Refrig Eng 51:21-5+ Ja '46; Abstracts. Automotive & Aviation Ind 94:32-4 Ja 1 '46; Heat & Ven 43:63-8 Ja '46

Refrigeration notebook (cont). T. Mitchell. Power 89:856+; 90:125, 263, 483, 631 D '45, F, Ap, Jl, S '46

Saving fuel is good business; refrigerating losses affect fuel or energy consumption. Heating-Piping 18:112-13 Ja '46

Sizing job-made liquid-vapor heat exchangers; charts; reference data. W. Parkerson. Heat & Ven 42:98a-98b D '45

Value of heat with special reference to the heat pump. O. Faber. il diags Inst Mech Eng J & Proc 154:144-63 bibliog(p162-3) S '46; Same cond. Engineer 179:339-40, 358-60 Ap 27-My 4 '45; Discussion. Inst Mech Eng J & Proc 154:163-78 S '46

What's wrong in this refrigeration plant? Power Pl Eng 50:106 Je '46; Discussion. 50:105-6 S; 110-11 O '46

Will evaporator that is larger do the job? diags Power 89:850-2 D '45

See also
Air conditioning
Ammonia compressors
Carbon dioxide, Solid
Cold storage
Compressors
Cooling
Cooling equipment
Cooling of water
Electricity in refrigeration
Freezing
Insulation (heat)
Piping (refrigerating plants)
Refrigerants

REFRIGERATION and refrigerating machinery
—See also—*Continued*
Refrigerating engineering
Refrigerating plants
Refrigeration on cars, trucks, etc.
Refrigeration on ships
Refrigerator cars
Refrigerators
Skating rinks
Temperature, Low

Bibliography

Refrigeration abstracts. Published quarterly by American society of refrigerating engineers, 40 W. 40th st, New York 18

Control

Flow failure control in piping circuits. M. A. Ramsey. il diags Heating-Piping 18:78-81 Ag '46

What refrigeration controls are best? diags Power 90:330-2 My '46

Lubrication

Oil problems in Freon refrigerating systems. T. J. Ammel. il Refrig Eng 50:421-4+ N '45

Maintenance and repair

Telltale signs alert refrigerating men. G. Holman. il Power 90:397-9 Je '46

Noise

Progress in refrigerant compressor testing as an aid to design; noise investigations. L. Hanson. il diags Refrig Eng 52:131-6+ Ag '46

Safety measures

Safety measures for a refrigeration plant. G. Holman. il Refrig Eng 50:429-30 N '45

Standards

Proposed A.S.R.E. standard methods of rating and testing water and brine coolers. Refrig Eng 51:1-5 sec 2 Ap '46

Proposed A.S.R.E. standard methods of rating and testing water-cooled industrial refrigerant condensers. Refrig Eng 51:272a-272e Mr '46

Refrigeration for remote drinking water cooling systems. J. J. Corey. Refrig Eng 50:1-6 sec 2 D '45

Tables, calculations, etc.

Finned tube subcoolers for refrigeration systems. D. L. Katz and others. diag Refrig Eng 51:335-9 Ap '46

Heat transfer in an evaporative condenser. E. G. Thomsen. Refrig Eng 51:425-31 bibliog(p430) My '46

Some characteristics of brines; with a method for heat capacity determinations. W. A. Pennington. il Refrig Eng 51:135-9+ F '46

Testing

Laboratory for the testing of refrigeration and air conditioning units. R. C. Cross and J. S. Hansen. il diag Refrig Eng 52:122-4+ Ag '46

Progress in refrigerant compressor testing as an aid to design. L. Hanson. il diags Refrig Eng 49:361-4+; 50:33-8; 52:131-6+ My, Jl '45, Ag '46

Refrigeration notebook; how to test for leaks in an ammonia system. T. Mitchell. il Power 90:263 Ap '46

Vibration

Evaluation of vibration isolation materials for refrigerating equipment. E. S. Bishop and J. A. Galazzi. bibliog il diags Refrig Eng 51:233-9 Mr '46; Discussion. 51:339+ Ap '46

REFRIGERATION on airplanes

Refrigeration; perishables being handled by UAL. Air Transport 3:109-10 D '45

Self-refrigerating transports planned. Aviation N 5:8 My 13 '46

REFRIGERATION on cars, trucks, etc.

Cold trucks cover state delivering sausage; water ice refrigeration used by Mickelberry's. il map diags Food Ind 18:518-19 Ap '46

Flexible cooling for part loads; protected in transit by blankets and dry ice. map diags Food Ind 17:1464-5 D '45

Freezer-heater; quick-defrost refrigerating machine. il Bsns W p68 Ap 6 '46

Hot or cold air for foods in transit; air conditioning unit on trailer with reversible refrigeration. il diags Food Ind 18:28-9 Ja '46

Low temperatures on the highways. M. V. Stagg. il Refrig Eng 51:231-2+ Mr '46

Refrigerated aluminum trailer. il Automobile Eng 36:135-6 Mr '46

Refrigerated storage and transport of meat in the tropics. E. Griffiths and M. J. Hickman. il Engineering 161:453-6 My 10 '46

Refrigerated transport. P. B. Reed. il Refrig Eng 52:115-21+ Ag '46

Top icing for perishable loads; crushed ice packing machines. il Food Ind 18:1202-3 Ag '46

Truck cooling system designed for easy installation and use. Refrig Eng 51:472+ My '46

Trucks haul tomatoes the year round; Tom-A-Toe produce co., Atlanta. il plan diag Food Ind 18:1368-9 S '46

See also
Food, Frozen—Transportation
Railroads—Ice supply
Refrigerator cars

REFRIGERATION on ships

Factory-built marine condensing assembly for marine refrigeration. il Marine Eng 50: 274 N '45

Modern marine refrigeration and air conditioning. W. H. Carrier and L. E. Starr. il Marine Eng 51:132-6 Ap '46; Same cond. Refrig Eng 51:411-13+ My '46; Discussion. L. Williams. Marine Eng 51:136-7+ Ap '46

Modern ship refrigeration. J. Scott. il Marine Eng 50:195-200 N '45

New ships for the Great White Fleet. il plans diags Marine Eng 50:136-48 D '45

Poke welding of stainless steel cold storage sheathing on ocean-going vessels. R. K. Waldvogel. il Welding J 25:738-44 Ag '46

Refrigerating equipment for new United States Lines cargo ships. Marine Eng 51: 109 My '46

Transportation of food in the Pacific; refrigerated barges. il Dom Eng 166:157+ N '45

REFRIGERATOR cars

Burlington to test refrigerator cars. il diags Ry Age 120:459-60 Mr 2 '46

Lightweight fiberglas insulation. il Ry Age 121:98 Jl 20 '46

Rules tightened on use of reefers, superdemurrage is reinstated. Ry Age 119:1000 D 15 '45

Service test of cotton-insulated car. il Ry Mech Eng 120:420-1 Ag '46

See also
Railroads—Ice supply

REFRIGERATOR trays

Better wear for refrigerator trays. il Mod Plastics 23:123+ Je '46

REFRIGERATORS

Duplication tip; newspaper's analysis of refrigerator orders in Elmira gives inkling of actual demand. Bsns W p46-8 Ag 31 '46

Manufacture

Refrigerator finishing. R. N. Sanger. Refrig Eng 50:533-4+ D '45

Resin finishing of refrigerator parts; illustrations with text. Materials & Methods 24: 385-8 Ag '46

REFRIGERATORS, Electric

Frigidaire, ltd., new refrigerator model. il Electrician 137:664 S 6 '46

Heat pump water heater shows promise; possibility of combination of water heating and refrigeration. F. M. Reed. Elec World 125:96-7 F 16 '46

Hermetic compressor motors. F. L. Slade. Refrig Eng 50:528-9+ D '45

Homemade high humidity cabinet designed to fit inside an electric refrigerator. J. D. Malcolmson. il Paper Ind 27:1247 N '45

New plastics parts boost refrigerator efficiency. il Mod Plastics 23:104-5 Mr '46

1946 Gibson refrigerator has full-width freezer and chilling compartments. il diags Product Eng 17:460-1 Je '46

Plastics in four home appliances. il Mod Plastics 24:108-10 S '46

REFRIGERATORS, Electric—*Continued*
16 per cent duplication on consumer orders shown by Gannett study; duplication of electric refrigerator orders in retail stores in Elmira, New York. Ptr Ink 216:44+ Ag 23 '46

Advertising

Shift from service to sell in Frigidaire advertising. F. H. Peters. il Adv & Sell 39:84+ Ja '46

Manufacture

Honing for precision and production. L. S. Martz. il Steel 118:112-13+ Je 17 '46
Welding machine speeds refrigerator manufacture C. C. Peck. il diag Iron Age 157: 62-3 F 21 '46

Patents

Patent attacked; refrigerator design with frozen food compartment. Bsns W p50+ D 8 '45

Rating

Refrigerators; tests of some new models. il Consumers Res Bul 18:16-18 S '46

REFRIGERATORS, Gas
Gas refrigerator's service record. T. J. Perry. Am Gas Assn Mo 27:552-3 D '45
Servel challenged; Clayton & Lambert invades gas refrigeration field. Bsns W p50-1 N 17 '45
Servel gas and kerosene refrigerators. Consumers Res Bul 17:17 Je '46
Wee refrigerator demonstrates sales points for Servel. il Sales Management 55:155 D 1 '45

Manufacture

Heat exchanger for Electrolux gas refrigerator. G. E. Stedman. il Steel 118:88-90+ Je 10 '46

REFUGEES
President eases immigration of refugees. Comm & Fin Chr 163:55 Ja 3 '46

REFUNDING of bonds. See Bonds—Refunding

REFUSE, Utilization of
Garbage grease for soap. Soap & San Chem 22:77 O '46
Quarter century of experience in feeding garbage to hogs in the Los Angeles area. il Eng N 137:450-4 O 3 '46

See also
Refuse as fertilizer

REFUSE as fertilizer
Making fertilizer from refuse and sewage sludge; reports of English investigations. C. Bould. Pub Works 77:31-2 F '46

REFUSE collection
Basic factors in refuse-collection practice. H. A. Gibeau. il Water & Sewage 83:54-5+ N '45
Colecto-pak refuse unit; truck body and hoist. il Pub Works 76:64 N '45
Municipal practices in garbage and refuse collection. il Pub Works 77:19+ Je '46
Provisions of Chicago's new refuse removal ordinance. Pub Works 77:48 Ap '46
Refuse collection in Minnesota. M. Iverson. Pub Works 76:46+ N '45

Cost

City engineer reports on garbage and refuse collection and disposal. T. H. Sauter. diags Pub Works 77:28-30 My '46

REFUSE disposal
Cardboard salvage from refuse reduces bulk on landfills in Seattle. il Eng N 137:308 S 5 '46
Fill refuse disposal franchise renewed in San Francisco. il Eng N 137:296-7 S 5 '46
Refuse disposal, Canada; incinerators, sanitary fills, street cleaning; with cost data. il Water & Sewage 84:16+ Jl '46
Sanitary landfill used to fill cut in residential area; with cost data. Eng N 137:375 S 19 '46

See also
Refuse collection
Refuse incinerators
Sewage disposal—Sludge and refuse mixing
Trade waste
Water pollution

Cost

City engineer reports on garbage and refuse collection and disposal. T. H. Sauter. diags Pub Works 77:28-30 My '46
Cost analysis of sanitary fill; Fort Worth, Texas. R. R. Lacy. il Water & Sewage 84:23-4+ Je '46
Sanitary landfills cut waste disposal costs. Eng N 137:441 O 3 '46

Laws and regulations

Court reverses Barrie judgement on disposal of refuse in township of Vespra. il Water & Sewage 84:31+ S '46

REFUSE incinerators
City engineer reports on garbage and refuse collection and disposal. T. H. Sauter. diags Pub Works 77:28-30 My '46
Mechanics of municipal refuse destructors and incinerators. R. R. Knight. il diags Water & Sewage 84:32-5+ S; 16-19+ N '46
Nuisance-free refuse incineration depends largely on proper operation; operating experiences of New York-New Jersey municipal engineers. Eng N 135:677 N 15 '45

REGAL shoe company
Regal Shoe offering slated. Bsns W p60+ Ja 19 '46
Stock offered. Comm & Fin Chr 163:1289 Mr 11 '46

REGENERATIVE furnaces. See Furnaces, Recuperative and regenerative

REGIONAL indexes. See Index numbers (economics)—Regional indexes

REGIONAL planning
How the British are preparing to attack their two big building problems; houses-in-a-hurry and planned use of land. D. Rosenman. Arch Forum 83:127-8+ D '45
National organization for community planning? Roads & Bridges 83:142+ N '45
National river basin policy needed to give all regions equal opportunity. W. C. McNown. Eng N 137:55-6 Jl 11 '46
River valley planning in India; the Damodar. M. R. Goodall. diag J Land & Pub Util Econ 21:371-5 N '45

See also
City planning
Zoning

Bibliography

Regional authority developments; a selected list of references, including legislative bills introduced in Congress, 1933-1945. 13p Technical lib, Tennessee Valley authority, Knoxville, Tenn. '46

Study and teaching

Education of planners; a commentary on some current projects. J. M. Gaus and others. J Land & Pub Util Econ 21:307-21 N '45

REGISTERED mail insurance. See Insurance, Registered mail

REGISTRY of rare chemicals, National. See National registry of rare chemicals

REGRESSION analysis. See Correlation (statistics)

REGULATORS, Voltage. See Voltage regulators

REHABILITATION. See Disabled—Rehabilitation; Veterans, Disabled—Rehabilitation

REINDEER
Reindeer steaks for Norway. For Comm W 25:28 O 19 '46

REINSURANCE. See Insurance—Reinsurance; Insurance, Casualty—Reinsurance; Insurance, Fire—Reinsurance

RELAPSING fever
Brain involvement as a possible cause of relapse after treatment in spirochetal relapsing fever. V. T. Schuhardt and E. C. Hemphill. Science 103:422-3 Ap 5 '46

RELATIVITY (physics)
Equations of state for radially symmetric distributions of matter. M. Wyman. Phys R 70:396-400 S 1 '46
Lorentz transformations applied to the problem of two electrons. G. W. O. Howe. Wireless Eng 23:155-6 Je '46

RELATIVITY (physics)—*Continued*
New approach to kinematic cosmology. L. Infeld and A. E. Schild. bibliog Phys R 68:250-72; 70:410-25 D '45, S 1 '46
Note on the relativistic problem of uniform rotation. E. L. Hill. bibliog Phys R 69: 488-91 My 1 '46
Relativistic correction in calculating the magnetic moment of the deuteron. P. Caldirola. Phys R 69:608-10 Je 1 '46
Schwarzschild interior solution. N. Rosen and B. Newman. Phys R 70:565-6 O 1 '46
Schwarzschild interior solution in an isotropic coordinate system. M. Wyman. Phys R 70: 74-6 Jl 1 '46
Two-body problem in Einstein's and Birkhoff's theories. T. F. Morris. bibliog Phys R 69:541 My 1 '46
Type of kinematical red-shift. E. L. Hill. Phys R 68:232-3 N 1 '45
See also
Quantum theory
Wave mechanics

RELAXATION
See also
Rest

RELAYS
Analysis of relay servomechanisms. H. K. Weiss. bibliog diags J Aeronautical Sci 13: 364-76 Jl '46
Application of the ohm and mho principles to protective relays. A. R. van C. Warrington. bibliog diags Elec Eng 65:Trans 378-85 Je '46
CO relay helps decide discarding of old meters. B. V. Shepherd. diag Elec World 125:113 S 14 '46
Differential protection, delta-wye transformer banks. J. M. De Guilmo. diags Elec World 126:74 Ag 3; 89 Ag 17; 74+ Ag 31; 126+ S 14 '46
Differential relay protection extended to tertiary winding. J. R. Linders. diag Elec World 126:100 O 12 '46
D-c power systems for aircraft. R. H. Kaufmann and H. J. Finison. il Gen Elec R 48:61-2 D '45
Directional relays; checking connections for ring-main and parallel-feeder installations. V. B. Shah. diags Elec R (Lond) 137:601-3 O 26 '45
Electronic contactors for control applications. W. D. MacGeorge. il diags Electronics 19:186+ Ap '46
Electronic relays. W. D. MacGeorge. diags Elec World 126:87-8 Jl 20; 75 Ag 3; 87-8 Ag 17; 71-2 Ag 31 '46
Electronic relays provide control for machine elements. K. Keller. il diags Machine Design 18:119-22 Ag '46
Excess-current protection by over-current relays on medium-voltage circuits. A. G. Shreeve and P. J. Shipton. bibliog diags Inst E E J 92 pt 2:430-41 O '45; Discussion. 92 pt2:441-50; 94 pt2:56-7 O '45, F '47
High-capacity sensitive relay. R. A. Fulton and F. Munger. diag Science 104:373-4 O 18 '46
Holding power plant auxiliaries during power disturbances; relays in control circuits of starters operated by battery. T. Maynz. diag Power Pl Eng 50:88-90 Je '46
Indicators show supply line demand; unique relay arrangement. J. L. Haley. il Elec World 126:88-9 Ag 17 '46
Mho distance relay. R. M. Hutchinson. bibliog il diags Elec Eng 65:Trans 353-9 Je '46
Modern arc furnace; control and protective equipment. W. N. Gittings. il Steel 118: 148+ Mr 4 '46
Operating experience with distance ground relays. W. A. Wolfe. il diags Elec Eng 65: Trans 458-62 Jl '46
Overhaul of signal relays. il plan Engineer 182:189 Ag 30 '46
Phase-comparison carrier-current relaying. A. J. McConnell and others. il diags Elec Eng 64:Trans 825-33 D '45
Philosophy of relaying. E. W. Knapp and B. C. Hicks. map diags Elec Eng 65:Trans 735-41 N '46
Protection of pilot wires from induced potentials. R. B. Killen and G. G. Law. map diags Elec Eng 65:Trans 267-70 My '46
Protection of powerhouse auxiliaries. diags Elec Eng 65:Trans 746-51 N '46
Quick-trip bus ties reduce breaker duties. diag Elec World 125:95 My 11 '46
Relay system for starting motors. E. S. Reichard. diag Elec West 96:89 Ap '46
Relays maintain service to demand meter circuit. V. W. Nass. diag Elec World 125: 91 Mr 2 '46
Sensitive ground relay protection for complex distribution circuits. L. F. Hunt. diags Elec Eng 65:Trans 765-8 N '46
Slip cycle relays automatically separate power system. L. F. Hunt. il diags Elec World 126:97 S 14 '46
Sunvic electronic relay. il Electrician 135:539 N 16 '45
Ultra-high speed relay; Stevens-Arnold millisec relay. il R Sci Instr 16:381 D '45
Versatile electronic relay. J. G. Baier, jr. and P. E. Millington. bibliog il diag Ind & Eng Chem Anal ed 18:152-3 F '46
What you should know about industrial electronics; contact-amplifier relay. diags Am Mach 90:122 Ag 29 '46
What you should know about industrial electronics; electronic relay systems. il Am Mach 90:134 Ag 15 '46
What you should know about industrial electronics; photoelectric relay. il diags Am Mach 90:132 S 26 '46
See also
Radio relay stations

Testing
Fault location and relay performance; analysis by automatic oscillographs. H. P. Dupuis and W. E. Jacobs. map diags Elec Eng 65:Trans 442-6 Jl '46
Induction relay testing. C. G. Rumsam. Elec R (Lond) 138:841-3 My 31 '46
Relay testing. W. M. Gore. diags Elec R (Lond) 138:293-5 F 22 '46

RELAYS, Time limit
Electronic relays; vacuum tube type. W. D. MacGeorge. diag Elec World 126:87-8 Jl 20 '46
New electronic timing relay for reducing outages on power circuits. F. S. Dlouhy. diags Elec Eng 65:Trans 407-11 Jl '46
What you should know about industrial electronics; time-delay relay. diags Am Mach 90:138 S 12 '46

RELEASE (law)
Release implications; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11: 30-1 Ja 24 '46
Reliance on representations of adjuster necessary to warrant recovery for fraud in obtaining release. Weekly Underw 154:417 F 9 '46

RELIANCE electric and engineering company
Preferred stock offered. Comm & Fin Chr 163:945-6 F 18 '46

RELIANCE manufacturing company
Bigger profit in sight. Barron's 26:7 Je 17 '46

RELIEF work
See also Reconstruction (World war, 1939-1945)—Relief work; Red cross; United nations relief and rehabilitation administration

RELIGION
Christianity and citizenship. J. W. Bricker. Comm & Fin Chr 163:1499+ Mr 21 '46
Pleads for spiritual revival. H. S. Truman. Comm & Fin Chr 163:1398+ Mr 14 '46
Return to religion. K. T. Compton. il Tech R 48:349-52 Ap '46
See also
Sociology, Christian

Dictionaries and encyclopedias
Encyclopedia of religion. V. Ferm, ed. $10 Philosophical library, New York '45

RELIGION and science
Science and religion. J. S. Bonnell. Mech Eng 68:733 Ag '46

REMODELED apartment houses. See Apartment houses, Remodeled

REMODELED buildings. See Buildings, Remodeled

REMODELED houses. See Houses, Remodeled

REMODELING (architecture)
Amster Yard; old city block in Manhattan converted into garden surrounded by apartments and professional offices. il plans diag Arch Forum 85:63-8 Ag '46
Remodeled restaurants; Dunhall's, Hector's bar-cafe, and Solly Krieger's in New York city and the Oyster loaf in San Francisco. il plans Arch Forum 85:97-102 Ag '46
See also
Buildings, Remodeled
Factories—Remodeling
Houses, Remodeled

REMSEN, Ira, 1846-1927
Roger Adams delivers first Remsen memorial lecture at Johns Hopkins. por(p1688) Chem & Eng N 24:1642 Je 25 '46

RENDERING tanks
Rendering tank failure. il Locomotive 46:14-15 Ja '46

RENT
Problem of rates; sharing the rent problem. Economist 149:782-3 D 1 '45
Rents in the United States, 1929-44. D. B. Yntema. Survey of Cur Bsns 26:16-20 Mr '46

Laws and regulations

Australian rent-control regulations, 1945. Mo Labor R 61:912 N '45
Housing construction policy; continued rent control on old houses, rent freedom on new buildings needed. Barron's 25:12 D 10 '45
Obvious results of rent ceilings. Comm & Fin Chr 162:2329 N 15 '45
Prices and rents in months ahead. C. Bowles. Comm & Fin Chr 163:2785+ My 23 '46
Rent control. Bsns W p17-18 Ja 19 '46
Rent control by states to survive OPA. B. Jones. Barron's 26:5 Ag 5 '46
Rent control in the Netherlands. J. F. Van Wickel. Mo Labor R 62:70 Ja '46
Sees serious housing shortage; denies discrimmatory rent control. C. Bowles. Comm & Fin Chr 162:2601 N 29 '45
U.S. Supreme court upholds New York rent law. Comm & Fin Chr 163:759 F 7 '46

RENT insurance. See Insurance, Rent

RENTAL plans (merchandizing)
Bailment or lease contracts. C. B. Everberg. Credit & Fin Management 48:15-16+ Ap '46

RENTING of houses
Even a good ad can't close the sale; more on house hunting through the classifieds. M. Worthington. Ptr Ink 213:152+ D 14 '45

RENTSCHLER, Harvey Clayton, 1881-
Research pays dividend; pure uranium by the Rentschler-Marden process. il Comp Air Mag 51:51 F '46

REORGANIZATION. See Corporations—Reorganization

REPAIR ships
U.S. army repair ships in the Pacific. W. K. Vaughan. il Marine Eng 51:112-15 Jl; 140+ Ag; 138+ S '46
See also
Dry docks, Floating

REPAIR shops
See also
Mine shops

REPAIR shops, Portable
Electrical service on wheels; mobile equipment for maintenance and construction developed by Chesapeake & Ohio. Ry Mech Eng 120:316-17+ Je '46
Portable machine shop built by the Davey compressor co. il Mach 52:185 Ap '46; Same. Mech Eng 68:652-3 Jl '46
Work of the mobile ordnance repair shops. S. G. Dunlap. Welding J 24:1139-41 D '45

REPAIRING
Acid-O, a repair liquid for leaky cans and buckets. Consumers Res Bul 17:25 Je '46

REPARATIONS (World war, 1939-1945). See Finland—Reparations; Germany—Reparations; Japan—Reparations; World war, 1939-1945—Reparations

REPATRIATION
Readjustment problems of the repatriates. G. Jacquemyns. Ann Am Acad 247:78-86 S '46

REPLACEMENT of machinery. See Machinery, Replacement of

REPLACEMENT of minerals. See Metasomatism

REPLICA technique
Electron microscopical replica techniques for the study of organic surfaces; low pressure polystyrene-silica technique and silver-silica double evaporation method. R. B. Barnes and others. bibliog il diags J Ap Phys 16: 730-9 N '45

REPORTS
Quality reports for management. M. A. Brumbaugh. Elec Eng 65:391-3 Ag-S '46
See also
Accountants' reports
Banks and banking—Reports
Corporations—Reports and yearbooks
Railroads—Reports
Salesmen's reports

REPORTS, Engineering. See Engineering reports

REPORTS to employees. See Employees, Reports to

REPPLIER, Theodore S.
Portrait. Sales Management 56:38 Ja 15 '46

REPRESENTATIVE government and representation
See also
Apportionment

REPRINTS
Book venture; Bantam books, inc. Bsns W p98 Ja 12 '46
Simple system for reprint filing. L. R. Richardson. Science 104:181-2 Ag 23 '46

Bibliography

Catalog of reprints in series; compiled to September 1946. R. M. Orton, ed. 7th ed 168p H. W. Wilson co, 950 University av, New York 52 '46

REPRODUCTION
Motherless males from irradiated eggs. A. R. Whiting. bibliog Science 103:219-20 F 22 '46
One-parent progeny of tubificid worms. G. E. Pickford. Science 102:484-5 N 9 '45
Technique of inducing spawning in haliotis rufescens Swainson. J. G. Carlisle, jr. Science 102:566 N 30 '45

REPTILES, Fossil
Primitive reptile limnoscelis restudied. A. S. Romer. bibliog diags Am J Sci 244:149-88 Mr '46

REPUBLICAN party
Constructive Republican party policy. H. E. Stassen. Comm & Fin Chr 163:521+ Ja 31 '46
G.O.P. more confident of victory than Democrats in Congressional elections this fall; Gallup poll. Iron Age 158:101 S 19 '46
Obligation of the Republican party. H. Hoover. Comm & Fin Chr 163:834+ F 14 '46
Public opinion now favors G.O.P. labor policy; Gallup poll. Iron Age 158:113 Jl 4 '46
Republican party gains added strength; Gallup poll. Iron Age 158:97+ Jl 25 '46
Republican party prospects. B. C. Reece. Comm & Fin Chr 163:2269+ Ap 25 '46
Republicans labeled party of wealth; Gallup poll. Iron Age 157:99+ F 21 '46
Slight majority of voters would vote Republican in presidential election. Iron Age 158: 103 Ag 1 '46
What do they mean, enterprise? Fortune 34:2 S '46

REQUISITIONING
Réquisitions irrégulières et voies de fait. A. Mestre. Génie Civil 123:249-50 S 15 '46

RESEARCH
Articles on various kinds of research listed in Readers guide to periodical literature 1890-1945; tabulation. S. W. Lowman. Am Assn Pet Geologists Bul 30:266 F '46
Interim report of Research committee. S. W. Lowman. Am Assn Pet Geologists Bul 30: 265-74 F '46

RESEARCH—*Continued*
Medicine and research. C. F. Kettering. Ind Med 15:584-9 O '46
See also
Advertising research
Aeronautic research
Agricultural research
Aluminum research
Automobile research
Cement research
Ceramic research
Chemical research
Coal research
Colleges and universities—Research
Concrete research
Corrosion research
Cotton research
Economic research
Educational research
Electric research
Engineering colleges—Research
Engineering research
Food research
Forestry research
Foundry research
Gas research
Government research
Heating research
Industrial research
Insurance—Research
Laboratories
Lighting research
Market research
Metallurgical research
Military research
Paint research
Paper research
Petroleum research
Pharmaceutical research
Public health research
Railroad research
Rubber research
Safety research
Scientific research
Steel research
Textile research
Wood research
also Midwest research institute, Kansas City, Missouri; Rocky Mountain institute for industrial research

RESEARCH, Government. See Government research

RESEARCH corporation
Announces recipients of grants-in-aid. Mech Eng 68:492 My '46
Frederick Gardner Cottrell special grants-in-aid for postwar research. Science 104:33-4 Jl 12 '46
Research corporation and its service to engineering and scientific research. W. R. Woolrich. J Eng Educ 36:404-6 Mr '46
Research corporation of New York; grants for research and teaching. Science 102:473 N 9 '45

RESEARCH departments
Six avenues of inquiry for practical company research. F. Juraschek. Sales Management 55:89 D 15 '45

RESEARCH institute of America
Accomplishments; prominent officers. pors East Underw 46:38 D 14 '45

RESEARCH libraries
Planning and equipment of libraries in research organizations and industrial concerns. B. Fullman. J Doc 2:68-75 S '46
Planning and equipment of research libraries and information bureaux. E. J. Carter. bibliog il plans Assn of Sp Lib & Inf Bur Proc 1945:65-73
Planning of research libraries. S. R. Pierce. Assn of Sp Lib & Inf Bur Proc 1945:73-5; Discussion. 75-6

RESEARCH workers
Are research scientists people? F. W. Godwin. Power Pl Eng 49:69+ N '45
Back to school; Monsanto chemical co. grants academic leaves to researchers. Bsns W p54+ My 25 '46
DuPont makes research positions more attractive. Rayon 27:58-9 F '46
Postwar research workers. J. E. Bullard. Am Dyestuff Rep 35:241-2 My 6 '46
Qualifications of a research worker. C. G. Watson. Engineer 181:156 F 15 '46

RESERVES
Accounting for the use of special war reserves. J Account 82:388-91 N '46
Are reserves adequate for today's contingencies? H. M. Tremaine. Mag of Wall St 79: 71-2+ O 26 '46
Depreciation problem. H. E. Riggs. Pub Util 38:333-44, 410-20, 528-38 S 12-26, O 24 '46
Dividends and reserves; end functions and benefits of profits as told in corporation reports. il Trusts & Estates 82:549-53 Je '46
Need the straight-line reserve be excessive? H. M. Long. Pub Util 37:399-411 Mr 28 '46
Play it safe with ample reserves. A. C. Kiechlin. Inland Ptr 117:73-4 Ap '46
Retail inventory loss reserves unneeded. Barron's 25:1 D 17 '45
Special war reserves in corporate reports. P. J. Graber. J Account 82:392-7 N '46
Unexplained corporate reserves confuse stockholders and promote union attacks. Barron's 26:1 Mr 11 '46
Windfalls from unused inventory reserves. S. Devlin. Mag of Wall St 77:461-3 Ja 19 '46
See also
Bank reserves
Insurance, Life—Reserves

RESERVOIRS
Add firm hydro capacity with pump-storage plan; Wisconsin public service corp. C. E. Kohlhepp and V. A. Thiemann. map Elec World 126:84-6 S 28 '46
Burning in the Tennessee valley; debris from reservoir clearing. H. E. Davis. il Civil Eng 15:69-70 F '46
Colorado and Big Thompson rivers scheme. il plan diags Engineer 182:224-7 S 13 '46
Construction of Norwalk Lake dam. J. E. Riordan. il map diag N E Water Works Assn J 60:255-65 S '46
Design and construction of Geist reservoir. C. Allen. il map plan diags Am Water Works Assn J 37:1318-40 D '45
Europe's biggest earth-dammed reservoir; Ladybower reservoir in Derbyshire. H. E. Bird. map Water & Sewage Works 93.276 Jl '46
Forest influences on reservoir watersheds. E. N. Munns. Am Water Works Assn J 38: 1111-24 O '46
Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81, 1387-1414, 1573-5; 72: 83-97, 235-40, 409-12, 682-96 O '45-Mr, My '46
Hollowell reservoir scheme for Northampton, with special reference to movement of the earth dam; abstract. A. G. McLellan. Am Water Works Assn J 38:688; Discussion. 689-90 My '46
Huge reservoir will raise Wisconsin hydro capacity. Elec World News ed 125:7 Ap 6 '46
Northwest power pool reservoir operation. E. N. Peterson. map Elec World 125:48-51 F 2; 100-3 F 16 '46
Reservoir clearing in the Tennessee valley; completely cleared drawdowns feature TVA reservoirs. H. E. Davis. il Civil Eng 16:27-30 Ja '46
Storage reservoir capacity on the Wisconsin river to be doubled. M. W. Kyler. map Civil Eng 16:455-6 O '46
Water storage and filtration for a small village; Corning, Ohio. W. W. Graf. il Pub Works 77:21-2 Ja '46
Water supply development in Boston, Mass.; with cost data. K. R. Kennison. il N E Water Works Assn J 60:294-325 S '46
See also
Dams
Flood control
Water supply
Water supply engineering
Water tanks
Waterworks

Lining
Asphaltic reservoir linings prove successful. A. H. Benedict. il Pub Works 76:15-17+ D '45

Recreational use
Public use of reservoir lands and waters. L. S. Finch. bibliog Am Water Works Assn J 38:1138-43 O '46

Weed removal
Chemical weed control. R. F. Goudey. bibliog Am Water Works Assn J 38:186-202 F '46
New ideas in applying copper sulphate to reservoirs. E. P. Stewart and others. il Pub Works 77:18-19 Ag '46

RESERVOIRS, Concrete
Basic principles of the design and construction of reservoirs and tanks in reinforced concrete; abstract. G. P. Manning. Am Water Works Assn J 38:686 My '46
Cleaning reservoirs in Toronto. il Water & Sewage 84:13-14+ Ja '46
Precast sectional walls and roof allow for uneven reservoir settlement at New Orleans. il diags Eng N 137:244-8 Ag 22 '46

RESERVOIRS, Concrete—*Continued*
Reservoir and pumping station with special features; facilities in Montreal. A. Brisset Des Nos. il plans Water & Sewage 84:27-30+ Mr '46

RESETTLEMENT. See Land settlement

RESINOUS products
Advances in furfural resin applications. il Mod Plastics 23:126-9 Jl '46
Agricultural residues in plastics; plasticizers and inorganic extenders in 25-percent phenolics. R. V. Williamson and others. fold table Mod Plastics 23:177-80+ F '46
Allyl resins. S. L. Brous. il Product Eng 17: 299-300 Ap '46
Annealing of styrene and related resins. J. Bailey. il Mod Plastics 24:127-31 O '46
Cast phenolic patterns for duplicating. il Iron Age 157:86 Ap 4 '46
Cast resorcin used in candy replicas; new means of controlling the quality of candy. il Mod Plastics 23:138-9 Ap '46
Casting patterns in phenolic resins. C. R. Simmons. il Foundry 74:224+ F '46
Cellular plastics in aircraft. C. C. Sachs. bibliog Mech Eng 68:233-6 Mr '46; Same cond. Mod Plastics 23:173-6 D '45
Coil-impregnating compounds nearly 100% solids. il Elec World News ed 126:22 S 7 '46
Combining plaster and plastics; Plaspreg. J. Delmonte. Machine Design 18:174 Ja '46
Covalent adsorption on base-exchange resins. J. A. Bishop. bibliog J Phys Chem 50:6-12 Ja '46
Data on low-pressure laminating resins. fold charts Mod Plastics 23:144-5 Je; 146-7 Jl '46
Dielectric properties of phenolic resins and molded compositions; Novolaks. L. M. Deb-ing. Electrochem Soc Trans 90 (preprint 3): 23-46 '46
Durez 12687 powdered resin used with synthetic rubbers. J. W. Ferguson. il India Rubber World 114:218-19 My '46
Evaluation of resins; symposium in London. Chem Age (Lond) 53:613-17 D 29 '45
Film properties and utilization of resin-starch. C. C. Kesler and others. bibliog Paper Tr J 122:39-43 Mr 28 '46; Same cond. Paper Ind 28:712+ Ag '46
Flying fuel tank; made from needled rope manila or sisal fiber blanket impregnated with phenolformaldehyde resin. il Mod Plastics 23:132-3 D '45
Heat and chemical resistant plastic; Teflon. il Materials & Methods 23:1571-3 Je '46
High-frequency hardening of plastics; abstract. H. Stäger and F. Held. Elec World 125:74 Ja 5 '46
Impregnating magnesium castings; with data on resin-styrene compound. S. A. Moore. il Iron Age 157:76-80 Mr 14 '46
Improved synthetic ion exchange resin. W. C. Bauman. bibliog il Ind & Eng Chem 38:46-50 Ja '46
Ion exchange. H. C. E. Johnson. il Sci Am 174:119-21 Mr '46
Kendex thermoplastic resins. Rubber Age 59: 74 Ap '46
Laminated plastics; utilisation of resins in their manufacture. C. Kant. il Chem Age (Lond) 55:281-4 S 7 '46
Low-pressure resins, versatile new materials. R. C. Evans and C. L. Jones, jr. il Mod Packaging 19:140-2 Ja '46
Marmix reinforcer for synthetic rubber latices. H. H. Irvin. India Rubber World 114: 660-2 Ag '46
Matchplate patterns from phenolic casting resin. C. R. Simmons. il Foundry 74:123-4+ N '46
New resin developed by Du Pont; BCM. il Glass Ind 27:244 My '46
New wet strength resin; Uformite 470. Paper Ind 28:900 S '46
Phenolic resin picture. C. T. O'Connor. Paint Oil & Chem R 109:24+ Je 27 '46
Phenolics stop seepage in oil wells; Resinox. E. S. Bauer. il diags Mod Plastics 23:103-6 Ag '46; Abstract. Oil & Gas J 45:88-9 Ag 31 '46
Physical properties of resin-impregnated plaster. J. Delmonte. il A S M E Trans 68: 241-6 Ap '46; Same cond. Materials & Methods 23:1011-15 Ap '46
Plastic plug renews oil well production. diags Product Eng 17:149 Ag '46
Plastics as materials of construction. L. B. Sebrell. India Rubber World 114:388-90 Je '46
Plastics candies used as models for shape and color. il Sci Am 175:26 Jl '46
Plastics in the rubber industry. H. A. Winkelmann. bibliog India Rubber World 113: 799-804 Mr '46
Plastics precede production; meat-saving germicidal Sanilite lamp unit; casting plastics paved way for molded product. C. Simmons. il Sci Am 174:170-1 Ap '46
Plastics, resins, and rubbers; chart revised. P. O. Powers. Chem & Eng N 24:2784-8 O 25 '46
Plastics technology; integration of the plastics and rubber industries. R. P. Kenney. il India Rubber World 114:682-4 Ag '46
Polytetrafluoroethylene; heat-resistant, chemically inert plastic. M. M. Renfrew and E. E. Lewis. bibliog il Ind & Eng Chem 38:870-7 S '46
Possible methods for combining synthetic resins with paper directly on the paper machine. R. H. Mosher. Paper Tr J 121:47-9 D 20 '45
Preparation of powdered materials for electron microscopy. M. C. Schuster and E. F. Fullam. bibliog il Ind & Eng Chem Anal ed 18:653-7 O '46
Problem of fungal growth as it affects synthetic resins, plastics and plasticizers. A. E. Brown. il Mod Plastics 23:189-95+ Ap '46
Rapid vulcanization of saturated acrylic elastomers. W. C. Mast and others. bibliog il India Rubber World 113:223-8+ N '45
Sealing porous castings; thermosetting resin Laminac. P. S. Fuller. il Materials & Methods 22:1746-50 D '45
Some derivatives of simple carbohydrates containing unsaturated substituents. W. N. Haworth, Mrs H. Gregory and L. F. Wiggins. Chem Soc J p488-91 Je '46
Soundproofing with plastics; resin impregnated glass fiber. il Mod Plastics 23:117 Jl '46
Structure of urea—formaldehyde resins. C. S. Marvel and others. bibliog Am Chem Soc J 68:1681-6 S '46
Study of resinous sealants for porous metal castings. V. C. F. Holm. bibliog pl J Res Nat Bur Stand 37:177-82 S '46
Synthetic lignin resin and plastic. A. J. Bailey and O. W. Ward. bibliog Ind & Eng Chem 37:1199-1202 D '45
Synthetic resin developed from rubber chemistry; Pliolite S-5. L. B. Sebrell. il Paint Oil & Chem R 109:9-10 My 2 '46
Teflon; new industrial resin. il Mod Plastics 23:134-5 Je '46
Theory and application of the parallel plate plastometer; polyethylene resins and plasticized vinyl chloride-acetate resin systems. G. J. Dienes and H. F. Klemm. bibliog il diags J Ap Phys 17:458-71 Je '46
Thermosetting rubber-resin compounds. A. F. Shepard and J. F. Boiney. il Mod Plastics 24:154-6+ O '46
Three razors; 3 materials. il Mod Plastics 24: 104-5 S '46
Tooling possibilities of plaster of Paris impregnated with synthetic resins. J. Delmonte. il Automotive & Aviation Ind 93:32-3+ D 1 '45; Excerpts. Iron Age 156:72-4 N 22 '45
Treatment of hot resin burns and safe handling of thermoplastic materials. W. B. Warden and W. J. Sigmund. bibliog Pet Refiner 25:89-92 Mr '46
Using synthetic resin core binders. H. L. Gebhardt. il Foundry 74:110-12+ F '46
Versatile alkyds find new uses. G. Leffingwell and M. A. Lesser. bibliog(35 references) il Chem Ind 58:60-1 Ja '46
Vinyl plastics; abstract. G. E. Henry. Materials & Methods 23:1364+ My '46
Wet strength in Uformite. Paper Tr J 121: 26 D 27 '45
Where we stand with alkyd resins. E. B. Trussell. Paint Oil & Chem R 109:31-2 Ag 8 '46

See also
Bakelite
Haveg
Koroseal
Melamine resins
Methyl methacrylate
Molded products
Plastic materials
Polythene
Saran
Styraloy
Teflon
Varlon
Vinyl compounds
Vinylite

RESINOUS products—*Continued*

Adhesives

Aminoplastic adhesives; abstract. J. Hofton. Chem & Ind p181-2 My 4 '46

Cementing phenolic laminates; abstract. J. Delmonte. Materials & Methods 24:442 Ag '46

Flexible coatings and adhesives. C. W. Patton. diags India Rubber World 114:233-4 My '46

Flexible organic adhesives as structural elements; Plastilock 500. D. L. Loughborough and F. D. Snyder. bibliog India Rubber World 115:84-7 O '46

Phenolic resin glue line as found in yellow birch plywood. C. A. Farrow, D. H. Hamly and E. A. Smith. bibliog il Ind & Eng Chem Anal ed 18:307-10 My '46

Structure of alkylphenol resin tackifiers for GR-S. G. E. P. Smith, jr., J. C. Ambelang and G. W. Gottschalk. bibliog il Ind & Eng Chem 38:1166-70 N '46

Thermosetting adhesives for wood; properties, techniques and applications. P. C. Fuller and R. L. Hiller. il diags Product Eng 17:[no 7] 84-9 Jl '46

See also
Plywood

Analysis

Complete analysis of alkyd resins; abstract. C. P. A. Kappelmeier and W. R. van Goor. Paint Oil & Chem R 109:10 Ap 18 '46

Determination of total solids in resin solutions; solution-evacuation method. C. D. McKinney, jr., E. Turk and W. E. Shaefer. bibliog diags Ind & Eng Chem Anal ed 18: 14-16 Ja '46

Qualitative identification of synthetic resins. J. H. Graff. Paper Tr J 122:41-3 Ja 31 '46; Abstract. Chem & Met Eng 53:264+ Mr '46

Binding materials

Alkyd resins as bonding agents; review of applications and properties. G. Leffingwell and M. A. Lesser. bibliog Can Chem & Process Ind 30:32+ Ja '46

Magnesium foundry core practice; binders and inhibitors. G. W. Kurachek. bibliog Foundry 74:76-7+ S '46

Plastics in Britain's postwar homes; recently developed Plimber plastic timber. il Mod Plastics 23:108-10 Mr '46

Resin bonded glass fiber fly-rod. A. M. Howald. il Mod Plastics 23:124-5 F '46

Silicone resin bonded laminates. L. V. Larsen and others. il Mod Plastics 23:160-2+ Mr '46

Taking the curves with plywood. il Mod Plastics 23:112-13 F '46

Thermoplastic binder for floor tiles. il Mod Plastics 23:110-11 Ag '46

Finishing materials

Baked-on plastic coatings prevent corrosion; tubular goods and other oil-field equipment. E. H. Short, jr. il Oil & Gas J 45:88-9+ Ag 10 '46

Better wear for refrigerator trays. il Mod Plastics 23:123+ Je '46

Catalytic isomerization of vegetable oils; evaluation of oils in bodying, varnishes and alkyd resins. L. B. Falkenburg and others. bibliog il Ind & Eng Chem 38:1002-9 O '46

Coating resins, 276-V2 and 276-V9 produced by Dow chemical co. Chem & Met Eng 52:144 D '45

Coating with polyvinyl chloride latex. M. S. Moulton. il diags Mod Plastics 24:117-20 O '46

Corrosion-resisting plastic material applied to oil-field equipment in place. E. H. Short, jr. il Oil & Gas J 44:59-60 D 22 '45

Development of plastic coatings for corrosion protection in the water-works industry. A. B. Smith. N E Water Works Assn J 60: 117-27; Discussion. 127-31 Je '46

Glycerine as essential raw material of the paint industry; alkyd resins. G. Leffingwell and M. A. Lesser. bibliog Paint Oil & Chem R 109:14+ O 3 '46

Moisture-proof covering to protect navy materiel; sprayed plastic coating. il Iron Age 156:105 N 29 '45

Organic coatings in water-works maintenance. D. R. Meserve. N E Water Works Assn J 60:227-35 S '46

Organosols, new dispersion coatings. J. Hoyt. diags Mod Packaging 19:193+ Mr '46

Paint, varnish and lacquer industry of Germany. H. O. Farr, jr. Paint Oil & Chem R 109:5-7 My 30; 18+ Je 13; 46+ Je 27; 40+ Jl 11; 44-7 Ag 8 '46

Paper plastics surfacing. W. B. Darling. Mod Plastics 24:97-100 O '46

Phosphoric acid vs. materials of chemical plant construction; vinyl plastics, paint. D. F. Siddall. Chem Eng 53:206+ Ag '46

Plastic coatings to control metal corrosion. S. P. Wilson. Steel 119:150+ O 14 '46

Plastic protective coating process; Plastoglaze. Engineer 180:423-4 N 23 '45

Plastic resins as protective coatings. P. O. Blackmore. color il Product Eng 17:1-7 Ja '46

Plastic tank coatings resist sour west Texas crude corrosion; Resoweld. G. Weber. il Oil & Gas J 45:89-90 Je 29 '46

Plastoglaze process for protective coatings. il Engineering 160:534 D 28 '45

Properties of Saran coating latex. G. W. Stanton and W. A. Henson. il Paper Tr J 123:48-52 Ag 8 '46; Same cond. Ind & Eng Chem 38:468-72 My '46; Same with additions. Mod Packaging 19:194-9 Mr '46

Protective plastic strip-off coating available to industry. il Bsns W p52+ Ap 27 '46

Putting dogs of war in live storage; plastic coating sprayed on naval guns. R. G. Skerrett. il Comp Air Mag 51:102-3 Ap '46

Refrigerator finishing. R. N. Sanger. Refrig Eng 50:533-4+ D '45

Resin baking coatings by induction heating; abstract. R. J. Moore. diag Nat Pet N 37 pt 2:R992+ D 5 '45

Resin finishing of refrigerator parts; illustrations with text. Materials & Methods 24: 385-8 Ag '46

Resins of the vinyl family in metal finishing; abstract. F. L. Scott. Metal Finishing 44: 286 Jl '46

Saran coating latex. G. W. Stanton and W. A. Henson. il Ind & Eng Chem 38:468-72 My '46; Same with additions. Mod Packaging 19:194-9 Mr '46

Styrene copolymers; a study of their uses in surface coatings. D. H. Hewitt and F. Armitage. Chem Age (Lond) 54:315-16 Mr 23 '46

Synthetic resins; their use in varnish and allied industries. A. E. Williams. il diags Chem Age (Lond) 55:439-46 O 12 '46

Vinyl resin finishes; their properties, formulations, and the new dispersion coatings, the organosols. R. W. Quarles. il diags Can Chem & Process Ind 30:33-6+ Ap '46

What's ahead in raw materials; synthetic resins. H. Smith. Paint Oil & Chem R 108: 32+ N 1 '45

Insulating materials

Effects of humidity and fungi; abstract. J. Leutritz, jr. and D. B. Herrmann. Materials & Methods 23:1366 My '46

Geon in the wire and cable industry. G. A. Fowles. il Rubber Age 58:703-8 Mr '46

Plastic compositions for dielectric applications. W. C. Goggin and R. F. Boyer. bibliog il Ind & Eng Chem 38:1090-6 N '46

Plastic live-line shields extend protection to 15 kv. E. H. Kendall. il diag Elec World 125:80-1 Mr 16 '46

Silicone-resin-treated magnet coils. G. L. Moses and J. J. Torok. bibliog il Elec Eng 65:Trans 412-16 Jl '46

Silicone resins for electrical insulation. G. L. Moses. Elec World 124:79-81 N 24 '45

Silicone resins raise insulation operating temperature limits. R. F. Horrell. il Pet Eng 17:204+ N '45; Same. Coal Age 51:76-80 Mr '46; Same, without il. Paper Tr J 121:18+ N 29 '45

Silicones, new materials for industry. il Steel 118:78-83+ Ap 22 '46

Styrene copolymer solvent reacting varnishes; Fosterite. N. C. Foster. il Electrochem Soc Trans 90 (preprint 24):307-14 '46

Synthetic insulation stripped faster from fine copper leads; effect of solder temperature. V. Canziani. il Am Mach 90:135-8 S 26 '46

RESINOUS products—Insulating materials—*Continued*
Thermoplastic cables. H. Barron, J. N. Dean and T. R. Scott. bibliog Inst E E J 91 pt 2: 297-309 Ag '44; Discussion. 91 pt 2:309-16; 92 pt 2:633-42 Ag '44, D '45

Manufacture

Cashew shell oil for resins. India Rubber World 114:866+ S '46
Compounding and fabrication of vinyl resin; Bound Brook, N.J., plant of Bakelite corp. J. A. Lee. il Chem Eng 53:120-4 Ag '46; Same, without il. Chem Age (Lond) 55:379-81 S 28 '46
German manufacture of phenolic resins for molding and laminating; Dynamit A.-G., Troisdorf. il diag Mod Plastics 23:155-8+ Ag '46
Manufacture of koresin in Germany. G. M. Kline. flow sheet Mod Plastics 23:151+ Jl '46
Manufacture of phenolic molding compounds in Germany; based on production manual of Dynamit A.-G., Troisdorf. il Mod Plastics 24:160-2+ S '46
Resins from phenol and acetylene; report at 23d Kuko (Plastics committee) meeting in Frankfort. Hecht. Mod Plastics 23:152 Jl '46

Physiological effect

Toxicity of some of the newer plastics. A. G. Cranch. Ind Med 15:168-70 F '46

Statistics

1944 end-use pattern for synthetic resins. Chem Ind 57:1143 D '45

Testing

Effect of molding pressure and resin on results of short-time tests and fatigue tests of compreg. W. N. Findley and others. il diags A S M E Trans 68:317-25 bibliog(p325-6); Discussion. 326-7 My '46
Stability of phenol formaldehyde plastics; abstract. F. A. Martin. Product Eng 17:320-1 Ap '46

Textile uses

Bright future for coated fabrics; Tolex and other vinyl coated fabrics. il Mod Plastics 23:104-7 Jl '46
Calendering and coating with polyvinyl resins. Rayon 27:543-4 O '46
Contact resins in decorative surfacing; plastic-impregnated fabric laminated to plywood base. il Mod Plastics 23:132-3 Jl '46
Crease resistant finishes. A. R. Wachter. Am Dyestuff Rep 34:64-5 N 19 '45
Development of plastics for peacetime textiles. D. H. Powers. Am Dyestuff Rep 35: 76-8 F 11 '46
Effects of resin treatment; abstract. K. P. Monroe. Textile World 96:131+ Ja '46
Fiber-bonding for improving textiles. il Manuf Rec 115:46+ F '46; Same cond. Rayon 27:98 F '46
Flexible coatings and adhesives. C. W. Patton. diags India Rubber World 114:233-4 My '46
Georgia plant makes screen, cloth from plastics; Chicopee manufacturing corp. il Manuf Rec 115:54+ O '46
Glamor and utility in plastic fabrics. il Mod Plastics 23:106-9 F '46
Improved coating techniques produce better art leather; vinyl resins. S. Wineman and H. F. Reves. il Textile World 96:114-15 Jl '46
Latest developments in coating textile fabrics. Rayon 26:651-3 D '45
Mechanics of zone control in resin finishing; presented by Northern New England section. diags Am Dyestuff Rep 35:13-19 Ja 14 '46
New yarn-impregnating process; Fiber-bonding. il Mod Plastics 23:196 Je '46
Pigments on textiles; use of resinous binders. Rayon 26:606 N '45
Plastic monofilaments. M. R. Radcliffe. Am Dyestuff Rep 35:279 Je 3 '46
Plastics and their application to textiles. C. D. Weston. bibliog diag Textile Inst J 37:P25-37 F '46
Plastics as coatings. P. F. Corbin. flow sheets diags Product Eng 17:117-18 O '46
Plastics technology; Geon latex. G. W. Flanagan. il diag India Rubber World 114:83-4 Ap '46
Precise control means quality coated fabrics. C. N. Rabold. il Textile World 96:102-3 Ag '46
Progress in drying and curing of resin-treated textile fabrics. M. J. Pagerie. il Rayon 27:477-8 S '46
Resins for textiles. J. E. Lynn. Am Dyestuff Rep 34:506-7+ D 3 '45
Shrinkage, what we are doing about it. D. H. Powers. Rayon 27:149-51 Mr '46
Shrinkproofing resin exhausted from bath. I. G. Sanford. il Textile World 96:137+ S '46
Some pitfalls in accelerated testing. R. E. Thomas. Am Dyestuff Rep 35:280-2 Je 3 '46
Unsupported films and sheetings. C. W. Patton. Am Dyestuff Rep 35:277-8+ Je 3 '46

See also
Saran
Velon

Water treatment

Ion-exchange process permits use of water with 2500 ppm total solids; plant for David, Ky. il diag Pub Works 77:21+ Jl '46
Purification of water by demineralization. J. W. Massell. il Rayon 27:425-7 Ag '46
Water and electrodeposition. F. R. Morral. il Metal Finishing 44:474-5 N '46
Water treatment with Amberlites. il Water & Sewage 84:50-1 F '46

RESINS. See Gums and resins
RESINS, Coal. See Coal—Resin content
RESINS, Synthetic. See Resinous products
RESISTOFLEX compar. See Vinyl compounds
RESISTORS, Electric. See Electric resistors
RESLOOM. See Melamine resins

RESNATRON
Powerful high frequency tube revealed. il Product Eng 17:149 F '46
Resnatron; high-power uhf oscillator-amplifier tetrode. W. W. Salisbury. il diags Electronics 19:92-7 F '46

RESONANCE
New resonant circuit. E. E. Schneider. diag Electronics 19:190+ S '46
Precision dynamical balancing of rotors by mechanical resonance. R. N. Arnold. il diags Engineering 161:481-2, 529-32 My 24, Je 7 '46

RESONANCE (chemistry)
Colour and constitution; some colour problems from the viewpoint of resonance theory. H. H. Hodgson. bibliog Soc Dyers & Col J 62:237-40 Ag '46
Colour and structure of indigo, indanthrone, and similar compounds discussed from the standpoint of modern resonance theory. H. H. Hodgson. bibliog Soc Dyers & Col J 62: 176+ Je '46
Dipole moment and resonance in vinyl sulfide and six unsaturated chlorohydrocarbons. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:1005-8 Je '46
Resonance absorption by nuclear magnetic moments in a solid. E. M. Purcell and others. Phys R 69:37-8 Ja 1 '46
Resonance reactions and anomalous scattering. E. P. Wigner. Phys R 70:15-33 Jl 1 '46
Resonance spectrum of iodine. D. H. Rank. bibliog il Opt Soc Am J 36:239-41 Ap '46
Schematic treatment of nuclear resonances. G. Breit. bibliog Phys R 69:472-88 My 1 '46
Ultraviolet absorption spectra of organic molecules; mechanical interference of substituent groups with resonance configurations. W. H. Rodebush and I. Feldman. bibliog Am Chem Soc J 68:896-9 My '46

RESONATORS, Radio. See Radio resonators

RESPIRATION
Multiple factor theory of the control of respiratory ventilation. J. S. Gray. bibliog Science 103:739-44 Je 28 '46
Respiratory air flow characteristics and their relation to certain lung conditions occurring in industry. L. Silverman. bibliog il J Ind Hygiene 28:183-96 S '46
Save your breath; industrial poisons absorbed by respiration. L. Greenburg and S. Moskowitz. il Safety Eng 92:14-16+ Ag; 42-4 S '46

RESPIRATION, Artificial
Artificial respiration; abstract. J. H. Comroe, jr. and R. D. Dripps. Nat Safety N 53:44+ Je '46
EEI resuscitation medals honor alertness, skill, teamwork that saved lives. M. B. Woods. Edison Elec Inst Bul 14:39-46 F '46
How to treat electric shock. Safety Eng 91:27 Je '46
Lineman is saved by pole top method. H. F. Lovering. Edison Elec Inst Bul 14:314 S '46
Safety of modern alternating positive and negative pressure resuscitators; abstract. H. Schwerma and A. C. Ivy. J Ind Hygiene 28:sup42 Mr '46
See also
McCarter medal
RESPIRATORY apparatus
Masque à air comprimé pour la protection contre les fines poussières. Génie Civil 123: 53 F 15 '46
Respiratory air flow characteristics and their relation to certain lung conditions occurring in industry. L. Silverman. bibliog il J Ind Hygiene 28:183-96 S '46
Respiratory protection. il Nat Safety N 53: 30-1+ Mr '46
Respiratory protection from solvent vapors. Paper Ind 27:1091 O '45; Same. Nat Safety N 52:116-18 N '45; Same. Rayon 26:594 N '45
Scott Air-Pak breathing apparatus for fire fighters. il Comp Air Mag 51:197 Jl '46
Use of respirators. Steel 117:90 D 24 '45
See also
Oxygen apparatus
RESPIRATORY organs
Rate of water loss from the respiratory tract of man living in a subtropical climate. G. E. Burch. bibliog Science 102:619-20 D 14 '45; Discussion. C. F. Brooks. 103:281 Mr 1 '46

Diseases

Control of air-borne infection. Nat Safety N 53:50 F '46
See also
Cold (disease)
Influenza
Lungs—Diseases
Pneumonia
Silicosis
RESPIROMETERS
Low-resistance valve and indicating flowmeter for respiratory measurements. L. Silverman and R. C. Lee. bibliog diags Science 103:537-9 Ap 26 '46
REST
Modalities of bed rest. W. M. Peck. diag Pub Health Rep 61:626-43, pl 1-6 My 3 '46
RESTAURANTS
Building types; drive-in restaurants and luncheonettes; reference studies in design and planning. il plans Arch Rec 100:99-114 bibliog (p 114) S '46
Chichi in Chicago; Ernie Byfield has scored at the Sherman and the Ambassadors east and west. il Fortune 33:146-9+ Je '46
Drive-in restaurant. il map plans diags Arch Forum 83:162-3 N '45
How to cut food costs. E. H. Fleischman. 68p New York state restaurant assn, 369 Lexington av, New York 17 '46
Mass feeding offers big market. G. J. Kraft. il Food Ind 18:40-2+ Ja '46
Pattern for selling hotels, restaurants and other institutions. C. D. Murphy. Ptr Ink 213:92+ N 23 '45
Remodeled restaurants; Dunhall's, Hector's bar-cafe, and Solly Krieger's in New York city and the Oyster loaf in San Francisco. il plans Arch Forum 85:97-102 Ag '46
Two roadside drive-ins use light framing and lots of glass. il plans diag Arch Forum 85: 144 O '46
See also
Hotels
Lunch counters
Lunch wagons
Lunchrooms and cafeterias
also Lyons, J., and company

Advertising

Spirit of fun in restaurant ads draws trade. il Ptr Ink 214:78 F 1 '46

Electric equipment

To speed sales of commercial cooking. Elec World 126:114+ Jl 20 '46

Equipment

Advertises even though only 2% of audience are prospects; newspaper copy helps build million-dollar volume for Morton show case co. Ptr Ink 216:62+ Ag 9 '46
Commercial cooking; how to defeat competition for this load. L. L. Peters. Gas Age 97:25-6+ My 16 '46
Commercial uses for gas. W. Johnson and W. F. Moore. Gas J (Lond) 248:190-2+, 233-4 Jl 31-Ag 7 '46
Intermediate pressures; steam connections for kitchens and restaurants. plans Dom Eng 167:122+ Mr '46
Large volume water heating; mass feeding hot water demand. M. B. Mackay. Am Gas J 165:39-41+ Jl; 31 Ag '46
What the restaurant operator expects of the gas company. A. T. Pitman. Gas Age 98: 44+ S 19 '46
RESTAURANTS, Government
Future of British restaurants. Economist 150:371 Mr 9 '46
RESTRAINT of trade
See also
Glass container industry
Trusts, Industrial
RESUSCITATION
See also
McCarter medal
Respiration, Artificial
RETAIL associations
Functions of a retail trade association. W. H. Semsrott. J Retailing 21:134-7 D '45

Directories

List of 56 national associations of retailers grouped by kind of business. Dom Comm 34:89-92 S '46
RETAIL stores. See Retail trade; Store buildings; Stores (retail trade)
RETAIL stores, Manufacturers'
Do manufacturer's retail stores pay? Doubleday, Doran's experience in operating 19 retail book stores. R. McDaniel. il Am Bsns 16:16-17+ F '46
RETAIL trade
Butcher, baker, candlestick maker; GI's bonanza or booby-trap? A. M. Sullivan. il Dun's R 54:20-4+ Ap '46
Changing face of Main Street. E. E. Calkins. il Adv & Sell 39:43+ My '46
Conference on retailers' problems, Washington, D.C. Sept. 12-13; summary of proceedings. Dom Comm 34:74-81 O '46
Does your store need modernizing? D. R. Crone. il Dom Comm 34:19-20 My '46
Economic tendencies affecting retailing. R. C. Shook. Comm & Fin Chr 163:3346+ Je 20 '46
Goods-shortage situation. J. D. Small. Comm & Fin Chr 163:121+ Ja 10 '46
High-level employment; a challenge to retail distribution. M. P. McNair. Comm & Fin Chr 163:374+ Ja 24 '46
Higher expenditures in 1946 despite lower income. A. W. Zelomek. Comm & Fin Chr 163:129 Ja 10 '46
How much can be sold? D. W. Michener. Comm & Fin Chr 164:1456+ S 19 '46
Model manual for post-war retailing; National assn. of independent tire dealers. Ptr Ink 214:28 Ja 11 '46
Newsletters of interest to the retailer. J Retailing 21:119-20 O '45
Prophet with honor; Amos Parrish's semi-annual retailing clinics. Bsns W p72+ N 2 '46
Small retailers should check all sources of supply. S. C. Saunders. Dom Comm 34:43-8 Jl '46
30 ways to stimulate a product's retail sales. P. Bradstreet. Adv & Sell 39:80+ S '46
Thoughts on retail outlook. C. F. Walker. Comm & Fin Chr 164:1531+ S 26 '46

RETAIL trade—*Continued*
Trends affecting credits; situation in retail outlets. R. L. Seaman. Credit & Fin Management 48:16-18 Ja '46
What 1946 has in store for retailers. C. F. Hughes. J Retailing 21:149-50+ D '45

See also
Advertising—Dealers, Appeal to
Basement stores
Chain stores
Charge accounts (retail trade)
Christmas business
Cooperative associations
Dealer helps
Dealer relations
Department stores
Display of merchandize
Drug stores
Electric utilities—Appliance selling
Five- and ten-cent stores
Gasoline service stations
Grocery trade
Instalment plan
Mail order business
Market stores
Marketing
Men's stores
Merchandizing
News stands—Side line selling
Post exchanges
Price fixing, Resale
Purchasing
Retail workers
Salesmanship, Retail
Salesmen, Retail
Self service
Self service stores
Shopping centers
Show windows
Special sales
Store buildings
Voluntary chain systems

Accounting
Distribution cost analysis; a management tool for cost reduction. C. H. Sevin. U S Bur For & Dom Com, Economic Ser 50: 1-56; pa 15c Supt. of doc. '46
Retail operating rates; new figures for men's furnishings. R. L. Tebeau. il Dun's R 54: 15-17+ Ag '46
Statement analysis for the small retail business. S. C. Wise. J Retailing 22:44-9 Ap '46
Yardstick for retailers; standard operating ratios. A. D. Cotton. Dom Comm 34:20-7 Jl; 22-5 O '46

Advertising
Campaign stems flow of buyers to larger city; Berkeley, Calif. appeal to local residents. T. H. Moriarty. il Ptr Ink 217:52-3 N 8 '46
How a sailor sells cars. J. C. Wilcox. Adv & Sell 39:80 My '46
Merchandise information in retail advertising. H. M. Cowee. J Retailing 22:33-6+ Ap '46
Much retail ad space being devoted to converted surplus government merchandise. T. M. Jones. il Ptr Ink 213:60 D 21 '45
Musical shopping; patrons of grocery chain listen to commercial also. il Bsns W p60+ Jl 13 '46
Problems of technique beset in-store radio advertising; National marketcasting co., Los Angeles. il Sales Management 57:110+ S 15 '46
Real estate and other advertising. S. C. Saunders. Dom Comm 34:13+ Mr '46
Retailer uses business-paper ads to reach suppliers; Van Antwerp's sporting goods store, Mobile, Ala. I. W. Tyson. il Ptr Ink 214: 54+ F 8 '46
Store questions customers about gripes, media, brands. Ptr Ink 215:84 Ap 12 '46

Bibliography
Bibliography of retailing books. 19p pa Research bureau for retail training, University of Pittsburgh, Pittsburgh 13 '45

Charge accounts
See Charge accounts (retail trade)

Costs
Know your consumer credit costs; find out how your outlets handle credit. O. C. Lorenz. Credit & Fin Management 48:11-13 Ag '46

Ensemble selling
Manufacturer analyzes retail sales, helps department stores sell more shoes; I. Miller & sons. I. E. Grossmann. il Ptr Ink 215:36-8 My 24 '46

Finance
Fourteen important ratios for 12 retail trades, 1944; table. R. A. Foulke. Dun's R 53:17 N '45
Yardsticks of retail health; notes on 14 ratios for 12 lines; with tabulations. Dun's R 54: 16-17 O '46

Hours of business
Five-day weeks in retail stores. G. H. Arris. Am Bsns 16:19+ My '46

Manufacturers' demonstrations
Demonstrators provide the punch at point of sale; review of legal and other considerations. C. J. Swan. il Ptr Ink 216:29-31+ Ag 9 '46
FTC prepares for new role; Arden demonstrator decision. Bsns W p64-6 Je 22 '46

Purchasing
What the buyer should know about garment construction. E. H. Brooks. J Retailing 22: 50-5 Ap '46

Securities
Divergent trends in merchandise shares, deparment stores, with statistics on leading stocks. G. S. Kent. il mag of Wall St 78: 696-9+ S 14 '46
Outlook for merchandise shares; with position of leading shares. P. Dobbs. Mag of Wall St 77:704-6+ Mr 16 '46

Service
Good neighbors unlimited; story of Welcome wagon. F. Smith. il Adv & Sell 38:35+ D '45

Statistics
Age improves store health. Bsns W p86 Mr 30 '46
Britain's shops; with table giving estimates of total number of shops in each trade in 1945. Economist 150:676+ Ap 27 '46
Consumers expenditures and retail trade. Survey of Cur Bsns 26:3-5 Ja '46
Department- and specialty-store operating results for 1944. J Retailing 21:117-18 O '45
Economy in war and transition; retail sales. Survey of Cur Bsns 26:21-2 F '46
How long do retail and wholesale establishments tend to survive? statistics on age, size and survival power. U S Bur For & Dom Com, Economic (Small Bsns) Ser 54: 1-61 '46
New market study measures retail sales changes since '29. Sales Management 55:173-4 N 15 '45
Over 73 billions in retail sales in 1945; market explorations; gains, 1939-1945; by states, metropolitan areas and selected counties. W. P. Burn. maps Ptr Ink 215:33-6+ Ap 5; 43-6+ Je 7 '46
Problems and methods of the sample survey of business. M. H. Hansen and others. Am Stat Assn J 41:173-89 Je '46
Recovery in number of retail trade firms, preliminary estimates of the Department of commerce. Comm & Fin Chr 162:2346 N 15 '45
Retail credit survey, 1945. Fed Res Bul 32: 581-7 Je '46
Retail distribution in 1946; a forecast; trends in retail sales, 1929 thru 1946; tabulation. W. F. Gilbert. Sales Management 56:114-16 Ap 15 '46
Retail operating ratios; new figures for men's furnishings. R. L. Tebeau. il Dun's R 54: 15-17+ Ag '46
Retail sales, all stores, Aug. and Dec. 1945 and Jan.-July 1946, tabulation. Survey of Cur Bsns 26:6 S '46
Retail sales and consumer income since VJ-day. L. J. Paradiso. Survey of Cur Bsns 26:10-17+ O '46
Retail sales at record rates. Fed Res Bul 31: 1187-8 D '45
Retail sales, January to April and total 1945; revisions. Survey of Cur Bsns 26:24 Ag '46
Retail sales, the war years, 1941-1945. Bsns W p78 Mr 2 '46
Retail trade in 1945. A. LePage. J Retailing 22:56-9 Ap '46
Sales of retail stores; Oct. 1944 and 1945 and Jan.-Oct. 1944 and 1945; table. Survey of Cur Bsns 25:2 D '45
Sales unlimited; retail volume for first quarter. Bsns W p66+ My 4 '46

RETAIL trade—Statistics—*Continued*
Wholesale dry goods trading areas; 1945 retail sales 147% more than in 1935; P.I. market exploration. W. P. Burn. map Ptr Ink 216:45-8 S 6 '46
See also
Department stores—Statistics

Stock

Buying to customer demand. J Retailing 21:145-7 D '45
Magazine distribution system used for other products; daily calls on dealers make constant checking of stock and displays. E. M. Housman. il Ptr Ink 217:46-7 O 11 '46
Retail inventory loss reserves unneeded. Barron's 25:1 D 17 '45
Windfalls from unused inventory reserves. S. Devlin. Mag of Wall St 77:461-3 Ja 19 '46
See also
Department stores—Stock

Store equipment

All businesses need equipment. S. C. Saunders. Dom Comm 34:27-8 Je '46

Store layout

Building types; reference studies in design and planning. il plans diags Arch Rec 99: 99-121 F '46
Sales ideas from a Spiegel store for the home. il Am Bsns 16:18-19+ Mr '46
Simmons three-dimensional models pre-test retail store layouts. il Sales Management 57:89-90+ N 1 '46
What should you discuss with your architect? M. Lapidus. plan J Retailing 22:37-41 Ap '46
See also
Department stores—Layout

Store location

After choice of a business, what next? picking out a site for a retail bakery. il Dom Comm 34:18+ My '46
Careys, Grand Central, a store built on brand acceptance; men's furnishings. J. A. Murphy. Adv & Sell 38:97 D '45
Selecting a store location. H. G. Canoyer. bibliog il map U S Bur For & Dom Com, Economic Ser 56:1-68; pa 20c Supt. of doc. '46; Abstract. Dom Comm 34:41-7 S '46
Selecting retail branch locations. L. S. Flint. Management R 35:126-8 Ap '46
Some considerations in leasing a new store. A. H. Fuldner. J Retailing 22:42-3+ Ap '46
Store location and sales volume. Dom Eng 168:95-7+ Ag '46
See also
Roadside stores

Store management

Characteristics which go toward making a retailer. S. C. Saunders. Dom Comm 34:17-20 Ag '46
Executive training. C. J. Carden. J Retailing 22:1-4 F '46
Retail policies; their selection and application. R. H. Johnson. il U S Bur For & Dom Com, Economic (Small Business) Ser 57:1-65; pa 15c Supt. of doc. '46; Excerpts. Dom Comm 34:28-34 Ag '46
See also
Self service

Study and teaching

Field trips; an important method of retail training. J. W. Wingate and R. M. Rohrheimer. J Retailing 21:123-6 O '45
Part-time cooperative training on the college level; Department of retailing at Washington university. I. F. Blood. J Retailing 21:151-3 D '45
Sales contests in distributive education. N. F. Myers. J Retailing 22:30-1 F '46
Sixty small towns in California study Main Street face-lifting; Business planning institute of California. il Sales Management 56:142+ Ja 15 '46
Training and retail store combine to help the veteran. B. Tolk. Ptr Ink 215:37 Ap 26 '46

California

Sixty small towns in California study Main Street face-lifting; Business planning institute of California. il Sales Management 56:142+ Ja 15 '46

Canada

Chains expand; Canada's leading retail merchants plan new outlets. il Bsns W p89-90 N 24 '45
Operating results of unincorporated retail stores. For Comm W 23:23 Je 1 '46
Operating results of unincorporated retail stores, 1944. 55p pa 25c Canada. Dominion bur. of statistics, Ottawa '46

Germany

Woolworth in Germany. Fortune 33:235 Je '46

Great Britain

Britain's shops; with table giving estimates of total number of shops in each trade in 1945. Economist 150:676+ Ap 27 '46
Retail trade in 1945. Economist 150:sup15-16 Mr 23 '46

Illinois

Retail trade areas in Illinois. P. D. Converse. map (Bur. of economic and business research, business studies no. 4) 31p Univ. of Illinois, Urbana '46; Review. Bsns W p79 O 26 '46

Latin America

Expanding south; Sears, Roebuck's new ventures in Mexico, Brazil. Bsns W p75 O 12 '46

London

Harrods for everything. il Fortune 33:230 Je '46

Mexico (city)

Mexico city gets U.S.-type 11-story specialty store. il Bsns W p32 D 8 '45

New York (city)

Garfinckel's buy. Fortune 34:136 Ag '46
Hoving's first; another period of retail store amalgamation foreseen. Bsns W p79 Je 8 '46
Northward ho; a century and a half of retailing on Manhattan. A. M. Sullivan. il map Dun's R 54:16-21+ F '46

Pittsburgh

May co. expands; merger with Kaufmann. Bsns W p55-6 Ag 3 '46

United States

Retailers walk a tight rope. il Bsns W p17-18 My 4 '46

RETAIL workers
Earnings of women and male minors in New York retail stores, 1945. Mo Labor R 62: 230-2 F '46
Field trips; an important method of retail training. J. W. Wingate and R. M. Rohrheimer. J Retailing 21:123-6 O '45
Plans for Britain's distributive industries. G. Schaffer. J Retailing 21:143-4 D '45
Pre-test for retail merchandising. J Retailing 21:156, 158 D '45
Retail wages rise, 1939-1945; graph. Bsns W p80 Mr 23 '46
Side lights on the Christmas rush. J Retailing 22:17-18 F '46
Training and retail store combine to help the veteran. B. Tolk. Ptr Ink 215:37 Ap 26 '46
What do you know about retail personnel management? J Retailing 22:15-16 F '46
Why a career in retailing home furnishings? M. Lammert, 3d. J Retailing 21:129-30 D '45
Women in New York retail and service jobs, 1945. Mo Labor R 62:931-2 Je '46
See also
Chain stores—Employees
Department stores—Employees
Salesmen, Retail
also United retail, wholesale and department store employees

RETAINING walls
Remarques sur la butée des terres et les murs de soutènement. A. Couard. Génie Civil 123:236 S 1 '46

RETAINING walls, Concrete
Floating block theory in structural analysis. S. U. Benscoter. diags Am Concrete Inst J 17:205-26 Ja '46
Floodwaters in Santa Ana basin controlled by concrete channels. il Concrete 54:8-9+ Jl '46
Offset retaining walls for stockpiles of sand and gravel. H. M. Hadley. il diags Eng N 136:497-8 Ap 4 '46

RETARDERS, Car. See Car retarders

RETINA
See also
Color sense
Eye

RETIREMENT plans. See Annuities; Pensions, Industrial

RETORTS, Gas. See Gas retorts

RETTEW, Richard L.
Production man's idea launches workers' company; Bristol machine tool co. por Bsns W p29 My 18 '46

RETTING of flax. See Flax

RETURN envelopes. See Advertising, Mail—Return envelopes

RETURNABLE containers. See Containers, Returnable

RETURNED checks. See Checks, Returned

REUTHER, Walter Philip, 1907-
Reuther: F.O.B. Detroit; new model union leader. pors Fortune 32:148-51+ D '45
Reuther on road. Bsns W p88+ Je 15 '46
Reuther; the big if in autos. Bsns W p90+ Ap 6 '46
Reuther's gains. Bsns W p82+ My 4 '46

REVENUE act of 1945
Revenue act of 1945. W. C. Butscher. J Account 81:42-51 Ja '46; Correction. 81:424-5 My '46

REVENUE bonds. See Bonds, Revenue

REVERBERATION. See Echo

REVERBERATORY furnaces. See Furnaces, Reverberatory

REVERSED cycle refrigeration. See Heat pumps

REVERSING mechanism
Methods of reversing electric motors. J. L. Watts. diags Mech Handling 33:138-43 Mr '46

REVERSIONS
New Hallock regulations; standards set for taxability of transfers taking effect at death. L. B. Brown. Trusts & Estates 83: 227-32 S '46

REVOLVERS
Guns are dangerous but there's a way to handle them safely. D. Walker. il Bankers Mo 62:393-5, 453-5, 562-3+; 63:19-20 S-O, D '45-Ja '46

REWARDS, prizes, etc.
Arno Johnson wins AMA study award. Ptr Ink 215:84 Je 28 '46
Award citations by President Dewey. Chem & Eng N 24:2458-9 S 25 '46
Awards administered by the American chemical society. Chem & Eng N 24:2660-2 O 10 '46
Awards amounting to 10,000 pounds made to three scientists who discovered and developed penicillin. Science 103:334 Mr 15 '46
Awards and educational activities of ACS local sections. R. F. Gould. il Chem & Eng N 24:629-31+ Mr 10 '46
Awards of the American society of mechanical engineers. Science 102:609 D 14 '45
Chemical engineering profession honors A-bomb project; award to Manhattan engineer district. Chem & Met Eng 53:100-5 Mr '46
Institute of the aeronautical sciences honors and awards. Aeronautical Eng R 5:19-22 F '46
Institute of the aeronautical sciences, honors night victory dinner. Aeronautical Eng R 5:20-32+ Mr '46
Johnson gets AMA award; Prescott cited for 1945 Survey of buying power. Sales Management 57:39 Jl 1 '46
Materials & Methods achievement award. Materials & Methods 23:79-82 Ja '46
Moles honor two prominent contractors; Oscar W. Swenson and Miles I. Killmer receive the 1946 awards. Explosives Eng 24:19 Ja '46; Comp Air Mag 51:50 F '46
Prizes awarded by Boston society of civil engineers; scholarships. Boston Soc C E J 33:114-24 Ap '46
Rules for the John J. Abel prize in pharmacology. Science 104:393 O 25 '46
Science award provides good public relations; Bausch and Lomb science scholarships. Ptr Ink 216:102 S 6 '46
38 editorial achievement awards presented to business paper editors. il Ind Marketing 31: 34-6+ O '46
See also
Advertising awards
Lilly, Eli, award
Medals
Pittsburgh award
Safety contests and awards

REYNALITE. See Aluminum, Structural

REYNOLDS, James J. 1907-
New NLRB member quit Wall Street for steel mill. por Bsns W p80 Je 22 '46

REYNOLDS, R. J., tobacco company
Annual report. Comm & Fin Chr 163:660 F 4 '46
Financial position. H. S. Coffin. Mag of Wall St 77:630, 669 Mr 2 '46

REYNOLDS, Richard Samuel, 1881-
Men who make aluminum. por Fortune 33:106 My '46

REYNOLDS fountain pen. See Fountain pens

REYNOLDS metals company
Reynolds leases plants in Arkansas. il Manuf Rec 115:115+ Ja '46
Reynolds Metals buys Aluminum products co. Steel 117:105 D 3 '45
Reynolds plans for civilian production. il Manuf Rec 115:43+ F '46

REYNOLDS pen company
Reynolds issue; to offer 100,000 shares to public. Bsns W p44+ Je 15 '46

RHAMNOSE
Preparation of D-rhamnose from methyl α-D-mannopyranoside. W. T. Haskins, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 68:628-32 Ap '46

RHEEM manufacturing company
Thumbnail stock appraisal. Mag of Wall St 78:88 Ap 27 '46

RHEOLOGY
Fundamentals of consistency and viscosity. J. J. Bikerman. bibliog diags Pet Refiner 24:119-24 D '45; 25:111-17 Ja; 120-6 F '46

RHEOSTATS
How and why of a tank rheostat. H. W. Sussman. il diag Metal Finishing 44:108-9+ Mr '46
Motor-driven automatic timber matches generator voltage with process cycle; power for anodizing. A. R. Wismer. il diag Power 90:161-3 Mr '46
Rheostat for load testing Diesel power plants. il Ry Mech Eng 120:220 Ap '46
Way to eliminate main field rheostats. P. H. Adams. diags Elec World 125:76-7 Mr 30 '46

RHEUMATIC fever
Direct culture of rheumatic virus. W. J. MacNeal and others. Science 103:620-1 My 17 '46
Hyaluronidase inhibition by sodium salicylate in rheumatic fever. F. Guerra. bibliog Science 103:686-7 Je 7 '46
Two fellowships for the study of rheumatic fever. Science 103:754 Je 28 '46

RHEUMATISM
Inflammatory phlebostenosis as a factor in the localization of rheumatic diseases. O. Meyer. bibliog Ind Med 15:197-8 Mr '46

RHINE river
Entire length of Rhine open to barges. Eng N 135:751 D 6 '45

RHIZOBIUM radicicolum
Capsular polysaccharide of rhizobium radicicolum. E. Schlichterer and M. Stacey. Chem Soc J p776-83 N '45

RHODAMINE B
Manufacture of pigment-in-oil pastes; abstract. A. F. Schmutzler and D. F. Othmer. Chem Eng 53:238 S '46

RHODE ISLAND
See also
Insurance, Health—Rhode Island

RHODESIA
Economic conditions
News by countries; Southern Rhodesia. For Comm W 22:30 Ja 19 '46

RHODIUM
Nuclear excitation of krypton and rhodium. M. L. Wiedenbeck. bibliog Phys R 68:237-9 D 1 '45
Operations and plants of International nickel company of Canada; copper refining; recovery of secondary metals. Can Min J 67: 454-5 My '46
Analysis
Precipitation of platinum metals by organic monosulfides; determination of platinum with thiophenol and rhodium with thiobarbituric acid. J. E. Currah and others. bibliog Ind & Eng Chem Anal ed 18:120-2 F '46

RHODIUM plating
Purification of rhodium plating baths. A. Brenner and W. A. Olson. Iron Age 158:69 S 12 '46

RHOMBININE
Papilionaceous alkaloids; lupinus macounii, Rydb. L. Marion. Am Chem Soc J 68:759-60 My '46

RHUBARB
Imports of rhubarb; 1938-1944; chart. For Comm W 23:38 My 18 '46

RIBBON
Quality demands of narrow fabrics reduce loom efficiency; weaving World war II Victory ribbon. G. Grossgebauer. il Textile World 95:112-14 N '45

RIBBON mixers. See Mixers

RIBITYL dimethylaniline
Simplified synthesis of N-aryl-glycamines. L. M. Jampolsky and H. M. Wuest. Am Chem Soc J 68:1777-8 S '46

RIBOFLAVIN. See Vitamins—Vitamin B_2

RIBONUCLEIC acid
Alkaline hydrolysis of and effect of heat on ribonucleic acid. C. A. Zittle. bibliog Franklin Inst J 242:221-7 S '46
Effect of ribonucleic acid and its hydrolytic products and of desoxyribonucleic acid on succinic dehydrogenase and cytochrome oxidase; abstract. C. Zittle. Franklin Inst J 241:306 Ap '46
Enzymes hydrolyzing ribo- and desoxyribonucleic acids. C. A. Zittle. bibliog Franklin Inst J 241:379-81 My '46

RIBONUCLEINASE
Effect of ribonucleinase on succinic dehydrogenase and cytochrome oxidase. C. A. Zittle. Franklin Inst J 240:504-5 D '45
Nature of the inhibition of ribonucleinase and succinic dehydrogenase by mononucleotides. C. A. Zittle. bibliog Franklin Inst J 241:154-5 F '46
Ribonucleinase; absiract. C. A. Zittle and E. H. Reading. Franklin Inst J 241:252, 448 Mr-Je '46

RICE, Larry
Sketch. por Sales Management 56:40 My 1 '46

RICE
Asia's rice famine. Economist 149:877-8 D 15 '45
Australian rice industry. For Comm W 22: 36-7 Ja 26 '46
Enrichment of rice with synthetic vitamins and iron. M. F. Furter and others. bibliog il diag Ind & Eng Chem 38:486-93 My '46
Fortifying rice; patent. Food Ind 18:435 Mr '46
Haitian rice situation. For Comm W 23:42 My 25 '46
Increase in Panama's rice production. For Comm W 21:45 N 10 '45
Iranian rice production. For Comm W 22:29 Ja 5 '46
Keeping vitamins in rice. Bsns W p54 Ja 5 '46
More rice for sale. Barron's 26:5+ S 30 '46
Nutritional improvement of white rice. M. C. Kik and R. R. Williams. il diags Nat Res Council Bul 112:1-76 '45
Philippine rice; existing problem has many phases. For Comm W 23:33 Je 1 '46
Rice production in the United States. E. E. Lund. maps Dom Comm 34:36-7 F '46
Rice supplies running out. Barron's 26:7 Ja 28 '46

RICE husks
Soft-grit blasting; using ground corncobs and rice hulls. E. C. Lathrop and S. I. Aronovsky. il Steel 119:102+ Jl 22 '46

RICHARDS, Alfred Newton, 1876-
Portrait. Fortune 33:118 Je '46
Procter medal given to Dr. A. N. Richards. por Oil Paint & Drug Rep 149:3+ F 4 '46

RICHARDS, Horace Gardiner, 1906-
Recipient of president's award. por Am Assn Pet Geologists Bul 30:736-8 My '46

RICHARDS, Theodore William, medal
Adams receives Richards medal. Chem & Eng N 24:1511-13+ Je 10 '46

RICHARDSON, Ernest
Sketch. Am Cer Soc Bul 24:444-5 D 15 '45

RICHMOND, California
How promotion spared this boom town from industrial limbo. Sales Management 57: 128+ O 1 '46

RICHMOND, Virginia
Industries
Escapes reconversion headaches. R. C. Harper. il Manuf Rec 115:42-3 My '46

RICHMOND, Fredericksburg and Potomac railroad
Richmond, Fredericksburg & Potomac keeps trains moving. il map Ry Age 120:273-6 F 2 '46

RICHTER reaction
Cinnolines; the Richter reaction. K. Schofield and J. C. E. Simpson. Chem Soc J p512-20 Ag '45

RICKARD, Thomas Arthur, 1864-
Biography. por Explosives Eng 24:38-9 Mr '46

RICKENBACKER, Edward Vernon, 1890-
Sketch. por Mag of Wall St 78:765 S 28 '46

RICKETTSIA
Method for the preparation of tsutsugamushi (scrub typhus) antigen from infected yolk sacs. N. H. Topping and C. C. Shepard. Pub Health Rep 61:778-81 My 31 '46
Nature of the soluble antigen from typhus rickettsiae. C. C. Shepard and R. W. G. Wyckoff. Pub Health Rep 61:761-7, pl 1-4 My 31 '46
Preparation of antigens from yolk sacs infected with rickettsiae. N. H. Topping and C. C. Shepard. bibliog flow chart Pub Health Rep 61:701-7 My 17 '46
Rapid staining method for rickettsia orientalis. C. F. Clancy and D. M. Wolfe. Science 102:483 N 9 '45

RICKEY, Branch, 1881-
Famed baseball personality, new Guardian Life director. C. Axman. por East Underw 46:1+ D 21 '45

RIDING academies
Res ipsa loquitur; riding academies; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12:68+ O 10 '46

RIEBER, Frank, 1890-
Successful inventor. por Fortune 33:160+ Je '46

RIEBER, Torkild, 1882-
Rieber's rebound. Bsns W p20-1 Ag 10 '46

RIECKELMANN, Edward J. 1870-
Portrait. Credit & Fin Management 48:35 Jl '46

RIFLES
Dry ice rifle to be offered. il Bsns W p55-6 Je 15 '46
Dry ice rifle; weapon uses carbon dioxide as propellent. Heat & Ven 43:92 Jl '46
Manufacture
Rifle manufacture; electrical applications. il Elec R (Lond) 138:81-6 Ja 18 '46

RIGHT of way. See Eminent domain

RIGHT to labor
Right to work. J. R. Ellingston. Ann Am Acad 243:27-39 Ja '46

RIGHTS, Natural. See Natural law

RIGID airships. See Airships, Rigid

RILEY, Mrs J. Robert
Faith and prayer make risky loans good; unusual approach pays off for Memphis woman lender. R. L. Holman. Barron's 26:15 Ag 12 '46

RIMMED steel. See Steel—Rimmed steel

RINDERPEST. See Cattle—Diseases and pests

RINGLING, Robert Edward, 1897-
Rip in the big top; R. Ringling shot out of circus presidency. Bsns W p18 Ap 20 '46

RINGS, Steel
Circular calibration ring with two axes of symmetry. G. Brewer. diags Product Eng 17:115-19 F '46

Flash welding alloy-steel rings. P. B. Scharf. il Iron Age 156:50-3 Ag 16 '45; Same. diags Welding J 25:313-17 Ap '46

RINGWORM
In vitro action of monopyridine iodine (I) *p*-nitrobenzoate against ringworm fungi. J. Kleinberg and E. Meyer. Science 104:398-9 O 25 '46

Mechanism of spontaneous cure in puberty of ringworm of the scalp. S. Rothman and others. Science 104:201-3 Ag 30 '46

RIO DE JANEIRO
Rio port facilities are being improved. For Comm W 24:18 Ag 3 '46

See also
Airports—Rio de Janeiro

RIO GRANDE
Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81, 1387-1414, 1573-5; 72: 83-97, 235-40, 409-12, 682-96 O '45-Mr, My '46

RIO GRANDE southern railroad
No golden egg for the galloping goose. il Bsns W p48 Je 22 '46

RIOT insurance. See Insurance, Riot and civil commotion

RIPPLE control. See Carrier current control

RIPPLE ROCK. See Seymour Narrows, British Columbia

RIPPLES, Desert
Desert ripples. R. L. Ives. pl diag Am J Sci 244:492-501 Jl '46

RISK
Great demand for investment and venture capital. W. Gates. Mag of Wall St 77:382-3+ Ja 5 '46

Problem of development capital. R. E. Flanders. Comm & Fin Chr 162:2576+ N 29 '45

Risks of business; a check list. J. K. Lasser. il Dun's R 53:23-6 D '45

Risks of mining ventures should be evaluated. A. S. Lewis. Eng & Min J 147:61-3 S '46

Venture capital freeze by tax laws. Trusts & Estates 81:344 N '45

RISK research institute
Organized buyers' movement ten years old; steps up program of activity. W. W. Clement. East Underw 46:86-7+ D 14 '45

W. J. Fitzsimons heads Institute; other officers. East Underw 47:32+ Jl 5 '46

RIST, Leonard B.
Research director of International bank. Comm & Fin Chr 164:1323 S 5 '46

RIVER boats. See Excursion boats

RIVER coal. See Coal dredging

RIVER fronts. See Water fronts

RIVER traffic
Economic uses of our inland waterways. E. B. Black. Am Water Works Assn J 38:868-77 Jl '46

Feeder value of tributary waterways; reasoning employed by army engineers to justify project for improvement of Big Sandy river and its tributaries. C. S. Duncan. map Ry Age 120:668-9+ Mr 30 '46

Navigation on the Tennessee river. C. T. Barker. il diags maps Eng N 136:285-8, 351-4 F 21, Mr 7 '46

See also St Lawrence waterway and power project

RIVERS
Alinement affects length, depth, and stability of channel. J. F. Friedkin. il Civil Eng 16: 491-2 N '46

Characteristics of rivers permitting open-channel methods. M. Elliott. Civil Eng 16: 489 N '46

Competency of moving water to transport debris. C. Nevin. bibliog Geol Soc Bul 57:651-74, fold pl 1 Jl '46

Some problems in the bacteriology of rivers; abstract and discussion. C. L. Hannay. Chem & Ind p64-5 F 9 '46

See also
Dams
Flood control
Hydraulic engineering
Hydraulics
Ice on rivers, lakes etc.
Meanders
River traffic
Stream flow
Water pollution
Water supply
Waterways

also names of rivers, e.g.
Clyde river, Scotland
Mississippi river
Missouri river

Bank protection

New developments in use of asphalt in erosion control. il Roads & Sts 89:90-2 Ap '46

One-man stone riprap made in a primary crusher. il Eng N 136:906-7 Je 13 '46

Soil characteristics of bed and banks determine improvements. C. Senour. Civil Eng 16:492-3 N '46

Steel rails for bank protection on Salinas river, California. H. F. Cozzens. il Civil Eng 16:113-15 Mr '46

Uncompacted mass asphalt paving for river banks and levees. A. B. Pickett. il diag Civil Eng 16:451-3 O '46

Regulation

Columbia River regulation to aid navigation. R. E. Hickson. il map Civil Eng 16:346-7 Ag '46

Correction of tailwater erosion at Prairie du Sac dam. C. N. Ward and H. J. Hunt. il Am Soc C E Proc 72:1077-89 O '46

National river basin policy needed to give all regions equal opportunity. W. C. McNown. Eng N 137:55-6 Jl 11 '46

President signs Rivers and harbors measure. Comm & Fin Chr 164:664 Ag 1 '46

Review midwest river control problem; discussion at ASCE meeting. Eng N 137:567 O 31 '46

River navigation extended by open-channel expedients; symposium. M. Elliott and others. il Civil Eng 16:489-95 N '46

Rivers of wealth; great U.S. waterways being brought under control. il maps Bsns W p21-2+ Je 1 '46

Turning back the Yellow river to its prewar channel. O. J. Todd. il map Eng N 137:572-6 O 31 '46

See also
Dams
Flood control
Levees
Mississippi river—Flood control projects

China

See also
Yellow river, China

United States

Rivers of wealth; great U.S. waterways being brought under control. il maps Bsns W p21-2+ Je 1 '46

Utilization of rivers in the public interest. W. W. Horner. Am Water Works Assn J 38:878-82 Jl '46

RIVETED joints
More effective use of rivets and bolts; new standards, revised specifications and construction techniques. F. H. Frankland. il diags Eng N 136:341-3 Mr 7 '46

Testing

Efficiency of plates in riveted tension joints. F. P. Cozzone. diags Product Eng 17:88-91 S '46

RIVETED joints—Testing—*Continued*
Investigation of the strength of riveted joints in copper sheets. W. M. Wilson and A. M. Ozolsel. il diags Ill U Eng Exp Sta Bul 360:1-81 '46 (pa $1)
Mechanical properties of flush-riveted joints. W. C. Brueggeman and F. C. Roop. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:467-95 '41

RIVETING
Blind riveting in assembly work. L. Virgile. il diags Aero Digest 52:66+ Ja '46
Car-side riveting position. il Ry Mech Eng 119:604-5 D '45
Cold riveting for maximum strength. il Steel 117:145+ N 12 '45
Molybdenum steel riveting; use of tungsten carbide tip. diag Engineer 182:262 S 20 '46
Riveting fixture for grooved stud. diag Mach 52:186-7 Ja '46
Riveting T-beam without bending. W. H. Pellett. diags Am Mach 90:142 My 9 '46

See also
Riveted joints

RIVETS
Countersunk rivets sorted by head sizes. il Aero Digest 51:58 D 15 '45
Die for forming extruded rivets in sheet-metal plate. W. C. Mills. diags Mach 52: 191-2 D '45
Explosive rivet can be set without bucker. il Sci Am 174:80 F '46
Heat-treated rivets for high strength joints; Hi-Shear rivets. N. L. Marvin. il Materials & Methods 23:1574-7 Je '46; Excerpt. Mech Eng 68:820 S '46
Hi-Shear stop pin. diags Engineering 162:67 Jl 19 '46
Improved explosive rivet for peacetime mass production. Mach 52:186 D '45
Integral sealing ring featured in new rivet for pressurized cabin construction. diags Aviation 45:103+ Je '46
Intercrystalline corrosion of aluminium magnesium alloy rivets; abstract and discussion. G. J. Metcalfe. Engineer 182:282 S 27 '46
More effective use of rivets and bolts; new standards, revised specifications and construction techniques. F. H. Frankland. il diags Eng N 136:341-3 Mr 7 '46
Special rivets for shear loading. K. Schmidt. il diags Product Eng 17:236-8 Mr '46
Steel-aluminum rivet heat-treatable to handle high shear loads. Sci Am 175:113 S '46
Structural repair techniques; use of Hi Shear rivets and close tolerance bolts. N. Harlan and J. J. Rodgers. il Aero Digest 52:54-5 My '46

Testing

Effect of aging on mechanical properties of aluminum-alloy rivets. F. C. Roop. bibliog(39 titles) diags U S Nat Advisory Com for Aeronautics 1941:353-69 '42; Excerpts. Materials & Methods 23:514+ F '46

RIVITZ, Hiram
Revolution in rayon. il por Fortune 34:100-7+ S '46

ROACHES. See Cockroaches

ROAD accidents

See also
Automobile accidents

ROAD contractors

Directories

Contractors, Canada; roads, bridges, airports, earthmoving. Roads & Bridges 84:140-5 Je '46

ROAD graders. See Road making machinery

ROAD magnets. See Roads—Magnetic sweeping

ROAD making machinery
Blade angles; right way to operate your motor grader. il Roads & Sts 89:75-6 Mr '46
Demonstration of contractors' plant. il Engineer 181:497-8 My 31 '46
Dozer-powered spreader box aids hot-mix widening job. il Roads & Sts 89:93 My '46
Hard-facing grader blades. W. W. Mills. il diags Roads & Sts 89:117-19 Jl '46
Modern road making machinery; abstracts. G. T. Mitchell and others. Chem & Ind p112-13 Mr 9 '46
Self-propelled spreader box simplifies macadam widening. il Roads & Sts 89:92 F '46
Turkey will spend $600,000 for road-building equipment. For Comm W 23:18 My 18 '46

See also
Excavating machinery
Road rollers
Roads, Concrete—Construction equipment

ROAD maps
Road maps requests soar, motorists would buy them. Ptr Ink 216:93 Jl 19 '46
Uncharted paths; motorists have only prewar road maps. Bsns W p86+ N 24 '45

Printing

Getting road map ready for press. il Inland Ptr 116:60-1 Mr '46

ROAD materials
Co-operative research in the road emulsion industry by the technical subcommittee of the Road emulsion and cold bituminous roads association. E. R. Hatt and W. R. Peard. il diags Soc Chem Ind J 64:243-53 S '45
Kentucky specifications for highway materials. N. C. Rockwood and H. E. Swanson. il Rock Prod 49:92+ Mr '46
Manufacture and laying of dense tar surfacings. H. G. Barnes and G. H. Fuidge. Soc Chem Ind J 64:271-4 O '45
Material specifications for highways; Wisconsin. il Rock Prod 48:113-16 D '45
Outline of prospective highway research in Kentucky. L. E. Gregg. Roads & Sts 89: 86-8 Ja '46
State highway construction material specifications, Oklahoma. N. C. Rockwood and H. E. Swanson. il Rock Prod 49:100-1 F '46
Using sandstone as a road base material. E. L. Andrews. il Pub Works 77:21-2 F '46

See also
Aggregates
Asphalt
Bituminous materials
Cement
Clay
Concrete
Gravel
Pavements
Road tar
Stone, Crushed

Analysis

Rapid determination of tar and bitumen in road materials. E. H. Green and E. A. Cox. il diags Soc Chem Ind J 65:1-6 Ja '46

Testing

Physical properties of road aggregates as affecting road performance. B. H. Knight. bibliog Soc Chem Ind J 64:254-9 S '45
Study of coarse-graded base-course materials. E. A. Willis. il Pub Roads 24:239-43 Jl '46; Same. Roads & Bridges 84:75-6+ N '46

ROAD rollers
Oil engine driven road rollers. il diag Engineer 181:540-1 Je 14 '46
Stothert and Pitt vibrating rollers. il Engineer 180:535 D 28 '45

ROAD signs
Buoys and lifelines of highways; reflectorized signs and pavement markings. J. O. Martineau. il Roads & Bridges 84:87-9+ Ap '46
Recent developments in signs. H. E. Neal. il Roads & Sts 89:97-9+ Ap '46
Standards and good practices for highway signs. il diags Pub Works 77:22-3+ Ag '46

See also
Traffic signs

ROAD tar
Manufacture and laying of dense tar surfacings. H. G. Barnes and G. H. Fuidge. Soc Chem Ind J 64:271-4 O '45
Road tar research; Association's new trade mark; abstract. J. D. Pratt. Chem Age (Lond) 53:600 D 22 '45

See also
Roads, Tarred

Analysis

Rapid determination of tar and bitumen in road materials. E. H. Green and E. A. Cox. il diags Soc Chem Ind J 65:1-6 Ja '46

ROAD traffic
Controlled-access highways. J. D. Millar. il Roads & Bridges 84:55-8+ Jl '46

ROAD traffic—*Continued*
Effect of roadway width on vehicle operation; study of speed and placement on two-lane concrete roads. A. Taragin. il diags Pub Roads 24:143-60 O '45; Abstract. Concrete 54:2-5+ F '46
Elimination of accident hazards. J. C. McMonagle. Roads & Bridges 84:54-6+ My '46
What can be done about traffic congestion? L. Williams; W. S. Chapin. il Civil Eng 16:149-53 Ap '46
See also
Highway transportation
Motor trucks and roads
Street traffic
Traffic signals

ROADMASTERS' and maintenance of way association
Annual meeting, Chicago, Sept. 17-19. Ry Age 121:515-20 S 28 '46

ROADS
Highway research board, annual meeting, abstracts of papers. Eng N 136:549-50 Ap 18 '46
See also
Automobiles and roads
Desert roads
Highway administration
Highway engineering
Highway research
Highway transportation
Motor trucks and roads
Pan American highway
Parkways
Pavements
Road making machinery
Road materials
Roadside planting
Snow removal
Streets

Construction
Blast holes shot into volcanic slag; use of shells; seabee project, building road on New Britain. G. A. Cunney. il Civil Eng 16:71 F '46

Construction equipment
Dual-type, controlled-access highway from Toronto to Barrie; variety of earthmoving equipment used. il maps Roads & Bridges 84:41-52+ Jl '46
Equipment distributors, Canada; addresses of head and branch offices; list of principals they represent. Roads & Bridges 84:149-56 Je '46
Loader and wagons move 700 cu. yd. per hour on Virginia grading job. il Roads & Sts 89:76-7, 115 Ap '46
Mobility is the word with Maudlin construction company. il Roads & Sts 89:74-6 Je '46
Nevada grade compaction speeded by improved storage tank set-up; watering trucks used on desert project. il Roads & Sts 89:76-7 Mr '46
Postwar parade of new construction equipment and materials. il Roads & Sts 88:116-18+ N; 114-20+ D '45
Products index, with addresses of manufacturers and agents. Roads & Bridges 84: 157-68 Je '46

Contracts
Associated general contractors and American association of state highway officials joint committee meeting. Roads & Sts 89:110+ Mr '46
Highway contract situation. C. M. Hathaway. Eng N 136:495-6 Ap 4 '46
Los Angeles freeway contracts let; bids on section of Santa Ana parkway. map diag Roads & Sts 89:86-7 F '46
Public roads administration's new procedure for contract concurrence. Roads & Sts 89: 114 Ap '46

Cost
Bids on section of Terminal Island freeway, Los Angeles, Calif. Roads & Sts 89:77 Ag '46
Contract unit bid prices. Eng N 136:619+ Ap 18 '46
Grading, drainage, surfacing, Whatcom county, Washington; unit prices. Eng N 135:684 N 15 '45
Highway construction in Oregon; unit prices. Eng N 136:74 Ja 10 '46
Highway construction, 1946; reports from officials of state highway departments, by states. Roads & Sts 89:94+ F '46
Highway costs show slow upward trend. Eng N 136:40-2 Ja 10 '46
Highway grading, advance clearing, Washington; unit prices. Eng N 136:306 F 21 '46
Highway improvement, Hempstead co, Arkansas; unit prices. Eng N 136:376 Mr 7 '46
Postwar highway construction costs. H. E. Foreman. Concrete 54:24+ Jl '46
Price trends in highway construction. Roads & Sts 89:93 F '46
Rebuild engineering manpower; highway department personnel, training, salaries, roadbuilding costs. C. M. Upham. Roads & Sts 89:79+ Ja '46
Rise in costs explained by Carolina contractors. Roads & Sts 89:107 Ag '46
Road improvement, Pleasants co., West Virginia; unit prices. Eng N 136:811 My 16 '46
Roadbuilding costs, 1922-1945. Eng N 136:605 Ap 18 '46
Stress maintenance of present highways as costs of road construction soar. Nat Pet N 38:43+ S 4 '46
See also
Roads, Bituminous—Cost
Roads, Concrete—Cost
Roads, Elevated—Cost
Roads, Gravel—Cost

Curves
Mathematical examination of the highway transition spiral. J. O. Eichler and H. W. Eves. Am Soc C E Proc 71:657-72 bibliog(p670-2) My '45; Discussion. bibliog 71: 1443-66, 1545-50; 72:547-56 N-D '45, Ap '46
Surveyor's parabolic vertical curve simplified. J. A. Oakey. Civil Eng 16:459-60 O '46

Damage from floods, etc.
Protecting highways from damage by floods; use of permeable pile jetties. L. R. Redden. map Pub Works 77:29-30 F '46

Drainage
Drainage fundamentals. diags Roads & Sts 89:88-94 Je '46
Highways and airports as malaria and mosquito producers. il Pub Works 77:20-1 Mr '46
Properly-constructed cuts and fills aid drainage, minimize delays; abstract. R. D. Evans. diags Roads & Sts 89:84-5 My '46
Slide control; maintenance in West Virginia. E. L. Worthington. diags Roads & Sts 89: 90-2+ My '46
Special trenching rig cuts beveled ditch section. C. R. Hanes. il Roads & Sts 89:84-5 Ja '46
Study of bituminous-coated corrugated sheet metal culverts. J. Y. Welborn and P. J. Serafin. il Pub Roads 24:227-38 Jl '46
Vertical sand drains for accelerating and controlling ground settlement. H. J. McKeever. il Roads & Sts 89:72-8 Ag '46

Economic aspects
Automobile, the highway and the future. A. P. Sloan, jr. Automotive & Aviation Ind 95:26 O 15 '46
Highway construction and our national economy. C. M. Upham. il Civil Eng 16:340-1 Ag '46
Highway to transform Bolivia's economy. J. L. Harrison. il map Eng N 137:429-33 O 3 '46

Federal aid
Apportionment of federal-aid highway, secondary and urban funds for the fiscal year 1947; tabulation. Eng N 136:884 Je 6 '46
Excerpts, staff report of AGC's highway division. H. J. Kirk. Roads & Sts 89:101-3+ Mr '46
Federal-aid road building by county forces. T. H. MacDonald. Roads & Sts 89:127 F '46
Federal-aid road work tops $473 million at end of July. Eng N 137:265 Ag 29 '46
Highway construction and our national economy. C. M. Upham. il Civil Eng 16:340-1 Ag '46
Long-range program; abstract. J. W. Robinson. Concrete 54:4+ Mr '46
Millions for highways. Bsns W p52 Ja 12 '46
National program for secondary road development. T. H. MacDonald. Roads & Sts 89:84-5+ Ag '46

ROADS—Federal aid—*Continued*
PRA rejects few highway bids on grounds of too-high costs. Eng N 136:671 Ap 25 '46
Second postwar F.A. apportionment made. Roads & Sts 89:71 Je '46
Texas claims honors for first completed F.A. secondary project. Roads & Sts 89:76 Jl '46

Finance

Billion dollars; for what? how will this sum, collected in next ten years from Canada's motorists, be spent? R. A. Stapells. Roads & Bridges 84:96+ Ap '46; Discussion (Motor-vehicle taxes justify extensive road program). C. H. Grant. 84:76-8 Jl '46
Enlarged tax areas promote construction of limited-access highways. C. M. Noble. il map Civil Eng 16:456-8 O '46
Highway construction outlook, 1946. Eng N 136:36-9 Ja 10 '46
Highway revenues increase; but watch that leaky tax bucket. Nat Pet N 38:33-4+ Je 19 '46
How we pay for our highways. C. L. Dearing. Automotive & Aviation Ind 95:27 O 15 '46
Pennsylvania and Kentucky approve amendments limiting highway revenues to road financing. Nat Pet N 37:68 N 14 '45
Postwar programs; how they're coming along; state, county and city plans. Roads & Sts 88:80-1 D '45
Road ahead. A. Bradley. Automotive & Aviation Ind 95:27+ O 15 '46
$78,000,000 for roads and bridges in 1945; $153,000,000 in 1946; Canadian statistics. Roads & Bridges 84:39-40 Je '46
Tax ratables affect freeways; proposed unification of several small communities as single tax area; abstract. C. M. Noble. Roads & Sts 89:88+ My '46

See also
Roads—Cost
Roads—Federal aid
Roads—Tolls

Foundations

Base design for bituminous roads. L. D. Hicks. Roads & Sts 89:103-5 Ag '46
Brush mat and volcanic cinders used to build road over quagmire on a Pacific island. Eng N 135:721 N 29 '45
Soil sampling and testing for highways and airports. R. M. Hardy. il diags Roads & Bridges 84:63-6+ F '46
Study of coarse-graded base-course materials. E. A. Willis. il Pub Roads 24:239-43 Jl '46; Same. Roads & Bridges 84:75-6+ N '46
Tar base stabilization as practiced on recent Alabama project. J. F. Tribble. il Roads & Sts 88:94-6+ D '45
Using sandstone as a road base material. E. L. Andrews. il Pub Works 77:21-2 F '46

Soil-cement

California builds concrete pavement with soil-cement base; with itemized bids. il Roads & Sts 89:90-1+ S '46

Frost damage

Research on frost action in soils; road damage; permafrost foundations. R. M. Hardy. il Roads & Bridges 84:74-6+ S '46

Grade separation

Four-level highway grade separation adopted after model study. F. J. Grumm and F. W. Panhorst. il Civil Eng 16:356 Ag '46
Progress in grade separations. H. W. Giffin. il Roads & Bridges 84:84-6+ Ap '46
Two-bridge rotary for controlled access interchange; Shirley memorial highway in Arlington, Virginia. D. W. Loutzenheiser. il plan Roads & Sts 89:85-8 Ap '46

Grading

Grade uphill? tain't worth it. Roads & Sts 89:78 Jl '46
Loader and wagons move 700 cu. yd. per hour on Virginia grading job. il Roads & Sts 89: 76-7, 115 Ap '46
Million-dollar Iowa grading job. H. J. McKeever. il Roads & Sts 89:65-7 My '46
Truck speed and time loss on grades. J. W. Stevens. Am Soc C E Proc 72:919-38 S '46

Ice control

Good practices in drift prevention and ice control. il Pub Works 77:29-30 O '46
Good practices in snow removal, drift prevention and ice control. il Pub Works 77: 31-3+ Ag '46
Ice prevention on New Hampshire highways; use of salt; with cost data. L. F. Johnson. il Eng N 136:492-4 Ap 4 '46
Ice removal bureau formed. Safety Eng 91: 38 Ja '46
Oakland county, Michigan, plowing and deicing methods. L. V. Belknap. il Roads & Sts 88:95+ N '45
Winter costs up 100% in Vermont since 1936. Roads & Sts 89:86 My '46

Intersections

Channelized intersection a lifesaver. H. S. Wright. il Civil Eng 16:311-12 Jl '46
Left turn accidents on four-lane divided highways. R. H. Baldock. Roads & Sts 89: 79+ Ag '46
Model aids super-interchange design. il Roads & Sts 89:83+ S '46

See also
Traffic circles

Lighting

Country road lighting; general discussion at meeting of I.E.E. Electrician 136:232 Ja 25 '46
4,000,000 new lights needed on highways; abstract. A. F. Dickerson. Elec World 125:168 F 16 '46
Lights to brighten, not frighten. il Bsns W p30 Je 15 '46
New goals set for highway lighting; standards set for National system of interstate highways. H. E. Mahan. il Eng N 137:580-3 O 31 '46
Recommended practice of street and highway lighting, 1945. diags Illum Eng 41:105-30 bibliog(p128-30) F '46
Traffic signs; report of Ministry of transport departmental committee. Light & Lighting 39:65-7 Ap '46

Location

Air-surveying methods for highway location. D. N. Kendall. il Roads & Bridges 84:61-2+ S '46
Highway reconstruction on Vancouver island. O. W. Smith. il map Roads & Bridges 84:59-62+ Ja '46
Lake drained to build cut-off; dike roadway eliminates kink in Southern state parkway on Long Island. il map diag Roads & Sts 89:68-9 Je '46

Magnetic sweeping

Traveling magnet policies Michigan highways. il Eng N 136:803 My 16 '46

Maintenance and repair

Highway maintenance calendar. il Pub Works 77:26-7 S '46
Maintenance costs and methods. J. S. Bright. Roads & Sts 89:109-10 Jl '46
Michigan counties use underbody scrapers for secondary road maintenance. A. L. Burridge. il Roads & Bridges 84:86+ My '46; Same abr. Roads & Sts 89:101 Ja '46
Necessity of prompt and continuous maintenance. B. H. Petty. Roads & Sts 89:84-6+ Mr '46
Operations of the Ottawa roads commission; maintenance work. J. L. Shearer. il Roads & Bridges 84:62+ F '46
Using stabilized soil mixtures properly; patching and maintenance of highways; abstract. C. M. Ziegler. Pub Works 77:33 F '46
What price maintenance cost data? E. L. Worthington. Roads & Sts 89:90+ Ja '46

Models

Model aids super-interchange design. il Roads & Sts 89:83+ S '46

Protection

Hanging fence wire prevents rock falls. il Roads & Sts 89:85 S '46
Protecting highways from damage by floods; use of permeable pile jetties. L. R. Redden. map Pub Works 77:29-30 F '46

ROADS—Protection—*Continued*
Slide control; maintenance in West Virginia. E. L. Worthington. diags Roads & Sts 89: 90-2+ My '46

Resurfacing

Notes on South Carolina's retreatment methods. H. K. Glidden. il Roads & Sts 89:69-71+ S '46
Ohio uses hot mixed asphalt for surfacing, salvage and new construction. F. W. Kimble. il diags Pub Works 77:20-2+ Je; 28-30+ Jl '46
Resurfacing gravel road with thin concrete. Pub Works 76:22 D '45
Road rebuilt with steam-dispersed asphalt. H. J. Ludden. il Eng N 137:241-3 Ag 22 '46

Safety guards

Guard rail posts of Sussex co. New Jersey. diags Pub Works 76:24 N '45

Safety measures

Better engineering recommended to President's highway conference. Civil Eng 16: 242-4 Je '46
Buoys and lifelines of highways; reflectorized signs and pavement markings. J. O. Martineau. il Roads & Bridges 84:37-9+ Ap '46
Designing highways to meet pedestrian needs. C. B. McCullough. il Roads & Bridges 83: 60-1+ N '45
Engineering's part in eliminating the highway traffic toll; preliminary report of Committee on engineering of President's highway safety conference. Roads & Sts 89:80-3 My '46
New Jersey a leader in traffic safety; abstract. S. Miller, jr. Roads & Sts 89:84-5 Jl '46
New road safety design concept; abstract. S. Miller, jr. Eng N 136:106 Ja 24 '46
New York coordinates all safety activities. il Safety Eng 91:50-1 Je '46
Road safety engineering factors; excerpt from report submitted to President Truman's highway safety conference. G. Gilchrist. Roads & Bridges 84:73-6+ O '46

See also
Roads—Ice control

Sidewalks

See Sidewalks, Highway

Specifications

Alabama state highway specifications. Rock Prod 49:83-4+ My '46
Iowa's new embankment specification. il Roads & Sts 89:67-70 My '46
Ironing out wrinkles in specifications. R. A. MacGregor. Roads & Sts 89:96-101 Je '46
Materials specifications for highways; Illinois. il Rock Prod 48:86-7+ O '45

Standards

Design standards for the national system of interstate highways. map diags Eng N 136: 43-7 Ja 10 '46
New design standards for secondary and interstate highways. Roads & Sts 88:83-5 N '45

Subgrades

Asphalt underseal corrects pavement pumping through joints and cracks. il diag Eng N 137:370-2 S 19 '46
Construction of highway fills in swamps and bogs. G. Piette. il Roads & Bridges 84:62+ My '46
Design of roadbeds. I. B. Mullis. bibliog Am Soc C E Proc 71:413-32 Ap '45; Discussion. 71:1307-10, 1375-8, 1561-4; 72:122-3, 283-4, 510-22 O '45-F, Ap '46
Elastic-limit basis for designing highway substructures in clay soil. H. C. Porter. diag Eng N 136:1002-3 Je 27 '46
Elastic limit basis for determining load supporting power of soil substructures. V. J. Brown. diags Roads & Sts 89:84-7+ Je '46
Improved road construction by soil-processing technique. B. E. Gray. il Roads & Bridges 84:32-3+; Discussion. 178+ Ap '46
Methods and degree of compaction of fills and subgrades. G. B. Williams. il Roads & Bridges 84:61+ My '46
New Mexico stabilizes clay subgrade with 2% portland cement admixture. il Roads & Sts 89:91-3 Ag '46
Soil compaction conference; meeting of ARBA committee, Washington, Nov. 15-16. Roads & Sts 89:67-9+ Ja '46
Soil compaction in embankments and subgrades. E. F. Bennett. Roads & Bridges 84:30-1+ Ap '46
Structure of clay in relation to road construction. J. F. T. Blott. bibliog Soc Chem Ind J 65:113-18 Ap '46; Abstract and discussion. Chem & Ind p100 Mr 2 '46
Tests of compacted clay soils provide highway design guides. H. C. Porter. diags Eng N 135:726-8 N 29 '45
Vertical sand drains for accelerating and controlling ground settlement. H. J. McKeever. il Roads & Sts 89:72-8 Ag '46

Superhighways

Economics of toll superhighways; Illinois rural and Chicago survey; with cost data. il maps Roads & Bridges 84:71-6+ F '46

Surfaces

Manufacture and laying of dense tar surfacings. H. G. Barnes and G. H. Fuidge. Soc Chem Ind J 64:271-4 O '45

Tolls

Economics of toll superhighways; Illinois rural and Chicago survey; with cost data. il maps Roads & Bridges 84:71-6+ F '46
Toll highway proposals pushed; though users object, they may offer sizable investment field. B. Jones. Barron's 25:11 D 10 '45

Widening

Dozer-powered spreader box aids hot-mix widening job. il Roads & Sts 89:93 My '46
How two Texas roads were rebuilt and widened with soil-asphalt. il diags Roads & Sts 89.96-7 Ja '46
Road rebuilt with steam-dispersed asphalt. H. J. Ludden. il Eng N 137:241-3 Ag 22 '46
Salvaging a 27-year old concrete pavement. il Eng N 137:41-3 Jl 11 '46
Self-propelled spreader box simplifies macadam widening. il Roads & Sts 89:92 F '46
With Tennessee contractors on 51 miles of widening. il Roads & Sts 89:67-70 Mr '46

Width

Effect of roadway width on vehicle operation; study of speed and placement on two-lane concrete roads. A. Taragin. il diags Pub Roads 24:143-60 O '45; Abstract. Concrete 54:2-5+ F '46

Winter maintenance

See also
Roads—Ice control
Snow removal

Alabama

Alabama state highway specifications. Rock Prod 49:83-4+ My '46
South's biggest '45 road job; notes and snapshots along Alabama U. S. 11. H. J. McKeever. il Roads & Sts 88:78-82 N '45
Tar base stabilization as practiced on recent Alabama project. J. F. Tribble. il Roads & Sts 88:94-6+ D '45

Bolivia

Highway to transform Bolivia's economy. J. L. Harrison. il map Eng N 137:429-33 O 3 '46

British Columbia

Highway reconstruction on Vancouver island. O. W. Smith. il map Roads & Bridges 84: 59-62+ Ja '46

Burma

See also
Ledo road

California

Fastest concrete paving jobs also best quality; California construction progress records; data on other pavement types. E. Withycombe. Roads & Sts 89:107-8 Jl '46

ROADS—*Continued*

Canada

Billion dollars; for what? how will this sum, collected in next ten years from Canada's motorists, be spent? R. A. Stapells. Roads & Bridges 84:96+ Ap '46; Discussion (Motor-vehicle taxes justify extensive road program). C. H. Grant. 84:76-8 Jl '46

Canadian good roads association, annual meeting, Quebec, April 2-4. Roads & Bridges 84:59-72+ Ap '46

Directory of provincial highway officials; organization charts, provincial highways departments; Canada. Roads & Bridges 84: 131-9 Je '46

$78,000,000 for roads and bridges in 1945; $153,000,000 in 1946; Canadian statistics. Roads & Bridges 84:39-40 Je '46

See also

Alaska highway

China

For a closer-knit China. Bsns W p116 Mr 23 '46

See also

Ledo road

Colombia

Colombia wants highways and railways. Eng N 136:213-14 F 7 '46

Road construction in Colombia. E. C. Skinner. il map Roads & Bridges 84:62-3+ Ag '46

Connecticut

Design of Wilbur Cross parkway bridges. J. F. Willis. il map diags Eng N 136:792-7 My 16 '46

Cuba

Cuba overhauling central highway. J. I. Planas. il maps Roads & Sts 88:86+ D '45

France

Reconstructing the highways of France. map For Comm W 21:5-6+ N 17 '45

Germany

German Autobahn, its relation to German industrial economy and traffic system used; abstract. J. W. Wheeler. S A E J 54:sup31-2 Je '46

Great Britain

Road caution. map Economist 150:744-5 My 11 '46

Illinois

Illinois rebuilds U.S. highway 66. il map Eng N 136:52-7 Ja 10 '46

Materials specifications for highways. il Rock Prod 48:86-7+ O '45

Iowa

Iowa highway specifications. H. E. Swanson and N. C. Rockwood. Rock Prod 49:84+ S '46

Million-dollar Iowa grading job; new embankment specifications; cost data. H. J. McKeever. il Roads & Sts 89:65-70 My '46

Kentucky

Heavy rock excavation hauled with earth-moving scrapers; highway relocation project. il Eng N 137:384-5 S 19 '46

Kentucky specifications for highway materials. N. C. Rockwood and H. E. Swanson. il Rock Prod 49:92+ Mr '46

Outline of prospective highway research in Kentucky. L. E. Gregg. Roads & Sts 89: 86-8 Ja '46

Louisiana

Louisiana; highway specifications. H. E. Swanson and N. C. Rockwood. map Rock Prod 49:86-8 Jl '46

Mexico

Mexico's highways being extended and improved. H. J. McKeever. il Roads & Sts 89:78-83 Mr '46

Michigan

Joints and cracks in concrete pavements. E. C. Sutherland. bibliog il maps Pub Roads 24:179-205 Ja '46

Michigan state highway specifications. il Rock Prod 48:80-2 N '45

Snow traps cut our plowing costs; Antrim county, Michigan. H. R. Smith. il diag Roads & Sts 89:87-9 Mr '46

Stabilization pointers from our Michigan experience. C. M. Ziegler. il Roads & Sts 89:65-9 F '46

Mississippi

Asphalt subsealing of concrete pavements on Mississippi highways. A. M. White. il Pub Works 77.24-6 Je '46

Mississippi; highway specifications. il maps Rock Prod 49:135-7 Ag '46

Missouri

Highway specifications. H. E. Swanson and N. C. Rockwood. Rock Prod 49:102 O '46

Nebraska

Armor coated highway construction through the sand hills of Nebraska; bituminous pavement protected with coat of special gravel. il Eng N 137:496-9 O 17 '46

Nevada

Nevada building 24-ft. plant-mix access road to Davis dam. il Roads & Sts 89:101+ My '46

Nevada grade compaction speeded by improved storage tank set-up; watering trucks used on desert project. il Roads & Sts 89:76-7 Mr '46

New Hampshire

Ice prevention on New Hampshire highways; use of salt; with cost data. L. F. Johnson. il Eng N 136:492-4 Ap 4 '46

New Jersey

Congestion relief promised by overpassing a traffic circle. il Roads & Sts 89:80-2+ Je; 86-7 S '46

Enlarged tax areas promote construction of limited-access highways. C. M. Noble. il map Civil Eng 16:456-8 O '46

New Jersey adopts improved approach slab design. F. D. Woodruff. diags Roads & Sts 89:82-3 Ja '46

N.J. starts soon on dual-dual road. map Eng N 136:752 My 9 '46

New Jersey steps out; freeway and parkway program. H. K. Glidden. il Roads & Sts 89: 80-4 Jl '46

New Mexico

New Mexico stabilizes clay subgrade with 2% portland cement admixture. il Roads & Sts 89:91-3 Ag '46

New York (state)

New York rebuilds outmoded highway. H. K. Glidden. il Roads & Sts 89:67-70 Ag '46

New York state starts building world's finest concrete road. map Concrete 54:13+ S '46

New York state to build highways through cities as check on decentralization. L. A. Bergman. il Civil Eng 16:477 N '46

New York state's urban program; arterial routes at state expense. B. D. Tallamy. il Roads & Sts 89:94+ Ag '46

New York thruway work starts soon. map Eng N 135:773 D 13 '45

Norway

Effect of war on road system. For Comm W 22:28 Ja 19 '46

Nova Scotia

Province of Nova Scotia announces five-year paving program; abstract. R. W. McColough. Roads & Bridges 84:72+ My '46

Ohio

Ohio uses hot mixed asphalt for surfacing, salvage and new construction. F. W. Kimble. il diags Pub Works 77:20-2+ Je; 28-30+ Jl '46

Oklahoma

State highway construction material specifications. N. C. Rockwood and H. E. Swanson. il Rock Prod 49:100-1 F '46

Ontario

Completing the dual highway between Toronto and Oshawa. il map Roads & Bridges 84:57-60+ S '46

ROADS—Ontario—*Continued*
Conferences of Ontario highway department engineers. Roads & Bridges 84:112-15+ Mr '46
Dual-type, controlled-access highway from Toronto to Barrie; variety of earthmoving equipment used. il maps Roads & Bridges 84:41-52+ Jl '46
Expanding highway facilities. J. D. Millar. il Roads & Bridges 84:108+ Mr '46
Importance of county and township roads. G. R. Marston. Roads & Bridges 84:134+ Mr '46
Municipal roads in northern Ontario. D. A. Gorrie il Roads & Bridges 84:109+ Mr '46
New dual highways in Ontario. G. H. Doucett. il Roads & Bridges 84:106-7 Mr '46
Ontario good roads assn. 44th annual meeting, Toronto, Feb. 26-27. Roads & Bridges 84: 91-101 Mr '46
Operations of the Ottawa roads commission; maintenance work. J. L. Shearer. il Roads & Bridges 84:62+ F '46
Research laboratory to improve county and township roads. J. N. Allan. il Roads & Bridges 84:110+ Mr '46

Panama

Progress in road buildings. For Comm W 23:29-30 My 4 '46

Pennsylvania

Air-entraining concrete; Pennsylvania department of highways. W. H. Herman. Am Concrete Inst J 17:689-94 Je '46

Peru

Highway construction in Peru. E. C. Skinner. il map Roads & Bridges 84:63-8+ My '46
Peru starts $50 million road program. Eng N 135:853 D 27 '45

Philippine Islands

Reconstruction of highway network in Philippines to cost $100,000,000. Eng N 136:835 My 30 '46

Sahara desert

Les possibilités commerciales de la piste automobile de Colomb-Béchar à Gao à travers le Sahara. H. Kemler. map Génie Civil 123:262-4 O 1 '46

South America

Big South American road programs will aid international communication. Eng N 135: 687 N 22 '45
See also
Pan American highway

South Carolina

Notes on South Carolina's retreatment methods. H. K. Glidden. il Roads & Sts 89:69-71+ S '46

Tennessee

Tennessee rebuilds road to serve bomb plant; highway connecting Knoxville and Clinton works. il Eng N 136:152 Ja 31 '46
With Tennessee contractors on 51 miles of widening. il Roads & Sts 89:67-70 Mr '46

Texas

Mudjacking in Texas. M. B. Hodges. il Roads & Sts 89:86-90 Ag '46
Texas claims honors for first completed F.A. secondary project. Roads & Sts 89:76 Jl '46
Texas urban expressways being designed from center out. il map Roads & Sts 88: 65-8 N '45

United States

American roads; past, present and future. Engineer 182:6-8 Jl 5 '46
Big road program; army working with roads administration for system big enough to handle all rail traffic in case of war. E. H. Lastayo. il Ry Age 119:1055 D 29 '45
Excerpts, staff report of AGC's highway division. H. J. Kirk. Roads & Sts 89:101-3+ Mr '46
Girding for the big postwar task. T. H. MacDonald. Roads & Sts 89:88-91 F '46
Highway construction, 1946; reports from officials of state highway departments, by states. Roads & Sts 89:94+ F '46
Highway construction outlook, 1946. Eng N 136:36-9 Ja 10 '46
Life in America depends on motorized transportation in peace and war. F. M. Reck. il Nat Pet N 37:27-8+ D 5 '45
Mississippi Valley conference of state highway departments 37th annual meeting, Chicago, March 15-16. Eng N 136:446-7 Mr 28 '46
Postwar programs; how they're coming along; state, county and city plans. Roads & Sts 88:80-1 D '45
Stress maintenance of present highways as costs of road construction soar. Nat Pet N 38:43+ S 4 '46
See also
Roads—Federal aid

Interregional highway plan

Design standards for the national system of interstate highways. map diags Eng N 136: 43-7 Ja 10 '46

Vermont

Winter costs up 100% in Vermont since 1936. Roads & Sts 89:86 My '46

Virginia

Limited-access highway begun by Virginia. il maps Eng N 135:754-5 D 6 '45
Loader and wagons move 700 cu. yd. per hour on Virginia grading job. il Roads & Sts 89: 76-7, 115 Ap '46
Virginia expands use of asphalt to end pumping at joints in rigid pavements; with cost data. il Eng N 137:584-6 O 31 '46
Virginia looks ahead; 40th anniversary of highway department. R. P. Ellison. Roads & Sts 89:79 S '46

West Virginia

Slide control; maintenance in West Virginia. E. L. Worthington. diags Roads & Sts 89: 90-2+ My '46

Wisconsin

Material specifications for highways. il Rock Prod 48:113-16 D '45

ROADS, Automobile
German Autobahn; its relation to German industrial economy and traffic system used; abstract. J. W. Wheeler. S A E J 54:sup31-2 Je '46
See also
Expressways

ROADS, Bituminous
Additives for asphaltic mixtures. P. F. Critz and J. F. Goode. il Roads & Bridges 84:50-6+ Ag '46
Armor coated highway construction through the sand hills of Nebraska; bituminous pavement protected with coat of special gravel. il Eng N 137:496-9 O 17 '46
Base design for bituminous roads. L. D. Hicks. Roads & Sts 89:103-5 Ag '46
Highway reconstruction on Vancouver island. O. W. Smith. il map Roads & Bridges 84: 59-62+ Ja '46
How two Texas roads were rebuilt and widened with soil-asphalt. il diags Roads & Sts 89:96-7 Ja '46
Improved road construction by soil-processing technique. B. E. Gray. il Roads & Bridges 84:32-3+; Discussion. 178+ Ap '46
Nevada building 24-ft. plant-mix access road to Davis dam. il Roads & Sts 89:101+ My '46
Ohio states highway department practices in the use of gravel in bituminous mixtures; abstract. F. M. Williams. Rock Prod 49: 81-2 F '46
Road rebuilt with steam-dispersed asphalt. H. J. Ludden. il Eng N 137:241-3 Ag 22 '46
Sealing bituminous roads in Du Page county, Ill. E. L. Gates. Pub Works 76:26 N '45
See also
Pavements, Bituminous

Cost

Highway surfacing, North Dakota; unit prices. Eng N 136:146 Ja 24 '46
Surfacing, St Helens highway, Washington; unit prices. Eng N 137:606 O 31 '46

ROADS, Bituminous—*Continued*

Maintenance and repair

Cuba overhauling central highway. J. I. Planas. il maps Roads & Sts 88:86+ D '45
Notes on South Carolina's retreatment methods. H. K. Glidden. il Roads & Sts 89:69-71+ S '46

ROADS, Bituminous concrete

Ohio uses hot mixed asphalt for surfacing, salvage and new construction. F. W. Kimble. il diags Pub Works 77:20-2+ Je; 28-30+ Jl '46
Salvaging a 27-year old concrete pavement. il Eng N 137:41-3 Jl 11 '46
With Tennessee contractors on 51 miles of widening. il Roads & Sts 89:67-70 Mr '46

Cost

Bituminous concrete road, Brewer, Maine; unit prices. Eng N 137:397 S 19 '46

ROADS, Concrete

Air-entraining concrete; Pennsylvania department of highways. W. H. Herman. Am Concrete Inst J 17:689-94 Je '46
California builds concrete pavement with soil-cement base; with itemized bids. il Roads & Sts 89:90-1+ S '46
Completing the dual highway between Toronto and Oshawa. il map Roads & Bridges 84:57-60+ S '46
Concrete pavement design. H. F. Clemmer. il diags Roads & Bridges 84:73-5+ Ap '46; Discussion. J. M. Breen. 84:57-8+ My; (Quebec's experience with concrete pavements). J. A. Gratton. 84:54-6 Je '46
Factors influencing stress in concrete pavement from applied loads; tire contact studies. G. S. Paxson. il Concrete 54:2-8 My '46
Fastest concrete paving jobs also best quality; California construction progress records; data on other pavement types. E. Withycombe. Roads & Sts 89:107-8 Jl '46
Highway specifications in Missouri. H. E. Swanson and N. C. Rockwood. Rock Prod 49:102 O '46
Hoosier concrete job spotlights new air entrainment specifications. il diag Roads & Sts 88:57-62 D '45
Illinois rebuilds U.S. highway 66. il map Eng N 136:52-7 Ja 10 '46
Iowa highway specifications. H. E. Swanson and N. C. Rockwood. Rock Prod 49:84+ S '46
Louisiana; highway specifications. H. E. Swanson and N. C. Rockwood. map Rock Prod 49:86-8 Jl '46
Material specifications for highways; Wisconsin. il Rock Prod 48:113-14 D '45
Materials specifications for highways; Illinois. il Rock Prod 48:86-7+ O '45
Michigan state highway specifications. il Rock Prod 48:80-2 N '45
Mississippi; highway specifications. il maps Rock Prod 49:135-7 Ag '46
New Jersey adopts improved approach slab design. F. D. Woodruff. diags Roads & Sts 89:82-3 Ja '46
New York rebuilds outmoded highway. H. K. Glidden. il Roads & Sts 89:67-70 Ag '46
New York state starts building world's finest concrete road. map Concrete 54:13+ S '46
Portland-Rosendale cement blends give high frost resistance. B. H. Wait. Am Concrete Inst J 17:697-9 Je '46
Resurfacing gravel road with thin concrete. Pub Works 76:22 D '45
South's biggest '45 road job; notes and snapshots along Alabama U. S. 11. H. J. McKeever. il Roads & Sts 88:78-82 N '45
Swiss practice in concrete road construction; abstract. K. Nörbel. Pub Works 77:34 O '46

See also
Pavements, Concrete

Construction equipment

New developments in paving methods announced by Blaw-Knox co. Concrete 54:45 Mr '46
Pneumatic equipment for roadbuilder. diag Comp Air Mag 51:141 My '46
Stothert and Pitt vibratory concrete compacting machine. il diags Engineer 181: 114-15 F 1 '46

Cost

Bid items on Iowa highway job. Roads & Sts 89:69 My '46
California builds concrete pavement with soil-cement base; with itemized bids. il Roads & Sts 89:90-1+ S '46
Highway, concrete, to Garrison Dam site; unit prices. Eng N 136:874 My 30 '46
Improvement of highways, Hunterdon county, N.J.; unit prices. Eng N 136:306 F 21 '46
Price trends in highway construction, for excavation, structural concrete and concrete pavements, 1922-1946. Pub Works 77:19 O '46

Expansion joints

Asphaltic oil-latex joint-sealing compound. B. W. Pocock. bibliog il Am Concrete Inst J 17:565-80 Je '46
Expansion joint practice; nation-wide summary. Roads & Sts 89:113-15 Jl '46

Failures

Joints and cracks in concrete pavements. E. C. Sutherland. bibliog il maps Pub Roads 24:179-205 Ja '46
Longitudinal cracking in concrete pavements. E. C. Sutherland. il Pub Roads 24:207-19 Ap '46

Joints

Asphalt subsealing of concrete pavements on Mississippi highways. A. M. White. il Pub Works 77:24-6 Je '46
Joints and cracks in concrete pavements. E. C. Sutherland. bibliog il maps Pub Roads 24:179-205 Ja '46
Virginia expands use of asphalt to end pumping at joints in rigid pavements; with cost data. il Eng N 137:584-6 O 31 '46

Maintenance and repair

Asphalt subsealing of concrete pavements on Mississippi highways. A. M. White. il Pub Works 77:24-6 Je '46
Asphalt underseal corrects pavement pumping through joints and cracks. il diag Eng N 137:370-2 S 19 '46
Concrete road slab recapped with 8-in. slab. il Concrete 53:14-15+ N '45
High early strength concrete for utility openings and other repairs in cement concrete pavements. F. D. Woodruff. il diags Pub Works 77:19-21+ My '46
Highway maintenance costs and operating methods. J. S. Bright. Pub Works 77:32 My '46
Maintenance and repair of portland cement concrete pavement. A. A. Anderson. il diags Am Concrete Inst J 17:477-92 Ap '46
Mudjacking in Texas. M. B. Hodges. il Roads & Sts 89:86-90 Ag '46
Salvaging old concrete pavements. J. G. Schaub. il Roads & Bridges 84:57-61+ Ag '46
Shallow patching methods add years to pavement life. Pub Works 77:40 F '46

ROADS, County

Importance of county and township roads. G. R. Marston. Roads & Bridges 84:134+ Mr '46
Research laboratory to improve county and township roads. J. N. Allan. il Roads & Bridges 84:110+ Mr '46
Stabilized gravel methods in Cerro Gordo county, Iowa. R. E. Robertson. il Roads & Sts 89:91-3 Jl '46
Stepped-up gravel production for road program in Antrim county, Michigan. il Roads & Sts 88:64-6 D '45

ROADS, Elevated

Cost

Brooklyn-Queens connecting highway, Joralemon st. to Middagh st., Brooklyn, New York; triple-deck construction; unit prices il Eng N 137:541-2 O 17 '46

ROADS, Gravel

Armor coated highway construction through the sand hills of Nebraska; bituminous pavement protected with coat of special gravel. il Eng N 137:496-9 O 17 '46
Resurfacing gravel road with thin concrete. Pub Works 76:22 D '45
Stepped-up gravel production for road program in Antrim county, Michigan. il Roads & Sts 88:64-6 D '45

ROADS, Gravel—*Continued*

Cost

Gravel road, Norway and Waterford, Maine; unit prices. Eng N 137:606 O 31 '46

Stabilization

Stabilization pointers from our Michigan experience. C. M. Ziegler. il Roads & Sts 89:65-9 F '46; excerpts. Pub Works 77:24 Mr '46

Stabilized gravel methods in Cerro Gordo county, Iowa. R. E. Robertson. il Roads & Sts 89.91-3 Jl '46

Use and function of calcium chloride for roads. J. A. Knight. il Roads & Bridges 83:58-9+ N '45

ROADS, Military

Water supply for the Stilwell road. C. W. Christenson. il Pub Works 77:19-22+ Ap '46

ROADS, Soil-cement

Soil-cement paving methods for the construction of low-traffic roads or secondary airport runways. R. A. Crysler. il Roads & Bridges 83:60-3+ D '45

ROADS, Tarred

Investigation of dense tar road surfaces. A. R. Lee and P. J. Rigden. Pub Works 76: 50+ D '45

Tar base stabilization as practiced on recent Alabama project. J. F. Tribble. il Roads & Sts 88:94-6+ D '45

ROADS, Township

Importance of county and township roads. G. R. Marston. Roads & Bridges 84:134+ Mr '46

ROADSIDE planting

Grounds maintenance and vegetation for airports, highways and park areas. il Pub Works 77:23-4 Ap '46

Landscaping made integral part of planning; abstract. N. M. Wells. Roads & Sts 89:97 Ja '46

New developments in use of asphalt in erosion control; asphalt films on seeded ground. il Roads & Sts 89:90-2 Ap '46

Tractor-mounted auger digs 34,000 holes for slope plantings; Cleveland's Willow freeway. il Roads & Sts 88:84-5 D '45

ROADSIDE stores

Department store for a highway location; designed for the Kawneer company. il plan diags Arch Rec 99:112-13 F '46

ROADSIDES

Chemical weed control for roads. M. B. Williams. il Roads & Bridges 84:94-5+ Ap '46

New developments in use of asphalt in erosion control. il Roads & Sts 89:90-2 Ap '46

Roadside weed eradication. T. L. Kennedy. il Roads & Bridges 84:111+ Mr '46

ROAN antelope copper mines

Costs nearly doubled. Barron's 25:1+ D 24 '45

ROANOKE, Virginia

Industries

Peacetime position strong. Manuf Rec 114:55 N '45

Water supply

Carvin's Cove water supply project; with cost data. L. R. Howson. map Am Water Works Assn J 38.480-90 Ap '46; Abstract. Water & Sewage Works 93:16-17 Ja '46

ROBBERIES, Bank. See Bank robberies

ROBINSON, Sir Robert, 1886-

Sketch. por Chem & Ind p105 Mr 9 '46

ROBINSON, Samuel Murray, 1882-

Admiral Robinson new administrator of Webb institute. por Marine Eng 51:141 Ja '46

ROCHESTER, New York

Industries

Plants move nearer workers. Bsns W p19 O 19 '46

Rochester waits; general strike comes as interruption to reconversion. Bsns W p97 Je 1 '46

Water supply

Reconditioning of the Rochester conduit. L. B. Smith. il Am Water Works Assn J 38: 69-75 Ja '46

Survival and retirement experience with water works facilities as of December 31, 1940. Am Water Works Assn J 37:1361-73 D '45

ROCHESTER gas and electric corporation

Refinancing preferred stock. E. J. Howe. Pub Util 37:603-13 My 9 '46

ROCHESTER institute of technology, Rochester, New York

Ceramics at Rochester institute of technology. Am Cer Soc Bul 25:25-7 Ja 15 '46

ROCHESTER university

Physics expansion. R Sci Instr 17:210 My '46

ROCK drills

Extractor removes stuck straight-shank steels. diags Eng & Mn J 147:94 My '46

Hard-rock rotary drilling. F. L. Scott. il Oil & Gas J 45:74-6+ O 5 '46

New yardstick for gaging a drill's economic life. A. F. Horle. Eng & Min J 147:79-80 My '46

Operations and plants of International nickel company of Canada; mining. il plans Can Min J 67:335-8 My '46

Reconditioning drill bits by hot-milling at Parral. W. J. Upton. il plan Eng & Min J 147:96-9 Ag '46

Rock drill does a construction chore; used to cut holes in concrete walls. il Comp Air Mag 51:48 F '46

History

Rock-drill high lights. il Comp Air Mag 51: 71-6 Mr '46

Manufacture

Special machine utilizes combination drives; milling machine to produce cutter bits for the Reed roller bit co. F. J. Kampmeier. il diags Machine Design 18:101-6 Ap '46

ROCK dust

See also

Coal mines and mining—Rock dusting

ROCK products

Construction material surveys. H. E. Swanson and N. C. Rockwood. il Rock Prod 48: 79+ O '45

See also

Aggregates
Ballast
Gravel
Gypsum
Phosphate rock
Sand
Stone, Crushed

ROCK products (periodical)

Fifty years of progress. N. C. Rockwood. Rock Prod 49:86-9 Je '46

ROCK products industry

Industry looks ahead optimistically. B. Nordberg. il Rock Prod 49:88-102 Ja '46

Advertising

Consistent program of advertising; Consolidated rock products co. il Rock Prod 48:102-3 D '45

Directories

Sand, gravel and crushed stone producers, Canada. Roads & Bridges 84:146-9 Je '46

History

Fifty years of progress. N. C. Rockwood and others. il plans diags Rock Prod 49:86-118+ Je '46

From hand labor to machine age; Rock products readers on developments in the industry. il Rock Prod 49:109-18+ Je '46

California

Rock products industry on the West coast. B. Nordberg. il Rock Prod 48:76-80+ D '45

Iowa

Iowa favored by abundant resources of gravel, limestone and gypsum. H. E. Swanson and N. C. Rockwood. flow sheet il maps Rock Prod 49:78-88+ S '46

Kentucky

Operating trends in the rock products industry. N. C. Rockwood and H. E. Swanson. il maps Rock Prod 49:81-8+ Mr '46

Louisiana

Louisiana; sand and gravel producers legacy. H. E. Swanson and N. C. Rockwood. il Rock Prod 49:82-5 Jl '46

ROCK products industry—*Continued*

Michigan

Operating trends in the rock products industry. H. E. Swanson and N. C. Rockwood. il map Rock Prod 48.71-5+ N '45

Mississippi

Mississippi; sand and gravel predominates as a construction aggregate. H. E. Swanson and N. C. Rockwood. il maps Rock Prod 49:133-8+ Ag '46

Missouri

Missouri, an in between state; both old and new rock products' deposits found. H. E. Swanson and N. C. Rockwood. flow sheet il maps Rock Prod 49:96-104+ O '46

Oklahoma

Oklahoma favored with varied mineral resources. N. C. Rockwood and H. E. Swanson. il maps diag Rock Prod 49:92-104+ F '46

Wisconsin

Operating trends in the rock products industry. il maps Rock Prod 48:106-18 D '45

ROCK products plants

Aggregates, agstone; Iowa plants. H. E. Swanson and N. C. Rockwood. il Rock Prod 49:104+ S '46

Plant practices in Kentucky. N. C. Rockwood and H. E. Swanson. il Rock Prod 49: 84-8+ Mr '46

Employees

Must stabilize labor conditions in rock products industry. B. Nordberg. Rock Prod 49:106-8+ Ja '46

Welcome servicemen back to jobs in rock products industries. N. C. Rockwood. Rock Prod 49:103-5+ Ja '46

Equipment

Directory of manufacturers' equipment, 1946; machinery, equipment and supplies for the rock products' industries. Rock Prod 49: 179-241 Ja '46

Meeting post-war demands with new equipment. R. S. Torgerson. il diag Rock Prod 49:72-7+ Ja '46

Plant practices in Missouri. H. E. Swanson and N. C. Rockwood. flow sheet il Rock Prod 49:103-4+ O '46

Trade names of manufacturers' equipment. Rock Prod 49:242-54 Ja '46

Safety measures

Winning a prize for safety; Consolidated rock products co. il Rock Prod 48:100-2+ D '45

ROCK salt. See Salt

ROCK wool. See Mineral wool

ROCKEFELLER, David, 1915-

David Rockefeller now with Chase national bank. Comm & Fin Chr 163:1798 Ap 4 '46

Portrait. Burroughs Clearing House 30:34+ My '46

ROCKEFELLER, Laurence S.

Portrait. Bsns W p21 Je 15 '46

ROCKEFELLER brothers company

Dynasties unify; trend in managing hereditary fortunes. Bsns W p21-2 Je 15 '46

ROCKET propulsion

Commercial rating of rockets seen as Aerojet corp. reconverts. il Aviation N 4:8 N 12 '45

Develop potent rocket engine for Navy's supersonic planes. il Aviation 45:71 Je '46

How Nazis' Walter engine pioneered manned rocket-craft. R. Healy. il diag Aviation 45: 77-80 Ja '46

How we are preparing to reach supersonic speeds. J. Woolams. il Aviation 45:38-9 S '46

Jet propulsion and rockets for assisted takeoff. M. J. Zucrow. bibliog il diags A S M E Trans 68:177-88 Ap '46; Same cond. Aero Digest 52:88+ Ap '46; Abstract. Mech Eng 67:546-7 Ag '45

Liquid-propellant rocket motor. L. Lawrence, jr. il diag Mech Eng 68:615-16+ Jl '46

Preliminary calculation of the mass ratio, range, and average coefficients of efficiency of a long-distance stratospheric jet-plane. M. Z. Krzywoblocki. Franklin Inst J 241: 255-74 Ap '46

Rocket engine fuels. R. McLarren. il Automotive & Aviation Ind 95:20-3+ Ag 15 '46

Rocket powerplant. M. J. Zucrow. bibliog il diags S A E J 54:375-88 Jl '46

Rocket's future influence on transport designs. M. Summerfield. il diags Aviation 45: 73-6 Ja '46

Shooting Stars use Jato successfully for added take-off power. Aviation N 5:22 Mr 11 '46

Trends in rocket propulsion. H. Raech, jr. il Machine Design 18:133-4 Je '46

V-2's power plant provides key to future rocketry. R. Healy. il diags Aviation 45: 63-7 My '46

ROCKETS

Altitudes of more than 43.5 miles reached in army rocket tests. S. Bangs. il Aviation N 5:9 Mr 18 '46

AAF rocket project awaits V-2 results. Aviation N 6:10 N 4 '46

Can we catch up in rocket research? E. J. Tangerman. il Aviation 45.40-1+ Je '46

Critical review of German long-range rocket development. W. G. A. Perring. il diags Roy Aeronautical Soc J 50:483-517; Discussion. 517-25 Jl '46

Development of rocket ammunition. H. G. Jones, jr. il Mech Eng 68:317-20 Ap '46

Introduction to rockets and jet propulsion. G. E. Pendray. diags Mech Eng 68:611-14 Jl '46

Mechanism of the German rocket bomb (V2). W. G. A. Perring. diags Inst Mech Eng J & Proc 154:93-8, pl 1-4 Je '46; Abstract. Mech Eng 68:825-8 S '46; Discussion. Inst Mech Eng J & Proc 154:98-100 Je '46

Power beyond the stratosphere; power plant that propels V-2, Germany's rocket bomb. il diag Power 90:447-8+ Jl '46

Rocket boost forecast for lightplane use; and to lift gliders and sailplanes up to soaring altitudes. il Aviation N 5:25 Je 17 '46

Rockets and missiles. G. W. Trichel. il J Ap Phys 16:764-6 D '45

Rockets; tests conducted at White Sands proving grounds. il diags Product Eng 17: [no 7] 130-4 Jl '46

Rockets vs. meteoroids. F. Watson. Science 104:210 Ag 30 '46

V-2 rocket tests. J. M. Crowe. il Chem & Eng N 24:1386-7 My 25 '46

Westinghouse reveals new rocket weapon to be used underwater. Iron Age 158:146-7 Ag 22 '46

Manufacture

Twin production lines; manufacture of rockets, Canton naval ordnance plant. W. G. Miller. il diags Steel 117:120-1+ D 10 '45; Abstract. Mech Handling 33:88-92 F '46

ROCKS

Correction factor for specific gravity and volume differences in fragment analysis. F. Chayes. Econ Geol 41:749-60 N '46

Crystalline rocks of southern California. W. J. Miller. bibliog Geol Soc Bul 57:457-540, pl 1-7 My '46

Grain-shape fabrics of clastic quartz. R. A. Rowland. bibliog diags Geol Soc Bul 57:547-63 Je '46

Heavy rock excavation in Kentucky hauled with earthmoving scrapers; highway relocation project. il Eng N 137:384-5 S 19 '46

Igneous and metamorphic rocks of the southwestern part of the Ramona quadrangle, San Diego county, California. R. Merriam. bibliog map diags Geol Soc Bul 57:223-60, pl 1-2 Mr '46

Limestone and hard rocks in Missouri. H. E. Swanson and N. C. Rockwood. map Rock Prod 49:98-100 O '46

Petrographic analysis by fragment counting; precision of micro-sampling and the combined error of sampling and counting. F. Chayes. Econ Geol 40:517-25 D '45

Petrographic examination of concrete aggregates. R. C. Mielenz. bibliog Geol Soc Bul 57:309-18 Ap '46

Petrography of concrete aggregate. R. Rhoades and R. C. Mielenz. bibliog(65 titles) il Am Concrete Inst J 17:581-600 Je '46

ROCKS—*Continued*
Preglacial history of Bermuda. H. B. Moore and D. M. Moore. bibliog Geol Soc Bul 57: 207-22, pl 1-2 F '46
Preliminary chemical correlation of chromite with the containing rocks. T. P. Thayer. il Econ Geol 41:202-17 My '46
Stress conditions for the failure of saturated concrete and rock. K. Terzaghi. diags Am Soc T M Proc 45:777-92 bibliog(p791-2); Discussion. 793-801 '45
Tectonic framework of northwestern South America. F. E. von Estorff. bibliog maps Am Assn Pet Geologists Bul 30:581-90 Ap '46

See also
Conchilites
Conglomerate
Continental shelf
Dolomite
Drilling and boring (earth and rocks)
Geology
Geophysics
Gneiss
Granite
Gypsum
Limestone
Minerals
Pegmatites
Phosphate rock
Quarries and quarrying
Sandstone
Schists
Sedimentation and deposition
Shale
Slate
Stone, Crushed

Analysis

Contribution to the petrography of Haleakala volcano, Hawaii. G. A. Macdonald and H. A. Powers. bibliog map Geol Soc Bul 57:115-23 Ja '46
Determination of tungsten in silicate rocks. E. B. Sandell. bibliog Ind & Eng Chem Anal ed 18:163-7 Mr '46

Deformation

Strength of the earth. M. K. Hubbert. bibliog map Am Assn Pet Geologists Bul 29: 1630-53 N '45
Study of experimentally deformed rocks. E. B. Knopf. Science 103:99-103 Ja 25 '46

Testing

Critical stresses in a circular ring. R. H. Philippe and F. M. Mellinger. il diag Am Soc C E Proc 72:1185-7 O '46
Microseismic method of predicting rock failure in underground mining; general method. L. Obert and W. Duvall. 3 pls U S Bur Mines Rep of Invest 3797:1-7 '45
Standardized tests for determining the physical properties of mine rock. L. Obert and others. bibliog(84 titles) 19pls U S Bur Mines Rep of Invest 3891:1-67 '46

ROCKS, Igneous
Abundance of tungsten in igneous rocks. E. B. Sandell. bibliog Am J Sci 244:643-8 S '46
Igneous and metamorphic rocks of the southwestern part of the Ramona quadrangle, San Diego county, California. R. Merriam. bibliog map diags Geol Soc Bul 57:223-60, pl 1-2 Mr '46
Petrography and radioactivity of four paleozoic magma series in New Hampshire. M. P. Billings and N. B. Keevil. bibliog maps Geol Soc Bul 57:797-828 S '46
Thermal diffusion-convection as a cause of magmatic differentiation. W. Wahl. Am J Sci 244:417-41 Je '46
Use of rock norms in geophysical investigations. R. A. Daly. bibliog Am J Sci 244:697-709 O '46

See also
Basalt
Granite
Lava
Nepheline syenite
Ore deposits
Pegmatites
Porphyry
Spilite

ROCKWELL, Willard Frederick, 1888-
Small-company amalgamator. por Fortune 33: 182 F '46

ROCKWELL hardness test. See Hardness—Testing

ROCKY MOUNTAIN institute for industrial research
Established in Colorado Springs, with object of transforming natural resources into materials for industry. Am Cer Soc Bul 25:48 F 15 '46

RODENTICIDES. See Rats—Extermination

ROEBLING, John Augustus, 1806-1869
Builders of the bridge, by D. B. Steinman; review. J. C. Riedel. J Eng Educ 36:657-70 Je '46
High road to Brooklyn; history of Brooklyn bridge. E. H. Cameron. por Tech R 48:419-22+ My '46

ROEBLING, Washington Augustus, 1837-1926
Builders of the bridge, by D. B. Steinman; review. J. C. Riedel. J Eng Educ 36:657-70 Je '46

ROEBUCK, John, 1718-1794
Roebuck and Keir. M. Schofield. Chem & Ind p106-7 Mr 9 '46

ROENTGEN, Wilhelm Konrad, 1845-1923
X-rays' golden jubilee. D. Goodman. por Metal Prog 48:1096-8 N '45

ROLLER bearings. See Bearings, Roller

ROLLERS
Roller follow-rests permit heavy cuts in slender shaft turning. J. Taylor. diags Am Mach 90:139 O 10 '46

ROLLERS (earthwork)
Soil compaction for airports. O. J. Porter; G. P. Tschebotarioff. il Eng N 136:422-6 Mr 21 '46

ROLLERS, Road. See Road rollers

ROLLING (metal work)
Art of rolling rounds; abstract. C. P. Hammond. il Steel 118:98 My 13 '46
Die rolling of steel products; abstract. H. F. Marquardt. Materials & Methods 23:1380 My '46
Effect of cold rolling on the structure of Hadfield manganese steel. N. P. Goss. bibliog il Am Soc for Metals Trans 34:630-8; Discussion. 638-44 '45
Fabricating aluminum sheet. R. P. Kytle, jr. il Steel 118:92-3+ Mr 11 '46
Grain sizes produced by recrystallization and coalescence in cold-rolled cartridge brass. H. L. Walker. il Ill U Eng Exp Sta Bul 359:1-55 '45 (pa 70c)
Manufacture of large heavy wall pipe. E. C. Wright. il Power Pl Eng 49:94-5+ D '45; Same abr. Steel 117:70+ D 31 '45
Production of clad steels by rolling. C. H. Wick. il diags Mach 52:153-63 Jl '46
Production processes; their influence on design; roll forming. R. W. Bolz. il diags Machine Design 18:167-72 Ap '46
Rolling, wire drawing, extruding, 1945. H. A. Knight. Materials & Methods 23:120-2 Ja '46
Steam platens fabricated by rolling. il Iron Age 157:76 F 7 '46

See also
Rolling mills

Tables, calculations, etc.

Calculation of roll pressure in hot and cold flat rolling. E. Orowan. bibliog diags Inst Mech Eng J & Proc 150:Proc 140-67 F '44; Discussion. 152:Proc 314-24 D '45
Computations in metal strip rolling; summary and discussion. M. Cook and E. C. Larke. Engineer 181:286 Mr 29 '46
Tables of rolling pressures and power requirements for rolling steel shapes (cont). F. Waldorf, comp. diags Blast F & Steel Pl 34:130, insert, 250, insert, 370, insert, 482, insert, 594, insert, 746, insert, 866, insert Ja-Jl '46

Tension control

Rolling mill tension; method of control. diag Elec R (Lond) 137:725 N 16 '45

ROLLING doors. See Doors, Rolling

ROLLING mills
Alcoa plans constructing new plate and sheet mill at Davenport. T. E. Lloyd. Iron Age 157:89 My 30 '46
Association of iron and steel engineers; rolling mill operation and design features meeting. Iron Age 157:104-5 My 16 '46
Bethlehem centralizes bar mills. il Iron Age 156:77 N 15 '45
Big market for used rail. il Ry Age 121:403-5 S 7 '46
Finishing operations. Steel 119:130-2 S 23 '46
Greater speeds and increased tonnages to be obtained from mills as now designed. W. R. Duda. il Blast F & Steel Pl 34:115-17 Ja '46

ROLLING mills—*Continued*
Operations and plants of International nickel company of Canada; United States operations; Huntington and Bayonne works. flow sheet il Can Min J 67:523-33 My '46

Bearings

Design and performance of plastic rolling mill bearings. O. K. Graef. il Steel 118:116-18+ My 27 '46

Electric equipment

Flying mike; continuous gage for rolled strip. il Steel 118.87+ Ap 22 '46
Handling 23,000-pound coils; Jones & Laughlin steel corp. il Steel 118:128-30 Je 24 '46
Hot and cold strip rolling; John Summers & sons. il Elec R (Lond) 139:439-43, 599-602 S 20, O 18 '46
Output of rolling mills and auxiliary equipment increased by electrical developments. F. Mohler. il Blast F & Steel Pl 34:118-20 Ja '46
Steel company of Canada, ltd. follows modern practice in production of slabs and blooms. C. Longenecker. il diags Blast F & Steel Pl 34:973-8 Ag '46

Employees

See also
Steel workers

Equipment

Cold rolling plant in South Wales. Blast F & Steel Pl 34:1001-2 Ag '46
Detroit seamless steel tubes co. has for 45 years manufactured steel tubes. C. Longenecker. il Blast F & Steel Pl 34:231-2 F '46
Instrumentation of soaking pits. J. P. Vollrath. diags Blast F & Steel Pl 33:1391-3 N '45
Merchant mill and alloy finishing facilities at Fontana. R. M. Bickerstaff. il plan (insert) Blast F & Steel Pl 33:1513-22 D '45
Operation of 44 in. blooming mill in South African plant conforms to latest practice. il plan Blast F & Steel Pl 34:1265-70 O '46
Repair of rolling-mill pinion by thermit welding. il Engineering 161:32-3 Ja 11 '46
Some design and operating features of a new blooming mill; Templeborough plant of the Steel, Peech and Tozer branch of the United steel companies, ltd. G. A. V. Russell and G. W. Fox. plan diags Blast F & Steel Pl 33:1373-9 N '45; Abstract. Engineering 160:454 N 30 '45
Steel company of Canada, ltd. follows modern practice in production of slabs and blooms; strip production. C. Longenecker. il layout plan diags Blast F & Steel Pl 34: 973-8, 1129-42 Ag-S '46

Layout

Merchant mill and alloy finishing facilities at Fontana. R. M. Bickerstaff. il plan (insert) Blast F & Steel Pl 33:1513-22 D '45

Management

Some statistical studies of surface quality controls; semi-finished killed steel. H. J. Forsyth. il Blast F & Steel Pl 34:469-74+ Ap '46
Training foremen to play on the management team; American rolling mill company. R. R. Tryon. il Factory Management 104:100-5 F '46

Patents

Cold Metal settles patent infringement claims involving Steckel mill. Iron Age 157:109 Ja 10 '46

Power

Automatic regulation of turbine generators to relieve power-supply systems of steel-mill load swings. W. W. Eberhardt and others. Elec Eng 64:Trans 751-8 N '45
Mercury arc frequency changer limits rolling mill demand; rectifier-inverter installation at Gary steel mill. R. W. Holman. il diag Elec World 125:112-16 Ap 13 '46

ROLLS
Plaster casts check roll design; templets for correcting tool drawings for forming rolls. O. A. Muller. il diags Am Mach 89:101 D 6 '45

ROLLS (paper machinery)
Corrosion resistant metal covered rolls. H. R. Strohecker. Paper Tr J 123:54 S 12 '46
Press section of a newsprint machine. F. A. Garrett. bibliog Paper Tr J 122:53-9 Ap 18 '46
Removing babbitted-in flybars from beater roll. diags Paper Ind 28.419 Je '46

ROLLS (rolling mills)
Roll design for die rolling; abstract. T. N. Sloan. Steel 118:100 My 13 '46
Solid Kennametal rolls developed for cold-metal strip mills. Mach 53.182 O '46
What causes roll failures? S. C. Spalding il diag Am Mach 90:127-31 Ap 25 '46

Manufacture

Lathe for indenting floor plate rolls. S. Koffsky. il diags Steel 118:88-91+ Mr 11 '46
Producing cast iron rolls; Bethlehem steel co P. Dwyer. il Foundry 74:92-3+ Ag '46

ROLLS (textile machinery)
Correct roll settings improve yarn quality. S. Carter. il diags Textile World 96:121+ S '46

ROMAN Catholic church and communism
New war of religion? Economist 151:322-4 Ag 31 '46

ROMAN Catholic literature

Bibliography

Index to American Catholic pamphlets. v. 3, (August, 1942—May, 1946). E. P. Willging, comp. 107p pa $1.25 Eugene P. Willging, Box 631, Scranton 2, Pa. '46

ROMAN law
Human rights in Roman law countries. C. de Visscher. Ann Am Acad 243:53-9 Ja '46

ROOFING
All fiberglass roof. il Sheet Metal Worker 37:51 Jl '46
Progress, 1926-1946; roofing, siding. il Am Bld 68:104-5 O '46
Revolution in roofing; Coper-Cel composite unit. il diags Sheet Metal Worker 37:40-2 Jl '46
Roofing materials output approaches peak levels. H. Kuptzin. il Dom Comm 34:42-6 O '46
Sheet metal workers' catechism (cont). W. Neubecker. diags Sheet Metal Worker 37:58 F; 70 Mr; 47-8 Je; 52+ Ag; 54-5 O; 54+ D '46; 38:94 F '47

ROOFS
Good roofs require more than mopping. E. A. Swenson. il Eng N 137:515-18 O 17 '46
Periodic heat flow; composite walls or roofs. C. O. Mackey and L. T. Wright, jr. Heating-Piping 18:107-10 Je '46
Promenade tile roof construction. diags Brick & Clay Rec 109:30 Ag '46
Roofs; concrete, steel and frame trusses. il diags Arch Forum 85:118 Jl '46
Thermal insulation switched to outside of concrete vault to avoid internal condensation. il diags Arch Forum 84:169 Ja '46

See also
Building
Cornices
Factories—Roofs
Parapets

Water cooling

Warehouse offices are cooled by water on the roof; Production steel co., Detroit. il plan Arch Forum 85:102 O '46
Water cooled roofs. il diags Arch Forum 84: 165-9 Je '46

ROOFS, Aluminum
Aluminum roof on large metal plant; J. F. Wagners sons. il Sheet Metal Worker 36: 51+ N '45
Aluminum roof replaces tile on large Cincinnati terminal. il Iron Age 157:111 Ap 11 '46; Same. Sheet Metal Worker 37:46-8+ Ap '46; Same cond. Steel 119:132+ Ag 5 '46; Abstract. Eng N 136:514-15 Ap 11 '46
Preformed aluminum roof is slipped on to concrete dome of Cincinnati's Union terminal. il Arch Forum 84:179 My '46
Savannah firm enters aluminum roofing field. il Manuf Rec 115:46+ Mr '46
Station dome gets new aluminum cover; Cincinnati union terminal. il diags Ry Age 120:1109-11 Je 1 '46

See also
Shingles, Aluminum

ROOFS, Concrete
Design of Quitandinha elliptical dome; casino of hotel near Petropolis, Brazil. A. J. Boase. il diags Eng N 136:112-16 Ja 24 '46
New plant built to meet big demand for floor and roof slabs; Cities fuel & supply co. R. S. Torgerson. il diag Rock Prod 49:129+ S '46
Precast concrete roof slabs; Flexicore units for Dayton plant. il diags Concrete 54.8-10+ S '46

ROOFS, Steel
Temperature strains in structural members. T. Baldwin and J. O. Cowburn. diag Engineering 162:265-7 S 20 '46

ROOM acoustics. See Acoustics, Architectural

ROOMS
See also
Acoustics, Architectural
Bathrooms
Bedrooms
Dining rooms
Dressing rooms
Kitchens
Laundries (rooms)
Recreation rooms

ROOMS, Demountable
Demountable soundproof rooms; two sheets of steel cemented to two sheets of composition board with a rockwool blanket between. W. S. Gorton. il diags Acoustical Soc Am J 17:236-9 Ja '46

ROOSEVELT, Franklin Delano, 1882-1945
Estate appraised at $1,821,887. Trusts & Estates 83:342 O '46
President Truman lauds FDR policies. Comm & Fin Chr 163:2140 Ap 18 '46

ROOT mean square deviation. See Variation (statistics)

ROOZEBOOM, Henrik Willem Bakhuis, 1854-1907
Two historic letters about the copper-tin diagram from Roozeboom to Neville. D. Stockdale. Metal Prog 49:1183-7 Je '46

ROPE
How to make rope splices. il Roads & Sts 89:110-11 Ja '46
Manila rope; other fibers; care of rope. Nat Safety N 53:113-14 Mr '46
Rope and knots. il Roads & Sts 88:104 D '45
Scaffold ropes; care important to safety. il Safety Eng 91:36-7 Ap '46
See also
Cordage
Wire rope

Advertising
Copy that clicked; Plymouth cordage company ad, how to make rope last longer. R. Manville. il Ptr Ink 213:106 N 23 '45

Testing
Impact strength of nylon and of sisal ropes. S. B. Newman and H. G. Wheeler. diag J Res Nat Bur Stand 35:417-31 N '45

ROPE, Nylon
Impact strength of nylon and of sisal ropes. S. B. Newman and H. G. Wheeler. diag J Res Nat Bur Stand 35:417-31 N '45

ROPEWAYS. See Cableways

ROSE, Robert E. 1879-1946
Sketch. por Am Dyestuff Rep 35:485 O 7 '46

ROSIN
GR-S emulsified with rosin soap. G. R. Cuthbertson, W. S. Coe and J. L. Brady. Ind & Eng Chem 38:975-6 S '46
Gum rosin research for new uses urged. Oil Paint & Drug Rep 149:7+ Ap 29 '46
Modified rosins; their possibilities in soap manufacture. J. N. Borglin. bibliog Soap & San Chem 22:43-6 Je '46
Rosin in soap; abstract. B. S. Van Zile and J. N. Borglin. Soap & San Chem 22:67 F '46
Rosin situation reviewed. W. Martin. Paint Oil & Chem R 108:20+ D 13 '45
Rosin supplies; what is the future outlook? Soap & San Chem 21:39+ N '45
Studies of rosin sizing; use of sulfuric acid. D. Price and D. D. Cameron. bibliog Pulp & Pa of Can (Convention no) 47:142-8 [F] '46; Excerpts. Paper Ind 27:1890-3 Mr '46
See also
Ester gums
Naval stores

Analysis
Rosin in paper and paperboard; revision of TAPPI Standard T 408 m-44. Paper Tr J 122.57-8 Ap 25 '46

Statistics
Naval stores supplies decline. Chem & Met Eng 53:109 Ja '46

ROSIN-RAMMLER law
Graphical form for applying the Rosin and Rammler equation to the size distribution of broken coal. W. S. Landers and W. T. Reid. bibliog U S Bur Mines Information Circ 7346.1-5 '46

ROSTER of scientific and specialized personnel, National. See National roster of scientific and specialized personnel

ROTAMETERS
Rotameter. R. H. Munch. il Ind & Eng Chem 38:sup78 My '46
Rotameters. W. J. Beckett. diags Pet Refiner 25:139-41 F '46
What power engineers need to know about rotameters. diags Power Pl Eng 50:96-9 Je '46

ROTASCOPE
Rotascope; abstract. N. F. Barnes. Franklin Inst J 241:455 Je '46

ROTATING disks. See Disks, Rotating

ROTATION
Is rotation relative or absolute? G. W. O. Howe. diags Wireless Eng 23:263-4 O '46
Note on the relativistic problem of uniform rotation. E. L. Hill. bibliog Phys R 69:488-91 My 1 '46
Plane rotations in n dimensions. P. T. Landsberg. J Ap Phys 17:60 Ja '46

ROTATION, Molecular. See Molecules—Rotation

ROTENONE
Imports of rotenone-bearing roots, monthly average, 1939-1944 and monthly, 1944-1945; graph. For Comm W 22:33 Ja 26 '46
More rotenone coming from Peru. For Comm W 22:21 Mr 16 '46
Rotenone consumption estimated by OFAR. Oil Paint & Drug Rep 149:5 My 6 '46
Rotenone situation. Soap & San Chem 22:143 Mr '46

Analysis
Rotenone analysis. R. H. Carter and others. Soap & San Chem 21:127 N '45

ROTO-FINISH process. See Metal finishing

ROTORS
Design of supersensitive balancing equipment. K. F. Frank. il diags Machine Design 18:109-14 F '46
Flapping characteristics of rigid rotor blades. R. W. Allen. diag J Aeronautical Sci 13:183-6 Ap '46
Plastic rotors for Fords; abstract. Materials & Methods 23:1638 Je '46
Precision dynamical balancing of rotors by mechanical resonance. R. N. Arnold. il diags Engineering 161:481-2, 529-32 My 24, Je 7 '46
Simplified theoretical method of determining the characteristics of a lifting rotor in forward flight. F. J. Bailey, jr. bibliog diags U S Nat Advisory Com for Aeronautics 1941:209-26 '42
Welded gas turbine rotors. J. F. Cunningham, jr. il diags Welding J 25:237-41 Mr '46

ROTORS (electric machinery)
Aluminum rotors for electric motors; abstract. J. Piget. Materials & Methods 24:698 S '46
New d.c. system for remote positioning. R. W. Smeaton. il diag Elec World 125:77 Mr 30 '46
Operation of large turbo-alternators to reduce rotor winding deformation. R. H. Coates and B. C. Pyle. il diags Inst E E J 93 pt 2:192-204 bibliog(p204) Ap '46; Abstracts. Electrician 135:631 D 7 '45; Elec R (Lond) 137:825 D 7 '45; Discussion. Inst E E J 93 pt 2:204-12; 94 pt 2:92-8 Ap '46, F '47; Electrician 135:668-71 D 14 '45; Elec R (Lond) 137:867-8 D 14 '45
Testing cylindrical forgings. J. E. Petermann. il diag Steel 119:96-8+ S 16 '46
Why do rotor bars break in 30-hp motor? diags Power 90:778-80 N '46

ROTORS (electric machinery)—*Continued*

Testing

Die cast rotor testing by test stator method. P. H. Trickey. bibliog il diags Elec Eng 65:Trans 139-41 Mr '46

Overspeed test on rotor of 22,000-kva alternator. il Engineering 162:333 O 4 '46

ROTOTROL

Industrial application of Rototrol regulators. W. R. Harris. il diags Elec Eng 65:Trans 118-23 Mr '46

Sunshine's modernized hoist uses rotating control; Rototrol control system. R. F. Mahoney and H. B. Hodgins. il Eng & Min J 147:90-2 Ap '46

ROTPROOFING of cotton. See Cotton fabrics—Protection

ROTPROOFING of textiles

Effect of weathering on rotproofed cordage. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 35:218+ My 6 '46

ROTTERDAM, Netherlands

Plan for Rotterdam. E. Draper, jr. il plans Arch Rec 100:72-7 O '46

Tunnels

Precision control in sinking prefabricated sections for Maas tunnel. il diags Eng N 136:336-40 Mr 7 '46

ROUGHNESS measurement. See Surfaces—Smoothness testing

ROUNDHOUSES

Engine house gets aluminum roof trusses. il diag Ry Age 121:362-3 Ag 31 '46

ROUTING systems

Assembly line method of work flow saves expense for this bank. W. R. Harrison. il Bankers Mo 63:440+ S '46

Continuous-flow handling lowers unit costs 40 percent; Mengel furniture. G. A. Van Brunt. il plan Factory Management 104: 129-33 My '46

Expansion of manufacturing facilities continues at Nash chassis plant. J. Geschelin. il Automotive & Aviation Ind 94:28-30 Mr 1 '46

Fuller's reorganized setup for postwar production of transmissions. J. Geschelin. il Automotive & Aviation Ind 94:34-40+ Je 1 '46

Schwitzer-Cummins plant organized for small lot and mass production of engine equipment. J. Geschelin. il Automotive & Aviation Ind 93:26-31, 114 D 1 '45

Scintilla's self-contained setup; producing ignition equipment and Diesel fuel injection systems. J. Geschelin. il Automotive & Aviation Ind 94:104+ My 1 '46

ROW houses. See Houses, Row

ROWLAND, Henry Augustus, 1848-1901

Energy distribution of diffraction gratings as a function of groove form; calculations by an equation of Henry A. Rowland. R. F. Stamm and J. J. Whalen. bibliog diags Opt Soc Am J 36:2-12 Ja '46

ROYAL aeronautical society

Annual report of the council, 1945-1946. Roy Aeronautical Soc J 50:375-89 My '46

Chronology, 1866-1946. Roy Aeronautical Soc J 50:5-18 Ja '46

Eightieth anniversary. Roy Aeronautical Soc J 50:76-96 F '46

Royal aeronautical society; historical summary. Engineering 161:61-2 Ja 18 '46

Society's awards. Roy Aeronautical Soc J 50:supXIII-XIV F '46

ROYAL Dutch Shell group

Normal operations of Royal Dutch Shell group are resuming in war-torn countries of world. Nat Pet N 38:42+ S 18 '46

ROYAL institute of chemistry of Great Britain and Ireland

President's address; officers and members of Council. A. Findlay. Chem Age (Lond) 54: 317 Mr 23 '46

ROYAL institution of Great Britain

Famous British professional and scientific societies. F. T. Sisco. Min & Met 27:185 Mr '46

ROYAL observatory, Greenwich. See Greenwich royal observatory

ROYAL society for the prevention of accidents

Industrial accidents prevention service. Mech Handling 33:114-15 F '46

Safety first; wartime activities. T. Goodall. il Nat Safety N 53:18-19+ F '46

ROYAL society of London

Empire scientific conference. Science 103: 727-8 Je 21 '46

Medalists. J. D. G. Davies. Science 102:581 D 7 '45

Newton tercentenary celebration. Science 104:185 Ag 23 '46

Royal society conversazione. Engineering 160: 428 N 23 '45

ROYAL typewriter company

Royal faces 1946. E. C. Faustmann. Comm & Fin Chr 163:560 Ja 31 '46

Thumbnail stock appraisal. Mag of Wall St 78:89 Ap 27 '46

RUBBER

Advances in rubber during 1945. E. G. Chilton. bibliog(178 titles) Rubber Age 58:467-72+ Ja '46; Same. India Rubber World 113:513-16 Ja '46; Same. Mech Eng 68:526-30+ Je '46

Canadian rubber division holds first meeting in Toronto. Rubber Age 59:466-7 Jl '46

Canadian rubber division meeting, Toronto, June 25; abstracts of papers. Rubber Age 59:187-8 My '46

Comparison of natural and synthetic hard rubbers; ebonites. G. G. Winspear and others. bibliog il Ind & Eng Chem 38: 687-94 Jl '46

Dynamic characteristics of rubber supports from vibration table data. E. G. Chilton. bibliog il diag J Ap Phys 17:492-5 Je '46

Elastic loss and relaxation times in cross-linked polymers. J. G. Kirkwood. bibliog J Chem Phys 14:51-6 F '46

Experiments with anti-bacterial rubber. J. Risler. Rubber Age 59:316 Je '46

Heating and vulcanizing rubber and similar resins with high-frequency current. V. L. Smithers. il India Rubber World 113:505-7+ Ja '46

New approach to the theory of relaxing polymeric media. M. S. Green and A. V. Tobolsky. bibliog J Chem Phys 14:80-92 F '46

Plastics, resins, and rubbers; chart revised. P. O. Powers. Chem & Eng N 24:2784-8 O 25 '46

Production of petrol and oil substitutes from rubber. W. H. Nightingale. Chem & Ind p9 Ja 5 '46

Proportion of crystalline and amorphous components in stretched vulcanized rubber. A. J. Wildschut. bibliog diag J Ap Phys 17:51-60 Ja '46

Recent advances in the physics and chemistry of rubber. L. R. G. Treloar and others. bibliog diags Rubber Age 59:694-6; 60:71-3+ S-O '46

Rubber, E. W. Stein; E. Gulick. il diag S A E J 54:75+ O '46

Significance of the equation of state for rubber. E. Guth and others. J Ap Phys 17: 347-51 My '46

Specific heats of hevea, GR-S, and GR-I stocks. W. H. Hamill, B. A. Mrowca and R. L. Anthony. bibliog diags Ind & Eng Chem 38:106-10 Ja '46

Synthesis of rubber in kok-saghyz roots during starvation. J. McGavack and P. J. Faulks. bibliog il Rubber Age 58:204-6 N '45

Theory of permanent set at elevated temperatures in natural and synthetic rubber vulcanizates. R. D. Andrews and others. il diag J Ap Phys 17:352-61 My '46

Viscosity-molecular weight relation for natural rubber. W. C. Carter, R. L. Scott and M. Magat. bibliog Am Chem Soc J 68:1480-3 Ag '46

See also

Guayule
Rubber industry and trade
Rubber plants and planting
Tires, Automobile
Tires, Rubber
Vulcanization

Aging

Weathering of soft vulcanized rubber. J. Crabtree and A. R. Kemp. bibliog il diags Ind & Eng Chem 38:278-96 Mr '46

RUBBER—*Continued*

Analysis

Determination of hydroperoxides in rubber and synthetic polymers. H. A. Laitinen and J. S. Nelson. bibliog Ind & Eng Chem Anal ed 18:422-5 Jl '46

Determination of rubber hydrocarbon by a gravimetric rubber bromide method. C. O. Willits, M. L. Swain and C. L. Ogg. bibliog Ind & Eng Chem Anal ed 18:439-42 Jl '46

Qualitative spot tests for rubber polymers. H. P. Burchfield. bibliog Ind & Eng Chem Anal ed 17:806-10 D '45

Rapid estimation of rubber in guayule latex dispersions. R. T. Whittenberger and B. A. Brice. bibliog Ind & Eng Chem Anal ed 18: 209-10 Mr '46

Bibliography

Advances in rubber during 1945. E. G. Chilton. bibliog(178 titles) Rubber Age 58:467-72+ Ja '46; Same. India Rubber World 113:513-16 Ja '46; Same. Mech Eng 68:526-30+ Je '46

List of technical reports available from Commerce department. Rubber Age 59:460, 719 Jl, S '46

OPB bibliography reports on rubber products. India Rubber World 114:373+, 522+, 812-13; 115:75-6, 410, 710 Je-Jl, S-O, D '46, F '47 (to be cont)

Recent Russian literature on natural and synthetic rubber (cont). M. Hoseh. India Rubber World 113:390-1, 508; 114:63-6, 374-5, 521+; 115:73-4, 216 D '45-Ja, Ap, Je-Jl, O-N '46 (to be cont)

Rubber bibliography. Published in monthly numbers of India rubber world

Brittle point

Correlation of tensile strength with brittle points of vulcanized diene polymers. A. M. Borders and R. D. Juve. bibliog Ind & Eng Chem 38:1066-70 O '46

Improved brittle point apparatus. F. L. Graves. diags India Rubber World 113:521 Ja '46

Chemistry

A.C.S., Division of rubber chemistry, fall meeting; abstracts of papers. India Rubber World 114:667-72+ Ag '46; Rubber Age 59:571-8 Ag '46

Division of rubber chemistry, A.C.S. meeting, Atlantic City; abstracts of papers. Rubber Age 58:715-23 Mr '46; India Rubber World 113:309-17 Mr '46

Fractionation of high-polymeric substances. L. H. Cragg and H. Hammerschlag. bibliog(312 references) Chem R 39:79-135 Ag '46

One hundred and tenth meeting of the American chemical society; with abstracts of papers of interest to rubber industry. India Rubber World 115:78-82 O '46

Photogelation of rubber sols in the absence of accelerators. R. Buckingham and G. V. Planer. diag Soc Chem Ind J 65:6-8 Ja '46

Rubber division, A.C.S., holds satisfactory meeting at Chicago, Sept. 11-13. Rubber Age 60:84-5 O '46

Rubber division, Chemical institute of Canada, holds first meeting at Toronto, June 25. India Rubber World 114:676-7 Ag '46

Rubber photogelling agents. H. P. Stevens. bibliog Soc Chem Ind J 64:135-8, 312-15 My, N '45

Rubber, polyisoprenes and allied compounds; the formation of dialkyl sulphide dihalides and its bearing on the problem of determining the unsaturation of vulcanised rubber. G. F. Bloomfield. Soc Chem Ind J 64: 274-8 O '45

Theory of permanent set at elevated temperatures in natural and synthetic rubber vulcanizates. R. D. Andrews and others. il diag J Ap Phys 17:352-61 My '46

See also
Vulcanization

Electric properties

Find novel uses for conductive rubber. S A E J 54:sup 35 Ag '46

High voltage d-c testing of rubber insulated wire. W. N. Eddy and W. D. Fenn. Elec Eng 65:Trans 576-8 Ag-S '46

Rubber situation in relation to linemen's protective devices. T. R. Claffy. Edison Elec Inst Bul 14:87-8 Mr '46

Rubber which conducts electricity brings heat to baby chicks. Elec World 125:95 F 16 '46

Joining to metal

Adhesives for rubber. J. A. Merrill. il Rubber Age 59:313-16 Je '46

Bonding of rubber to metal by the brass plating technique; some observations on the reactions of copper and sulphur. C. M. Blow and G. Hopkins. Soc Chem Ind J 64:316 N '45

Brass plating for rubber-to-metal adhesion. Steel 117:115+ D 24 '45

German synthetic mechanical goods; rubber to metal adhesion; electroplating of metal to be used for adhesion. India Rubber World 113:231-5 N '45

Routine control of brass plating processes; polarographic, electrochemical, and chemical analysis of plating solutions and deposits. H. E. Zentler Gordon and E. R. Roberts. bibliog diag Electrochem Soc Trans 90 (preprint 2):9-22 '46

Rubber-metal composites. J. A. Merrill. il Materials & Methods 24:891-5 O '46

Works of the Andre rubber company; production of rubber bonded to metal units. il Engineer 181:273-5 Mr 22 '46

Manufacture

Acetylene black in rubber. G. Benson. bibliog il Rubber Age 58:461-5 Ja '46

Compounding charts for systems of natural rubber, GR-S, reclaim, Naftolen MV, and MPC black. F. Rostler and K. Rostler. India Rubber World 114:509-14+ Jl '46

Development of latex processes in Great Britain. E. W. Madge. patent list flow sheet il India Rubber World 114:803-7 S '46; Same. diags Can Chem & Process Ind 30:37-42 S '46

High pressure process for guayule separation. J. M. Cummings and R. L. Chubb. il diags Chem Eng 53:125-7 S '46

Natural rubber from Russian dandelion. R. E. Eskew. flow diag India Rubber World 113:517-20 Ja '46

Styrene-diene resins in rubber compounding. A. M. Borders, R. D. Juve and L. D. Hess. bibliog il Ind & Eng Chem 38:955-8 S '46

See also
Rubber machinery
Vulcanization

Melting

Effect of pressure on the melting of crystalline rubber. L. A. Wood and others. bibliog J Chem Phys 13:475-7 N '45; Same. J Res Nat Bur Stand 35:375-80 N '45

Mixing with artificial rubber

Balancing the vulcanization of GR-S and natural rubber in GR-S-rubber mixtures. A. P. Stubbs and C. R. Johnson. Rubber Age 59:567-9 Ag '46

Evaluation of blends of guayule and GR-S rubbers. F. E. Clark and W. F. L. Place. bibliog Ind & Eng Chem 38:1026-33 O '46

Patents

Patents and trade marks. Published in monthly numbers of India rubber world

See also
Rubber goods—Patents

Prices

New international agreement reached on natural rubber price. Rubber Age 59:455 Jl '46

Rubber at 23½¢; British cartel held to 3¼¢ increase. Bsns W p20 Je 29 '46

Protection

Methods of applying certain antioxidants to guayule crude rubber for preservation during storage. H. Tint and J. M. Cumming. il India Rubber World 113:509-12+ Ja '46

So-called rubber preservative coatings. Consumers Res Bul 17:26 F '46

RUBBER—Protection—*Continued*
Weathering of soft vulcanized rubber. J. Crabtree and A. R. Kemp. bibliog il diags Ind & Eng Chem 38:278-96 Mr '46

Strength

Tensile strength in vulcanized rubber. J. C. Williams. bibliog India Rubber World 113: 805-7 Mr '46

Sulfur content

Stress-time-temperature relations in polysulfide rubbers. M. D. Stern and A. V. Tobolsky. J Chem Phys 14:93-100 F '46

Temperature effect

Crystallization of unvulcanized rubber at different temperatures. L. A. Wood and N. Bekkedahl. bibliog(78 titles) J Ap Phys 17: 362-75 My '46; Same. J Res Nat Bur Stand 36:489-510 Je '46; Excerpts. Rubber Age 59: 444 Jl '46

Developments in the field of testing procedures for the evaluation of natural and synthetic rubbers and plastic elastomers, sponsored by Bureau of ships, Navy department; low temperature tests. T. A. Werkenthin. bibliog il diags Rubber Age 59:317-23 Je '46

Developments in the field of testing procedures for the evaluation of natural and synthetic rubbers and plastic elastomers, sponsored by Bureau of ships, Navy department; thermal tests at elevated temperatures. T. A. Werkenthin. il diag Rubber Age 50:445-50 Jl '46

Electrostatic and tensile properties of rubber and GR-S at elevated temperatures. R. S. Havenhill and others. il diags J Ap Phys 17:338-46 My '46; Same cond. India Rubber World 114:523-7 Jl '46

New cold room built to test rubber; B. F. Goodrich co. il Elec World 125:141 F 2 '46

Theory of permanent set at elevated temperatures in natural and synthetic rubber vulcanizates. R. D. Andrews and others. il diag J Ap Phys 17:352-61 My '46

Testing

Compounding charts for systems of natural rubber, GR-S, reclaim, Naftolen MV, and MPC black. F. Rostler and K. Rostler. India Rubber World 114:509-14+ Jl '46

Developments in the field of testing procedures for the evaluation of natural and synthetic rubbers and plastic elastomers, sponsored by Bureau of ships, Navy department. T. A. Werkenthin. bibliog il diags Rubber Age 59:173-9, 317-23, 445-50, 579-83, 697-702; 60:74-8, 197-202 My-N '46

Fast stress-strain machine. S. L. Dart and others. il diags R Sci Instr 17:106-8 Mr '46

Interference-free weatherometer; accelerated weathering applied to plastic and rubber and measured with photoelectric equipment. W. B. R. Agnew. il diag Electronics 18:160-1 D '45

Measurement of thermal conductivity of nonmetallic solids. G. L. Hall and I. B. Prettyman. India Rubber World 113:222+ N '45

Puncture tester for rubber. H. M. Leeper. il Rubber Age 59:73-4 Ap '46

Statistical control in the physical testing of rubber. J. D. Heide. India Rubber World 114:653-6+ Ag '46

Stress-time-temperature relations in polysulfide rubbers. M. D. Stern and A. V. Tobolsky. J Chem Phys 14:93-100 F '46

Structural changes of natural and synthetic rubbers during mastication and their subsequent recovery. D. S. le Beau and E. A. Hauser. bibliog il Rubber Age 59:67-72 Ap '46

Weathering of soft vulcanized rubber. J. Crabtree and A. R. Kemp. bibliog il diags Ind & Eng Chem 38:278-96 Mr '46

Textile uses

Rubber manufacturing industry's report to the cotton industry; abstract. W. S. Lockwood. India Rubber World 113:681-2 F '46

Vulcanization

See Vulcanization

RUBBER, Artificial

Advances in rubber during 1945. E. G. Chilton. bibliog(178 titles) Rubber Age 58:467-72+ Ja '46; Same. India Rubber World 113: 513-16 Ja '46; Same. Mech Eng 68:526-30+ Je '46

American chemical society; abstracts of papers given before Division of paint, varnish and plastics chemistry. India Rubber World 114:226-8 My '46

Applications of infra-red methods in the structural examination of synthetic rubber. J. E. Field and others. il J Ap Phys 17:386-92 My '46

British ready to put crude rubber against synthetic in price battle. Barron's 26:5 S 30 '46

Butyl; a new rubber; abstract. E. N. Cunningham. India Rubber World 114:78 Ap '46

Cable-making in Germany; use of synthetic rubbers. Electrician 136:43-4 Ja 4 '46

Canadian rubber division holds first meeting in Toronto. Rubber Age 59:466-7 Jl '46

Chip conveyor; use of abrasive-resisting synthetic rubber; Packard motor car co. A. H. Allen. il Steel 118:123-4 Je 3 '46

Chip conveyor uses synthetic rubber disks; Packard motor car co. il Iron Age 157:50 Ap 18 '46

Comparison of natural and synthetic hard rubbers; ebonites. G. G. Winspear and others. bibliog il Ind & Eng Chem 38:687-94 Jl '46

Description of various types of GR-S now being produced. Rubber Age 59:89 Ap '46

Desirable properties put into synthetic rubber; Ameripol. Aero Digest 51:63 N 15 '45

Distribution procedure for experimental GR-S and GR-S latices. India Rubber World 113: 237 N '45

Effect of polymolecularity on deformation of butyl polymers. R. L. Zapp and F. P. Baldwin. bibliog Ind & Eng Chem 38:948-55 S '46

Free market for crude rubber advocated; recommends sale of government synthetic plants to industry. J. L. Collyer. Comm & Fin Chr 164:932 Ag 15 '46

German chemical industries; synthetic rubbers and ingredients. Chem & Met Eng 52: 188+ N '45

German synthetic insulation for wire and cable. India Rubber World 113:219-21+ N '45

Gives synthetic industry 2 years in which to prepare for competition from natural rubber; abstract. J. L. Collyer. Nat Pet N 38: 28 Ja 16 '46

High polymer division, American physical society, meeting, New York, Jan. 24-26; abstracts of papers. Rubber Age 58:596-600 F '46; India Rubber World 113:819-22 Mr '46

Natural v. synthetic rubber. Economist 151: 61-3 Jl 13 '46

New blowing agent for sponge rubber; mixture of biuret and urea. H. F. Schwarz. il India Rubber World 114:211-12+ My '46

New developments in Silastic, heat resistant silicone rubber. P. C. Servais. il India Rubber World 114:657-9+ Ag '46

New polymers authorized by Office of rubber reserve. Rubber Age 58:92, 234-5, 366, 485, 485, 613, 741; 59:89, 201, 341, 463, 591 O '45-Ag '46; Same. India Rubber World 113: 237, 552, 673; 114:81, 232, 387, 532, 824-5 N '45, Ja-F, Ap-Jl, S '46

New trends in world rubber. H. M. Tremaine. il Mag of Wall St 77:515-16+ F 2 '46

Nonmetallic materials, 1945. K. Rose. Materials & Methods 23:99-100 Ja '46

Observations of the German rubber industry. E. W. Glen. Mech Eng 68:461-2 My '46; Abstracts. India Rubber World 114:81 Ap '46; S A E J 54:sup30 Je '46

Plastics, resins, and rubbers; chart revised. P. O. Powers. Chem & Eng N 24:2784-8 O 25 '46

Plastics technology; integration of the plastics and rubber industries. R. P. Kenney. il India Rubber World 114:682-4 Ag '46; Same cond. Mod Plastics 24:106-7 S '46

Polysulfide synthetic rubbers. S. M. Martin, jr. il Product Eng 17:65-8 Ja '46

Promise of synthetics as wire and cable insulations. R. B. McKinley. Elec World 124: 52-5 D 22 '45

RUBBER, Artificial—*Continued*
Properties of Lactoprene EV. T. J. Dietz and others. Ind & Eng Chem 38:960-7 S '46
Rapid vulcanization of saturated acrylic elastomers. W. C. Mast and others. bibliog il India Rubber World 113:223-8+ N '45
Reference table of synthetic rubbers. H. A. Winkelmann. India Rubber World 114:680-1 Ag '46
Report of the Bureau of agricultural and industrial chemistry; work on acrylic rubbers; abstract. O. E. May. Rubber Age 59:198 My '46
Reversal in rubber. il maps Fortune 33:84-91+ Mr '46
Rubber answer; nationalizing production of synthetics. Bsns W p21 F 9 '46
Rubber developments in 1945. A. E. Boss and R. W. KixMiller. il Chem & Eng N 24: 336-8 F 10 '46
Rubber industry needs 1946 to catch up with demand. E. J. Lally. Barron's 26:5 Ja 21 '46
Rubber machine parts. il Machine Design 17: 116-19 D '45
Rubber program; report by Batt interagency group. Bsns W p28+ Mr 23 '46
Silastic, the heat stable silicone rubber. P. C. Servais. il Rubber Age 58:579-84 F '46; Abstract. India Rubber World 113:823 Mr '46
Silicone rubber elastic up to 500 deg. F. Elec World 124:138 N 10 '45
Silicone rubbers; new gasketing materials for high-temperature uses. J. A. Moffitt and A. Panagrossi. il Machine Design 18:109-13 S '46
Silicones, new engineering materials; abstract. R. W. Kolderman. Rubber Age 58: 230 N '45
Some properties and applications of silicone rubber. J. Marsden. il Rubber Age 59:691-3 S '46
Specific heats of hevea, GR-S, and GR-I stocks. W. H. Hamill, B. A. Mrowca and R. L. Anthony. bibliog diags Ind & Eng Chem 38:106-10 Ja '46
Stretching a point too far. Fortune 33:83 Mr '46
Structural changes in vulcanization of Buna S. M. H. Keck and L. E. Cheyney. bibliog Ind & Eng Chem 37:1084-9 N '45
Structure of copolymers; abstract. F. T. Wall. India Rubber World 113:240 N '45; Same. Chem & Met Eng 52:222+ D '45
Synthetic polymers in the war effort; abstract. S. J. Skinner. Chem & Ind p8 Ja 5 '46
Synthetic rubber and plastics as materials of construction in the chemical industry. M. G. Fontana. bibliog il Am Inst Chem Eng Trans 42:359-77 Ap '46; Same. Chem & Met Eng 53:102-5+ Ap '46
Synthetic rubber industry in Germany. E. R. Rowzee. Can Chem & Process Ind 29:814-16 D '45
Synthetic rubber situation. A. E. Boss. India Rubber World 114:363-5+ Je '46
Synthetics hold aromatic fuels; Hycar parts and seals. W. A. Parrish. il Aero Digest 52:62+ F '46
Tire shortage begins to yield. il Bsns W p15-17 N 24 '45

See also
Neoprene
Thiokol

Aging

Oxidation of GR-S vulcanizates. J. R. Shelton and H. Winn. bibliog il Ind & Eng Chem 38:71-6 Ja '46
Role of carbon in oxidation of GR-S vulcanizates. H. Winn, J. R. Shelton and D. Turnbull. bibliog Ind & Eng Chem 38:1052-6 O '46
Weathering of soft vulcanized rubber. J. Crabtree and A. R. Kemp. il diag Ind & Eng Chem 38:292-6 Mr '46

Analysis

Determination of free carbon in butyl reclaim by modified A.S.T.M. method J. E. McCready and H. H. Thompson. Ind & Eng Chem Anal ed 18:522 Ag '46
Determination of hydroperoxides in rubber and synthetic polymers. H. A. Laitinen and J. S. Nelson. bibliog Ind & Eng Chem Anal ed 18:422-5 Jl '46
Quantitative determination of some inhibitors in polymers by ultraviolet light absorption. F. W. Banes and L. T. Eby. Ind & Eng Chem Anal ed 18:535-8 S '46

Bibliography

OPB bibliography reports on rubber products. India Rubber World 114:373+, 522+, 812-13; 115:75-6 Je-Jl, S-O '46 (to be cont)
Recent Russian literature on natural and synthetic rubber (cont). M. Hoseh. India Rubber World 113:390-1, 508; 114:63-6, 374-5, 521+; 115:73-4, 216 D '45-Ja, Ap, Je-Jl, O-N '46 (to be cont)
Technical reports available from the Department of commerce. Rubber Age 59:719 S '46

Chemistry

A.C.S., Division of rubber chemistry, fall meeting; abstracts of papers. India Rubber World 114:667-72+ Ag '46; Rubber Age 59: 571-8 Ag '46
Chemical derivatives of synthetic isoprene rubbers. J. D. D'Ianni and others. bibliog Ind & Eng Chem 38:1171-81 N '46
Contribution to the solution character of a few rubbery polymers. H. Naidus and H. Mark. India Rubber World 113:229-30 N '45
Division of rubber chemistry, A.C.S. meeting, Atlantic City; abstracts of papers. Rubber Age 58:715-23 Mr '46; India Rubber World 113:809-17 Mr '46
Effect of varying monomer ratio and conversion on GR-S type copolymers. E. D. Maher and T. L. Davies. Can Chem & Process Ind 30:43-6+ Ag '46; Same. Rubber Age 59:557-62 Ag '46
Effects of molecular structure on physical properties of butyl rubber. P. J. Flory. bibliog diags Ind & Eng Chem 38:417-36 Ap '46
Mechanism of modifier action in the GR-S polymerization. H. R. Snyder and others. bibliog Am Chem Soc J 68:1422-31 Ag '46
Methyl pentadiene polymers and copolymers with butadiene; abstract. F. McMillan. India Rubber World 113:239 N '45
New synthetic rubbers based on methylpentadiene. F. M. McMillan and others. il India Rubber World 113:663-6+ F '46
One hundred and tenth meeting of the American chemical society; with abstracts of papers of interest to rubber industry. India Rubber World 115:78-82 O '46
Rosin soap as GR-S emulsifier; abstract. W. S. Coe and J. L. Brady. Chem & Met Eng 53:266 My '46
Rubber division, Chemical institute of Canada, holds first meeting at Toronto, June 25. India Rubber World 114:676-7 Ag '46
Tensile strength in relation to molecular weight of high polymers. P. J. Flory. Am Chem Soc J 67:2049-50 N '45
Vulcanization reactions in butyl rubber; action of dinitroso, dioxime, and related compounds. J. Rehner, jr. and P. J. Flory. bibliog Ind & Eng Chem 38:500-6 My '46

See also
Rubber, Artificial—Research

Chlorination

Chemical derivatives of synthetic isoprene rubbers. J. D. D'Ianni and others. bibliog Ind & Eng Chem 38:1171-81 N '46

Electric properties

Comparison of mineral pigments in GR-S. R. E. Morris and others. il diag Rubber Age 58:331-7 D '45
High voltage d-c testing of rubber insulated wire. W. N. Eddy and W. D. Fenn. Elec Eng 65:Trans 576-8 Ag-S '46
Rubber situation in relation to linemen's protective devices. T. R. Claffy. Edison Elec Inst Bul 14:87-8 Mr '46

History

First century of synthetic rubber. H. H. Irvin. bibliog(69 references) il Chem Ind 58:260-4 F '46

RUBBER, Artificial—*Continued*

Identification

How to identify the different Bunas. P. Kluckow. India Rubber World 113:870 Mr '46

Latex

Compounding stability of GR-S latex. R. T. Nazzaro. Paper Tr J 121:90+ N 22 '45

Densities of GR-S latices. C. C. Winding. diags Ind & Eng Chem 37:1203-6 D '45

GR-S latex; development, types available, properties, and some problems of application. F. S. Conover. Rubber Age 58:207-9 N '45

Marmix reinforcer for synthetic rubber latices. H. H. Irvin. India Rubber World 114:660-2 Ag '46

Synthetic rubber latex. Franklin Inst J 241: 309-10 Ap '46

Manufacture

Acetylene black in butyl rubber. R. H. Hall. Can Chem & Process Ind 29:858-60 D '45

Acetylene black in rubber. G. Benson. bibliog il Rubber Age 58:461-5 Ja '46

Alkaline materials as accelerators for GR-S. J. Breckley. India Rubber World 114:663-5 Ag '46

Alkylphenol sulfides as vulcanizing agents. G. M. Wolf and others. bibliog Ind & Eng Chem 38:1157-66 N '46

Carbon-black industry strains to meet requirements for rubber. F. R. Staley. il diags Oil & Gas J 44:86-8+ Mr 9 '46

Comparison of German plasticizers with standard softener for GR-S. India Rubber World 113:528 Ja '46

Compounding and processing of butaprene N. R. H. Crossley and C. G. Cashion. Rubber Age 58:197-203 N '45

Compounding charts for systems of natural rubber, GR-S, reclaim, Naftolen MV, and MPC black. F. Rostler and K. Rostler. India Rubber World 114:509-14+ Jl '46

Compounding stability of GR-S latex. R. T. Nazzaro. Paper Tr J 121:90+ N 22 '45

Continuous process for GR-S master batches with nonblack pigments; Buca A clay incorporated. diag Ind & Eng Chem 38:1013-16 O '46

Copolymers of dimethylstyrene vinyl fatty esters with butadiene. P. O. Powers. Ind & Eng Chem 38:837-9 Ag '46

Development of latex processes in Great Britain. E. W. Madge. patent list flow sheet il India Rubber World 114:803-7 S '46; Same. diags Can Chem & Process Ind 30:37-42 S '46

Discussion at Chicago production conference. J. L. Collyer. Chem & Eng N 24:920 Ap 10 '46

Durez 12687 powdered resin used with synthetic rubbers. J. W. Ferguson. il India Rubber World 114:218-19 My '46

GR-S emulsified with rosin soap. G. R. Cuthbertson, W. S. Coe and J. L. Brady. Ind & Eng Chem 38:975-6 S '46

GR-S latex; development, types available, properties, and some problems of application. F. S. Conover. Rubber Age 58:207-9 N '45

Influence of polar compounds on hydrated calcium silicate and GR-S vulcanizates. F. W. Gage. Rubber Age 58:343-6+ D '45

Issues involved in disposal of synthetic rubber plants; abstract. W. J. Sears. India Rubber World 114:381-2 Je '46

Manufacture of koresin in Germany. G. M. Kline. flow sheet Mod Plastics 23:151+ Jl '46

Marmix reinforcer for synthetic rubber latices. H. H. Irvin. India Rubber World 114:660-2 Ag '46

Mechanical processing of carbon blacks; resultant effects in GR-S compounds. R. E. Dobbin and R. P. Rossman. bibliog il diags Ind & Eng Chem 38:1145-8 N '46

Non-sulphur vulcanization; experimental study. T. Alfrey and others. bibliog India Rubber World 113:653-8 F '46

Pigment dispersion in a synthetic rubber latex; abstract. W. McMahon. Product Eng 17:323 Ap '46

Plastics in the rubber industry. H. A. Winkelmann. bibliog India Rubber World 113: 799-804 Mr '46

Preparation and properties of GR-S. F. J. Soday. flow sheet Am Inst Chem Eng Trans 42:647-64 Ag '46

Recommends exclusive use of petroleum feedstock plants for synthetic rubber. Nat Pet N 38:57-8 Mr 20 '46

Rubber plan; government to dispose of synthetic plants. Bsns W p18 Je 22 '46

Status of government-owned synthetic-rubber plants; tabulation. Oil & Gas J 44:263+ Mr 30 '46

Styrene-diene resins in rubber compounding. A. M. Borders, R. D. Juve and L. R. Hess. bibliog il Ind & Eng Chem 38:955-8 S '46

Summary report on the production of German medical, surgical and sundry rubber goods. Rubber Age 58:338-42+ D '45

Synthetic rubber manufacturing aided by former Nazi-used compound; abstract. G. W. Burpee. Franklin Inst J 241:453 Je '46

Synthetic rubber output boosted by new catalyst; abstract. W. M. Quattlebaum, W. J. Toussaint and J. T. Dunn. Can Chem & Process Ind 30:100+ O '46

Vulcanization of GR-S by the Peachey process. A. T. McPherson. Rubber Age 59:327 Je '46

See also

Butadiene—Manufacture

Mixing with natural rubber

See Rubber—Mixing with artificial rubber

Mixing with resins

Integrating plastic and rubber industries; parts made from polyvinyl plastics and acrylonitrile-butadiene type synthetic rubbers. R. P. Kenney. il Mod Plastics 24: 106-7 S '46

Thermosetting rubber-resin compounds. A. F. Shepard and J. F. Boiney. il Mod Plastics 24:154-6+ O '46

Moisture content

Effect of moisture on GR-S; rate of cure and physical properties. I. C. Rush. bibliog Ind & Eng Chem 38:58-61 Ja '46

Patents

Soap in newer synthetic processes; patents. Rubber Age 58:465 Ja '46

Research

Correlation of tensile strength with brittle points of vulcanized diene polymers. A. M. Borders and R. D. Juve. bibliog Ind & Eng Chem 38:1066-70 O '46

Densities of GR-S latices. C. C. Winding. diags Ind & Eng Chem 37:1203-6 D '45

Effect of varying monomer ratio and conversion on GR-S type copolymers. E. D. Maher and T. L. Davies. Can Chem & Process Ind 30:43-6+ Ag '46; Same. Rubber Age 59:557-62 Ag '46

Latest OPB report on German synthetic rubber. India Rubber World 114:74-7 Ap '46

Microscopic studies of lyogels; preparation of samples for ultra-illumination by incident light. E. A. Hauser and D. S. le Beau. bibliog il Ind & Eng Chem 38:335-8 Mr '46

Research leading to commercial butadiene synthetic rubber; abstract. W. L. Semon. India Rubber World 114:221 My '46

Some recent contributions to synthetic rubber research. C. S. Fuller. bibliog il Bell System Tech J 25:351-84 Jl '46

Swelling of rubber; comparison of swelling behaviour of vulcanized natural rubber and GR-S in organic liquids. F. S. Rostler and others. bibliog Rubber Age 59:299-309 Je '46

Swelling of rubber; study of reclaiming oils with regard to swelling action on GR-S and natural rubber. K. S. Rostler and R. M. White. bibliog diag Rubber Age 58:585-90 F '46

Swelling of rubber; swelling behavior of vulcanized natural rubber and GR-S in mixtures of hydrocarbons. F. S. Rostler and K. S. Rostler. bibliog Rubber Age 60:57-68 O '46

RUBBER, Artificial—Research—*Continued*
Synthetic rubber research in Germany. E. R. Weidlein, jr. il Chem & Eng N 24:771-4 Mr 25 '46

Statistics
Production of synthetic rubber reached nearly 700,000 tons in 1945. W. W. Burns. Oil & Gas J 44:125 Mr 30 '46

Strength
Tensile strength in vulcanized rubber. J. C. Williams. bibliog India Rubber World 113: 805-7 Mr '46

Temperature effect
Developments in the field of testing procedures for the evaluation of natural and synthetic rubbers and plastic elastomers, sponsored by Bureau of ships, Navy department; low temperature tests. T. A. Werkenthin. bibliog il diags Rubber Age 59:317-23 Je '46
Developments in the field of testing procedures for the evaluation of natural and synthetic rubbers and plastic elastomers, sponsored by Bureau of ships, Navy department; thermal tests at elevated temperatures. T. A. Werkentin. il diag Rubber Age 59:445-50 Jl '46
Electrostatic and tensile properties of rubber and GR-S at elevated temperatures. R. S. Havenhill and others. il diags J Ap Phys 17:338-46 My '46; Same cond. India Rubber World 114:523-7 Jl '46
Theory of permanent set at elevated temperatures in natural and synthetic rubber vulcanizates. R. D. Andrews and others. il diag J Ap Phys 17:352-61 My '46

Testing
Comparison of mineral pigments in GR-S. R. E. Morris and others. il diag Rubber Age 58:331-7 D '45
Developments in the field of testing procedures for the evaluation of natural and synthetic rubbers and plastic elastomers, sponsored by Bureau of ships, Navy department. T. A. Werkenthin. bibliog il diags Rubber Age 59:173-9, 317-23, 445-50, 579-83, 697-702; 60:74-8, 197-202 My-N '46
Hysteresis and methods for its measurement in rubber-like materials. J. H. Dillon and S. D. Gehman. bibliog il diags India Rubber World 115:61-8+, 217-22 O-N '46
Measurement of thermal conductivity of nonmetallic solids. G. L. Hall and I. B. Prettyman. India Rubber World 113:222+ N '45
Structural changes of natural and synthetic rubbers during mastication and their subsequent recovery. D. S. le Beau and E. A. Hauser. bibliog il Rubber Age 59:67-72 Ap '46
Tackiness of GR-S and other elastomers. W. F. Busse and others. bibliog il diag J Ap Phys 17:376-85 My '46

Tire use
Butyl may entirely replace natural rubber for tubes. flow chart. Oil & Gas J 45:94 Ag 3 '46
Comparison of latices for tire cord dipping. H. H. Gillman and others. bibliog Rubber Age 58:591-5 F '46
Compounding of GR-S-10 for tires. J. G. Hendricks. India Rubber World 114:60-2 Ap '46
Divided opinion on synthetic rubber. Bsns W p20 Je 29 '46
Evaluation of blends of guayule and GR-S rubbers. F. E. Clark and W. F. L. Place. bibliog Ind & Eng Chem 38:1026-33 O '46
Reclaimed rubber during reconversion; synthetic rubber scrap tires. J. M. Ball and R. L. Randall. il India Rubber World 114: 368-73 Je '46; Same abr. Can Chem & Process Ind 30:24-8+ Je '46
Rubber. E. W. Stein; E. Gulick. il diag S A E J 54:75+ O '46
Structure of alkylphenol resin tackifiers for GR-S. G. E. P. Smith, jr., J. C. Ambelang and G. W. Gottschalk. bibliog il Ind & Eng Chem 38:1166-70 N '46
Study of the H test for evaluating the adhesive properties of tire cord in natural and GR-S rubbers. W. J. Lyons and others. India Rubber World 114:213-17+ My '46

Waste
Reclaimed rubber during reconversion; synthetic rubber scrap tires. J. M. Ball and R. L. Randall. il India Rubber World 114: 368-73 Je '46; Same abr. Can Chem & Process Ind 30:24-8+ Je '46
Utilization of cured synthetic rubber scrap. H. H. Gillman. bibliog(56 references) Rubber Age 58:709-14; 59:182 Mr, My '46
Utilization of cured synthetic scrap rubber. L. J. D. Healy. India Rubber World 114:70-2 Ap '46

RUBBER, Cellular. See Rubber, Sponge

RUBBER, Effect of light on
Weathering of soft vulcanized rubber. J. Crabtree and A. R. Kemp. bibliog il diags Ind & Eng Chem 38:278-96 Mr '46

RUBBER, Sponge
Absorption of sound by coated porous rubber wallcovering layers. C. W. Kosten. bibliog diags Acoustical Soc Am J 18:457-71 O '46
Development of latex processes in Great Britain. E. W. Madge. patent list flow sheet il India Rubber World 114:804-5 S '46
High-frequency heat cures Foamex products. Elec World 125:126+ My 25 '46
New blowing agent for sponge rubber; mixture of biuret and urea. H. F. Schwarz. il India Rubber World 114:211-12+ My '46
Pick-up for tiny parts; sponge rubber on conveyor belt. A. M. Fiala. Metal Prog 50:88 Jl '46

RUBBER, Substitutes for
Polymerization of drying oils; rubberlike product from vegetable oils, Norepol. J. C. Cowan, W. C. Ault and H. M. Teeter. bibliog flow sheet il Ind & Eng Chem 38:1138-44 N '46
Postwar uses of vinyl elastomers; abstract. J. Southwell. India Rubber World 114:78 Ap '46

See also
Rubber, Artificial

RUBBER accelerators. See Vulcanization—Accelerators

RUBBER cement
Safe use of rubber cements. Heating-Piping 18:107 Ag '46

RUBBER chemicals
Development and control laboratories; Naugatuck chemicals laboratories include pilot plant. il Can Chem & Process Ind 30:80-2 Je '46
Durez 12687 powdered resin used with synthetic rubbers. J. W. Ferguson. il India Rubber World 114:218-19 My '46
Marmix reinforcer for synthetic rubber latices. H. H. Irwin. India Rubber World 114:660-2 Ag '46
Rubber chemicals. H. L. Fisher. Chem Ind 59:273 Ag '46
Rubber industry needs new chemicals. M. J. De France. il Chem Ind 58:426-8+ Mr '46; Abstracts. Chem & Met Eng 53:264+ Ja '46; Chem & Eng N 24:53 Ja 10 '46
Some new applications for glycerine in the over-all rubber field. G. Leffingwell and M. A. Lesser. bibliog Rubber Age 60:69-70 O '46

See also
Vulcanization—Accelerators

RUBBER factories
Dunlop's new factory; conversion from war to peace at Speke. il Chem Age (Lond) 55: 347-9 S 21 '46
Issues involved in disposal of synthetic rubber plants; abstract. W. J. Sears. India Rubber World 114:381-2 Je '46
Speke factory of the Dunlop rubber company, ltd. il Engineer 182:274-6 S 27 '46

See also
Electric driving—Rubber factories
Rubber—Manufacture
Rubber, Artificial—Manufacture
Tire factories

Accidents
Report on some recent accidents. Rubber Age 58:600 F '46

Electric equipment
Electrical application in the rubber industry. J. Z. Linsenmeyer. il plan Rubber Age 59: 685-90 S '46

RUBBER factories—Electric equipment—*Cont.*
Electrical expansion; aircraft factory converted to rubber production; Dunlop rubber co. il Electrician 137:792, 855 S 20-27 '46
Enclosed field coils solve rubber mill problem. J. S. Askey. il Rubber Age 59:185-6 My '46

Employees

Akron experiment; success in rubber negotiations. Bsns W p84 Mr 9 '46
Inland on parade; Inland rubber corporation exhibition of all company products held solely for employees. il Ind Marketing 31:40 Ap '46
Rubber next? C.I.O. negotiations with Big Four tire companies. Bsns W p102+ F 23 '46

See also United rubber workers of America

Equipment

Dispatch system controls intraplant trucking; B. F. Goodrich company. il Factory Management 104:120-1 Jl '46
How one company insures use of its surplus equipment; United States rubber company. H. E. Nutting. il Factory Management 104: 87-9 Je '46
Savings in labor and floor space achieved by Hewitt installations. E. Weller. il Rubber Age 59:180-2 My '46
Works of the Andre rubber company; production of rubber bonded to metal units. il Engineer 181:273-5 Mr 22 '46

See also
Rubber machinery

Safety measures

Biggest post-war problem is to maintain employe interest in all aspects of safety; speech at Rubber Reserve parley. East Underw 46:32 N 23 '45
Electrostatics in the rubber industry. R. Beach. diags Rubber Age 58:453-60 Ja '46; Abstract. India Rubber World 113:528+ Ja '46
Transporting materials safely with power trucks and tractors. C. B. Cook. il Rubber Age 59:64-6 Ap '46

Waste

Tastes and odors due to synthetic rubber wastes; abstract. C. R. Placak and C. C. Ruchhoft. Pub Works 77:34 Ja '46

RUBBER goods
Advances in rubber during 1945. E. G. Chilton. bibliog(178 titles) Rubber Age 58:467-72+ Ja '46; Same. India Rubber World 113: 513-16 Ja '46; Same. Mech Eng 68:526-30+ Je '46
Improvements in gas mask faceblanks. S. H. Katz and I. Pockel. bibliog il India Rubber World 114:808-11+; 115:69-72+ S-O '46

See also
Molds (for casting)— Rubber toys
Rubber molds Tires, Automobile

Manufacture

Compounding charts for systems of natural rubber, GR-S, reclaim, Naftolen MV, and MPC black. F. Rostler and K. Rostler. India Rubber World 114:509-14+ Jl '46
Electronic rubber preheater. E. Mittelmann and G. P. Bosomworth. il diag Electronics 19:128-30 Mr '46
Heating and vulcanizing rubber and similar resins with high-frequency current. V. L. Smithers. il India Rubber World 113:505-7+ Ja '46
High frequency heating in rubber and allied industries. G. P. Bosomworth. bibliog il diags Rubber Age 59:429-40 Jl '46; Same cond. Can Chem & Process Ind 30:28-34+ Jl '46
Savings in labor and floor space achieved by Hewitt installations. E. Weller. il Rubber Age 59:180-2 My '46
Summary report on the production of German medical, surgical and sundry rubber goods. Rubber Age 58:338-42+ D '45

See also
Molding machines (for rubber)

Patents

Alien patents available for licensing; list. India Rubber World 115:83 O '46
Patents available for license. Rubber Age 59: 451+ Jl '46
Some interesting patents available for licensing or sale. Rubber Age 59:712 S '46

RUBBER goods, Mechanical
Design of rubber torsion springs for passenger cars. A. S. Krotz. il diags Automotive & Aviation Ind 94:24-7+ Ap 15 '46; Abstract. Mech Eng 68:468-9 My '46
Forming of aluminum alloys; use of the rubber die press. il diag Chem Age (Lond) 55: 137-9 Ag 3 '46
How to design rubber torsion springs. A. S. Krotz. il Machine Design 18:147-9+ S '46
Leakage of rubber sleeve joints under high vacuum. G. S. Muirhead. Chem & Ind p298 Ag 10 '46
Neoprene in product design. V. A. Cosler. il Product Eng 17:61-4 Ja '46
New Firestone Superflex undercarriage. diag Rubber Age 59:570 Ag '46
Novel landing gear shock-absorber unit teams rubber spring with compressed air. il diags Aviation 45:80 S '46
Rubber in compression; notes on its elastic deformation. diags Automobile Eng 36:264 Je '46
Rubber in open pit mining. J. G. Berry. il Min Cong J 32:51-2 Je '46
Rubber machine parts. il Machine Design 17: 116-19 D '45
Rubber-ring fastener. H. S. Sizer. il diags Machine Design 18:91-2 O '46
Rubber springs. J. E. Hale. il diags Automotive & Aviation Ind 95:18-23+ O 15 '46
Rubber tracks for agriculture. C. O. Slemmons. il diags S A E J 53:713-18 D '45
Torsion rubber spring design with automotive applications. A. S. Krotz and W. B. Fageol, jr. il diags Product Eng 17:[no 7] 112-16 Jl '46

RUBBER industry and trade
America's policy on rubber. J. L. Collyer. Automotive & Aviation Ind 95:104+ O 15 '46
British ready to put crude rubber against synthetic in price battle. Barron's 26:5 S 30 '46
Cheaper rubber ahead. Barron's 26:8 S 2 '46
Free market for crude rubber advocated; recommends sale of government synthetic plants to industry. J. L. Collyer. Comm & Fin Chr 164:932 Ag 15 '46
Goodrich head makes plea for free market basis on world rubber. Iron Age 158:148-9 S 19 '46
London rubber conference. India Rubber World 113:534 Ja '46
Long-term outlook for natural rubber. E. G. Holt. Dom Comm 34:21-3 My '46; Same. il Can Chem & Process Ind 30:49-51+ Je '46
Natural v. synthetic rubber. Economist 151: 61-3 Jl 13 '46
New agreements on natural rubber will provide U.S. with another 210,000 tons. Rubber Age 60:80-1 O '46
New trends in world rubber. H. M. Tremaine. il Mag of Wall St 77:515-16+ F 2 '46
1946 outlook for natural rubber. E. G. Holt. il Dom Comm 34:6+ Ap '46
Outlook for natural rubber; war's effect on Far East plantations. W. E. Cake. il India Rubber World 114:207-10 My '46
Outlook for 1946; statements by industry executives. India Rubber World 113:532-4 Ja '46
Reversal in rubber. il maps Fortune 33:84-91+ Mr '46
Rubber at 23½c; British cartel held to 3¼c increase. Bsns W p20 Je 29 '46
Rubber coming in. Bsns W p22 My 18 '46
Rubber developments in 1945. A. E. Boss and R. W. KixMiller. il Chem & Eng N 24:336-8 F 10 '46
Rubber industry needs 1946 to catch up with demand. E. J. Lally. Barron's 26:5 Ja 21 '46
Rubber manufacturing industry's report to the cotton industry, Rubber heel and sole industry's postwar future; abstract. W. S. Lockwood. India Rubber World 113:681-2 F '46

RUBBER industry and trade—*Continued*
Rubber subsidy? Bsns W p20 S 21 '46
Rubber surplus. Bsns W p16 O 5 '46
Rubber surplus troubles ahead. Barron's 25:7 N 19 '45
World rubber problems. K. E. Knorr. Harvard Bsns R 24 no 3:394-404 [Ap] '46
See also Firestone tire and rubber company

Advertising
Case histories of business-paper advertising campaigns; uses successful 13-year-old format; Industrial products division, B. F. Goodrich company. il Ptr Ink 215:45 My 17 '46
Farm; industry's big opportunity; United States rubber company's exhibit and advertising campaign. A. B. Ecke. il Sales Management 56:37-40 Je 1 '46

Directories
Rubber red book; directory of the rubber industry. 5th ed 686p $5 Rubber Age, 250 W. 57th st, New York 19 '46

Exhibitions
U.S. Rubber exhibit stresses farm market, new products. Ptr Ink 215:106 Ap 26 '46

Securities
Potentials of rubber stocks; with pertinent statistics on leading companies. W. Beecher. il Mag of Wall St 78:578-9+ Ag 17 '46
Prospects bright for tire and rubber companies; with position of leading shares. W. Black. Mag of Wall St 77:646-7+ Mr 2 '46

Statistics
Production of synthetic rubber reached nearly 700,000 tons in 1945. W. W. Burns. Oil & Gas J 44:125 Mr 30 '46
Rubber facts and figures. Economist 151:226 Ag 10 '46
Rubber imports from other Americas to United States. For Comm W 22:32 Ja 5 '46
Rubber; natural, reclaimed and synthetic; new supply, distribution and stocks, 1939-45. India Rubber World 114:814-19 S '46
Rubber outlook. E. C. Holt. India Rubber World 113:824 Mr '46
Wartime rubber statistics. Franklin Inst J 242:158-9 Ag '46

Borneo
Rubber in Malaya and British Borneo; rapid recovery now in evidence in both regions. E. G. Holt. For Comm W 25:4-5+ O 19 '46

Canada
Canadian rubber industry. Can Chem & Process Ind 30:72 Je '46

Far East
Far-East rubber output; progress and prospects. E. G. Holt. il For Comm W 25:5-7+ O 12 '46; Same. India Rubber World 115:205-8 N '46; Abstract. Rubber Age 60:82 O '46

France
French rubber institute. il India Rubber World 114:366-7 Je '46
Statistics on French rubber industry. India Rubber World 114:712-13 Ag '46

Germany
German rubber industry; abstract. W. E. Kavenagh. India Rubber World 114:229 My '46
Impact of strategic air attack on the German rubber industry. E. W. Pittman and others. India Rubber World 113:647-52+ F '46
Observations of the German rubber industry. E. W. Glen. Mech Eng 68:461-2 My '46; Abstracts. India Rubber World 114:81 Ap '46; S A E J 54:sup30 Je '46
Summary report on the production of German medical, surgical and sundry rubber goods. Rubber Age 58:338-42+ D '45
Synthetic rubber industry in Germany. E. R. Rowzee. Can Chem & Process Ind 29:814-16 D '45
Synthetic rubber research in Germany. E. R. Weidlein, jr. il Chem & Eng N 24:771-4 Mr 25 '46

Great Britain
See also
Dunlop rubber company

Indo-China, French
Rubber output mounting in Indochina and Siam. E. G. Holt. il For Comm W 25:10-11+ O 26 '46

Malayan Union
Rubber in Malaya and British Borneo; rapid recovery now in evidence in both regions. E. G. Holt. For Comm W 25:4-5+ O 19 '46

Peru
Developments in Peru. For Comm W 21: 50 N 10 '45; Same. Rubber Age 58:337 D '45

Siam
Rubber output mounting in Indochina and Siam. E. G. Holt. il For Comm W 25:10-11+ O 26 '46

Switzerland
Status of Swiss rubber industry. India Rubber World 114:715-16 Ag '46

United States
Batt inter-agency policy committee report. India Rubber World 114:89-91 Ap '46
New rubber plan. Bsns W p18 Ag 3 '46
Report of the director of rubber programs, WPB. R. S. Wilson and G. M. Tisdale. India Rubber World 113:373-6+ D '45
Rubber companies diversify; turn to plastics. Bsns W p56-8 Mr 23 '46
Rubber program; report by Batt inter-agency group. Bsns W p28+ Mr 23 '46
Rubber; trends in 1946. S. E. Overley. il Dom Comm 34:38-40 Ja '46
Second report of the Inter-agency policy committee on rubber of the Office of war mobilization and reconversion. India Rubber World 114:687-90 Ag '46

RUBBER laboratories
Firestone research laboratory, Akron, Ohio. il plans diags Arch Rec 98:82-97, 143+ N '45
Goodrich research laboratories. il Chem & Eng N 24:68 Ja 10 '46
Research laboratories; well-equipped organization of Dominion rubber co., ltd. L. W. Billingsley. il Can Chem & Process Ind 30: 77-9+ Je '46

Safety measures
Rubber Reserve issues Safety manual for copolymer plant laboratories. Chem & Eng N 24:1805-8 Jl 10 '46

RUBBER latex
Asphaltic oil-latex joint-sealing compound. B. W. Pocock. bibliog il Am Concrete Inst J 17:565-80 Je '46
Comparison of latices for tire cord dipping. H. H. Gillman and others. bibliog Rubber Age 58:591-5 F '46
Development of latex processes in Great Britain. E. W. Madge. patent list flow sheet il India Rubber World 114:803-7 S '46; Same. diag Can Chem & Process Ind 30:37-42 S '46
Latex and rubber characteristics of cryptostegia. R. Blondeau and J. T. Curtis. bibliog Rubber Age 59:57-63 Ap '46
Method for preparing rubber latex specimens for the electron microscope. R. H. Kelsey and E. E. Hanson. bibliog il J Ap Phys 17:675-7 Ag '46
Successful four-year storage of hevea latex. J. McGavack. il India Rubber World 113: 808+ Mr '46
See also
Rubber, Artificial—Latex

RUBBER lining
New developments to combat corrosion in paper and pulp industries; liquid neoprene, nitrocote, and durofilm; rubber pipe joint. K. P. Chamberlain. Paper Tr J 123:130 O 10 '46
Phosphoric acid vs. materials of chemical plant construction; rubber lining. O. S. True. Chem Eng 53:203 Ag '46
Pipe with rubber lining; pipes used to carry caustic in paper mill. il Heat & Ven 42: 99-100 D '45

RUBBER lining—*Continued*
Rubber-lined concrete tanks store aviation gasoline successfully. Eng N 136:137 Ja 24 '46
Rubber-lined pipe resists abrasion in mill circuits. J. Casale. Eng & Min J 146:100-1 D '45
Rubber-lined tank cars. T. P. Callahan. il Chem Ind 58:634+ Ap '46

RUBBER machinery
Lancaster-Banbury method of devulcanizing scrap rubber. D. Comes and F. H. Banbury. il Rubber Age 59:563-6 Ag '46
Versator processing machine. Rubber Age 59: 309 Je '46
See also
Molding machines (for rubber)

Lubrication
Lubrication of rubber plant machinery. A. F. Brewer. diags India Rubber World 113:384-9 D '45

RUBBER plantations
Outlook for natural rubber; war's effect on Far East plantations. W. E. Cake. il India Rubber World 114:207-10 My '46

RUBBER plants and planting
Biochemistry of rubber formation in plants. J. Bonner. Rubber Age 58:466 Ja '46
Ford motor co. disposes of natural rubber holdings in Brazil. Rubber Age 58:357 D '45
Latex and rubber characteristics of cryptostegia. R. Blondeau and J. T. Curtis. bibliog Rubber Age 59:57-63 Ap '46
Natural rubber from Russian dandelion. R. E. Eskew. flow diag India Rubber World 113:517-20 Ja '46
Progress of plantation research in Ceylon. Rubber Age 59:63 Ap '46
Recovery, distribution and nature of rubber from cryptostegia grandiflora leaves. C. E. Linscott and J. McGavack. Rubber Age 59:441-4 Jl '46
See also
Guayule
Kok-sagyz

RUBBER research
Crystallization of unvulcanized rubber at different temperatures. L. A. Wood and N. Bekkedahl. bibliog(78 titles) J Ap Phys 17:362-75 My '46; Same. J Res Nat Bur Stand 36:489-510 Je '46
Early studies on the fractionation of rubber. H. P. Stevens. bibliog Rubber Age 59:310-12 Je '46
Evaluation of blends of guayule and GR-S rubbers. F. E. Clark and W. F. L. Place. bibliog Ind & Eng Chem 38:1026-33 O '46
French rubber institute. il India Rubber World 114:366-7 Je '46
Microscopic studies of lyogels; preparation of samples for ultra-illumination by incident light. E. A. Hauser and D. S. le Beau. bibliog il Ind & Eng Chem 38: 335-8 Mr '46
Non-sulphur vulcanization; experimental study. T. Alfrey and others. bibliog India Rubber World 113:653-8 F '46
Progress of plantation research in Ceylon. Rubber Age 59:63 Ap '46
Recent advances in the physics and chemistry of rubber. L. R. G. Treloar and others. bibliog diag Rubber Age 59:694-6; 60:71-3+ S-O '46 (to be cont)
Swelling of rubber; comparison of swelling behaviour of vulcanized natural rubber and GR-S in organic liquids. F. S. Rostler and others. bibliog Rubber Age 59:299-309 Je '46
Swelling of rubber; study of reclaiming oils with regard to swelling action on GR-S and natural rubber. K. S. Rostler and R. M. White. bibliog diag Rubber Age 58:585-90 F '46
Swelling of rubber; swelling behaviour of vulcanized natural rubber and GR-S in mixtures of hydrocarbons. F. S. Rostler and K. S. Rostler. bibliog Rubber Age 60:57-68 O '46
See also
Rubber, Artificial—Research

RUBBER reserve company
Report of the U.S. Rubber reserve company on the rubber programme 1940-1945. Chem & Ind p99 Mr 2 '46

RUBBER seed oil
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain linolenic as well as linoleic and oleic acids. F. D. Gunstone and T. P. Hilditch. Soc Chem Ind J 65:11-13 Ja '46

RUBBER stamps
Phenolics stamp out the price; stamp kit of cotton-flock-filled phenolic. il Mod Plastics 23:132 Ag '46

RUBBER tapping
Ceylon tapping experiments. India Rubber World 113:866 Mr '46

RUBBER toys
Rubber toys reappear at fair. India Rubber World 114:97 Ap '46

RUBBER waste
Compounding charts for systems of natural rubber, GR-S, reclaim, Naftolen MV, and MPC black. F. Rostler and K. Rostler. India Rubber World 114:509-14+ Jl '46
Lancaster-Banbury method of devulcanizing scrap rubber. D. Comes and F. H. Banbury. il Rubber Age 59:563-6 Ag '46
Swelling of rubber; comparison of swelling behaviour of vulcanized natural rubber and GR-S in organic liquids. F. S. Rostler and others. bibliog Rubber Age 59:299-309 Je '46
Swelling of rubber; study of reclaiming oils with regard to swelling action on GR-S and natural rubber. K. S. Rostler and R. M. White. bibliog diag Rubber Age 58:585-90 F '46
See also
Rubber, Artificial—Waste

RUBBER workers of America, United. See United rubber workers of America

RUBBERIZED fabrics
Inflatable fabric cells for aircraft salvage. il(p324) Engineering 162:322 O 4 '46

RUBEROID company
Investment securities for capital building. Mag of Wall St 78:148-9 My 11 '46

RUBIES
Ruby, gem of the East; history, occurrence and mining. D. C. McLaren. Can Min J 66: 852-4 D '45

RUBIES, Artificial
Genuine and synthetic rubies and sapphires. A. E. Alexander. bibliog il diag J Chem Educ 23:418-22+ S '46

RUBINSTEIN DE ROVELLO, Serge, 1908-
Variety in oil; construction is added to diversified Panhandle lines. por Bsns W p72+ D 29 '45

RUBY glass. See Glass, Colored

RUCKLOS, Werner P.
Wanted: likely-looking man. por Fortune 33: 200 Ja '46

RUGS
Current trend may force fast colors for rugs. L. L. Walmsley. il Textile World 95:111+ N '45
Showroom demonstrates sales-making rug display. il Sales Management 57:41 S 1 '46
Turns skills of mountain folk into branded hooked rug business. il Sales Management 55:156+ N 15 '45

RUHR valley
America's stake in the export-potential of the Ruhr. P. Wohl. Barron's 25:14 D 24 '45
Loss of Ruhr would keep Germany begging from U.S. J. Hirsch. Barron's 26:11 My 13 '46

RUMANIA
See also
Petroleum industry and trade—Rumania

Industries and resources
Romanian plight; in political disfavor with the U.S. Bsns W p98+ Je 15 '46

RUMFORD, Benjamin Thompson, Count, 1753-1814
Benjamin Thompson: Count Rumford. D. C. Jackson. Tech R 48:21-2 N '45

RUN-OFF
Flow from drainage basins determined by short-term records. L. L. Harrold. Am Soc C E Proc 71:433-44 Ap '45; Discussion. 71: 1311-12; 72:397-9 O '45, Mr '46
Reducing unknowns in small culvert design. F. T. Mavis. diags Eng N 137:51-2 Jl 11 '46

RUNWAYS, Airport. See Airports—Runways

RUPTURES. See Hernia

RURAL electric cooperative association, National. See National rural electric cooperative association

RURAL electrification. See Electric service, Rural

RURAL electrification administration
Activities during 1945. Pub Util 37:167-9 Ja 31 '46
Await important changes in FCIC and REA setup; Anderson wants close cooperation with private insurance. Nat Underw 50:3 Ag 15 '46
Business improves for REA borrowers; report to Congress for fiscal year. Elec World News ed 125:9 F 9 '46
Contractors band to fight policy of REA and co-ops. Elec World 125:85 Mr 2 '46
Government-financed construction of power-generating and transmission facilities. C. R. Wickard. Pub Util 37:33-4 Ja 3 '46
How REA justifies buying properties. Elec World 125:66 Mr 30 '46
If REA grows too generous it may thwart the program for which it exists. E. C. Potts. Pub Util 37:614-21 My 9 '46
Keeping REA on the track; how to protect farmers from being loaded with debt through REA loans for unwise construction and acquisition of properties. L. H. Boren. Pub Util 36:745-53 D 6 '45
N.E.C.A. plans to protest REA policy to Congress. Elec World News ed 124:5 D 1 '45
Operations ratios change; statistical data, 1943-1945. Elec World 125:138 Ja 19 '46
REA picks another fight; would shun contractors working for private utilities. Bsns W p58+ D 1 '45
REA wins fight to award contracts to any bidder. Elec World News ed 125:9 Je 15 '46
Rural electrification job remaining to be done. C. R. Wickard. Pub Util 37:149-57 Ja 31 '46
State data on farm telephone service and REA customers; tabulation. Pub Util 37:31 Ja 3 '46
Status of western REA-financed systems; tabulation. Elec West 96:84-5 F '46
Urban operations of REA draw congressional fire. Pub Util 37:492-5 Ap 11 '46
See also
Electric service, Rural—Cooperative lines

RURAL high schools. See High schools, Rural

RURAL hygiene. See Hygiene, Rural

RURAL planning
See also
Public works, Rural

RURAL public works. See Public works, Rural

RURAL schools
See also
Consolidated schools

RURAL telephone service. See Telephone service, Rural

RUSHMORE, Arthur
Golden Hind press. G. C. Compton. pors Inland Ptr 116:42-4 O '45

RUSSELL, Burdsall and Ward bolt and nut company
100 years of progress in making fasteners. L. E. Browne. il Steel 117:82-5+ D 24 '45

RUSSELL, Charles Oather, 1907-
Former high school instructor, now president of LPG assn. por Nat Pet N 38:10 Ag 7 '46

RUSSELL, Robert Price, 1898-
AIC gold medal presented to Russell. por Chem & Eng N 24:1527-8 Je 10 '46
Portrait. Oil Paint & Drug Rep 149:5 My 13 '46

RUSSIA
For a free democratic Russia. Fortune 34:2 Jl '46
Fortune survey; what is Russia after? Fortune 34:5-6 Jl '46
Perpetual study of what goes on in Russian-dominated countries asked. C. Prince. Steel 118:61-3 Ap 22 '46
Russia in 1946. Economist 150:284-5, 326-7, 406-7 F 23-Mr 2, 16 '46
Russia plans for the future; excerpts from Premier Stalin's talk; Russian governmental statement; interview reported by Associated press with Joseph E. Davies. Metal Prog 49:562-3 Mr '46
Urges continuation of Russian relief. W. A. Harriman. Comm & Fin Chr 163:1498+ Mr 21 '46
What Russia got in the Transcarpathian Ukraine. E. Bouianovsky. map For Comm W 24:5+ Ag 24 '46
See also
Biologists—Russia
Ceramic industries—Russia
Coal mines and mining—Russia
Electricity supply—Russia
Labor and laboring classes—Russia
Paper industry and trade—Russia
Science—Russia
Slavs
Steel industry and trade—Russia
Sugar industry and trade—Russia

Commerce

U.S. trade with U.S.S.R. during calendar year '45; with tabulations by principal commodities. For Comm W 23:10+ Je 29 '46
U.S. trade with U.S.S.R. Jan.-Sept. 1945. For Comm W 22:8+ F 9 '46

Commercial policy

Doing business with Russia. Management R 34:489-91 D '45
Red policy bars outside influence in occupied areas; Soviet favors state monopolies and strong government influence. J. Joesten. Barron's 26:9 F 25 '46
Russia's trade agreements. J. Lyons. Mag of Wall St 77:578 F 16 '46
Soviet system; challenge to international trade. C. Prince. Comm & Fin Chr 164: 1133+ Ag 29 '46
Trade pattern for eastern Europe; Soviet agreements with neighboring nations. Bsns W p101-2 F 2 '46

Cultural relations

United States

Medical research mission to the Soviet Union. A. B. Hastings and M. B. Shimkin. Science 103:605-8, 637-44 My 17-24 '46

Economic conditions

Progress of reconstruction in the U.S.S.R. Int Labour R 53:71-4 Ja-F '46
Stalin's speech reveals soft spots in Soviet armor; tempo of production compares unfavorably with America's industrial rise. P. Wohl. Barron's 26:3+ Mr 4 '46

Economic policy

No Russian cotton surplus. Fortune 33:230+ Je '46
State control versus self-control. J. F. Dulles. Comm & Fin Chr 163:3474+ Je 27 '46
USSR'S role in international finance. C. Prince. Harvard Bsns R 25 no 1:111-28 [O] '46

Economic relations

United States

Comment. O. Tead. Advanced Management 11:81+ S '46

Foreign relations

Anglo-U.S-Soviet relations. W. Churchill. Comm & Fin Chr 163:1542+ Mr 21 '46
British and American opinion polls on Russia's motives in world affairs. Iron Age 158:113+ Jl 4 '46

RUSSIA—Foreign relations—*Continued*
Caucasian chequerboard. map Economist 149: 934-5 D 29 '45
Crisis, limited. Economist 150:493-5 Mr 30 '46; Same. Iron Age 157:107+ Ap 11 '46
Enigma variations. Economist 150:441-3 Mr 23 '46; Same. Iron Age 157:129+ Ap 4 '46
International survey finds fear over Soviet's course. Iron Age 157:101+ Mr 28 '46
Plain speaking of Ernest Bevin. Fortune 33: 83 Mr '46
Rude awakening! Anglo-American fiasco. M. Palyi. Comm & Fin Chr 163:1630+ Mr 28 '46
Russian case; Big three cooperation. Economist 149:819-20 D 8 '45
Russian embassy says influential selfish groups oppose peace. Comm & Fin Chr 163: 2795+ My 23 '46
Russian isolation. F. I. Kent. Banking 38:42+ Je '46
Russia's course concerning international affairs; Gallup poll. Iron Age 157:103+ Ap 11 '46
Russia's foreign policy; public opinion poll. Iron Age 158:115+ S 26 '46
Russia's stake in Danubian countries, its impact on foreign commerce. C. Prince. Comm & Fin Chr 164:1374+ S 12 '46
Secret U.S.-British Yalta pact with Russia; Kurile islands given to Soviet. Comm & Fin Chr 163:1007 F 21 '46
Soviet withdraws from Council sabotaging UNO. A. W. May. Comm & Fin Chr 163: 1629+ Mr 28 '46
Wait and see. Economist 150:874-5 Je 1 '46
Will the Soviet union co-operate with the United nations? L. E. Browne. Ann Am Acad 246:42-8 Jl '46

Latin America

Shifting balance of power in Latin America. V. L. Horoth. il Mag of Wall St 78:381-3+ Jl 6 '46

Persia

Iran; settlement hinges on what Russia wants; share in oil wealth can be granted easily if that's Kremlin's aim. P. Wohl. Barron's 26:3+ Mr 25 '46
Not for compromise; Iranian dispute. S. Welles. Comm & Fin Chr 163:2363+ My 2 '46
Russia, oil, and power in the Middle East. Min & Met 27:251-2 My '46
War of nerves subsides at Hunter college. A. W. May. Comm & Fin Chr 163:1781+ Ap 4 '46

Rumania

Russian-Roumanian trade agreement. Economist 149:561-2 O 20 '45

Turkey

Can Turkey stand it? Economist 151:546-7 O 5 '46

United States

AFL demands firmness toward Russia. W. Green. Comm & Fin Chr 164:1378+ S 12 '46
AFL firm against Sovietism. W. Green. Comm & Fin Chr 164:1545+ S 26 '46
Attitude toward Russia; Gallup poll. Iron Age 158:95+ Ag 29; 103+ S 5 '46
End of let's pretend. Iron Age 158:105+ S 19 '46
Let's understand Russia. J. E. Murray. Comm & Fin Chr 163:2084+ Ap 18 '46
Opinion on Russian cooperation with United States on world affairs; Gallup poll. Iron Age 157:154+ Ap 4 '46
Our policy toward Russia. J. W. Fulbright. Comm & Fin Chr 163:2784+ My 23 '46
Policy toward Russia. H. A. Wallace. Comm & Fin Chr 163:1498+ Mr 21 '46
Road to world peace. E. A. Johnston Comm & Fin Chr 163:1786+ Ap 4 '46
Russians like our businessmen; success of non-political Americans in dealings with Soviets reflects need to bypass ideologies. P. Wohl. Barron's 25:7 N 26 '45
Stop obstructing Russia. H. A. Wallace. Comm & Fin Chr 164:1453+ S 19 '46
Wallace and the pseudo-liberal delusions about Russia. E. Lyons. Comm & Fin Chr 164:1529+ S 26 '46

History

Red star rising. maps Fortune 34:106-11+ Jl '46

Industries and resources

Engineering developments in Asiatic Russia. C. A. Middleton-Smith. il map Engineer 180:238-9, 258-9, 278-80, 338-9, 360-1, 384-5, 406-7 S 28-O 12, N 2-23 '45
Five-year plan and Russian foreign policy. M. Palyi. Comm & Fin Chr 163:3341+ Je 20 '46
Fourth five year plan. Economist 150:326-7 Mr 2 '46
Fourth five-year plan. Economist 151:6-7, 86-7, 166-8 Jl 6, 20, Ag 3 '46
Next phase in the Urals; new plans and potentials. L. M. Herman. map For Comm W 22:5-7+ F 9 '46
Russia girds for production to speed five-year plan goals. Bsns W p113-14+ Mr 23 '46
Russia goes local. Bsns W p113 Ja 12 '46
Russia sets new goals; Stalin's call for industrial expansion. il Bsns W p113-14 F 16 '46
Russia to export metals. Bsns W p113-14 D 22 '45
Russia's pop-gun economy; impressive facade conceals low productivity of both industries and manpower. B. W. Corrado. Barron's 26:3+ O 28 '46
Shortages may wreck Russia's new five year plan. il map Iron Age 158:102-4+ Ag 15 '46
Significant comparison; Soviet goals, U.S. output. Bsns W p114 Mr 30 '46
Soviet five-year plan stresses tools, materials. il Am Mach 90:156-8 S 26 '46
Soviet Union rebuilds and expands industries. il For Comm W 22:10-11+ Mr 9 '46
Stalin's speech reveals soft spots in Soviet armor; tempo of production compares unfavorably with America's industrial rise. P. Wohl. Barron's 26:3+ Mr 4 '46
Urals; present center of Soviet industrial power. E. Boulanovsky. il map For Comm W 23:3-5+ Je 22 '46

Politics and government

American capitalism vs. Russian communism. C. A. Peters, comp. Ref Shelf v 18, no 7:1-305 bibliog(p289-305) H.W. Wilson co. '46 ($1.25)
Conduct of Soviet elections clue to Moscow's future policy. P. Wohl. Barron's 26:3+ Ja 21 '46
New Russian government. Economist 150:542 Ap 6 '46; Same. Iron Age 157:138+ Ap 18 '46
Politburo: definer of the line. Bsns W p17-19 Ag 10 '46
Politburo; who they are and how they work. V. Kravchenko. il Fortune 34:93-9+ S '46
Russia after the polls. Economist 150:284-5 F 23 '46
Soviet government. Economist 150:1037-8 Je 29 '46; Same. Iron Age 158:105+ Jl 11 '46

RUSSIAN academy of science. See Academy of sciences of the U.S.S.R.

RUSSIAN language
Russian in the chemist's curriculum. J. G. Tolpin. bibliog J Chem Educ 23:123-6 Mr '46

Chemical Russian

Chemical Russian, self-taught. J. W. Perry. bibliog J Chem Educ 21:393-8; 23:22-7, 116-22 Ag '44, Ja, Mr '46

Study and teaching

Study of scientific Russian in American universities. Chem & Eng N 23:2375 D 25 '45

RUSSIAN literature
Special libraries conference on Russian materials, November 17, 1945. 55p American Russian institute, 58 Park av, New York '46

RUSSIAN-RUMANIAN trade agreement. See Commercial treaties and agreements

RUTIN
Buckwheat as a source of rutin. J. F. Couch and others. Science 103:197-8 F 15 '46
Early availability of sufficient supplies of **rutin.** Can Chem & Process Ind 30:94 Jl '46

RUTIN—*Continued*
For blood vessels; rutin, from buckwheat valuable in hypertension cases. Bsns W p48+ F 23 '46
Rutin from buckwheat. Chem Age (Lond) 54:214 F 23 '46
Rutin from buckwheat; staff report. flow diag Chem Ind 59:74 Jl '46
Rutin now derived from buckwheat plant. Oil Paint & Drug Rep 148:7 F 4 '46
Uses for rutin expanding; abstract. J. Q. Griffith, jr. Franklin Inst J 242:230 S '46

RUTTENBERG, Harold Joseph, 1914-
Two C.I.O. steel leaders break tradition. por Bsns W p75 Jl 13 '46

RYAN aeronautical company
Ryan adds 'copters to diversified line. Aviation N 6:25 S 2 '46

RYE, New York
City plans its future growth; Rye will modernize shopping center. H. Barnard. il Dun's R 54:14-16+ S '46
Shopping center for Rye. il plans Arch Forum 85:76-9 Ag '46

RYE
Agricultural department report on winter wheat and rye acreage sown for 1946 crop. Comm & Fin Chr 162:3177 D 27 '45
Glutamine from rye grass. G. J. Raleigh. Science 103:206 F 15 '46
Rye corner hearings get started. H. M. Bratter. Comm & Fin Chr 162:3005+ D 20 '45

S

S.H.A.D.A. See Agriculture—Haiti

S.U.M. See Society for establishing useful manufactures

SAAD, Ahmed Zaki, 1900-
Executive director of the International monetary fund. por Comm & Fin Chr 163:3347 Je 20 '46

SABADILLA
Sabadilla insecticide development. Soap & San Chem 22:135+ S '46

SABLE (fur). See Fur

SACCHARIFICATION
Saccharification of grain mashes for alcoholic fermentation; plant-scale use of mold amylase. L. A. Underkofler, G. M. Severson and K. J. Goering. bibliog il Ind & Eng Chem 38:380-5 O '46

SACCHARIFICATION of wood. See Wood saccharification

SACCHARIN
German saccharin synthesis described. Oil Paint & Drug Rep 149:7 Ap 22 '46
Saccharin from anthranilic acid. Chem Ind 58:787 My '46

SACHS, Jerome
Dept. of commerce Insurance division chief. East Underw 47:1+ Mr 1 '46

SACKETT, Robert Lemuel, 1867-1946
Appreciation. Mech Eng 68:931 N '46

SACKS. See Bags

SACRAMENTO
Premium bonds; offered by Sacramento utility district. Bsns W p73-4 Jl 20 '46

SAFE deposits
How to handle safe deposit boxes of deceased renters. H. J. Juhre. il Bankers Mo 63:72-3 F '46
How to safeguard your safe deposit vault. K. Murray. il Bankers Mo 63:222-4 My '46
Safeguards in safe deposit operation. H. C. Wehrheim. il Burroughs Clearing House 30:18-19+ Ja '46
Strict access rules essential vault precaution. H. J. Juhre. il Bankers Mo 62:555-7 D '45
This routine gives a complete safe deposit audit. J. McCreight. Bankers Mo 63:376 Ag '46
Unauthorized accesses to deposit boxes. R. D. Regan. Banking Law J 63:461-3+ Je '46; Excerpt. Banking 39:98 Jl '46

Law
Inconsistent provisions on signature card held not to create joint tenancy of contents of safe deposit box. Banking Law J 62:806-16 O '45
Safe deposit pitfalls. Banking 38:129-31 Ap '46

SAFETY advertising
Advertising to combat accidents; plan of Advertising council in cooperation with the National safety council. Nat Safety N 53: 19 Ja '46
Council's ad campaign on accidents uses grim words and illustrations. Ptr Ink 214: 123 Mr 15 '46
Death takes a holiday in Los Angeles; safety campaign over holidays, spearheaded by Ad club. R. Kellogg. Ptr Ink 214:32 F 22 '46
Portland's passes sell safe habits. il Bus Transportation 25:46-7 F '46

SAFETY associations
See also
National safety council
Royal society for prevention of accidents

SAFETY at sea
Continental emergency escape airport. il Marine Eng 51:140 My '46
Engineering work of the Clyde lighthouses trust. D. A. Stevenson. Engineer 180:425-6 N 23 '45; Same. Engineering 160:429, 443 N 23-30 '45
Pistols and flares for distress signalling. il Marine Eng 51:184 My '46
Radar to safeguard old Bay Line boat. il Marine Eng 51:126-7 Mr '46; Excerpts. Electronics 19:164+ Ap '46
Safety features for passenger ships. il map diag Marine Eng 50:164-71 N '45
See also
Ice patrol service
Ships—Fires and fire protection
Ships—Stability

SAFETY awards. See Safety contests and awards

SAFETY belts
Adjustable safety-belt tail line. H. W. Boggess. diags Oil & Gas J 45:121 Ag 24 '46
Ingenious devices reflect interest in mine safety. E. Runehjelm. il diags Eng & Min J 147:77 S '46
Mildew-proofing fabrics. R. E. Horsey. il Nat Safety N 53:36+ Je '46
Safety belts and harnesses. il Nat Safety N 53:69 Mr '46

SAFETY campaigns
Death takes a holiday in Los Angeles; safety campaign over holidays, spearheaded by Ad club. R. Kellogg. Ptr Ink 214:32 F 22 '46
Forward march of the Green cross. Nat Safety N 53:29 Ap '46
Many cities enroll in Green cross campaign. Nat Safety N 53:5+ Mr '46

SAFETY cartoons
He never learns; Wing Ding, cartoon character promotes safety in TWA shops. Nat Safety N 52:42 N '45
John Dope. Am Mach 90:136-7 F 14 '46

SAFETY clothing. See Clothing, Protective

SAFETY codes
Safety code for welding, burning and heating; Norfolk navy shipyard, Portsmouth, Va. il Safety Eng 91:22+ F '46
Safety color code proving effective. il Safety Eng 92:22+ Jl '46
Year's progress in safety codes. il Nat Safety N 53:4-5+ Mr '46
See also
Electric codes

SAFETY committees
Activating safety; Nabisco safety program. E. Z. Banka. il Safety Eng 91:18-20+ Ap '46
Have you tried these? methods which have helped to keep safety program functioning smoothly. R. W. Gillette. il Nat Safety N 52:64+ D '45

SAFETY committees—*Continued*
Maintenance made safe by plant committees. P. J. Brand. il Factory Management 104: 137-8 S '46
Management control of industrial accidents. A. E. Edwards. Mech Eng 68:443-5+ My '46; Same cond. Safety Eng 91:63-6 Ja '46
Out of the accident cellar; Missouri power & light company. H. Bruegging. il Nat Safety N 53:36-7+ Ja '46; Same cond. Elec World 125:88-9 F 16 '46
Safe at Servel. J. N. Burch. il Nat Safety N 53:20-2+ Ja '46
Safety went on full time; National smelting company. R. W. Bonifield. il Nat Safety N 53:46+ Ja '46

SAFETY conferences
Good meetings get good results. W. M. Gillingham. il Safety Eng 91:61 Ja '46

SAFETY congresses
Greater New York safety council, 16th annual conference. East Underw 47:38+ Ap 12 '46
President Truman calls Highway safety conference. Nat Safety N 53:36 F '46

SAFETY contests and awards
Miles Slope mine receives its anthracite trophy award. Explosives Eng 23:244-5 N '45
National safety competition of 1945, Bureau of mines; with list of winners, 1925-1945; honorable mention awards, 1945. F. T. Moyer. il Explosives Eng 24:105-8+ Jl '46
NSC award to veteran safe worker. Nat Safety N 54:104 S '46
Pickands Mather & company honors Danube mine employees; Bovey, Minnesota, iron-ore operation wins the Sentinels of safety trophy. il Explosives Eng 24:20-1 Ja '46
Quarry safety awards; list. Rock Prod 49:78 O '46
Renew Holmes awards after five years. Coal Age 51:174+ My '46
Safety contest winners in the Paper and pulp section. Paper Ind 27:1064+ O '45
Safety engineering awards trophy for Reo's safety school bus. Safety Eng 91:27 My '46
Safety films win awards. Nat Safety N 53: 56+ My '46
Superior D mine wins again. Explosives Eng 23:251-2 N '45
Winners in National traffic safety contest. Nat Safety N 53:42+ My '46

See also
Fire protection—Contests and awards
Harriman memorial medals for safety

SAFETY council, Federal. See Federal interdepartmental safety council

SAFETY devices and measures
Accentuate the positive; safety program, Consumers cooperative assn. J. L. Shopen. il Safety Eng 91:22+ Mr '46
Accident prevention will pay off in 1946. J. T. Morris. Chem & Met Eng 53:137-8 Ja '46
Accident trends were reversed; Moe brothers manufacturing company. R. Adams. il Nat Safety N 54:26+ Jl '46
Babbitting bearings; hazards and precautions. Nat Safety N 53:36+ My '46
Britannica readers ask about safety; Library research service. Nat Safety N 54: 30 Ag '46
Chloroform hazards. H. N. Anderson. Safety Eng 91:63 Mr '46
Don't agonize, improvise. D. N. Kelly. diag Safety Eng 90:64 N '45
Employee magazine gets results you can see; Ohio seamless tube company safety campaign. M. Freese. Ptr Ink 215:47 My 24 '46
Engineered color for safety. E. D. Peck. il Safety Eng 90:14-16+ D '45
Floor maintenance. Nat Safety N 54:34 Ag '46
For use as specified! W. J. McChesney. il Safety Eng 91:14-16 F '46
Ground safety; program of Air materiel command. F. L. Anderson. il Safety Eng 92:14-16+ S '46
Hand tool hazards and how to avoid them. il Roads & Sts 88:105-6 N '45
Have you tried these? methods which have helped to keep safety program functioning smoothly. R. W. Gillette. il Nat Safety N 52:64+ D '45
Let's help the foreman in accident prevention. J. E. Trainer. il Nat Safety N 53:28-9+ Je '46
Lighting for safety. C. P. Connolly. il Safety Eng 90:28-31 N '45
Make way for the crowd; safety in places of public assembly. J. McElraevy, jr. il Safety Eng 91:38+ Ap '46
Management control of industrial accidents; Ford instrument co. A. E. Edwards. Factory Management 104:308+ Ja '46
National safety news; annual safety equipment issue; buyers' guide. Nat Safety N 53:2-223 Mr '46
Planning industrial safety for the handicapped. M. E. Johnson. Ind Med 14:799 O '45
Practical problems in safety. C. F. Tyler. Safety Eng 90:35-7 D '45
Precautions for safety in handling liquid air. A. A. Rapp. il Steel 118:124 F 11 '46
Safe at Servel. J. N. Burch. il Nat Safety N 53:20-2+ Ja '46
Safety advice without prejudice. J. Creevey. Chem Age (Lond) 53:461-2 N 17 '45
Safety factors in fluorescent installations. W. D. Renner. il Nat Safety N 53:25+ F '46
Safety from the inside out; Gisholt machine company. Am Mach 90:122-4 O 24 '46
Safety is as easy as A B C when everybody works for it; Buda company. K. L. Morey. il Factory Management 104:102-5 Ag '46
Safety is good management. F. J. Healy. il Nat Safety N 54.18-19+ Ag '46; Excerpts. Safety Eng 92:12-13 Jl '46
Safety suggestions pay off. G. D. Cross. il Nat Safety N 54:36-7+ S '46
Safety's Siamese twins; safety must be linked to efficient production. S. Weinberger. il Safety Eng 90:20-2+ N '45
Small plant safety. J. R. Wittekind and J. Prehm. il Safety Eng 92:18-20+ Jl '46
Standard colors mean safety. J. E. Long. il Safety Eng 91:33-4 Ap '46
Treatment of hot resin burns and safe handling of thermoplastic materials. W. B. Warden and W. J. Sigmund. Pet Refiner 25: 91-2 Mr '46
Warning of hazardous chemicals. J. Creevey. Chem Age (Lond) 53:569-70 D 15 '45

See also
Automobile driving
Factories—Lighting
Federal interdepartmental safety council
Fire protection
First aid in illness and injury
Floors—Anti-slip surfaces
Guard rails
Lightning protection
Poisons, Industrial
Railroads—Signals
Safety belts and other headings beginning Safety

also subdivision Safety measures under special subjects, e.g.
Airplanes
Airports
Aviation
Breweries
Coal mines and mining
Cranes, derricks, etc.
Electric substations
Electric tools, Portable
Electric utilities
Electricity in mining
Gas companies
Hoisting
Material handling
Mining engineering
Munition factories
Petroleum industry and trade
Quarries and quarrying
Refrigeration and refrigerating machinery
Roads
Rubber factories
Safety at sea and other headings beginning Safety
Scaffolding
Textile mills
Ventilation equipment
Window cleaning

Psychological aspects
Are accidents predictable? A. J. Cardall. Nat Safety N 52:85-6 O '45
Case of the accident-prone employee. W. D. Renner. il Safety Eng 92:44-8 Ag '46
Emotional factors in safety. H. R. Bixler. Personnel J 25:9-14 My '46
It takes brains to be safe. P. M. Johnson. Safety Eng 90:65-6 N '45
Neuropsychiatric aspects of industrial accidents. J. L. Fetterman. bibliog Ind Med 15:96-100 F '46
Power of suggestion. G. D. Cross. il Safety Eng 92:46-8 Jl '46

SAFETY education
Dire need to make U.S. more safety conscious. J. D. Dorsett; R. Murphy. East Underw 47:25+ Mr 8 '46
Safety for the sightless; Braille text-book based on the American Red cross accident prevention course. J. Lee. il Nat Safety N 54:42 S '46
See also Moving pictures in safety education; Safety instructions and training

SAFETY engineering
Are you planning accidents? R. W. Mallick. il Nat Safety N 54:24-5+ Jl '46
Case for cooperation among plant physician, nurse, safety engineer. C. Harris. il Safety Eng 91:66-9+ My '46
Design and layout for efficiency, safety and health. il Nat Safety N 53:15-16+ Mr '46
Engineering approach to construction safety. R. L. Moore. il diags Nat Safety N 54:32-3+ Ag '46
Engineering in safety and safety in engineering. W. D. Renner. il Nat Safety N 54:20-1+ S '46
Engineering to protect all walks of life. J. D. Dorsett. Weekly Underw 154.549+ Mr 2 '46; Same. East Underw 47:34 Mr 8 '46
How shall we manage safety? S. F. Spence. Power Pl Eng 50:97 Mr '46
Job-site; not paper safety; accident prevention should be part of contract. R. J. Behley. il Safety Eng 91:14-16+ My '46
Labor has a right to these; protection of life and health. M. H. Baker. Nat Safety N 53:24+ My '46
Management control of industrial accidents. A. E. Edwards. Mech Eng 68:443-5+ My '46; Same cond. Safety Eng 91:63-6 Ja '46
Nuclear physics safety; accident prevention at Clinton engineering works, Tennessee Eastman corporation. J. M. Brown. Safety Eng 90:36-41 N '45
On the dotted line. D. N. Kelly. Safety Eng 90:52-6 D '45
Safe amid hazards; repairing dam at Baltimore. R. M. Baker. il Nat Safety N 52:87 O '45
Safety engineering unit of the state of Michigan Department of labor and industry. Ind Med 15:514 S '46
Safety, then and now; 1902-1946. J. S. Shaw. Nat Safety N 54:90-1+ O '46
They look at safety. P. Van Cleef. il Safety Eng 90:57-8+ D '45
When the safety program fails. J. F. Donegan. Nat Safety N 53:35+ F '46
Winning a prize for safety; Consolidated rock products co. il Rock Prod 48:100-2+ D '45
See also
Building—Safety aspects
Factory sanitation
Mining engineering—Safety measures

SAFETY engineering (periodical)
Safety engineering awards trophy for Reo's safety school bus. Safety Eng 91:27 My '46

SAFETY engineers
Let's glorify safety; professional standards for safety supervisors and safety engineers. C. R. DeReamer. Safety Eng 90:24+ D '45
This could be you! shortcomings of safety engineers. il Safety Eng 92:26 S '46

SAFETY equipment
Health and safety equipment. il Factory Management 104:156+ F '46
Made to be used; sell the use of safety equipment. W. O. Calhoun. il Safety Eng 91:30-1 Ja '46
National safety news; annual safety equipment issue; buyers' guide. Nat Safety N 53:2-228 Mr '46
Plastic works for safety; devices made of Plexiglas. il Safety Eng 91:57 F '46
See also
Clothing, Protective
Fire extinguishers
Gloves, Safety
Respiratory apparatus

SAFETY exhibits
There's plenty wrong here! exhibit of American locomotive works. il Nat Safety N 52:84 O '45

SAFETY factor. See Factor of safety

SAFETY glass. See Glass, Safety

SAFETY gloves. See Gloves, Safety

SAFETY hats. See Hats, Safety

SAFETY in the home
Fire hazard threatens unprotected new homes. P. Bugbee. Ind Stand 17:104 My '46
Safety in plumbing and heating; standards to eliminate hazards in planning, building or remodeling homes. il Dom Eng 166:131+ N '45
See also
Electric apparatus and appliances, Domestic—Safety measures

SAFETY inspection
How effective is your program of safety inspection? G. Armistead, jr. Oil & Gas J 44:150+ Ap 20 '46
Out of the accident cellar; Missouri power & light company. H. Bruegging. il Nat Safety N 53:36-7+ Ja '46; Same cond. Elec World 125:88-9 F 16 '46
Value of plant inspections when made by the plant physician with the safety director. H. Dierker. Ind Med 15:579-81 O '46

SAFETY instructions and training
Activating safety; Nabisco safety program. E. Z. Banka. il Safety Eng 91:18-20+ Ap '46
Aids to safety training. il Nat Safety N 53:191+ Mr '46
Education to reduce accidents in coal mining. il Min Cong J 31:28-30 N '45
Handling the new recruit. H. B. Hicks. Can Min J 67:184-7 Mr '46
Labor has a right to these; protection of life and health. M. H. Baker. Nat Safety N 53:24+ My '46
Local talent plus local color; Allis-Chalmers manufacturing co. makes its own slide films. L. Walters. il Nat Safety N 52:16-18 N '45
Made to be used; sell the use of safety equipment. W. O. Calhoun. il Safety Eng 91:30-1 Ja '46
New man and frequency rates. G. H. Cornick. Safety Eng 90:67-8 N '45
One million miles a year; in-plant vehicles; Glenn L. Martin company trains operators. il Nat Safety N 52:25+ D '45
Planned yard conferences enlist workers in maintaining Baton Rouge refinery's good safety record. A. J. Ferguson. il Pet Refiner 25:112-16 Je '46
Safety education for the bus driver; Hudson County Boulevard commission. F. Kane. il Bus Transportation 25:50-1 Mr '46
Safety is a way of thinking. G. F. Prussing. Pet Eng 17:247-9 S '46
Selling safety to supervisors cuts accidents 67 percent. A. R. Lateiner. il Factory Management 104:102-4 My '46
Statistics in pictures sell safety to supervisors. J. F. Collins. Factory Management 104:75-7 Ap '46
Supplementing speech; visual aid gives added force to safety instruction; Safetygraph. il Nat Safety N 52:78 D '45
Test those new miners. H. B. Hicks. Can Min J 67:726-9 Jl '46
There's safety for your help in these Textile worker safety cards. Textile World 95:120-1 N '45
Training post-war workers; visual aids. C. R. Coneway. il Nat Safety N 53:28-9+ F '46
What causes accidents and how to prevent them. K. Baird. Edison Elec Inst Bul 14:24 Ja '46
Winning their spurs; linemen's school of the Hydro electric power commission of Ontario. il Nat Safety N 54:26-7+ S '46

SAFETY lamps, Electric
Cap lamp cell remover saves time and damage. diags Coal Age 51:126 F '46
School shop safety legislation; tabulation by states with time-saver standards. Arch Rec 100:123 Jl '46

SAFETY laws and regulations
Are state safety standards legal? J. E. Buscher. Ind Stand 17:233-4 S '46

SAFETY libraries. See National safety council—Library

SAFETY literature
Why not use all the angles? message of safety in employee publications. H. F. Heil. il Nat Safety N 52:22-4+ D '45

SAFETY manuals
Rubber Reserve issues Safety manual for copolymer plant laboratories. Chem & Eng N 24:1805-8 Jl 10 '46

SAFETY movement
Accident prevention went to war; work of National conservation bureau and Center for safety education. J. H. Harvey. East Underw 46:92+ D 14 '45
Better public relations through accident prevention. J. H. Wright. Nat Safety N 54: 18-19+ S '46
If we have enough sense. N. H. Dearborn. Nat Safety N 52:68+ O '45
Is safety definable? H. L. Sain. Nat Safety N 53:31 F '46
NSC announces campaign for public support. Nat Safety N 53:18-19 Ja '46
New York coordinates all safety activities. il Safety Eng 91:50-1 Je '46
Safety becomes of age. R. Carr. Nat Safety N 53:44+ Ja '46
Safety first; wartime activities of Royal society for the prevention of accidents. T. Goodall. il Nat Safety N 53:18-19+ F '46
Safety pays, in war and peace. B. Somervell. Nat Safety N 52:71 O '45

See also
Advertising copy—
Safety appeal

SAFETY on the farm
Industry's stake in farm safety. M. Ronning. il Nat Safety N 54:20-1+ Jl '46

SAFETY organization
Effective accident control plan; Ford instrument company. A. E. Edwards. il Safety Eng 92:26-7+ Ag '46
Everybody's business. Safety Eng 90:26-7 N '45
Got a sick safety program? Nat Safety N 53:26-7 Je '46
On the ground, in the air; safety program, Railway express agency. S. W. Todd. il Nat Safety N 52:19-21+ D '45
Prevention was profitable; Everedy company. J. O. McCanner. Nat Safety N 53:40 Ap '46
Three cornered cooperation; safety, medical and personnel divisions. J. S. Felton. Nat Safety N 53:26-7+ F '46

See also
Safety committees

SAFETY posters
Bulletin boards. Nat Safety N 54:35 S '46
Can we improve mass education? C. E. Jurgensen. il Nat Safety N 52:82+ O '45

SAFETY research
Safety advances through research. il Nat Safety N 53:6-7 Mr '46

SAFETY shoes. See Shoes, Safety

SAFETY signs
Safety signs are always on the job. Nat Safety N 53:192 Mr '46

SAFETY standards
ASA receives Navy award for safety standards. Ind Stand 17:81 Ap '46
ASA safety committee acts to adapt war standards for peace. Ind Stand 17:168 Jl '46
Are state safety standards legal? J. E. Buscher. Ind Stand 17:233-4 S '46
Army experiences with color offer new suggestions for industrial use. O. P. McCauley and C. B. Allen. Ind Stand 17:165+ Jl '46
Construction and maintenance of ladders and stairs for mines; proposed American standard. Min Cong J 32:54-5 Jl '46
For safe grandstands and tents; new American standard. il Ind Stand 17:219-21 S '46
For safety in the plastics industry; new standard tells how to prevent dust explosions. H. R. Brown. il Ind Stand 17:52-5 Mr '46
Historical growth of color safety standard reviewed on aniversary of approval. H. G. Lamb. il Ind Stand 17:164+ Jl '46
Horse scaffold standards. W. R. Stewart. diag Safety Eng 91:50 F '46
How to assure safe elevator operation. G. H. Reppert. il Ind Stand 16:260-5 D '45; Same abr. Safety Eng 91:32+ Mr; 54-5+ Ap '46
Lineman's best friends. G. Thompson. il Nat Safety N 52:28-9+ D '45; Same abr. Ind Stand 16:225-7 O '45; Same abr. Safety Eng 91:19-21 F '46
New X-ray code to protect workers. S. Dahlberg and R. P. Gleason. il Ind Stand 17: 109-12 My '46; Same. Nat Safety N 54:28-9+ Ag '46; Abstract. Steel 119:81 S 30 '46
Postwar plans for safety standardization. C. Ainsworth. Mech Eng 68:449-52 My '46; Same. Ind Stand 17:13-17 Ja '46
Safety code for new construction. il Safety Eng 91:14-17+ Mr; 60-3 Ap; 58-61 My '46
Safety code for X-rays completed. D. F. Hayes. il Ind Stand 17:106-8 My '46
Scientific data used in standard safety code for the industrial use of X-rays. C. B. Braestrup. bibliog il Ind Stand 17:116-21 My '46
Solvent-resistant gloves. D. F. Hayes. il Safety Eng 91:67-9 Je '46
Statistics put to use; revised standard will help bring about uniformity in computing and reporting industrial injury rates. W. S. Paine. il Ind Stand 17:44-5 F '46; Same. Nat Safety N 53:30-1+ F '46

See also
Safety codes
also New York (state)—Industrial hygiene and safety standards, Division of

SAFETY tags
They work for you. D. N. Kelly. il Nat Safety N 52:72 D '45

SAFETY valves
Avoid false security by careful selection and testing of safety valves. W. E. Rossnagel. diags Power 90:591-3 S '46
Mercury safety valve. G. H. N. Chamberlain and C. B. Davies. diags Chem & Ind p202 My 25 '46

SAFEWAY stores, inc.
Thumbnail stock appraisal. Mag of Wall St 78:90 Ap 27 '46

SAFFRON
Saffron production, Spain. For Comm W 25: 23 N 2 '46

SAG HARBOR, New York
Water supply
Survival and retirement experience with water works facilities as of Dec. 31, 1940. Am Water Works Assn J 37:1355-60 D '45

SAGGERS
It worked with saggers, why not with glass pots; adding talc to glass pot batches. il Cer Ind 47:74+ S '46; Same. Brick & Clay Rec 109:56+ O '46

SAHARA desert

See also
Roads—Sahara desert

SAILORS. See Seamen

ST DIÉ, France
Plan for St Dié; with discussion by C. Petit. Le Corbusier. il map plans Arch Rec 100: 78-83 O '46

ST ELMO'S fire
St Elmo licked. Bsns W p74 D 1 '45

ST JOHNSBURY and Lake Champlain railroad
Reorganization. Comm & Fin Chr 163:231 Ja 14 '46

ST LAWRENCE river
Buried channel of the St Lawrence river. A. E. Wilson. maps Am J Sci 244:557-62, pl 1 Ag '46

ST LAWRENCE valley
Cambrian and early Ordovician stratigraphy of the lower St Lawrence valley. F. Rasetti. bibliog map diags Geol Soc Bul 57:687-705, pl 1-2 Jl '46

ST LAWRENCE waterway and power project
Cost of St Lawrence project raised to over $455,000,000. Eng N 136:325 Mr 7 '46
Great Lakes-St Lawrence seaway project again is before Congress. il Steel 118:66+ My 27 '46
Hydroelectric development of the Saint Lawrence river. C. H. Giroux. il map Elec Eng 65:495-8 N '46; Excerpts. Civil Eng 16: 300-1 Jl '46

ST LAWRENCE waterway and power project —*Continued*
International aspects of St Lawrence seaway. D. G. Acheson. Comm & Fin Chr 163: 1133+ F 28 '46
Many interests fight St Lawrence seaway. Ry Age 120:476-8 Mr 2 '46
Objections to St Lawrence seaway. J. M. Mead. Comm & Fin Chr 163:1133+ F 28 '46
St Lawrence seaway; stimulus to trade. H. A. Wallace. il Dom Comm 34:3-4+ My '46
St Lawrence water way opposed by railway workers and management in United States and Canada. Comm & Fin Chr 162:2354 N 15 '45
Senate committee approves St Lawrence waterway pact. Eng N 136:895+ Je 13 '46
Senate subcommittee hearings of proposed St Lawrence seaway. Comm & Fin Chr 163: 1136, 1401 F 28, Mr 14 '46
Senate subcommittee hearings on the St Lawrence waterway and power project. Elec World News ed 125:3 F 23 '46
Who wants the St Lawrence seaway? abstract. W. White. Ry Age 119:834-5 N 17 '45

ST LOUIS
See also
Motor bus lines—St Louis

Industries
St Louis industry moves at high capacity. G. A. Killenberg. il Manuf Rec 115:43+ O '46

Railroads
Santa Fe bids for entry into St Louis. Bsns W p28 My 11 '46

Sanitary affairs
Does smoke abatement pay? results in St Louis. J. H. Carter. il Heating-Piping 18: 80-4 Ap '46
Smoke elimination program that works; St Louis smoke ordinances. R. R. Tucker. il Heating-Piping 17:519-23 O-N '45; 18:99-105 Ja; 102-4 F '46

Water supply
Planned improvements for St Louis; with cost data. T. J. Skinker and E. E. Easterday. plans diags Am Water Works Assn J 38:826-37 Jl '46

ST LOUIS southwestern railway
Daniel Upthegrove retires from presidency of Cotton Belt. Ry Age 121:474-5 S 21 '46
F. W. Green made Cotton Belt chief. Ry Age 121:728 N 2 '46
Income statement for years ended Dec. 31, 1944 and 1945. Comm & Fin Chr 163:2299 Ap 29 '46

ST LOUIS university
St Louis university gets Parks college. Aviation N 6:14 S 9 '46

ST PAUL, Minnesota
St Paul plans new civic plaza. il Roads & Sts 89:73 Je '46

Water supply
Survival and retirement experience with water works facilities, as of Dec. 31, 1941. Am Water Works Assn J 38:401-21 Mr '46

ST REGIS paper company
New sales peak due. Barron's 26:6 Jl 8 '46

STE ROSE, Quebec

Bridges
Ste Rose bridge, world's longest of continuous welded type. J. S. Walsh. il Roads & Bridges 84:49-50+ My '46; Same. Engineer 182:316-17 O 11 '46

SAIPAN
Building Saipan. J. C. Howland. il map Civil Eng 16:104-7 Mr '46

SALAD dressing
Mayonnaise and salad dressing. L. I. Nikula. Dom Comm 34:39-40 F '46
1945 mayonnaise and salad dressings show sharp decline. S. M. Sackrin. il Dom Comm 34:61-4 Ag '46

SALARIES
Evaluating white-collar jobs. C. S. Mattoon. Factory Management 104:80-3 Ap '46
How agencies compensate account executives. Ptr Ink 215:47-8 My 10 '46
Office salaries since VJ-day. il Am Bsns 16: 8-9+ Ag; 32+ S '46
Power engineers' salaries; new basic and current schedules. Elec R (Lond) 138:664 Ap 26 '46
Root of Poor Richard's trouble; salaries of food technologists and inadequate training. Food Ind 18:349+ Mr '46
Salaried employees; a case study. R. B. Eckles. Personnel J 25:178-80 N '46
Salaries of clerical workers in 20 cities, October 1945. Mo Labor R 62:944 Je '46
Wages and salaries, employment, and average annual earnings per full-time employee in private industries, 1942-45; tabulation. Survey of Cur Bsns 26:32 O '46

See also
Executives—Salaries
Government employees—Salaries and wages
Librarians, Special—Salaries
Salesmen—Salaries and commissions
Wages

Accounting
Accounting for compensation in the form of stock options. J. L. Dohr. J Account 80:439-43 D '45

SALES
Are statements under signature binding? Ptr Ink 214:44 F 22 '46
Exclusive retail sales contracts. Adv & Sell 39:118+ Ja '46
Faulty goods; the legal position of a trader. F. E. Sugden. Elec R (Lond) 138:30 Ja 4 '46
Federal tax inducements to western hemisphere trade; abstract. L. A. Tepper and J. Lotterman. J Account 82.326-7 O '46
Keeping an eye on law suits. L. T. Parker. Food Ind 18:198-201 F '46
Sale of a business by an individual. J Account 82:421 N '46
Secured sales. C. B. Everberg. Credit & Fin Management 47:4-7+ D '45; 48:19-22+ Ja; 20+ F; 18+ Mr; 15-16+ Ap; 11-14+ My; 14-17 Je '46

See also
Consignment selling
Instalment plan

SALES, Conditional
Conditional sales contracts; with summary of state laws. C. B. Everberg. Credit & Fin Management 48:19-22+ Ja '46
Validity of gas accessory sale contracts. L. T. Parker. Am Gas J 165:42-3+ Jl '46

See also
Rental plans (merchandizing)

SALES, Special. See Special sales

SALES areas. See Market areas

SALES campaigns
Bendix, with $90,000,000 backlog, trains heavy guns on washer market. J. S. Sayre. il Sales Management 55:35-7 D 1 '45
Coast sales jump 400% for Sylvania under custom-built selling plan. R. H. Bishop. Sales Management 56:99-100 Ja 1 '46
How Schick dramatized the kickoff for new product, Shaverest. il Sales Management 56:41 Je 1 '46
Infant enterprise challenges big-timers in soap field; Rain Drops, blue powder soapless soap. il Sales Management 56:79+ Mr 1 '46
Thousands of demonstrations launch Ekco's new pressure cooker. F. Keller. il Sales Management 57:45-6+ N 1 '46

See also
Recruiting campaigns

SALES contests
Contests are back and Alemite stages a fall rabbit hunt to encourage distributor salesmen to put on drive for new dealers. Sales Management 57:112+ O 15 '46
Contests help these salesmen earn over $9,000 a year; Alexander film co., Colorado Springs. Ptr Ink 216:37 Jl 26 '46
Incentives that activate the latent ability in salesmen. R. W. Lake. Sales Management 55:138+ D 1 '45
Sound sales contests are worthwhile. L. L. Lifshey. Weekly Underw 153:1175 N 17 '45

SALES contracts. See Sales

SALES conventions

Convention-on-film inspires wholesalers, sells to dealers, trains salesmen; Philco convention. J. H. Carmine. il Ptr Ink 216:29-31 Ag 2 '46

Showmanship characterizes recent sales meetings; Continental Distilling, Weiss & Klau, Bayuk. il Ptr Ink 214:26-8 F 8 '46

Town-meeting convention yields merchandising tips; Metro-Goldwyn-Mayer conducts informal sessions for salesmen and branch managers. E. J. Dever, jr. il Ptr Ink 214:29-32+ Mr 8 '46

SALES costs

Cost of launching new sales territories. C. H. Sevin. Adv & Sell 38:74+ N '45

101 companies report on sales costs. Management R 35:190-2 My '46

See also

Sales policies—Selective selling

Accounting

First steps in spotting the source of excessive selling costs. W. M. Fox. Sales Management 57:78+ O 15 '46

SALES departments

Pontiac unwraps peace sales plan; re-trains all executive personnel. il Sales Management 55:97+ N 15 '45

Your ally, the salesman; credit and sales cannot do without each other. T. H. Smith. Credit & Fin Management 48:9-10+ My '46

Records

Portfolio of sales control forms. Sales Management 56:98+ Ap 1; 96-7+ Je 1; 57:116-18+ Jl 1 '46

SALES estimates

First steps in fact-gathering for forecasting future sales. P. B. B. Andrews. Sales Management 56:167+ Mr 15 '46

Use of sales and production forecasts in the determination of variances. S. Z. Bronner. N A C A Bul 27:623-34 Mr 15 '46

SALES executives, National federation of. See National federation of sales executives

SALES letters

Barrett aids dealers with letter campaigns. il Ptr Ink 215:34 My 10 '46

Better letters, how to write them; Barrett's basic manual helps dealers sell building materials. il Ind Marketing 31:40-2 Jl '46

Chatty letters from the boss help Thor strengthen dealer ties; Electric household utilities corp. E. N. Hurley. Sales Management 55:59-60 D 15 '45

Class appeal in direct mail; three approaches in pharmaceutical selling. W. T. Doyle. il Ptr Ink 216:79-80+ Jl 19 '46

For want of letters orders are lost. R. Stone. Ind Marketing 30:52-3+ O '45

How to handle dealer franchise inquiries when you have to say no; Bell & Howell letters. Sales Management 57:88+ Ag 15 '46

Sales letter round table. Published in semimonthly numbers of Sales management

Systematic direct mail follow-up gets maximum results. R. Stone. il Ind Marketing 30:40-1 N '45

Telling an unusual story does some unusual selling; Towmotor corporation. E. Southworth. il Ind Marketing 30:35+ D '45

Three cardinal rules for answering business inquiries. C. A. Emley. Ptr Ink 214:105-6+ Mr 22 '46

Wanted: a defrosting for our gelid sales letters. R. H. Morris. Sales Management 55:106 D 1 '45

See also

Advertising, Mail
Christmas letters
Letterheads
Salesmen—Letters to customers

SALES management

Adequate customer records an aid to sales management. F. M. Geddes. Elec World 124:68-9 D 22 '45

Best incentives for salesmen in a competitive market; do not over emphasize the importance of financial incentives. B. R. Canfield. Adv & Sell 39:53-4+ O '46

Bread and butter problems of a sales manager; don't let those backlogs fool you. J. A. Murphy. Adv & Sell 39:64+ Ag '46

Bread and butter problems of a sales manager; lack of authority. Adv & Sell 39:118 Ja '46

Bread and butter problems of a sales manager; paper work. J. A. Murphy. Adv & Sell 39.90 Ap '46

Bread and butter problems of a sales manager; salesmen have suggestions, too. Adv & Sell 39:89 Mr '46

Bread and butter problems of a sales manager; salesmen's ego. Adv & Sell 39:107 F '46

Bread and butter problems of a sales manager; salesmen's fears. Adv & Sell 38.113 D '45

Can a small specialty maker afford complete sales coverage? yes, says Perfex co. K. C. Titus. Sales Management 56:92+ F 1 '46

Care and feeding of branch managers. K. Cooper. Sales Management 57:126+ Ag 15 '46

Don't let the salesman take the rap. R. H. Bishop. Ptr Ink 217:60+ O 4 '46

Encourage your salesmen to write to his customers. W. H. Butterfield. Ptr Ink 214:79 Mr 15 '46

Get important sales data out of your own records. C. W. Smith. Ptr Ink 216:41-3 S 20 '46

How are your salesman relations? P. Heyneman. Ptr Ink 217:52+ O 11 '46

How Pennsalt trains and controls to achieve standard work patterns. T. Armstrong. il Sales Management 57:110-12+ O 1 '46

How sales managers can increase company profits; conversion cost as a yardstick. F. L. Heath. Ind Marketing 30:52+ D '45

How salesmen can keep expenses down. P. Bradstreet. Adv & Sell 39:62+ F '46

How the wheels go around in a motion picture sales department. A. Montague. il Sales Management 56:52+ Ja 15 '46

How to find and keep men who can salesmanage their own territories. G. Morse. Sales Management 56:50+ My 20 '46

How to prepare for a buyer's market. H. Flarsheim. Adv & Sell 39:101+ Jl '46

How to spot, appraise, and spike grievances among salesmen. R. N. McMurry. Sales Management 57:37-41 Ag 15 '46

If dreams were firm orders, we would never need salesmen again; sales effort needed to retain and improve competitive position. V. D. Reed. Ptr Ink 215:35-7 My 10 '46

Is lack of management breeding rebellion among sales forces? B. Bigelow. Sales Management 56:106+ Je 1 '46

Lockheed enthrones passenger as king of post-war sales setup. L. K. Schwartz. Sales Management 55:92+ D 1 '45

Look ahead! can selling keep U.S. business in high gear? yes! say leaders at first national marketing forum. Sales Management 55:121+ D 15 '45

Low costs, high incentive, when you pay men for what you want them to do; Ortho pharmaceutical corp. B. J. Todd. Sales Management 57:90+ O 1 '46

Marketing for profit by controlling production and selective selling. F. L. Heath. Ind Marketing 31:49-50+ Je '46

Morale in the sales force: what can we do to keep it healthy? R. L. Cain. Sales Management 56:37-40 F 15 '46

N.F.S.E. offers first draft of fair employment practices for salesmen. P. Heyneman. Sales Management 56:112-13+ Je 1 '46

National federation of sales executives studies employment standards. Am Bsns 16:24+ Je '46

New marketing era is coming for the industrial salesman. E. J. Benge. Ind Marketing 31:31+ Mr '46

Nothing to sell? you can always sell ideas! H. W. Hirth. Sales Management 57:51 Jl 1 '46

Paper work biggest gripe of salesmen; eight problems in handling sales staffs. E. J. Dever, jr. Ptr Ink 213:44+ N 30 '45

Porter-Cable's marketing campaign solves problem of new product promotion; wet belt machines. W. F. Schleicher. il Ind Marketing 30:48-9+ D '45

SALES management—*Continued*
Post-war sales management: what are to be its biggest problems? J. J. Newman. Sales Management 55:60+ D 1 '45
Production hodgepodge means more competition. R. M. Oliver. Adv & Sell 38:115-16+ D '45
Profitable distribution through selective selling; analyze your accounts. H. Simmons. Ptr Ink 213:38+ N 16 '45
Responsibility of sales management in a machine economy. G. S. Jones, jr. Gas Age 98:17-18+ Ag 8 '46
Result producing sales incentives; tangible and intangible. E. J. Benge. Ind Marketing 31:60+ F '46
Sales chiefs face 1946 problems at brisk 2-day meeting in Boston. Sales Management 56:108-9 F 1 '46
Sales manager looks ahead; abstract. F. K. Doscher. Oil Paint & Drug Rep 149:43 F 11 '46
Sales manager; top sergeant or general in the high command? A. T. Danielson. Sales Management 55:112+ D 15 '45
Sales managers should use facts as a sales control. W. A. Lamb. Ptr Ink 214:85+ Mr 1 '46
Salesman's corner; supply of new blood becomes vital. F. Rundell. Inland Ptr 117:54-6 Jl '46
So you want to hire a salesman? F. Rundell, Inland Ptr 118:33-5 O '46
Successful sales supervision. E. L. Benge. Ind Marketing 31:66+ Ja '46
Sun-Kraft sales coach explores the buyways. il Sales Management 57:50 S 15 '46
Technique for sound sales planning. A. Patton. Adv & Sell 39:74+ F '46
Ten steps in locating and correcting your sales weaknesses. R. D. Crisp. Ptr Ink 214:29-31+ Mr 15 '46
Three ways to cut salesmen's gripes about material shortages. B. G. Priestley. Sales Management 57:107+ N 1 '46
Today's seven challenges to sales managers. B. Bigelow. Sales Management 56:37-40+ Ap 15 '46
Vital force in the art of managing men. R. W. Lake. Sales Management 55:178+ N 15 '45
We've got to sell quicker. F. Gunnison. il Sales Management 56:86 Je 1 '46
When a customer writes that your salesman has made a hit with him, a friendly note of thanks is in order. W. H. Butterfield. Ptr Ink 213:24 N 23 '45

See also
Advertising
Advertising and salesmen
Dealer helps
Display of merchandize
Marketing
Printing trade—Salesmen
Prospect lists
Sales contests and other headings beginning Sales
Salesmanship
Salesmen
Salesmen's reports

SALES managers
Camera's eye view of the seventh New England sales management conference. Sales Management 56:42-5 F 1 '46
Cyanamid sales executives strike pay dirt in monthly seminars. A. J. Campbell. Sales Management 55:125-6 N 15 '45
Unstreamlining the sales manager for the postwar period; abstract. A. Michelson. Management R 34:442-3 N '45

See also
Branch managers

Training
Pontiac unwraps peace sales plan; re-trains all executive personnel. il Sales Management 55:97+ N 15 '45
Three R's bring sales managers to U. of Kentucky institute. Sales Management 55:167 D 1 '45
20th Century-Fox to hit foreign market with vets trained in film exploitation. N. Kelne. Ptr Ink 215:117+ Je 14 '46

SALES manuals
Are we stuck in dead end jobs? Gerber dispels employe doubts. W. H. Knowlton. il Sales Management 57:98+ Ag 1 '46
Easy washer packages a training plan in manuals, guides and visuals. il Sales Management 55:53-4+ N 15 '45
Fifteen sales components beyond knowing the goods. P. Bradstreet. Adv & Sell 39:160a+ Mr '46
Light treatment increases response to questionnnaire and sales manuals. G. Brown. Ptr Ink 217:107-8+ O 18 '46
To sell agency service build a sales manual. L. W. Ellis. Adv & Sell 39:64 S '46

SALES manuals, Dealers'
Combine audio-visual selling with sales manual; Mirro's method of training retail salespeople. R. L. Pritchard. il Ptr Ink 215:46-7 Je 14 '46
Toy manufacturers publish new retail sales manual. Sales Management 56:112 Ja 1 '46

SALES policies
Air delivery can boost profits; Scott aviation corp. sales policy. A. S. Brown. il Aero Digest 52:59 Je '46
Allotment record ends complaints; E. H. Schaefer company, Milwaukee, electrical appliance wholesaler. il Am Bsns 16:13+ Ja '46
Backlog order turmoil subsides under Sylvania's new control setup. C. H. Goddard. Sales Management 57:86+ S 15 '46
Bright Star rises to rank among the first five battery and flashlight companies. M. B. Horton. il Sales Management 57:121+ O 15 '46
Can a small specialty maker afford complete sales coverage? yes, says Perfex co. K. C. Titus. Sales Management 56:92+ F 1 '46
Capital goods dually allocated. Bsns W p19 S 21 '46
Combination offers. il Ptr Ink 215:42-3 My 3 '46
Company founded on sales policies sticks to them after 20 years; National Gypsum centers on related wall and ceiling products, sells all under one brand name wholly thru dealers at one price. il Sales Management 56:46+ My 1 '46
50 product maybes for increased business. P. J. Howe. Adv & Sell 38:58 N '45
Forced tie-in grocery sales continue. B. Tolk. Ptr Ink 216:91+ Ag 23 '46
From scratch to 950,000 barrels a year; the story of Red Cap ale. J. A. Bohannon. Sales Management 56:48+ Je 15 '46
Goods-sharing is a science. Bsns W p17-18 S 7 '46
High spots in Philco's merchandising. J. H. Carmine. il Ptr Ink 213:21-3+ D 28 '45
How distribution costs can be reduced. C. H. Sevin. Ptr Ink 214:21-3 Mr 8 '46
How to keep customers happy though unsatisfied; Kurfees paint co. passes U.S. oils quota on to dealers. A. R. Remmers. Sales Management 56:81 Je 15 '46
Millions of jobs, but only if we sell! sell! sell! W. A. Matheson. Sales Management 55:75-6+ D 1 '45
More sales through fewer dealers keynotes Nash sales policy. H. C. Doss. il Sales Management 55:35-7 N 15 '45
Northeastern halves number of dealers in search for lower sales costs. A. Ullman. il Sales Management 57:50+ O 1 '46
Piper puts appliance selling methods to work to sell private planes. W. B. St John. il Sales Management 57:100+ Jl 1 '46
Plan for allocating goods to protect your future markets; statistically based technique. J. G. Neukom and J. D. Louth. Sales Management 57:115-16+ S 1 '46
Proctor's policy; how and to whom it will sell. il Bsns W p88+ D 8 '45
Retail profit sharing works; distributor-dealer arrangement. Bsns W p50+ O 5 '46
Sales strategy that opened a rich new market for Rit. P. H. Schatz. il Sales Management 57:37-41 Ag 1 '46
Shall we place our products under fair trade contracts? reports from Corning Glass, Tailor-town dresses, Sacony fashions, and Beauty-Rest mattresses. Sales Management 57:116+ S 15 '46
Special offers to introduce new products; from price reduction to trial packages. il Ptr Ink 215:40-1 Ap 26 '46

SALES policies—*Continued*
This time it's his own money agency executive spends; step-by-step merchandising procedure for his own invention; LumiNite automatic switch light. T. L. Wheeler, jr. il Ptr Ink 215:38-9 My 31 '46
Trade policies crystal clear in nine-page brochure; Proctor electric co. Ptr Ink 213: 136 D 7 '45
Turns skills of mountain folk into branded hooked rug business. il Sales Management 55:156+ N 15 '45
Washer maker pre-sells '46 output before factory turns a wheel; F. L. Jacobs co. D. G. Baird. il Sales Management 56:69+ Ja 1 '46
Wholesaler caters to one-line seasonal manufacturers; concentrates efforts of sales staff on one small group at a time. C. J. Swan. Ptr Ink 216:41 Ag 2 '46

See also
Cash and carry plan (for dealers)
Credit
Customer relations
Dealer helps
Dealer relations
Discount, Cash
Discount, Trade
Exhibits
Follow-up systems
Gas industry—Merchandizing
Guaranty of products
Instalment plan
Jobbers
Mail orders
Manufacturers' agents
Marketing
Premiums (merchandizing)
Price fixing, Resale
Price policies
Products, Improved
Trade-in policies

Free goods
FTC challenge; McKesson & Robbins accused of misusing word free in describing premiums. Bsns W p88+ Mr 23 '46
Free deals cost money but they can buy service at the point of sale. Ptr Ink 217:77-8+ N 8 '46

Selective selling
Botany picks its markets. il Bsns W p56-7 S 14 '46
Chosen outlets; Coty begins selective distribution. Bsns W p85 Ap 27 '46
How to protect a quality label; Stroock fabrics guard prestige by limiting outlets, by educational advertising and by constant vigilance. E. M. Murphy. il Ptr Ink 215:59-60+ Ap 5 '46
Marketing for profit by controlling production and selective selling. F. L. Heath. Ind Marketing 31:49-50+ Je '46
Mengel converts to brand-name furniture. H. L. Stephen. il Ptr Ink 215:104+ My 10 '46
Mengel promotes own brand to cut risks of private label business. il Sales Management 56:56+ Je 1 '46
Policy behind Lightolier's selective distribution program. M. Loebelson. Sales Management 57:96+ N 1 '46
Profitable distribution through selective selling; analyze your accounts. H. Simmons. Ptr Ink 213:38+ N 16 '45

SALES portfolios
Polarized specs help put over sales story of Standard Duplicating Machines. Ptr Ink 216: 78 S 27 '46

SALES promotion
Bacardi sales up 300% in novel demonstration; guest bartenders used in point-of-sale promotion. il Ptr Ink 213:131 D 14 '45
Beautiful staging for beautiful products; how Eisenberg does it; dresses, costume jewelry, cosmetics. H. Eisenberg. il Sales Management 55:40-3 D 15 '45
Bright promotions by Bucilla lure mobs of women to needlework; Bernhard Ulmann co. W. C. MacCausland. il Sales Management 56:71-2+ Ja 15 '46
Field day reveals growing market for farm planes; Prairie farmer and WLS are hosts at West Lafayette, Indiana. il Sales Management 57:67+ Ag 15 '46
Field work provides best sales promotion materials; Cochrane corporation. S. D. Distelhorst. il Ind Marketing 31:58+ S '46
Flies salesmen and buyers free within 150-mile radius; CAVU Clothes builds goodwill. il Ptr Ink 215:105-6 My 17 '46
Forgotten link in low cost distribution; warehousing; Lehigh warehouse and transportation co. injecting modern sales thinking into old industry. J. L. Cooke. il Sales Management 56:143-4+ Mr 15 '46
From red ink to a million-dollar sales volume in six years; Joe Franklin Myers candy creations, Dallas. il Sales Management 56: 44-6 Je 15 '46
Function of district sales promotion in national distribution. R. F. Gomber. Ind Marketing 30:47+ N '45
Good neighbors unlimited; story of Welcome wagon. F. Smith. il Adv & Sell 38:35+ D '45
Grand Rapids test; dehydrated foods accepted by 2 out of 3. J. C. Moore. il Mod Packaging 19:138-40 F '46
How Lockport lifts cotton batting above the level of a staple. il Sales Management 56: 123-4 Mr 15 '46
How Milkmaid puts a double edge on its sales promotion program. T. Armstrong. il Sales Management 56:84+ F 15 '46
How one industrial supplier reorganized for postwar sales; Chase bag company centralizes advertising, sales promotion, publicity, market research in one department. J. P. Grady. Ind Marketing 31:27-8+ Ag '46
How to get merchandising help from teenagers; Eaton's of Canada meets with Junior fashion council. il Ptr Ink 214:61-3 Mr 8 '46
How to kindle a spark in the eye of a home furnishings buyer. H. J. Siesel. il Sales Management 56:147+ F 15 '46
How to prepare for a buyer's market. H. Flarsheim. Adv & Sell 39:101+ Jl '46
How to sell candle-light; Will & Baumer's 9-point sales promotional plan. L. Nerenberg. il Sales Management 57:114+ Jl 15 '46
Intensive point-of-sale promotion pays; vegetable dehydration industry sales test in Grand Rapids grocery stores. B. Stanton. Ptr Ink 214:57 Ja 4 '46
National advertisers contribute products to monthly scientific surprise packages. N. Kelne. Ptr Ink 216:126 S 13 '46
National promotions fan women's zeal for re-usable cotton bags. il Sales Management 57:126+ S 15 '46
New-born babes to get gift products in new Welcome Wagon Service. il Ptr Ink 214: 124 Mr 22 '46
New sales promotion aid on market this month; Dunning animatic sound projector. il Ptr Ink 216:102 S 13 '46
New uses for industrial displays and exhibits point to potent postwar sales promotion. R. E. Quaid. il Ind Marketing 30: 42-3+ D '45
Packaged promotion to a technical audience; regional meetings, direct mail, business paper advertising used by Airtopia. il Ptr Ink 215:45 Ap 19 '46
Planned promotion for small sales organizations; Wheelco instruments company. R. W. Anderson. il Ind Marketing 30:98+ D '45
Planned promotion sells planned street lighting; Duquesne light co. L. H. Lingemann and F. B. Mahon. il Elec World 124:112-14 D 8 '45
Prospects for homes learn values thru Home planners' institute, New Orleans. Sales Management 57:48 Ag 15 '46
Public relations in foreign markets; manufacturers build good-will in Latin America. J. C. Burt and B. G. Taines. il Ptr Ink 214: 27-9+ F 22 '46
Retailer merchandises sports goods line by weekly hunting and fishing flights. Ptr Ink 216:126 S 20 '46
Roma road show depicts role of wine as aid to gracious living; technicolor film showing broadcast performance. il Sales Management 56:97+ Mr 15 '46
Sales promotion boom. J. A. Murphy. Adv & Sell 39:90 S '46
Shell gives vacationists all but gas and '47 model. il Sales Management 57:122+ Ag 15 '46
Store sales zoom when Trimz tries out new demonstration plan. J. H. Rasmussen. il Sales Management 55:46+ D 15 '45

SALES promotion—*Continued*
Story book dolls are smash hit with little Miss America; Nancy Ann Abbott's dolls first a promotion stunt for circulating library. il Sales Management 56:94+ My 1 '46
Sure-fit seeks wider markets for ready-made slip covers. il Sales Management 56:124+ F 15 '46
Theaters are their customers; but promotion woos movie audiences; Altec makes radio and loudspeaker equipment. H. Bessey. il Sales Management 56:46+ Ap 15 '46
30 ways to stimulate a product's retail sales. P. Bradstreet. Adv & Sell 39.80+ S '46
Three magazines help Mr & Mrs America design their homes-of-tomorrow. il Sales Management 56:88-90 F 1 '46
Today's children are tomorrow's customers; some projects meeting with teacher acceptance. il Sales Management 57:90-2+ S 15 '46
Town-meeting convention yields merchandising tips; Metro-Goldwyn-Mayer conducts informal sessions for salesmen and branch managers. E. J. Dever, jr. il Ptr Ink 214: 29-32+ Mr 8 '46
Vacationist buys a lot more than bed, board, and fun in California; All-year club of southern California. D. Thomas. Sales Management 56:120+ Ja 15 '46
Why Columbia record dealers never starve for promotion ideas. il Sales Management 57:44-6+ S 1 '46

See also
Anniversaries, Company
Children's clubs
Dealer helps
Department stores—Manufacturers' demonstrations
Exhibits
Oil companies—Travel bureaus
Premiums (merchandizing)
Publicity

SALES records
Get important sales data out of your own records. C. W. Smith. Ptr Ink 216.41-3 S 20 '46
Portfolio of sales control forms. Sales Management 56:98+ Ap 1; 96-7+ Je 1; 57:116-18+ Jl 1 '46
Records put sales facts to work; visible-card sales record system, Solventol Chemical Products. R. G. French. il Am Bsns 16:16-17+ S '46
Sales and quotas at a glance; Maremont automotive products' new visible sales analysis system. P. Eastman. il Am Bsns 16:18-19+ Ap '46
Why Best Foods photocopies monthly sales records. E. A. Lovelock. il Food Ind 18: 345-6 Mr '46

SALES research
Ten steps in locating and correcting your sales weaknesses. R. D. Crisp. Ptr Ink 214: 29-31+ Mr 15 '46

SALES statistics

See also
Department stores—Statistics
Retail trade—Statistics

SALES tax
Cuba; application and amount of gross sales tax revised. For Comm W 23:24-5 My 25 '46

SALES territories
Practical suggestions for defining sales territories. E. McSweeney. Ind Marketing 31: 54+ Jl; 31-2+ Ag '46
Salesmen's territories; how big should they be? J. S. Jones. Sales Management 55:74+ N 15 '45
Some A B C principles behind efficient territory layout. C. W. Smith. Sales Management 55:100+ Ag 15 '45; Same cond. Management R 35:56-8 F '46
Successful sales planning; proper determination of territories. E. J. Benge. Ind Marketing 31:43+ My '46

SALES units
Branding lifts yam sales from dribbles to carloads; Dezauche & son, Opelousas, La. R. McDaniel. il Sales Management 56:59-60+ My 20 '46
Hotpoint's packaged all-electric kitchens double sales. W. R. Schafer. il Sales Management 57:42-3 O 1 '46
Transparent bag makes a package that sells; small radio hardware. W. L. Schott. il Ptr Ink 216:102+ S 20 '46

SALESMANSHIP
Answering personal sales objections. P. Bradstreet. Adv & Sell 39:181+ Ja '46
Are buyers just taking it away, or are they being sold? Nash advertising, demonstration at time of delivery; select dealer plan. D. G. Baird. il Sales Management 57:37-9 O 15 '46
Auto-Soler steps-up success with strong sales tactics. G. E. Stedman. il Ind Marketing 31:60+ Ja '46
Build prestige for salesmanship; it will pay dividends. G. C. McNutt. Ptr Ink 214:34+ F 1 '46
Careers in sales: what have they to offer to youth? R. W. Turnbull and others. Sales Management 56:42-5 Mr 1 '46
Casey at the bat, in behalf of salesmanship; tells veterans opportunities in selling. il Sales Management 56.42-3 Mr 15 '46
Developing executive sense in salesmanship. P. Bradstreet. Adv & Sell 39.57+ My '46
15 tips for postwar salesmen; abstract. Management R 34:444-5 N '45
Gentle art of persuasion in today's selling. E. McSweeney. il Adv & Sell 39:64+ O '46
Good selling is necessary to roll the ball of prosperity. J. H. Eglof. Adv & Sell 38: 110 N '45
How to sell a $125,000 hotcake; Beechcrafts. S. Nesbitt. il Sales Management 57:44-5 Ag 1 '46
How truth-seeking salesmen rate their crucial selling weaknesses. P. H. Whiting. Sales Management 56:103-4 My 1 '46
Importance of selling in a merchandising career. D. E. Higgins. J Retailing 21:138-42 D '45
It's a gift. H. Simmons. Sales Management 55:43 N 15 '45
Keep your territory and your territory will keep you! H. Simmons. Sales Management 56:121 Ja 1 '46
Kelvinator recruits salesmen by selling salesmanship careers; booklets for dealers and prospective salesmen. C. T. Lawson. Sales Management 56:40-2 Ja 15 '46
One-habit salesmanship puts a crimp in sales. P. Bradstreet. Adv & Sell 39:62 Je '46
Order-taking is not selling. A. L. O'Neill. Ptr Ink 214:27 Mr 29 '46
Quicksands of salesmanship. H. Simmons. Sales Management 56:64 Ja 15 '46
Real sales clincher is the follow-up. K. H. Holmgren. Aviation 45:51+ Je '46
Sales executives don't find young people shying away from sales work; 28 queried by P.I. V. J. Dallaire. Ptr Ink 214:105 F 15 '46
Salesman's corner; few reasons why he is the one person the customer should want to see; abstract. A. T. Preyer. Inland Ptr 117: 68-9 Je '46
Salesman's corner; finding out how much situation has changed with old customers. F. Rundell. Inland Ptr 117:84-5 S '46
Salesman's corner; problems of a new salesman. F. Rundell. Inland Ptr 118:54-5 O '46
Salesman's corner; what selling will do for the salesman himself. F. Rundell. Inland Ptr 116:38-9 Mr '46
Seven knotty problems that trouble salesmen. P. H. Whiting. Sales Management 56:131-2 Je 1 '46
Simple rules for producing effective sales presentations. C. E. Yeager. Ptr Ink 216:38 S 13 '46
Six questions for salesmen to answer. S. N. Morrison. Ptr Ink 215.83-4+ My 3; 49-50+ My 10 '46
That's why they are hucksters. P. Frank. Ptr Ink 214:38+ Ja 4 '46
There's a welcome on the door-mat for men who mind their manners. J. F. Bender. Sales Management 56:101-2 Mr 1 '46
What makes a star salesman tick? J. Lacy. Sales Management 56:37-9 My 1 '46
What the composite industrial customer has to say about the efforts of salesmen and advertisers. C. S. Wilkinson. Ind Marketing 30:92+ D '45

SALESMANSHIP—*Continued*

Why not emphasize secondary selling points. P. J. Howe. Adv & Sell 39:124+ Je '46

See also

Advertising
Advertising, Soliciting of
Advertising and salesmen
Canvassing
Insurance, Life—Agents
Insurance agents
Mail order business
Premiums (merchandizing)
Prospect lists
Sales letters
Sales management
Salesmen

Approach

Salesman's corner. F. Rundell. Inland Ptr 118:56-7 N '46

Tell him how good he is. F. Rundell. Inland Ptr 116:62-3 O '45

Demonstrations

De Laval proves potency of how-to-use-it demonstrations; local meetings teach methods of using mechanical milkers. il Sales Management 55:65+ D 15 '45

Fiberglas sales props show industrials jig-time way to insulate water heaters. il Sales Management 56:41 Ap 15 '46

It's action that stops the crowd at a trade show exhibit. W. F. Schleicher. il Sales Management 57:145-6+ S 15 '46

Mass murder introduces Sherwin-Williams' Pestroy, DDT product. E. C. Helfrick. il Sales Management 57:60+ O 15 '46

Road show to demonstrate industrial electrification; "productive power" theme of huge exhibit to be staged in 75 cities by Westinghouse. H. R. Roberts. il Sales Management 57:104-6 O 1 '46

This merchandising stunt has been good for 60 years; Sweet-Orr proves quality of merchandise by staging tug-o'-war battles. R. L. Sweet. Ptr Ink 217:50-1 O 11 '46

Thousands of demonstrations launch Ekco's new pressure cooker. F. Keller. il Sales Management 57:45-6+ N 1 '46

Why every Hurley salesman must learn to iron a shirt. J. R. Hurley. il Sales Management 56:37-40 Mr 1 '46

See also

Department stores—Manufacturers' demonstrations

Graphic aids

Wizard sales tool takes the pain out of big-money purchases; Liquid Carbonic invented isometric drawings for selling soda fountain equipment. R. Crane. il Sales Management 56:37-9 Ap 1 '46

Price problem

Don't let price be the salesman's hurdle. P. J. Howe. Adv & Sell 39:78+ My '46

Mystery of the missing payload; how the Flying Tigers solved it. il Sales Management 56:76+ Je 15 '46

Printed aids

$200 stunt made our salesmen wild about this selling tool; Remington Rand sales brochure wins sales department's enthusiastic acceptance. S. Hiles. il Ptr Ink 217:50-1 O 18 '46

Service

Before you order your salesmen to merchandise get yourself a merchandising policy. F. L. McKibbin, jr. il Ptr Ink 216:33-5 Jl 26 '46

Combine audio-visual selling with sales manual; Mirro's method of training retail salespeople. R. L. Pritchard. il Ptr Ink 215:46-7 Je 14 '46

Keeping customers sold when you can't deliver; Ritter company, Rochester, N. Y. A. G. Scheible. il Ptr Ink 214:25-6+ Ja 25 '46

Research reveals merchandising is keystone of profits for jobbers. P. P. Gott. il Sales Management 56:107-8+ Ap 15 '46

Standardized sales talk

How we train our men to use a standard sales presentation; Globe industries believe there is one best way to organize a sales talk. E. Dynner. Sales Management 56:106+ Ja 1 '46

Study and teaching

Los Angeles starts sales school; plans college of distribution. Sales Management 56:154+ F 15 '46

Sales executives become teachers in this sales training school; Minneapolis 18-week course in salesmanship. L. Fitzmaurice. Sales Management 56:153+ Mr 15 '46

SALESMANSHIP, Retail

Big idea in selling; know your product. A. J. Griffin. Ptr Ink 217.98+ O 11 '46

Distributor conducts better-selling crusade; directed at merchants in all lines; A. R. Tiller, inc, Richmond. V. J. Dallaire. il Ptr Ink 215:72+ Ap 5 '46

Simmons puts showmanship into launching of new electronic blanket; film for training salespeople and for consumer audiences, augmented by demonstration. J. G. Roemer. Sales Management 57:60+ S 1 '46

See also

Sales manuals, Dealers'

Demonstrations

Every sales clerk a demonstrator of new iron. Ptr Ink 215:102 Je 14 '46

SALESMEN

Belden salesmen act as materials sleuths; copper starvation threat is averted. il Sales Management 57:78 S 15 '46

Build prestige for salesmanship; it will pay dividends. G. C. McNutt. Ptr Ink 214:34+ F 1 '46

Hoopskirts and garlic and how I became a salesman. A. Wineburgh. Ptr Ink 215:162 Ap 12 '46

Pickle peddler from Lilliput finds pint size no sales handicap; Meinhardt (Chef) Raabe. Sales Management 56:54 Je 15 '46

Sales executives don't find young people shying away from sales work; 28 queried by P.I. V. J. Dallaire. Ptr Ink 214:105 F 15 '46

Salesmen may deduct many business costs; gifts to customers, business entertainment, as well as costs of using a car in sales work. H. J. Ashe. Inland Ptr 116:69-70 O '45

They all started as salesmen. Sales Management 55:38-9 D 15 '45

See also

Advertising and salesmen
Canvassing
Electric utilities—Salesmen
Gas companies—Salesmen
Insurance, Life—Agents
Insurance agents
Printing trade—Salesmen
Purchasing—Treatment of salesmen
Sales management
Salesmanship

Advance cards and letters

Cartoon mailing softens buyers for salesman's calls. C. A. Lipman. il Ptr Ink 213: 26 D 14 '45

Entertainment of customers

How to be a good host when you entertain a customer. D. S. Cook. Sales Management 57:118+ Jl 15 '46

Expenses

Dollar-hour travel costs for air, rail, bus transportation; tables. Sales Management 56:46+ Je 1 '46

How salesmen can keep expenses down. P. Bradstreet. Adv & Sell 39:62+ F '46

Salesmen's travel costs show upward trend; survey by American management assn. Ptr Ink 216:81 Jl 26 '46

Who should pay salesman's laundry and tailor expense? eight out of 15 companies queried call it legitimate charge. Ptr Ink 214:63+ Mr 29 '46

Will future salesmen be pilots, too? Bond corp., Portland, Ore., studies costs of experimental 9,000-mile sales trip. Sales Management 57:96 O 1 '46

See also

Automobiles, Salesmen's
Salesmen—Entertainment of customers

Law

How to protect yourself against law suits when a salesman quits. L. T. Parker. Sales Management 56:122+ Ja 1 '46

SALESMEN—*Continued*

Letters to customers

Encourage your salesmen to write to his customers. W. H. Butterfield. Ptr Ink 214:79 Mr 15 '46

Management

See Sales management

Rating

What type of salesman makes the biggest hit with buyers? Stone & Forsyth asked their customers. N. R. Catharin. il Sales Management 56:81-2+ Ap 1 '46

Salaries and commissions

Commission compensation plans for printing salesmen. Inland Ptr 116:44-6 Mr '46

Contests help these salesmen earn over $9,000 a year; Alexander film co., Colorado Springs. Ptr Ink 216:37 Jl 26 '46

How about a pay plan opinion survey? ask salesmen what they think about remuneration. K. J. Solon. Ptr Ink 214:28-9 Ja 18 '46

How should salesmen be paid? abstract. Management R 35:388-9 S '46

Incentive compensation. J. A. Murphy. Adv & Sell 39:84 My '46

It's the selling task, not dollars-of-sales you pay for. C. M. Bigelow. Sales Management 55:78+ D 15 '45

Low costs, high incentive, when you pay men for what you want them to do; Ortho pharmaceutical corp. B. J. Todd. Sales Management 57:90+ O 1 '46

Management and salesmen are happy with this pay plan; Scranton lace co. sliding scale plan. Sales Management 56:95 F 15 '46

New compensation setup cuts direct costs 50%; Hammel-Dahl co. B. A. Irwin. Sales Management 57:117 O 15 '46

Pay plan aids men in dull season; Chase bottling company. B. McDaniel. Am Bsns 16:22 Je '46

Salary plan for compensation of printing salesmen presents case. Inland Ptr 116:43-6 F '46

Sales—commission cuts coming. Fortune 33: 224 F '46

Sylvania's pay plan combines salary, grubstake, bonus. Sales Management 56:117 Mr 1 '46

West disagrees on starting salaries for salesmen. A. W. Smith. Sales Management 56: 146 Ap 1 '46

What is a fair compensation set-up for sales engineers? ILG electric ventilating co. pays liberal basic salary plus incentive income for over-quota sales. P. D. Briggs. Sales Management 56:119+ Ap 1 '46

What is the best plan for compensating printing salesmen? Inland Ptr 117:34-6 Jl '46

Selection

Aid to selection of salesmen; determination by constitutional types; body structure and facial characteristics. G. E. Fosbroke. il Ptr Ink 215:40-2+ Ap 19 '46

Boston finds many veterans who are qualified for sales jobs. il Sales Management 55:144 N 15 '45

First steps in learning how to use aptitude tests for salesmen; drug manufacturer analyzes characteristics of presently employed men and compares findings with performance records. R. S. Schultz. Sales Management 56:113+ Ja 15 '46

Guidance group finds promising sales talent among veterans. C. K. Brett. Sales Management 56:77+ My 20 '46

Hiring will be easier, if you blueprint your salesmen's jobs. B. Bigelow and E. G. Flemming. Sales Management 57:76-8+ Ag 15 '46

How St Louis pre-tests veterans for sales aptitude. Sales Management 56:118+ Ap 15 '46

How to find and keep men who can sales-manage their own territories. G. Morse. Sales Management 56:50+ My 20 '46

Kelvinator recruits salesmen by selling salesmanship careers; booklets for dealers and prospective salesmen. C. T. Lawson. Sales Management 56:40-2 Ja 15 '46

Liberty Mutual's plan for finding and recruiting qualified salesmen. J. F. Morrison. Sales Management 57:154+ S 15 '46

Man-building policies that will gird Victor for hot competition. A. F. Bakewell. il Sales Management 56:94+ My 20 '46

Outline of a well-rounded procedure for selecting salesmen. E. G. Flemming. Sales Management 56:42-4 Ap 1 '46

Pick men who can sell. E. J. Benge. Ind Marketing 30:44-5+ O '45

Quality of new sales personnel can help reduce distribution costs. Ptr Ink 214:113 F 8 '46

Sales manager tells how he picks men. P. Bradstreet. Adv & Sell 39:50 Ap '46

Scientific matching of salesman and job produces good results; Minneapolis-Honeywell combines consideration of human qualities, pre-employment tests and a company-devised zone method of measurement. H. E. Green. Ptr Ink 213:17-19+ N 16 '45

Six advertising steps for recruiting good salesmen; Investors syndicate. W. R. Gerler. Ptr Ink 216:32-3 Ag 23 '46

These rules for hiring salesmen have stood test of two decades. G. Biggs. Ptr Ink 215: 92+ My 10 '46

250,000 salesmen needed! here's how electric industry will select and train them; National electrical wholesalers association three-part program. il Ptr Ink 216:43 Jl 12 '46

We give the sales applicant a break! Todd company, Rochester, N.Y. L. J. Weir. Ind Marketing 30:108+ D '45

What traits make A-1 salesmen? E. G. Flemming and C. W. Flemming. Sales Management 56:54+ Mr 1 '46

See also

Insurance, Life—Agents—Selection

Salesmen—Rating

Training

Are we stuck in dead end jobs? Gerber dispels employe doubts. W. H. Knowlton. il Sales Management 57:98+ Ag 1 '46

Blueprint of Hotpoint's plan for training 20,000 salesmen. W. R. Schafer. il Sales Management 56:37-40 Mr 15 '46

Chevrolet opens all throttles on training; girds for competition. D. G. Baird. Sales Management 57:37-8 Jl 1 '46

Chevrolet trains men to sell right truck for right job. il Sales Management 56:131+ F 15 '46

Conference method of sales training; abstract. W. F. Wrightnour. Management R 35:427-8 O '46

Detroit method of sales training. M. W. Bowman. Am Gas J 164:31-3 My '46

Distinctive sales-training program. G. E. Stedman. Gas Age 96:42-4 D 13 '45

Dozens of pamphlets to help train salesmen. Ptr Ink 215:75 Je 7 '46

Easy washer packages a training plan in manuals, guides and visuals. il Sales Management 55:53-4+ N 15 '45

E.E.I. sales training course. J. H. Ronayne. Edison Elec Inst Bul 14:265-8+ Ag '46

Educating salesmen to use advertising; how Armstrong Cork does it. C. Hawley. Ptr Ink 213:130+ D 7 '45; Same. Sales Management 55:52+ D 1 '45

Electrical industry out for consumer's dollar; sales training program borrows from Army's experiences in education. J. H. Ronayne. Pub Util 37:811-17 Je 20 '46

Electrical industry program provides basic sales training. R. C. Hill. il Ind Marketing 31:33+ F '46

Fair salesmen, well trained, bigger producers than untrained stars; pictograph. Sales Management 55:97 D 15 '45

Freshen up on salesmanship; Utah power & light co. is aiding dealers, distributors and salesmen. Elec West 96:94-5 Je '46

Graybar builds training sessions around films. Sales Management 57:100 S 1 '46

Hartford, Conn. SM club sponsors sales training. Sales Management 56:90 Ap 1 '46

Home economists now moving further into sales development; Hotpoint institute trains company and distributor salesmen in use-value. R. W. Turnbull. il Ptr Ink 214:26-7+ F 1 '46

SALESMEN—Training—*Continued*
How and why we're training our salesmen to improve their speech; Ortho pharmaceutical corporation. B. J. Todd. il Sales Management 56:127+ Mr 15 '46
How Canadian printer trains veterans as salesmen. Ptr Ink 213:130 N 30 '45
How Carstairs grooms ex-servicemen for its growing, peacetime sales staff. il Sales Management 57:124+ N 1 '46
How Milkmaid puts a double edge on its sales promotion program. T. Armstrong. il Sales Management 56:84+ F 15 '46
How Pennsalt trains and controls to achieve standard work patterns. T. Armstrong. il Sales Management 57:110-12+ O 1 '46
How platform practice is polishing Williamson Heater sales presentations. D. L. Bicknell. Sales Management 57:46+ S 15 '46
How to pay ex-servicemen taking on-the-job sales training. J. H. Caldwell. il Sales Management 56:148-51 Ap 15 '46
How to spot and train apprentice salesmen for management jobs; Carnegie-Illinois Steel's program. R. Righter. il Sales Management 57:120+ O 1 '46
How truth-seeking salesmen rate their crucial selling weaknesses. P. H. Whiting. Sales Management 56:103-4 My 1 '46
How we train our men to use a standard sales presentation; Globe industries believe there is one best way to organize a sales talk. E. Dynner. Sales Management 56:106+ Ja 1 '46
Hundreds of firms pool efforts to take confusion out of color. il Sales Management 56:51+ F 1 '46
Industrial sales staff; reorganization and training at Southern counties gas company. F. A. Herr. Am Gas J 163:52-3 N '45
Listen, see and do school refreshes Westinghouse sales engineers. J. M. McKibbin. il Sales Management 56:40-1 Ja 1 '46
Mack truck men put new cutting edge on dull sales techniques. M. C. Horine. il Sales Management 56:78+ Ja 1 '46
Man-building policies that will gird Victor for hot competition. A. F. Bakewell. il Sales Management 56:94+ My 20 '46
New ideas in sales training. R. W. Wagner. Edison Elec Inst Bul 14:147-8 My '46
Packaged slide-film lighting course; Westinghouse electric corp. Ptr Ink 214:78 Ja 4 '46
Personal sales training program based on G.I.-on-the-job plan. Ptr Ink 215:118 My 10 '46
Piper's sales training course. Aero Digest 52: 88+ Ja '46
Plane marketing pivots on specialized sales training. V. C. Rasmussen. Aviation 45:44+ Mr '46
Planned interviews; key to successful selection of sales trainees; General Foods' method. R. H. Moulton. Ptr Ink 215:40-1+ My 3 '46
Pontiac unwraps peace sales plan; re-trains all executive personnel. il Sales Management 55:97+ N 15 '45
Putting salesmen through the mill; course in production at the factory. M. Daniel. il Ptr Ink 217:40-1 N 8 '46
Revised industrial sales course adopted to meet post war conditions; Southern California gas co. Am Gas J 164:16-17 F '46
Sales trainees should be told what to do and then shown how; General Foods' program includes explanation, demonstration, practice and follow-up. R. H. Moulton. il Ptr Ink 215:38-40+ Je 28 '46
Sales training. Adv & Sell 38:101 N '45
Sales-training film program prepares for hard-selling days. Ptr Ink 217:106+ O 11 '46
Sales training schools, builders of profits. F. C. Sturtevant. Nat Pet N 38:30+ S 11 '46
Selling as a career for veterans; Boston Sales managers club procedure and that of Stone & Forsyth. N. R. Catharin. Ptr Ink 214: 55-6+ Ja 25 '46
Servel sees kitchen planning centers as potent sales tools. il Sales Management 55:172 D 1 '45
Seven knotty problems that trouble salesmen. P. H. Whiting. Sales Management 56: 131-2 Je 1 '46
Tomlinson employs fashion's force in its 1946 sales plan; trains furniture salesmen in wood-lore; promotional program. W. A. Tomlinson. il Sales Management 56:56+ Ap 1 '46
Trailer films for sales training review basic points. L. L. Lewis. il Ptr Ink 214:102+ Ja 18 '46
Training your men to sell. E. J. Benge. Ind Marketing 30:37-8+ N; 68+ D '45
25 points in selling your advertising to sales trainees. F. A. South. Ptr Ink 216:43 Jl 12 '46
250,000 salesmen needed! here's how electric industry will select and train them; National electrical wholesalers association three-part program. il Ptr Ink 216:35-7 O 11 '46
Use of sales training props; abstract. E. J. Hegarty. Management R 35:241-3 Je '46
War training technique turns out order-getting salesmen quickly; Victor uses sound slide films, manuals, and questionnaires. P. J. Schutt. il Sales Management 55:69+ D 15 '45
What business can learn from the armed services about training aids; films, color, devices like mockups, manuals, humor. R. M. Cronin. il Ptr Ink 213:29-32 D 28 '45

See also
Insurance, Life—Agents—Training
Salesmen, Jobbers'—Training

SALESMEN, Community. See Community salesmen

SALESMEN, Jobbers'
Contests are back and Alemite stages a fall rabbit hunt to encourage distributor salesmen to put on drive for new dealers. Sales Management 57:112+ O 15 '46
Research reveals merchandising is keystone of profits for jobbers. P. P. Gott. il Sales Management 56:107-8+ Ap 15 '46
Shipshape industrial catalog; how Raybestos builds one. J. W. Brush, jr. il Sales Management 57:131-2+ Jl 15 '46

Training
Airborne jobber salesmen. il Sales Management 57:93 N 1 '46
How Ferguson puts the smell and feel of the soil into tractor sales talks. il Sales Management 56:40-3 Je 15 '46
Jobber enlists suppliers in one-day sales training workout; A. E. MacAdam & co. R. A. Ferran. Sales Management 57:97-8+ Jl 15 '46
Machine tool salesmen dig for business; Delta sales training school. W. E. Schutz. il Ind Marketing 30:50-1+ O '45
Why does one dealer succeed where another fails? answer: training; American central manufacturing co. creates kitchen specialists. C. F. Hastings. il Sales Management 57:44-6+ O 15 '46

SALESMEN, Retail
How New Orleans dealer attracts higher-type auto salesmen. Ptr Ink 213:104 N 23 '45

Rating
Better words on rating scales. J. D. Weinland. Personnel J 25:131-4 O '46

Training
Abandons door-to-door selling in favor of dealers; Eureka vacuum cleaners. F. LaClave. il Ptr Ink 215:68+ My 10 '46
Combine audio-visual selling with sales manual; Mirro's method of training retail salespeople. R. L. Pritchard. il Ptr Ink 215: 46-7 Je 14 '46
Convention-on-film inspires wholesalers, sells to dealers, trains salesmen; Philco convention. J. H. Carmine. il Ptr Ink 216:29-31 Ag 2 '46
GE offers dealers package-plan to hire and train good salesmen at low cost. il Sales Management 56:42-5 My 1 '46
Help! for the clerk at the point of sale; Dow display pieces. il Mod Packaging 19:105 Jl '46
How Milkmaid puts a double edge on its sales promotion program. T. Armstrong. il Sales Management 56:84+ F 15 '46
How to train retail salespeople on the double-quick. il Sales Management 56:149-50 Ja 15 '46

SALESMEN, Retail—Training—*Continued*
Kelvinator recruits salesmen by selling salesmanship careers; booklets for dealers and prospective salesmen. C. T. Lawson. Sales Management 56:40-2 Ja 15 '46
Post-war re-education of retail sales people; specifically how to combine information for salesmen and for consumers; Coleman lamp and stove co. A. W. Boyer. il Ptr Ink 214:25-7 Ja 4 '46
Rug training course bids retailers sell in terms of room problems; sponsored by Institute of carpet manufacturers. T. Armstrong. il Sales Management 56:116+ F 1 '46
Sales training for retailers can be simple, and fun; three booklets of Crosley corp. F. Kammann. il Ptr Ink 215:54+ Je 7 '46
Sales training is better without hoopla; training course to teach dealers and their salesmen to sell Youngstown kitchens. M. Adams. Ptr Ink 216:36-7 S 27 '46
Sales training receives impetus; program of wholesale distributors of electrical appliances in Philadelphia. E. H. Lewis. il Dom Comm 34:17 My '46
Sales training to make real appliance salesmen. Ptr Ink 214:50 Mr 29 '46
Series of 17 films is nucleus of Humble Oil sales training. il Sales Management 55:165+ N 15 '45
Shell sales training turns gas station operators into businessmen. il Sales Management 56:79-80+ Ja 15 '46
What Socony is doing to lift efficiency level of its dealers; training the trainers. E. Kinney. il Sales Management 56:42-5 Je 1 '46

SALESMEN, Speciality
House organ sells full line in firm where salesmen are specialists; Bakelite Review. M. Zwilling. Sales Management 57:95-6+ Jl 1 '46

SALESMEN, Treatment of. See Purchasing—Treatment of salesmen

SALESMEN and credit
Credit facts from salesmen; valuable data can be obtained from their reports. W. J. Shultz. Credit & Fin Management 48:34-6 Je '46
Creditman and salesman. M. T. Lauer. Credit & Fin Management 48:19+ Jl '46

SALESMEN'S automobiles. See Automobiles, Salesmen's

SALESMEN'S bulletins
Sixteen sources of copy for salesmen's bulletins. Sales Management 57:64 S 15 '46

SALESMEN'S equipment
Substitute for sample; Textron's viewer box shows products in use in full color. E. M. Housman. il Ptr Ink 213:23-4 D 21 '45
Wee refrigerator demonstrates sales points for Servel. il Sales Management 55:155 D 1 '45

SALESMEN'S organizations, National council of. See National council of salesmen's organizations

SALESMEN'S reports
Bread and butter problems of a sales manager; paper work. J. A. Murphy. Adv & Sell 39:90 Ap '46
Portfolio of sales control forms. Sales Management 56:98+ Ap 1; 96-7+ Je 1; 57:116-18+ Jl 1 '46
Three-point plan for analysis of salesmen's reports. R. C. Crisp. Sales Management 57: 59-60 Ag 15 '46

SALESMEN'S territories. See Sales territories

SALICYLALDEHYDE
Specificity of the salicylaldehyde reaction for the detection of acetone. T. Thomson. bibliog Soc Chem Ind J 65:121-4 Ap '46

SALICYLATES
Antagonism of salicylate by pantoyltaurine. P. G. Stansly and C. M. Alverson. bibliog Science 103:398-9 Mr 29 '46

SALINAS river, California
Steel rails for bank protection. H. F. Cozzens. il Civil Eng 16:113-15 Mr '46

SALMON, Vincent, 1912-
Biennial award given to Dr. Vincent Salmon. por Acoustical Soc Am J 18:217-18 Jl '46

SALMON
Fishways on the Fraser river designed for wide head variation. il Eng N 137:386-8 S 19 '46
Salmon canning; Libby, McNeill and Libby's own story. il Food Ind 18:856-9 Je '46
Salmon swim Hell's Gate through new fishway. C. W. Harris. il plans Civil Eng 16: 431-3 O '46
See also
Dams—Fish problem

Analysis
Nutritive value of canned foods; comparison of vitamin values obtained by different methods of assay. N. B. Guerrant, M. G. Vavich and O. B. Fardig. bibliog Ind & Eng Chem Anal ed 17:710-13 N '45

SALMONELLA
Salmonella in dried eggs; abstract. F. E. Chase and M. L. Wright. Food Ind 18:968 Je '46

SALT
Chromate corrosion inhibitors in chloride systems; rate of consumption of chromate. M. Darrin. il Ind & Eng Chem 38:368-75 Ap '46
Effect of KCl, NaCl and Na_2SO_4 on the aqueous solubility of acetanilide. T. S. Logan. Am Chem Soc J 68:1660-1 Ag '46
Effect of sodium chloride on the apparent ionization constant of boric acid and the pH values of borate solutions. G. G. Manov and others. bibliog J Res Nat Bur Stand 36:543-58 Je '46
Effect of sodium chloride upon the first ionization of glycine. E. J. King. bibliog Am Chem Soc J 67:2178-82 D '45
Effect of ultrasonic waves on the conductivity of salt solutions. F. E. Fox and others. il diag Phys R 70.329-39 S 1 '46
Heats of solution and dilution of calcium sulfate dihydrate in aqueous sodium chloride solutions. W. E. Wallace. bibliog diag J Phys Chem 50:152-68 Mr '46
High temperature sodium chloride to glass vacuum seal for infra-red cells. G. L. Simard and J. Steger. R Sci Instr 17:156-7 Ap '46
Ice prevention on New Hampshire highways; use of salt; with cost data. L. F. Johnson. il Eng N 136:492-4 Ap 4 '46
Intercrystalline corrosion by sodium chloride of a wrought aluminium alloy containing 4 per cent. of copper; summaries and discussions J. D. Grogan. Engineering 161:280 Mr 22 '46; Engineer 181:284 Mr 29 '46
Modern salt and brine usage in textile plants. N. M. Agnew. flow sheet il diags Am Dyestuff Rep 35:157-63 Mr 25 '46
Ohio's mineral resources, salt. S. P. Hildreth and others. maps Ohio State U Eng Exp Sta Circ 47:1-19 '45; 49.1-22 '46
Reinvestigation of the conductance of aqueous solutions of potassium chloride, sodium chloride, and potassium bromide at temperatures from 15° to 45°C. G. C. Benson and A. R. Gordon. J Chem Phys 13:473-4 N '45
Salt for better gasoline; its use in manufacture of Ethyl fluid; other uses; abstract. Mech Eng 68:257 Mr '46
Salt, our most useful mineral. E. B. Tustin, jr. il Comp Air Mag 50:291-4 N '45
Salts cored successfully with oil field equipment; carnallite, sylvite and halite deposit, Utah. C. L. Severy. il diag Eng & Min J 147:85-7 Ag '46
Study of the behavior of dextrose sodium chloride in hydrochloric acid solutions. L. D. Ough and G. T. Peckham, jr. bibliog Am Chem Soc J 68:136-7 Ja '46
Use of rock salt for removing ice and snow from streets. il Pub Works 77:19-20 Ja '46
See also
Brine
Petroleum refining—Salt removal

Therapeutic use
Hot weather hygiene. Nat Safety N 53:178+ Mr '46
Salt in drinking water; abstract. Nat Safety N 52:122-4 N '45

SALT—*Continued*

Transportation

How can I prevent conveyor spilling salt? diags Power 90:260-2+ Ap '46

Prescribes minimum truck rates on salt from Kansas. Ry Age 119:951 D 8 '45

SALT cake. See Sodium sulfates

SALT domes

Salt in the Mississippi salt basin; abstract. C. W. Alexander. Oil & Gas J 45:42-3 Je 1 '46

SALT glaze. See Glazes

SALT industry and trade

Consumer market invaded by industrial supplier; Pennsylvania salt manufacturing co. il Ptr Ink 215:94+ Ap 12 '46

How Pennsalt creates new markets, broadens others, through research. T. Armstrong. il Sales Management 56:134+ Ap 1 '46

SALT LAKE CITY

Water supply

Aqueduct for Salt Lake City. L. R. Dunkley. il map Civil Eng 16:160-2 Ap '46

Concrete pipe on Salt Lake aqueduct. L. R. Dunkley. il Concrete 54:10-13+ Ja '46

SALT mines and mining

Michigan

Salt mine under Detroit. il Heat & Ven 43: 104 Ja '46

Turkey

Salt mining in Turkey. For Comm W 25:26 O 26 '46

SALT water. See Sea water; Water supply—Salt water intrusion

SALTER, Leonard Austin, jr. 1911-1946

Appreciation. N. Clark. J Land & Pub Util Econ 22:302-3 Ag '46

In memoriam. E. B. Fred. J Land & Pub Util Econ 22:117-18 My '46

SALTS

Characteristics and uses of salt baths. R. C. Stewart. il diag Iron Age 157:46-52 F 14 '46

Effect of salts on the viscosity of pectinic acid solutions. H. Lotzkar and others. bibliog J Phys Chem 50:200-10 My '46

Interactions between interstitial and injected water; a review. A. J. W. Headlee. Oil & Gas J 44:219-20+ N 17 '45

See also

Salt

SALTS, Complex

Complex formation with high molecular weight amines. F. K. Broome, A. W. Ralston and M. H. Thornton. bibliog Am Chem Soc J 68: 67-9, 849-51 Ja, My '46

Interpretation of the Sandmeyer reaction; the formation of complex salts between aryl diazonium chlorides and ferric chloride of general formula, $R{:}\overset{+}{N}_2\}FeCl_4^-$, and the decomposition of *p*-nitrobenzenediazonium chloride by ferrous salts. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p819-21 N '45

Relation between size of the divalent cation and solubility of triple acetate salt of sodium. L. B. Rogers. bibliog Science 103: 420-1 Ap 5 '46

SALTS, Double

Composition, optical and crystallographic properties of two calcium oxalate-chloride double salts. F. T. Jones and L. M. White. bibliog il diags Am Chem Soc J 68:1339-42 Jl '46

SALTS, Fused

Condensation of acetylene by molten salts P. C. Johnson and S. Swann, jr. bibliog diags Ind & Eng Chem 38:990-6 O '46

SALTS in sea water. See Sea water—Desalting

SALUDA dam. See Dams—Reconstruction

SALVADOR

Economic conditions

Latin America's economy as world conflict ended. For Comm W 24:54 Jl 13 '46

SALVAGE, Samuel Agar, 1876-1946

Father of the American rayon industry. F. A. Adams. por(p393) Rayon 27:394 Ag '46

SALVAGE

Air under the sea. T. McConlogue. il Comp Air Mag 51:270-3 O '46

Fortunes, twenty fathoms down; retrieving treasures buried in ocean. W. Ley. il Tech R 48:165-6+ Ja '46

Inflatable fabric cells for aircraft salvage. il(p324) Engineering 162:322 O 4 '46

Odd insurance angles in American Farmer incident. Nat Underw 50:3+ Ag 8 '46

Pontoons for raising sunken airplanes. il Comp Air Mag 51:98-9 Ap '46

Salvage award, collision liability concerned in American Farmer case. East Underw 47: 29 Ag 9 '46

Salvage denied members of crew; abandonment of ship not complete. East Underw 46:78 D 14 '45

Ship salvage. G. R. Critchley. Engineering 162:317-18, 340, 378, 390, 436-7 O 4-25, N 8 '46; Discussion. 162:328-9 O 4 '46

Sister act at sea; salvaging American Farmer after abandonment stirs up Anglo-American tempest. Bsns W p42-3 Ag 17 '46

SALVAGE (fires)

Underwriters salvage co. reclaims huge values in damaged property. J. G. McClure, jr. East Underw 47:15+ My 3 '46; Same. Weekly Underw 154:1128 My 4 '46; Abstract. Nat Underw 50:2 My 2 '46

SALVAGE (waste, etc.)

Accounting routine for handling salvage material and equipment. K. C. Campbell. Am Gas Assn Proc 1945:141-2

Clarification of green liquor. E. G. Kominek and J. M. Kahn. bibliog Paper Tr J 123:45-6 Ag 15 '46

Comparison of the possible bases which may be used for sulphite pulping, and the economics of recovery. R. S. Hatch. bibliog diags Pulp & Pa of Can 47:80-4 Ag '46

How the navy salvages war equipment. R. G. Skerret. il Comp Air Mag 51:217-21 Ag '46

Hydraulic nipple crusher is safe, speeds up removal of fittings from salvage flanges. B. I. Bell. il Nat Pet N 38 pt 2:R338 My 1 '46

Improved heat and chemical recovery in the alkaline pulping processes. G. H. Tomlinson and others. diags Pulp & Pa of Can 47:71-7 Ag '46

Navy recovers aluminum and byproducts from wrecked planes. J. Anthony. Iron Age 157:100-1 Ap 11 '46

Operation of a salvage division; Erie works, General electric co. F. E. Lockrow. N A C A Bul 27:401-6 Ja 1 '46

Pipe line terminal dismantled, salvaged. T. H. Menaugh. il Pet Eng 17:185-6+ Mr '46

Pots from planes; salvaging aluminum from scrapped military planes. J. E. Nichols. il Nat Safety N 54:20-1+ Ag '46

Reclaimer treatment of white and waste waters. S. B. Applebaum. il diags Paper Tr J 122:31-3 Je 6 '46; Same cond. Paper Ind 28: 582+ Jl '46

Recovery of metal and other valuable products from aluminum dross. O. C. Garst and others. bibliog U S Bur Mines Rep of Invest 3874:1-43, pl 1-2 '46

Salvage bare and weatherproof wire; cost data. R. E. Fritzer. Elec West 96:67 Mr '46

Strain insulator balls reclaimed at less than $0.08 each. R. S. Pierce. il Elec World 125: 108 Mr 16 '46

Team work and mobility explain remarkable success of fat salvage drive. R. W. Peet. il Ptr Ink 214:21-2+ Ja 11 '46

Watch case factory; reclamation of precious metals lost in manufacturing process leads to novel arrangements in new plant; I. D. Watch case company, Jamaica, L.I. il plans diag Arch Forum 84:115-17 My '46

See also

Coal dredging
Electroplating—Stripping
Oil reclamation
Sulfite liquor
Waste products

SALVATI, Raymond Ernest, 1899-

Sketch. por Explosives Eng 24:70-1 My '46

SAMARIUM

Light storage in infra-red sensitive phosphors. R. T. Ellickson. Opt Soc Am J 36:501-2 S '46

SAMARIUM—*Continued*
X-ray line absorption in the *M*-series for 62-Sm. K. C. Rule. Phys R 68:246-9 D 1 '45

Isotopes

Assignment of mass to 46-hr. samarium and 9.2-hr. europium by a mass spectrograph. R. J. Hayden and M. G. Inghram. Phys R 70:89 Jl 1 '46

SAMPLES (merchandizing)
Check list to guide your sampling campaign. Ptr Ink 216:40-1 Ag 30 '46
Getting samples to the right prospect. Ptr Ink 216:50+ S 13 '46
How to use coupons in a sampling campaign; distribution through newspapers. R. Coller. il Ptr Ink 215:38-9+ Je 14 '46
Methods of distributing the sample; such as: door-to-door; by direct mail; over-the-counter; through clubs. il Ptr Ink 216:55+ S 20 '46
New-born babes to get gift products in new Welcome Wagon Service. il Ptr Ink 214: 124 Mr 22 '46
To charge, or not to charge, for samples. Ptr Ink 216:56+ S 6 '46

SAMPLING
Drill sampling device for fish livers; precision and accuracy. F. B. Sanford and G. C. Bucher. il Ind & Eng Chem Anal ed 18: 269-71 Ap '46
How fish liver sampler works. F. B. Sanford and L. G. McKee. il diags Food Ind 18:677 My '46
Petrographic analysis by fragment counting; precision of micro-sampling and the combined error of sampling and counting. F. Chayes. Econ Geol 40:517-25 D '45

See also
Air sampling
Dust sampling
Oil sampling
Petroleum—Sampling
Soil sampling

SAMPLING (statistical methods)
Can an advertiser believe what surveys tell him? A. Politz. Ptr Ink 215:23-5 Ap 5 '46
Design and analysis of methods for sampling microclimatic factors. H. G. Wilm. Am Stat Assn J 41:221-32 Je '46
Design of a sample for dealers' inventories. W. E. Deming and W. Simmons. Am Stat Assn J 41:16-33 Mr '46
Disproportionate method of market sampling. R. Ferber. J Bsns 19:67-75 Ap '46
How to determine the size of a survey sample. R. H. Colley. Ptr Ink 216:35-7 S 6 '46
Measuring our manpower. E. H. Welch. il Dom Comm 34:13-16 S '46
Most economic sampling for chemical analysis. C. W. Churchman. bibliog Ind & Eng Chem Anal ed 18:267-8 Ap '46
New approach to statistical quality control. J. Manuele. Automotive & Aviation Ind 95: 21+ Jl 1 46
Note on sampling probabilities. H. Working. Am Stat Assn J 41:238-9 Je '46
Problems and methods of the sample survey of business. M. H. Hansen and others. Am Stat Assn J 41:173-89 Je '46
Sequential analysis of statistical data: applications. Review, by J. G. Smith. Science 103:490+ Ap 19 '46
Statistical estimation of simultaneous economic relations. T. Koopmans. bibliog Am Stat Assn J 40:448-66 D '45
Statistical methods in quality control; acceptance sampling. Elec Eng 65:81-3 F '46
Systematic sampling and its relation to other sampling designs. L. H. Madow. Am Stat Assn J 41:204-17 Je '46
Systematic sampling pays in controlling filling weights; use in can-filling weight control; Shewhart charts. H. P. Goode and G. I. Dundas. il Food Ind 17:1468-70 D '45
What constitutes an adequate sample? M. S. Anderson and C. W. Whittaker. il Food Ind 18:849-50+ Je '46

SAMPSON, George A.
Portrait. Boston Soc C E J 33:(front) Ap '46

SAND
Adsorption of aneurin (vitamin B_1) on sand. H. N. Ridyard. bibliog diag Soc Chem Ind J 65:92-5 Mr '46
Ductile zirconium from zircon sand. W. J. Kroll and others. bibliog flow sheet diags Electrochem Soc Trans 89 (preprint 29): 365-76 '46
Grain roundness, a valuable geologic tool. G. Rittenhouse. bibliog diags Am Assn Pet Geologists Bul 30:1192-7 Jl '46
Suggestion for naming multiple sands. R. E. Dickerson and H. W. Straley, 3d. Am Assn Pet Geologists Bul 30:115-17 Ja '46
Wellpoints used to compact sand fill. H. E. Berger. diag Eng N 137:44-5 Jl 11 '46

See also
Bituminous sand
Quicksand
Sand blast and other headings beginning Sand
Silica

Stone sand
Effect of air entrainment on stone sand concrete. A. T. Goldbeck. Am Concrete Inst J 17:649-54 Je '46

Testing
Comparison of absorption and soundness tests on Maine sands. A. Adams and H. A. Pratt. Am Soc T M Proc 45:771-6 '45

Florida
Investigation of the Miami-West Palm Beach belt of silica sand in Florida. W. C. Hudson. U S Bur Mines Rep of Invest 3865:1-5 pl 1 '46

Georgia
Investigation of the McLeod glass-sand pits, Wheeler county. W. C. Hudson. U S Bur Mines Rep of Invest 3859:1-3, pl 1 '46

Illinois
Sand and gravel in Illinois. il map Rock Prod 48:84-5 O '45

Iowa
Sand and gravel deposits. H. E. Swanson and N. C. Rockwood. il Rock Prod 49:82-3 S '46

Louisiana
Louisiana; sand and gravel producers legacy. H. E. Swanson and N. C. Rockwood. il Rock Prod 49:82-5 Jl '46

Maine
Comparison of absorption and soundness tests on Maine sands A. Adams and H. A. Pratt. Am Soc T M Proc 45:771-6 '45

Michigan
Operating trends in the rock products industry. H. E. Swanson and N. C. Rockwood. il map Rock Prod 48:71-5+ N '45

Mississippi
Mississippi; sand and gravel predominates as a construction aggregate. H. W. Swanson and N. C. Rockwood. il maps Rock Prod 49:133-8+ Ag '46

Missouri
Different gravels and sands in three wafer sheds. H. E Swansen and N. C. Rockwood. map Rock Prod 49:101-2 O '46

Oklahoma
Geology and glass sand resources, central Arbuckle mountains, Oklahoma. Glass Ind 27:245-6 My '46
Sand and gravel from river deposits. N. C. Rockwood and H. E. Swanson. il Rock Prod 49:95-7 F '46

Oregon
Beach and river sands of the coastal region of southwest Oregon with particular reference to black sands. W. H. Twenhofel. fold map Am J Sci 244:114-39, pl 1-4, 200-14 F-Mr '46
Oregon foundry sands; abstract. W. D. Lowry. flow sheet Rock Prod 48:126+ D '45

Wisconsin
Wisconsin has the best sand and gravel nature can supply. il Rock Prod 48:111-12 D '45

SAND, Filter
Filter sand specifications; abstracted from article originally printed in Journal of American Water Works Association Jan. 1940. T. M. Riddick. Water & Sewage Works 93:145-6 Ap '46

SAND, Foundry
Bonding action of clays; part 2, clays in dry molding sands. R. E. Grim and F. L. Cuthbert. bibliog Ill U Eng Exp Sta Bul 362:1-43 '46 (pa 55c)
Bonding properties of mixtures of petroleum extracts and linseed oil and of the extracts themselves. W. Davies and W. J. Rees. diags Iron & Steel Inst J 150:49-68 no 2 '44
Control of molding and core sand; abstract. R. Guerin. Materials & Methods 24:702 S '46
Density is important in proper sand control. Foundry 74:138 Ag '46
Effect of grain shape on the moulding properties of synthetic moulding sands. W. Davies. diags Iron & Steel Inst J 150:19-47, pl 5-9 no 2 '44
Foundry sand control plan. H. W. Dietert. Foundry 74:113 Je '46
Malleable sand control; abstract. J. J. Clark. Materials & Methods 23:802+ Mr '46
Oregon foundry sands; abstract. W. D. Lowry. flow sheet Rock Prod 48:126+ D '45
Sand control methods discussed at shop course; American foundrymen's association. il Foundry 74:156+ Jl '46
Sand research sessions; American foundrymen's association. Foundry 74:167 Je '46
Shakeout handles large castings; Worthington pump & machinery corp. J. L. Yates. il Foundry 74:102-3+ F '46
See also
Molds (for casting)

Reclamation
Sand reclamation for the ferrous foundry. E. C. Jeter. il Foundry 74:86-9+ Ag '46

Testing
Determination of the gas content of sand cores. Engineering 162:29-30 Jl 12 '46
Fineness test of molding sand; pipette and hydrometer methods. M. Price and A. I. Krynitsky. bibliog 2pl J Res Nat Bur Stand 36:521-41 Je '46
Hot-strength characteristics of moulding sands. W. Davies and W. J. Rees. diags Engineering 161:190-2 F 22 '46

SAND and gravel plants
Fifty years of progress; sand and gravel industry. N. C. Rockwood. il Rock Prod 49:106-7+ Je '46
Industry looks ahead optimistically; sand and gravel. B. Nordberg. il Rock Prod 49:90-4 Ja '46
Offset retaining walls for stockpiles of sand and gravel. H. M. Hadley. il diags Eng N 136:497-8 Ap 4 '46
Typical aggregates operations in Wisconsin. il Rock Prod 48:117-18 D '45
Typical aggregates operations, Oklahoma. N. C. Rockwood and H. E. Swanson. il Rock Prod 49:104-6+ F '46
Typical Michigan aggregates plants. il diag Rock Prod 48:82-3+ N '45

Directories
Sand, gravel and crushed stone producers, Canada. Roads & Bridges 84:146-9 Je '46

Equipment
Build up large reserve storage; American aggregates corporation. B. Nordberg. il Rock Prod 48:62-5 N '45
Cleaner product, more capacity; J. K. Davison & brothers modernizes dredge. il Rock Prod 48:88-9+ N '45
Distribution plants cut handling costs; Metropolitan sand and gravel corp. B. Nordberg. il plan Rock Prod 49:84-5+ Je '46
Jets boost pumping capacity; Rapides gravel co. H. E. Swanson. il Rock Prod 49:74-5+ O '46
Keeping an old plant up-to-date; L. G. Everist, inc. H. E. Swanson. flow sheet il Rock Prod 49:86-8 Ag '46
Long settling flume recovers fines; Northville sand and gravel company. il Rock Prod 49:82 Ap '46
Louisiana; plant practices. il plan diag Rock Prod 49:88+ Jl '46
Make both ready mix and lime mortar; Fort Worth sand and gravel co. H. E. Swanson. il Rock Prod 48:68-70+ N '45
Mississippi; plant practices. il Rock Prod 49:137-8+ Ag '46
Plant practices, Iowa. H. E. Swanson and N. C. Rockwood. flow sheet il Rock Prod 49:85-8+ S '46
Push-button operated gravel plant; Union rock and material co, Phoenix. il Rock Prod 49:64-5+ My '46
Retaining fines in concrete sand; Van Sciver plant of Warner co. I. Warner. il diags Rock Prod 49:84-6+ Ja '46
Sand separation; vibrating screens. N. C. Rockwood. il diags Rock Prod 48:75-7 My; 86-7+ Je; 59-61 Jl; 86-7 Ag; 66-7 S; 112+ O '45
Use conical settling tanks and special flume; Consumers sand and gravel co. flow sheet il Rock Prod 49:62-3 Mr '46

Safety measures
Experience keeps down accidents; Fort Worth sand and gravel co. il Rock Prod 48:86-7 N '45

SAND and gravel plants, Portable
Portable gravel-washing and screening machine. il Engineer 181:518-19 Je 7 '46

SAND blast
Compar outlasts metal in sandblasting. il Mod Plastics 23:148 Mr '46
Curbs sandblasted before repainting yellow no-parking zones. il Roads & Sts 89:71 Ag '46
Lightweight blast cleaning device. il diags Product Eng 17:114 F '46
Vacuum-blast cleaner minimizes dust hazard. il Iron Age 157:65 Ap 25 '46

SAND culture of plants. See Plants—Sand culture

SAND drying
Sand drying expedited by photo-cell control. Sci Am 174:157 Ap '46

SAND handling
Automatic sand-handling plant for railway service. Comp Air Mag 51:112 Ap '46
Dust removal at belt transfer points; foundry sand handling system. C. C. Hermann. diag Foundry 73:107+ D '45
Meet tough specification by adding 50-mesh sand; Becker county sand and gravel company. il Rock Prod 48:78 O '45
Retaining fines in concrete sand; Van Sciver plant of Warner co. I. Warner. il diags Rock Prod 49:84-6+ Ja '46
Shakeout handles large castings; Worthington pump & machinery corp. J. L. Yates. il Foundry 74:102-3+ F '46
Storage bins for granular materials. F. Clayton. il Mech Handling 33:60-1 Ja '46

SAND traps
Sand traps designed for streams with heavy bed loads. H. A. Burt. plan diags Civil Eng 16:357 Ag '46

SANDBAGS
Service test of copper-treated cotton sandbags. J. D. Dean and others. il Am Dyestuff Rep 35:346-8 Jl 15 '46

SAN DIEGO, California
City seeks army camp as material source. Eng N 136:270 F 21 '46

Industries
Boom antidote? measures that will aid our war-swollen communities. Bsns W p44+ F 23 '46

SANDING
Sanding recommendations for plastics; reference book sheet. Am Mach 90:143 Ag 15 '46

SANDING machines

Advertising
Sterling tool products company supplies dealers with unique selling aids. Ind Marketing 31:74+ Ag '46

SANDMEYER reaction
Interpretation of the Sandmeyer reaction; the formation of complex salts between aryl diazonium chlorides and ferric chloride of general formula, $R\cdot\overset{+}{N}_2\}FeCl_4^-$, and the decomposition of *p*-nitrobenzenediazonium chloride by ferrous salts. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p819-21 N '45

Interpretation of the Sandmeyer reaction; the influence of the chloride ion on the decompositions of neutral *p*-nitrobenzenediazonium chloride and of *p*-nitrobenzenediazonium cobaltinitrite. H. H. Hodgson and D. D. R. Sibbald. Chem Soc J p545-6 Ag '45

SANDSTONE
Properties of sandstones as a refractory material. T. Chen and S. Hu. Am Cer Soc J 29:193-7 Jl 1 '46

Using sandstone as a road base material. E. L. Andrews. il Pub Works 77:21-2 F '46

SANDUSKY bay
Replaces bridge across Sandusky bay. il Ry Age 121.167-71 Ag 3 '46

SANDWICHES
How electronic grille serves hot sandwiches. il Food Ind 18:386 Mr '46

SANFORD, Fred L.
Broke at 70, Florida oil man operates $500,000 business at 80. por(cover) Nat Pet N 38:36+ Ja 16 '46

SAN FRANCISCO
San Francisco makes a presentation that may bring United nations headquarters to city. W. Williams, jr. Ptr Ink 213:113-14 N 23 '45

Rapid transit

OPA intervention has political pattern; court battles over proposed increase in fares. Mass Transportation 42:25-6 Ja '46

San Francisco OPA; fare controversy. R. Brier. Mass Transportation 42:79-80 F '46

Strong figure fights OPA arithmetic! San Francisco's mayor, R. D. Lapham, in fare controversy. Mass Transportation 42:68-71 F '46

Sanitary affairs

Fill refuse disposal franchise renewed in San Francisco. il Eng N 137:296-7 S 5 '46

Sewerage

Overflow structure in trunk sewer diverts storm water to beach. diag Eng N 137:45 Jl 11 '46

Water supply

Survival and retirement experience with water works facilities, as of December 31, 1940. Am Water Works Assn J 38:647-61 My '46

SAN FRANCISCO bay
Plans for transforming San Francisco bay studied by War and Navy departments. map Eng N 137:56-7 Jl 11 '46

SAN FRANCISCO Bay bridges
Aircraft damage to suspension bridge; suspender ropes cut on San Francisco-Oakland Bay bridge. E. F. Levy. il diag Civil Eng 16:350-1 Ag '46

Golden Gate bridge vibration studies. il diag Eng N 137:184-5 Ag 8 '46

Hearings over advisability of second San Francisco Bay crossing. Eng N 137:274-5 Ag 29 '46

New San Francisco Bay crossing urged in discussion at army-navy hearings. map Eng N 137:222 Ag 22 '46

SAN FRANCISCO Bay region
Putting your community on the airmap; San Francisco Chamber of commerce coordinates aviation activities. G. Tenney. map Aviation 45.38-41 O '46

Industries

San Francisco Bay area; business is booming. E. Whitmore. il map Am Bsns 16:22-4+ O '46

SAN FRANCISCO conference. See United nations conference on international organization. San Francisco

SANITARY chemicals
Colors for chemical compounds. H. F. Herrmann. Soap & San Chem 22:137+ F '46

SANITARY chemistry

See also

Cleaning compositions	Sewage disposal—Chemical treatment
Food—Analysis	Water—Analysis

Patents

New patents. Soap & San Chem 22:69 Ja '46 [cont monthly]

SANITARY districts
Chicago's sale of water to outside municipalities. W. A. Weigel. Am Water Works Assn J 38:531-6 Ap '46

Organization, financing, and administration of sanitary districts; progress report of the committee of the Sanitary engineering division. Am Soc C E Proc 71:177-94 bibliog(p187-8) F '45; Same cond. Water & Sewage 84:55-62 F '46; Discussion. Am Soc C E Proc 71:786-8, 929-30 My-Je '45

SANITARY engineering
Evaluation of professional objectives in the design of sanitary engineering works; with reference to influences of proprietary equipment and processses upon development of effective and economical plans. Am Soc C E Proc 72:69-82 Ja '46; Abstract. Pub Works 77:44-5+ Ap '46; Discussion. Am Soc C E Proc 72:901-5 Je '46

Sanitary engineers and operators; report on meetings of ASCE Sanitary engineering division and N.Y. state sewage works assn. Water & Sewage Works 93:57-62 F '46

See also

Air conditioning	Sanitation
Drainage	Sewage disposal
Dust removal	Sewerage
Factory sanitation	Snow removal
Filters and filtration	Trade waste
Heating	Ventilation
Mosquitoes—Extermination	Water pollution
Plumbing	Water purification
Refuse disposal	Water supply engineering

SANITARY engineering, Inter-American association of. See Inter-American association of sanitary engineering

SANITARY engineers
Announcement of examination for sanitary engineer (regular corps) and nurses, United States Public health service. Pub Health Rep 61:358-9 Mr 8 '46

Opportunities for sanitary engineers in the postwar period; progress report of the Committee on advancement of sanitary engineering. Am Soc C E Proc 72:647-54 My '46

Sanitary engineer looks forward. A. Wolman. Eng N 137:307-8 S 5 '46

Directories

Directory of state sanitary engineers. Water & Sewage Works 93:152 Ap '46

SANITARY ware
Investigations on crazing; autoclave test results on crazing of sanitary ware and wall tile. L. Mattyasovszky-Zsolnay. Am Cer Soc J 29:203-4 Jl 1 '46

Porcelain, a boon to the bathroom. L. E. Barringer. il diag Am Cer Soc Bul 25:78-82 Mr 15 '46

Use of soda feldspar in whiteware bodies. G. A. Loomis and A. R. Blackburn. bibliog il Am Cer Soc J 29:48-57 F 1 '46

What builders should know about sanitaryware. Cer Ind 47:51 Jl '46

Manufacture

Development of conveyor system for casting sanitary ware; abstract. H. Hoare. Cer Ind 46:94 Je '46

Drying clayware with infrared radiation. L. H. Hepner. il Am Cer Soc Bul 24:415-17 N 15 '45

Effect of composition on properties of cone 11 zirconium silicate-opacified glazes. R. R. Danielson. bibliog Am Cer Soc J 29:282-7 O 1 '46

New sanitaryware plant to concentrate on home model. il Cer Ind 47:75 Jl '46

SANITARY ware—Manufacture—*Continued*
Sanitary ware foundry modernized; Richmond radiator co. il Foundry 74:148 F '46

See also
Bathtubs—Manufacture

SANITATION
Canadian institute on sewage and sanitation 12th annual meeting, Windsor, Ont. Nov. 5-6. Water & Sewage 83:37-48+ N '45

Ohio River valley water sanitation compact. F. H. Waring. map Civil Eng 16:195-6 My '46

Primer on the polio program; American society of sanitary engineering. Dom Eng 168: 95 S; 117 O '46

Public health is stressed at 53d annual convention of Illinois master plumbers assn. Dom Eng 167:104-6+ F '46

Sanitation and public-health experiences in Europe; Sicily, southern Italy, Sardinia, and southern France. L. W. Trager. N E Water Works Assn J 60:43-53 Mr '46

See also
Air conditioning
Air purification
Airplanes in insect control
Dishwashing
Disinfection and disinfectants
Drainage, House
Dust removal
Factory sanitation
Food factories—Sanitation
Hygiene, Industrial
Plumbing
Public health
Refuse disposal
Sewage disposal
Sewerage
Smoke prevention
Trade waste
Ventilation
Water purification
Water supply
also United States—Army—Medical and sanitary affairs

SANITATION, Rural
See also
Hygiene, Rural

SANITATION equipment association, Canadian. See Canadian sanitation equipment association

SAN JOSE, California

Industries
Industries in the orchards. E. Whitmore. il Am Bsns 16:26+ O '46

SAN JUAN, Puerto Rico

Water supply
Use of native materials features construction of Puerto Rico water system. E. W. Whitlock. il map Civil Eng 16:434-7 O '46

SANSOME rule. See Corporations—Accounting

SANTA CLAUS. See Advertisements, Pictorial—Santa Claus

SANTA CLAUS, Indiana
Santa Claus hopes; famous village revives as toy plant locates there; rival promoters become subdued. il Bsns W p29-30+ N 17 '45

SANTA MARIA island
Building an airbase in the Azores. J. S. Bragdon. il Eng N 137:250-3 Ag 22 '46

SANTONIN
Constitution of ψ santonin. G. R. Clemo and W. Cocker. Chem Soc J p30-9 Ja '46

Constitution of santonin. G. R. Clemo, W. Cocker, and S. Hornsby. Chem Soc J p616-17 Jl '46

SANTOS-FILHO, Francisco Alves dos
Officials of fund; biographical sketches. por Comm & Fin Chr 164:1147 Ag 29 '46

SAPONIFICATION
Continuous saponification; patent. J. J. Jacobs. Soap & San Chem 22:71 Ja '46

Microdetermination of the saponification number of fats and oils; decigram, centigram, and milligram procedures. K. Marcali and W. Rieman, 3d. diag Ind & Eng Chem Anal ed 18:144-5 F '46

Precipitation and saponification using surface-active agents. E. M. Losee. Can Chem & Process Ind 30:90+ S '46

Review of continuous methods of fat splitting. J. L. Boyle. Soap & San Chem 22:59 Ja '46

Semimicrodetermination of saponification equivalent by Rieman's double-indicator method. D. Ketchum. Ind & Eng Chem Anal ed 18:273-4 Ap '46

Studies in *p*-cymene; the saponification rate of isomeric benzoates derived from *p*-cymene. C. T. Lester and C. F. Bailey. bibliog Am Chem Soc J 68:375-6 Mr '46

SAPPHIRES
Four phonograph needles with sapphire tips. Consumers Res Bul 17:15-17 F '46

SAPPHIRES, Artificial
Genuine and synthetic rubies and sapphires. A. E. Alexander. bibliog il diag J Chem Educ 23.418-22+ S '46

Industrial jewels. Chem Age (Lond) 55:219-21 Ag 24 '46

Manufacture of synthetic sapphires for jewelled bearings; abstract. Can Min J 67:35 Ja '46

Sapphire as a production tool. R. F. Waindle. il Am Mach 90:101-4 Je 6 '46

Joining to metal
How to bond sapphire to other materials. M. C. Cannon. diags Am Mach 90:129+ Ag 29 '46

SARAN
Properties and applications of saran pipe. D. R. Williams. Chem & Met Eng 52:112-13 N '45

Properties of Saran coating latex. G. W. Stanton and W. A. Henson. il Paper Tr J 123:48-52 Ag 8 '46; Same cond. Ind & Eng Chem 38:468-72 My '46; Same, with additions. Mod Packaging 19:194-9 Mr '46

Saran agitator for a 65-gal. vessel. A. Stein. diag Chem & Met Eng 53:147 My '46

Saran coating latex. G. W. Stanton and W. A. Henson. il Ind & Eng Chem 38:468-72 My '46; Same with additions. Mod Packaging 19:194-9 Mr '46

Saran F-122 latex; abstract. W. A. Henson. il India Rubber World 114:390 Je '46

SARATOGA SPRINGS
Federal taxation of public business enterprises; Saratoga Springs case may lead to removal of discriminatory exemptions enjoyed by state, municipal, and coöperative commercial projects. L. Gates. Pub Util 38: 14-24 Jl 4 '46

SARRACENIA purpurea
Determination of the nature of the volatile base from the rhizome of the pitcher plant sarracenia purpurea. A. Walti. bibliog Am Chem Soc J 67:2271 D '45

SASKATCHEWAN
See also
Public health—Saskatchewan

Economic policy
Socialist province takes over auto insurance; progress of other nationalization plans. H. H. Kritzwiser. Barron's 26:16 Ap 29 '46

SASKATCHEWAN civil servants association
Government collective agreement with civil servants in Saskatchewan. Mo Labor R 61: 972-3 N '45

SATTERFIELD, Dave E. jr, 1894-
Sketch. por East Underw 46:10+ D 14 '45

SATURDAY evening post
Newsstand textbook; Saturday evening post went to college for the mutual benefit of the editors and students. J. Stone. il Adv & Sell 39:78+ Mr '46

SAULT SAINTE MARIE canal
Sheetpile cofferdam for a 30-ft. head. A. DiGiacinto. il plan diag Eng N 136:404-7 Mr 21 '46

SAUNDERS fly it yourself system
Fly it yourself system in operation at Kansas City. il Bsns W p18 My 25 '46

SAUSAGE
Cold trucks cover state delivering sausage; water ice refrigeration used by Mickelberry's. il map diags Food Ind 18:518-19 Ap '46

Inbuilt frankfurters enthrall the West; Pronto pups. il Bsns W p84 D 29 '45

Quick wrap for bacon and sausage. G. Hightower. il Food Ind 17:1466-7 D '45

Wrap-carton, a new kind of package; Mullinix for butter, bacon and sausage. il Mod Packaging 19:138-43 Mr '46

SAVANNAH, Georgia

Industries

No job too large, none too small; Savannah machine and foundry company. il Manuf Rec 115:48-9+ Ap '46
Savannah gets $13,000,000 paper mill industry; plans $4,000,000 water supply. R. M. Nelson. il Manuf Rec 115:40-1+ My '46

SAVANNAH and Atlanta railway
Bonds sold. Comm & Fin Chr 163:1907 Ap 8 '46

SAVANNAH machine and foundry company
No job too large, none too small. il Manuf Rec 115:48-9+ Ap '46

SAVING
American bankers association's Eastern regional savings and mortgage conference, Boston. Banking 38:69-70+ Ap '46
ANA study shows people want to keep savings awhile. Ptr Ink 213:58 N 23 '45
Broadening of savings shown by U.S. study; groups with income below $5,000 own half of total. Weekly Underw 153:1108 N 10 '45
Family spending and saving in wartime. U S Bur Labor Statistics Bul 822:1-218; pa 35c Supt. of doc. '45
Future of payroll savings; Trust company of New Jersey, Jersey City plan for sale of certificates of deposit. F. W. Hetzel. il Banking 38:90-1 Ja '46
How compound interest affects regular savings. Life Ins Courant 51:28-31 Ja '46
How savings benefit a community. P. A. Benson. il Am Inst Banking Bul 28:3-4+ Ap '46
How they sell thrift in Sweden. il Banking 39:56-7 S '46
Individuals hold $181 billion of liquid assets. W. Lindow. Comm & Fin Chr 163:253+ Ja 17 '46
National thrift week; committee statement. Comm & Fin Chr 163:61 Ja 3 '46
Pay day savings club, Erie county savings bank of Buffalo, N.Y. M. Austin. Banking 38:68-9 F '46
Payroll savings allotment plan; Buffalo savings bank. A. M. Maischoss and J. G. Nassoy. il Banking 38:70-1+ Mr '46
Profit-sharing, savings and retirement plan; Sylvania electric products. E. W. Robbins. Management R 34:446-8 N '45
Refutes theory of oversaving. D. B. Woodward. Nat Underw (Life ed) 50:24 O 11 '46
Relationship between consumers' expenditures, savings, and disposable income. W. S. Woytinsky. R Econ Stat 28:1-12 F '46
Safeguarding savings; New York City conference. Banking 38:116 F '46
Savings survey. Bsns W p96 Jl 20 '46
We need a survey of savings. Bsns W p120 F 16 '46

See also
Building and loan associations
Christmas clubs
Investments
Savings banks
Savings deposits
School savings

Statistics

Changing pattern of savings; 1946 and comparisons; chart. Nat Underw (Life ed) 50:4 My 10 '46
Estimated liquid asset holdings of individuals and businesses; with tabulation, 1939-1945. Fed Res Bul 32:122-3 F '46
Income, consumption, and savings. Survey of Cur Bsns 26:5-7+ My '46
Individual savings from disposable income, 1929, 1933, 1940-1945; chart. Dun's R 54:29 Ap '46
Liquid savings in second quarter of 1945. Comm & Fin Chr 162:3242 D 31 '45
National survey of liquid assets; summary of survey by Bureau of agricultural economics. H. H. Villard; D. M. Holthausen. Fed Res Bul 32:574-80, 716-22, 844-55 Je-Ag '46; Excerpts, pt 3. Comm & Fin Chr 164:1144+ Ag 29 '46; Summary, pt 1. Mo Labor R 63:256-8 Ag '46
Notes continuation of savings; study by Life insurance companies. Comm & Fin Chr 163:1221 Mr 7 '46
One-half of U.S. families can't buy durable goods and regulation W makes recourse to installment buying more difficult. C. M. Wright. Ptr Ink 217:92+ O 18 '46
Pattern in savings growth; graph. Bsns W p76 Ap 20 '46
Savings of individuals during the transition. Survey of Cur Bsns 26:9-11 Jl '46
Savings surveyed; Bureau of agricultural economics study. Bsns W p36+ Je 29 '46
Small savings limping. Economist 150:854+, 89 My 25-Je 1 '46
U.S. savings more than doubled since 1941; chart. Nat Underw (Life ed) 49:11 N 30 '45

SAVINGS and loan associations. See Building and loan associations

SAVINGS and loan institute, American. See American savings and loan institute

SAVINGS and loan league, United States. See United States savings and loan league

SAVINGS banks
Mutuals' deposits set new record. Banking 38:120 Mr '46
Opposes proposed New Jersey curb on savings interest. T. P. Reitinger. Comm & Fin Chr 163:1541+ Mr 21 '46
Savings banks in New York state, 1945 and outlook for 1946. D. Fales. Comm & Fin Chr 163:558 Ja 31 '46
Wartime savings; their use and abuse. H. Bruere. Comm & Fin Chr 163:2788+ My 23 '46

See also
Banks and banking—Savings departments
Building and loan associations
Savings deposits

Advertising

See Bank advertising

Insurance selling

Economy claim made for savings bank life plan in New Jersey denied at hearing. Weekly Underw 154:835 Mr 30 '46
Savings bank life buyers not prospected by agents. Nat Underw (Life ed) 50:8 Ag 16 '46

Investments

New Jersey amends savings banks' railroad bond purchase law. T. P. Reitinger. Comm & Fin Chr 163:2092+ Ap 18 '46

Service

Pupils run this school bank in Worcester, Mass. Banking 38:72-3 Mr '46

Statistics

15 largest mutual savings banks. Bsns W p62 Ap 20 '46

Sweden

How they sell thrift in Sweden. il Banking 39:56-7 S '46

SAVINGS banks trust company

Library

Library of the Savings banks trust company. M. H. Griswood. Special Lib 36:442-4 N '45

SAVINGS deposits
Bank not liable to depositor for payment on forged withdrawal slip. Banking Law J 63:723-6 O '46
Future of payroll savings; Trust company of New Jersey, Jersey City plan for sale of certificates of deposit. F. W. Hetzel. il Banking 38:90-1 Ja '46
Mortality of savings accounts. H. M. Hoffman Banking 38:46-7+ Je '46
Pay day savings club, Erie county savings bank of Buffalo, N.Y. M. Austin. Banking 38:68-9 F '46
Payroll savings allotment plan; Buffalo savings bank. A. M. Maischoss and J. G. Nassoy. il Banking 38:70-1+ Mr '46
Savings deposit activity; experience of First national bank, Rochester, Minn. R. A. Bezoier. Banking 38:65-6 F '46
Verification of savings accounts. S. K. Tuttle. il Burroughs Clearing House 30:18-19+ N '45

See also
Banks and banking—Savings departments
Christmas clubs
Savings banks

SAWDUST
Canada's economy drive turns sawdust to pulpwood use. Paper Tr J 122:12 My 9 '46

SAWDUST—*Continued*
Unique sawdust handling system; fan material handling duct. il Sheet Metal Worker 37:44+ Ag '46
See also
Wood dust
SAWMILLS
Study of saw mill waste. R. R. Duffy. Pulp & Pa of Can (Convention no) 47:276 [F] '46
Equipment
Hydraulic barker saves manpower and wood. H. E. Bukowsky. il diag Paper Tr J 121: 70+ N 22 '45
Power
Large lumber mill modernizes its electrical power system; Weyerhaeuser timber co. K. L. Watts. il diags Power 90:104-5+ F '46
Sad case of the ailing Corliss; how not to run a power plant. W. S. White. Power Pl Eng 50:94-6 My '46
SAWS
Abrasive-wheel cutting of non-metallic materials; Abrasaw. Engineering 161:20 Ja 4 '46
Chain saw speeds tree felling operations; Cincinnati gas & electric company. il Elec World 125:112 Mr 16 '46
Clear right-of-way with rotary saw. il Pet Eng 17:181 Mr '46
Filing hand crosscut and hand rip saw. il Paper Ind 28:1022 O '46
High velocity band sawing; plywood, metals and plastics. H. J. Chamberland. il Automotive & Aviation Ind 94:18-21+ F 1 '46
High velocity simplifies band sawing. H. J. Chamberland. il Mod Plastics 23:146-7 Mr '46
Log production by chain and crosscut saws. J. O. Artman. il Pulp & Pa of Can 47: 107 Jl '46
Magnesium castings for lightweight portable engine-driven chain saw. il diags Product Eng 17:452-4 Je '46
Power feed rip-saw guard. F. H. Rouner. il diag Safety Eng 92:28-9 Ag '46
Power saws; past, present and future. J. W. Challenger. Pulp & Pa of Can 47:65-7 F '46
Report of meeting of the cutting tool committee of the Woodlands section; saws, axes, etc. Pulp & Pa of Can 47:59-60 Ja '46
Tile and brick saw. Sci Am 175:181 O '46
SAWS, Electric
Circular saw has magnesium frame, passes through doorways. il Sci Am 174:270 Je '46
Magnesium portable saw is versatile and easily operated. il Arch Forum 84:212 Mr '46; Am Bld 68:102 Je '46
Wadkin electro-hydraulic cross-cut saw. il Engineer 181:527-8 Je 7 '46
SAWS, Metal working
Carbide teeth improve circular saw. diag Am Mach 90:142 My 9 '46
Changeover of band saw to welded design. J. R. Morrill. il diags Welding J 25:543-5 Je '46
Clamp holds bar stock on bandsaw cutoff attachment. J. C. Frank. il Am Mach 90: 133 O 24 '46
Friction band-sawing of hard materials. C. H. Wick. il Mach 52:169-71 Je '46
Friction sawing; abstract. J. M. Lewis. Materials & Methods 24:706+ S '46
Friction sawing; DoAll Zephyr. il Diesel Power 24:340-1 Mr '46
High-speed friction sawing. H. J. Chamberland. il Steel 118:96-7+ Mr 25 '46
Make the power saw pay its way. B. Melnitsky. Am Mach 90:128-9 Ag 1 '46
New saw lubricant. il Iron Age 157:68 Ja 17 '46
Obtain full value from power hacksaw blades. B. Melnitsky. Mach 52:176-7 Jl '46
Porcelain enamel cut to size on the job; recent saw developments. il Cer Ind 47:66+ Ag '46
Power feeding mechanism controlled by resistance to band-saw blade. W. F. Ocenasek. diags Mach 53:194-5 O '46
Power hacksaw ills, their causes and cures. W. Shortell. il Iron Age 158:56-7 O 24 '46
Production processes; their influence on design; contour sawing. R. W. Bolz. il diags Machine Design 18:117-22 My '46
Selection and care of hacksaw blades; reference book sheet. Am Mach 90:147 S 26 '46
SAWYER, Howard G.
Personalities in industrial advertising. por Ind Marketing 31:82+ Mr '46
SAYRE, Judson S.
Sale is a sale is a sale. por Fortune 33:196+ Ja '46
SCAFFOLDING
Scaffolding for kiln repairs. diag Rock Prod 49:50 S '46
Safety measures
Build safety in your scaffolds. A. Turnbull, jr. il Safety Eng 91:52-5 Je '46
Horse scaffold standards. W. R. Stewart. diag Safety Eng 91:50 F '46
Pipe scaffold saves labor, promotes safety in station building painting. diags Pet Refiner 25:152 F '46
Safe scaffolding ideas for the mason builder. diags Brick & Clay Rec 108:28 My '46
Safe scaffolds; renovating ceiling of Grand central terminal, New York. il Safety Eng 91:40+ Ja '46
Scaffold ropes; care important to safety. il Safety Eng 91:36-7 Ap '46
Scaffolds. il Nat Safety N 53:96+ Mr '46
SCAFFOLDING, Portable
Mobile scaffold eliminates injuries and saves man hours in tank painting. il Oil & Gas J 45:104 Jl 6 '46
SCAFFOLDING, Steel
Tubular scaffolding. W. R. Stewart. il diags Safety Eng 91:22+ Ap '46
SCALE prevention. See Feed water purification; Water purification—Corrosion control
SCALES
Weight control a valuable tool of process industries; Chem. & Met. report. D. M. Considine. bibliog il diags Chem & Met Eng 43:125-36 Ap '46 [reprint 25c]
SCALES, Musical. See Musical intervals and scales
SCANDINAVIA
See also
Norway
Shipbuilding—Scandinavia
Sweden
SCANDIUM
Scandium in stars. A. S. King. bibliog Electrochem Soc Trans 89 (preprint 10):127-31 '46
SCANDRETT, Henry Alexander, 1876-
Elected president of Chicago, Milwaukee, St Paul & Pacific railroad. por Ry Age 119: 979 D 15 '45
SCARLET fever
Diphtheria incidence and trends in relation to artificial immunization, with some comparative data for scarlet fever. S. D. Collins. bibliog(35 titles) Pub Health Rep 61:203-40 F 15 '46
SCATCHARD, George, 1892-
ACS candidates for 1947. por Chem & Eng N 24:2750 O 25 '46
SCATTERING of electrons. See Electrons—Reflection, scattering, etc.
SCATTERING of light. See Light, Scattering of
SCATTERING of neutrons. See Neutrons—Scattering
SCATTERING of particles
Nuclear spectroscopy and inelastic scattering of particles by nuclei. E. Guth. Phys R 68:279-80 D 1 '45
Resonance reactions and anomalous scattering. E. P. Wigner. Phys R 70:15-33 Jl 1 '46
Some experimental results concerning mesotrons. R. P. Shutt. bibliog il Phys R 69: 261-74 Ap 1 '46
SCHAEFER, Rudolph Jay, 1900-
Hand that never lost its skill; 104-year story of the Schaefers and their beer. F. Smith. Adv & Sell 39:53-4+ Mr '46

SCHEDULED property floater. See Insurance, Inland marine—Policies—Scheduled property floater

SCHEDULES
Give the foreman schedule responsibility; Signode steel strapping company. F. A. H. Hulick. il Am Mach 90:116-20 Mr 14 '46
Individual schedule issue; important aspect of material control. D. C. Ling. il diags Automobile Eng 36:285-91, 333-40 Jl-Ag '46
Major operations and scheduling of huge Dodge truck plant. J. Geschelin. il Automotive & Aviation Ind 95:24-7+ S 1 '46
Planning and scheduling system for development projects. H. R. Collins. Product Eng 17:144-8 N '46
Scheduling maintenance for the whole year. R. F. Bartlett. il Factory Management 104: 136-9 Mr '46
Scheduling production saves overseer's time. F. H. Gunther and M. Gross. il Textile World 96:37+ F '46
Stabilized production despite fluctuating demand; Armstrong Cork. R. L. Bowles. il Factory Management 104:106-12 Je '46
See also
Production control

SCHELLER reaction
Preparation of stibonic acids by the Scheller reaction. G. O. Doak and H. G. Steinman. bibliog Am Chem Soc J 68:1987-9 O '46

SCHENLEY distillers corporation
Schenley loan for rebuilding of stocks. Barron's 26:6 O 14 '46

SCHERING bridge
Dipole moments of chlorobenzene, monochlorocyclopropane, and 1,2-dichlorocyclopropane, with a calculation of the exterior valence angle of the cyclopropane ring. B. I. Spinrad. bibliog diag Am Chem Soc J 68:617-20 Ap '46

SCHISTOSOMIASIS
Removal of the cercariae of schistosoma mansoni from water by filtration through diatomaceous silica in a small model filter. M. F. Jones and F. J. Brady. Pub Health Rep 61:1533-43, pl 1 O 25 '46
Schistosomiasis, an overseas water-borne disease. bibliog Pub Works 77:26-7+ Jl '46

SCHISTS
Schist production is new development at Edison. L. P. Stockman. plan Oil & Gas J 44:165 D 29 '45

SCHMIDT, Carl Louis August, 1885-1946
Sketch. D. M. Greenberg. Science 104:387 O 25 '46

SCHMIDT camera. See Cameras

SCHMIDT rearrangements. See Molecular rearrangements

SCHNADIG, Edgar L. 1892-
Portrait. Bsns W p82 Jl 27 '46

SCHOELLKOPF medal
Gilbert awarded Schoellkopf medal. Chem & Eng N 24:1668-70 Je 25 '46
Schoellkopf medal to Gilbert. Chem & Eng N 24:1177 My 10 '46

SCHOLARSHIPS and fellowships
Allied chemical and dye corporation fellowships continued. Oil Paint & Drug Rep 148: 49 D 3 '45
ACS predoctoral fellowship awards. Chem & Eng N 24:1485-6 Je 10 '46
American chemical society will award fellowships aggregating $210,000 in 1946 and 1947. Science 102:82 Ja 18 '46
Du Pont announces new scholarship program. Paint Oil & Chem R 109:30 Mr 7 '46
Du Pont fellowships. Chem & Eng N 24:666 Mr 10 '46; Same. Science 103:393 Mr 29 '46
Fellowship awards for postgraduate studies in food and nutrition financed by Standard brands, inc. Science 103:16 Ja 4 '46
Fellowships in the medical sciences of the National research council. Science 102:525 N 23 '45
General Electric science fellowships. Science 103:528 Ap 26 '46
Grants to aid research in agricultural chemistry offered by Herman Frasch foundation for chemical research. Science 103:626 My 17 '46
Guggenheim fellowships awarded to scientists. Oil Paint & Drug Rep 150:7 Jl 8 '46
Guggenheim fellowship awards, 1946. Chem & Eng N 24:1259 My 10 '46
Imperial Oil establishes fellowships. Chem & Eng N 24:2514 S 25 '46
Industrial fellowships in operation, March 1, 1945, to March 1, 1946. Chem & Eng N 24:914-15 Ap 10 '46
Life insurance medical research fund. Science 104:81 Jl 26 '46
Life insurance medical research fund awards. Science 104:392 O 25 '46; Correction. 104:605 D 20 '46
Loans and scholarships under General Electric's $200,000 Employee's education foundation. Chem & Eng N 24:1422 My 25 '46
National advertisers cash in on beauty by aiding Miss America scholarship. Ptr Ink 216:126 S 6 '46
National institute of health research fellowships. Science 104:323 O 4 '46
National research council fellowship appointments for the academic year 1946-47. Science 104:13 Jl 5 '46
Postdoctorate research fellowships for study of antibiotics. Science 104:206 Ag 30 '46
Research supported by industry through scholarships, fellowships, and grants. C. Hull and M. Timms. Chem & Eng N 24: 2346-58 S 10 '46
Rockefeller foundation grant to provide predoctoral fellowships in natural sciences. Science 104:205-6 Ag 30 '46
Science awards of the Guggenheim foundation. Science 102:582-3 D 7 '45
Standard Brands gives ten food fellowships. Food Ind 17:1329 N '45
$250,000 for traveling fellowships; Mond nickel co. W. Griffiths. Metal Prog 50:481-3 S '46
University of Minnesota offers fluid mechanics fellowship. Mech Eng 68:278 Mr '46
Westinghouse scholarship winners announced. Chem & Eng N 24:1700 Je 25 '46
See also
Science talent search

SCHOLARSHIPS and fellowships, International
Exchanges of staff and students between British and American universities. R. A. Johnson. Assn of Sp Lib & Inf Bur Proc 1945:41-2
Fellowships for European students. Science 102:555 N 30 '45
Foreign trainees acquire U.S. technical know-how; work of International training administration. G. N. Butler. il For Comm W 24:3-5+ S 28 '46
Good neighbor training program in South America pays dividends. CAA J 7:136 O 15 '46

SCHOOL administration
School administration and intercultural relations. T. Brameld and E. Fish. Ann Am Acad 244:26-33 Mr '46

SCHOOL architecture. See School buildings—Designs and plans

SCHOOL buildings
American school and university; a yearbook devoted to the design, construction, equipment, utilization, and maintenance of educational buildings and grounds. 18th annual ed 662p Am. school pub. corp, 470 4th av, New York 16 '46
England studies standardization to speed building of schools. il Ind Stand 17:47 F '46
Master brick designers and craftsmen built this school; views. Brick & Clay Rec 108: 24 F '46
See also
Classrooms
Nursery schools
Reformatories

Designs and plans
Combined grammar and high school makes good use of a limited budget and an irregular site. il plans Arch Forum 84:140 Mr '46
Elementary school; comprehensive master plan provides logical expansion in unit stages for a suburban community. il plan diag Arch Forum 84:102-3 Ja '46

SCHOOL buildings—Designs and plans—*Cont.*
High school for small township in Maine. il map plans Arch Forum 83:120-1 N '45
School transformation for the Northeast; project for up-state New York. il plans Arch Rec 99:72-81 Ap '46
Schools; building types study. il plans Arch Rec 99:94-124 Mr '46
Vocational school, Winfield, Kan. il map plans Arch Forum 83:110-11 D '45

Electric equipment

Ever new appliances in Pennsylvania schools used in home-making courses; replacement program. Elec World 125:106+ F 2 '46
Recommended practices for school wiring. Elec West 95:86-8 N '45
Ultraviolet protection for an entire school. il Elec West 95:89 N '45

Heating and ventilation

Report from Canada. il Arch Rec 99:122-4 Mr '46
Schoolroom unit ventilators. J. E. York. diags Heat & Ven 43:69-71 O '46

Lighting

Applied brightness control in school. K. C. Welch. il diags Arch Rec 99:114-19 Mr '46
Better light and better health in this schoolroom; fluorescent and germicidal lamps. L. E. Weber. il Elec World 125:132 My 25 '46
Better light and better sight through teaching. R. C. Putnam. Edison Elec Inst Bul 14:287-9 Ag '46
Brightness control in a model schoolroom. W. Allphin. il plan Illum Eng 41:21-34 Ja '46
Club sponsors model school lighting project. G. D. Hanna. il Elec World 125:114+ Mr 2 '46
Eyes and ears in school; light on growing children. D. B. Harmon. il plans diags Arch Rec 99:78-90 F '46
Light for schools; incandescent. il Elec West 96:68 Ja '46
Lighting design for a model school room. il plan Elec World 124:112+ D 22 '45
Looking to the light; Bowditch grade school experiment. il Sci Am 175:172-4 O '46
New visual environment for schools; remodeled classroom in Bowditch school at Salem, Mass. il plans diags Arch Forum 84:180-3 My '46
Radical departure in daylighting; Saugus Union school, Calif. il plans diag Arch Rec 99:120-1 Mr '46
Saves eyesight of school children; modern sight-saving room in Poughkeepsie school. T. M. Barr. il diag Elec World 124:87 N 24 '45
Surveys prepare for school relighting. Elec West 95:93 D '45
This school wanted the best in seeing conditions; Villa Maria academy at West Chester, Pa. A. A. Brainerd. il Elec World 125:64-5 Mr 2 '46

SCHOOL hygiene
Charter for school health. Pub Health Rep 61:782-4 My 31 '46

SCHOOL libraries
Library list for teachers in Jewish schools. J. S. Golum, comp. 52p pa 50c Jewish education committee of New York, 1776 Broadway, New York 19 '45

SCHOOL lunchrooms and cafeterias. See Lunchrooms and cafeterias, School

SCHOOL savings
New York's 447,635 school savers. F. W. Butterfield. Banking 38:104 Je '46
Opportunity for thrift education. J. R. Dunkerley. Banking Law J 63:378-9 My '46
Pupils run this school bank in Worcester, Mass. Banking 38:72-3 Mr '46

SCHOOL shops
Building types study number; school shop for general education; with time saver standards. il plans diags Arch Rec 100:91-106, 119+ Jl '46

Safety measures

School shop safety legislation; tabulation by states with time-saver standards. Arch Rec 100:123 Jl '46

SCHOOL supplies
Surplus equipment should be available to educational institutions at reasonable prices. Mach 52:174 Ag '46

SCHOOLS
Max Schott school system; Climax molybdenum co. O. B. Slostad. il Min & Met 27: 364-5 Je '46
School market indicates need for many products. J. Jackson. Dom Comm 34:47-9 S '46

See also
Aeronautic schools
Colleges and universities
Engineering colleges
Library schools and training
Mining schools and education
Nursery schools

SCHORI process
Fighting corrosion by pistol; sprayed metal and plastic coatings. il diag Sheet Metal Worker 37:43-4+ Jl '46
Flame sprayed plastics. M. J. Gurdin. il Iron Age 158:64-5 Ag 22 '46

SCHOTT, Max
President and chairman, Climax molybdenum company. por Min & Met 27:370-1 Je '46

SCHRADER, Frank Charles, 1860-1944
Memorial. W. C. Mendenhall. bibliog por(pl 10) Geol Soc Proc 1945:259-70 Je '46

SCHRAM, Clare Frederick Nesbitt, 1884-1945
Passing of the pioneers. por Ind Med 15:274-5 Ap '46

SCHRAM, Emil, 1893-
Ribbon to wear. por Fortune 33:198+ Ja '46
Sketch. W. A. Howell. por Mag of Wall St 78:585 Ag 17 '46

SCHRECKENGOST, Don, 1911-
Don Schreckengost with Homer Laughlin china co., Newell, W.Va. por Am Cer Soc Bul 25:35 Ja 15 '46

SCHUMANN region. See Spectrum, Ultraviolet

SCHUYLKILL river
Coal fines to offset cost of culm elimination; Schuylkill River desilting project to recover high btu fuel. J. H. Allen. il Civil Eng 16:395-7 S '46

SCHWARZSCHILD solution
Schwarzschild interior solution. N. Rosen and B. Newman. Phys R 70:565-6 O 1 '46
Schwarzschild interior solution in an isotropic coordinate system. M. Wyman. Phys R 70: 74-6 Jl 1 '46

SCHWERIN research associate
Radio profiles; new methods of analyzing air shows. Bsns W p74-6 S 21 '46

SCIENCE
Critique of the exact natural sciences. G. M. Kosolapoff. Science 103:235-6 F 22 '46
Freedom in science. S. J. Lloyd. Can Chem & Process Ind 30:75-8+ Ap '46
1946; part of a balance sheet on three centuries of scientific revolution. il Fortune 33: 122-3 Je '46
X-rays and pure science; abstract. L. Bragg. Electrician 135:528 N 16 '45

See also
Astronomy
Bacteriology
Biological chemistry
Biology
Botany
Chemistry
Crystallography
Geology
Mathematics
Metallography
Meteorology, Aeronautic
Microscope and microscopy
Optics
Paleontology
Physics
Scientific research
Technology
War and science
World war, 1939-1945—Science and the war

Bibliography

Book reviews. Published in Review of scientific instruments April and October
Book reviews. Science 103:28+ Ja 4 '46 [cont weekly]
Industrial and scientific technical reports released by the army and navy; index [377 titles]. Chem & Met Eng 52:220+ N '45
Reports on enemy science and technology available at Liaison office; National research council. Ottawa. Can Chem & Process Ind 30:62+ My '46

SCIENCE—Bibliography—*Continued*
Scientific, medical, and technical books, published in the United States of America, 1930-1944; a selected list of titles in print with annotations. R. R. Hawkins, ed. 1114p $20 R. R. Bowker co, 62 W. 45th st, New York 19 '46

Dictionaries

German-English science dictionary. L. De Vries. 2d ed rev & enl 558p $4.50 McGraw-Hill book co, New York '46

Ethical aspects

Scientific ethics. A. V. Hill. Chem & Eng N 24:1343-6 My 25 '46; Excerpts. Metal Prog 49:1211-12 Je '46

Exhibitions

American association for the advancement of science; preview of science exhibition. Science 103:273-9, 367-9 Mr 1, 22 '46

International aspects

British science in America; British mission in Washington. A. King. Chem Age (Lond) 54:92-3 Ja 19 '46
Science and Anglo-American relations. W. P. Cohoe. Chem & Ind p271-5 Jl 20 '46; Same cond. Chem & Eng N 24:1792-4 Jl 10 '46; Abstract. Can Chem & Process Ind 30:92 S '46
See also American-Swiss foundation for scientific exchange

Methodology

Plea for the scientific method. L. Hoffer. Inst Radio Eng Proc 34 [Waves & Electrons 1]:56W-7W F '46

Periodicals

Bibliography of the bulletin (Izvestîa) of the Academy of sciences of the U.S.S.R. T. Besterman. J Doc 1:45-56 Je '45
See also
Chemistry—Periodicals

Popularization

Publicity of science; discussion. Engineer 180:322-3 O 26 '45

Social aspects

George Westinghouse centennial forum; voiced opinions of world famous scientists. Power Pl Eng 50:109-11 Jl '46; Power 90: 491+ Jl '46
Is there a standard to which the wise and the honest can repair? A. J. Carlson. Science 103:377-82 Mr 29 '46
National science foundation and the scientific worker. R. W. Gerard. Science 103:4-6 Ja 4 '46
Planning in science. V. Bush. Chem & Eng N 24:1333-7 My 25 '46; Abstract. Metal Prog 49:1197-8 Je '46
Science and life in the world; George Westinghouse educational foundation forum, May 16-18. Science 103:662-6 My 31 '46
Science and man's dilemma. B. L. Melvin. Science 103:241-5 Mr 1 '46; Reply. C. D. Miller. 103:404 Mr 29 '46
Science for democracy. W. Shepard. Science 103:65-8 Ja 18 '46
Science, strength, and stability; problem of attaining national harmony and international peace. V. Bush. il Tech R 48:553-6+ Jl '46; Same. Elec Eng 65:508-12 N '46
Science teachers and the atomic bomb. R. M. Noyes. J Chem Educ 23:343-4 Jl '46
Science, technology, and man. P. Le Rolland. Mech Eng 68:961-2+ N '46
Scientific and engineering progress; insurance against aggression and depression. K. T. Compton. Chem & Eng N 24:1328-32 My 25 '46; Abstract. Metal Prog 49:1195-7 Je '46
Social composition of scientific power. I. Bowman. Chem & Eng N 24:1338-42 My 25 '46; Excerpts. Metal Prog 49:1210 Je '46
Westinghouse forum; Science and life in the world. Chem & Eng N 24:1324-77 My 25 '46; Metal Prog 49:1193-1212 Je '46

Study and teaching

Cultural values of the sciences in the premedical program. W. B. Meldrum and W. E. Cadbury, jr. J Chem Educ 23:338-40 Jl '46
High school science. C. A. Gramet. Science 103:149 F 1 '46; Reply. C. E. Abbott. 103: 317-18 Mr 8 '46; Discussion. R. Ward. 103: 458-9 Ap 12 '46
Science instruction at the University study center, United States army, Florence, Italy. J. E. Bentley. Science 104:357-60 O 18 '46
Science seminars. Sister M. Ignatia. J Chem Educ 23:149-51 Mr '46
See also
Scientific education

Yearbooks

Science year book of 1946. J. D. Ratcliff, ed. 245p $2.50 Doubleday & co, 14 W. 49th st, New York 20 '46

Great Britain

Alliance of industry and scientific research in Great Britain. B. J. A. Bard. Science 103:6-8 Ja 4 '46
Science in industry; abstract. E. Appleton. Chem & Ind p61-2 F 9 '46
See also
Science and state—Great Britain

Philippine Islands

War and science in the Philippines. J. L. Gressitt. Science 102:537-8 N 23 '45

Russia

Freedom of science in Soviet Union. V. C. Asmous. Science 103:281-2 Mr 1 '46
My trip to Russia; Kapitza's laboratory in Moscow. I. Langmuir. il Chem & Eng N 24:759-65 Mr 25 '46
Russian in the chemist's curriculum. J. G. Tolpin. bibliog J Chem Educ 23:123-6 Mr '46
Russian science plan; abstract. A. S. Vavilov. Mech Eng 68:645-6 Jl '46
USSR's five-year plan for science. Chem & Eng N 24:1799 Jl 10 '46

United States

How badly have we blundered? L. Reyerson. Chem & Eng N 24:2184-6+ Ag 25 '46
SCIENCE and religion. See Religion and science
SCIENCE and state
Co-operative research; government support for associations. H. Morrison. Elec R (Lond) 137:721 N 16 '45
Freedom for scientific work; resolution passed by Southwestern section of Society for experimental biology and medicine. Science 102:473 N 9 '45
Magnuson bill. H. S. Reed. Science 102:524 N 23 '45
Ministry of science needed. F. J. Curtis. Can Chem & Process Ind 30:73-4 Ja '46
National research foundation limited to basic sciences favored by Engineers' panel. Civil Eng 15:572-4 D '45
National science foundation; editorial. Mech Eng 67:787-8 D '45
Organization and support of science in the United States. L. C. Dunn. Science 102: 548-54 N 30 '45
Pending legislation for federal aid to science; letter by Committee supporting the Bush report. Science 102:547-8 N 30 '45
Problems we face. L. A. Hawkins. Mech Eng 68:11-13+ Ja '46; Abstract. il Machine Design 18:101-2+ Ja '46
Promotion of science by the government; Western reserve university chapter of the Society of Sigma Xi and the Cleveland physics society recommendations. Science 102:581-2 D 7 '45
Research, industry, and government. B. K. Brown. Am Pet Inst Proc 25(1):60-5 '45; Same abr. Pet Refiner 24:181+ N '45; Same cond. Chem & Eng N 23:2328-30+ D 25 '45
Science and our future. E. U. Condon. Science 103:415-17 Ap 5 '46
Science and post-war prosperity. H. M. Kilgore. il Dun's R 54:11-15+ Ja '46

SCIENCE and state—*Continued*
Science and the government. H. M. Kilgore. Science 102:630-8 D 21 '45
Science for democracy. W. Shepard. Science 103:65-8 Ja 18 '46
Science versus planning. J. Chamberlain. Fortune 33:187 Ja '46
Science v. politics; the chemical industry medal address. S. D. Kirkpatrick. Chem & Ind p386-8 D 15 '45; Excerpts. Chem & Met Eng 52:101 N '45
Scientific and engineering progress; insurance against aggression and depression. K. T. Compton. Chem & Eng N 24:1328-32 My 25 '46; Abstract. Metal Prog 49:1195-7 Je '46
Scientist and the war. J. H. Hildebrand. Chem & Eng N 23:2317-21 D 25 '45
Should science have cabinet status? F. J. Curtis. Chem & Ind p82-4 F 23 '46

See also
Scientific research—Legislation, Proposed

Great Britain

Research, education and the government. H. Morrison. Engineer 181:244-5 Mr 15 '46
Science and reconstruction. J. Anderson. Engineer 180:483-4 D 14 '45
Science and the British colonies. Science 104: 297-9 S 27 '46

SCIENCE and war. See War and science

SCIENCE librarians. See Librarians, Special

SCIENCE libraries. See Scientific libraries

SCIENCE service, Washington, D.C.
National advertisers contribute products to monthly scientific surprise packages. N. Kelne. Ptr Ink 216:126 S 13 '46

SCIENCE talent search
Scholarships awarded. Chem & Eng N 24:812 Mr 25 '46
Sixth annual search. Science 104:348 O 11 '46

SCIENCE teachers
Little researcher. C. G. Hartman. Science 103:493-6 Ap 26 '46; Reply. A. C. Warrington. 104:62-3 Jl 19 '46
Science teacher and legislative proposals for the promotion of science. F. E. E. Germann. Science 103:68-9 Ja 18 '46

SCIENTIFIC American (periodical)
Century of Scientific American. A. G. Ingalls. il diags Sci Am 173:327-32 D '45

SCIENTIFIC apparatus and instruments
Electrical measuring instruments. D. C. Gall. Inst E E J 93 pt 1:352-4 Ag '46; Excerpts. Engineering 162:308 S 27 '46
Europe in acute need of scientific instruments. W. R. Turner and J. L. Thomas. il For Comm W 24:6-7+ S 28 '46
Physical society exhibition of scientific instruments and apparatus. Chem & Ind p 17-18 Ja 12 '46
Scientific instruments in Britain. C. Darwin. Engineer 182:78-9 Jl 26 '46
Surplus scientific apparatus; Parliamentary and scientific committee's discussion. Chem Age (Lond) 54:530 My 11 '46

See also
Aeronautic instruments
Cathode ray tubes
Chemical apparatus
Electric apparatus and appliances
Electric instruments
Medical instruments and apparatus
Meteorological instruments
Optical instruments
Physiological apparatus
Radio instruments
Surgical instruments and apparatus

History

History of the British scientific instrument industry. S. L. Barron. Engineering 162: 113-14, 127 Ag 2-9 '46

SCIENTIFIC education
How badly have we blundered? L. Reyerson. Chem & Eng N 24:2184-6+ Ag 25 '46
Need for a meaningful B.S. degree; Advisory committee on scientific personnel. Science 103:438-9 Ap 12 '46

SCIENTIFIC ethics. See Science—Ethical aspects

SCIENTIFIC libraries
Is science's Waterloo at the library? C. R. Hammond. Power Pl Eng 50:69+ S '46
Report of the activities of the biological sciences group of the Southern California chapter. E. Moyers and E. Adams. Special Lib 37:81-5 Mr '46
Science librarianship. J. W. Hunt. Science 104:171-3 Ag 23 '46

See also Krese-Hooker scientific library

SCIENTIFIC literature
Better titles, more effective publication. O. A. Stevens. Science 104:179-80 Ag 23 '46
Consultant articles; method of testing scientific evidence. C. F. Bodecker. Science 103:541-2 Ap 26 '46
Draft plan for the publication of scientific papers. N. W. Pirie. J Doc 1:26-30 Je '45
International cooperation in scientific documentation. A. Seidell. Science 104:174-5 Ag 23 '46
Is science's Waterloo at the library? C. R. Hammond. Power Pl Eng 50:69+ S '46
Present status of German scientific publications. Chem & Eng N 24:790-2 Mr 25 '46
Punch cards for indexing scientific data. C. F. Bailey and others. bibliog Science 104: 181 Ag 23 '46
Reform of the system of scientific publications; abstract. E. Reid. Assn of Sp Lib & Inf Bur Proc 1945:64
Scientific information from enemy sources and government-sponsored research. J. C. Green. Chem & Eng N 24:1795-9 Jl 10 '46
Scientific publication as affected by war and politics. S. W. Fernberger. Science 104:175-7 Ag 23 '46
Searching the Russian technical literature. J. G. Tolpin. bibliog J Chem Educ 23:485-9 O '46

SCIENTIFIC management. See Industrial management

SCIENTIFIC method
Planning in science. V. Bush. Chem & Eng N 24:1333-7 My 25 '46; Abstract. Metal Prog 49:1197-8 Je '46
Scientist's social responsibility; extending application of scientific method to problems of society. F. Bitter. Tech R 48:427-8+ My '46

See also
Science—Methodology

SCIENTIFIC personnel, Advisory committee on. See Civil service commission—Advisory committee on scientific personnel

SCIENTIFIC research
Advancing statistical front. W. A. Shewhart. Am Stat Assn J 41:1-15 Mr '46
Alliance of industry and scientific research in Great Britain. B. J. A. Bard. Science 103:6-8 Ja 4 '46
AIC gold medal presented to Russell; medalists acceptance address. Chem & Eng N 24:1527-8 Je 10 '46
Associated universities, inc. will operate research center at Camp Upton. Science 104: 205 Ag 30 '46
Civilian agencies renew fight for control of research. Bsns W p7 O 26 '46
Cultural understanding and appreciation of the scientific approach. R. H. Ojemann. Science 104:335-8 O 11 '46; Discussion. P. A. Carmichael. 104:428 N 1 '46
Freedom in science. S. J. Lloyd. Can Chem & Process Ind 30:75-8+ Ap '46
Government, research, and industry; abstract. E. C. Williams. Chem & Eng N 24: 1901 Jl 25 '46
Great science debate; the atom touched off debate on national science policy. il Fortune 33:116-21+ Je '46
Importance of scientific research in the postwar era. G. R. Harrison. Science 103:125-8 F 1 '46
Industrial view of research trends. M. L. Tainter. Science 103:95-9 Ja 25 '46
Industry and research; extracts from the papers at Conference of Federation of British industries. Chem & Ind p147-8, 154-6 Ap 6-13 '46
Industry and research; F.B.I. two-day conference in London. Chem Age (Lond) 54: 363-4 Ap 6 '46
Information service as an essential in the progress of science. J. D. Bernal. Assn of Sp Lib & Inf Bur Proc 1945:20-4

SCIENTIFIC research—*Continued*
Libraries, advance scouts for research. L. O. Lewton. bibliog Chem & Met Eng 53:112-13+ Mr '46
National research foundation limited to basic sciences favored by engineers' panel. Civil Eng 15:572-4 D '45
National research in 1945. Can Chem & Process Ind 30:69-72 Ja '46
National science foundation; will it be a practical reality or a perpetual controversy? I. M. Kolthoff and M. B. Visscher. Science 103:104 Ja 25 '46
New honors of discovery for Dr Joseph Priestley. W. D. Trow. Franklin Inst J 242:197-202 S '46
Partners in science; research scientists, inventors, and engineers. L. W. Chubb. Chem & Eng N 24:1325-7 My 25 '46; Same abr. Machine Design 18:101-4 Ag '46
Pontifical academy of sciences compiles report of scientific research from 1939 to the present day. Science 103:47 Ja 11 '46
Present situation concerning the collection and dissemination of information on German scientific advances and discoveries. R. Adams. Chem & Eng N 24:798 Mr 25 '46
President Truman appoints Presidential research board. Science 104:418 N 1 '46
Problems we face. L. A. Hawkins. Mech Eng 68:11-13+ Ja '46; Abstract. il Machine Design 18:101-2+ Ja '46
Regional research stations in basic science. L. R. Dice. Science 103:403 Mr 29 '46
Research and its evolution; abstract. G. Dunn. Elec Eng 65:43 Ja '46
Researches of Mellon institute, 1945-1946. il Chem & Eng N 24:906-15 Ap 10 '46
Science and engineering. B. A. Bakhmeteff. Civil Eng 16:99-100 Mr '46
Science and industrial planning; British association's conference. Chem Age (Lond) 53:587-8 D 22 '45
Science and reconstruction. J. Anderson. Engineer 180:483-4 D 14 '45; Abstract. Electrician 135:656 D 14 '45
Science and the British colonies. Science 104: 297-9 S 27 '46
Science in industry; abstract. E. Appleton. Chem & Ind p61-2 F 9 '46
Science v. politics; the chemical industry medal address. S. D. Kirkpatrick. Chem & Ind p386-8 D 15 '45
Scientific and military cooperation. D. D. Eisenhower. Econ Geol 41:390-2 Je '46
Scientific research and economic development. G. R. Harrison. Comm & Fin Chr 163:533+ Ja 31 '46
Scientific research and national welfare. L. B. Loeb. Science 103:540-1 Ap 26 '46
Statistical methods in research. H. M. Smallwood. bibliog J Chem Educ 23:352-6 Jl '46
Team work in research. C. H. Lander. diags Engineer 180:330-1, 353-5 O 26-N 2 '45; Same cond. Engineering 161:21-3, 33 Ja 4-11 '46
War department research and development. A. Leggin. il Chem & Eng N 24:2760-1 O 25 '46
What should be done with German research. Chem & Met Eng 53:212 Ap '46
Worm i' th' bud; suppression of vital data in publishing results of scientific research. Chem & Ind p74 F 16 '46

See also
Aeronautic research
Agricultural research
Atomic research
Battelle memorial institute
Biological research
Caribbean research council
Chemical research
Colleges and universities—Research
Electric research
Engineering colleges—Research
Engineering research
Government research
Industrial research
Laboratories
Medical research
Metallurgical research
Microscope and microscopy
Petroleum research
Physical research
Scholarships and fellowships
Textile research

also Ella Sachs Plotz foundation for the advancement of scientific investigation; Great Britain—National physical laboratory, Teddington; Hormel institute, Austin, Minnesota; Pacific research foundation; Southern research institute, Birmingham, Alabama

Finance
Federal support of scientific research; report of Yale committee. Science 102:524-5 N 23 '45; Reply. R. G. Roberts and H. H. Beard. 102:660 D 28 '45
Government support for research associations in Great Britain. H. Morrison. Science 103:20 Ja 4 '46
Organization and support of science in the United States. L. C. Dunn. Science 102: 548-54 N 30 '45
Permanent science fund of the American academy of arts and sciences. Science 102: 662 D 28 '45
Research, industry, and government. B. K. Brown. Am Pet Inst Proc 25(1):60-5 '45; Same abr. Pet Refiner 24:181+ N '45; Same cond. Chem & Eng N 23:2328-30+ D 25 '45
Resolutions of the Southwestern section of the Society for experimental biology and medicine. Science 102:607 D 14 '45
Science dons a uniform; basic research passing into hands of army and navy. Bsns W p19-22+ S 14 '46
Support of scientific research. C. C. Little. Science 103:543-4 Ap 26 '46

See also
Research corporation

Legislation, Proposed
Chicago scientists hold science legislation forum. Chem & Eng N 23:2092-3 N 25 '45
Committee organized to support Magnuson bill. Chem & Eng N 23:2218+ D 10 '45
Compromise bill for a national science foundation; Kilgore-Magnuson bill. H. A. Meyerhoff. Science 103:192 F 15 '46
Domestic control of atomic energy. H. A. Meyerhoff. Science 103:133-6 F 1 '46
Engineers testify at Senate hearings on science legislation. Elec Eng 64:464-5 D '45
Further notes on science legislation. R. Chambers. Science 103:160-1 F 8 '46
Hearings on scientific legislation. Chem & Eng N 23:1987-98 N 10 '45
Kilgore injects conservatism into new science program bill. Steel 118:58+ Ja 21 '46
Magnuson bill. H. S. Reed. Science 102:524 N 23 '45; Reply. R. D. Bennett. 103:85 Ja 18 '46
Pending legislation for federal aid to science; letter by Committee supporting the Bush report. Science 102:547-8 N 30 '45
Policy battles back of the proposed research foundation. R. S. McBride. Chem & Met Eng 52:99-100 N '45
Postwar research; abstract. F. B. Jewett. Elec Eng 65:43-4 Ja '46
Research, industry, and government. B. K. Brown. Am Pet Inst Proc 25(1):60-5 '45; Same cond. Chem & Eng N 23:2328-30+ D 25 '45
Revised Kilgore bill introduced in Congress. Chem & Eng N 24:173-6 Ja 25 '46
S. 1720. Science 103:39-45+ Ja 11 '46
S. 1720 vs. S. 1777. H. A. Meyerhoff. Science 103.161-2 F 8 '46
Science and post-war prosperity. H. M. Kilgore. il Dun's R 54:11-15+ Ja '46
Science and the government. H. M. Kilgore. Science 102:630-3 D 21 '45
Science foundation bill compromise between federal setup and one directed by scientists. V. B. Guthrie. Nat Pet N 38:50+ Mr 6 '46
Science legislation. R. Chambers and J. S. Nicholas. Science 102:649-50 D 21 '45
Science legislation and geology. C. Croneis. Am Assn Pet Geologists Bul 30:1104-14 Jl '46
Science legislation and the holiday recess. H. A. Meyerhoff. Science 103:10-11 Ja 4 '46
Science legislation; revised Kilgore-Magnuson bill, S. 1850. Chem & Eng N 24:786-9 Mr 25 '46
Science teacher and legislative proposals for the promotion of science. F. E. E. Germann. Science 103:68-9 Ja 18 '46
Significance of expanding government industrial research program. N. T. Carruthers. Mag of Wall St 77:319+ D 22 '45
Statement by Senator Willis introducing a bill for a national science foundation; with text of S. 1777. Science 103:163-5 F 8 '46

SCIENTIFIC research—Legislation, Proposed —*Continued*
Willis bill, S. 1777. Chem & Eng N 24:789 Mr 25 '46
See also
National science foundation (proposed)

SCIENTIFIC societies
Famous British professional and scientific societies. F. T. Sisco. Min & Met 26:492; 27:185 O '45, Mr '46
Proposed international association of scientists. C. D. Leake. Science 103:148 F 1 '46
See also American association for the promotion of science, literature, and the arts

SCIENTISTS
Appeal for the deferment of college science students. O. C. Carmichael and others. Science 102:500-1 N 16 '45
Are research scientists people? F. W. Godwin. Power Pl Eng 49:69+ N '45
Do we really need engineers and scientists? A. R. Cullimore. J Eng Educ 36:320-6 Ja '46
Engineers and scientists in government service; hiring and rating of technical talent in Naval ordnance laboratory. R. D. Bennett. Elec Eng 64:383-6 N '45; Discussion. 65:52-3 Ja '46
Future supply of scientific personnel. M. H. Trytten. Mech Eng 68:123-6+ F '46
Great science debate; the atom touched off debate on national science policy. il Fortune 33:116-21+ Je '46
Inventions of scientists; the legal position of scientific discovery. S. Mittler. Chem Age (Lond) 53:592-4 D 22 '45
News from abroad. Science 102:192, 298, 323-4, 348-9, 371-3, 393-5, 418-19, 441-3, 474-5, 501-3, 525-6, 556-8, 583-5, 610-12, 640-2, 662-3; 103:19, 142, 234, 337, 395-7 Ag 24, S 21 '45-Ja 4, F 1, 22, Mr 15, 29 '46 [cont as International news]
Scientific ethics. A. V. Hill. Chem & Eng N 24:1343-6 My 25 '46; Excerpts. Metal Prog 49:1211-12 Je '46
Scientific training. H. A. Meyerhoff. Science 103:70-1 Ja 18 '46
Scientist and the war. J. H. Hildebrand. Chem & Eng N 23:2317-21 D 25 '45
Selective service and student personnel. H. A. Meyerhoff. Science 103:479-80 Ap 19 '46
Sources of our future scientists; educated groups have failed to bear enough children to replace themselves. C. J. Gamble. Science 103:457-8 Ap 12 '46; Reply. W. M. Venable. 103:599-600 My 10 '46
Universal military service in peacetime; statement by American mathematical society and Mathematical association of America. Science 103:579-81 My 10 '46
Waste of scientific manpower; abstract. W. Davis. Chem & Met Eng 53:260+ Ap '46
Where is the long hair? war explodes popular misconception of research men. P. M. Morse. il Tech R 48:107-8+ D '45
See also
Priestley, Joseph

Public relations
Facing forward. E. Holman. Am Assn Pet Geologists Bul 30:1099-1103 Jl '46
Role of the scientist in promoting world peace. T. H. Hogness. Chem & Eng N 24:2605-7 O 10 '46
Role of the scientist in promoting world peace. W. A. Noyes, jr. and others. Chem & Eng N 24:2604-5 O 10 '46
Science knocks at the door of American politics. M. L. Cooke. Advanced Management 10:126-30 D '45
Science, strength, and stability; problem of attaining national harmony and international peace. V. Bush. il Tech R 48:553-6+ Jl '46; Same. Elec Eng 65:508-12 N '46
Scientist and his government. V. Bush. R Sci Instr 17:171-7 My '46
Scientist's social responsibility; extending application of scientific method to problems of society. F. Bitter. Tech R 48:427-8+ My '46
Scientists urged to play greater role in government; abstract. E. K. Rideal. Oil Paint & Drug Rep 149:7 Ap 8 '46
See also
Chemists—Public relations

Germany
Contribution to Nazi war machine by German scientists; abstract. L. E. Simon. Iron Age 158:151-3 Ag 1 '46

Great Britain
Scarcity of scientific man power in Great Britain. Science 104:226-7 S 6 '46

India
India's scientist-builder, Sir Shanti Swarup Bhatnagar. C. Kant. Chem Age (Lond) 55:317-19 S 14 '46

Japan
Japanese scientific men. Science 103:597 My 10 '46
War and biological sciences in Japan. J. L. Gressitt. Science 103:755-8 Je 28 '46

Russia
Russian scientists. Science 102:sup10 N 23 '45

SCITUATE, Massachusetts
Water supply
Scituate builds wells of non-corrosive materials; transite screen and well pipe. W. J. Lumbert. il diags Pub Works 76:25-6 N '45

SCORCH removal
Scorched fibers revived by application of ultra-violet rays. il Sci Am 173:305 N '45

SCOTCH whisky. See Whisky

SCOTLAND
See also
Banks and banking—Scotland
Distilling industries—Scotland
Oil shales—Scotland
Telephone—Scotland

Industries and resources
Peat; undeveloped raw material of Scotland. A. G. Clement and R. H. S. Robertson. Chem Age (Lond) 55:129-32 Ag 3 '46

SCOTT paper company
Preferred stock offered. Comm & Fin Chr 163:1908 Ap 8 '46

SCOVILL manufacturing company
Earnings returning to normal. Barron's 26:6 O 28 '46

SCRANTON, Pennsylvania
Industries
Scranton digs out of a cave-in by financing two business co-ops. il Bsns W p21-2+ Mr 9 '46

Water supply
Survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:422-36 Mr '46

SCRANTON electric company
Stocks offered. Comm & Fin Chr 163:2448 My 6 '46

SCRANTON-SPRING BROOK water service company
Amended recapitalization plan. Barron's 25:15 D 17 '45
SEC accepts plan. Comm & Fin Chr 163:1481 Mr 18 '46
Securities offered. Comm & Fin Chr 163:2587-8 My 13 '46
To redeem all direct and assumed funded debt of predecessor company. Comm & Fin Chr 163:2769 My 20 '46

SCRAP material
See also
Cotton waste
Railroads—Scrap material
Rubber waste
Salvage (waste, etc.)
Scrap metal

SCRAP metal
Built-in pallets cut scrap-handling time; Allis-Chalmers supercharger plant. F. MacDonald. il diag Factory Management 103:92-3 N '45

SCRAP metal—*Continued*
Demand for steel scrap creates a good market for old ships. Marine Eng 51:111-13 Ag '46
Family rivals; Luria steel & trading corp., competitor of Luria bros. & co., purchases scrap firms. Bsns W p32+ Je 22 '46
Former liner Normandie to yield 40,000 tons of scrap. il Iron Age 158:110 O 10 '46
Navy recovers aluminum and byproducts from wrecked planes. J. Anthony. Iron Age 157:100-1 Ap 11 '46
Overseas scrap disposal policy to restrict shipments to U.S. Steel 118:93+ Ja 28 '46
Pneumatic scrap collection. il diag Steel 117: 121+ N 12 '45
Scrap famine. Bsns W p28+ Je 22 '46
Scrap needs to revive shipbreaking. Blast F & Steel Pl 34:1148-9 S '46
Subsidy is essential to return of battlefield scrap to this country. R. W. Wolcott. il Iron Age 158:98 O 24 '46
Use of scrap in the blast furnace. K. Neustaetter. Blast F & Steel Pl 34:592-3+ My '46; Same. Steel 119:122+ Jl 1 '46

See also
Aluminum waste
Metal waste
Railroads—Scrap material
Salvage (waste, etc.)
Steel waste

Prices

Complete text of new OPA scrap price amendment. Iron Age 158:100 S 19 '46
Heavy melting and other scrap, monthly, 1933-1945; tabulations. Iron Age 157:244+ Ja 3 '46
Scrap composite price; monthly, 1933-1945; tabulation. Iron Age 157:172 Ja 3 '46

SCRAP metal industry
French-Italian trade pact promises increased scrap movement. Iron Age 157:106 Mr 21 '46
Iron and steel scrap; annual review and forecast. E. K. Jenckes. Min Cong J 32: 110-11 F '46
Limited supply of scrap available for 1946. E. C. Barringer. il Blast F & Steel Pl 34: 85-6+ Ja '46
Nonferrous scrap and secondary metals; annual review and forecast. H. L. Cullen. il Min Cong J 32:112-15 F '46
Scrap; present and future prospects. J. Anthony. il Iron Age 157:150-3 Ja 3 '46
Secondary metals; present and future prospects. W. A. Lloyd. il Iron Age 157:154-5 Ja 3 '46

SCRAPERS
Heavy rock excavation in Kentucky hauled with earthmoving scrapers; highway relocation project. il Eng N 137:384-5 S 19 '46
Larger tires increase efficiency of scraper. Steel 119:138 Ag 5 '46
Michigan counties use underbody scrapers for secondary road maintenance. A. L. Burridge. il Roads & Bridges 84:36+ My '46
Slack-line scraper used for open pit. C. K. Carmean and H. O. Gray. il Eng & Min J 147:76-7 Jl '46

SCRAPERS, Pipe
Develop new spring-loaded pipe scraper for removing wax in lube oil plant. T. E. Schley. il Nat Pet N 38 pt 2:R416 Je 5 '46

SCREEN printing. See Silk screen printing

SCREENING
Screening efficiency of a dry-pan grinding system. D. P. Brown and R. Hess, jr. bibliog Am Cer Soc J 29:147-51 Je 1 '46

See also
Coal screening

SCREENS
Build up large reserve storage; American aggregates corporation. B. Nordberg. il Rock Prod 48:64-5 N '45
Cooling tower screens protect circulating pumps from trash. il Pet Refiner 25:150 F '46
Fine screen filters for sewage treatment. G. M. Gardner. il Water & Sewage Works 93: 31-4 Ja '46
Getting results in maintaining coal-preparation plants. F. W. Richart. il diags Coal Age 50:93-6 N '45
Jonsson knotter screen and its operation on sulphite pulp. F. J. Lang. il diags Pulp & Pa of Can 47:65-6 Ap '46
Scituate, Mass. builds wells of non-corrosive materials; transite screen and well pipe. W. J. Lumbert. il diags Pub Works 76:25-6 N '45
Screen clogging by a rare species of algae; dichotomosiphon tuberosus. W. W. De Berard and J. R. Baylis. il Water & Sewage Works 93:223-4 Je '46
Ventilating separators, breakers, screens. C. C. Hermann. diags Foundry 74:97+ S '46

SCREENS, Plastic
Georgia plant makes screen, cloth from plastics; Chicopee manufacturing corp. il Manuf Rec 115:54+ O '46

SCREW conveyors. See Conveying machinery—Screw conveyors

SCREW machines
Careful tool layouts shorten screw-machine cycles. A. Ainsworth. plans Am Mach 90: 108-10 Ap 25 '46
Conditioning coolants in a centralized sump; Mills industries, inc, Chicago. C. Brandquist. il Factory Management 104:149-50 Mr '46
High-speed chain drives for automatic screw machines. Mach 52:172 Ag '46
Matrix precision screw-cutting lathe. il Engineer 181:139 F 8 '46
Monarch produces versatile high production hand screw machine. il Am Mach 90:152 F 14 '46; Iron Age 157:75 F 14 '46
New center for screw machine technology scheduled for fall at the Rochester institute of technology. Iron Age 157:141+ Je 6 '46
Oil cleaning system; services seventeen automatic screw machines. il Steel 119:77+ Ag 12 '46
Production processes; their influence on design; Swiss automatic machining. R. W. Bolz. il diags Machine Design 18:117-22 F '46
Spindle-control and collet-operating mechanism for screw machines. A. W. Jansson. diags Mach 52:189-91 Jl '46
Warner & Swasey five-spindle automatics. il Mach 52:193-4 Ja '46

SCREW threads
Flush-pin gage checks thread depth accurately. J. T. R. McCann. diag Am Mach 89:136 D 6 '45
Selection of screw thread for maximum axial force. E. E. Modes. diags Product Eng 17: 244-5 Mr '46
Strength of screw threads of Whitworth form. J. V. Inglesby. Roy Aeronautical Soc J 50:710-17 S '46
Thread grinding with crush-dressed and diamond-dressed wheels. E. V. Flanders. Mach 53:200-2 N '46
Thread measuring gauge. il Engineer 180:332 O 26 '45
Watch and instrument threads; tables; reference book sheet. Am Mach 90:155+ My 23 '46

See also
Pipe threads
Thread cutting

Standards

American and British screw thread differences discussed; proposed international standards. Iron Age 157:107A-107B F 28 '46
Conference on screw threads reaches basic agreements. Ind Stand 16:223-4 O '45
Inch screw thread practice unified. diags Ind Stand 17:36-42 F '46
International unification of engineering standards; agreements reached in three-country conference. diag Product Eng 17: 324-6 Ap '46
New basic screw thread form; will be adopted by United States, Canada and England; drawing. diag Materials & Methods 23:1127 Ap '46
Three-wire thread gaging simplified; charts and tables; thread forms include National fine and National coarse series, Whitworth standard, British association, British standard fine, and French standard. J. J. Meadows. diag Iron Age 157:51-7 Ap 18 '46

SCREW threads—*Continued*

Testing

Cutaway V-block eases screw thread inspection. C. Tripp. diags Am Mach 90:141 My 9 '46

Edgwick thread comparator. il Engineer 181: 208 Mr 1 '46; Engineering 161:222 Mr 8 '46

Internal-thread comparator. il diag Engineering 162:55 Jl 19 '46

Marley thread-measuring parallels. il diags Engineering 161:297 Mr 29 '46

Screw thread measuring parallel slips. il Engineer 181:139 F 8 '46

Short cut for checking pitch diameter. J. De Marco. Am Mach 89:109 D 20 '45

Thread cutting with dieheads; methods of thread gaging. H. Schlarman. diags Am Mach 90:119-23 Jl 4 '46

Two screw thread measuring devices. il diags Engineer 181:208 Mr 1 '46

SCREWDRIVERS

Justice for the lowly screwdriver. L. L. Dodds. diags Am Mach 90:126 Ag 29 '46

Screw torques properly set with new screw drivers. il Sci Am 175:130 S '46

SCREWS

Design of groove-form screws with ball-bearing nuts. V. L. Maleev. diags Product Eng 17:471-3 Je '46

Screwsticks; assembling device used in camera and instrument manufacture; Eastman Kodak co. il Steel 119:103+ Jl 1 '46

See also
Screw machines
Screw threads

Manufacture

60 per cent savings in screw manufacture; National screw & mfg. co.; illustrations with text. Steel 119:114 S 23 '46

Testing

Self-tapping screws; fastening strengths in various materials. A. C. Millard. il Mech Eng 68:935-42 N '46

Strength of countersunk screws in shear and tension. H. Adams. il diags Product Eng 17:380-3 My '46

SCRUB typhus. See Tsutsugamushi disease

SCRUBBERS

Simultaneous transfer of heat and material in scrubbers. P. Ferencz. Can Chem & Process Ind 30:47-9 Ag '46

SCULPTURE

From stone to statue; carving of Madonna and child, by A. Salvioli. il Comp Air Mag 51:274-5 O '46

See also
Plastic sculpture
Statues

SCULPTURE, Ceramic. See Ceramic sculpture

SCULPTURE, Swedish

Neptune with a chisel; Swedish fountain-maker; Carl Milles. il Arch Forum 84:92-6 Je '46

SEA air

Corrosion of watthour meters in ocean beach areas. A. D. Irion and R. M. Stevens. il Elec World 125:63-5 Ap 27 '46

Corrosion plays havoc with coastal meters. il Elec West 96:62-3 Mr '46

Theory of the mechanism of rusting of low alloy steels in the atmosphere. H. R. Copson. il Am Soc T M Proc 45:554-80 bibliog(p579-80); Discussion. 581-90 '45

SEA food

See also
Fish as food

Transportation

Airborne fish bring higher prices; delivery service of Tex-Air sea foods co. R. McDaniel. il Air Transport 4:84-5 O '46

SEA power

Need for sea power continues. C. W. Nimitz. Marine Eng 51:122-3 My '46

SEA walls

See also
Dikes (engineering)
Jetties
Shore protection
Wharves, Concrete

SEA walls, Concrete

Sea wall, Hampton, New Hampshire; unit prices. Eng N 136:811 My 16 '46

SEA water

Action of antifouling paints; solubility and rate of solution of cuprous oxide in sea water. J. D. Ferry and D. E. Carritt. bibliog Ind & Eng Chem 38:612-17 Je '46

Effect of the iron content of cupro-nickel on its corrosion and resistance in sea water. A. W. Tracy and R. L. Hungerford. il Am Soc T M Proc 45:591-612; Discussion. 613-17 '45

Electrical properties of salt-water solutions over the frequency range 1-4000 mc/s. R. Cooper. bibliog diags Inst E E J 93 pt 3:69-75 Mr '46

Resistance to corrosion by sea water of some α-tin and α-tin-aluminium bronzes; abstracts. J. W. Cuthbertson. Engineer 182: 295-6 O 4 '46; Engineering 162:270 S 20 '46; Discussion. 162:329 O 4 '46

Salt sprays safe for fire-fighting near electric lines. diag Elec World 124:86+ D 22 '45

Sea water battery powers locator buoy; aid in sea-rescue work. diags Product Eng 17: 156 N '46

Solubility of calcium sulphate as a factor in the extraction of magnesia from sea water. F. C. Gilbert and W. C. Gilpin. Soc Chem Ind J 65:111-13 Ap '46

Desalting

Compression distillation of sea water. R. G. Skerrett. il diag Comp Air Mag 51:123-6 My '46

Desalting sea water; practical chemical method. H. L. Tiger and others. bibliog(31 references) flow sheet il Ind & Eng Chem 38: 1130-7 N '46

Descaling of salt water evaporators. Marine Eng 51:109-10 S '46

Distillation; new compressor method supplies fresh water from sea water. il Heat & Ven 43:103-4 F '46

Drinking water from sea water by a chemical method. E. I. Akeroyd and others. bibliog[17 patents] Soc Chem Ind J 65:28-32 Ja '46

Drinking water from sea water; the work of the Royal naval scientific service. Chem Age (Lond) 53:437-9 N 10 '45; Engineer 180:445-6 N 30 '45; Engineering 160:395 N 16 '45; Same cond. Can Chem & Process Ind 30:78 Ja '46

Economic features of low-pressure evaporating and distilling plants; with cost data. M. L. Ireland, jr. Marine Eng 50:159-64; Discussion. 168-71 D '45

How to produce pure water by compression distillation. A. Latham, jr. il diag Power Pl Eng 50:78-80 F '46

Preparation of drinking water from sea water. H. Ingleson. Soc Chem Ind J 64: 305-9 N '45

Sea water distilled. Bsns W p43 F 9 '46

Water distillation makes successful use of vapor recompression. il Chem & Met Eng 53:129 Ja '46

Sound transmission

See Sound—Transmission thru sea water

SEABEES. See United States—Navy—Construction battalions

SEABOARD air line railroad

Receivership terminated. Manuf Rec 115:47 Ag '46

Seaboard Air Line receivership ends. Ry Age 121:187+ Ag 3 '46

Seaboard revamp plan gets I.C.C. clearance. Ry Age 121:24-6 Jl 6 '46

SEADROMES. See Airports, Floating

SEALING

Adhesiveness of seals and closures for packages. diags Paper Tr J 123:42-3 Jl 4 '46

Canned for life; product works in its package; gas packing electrical devices in metal containers, Stratopax. il Mod Packaging 19:151-3 D '45

Design and sealing problems for underwater operation of a vehicle. D. D. Stone. il diags Product Eng 17:474-7 Je '46

Dielectric heating seals giant balls. il Electronics 19:158+ Jl '46

SEALING—*Continued*
Hermetic compressor motors. F. L. Slade. Refrig Eng 50:528-9+ D '45
Hermetically sealed steatite. H. H. Hausner. bibliog diags Am Cer Soc J 29:123-8 My 1 '46
Impregnation of magnesium alloy castings; copolymer of styrene and linseed oil. H. Dobkin. diags Foundry 74:84-5+ N '46
Leakage in capillary seals of hydraulic valves and pumps. P. G. Exline. Product Eng 17: 290-6 Ap '46
Mechanical-seal failures; abstract. D. R. Lewis. diag Power 89:918 Mid-D '45
Mechanical seals. D. R. Lewis. il diag Machine Design 18:125-8 S; 78-82 O; 138-42+ N '46
Multi-purpose protective covering; sealing caps, sleeves and tubing of vinyl materials. il Mod Plastics 24:101-2 O '46
New electronic heat-sealer. il Mod Packaging 19:120-1 My '46
New method of increasing retort tightness. A. G. Bird. il diags Gas J (Lond) 247:679-80+ bibliog(p684) Ap 24 '46; Discussion. 247:724+ My 1 '46
PI standard test methods; for heat-sealing strengths and characteristics of thermoplastic substances. il diag Mod Packaging 20:150-1+ S '46
Plain and laminated felt seals; their design and application. W. H. Lehmberg. il diags Product Eng 17:209-11 Mr '46
Power train is sealed for export shipment. G. L. Moses. Elec World 124:123 D 8 '45
Pump shaft seal. il Product Eng 16:832 D '45
Purification and sealing in vacuum of National bureau of standards standard samples of hydrocarbons. B. J. Mair and others. bibliog pl diag J Res Nat Bur Stand 37: 229-38 O '46
Sav-Way heat sealer. il Chem & Eng N 24: 93 Ja 10 '46
Seal for a rotating shaft. diag Engineer 182: 218 S 6 '46
Sealed electrical bushings for climate-proofing equipment; metal-to-ceramics seals, their manufacture, properties and applications. H. H. Hausner. bibliog il diag Product Eng 16:849-53 D '45
Sealing a rotating shaft; metal bellows construction. R. Hammond. diag Chem Age (Lond) 55:199 Ag 17 '46
Sealing bronze castings; abstract. F. L. Riddell. Materials & Methods 23:1084 Ap '46
Sealing motor bearings. diag Elec R (Lond) 137:756 N 23 '45
Sealing temperature and WVP; a correlation in effectiveness of waxed papers. W. Rabak and J. B. Stark. il Mod Packaging 19:157-60 Ap '46
Seals for preventing oil leakage in high speed superchargers. Z. Fox. il diags Product Eng 17:158-62 F '46
Steam turbines; seals and glands. diags Power 89:800-1 D '45
Synthetics hold aromatic fuels; Hycar parts and seals. W. A. Parrish. il Aero Digest 52: 62+ F '46
Tapping a wet well under pressure; using tremie-placed concrete seal; pumping station, Chicago. il diag Eng N 136:719-21 My 2 '46
Typical methods of sealing rotating shafts. diags Product Eng 17:108-9 O '46
Useful seal for dynamic vacuum systems D. D'Eustachio. diags R Sci Instr 16:377-8 D '45

SEALING *compositions*
Asphaltic oil-latex joint-sealing compound. B. W. Pocock. bibliog il Am Concrete Inst J 17:565-80 Je '46
Curing concrete with sealing compounds. R. F. Blanks and others Am Concrete Inst J 17:493-512 Ap '46
Heat sealing thermoplastics. W. D. Wenger. il diags Mod Plastics 23:135-9 Jl '46
Impregnating magnesium castings; with data on resin-styrene compound. S. A. Moore. il Iron Age 157:76-80 Mr 14 '46
Plastics seals use special vinyl compounds. il Sci Am 174:263 Je '46
Salvage of porous castings; Bakelite sealing solution. Electrician 136:1590 Je 14 '46
Sealing porous castings; thermosetting resin Laminac. P. S. Fuller. il Materials & Methods 22:1746-50 D '45
Sodium silicate sealing of aluminum castings. Iron Age 157:63 Ja 10 '46
Study of resinous sealants for porous metal castings. V. C. F. Holm. bibliog pl J Res Nat Bur Stand 37:177-82 S '46

SEALING *machines*
Heat sealing thermoplastics. W. D. Wenger. il diags Mod Plastics 23:135-9 Jl '46
Sealing and testing of glass ampoules; patent. diag Glass Ind 27:190 Ap '46
Westinghouse sealing-in machine for bulbs; patent. diag Glass Ind 27:190 Ap '46

SEALS
South African fish products; the South African seal fishery. M. M. Black and others. map Soc Chem Ind J 64:326-31 D '45

SEAMEN
Competition at sea; effects of wage increases. Economist 151:417-18 S 14 '46
Crews needed; sailings delayed by shortages of officers, seamen. Bsns W p98+ Ja 5 '46
Health program for the merchant marine. F. Powdermaker and D. Blain. Ind Med 15: 316-19 My '46
International labour organisation, Maritime preparatory technical conference, Copenhagen, Nov. 1945. 8 v, v 1 121p pa 60c; v 2 27p pa 20c; v 3 99p pa 50c; v 4 24p pa 20c; v 5 24p pa 20c; v 6 65p pa 35c; v 7 73p pa 50c; v 8 101p pa 50c International labour office, Montreal '45
Maritime preparatory technical conference of the I.L.O. Int Labour R 53:59-63 Ja-F '46
Premium charges reduced for seamen's insurance. Weekly Underw 153:1081 N 10 '45
Shipping storm; Union threats to tie up all Great Lakes ports. Bsns W p98+ Jl 27 '46
Workmen's compensation for seamen. M. D. Kossoris and J. Zisman. Mo Labor R 62: 851-61 Je '46

See also
Barges—Employees

Law

Reemployment rights of merchant seamen; Public law 87. W. G. Torpey. Personnel J 25:90-3 S '46
Salvage denied members of crew; abandonment of ship not complete. East Underw 46:78 D 14 '45

SEAPLANE *bases*
Floatplane bases cut expenses and time. D. D. Cooke. il diags Aviation 44:178-82 D '45
Flying boat dock; turntable ramp developed by V. Marianno. il Air Transport 4:98 Ja '46
Highest seaplane base turns away business; Lake Tahoe, Calif. E. E. Thorp. il Aviation 45:47 Je '46
Land-water base in Michigan typical. il Aviation N 4:17 N 19 '45
Small seaplane bases expected to multiply in next few years. A. McSurely. Aviation N 4:15-16 N 12 '45

Lighting

Lighting of seadromes. A. L. Lewis. il diag Aero Digest 53:50-2+ S '46

SEAPLANES
Edo XOSE-1 scout observation seaplane. il Aeronautical Eng R 5:41 O '46
New lightplane floats developed from glass. Aviation N 5:26 Je 17 '46
Recollections of early naval flying. F. J. Rutland. il Engineering 162:17-18, 27-8, 49-51, 97-100 Jl 5-19, Ag 2 '46
Seaplane service becoming popular around New York. Air Transport 4:78 Je '46
Whipping corrosion before it starts; seaplane maintenance. P. Battilana. il diag Aviation 44:134-6+ D '45

See also
Flying boats

Landing

Landing analyses for flying boats and seaplanes. E. G. Stout. il diags Aviation 44: 137-41 O; 140-6 N; 163-6 D '45; 45:84-5+ Mr '46

SEARCHLIGHTS
Glass and metal reflectors. Engineer 181:184 F 22 '46
Optics of searchlight illumination. E. O. Hulburt. il Opt Soc Am J 36:483-91 Ag '46

SEARCHLIGHTS—*Continued*
Searchlight developments; C. A. Parsons and co. production of reflectors. Electrician 136: 224 Ja 25 '46; Elec R (Lond) 138:127 Ja 25 '46

SEARS, Roebuck and company
Annual report. Comm & Fin Chr 163:2300 Ap 29 '46
Continental air lines serves Sears, Roebuck. il Aviation N 6:40 Jl 22 '46
Expanding south; Sears, Roebuck's new ventures in Mexico, Brazil. Bsns W p75 O 12 '46
Sears nearing no. 1 spot. Bsns W p74+ O 19 '46
Three-story building on roller bearings; earthquake-resistant construction; addition to Sears, Roebuck building in Los Angeles. plan diags Eng N 136:925-7 Je 13 '46

SEASHORE
See also
Coast changes

SEASICKNESS
Seasickness drug; V-12. Bsns W p57 F 2 '46

SEASIDE houses. See Beach houses

SEASONAL industries
Knotty problem; seasonless auto industry; U.A.W. study marketing plan. Bsns W p76 Ap 27 '46
Seasonal trends in the candy business. S. Caldor. Dom Comm 34:21-2 Mr '46
13 ways to eliminate seasonitis; abstract. J. A. Murphy. Management R 35:287-8 Jl '46

SEATS, Car. See Car seats

SEATTLE
Eyes on Seattle; large retailers will tap promising market. Bsns W p88 N 10 '45

Industries
Business looks at Seattle's future. E. Whitmore. il Am Bsns 16:22+ S '46

Rapid transit
Seattle transit system; 1944 revenue and expenses. Mass Transportation 42:77-8 F '46

SEATTLE gas company
Amended plan of recapitalization. Comm & Fin Chr 163:2588 My 13 '46

SEAWEED
Scottish seaweed industry. Chem Age (Lond) 55:324 S 14 '46

SECOND injury funds. See Workmen's compensation—Second injury funds

SECURITIES
Answers to inquiries. Published in biweekly numbers of Magazine of Wall street
Calendar of new securities flotations (cont as) Securities now in registration; prospective security offerings. Published in weekly Thursday numbers of Commercial and financial chronicle
Investment market. H. E. Dickhuth. Banking 38:36 N '45 [cont monthly]
New issue flood. Bsns W p52-4 Je 29 '46
New issue switch; accent on stocks rather than bonds. Bsns W p48+ Ap 13 '46
1946 special re-appraisals of values, earnings and dividend forecasts. il Mag of Wall St 77:517-29+, 580-9+, 637-49+, 703-11+, 765-77+; 78:509-21+, 570, 629, 689 F 2-Mr 30, Ag 3-S 14 '46
Status of the capital market. M. Nadler. Comm & Fin Chr 164:1928+ O 17 '46
Ten low-priced securities vs. ten high-priced securities. R. Carleson. Mag of Wall St 78:455-7+ Jl 20 '46
Timely analysis of securities disturbing investors. H. S. Coffin. Mag of Wall St 78: 755-6+ S 28 '46
Today's market. A. T. Miller. Mag of Wall St 77:374-5 Ja 5 '46 [cont bi-weekly]
Unfashionable securities highlight widow's gains. W. J. Galligan. Barron's 26:11+ O 21 '46
Wages, prices and securities. A. E. Van Court and A. Slater. Comm & Fin Chr 163:2916+ My 30 '46

See also
Banks and banking—Investments
Banks and banking—Stock
Bonds
Investments
Investments, Foreign
Loans, Foreign
Mortgages
Municipal bonds
Speculation
also subdivision of industries, e.g.
Airlines
Airplane industry and trade
Building trades
Chemical industries
Clothing trade
Distilling industries
Food industry and trade
Gas companies
Gold mines and mining
Holding companies
Insurance companies
Investment trusts
Machinery industry
Metal trade
Mining industry and finance
Stocks
Trusts and trustees
—Investments
Securities under names of
Moving picture industry
Petroleum industry and trade
Public utilities
Radio apparatus industry
Radio broadcasting stations
Railroad supplies industry
Railroads
Rubber industry and trade
Steel industry and trade
Street railroads
Tire industry and trade

Accounting
Some income tax problems of security traders. J. P. Allison. J Account 82:230-42 S '46

Advertising
Disclosing facts in advertising and in securities. E. Posner. Comm & Fin Chr 163:2362+ My 2 '46
Outlook for red herrings; SEC's proposed changes in rules for new issue distribution. D. Saperstein. Comm & Fin Chr 164:2071+ O 24 '46
Prospectuses should contain pro forma figures. Pub Util 37:176-7, 236+ Ja 31-F 14 '46
Red herring prospectuses and the SEC. J. J. Caffrey. Comm & Fin Chr 164:1648+ O 3 '46
SEC proposes broader use of red herring prospectus. J. J. Caffrey. Comm & Fin Chr 164:1932+ O 17 '46; Discussion. 164:2073+, 2203+, 2335+ O 24-N 7 '46
Simplifying prospectus requirements. O. Ely. Pub Util 38:618-20 N 7 '46
We quizzed our salesmen about our ad plans; Investors syndicate, Minneapolis. W. R. Gerler. il Ptr Ink 217:44-5 O 25 '46

Law
Suggested revisions of securities acts. T. Graham. Comm & Fin Chr 164:2339+ N 7 '46

See also
Securities—Regulation

Marketing
Broker censured; security dealers' group criticizes Halsey, Stuart & co. Bsns W p70+ N 17 '45
Collusion of underwriters and corporations to get investors' dollars. J. A. Warner. Comm & Fin Chr 164:1932+ O 17 '46; Discussion. 164:2076+ O 24 '46
Competitive security bidding required by California railroad commission. Bus Transportation 25:61 Ap '46
Department of Justice finds it is not easy to prove underwriters are violating anti-trust law. E. Germain. Comm & Fin Chr 164: 2214+ O 31 '46
Economic and moral aspects of disclosure. A. M. Sakolski. Comm & Fin Chr 163:243+ Ja 17 '46
Financing small business. J. F. Fennelly. Comm & Fin Chr 162:2459+ N 22 '45
Fraud in securities transactions and the protection of investors. E. M. Hanrahan. Comm & Fin Chr 164:1648+ O 3 '46
G. M. sells direct. Bsns W p88+ Ag 24 '46
Menace of restricted securities markets. W. Cabell. Comm & Fin Chr 164:2339+ N 7 '46
Message to the securities industry; responsibility of members to investors. E. Posner. Comm & Fin Chr 163:1396 Mr 14 '46
NASD exonerates Halsey, Stuart & co. Comm & Fin Chr 163:841+ F 14 '46
NSTA notes; Oxford case. Comm & Fin Chr 163:969 F 21 '46
Otis wins again; competitive bidding gains triumph in Montreal. Bsns W p58+ Mr 2 '46

SECURITIES—Marketing—*Continued*

Post-war financing and national distribution of securities. F. J. Porter. Comm & Fin Chr 162:2451+ N 22 '45

Private placements. Bsns W p90 Ag 24 '46

Red herring prospectuses and the SEC. J. J. Caffrey. Comm & Fin Chr 164:1648+ O 3 '46

Responsibilities for post-war financing. C. H. Adams. Comm & Fin Chr 162:2459+ N 22 '45

Securities salesman's corner. J. Dutton. Published in weekly Thursday numbers of Commercial and financial chronicle

Security dealers' responsibilities. J. A. Treanor, jr. Comm & Fin Chr 162:2451+ N 22 '45

Should the security dealer be a vending machine? A. M. Sakolski. Comm & Fin Chr 163:3171+ Je 27 '46

Technique of placings. Economist 151:186 Ag 3 '46

Traders' handbook, January 1946. 406p pa $1.75 Handbook corp, 67 Wall st, New York 5 '46

Why boom in new issues worries Wall Street. G. E. Shea, jr. Barron's 26:3+ Jl 22 '46

See also National association of securities dealers

Nominee registration

Holding trust assets in name of nominee. R. W. Sprague. Trusts & Estates 83:258 S '46

Over-the-counter marketing

Over-the-counter market and the NASD. W. H. Fulton. Comm & Fin Chr 162:2450+; Editorial comment. 2453+ N 22 '45

Over-the-counter markets. C. E. Unterberg. Comm & Fin Chr 163:520+ Ja 31 '46

Prices

Security prices, United States, United Kingdom, France, Germany, Netherlands, 1938-1944 and monthly, Nov. 1944-Nov. 1945. Fed Res Bul 32:105 Ja '46 [cont monthly]

Refunding

See also
Bonds—Refunding
Stocks, Preferred—Refinancing

Regulation

Aliens may not have stock of seized corps. Comm & Fin Chr 164:1495 S 19 '46

Amend SEC rule on war cost disclosures. Comm & Fin Chr 163:2099 Ap 18 '46

Changed patterns in banking and finance; restraints on investments. A. M. Sakolski. Comm & Fin Chr 164:1168 Ag 29 '46

Counter groups studying SEC recommendation to Congress. Comm & Fin Chr 164:67+ Jl 4 '46

Curb maintains position in Kaiser-Frazer listing. Comm & Fin Chr 164:77+ Jl 4 '46

Economic and moral aspects of disclosure. A. M. Sakolski. Comm & Fin Chr 163:243+ Ja 17 '46

How far can we protect the investor? J. F. Hueni. Comm & Fin Chr 164:1782+ O 10 '46

Justice department still seeking evidences of antitrust law violations on Wall Street. E. Germain. Comm & Fin Chr 164:1144+ Ag 29 '46

Menace of restricted securities markets. W. Cabell. Comm & Fin Chr 164:2339+ N 7 '46

New SEC reporting program. J Account 81: 436-8 My '46

New York curb exchange drafting reply to Mr Cornell's note requesting data on Kaiser-Frazer shares. Comm & Fin Chr 163:3351 Je 20 '46

Ohio bars sale of Benguet mines shares. Comm & Fin Chr 163:1939 Ap 11 '46

Ohio ends controversy with N.Y. Curb in listing Kaiser-Frazer shares. Comm & Fin Chr 164:892 Ag 15 '46

Ohio is adamant; state commission's growing tendency to show their teeth. Bsns W p65-7 Ap 20 '46

Post-war problems of security commissions. M. Hudson. Comm & Fin Chr 162:2579+ N 29 '45

Postwar regulation of securities market. W. E. Atkins. Comm & Fin Chr 164:1782+ O 10 '46

Post-war securities and capital markets. G. Purcell. Comm & Fin Chr 162:2449+ N 22 '45

Post-war supervision of securities dealers. E. M. Daugherty. Comm & Fin Chr 162:2577+ N 29 '45

Price control and the trading load; controversy over Benguet Ohio offering. J. Howard. Comm & Fin Chr 163:2071+ Ap 18 '46

Regulating Canadian security markets. C. P. McTague. Comm & Fin Chr 164:1934+ O 17 '46

Regulation of security markets; abstract. H. G. Moulton and others. Comm & Fin Chr 164:745+ Ag 8 '46

SEC absolves, Amos S. Treat & company. Comm & Fin Chr 163:2361+ My 2 '46

SEC arguments for control of unregistered companies unsound. J. Murray. Comm & Fin Chr 164:67+ Jl 4 '46

SEC renders decision in Van Alstyne, Noel case; sale of Higgins stock before registration was a violation of Securities act. Comm & Fin Chr 163:1270 Mr 7 '46

SEC seeks broader power. Bsns W p 15-16 Je 29 '46

SEC seeks more control over unlisted securities; with text of proposed amendment. G. Purcell. Comm & Fin Chr 163: 3471+ Je 27 '46

Securities exempted from state regulation; Oregon law as general pattern. M. Hudson. Comm & Fin Chr 163:2217+ Ap 25 '46

Security regulation, a state problem. A. S. Richardson. Comm & Fin Chr 163:2912+ My 30 '46

Self-government for Canadian security dealers. C. P. McTague. Comm & Fin Chr 164:81+ Jl 4 '46

Stock broker, the public and regulation. W. M. Cooper. Comm & Fin Chr 162:2460+ N 22 '45

See also National association of securities dealers; Securities and exchange commission

Statistics

New corporate security issues; proposed uses of proceeds, yearly 1934-1944, monthly May 1944-Nov. 1945. Fed Res Bul 32:62 Ja '46 [cont monthly]

New security issues for new capital and for refunding, domestic, totals, 1935-1944, by months, Nov. 1944-Nov. 1945. Fed Res Bul 32:61 Ja '46 [cont monthly]

Taxation

See Taxation of securities

Unlisted securities

Counter groups studying SEC recommendation to Congress. Comm & Fin Chr 164:67+ Jl 4 '46

SEC arguments for control of unregistered companies unsound. J. Murray. Comm & Fin Chr 164:67+ Jl 4 '46

SEC seeks more control over unlisted securities; with text of proposed amendment. G. Purcell. Comm & Fin Chr 163: 3471+ Je 27 '46

SEC's quest for control of unlisted issues highlights basic regulatory problems. A. W. May. Comm & Fin Chr 164:199+ Jl 11 '46

See also
Securities—Over-the-counter marketing

Canada

Expanding securities regulation in Ontario. W. Jeffers. Comm & Fin Chr 163:1218+ Mr 7 '46

Ontario's financial regulation under new Securities act. W. J. Jeffers. Comm & Fin Chr 162:2876+ D 13 '45

Regulating Canadian security markets. C. P. McTague. Comm & Fin Chr 164:1934+ O 17 '46

Sales and purchases of securities between Canada and other countries, December, 1945 and review of trade during 1945. 16p pa 10c Canada. Dominion bur. of statistics, Ottawa '46

SECURITIES—Canada—*Continued*
Self-government for Canadian security dealers. C. P. McTague. Comm & Fin Chr 164:81+ Jl 4 '46

France
Bearer shares law. For Comm W 24:13 Ag 31 '46
France's new regulations governing securities ownership. E. Baldy. Comm & Fin Chr 163:3210+ Je 13 '46

Great Britain
Investment under a socialist government. H. Wincott. Comm & Fin Chr 163:1341+ Mr 14 '46
New capital issues in Great Britain, 1937-1945. Comm & Fin Chr 163:702 F 4 '46
New capital issues in Great Britain, 1939-date. Comm & Fin Chr 163:2489 My 6 '46
Security profits and prejudice. Economist 149: 832-3 D 8 '45
Stock exchange; new capital issues, 1945; with comparisons for 1928 and 1938-1944. Economist 150:sup3 Mr 23 '46
Wall Street buys British. Fortune 33:196+ F '46

Oregon
Securities exempted from state regulation; Oregon law as general pattern. M. Hudson. Comm & Fin Chr 163:2217+ Ap 25 '46

SECURITIES and exchange commission
Amendment to regulation S-X designed to provide for special disclosure of war costs, losses and expenses. J Account 81:435-6 My '46
Authoritative financial accounting. G. O. May. J Account 82:102-19 Ag '46
Birched by SEC; Van Alstyne firm waives hearing. Bsns W p64+ Mr 9 '46
Charges in lieu of taxes; Securities and exchange commission's opinion. J Account 81: 176-81 F '46
Comment on SEC proposal to Congress for control of unlisted issues; correspondents present views. Comm & Fin Chr 164:199+ Jl 11 '46
Counter groups studying SEC recommendation to Congress. Comm & Fin Chr 164:67+ Jl 4 '46
Independence, scope of audit; findings and opinion in matter of Red Bank oil company. O. L. DuBois. J Account 81:251-8 Mr '46
Review of reviews of accounting progress; accounting and financial reporting in England and the United States. T. H. Sanders. J Account 81:9-26 Ja '46
SEC absolves, Amos S. Treat & company. Comm & Fin Chr 163:2361+ My 2 '46
SEC activities in accounting and auditing; excerpt from 11th annual report. J Account 81:351-4 Ap '46
SEC arguments for control of unregistered companies unsound. J. Murray. Comm & Fin Chr 164:67+ Jl 4 '46
SEC passes rules implementing Administrative procedure act. Comm & Fin Chr 164: 1375+ S 12 '46
SEC reluctant to take part in public vs. private power. Elec World 125:68 Ap 27 '46
SEC seeks broader power. Bsns W p 15-16 Je 29 '46
SEC seeks control of unlisted companies. J Account 82:93-5 Ag '46
SEC seeks more control over unlisted securities; with text of proposed amendment. G. Purcell. Comm & Fin Chr 163: 3471+ Je 27 '46
SEC speaks up; artificial stimulation of new issues, other unethical acts flayed. Bsns W p66-8+ Ap 27 '46
SEC's aims include registration counter issues; press conference. J. J. Caffrey. Comm & Fin Chr 164:611+ Ag 1 '46
SEC's quest for control of unlisted issues highlights basic regulatory problems. A. W. May. Comm & Fin Chr 164:199+ Jl 11 '46
Self-appointed legislature; SEC decision in Oxford co. Comm & Fin Chr 163:123+ Ja 10 '46
Services and publications of the Federal reserve system, S.E.C. and Treasury department. W. C. Chadbourne. bibliog il Chem Ind 59:663-8 O '46
Study of stockholders' reports of unlisted companies. J Account 82:167-78 Ag '46
Wall Street sees storm signal; SEC action in Higgins case. Bsns W p58+ F 23 '46
Wanted; more collaboration with SEC. R. K. McConnaughey. Comm & Fin Chr 164:1530+ S 26 '46

SECURITIES dealers, National association of. See National association of securities dealers

SECURITY traders association, National. See National security traders association

SECURITY traders association of New York
Annual dinner; portraits. Comm & Fin Chr 163:2376-9 My 2 '46

SEDATIVES
N-substituted tri-alkyl acetamides. W. M. Degnan and C. J. Shoemaker. bibliog Am Chem Soc J 68:104-5 Ja '46

SEDIMENTATION
Centrifugal sedimentation method for particle size distribution. A. E. Jacobsen and W. F. Sullivan. bibliog il Ind & Eng Chem Anal ed 18:360-4 Je '46
Competency of moving water to transport debris. C. Nevin. bibliog Geol Soc Bul 57:651-74, fold pl 1 Jl '46
Mist and dust collection in industry and buildings; methods of analyzing dust particles. C. E. Lapple. bibliog il Heating-Piping 17:611-15 D '45
Sedimentation and hydraulic classification. R. P. Kite and A. J. Fischer. Ind & Eng Chem 38:16-17+ Ja '46
Sedimentation and the design of settling tanks in the field of water and sewage treatment. T. R. Camp. bibliog diags Am Soc C E Proc 71:445-86 Ap '45; Discussion. 71:1148-50, 1379-86; 72:249-50, 413-18, 668-74 S, N '45, F-Mr, My '46
Sedimentation equilibria of polydisperse non-ideal solutes. M. Wales and others. J Chem Phys 14:353-4 My '46
Size and shape of macromolecules in solution; methods of measurement. P. M. Doty and H. Mark. bibliog(41 references) Ind & Eng Chem 38:682-6 Jl '46

SEDIMENTATION and deposition
Appalachian drainage and the highland border sediments of the Newark series. C. W. Carlston. bibliog map Geol Soc Bul 57: 997-1031, fold map(pl 1) pl 2-3 N '46
Dating sedimentation, vulcanism, and orogeny in Beartooth Mountain region, Montana, by heavy minerals. M. H. Stow. bibliog map Geol Soc Bul 57:675-85, fold pl 1 Jl '46
Grain roundness, a valuable geologic tool. G. Rittenhouse. bibliog diags Am Assn Pet Geologists Bul 30:1192-7 Jl '46
Grain-shape fabrics of clastic quartz. R. A. Rowland. bibliog diags Geol Soc Bul 57: 547-63 Je '46
Rate and mass of deep-sea sedimentation. P. H. Kuenen. bibliog Am J Sci 244:563-72 Ag '46
Sedimentary and volcanic processes in the formation of high alumina clay. V. T. Allen. bibliog il diag Econ Geol 41:124-38 Mr '46
Sediments of Trout lake, Wisconsin. H. Twenhofel and others. bibliog Geol Soc Bul 56:1099-1142, pl 1-3 D '45
Submarine slumping and location of oil bodies. R. W. Fairbridge. bibliog diags Am Assn Pet Geologists Bul 30:84-92 Ja '46

See also
Rocks
Silt

SEDIMENTS
Discharge and sediment relationships in an open channel. L. G. Straub. il Civil Eng 16:490-1 N '46
Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81, 1387-1414, 1573-5; 72: 83-97, 235-40, 409-12, 682-96 O '45-Mr, My '46

SEDIMENTS, Marine. See Ocean bottom

SEED corn. See Corn

SEED disinfection
Mercury hazards in seed treating. H. F. Schulte. J Ind Hygiene 28:159-61 Jl '46

SEED extracting machines
Épépineuse de marcs de raisin système C. Coq. Génie Civil 123:194 Jl 15 '46

SEEDS
Investigation of the seed oils of some Sudan cæsalpinioideæ. D. N. Grindley. bibliog Soc Chem Ind J 65:118-19 Ap '46

See also
Cottonseed
Flaxseed
Germination

SEEPAGE
Deep cutoff trench of puddled clay for earth dam and levee protection. H. Kramer. il diag Eng N 136:986-90 Je 27 '46
Effect of blankets on seepage through pervious foundations; application of formulas to the design of earth dams. P. T. Bennett. Am Soc C E Proc 71:19-32 Ja '45; Discussion. bibliog 71:407-10, 597-8, 897-901, 1233-44; 72:98-102 Mr-Ap, Je, O '45, Ja '46
Percolation under aprons of irrigation works. S. Leliavsky. diags Engineer 181:328-30, 352-3, 375-7 Ap 12-26 '46
Relief wells for dams and levees. T. A. Middlebrooks and W. H. Jervis. diags Am Soc C E Proc 72:781-98 Je '46; Discussion. 72: 1165-72 O '46
Studying causes of failure of a leaking clay core wall. A. W. Bishop. bibliog diag Pub Works 77:19-20+ Jl '46

SEIBERLING, Charles Willard, 1861-1946
Sketch. por India Rubber World 115:92 O '46

SEIBERLING rubber company
Annual report. Comm & Fin Chr 163:2300 Ap 29 '46
Preferred stock offered. Comm & Fin Chr 163: 1771 Ap 1 '46
Reaches its twenty-fifth anniversary. Rubber Age 59:705 S '46

SEISMOGRAPH service corporation
Stock offered. Comm & Fin Chr 164:1126 Ag 26 '46
Wall Street heeds Seismograph; sale of 140,000 shares. il Bsns W p62+ S 21 '46

SEISMOGRAPHS
Microseismic method of predicting rock failure in underground mining; general method. L. Obert and W. Duvall. 3 pls U S Bur Mines Rep of Invest 3797:1-7 '45

SELECTIVE selling. See Sales policies—Selective selling

SELECTIVE service. See Military service, Compulsory

SELENAZOLE
Naphtha-1′ : 2′ : 4 : 5-selenazoles. E. B. Knott. Chem Soc J p628-9 S '45

SELENIDES
Synthesis of unsymmetrical selenides. T. W. Campbell and J. D. McCullough. bibliog Am Chem Soc J 67:1965-6 N '45

SELENIUM
Operations and plants of International nickel company of Canada; copper refining; recovery of secondary metals. Can Min J 67:454-5 My '46
Processing and use of selenium. Schloen and Elkin. flow sheet Glass Ind 27:349+ Jl '46
Selenium. C. H. Stone. J Chem Educ 23:349-50 Jl '46
Studies on the polymorphic transformation of selenium. C. A. Escoffery and S. Halperin. bibliog il Electrochem Soc Trans 90 (preprint 7):127-37 '46

Analysis

Analysis of organoselenium compounds. J. D. McCullough, T. W. Campbell and N. J. Krilanovich. bibliog diag Ind & Eng Chem Anal ed 18:638-9 O '46

Uses

Industrial applications of chemicals and related materials. Oil Paint & Drug Rep 149:7 My 6 '46

SELENIUM cells
New electrolytic selenium photo-cell. A. von Hippel and others. bibliog diags J Ap Phys 17:215-24 Ap '46
New selenium rectifiers for home receivers. G. Eannarino. il diag Radio N 36:45+ N '46
Selenium rectifiers for cathodic protection; abstract. W. F. Bonner. Nat Pet N 38 pt 2: R450+ Je 5 '46
Some chemical and physical problems in the manufacture of selenium rectifiers. C. A. Escoffery. bibliog il diags Electrochem Soc Trans 90 (preprint 6):95-126 '46
Studies on the polymorphic transformation of selenium. C. A. Escoffery and S. Halperin. bibliog il Electrochem Soc Trans 90 (preprint 7):127-37 '46

SELENIUM plating
New electrolytic selenium photo-cell. A. von Hippel and others. bibliog diags J Ap Phys 17:215-24 Ap '46

SELF inductance. See Inductance

SELF insurance. See Insurance, Fire—Self insurance; Insurance, Workmen's compensation—Self insurance

SELF service
Job of package in self-service selling. L. B. Steele. Ptr Ink 215:88+ Ap 19 '46; Abstract. Mod Packaging 19:151-2 Ap '46
Part packages play in self-service selling. L. B. Steele. Adv & Sell 39:92+ Je '46
Retail self-service bares rich new sales lode for record makers. B. E. Schiffman. il Sales Management 56:89-90+ Ja 15 '46

SELF service laundries. See Laundries, Public

SELF service stores
1946's trend in super markets and self-service stores; study of 694 cities. R. A. Sprague. il Adv & Sell 39:45+ Jl '46
Self-service record shop; super-market methods in New Orleans store. il Ptr Ink 214: 62 Ja 11 '46
Shopping with a key in a Saunders Keedoozle. il Bsns W p41 Jl 6 '46

SELFRIDGE and company
Selfridge scheme. Economist 150:106 Ja 19 '46

SELFRIDGE (holdings) limited
Statement by the chairman, H. A. Holmes. Economist 150:985 Je 15 '46

SELLARDS, Elias Howard, 1875-
Honorary member. M. G. Cheney. por Am Assn Pet Geologists Bul 30:735-6 My '46

SELSYN apparatus
Electrical accuracy of Selsyn generator; control transformer system. H. Chestnut. bibliog diags Elec Eng 65:Trans 570-6 Ag-S '46
Self-synchronous transmission system; many amateur applications, particularly in rotating directional antennas. E. Hansen. il diags Radio N 35:38-9+ F '46
Selsyn indicating systems for remote readings. F. Wisk. diags Electronics 18:276+ D '45

SEMICARBAZONES
Structure of pyrethrolone and related compounds. T. F. West. Chem Soc J p463-6 Je '46

SEMPERVIRINE
Alkaloids of gelsemium sempervirens. W. G. C. Forsyth, S. F. Marrian and T. S. Stevens. Chem Soc J p579-82 S '45

SENIORITY rights. See Employees—Length of service

SENSES and sensation
Electricity, life, and sensation. V. G. Lippitt. diags Elec Eng 64:404-8 N '45

See also
Color sense
Hearing
Sight
Taste

SENSITOMETRY. See Photography—Sensitometry

SEPARATION
Fractional separation of hafnium and zirconium by means of triethylphosphate. H. H. Willard and H. Freund. bibliog Ind & Eng Chem Anal ed 18:195-7 Mr '46
How to build a visible decanter for pilot plant use. W. L. Jacobs and F. M. Hildebrandt. il diag Chem & Met Eng 53:126 Mr '46
Separation of gases. M. Ruhemann. bibliog diags Inst Chem Eng Trans 20:55-61; Discussion. 61-4 '42

SEPARATION—*Continued*
Unit operations and equipment; separation operations. il Chem & Met Eng 53:144-6 F '46

See also
Crystallization
Distillation
Dust removal
Electric precipitation
Filters and filtration
Filters and filtration (technical chemistry)
Flotation process
Ore treatment

SEPARATORS
Different ways of gathering casinghead gas. diags Oil & Gas J 44:101-2 Ja 19 '46

Retaining fines in concrete sand; Van Sciver plant of Warner co. I. Warner. il diags Rock Prod 49:84-6+ Ja '46

See also
Centrifuges
Clarifiers
Classifiers
Concentrators
Dust collectors
Evaporators
Filters and filtration (technical chemistry)
Magnetic separators
Oil separators
Screens
Steam separators

SEPARATORS, Magnetic. See Magnetic separators

SEPTIC tanks
Septic tank construction details. diags Brick & Clay Rec 108:24-5 Je '46

SEQUENTIAL method of sampling. See Sampling (statistical methods)

SEQUOIA. See Redwood

SERBS in the United States

See also
Nation, William Mitchell

SERIALS, Radio. See Radio broadcasting—Serials

SERPENTINE
Serpentine fertilizer; abstract. Rock Prod 49: 127 Ap '46

SERUM
Homologous serum jaundice; experimental inactivation of etiologic agent in serum by ultraviolet irradiation. J. W. Oliphant and A. Hollaender. Pub Health Rep 61:598-602, pl 1 Ap 26 '46

Method for immunological and chemical investigations of body fluids by means of purified gelatin. O. Kanner. Science 104: 253-4 S 13 '46

Physical, chemical and immunological properties of phosphorylated crystalline horse serum albumin. M. Mayer and M. Heidelberger. bibliog Am Chem Soc J 68:18-25 Ja '46

Preparation and properties of serum and plasma proteins; a system for the separation into fractions of the protein and lipoprotein components of biological tissues and fluids. E. J. Cohn and others. bibliog Am Chem Soc J 68:459-75 Mr '46

Presence in normal serum of inhibiting substances against bacillus subtilis and staphylococcus aureus. C. W. Buggs and others. Science 103:363-4 Mr 22 '46

Reactions of antiserum homologous to the *p*-azophenyltrimethylammonium group. D. Pressman and others. Am Chem Soc J 68: 250-5 F '46

See also
Antigens and antibodies

SERUM diagnosis
Effect of choline chloride on the Kahn flocculation reaction. E. Volkin and others. bibliog Am Chem Soc J 67:2210-12 D '45

SERUMTHERAPY

See also
Antigens and antibodies
Toxins and antitoxins

SERVANTS
Domestic servants in New York now under compensation act. Nat Underw 50:19+ Ap 11 '46

Domestic servants' insurance offers new market. Weekly Underw 155:271 Ag 3 '46

Domestics vanish; women shun housework. Bsns W p101-4 Jl 20 '46

Restricted coverage for New York domestic servants. H. D. Sayer. East Underw 47:38 O 25 '46

Will prewar domestic workers return? Mo Labor R 62:930-1 Je '46

SERVEL refrigerators. See Refrigerators, Gas

SERVICE (in industry)
Ethyl sales are built on service. J. J. Frey. il Ind Marketing 31:38-9+ F '46

Flies salesmen and buyers free within 150-mile radius; CAVU Clothes builds goodwill. il Ptr Ink 215:105-6 My 17 '46

Keeping customers sold when you can't deliver; Ritter company, Rochester, N.Y. A. G. Scheible. il Ptr Ink 214:25-6+ Ja 25 '46

National coal association flashes go-ahead for coal-heat service. Coal Age 51:126+ O '46

Nine-point service program helps Goodyear build independent dealers. il Sales Management 55:88-90 D 1 '45

Oil burner service and profits. F. C. Sturtevant. il Nat Pet N 38:21+ Jl 24 '46

Personalized service in welding engineering pays dividends at Lincoln Electric. A. F. Davis. il Ind Marketing 31:32-3+ Ja '46

Practical proposal on fuel forums. C. E. Miller. Power 89:839 D '45

Service is the backbone of this sales organization; Philco recruiting 38,000 service men. W. A. McGarry. il Ptr Ink 217:52 O 25 '46

Service point of view in business. J. E. Bullard. Credit & Fin Management 47:21-4 D '45

Service to small plant operators; how it can be obtained from chemical manufacturers. C. F. Bingham. Water Works & Sewerage 92:375-6 D '45

Working with the manufacturer; Koroseal licensee and distributor gives advice and service, promoting various items made from its product and guarding quality standards. E. M. Housman. il Ptr Ink 214:62+ Ja 25 '46

See also
Banks and banking—Service
Dealer helps
Electric utilities—Service
Gas companies—Service
Salesmanship—Service

SERVICE charge. See Banks and banking—Service charge; Waterworks—Service charges

SERVICE industries
Tertiary production as a postwar international economic problem. A. G. B. Fisher. R Econ Stat 28:146-51 Ag '46

See also
Banks and banking
Gasoline service stations
Hotels
Laundries
Telephone
Welcome wagon service company

Equipment

All businesses need equipment. S. C. Saunders. Dom Comm 34:27-8 Je '46

SERVICE stations. See Gasoline service stations

SERVICEMEN'S readjustment act of 1944. See Veterans—Laws and legislation

SERVOMECHANISMS
Analysis of relay servomechanisms. H. K. Weiss. bibliog diags J Aeronautical Sci 13: 364-76 Jl '46

Analysis of servomechanisms for instrument and power drives. G. S. Perkins. il diag Product Eng 17:332-4 Ap '46

Continuously variable radio remote control. D. W. Moore, jr. il diags Electronics 19: 110-13 N '46

Designing computing mechanisms. M. Fry. diags Machine Design 18:115-18+ Ja; 137-40 F '46

Dimensionless analysis of servomechanisms by electrical analogy. S. W. Herwald and G. W. McCann. bibliog il diag Elec Eng 65:Trans 636-9 O '46

Dynamic behavior and design of servomechanisms. G. S. Brown and A. C. Hall. diags A S M E Trans 68:503-22 bibliog(p521-2); Discussion. 522-4 Jl '46

SERVOMECHANISMS—*Continued*
Electrical analogy methods applied to servomechanism problems. G. D. McCann and others. bibliog il diags Elec Eng 65:Trans 91-6 F '46
Frequency response of automatic control systems. H. Harris, jr. bibliog diags Elec Eng 65:Trans 539-46 Ag-S '46
Fundamentals of servomechanisms; how to select and apply them. S. W. Herwald. il diags Product Eng 17:464-70 Je '46
Instrumentation in analysis. R. H. Müller. Ind & Eng Chem Anal ed 18:sup29-30 Mr '46
Parallel circuits in servomechanisms. H. T. Marcy. bibliog diags Elec Eng 65:Trans 521-9 Ag-S '46
Precision autosyns for servo systems. J. P. Glass and P. F. Bechberger. il diags Aeronautical Eng R 5:5-10 Je '46
Servomechanisms courses; their pedagogic value. D. P. Campbell. J Eng Educ 36: 426-33 Mr '46
Servo-operated steam valve control for marine use. diag Engineer 180:515 D 21 '45
Theory of servo systems, with particular reference to stabilization. A. L. Whiteley. diags Inst E E J 93 pt 2:353-67; Discussion. 368-72 Ag '46; Electrician 136:823-4 Mr 29 '46

SETTLING basins
Dredge cleans waterworks basin without interrupting service in Philadelphia. il diags Eng N 137:314-15 S 5 '46

SETTLING tanks
Baffling sedimentation basins. R. W. Hayden. flow diag Am Water Works Assn J 38:16-17; Discussion. W. J. Murdoch. 18-21 Ja '46; Abstract. Water Works & Sewerage 92:335-6 N '45
Fresh approach to the problem of precipitation tank design; abstract. I. M. E. Aitken. Am Water Works Assn J 38:1088-91 S '46
Installing settlers at 45-degree angle facilitates pumping out PbS sludge; Arabian American oil co.'s refinery at Ras Tanura. il Nat Pet N 38 pt 2:R424 Je 5 '46
Mississippi River clarification plant provides large volume of clear water at high rate of flow; Baton Rouge plant of Ethyl corporation. G. F. Moore. flow diag Pet Refiner 25:134-6 S '46
Navy plant salvages two grades of fuel oil from the sludge from tank cleanings. il Nat Pet N 38 pt 2:R356+ My 1 '46
Observations as to performance of water sedimentation basins; abstract. J. D. Walker. Water & Sewage Works 93:302 Ag '46
Performance of sedimentation basins J. D. Walker. Am Water Works Assn J 38:1078-82 S '46
Sedimentation and the design of settling tanks in the field of water and sewage treatment. T. R. Camp. bibliog diags Am Soc C E Proc 71:445-86 Ap '45; Discussion. 71:1148-50, 1379-86; 72:249-50, 413-18, 668-74 S, N '45, F-Mr, My '46
Treatment of waste white water at Beach & Arthur paper co. A. W. Redlin and J. J. Gilbert. flow diag il diags Paper Ind 28:49-52 Ap '46
Use conical settling tanks and special flume; Consumers sand and gravel co. flow sheet il Rock Prod 49:62-3 Mr '46

See also
Sewage tanks

SEWAGE
Effects of copper and lead bearing wastes on the purification of sewage; abstract. M. M. Kalabina. Water & Sewage Works 93:30 Ja '46
Failure of poliomyelitis virus to grow in certain protozoa of sewage C. A. Evans and K. L. Osterud. Science 104:51-3 Jl 19 '46
Fluorescence of drinking waters as evidence of sewage pollution. R. A. McLean and M. L. Speas. bibliog Am Water Works Assn J 38:355-60 Mr '46
Fundamentals of biological oxidation; abstract. J. W. Hood. Water & Sewage Works 93:155-6 Ap '46

See also
Sewage sludge
Trade waste

Analysis
Determination of dissolved oxygen; proposed modification of the Winkler method. R. Pomeroy and H. D. Kirschman. bibliog Ind & Eng Chem Anal ed 17:715-16 N '45
Estimation of ammonium picrate in wastes from bomb- and shell-loading plants; some reactions of ammonium picrate in water and sewage. C. C. Ruchhoft and F. I. Norris. bibliog Ind & Eng Chem Anal ed 18: 480-3 Ag '46
Indirect method of determining potassium. G. A. Rhame. Water & Sewage Works 93:20 Ja '46
Standard methods for the examination of water and sewage; summary of recommended changes for ninth edition. J. F. Norton. Am Water Works Assn J 37:1341-3 D '45

Gas recovery
See Sewage sludge—Gas production

Testing
Approximate test of sewage treatment. Pub Works 77:37-8 Je '46
Determination of suspended solids with glass crucibles; comparing sintered glass crucibles and the standard Gooch filter. R. W. Simpson and J. A. Alexander. Water & Sewage Works 93:287-8 Jl '46
Twenty years experience with the dissolved oxygen absorption test in China. W. E. Abbott. Soc Chem Ind J 65:87-90 Mr '46

SEWAGE, Utilization of
Features of contractual agreement for use of sewage effluent as industrial water; conditions and rate schedules in agreement between city of Baltimore and Bethlehem steel co. N. D. Kenny. il Water Works & Sewerage 92:388-90 D '45
Fuel and fertilizer from sewage; aim of German treatment plants. A. J. Fischer. il map Civil Eng 16:448-50 O '46
Industry converts sewage works effluent into water supply for Sparrows Point plant of the Bethlehem steel co. W. P. Hill. il Water Works & Sewerage 92:383-7 D '45
National program is needed for disposal of waste. H. R. Murdock. Ind & Eng Chem 38:sup85-6 Ja '46
Reclaimed sewage to replace ground water in Los Angeles area. Civil Eng 16:498 N '46
Sewage disposal plants provide industrial waters and organic chemicals of considerable significance to industry. H. R. Murdock. Ind & Eng Chem 37:sup97-8 N '45
Use of effluent water at sewage plants; abstract. R. Burrell. Water Works & Sewerage 92:342 N '45
Utilization of municipal waste waters; abstract. D. Möhle. Am Water Works Assn J 38:794 Je '46

See also
Sewage sludge—Gas production
Sewage sludge as fertilizer

SEWAGE disposal
Advances in sewage treatment and present status of the art; third progress report of the committee of Sanitary engineering division, 1944 and 1945. bibliog(165 titles) Am Soc C E Proc 72:799-855 Je '46
Beet cannery wastes; abstract. E. A. Marshall. Water & Sewage Works 93:325-6 Ag '46
Canadian institute on sewage and sanitation 12th annual meeting, Windsor, Ont. Nov. 5-6. Water & Sewage 83:37-48+ N '45
Disposal of industrial wastes. G. E. Symons. bibliog il diags Water Works & Sewerage 92:391-6 D '45
Effect of sewage-plant effluents on growth of plankton. J. B. Lackey. Water & Sewage 84:32+ Mr '46
Efficiency of elutriation process. G. C. Laidlaw. Water & Sewage 84:24+ Ja '46
Elimination of digesters in sewage treatment. H. O. Halvorson and R. L. Smith. il Water & Sewage 84:20-1+ Ja '46
Federation of Sewage works associations and Canadian institute on sewage and sanitation; joint meeting, Toronto. Eng N 137: 489 O 17 '46

SEWAGE disposal—*Continued*

Future of sewage treatment; forecasts by engineers, educators, operators, manufacturers and editors. Pub Works 76:21-2 D '45

German sewage treatment practice made little progress during war; abstract. A. J. Fischer. Eng N 136:140 Ja 24 '46

Inadequate Denver sewage treatment charged by state; action threatened. Eng N 135:690 N 22 '45

Industrial waste problems and treatment. bibliog il Pub Works 77:25-8+ Ap '46

Mapping the field of contamination over an ocean sewer outfall. A. M. Rawn and H. K. Palmer. il map Water & Sewage Works 93:363-6 S '46

Methods used by cities for disposal of sewage sludge. il Pub Works 77:29-30+ Mr '46

Michigan sewage works assn. holds 21st annual conference and short school. Water & Sewage Works 93:195 My '46

Montana water and sewage groups meet in Butte. Water & Sewage Works 93:277-9 Jl '46

New England sewage works association fall meeting, Springfield, Sept. 12. Water Works & Sewerage 92:342-3 N '45

New England sewage works association spring meeting, Greenwich, Conn, May 17. Water & Sewage Works 93:283-6 Jl '46

New Jersey sewage works association, 31st annual meeting, Trenton, March 20-22. Water & Sewage Works 93:153-9 Ap '46

North Dakota water and sewage works 17th conference, Fargo, Nov. 8-9. Water Works & Sewerage 92:377-9 D '45

Ohio conference on sewage treatment; 20th annual conference, Akron, June 20-21. Water & Sewage Works 93:371-4 S '46

Pennsylvania sewage works association, meeting, State College. Water & Sewage Works 93:393-7 O '46

Portland, Ore. sewage disposal project plans are nearing completion. Eng N 136:139 Ja 24 '46

Post-war problems of English sewage works; abstract. Pub Works 77:34 F '46

Present trends in the sewage works field. W. H. Wisely. il Water & Sewage Works 93:191-4 My '46

Responsibility for industrial and municipal wastes. A. Wolman. Am Water Works Assn J 38:883-7 Jl '46

Review of some army sewage treatment problems and results. il Pub Works 76:24-5+ D '45

Sanitary engineers and operators; report on meetings of ASCE Sanitary engineering division and N.Y. state sewage works assn. Water & Sewage Works 93:57-62 F '46

Sedimentation and the design of settling tanks in the field of water and sewage treatment. T. R. Camp. bibliog diags Am Soc C E Proc 71:445-86 Ap '45; Discussion. 71:1148-50, 1379-86; 72:249-50, 413-18, 668-74 S, N '45, F-Mr, My '46

Sewage and industrial waste. F. W. Mohlman. il Water & Sewage 84:21-5+ Mr '46; Same. Water & Sewage Works 93:45-56 F '46

Sewage disposal plans develop rapidly. Eng N 137:271 Ag 29 '46

Sewage treatment at Winnipeg; summary of operating data. il Water & Sewage 83:15-16+ D '45

Sewage treatment in Canada; with particular reference to practices in the greater Toronto area. A. E. Berry. il Water & Sewage 84:26-8+ S '46

Sewer systems; Canadian municipalities. il Water & Sewage 84:10+ Jl '46

Sludge disposal at Detroit. C. W. Hubbell. Water & Sewage 83:51-2+ N '45

Sludge lagooning. D. E. Bloodgood. il plan diag Water & Sewage Works 93:344-8 S '46

Status of major projects, 1946. Eng N 136: 230-1 F 7 '46

Treatment and disposal of waste waters containing chromate. J. Grindley. Soc Chem Ind J 64:339-44 D '45

Water and sewage chemists meet; abstracts of semi-annual meeting papers, Division of water, sewage and sanitation chemistry of American chemical society. Water & Sewage Works 93:197 My '46

Western cities plan sewage disposal work for postwar projects. Eng N 137:433 O 3 '46

Why does sewage treatment lag? R. E. Thompson. bibliog Water & Sewage 84:30+ S '46

See also

Sewage disposal plants
Sewage sludge
Sewage tanks
Sewerage
Trade waste
Water pollution

Activated sludge method

Current trends in activated-sludge sewage-treatment plants. S. A. Greeley. il Water & Sewage 84:19-21+ F '46

Digested sludge aids activated sludge; abstract. L. S. Kraus. Water & Sewage Works 93:317 Ag '46

North Toronto activated sludge sewage treatment plant. G. Phelps. flow diag il Water & Sewage 84:25+ S '46

Operation of activated sludge plants. G. P. Edwards. flow sheet il Water Works & Sewerage 92:311-16 N '45

Sludge index control by chlorination; Tenafly, N.J. J. K. Adams. il Water & Sewage Works 93:240-2 Je '46

Sludge verdict; $965,000. Bsns W p22 Mr 2 '46

Some operation data on a large army activated sludge plant; Camp Shelby, Miss. J. H. McCutchen and C. G. Wood. il map plan Pub Works 77:20-1+ O '46

Bibliography

Sewage treatment; bibliography of references. Am Soc C E Proc 72:846-55 Je '46

Bibliography

Information on water and sewage works problems; where to find it; revised. L. H. Enslow. Water & Sewage Works 93:R13-14 Ap '46

Chemical treatment

Chemical treatment of sewage. N. J. Howard. il Water & Sewage 84:29+ S '46

Use of sodium nitrate in treating cannery wastes; abstract. L. F. Warrick and T. T. Wisniewski. Pub Works 76:48+ D '45

Chlorination

Chemical treatment in Los Angeles sewers; use of chlorinated hydrocarbon, Cloroben. R. F. Brown. Eng N 137:161-2 Ag 8 '46

Large-scale sewage chlorination receives pilot plant test at Hyperion; southern California beach contamination problem. Eng N 136: 802 My 16 '46

Septic sewage has a high chlorine demand. Eng N 136:934 Je 13 '46

Sludge density control; with particular reference to return sludge chlorination. J. A. Tapleshay. Water & Sewage Works 93:116-18 Mr '46

Sludge index control by chlorination; activated sludge plant of Tenafly, N.J. J. K. Adams. il Water & Sewage Works 93: 240-2 Je '46

Coagulation

Computing coagulant requirements in sludge conditioning. A. L. Genter. bibliog Am Soc C E Proc 71:307-30 Mr '45; Discussion. 71: 926-8, 1289-94, 1559-60; 72:499-509 Je, O, D '45, Ap '46

Filtration

Bio-filter operation at Keesler field, Miss. R. W. Simpson. flow diag il Water & Sewage Works 93:367-70 S '46

Cord filter. il Chem & Met Eng 53:120 Ap '46

Determination of suspended solids with glass crucibles; comparing sintered glass crucibles and the standard Gooch filter. R. W. Simpson and J. A. Alexander. Water & Sewage Works 93:287-8 Jl '46

Effect of change in order of percolating filters for sewage treatment. E. V. Mills. diags Water & Sewage 84:18-19+ Ja '46

Fine screen filters for sewage treatment. G. M. Gardner. il Water & Sewage Works 93: 31-4 Ja '46

Growth and distribution of film in percolating filters. T. G. Tomlinson. bibliog Pub Works 77:31-2 Jl '46

SEWAGE disposal—Filtration—*Continued*
High capacity trickling filters. J. A. Montgomery. bibliog il diags Water & Sewage Works 93:35-41, 119-24, 198-203 Ja, Mr, My '46
Operating results prove sewage filters can take a doubled load; treatment plant at Fort Sill, Okla. F. M. Veatch and R. E. Lawrence. flow chart il diag Eng N 136:488-91 Ap 4 '46
Percolating filter plant for universal operation. L. B. Escritt. plan Pub Works 77: 23-4 Ja '46
Polishing sewage effluents and industrial water supplies; automatic back-wash sand filter. diags Pub Works 77:28 S '46
Treatment of settled sewage by continuous filtration. E. V. Mills. bibliog diag Water & Sewage 83:21-2+ D '45
Vacuum filtration at York township. E. H. Munroe. il Water & Sewage 84:36+ S '46
Why high rate filters work. J. R. Downes. Water & Sewage Works 93:251 Je '46

Gas recovery

See Sewage sludge—Gas production

Grease and oil removal

Advances in sewage treatment and present status of the art; third progress report of the committee of Sanitary engineering division, 1944 and 1945. bibliog(165 titles) Am Soc C E Proc 72:805-8 Je '46
Purification of sewage grease in Africa; abstract. H. Wilson. Pub Works 77:28 Ja '46

Odor removal

Odor control and control of filter flies. A. A. Hirsch. bibliog il Water & Sewage Works 93:247-50 Je '46

Ozone treatment

Ozone for sewage treatment scored by sanitary engineers in Northwest. Eng N 136: 948 Je 20 '46

Patents

Evaluation of professional objectives in the design of sanitary engineering works; with reference to influences of proprietary equipment and processes upon development of effective and economical plans. Am Soc C E Proc 72:69-82 Ja '46
Water and sewage patents (cont). Water Works & Sewerage 92:397-8 D '45; [cont as] Water & Sewage Works 93:86-9, 239, 333, 402 Mr, Je, Ag, O '46

Sludge and refuse mixing

Advanced theories combining treatment of garbage and sewage are applied to Port Huron's newest project. flow chart il map plan Arch Forum 83:112-13 D '45
Dual disposal of garbage and sewage poses problems for treatment plants; discussion at New Jersey sewage works association meeting. Eng N 136:452 Mr 28 '46
Effect of food wastes on sewers and sewage treatment processes; abstract. M. M. Cohn. Water & Sewage Works 93:157-8 Ap '46
Experiments and development of garbage digestion with sewage solids; abstract. D. P. Backmeyer. Water & Sewage Works 93:320 Ag '46
Ground garbage in sewage works; abstract. S. L. Tolman. Water & Sewage Works 93: 395-6 O '46
Water-carriage method of garbage collection and disposal with sewage. H. E. Babbitt. bibliog il Pub Works 77:17-18+ Je '46

SEWAGE disposal, Rural

Cleaning tree roots out of sewers. Consumers Res Bul 17:22-4 Ap '46

SEWAGE disposal plants

Evaluation of professional objectives in the design of sanitary engineering works; with reference to influences of proprietary equipment and processes upon development of effective and economical plans. Am Soc C E Proc 72:69-82 Ja '46; Abstract. Pub Works 77:44-5+ Ap '46; Discussion. Am Soc C E Proc 72:901-5 Je '46
Puerto Rico sewage disposal program includes sixteen treatment plants. Eng N 137:297-8 S 5 '46
Sewage treatment history and difficulties at Carlsbad. E. A. Roberts. flow diag il Pub Works 77:27-8 Ag '46
Sewage treatment plants in operation in Canada. il Water & Sewage 84:14+ Jl '46
Survey of elementary mathematics for water and sewage works operators. W. K. Eglof. diags Water & Sewage Works 93:187-9, 233-5, 280-2, 339-41, 406-7 My-Jl, S-O '46
Toronto fights a disposal battle; plant to eliminate pollution hazard. il Eng N 137: 439-41 O 3 '46
Toronto sewage-treatment plant. il plan Water & Sewage 84:21-4+ S '46
Use of effluent water at sewage plants; abstract. R. Burrell. Water Works & Sewerage 92:342 N '45

See also
Sewage incinerators
Sewage tanks

Costs

Nut Island sewage treatment plant, near Quincy, Mass.; unit prices. Eng N 137:606 O 31 '46
Simms Bayou sewage treatment plant, Houston, Texas; unit prices. Eng N 136:877 My 30 '46
Substructure for sewage treatment plant, Norfolk, Va.; unit prices. Eng N 135:750 N 29 '45
Water and sewage works; recent federal loans; estimated cost of completed projects listed by states. Water & Sewage Works 93:118+ Ap '46

Design

Advanced theories combining treatment of garbage and sewage are applied to Port Huron's newest project. flow chart il map plan Arch Forum 83:112-13 D '45

Directories

Directory of sewage-treatment plants in Canada. Water & Sewage 84:112+ Jl '46

Employees

Certification of sewage plant operators, is it justified? W. F. Shephard. Water & Sewage 83:58-9+ N '45
On-the-job training program for sewage treatment and sewer department personnel. il diags Pub Works 77:29-30+ bibliog(p29) S '46

Equipment

Classified index of products used in waterworks and sewerage field. Water & Sewage Works 93:R2-12 Ap '46
Corrosion of sludge digester parts corrected by application of cathodic protection. G. A. Parkes. il diags Water & Sewage Works 93:R242-6 Ap '46
Disposal plant to alleviate Boston harbor nuisance. K. R. Kennison. flow diag il plan Civil Eng 16:254-7, 304-7 Je-Jl '46
Eight year performance record of the Plainfield sludge drier. J. R. Downes. diag Water & Sewage Works 93:323-4 Ag '46
Elimination of digesters in sewage treatment. H. O. Halvorson and R. L. Smith. il Water & Sewage 84:20-1+ Ja '46
Equipment and tools for sewage works. S. G. Hess. Water & Sewage Works 93:150-1 Ap '46
How to order surplus water and sanitation property at a discount; with directory of offices for surplus property disposal. il Pub Works 77:25-6 Mr '46
Lack of digester capacity in sewage plants is cause of sludge-handling difficulties. R. A. Greene. il Water & Sewage 83:57+ N '45
Manufacturers and agents of sewerage and waterworks equipment; addresses; products index. Water & Sewage 84:129-31 Jl '46
New method of heating sludge digesters; Baltimore adopts direct heating with submerged gas burning. C. E. Keefer. il diags Water & Sewage Works 93:236-8 Je '46
North Toronto activated sludge sewage treatment plant. G. Phelps. flow diag il Water & Sewage 84:25+ S '46
Operating results prove sewage filters can take a doubled load; treatment plant at Fort Sill, Okla. F. M. Veatch and R. E. Lawrence. flow chart il diag Eng N 136: 488-91 Ap 4 '46

SEWAGE disposal plants—Equipment—*Cont.*
Percolating filter plant for universal operation. L. B. Escritt. plan Pub Works 77:23-4 Ja '46
Pipe corrosion caused by air lift; sewage-treatment plant of the Greater Winnipeg sanitary district. L. R. Sowerby. il diag Water & Sewage 84:15-16 Ja '46
Some operation data on a large army activated sludge plant; Camp Shelby, Miss. J. H. McCutchen and C. G. Wood. il map plan Pub Works 77:20-1+ O '46
See also
Sewage tanks

Management
Good operators don't work. C. H. Carothers. Water & Sewage Works 93:42-3 Ja '46

Power
Father Knickerbocker looks ahead; fourteen dual-fuel engines scheduled for sewage plants. il map Diesel Power 24:1070-4 S '46
Gas engine power for sewage treatment plants. A. J. Burdoin. bibliog fold pl diags Boston Soc C E J 33.29-52 Ja '46; Same. Water & Sewage 84:19-23+ Ag '46
Internal-combustion engines in waterworks and sewage plants. A. M. Boehm. N E Water Works Assn J 60:27-31 Mr '46

Records
Getting the most out of sewage works data. W. L. Havens and F. W. Jones. il Civil Eng 15:399-401 S '45; Same. Water & Sewage 83:21-2+ O '45; Discussion. (Evaluation of sewage works data). G. E. Symons. Water & Sewage Works 93:403-5 O '46

Winter operation
Winter difficulties at sewage disposal works; abstract. J. Hurley. Pub Works 77:41 F '46

SEWAGE filter fly
How to use DDT for insect control; including a recommendation for filter fly control. L. F. Warrick and G. F. Bernauer. Water & Sewage Works 93:329-32 Ag '46
Odor control and control of filter flies. A. A. Hirsch. bibliog il Water & Sewage Works 93:249-50 Je '46

SEWAGE flow
Critical flow in circular conduits analyzed by nomograph. F. T. Mavis. Eng N 136:361-2 Mr 7 '46
Design of sewage flow to eliminate apparent sulphide generation; abstract. F. D. Bowlus. Concrete 54:31+ My '46

SEWAGE incinerators
Incineration of sludge meets Detroit conditions. L. V. Garrity. Water & Sewage 83: 53+ N '45
Sludge disposal at Detroit. C. W. Hubbell. Water & Sewage 83:51-2+ N '45

SEWAGE pumping
Design and operation of sewage pumping stations. W. S. Lea. il Water & Sewage 83:56+ N '45
Long sewage force main; Twin City ordnance plant, Minn. A. C. Whitney. map diags Water & Sewage Works 93:63-8 F '46
Magnetic drive; device adapted to variable speed centrifugal pumping. C. W. Camp. il diags Water & Sewage Works 93:243-6 Je '46

SEWAGE pumps
Constructing a pump sump in highly unstable soil. J. W. Bliss. il diag Pub Works 77: 26-7 O '46

SEWAGE sludge
Chart for determining per cent sludge digestion. F. H. Burley. Water & Sewage Works 93:88 F '46
Computing coagulant requirements in sludge conditioning. A. L. Genter. bibliog Am Soc C E Proc 71:307-30 Mr '45; Discussion. 71: 926-8, 1289-94, 1559-60; 72:499-509 Je, O, D '45, Ap '46
Control of housefly breeding in partly digested sewage sludge; experiments with various larvicides. T. A. Olson and R. G. Dahms. Pub Works 77:24+ My '46
Control of scum in sludge digestion; symposium. Water & Sewage Works 93:283-5 Jl '46
Lack of digester capacity in sewage plants is cause of sludge-handling difficulties. R. A. Greene. il Water & Sewage 83:57+ N '45
Lessons from a sludge tank explosion. H. W. Taylor. il Eng N 135:887-9 D 27 '45; Discussion. 136:289-91 F 21 '46
Methods used by cities for disposal of sewage sludge. il Pub Works 77:29-30+ Mr '46
New method of heating sludge digesters; Baltimore adopts direct heating with submerged gas burning. C. E. Keefer. il diags Water & Sewage Works 93:236-8 Je '46
Scum accumulations in sludge-digestion tanks; effect of turbo-mixers. D. L. McLean. il diag Water & Sewage 84:17+ F '46
Sludge density control; with particular reference to return sludge chlorination. J. A. Tapleshay. Water & Sewage Works 93: 116-18 Mr '46
Sludge lagooning. D. E. Bloodgood. il plan diag Water & Sewage Works 93:344-8 S '46
See also
Sewage disposal

Drying
Eight year performance record of the Plainfield sludge drier. J. R. Downes. diag Water & Sewage Works 93:323-4 Ag '46

Gas production
Compressed methane for commercial vehicles, gas produced from sewage. Engineer 181: 299 Mr 29 '46
Effect of copper on the operation of the Kenosha plant; abstract. H. T. Rudgal. Water & Sewage Works 93:316 Ag '46
Fuel and fertilizer from sewage; aim of German treatment plants. A. J. Fischer. il map Civil Eng 16:448-50 O '46
Gas engine power for sewage treatment plants. A. J. Burdoin. bibliog fold pl diags Boston Soc C E J 33:29-52 Ja '46; Same. Water & Sewage 84:19-23+ Ag '46
Producing formalin from sewage digester gas; experiments conducted in Johannesburg. H. Wilson. Pub Works 76:42+ N '45
Sewage gas for motor vehicles. Pub Works 77:39 F '46

SEWAGE sludge as fertilizer
Fuel and fertilizer from sewage; aim of German treatment plants. A. J. Fischer. il map Civil Eng 16:448-50 O '46
Instructions for the conducting of sewage sludge field tests. Water & Sewage Works 93:285-6 Jl '46
Investigation of plant-growth substances (auxins) in sewage products. C. A. Chaplin and C. J. Regan. Soc Chem Ind J 64:331-2 D '45
Making fertilizer from refuse and sewage sludge; reports of English investigations. C. Bould. Pub Works 77:31-2 F '46
Methods used by cities for disposal of sewage sludge. il Pub Works 77:29-30+ Mr '46
Value and future possibilities of sludge as a fertilizer. Pub Works 77:42 Ja '46

SEWAGE tanks
Detritus settlement possibilities for small sewage works; constant velocity detritus channel. L. B. Escritt. diags Pub Works 77:23-4+ F '46
Hudson Falls meets scum, head on! J. A. Fitzgerald. Water Works & Sewerage 92:366 D '45
Lessons from a sludge tank explosion. H. W. Taylor. il Eng N 135:887-9 D 27 '45; Discussion. 136:289-91 F 21 '46
Operation of sedimentation basins. R. C. Merz. il diags Pub Works 76:17-19+ N '45
Scum accumulations in sludge-digestion tanks; effect of turbo-mixers. D. L. McLean. il diag Water & Sewage 84:17+ F '46
See also
Settling tanks

Cleaning
Cleaning a digester; Ithaca sewage plant. G. D. Carpenter. il Pub Works 77:19+ Mr '46

SEWAGE works associations, Federation of. See Federation of sewage works associations

SEWER cleaning
Unique and effective sewer cleaner. M. W. Loving. il diags Water & Sewage Works 93:321-2 Ag '46

SEWER design
Circular calculator simplifies sewer design. J. W. Feild. Civil Eng 16:400-1 S '46

SEWER pipes
Long sewage force main, Twin City ordnance plant, Minn. A. C. Whitney. map diags Water & Sewage Works 93:63-8 F '46

See also
Sewer cleaning

Detection
Locating lost sewers and manholes; use of M-Scope. E. T. Cranch. plan Water & Sewage Works 93:149 Ap '46

SEWER pipes, Concrete
Concrete pipe jacked under a railroad. il Eng N 137:299-301 S 5 '46
Design of sewage flow to eliminate apparent sulphide generation; abstract. F. D. Bowlus. Concrete 54:31+ My '46

See also
Sewers, Concrete

SEWER pipes, Vitrified clay

Testing
Sewer test for tightness. I. R. Riker. il diag Pub Works 77:20-1+ Ag '46

Transportation
Sewer pipe loading and impact tested by railroads. il Brick & Clay Rec 109:66 S '46

SEWER pipes, Wood
Paraguay sewer built of timber and floated into place. il Eng N 137:46-7 Jl 11 '46

SEWER rental. See Sewerage—Finance

SEWERAGE
Building a one-mile sewer by tunneling; Baltimore, Md. il Eng N 136:788-91 My 16 '46
Canadian practice in installation and maintenance of sewer connections. N. MacNicol. Water & Sewage 83:120+ N '45
Central states sewage works assn. holds 18th annual meeting at Purdue. Water & Sewage Works 93:315-20 Ag '46
Constructing a pump sump in highly unstable soil. J. W. Bliss. il diag Pub Works 77: 26-7 O '46
Design of sewers or drains for greatest economy. W. E. Howland. Water & Sewage 84: 148-9 Jl '46
Diversion structure for combined sewer picks up sanitary flow. B. S. Morrow. diags Civil Eng 16:358 Ag '46
Infiltration into sewers, city engineers' reports. Pub Works 77:25+ Jl '46
On-the-job training program for sewage treatment and sewer department personnel. il diags Pub Works 77:29-30+ bibliog(p29) S '46
Overflow structure in trunk sewer diverts storm water to beach. diag Eng N 137:45 Jl 11 '46
Tunneled sewer avoids traffic snarls, Hartford, Conn. il Eng N 137:437-8 O 3 '46
Water and sewage works reference and data section. bibliog il diags Water & Sewage Works 93:R1-276 Ap '46
Water-carriage method of garbage collection and disposal with sewage. H. E. Babbitt. bibliog il Pub Works 77:17-18+ Je '46
Wellpoints in a pumped-sand fill facilitate outfall sewer construction. il diags Eng N 137:238-40 Ag 22 '46

See also
Catch basins
Drainage, House
Plumbing
Sewage disposal
Sewage sludge
Sewer pipes
Trade waste
Water pollution
also Federation of sewage works associations

Bibliography
Sewerage digest. Published in monthly numbers of Public works

Cost
Sanitary sewer extensions, Hoisington, Kansas; unit prices. Eng N 136:1009 Je 27 '46

Finance
Financing sewage disposal. Pub Works 76:27-8+ N '45
Financing sewage works; abstract. H. F. Alderfer. Water & Sewage Works 93:393-4 O '46
Financing sewerage systems; discussion. Water & Sewage 83:100+ N '45
Master plan for water and sanitary sewer utilities, Dallas, Texas; with cost data; abstract. H. A. Hunter. Am Water Works Assn J 38:166-7 Ja '46
Municipal sewage projects top FWA planning loan list. Eng N 136:83+ Ja 17 '46
Organization, financing, and administration of sanitary districts; progress report of the committee of the Sanitary engineering division. Am Soc C E Proc 71:177-94 bibliog(p187-8) F '45; Same cond. Water & Sewage 84:55-62 F '46; Discussion. Am Soc C E Proc 71:786-8, 929-30 My-Je '45
Rental of municipal sewage systems to dispose of liquid wastes. H. R. Murdock. Ind & Eng Chem 38:sup81-2 Je '46
Western cities plan sewage disposal work for postwar projects. Eng N 137:433 O 3 '46

Maintenance and repair
Repairing a sewer laid in quicksand. R. G. Coulter. il Pub Works 76:19-20 D '45

California
California cities ok $22 million sewer work. Eng N 137:137 Ag 1 '46

Canada
Directory of sewage-treatment plants in Canada. Water & Sewage 84:112+ Jl '46
Government officials in charge of Canadian public water supply and sewerage undertakings. Water & Sewage 84:20 Jl '46
Sewage treatment plants in operation in Canada. il Water & Sewage 84:14+ Jl '46
Sewer systems; Canadian municipalities. il Water & Sewage 84:10+ Jl '46

Germany
Fuel and fertilizer from sewage; aim of German treatment plants. A. J. Fischer. il map Civil Eng 16:448-50 O '46
German sewage treatment practice made little progress during war; abstract. A. J. Fischer. Eng N 136:140 Ja 24 '46

Great Britain
Post-war problems of English sewage works; abstract. Pub Works 77:34 F '46

Latin America
Co-operative sanitation in the Americas. H. B. Gotaas. Am Water Works Assn J 38: 969-72 Ag '46

New York (state)
Pollution abatement study and developments in New York state. Pub Works 77:35 O '46

Pennsylvania
Financing sewage disposal. Pub Works 76: 27-8+ N '45
Pennsylvania streams drive brings results. Eng N 136:831 My 30 '46

Puerto Rico
Puerto Rico sewage disposal program includes sixteen treatment plants. Eng N 137:297-8 S 5 '46

Washington (state)
Washington cities fight pollution with new sewage plant program. Eng N 137:52 Jl 11 '46

SEWERS, Concrete
Corrosion of concrete; abstract. C. D. Parker. Am Water Works Assn J 38:1214 O '46

See also
Sewer pipes, Concrete

SEWERS, Concrete—*Continued*

Maintenance and repair

Competitive bids on a cost-plus-fixed-fee contract; repair of reinforced concrete sewer. A. H. Lewis, jr. Eng N 135:742-3 N 29 '45

SEWING machines

Outlook for household sewing machine industry. A. S. Rodgers. Comm & Fin Chr 163: 584+ Ja 31 '46

SEXTANT

Ball integrator averages sextant readings. R. F. Deimel and W. A. Black. il diag Machine Design 18:116-20 Mr '46

Use of the bubble sextant. E. F. Flint. map Aero Digest 52:48-50+ Ap '46

SEYMOUR NARROWS, British Columbia

More concerning Ripple Rock. E. H. Livesay. Engineer 181:547-8 Je 14 '46

Removal of Ripple Rock. Engineer 181:219 Mr 8 '46

SHACKELFORD, Benjamin Estill, 1891-

Portrait. Inst Radio Eng Proc 34 [Waves & Electrons 1]:4W Ja '46

SHACKLES

Israel quick-release shackle. diag Mech Handling 32:717 D '45

SHADOW casting. See Microscope and microscopy

SHADOWGRAMS

Spark shadowgraphic study of body waves in water. J. H. McMillen and E. N. Harvey. bibliog il J Ap Phys 17:541-55 Jl '46

SHAFT sinking

Shaft sinking by stripping churn-drill holes. W. A. Cole. 2pls U S Bur Mines Information Circ 7308:1-6 '45; Same. Min Cong J 31:35-7+ Ap '45

Sinking large-diameter drill holes Lake Superior district underground iron mines. E. W. Johnson and F. E. Cash. bibliog 10pls U S Bur Mines Information Circ 7354:1-21 '46

SHAFTING

Maintenance of line shafting. H. J. Vander Eb. il diags Locomotive 46:42-5 Ap '46

Straightening bent propeller shafts. il diags Steel 118:108 Ja 21 '46

Welding of propulsion shafting of centrifugally cast steel. H. W. Hiemke and J. C. Blake. il diags Welding J 24:1040-5 N '45; Discussion. J. T. Vann. 25:333-5 Ap '46

Welding of 3½% Ni-0.40% carbon class A steel forgings; repairing damaged propeller shafting. B. Ronay. il diags Welding J 25: 495-503 Je '46

SHAFTS

Calculating torsional stiffness of shafts; engineering data sheet. C. Carmichael. Machine Design 18:153-4 Mr '46

Deflections and critical speeds of stepped shafts; engineering data sheet. H. L. Blood. bibliog Machine Design 18:155-7 Je '46

Fatigue strength of 5¼-in. shaft as related to design of large parts; abstract. O. J. Horger and others. Metal Prog 49:1228+ Je '46

Mechanical seals. D. R. Lewis. il diag Machine Design 18:125-8 S; 78-82 O; 138-42+ N '46

Nomogram for shaft design; reference book sheet. C. P. Nachod. Product Eng 17:87 Ja '46

Seal for a rotating shaft. diag Engineer 182:218 S 6 '46

Sealing a rotating shaft; metal bellows construction. R. Hammond. diag Chem Age (Lond) 55:199 Ag 17 '46

Straightening of warped shafts. T. F. Burch. Metal Prog 50:91 Jl '46

Typical methods of coupling rotating shafts. diags Product Eng 17:124-5 N; 112-13 D '46

Typical methods of sealing rotating shafts. diags Product Eng 17:108-9 O '46

See also
Crankshafts
Shafting

SHAHN, Ben, 1898-

Aftermath of war; paintings by B. Shahn. il Fortune 32:169-72 D '45

SHAKING apparatus

Griffin and Tatlock flask shaker. il Engineer 181:93 Ja 25 '46

SHALE

Boice shale, new Mississippian subsurface formation in southeast Nebraska. E. C. Reed. Am Assn Pet Geologists Bul 30:348-9 Mr '46

Elongate intrenched meanders of Conodoguinet Creek, Pa. A. N. Strahler. bibliog pl diag maps Am J Sci 244:31-40 Ja '46

Foundation displacements along the Malheur River siphon as effected by swelling shales. R. C. Mielenz and C. J. Okeson. il map Econ Geol 41:266-81 My '46

New Albany shale. G. Campbell. bibliog maps Geol Soc Bul 57:829-908, pl 1-3 S '46

Taconic sequence in Pennsylvania. G. W. Stose. bibliog maps Am J Sci 244:665-96 O '46

See also
Mudstone
Oil shales

SHALE oil. See Oil shales

SHAMPOOS

Cation-active shampoos; abstract. H. W. Zussman. Soap & San Chem 21:61 N '45

Cream shampoos. W. J. Beach. il Soap & San Chem 22:46-8+ Ag '46

Shampoo formulation. S. P. Jannaway. Soap & San Chem 22:61 Ja '46

Shampoos. E. G. Thomssen. il Soap & San Chem 22:36-7+ Mr; 47-9+ Ap '46

SHAMROCK oil and gas corporation

Shamrock Oil to get more for its gas. Barron's 26:13 Ja 7 '46

SHANGHAI

Business license tax for the municipality of Shanghai. For Comm W 25:18 O 26 '46

Shanghai; reopened under new management; il. by B. Perlin. C. J. V. Murphy. Fortune 33:140-8+ F '46

See also
Banks and banking —Shanghai
Textile industry— Shanghai

Commerce

Currency and imports in Shanghai. Economist 150:419-20 Mr 16 '46

Resumption of trade in Shanghai. Economist 150:217-18 F 9 '46

Trade in Shanghai. Economist 151:18 Jl 6 '46

Economic conditions

Shanghai suffers from onerous living costs. J. Stenhouse. il For Comm W 23:10+ My 11 '46

SHAPERS

Cincinnati railroad shaper. il Ry Mech Eng 120:497 S '46

Cushioned high-cobalt shaper tools. Iron Age 156:61 N 29 '45

SHAPLEY, Harlow, 1885-

Portrait. Fortune 33:121 Je '46

SHAREHOLDERS. See Stockholders

SHARON steel corporation

Acquisitions cut Sharon Steel's cost. Barron's 26:1+ Ja 14 '46

Common stock offered. Comm & Fin Chr 163: 2300 Ap 29 '46

Purchases Farrell steelworks. il Steel 117: 90+ N 19 '45; Iron Age 156:108-9 N 15 '45

Sharon expands. Bsns W p22+ S 21 '46

Sharon Steel to pay more. Barron's 26:7 My 6 '46

SHARPENING

Blake spiral-point tap sharpener grinds straight or angular flutes. il Am Mach 90: 153 O 24 '46

Thread cutting with dieheads; how to sharpen tangent chasers. H. Schlarman. diags Am Mach 90:133-8 Je 6 '46

Thread cutting with dieheads; principles controlling the sharpening of radial chasers. H. Schlarman. diags Am Mach 90:133-6 My 9; 143-7 My 23 '46

SHASTA dam. See Central Valley project, California; Dams, Concrete

SHAVER, Dorothy, 1897-

Portrait. Bsns W p76 D 29 '45

SHAVERS
Non-electric dry shaver; Vestpok. il Consumers Res Bul 18:18-19 Jl '46

SHAVING cream
Brushless shaving cream. M. G. de Navaree. Soap & San Chem 22:71 S '46

SHEAR. See Strains and stresses

SHEARON, Will H. jr
Associate editor of Chemical and engineering news and Industrial and engineering chemistry. Chem & Eng N 24:1893 Jl 25 '46

SHEARS (machines)
Cleveland power-driven metal-cutting shears. il Mach 52:197 F '46; Am Mach 90:154 F 14 '46

SHEATHING paper. See Paper, Building

SHEAVES
It may be you could use a slightly larger rope; with table for calculating minimum sheave and drum diameters. il Min Cong J 32:42 S '46

SHEEPSKIN
Good sheep and sheep. Fortune 34:159 S '46
Hair-sheep skins and goatskins from Brazil. B. B. Mackay. il For Comm W 22:6+ Mr 16 '46
Pulling wool by the use of enzymes; Arazym NSL. Am Dyestuff Rep 35:257-8 My 20 '46
Sheepskins converted into "plastic" furs, Canada. For Comm W 23:36 My 4 '46
What's in a name? fur dealer sees potential mass market for sheepskin coats. il Bsns W p48-50+ Mr 9 '46

SHEET metal
Fabricating aluminum sheet. R. P. Kytle, jr. il Steel 118:92-3+ Mr 11 '46

See also
Sheet steel

Testing

Compression testing of magnesium alloy sheet. A. A. Moore and J. C. McDonald. bibliog il diag Am Soc T M Proc 45:698-704 '45
Investigation of the effect of spot welding on the sheet efficiency of aluminum alloy 24S-T. W. F. Hess and others. il diags Welding J 25:sup288-306, sup361-75 My, Jl '46
Method of testing thin sheet material in compression. B. C. Madden, jr. bibliog il diags J Aeronautical Sci 13:346-52 Ap '46
Single-strip compression test for sheet materials. H. LaTour and D. S. Wolford. diags il Am Soc T M Proc 45:671-88 bibliog(p688); Discussion. 689-97 '45
Strain analysis by photogrid method. W. F. Brown, jr. and M. H. Jones. il Iron Age 158:50-5 S 12 '46
Tensile properties affecting the formability of aluminum-alloy sheet at elevated temperatures. A. E. Flanigan and others. bibliog il diag J Aeronautical Sci 13:457-68 S '46

Transportation

Shipping sheet with more efficient packaging. il Mod Packaging 19:120-1 D '45

SHEET metal, Corrugated
Stiffening effect of porcelain enamel on sheet iron; corrugated sheets. D. S. Wolford and G. E. Selby. bibliog il Am Cer Soc J 29:170-5 Je 1 '46

SHEET metal, Enameled
Advancements in nickel-dipping practice. G. H. McIntyre. bibliog Am Cer Soc Bul 25: 333-7 S 15 '46
Fabrication and enameling performance of titanium enameling steel. F. R. Porter. il Am Cer Soc Bul 25:259-66 Jl 15 '46
Fabrication of porcelain-enameled parts; reference book sheet. diags Am Mach 90: 149, 151 Ap 11 '46
Factors governing adherence of enamels applied to sheet iron. L. A. Johnson and E. E. Howe. bibliog il Am Cer Soc J 29:296-301 O 1 '46
Good enameling steels determined by analysis and cleaning methods. E. E. Marbaker. Iron Age 157:150-2+ F 14 '46
Porcelain enamel cut to size on the job; recent saw developments. il Cer Ind 47:66+ Ag '46
Porcelain enamel, the versatile finish. F. L. Meacham. Am Cer Soc Bul 24:419-21 N 15 '45
Recent advances in porcelain enameling. G. H. McIntyre. Steel 118:98+ Ja 21 '46
Relation of enameling iron preparation and accessory conditions to copperhead-type defects. W. H. Pfeiffer and R. S. Sheldon. Am Cer Soc J 29:235-9 S 1 '46
Taper reamer bores porcelain enamel without chipping. V. P. Thomas. diag Am Mach 90:141 S 26 '46
Titanium-stabilized iron for enameling. E. Wainer. bibliog il Am Cer Soc Bul 25:248-59 Jl 15 '46

Testing

Stiffening effect of porcelain enamel on sheet iron. D. S. Wolford and G. E. Selby. bibliog il diags Am Cer Soc J 29:162-75 Je 1 '46

SHEET metal, Perforated
High-speed perforating of sheet metal; E. W. Bliss co. press. il Mach 52:186-7 Ap '46; Iron Age 157:56 My 2 '46; Steel 118:109+ Je 17 '46

SHEET metal buildings
Pacific hospitals built of sheet steel. il diags Eng N 135:729-31 N 29 '45

SHEET metal contractors national association
Annual meeting, 3d, St Louis, May 2-4. Sheet Metal Worker 37:74+ My '46

SHEET metal houses
Packaged houses; ready-to-erect units of steel and aluminum. il Steel 119:86+ Ag 12 '46
Prefabricated metal homes solve housing problem on campus. il Steel 119:77 O 21 '46

See also
Steel houses

SHEET metal shops
Aluminum roof on large metal plant; J. F. Wagners sons. il Sheet Metal Worker 36: 51+ N '45
Old firm adds new shop building; A. Munder and sons. il layout plan diag Sheet Metal Worker 37:88+ S '46
Twelve ways to save floor space. il Sheet Metal Worker 37:43-5 S '46

Employees

On-the-job training. Sheet Metal Worker 37: 70+ My '46

Equipment

Air handling work for industry; manufacture of drying and ventilating equipment; Universal sheet metal corp. il Sheet Metal Worker 37:50+ Mr '46
Deep-drawing of magnesium. R. G. Gillespie. il diags Mach 52:145-55 Mr '46
Features of well-equipped shop; Buensod-Stacey co. il layout plan Sheet Metal Worker 37:49-51 Ag '46
Features of well-planned shop; plant of Karl Suchomel. il diags Sheet Metal Worker 37:41-3+ My '46
Shop features; ideas that aid production in sheet metal shops. il diags Sheet Metal Worker 36:61-2 N '45
Shop with a labor-saving assembly line; E-G sheet metal works' shop. il plan Sheet Metal Worker 36:45-6 D '45
2,000 ft. of duct a day; Gamsu ventilation co. il plan Sheet Metal Worker 37:58+ Je '46

Management

Ideal sheet metal shop management; Colonial heating service, Madison, Wis. il Sheet Metal Worker 36:71-2 N '45
Offsetting the housing hiatus; R. F. Stengel & sons. il Sheet Metal Worker 37:45-6 My '46
Shop organization. E. Steiner. Sheet Metal Worker 37:62+ Jl '46

Safety measures

Hints on accident prevention. il Sheet Metal Worker 37:140+ Ja '46

SHEET metal trade
Book, the know how, the wholesale establishment. K. W. Woodbury. il Sheet Metal Worker 37:96-7+ Ja '46

SHEET metal trade—*Continued*
Boston distributor in new headquarters; Herrick & co. il Sheet Metal Worker 36:80+ N '45
Indiana sheet metal and warm-air heating contractors' association annual meeting, Indianapolis, Feb. 4-5. Sheet Metal Worker 37:72+ Mr '46
Introducing welding supplies dealers; added service to sheet metal contractors. il Sheet Metal Worker 37:51-2 S '46
Keep pace with agriculture; new outlets for sheet metal. il Sheet Metal Worker 37: 37-8 Jl '46
Looking at the market; topical notes for management. W. Alwyn-Schmidt. Sheet Metal Worker 36:68+ S; 51-3 O; 74+ N; 66-8 D '45; 37:126+ Ja; 70+ F; 58+ Mr; 72+ Ap; 60+ My; 69-70+ Je; 46-8 Jl; 70-2+ Ag; 66+ S; 74+ O; 51+ N '46
Michigan sheet metal, roofing, heating and air conditioning contractors association, 35th annual meeting, Grand Rapids, Mich. March 18-20. Sheet Metal Worker 37:78+ Ap '46
New York state sheet metal, roofing and air conditioning contractors association, 23d annual meeting, Buffalo, April 2-3. Sheet Metal Worker 37:82-4 Ap '46
1946 prospects; views of representatives of the industry. Sheet Metal Worker 37:87-91+ Ja; 48-9 F '46
One way to find scarce material; Lyon Metal Products campaign of advertising and promotion to find steel supplies. il Am Bsns 16:20-1 S '46
Sheet metal contractors association of Illinois, 32d annual meeting, Peoria, April 8-9. Sheet Metal Worker 37:83-4+ My '46
35.08% saving for New York insurance group. Sheet Metal Worker 37:47+ F '46
Trade experience in trucks; cost estimates. il Sheet Metal Worker 37:45-6 Ag; 52 S '46
See also National association of sheet metal distributors; Sheet metal contractors national association

Directories

Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. Sheet Metal Worker 37:173-90 Ja '46

SHEET metal work
Air handling work for industry; manufacture of drying and ventilating equipment; Universal sheet metal corp. il Sheet Metal Worker 37:50+ Mr '46
Brazed sheet-metal automobile engine; Crosley motors. il Iron Age 157:61-3 Ja 24 '46
Can opener-like tool crimps 16-gage sheet. F. Lucarelli. il Am Mach 90:126 Jl 4 '46
Circular bulging of aluminum-alloy sheet at room and elevated temperatures. G. Sachs and others. il diags A S M E Trans 68: 161-73 F '46
Convenient and ingenious crimping tool. il Mach 52:168 Jl '46
Distortion due to contour-forming of extrusions and preformed sheet-metal sections. W. Schroeder. il diags A S M E Trans 68:287-92 My '46
Ford cylinder sleeve production. C. O. Herb. il Mach 52:139-47+ Jl '46
Fusion welding of sheet metal; construction of amphibious truck, DUKW. J. M. Diebold. il diags Welding J 25:724-32 Ag '46
Gage for checking the height of burrs. P. L. Budwitz. diags Mach 52:196 Ap '46
Hand tool for sheet metal crimping. il Iron Age 157:80 Je 6 '46
Hints on working aluminum alloys. il Sheet Metal Worker 36:44+ D '45
Hints on working stainless steel; Spatz sheet metal works. il diag Sheet Metal Worker 37:52-3+ O '46
How tangent bender tucks flange metal. L. B. Green. il diags Machine Design 17:101-6 D '45
How to select and work aluminum. C. F. Palmer. il Sheet Metal Worker 37:42-4 Je '46
How to work magnesium alloys. A. Ashburn. diags Am Mach 90:122-4 N 7 '46
Important elements of sheet metal welding. O. T. Barnett. diags Steel 118:86-7+ Je 10 '46
Investigation of the strength of riveted joints in copper sheets. W. M. Wilson and A. M. Ozelsel. il diags Ill U Eng Exp Sta Bul 360: 1-81 '46 (pa $1)
Manual oxyacetylene flame brazing of aluminum, aluminum alloy sheet and subassemblies. F. Clark. il diags Welding J 25:505-13 Je '46
North American installs sheet metal conveyor system. il Automotive & Aviation Ind 94:34-5+ Ap 15 '46; Iron Age 157:55 Ap 25 '46
Prefabrication gains ground in industrial field; Lindsay structural method. C. T. Post. il diags Iron Age 157:110-11 Ap 25 '46
Producing formed steel plumbing fixtures. H. E. Linsley. il Iron Age 158:54-7 N 7 '46
Radiography of spot welds in light alloy and ferrous sheet materials. R. C. McMaster and F. C. Lindvall. il Welding J 25: 851-60 S '46
Resistance welding for sheet metal shops. H. S. Card. il Sheet Metal Worker 37:44-6+ F '46
Resistance welding of sheet metal. R. T. Gillette. il diags Heat & Ven 43:76-9 Mr '46
Sheet metal forming; principles of design. W. C. Mills. diags Product Eng 16:854-5 D '45
Spot welding in sheet metal shops. il diags Sheet Metal Worker 37:43-5+ O '46
Steel can be Guerinned too; Douglas aircraft rubber-shrinks corrosion-resistant steel with plastic dies and pressure plates. il Am Mach 90:102-3 Ag 1 '46
Stiffening sheets can be accomplished by backing or denting. Sci Am 173:276 N '45
Thin stock demands special die design; with drawings. W. C. Mills. Am Mach 90:112-15 Ag 15 '46
Typical examples of contour forming. C. J. Bath. il Mach 52:181-4 Ap '46
Unique sawdust handling system; fan material handling duct. il Sheet Metal Worker 37:44+ Ag '46
Use of sensitized metal in engineering. A. Batley. Chem & Ind p378-80; Discussion. 380 D 8 '45
Ventilation of typical Liberty ships; work done by Consolidated sheet metal works. plan diags Sheet Metal Worker 36:84+ N '45
War-born advancements in welding have vital peacetime role. A. F. Davis. il Sheet Metal Worker 37:101-2 Ja '46
Welding cuts product costs; Woodbury sheet metal works. il Sheet Metal Worker 37:43 Ag '46

See also
Air conditioning equipment
Air pipes
Beading (sheet metal work)
Dies
Dust collectors
Exhaust systems
Metal spinning
Pipes
Presses
Punching
Rolling (metal work)
Rolling mills
Shells (metal work)
Sheet metal, Enameled
Sheet metal, Perforated
Sheet steel
Stamping
Tin cans
Tin plate
Tubes
Ventilators

Pattern making

Low cost patterns for multi-stage dies; Sol-A-Die process. R. R. Kay. il diags Iron Age 158:56-8 Ag 22 '46
Pattern for a grain chute. O. W. Kothe. diags Sheet Metal Worker 37:48+ Mr '46
Pattern for an angled Y-branch; conveying powders. O. W. Kothe. diags Sheet Metal Worker 37:55+ S '46
Pattern for double angle two-way Y-branch; rectangle to round. O. W. Kothe. diags Sheet Metal Worker 37:90+ O '46
Patterns for several T connections. O. W. Kothe. il plans Sheet Metal Worker 37: 76+ Je; 82-3 Ag '46
Rectangular ducts and fittings (cont). O. W. Kothe. diags Sheet Metal Worker 36:58+ N; 53-4 D '45; 37:146-7 Ja '46

SHEET metal work—*Continued*

Tables, calculations, etc.

Determination and presentation of compressive stress-strain data for thin sheet metal; abstract. Aeronautical Eng R 5:12-13 Ap '46

Strain analysis quickly finds formability limits. G. Gerard. il diags Aviation 45:73-5 Ap; 81-2 Je '46

Useful tables for sheet metal men (cont). E. Steiner; M. V. Bergstedt. Sheet Metal Worker 36:56-7 N; 76-7 D '45; 37:144-5 Ja; 56-7 F; 46-7 Mr; 58-9 Ap; 50-1 My; 40-1 Je; 80-1 Ag; 50 S; 76-7 N '46

SHEET metal work, Architectural

Aluminum roof on railway terminal. il Sheet Metal Worker 37:46-8+ Ap '46

Revolution in roofing; Coper-Cel composite unit. il diags Sheet Metal Worker 37:40-2 Jl '46

Sheet metal workers' catechism (cont). W. Neubecker. diags Sheet Metal Worker 37: 58 F; 70 Mr; 47-8 Je; 52+ Ag; 54-5 O; 54+ D '46

See also
Shingles, Aluminum

SHEET metal working machinery

Adjustable spindles and interchangeable rolls make stamping trimmer versatile. il diags Product Eng 17:94-5 N '46

Bronx engineering company fabricated press brake. il Engineer 181:345 Ap 12 '46

Example of mechanical aptitude; sheet metal shop fills hurry-up order for tank top assemblies with shop-made machine; Charles Demuth & sons. il diags Sheet Metal Worker 37:43-5 Mr '46

Examples of shop-altered machines. il diags Sheet Metal Worker 37:74+ Ag '46

Guide to machinery selection. il diags Sheet Metal Worker 37:61-2 Ap; 52-4 My; 45-6 Je; 45+ Jl; 56+ S; 66+ N '46

Labor saving through air tools. il diag Sheet Metal Worker 37:93-5+ Ja '46

Reciprocating slide mechanism for feeding parts from a stack. diag Mach 52:190 F '46

See also
Shears (machines)

SHEET piling

Advantages of steel sheeting for use in trench excavation. W. T. Adams. il diags Pub Works 77:17-18 F '46

Deep water piers built open hole without seal; two Oklahoma bridges. H. J. McKeever. il Roads & Sts 89:67-71 Jl '46

Sheetpile cofferdam for a 30-ft. head; Sault Ste. Marie, Mich. A. DiGiacinto. il plan diag Eng N 136:404-7 Mr 21 '46

Steel pile undergoes curious deformation. il Eng N 136:494 Ap 4 '46

SHEET steel

Aluminum coated sheet steel. il Heat & Ven 43:74-5 Je '46

CPA reports 300,000-ton rise in annual steel sheet capacity. Steel 118:61 Ja 21 '46

Corrosion performance of blackplate in cans. W. B. Adams and D. Dickenson. Iron Age 156:59 N 15 '45

Fabrication and enameling performance of titanium enameling steel. F. R. Porter. il Am Cer Soc Bul 25:259-66 Jl 15 '46

Good enameling steels determined by analysis and cleaning methods. E. E. Marbaker. Iron Age 157:150-2+ F 14 '46

Improving the formability of NE 8630 steel sheet. J. L. Waisman and W. T. Snyder. il Metal Prog 49:755-60 Ap '46

New method of coil annealing; abstracts. H. H. Armstrong and F. F. Schlitt. Iron Age 158:72-3 O 10 '46; Steel 119:131-2 O 14 '46

Producing formed steel plumbing fixtures. H. E. Linsley. il Iron Age 158:54-7 N 7 '46

Testing

Strength of thin steel compression flanges. G. Winter. bibliog il diags Am Soc C E Proc 72:199-226 F '46; Discussion. 72:909-12, 1188-90 Je-O '46

SHEETING (term)

For better usage; films, foils and sheeting. C. A. Southwick, jr. Mod Packaging 19: 131-2 N '45

SHEETS

Colored sheets return to domestics market. Sales Management 57:108 O 1 '46

Advertising

How to merchandise a consumer ad; Pepperell sheets. il Ptr Ink 216:73+ S 6 '46

SHEETS, Crib. See Sheets, Waterproof

SHEETS, Waterproof

Rating

Waterproof crib sheets. Consumers Res Bul 17:21-2 Ap '46

SHELL touring bureau. See Oil companies—Travel bureaus

SHELL union oil corporation

Debentures offered. Comm & Fin Chr 163: 2200 Ap 22 '46

SHELLAC

Shellac as a moulding plastic; abstract. Franklin Inst J 242:239 S '46

What's ahead in raw materials. W. H. Zinsser. Paint Oil & Chem R 108:38+ N 1 '45

SHELLFISH

See also
Oyster culture
Shrimps

SHELLMAR products corporation

Stocks offered. Comm & Fin Chr 163:660 F 4 '46

SHELLS (metal work)

Drawing pronged shells. C. W. Hinman. diags Am Mach 90:158 Je 20 '46

Hydraulic strippers facilitate drawing of thin shells. H. F. Hild. il diags Mach 52:147-53 D '45

Thin-stock dies for secondary operations. W. C. Mills. diags Am Mach 90:101-5 O 24 '46

SHELLS (projectiles)

See also
Projectiles

Fuses

See Fuses

Loading plants

Compressed air devices aid in speeding up loading and handling shells. il Steel 117: 128 N 19 '45

Don't excuse that dust; control of dust from military explosives. W. H. Ficks, jr. il Safety Eng 91:14-18 Ja '46

Manufacture

Automatic manufacturing plant; shell plant of W. F. & John Barnes co. suggests possibilities for peacetime manufacturing. E. Oberg. il Mach 52:148-55 F '46

Cemented carbide dies for cold nosing artillery shells. il Steel 117:72 D 31 '45

Importance of a proper quench. J. McElgin. il Iron Age 157:50-1 F 21 '46

Quality control with 2,000,000-volt X-ray unit; manufacturing bombs and new type of shell. G. A. Van Brunt. il plans Factory Management 104:141-4 Ja '46

Testing

Production control with 2,000,000-volt X-rays; testing shells and bombs; plant of Sanderson & Porter. D. Goodman. il diags Electronics 19:146-9 F '46

Two million volt X-ray inspection equipment; inspecting loaded shells and bombs at Elwood ordnance plant. D. Goodman. il diag Metal Prog 49:327-32 F '46

SHEN, Y. T. 1895-

Executive director of the International bank. por Comm & Fin Chr 164:1651 O 3 '46

SHEPHERDSON, Arnold

Sketch. J. Baddiley. por Soc Dyers & Col J 62:154-5 My '46

SHERMAN, Henry Clapp, 1875-

Award of Franklin medal. Franklin Inst J 242:77-8 Jl '46

Awarded Franklin medal. por Chem & Eng N 24:1071 Ap 25 '46

Portrait. Oil Paint & Drug Rep 149:7 Ap 15 '46

SHERWOOD, Donald B.

General adjuster, Sherwood's title with National Board. por Nat Underw 50:8 N 7 '46

SHERWOOD, Robert Ford, 1897-
Elected president of United feldspar & minerals corporation. bibliog por Am Cer Soc Bul 24:438 N 15 '45

SHIELDING, Electromagnetic. See Electromagnetic shielding

SHIFT schedules. See Hours of labor—Shift schedules

SHIGELLA dysenteriae. See Dysentery

SHIGELLOSIS. See Dysentery

SHINGLES, Aluminum
Aluminum shingles made in Birmingham. il Manuf Rec 115:41+ S '46

SHIP decoration
Innovations; interior design. J. Heaney. il Marine Eng 50:148-52 N '45
Interiors for tomorrow's ships. M. Lapidus. il plans Marine Eng 50:172-6+ N '45

SHIP model tanks
Extension to model basin at Carderock; David W. Taylor model basin. Marine Eng 51:146 F '46; Same. il Concrete 54:20+ F '46
New towing tanks facilities at Stevens. H. W. MacDonald. il plan diags Marine Eng 51:90-8 S '46
Water moves, models are stationary at new D. W. Taylor test unit. Iron Age 157:136+ Je 27 '46

SHIP plates
Calm sea, broken ships; Kaiser-built tankers. Bsns W p54 Je 22 '46
Conditions of fracture of medium steel ship plates. D. F. Widenburg and W. P. Roop. il diags Welding J 24:sup580-7 N '45
Pietzker's effective breadth of flange reexamined. J. M. Murray. bibliog Engineering 161:364-5 Ap 19 '46
Some causes of brittle failures in welded mild steel structures. H. E. Kennedy. il diags Welding J 24:sup588-98 N '45

Testing

Compression and impact tests for steel acceptance proposed. D. F. Windenburg. diag Civil Eng 16:442-3 O '46
Investigation of the effect of welding on the transition temperature of navy high-tensile, low-alloy steels. G. G. Luther and others. bibliog il diags Welding J 25: sup634-45 O '46

SHIP propulsion
Amphibious tank propulsion units. diags Engineer 180:506 D 21 '45
Can exhaust turbines rejuvenate Liberty ships for postwar trade? coupling engine and turbine to common propeller shaft. S. A. Tucker. il plan diags Power 90:158-60 Mr '46
Heavy duty propelling and steering device aids in marine operations of oil industry. il Pet Eng 17:228+ My '46
Present and future of marine engineering. A. L. Ayre. Engineer 182:237-9 S 13 '46; Same. Engineering 162:271, 294-5 S 20-27 '46
Propelling machinery for H.M. coastal minesweepers. il diags Engineering 161:369-70, 372 Ap 19 '46
Roller chains provide unique propulsion drive. N. C. Bremer. il diags Machine Design 18: 150-2+ S '46

See also
Boilers, Marine
Diesel engines, Marine
Gas turbines, Marine
Internal combustion engines, Marine
Motor ships
Propellers
Ship resistance
Steam turbines, Marine
Steamboats

SHIP propulsion, Electric
Bowes drive for electric ships. Electrician 136:1084 Ap 26 '46
Canadian Pacific cargo liner, Beaverdell. il plan Engineering 161:511-14, 516 My 31 '46
Canadian Pacific railway turbo-electric cargo liner Beaverdell. il plans diags Engineer 181:217-19, 239-41 Mr 8-15 '46; Same abr. Marine Eng 51:100-6 S '46; Abstracts. Elec R (Lond) 138:577-9 Ap 12 '46; Electrician 136:1021-4 Ap 19 '46
Conversion of M.V. Vecta to Diesel-electric drive. il Engineering 161:344-5 Ap 12 '46; Abstract. Elec R (Lond) 138:613-14 Ap 19 '46
Coral Sea; seagoing Diesel tug. il Marine Eng 51:121-2 Je '46
Developments in Diesel propulsion. S. Belilove. Marine Eng 51:102-3+ O; 114+ N '46
Diesel-electric harbor tugboats for the navy. il Marine Eng 51:128 Ag '46
Diesel-electric ship, Empire Welland. F. E. Little. diags Elec R (Lond) 139:331-3 Ag 30 '46
Diesel-electric synchronous motor ship drives; propulsion control problems. E. Frisch. il diags Elec Eng 65:Trans 660-6 O '46
Electric ferry added to New York fleet. il Marine Eng 51:107-9 S '46
Electricity in ships. A. C. Hardy. Electrician 135:641-3, 695-6, 735-6 D 7, 21-28 '45
Havoline Diesel-electric tugboat. il Marine Eng 51:121-2+ S '46
Inland's E. J. Block powered by Diesel electric engines. Blast F & Steel Pl 34:1295-7 O '46
Launch of the turbo-electric liner Hinemoa. il Engineer 181:521 Je 7 '46
Maritime commission completes turbo-electric tanker program. Marine Eng 51:147 F '46
Modern ships of the American merchant marine. F. V. Smith. il diags Gen Elec R 48:34-42 D '45
Propulsion conversion of the motorship Vecta. il Engineer 181:197-9 Mr 1 '46
Recent developments in alternating-current turbo-electric ship propulsion. G. O. Watson. il diag Engineering 161:142-4, 166-7 F 8-15 '46; Abstract. Electrician 136:463 F 22 '46; Excerpts. Engineer 181:110-11 F 1 '46
Transient performance of propellers and ships during backing and reversal. R. Rüdenberg. bibliog diags Franklin Inst J 240:193-227, 347-78 S, N '45
Turbine-electric Coast guard cutters. J. A. Wasmund. il Marine Eng 51:122-6 F '46; Excerpt. Elec Eng 65:65 F '46

SHIP refrigeration. See Refrigeration on ships

SHIP resistance
Examination of the records of Greyhound experiments. A. M. Robb. Engineer 182: 286-7 S 27 '46
Theoretical calculation of wave profiles, and of the resistance of hulls; summary and discussion. R. Guilloton. Engineering 161: 532-3 Je 7 '46

SHIP yards. See Shipyards

SHIPBUILDING
Shipbuilding at Barrow-in-Furness. il Engineer 181:124 F 8 '46
So we used a movie at Dravo; LST building. F. C. Cole. il Ind Marketing 31:52+ Mr '46

See also
Barges
Dry docks, Floating
Freight ships
Motor ships
Naval architecture
Navy yards and naval stations
Propellers
Ships
Shipways
Shipyards
Steamboats
Tank ships
Towboats
Warships
also Ingalls shipbuilding corporation

Costs

Lighter materials; heavier profits. J. Heaney. il Marine Eng 51:100-2 Je '46

Materials

Corkboard insulation. diag Marine Eng 51:134 My '46
Lighter materials; heavier profits. J. Heaney. il Marine Eng 51:100-2 Je '46
Metalumber aluminum for hatch covers; hollow interlocking extrusions reinforced and filled with noncombustible insulation. Marine Eng 51:148 My '46
Miss Alumette; lady with a future; experimental aluminum hull. D. MacIntyre. il Marine Eng 51:158+ Ap '46
Silver brazing alloys in ship construction. bibliog il Marine Eng 51:120-3 Mr '46
Stress and strain in plastic flow. W. P. Roop. bibliog il diags Welding J 25:799-823 S '46

Safety measures

See Shipyards—Safety measures

SHIPBUILDING—*Continued*

Standards

British standard shipbuilding. plan diags Marine Eng 51:113-15 S '46

Statistics

Monthly shipbuilding report. Marine Eng 51: 150-1 F '46 [cont monthly]

Ship contracts total $411,000,000. Marine Eng 51.102-3 F '46

Shipyards build 1041 merchant ships of 10,304,644 tons in 1945; with tabulated data of ships building or under contract. Jan. 1, 1946. Marine Eng 51:104-13 Ja '46

Type and tonnage of merchant vessels completed by American shipyards for the Maritime commission and private interests, 1939 through 1945, self-propelled, steel, 2000 gross tons and over; tabulation. Marine Eng 51:150 Mr '46

Welding operations

All-welded ships; destroyers and other craft. Electrician 136:1514 Je 7 '46

Analysis of certification of electric arc operators for work on Navy contracts at private plants. V. M Alexieff. il Welding J 25: 244-5 Ap '46

Controlled low-temperature stress relieving. T. W. Greene and A. A. Holzbaur. il diags Welding J 25:sup171-85 Mr '46

DeForest brittle temperature research. P. R. Shepler. bibliog il diag Welding J 25: sup321-32 Je '46

Design and methods of construction of weld steel merchant vessels. il Welding J 25:5-18 Ja '46

L'expérience des Liberty-ships et autres navires soudés construits aux États-Unis. H. Dutilleul. Génie Civil 123:96-7 Ap 15 '46

Investigation of the effect of welding on the transition temperature of navy high-tensile, low-alloy steels. G. G. Luther and others. bibliog il diags Welding J 25: sup634-45 O '46

Investigation of the phenomenon of cleavage type fractures in low-alloy structural ship steels. H. J. Gershenow and G. G. Luther. bibliog il diags Welding J 25:sup611-15 O '46

Model tests of weld reinforcements for the hatch corners of welded ships. G. L. Smith. il diags Welding J 24:sup257-67, sup321-30; 25.sup163-70 My-Je '45, Mr '46

Phoenix, all-welded tanker. W. A. Stewart. il plans diags Marine Eng 51:88-99 Je '46

Poke welding of stainless steel cold storage sheathing on ocean-going vessels. R. K. Waldvogel. il Welding J 25:738-44 Ag '46

Problem of fracture; failure of welded steel structures and recommended research. J. H. Hollomon. bibliog il diags Welding J 25:sup 534-83 S '46

Proportioning of weld sizes. C. M. Leavitt. Welding J 25:121-9 F '46

Redistribution of residual welding stresses by tensile loading along a Unionmelt weld joining two 3-ft. x 12-ft. x 1-in. plates. J. L. Meriam and others. il diags Welding J 25:sup697-9 O '46; Discussion. 26:sup 191-2 Mr '47

Residual stresses in intersecting butt welds. E. P. DeGarmo and others. il plan diags Welding J 25:sup451-63 Ag '46

Review and summary of weldability testing carbon and low alloy steels; ship hull construction. G. G. Luther and others. bibliog(53 titles) il diags Welding J 25:sup376-96 Jl '46

Ship stresses relieved by oxyacetylene machine. il Manuf Rec 114:52+ N '45

Shipyard for welded construction; Marinship yard. R. F. Grambow. il plan Marine Eng 51:102-8+ Mr '46; Same. Welding J 25:443-7 My '46

Simple welding fixtures boost output of hatch covers by 50 percent. il Marine Eng 51:144-5 F '46

Some fundamentals in all-welded ship construction. M. Forman. bibliog il diags Welding J 24:923-8 O '45; Discussion. 25:49-51 Ja '46

Some improvements resulting from studies of welded ship failures. D. B. Bannerman, jr. and R. T. Young. il plans diags Welding J 25:223-36 Mr '46

Structural investigations in still water on the welded tanker Neverita; abstract. F. Bull and others. Engineer 181:385 Ap 26 '46; Discussion. 181:385-6 Ap 26 '46; Engineering 161:425-6 My 3 '46

Wartime German ship welding. F. W. Myers, jr. il Iron Age 157:54-8 Mr 21 '46

Welded destroyers, abstract. Materials & Methods 24:990 O '46

Welded ship failures traced. il Iron Age 156: 49 N 29 '45

Welding of LST's at Seneca, Ill. L. C. Stiles. il Welding J 24:1053-60 N '45

Welding of propulsion shafting of centrifugally cast steel. H. W. Hiemke and J. C. Blake. il diags Welding J 24:1040-5 N '45; Discussion. J. T. Vann. 25:333-5 Ap '46

Work of the Admiralty ship welding committee. A. L. Ayre and G. M. Boyd. Engineering 161:509, 549-50 My 31-Je 7 '46; Abstract. Metal Prog 50:514+ S '46

Canada

Canadian shipbuilding facilities hold peak production in 1946. Iron Age 157:140 Mr 7 '46

Merchant shipbuilding in Canada. J. Robson. Engineering 161:461-2, 487, 525 My 17-31 '46; Discussion. Engineer 181:422 My 10 '46; Engineering 161:520-1 My 31 '46

France

Current status of shipbuilding in France. Marine Eng 51:107 F '46

Germany

Wartime German ship welding. F. W. Myers, jr. il Iron Age 157:54-8 Mr 21 '46

Great Britain

British shipbuilding research association; first annual report. Engineering 162:185 Ag 23 '46

British standard shipbuilding. plan diags Marine Eng 51:113-15 S '46

Engineering outlook; marine engineering. Engineering 161:268-9 Mr 22 '46

Postwar European passenger tonnage. il diag Marine Eng 51:103-6 Je '46

Shipbuilding and marine engineering in 1945. il Engineer 181:10-11, supp 3, 43-5, 66-8 Ja 4-18 '46

Italy

Italian shipbuilding and marine engineering. Engineering 162:173 Ag 23 '46

Scandinavia

Postwar Scandinavian shipping. il Marine Eng 51:140-3 F '46

Southern states

First post-war luxury liner built in Mississippi; S.S. Del Norte. il Manuf Rec 115:49+ Mr '46

United States

Bethlehem's war shipbuilding record. il Marine Eng 51:112-15 Je '46

Early enactment of ship sales bill urgent; delay is paralyzing to shipbuilding and ship operating industries. W. S. Newell. Weekly Underw 153:1207+ N 24 '45

L'expérience des Liberty-ships et autres navires soudés construits aux États-Unis. H. Dutilleul. Génie Civil 123:96-7 Ap 15 '46

Monthly shipbuilding report. Marine Eng 51: 150-1 F '46 [cont monthly]

Ship designs and construction. J. L. Luckenbach. Weekly Underw 154:450-1+ F 16 '46; Same cond, with chart. Welding J 25:358+ Ap '46

Shipbuilders see new job ahead to replace slow, wartime emergency merchant fleet. Barron's 25:1 N 19 '45

Shipbuilding continues in large volume. Marine Eng 51:134-5+ Mr; 146-7+ Ap; 130-1+ My '46

Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. Iron Age 157:113-14 Ja 3 '46

War developments of Federal shipbuilding and dry dock company. Marine Eng 51:150+ Ap '46

SHIPMENT of goods

Aluminum pallet for shipping; with cost data. T. O. Palmer. il Steel 119:125-6 Jl 1 '46

SHIPMENT of goods—*Continued*
Aluminum pallets cut material handling cost. il Iron Age 158:66-7 Ag 8 '46
Car bracing with steel bands; transportation of chemicals. T. P. Callahan. il diag Chem Ind 57:1062-3 D '45
Efficient transportation still requires shipper cooperation. il Ry Age 120:997-9 My 18 '46
Glue bonded packing used for carload shipments. il Am Bsns 16:38 S '46
Glued unit loads cut breakage of bottled goods. C. W. Braden. il Mod Packaging 19: 118-20+ Ja '46
How the air age is changing marketing; some straws in the wind. il Sales Management 56:70+ Je 1 '46
Industry must find the way to palletized shipping. A. J. Martin, jr. and J. F. Roberts. il Factory Management 104:121-5 Ja '46
Light-weight contest scheduled for materials suppliers in textile field; shipping of warps to rayon mills. Sci Am 174:69 F '46
Palletized food shipments; shipment of canned citrus juices for the armed forces. B. W. Skinner. il Food Ind 18:1020-1+ Jl '46
Perfect shipping pays dividends; abstract. Management R 35:338-40 Ag '46
Proposed shipping carton rules threaten glass industry. Glass Ind 27:398+ Ag '46
Putting the shipping room on a production-line basis. G. A. Smith. il plan Factory Management 104:135-7 Ag '46
Railroads study bonded-block method of carton loading. W. G. Burden. diag Glass Ind 27:505+ O '46
Shipping liquid sulphur is practical. Chem Eng 53:111 S '46
Sunken sidings allow easy loading. F. Chilson. Food Ind 17:1483 D '45

See also
Airlines—Freight service
Chemicals—Transportation
Containers (for shipping)
Freight car service
Freight handling
Loading and unloading—Cars
Packing for shipment
Railroads—Rates
Shipping departments
Transportation

SHIPPERS advisory boards, National association of. See National association of shippers advisory boards

SHIPPING
Demobilisation of shipping. Economist 150: 387 Mr 9 '46
Famous ships slowly return to seaways of peace. Bsns W p94 Jl 13 '46
Maritime commission announces thirty-two foreign trade routes. Marine Eng 51:86-7 Je '46
Postwar shipping; world tonnage available and emerging policies. K. E. Carlson and G. Lytzen. il For Comm W 22:3-7+ F 23; 12-13+ Mr 2 '46
Shipping prospect. Economist 151:631-3 O 19 '46

See also
Barges
Freight handling
Insurance, Marine
Maritime law
Merchant marine
Ports
Salvage
Shipbuilding
Shipment of goods
Ships
Steamboat lines
Transportation
Waterways
World war, 1939-1945—Shipping

Claims
Carrier has burden of proving latent defect or peril of the sea. East Underw 47:25 Ag 16 '46
Court holds limiting bill of lading clause null and void; carrier's liability. Weekly Underw 154:58+ Ja 5 '46
Lighter held not fit for carrying automobiles through ice in harbor. East Underw 47:26 Ja 11 '46

See also
Insurance, Marine—Adjustment of claims

International aspects
World shipping pool to check maritime competition. P. Wohl. Barron's 26:11+ F 18 '46

Rates
Favors barge line differential rates. Ry Age 120:650+ Mr 23 '46
Protests application of rate increases to port differentials. G. E. Mace. Comm & Fin Chr 164:541 Jl 25 '46
U.S. government continues to hold tanker rates at well-defined levels. W. W. Burns. il Oil & Gas J 45:130-1 Jl 27 '46

Statistics
New collection system for waterborne commerce statistics. Marine Eng 51:116 O '46

Algeria
Activity in Algerian ports, first 8 months of 1938 and 1943-45. For Comm W 22:22 Ja 12 '46

Canada
Canadian Harbors report shows leading ports had active year. Weekly Underw 153:1516 D 29 '45

France
War-racked French ports progress toward normalcy. R. C. Leslie. il For Comm W 24: 3-4+ Ag 10 '46

Great Britain
Policy for British shipping. Economist 150: 180-1 F 2 '46

Great Lakes
Bulk freight tonnage on Great Lakes, 1924-1945; tabulation. Steel 118:62 Je 10 '46
Great Lakes bulk-cargo carrier. L. A. Baier. bibliog il plan diags Mech Eng 68:857-65 O '46
Great Lakes tankers emerged from global war's trying test with a shining past and an experience-tested future. J. R. Dean. il Nat Pet N 37:28+ D 19 '45
Lake fleet waits. Bsns W p24+ Ap 6 '46
Lakes passenger vessels modernized. il Marine Eng 51:139 F '46
Old Great Lakes bulk carriers scrapped. Marine Eng 51:125-6 My '46
Shipping storm; union threats to tie up all Great Lakes ports. Bsns W p98+ Jl 27 '46

Gulf of Mexico
LCT freighters. Bsns W p36+ Ag 24 '46

Netherlands Indies
Coasters for the Dutch East Indies. P. L. Rhodes. il plans diags Marine Eng 51: 102-6 Ap '46

Sweden
Baltic corner. Bsns W p114+ Ja 12 '46

United States
American shipping reaches highest peak; abstract. F. J. Taylor. Marine Eng 51:101 Mr '46
Crisis in the domestic shipping industry. P. F. Lawler. Harvard Bsns R 24 no2:253-76 [Ja] '46
Maritime renewal; government aids U.S. water carriers. Bsns W p22+ Je 29 '46
National federation of American shipping gives postwar outlook. Marine Eng 51:87 Je '46
Plight of domestic shipping. Marine Eng 51: 84-9 Jl '46
Shipowners urge use of idle ships to relieve transportation shortage. Marine Eng 51:115-16 S '46
WSA policy governing chartering. Marine Eng 51:122-3 Ap '46

See also
Merchant marine—United States
United States—Maritime commission

SHIPPING containers. See Containers (for shipping)

SHIPPING departments
Shipping department is the traffic center of most printing plants. M. E. Powers. Inland Ptr 118:37-8 O '46

SHIPPING rooms
Layout
Putting the shipping room on a production-line basis. G. A. Smith. il plan Factory Management 104:135-7 Ag '46

SHIPS

Chemistry helps to build ships. Marine Eng 51:123-4 Jl '46

Design of a truck carrier; automotive truck trailer carried by ship. W. M. Rice. il plans diag Marine Eng 51:124-5 My '46

Shipbuilding and marine engineering in 1945. il Engineer 181:10-11, supp 3, 43-5 Ja 4-11 '46

Some methods of modern ship design applied to an Atlantic liner; with operating cost and income data. E. P. Trask. diags Marine Eng 50:185-93 N '45

See also

Airplane carriers
Barges
Cable laying and supply ships
Coast guard cutters
Colliers
Dredges
Excursion boats
Freight ships
Hatch covers
Hospital ships
Landing craft
Loading and unloading—Ships
Maritime law
Merchant marine
Motor ships
Naval architecture
Power plants, Floating
Propellers
Radio telephone on ships
Refrigeration on ships
Salvage
Seamen
Ship decoration
Ship propulsion
Ship resistance
Shipbuilding
Shipping
Shipyards
Steamboats
Submarine boats
Tank ships
Towboats
Warships
Whaling vessels

Air conditioning

Experimental investigation of the effect of change in atmospheric conditions and noise upon performance; investigation on desirability of air conditioning naval vessels. M. S. Viteles and K. R. Smith. Heating-Piping 18:107-12 Mr '46

Modern air conditioning of Maritime commission vessels. J. W. Markert. il plans Marine Eng 50:177-84 N '45

Modern marine refrigeration and air conditioning. W. H. Carrier and L. E. Starr. il Refrig Eng 51:411-13+; Discussion. L. Williams. 413+ My '46; Same cond. Marine Eng 51:132-6 Ap '46

Cargo

See also

Freight ships
Stowage

Demagnetization

See Demagnetization

Demolition

Demand for steel scrap creates a good market for old ships. Marine Eng 51:111-13 Ag '46

Former liner Normandie to yield 40,000 tons of scrap. il Iron Age 158:110 O 10 '46

In scrapping our ships never scrap safety; poisonous fumes, hazard in oxyacetylene cutting. W. R. Stewart. il Safety Eng 91: 20-1 Ja '46

Old Great Lakes bulk carriers scrapped. Marine Eng 51:125-6 My '46

Scrap needs to revive shipbreaking. Blast F & Steel Pl 34:1148-9 S '46

Electric equipment

Design of d-c auxiliary controllers for marine service. W. Schaelchlin. il diags Elec Eng 65:Trans 623-9 O '46

Diesel-electric ship, Empire Welland. F. E. Little. diags Elec R (Lond) 139:331-3 Ag 30 '46

Electrical and allied developments of 1945; marine. G. Bartlett. il Gen Elec R 49:41-2 Ja '46

Electrical engineering aspect of degaussing. I. S. Fraser and others. il diag Engineer 181:563-5 Je 21 '46

Electronics afloat; shipbuilding and ship equipment. I. Kamen. il Radio N 36.56-7+ S '46

H.M.S. Vanguard; many electrical applications. Electrician 137:721-3 S 13 '46

Improved marine hoist drive operates from alternating-current circuits. il diag Marine Eng 50:212 N '45

Parallel operation of direct-current ship service generators. D. B. Hoover. diags Marine Eng 51:109+ Mr '46

Queen Elizabeth; electrical equipment of the Cunard White Star liner. il Elec R (Lond) 137:693-6 N 16 '45

Training of electrical engineers in the shipbuilding industry. R. I. Kinnear. Inst E E J 93 pt 1:91-5 F '46

See also

Electric driving—Ships' auxiliaries
Ship propulsion, Electric

Equipment

Canadian Pacific railway turbo-electric cargo liner Beaverdell. il diags Engineer 181:217-19, 239-41 Mr 8-15 '46

Chemical cleaning process applied to marine equipment. J. H. Adkison and others. il diag Marine Eng 51:105-8 Ag '46

Electronic navigator on Lakes steamer pierces darkness and fog. il Marine Eng 51:152+ Ag '46

Experience with merchant ship propulsion machinery in war. D. S. Brierley. Marine Eng 50:171-3 D '45; Abstract. Mech Eng 68:159-60 F '46; Discussion. Marine Eng 50:173-4 D '45; Mech Eng 68:160-1 F '46

Marine equipment developments of Allis-Chalmers reviewed. Marine Eng 51:126 Je '46

Marine gas turbine installation. C. H. Johnson. diags Marine Eng 51:108-16 Ap '46

New aluminum accommodation ladder. A. MacPhedran. il Marine Eng 51:144+ S '46

New ships for the Great White Fleet. il plans diags Marine Eng 50:136-48 D '45

Oil and water separators. diag Marine Eng 51:138 My '46

Power plants for postwar vessels. A. C. Rohn and W. E. Hammond. Marine Eng 50:154-61 N '45

Progressive engineering features on cargo liner Mormacgulf. O. W. Page. il plans diags Marine Eng 51:90-100 Jl '46

Radar on the Queen Elizabeth. il Electrician 137:600 Ag 30 '46

Santa Barbara, new Grace liner. il plans diags Marine Eng 51:92-8 Ag '46

Sweden building transatlantic liner. il Marine Eng 51:84-6 O '46

Westerdam, Holland-America motorship. il plan Marine Eng 51:114-18 Ag '46

See also

Anchors
Nautical instruments
Refrigeration on ships
Winches, Electric

Failures

Design and methods of construction of weld steel merchant vessels. il Welding J 25: 5-18 Ja '46

Significance of impact-test data in design of engineering structures. D. F. Windenburg. il diag Product Eng 17:81-3 S '46

Some improvements resulting from studies of welded ship failures. D. B. Bannerman, jr. and R. T. Young. il plans Welding J 25:223-36 Mr '46

Fires and fire protection

Fighting fire at sea. il Nat Safety N 54:98-9+ O '46

Fire problems in dry cargoes undergoing study. Marine Eng 51:118 Jl '46

Fire protection on hospital ship, Frances Y. Slanger. il Marine Eng 51:122-4 Ag '46

Fireproof fabrics for ship draperies and decoration. il Marine Eng 50:272 N '45

Putting out oil fires with water. D. Powell. il Marine Eng 51:132+ Jl '46

Soot fires around air heaters. Marine Eng 51:131-2 S '46

Where there's smoke; combined smoke detection and carbon dioxide fire extinguishing systems for ships. M. A. Laswell. il Nat Safety N 52:26-7 D '45

Fouling

Fouling of ships' bottoms: identification of marine growths. Iron & Steel Inst J 150: 143-56, pl 10-17 no 2 '44

See also

Ships—Painting

SHIPS—*Continued*

Heating and ventilation

Heating ships. J. W. Market. il diags Sheet Metal Worker 37:66+ Mr '46

Preventing damage to ship cargoes by ventilation and dehumidification. J. Leeming. il diags Heat & Ven 43:53-7 Je '46

Ventilation of typical Liberty ships; work done by Consolidated sheet metal works. plan diags Sheet Metal Worker 36:84+ N '45

Lighting

New fluorescent lamps for ships. il Marine Eng 50:254 N '45

Manning

U.S. ships put out to sea with a holdful of unions. Bsns W p90 Je 1 '46

Model testing

Examination of the records of the Greyhound experiments; abstract and discussion. A. M. Robb. Engineering 162:355 O 11 '46

Stabilisation of ships by activated fins. J. F. Allan. il diags Engineering 160:318-20, 338-40 O 19-26 '45

See also
Ship model tanks

Painting

Baffling the barnacle. R. G. Skerrett. il Comp Air Mag 51:264-9 O '46

Formulation of anti-corrosive compositions for ships' bottoms and underwater service on steel; effect of the pigment and of the medium. F. Fancutt and J. C. Hudson. Iron & Steel Inst J 150:269-333, pl 25-6; Discussion. 333-8 no 2 '44

Hot plastic paints for ship bottoms. R. P. Devoluy. Marine Eng 51:129-31 Ap '46

Under-water paints and the fouling of ships; summary and discussion. J. E. Harris and W. A. D. Forbes. Engineer 181:421-2 My 10 '46; Engineering 161:498-9 My 24 '46

Piping

Health survey of pipe covering operations in constructing naval vessels. W. E. Fleischer and others. J Ind Hygiene 28:9-16 Ja '46

Pipe wall thickness based on total combined stress. O. W. Page. Heating-Piping 18:81-5 Mr '46; Discussion. A. McCutchan. il 18: 77-8 My '46; Reply. O. W. Page. 18:86-8 Je '46

Piping system problems in motorships. E. C. Lloyd. diags Marine Eng 51:152+ F; 138+ Mr '46

Silver alloy brazing of copper tubing. J. C. Powers, jr. and H. D. Lucas. il diags Steel 118:112-14+ Mr 18 '46

Steam piping on Liberty ship. Marine Eng 51:129 Ag '46

Reconstruction

Bethlehem troopship conversions. il Marine Eng 51:109-10 Ag '46

Lakes passenger vessels modernized. il Marine Eng 51:139 F '46

New power unit for Liberty ship conversion. O. J. Baggerud. Marine Eng 51:162+ F '46

Todd conversion of liners recounted. Marine Eng 51:122-3 Mr '46

See also
Warships—Reconstruction

Refrigeration

See Refrigeration on ships

Repair

Naval engineering duty in wartime. R. Doughton, jr. il Metal Prog 50.455-61 S '46

No job too large, none too small; Savannah machine and foundry company. il Manuf Rec 115:48-9+ Ap '46

Post-war safety in ship repair. C. Kendall. il Nat Safety N 54:28-9+ Jl '46

Repair and upkeep of H.M. ships and vessels in war. G. S. Bassett. il Engineer 181:357-9, 389-91, 414-15, 439 Ap 19-My 10 '46; Same abr. Engineering 161:405-8, 414-16, 437-8 Ap 26-My 10 '46; Discussion. Engineer 181:364-5 Ap 19 '46; Engineering 161:402-4 Ap 26 '46

War-time repairs to merchant ships. C. Bartlett. il diags Engineering 161:477-9, 492, 502-4 My 17-24 '46

See also
Repair ships

Safety measures

See Safety at sea

Stability

Stabilisation of ships by activated fins. J. F. Allan. il diags Engineering 160:318-20, 338-40, 361-3 O 19-N 2 '45

Stability computing; calculating device indicates stability, mean draft, deadweight and displacement a ship will have under any amount and distribution of cargo and condition of tanks. il Marine Eng 50:207-8 N '45

Stability of naval vessels; simplified method of approximating maximum range. M. I. Mantell. Marine Eng 51:109-11 Jl '46

Staterooms

Ceiling berth featured in special marine display. il Marine Eng 51:115 S '46

Modern stateroom accomodations. il Marine Eng 51:136+ Je '46

Steering gear

See Steering gear

Strains and stresses

Dynamic longitudinal strength of ships; summary and discussion. J. L. Taylor. Engineer 181:423 My 10 '46; Engineering 161: 533 Je 7 '46

Pietzker's effective breadth of flange re-examined. J. M. Murray. bibliog diags Engineering 161:364-5 Ap 19 '46

Practical electric resistance strain gage procedures for structural tests on ships. W. V. Bassett. il Am Soc T M Proc 45:651-66 bibliog(p666); Discussion. 667-70 '45

Proportioning of weld sizes. C. M. Leavitt. Welding J 25:121-9 F '46

Stress and strain in plastic flow. W. P. Roop. bibliog il diags Welding J 25:799-823 S '46

Work of the Admiralty ship welding committee. A. L. Ayre and G. M. Boyd. Engineering 161:509, 549-50 My 31-Je 6 '46; Abstract. Metal Prog 50:514+ S '46

Surplus ships

America's war machine hibernates; laying up of idle ships. J. Robitscher. il Manuf Rec 114:43-4 D '45

Merchant ship sales act of 1946. Marine Eng 51:96-100 Ap '46

Ships for sale. Bsns W p22+ S 7 '46

Testing

Water gage method of measuring angles of inclination. plan Marine Eng 51:164+ F '46

See also
Ship model tanks
Ships—Model testing

Water supply

See Water supply for ships

SHIPS, Hospital. See Hospital ships

SHIPS, Troop. See Transports

SHIPWAYS

Shipways with cellular walls on a marl foundation. M. M. Fitz Hugh and others. diags Am Soc C E Proc 71:1327-53 N '45

SHIPWRECKS

See also
Collisions at sea

SHIPYARDS

Disposing of surplus shipyards; report of Surplus property administration. Marine Eng 51:93-101 Mr '46

Inland shipyard saga; St Louis shipbuilding and steel company. R. L. Meyer, jr. il Marine Eng 51:127-9 F '46

Loading with water to design capacity forces steel cylinders below driven depth; wharf built on San Francisco Bay plant of Bethlehem steel co., shipbuilding division. il diag Eng N 136:974-7 Je 27 '46

Marinship yard completes its construction program. Marine Eng 51:116 Je '46

SHIPYARDS—*Continued*
Shipyard for welded construction; Marinship yard. R. F. Grambow. il plan Marine Eng 51:102-8+ Mr '46; Same. Welding J 25:443-7 My '46
Shipyard puzzle; U.S. has twice its normal shipbuilding needs. Bsns W p18-19 Mr 2 '46
Shipyard sold; Walsh-Kaiser shipyard to city of Providence. Bsns W p31 D 15 '45
Tampa shipyard announces postwar plans. il Marine Eng 51:113-14 Mr '46

See also
Navy yards and naval stations
Shipbuilding
Shipways

Electric equipment
Electronics afloat; shipbuilding and ship equipment. I. Kamen. il Radio N 36:56-7+ S '46
Electronics for the marine industry. il Marine Eng 51:124-6 Ap '46

Employees
Bonuses for production, maintenance, supervision; Newport News shipbuilding & dry dock co. W. E. Blewett, jr. Factory Management 104:132-3 Jl '46
Child service centers; experiment in services to employees. Ind Med 15:239-40 Mr '46
Health survey of pipe covering operations in constructing naval vessels. W. E. Fleischer and others. J Ind Hygiene 28:9-16 Ja '46
Hernias and serious injuries in Maritime Commission shipyards with reference to preplacement examinations; abstract. C. M. McGill. J Ind Hygiene 28:sup38-9 Mr '46
Higgins election; NLRB sets employee vote on A.F.L., C.I.O., or no union. Bsns W p104 Ja 12 '46
Higgins unionized; workers' reject open-shop. Bsns W p78+ F 9 '46
Lobar pneumonia in the shipbuilding industry; a review of five hundred and forty-four cases over a one-year period. C. M. Grossman. J Ind Hygiene 28:233-6 S '46
Only apprentice school with junior college rating; Newport News shipbuilding & dry dock company. G. G. Via. il Factory Management 104:113-17 Je '46
Productivity changes in selected wartime shipbuilding programs. A. D. Searle. Mo Labor R 61:1132-47 D '45
Shipyard tangle; San Francisco shipbuilders face a three-way fight. Bsns W p100+ Mr 16 '46
Wilmington shipbuilders during and after World war II. H. W. Callaway. Mo Labor R 62:870-8 Je '46

Equipment
Carbide tooling at the New York naval shipyard. C. A. Palmer and J. G. Kenney. il plan diags Mech Eng 68:879-84 O '46
Diesel cranes at Pearl Harbor. G. W. Grupp. il Diesel Power 24:848-52 Jl '46
Diesel locomotives take over at Pearl Harbor navy shipyard. G. W. Grupp. il Diesel Power 24:966-7+ Ag '46
Large shipyard plate-bending rolls. il diags Engineer 182:9 Jl 5 '46
Mechanical engineering in the shipyard. J. F. Petree. diags Inst Mech Eng J & Proc 152:Proc 362-9, pl 1-8 Mr '46; Same. Engineering 159:90, 97-100, 116-20 F 2-9 '45; Same cond. Engineer 179:88-90 F 2 '45; Abstract. Mech Handling 32:181-4 Ap '45
Some further notes on shipyard cranes. D. Rebbeck. il layout plan Mech Handling 33: 262-7, 328-33, 396-402 My-Jl '46

Libraries
Technical library in a shipyard; Bethlehem steel company, Quincy, Mass. L. G. Hill. Special Lib 37:40-3 F '46

Safety measures
Operations safety. S. Weinberger. il Safety Eng 92:34+ S '46
Post-war safety in ship repair. C. Kendall. il Nat Safety N 54:28-9+ Jl '46
Streamlined safety gets top results; Albina engine & machine works, inc. D. Sullivan. il Safety Eng 91:32-4 Je '46; Same. Marine Eng 51:117-19 Je '46

SHIRTS
Shirts for sale, but they can't be sold. il Bsns W p82 F 2 '46
Six causes behind shirt shortage. R. M. Bleiberg. Barron's 26:11+ O 14 '46

SHOCK
Occurrence, sites and modes of origin and destruction, of principles affecting the compensatory vascular mechanisms in experimental shock. E. Shorr and others. bibliog Science 102:489-98 N 16 '45

SHOCK absorbers
Damping in suspensions. B. E. O'Connor. il diags S A E J 54:389-93 Ag '46; Excerpt. Automotive & Aviation Ind 94:246 Mr 15 '46; Discussion. S A E J 54:393+ Ag '46
1946 passenger cars, springs and shock absorbers; specifications tabulated. Automotive & Aviation Ind 94:111 Mr 15 '46
Retardation efficiency of shock-absorber and arrester gear. P. B. Walker. diags Roy Aeronautical Soc J 49:652-7 O '45
Two applications of shock absorbers. il Ry Age 121:182 Ag 3 '46
Woodhead-Monroe damper. il diags Automobile Eng 36:439-40 O '46

Manufacture
Sizing shock absorber housings; hydraulic press with automatic indexing fixture made by Colonial broach co. il Steel 118:114 Ap 8 '46

SHOCK waves
Determination of the wave forms and laws of propagation and dissipation of ballistic shock waves. J. W. M. DuMond and others. diags Acoustical Soc Am J 18:97-118 Jl '46
Non-linear propagation of underwater shock waves. M. F. M. Osborne and A. H. Taylor. diags Phys R 70:322-8 S 1 '46
Some properties of very intense shock waves. R. G. Sachs. Phys R 69:514-22 My 1 '46
Spark shadowgraphic study of body waves in water. J. H. McMillen and E. N. Harvey. bibliog il J Ap Phys 17:541-55 Jl '46
Transmission, reflection, and guiding of an exponential pulse by a steel plate in water. M. F. M. Osborne and S. D. Hart. il Acoustical Soc Am J 17:1-18 Jl '45; 18:170-84 Jl '46
Velocity of dilatation and Rayleigh waves in metal bars. J. H. McMillen. il diags Acoustical Soc Am J 18:190-9 Jl '46

SHOE fabrics
Fabrics for the footwear industry. H. Bradley. Textile Inst J 37:P9-11 Ja '46

SHOE factories
Electric equipment
Making boots and shoes; part played by electricity. il Elec R (Lond) 138:119-22 Ja 25 '46

SHOE grease
Shoe grease electric cooker developed. M. M. Clayton. il Elec World 125:112 Ja 5 '46; Abstract. Elec West 96:67 Ja '46

SHOE industry and trade
End of meat shortage will leave hides, shoes scarce. Barron's 26:5 O 21 '46
Industry plans promotion of new shoe styles. Ptr Ink 213:98 D 21 '45
Leather and shoes; trends in 1946. J. G. Schnitzer. il Dom Comm 34:33-4 Ja '46
Manufacturer analyzes retail sales, helps department stores sell more shoes; I. Miller & sons. I. E. Grossmann. il Ptr Ink 215: 36-8 My 24 '46
Shoe shortage forced on nation. Barron's 26:8 S 2 '46
Shoemakers' problems; leather shortage. Barron's 26:6-7 My 13 '46
Shoes mark time; end of rationing. Bsns W p89-90+ N 10 '45
Shoes still short. Bsns W p26+ Ap 13 '46
Which is the better way? better turnover makes for better capital position. J. L. Vesper. Credit & Fin Management 48:14-15+ Ag '46

See also
Bata shoe company

Advertising
Television animates a slogan; Adler shoes. il Ptr Ink 216:68 S 6 '46

SHOE industry and trade—Advertising—*Cont.*
Tumblin Tim is star salesman for Acrobat shoes for children. il Sales Management 57: 136+ S 15 '46
Window display contest gets sales results; Scholl manufacturing co. competitive devices. H. E. Green. il Ptr Ink 217:46-7 N 8 '46

Finance

Regal Shoe offering slated; store chain revamps its structure in preparation for sale of common stock. Bsns W p60+ Ja 19 '46

Statistics

Production of footwear (other than rubber) monthly average, 1941-1944 and monthly figures Aug.-Oct. 1945; table. Survey of Cur Bsns 25:6 D '45

Argentina

Argentine government orders production of low-priced footwear. For Comm W 24:34-5 S 14 '46

Australia

Footwear industry, Australia. M. E. Wambsganss. il For Comm W 24:13+ Jl 20 '46

Canada

Canada's shoe production stepped up as needs rise. F. M. Coston. For Comm W 24:7+ Ag 31 '46

Czechoslovakia

Cobbler's woes; Czech government's seizure of Bata. il Bsns W p22+ Ja 26 '46

Great Britain

Working party's footwear report; with summary and selected statistics. Economist 151:342-4, 350, 355 Ag 31 '46

Netherlands

Shoes far from plentiful in Holland. For Comm W 23:41 Ap 6 '46

Yugoslavia

Shoes and leather in Yugoslavia. M. E. Wambsganss. For Comm W 21:8+ D 8 '45

SHOE machinery
Auto-Soler steps-up success with strong sales tactics. G. E. Stedman. il Ind Marketing 31:60+ Ja '46

SHOE stores
Baroque for shoe selling; Ansonia store, New York. il plan Arch Rec 100:89-91 Ag '46
Old building made new through complete modernizing; Walk-over shoe store, Memphis, Tenn. il plans Am Bld 68:80-1 Jl '46
Shoe salon on New York's Fifth avenue; Florsheim shoes. il plan Arch Forum 85: 138-9 O '46
Showplace for Character shoes; New York store for London Character. il plan Arch Rec 100:92-4 Ag '46
Specialty shop displays fancy shoes and a view on balcony, accessories on street level; Guild shop, Boston. il Arch Forum 85:137 O '46

SHOES
See also
Soles

Manufacture

Making boots and shoes; part played by electricity. il Elec R (Lond) 138:119-22 Ja 25 '46
Sole treatment. Bsns W p50+ D 22 '45

Prices

Assist for shoes; OPA's grant of price increase. Bsns W p28+ D 8 '45

SHOES, Rubber

Rating

Rubber footwear for men, women, and children. il Consumers Res Bul 16:9-12 D '45

SHOES, Safety
Mobile safety shoe store. il Safety Eng 91:62 My '46
Obeying orders saved ex-G.I.'s foot. il Safety Eng 91:21 Ap '46
Occupational footwear. il Nat Safety N 53: 32 Mr '46
Safety shoe foils 2,000 lb. casting; Hamilton foundry & machine company. il Safety Eng 91:20 Je '46

SHOOTING
How to hit the bull's-eye; how to hold the revolver and how to pull the trigger; training program for bank employees. D. Walker. il Bankers Mo 62.453-5, 562-3+; 63:19-20 O, D '45-Ja '46

SHOPPING areas
Campaign stems flow of buyers to larger city; Berkeley, Calif. appeal to local residents. T. H. Moriarty. il Ptr Ink 217:52-3 N 8 '46
Retail trade areas in Illinois. P. D. Converse. map (Bur. of economic and business research, business studies no. 4) 31p Univ. of Illinois, Urbana '46; Review Bsns W p79 O 26 '46
Small towns are good markets for national advertisers; Nampa, Idaho, department store test. L. Thornton. il Ptr Ink 216:42-3 S 6 '46

SHOPPING centers
Community center with stores; Winfield Park, Linden, N.J. il plans diags Arch Rec 99: 104-7 My '46
Desert shopping center near Phoenix, Arizona. il map plan diag Arch Forum 83: 164-5 N '45
Model retail center planned for Flushing. il Bsns W p20 Ag 17 '46
Shopping center for Rye, N.Y. il plans Arch Forum 85:76-9 Ag '46
Sloping lot is exploited to yield a theater, offices and extra parking. il plans Arch Forum 84:137-8 Mr '46
U-shaped plan unites chain stores and specialty shops in unified facade, encloses generous parking area. il map plan diag Arch Forum 83:107-9 D '45
Westchester; planned business development in southwest section of Los Angeles. il plan Am Bld 68:76-9+ Mr '46
See also
Business districts

SHOPS
Larger shop space, this contractor's answer; Geo. M Brewster & son. il Roads & Sts 89: 107-9 Ja '46
See also
Airlines—Shops
Car shops
Locomotive shops
Machine shops
Mine shops
Motor bus lines—Shops
Plumbing shops
Railroads—Shops
Repair shops
School shops
Sheet metal shops

SHOPS, Machine. See Machine shops
SHOPS, Mine. See Mine shops
SHOPS, School. See School shops
SHORAN. See Radar
SHORE lines
See also
Coast changes

SHORE protection
Design data on permeable concrete piers; protecting Lake Michigan shore. il Concrete 53:6-8 N '45
Erosion of shores of Lake Ontario studied by groups in Canada and U.S. Eng N 137: 112 Jl 25 '46
New law authorizes federal assistance for beach, shore erosion protection. Eng N 137: 340 S 12 '46
Piers and jetties of precast concrete. S. P. Lathrop il diags Rock Prod 49:136-7 F '46
See also
Dikes (engineering)
Jetties
Levees
Rivers—Bank protection

SHORING and underpinning
Advantages of steel sheeting for use in trench excavation. W. T. Adams. il diags Pub Works 77:17-18 F '46
Army safety requirements for excavations. diags Pub Works 77:29-30 Ja '46
How to do shoring, needling and underpinning. diags Brick & Clay Rec 109:32+ Ag '46
Underpinning a 175-ft operating smokestack. A. Di Giacinto. il diags Power 90:594-6 S '46

SHORING and underpinning—*Continued*
Underpinning interior columns to permit tunnel construction; Asbury Park press building. A. G. DiGiacinto. il plan diag Civil Eng 16:215-16 My '46

SHORT circuits
D-c power systems for aircraft. H. J. Finison and R. H. Kaufmann. bibliog il diags Gen Elec R 49:46-52 Je '46
4,370,000-kva short-circuit tests on Grand Coulee 230-kv bus. W. H. Clagett and W. M. Leeds. il diags Elec Eng 65:Trans 729-35 N '46
Industrial switchgear; effect of increasing short-circuit capacity of power systems. il Electrician 137:109-11 Jl 12 '46
Long 60-cycle arcs in air. A. P. Strom. il Elec Eng 65:Trans 113-18 Mr '46
Short-circuit calculations. T. A. Ledward. diags Elec R (Lond) 137:737-9 N 23 '45
Short-circuit characteristics of d-c generators. G. E. Frost. bibliog il diags Elec Eng 65:Trans 394-402 Je '46
Short circuit contributions of the induction motor. L. G Levoy, jr. diag Power Pl Eng 50:83 Ap '46
Short-circuits need speedy interruption. D. L. Beeman. il diag Textile World 96:155+ F '46
Simplified short-circuit analysis for small electrical systems. J. L. King. il diags Power 90:300-3 My '46
Surge current duty, size of equipment. C. A. Sederlund. Elec World 124:164+ D 8 '45

SHORT line railroad association, American. See American short line railroad association

SHORTAGES. See Production

SHORTENING
Comminuted shortening; U.S. patent. Food Ind 18:1465 S '46
Comparative digestibilities of plastic shortenings made from lard and from hydrogenated vegetable oils. K. F. Mattil and others. Science 104:255 S 13 '46
Improved paper container for bulk shortening. F. L. Toof. il Food Ind 18:1346-7 S '46
Lecithin increases the effect of shortening in bread. D. B. Pratt, jr. il Food Ind 18: 16-19+ Ja '46

SHOT peening
Lengthening the life of steel; shot peening; abstract. C. F. Kettering. Nat Safety N 52:98-9 D '45
Precision peening depends on whole shot; broken shot a problem; abstract. J. C. Straub. Am Mach 90:109 My 9 '46
Production processes; shot peening. R. W. Bolz. il diags Machine Design 18:129-32 S '46
Shot peening effect on aluminum; illustrations with text. Iron Age 156:45 D 27 '45

SHOULDER
Habitual dislocation of shoulder; study on nature and treatment of the disease, including remarks on traumatic dislocation; abstract. E. Thomasen. J Ind Hygiene 28: sup39 Mr '46

SHOVELING machines
Marion 3½-4-cu. yd. Diesel excavator. il Roads & Bridges 84:90 O '46
Mechanical loader for the farm; for shifting manure; with cost data. il Mech Handling 32:707-10 D '45
New Thew-Lorain shovel and crane. il Roads & Bridges 84:76+ Ag '46
Truck shovel handy unit on mountain road maintenance. il Roads & Sts 89:82 Ag '46

See also
Electric shovels

SHOW rooms. See Showrooms

SHOW windows
How advertising can capitalize on style as added attention getter. Ptr Ink 215:100+ Ap 12 '46

See also
Gas companies—Show windows

Contests
Window contest shows return of Big Yank; Reliance work clothes. il Sales Management 57:142 S 15 '46
Window display contest gets sales results; Scholl manufacturing co. competitive devices. H. E. Green. il Ptr Ink 217:46-7 N 8 '46

Lighting
Reflection factors in store windows. K. C. Welch. il diags Arch Rec 100:107-10 Jl '46; Excerpts. Illum Eng 41:405-13 My '46
Shop window displays during daylight hours. Light & Lighting 39:67 Ap '46
Theatrical lighting equipment applied to show windows. il plan diag Arch Forum 85:138-9 Ag '46

SHOWROOMS
Cutlery showroom provides background for wholesale selling; Englishtown cutlery, New York city. il plan Arch Forum 85:135 O '46
Distributor display ideas. il Elec West 96: 97-8 Ap '46
New ideas for a salesroom; Vandercook & sons, Chicago. il Am Bsns 16:32 F '46
Old building transformed into modern display room. il plans Am Bld 68:76 Ag '46
Oneida's period rooms merchandise new silver. il Sales Management 56:42 Ja 1 '46
Plastic center illustrates new ideas for display of paints; Cello-Nu products, New York city. il plan Arch Forum 85:143 O '46
Sales room for bloomer display; showroom and offices for Empire bloomer company, New York. il plan Arch Rec 99:100-1 Ap '46
Schumacher demonstrates last word in display with new Avenue of ideas; making showrooms selling laboratories. il Sales Management 56:39-41 My 20 '46
Showroom demonstrates sales-making rug display. il Sales Management 57:41 S 1 '46
Showroom for cosmetics; offices and showrooms for Mem company, New York. il plan Arch Rec 99:102-3 Ap '46
Showroom for wool fabrics; Moniteau Mills showroom and offices, New York; Office and showroom for Windsor clothing co., New York. il plans Arch Rec 99:122-6 F '46
Show room of toy train wholesaler serves public and buyers alike; Lionel trains. il plan Arch Forum 85:142 O '46
Simmons showrooms demonstrate today's techniques in retail display. il Sales Management 57:42-3 O 15 '46
Suburban showroom for household equipment and appliances located in center of superhighway. il map plan Arch Forum 83:156 N '45

See also
Plumbing shops—Showrooms

Heating and ventilation
Showroom floor sells panel heat; Automatic gas heating company. il Dom Eng 168:132 Jl '46

SHREVEPORT, Louisiana

Industries
Shreveport opportunities. R. W. Moseley. il Manuf Rec 115:34-5+ Ag '46

SHREWS
Metabolism of a very small mammal. P. R. Morrison and O. P. Pearson. bibliog Science 104:287-9 S 27 '46

SHRIMPS
Fresh shrimp by air in a protective package; heat-sealed pliofilm pouch. il Mod Packaging 20:121 O '46
Shrimping; valuable southern industry. il map Manuf Rec 115:44-5+ Mr '46

SHRIMPS, Frozen
Conditions affecting quality of frozen shrimp. E. A. Fieger and C. W. DuBois. bibliog il Refrig Eng 52:225-8 S '46
Shrimp deveined and frozen. C. R. Havighorst. il Food Ind 17:1314-15 N '45
Truck frozen shrimp over desert roads; 600-mile run from California to Arizona. il map Food Ind 18:1551-2 O '46

SHRINK fits. See Fits (machinery)

SHRINKAGE
Shrinkage phenomena on cellulose films. R. Prince and J. Seiberlich. il J Phys Chem 50:222-35 My '46

SHRINKAGE of metals
Exposures to oxides of nitrogen accompanying shrinking operations. F. E. Adley. J Ind Hygiene 28:17-20 Ja '46
Liquid shrinkage of castings. Foundry 74: 252 O '46
Porosity and shrinkage in nonferrous castings. W. A. Baker. Iron Age 156:36L-36N Ag 30 '45; Same cond. Metal Prog 49:138+ Ja '46

SHRINKAGE of textiles
Effect of fiber content and care on resiliency, thickness, and thermal conductivity of blankets. P. A. Gilmore and K. P. Hess. Rayon 27:252-6 My '46
Elimination of chaos from shrinkage testing. Am Dyestuff Rep 35:366-74 Jl 29 '46; Abstract. Textile Col 68:18-19+ Jl '46
Shrinkage what we are doing about it. D. H. Powers. Rayon 27:95-6, 149-51 F-Mr '46

See also
Cotton fabrics—Shrinkage
Rayon fabrics—Shrinkage
Woolen and worsted fabrics—Shrinkage

SHULMAN, Harry, 1902-
Ford umpire. por Fortune 33:170+ Mr '46

SHUMAN, A. L.
Newspaper ad men honor Shuman. por Sales Management 57:130 Jl 1 '46

SHUTTLES
Shuttle furring and yarn tensioning. H. E. Wenrich. il Rayon 26:582-4 N '45

SIAM (Thailand)
British imperialism in Siam. Economist 149: 937 D 29 '45

See also
Rubber industry and trade—Siam

Commercial policy
Siamese government takes steps to clarify trade and exchange control situation. For Comm W 24:21 Je 8; 23 Jl 6 '46

Foreign relations
Diplomatic relations resumed between U.S. and Siam; Britain-Siam peace treaty signed. Comm & Fin Chr 163:174 Ja 10 '46

SIBERIA
See also
Steel industry and trade—Siberia

SICILY
Economic conditions
News by countries. For Comm W 21:44-5 D 22 '45; 23:19-21 Ap 20; 24:25 Ag 3 '46

Sanitary affairs
Sanitation and public-health experiences in Europe. L. W. Trager. N E Water Works Assn J 60:43-53 Mr '46

SICK leave
Collective bargaining in health; question of sick leave with pay, and health and hospital coverage. A. Fletcher. Min & Met 27: 552-3 N '46

SICKNESS
Age factor in disabling morbidity, 1940-44; experience of the Boston Edison company. W. M. Gafafer. Pub Health Rep 60:1447-62 D 7 '45
Sickness absenteeism among industrial workers, third and fourth quarters of 1945. W. M. Gafafer. Pub Health Rep 61:1095-9 Jl 26 '46
Study of handicaps in industry. S. G. Ohlhausen. Ind Med 15:105-9 F '46

See also
Diseases
Infectious diseases
Insurance, Health
Medical service
Mortality
Public health

SICKNESS benefits
California plan is illuminated; questions on unemployment compensation disability procedure. P. Merrick. Nat Underw 50:20+ Je 20 '46; Same. Nat Underw (Life ed) 50:8 Je 28 '46
California plan; sickness and disability system becomes effective Dec. 1. Weekly Underw 155:328 Ag 10 '46
Cash disability benefits in California. H. D. Stecker. Mo Labor R 63:236-42, 408 Ag-S '46
Dual payments outlawed under California disability plan. Nat Underw (Life ed) 50:3 O 11 '46
Health plans may become charges on industry; states debate insurance against wage losses from any cause. B. Jones. Barron's 26:9 My 13 '46
1946 trends point to increased emphasis on cash sickness plans. B. Jones. East Underw 47:45 My 17 '46
Recent developments in Rhode Island cash sickness benefits. W. D. Macdonald. Mo Labor R 63:21-5 Jl '46
SS bill provides nest egg for state cash sickness plans; eight states could recover many millions paid as unemployment taxes. Nat Underw 50:17 Ag 8 '46; Same abr. Nat Underw (Life ed) 50:3+ Ag 9 '46
Weaknesses of Rhode Island sickness benefit plan; abstracts. A. Pike, jr. East Underw 46:29+ N 23 '45; Nat Underw 49:43 N 15 '45; Nat Underw (Life ed) 49:9 N 16 '45

See also
Sick leave

SIDE lines
Ford divests; drops unprofitable sidelines. Bsns W p28 Mr 16 '46
Little landscapes put these florists into a new business; Podesta and Baldocchi, San Francisco. il Sales Management 56:136+ Mr 15 '46
War baby grows up, no reconversion required; Noma electric corporation adds toys. il Ptr Ink 213:142+ N 16 '45

See also
Gasoline service stations—Side line selling
News stands—Side line selling
Oil companies—Side line selling

SIDEWALKS, Concrete
Designing and constructing concrete sidewalks. il diags Pub Works 76:15-16+ N '45
Texas GI's form sidewalk building association. Concrete 54:8 Je '46

See also
Walks, Concrete

SIDEWALKS, Highway
Designing highways to meet pedestrian needs. C. B. McCullough. il Roads & Bridges 83: 60-1+ N '45

SIDEWALKS, Wooden
Treated wood for bridge sidewalks. Pub Works 76:26 N '45

SIDING (building)
Progress, 1926-1946; roofing, siding. il Am Bld 68:104-5 O '46

SIGHT
Brightness discrimination and visual acuity as functions of intensity. T. L. Jahn. bibliog Opt Soc Am J 36:83-6 F '46
Eyes and ears in school; light on growing children; how seeing involves the whole body. D. B. Harmon. il plans diags Arch Rec 99:78-90 F '46
Relation between illumination and vision. C. L. Crouch. bibliog il diags Illum Eng 40: 747-84 N '45; Discussion. 41:565-9 Jl '46
Vision for the job. J. Tiffin. Ind Med 15:200 Mr '46

See also
Color blindness
Color sense
Eye
Lighting
Optics, Physiological

SIGNALS, Railroad. See Railroads—Signals

SIGNALS and signaling
Pistols and flares for distress signalling. il Marine Eng 51:184 My '46

See also
Electric signals
Light signals
Mine signals
Radio signals
Railroads—Signals
Telegraph
Traffic signals

SIGNATURES
Are statements under signature binding? Ptr Ink 214:44 F 22 '46
Secretary's pet peeve about signatures. J. S. Lattomus. Ptr Ink 216:110+ Ag 16 '46
Signature on letterhead indicates company responsibility. Ptr Ink 215:121 Ap 19 '46
Signature verification time-savers. J. E. Moore. Banking 38:78-9 Mr '46

SIGNIFICANT difference (statistics)
Statistical methods in quality control; statistical tests of significant differences. Elec Eng 65:466-8 O '46

SIGNS
Black light applied to plastic signs. il Mod Plastics 23:144-5 Ap '46

See also
Electric signs
Road signs
Traffic signs

SILANE. See Silicane

SILASTIC. See Rubber, Artificial

SILENCERS
Smoke consumer silencer. J. E. Bjorkholm. il diag Ry Age 119:901-2 D 1 '45

SILESIA
Upper Silesia under the League of nations. G. S. Kaeckenbeeck. Ann Am Acad 243. 129-33 Ja '46

SILEX company
Silex saturation test seeks forecast of future sales trends. Sales Management 56:110 Je 15 '46

SILICA
Dealkylation of dialkylbenzenes; use of superatmospheric pressure and alumina-silica catalyst in the presence of benzene. W. M. Kutz and B. B. Corson. bibliog flow sheet il Ind & Eng Chem 38:761-4 Jl '46

Dielectric heating of granular materials; aluminum and silicon oxides. P. W. Schutz and E. K. McMahon. bibliog diags Ind & Eng Chem 38:179-84 F '46

Effect of chemical composition on refractive index and Abbe value for ternary silicate glass systems. M. L. Huggins and others. Am Cer Soc J 29:159-61 Je 1 '46

Elastic silica; a demonstration. J. W. Cole. J Chem Educ 23:97 F '46

Electrical potential at the interface between vitreous silica and solutions of barium chloride. L. A. Wood and L. B. Robinson. bibliog J Chem Phys 14:251-7 Ap '46

Electron microscopical replica techniques for the study of organic surfaces; low pressure polystyrene-silica technique and silver-silica double evaporation method. R. B. Barnes and others. bibliog il diags J Ap Phys 16: 730-9 N '45

Intercrystalline cracking; significance of the silica-sodium hydroxide ratio in boiler failure. C. D. Weir. Mech Eng 67:834-5 D '45

Inter-polymerization of isobutene and 2-methyl-2-butene using an alumina-silica catalyst; composition of the hydrogenated nonenes. G. C. Johnson and F. S. Fawcett. bibliog Am Chem Soc J 68:1416-19 Ag '46

Measurement of the potential at the interface between vitreous silica and pure water. L. A. Wood. bibliog diag Am Chem Soc J 68: 437-41 Mr '46

Phase equilibrium relations in a portion of the system Na_2O-CaO-Al_2O_3-SiO_2 K. T. Greene and R. H. Bogue. bibliog J Res Nat Bur Stand 36:185-207 F '46

Report on studies of ternary system CaO-C_5A_3-C_2F; quaternary system CaO-C_5A_3-C_4F-C_2S; quaternary system as modified by 5% magnesia. M. A. Swayze. bibliog pl Am J Sci 244:1-30, 65-94 Ja-F '46

Silica soot unlikely to replace carbon black. Nat Pet N 38 pt 2:R569 Ag 7 '46

Silicious exposures in the fire brick industry; engineering study. W. W. Stalker. flow sheet J Ind Hygiene 27:275-82 D '45

Silicious exposures in the fire brick industry; roentgenologic study. W. L. Ritter and P. G. Bovard. J Ind Hygiene 27:283 D '45

Test of Langmuir's interpretation of the Jones-Ray effect. L. A. Wood and L. B. Robinson. bibliog J Chem Phys 14.258-62 Ap '46

Use of activated silica in the coagulation of highly colored water. R. E. Noreus. Paper Ind 27:1416-18 D '45

X-ray diffraction data for compounds in the system CaO-MgO-SiO_2. C. B. Clark. Am Cer Soc J 29:25-30 Ja 1 '46

See also
Diatomaceous earth
Quartz
Sand
X-Rox

Analysis
Determination of free silica in industrial dust. T. M. Durkan. bibliog J Ind Hygiene 28: 217-28 S '46

Preparation of microscopic spheres from quartz. A. Salazar and L. Silverman. il diag J Ind Hygiene 27:231-3 O '45

SILICA, Colloidal. See Silica gel

SILICA brick
Durability of refractory materials in the carbonizing industry; abstract. E. Heaton and others. Am Cer Soc J 29 (Cer A[25]):86 My 1 '46

Role of refractories in peacetime production; silica refractories. il Brick & Clay Rec 108: 76 Ja '46

Silica hazard in arc furnace construction. E. M. Fieman. il Ind Med 15:14-15 Ja '46

Spalling of silica bricks. T. W. Howie. Blast F & Steel Pl 34:284-5 F '46

Stability of heated structures. L. M. Wilson. diags Gas J (Lond) 246:602-4+, 634-5 O 31-N 7 '45; Discussion. 246.680-1 N 14 '45

SILICA gel
Activated silica sol in water treatment F. R. MacGonagle. bibliog diags Paper Ind 28: 533-4+ Jl '46

L'emploi de la silice et de l'alumine pour dessécher l'air et les gaz dans l'industrie. Génie Civil 123:282-3 O 15 '46

Hysteresis in the physical adsorption of nitrogen on bone char and other adsorbents. L. F. Gleysteen and V. R. Deitz. bibliog J Res Nat Bur Stand 35:285-307 O '45

Improvements in the coagulation of surface waters with activated silica. L. L. Klinger. bibliog il plan diags Paper Tr J 122:44-50 Ap 11 '46

Improving water plant operation with activated silica. H. R. Hay. bibliog Water & Sewage Works 93:353-8, 389-92, S-O '46

Non-woven textiles; their packaging applications; Webril, Bonnlinn and Masslinn for silica gel bags, tea bags and closures for multi-wall paper bags. il diag Mod Packaging 19:100-5+ F '46

Preparation of silica gel for chromatography. R. Harris and A. N. Wick. Ind & Eng Chem Anal ed 18:276 Ap '46

Silica gel did its war work well; munitions, etc. protected from corrosion and moisture. R. G. Skerrett. il Comp Air Mag 50:280-5 N '45

Surface area measurements of activated carbons, silica gel and other adsorbents. L. G. Joyner, E. B. Weinberger and C. W Montgomery. bibliog Am Chem Soc J 67:2182-8 D '45

Unusual techniques feature the production of synthetic bead catalyst; Socony Vacuum's plant at Paulsboro, N. J. R. W. Porter. flow sheet(p138-41) il diags Chem & Met Eng 53:94-8 Ap '46

See also
Silicic acid gel

SILICA white. See Carbon black, Substitutes for

SILICANE
Alkylation of triethylsilane. R. N. Meals. bibliog Am Chem Soc J 68:1880 O '46

Derivatives of the methylchlorosilanes; *n*-butyl ethers. R. O. Sauer. Am Chem Soc J 68.138-9 Ja '46

(*p*-Halogenophenyl)-trimethylsilanes. C. A. Burkhard. Am Chem Soc J 68:2103 O '46

Organo-silicon compounds; α- and β-chloroalkyl silanes and the unusual reactivity of the latter. L. H. Sommer and F. C. Whitmore. bibliog Am Chem Soc J 68:485-7 Mr '46

Organo-silicon compounds; synthesis and properties of *n*-alkyltrimethyl- and *n*-alkyltriethyl-silanes. F. C. Whitmore and others. bibliog Am Chem Soc J 68:475-81 Mr '46

Reduction of the adhesion of ice to de-icer surfaces; use of silane and silicones. D. L. Loughborough and E. G. Haas. bibliog il diags J Aeronautical Sci 13:126-34 Mr '46

Silicon organics. H. Hausman. bibliog(41 references) il J Chem Educ 23:16-21 Ja '46

See also
Bromosilicane
Chlorosilicane
Siloxanes

SILICATES
Alcoholysis reactions of alkyl silicates. D. F. Peppard, W. G. Brown and W. C. Johnson. bibliog Am Chem Soc J 68:73-5 Ja '46
Binding agents for flux coatings, their composition and production. W. Andrews. Welding J 24:1147-54 D '45
Effect of molybdenum and other oxides on surface tension of silicate melts and on properties of refractories and abrasives. C. R. Amberg. bibliog diag Am Cer Soc J 29:87-93 Ap 1 '46
Transesterification reactions of alkyl silicates. D. F. Peppard, W. G. Brown and W. C. Johnson. Am Chem Soc J 68:77-9 Ja '46

See also
Andalusite
Calcium silicates
Ethyl silicate
Glass
Mica
Pumice
Rocks
Serpentine
Sodium silicates
Spodumene
Talc
Vermiculite
Zeolites

Analysis

Determination of tungsten in silicate rocks. E. B. Sandell. bibliog Ind & Eng Chem Anal ed 18:163-7 Mr '46
Notes on silicate analysis; elimination of excess hydrofluoric acid. B. B. Osthaus. Am Cer Soc J 29:114-15 Ap 1 '46

SILICIC acid
Notes on silicate analysis; elimination of excess hydrofluoric acid. B. B. Osthaus. Am Cer Soc J 29:114-15 Ap 1 '46

SILICIC acid gel
Formation of hyalite and opal. A. C. Copisarow and M. Copisarow. bibliog Science 104:286-7 S 27 '46
Opalescence of silicic acid gels. A. C. Copisarow and M. Copisarow. bibliog Am Chem Soc J 67:1915-16 N '45
Studies on silicic acid gels; dialysis of silica hydrosol and hydrogel. C. B. Hurd and P. L. Merz. bibliog Am Chem Soc J 68:61-4 Ja '46

SILICON
Crystal rectifiers. W. E. Stephens. diags Electronics 19:112-19 Jl '46
Secondary emission from germanium, boron, and silicon. L. R. Koller and J. S. Burgess. Phys R 70:571 O 1 '46

Analysis

Autoradiographic detection of aluminum. W. E. Stephens and M. N. Lewis. il Phys R 69:43 Ja 1 '46
Photometric determination of silicon in steels. C. H. R. Gentry and L. G. Sherrington. Soc Chem Ind J 65:90-2 Mr '46

Isotopes

Isotopic constitution of tellurium, silicon, tungsten, molybdenum, and bromine. D. Williams and P. Yuster. bibliog Phys R 69:556-67 Je 1 '46
Mass-spectrographic study of the isotopes of silicon. E. P. Ney and J. H. McQueen. Phys R 69:41 Ja 1 '46

SILICON alloys
High silicon aluminum alloys; abstract. F. A. Allen. Materials & Methods 22:1800+ D '45

See also
Iron alloys—Silicon alloys

SILICON carbide
Copper oxide and silicon carbide varistors. E. J. Iversen. il diags Product Eng 17: 121-3 N '46
Effect of molybdenum and other oxides on surface tension of silicate melts and on properties of refractories and abrasives. C. R. Amberg. bibliog diag Am Cer Soc J 29: 87-93 Ap 1 '46
Silicon carbide non-ohmic resistors. F. Ashworth and others. il diags Inst E E J 93 pt 1:385-401 bibliog(p393-4) S '46; Excerpts. Engineering 161:295 Mr 29 '46; Discussion. Inst E E J 93 pt 1:401-5, 595-8 S, D '46; Electrician 136:817-18 Mr 29 '46
Silicon-impregnated steels. H. K. Ihrig. il Iron Age 157:73-8 Ap 4 '46
Some special refractories and their industrial application. W. H. Henson and C. W. Henson. il Brick & Clay Rec 108:71-2+ Mr; 60+ Ap '46

SILICON compounds
Derivatives of the methylchlorosilanes; amines. R. O Sauer and R. H. Hasek. Am Chem Soc J 68:241-4 F '46
Derivatives of the methylchlorosilanes; *n*-butyl ethers. R. O. Sauer. Am Chem Soc J 68:138-9 Ja '46
Diethylsilanediol P. A. DiGiorgio, L. H. Sommer and F. C. Whitmore. Am Chem Soc J 68:344 F '46
Group and bond refractions in organosilicon liquids. R. O. Sauer. bibliog Am Chem Soc J 68:954-62 Je '46
Hydrolysis of diphenyldichlorosilane. C. A. Burkhard. Am Chem Soc J 67:2173-4 D '45
Improved procedures for the preparation of some organosilicon compounds. H. Gilman and R. N. Clark. Am Chem Soc J 68:1675-6 Ag '46
Methylpolysiloxanes. W. Patnode and D. F. Wilcock. bibliog Am Chem Soc J 68:358-63 Mr '46
Molecular structure of trimethyl silicon chloride. R. L. Livingston and L. O. Brockway. bibliog Am Chem Soc J 68:719-21 Ap '46
New alpha and beta chloroalkyl silanes; further studies on the alpha silicon effect. L. H. Sommer and others. Am Chem Soc J 68:1881-3 O '46
New electrical materials. A. E. L. Jervis. bibliog il Electrician 137:383-6, 793-7, Ag 9, S 20 '46
Octaphenylcyclotetrasiloxane. C. A. Burkhard, B. F Decker and D. Harker. Am Chem Soc J 67:2174-5 D '45
Organic compounds of silicon. A. E. L. Jervis. il Chem Age (Lond) 55:39-41+ Jl 13 '46
Organo-silicon compounds; α- and β-chloroalkyl silanes and the unusual reactivity of the latter. L. H. Sommer and F. C Whitmore. bibliog Am Chem Soc J 68:435-7 Mr '46
Organosilicon compounds; β-elimination involving silicon. L. H. Sommer and others. Am Chem Soc J 68:1083-5 Je '46
Organo-silicon compounds; silicon analogs of neopentyl chloride and neopentyl iodide; the alpha silicon effect. F. C. Whitmore and L. H. Sommer. Am Chem Soc J 68:481-4 Mr '46
Organo-silicon compounds; synthesis and properties of *n*-alkyltrimethyl- and *n*-alkyltriethyl-silanes. F. C. Whitmore and others. bibliog Am Chem Soc J 68:475-81 Mr '46
Preparation of triethylchlorosilane from ethyl orthosilicate. P. A. Di Giorgio and others. Am Chem Soc J 68:1380 Jl '46
Reactivity with alkali of chlorine-carbon bonds alpha, beta and gamma to silicon. L. H. Sommer and others. Am Chem Soc J 68: 488-9 Mr '46
Rearrangements in compounds of carbon, silicon, germanium and tin containing halogens, isocyanate and thiocyanate. G. S. Forbes and H. H. Anderson. bibliog Am Chem Soc J 67:1911-14 N '45
Silicon organics. H. Hausman. bibliog(41 references) il J Chem Educ 23:16-21 Ja '46
Studies on siloxanes; the specific volume and viscosity in relation to temperature and constitution. C. B. Hurd. bibliog Am Chem Soc J 68:364-70 Mr '46
Thermal rearrangement of branched-chain methylpolysiloxanes. D. W. Scott. Am Chem Soc J 68:356-8 Mr '46
Trialkylsilyl sulfates. L. H. Sommer and others. Am Chem Soc J 68:156 Ja '46
Vapor pressure-viscosity relations in methylpolysiloxanes. D. F. Wilcock. bibliog Am Chem Soc J 68:691-6 Ap '46

See also
Silica
Silicane
Silicones
Siloxanes

Nomenclature

ACS official reports; nomenclature, spelling, and pronunciation; nomenclature of silicon compounds. Chem & Eng N 24:1233-5 My 10 '46

SILICON methoxythiocyanate
Phosphorus chlorothiocyanate and chlorodiisocyanate; silicon methoxythiocyanate. H. H. Anderson. bibliog Am Chem Soc J 67:2176-7 D '45

SILICON steel
See also
Chromium copper
silicon steel

SILICONES
Antifoam agent. Chem & Eng N 24:1260+ My 10 '46; Chem & Met Eng 53:169 My '46
Chemical engineering progress for peace; silicones. il Chem & Met Eng 53:132 F '46
Coatings for wire-wound resistors; electric resistors. E. E. Marbaker. il Am Cer Soc J 28:329-42 D 1 '45
Dimethyl-silicone-polymer fluids and their performance characteristics in hydraulic systems. V. G. Fitzsimmons and others. il A S M E Trans 68:361-9 My '46
Dimethyl-silicone-polymer fluids and their performance characteristics in unilaterally loaded journal bearings. J. E. Brophy and others. il A S M E Trans 68:355-60 My '46
Introduction to silicone chemistry. E. G. Rochow. bibliog Electrochem Soc Trans 90 (preprint 18):249-54 '46
More about silicones. Sci Am 175:80 Ag '46
New developments in Silastic, heat resistant silicone rubber. P. C. Servais. il India World 114:657-9+ Ag '46
New electrical materials. A. E. L. Jervis. bibliog il Electrician 137:383-6, 793-7, Ag 9, S 20 '46
Oils for instrument bearings. C. H. Braithwaite, jr. il Aero Digest 53:94+ O '46
Osmotic pressure measurements with polydimethylsilicone fractions. D. W. Scott. bibliog Am Chem Soc J 68:1877-9 O '46
Progress in engineering knowledge during 1945; silicones. P. L. Alger and others. Gen Elec R 49:11-13 F '46
Reduction of the adhesion of ice to de-icer surfaces; use of silane and silicones. D. L. Loughborough and E. G. Haas. bibliog il diags J Aeronautical Sci 13:126-34 Mr '46
Respiratory air flow characteristics and their relation to certain lung conditions occurring in industry. L. Silverman. bibliog il J Ind Hygiene 28:183-96 S '46
Silastic, the heat stable silicone rubber. P. C. Servais. il Rubber Age 58:579-84 F '46
Silicone greases. R Sci Instr 17:78-80 F '46; Aero Digest 52:79 Ja '46
Silicone greases, coatings, and motor insulation. Chem & Met Eng 53:215-16 Mr '46
Silicone greases for bearing lubrication at high or low temperatures. Power Pl Eng 50:86-7 Jl '46
Silicone insulation. C. E. Kilbourne. il Machine Design 18:109-13 Ag '46
Silicone insulation for high temperatures. Mach 52:173 Je '46
Silicone materials. T. A. Kauppi. il Product Eng 17:304-6 Ap '46
Silicone resin bonded laminates. L. V. Larsen and others. il Mod Plastics 23:160-2+ Mr '46
Silicone-resin-treated magnet coils. G. L. Moses and J. J. Torok. bibliog il Elec Eng 65:Trans 412-16 Jl '46
Silicone resins for electrical insulation. G. L. Moses. Elec World 124:79-81 N 24 '45
Silicone resins raise insulation operating temperature limits. R. F. Horrell. il Pet Eng 17:204+ N '45; Same. Coal Age 51:76-80 Mr '46; Same, without il. Paper Tr J 121: 18+ N 29 '45
Silicone rubber elastic up to 500 deg. F. Elec World 124:138 N 10 '45
Silicone rubbers; new gasketing materials for high-temperature uses. J. A. Moffitt and A. Panagrossi. il Machine Design 18:109-13 S '46
Silicones as lubricants. T. A. Kauppi and W. W. Pedersen. il diag S A E J 54:120-4 Mr '46; Machine Design 18:109-13 Jl '46; Abstract. Automotive & Aviation Ind 93:29+ D 15 '45
Silicones as new engineering materials. W. R. Collings. il Am Inst Chem Eng Trans 42: 455-71 Je '46
Silicones; food for imagination. R. R. McGregor. il diag Franklin Inst J 242:93-102 Ag '46
Silicones, new engineering materials; abstract. S. L. Bass. Chem & Ind p365-6 N 24 '45
Silicones, new engineering materials; abstract. R. W. Kolderman. Rubber Age 58: 230 N '45
Silicones; new family of fluids, gels, plastics, and solids. Mech Eng 68:38-9 Ja '46
Silicones new field in chemistry. D. G. McNabb. Can Chem & Process Ind 30:30-2+ Ap '46
Silicones, new materials for industry. il Steel 118:78-83+ Ap 22 '46
Silicones; new silica-based plastics of interest to the ceramic industry. S. L. Bass and others. Am Cer J 29:66-70 Mr 1 '46; Abstract. Cer Ind 46:74+ Je '46
Some properties and applications of silicone rubber. J. Marsden. il Rubber Age 59:691-3 S '46
Take a grain of sand. H. C. E. Johnson. il Sci Am 175:105-7 S '46
Use of liquid dimethylsilicones to produce water-repellent surfaces on glass-insulator bodies. O. K. Johannson and J. J. Torok. bibliog il Inst Radio Eng Proc 34:296-302 My '46
Use of silicones as diffusion pump oils. G. P. Brown. R Sci Instr 16:316-18 N '45
Will silicones be useful in the mining industry? il diag Eng & Min J 147:72-4 Jl '46

SILICOSIS
Aluminum in the prevention and treatment of silicosis; American medical association report; abstract. J Ind Hygiene 28:sup83 Jl '46
Aluminum powder for silicosis. il Safety Eng 91:73 Je '46
Aluminum therapy for silicosis; abstract. D. R. Johns and S. J Petronella. bibliog Ind Med 14:sup40+ N '45
Chest conditions simulating silicosis. L. E. Hamlin. bibliog il Ind Med 15:376-81 Je '46
Industrial health; aluminum therapy treatment for silicosis; compensation insurance rates; abstract. T. C. Waters. Rock Prod 49:124+ Je '46
Know-how in fighting silicosis with aluminum. A. W. Jacob. bibliog il plan diags Eng & Min J 147:70-5 Mr '46
Lung lab pays off quickly; Ferro's testing facilities. Bsns W p54+ Jl 20 '46
Medical aspects of partial disability in silicosis; abstract. G. W. Wright. J Ind Hygiene 28:sup7 Ja '46
New advance in silicosis control; abstract. F. R. Holden. Safety Eng 92:52 S '46
Silica hazard in arc furnace construction. E. M. Fieman. il Ind Med 15:14-15 Ja '46
Silicious exposures in the fire brick industry; roentgenologic study. W. L. Ritter and P. G. Bovard. J Ind Hygiene 27:283 D '45
Silicosis; a clinical study; abstract. H. Dayman. J Ind Hygiene 28:54-5 My '46
Silicosis diagnosis. L. E. Hamlin. Safety Eng 91:82 Ja '46
Silicosis hazards. F. R. Holden and E. C. Hyatt. Safety Eng 90:63-5 D '45
Silicosis, its prevention and treatment; abstract. D. A. MacGregor. Ind Med 14:815-18 O '45
Silicosis prevention in the foundry; abstract. W. J. Rees. Am Cer Soc J 29 (Cer A[25]):60 Mr 1 '46
Utilization of aluminum in the prevention and treatment of silicosis. J. W. G. Hannon. Ind Med 15:527-8 S '46

SILK
China is serious about developing its textile industry. H. Leopold. il Textile World 96: 133+ Ap '46
Equilibrium between silk and aqueous solutions; internal reaction of silk fibroin; abstract. T. H. Morton. Am Dyestuff Rep 35: 454 S 23 '46
Net denier size of silk degummed 20%; table. Rayon 27:404 Ag '46
Real silk doomed to a small luxury market; abstract. M. Rubin. Rayon 27:16 Ja '46
Review of the silk situation; competitive position. J. Metzger. Rayon 27:489-90 S '46
Structure of silk fibroin and its bearing on fibrous proteins; abstract. D. Coleman and F. O. Howitt. Am Dyestuff Rep 35:454 S 23 '46

SILK—*Continued*

Testing

Silk industry looks at future in terms of standard tests. D. E. Douty. il Ind Stand 17:143-6 Je '46

SILK fabrics

Silk, again; All-American silk prints. il Textile Col 67:121 N '45

SILK screen printing

Faults in rayon screen printing. Rayon 27: 428-32 Ag '46

Printed electronic circuits; technique for printing wiring on steatite chassis block with silver solution; for pocket radios, personal telephones, miniature hearing aids, meteorological instruments, etc. G. Brunetti and A. S. Khouri. il diag Electronics 19:104-8 Ap '46

Screen printing; with formulas. R. C. Geering. il diag Rayon 27:89-94 F '46

Silk screen printing makes rapid strides; abstract. G. W. Reinke. Inland Ptr 117:40 Ap '46

Two new single-layer coatings used for screen printing in Germany. M. L. Crossley and F. S. Richardson. il Textile World 96: 114-15 My '46

Underglaze decal, paint and silk screen decorating. il Cer Ind 45:90+ N '45

SILK trade

Better demand for silk. Barron's 26:5 S 23 '46

Precious silk. Barron's 26:9 Mr 11 '46

Sad days for silk. Bsns W p30+ S 7 '46

Brazil

Hails gain in silk industry of Sao Paulo, Brazil. M. Morais. For Comm W 24:29 S 7 '46

Will we import more Brazil-produced silk? il For Comm W 21:10-11+ N 10 '45

Great Britain

Silk imports, United Kingdom, 1938-1945. For Comm W 22:36 Mr 9 '46

Japan

Japanese silk production, first six months of 1946; table. For Comm W 25:30 O 26 '46

Japan's biggest non-war loss. Barron's 25:7 D 24 '45

Present status of textile technology in the Japanese raw silk industry. D. E. Douty. Rayon 27:179-81 Ap '46

Two views on price for Japanese silk. Barron's 26:8 S 9 '46

Peru

Sericulture in Peru. For Comm W 21:36 D 29 '45

SILLERY formation

Cambrian and early ordovician stratigraphy of the lower St Lawrence valley. F. Rasetti. bibliog map diags Geol Soc Bul 57:687-705, pl 1-2 Jl '46

SILLIMAN, Benjamin, 1779-1864

Portrait. J Chem Educ 23:(p xix) Jl '46

SILLIMANITE

Role of refractories in peacetime production; sillimanite refractories. il Brick & Clay Rec 108:71 Ja '46

SILMANAL. See Magnetic materials

SILONE, Ignazio

Portrait. Fortune 34:164 O '46

SILOS

Silo construction details and tables. diags Brick & Clay Rec 108:31-2 F '46

SILOS, Concrete

Proposed recommended practice for the construction of concrete farm silos; reported by ACI committee 714. Am Concrete Inst J 17:261-2 Ja '46

Recommended practice for the construction of concrete farm silos (ACI 714-46). diags Am Concrete Inst J 18:149-64 O '46

SILOXANES

Derivatives of the methylchlorosilanes; polysiloxanes from methyldichlorosilane. R. O. Sauer, W. J. Scheiber and S. D. Brewer. Am Chem Soc J 68:962-3 Je '46

Dielectric constants of dimethyl siloxane polymers. E. B. Baker, A. J. Barry and M. J. Hunter. bibliog il Ind & Eng Chem 38:1117-20 N '46

Dipole moments of linear and cyclic polymethylpolysiloxanes. R. O. Sauer and D. J. Mead. bibliog Am Chem Soc J 68:1794-7 S '46

Methylpolysiloxanes. W. Patnode and D. F. Wilcock. bibliog Am Chem Soc J 68:358-63 Mr '46

Octaphenylcyclotetrasiloxane. C. A. Burkhard, B. F. Decker and D. Harker. Am Chem Soc J 67:2174-5 D '45

Organo-silicon polymers; the cyclic dimethyl siloxanes. M. J. Hunter and others. bibliog Am Chem Soc J 68:667-72 Ap '46

Structure of hexadecamethylcycloöctasiloxane. L. K. Frevel and M. J. Hunter. il Am Chem Soc J 67:2275 D '45

Studies on siloxanes; the specific volume and viscosity in relation to temperature and constitution. C. B. Hurd. bibliog Am Chem Soc J 68:364-70 Mr '46

Thermal rearrangement of branched-chain methylpolysiloxanes. D. W. Scott. Am Chem Soc J 68:356-8 Mr '46

Vapor pressure-viscosity relations in methylpolysiloxanes. D. F. Wilcock. bibliog Am Chem Soc J 68:691-6 Ap '46

SILT

Coal fines to offset cost of culm elimination; Schuylkill River desilting project to recover high Btu fuel. J. H. Allen. il Civil Eng 16:395-7 S '46

Competency of moving water to transport debris. C. Nevin. bibliog Geol Soc Bul 57: 651-74, fold pl Jl '46

Dredge cleans waterworks basin without interrupting service in Philadelphia. il diags Eng N 137:314-15 S 5 '46

Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81, 1387-1414, 1573-5; 72: 83-97, 235-40, 682-96 O '45-F, My '46

Model study of Brown canyon debris barrier. K. J. Bermel and R. L. Sanks. il map diag Am Soc C E Proc 72:613-28 My; Discussion. 72:1325-6 N '46

Sand traps designed for streams with heavy bed loads. H. A. Burt. plan diags Civil Eng 16:357 Ag '46

SILVER

Experiments with a slow neutron velocity spectrometer. R. F. Bacher and others. plans diag Phys R 69:443-51 My 1 '46

Fine-tapered silver electrodes for physiological work. K. D. Roeder. Science 104:425-6 N 1 '46

First-order change which involves the vaporization in two dimensions of *n*-heptane on the surface of silver. G. Jura and others. J Chem Phys 13:535-6 N '45

RFC war plants now returning 16,300 tons of silver to treasury. Iron Age 158:125 O 24 '46

Regeneration of the Walden silver reductor. E. H. Huffman. Ind & Eng Chem Anal ed 18:278 Ap '46

Silver; almost money again. Bsns W p21-2+ Je 22 '46

Silver has its day. Bsns W p41-2 Mr 2 '46

Slow neutron cross sections of indium, gold, silver, antimony, lithium, and mercury as measured with a neutron beam spectrometer. W. W. Havens, jr. and J. Rainwater. bibliog Phys R 70:154-73 Ag 1 '46

Standard potential of the cell, $H_2|HCl(m)|AgCl\text{-}Ag$, in 50% glycerol-water solution from 0-90°. H. S. Harned and F. H. M. Nestler. bibliog Am Chem Soc J 68:665-6 Ap '46

Standard potentials of hydrogen-silver-silver chloride cells in ethylene glycol solutions at 25°. S. B. Knight, J. F. Masi and D. Roesel. bibliog Am Chem Soc J 68:661-5 Ap '46

Welding precious metals. F. W. Meyers, jr. il Iron Age 158:59-62 Ag 22 '46

Industrial applications

Mica capacitors for carrier telephone systems; silvered capacitors. A. J. Christopher and J. A. Kater. il diags Elec Eng 65:Trans 670-4 O '46

SILVER—Industrial applications—*Continued*
Printed electronic circuits; technique for printing wiring on steatite chassis block with silver solution; for pocket radios, personal telephones, miniature hearing aids, meteorological instruments, etc. C. Brunetti and A. S. Khouri. il diag Electronics 19: 104-8 Ap '46
Silver bearings. E. B. Etchells and A. F. Underwood. il diags S A E J 53:497-503 S '45; Excerpts. Automotive & Aviation Ind 93:34 Ag 1 '45; Abstract. Metal Prog 50.524+ S '46
Silver flake paints. A. F. Knoll. Materials & Methods 24:425 Ag '46
Silver to silver for fixed contacts. H. H. Rudd Elec World 125:58-9 F 2 '46
Tungsten contact life exceeds that of silver. H. C. Miller. Elec World 125:89 Mr 2 '46

Prices

Bullion prices and the gold-silver ratio, 1929-45. D. H. Leavens. R Econ Stat 28:160-4 Ag '46
End silver deadlock; House and Senate agree on price of 90.5 cents per ounce. Comm & Fin Chr 164:492 Jl 25 '46
Gold and silver cost government nothing. E. H. Neary. Comm & Fin Chr 164:893 Ag 15 '46
How high silver prices? W. G. Thurber. Comm & Fin Chr 164:1018 Ag 22 '46
New bounties for silver? Economist 150:1047 Je 29 '46
OPA raises ceiling prices on silver. Comm & Fin Chr 164:939 Ag 15 '46
Senate silver bloc bill; S. 2206. Comm & Fin Chr 163:2787 My 23 '46
Shortage of silver. Economist 151:222-3 Ag 10 '46
Silver compromise advances. H. M. Bratter. Comm & Fin Chr 163:3204+ Je 13 '46
Silver Munich ahead? efforts of silver bloc to have official silver price advanced. Comm & Fin Chr 163:2082+ Ap 18 '46
Silver scene shifts; Murdock bill. H. M. Bratter. Comm & Fin Chr 163:2914+ My 30 '46
Silver senators score another touchdown. H. M. Bratter. Comm & Fin Chr 163:2357+ My 2 '46
Silver trading resumed; OPA raises ceiling to 90½c. an ounce; Treasury to sell at 91 cents an ounce. Comm & Fin Chr 164:792-3 Ag 8 '46
Sixty years of silver production, prices and politics; graph. Bsns W p21 Je 22 '46
Text of act authorizing sale of government-owned silver to industry. Comm & Fin Chr 164:932 Ag 15 '46; Same. Fed Res Bul 32:995 S '46
Urge rejection of silver bloc proposals; Economists' national committee on monetary policy. Comm & Fin Chr 163:2703 My 16 '46
Urge rejection of silver bloc proposals; Economists' national committee on monetary policy; text of petition to Congress and statement by W. E. Spahr. Comm & Fin Chr 163:3204+ Je 13 '46
What caused foreign silver to jump to 71.111c. H. H. Wanders. Eng & Min J 146:81 N '45
Will there be another holy crusade for silver? S. Weeks. Comm & Fin Chr 164:492 Jl 25 '46

SILVER acetate
Role of neighboring groups in replacement reactions; the reaction of stilbene dichlorides with silver acetate. S. Winstein and D. Seymour. bibliog Am Chem Soc J 68: 119-22 Ja '46

SILVER alloys
Silver-thallium bearing alloys; abstracts. F. R. Hensel. Materials & Methods 23:206 Ja '46; Metal Prog 49:390+ F '46
Thermodynamic studies of dilute solutions in molten binary alloys. J. A. Yanko and others. bibliog diags Electrochem Soc Trans 89 (preprint 13):151-65 '46
Thermodynamic study of the tin-silver system. R. O. Frantik and H. J. McDonald. Electrochem Soc Trans 88 (preprint 22):229-36 '45

SILVER as *money*
Britain to save silver in coinage. Comm & Fin Chr 164:1700 O 3 '46
End of Britain's silver coinage. P. Einzig. Comm & Fin Chr 164:1929+ O 17 '46
Exit silver coins. Economist 151:554 O 5 '46
Nickel ousts silver in India. Economist 150: 939 Je 8 '46
Proposed amendments to Silver purchase act. Comm & Fin Chr 163:2357+ My 2 '46
Silver, 1945. D. H. Leavens. Eng & Min J 147:74-6 F '46
Silver, past and present. H. G. King. Comm & Fin Chr 164:2333+ N 7 '46
Silver regaining world importance. V. L. Horoth. il Mag of Wall St 79:19-21+ O 12 '46
Silver serves throughout the war. P. McCarran. Min Cong J 32.56-8 F '46

SILVER brazing. See Silver solder

SILVER chloride
Optical silver chloride; abstract. H. C. Kremers. Opt Soc Am J 36 349-50 Je '46
Silver crystal; new optical material to find applications in infrared production devices. il Bsns W p56+ Ap 13 '46
Standard potential of the cell, $H_2|HCl(m)|AgCl\text{-}Ag$, in 50% glycerol-water solution from 0-90°. H. S. Harned and F. H. M. Nestler. bibliog Am Chem Soc J 68:665-6 Ap '46
Standard potentials of hydrogen-silver-silver chloride cells in ethylene glycol solutions at 25°. S. B. Knight, J. F. Masi and D. Roesel. bibliog Am Chem Soc J 68:661-5 Ap '46

SILVER cyanide
Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45; Same. Metal Finishing 43:497-9+ D '45; Abstract. Steel 119:124-5+ Ag 5 '46

SILVER halides
Desensitizing by dyes in relation to optical sensitizing of the silver halides. S. E. Sheppard and others. bibliog(29 references) J Phys Chem 50:210-22 My '46

Analysis

Semimicro detection of thiocyanate and halide ions. L. E. Porter. bibliog J Chem Educ 23:402 Ag '46

SILVER hydride
Homogeneous perturbations in band spectrum of AgH molecule. R. F. Schmid and L. Gerö. Phys R 70:226 Ag 1 '46

SILVER industry and trade
Analysis of the present silver situation. R. A. Mozer. Metal Finishing 44:384-5 S '46
Congress again faces silver decision. H. M. Bratter. Comm & Fin Chr 162:2455+ N 22 '45
Industries face shortage. Barron's 26:7 F 11 '46
Legislation in behalf of silver-using industry urged by Handy & Harman. Comm & Fin Chr 162:2620 N 29 '45
New bounties for silver? Economist 150:1047 Je 29 '46
Senate silver bloc bill; S. 2206. Comm & Fin Chr 163:2787 My 23 '46
Shortage of silver. Economist 151:222-3 Ag 10 '46
Showdown on price of silver near; processors running short. J. Lyons. Mag of Wall St 77:698-9 Mr 16 '46
Silver bloc, again. Fortune 32:272+ D '45
Silver compromise advances. H. M. Bratter. Comm & Fin Chr 163:3204+ Je 13 '46
Silver, 1945. D. H. Leavens. Eng & Min J 147:74-6 F '46
Silver, past and present. H. G. King. Comm & Fin Chr 164:2333+ N 7 '46
Silver production of leading companies in 1945 and year of peak output; table. Barron's 26:1 Ap 29 '46
Silver regaining world importance. V. L. Horoth. il Mag of Wall St 79:19-21+ O 12 '46
Silver scene shifts; Murdock bill. H. M. Bratter. Comm & Fin Chr 163:2914+ My 30 '46
Silver senators score another touchdown. H. M. Bratter. Comm & Fin Chr 163:2357+ My 2 '46
Silver serves throughout the war. P. McCarran. Min Cong J 32:55-8 F '46
Silver trading resumed; OPA raises ceiling to 90½c. an ounce; Treasury to sell at 91 cents an ounce. Comm & Fin Chr 164:792-3 Ag 8 '46

SILVER industry and trade—*Continued*
Silversmiths seek Treasury metal. Barron's 26.5 My 6 '46
Text of act authorizing sale of government-owned silver to industry. Comm & Fin Chr 164:932 Ag 15 '46; Same. Fed Res Bul 32:995 S '46
Urge rejection of silver bloc proposals; Economists' national committee on monetary policy. Comm & Fin Chr 163:2703 My 16 '46
Vinson ok's Green's silver bill. Comm & Fin Chr 162:2611 N 29 '45
What caused foreign silver to jump to 71.111c. H. H. Wanders. Eng & Min J 146:81 N '45
Will there be another holy crusade for silver? S. Weeks. Comm & Fin Chr 164:492 Jl 25 '46

Peru

Silver production in Peru. For Comm W 21:33 D 8 '45

SILVER iodobenzoate
Cashew nut shell liquid; an application of the Prevost reagent to alkenyl phenols. M. Sletzinger and C. R. Dawson. Am Chem Soc J 68:345 F '46

SILVER mines and mining

British Columbia

Silver situation in British Columbia. F. H. Stephens. il Can Min J 67:29-31 Ja '46

Colorado

Exploration of the Big Four zinc-silver mine, Summit county. R. B. McCulloch and W. P. Huleatt. U S Bur Mines Rep of Invest 3884:1-7, pl 1-4 '46

Idaho

Lead-silver mineralization in the Clark Fork district, Bonner county. A. L. Anderson. il map diag Econ Geol 41:105-23 Mr '46

Mexico

Some applications of structural geology to mining in the Pachuca-Real del Monte area, Pachuca silver district. C. L. Thornburg. diags Econ Geol 40:283-97 Je '45; Discussion. E. Wisser. 41:77-86 Ja '46
Vistas of Mexican mining; Pachuca, king of silver producers. E. Just. il Eng & Min J 147.74 S '46

Ontario

Cobalt district astir after long sleep. A. S. Park. il Comp Air Mag 51:186-8 Jl '46

SILVER nitrate
Amperometric titration of chloride, bromide, and iodide using the rotating platinum electrode. H. A. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:355-8 Je '46
Amperometric titration of cyanide with silver nitrate, using the rotating platinum electrode. A. H. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:574-5 S '46
Amperometric titration of mercaptans with silver nitrate using the rotating platinum electrode. I. M. Kolthoff and W. E. Harris. bibliog diags Ind & Eng Chem Anal ed 18: 161-2 Mr '46
Amperometric titration of mixtures of halides using the rotating platinum electrode. H. A. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:358-9 Je '46
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance; comparison of the rates of reaction of methyl, ethyl, *n*-propyl, *iso*butyl, and *neo*pentyl halides with silver nitrate in aqueous ethyl alcohol. I. Dostrovsky and E. D. Hughes. Chem Soc J p169-71 Mr '46
Reactions of vanillin and its derived compounds; the reaction of vanillin with alkali and silver nitrate. I. A. Pearl. Am Chem Soc J 68:1100-1 Je '46

SILVER nitrophenolate
Comparative estimations of carbonyl and carboxyl groups in chromium trioxide and hypochlorous acid oxycelluloses and oxyxylans. B Meesook and C. B. Purves. bibliog Paper Tr J 123:35-42 O 31 '46

SILVER ores
Lead-silver mineralization in the Clark Fork district, Bonner county, Idaho. A. L. Anderson. il map diag Econ Geol 41:105-23 Mr '46; Discussion. E. E. Fairbanks. 41:554-5 Ag '46

SILVER oxalate
An X-ray diffraction investigation of the thermal decomposition of silver oxalate. R. L. Griffith. il J Chem Phys 14:408-15 Jl '46

SILVER oxide
Characteristics of a silver-peroxide-zinc primary cell. I. A. Denison. diag Electrochem Soc Trans 90 (preprint 26):323-38 '46
Characteristics of the silver oxide-zinc-alkali primary cell. J. C. White and others. Electrochem Soc Trans 90 (preprint 20):273-9 '46
Reactions of vanillin and its derived compounds; the reaction of vanillin with silver oxide. I. A. Pearl. bibliog Am Chem Soc J 68:429-32 Mr '46

SILVER plating
Developments in silver plating, a review of recent trends. P. J. Lo Presti. bibliog Metal Finishing 44:288-90 Jl '46
Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45; Same. Metal Finishing 43:497-9+ D '45; Abstract. Steel 119:124-5+ Ag 5 '46
Method for welding sheet aluminum to S.A.E. 4140 steel; study of different metals used as intermediate. W. F. Hess and E. F. Nippes, jr. bibliog il diags Welding J 25: sup129-48 Mr '46
New silver polishing process. Mech Eng 68: 658 Jl '46; Iron Age 157:65 Je 6 '46; Chem Ind 59:304+ Ag '46; il Sci Am 175:137 S '46; il Materials & Methods 24:426 Ag '46
Silver polished in plating bath. il Bsns W p61 Jl 20 '46
Silver to silver for fixed contacts. H. H. Rudd. Elec World 125:58-9 F 2 '46
Silvering of plastics. H. Narcus. bibliog il Metal Finishing 44:240-2 Je '46
Spectrophotometric determination of nitrates in plating baths A. Dolance and P. W. Healy. Ind & Eng Chem Anal ed 17:718-19 N '45
True story, for inventors only; Dennis R. Turner's electropolishing of silver plate. il Elec West 97:70 Ag '46

Testing

Bond testing of silver-plated engine bearings. F. D. Hallworth. il diags Automotive & Aviation Ind 95.30-3+ Jl 15 '46

SILVER polish
Silver polishes. M. A. Lesser. bibliog il Soap & San Chem 22:42-5+ Ag '46

See also
Silverware—Cleaning

SILVER process of water purification. See Water purification—Silver process

SILVER selenocyanate
Solubility product of silver selenocyanate at 25°. G. R. Waitkins and C. R. McCrosky. Am Chem Soc J 68:1385-6 Jl '46

SILVER solder
Application of high frequency heating to silver brazing and silver soldering. H. A. Folgner. il Automotive & Aviation Ind 94: 38-40+ My 1 '46
Automatic arrangement for silver-soldering refrigerator or condenser coils. il Mach 52:178 Je '46
Brazing and soldering copper on spotwelding equipment. L. L. Dodds. diag Am Mach 90: 144 Jl 18 '46
Brazing tool tips to shanks by induction heating. T. A. Vernor and E. P. Adams. il Mach 52:178 D '45; Same. Welding J 25:26 Ja '46
Common specifications for silver brazing alloys; engineering file facts. R. S. Burpo, jr. comp. Materials & Methods 23:767 Mr '46
Comparative study of electric and gas-air methods of silver brazing. P. F. Berg. il diags Mach 52:151-4 Ja '46
Filler metal flow in brazed steel joints. diags Iron Age 157:60-1 Ap 11 '46

SILVER solder—*Continued*
Impact shear strength of silver alloy brazed joints. H. A. Smith and F. A. Koerner. il diags Welding J 25:sup188-92 Mr '46
Induction heating can make money on a job-shop basis. C. Ricker. il diags Am Mach 89:130-3 D 20 '45
Kitchen utensil output speeded by induction soldering; with cost data. L. Gise and J. R. Stewart. Iron Age 158:169-70 S 26 '46
Production of ignition radio shields. F. T. Van Syckel. il Iron Age 158:56-8 Ag 29 '46
Silver alloy brazing. A. Bregman. il Steel 118:94-5+ Je 10 '46
Silver alloy brazing of copper tubing. J. C. Powers, jr. and H. D. Lucas. il diags Steel 118:112-14+ Mr 18 '46
Silver alloys braze auto parts. A. Bregman. il Am Mach 90:82-3 Ja 31 '46
Silver brazing alloys in ship construction. bibliog il Marine Eng 51:120-3 Mr '46
Silver simplifies shunt soldering. U. L. Smith and P. MacGahan. il diag Am Mach 90:95 F 28 '46
Spraying filler metals on brazed joints. il diags Iron Age 157:52-4 Mr 28 '46

SILVER sulfate
Ternary system silver sulfate-sulfuric acid-water at 25°. E. L. Simons and J. E. Ricci. bibliog Am Chem Soc J 68:1413-16 Ag '46

SILVER thiocyanate
Ternary systems $NaSCN-Ca(SCN)_2-H_2O$, $KSCN-Ca(SCN)_2-H_2O$, $NH_4SCN-Ca(SCN)_2-H_2O$ and $Ca(SCN)_2-AgSCN-H_2O$ at 25°. A. K. McKerrow, V. J. Occleshaw and F. Drabble. Chem Soc J pl-5 Ja '46

Analysis
Semimicro detection of thiocyanate and halide ions. L. E. Porter. bibliog J Chem Educ 23:402 Ag '46

SILVER zeolite
Preparation of drinking water from sea water. H. Ingleson. Soc Chem Ind J 64:305-9 N '45

SILVERWARE
Gorham finds a way to help hum-haw customers reach buying decisions. Sales Management 56:122+ Ap 15 '46

Cleaning
Electropolishing of silver. Iron Age 158:49 Ag 1 '46; Elec Eng 65:383 Ag-S '46
Silver cleaner; foil packet acts as catalyst; Dippo. il Mod Packaging 19:153 Mr '46

SIMMONS company
Plans record output. Barron's 25:8 D 24 '45

SIMONS, Henry, 1889-1946
Testament of Henry Simons. J. Davenport. por Fortune 34:116-19 S '46

SIMPLIFICATION in industry
Glass industry in transition. Bsns W p79-80 O 12 '46
How to make more with less. il diags Ind Stand 17:225-9 S '46
Simplified practice reduces waste in industry. Product Eng 17:138-40 S '46
Style simplification ups knitting production; Spalding knitting mills. E. D. White. il Textile World 96:111+ Ag '46

SIMULTANEOUS death act. See Survivorship, Presumption of

SIMULTANEOUS equations. See Equations, Simultaneous

SINCLAIR, Donald Bellamy, 1910-
Sketch. por Inst Radio Eng Proc 34 [Waves & Electrons 1]:52W F '46

SINE bars
Ball-pin gage lays out difficult sine bar work. F. A. Dowler. diags Am Mach 90:139 Mr 14 '46
Pivoted V-block aligns round work on sine bar. L. D. Berg. diag Am Mach 90:143 Je 6 '46
Sine bar with adjustable blocks. W. H. Manton. diags Mach 52:183 Mr '46
Standard height gage, adapter eliminate blocks in sine bar work. L. L. Dodds. diag Am Mach 90:139 S 26 '46
Universal surface-angle checker has two sine bars. A. Hendrickson. diags Am Mach 90: 140 Jl 18 '46

SINEK, William J. 1877-
City Ice diversifies; big in everything that has to do with hot or cold. Bsns W p73-4+ My 18 '46

SINGAPORE
Health conditions in certain large cities of the Far East after liberation. H. R. O'Brien. map Pub Health Rep 61:1339-50 S 13 '46

SINGAPORE (crown colony)
Regrouping and new status of British areas in southeast Asia. For Comm W 24:19 Ag 24 '46

SINGEING (textiles)
Modern flame singers are more economical. C. W. French. il diag Textile World 95:139, 216+ N '45
Plate singeing and its value in the heat treatment and uniform processing of textile fabrics. H. S. Sivart. Am Dyestuff Rep 35:82+ F 11 '46

SINK and float process
Heavy density processes for coal beneficiation. D. H. Davis. il Min Cong J 32:33-4 Je '46

SINTEEL G
Cemented steels; infiltration of molten low melting metal into steel powder compact; development of American electro metal corp. E. S. Kopecki. il diags Iron Age 157: 50-4 My 2 '46
Cemented steels, new high-strength powder metallurgy product. F. P. Peters. il diags Materials & Methods 23:987-91 Ap '46
Duplex metal produced by new powder-metallurgy technique. Sci Am 174:209 My '46

SINTERED glass. See Glass, Powdered

SINTERING
Borings sintered by Greenawalt machine. Iron Age 156:50 D 20 '45
Carbursintering of iron powders. A. S. Margolies. bibliog il Iron Age 157:60-3 F 28 '46
Effects of pressure and temperature on iron powder compacts. C. O. Heath, jr. and J. D. Stetkewicz. il Metal Prog 48:73-6 Jl '45; Discussion. F. C. Kelley. 49:100-2 Ja '46
Engineering properties of sintered metals. P. Schwarzkopf. il Product Eng 17:268-72 Ap '46
Engineering properties of sintered versus cast metals. P. Schwarzkopf. il Product Eng 17:122-6 F '46
Furnace atmospheres, important factor in sintering of powder metal compacts; abstract. H. M. Webber and A. G. Hotchkiss. Iron Age 157:80 Je 20 '46
Properties of sintered iron-copper powders. F. C. Kelley. diag Iron Age 158:57-60 Ag 15 '46
Recent experiences in sintering. B. Hessle. Iron Age 157:51 Mr 7 '46
Sinters and sintering. H. L. Saunders and H. J. Tress. il Blast F & Steel Pl 33:1385-90 N '45
Sinters economize blast furnace operation. il Iron Age 156:62-3 N 29 '45
System for preparing ore at the Minnequa works of the Colorado fuel and iron corporation. R. R. Williams, jr. il plan Blast F & Steel Pl 34:108-14 Ja '46

Cost
Mesabi taconite sinter costs set at $6. Iron Age 156:174-8 D 13 '45

SIOUX CITY, Iowa

Streets
Pioneer concrete pavements survive 35 years of hard service. K. C. Gaynor. il Eng N 136:923-4 Je 13 '46

SIOUX CITY gas and electric company
Bonds, preferred and common stocks publicly offered. Comm & Fin Chr 162:2990-1 D 17 '45
Public utility securities. Comm & Fin Chr 162:2878+ D 13 '45

SIPHONS
Determination of pressures within a siphon spillway. I. M. Nelidov. Am Soc C E Proc 71:297-306 Mr '45; Discussion. il diags 71: 1537-44; 72:557-8 D '45, Ap '46

SIPHONS—*Continued*
Foundation displacements along the Malheur River siphon as effected by swelling shales. R. C. Mielenz and C. J. Okeson. il map Econ Geol 41:266-81 My '46

SIPHONS, Soda fountain
Wartime production short-cuts speed civilian goods; soda water syphon head. il Mod Plastics 24:104-5 O '46

SIRENS. See Whistles

SIRUPS
Defecation of refinery sirups; phosphoric acid and lime as pipe line defecants. G. G. Halvorsen and A. R. Bollaert. bibliog diag Ind & Eng Chem 38:385-9 Ap '46

SISAL hemp
Impact strength of nylon and of sisal ropes. S. B. Newman and H. G. Wheeler. diag J Res Nat Bur Stand 35:417-31 N '45
Sisal prices and prospects. Economist 150:974-5 Je 15 '46

SIZE reduction machines. See Pulverizers

SIZING (textiles)
Complete slasher room control. il diag Rayon 27:551-2 O '46
Single-end sizing of nylon; with particular reference to full-fashioned hosiery. Rayon 27:82-3 F '46
See also
Rayon sizing

SIZING of paper. See Paper sizing

SKATING rinks
Design of ice skating rinks; with cost data. C. H. Herter. il diags Heat & Ven 43:57-62 Ap '46
Planned for small Oklahoma town. il plans diags Arch Forum 85:73-5 Ag '46
Profits on ice; popularity puts skating shows in big business category. Bsns W p47-8+ D 15 '45

SKELETAL muscle. See Muscle

SKELLY oil company
Thumbnail stock appraisal. Mag of Wall St 77:210 N 24 '45

SKIATRON. See Cathode ray tubes

SKIDS
Modern materials-handling methods; industrial trucks. H. S. Wharen. diags Am Mach 90:128-33 Je 20 '46

SKILSAW, inc.
Tool nobody wanted; how Skilsaw cracked its market; protection for distributors, and business paper advertising. B. Sullivan. il Sales Management 57:46+ Ag 1 '46

SKIN
Engineer, physiologist and psychologist are involved in heating, conditioning; function of glomus bodies. B. von H. Gilmer. il diag Heating-Piping 18:77-9 Je '46; Discussion. 18:93-5 Jl '46
Mechanism of hyaluronidase action in skin. O. Hechter. Science 104:409-10 N 1 '46

Diseases

Dermatitis control. J. T. Gresh and G. H. Jackson. Ind Med 15:85-7 F '46
Discussion of the commoner industrial dermatoses. S. M. Peck. bibliog Ind Med 14:960-4 D '45; Same cond. il Safety Eng 91:71-4 Ap; 70-2+ My '46
Health aspects of aluminum ponton work. F. E. Rieke. bibliog Ind Med 14:896-7+ N '45
Industrial dermatitis. Safety Eng 91:78-9 Ja '46
Industrial dermatitis; creams to give protection against noxious substances. il Automobile Eng 35:482 N '45
Newer uses of topical penicillin in the treatment of dermatologic infections. F. R. Ferlaino. bibliog Ind Med 15:569-75 O '46
Occupational dermatitis due to the inhalation of trichlorethylene gas. K. C. Baker and C. J. White. bibliog Ind Med 15:389 Je '46
Paraprol in industrial dermatitis. T. Dobbins. bibliog Ind Med 15:13-14 Ja '46
Preventing skin infections. Nat Safety N 53: 158+ Mr '46
Preventive methods for the prevention of industrial dermatoses. L. Schwartz. Ind Med 15:174-6 F '46; Same abr. il Nat Safety N 53:32-3+ My '46
Save your breath; irritants causing dermatitis. L. Greenberg and S. Moskowitz. Safety Eng 92:44+ S '46
Solvent dermatitis. Safety Eng 91:63 Je '46
Studies of the effects of ammonium picrate on man and certain experimental animals. F. W. Sunderman and others. bibliog il J Ind Hygiene 27:241-8 N '45
See also
Condyloma
Pellagra
Ringworm

SKIN effect
Electrical resistance of iron wires and permalloy strips at radiofrequencies. A. W. Smith and others. bibliog diag J Ap Phys 17:33-6 Ja '46

SKRAUP reaction
Skraup reaction with *p*-methoxyacetanilide. C. E. Kaslow and S. Raymond. bibliog Am Chem Soc J 68:1102-3 Je '46
Syntheses of certain 8-nitroquinolines. A. Tomisek and others. Am Chem Soc J 68: 1587-9 Ag '46
Synthesis of 5-substituted derivatives of 6-methoxy-8-aminoquinoline and of 5-chloro-6-methoxyquinoline. R. C. Elderfield and others. bibliog Am Chem Soc J 68:1584-7 Ag '46

SKYSCRAPERS. See High buildings

SLADE, Roland E. 1886-
Retirement. Chem & Ind p29 Ja 19 '46

SLAG
Blast furnace theory. F. Mobey. bibliog il Blast F & Steel Pl 34:487-90+ Ap '46
Effects of variations in raw materials on basic open hearth operations and production. C. R. FonDersmith. Blast F & Steel Pl 34:1282-3 O '46
Labor saving devices in the open hearth shop; slag and flue dust removal. B. D. McCarthy. il Steel 118:122+ Ap 8 '46
New foamslag slab factory; Glasgow corporation's experiment. Chem Age (Lond) 55: 229-30 Ag 24 '46
New lightweight aggregate from fly ash and slag. R. F. Leftwich. plan Concrete 54:14-15+ Ja '46
Les possibilités de fabriquer des ciments sans consommer de charbon. E. Lemaire. Génie Civil 123:107-9 My 1 '46
Principles of iron ore beneficiation and their effects on blast furnace operation; thermal influences of slag compositions. C. E. Agnew. Steel 117:122-4+ D 10; 125+ D 17 '45
Slags in acid electric steelmaking. C. C. Wissmann. il diags Metal Prog 49:735-8 Ap '46

Analysis

Constitution of basic steel furnace slags. J. R. Rait and H. J. Goldschmidt. diags Iron & Steel Inst J 151:391-458 bibliog(62 titles, p456-8) pl 46-9; Discussion. 550-7 no 1 '45
Constitution of some basic open hearth slags. B. Mason. bibliog il Iron & Steel Inst J 150:69-80 no 2 '44; Same. Blast F & Steel Pl 32:1328-33 N '44; Same cond. Engineering 157:515-16 Je 30 '44
Lead in smelter products; a rapid polarographic method. W. Hered and G. R. Hered. bibliog diag Ind & Eng Chem Anal ed 17:780-1 D '45
Phosphorus reaction in basic open-hearth practice. Y. K. Zea. Iron & Steel Inst J 151:459-504 bibliog(p504); Discussion. p540-67 no 1 '45
Study of the basic open-hearth process, with particular reference to slag constitution. A. H. Jay. diags Iron & Steel Inst J 151:505-36 bibliog(p536) pl 50; Discussion. 536-70 no 1 '45
Titrative determination of the neutralization value of calcium silicate slags; abstract. W. M. Shaw. Am Cer Soc Bul 24 (Cer A 24):211-12 N 15 '45

Testing

Some fundamental problems in the manufacture of steel by the acid open-hearth process. G. R. Fitterer. Am Soc for Metals Trans 34:41-70 '45; Abstract. diag Iron Age 154:62-4 O 26 '44

SLASHERS. See Sizing (textiles)

SLATE
French slate industry. S. Gradel. il diags Comp Air Mag 51:237-43 S '46
Slate essays a comeback; industry and research in eastern Pennsylvania. C. H. Vivian. il Comp Air Mag 51:28-32 F '46

SLAUGHTERING and slaughterhouses
Recent developments in earnings in slaughtering and meat packing. E. J. Polinsky. Mo Labor R 63:45-53 Jl '46
Work injuries in the slaughtering and meatpacking industry, 1943. F. S. McElroy and G. R. McCormack. Mo Labor R 61:955-71 N '45

SLAVS
Slavs; ideal of Pan-Slavism. Economist 151: 486-7 S 28 '46

SLEDS
Taking the curves with plywood. il Mod Plastics 23:112-13 F '46

SLEEPING bags
Paper sleeping bag invented in Sweden. For Comm W 22:15 Ja 19 '46

SLEEPING cars
Airlines facing new challenge as railroads buy Pullman co. Aviation N 5:26 Ja 28 '46
Cabin-car. il Sci Am 173:304 N '45
C. & O. seeking bids for 1000 modern lightweight sleeping cars. il Steel 117:51 D 31 '45
Many innovations expected in new passenger car designs. il plan diag Ry Age 119:797-9 N 17 '45
New Young plan? Bsns W p16-17 D 29 '45
Plan to buy Pullman submitted to I.C.C. Ry Age 121:194+ Ag 3 '46
Pullman, eighty-year-old service is sold to the railroads. il Manuf Rec 115:106-7+ Ja '46
Pullman's new refund rules are reducing cancellations. Ry Age 121:495 S 21 '46
Pullmans will go from coast-to-coast. Ry Age 120:639 Mr 23 '46
Sleeping car heat regulators. il Ry Age 120: 1276 Je 29 '46
What's behind C.&O.-Nickel Plate scheme for through sleeping car service from coast to coast? E. Whitmore. Am Bsns 16:10-11+; Reply. R. R. Young. 12+ Ja '46
Who will operate sleeping cars? Ry Age 119: 831-2 N 17 '45
Young reattacks. Bsns W p18 Ag 3 '46

See also
Pullman companies

SLEEPING sickness
Complement-fixation tests for American trypanosomiasis in Texas. D. J. Davis and T. D. Sullivan. Pub Health Rep 61:1083-4 Jl 19 '46
Treatment of trypanosomiasis with p-arsenosophenylbutyric acid; results in 319 cases of early trypanosoma gambiense infections. H. Eagle. bibliog Pub Health Rep 61:1019-34 Jl 12 '46

SLEIGHS and sledges
Laminated wood for sleigh construction. D. E. Kennedy and W. E. Wakefield. Pulp & Pa of Can 47:58-9 Ja '46

SLICK airways, inc.
Slick Airways of Texas brings oil millions to cargo work. Aviation N 5:25 Ap 8 '46

SLIDE films
Combine audio-visual selling with sales manual; Mirro's method of training retail salespeople. R. L. Pritchard. il Ptr Ink 215:46-7 Je 14 '46
Educational films; list of movies and slide films on welding. Welding J 25:770, 772 Ag '46
For safe and fast fueling; Intava slide film. il Air Transport 4:64-5 N '46
GE offers dealers package-plan to hire and train good salesmen at low cost. il Sales Management 56:42-5 My 1 '46
Graybar builds training sessions around films. Sales Management 57:100 S 1 '46
Graybar film stresses proper follow-through on orders. il Sales Management 57:82+ Ag 15 '46
Local talent plus local color; Allis-Chalmers manufacturing co. makes its own slide films. L. Walters. il Nat Safety N 52:16-18 N '45
Packaged slide-film lighting course; Westinghouse electric corp. Ptr Ink 214:78 Ja 4 '46
Projector for outdoor ads uses colored slidefilms. il Am Bsns 16:30 Ag '46
Research through Kodachrome eyes; pretesting greeting card design with slide films. R. J. Bender. Ptr Ink 215:96+ My 17 '46
Safety aspects of power equipment shown by slide films. L. S. Metcalfe. il Power Pl Eng 50:98 Ag '46
Safety films win awards. Nat Safety N 53: 56+ My '46
Sales-training film program prepares for hard-selling days. Ptr Ink 217:106+ O 11 '46
Slide projectors to show food ads on screen in western super markets. L. F. Thomann. il Ptr Ink 216:81+ Jl 26 '46
Trailer films for sales training review basic points. L. L. Lewis. il Ptr Ink 214:102+ Ja 18 '46
Training film dramatizes reasons for card room waste. Textile World 96:129 Ag '46
Using films in office training; abstract. Management R 35:411-12 O '46

SLIDE rule
Circular calculator simplifies sewer design. J. W. Feild. Civil Eng 16:400-1 Civil Eng 16:400-1 S '46
Decimal placing slide rule. il Pulp & Pa of Can 47:90 Ja '46; Same. Roads & Bridges 84:124+ Ja '46
Hazen-Williams hydraulic slide rule; instructions for its use. Water & Sewage Works 93:255-6 Je '46
Math tips; slide rule, engineers' friend. J. King. Power 90:555, 632, 708, 786 Ag-N '46
Slide rule for the addition of squares. W. E. Morrell. diags Science 103:113-14 Ja 25 '46
Special slide rule solves gage design problems. B. B. Patton. diags Iron Age 158:52-4 O 24 '46
Special slide rule solves woolen-finishing problems. H. E. Blanchard. il Textile World 96:99+ Ag '46
Surface area calculation with special slide rules C. J. Knickerbocker. il Rock Prod 48:108 O '45

SLIDING doors. See Doors, Sliding

SLINGS and hitches
Safe use of lifting slings; reference book sheet. il Am Mach 89:145, 147 N 22 '45

SLIP covers, Furniture
Sure-fit seeks wider markets for ready-made slip covers. il Sales Management 56:124+ F 15 '46

SLIPPERINESS. See Floors—Anti-slip surfaces

SLIPS (ceramics)
Engobes, slips and underslips. C. W. Parmelee. bibliog Cer Ind 47:74+ Ag; 98+ S; 82+ O; 98 N '46 (to be cont)
Fundamental study of clay; effect of particle size on properties of casting slips. S. S. Kocatopcu. bibliog Am Cer Soc J 29:99-107 Ap 1 '46

SLIPS (underwear)
$8,000,000,000 textile industry: is it ripe for brand name promotion? J. C. Cumming. Sales Management 56:110+ F 1 '46

Rating
Women's slips. il diags Consumers Res Bul 16:5-9 N '45

SLOGANS
Do you want that slogan checked? C. B. Larrabee. Ptr Ink 216:15 Ag 30 '46
Give it an "oh yeah?" rating. J. Barnetson. Ptr Ink 215:40 Je 7 '46
Multi-million-dollar slogan that's paying off four ways; "Best location in the nation," Cleveland Electric advertising. A. Williams. il Ptr Ink 216:53-6 Ag 2 '46
Old advertising slogans dusted off for Detroit's automotive jubilee. Ptr Ink 215:88 My 31 '46
P.I. slogan list grows; recent registrations. Ptr Ink 215:80+ Je 14 '46
Professional touch; satire. J. Barnetson. Ptr Ink 216:44 Ag 30 '46
Squibb's 24-year-old house ad. Ptr Ink 216:107 S 20 '46
What makes a slogan good? Ptr Ink 214:50+ F 1 '46

SLOT machines, Vending. See Vending machines

SLOTIN, Louis Alexander, 1912-1946
Sketch. H. L. Anderson and others. Science 104:182-3 Ag 23 '46; Same. R Sci Instr 17: 321 Ag '46

SLOTKIN, Samuel, 1885-
One man's meat. pors Fortune 33:96-9+ My '46

SLOTTING
Miller for slotting marine bearings. il Steel 119:102-3+ Jl 15 '46
Milling T-slots with carbide-tipped cutters. diags Mach 52:187 Ja '46
Slot-drilling jig with half-bushing guide for drill. H. Moore. diags Mach 52:195 Ap '46
Slotting marine bearings on special planer type milling machine. il Mach 52:151 Ap '46

SLUDGE, Sewage. See Sewage sludge

SLUMS
Clearing of blighted areas aim of redevelopment legislation. Eng N 136:1003 Je 27 '46
Hospital plans; Chicago slums scheduled for redevelopment under program sponsored by Michael Reese hospital. il plans Arch Forum 85:87-101, 104 S '46
Legislation needed for urban redevelopment in blighted areas. M. C. Lubar. il Civil Eng 16:245-8 Je '46
Realities of urban redevelopment; abstract. E. Wood. Eng N 136:498 Ap 4 '46
Sales tax rebuilding; council plan would raze all New York's slums in ten years. Arch Forum 84:12 Ja '46

SMALL business. See Business—Small business

SMALL loans. See Loans, Bank—Small loans; Loans, Small

SMALLER business, American institute of. See American institute of smaller business

SMALLER war plants corporation
Parting shot; final report hits big business. Bsns W p26-7 Jl 20 '46
SWPC functions are transferred. Comm & Fin Chr 163:60 Ja 3 '46

SMALLPOX
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; extent of immunzation against smallpox, diphtheria, and typhoid fever. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 61:97-109 Ja 25 '46

SMELTER fumes
Bunker Hill plant recovers metallic cadmium from fume. J. B. Huttl. il diags Eng & Min J 147:82-5 Ap '46
Lead in smelter products; a rapid polarographic method. W. Hered and G. R. Hered. bibliog diag Ind & Eng Chem Anal ed 17:780-1 D '45

SMELTING
Nickel blast-smelting still offers advantages. C. C. Downie. plan Eng & Min J 147:88-90 Ag '46
Smelting low-grade ores by the Krupp-Renn process. diags Iron Age 157:70-5 My 9 '46

See also
Blast furnaces
Furnaces, Metallurgical
Metallurgy
Ore treatment
Slag
Smelter fumes
Smelting works

SMELTING works
Bluebell mine, and Pilot Bay smelter, Kootenay lake, B.C. R. F. Pearce. il Can Min J 66:772 N '45

Equipment
Multiclone units recover converter dust successfully; McGill smelting plant, L. Larson. il diags Eng & Min J 147:71-4 Ja '46
Operations and plants of International nickel company of Canada; smelting, flow sheet il plan diags Can Min J 67:431-45 My '46

Safety measures
Safety went on full time: National smelting company. R. W. Bonifield. il Nat Safety N 53:46+ Ja '46

SMITH, A. O., corporation
Adventurer in the field of ceramics. il Am Cer Soc Bul 25:169-72 My 15 '46
Diversification strengthens A. O. Smith. Barron's 25:9 N 12 '45
Dividend policy conservative. Barron's 26:6 O 21 '46

SMITH, Adam, 1723-1790
Adam Smith has been badly misinterpreted. il por Fortune 34:140-3+ Jl '46

SMITH, Alexander and sons carpet company
Old carpet shop plans issue. Bsns W p66-7 Mr 16 '46
Preferred and common stocks offered. Comm & Fin Chr 163:1853 Ap 8 '46

SMITH, Clarence, 1875-1945
Sketch. J. T. Hewitt. por Chem Soc J p68-70 Ja '46

SMITH, David Beach, 1911-
Chairman, Philadelphia section, 1946 por Inst Radio Eng Proc 34:215 My '46

SMITH, Frank Whitney, 1867-1946
Sketch. por Edison Elec Inst Bul 14:286 Ag '46

SMITH, Harold Dewey, 1898-
Resigns as Budget director to become vice-president of world bank. por Comm & Fin Chr 163 3349 Je 20 '46

SMITH, Lee Irvin, 1891-
ACS candidates for 1947. por Chem & Eng N 24:2745 O 25 '46

SMITH, Robert H. 1888-
N. & W. names Jenks chairman; R. H. Smith now president. por Ry Age 120:1140 Je 8 '46

SMITH, Sydney S.
Presented high U.S. award for army pipe line. por Oil & Gas J 45:56 O 12 '46
Sydney Smith of Shell gets Nation's highest civilian medal for work on portable pipeline. por Nat Pet N 38:44 O 9 '46

SMITH, William A. d. 1890
He drilled the first oil well for Col. Drake. por Nat Pet N 38:34 Mr 13 '46

SMITH, William Ward, 1888-
Maritime succession. por Bsns W p27 Je 8 '46

SMITH college
Higher education is put to the test; Ecclyco, Smith college student project. Bsns W p82 Ja 12 '46

SMITH-CONNALLY act. See Strikes—Law

SMITHSONIAN institution
Permian studies at the Smithsonian institution, Washington. Science 104:15-16 Jl 5 '46
Smithsonian institution centennial issue; ed. by P. H. Oehser. Science 104:115-46 Ag 9 '46

Bibliography
Century of Smithsonian publications. W. P. True. Science 104:141-2 Ag 9 '46

International exchanges
International exchange service. H. W. Dorsey. Science 104:142-3 Ag 9 '46

Library
Library of the Smithsonian institution. L. F. Clark. Science 104:143-5 Ag 9 '46

SMOKE
Diesel engine exhaust; measurement and analysis of smoke and its causes. C. J. Goode. diags Automobile Eng 36:293-6 Jl '46
Irritating vapors produced by burning cellulosic materials. W. H. Easton. bibliog J Ind Hygiene 27:211-16 O '45
Selective plugging by smokes in air-gas drive. R. F. Nielsen and S. T. Yuster. diag Pet Eng (Ref annual) 17:134+ Jl 1 '46

See also
Combustion
Flue dust
Fuel
Fumes
Smelter fumes
Smoke prevention

SMOKE, Chemical
Chemical smokes and smoke screens. H. A. Levey. bibliog il Chem Ind 58:980-1+ Je '46

SMOKE, Colored. See Smoke screens

SMOKE boxes, Locomotive. See Locomotive smokeboxes

SMOKE detectors
Where there's smoke; combined smoke detection and carbon dioxide fire extinguishing systems for ships. M. A. Laswell. il Nat Safety N 52:26-7 D '45

SMOKE prevention
Anti-smoke studies proceed steadily. Coal Age 51:126 Mr '46
Application of overfire jets to prevent smoke in stationary plants. R. B. Engdahl. (Technical report no. VII) rev bibliog diags 24p pa 25c Bituminous coal research, inc, 912 Oliver bldg, Pittsburgh 22 '46
Atmospheric pollution and the fuel problem. W. B. Kennedy. Engineering 162:222 S 6 '46
Atmospheric pollution; results of investigation. Elec R (Lond) 137:949 D 28 '45
Boiler plant operating errors; smoke abatement in small power plants. C. F. Hardy. Heating-Piping 18:99-100 Ap '46
Clearing the air; British smoke-abatement campaign. Bsns W p106+ Ap 27 '46
Does smoke abatement pay? results in St Louis. J. H. Carter. il Heating-Piping 18: 80-4 Ap '46
Example sections for a smoke regulation ordinance; ASME model smoke law committee. Power 89:916-17 Mid-D '45; Abstract. Heating-Piping 18:76 Mr '46
No smoking; Pittsburgh puts smoke ban into effect. Arch Forum 85:24 O '46
Power engineers study smoke problem. il Power 90:665-6 O '46
Smoke abatement interest grows. Heat & Ven 42:102 N '45
Smoke control programs to be intensified. Dom Eng 166:154 D '45
Smoke elimination program that works; St Louis smoke ordinances. R. R. Tucker. il Heating-Piping 17:519-23 O-N; 605-10 D '45; 18:99-105 Ja; 102-4 F '46
Smoke prevention association meeting, Columbus, Oct. 16-18. Power Pl Eng 49:84-5 N '45
Stoker industry aids smoke abatement work. L. L. Connell. il Heating-Piping 18:96-9 Jl '46; Same. Dom Eng 168:146-7+ S '46

See also
Locomotives—Smoke problem
Smelter fumes

SMOKE screens
Chemical smokes and smoke screens. H. A. Levey. bibliog il Chem Ind 58:980-1+ Je '46

SMOKED fish. See Fish, Smoked

SMOKEHOUSES
Cross-ventilated tunnel smokehouses; abstract. E. Linton and A. L. Wood. Food Ind 18:1290+ Ag '46

SMOKELESS powder

Analysis

Determination of some aromatic amines and substituted ureas in smokeless powder; improved volumetric bromination procedure. T. D. Waugh, G. Harbottle and R. M. Noyes. Ind & Eng Chem Anal ed 18:636-7 O '46

SMOKESTACKS. See Chimneys

SMOLUCHOWSKI'S collision theory
Theory of diffusion controlled reactions with application to the quenching of fluorescence. E. W. Montroll. bibliog J Chem Phys 14: 202-11 Mr '46

SMOOTHNESS of paper. See Paper—Smoothness measurement

SMOOTHNESS testing. See Surfaces—Smoothness testing

SMUGGLING
Smuggling comes back. Bsns W p34 F 23 '46

SNAILS
Habitat of the snail host of schistosoma japonicum in the Philippines. J. L. Avery. Science 104:5 Jl 5 '46

SNAKE venom. See Venom

SNAKES
Pectoral girdles vs. hyobranchia in the snake genera liotyphlops and anomalepis. R. Warner. diag Science 103:720-2 Je 21 '46

See also
Venom

SNIA viscosa
Report of Snia Viscosa. Chem Age (Lond) 54:731 Je 29 '46

SNOW
Studies of static electricity in snowflakes. il Gen Elec R 49:52 Jl '46
Weatherman uses training in gliders on forecasts; theory that air patterns over Lake Erie can be used to predict extent of snowstorm. Aviation N 4:8 D 31 '45

See also
Airports—Snow protection and removal

SNOW cruisers
Snow buggy for line repairs on continental divide. G. C. Farnsworth. il Elec World 125:48-9 Mr 30 '46

SNOW fences
Good practices in drift prevention and ice control. il Pub Works 77:29 O '46
Novel driver and puller for snow fence posts. il diag Roads & Sts 89:84 S '46

SNOW melters
Barber-Greene snow melter. il Ry Age 120: 571-2 Mr 16 '46

SNOW plows
Airport snow removal. il Aero Digest 53:64 Jl '46

SNOW protection
Snow traps cut our plowing costs; Antrim county, Michigan. H. R. Smith. il diag Roads & Sts 89:87-9 Mr '46

SNOW removal
Cincinnati's cliff dwellers get stepped-up winter protection. C. E. Brokaw. il Pub Works 77:30+ Ag '46
Driveway cleared of snow by underground pipe coils. Gas Age 97:62 Ja 24 '46; Abstract. il Am Gas Assn Mo 28:60 F '46
Good practices in snow removal, drift prevention and ice control. il Pub Works 77:31-3+ Ag '46
How design snow melting coils? il Heating-Piping 18:101-2 S '46
Montreal's snow-removal method. H. A. Gibeau. il Roads & Bridges 84:90-1+ Ap '46
Oakland county, Michigan, plowing and deicing methods. L. V. Belknap. il Roads & Sts 88:95+ N '45
Radiant heat keeps loading area free of snow; circulation of hot anti-freeze liquid. J. Montagnes. il Factory Management 104:106-7 Ag '46
Removing more snow with fewer plows; use of two-way radio. il diag Pub Works 77:29+ Ag '46
Snow and ice control in the District of Columbia. W. A. Xanten. il Roads & Sts 89: 104-6 Jl '46
Snow, beautiful snow! St Louis public service co. snow-fighting equipment. il Bus Transportation 25:49 Mr '46
Snow-loading machine by Pneu-Hydro. il Roads & Bridges 84:94+ O '46
Snow melting systems for driveways; Chevrolet-Gear and axle plant. D. D. Douglass. diag Heat & Ven 43:73 Je '46
Snow removal on N.Y.C.'s elevated roadways and bridges. Roads & Sts 89:87 My '46
Two-way radio saves money on snow removal; abstracts. W. B. Chilson. Pub Works 77:31 Mr '46; Eng N 136:855 My 30 '46
Use of rock salt for removing ice and snow from streets. il Pub Works 77:19-20 Ja '46

See also
Airports—Snow protection and removal
Railroads—Snow protection and removal
Walks, Concrete—Heating

Cost

Winter costs up 100% in Vermont since 1936. Roads & Sts 89:86 My '46

SNOW surveys
Snow surveys forecast irrigation water supply. R. A. Work. il Civil Eng 16:342-3 Ag '46; Discussion. F. Paget. 16:463 O '46
This year's water; snow tells the story. il map Elec West 96:60-2 My '46

SNYDER, Carl, 1869-1946
Appreciation. W. R. Burgess. Am Stat Assn J 41:244-6 Je '46

SNYDER, John Wesley, 1896-
New Treasury head. por Comm & Fin Chr 163:3484+ Je 27 '46
Snyder to head Treasury. Comm & Fin Chr 163:3265 Je 13 '46

SOAKING pits. See Furnaces, Heating

SOAP
American oil chemists society 19th meeting, Chicago, Nov. 7-9. Soap & San Chem 21:79 D '45
Army's soap problems; abstract. J. E. Simpson. Soap & San Chem 22:79 Ag '46
Autoxidation of soap; abstract. E. J. Better and A. Davidsohn. Soap & San Chem 12:85 My '46
Cooling soap in a liquid; patent. J. Ross. Soap & San Chem 22:71 Ja '46
Cracking of soaps. D. Sivern and others. Soap & San Chem 22:89 Je '46
Crystalline phases of soap; abstract. M. J. Buerger and others. Soap & San Chem 22:67 F '46
DDT in animal soap; abstract. G. A. Campbell and others. Soap & San Chem 22:159 Ap '46
Determination of critical concentrations for the formation of soap micelles by the spectral behavior of pinacyanol chloride. M. L. Corrin and others. bibliog J Chem Phys 14: 480-6 Ag '46
Determination of critical concentrations for micelle formation in solutions of cationic soaps by changes in the color and fluorescence of dyes. M. L. Corrin and W. D. Harkins. J Chem Phys 14:641 O '46
Diffraction of X-rays by sodium oleate and hexanolamine oleate. S. Ross and J. W. McBain. bibliog Am Chem Soc J 68:547-50 Ap '46
Discussion of the commoner industrial dermatoses. S. M. Peck. bibliog Ind Med 14:961-3 D '45
Dry cleaning soaps. A. Fabry. Soap & San Chem 22:48-9 Jl '46; Abstract. Oil Paint & Drug Rep 149:45 Je 24 '46
Effect of soaps on mutual solubility of organic liquids. S. R. Palit and J. W. McBain. bibliog diags Ind & Eng Chem 38:741-4 Jl '46
Effect of solvents on the critical concentration for micelle formation of cationic soaps. M. L. Corrin and W. D. Harkins. J Chem Phys 14:640 O '46
Fatty acid soaps in emulsion polymerization. L. W. Rainard. India Rubber World 114:67-9 Ap '46
GR-S emulsified with rosin soap. G. R. Cuthbertson, W. S. Coe and J. L. Brady. Ind & Eng Chem 38:975-6 S '46
Hand soap from oils. L. Auer. Soap & San Chem 22:67 Ja '46
Hexanolamine caprylate and diisopropylamine caprylate as colloidal electrolytes. E. Gonick. Am Chem Soc J 68:177-81 F '46
Interfacial tensions; abstract. A. Carroll. Soap & San Chem 22:77 Ag '46
Isotropic and anisotropic liquid phases in the system hexanolamine oleate-water. E. Gonick and J. W. McBain. Am Chem Soc J 68:683-5 Ap '46
Loci of emulsion polymerization; diffusion of organic molecules from emulsion droplets through an aqueous phase into polymer latex particles. W. D. Harkins and R. S. Stearns. J Chem Phys 14:215-16 Mr '46
Loci of emulsion polymerization; the diffusion of organic molecules from emulsion droplets through an aqueous phase into soap micelles. R. S. Stearns and W. D. Harkins. J Chem Phys 14:214-15 Mr '46
Nature of surface activity; abstract. A. Carroll. Soap & San Chem 22:67 F '46
Oil chemists soap and glycerol program. Chem & Eng N 23:2198-9 D 10 '45
Phase alteration in soap; abstract. F. Lachampt. Soap & San Chem 22:79 Ag '46
Polymorphism and transitions of anhydrous and hydrous sodium stearate. R. D. Vold. il J Phys Chem 49:315-28 Jl '45; Abstract. Soap & San Chem 22:73 Ja '46
Refractive indices of soaps and detergents. H. B. Klevens. bibliog J Chem Phys 14:567-8 S '46
Soap-containing synthetic detergent. L. McDonald. bibliog il Soap & San Chem 21: 41-3+ D '45
Soap in newer synthetic processes; patents. Rubber Age 58:465 Ja '46
Soap versus synthetics; abstract. P. H. Wigner. Soap & San Chem 22:75 Ap '46
Soaps at toiletries show of Chicago associated toiletries salesmen. Soap & San Chem 22:59+ S '46
Soaps in organic solvents. S. R. Palit. Soap & San Chem 22:67 S '46
Solubilization of insoluble organic liquids by detergents. J. W. McBain and P. H. Richards. bibliog Ind & Eng Chem 38:642-6 Je '46
Solubilization of water-insoluble dye in soap solutions; effects of added salts. J. W. McBain and A. A. Green. bibliog Am Chem Soc J 68:1731-6 S '46
Structure of soap micelles as indicated by X-rays and interpreted by the theory of molecular orientation; solubilization of hydrocarbons and other oils in aqueous soap solutions. W. D. Harkins and others. J Chem Phys 13:534-5 N '45
Structure of soap micelles indicated by X-rays and the theory of molecular orientation; aqueous solutions. W. D. Harkins, R. W. Mattoon and M. L. Corrin. bibliog 2pl Am Chem Soc J 68:220-8 F '46
Synthetic detergents vs. soap. J. W. McCutcheon. diags Soap & San Chem 22:37-9+ S '46
Water-softener mixture; Laundry gems found unsuitable for wool or rayon. Consumers Res Bul 18:11 S '46
Water softeners. M. Lesser. bibliog Soap & San Chem 21:32-4+ N '45

See also
Cleaning compositions
Potassium laurate
Saponification
Shampoos
Stains—Removal

Analysis
Analysis of soap; abstract. A. Parisot. Soap & San Chem 22:89 Je '46

Testing
Soap consumption in hard water; Sommer laboratories lather tests. maps Soap & San Chem 22:48-9+ O '46

SOAP, Floating
Floating soap; abstract. C. W. Kelley. Soap & San Chem 21:47 D '45

SOAP, Liquid
Liquid soap extension. Chem Ind 59:682 O '46
Napalm reconverts from incendiaries to soap. G. E. McCadden. il Chem Eng 53:115 S '46
New formula cuts soap use. Soap & San Chem 22:71 S '46
Problems in packaging liquid soaps. H. E. Peterson. Soap & San Chem 22:45-6+ Ap '46

Manufacture
Phosphates in liquid soap. D. Bachrach. Soap & San Chem 22:49+ Ag '46

Standards
Liquid soap standard; abstract. Soap & San Chem 21:67+ D '45

Transportation
Lined drums for shipping soaps. L. H. Ott. Soap & San Chem 22.71+ My '46

SOAP, Metallic
Action of lube oil detergents on automotive engines. F. M. Watkins. il Pet Refiner 25: 89-93 patent list (p93) Ja '46
Chemical reaction in metal protective paints. E. J. Dunn, jr. il Paint Oil & Chem R 109:5-8 Jl 25 '46
Napalm. L. F. Fieser and others. il diag Ind & Eng Chem 38:768-73 Ag '46
Reaction of lead soaps with sodium iodide. R. S. Barnett. bibliog Ind & Eng Chem Anal ed 18:333 My '46

SOAP, Powdered
Spray process for soaps; washing powders and granulated soap. A. P. Lee. diags Soap & San Chem 22:29-31+ Ja '46

SOAP, Textile
Soaping is key step in preparing cloth for printing. T. N. Patrick. il Textile World 96:151+ Mr '46

SOAP, Textile—*Continued*

Analysis

Determination of small amounts of soaps or fatty acids on cotton materials. C. L. Hoffpauir and J. H. Kettering. bibliog Am Dyestuff Rep 35:265-6 My 20 '46

SOAP bubbles and films

Bubble solutions. R. A. Stetson. bibliog il Soap & San Chem 22:36-7+ Ja '46

Supertough soap bubbles. Soap & San Chem 22:67 Ja '46

SOAP dispensers

Soap dispenser for dish-washing. Electronics 19:182+ O '46

SOAP factories

Layout

Soap plant layout. E. G. Thomssen. il Soap & San Chem 21:29-31+ N '45

SOAP industry and trade

Battle royal forming as soap slugs it out with new soapless detergents. E. M. Housman. Ptr Ink 215:30-2+ Je 28 '46

Charges unfair treatment of small soapers by WFA. Soap & San Chem 21.44 D '45

Charles Luckman assumes presidency of British-owned Lux, Rinso, Lifebuoy, and Pepsodent. il Fortune 34:120-4+ Jl '46

Is soap slipping? H. C. E. Johnson. il diag Sci Am 175:57-9 Ag '46

Jobber; an important, though much maligned, figure in the distribution picture on potash soaps. M. Fuld. Soap & San Chem 22:161+ Je '46

Management's responsibility toward stabilized employment. R. R. Deupree. Manuf Rec 115:50-1+ Mr '46; Abstract. Soap & San Chem 21:45 N '45

Potash soap decontrol. Soap & San Chem 22:45 O '46

Potash soaps vs synthetic detergents. H. H. Kranich. Soap & San Chem 22:43-5+ My '46

P & G guaranteed work plan. R. R. Deupree. Soap & San Chem 21:45 N '45

Procter and Gamble vs. Colgate-Palmolive E. A. Barnes. Mag of Wall St 79:92-3+ O 26 '46

Quota relief for soap makers; House committee on small business hearing, April 15. Soap & San Chem 22.41-2+ My '46

Request soap quota changes at Washington hearing, April 2-5. Soap & San Chem 22: 50-1+ Ap '46

Seller's market. Bsns W p42+ Ap 27 '46

Soap industry meets. Soap & San Chem 22: 33-5+ F '46

Soap looks to a cleaner future. M. D. Hall. il Dom Comm 34:23-4 Mr '46

Soap shortage; what's the housewife buying to take the place of soap? il Soap & San Chem 22:45-7 Jl '46

Survey of a typical soap market. Soap & San Chem 22:42-4 Jl '46

USDA moves to investigate sales of soap to soap converters. Soap & San Chem 22:41-2 O '46

WFO 42b being revised. Soap & San Chem 22:55 S '46

WFO 42b; small soap makers at Chicago meeting debate merits of revision or repeal. Soap & San Chem 22:50-1 O '46

Advertising

Soap gets in their eyes; certain campaigns in the light of Bj Kidd's analysis of male-female impasse of minds. M. Mayfield. il Adv & Sell 39:58+ Ap '46

Brazil

Soap chemist in U.S. from Brazil. Soap & San Chem 21:47 N '45

Soap making in Brazil. il Soap & San Chem 22:45-7 O '46

Guam

Soap making in the Pacific; small soaper, his plant, and U.S. navy military government. F. Wessock. il Soap & San Chem 22:38-40 Mr '46

Haiti

Haiti's imports of soap, 1942-1945. For Comm W 23:42 Je 8 '46

SOAP manufacture

Bleaching in the soap plant; abstract. K. W. Richmond. Soap & San Chem 21:59+ N '45

Chlorine dioxide for fat bleaching. E. R. Woodward and G. P. Vincent. il plan diags Soap & San Chem 22:40-3+ S '46

Countercurrent soap washing; abstract. W. J. Govan, jr. Soap & San Chem 22.75+ Ag '46

Production clinic. E G. Thomssen. Soap & San Chem 22.79+ Ap '46

Review of continuous methods of fat splitting. J. L. Boyle. Soap & San Chem 22:59 Ja '46

Soap making in Brazil. il Soap & San Chem 22:46-7 O '46

Soap making in the Pacific; small soaper, his plant, and U.S. navy military government on Guam. F. Wessock. il Soap & San Chem 22:38-40 Mr '46

Success story of Michigan marketer offers tip to returning servicemen; Cadillac oil co. also makes and sells soap. H. Taylor. il Nat Pet N 37:40-1+ N 14 '45

Synthetic soap and edible fats; the Fischer-Tropsch process; a reminder. Chem Age (Lond) 54:308 Mr 23 '46

Toilet soap production. J. W McCutcheon. plan Soap & San Chem 22:41-4 Ap '46

See also

Soap, Liquid—Manufacture

Soap factories

Perfuming

Soap perfumes. M. Loir. Soap & San Chem 22:83 Je '46

Soap perfuming; abstract. J. Bather. Soap & San Chem 21:67 D '45

SOAP materials

Crude fats used in high-grade soaps. Chem & Eng N 24:1948 Jl 25 '46

Fats, oils quotas system seen remaining. G. Payton. Oil Paint & Drug Rep 149:5 Ap 8 '46

Fatty acids in potash soaps. D. V. Stingley. Soap & San Chem 22:67+ Mr '46

Garbage grease for soap. Soap & San Chem 22:77 O '46

Lecithin in soap. M. A. Lesser. bibliog Soap & San Chem 22:37-40+ My '46

Modified rosins; their possibilities in soap manufacture. J. N. Borglin. bibliog Soap & San Chem 22:43-6 Je '46

Oil and fat outlook. C. E. Lund. Soap & San Chem 22:43-4+ O '46

Phosphates in liquid soap. D. Bachrach. Soap & San Chem 22:49+ Ag '46

Potash soap chemurgy; abstract. D. J. Bachrach. Soap & San Chem 22:79 O '46

Rosin acids in soapmaking; abstract. Soap & San Chem 22·75+ Ap '46

Rosin in soap; abstract. B. S. Van Zile and J. N. Borglin. Soap & San Chem 22:67 F '46

Soap additives; abstract. J. Davidsohn and A. Davidsohn. Soap & San Chem 21:46 D '45

Soap fat and oil quotas. Soap & San Chem 22 36-9+ F '46

Soap fat use drops further. Soap & San Chem 22:51 F '46

Soapers 2nd quarter fat use drops. Soap & San Chem 21:43 N '45

SOAP opera. See Radio broadcasting—Serials

SOAPSTONE

Talc and soapstone industry in Canada. Can Chem & Process Ind 30:58 Mr '46

SOCIAL credit. See Credit, Social

SOCIAL ethics

Fortune management poll; whose is social responsibility? Fortune 33:197-8 Mr '46

Social composition of scientific power. I. Bowman. Chem & Eng N 24:1338-42 My 25 '46; Excerpts. Metal Prog 49:1210 Je '46

SOCIAL insurance. See Insurance, Social

SOCIAL laws and legislation

Welfare provisions for miners in six foreign countries. Mo Labor R 62:862-7 Je '46

See also

Family allowances
Insurance, Social
Insurance, Unemployment
Labor laws and legislation
Minimum wage
Old age pensions
Public health laws
Workmen's compensation

SOCIAL laws and legislation—*Continued*

New Zealand

Social legislation in New Zealand, late 1945. J. J. Jones, 3d. Mo Labor R 62:927-9 Je '46

SOCIAL problems

Material progress lacks spiritual development. E. Schram. Comm & Fin Chr 163:3356+ Je 20 '46

Return to religion; objectivity, single-mindedness, and moral conduct most effective means for meeting problems of society. K. T. Compton. il Tech R 48:349-52 Ap '46

See also

Child welfare
Housing
Medical service
Public health
Race problems
Safety movement
Unemployment

SOCIAL psychology

Fruitful errors of Elton Mayo, who proposes to management and labor a social basis for industrial peace. il Fortune 34:180-3+ N '46

Governing of men, by A. H. Leighton; review by D. Cartwright. Mech Eng 68:643-4 Jl '46

Psychodynamic factors in racial relations. H. V. McLean. Ann Am Acad 244:159-66 Mr '46

Research on minority problems. K. Lewin. Tech R 48:163-4+ Ja '46

SOCIAL research

Economic and social research. Economist 151: 126-7 Jl 27 '46

Problem of evaluation. G. Watson. Ann Am Acad 244:177-82 Mr '46

Research in social sciences. H. Working. diags Science 104:193-7 Ag 30 '46

Research on minority problems. K. Lewin. Tech R 48:163-4+ Ja '46

SOCIAL sciences

Physical thinking and social problems. G. Bateson. Science 103:717-18 Je 21 '46; Discussion. G. E. Hutchinson. 104:166-7 Ag 16 '46

Research in social sciences. H. Working. diags Science 104:193-7 Ag 30 '46

Work for section K, American association for the advancement of science. B. L. Melvin. Science 103:105-6 Ja 25 '46

See also

Economics
Sociology, Christian

SOCIAL security, Inter-American conference on. See Inter-American conference on social security

SOCIAL security board

Library

Social security board library. E. Commons. Special Lib 37:111-15 Ap '46

SOCIAL surveys

Sample surveys. Economist 150:445-6 Mr 23 '46

SOCIAL welfare

Australian social service. P. J. Clarey. Personnel J 24:221-7 D '45

SOCIAL work

Outcasts; problem families. Economist 151: 324-6 Ag 31 '46

Bibliography

Organized labor's participation in social work. M. M. Otto, comp. Russell Sage Foundation Library Bul 163:1-8 O '45 (pa 10c)

Directories

American foundations for social welfare. S. M. Harrison and F. E. Andrews. 249p bibliog(p221-34) $2 Russell Sage Foundation, 130 E 22d St, New York 10 '46

Directory of agencies in race relations, national, state and local. 124p pa Julius Rosenwald fund, 4901 Ellis av, Chicago 15 '45

Guide to public affairs organizations; with notes on public affairs informational materials. C. R. Read and S. Marble. 129p pa Am. Council on Public Affairs, 2153 Florida av, Washington 8, D.C.

See also

Legal aid societies—Directories

SOCIAL work libraries

School of social work library. P. G. Pratt. Special Lib 37:115-17 Ap '46

SOCIALISM

American strike scene. C. S. Slocombe. Personnel J 24:203-6 D '45

English socialism. C. S. Slocombe. Personnel J 24:207-20 D '45

See also

Collectivism
Industry and state
Marx, Karl

SOCIALIST party (Belgium)

Socialist party. V. Larock. Ann Am Acad 247:12-16 S '46

SOCIÉTÉ de chimie industrielle

French society of chemical industry; thirty years of progress. Chem Age (Lond) 54: 555-6 My 18 '46

Trente ans d'efforts. R. Bienaimé. Chimie & Ind 55:136-40 F '46

SOCIÉTÉ financière de transports et d'entreprises industrielles (Sofina), Brussels

Activities during the war period; report at shareholders' meeting. Economist 151:431 S 14 '46

SOCIETIES

See also

Benefit societies
Chemical societies
Engineering societies
Physical societies
Scientific societies
Trade associations
Trade unions

SOCIETY buildings

New York building of the Institute of the aeronautical sciences, inc. il Aeronautical Eng R 5:19-27 My '46

Our new home; building purchased by Institute of radio engineers. R. A. Heising. il Inst Radio Eng Proc 34 [Waves & Electrons 1]:78W-9W F '46

Report of the Physics headquarters building fund committee. R Sci Instr 16:346-76 D '45

See also

Trade union buildings

SOCIETY for applied spectroscopy

Spectroscopists discuss nomenclature; meeting, New York, May 11. Chem & Eng N 24:1416 My 25 '46

SOCIETY for establishing useful manufactures

Alexander Hamilton's company sold to city of Paterson. E. R. Abrams. Pub Util 37: 158-69 Ja 31 '46

Mr Hamilton laid an egg. Fortune 33:224+ F '46

SOCIETY for research in child development

General meeting, St Louis, March 29. Science 103:517 Ap 26 '46

SOCIETY for research on meteorites

Meeting, 9th, Arizona state college, Sept. 9-10. Science 104:351 O 11 '46

SOCIETY for the promotion of engineering education. See American society for engineering education

SOCIETY for the study of evolution

Formally organized in St Louis, March 30. 1946. Science 103:517 Ap 26 '46

SOCIETY of American bacteriologists

General meeting, 46th, Detroit, May 21-24. Science 103:597 My 10 '46

SOCIETY of automotive engineers

Abstracts of papers presented at the S.A.E. summer meeting. Automotive & Aviation Ind 94:17-19, 34-9+ Je 15; 95:34-7+ Jl 1 '46

Annual meeting, Detroit, Jan. 7-11. S A E J 54:sup18-26+ F '46; Automotive & Aviation Ind 94:29, 58 Ja 15; 34-9+ F 1 '46; Steel 118:56, 80-1, 92, 154 Ja 14 '46; Bsns W p64+ Ja 12 '46; Iron Age 157:78+ Ja 10 '46; Nat Pet N 38:14+ Ja 9 '46; Oil & Gas J 44:72 Ja 12 '46

Check list of S A E meetings papers. S A E J 53:sup25-6 O; sup39-40 N; sup33-4 D '45; 54:sup41-2 Ja; sup37-9 F; sup31-2 Mr; sup29-31 Ap; sup39-41 Jl; sup31-3 S '46

Councilors, vice-presidents. pors S A E J 54:sup24-7 Ja '46

National aeronautic meeting, Los Angeles. Automotive & Aviation Ind 95:17+ O 15 '46

National aeronautic meeting, New York, April 3-5. S A E J 54:sup17-19+ My '46

SOCIETY of automotive engineers—*Continued*
National air transport engineering meeting, Chicago, Dec. 3-5. S A E J 54:sup33 Ja '46
National air transport engineering meeting, Chicago, Dec. 3-5; abstracts of papers. Automotive & Aviation Ind 94:32-4+ Ja 1 '46
National annual tractor meeting, Milwaukee, Sept. 12. S A E J 54:27-9+ O '46
National fuels and lubricants meeting, Tulsa, Nov. 6-7. S A E J 53:sup24-5+ D '45; Nat Pet N 37:34+ N 7; 48 N 14 '45
National west coast transportation and maintenance meeting, Seattle, Aug. 22-24. S A E J 54:48-50 O '46
New board supervises work of SAE technical committee. Ind Stand 17:59 Mr '46
President's report for 1945. J. M. Crawford. S A E J 54:sup17-22+ Ja '46
Summer meeting, French Lick Springs, June 2-7. S A E J 54:sup17-26+ Jl '46

SOCIETY of chemical industry
Anglo-American meeting, New York, April 4. Chem & Eng N 24:1061 Ap 25 '46
Annual general meeting and luncheon of the Chemical engineering group, London, May 22. Chem & Ind p213-15 Je 1 '46; Chem Age (Lond) 55:71-5 Jl 20 '46
Sixty-fifth annual meeting. Chem & Ind p275-9 Jl 20 '46

SOCIETY of cosmetic chemists
Meeting, New York, May 15. Oil Paint & Drug Rep 149:7 My 20 '46

SOCIETY of dyers and colourists
Annual meeting and dinner, London, March 29. Soc Dyers & Col J 62:161-8 Je '46

SOCIETY of economic geologists
Annual meeting, 26th, Pittsburgh; program and abstracts of papers. Econ Geol 40:579-611 D '45

SOCIETY of economic paleontologists and mineralogists
Three exploratory societies hold first joint postwar meeting in Chicago. Oil & Gas J 44:83-4, 93-4+ Ap 6 '46

SOCIETY of exploration geophysicists
Three exploratory societies hold first joint postwar meeting in Chicago. Oil & Gas J 44:83-4, 97-8+ Ap 6 '46

SOCIETY of motion picture engineers
Journal of the Society of motion picture engineers citation on the work of Charles J. Kunz, Herbert E. Goldberg, and Charles E. Ives; Journal award for 1945. G. E. Matthews. Soc Motion Picture Eng J 46:1-3 Ja '46
Officers and governors of the Society; list of committee members; constitution and by-laws, treasurer's report. Soc Motion Picture Eng J 46:312-36 Ap '46
Past and future activities. D. E. Hyndman and J. A. Maurer. Soc Motion Picture Eng J 47:212-24 S '46
Spring technical conference, New York, May 6-10; abstracts of papers. Electronics 19:188+ Jl '46

SOCIETY of naval architects and marine engineers
Annual meeting, New York, Nov. 14-17. Marine Eng 50:165-76+ D '45; 51:145-7+ Ja '46

SOCIETY of plastics engineers
Annual convention and exhibit, 2d, Detroit, Jan. 7-9. Mod Plastics 23:135-7 F '46
Annual meeting, Detroit, Jan. 7-9. Chem & Eng N 24:178-9+ Ja 25 '46

SOCIETY of the plastics industry
Annual conference, New York. Oil Paint & Drug Rep 149:7+ Ap 29 '46
Program of the 1946 annual conference. plans Mod Plastics 23:132a-132f, insert Ap '46
S.P.I. conference; products exhibited, Chicago, Feb. 1-2; Chem & Eng N 24:476-7 F 25 '46
S.P.I. conference and plastics exhibit, New York, April 22-27. Mod Plastics 23:109-16 My '46; India Rubber World 114:235-7 My '46
S.P.I. third California conference, Hollywood, March 26-27. Mod Plastics 23:102-3 My '46

Canadian section
Annual conference, 4th, Niagara Falls, Feb. 6-7. Can Chem & Process Ind 30:65-7 F '46; Chem & Eng N 24:627-8 Mr 10 '46

SOCIOLOGY, Christian
Human rights in Roman law countries. C. de Visscher. Ann Am Acad 243:53-9 Ja '46
Not peace but a sword; crisis of modern man is spiritual. Fortune 33:97-9 Ja '46

SOCIOLOGY, Urban. See Cities and towns

SOCONY-VACUUM oil company
Debentures offered. Comm & Fin Chr 163:3184-5 Je 10 '46

SODA
See also
Sodium carbonates
Sodium hydroxide

SODA ash
Desulphurizing cupola iron with soda ash. C. G. Hummon. Blast F & Steel Pl 33:1381-4 N '45
Soda ash, caustic soda and chlorine; basic materials for many industries. Chem & Met Eng 53:100-1 Ja '46
Soda ash short. Bsns W p32+ O 12 '46
Soda ash under PR no. 28 CC rating. Oil Paint & Drug Rep 150:5+ S 23 '46

Manufacture
Heavy chemical industry in 1945; ammonia-soda process. P. Parrish. diag Chem Age (Lond) 54:33-5 Ja 12 '46

SODA fountains
Wizard sales tool takes the pain out of big-money purchases; Liquid Carbonic invented isometric drawings for selling soda fountain equipment. R. Crane. il Sales Management 56:37-9 Ap 1 '46

SODAR
Reflection of sound signals in the troposphere. G. W. Gilman and others. bibliog il diags Acoustical Soc Am J 18:274-83 O '46

SODIUM
Bose-Einstein condensation of trapped electron pairs; phase separation and superconductivity of metal-ammonia solutions. R. A. Ogg, jr. bibliog Phys R 69:243-4 Mr 1 '46; Discussion. H. A. Boorse and others. diag 70:92 Jl 1 '46; Reply. 70:93 Jl 1 '46
Condensations by sodium; the metalation of olefins and the preparation of β,γ-unsaturated acids. A. A. Morton and others. bibliog Am Chem Soc J 67:2224-8 D '45
Conductivity of metal-amine solutions. S. I. Weissman. Phys R 70:571-2 O 1 '46
Conductivity of sodium-ammonia solutions. J. G. Daunt and others. Phys R 70:219 Ag 1 '46
Electronic processes in liquid dielectric media; the properties of metal-ammonia solutions. R. A. Ogg, jr. Am Chem Soc J 68:155 Ja '46
Gilbert awarded Schoellkopf medal. Chem & Eng N 24:1668-70 Je 25 '46
Influence of the modifier on the nature of aluminum alloys; effect of sodium on viscosity. G. Akimow. Metal Prog 49:973-4 My '46
Metallic sodium produced by I. G. Farben at Gersthofen; abstract. R. M. Hunter. Chem & Met Eng 53:204 Mr '46
Persistent currents in frozen metal-ammonia solutions. J. W. Hodgins. bibliog diag Phys R 70:568 O 1 '46
Photoelectric effect in metal-ammonia solutions. R. A. Ogg, jr. bibliog J Chem Phys 14:295 Ap '46
Photoelectric properties of metals in a finely divided state. L. J. Reimert. bibliog Opt Soc Am J 36:278-83 My '46
Reduction by dissolving metals. A. J. Birch. Chem Soc J p430-6, 809-13, 593-7 S '44, N '45, Jl '46
Thermal stability of sodium penicillin. E. B. Hodge and others. Chem & Eng N 24:2177 Ag 25 '46

Analysis
Nephelometric determination of small amounts of sodium. F. K. Lindsay, D. G. Braithwaite and J. S. D'Amico. Ind & Eng Chem Anal ed 18:101-2 F '46
Recent developments in analytical chemistry; detection of sodium. Chem Age (Lond) 53:509-11 D 1 '45

Isotopes
Disintegration of Na^{24} and P^{32}. K. Siegbahn. bibliog diags Phys R 70:127-32 Ag 1 '46

SODIUM—Isotopes—*Continued*
Experimental test of beta-ray theory for the positron emitters Na^{22}, V^{48}, Mn^{52}, Co^{58}. W. M. Good and others. bibliog diag Phys R 69:313-20 Ap 1 '46

Level scheme of Mg^{24} and the mass of Na^{24}. R. G. Sachs. bibliog Phys R 70:572 O 1 '46

SODIUM acetate
Measurement and calculation of hydrogen ion concentrations in saline acetate and phosphate buffers. D. I. Hitchcock and R. Peters. bibliog Am Chem Soc J 68:1753-5 S '46

Relation between size of the divalent cation and solubility of triple acetate salt of sodium. L. B. Rogers. bibliog Science 103: 420-1 Ap 5 '46

System sodium acetate-sodium hydroxide-water. R. A. Morgen and R. D. Walker, jr. il diag Ind & Eng Chem 37:1186-8 D '45

SODIUM alloys
See also
Sodium amalgam
Sodium potassium alloys

SODIUM aluminate
Binding agents for flux coatings, their composition and production. W. Andrews. Welding J 24:1149-52 D '45

SODIUM amalgam
Flavanones and related compounds; the colored reduction products of polyhydroxyflavanones. T. A. Geissman and R. O. Clinton. bibliog Am Chem Soc J 68:700-6 Ap '46

Flavanones and related compounds; the reduction of luteolin and apigenin trimethyl ether with sodium amalgam. T. A. Geissman and R. O. Clinton. Am Chem Soc J 68:706-8 Ap '46

Observations on the rare earths; extraction of ytterbium from rare earth mixtures with sodium amalgam. T. Moeller and H. E. Kremers. bibliog Ind & Eng Chem Anal ed 17:798-800 D '45

Reaction vessel for maintaining constant pH by continuous electrometric titration during sodium amalgam reductions. N. Sperber and D. R. Briggs. diag Ind & Eng Chem Anal ed 18:74-5 Ja '46

SODIUM amide
Acylation and carbethoxylation of nitriles in the presence of sodium amide. R. Levine and C. R. Hauser. bibliog Am Chem Soc J 68:760-1 My '46

Carbethoxylation of ethyl phenylacetate and ethyl *α*-phenyl-*n*-butyrate using sodium amide. H. G. Walker, jr. and others. bibliog Am Chem Soc J 68:672-3 Ap '46

Proportion of ester anion and amide from esters and sodium amide; carbonation of esters; synthesis of malonic acid derivatives. C. R. Hauser, R. Levine and R. F. Kibler. bibliog Am Chem Soc J 68:26-9 Ja '46

SODIUM benzene sulfinate
Analysis
Volumetric quantitative determination of SOONa group in sodium benzene sulfinate. L. Ackerman. Ind & Eng Chem Anal ed 18:243 Ap '46

SODIUM benzoate
Benzyl benzoate from benzyl chloride and sodium benzoate. W. H. C. Rueggeberg, A. Ginsberg and R. K. Frantz. bibliog Ind & Eng Chem 38:207-11 F '46

Some analogs of benzyl benzoate. W. H. C. Rueggeberg, A. Ginsburg and R. K. Frantz. Am Chem Soc J 67:2154-5 D '45

SODIUM borate
See also
Borax

SODIUM bromate
Elastic, piezoelectric, and dielectric properties of sodium chlorate and sodium bromate. W. P. Mason. il diags Phys R 70:529-37 O 1 '46

SODIUM carbonates
Alkaline solutions; tabulated information. W. L. Nelson. Oil & Gas J 44:123 Mr 16 '46

Chemical control gives improved wool scouring; bicarbonate concentration a critical factor. A. L. Dubeau and G. P. Vincent. Am Dyestuff Rep 35:469-71 O 7 '46

Degradation of cellulose by certain metallic salts. F. L. Allen and E. A. Rudge. Soc Chem Ind J 64:332-4 D '45

Recovery of soda in the lime-soda sinter process for the production of alumina. J. M. Hall and S. J. Green. flow sheet il diags Am Inst Chem Eng Trans 41:483-517 O '45

Salt bath for heat treating 18-8; aircraft exhaust manifold; Ryan aeronautical co. K. Whitcomb. il Metal Prog 50:294-8 Ag '46; Same cond. Automotive & Aviation Ind 95: 36-9+ Jl 15 '46

Some effects of salts on true cholinesterase. B. Mendel and H. Rudney. bibliog Science 102:616-17 D 14 '45

System sodium carbonate—sodium sulfate—sodium hydroxide—water at 100°. S. J. Green and F. J. Frattali. bibliog Am Chem Soc J 68:1789-94 S '46

See also
Soda ash

Manufacture
Heavy chemical industry in 1945; ammonia-soda process. P. Parrish. diag Chem Age (Lond) 54:33-5 Ja 12 '46

Statistics
Sodium sulfate-carbonate tonnage up. Chem Ind 59:157 Jl '46

SODIUM carboxymethyl cellulose
Lithographic foundation tests uncover numerous advantages of cellulose gum. Inland Ptr 117:65-6 Ag '46

SODIUM chlorate
Elastic, piezoelectric, and dielectric properties of sodium chlorate and sodium bromate. W. P. Mason. il diags Phys R 70:529-37 O 1 '46

SODIUM chloride. See Salt

SODIUM chlorite
Chlorine dioxide for fat bleaching. E. R. Woodward and G. P. Vincent. il plan diags Soap & San Chem 22:40-3+ S '46

Chlorite holocellulose, its fractionation and bearing on summative wood analysis and on studies on the hemicelluloses. L. E. Wise and others. bibliog Paper Tr J 122: 35-43 Ja 10 '46

Sodium chlorite in pulp bleaching. G. P. Vincent and others. Paper Tr J 121:25-6 N 15 '45

Sodium chlorite is successfully used for bleaching tallow. J. B. Tuttle and E. R. Woodward. bibliog il Chem & Met Eng 53: 114-15 My '46

SODIUM chloroethanesulfonate
Kinetics of the reaction of sodium 2-haloethanesulfonates with aqueous alkali. E. F. Landau, W. F. Whitmore and P. Doty. bibliog Am Chem Soc J 68:816-19 My '46

SODIUM chromate
Chromate corrosion inhibitors in chloride systems; rate of consumption of chromate. M. Darrin. il Ind & Eng Chem 38:368-75 Ap '46

Cooling water treatment for internal combustion engines; use of chromate. il Diesel Power 24:578-82 My '46

Sodium chromate effective in combating corrosion in gas wells. C. K. Eilerts. il diag Oil & Gas J 45:124+ My 18 '46

SODIUM citrates
Salt effects of potassium nitrate, sodium sulfate and trisodium citrate on the activity coefficients of *p*-phenolsulfonate buffers. R. G. Bates and others. bibliog J Res Nat Bur Stand 37:251-61 O '46

Sodium hydrogen citrates. D. I. Hitchcock. Am Chem Soc J 68.524-5 Mr '46

SODIUM compounds
Intermetallic compounds $Mg_4Na_4Pb_3$. G. Calingaert, H. Shapiro and I. T. Krohn. Am Chem Soc J 68:520-1 Mr '46

Polymerization; the reaction of organosodium compounds with butadiene. A. A. Morton and others. Am Chem Soc J 68:93-6 Ja '46

SODIUM compounds—*Continued*
Reaction between quinones and metallic enolates; bromo-*m*-xyloquinone and sodio ethyl malonate. L. I. Smith and P. F. Wiley. Am Chem Soc J 68:894 My '46
Wood for storage battery separators. L. V. Peakes, jr. and others. il Ind & Eng Chem 38:780-8 Ag '46

Analysis

Estimation of salts of weak acids by direct titration in a mixed solvent. S. R. Palit. bibliog Ind & Eng Chem Anal ed 18:246-51 Ap '46

SODIUM cyanide
Cyanide part of the I. G. plant at Ludwigshafen; abstract. W. G. McBurney and others. Chem & Met Eng 53:206+ Mr '46
Experiments on sodium cyaniding of high speed steel prior to hardening. J. McIntyre. il Am Soc for Metals Trans 34:202-12; Discussion. 213-15 '45

SODIUM dichromate
Use of sulfuric acid-dichromate mixture in cleaning glassware. R. J. Henry and E. C. Smith. Science 104:426-7 N 1 '46

SODIUM dodecyl sulfate
Gastric mucigogue action of the alkyl sulfates. H. Shay and others. bibliog Science 103:50-2 Ja 11 '46

SODIUM ethoxide
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance; introductory remarks and a kinetic study of the reactions of methyl, ethyl, *n*-propyl, *iso*-butyl, and *neo*pentyl bromides with sodium ethoxide in dry ethyl alcohol. I. Dostrovsky and E. D. Hughes. Chem Soc J p157-61 Mr '46

SODIUM ethylenesulfonate
Preparation of ethylenesulfonic acid; salts and esters. W. F. Whitmore and E. F. Landau. bibliog Am Chem Soc J 68:1797-8 S '46

SODIUM fluoride
Nitration of starches with nitrogen pentoxide in presence of sodium fluoride. G. V. Caesar and M. Goldfrank. bibliog diag Am Chem Soc J 68:372-5 Mr '46
Roach powder tests; sodium fluoride, pyrethrum, DDT and the gamma isomer of benzene hexachloride. E. R. McGovran and P. G. Piquett. Soap & San Chem 22:157+ Ag '46

SODIUM fluoroacetate
Natural occurrence of fluoroacetic acid, the acid of the new rodenticide 1080. C. W. Klingensmith. Science 102:622-3 D 14 '45

SODIUM hexametaphosphate
Sodium hexametaphosphate as a corrosion inhibitor for Ottawa tap water. M. Cohen. bibliog il diag Electrochem Soc Trans 89 (preprint 17):193-207 '46
Study of corrosion control with sodium hexametaphosphate. P. E. Pallo. bibliog diags Am Water Works Assn J 38:499-510 Ap '46
Threshold treatment of water; corrosion control and scale prevention with Calgon. G. B. Hatch and O. Rice. il Water & Sewage 84: 22-3+ My '46
Use of Calgon at the Bristol, Conn. filter plant. I. L. Newell. Water & Sewage Works 93:71-2 F '46
Use of sodium hexametaphosphate (Calgon) as applied to the treatment of chalk well waters; abstract. E. G. B. Gledhill and A. W. H. McCanlis. Am Water Works Assn J 38:310-12 F '46
Washing of deinked stock; results of sodium hexametaphosphate treatment. H. P. Bailey and A. H. Nadelman. bibliog diag Paper Tr J 122:47-8 Mr 28 '46; Same cond. Paper Ind 28:1048 O '46
Water treatment in Etobicoke; use of Calgon; respective merits of lime-soda-ash and zeolite processes. F. McArthur. il Water & Sewage 84:66-7+ Ap '46

SODIUM hydride
Advances in sodium hydride descaling baths; abstract. H. L. Alexander. Iron Age 158: 75-6 O 10 '46
Descaling stainless steel; sodium hydride descaling process. il Steel 117:120-1+ N 19 '45
Descaling without electric current; sodium hydride process Automotive & Aviation Ind 93:112+ N 15 '45; Excerpts. Chem Ind 57: 1082 D '45; Mach 52:187 F '46
Removing sand and scale from gray iron castings; sodium hydride descaling process. il Iron Age 157:51 My 16 '46; Steel 119:104+ Jl 15 '46
Sodium hydride bath used in cleaning castings. il Foundry 74:182 Je '46
Sodium hydride descaling. E. L. Cady. il Materials & Methods 23:1278-83 My '46
Sodium hydride descaling. L. W. Townsend. il Steel 117:122-3+ N 12 '45
Sodium hydride descaling process. H. N. Gilbert. il diag Metal Finishing 43:492-5+ D '45

SODIUM hydroxide
Accelerated alkali resistance tests, by Western New York paint and varnish production club. Paint Oil & Chem R 108:120-1 N 1 '45
Caustic soda (sodium hydroxide) solutions; gravity, weight; tabulation. W. L. Nelson. Oil & Gas J 44:91 F 2 '46
Chemical removal of calcium sulfate scale. J. L. Wasco and F. N. Alquist. il diag Ind & Eng Chem 38:394-7 Ap '46
Consumption of NaOH and Na_2S in kraft pulping. P. B. Borlew and T. A. Pascoe. bibliog Paper Tr J 123:178-80 O 10 '46
Intercrystalline cracking; significance of the silica-sodium hydroxide ratio in boiler failure. C. D. Weir. Mech Eng 67:834-5 D '45
Reactions of phenanthraquinone with aromatic aldehydes and ammonia in alkaline media. E. A. Steck and A. R. Day. bibliog Am Chem Soc J 68:771-2 My '46
Removal of carbon from hot caustic solution. A. J. Luettgen, K. S. Whisler and H. D. Bauman. il Ind & Eng Chem 38:832-4 Ag '46
Replaces lime with caustic soda for dependable water-softener operation; with cost data; Pittsburgh plate glass co. T. W. Heiskell. il diag Power 90:747-9+ N '46
System sodium acetate-sodium hydroxide-water. R. A. Morgen and R. D. Walker, jr. il diag Ind & Eng Chem 37:1186-8 D '45
System sodium carbonate—sodium sulfate—sodium hydroxide—water at 100°. S. J. Green and F. J. Frattali. bibliog Am Chem Soc J 68:1789-94 S '46
Wood for storage battery separators. L. V. Peakes, jr. and others. il Ind & Eng Chem 38:780-8 Ag '46

Analysis

Simplified determination of manganese in caustic soda. R. F. Moran and A. P. McCue. Ind & Eng Chem Anal ed 18:556-7 S '46

Manufacture

Mercury chlorine cell data now available. Oil Paint & Drug Rep 149:3+ Je 24 '46
Some aspects of the economics of evaporation. H. B. Caldwell and W. D. Kohlins. diag Am Inst Chem Eng Trans 42:506-9 Je '46

Statistics

Soda ash, caustic soda and chlorine; basic materials for many industries. Chem & Met Eng 53:100-1 Ja '46

SODIUM hydroxycarboxynaphthalene sulfonate
Sodium 2-hydroxy - 3 - carboxynaphthalene-6-sulphonate and 2·6-dihydroxynaphthalene-3-carboxylic acid. E. J. Cross. bibliog Soc Dyers & Col J 62:150-1 My '46

SODIUM hypochlorite
Anomalous behavior of some oxidizing agents. R. K. McAlpine. J Chem Educ 23:301-5 Je '46
Oxidation of cellulose by sodium hypochlorite in presence of ferrous hydroxide. G. M. Nabar and H. A. Turner. diag Soc Dyers & Col J 61:258-63 O '45

SODIUM hypoiodite
Coupling of aryl methyl ketones by the action of sodium hypohalite solutions. R. C. Fuson and R. Johnson. Am Chem Soc J 68:1668-9 Ag '46

SODIUM hypophosphite
Nickel plating on steel by chemical reduction. A. Brenner and G. E. Riddell. 2 pls diag J Res Nat Bur Stand 37:31-41 Jl '46

SODIUM in the body
Distribution of sodium and water in muscle following severe cold injury. J. M. Crismon and F. A. Fuhrman. bibliog Science 104: 408-9 N 1 '46

SODIUM iodide
Reaction of lead soaps with sodium iodide. R. S Barnett. bibliog Ind & Eng Chem Anal ed 18:333 My '46

SODIUM malonic ester
Reaction between quinones and metallic enolates; second paper on bromotrimethylquinone and sodio malonic esters. L. I. Smith and P. F. Wiley. il Am Chem Soc J 68: 887-93 My '46

SODIUM metaphosphates
See also
Sodium hexametaphosphate

SODIUM methoxide
Action of alkaline reagents on 2 : 3-1 : 6- and 3 : 4-1 : 6-dianhydro β-talose; constitutional synthesis of chondrosamine and other amino-sugar derivatives. S. P. James and others. Chem Soc J p625-8 Jl '46

SODIUM methylate
Expanding chemical. flow diag il Sci Am 173: 302-3 N '45

SODIUM nitrate
Corrosion of steel salt-bath pots by molten alkali nitrates, used for heat treatment of duralumin. R. J. Box and B. A. Middleton. Engineering 160:523-4, 543 D 21-28 '45; Same. Iron & Steel Inst J 151:71-8 no 1 '45
Humidity measurements in presence of water-soluble salts. G. C. Williams and R. O. Schmitt. Ind & Eng Chem 38:967-74 S '46
Soda nitrate supply down 25% for 1945-6. Oil Paint & Drug Rep 148:3 N 19 '45
Use of sodium nitrate in treating cannery wastes; abstract. L. F. Warrick and T. T. Wisniewski. Pub Works 76:48+ D '45

Analysis

Analysis of sodium nitrite by sulfamic acid. R. C. Brasted. diag J Chem Educ 23:320-1 Jl '46
Determination of nitrite in brines and cured meats. J. C. Morpeth. Chem & Ind p370-2 O 12 '46
Use of the polarograph in the determination of small amounts of nitrate in sodium nitrite. J. Haslam and L. H. Cross. bibliog diag Soc Chem Ind J 64:259-60 S '45

SODIUM nitrite
Corrosion of steel salt-bath pots by molten alkali nitrates, used for heat treatment of duralumin. R. J. Box and B. A. Middleton. Engineering 160:523-4, 543 D 21-28 '45

Analysis

Use of the polarograph in the determination of small amounts of nitrate in sodium nitrite. J. Haslam and L. H. Cross. bibliog diag Soc Chem Ind J 64:259-60 S '45

SODIUM oleate
Diffraction of X-rays by sodium oleate and hexanolamine oleate. S. Ross and J. W. McBain. bibliog Am Chem Soc J 68:547-50 Ap '46
Solubilization of insoluble organic liquids by detergents. J. W. McBain and P. H. Richards. bibliog Ind & Eng Chem 38:642-6 Je '46

SODIUM oxalate
Equilibria in ternary systems containing oxalates. L. M. Hill, T. P. Goulden and E. Hatton. Chem Soc J p78-81 F '46

SODIUM oxide
Phase equilibrium relations in a portion of the system Na_2O-CaO-Al_2O_3-SiO_2. K. T. Greene and R. H. Bogue. bibliog J Res Nat Bur Stand 36:185-207 F '46

SODIUM pectate
X-ray diffraction investigation of sodium pectate. K. J. Palmer and M. B. Hartzog. bibliog il Am Chem Soc J 67:2122-7*D '45

SODIUM permanganate
Chemical propellants; analytical studies and characteristics of the system hydrogen peroxide-permanganate. F. Bellinger and others. bibliog diag Ind & Eng Chem 38: 627-30 Je '46

SODIUM peroxide
Bleaching aspen neutral sulphite semi-chemical pulp with sodium peroxide. R. M. Kingsbury and others. bibliog Paper Tr J 123:50-4 S 12 '46

SODIUM phosphates
Determination of cobalt in high-cobalt products; separation from iron by phosphate. R. S. Young and A. J. Hall. bibliog Ind & Eng Chem Anal ed 18:262-4 Ap '46
Measurement and calculation of hydrogen ion concentrations in saline acetate and phosphate buffers. D. I. Hitchcock and R. Peters. bibliog Am Chem Soc J 68:1753-5 S '46
Phosphates in liquid soap. D. Bachrach Soap & San Chem 22:49+ Ag '46
Sequestration of calcium and magnesium in the presence of alkaline detergents. E. H. Mann and C. C. Ruchhoft. Pub Health Rep 61:539-45 Ap 12 '46
See also
Sodium hexametaphosphate — Sodium pyrophosphate

Analysis

Method for calcium-sequestering value of phosphate water conditioners. B. C. Hafford, F. Leonard and R. W. Cummins. Ind & Eng Chem Anal ed 18:411-15 Jl '46

SODIUM potassium alloys

Analysis

Routine analysis of sodium-potassium alloys. S. L. Walters and R. R. Miller. diags Ind & Eng Chem Anal ed 18:468-9 Ag '46

SODIUM propionate
New fungicide; propionate-propionic acid product proves effective in control of athlete's foot and other fungus diseases. F. Owens. bibliog Soap & San Chem 22:126-9+ My '46
Propionate treatment of parchment to inhibit mold J. C. Olson, jr. and H. Macy. bibliog il Mod Packaging 19:166-9+ Ap '46

SODIUM pyrophosphate
New method for determination of manganese; based on potentiometric titration of manganous ion with permanganate ion in neutral pyrophosphate solution. J. J. Lingane and R. Karplus. bibliog Ind & Eng Chem Anal ed 18:191-4 Mr '46

SODIUM salicylate
Hemolytic streptococcal sore throat; antibody response following treatment with penicillin, sulfadiazine, and salicylates. L. A. Rantz, P. J. Boisvert and W. W. Spink. bibliog Science 103:352-3 Mr 22 '46
Hyaluronidase inhibition by sodium salicylate in rheumatic fever. F. Guerra. bibliog Science 103:686-7 Je 7 '46

SODIUM silicates
Activated silica for winter use of activated carbon; abstract. H. R. Hay. Pub Works 76:53-4 D '45
Effect of sodium silicates on iron oxide surfaces F. Hazel. bibliog J Phys Chem 49: 520-37 N '45
How to remove sodium silicate from eye. F. M. Suarez. Paper Ind 27:1248 N '45
Sodium silicate sealing of aluminum castings. Iron Age 157:63 Ja 10 '46

SODIUM stearate
Behavior of sodium stearate with cetane and water. R. D. Vold and J. M. Philipson. bibliog J Phys Chem 50:39-53 Ja '46

SODIUM sulfates
Effect of KCl, NaCl and Na_2SO_4 on the aqueous solubility of acetanilide. T. S. Logan. Am Chem Soc J 68:1660-1 Ag '46
Equilibria in ternary systems containing oxalates. L. M. Hill, T. P. Goulden and E. Hatton. Chem Soc J p78-81 F '46
Operations and plants of International nickel company of Canada; Horseshoe Lake sodium sulphate deposit. Can Min J 67:463 My '46
Salt effects of potassium nitrate, sodium sulfate and trisodium citrate on the activity coefficients of *p*-phenolsulfonate buffers. R. G. Bates and others. bibliog J Res Nat Bur Stand 37:251-61 O '46
Soluble synthetic salt cake. V. Woodside. Paper Tr J 121:30-2 N 29 '45

SODIUM sulfates—*Continued*
System sodium carbonate—sodium sulfate—sodium hydroxide—water at 100°. S. J. Green and F. J. Frattali. bibliog Am Chem Soc J 68:1789-94 S '46

Statistics

Sodium sulfate-carbonate tonnage up. Chem Ind 59:157 Jl '46

SODIUM sulfide
Consumption of NaOH and Na_2S in kraft pulping. P. B. Borlew and T. A. Pascoe. bibliog Paper Tr J 123:178-80 O 10 '46
Explosive reaction of diazonium compounds with sulphides of sodium. H. H. Hodgson. bibliog Chem & Ind p362 N 24 '45
Preferential reduction of nitro groups in polynitro-compounds; the preparation of 4 : 5-dinitro-2-naphthylamine from 1 : 3 : 8-trinitronaphthalene and a comparison of sodium sulphide reductions of available dinitronaphthalenes. H. H. Hodgson and E. R. Ward. Chem Soc J p794-6 N '45

Analysis

Potentiometric determination of sodium sulphide in sulphate pulp black liquor. P. B. Borlew and T. A. Pascoe. bibliog Paper Tr J 122:31-4 Mr 7 '46

SODIUM sulfite
Effect of sulphur on quality of sulphite treated steels. G. D. Boyer. il Steel 119: 96-7+ Jl 8 '46
Use of liquid sulphur dioxide in fortifying sulphite cooking liquors. diags Paper Ind 27:1102+ O '45

SODIUM sulfonates
Studies of sulfonates; some surface and interfacial tension measurements with aqueous solutions of certain alkanesulfonates. E. C. Lingafelter, O. L. Wheeler and H. V. Tartar. bibliog Am Chem Soc J 68:1490-3 Ag '46
X-ray crystallographic studies of organic sulfonates; the hemihydrates of certain sodium 1-alkane-sulfonates. L. H. Jensen and E. C. Lingafelter. Am Chem Soc J 68:1729-30 S '46

Analysis

Analysis of oil-soluble petroleum sulfonates; extraction-adsorption method. F. Brooks, E. D. Peters and L. Lykken. diags Ind & Eng Chem Anal ed 18:544-7 S '46

SODIUM tetraborate. See Borax

SODIUM thiocyanate
Ternary systems $NaSCN-Ca(SCN)_2-H_2O$, $KSCN-Ca(SCN)_2-H_2O$, $NH_4SCN-Ca(SCN)_2-H_2O$ and $Ca(SCN)_2-AgSCN-H_2O$ at 25°. A. K. McKerrow, V. J. Occleshaw and F. Drabble. Chem Soc J p1-5 Ja '46

SODIUM thymonucleate
X-ray-induced depolymerization of thymonucleohistone and of sodium thymonucleate. A. H. Sparrow and F. M. Rosenfeld. bibliog Science 104:245-6 S 13 '46

SODIUM titanates
Heat capacities at low temperatures of Na_2TiO_3, $Na_2Ti_2O_5$ and $Na_2Ti_3O_7$. C. H. Shomate. Am Chem Soc J 68:1634-6 Ag '46
High-temperature heat contents of Na_2TiO_3, $Na_2Ti_2O_5$ and $Na_2Ti_3O_7$. B. F. Naylor. bibliog Am Chem Soc J 67:2120-2 D '45

SODIUM tungstate
Codeposition of tungsten and nickel from an aqueous ammoniacal citrate bath L. E. Vaaler and M. L. Holt. bibliog Electrochem Soc Trans 90 (preprint 9):151-62 '46

SOFT drinks. See Beverages

SOFTBALL
Layouts of playgrounds and athletic fields; softball diamond. Pub Works 77:35 O '46

SOFTENING points
New apparatus for determination of coefficient of expansion, transformation point, and softening point of glass. S. Lindroth. il diags Am Cer Soc Bul 24:450-1 D 15 '45

SOIL analysis
Investigation of soil clays by X-rays. D. M. C. MacEwan. Chem & Ind p333 S 7 '46

Mechanical analysis

New method for mechanical analysis of soils. R. Valle-Rodas. bibliog diags Roads & Bridges 83:68-9+ N '45

SOIL-cement mixtures
New Mexico stabilizes clay subgrade with 2% portland cement admixture. il Roads & Sts 89:91-3 Ag '46

SOIL-cement pavements. See Pavements, Soil-cement

SOIL conservation
Agricultural flood control program; review of the watershed investigations and reports. H. H. Wooten. bibliog J Land & Pub Util Econ 22:35-47 F '46
All business depends on topsoil; South Carolina bankers participate in teaching school children value of soil conservation. G. Webb. il Banking 39:50-1+ Ag '46
Bank that kudzu built; work of Farmers and merchants bank of Lineville, Alabama to stem the tide of soil wastage. H. Severson. il Banking 38:63+ N '45
Banks of North Carolina help honor soil conservationist Hugh H. Bennett. G. Webb. il Banking 39:70+ N '46
Case study of soil conservation; depleted Arkansas farm restored to productivity through cooperation of National bank of eastern Arkansas, Forrest City. D. R. Francis. Banking 39:57-8+ O '46
Developments in the control of erosion. J. S. Longwell. Am Water Works Assn J 38: 1125-6 O '46
Erosion control on watershed lands. C. B. Brown. il map Am Water Works Assn J 38:1127-37 O '46
Institutional obstacles to land improvement; summary of results of three watershed surveys in the South. J. F. Timmons. bibliog J Land & Pub Util Econ 22:140-50 My '46
Let's bank on the soil. A. Banov. il Banking 38:53-4+ Je '46
Limiting factors in erosion control demonstrations. P. E. McNall. J Land & Pub Util Econ 21:383-6 N '45
Rural land-use legislation in the states; the war years. H. Walker, jr. bibliog J Land & Pub Util Econ 22:232-4 Ag '46
Soil conservation in Canada. Engineering 162: 223 S 6 '46
Soil in danger. il map Bsns W p21-2 Jl 6 '46
Thank you farm; Spartanburg county, S.C. gives farm to veteran and starts him on soil conservation program. G. Webb. il Banking 38:53-5 Ja '46

See also
Lime as fertilizer
Roadside planting

SOIL conservation society of America
Professional organization formed. Science 103: 449 Ap 12 '46

SOIL consolidation. See Soils—Consolidation

SOIL corrosion. See Corrosion and anti-corrosives—Underground corrosion

SOIL disinfection
Simple and accurate soil fumigant injection apparatus. C. T. Schmidt. diag Science 104: 227-8 S 6 '46

SOIL erosion. See Erosion; Soil conservation

SOIL mechanics
Alexandre Collin, pioneer in soil mechanics. A. W. Skempton. Engineer 181:381 Ap 26 '46
Application of principles of soil mechanics to rolled-fill earth dams; abstract. D. F. Glynn. Am Water Works Assn J 38:449-50 Mr '46
Calculation of bearing capacities of footings by circular arcs. P. Andersen. diags Eng N 136:866-8 My 30 '46
Contribution à l'étude de l'équilibre limite de rupture du sol sous des massifs de fondation transmettant des charges centrées. E. de Beer. Génie Civil 123:111-12, 124-6, 141-3 My 1-Je 1 '46
Elastic-limit basis for designing highway substructures in clay soil. H. C. Porter. diag Eng N-136:1002-3 Je 27 '46
Elastic limit basis for determining load supporting power of soil substructures. V. J. Brown. diags Roads & Sts 89:84-7+ Je '46
Practical development of soil mechanics. R. R. Minikin. diags Engineering 161:313-16 Ap 5 '46

SOIL mechanics—*Continued*
Stresses in the linings of shield-driven tunnels. A. Bull. diags Am Soc C E Proc 70: 1363-94 N '44; Discussion. 71:101-6, 240-56, 745-7, 885-96, 1151-2, 1355-8, 1551-5; 72:256-68 Ja-F, My-Je, S, N-D '45, F '46

See also
Earth pressure
Roads—Subgrades

SOIL moisture
Design of roadbeds. I. B. Mullis. bibliog Am Soc C E Proc 71:413-32 Ap '45; Discussion. 71:1307-10, 1561-4; 72:283-4, 510-22 O, D '45, F, Ap '46
Elastic limit basis for determining load supporting power of soil substructures. V. J. Brown. diags Roads & Sts 89:84-7+ Je '46
Field determination of soil density by electric moisture meter. R. McGinn. diags Eng N 135:886 D 27 '45
Stability of runway soils determined by ground-water vapor. H. H. Houk. diags Civil Eng 16:446-7 O '46
Synthetic hydrophilic colloids as soil amendments. H. A. Wadsworth. Science 104:17 Jl 5 '46
Tests of compacted clay soils provide highway design guides. H. C. Porter. diags Eng N 135:726-8 N 29 '45

SOIL pipes
Construction faces soil-pipe shortage. C. Muirhead. Dom Comm 34:28 My '46
Mechanized casting of soil pipe and fittings; Warden-King ltd. P. Dwyer. il Foundry 74: 110-12+ Je; 102-4+ Jl '46

SOIL sampling
Free-fall coring tube; a new type of gravity bottom sampler. M. J. Hvorslev and H. C. Stetson. bibliog diags Geol Soc Bul 57:935-49, pl 1-4 O '46
Sampler for hard-to-hold soils. il diag Eng N 137:366-7 S 19 '46
Soil sampling and testing for highways and airports. R. M. Hardy. il diags Roads & Bridges 84:63-6+ F '46

SOIL stabilization
Canal lined with stabilized earth; Altus project in Oklahoma. W. S. Byrne. il Eng N 136:410-12 Mr 21 '46
Design of roadbeds. I. B. Mullis. bibliog Am Soc C E Proc 71:413-32 Ap '45; Discussion. 71:1307-10, 1375-8, 1561-4; 72:122-3, 283-4, 510-22 O '45-F, Ap '46
Improved road construction by soil-processing technique. B. E. Gray. il Roads & Bridges 84:82-3+; Discussion. 178+ Ap '46
New Mexico stabilizes clay subgrade with 2% portland cement admixture. il Roads & Sts 89:91-3 Ag '46
Stability of runway soils determined by ground-water vapor. H. H. Houk. diags Civil Eng 16:446-7 O '46
Tar base stabilization as practiced on recent Alabama project. J. F. Tribble. il Roads & Sts 88:94-6+ D '45
Using stabilized soil mixtures properly; patching and maintenance of highways; abstract. C. M. Ziegler. Pub Works 77:33 F '46
Vertical sand drains for accelerating and controlling ground settlement. H. J. McKeever. il Roads & Sts 89:72-8 Ag '46

SOILLESS agriculture. See Plants—Soilless culture

SOILS
Engineering applications of aerial reconnaissance. D. J. Belcher. il Geol Soc Bul 57: 727-33, pl 1-6 Ag '46
Polygon nets and their physical development. V. Conrad. bibliog Am Sci 244:277-96, pl 1-2 Ap '46
Soil characteristics of bed and banks determine improvements. C. Senour. Civil Eng 16:492-3 N '46
Symposium on soils, St Louis. Science 103: 520-2 Ap 26 '46

See also
Agriculture
Clay
Drainage
Earthwork
Erosion
Fertilizers
Foundation soils
Highway engineering
Irrigation
Nitrification
Roads—Subgrades
Sand
Silt
Soil conservation
Soil mechanics
Soil moisture

Consolidation
Compacted fill equals natural ground; Clinton engineer works. J. D. Watson and O. R. Bradley. il diag Eng N 135:810-12 D 13 '45
Compaction of soil in constructing roads and aerodromes. Pub Works 76:44 D '45
Importance of consolidation in airfield construction; abstract. B. J. Bell. Roads & Sts 89:113 Ap '46
Methods and degree of compaction of fills and subgrades. G. B. Williams. il Roads & Bridges 84:61+ My '46
Nevada grade compaction speeded by improved storage tank set-up; watering trucks used on desert project. il Roads & Sts 89: 76-7 Mr '46
Nevada highway compaction tests. il Roads & Sts 89:72-3+ Jl '46
Soil compaction conference; meeting of ARBA committee, Washington, Nov. 15-16. Roads & Sts 89:67-9+ Ja '46
Soil compaction for airports. O. J. Porter; G. P. Tschebotarioff. il Eng N 136:422-6 Mr 21 '46
Soil compaction in embankments and subgrades. E. F. Bennett. Roads & Bridges 84:80-1+ Ap '46
Tests of compacted clay soils provide highway design guides. H. C. Porter. diags Eng N 135:726-8 N 29 '45
Wellpoints used to compact sand fill. H. E. Berger. diag Eng N 137:44-5 Jl 11 '46

Electric properties
Electrical properties of soil at wavelengths of 5 metres and 2 metres. J. S. McPetrie and J. A. Saxton. Inst E E J 92 pt 3:256-8 D '45

Freezing
Research on frost action in soils; road damage; permafrost foundations. R. M. Hardy. il Roads & Bridges 84:74-6+ S '46

Frost penetration
Airfield load tests in progress at Selfridge field; tests to determine effect of frost conditions. il Roads & Sts 89:94-5 My '46
Effect of frost conditions on load carrying capacity of pavements. Pub Works 77:33 Jl '46
Prediction of frost penetration. W. L. Shannon. bibliog N E Water Works Assn J 59: 356-63 D '45

Salt removal
Le dessalement des terres de culture. Génie Civil 123:208-9 Ag 1 '46
Le dessalement des terres de la région de Dunkerque-Gravelines qui ont été submergées par l'eau de mer. Génie Civil 123: 75-6 Mr 15 '46

Testing
Damage to vegetation due to gas leakage; method of detecting past contact of the soil with gas. diag Gas Age 96:23+ D 27 '45
Field determination of soil density by electric moisture meter. R. McGinn. diags Eng N 135:886 D 27 '45
Morgan method of soil testing; use of the Spekker absorptiometer for estimating phosphate. J. Tinsley and N. H. Pizer. bibliog Soc Chem Ind J 65:208-11 Jl '46

See also
Foundation soils—Testing
Soil analysis—Mechanical analysis

France
La destruction complète d'une exploitation maraîchère par les bombardements aériens dans la région d'Avignon. Génie Civil 123:88 Ap 1 '46

SOLAR heating
Novel features in heating solar home; warm-air system employing under-floor tile. il diag Sheet Metal Worker 36:64+ N '45; Same. Mech Eng 68:360 Ap '46
Rational basis for solar heating analysis. F. W. Hutchinson and W. P. Chapman. diag Heating-Piping 18:109-17 Jl '46
Solar house; garden wall incorporates outdoor and indoor spaces into unit for year-round living. il plans Arch Forum 83:131 N '45

SOLAR heating—*Continued*
Solar house; research progress report. F. W. Hutchinson. il Heat & Ven 43:53-7 Mr '46
Sun heat; Russians develop 29.4 pounds of steam with sun and mirrors. Heat & Ven 43:92 Je '46

See also
Furnaces, Solar
Solar radiation

SOLAR observatories. See Astronomical observatories

SOLAR power
USSR Tashkent plant uses solar energy. Power 90:23 Ja '46

SOLAR radiation
Effects of radiant heat on reinforced-concrete rigid frames. M. A. Johnston. bibliog diags Am Soc C E Proc 71:793-804 Je '45; Discussion. 71:1295-1300, 1431-5; 72:124-5 O '45-Ja '46
Heat gain from winter sunshine in the U.S. il map Heat & Ven 43:63-6 Mr '46
Sol-air thermometer. C. O. Mackey and L. T. Wright, jr. il diag Heating-Piping 18: 107-11 My '46
Sun's radiation and the weather. Science 102: supl2 N 16 '45
Transmission of solar radiation through flat glass under summer conditions. G. V. Parmelee. bibliog diags Heating-Piping 17: 562-73; Discussion. 573-6 O-N '45

SOLAR system
New theory of Weizsäcker on the origin of the solar system. S. Chandrasekhar. diag Rs Mod Phys 18:94-102 Ja '46

SOLDER and soldering
Assembling copper tubes with solder fittings. il Paper Ind 28:1021 O '46
Control of the lead poisoning hazard in can manufacturing; bodymaking machine (side-seamer). M. Eisenbud and J. W. McEwan. il diags J Ind Hygiene 27:284-8 D '45
High temperature solder effect on copper wire. Elec World 125:118 F 16 '46
Lead base solders and babbitts; engineering file facts. R. S. Burpo, jr., comp. Materials & Methods 22:1781 D '45
Localized heat for soldering R. E. Hunt. diag Materials & Methods 23:1057 Ap '46
New cored wire solder. R. G. Kocsis. Steel 119:112 Jl 8 '46
R-f soldering of metal-to-glass seals. R. A. Ammon. il diag Electronics 19:120-1 Mr '46
Radiator production accelerated by induction soldering; International harvester co. il Iron Age 158:55 O 24 '46
Soft soldering; abstract. M. E. Fine and R. L. Dowdell. Steel 118:134 Ja 28 '46
Soft-soldering nonferrous metals. G. H. Bohn. il diags Welding J 25:513-16 Je '46
Substitutes for tin in the manufacture of automobiles. C. E. Heussner and E. T. Johnson. Automotive & Aviation Ind 94: 158+ Mr 15 '46
Synthetic insulation stripped faster from fine copper leads; effect of solder temperature. V. Canziani. il Am Mach 90:135-8 S 26 '46

See also
Brazing
Silver solder
Welding

Safety measures
Safe soldering. Safety Eng 92:44 Jl '46

Testing
Capillary flow in the soldering process and some measurements of the penetration coefficients of soft solders; abstracts and discussion. A. Latin. Engineer 182:296 O 4 '46; Engineering 162:329 O 4 '46
Fracture studies of soldered joints. F. Berman and R. H. Harrington. il Am Soc for Metals Trans 34:143-55 '45
Soft solder selection aided by simple test. E. E. Schumacher and others. bibliog il Materials & Methods 22:1407-10 N '45

SOLDERING apparatus
New gas equipment gives localized heat for soldering at low cost. diag Am Gas Assn Mo 28:131 Mr '46; Same. Gas Age 97:40 Mr 21 '46
Soldering tool has wide wattage range. il Elec World 126:138 O 12 '46
Trigger feed soldering iron. il diag Product Eng 17:99 O '46

SOLDIERS, Disabled. See Veterans, Disabled

SOLDIERS, Discharged. See Veterans

SOLDIERS, Negro. See United States—Army—Negro troops

SOLDIERS' graves. See Cemeteries, National

SOLENOIDS
Double-solenoid coil system for magnetic measurements. E. W. Frowe and C. J. Aronson. diag J Ap Phys 16:667-9 N '45
How to get your money's worth out of solenoids. A. W. Bedford, jr. il diags Factory Management 104:116-19 S '46
Rubber-ring fastener for link pins. H. S. Sizer. il diags Machine Design 18:91-2 O '46
Two electromagnetic problems. G. W. O. Howe. diags Wireless Eng 23:181-2 Jl '46

SOLES
Compression of sole leather. C. E. Weir. bibliog J Res Nat Bur Stand 35:257-71 O '45
Sole treatment. Bsns W p50+ D 22 '45
Testing of linen sole threads for strength and variability. R. G. Mitton. il Textile Inst J 37:T25-38 F '46

SOLID solutions. See Solutions, Solid

SOLIDS
General relations for flow in solids and their application to the plastic behavior of tire cords. W. J. Lyons. bibliog J Ap Phys 17: 472-82 Je '46
Measurement of thermal conductivity of non-metallic solids. G. L. Hall and I. B. Prettyman. India Rubber World 113:222+ N '45
New magnetic effect applied to the structure of catalytically active solids. P. W. Selwood, F. N. Hill and H. Boardman. Am Chem Soc J 68:2055-9 O '46
Physics of the solid state. G. Busch. Engineering 160:490-1 D 14 '45
Recent work in the field of high pressures; volumetric effects on solids. P. W. Bridgman. bibliog Rs Mod Phys 18:19-27 Ja '46
Structure in the X-ray *K* absorption edge of metallic potassium. J. B. Platt. bibliog Phys R 69:337-46 Ap 1 '46
Surfaces of solids; a first- and a second-order phase change in the adsorbed film of *n*-heptane on graphite. G. Jura and others. bibliog J Chem Phys 14:344-7 My '46
Surfaces of solids; a unitary thermodynamic theory of the adsorption of vapors on solids and of insoluble films on liquid subphases. G. Jura and W. D. Harkins. bibliog Am Chem Soc J 68:1941-52 O '46
Surfaces of solids; adsorbed films of water and normal heptane on the surface of graphite. W. D. Harkins, G. Jura and E. H. Loeser. bibliog Am Chem Soc J 68:554-7 Ap '46
Surfaces of solids; first-order phase changes of adsorbed films on the surfaces of solids: the film of *n*-heptane on ferric oxide. G. Jura and others. bibliog J Chem Phys 14: 117-23 Mr '46

See also
Crystals
Expansion (heat)
Melting points
Particles
Powders
Solutions, Solid
Surface phenomena

SOLUBILITY
Acetic acid-ethyl ether-water system; mutual solubility and tie line data. C. J. Major and O. J. Swenson. bibliog diags Ind & Eng Chem 38:834-6 Ag '46
Action of antifouling paints; solubilities of antifouling toxics in sea water. J. D. Ferry and G. A. Riley. bibliog Ind & Eng Chem 38:699-701 Jl '46
Action of antifouling paints; solubility and rate of solution of cuprous oxide in sea water. J. D. Ferry and D. E. Carriti. bibliog Ind & Eng Chem 38:612-17 Je '46
Cotton wax; solubility in common solvents. W. H. Tonn, jr. and E. P. Schoch. Ind & Eng Chem 38:415-16 Ap '46
Determination of the solubility of styrene in water and of water in styrene. W. H. Lane. Ind & Eng Chem Anal ed 18:295-6 My '46
Dissociation constant, solubility, and the *p*H value of the solvent. H. A. Krebs and J. C. Speakman. Chem Soc J p593-5 S '45

SOLUBILITY—*Continued*
Dried egg; the nature of the reactions leading to loss of solubility of dried egg products. E. C. Bate-Smith and J. R. Hawthorne. Soc Chem Ind J 64:297-302 N '45
Effect of KCl, NaCl and Na_2SO_4 on the aqueous solubility of acetanilide. T. S. Logan. Am Chem Soc J 68:1660-1 Ag '46
Effect of soaps on mutual solubility of organic liquids. S. R. Palit and J. W. McBain. bibliog diags Ind & Eng Chem 38: 741-4 Jl '46
Equilibria in saturated solutions; the ternary systems $CaCl_2$-$MgCl_2$-H_2O, $CaCl_2$-KCl-H_2O, and $MgCl_2$-KCl-H_2O at 35°. W. J. Lightfoot and C. F. Prutton. diags Am Chem Soc J 68:1001-2 Je '46
General gas solubility law. M. Basnicki. Can Chem & Process Ind 30:71 F '46
Hydrogen fluoride-paraffin systems; significance of liquid-phase equilibria in the hydrogen fluoride alkylation process. E. B. Butler, C. B. Miles and C. S. Kuhn, jr. diags Ind & Eng Chem 38:147-55 F '46
Relation between size of the divalent cation and solubility of triple acetate salt of sodium. L. B. Rogers. bibliog Science 103:420-1 Ap 5 '46
Separation of calcium from magnesium by oxalate method in samples of high magnesium-calcium ratio. E. R. Wright and R. H. Delaune. bibliog Ind & Eng Chem Anal ed 18:426-9 Jl '46
Solubilities of hexyl- and dodecylammonium chloride in various dilutions of aqueous ethanol. A. W. Ralston and C. W. Hoerr. bibliog Am Chem Soc J 68:851-4 My '46
Solubility and density isotherms; potassium and ammonium nitrates in isopropanol solutions. A. R. Thompson and M. C. Molstad. bibliog Ind & Eng Chem 37:1244-8 D '45
Solubility and melting point as functions of particle size. L. Harbury. bibliog J Phys Chem 50:190-9 My '46
Solubility of acetyl-*p*-toluidine in various solvents. D. L. Pollock and others. bibliog J Phys Chem 50:23-8 Ja '46
Solubility of acetylene in acetone. V. E. Brameld and M. T. Clark. bibliog diag Soc Chem Ind J 65:58-61 F '46
Solubility of cadmium sulfate in H_2O-D_2O mixtures. L. H. Brickwedde. bibliog J Res Nat Bur Stand 36:377-83 Ap '46
Solubility of DDT in kerosenes; effect of auxiliary solvents at subzero temperatures. E. E. Fleck and H. L. Haller. Ind & Eng Chem 38:177-8 F '46
Solubility of oxygen and nitrogen in organic solvents from -25° to 50° C. C. B. Kretschmer, J. Nowakowska and R. Wiebe. bibliog diag Ind & Eng Chem 38:506-9 My '46
Solubility of potassium iodide in acetone. R. Livingston and R. R. Halverson. bibliog J Phys Chem 50:1-6 Ja '46
Solubility of water in alcohol-hydrocarbon mixtures. C. B. Kretschmer and R. Wiebe. bibliog Ind & Eng Chem 37:1130-2 N '45
Solubilization of insoluble organic liquids by detergents. J. W. McBain and P. H. Richards. bibliog Ind & Eng Chem 38:642-6 Je '46
Solubilization of water-insoluble dye in soap solutions; effects of added salts. J. W. McBain and A. A. Green. bibliog Am Chem Soc J 68:1731-6 S '46
Solvents in the paint industry; rules of solubility. R. B. Pollak. bibliog Paint Oil & Chem R 109:40+ Ag 22 '46
Structure of cellulosic rayons; solubility and fractionation of secondary cellulose acetate. F. Howlett and A. R. Urquhart. bibliog Textile Inst J 37:T89-112 Ap '46
System sodium acetate-sodium hydroxide-water. R. A. Morgen and R. D. Walker, jr. il diag Ind & Eng Chem 37:1186-8 D '45
System sodium carbonate—sodium sulfate—sodium hydroxide—water at 100°. S. J. Green and F. J. Frattali. bibliog Am Chem Soc J 68:1789-94 S '46
Systems containing isobutanol and tetrachloroethane; liquid-vapor and liquid-liquid equilibria. R. H. Fritzsche and D. L. Stockton. bibliog diags Ind & Eng Chem 38:737-40 Jl '46
Ternary system: *t*-butyl alcohol, benzene and water at 25°. D. R. Simonsen and E. R. Washburn. bibliog Am Chem Soc J 68:235-7 F '46
Ternary system silver sulfate-sulfuric acid-water at 25°. E. L. Simons and J. E. Ricci. bibliog Am Chem Soc J 68:1413-16 Ag '46
Vapor-liquid equilibria in three hydrogen-paraffin systems. M. R. Dean and J. W. Tooke. bibliog diag Ind & Eng Chem 38: 389-93 Ap '46

SOLUBLE coffee. See Coffee, Soluble

SOLUTION (chemistry)
Application of the methods of molecular distribution to solutions of large molecules. B. H. Zimm. bibliog diag J Chem Phys 14: 164-79 Mr '46
Contribution to the solution character of a few rubbery polymers. H. Naidus and H. Mark. India Rubber World 113:229-30 N '45
Dielectric properties of liquid mixtures. G. Oster. bibliog Am Chem Soc J 68:2036-41 O '46
Electro-magnetic liquid flow control valve. G. G. Blake. diags Chem & Ind p46 F 2 '46
Equilibria in saturated solutions; the ternary systems $CaCl_2$-$MgCl_2$-H_2O, $CaCl_2$-KCl-H_2O, and $MgCl_2$-KCl-H_2O at 35°. W. J. Lightfoot and C. F. Prutton. diags Am Chem Soc J 68:1001-2 Je '46
Fractionation of high-polymeric substances. L. H. Cragg and H. Hammerschlag. bibliog(312 references) Chem R 39:79-135 Ag '46
Mechanism of solvent action; influence of molecular size and shape on temperature dependence of solvent ability. A. K. Doolittle. Ind & Eng Chem 38:535-40 My '46
New method for rapid comparison and measurement of solution concentrations which also provides for the automatic control of solution strength. G. G. Blake. diags Chem & Ind p28-9 Ja 19 '46
Rate of dissolution of magnesium and zinc in acids. C. V. King, H. Wishinsky and H. Bloodgood. bibliog Am Chem Soc J 68:238-9 F '46
Sedimentation equilibria of polydisperse non-ideal solutes. M. Wales and others. J Chem Phys 14:353-4 My '46
Solvent action and co-solvency; lecture demonstration. S. R. Palit. J Chem Educ 23:182 Ap '46
Theory of diffusion controlled reactions with application to the quenching of fluorescence. E. W. Montroll. bibliog J Chem Phys 14: 202-11 Mr '46
Thermodynamic evaluation of binary and ternary liquid systems. K. Wohl. bibliog Am Inst Chem Eng Trans 42.215-49 Ap '46
Thermodynamics of dilute solutions of high polymers. P. J. Flory. bibliog diags J Chem Phys 13:453-65 N '45
Time-dependence of boundary tensions of solutions; role of diffusion in time-effects. A. F. H. Ward and L. Tordai. bibliog J Chem Phys 14:453-61 Jl '46
Use of hydrotropic solutions in industry. R. H. McKee. bibliog diag Ind & Eng Chem 38: 382-4 Ap '46
Vapor-liquid equilibria in non-ideal solutions. R. R. White. bibliog Am Inst Chem Eng Trans 41:539-54 O '45
Vapor-liquid equilibria in phenol-hydrocarbon systems. H. G. Drickamer and others. bibliog(p603) diags Am Inst Chem Eng Trans 41:555-605 O '45

See also
Colloids
Crystallization
Diffusion
Electrolysis
Electrolytes
Ions
Precipitation
Solubility
Solvents

SOLUTION, Heat of
Heats of solution. W. S. Horton. J Chem Educ 23:393 Ag '46
Heats of solution and dilution of calcium sulfate dihydrate in aqueous sodium chloride solutions. W. E. Wallace. bibliog diag J Phys Chem 50:152-68 Mr '46
Heats of solution hexamethylbenzene, cetyl alcohol, and dicetyl in related liquids; heats of fusion by an extrapolation process. G. S. Parks and R. D. Rowe. bibliog J Chem Phys 14:507-10 S '46

SOLUTION, Heat of—*Continued*
Studies on glass; heats of solution of crystalline and glassy glucose; heat of mutarotation of α-glucose. R. D. Rowe and G. S. Parks. diag J Chem Phys 14:383-8 Je '46

SOLUTIONS, Solid
Beryllium, beryllium alloys and the theoretical principles affecting alloy formation with beryllium; factors affecting solid solution formation. G. V. Raynor. bibliog diag Roy Aeronautical Soc J 50:401-6 My '46
Configuration of sulfoxides; mixed crystals of sulfoxides with sulfones. H. Rheinboldt and E. Giesbrecht. bibliog Am Chem Soc J 68:973-8 Je '46
Contamination of precipitated barium sulfate by univalent cations. G. Walton and G. H. Walden, jr. bibliog Am Chem Soc J 68:1742-50 S '46
Copper-manganese equilibrium system. R. S. Dean and others. il Am Soc For Metals Trans 34:443-63 bibliog(p462-3); Discussion. 463-4 '45
Effect of some added materials on dicalcium silicate. E. S. Newman and L. S. Wells. bibliog diags J Res Nat Bur Stand 36:137-58 F '46
Preparation of mixed thallium bromide-iodide for infra-red transmission. O. F. Tuttle and P. H. Egli. J Chem Phys 14: 571 S '46
Solid solutions in hydrocarbon systems. J. W. Tooke and J. G. Aston. Am Chem Soc J 67:2275-6 D '45

SOLUTIONS, Standard
Indirect calibration of the filter photometer by means of the spectrophotometer; considerations on use of standards. C. L. Comar. bibliog Ind & Eng Chem Anal ed 18:626-8 O '46

SOLUTIZER process. See Gasoline—Manufacture

SOLVENTS
Butadiene purification by solvent extraction. A. S. Smith and T. B. Braun. bibliog diag Ind & Eng Chem 37:1047-52 N '45
Calculation of solvent extraction equilibria. V. A. Kalichevsky. bibliog Ind & Eng Chem 38:1009-12 O '46; Same. Pet Refiner 25:99-103 O '46
Chemical removal of scales, sludges and oxides. G. F. Williams. bibliog il diags Heating-Piping 18:108-11 Ag '46
Chemistry of western pines; effect of solvents on extractives from ponderosa pine. A. B. Anderson. Ind & Eng Chem 38:759-61 Jl '46
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of solvents and catalysts. C. E. Dalgliesh and F. G. Mann. Chem Soc J p910-13 D '45
Cotton wax; solubility in common solvents. W. H. Tonn, jr. and E. P. Schoch. Ind & Eng Chem 38:415-16 Ap '46
Determination of total solids in resin solutions; solution-evacuation method. C. D. McKinney, jr., E. Turk and W. E. Shaefer. bibliog diags Ind & Eng Chem Anal ed 18: 14-16 Ja '46
Dimethylsulfolane; abstract. H. G. Staaterman and others. flow diag Pet Processing 1:85-6 O '46
Dissociation constant, solubility, and the *p*H value of the solvent. H. A. Krebs and J. C. Speakman. Chem Soc J p593-5, S '45
Effect of solvents on the critical concentration for micelle formation of cationic soaps. M. L. Corrin and W. D. Harkins. J Chem Phys 14:640 O '46
Humic acids and true organic acids as solvents of minerals. W. G. Fetzer. bibliog Econ Geol 41:47-56 Ja '46
Improved petroleum naphthas and solvents are finding many new industrial uses. B. H. Weil. bibliog il Nat Pet N 38 pt 2:R65-9 Ja 2 '46
Kinetics of decomposition of benzoyl peroxide in solvents. K. Nozaki and P. D. Bartlett. bibliog Am Chem Soc J 68:1686-92 S '46
Kinetics of exchange reactions; influence of solvent and molecular structure. L. J. le Roux and others. Chem Soc J p586-8 S '45
Kinetics of the decomposition of benzoyl peroxide in various solvents. W. E. Cass. bibliog Am Chem Soc J 68:1976-82 O '46
Laboratory study of continuous vegetable oil extraction; countercurrent extractor, rising-film evaporator, and oil stripper. A. C. Beckel, P. A. Belter and A. K. Smith. il diags Ind & Eng Chem Anal ed 18:56-8 Ja '46
Mechanism of solvent action; influence of molecular size and shape on temperature dependence of solvent ability. A. K. Doolittle. Ind & Eng Chem 38:535-40 My '46
New solvents and plasticizers for surface coatings; abstracts. W. A. Woodcock. Can Chem & Process Ind 29:744-5 N '45; Oil Paint & Drug Rep 148:41-2 N 12 '45
Rust determination in presence of steel; preferential solvent and its application. F. Gibadlo. bibliog Iron Age 157:58-9 Ap 18 '46
Soaps in organic solvents. S. R. Palit. Soap & San Chem 22:67 S '46
Solubility of acetyl-*p*-toluidine in various solvents. D. L. Pollock and others. bibliog J Phys Chem 50:23-8 Ja '46
Solubility of DDT in kerosenes; effect of auxiliary solvents at subzero temperatures. E. E. Fleck and H. L. Haller. Ind & Eng Chem 38:177-8 F '46
Solubility of oxygen and nitrogen in organic solvents from -25° to 50° C. C. B. Kretschmer, J. Nowakowska and R. Wiebe. bibliog diag Ind & Eng Chem 38:506-9 My '46
Solvent extraction. J. C. Elgin. bibliog(48 references) Ind & Eng Chem 38:26-7+ Ja '46
Solvent extraction of penicillin. D. Rowley, H. Steiner and E. Zimkin. Soc Chem Ind J 65:237-40 Ag '46
Solvent power of lacquer solvents; abstract. Paint Oil & Chem R 109:43-4 O 3 '46
Solvent properties of methyl isobutyl ketone. J. R. Scheibli and T. W. Evans. Paint Oil & Chem R 109:12+ O 31 '46
Solvents face difficult expansion problems. J. G. Park. il Chem & Met Eng 53:116-18 My '46
Solvents for DDT. H. A. Jones, H. J. Fluno and G. T. McCollough. Soap & San Chem 21:110-13+ N '45
Solvents in the paint industry. R. B. Pollak. bibliog Paint Oil & Chem R 108:9 Ag 9; 9 Ag 23; 22+ S 6; 10 S 20; 14+ O 4; 20+ N 29; 12+ D 13 '45; 109:12+ Ja 10; 9-10+ Ja 24; 10+ F 7; 10+ F 21; 5-7 Mr 7; 16+ Mr 21; 12+ Ap 4; 18+ Ap 18; 12+ My 2; 8-10 My 30; 10+ Je 27; 9-10+ Jl 25; 22+ Ag 8; 40+ Ag 22; 14+ S 5 '46
Some modern solvents; summary of their properties and uses. A. E. Williams. Chem Age (Lond) 55:223-7 Ag 24 '46
Stain removers. M. A. Lesser. bibliog Soap & San Chem 22:33-5+ Mr '46
Tributyl phosphate as a solvent for preparing concentrated and oil-miscible solutions of 2, 4-dichlorophenoxyacetic acid and similar substances. W. B. Ennis, jr. and others. Science 103:476 Ap 19 '46
Use of hydrotropic solutions in industry. R. H McKee. bibliog diag Ind & Eng Chem 38:382-4 Ap '46
Vapor degreasing. G. Black. il Materials & Methods 24:95-7 Jl '46
Viscosity of cellulose derivatives and resins in mixed solvents. S. R. Palit. bibliog Paint Oil & Chem R 109:14+ Jl 11 '46

See also
Acetone
Benzene
Butyl alcohol
Carbon disulfide
Carbon tetrachloride
Chloroform
Cleaning compositions
Extraction processes
Methanol

Analysis
Composition of some trade name solvents used for cleaning and degreasing, and for thinning paints; tabulation. A. D. Brandt and others. Pub Health Rep 61:132-43 F 1 '46
Estimation of salts of weak acids by direct titration in a mixed solvent. S. R. Palit. bibliog Ind & Eng Chem Anal ed 18:246-51 Ap '46
Removal of peroxides from organic solvents. W. Dasler and C. D. Bauer. bibliog Ind & Eng Chem Anal ed 18:52-4 Ja '46

SOLVENTS—*Continued*

Physiological effect

Composition of some trade name solvents used for cleaning and degreasing, and for thinning paints; tabulation. A. D. Brandt and others. Pub Health Rep 61:132-43 F 1 '46

Discussion of the commoner industrial dermatoses. S. M. Peck. Ind Med 14:963-4 D '45

Prevention program for industrial dermatitis. S. M. Peck. il Safety Eng 91:71-2+ My '46

Solvent hazards. Safety Eng 90:74 D '45

Solvent dermatitis. Safety Eng 91:63 Je '46

Ventricular fibrillation induced by hydrocarbons and epinephrine. M. B. Chenoweth. bibliog il J Ind Hygiene 28:151-8 Jl '46

Safety measures

Are so-called safety solvents really safe? Safety Eng 91:52 F '46

Carbon tetrachloride as a safety solvent. Safety Eng 92:63 Ag '46

Control of solvent vapor exposure; abstract. Heating-Piping 18:129 Jl '46

Costly solvent vapors. Safety Eng 97:73 F '46

First aid for solvent exposure. il Safety Eng 92:64 Ag '46

Flammable vapor and a spark; fire in metal working plant. il Safety Eng 92:57 Ag '46

Medical protection in solvent-using departments. Chem Ind 58:470 Mr '46

Physical condition an important factor in safe use of solvents. Paper Ind 27:1885 Mr '46; Safety Eng 91:78 Ap '46

Protecting workers from the effects of toxic organic solvent vapors. Chem & Met Eng 53:124 Mr '46

Respiratory protection from solvent vapors. Paper Ind 27:1091 O '45; Same. Nat Safety N 52:116-18 N '45; Same. Rayon 26:594 N '45

Safe handling of solvents. L. Gordon. il Materials & Methods 24:905-9 O '46

Shop safety with organic solvents. M. Foy. il Sheet Metal Worker 36:54-5+ N '45

Solvent-resistant gloves. D. F. Hayes. il Safety Eng 91:67-9 Je '46

Solvent vapors dangerous when uncontrolled. M. Foy. il Textile World 96:118-19+ Je '46

Solvents in the paint industry. R. B. Pollak. Paint Oil & Chem R 108:14+ O 4; 20+ N 29 '45

Solvents used as degreasers. Safety Eng 91: 74 Je '46

Use of solvents in cleaning machinery for reconversion. M. Foy. Mach 52:165-7 D '45

Ventilation of solvent degreasers. J. B. Skinner and W. M. Pierce. il diags Heat & Ven 43:72-5 F '46

Ventilation requirements for industrial solvents. W. C. L. Hemeon. il diags Heat & Ven 42:95-8 D '45; 43:69-73 Ja; 82-6 Mr; 79-81 Ap '46

SOMERVELL, Brehon Burke, 1892-

President of Pittsburgh's Koppers co. por (cover) Bsns W p8 My 11 '46

SONAR

Early echo ranging sonar. il Electronics 19: 274+ Jl '46

Echo ranging sonar; technical details of model QCS/T equipment. R. J. Evans. il diags Electronics 19:88-93 Ag '46

Navy releases sonar story. il Electronics 19: 284+ My '46

Sonar for submarines; used for underwater listening. R. S. Lanier and C. R. Sawyer. il diags Electronics 19:99-103 Ap '46

Sonar location of submarines. il diag Product Eng 17:[no7] 138-9 Jl '46

Sonar tactics in the war. Electronics 19:286+ Je '46

Sonar uses Doppler effect. Electronics 19:142 O '46

SONGS

See also

People's songs, inc.

SONOBUOY. See Sound—Transmission thru sea water

SONOTONE corporation

Care and feeding of branch managers. K. Cooper. Sales Management 57:126+ Ag 15 '46

Preferred stock offered. Comm & Fin Chr 163: 2484 My 6 '46

SOOT

Low water and soot fire. Marine Eng 51: 125-6 Jl '46

Soot fires around air heaters. Marine Eng 51:131-2 S '46

SOOT blowers

Compressed air cleans boiler tubes. il diag Power 90:400 Je '46

Expected advantages realized in record of automatic air soot blowers. H. L. Smith. il diags Power 90:520-2 Ag '46

Hopkinsons soot blowers. il diag Engineer 181:342 Ap 12 '46

Power-operated soot blowers. il diag Engineer 182:122 Ag 9 '46

SORBITOL

Anhydrides of polyhydric alcohols; derivatives of 5 : 6-anhydro mannitol and sorbitol L. F. Wiggins. Chem Soc J p388-90 My '46

Anhydrides of polyhydric alcohols; 2 : 5-diamino 1 : 4-3 : 6-dianhydro mannitol and sorbitol and their sulphanilamide derivatives. R. Montgomery and L. F. Wiggins. Chem Soc J p393-6 My '46

Anhydrides of polyhydric alcohols; the constitution of dianhydro sorbitol. R. Montgomery and L. F. Wiggins. Chem Soc J p390-3 My '46

Hexitol anhydrides; synthesis and structure of arlitan, the 1,4-monoanhydride of sorbitol. S. Soltzberg, R. M. Goepp, jr. and W. Freudenberg. bibliog Am Chem Soc J 68:919-21 Je '46

Hexitol anhydrides; the structure of isosorbide, a crystalline dianhydrosorbitol. R. C. Hockett and others. bibliog Am Chem Soc J 68:927-30 Je '46

Hygroscopicity of softened glue composition. W. C. Griffin. bibliog Ind & Eng Chem 37: 1126-30 N '45

Lead tetraacetate oxidations in the sugar group; the structure of arlitan, a monoanhydride of sorbitol. R. C. Hockett and others. bibliog Am Chem Soc J 68:922-6 Je '46

Sugar interconversion under reducing conditions. M. L. Wolfrom and others. bibliog Am Chem Soc J 68:122-6, 1443-8 Ja, Ag '46

SORENSEN, Charles E. 1881-

New, tough team; Sorensen and Mooney join Willys-Overland. por Fortune 33:170 Mr '46

SORET effect

Thermal diffusion-convection as a cause of magmatic differentiation. W. Wahl. Am J Sci 244:417-41 Je '46

SORGHUM

Dividends from double cropping; south Texas farmers plant cotton or sorghums in spring and vegetables in winter. H. Severson. il Banking 39:56-7+ N '46

Extraction of aconitic acid from sorgo. E. K. Ventre and others. bibliog Ind & Eng Chem 38:201-4 F '46

SORGO. See Sorghum

SORRELL, Herbert Knott

Militant painter; storm center of Hollywood's labor strife. Bsns W p79-80+ Jl 13 '46

SORTING devices

Bad beans given the bounce; electronic sorting mechanism. il diags Food Ind 18:1031+ Jl '46; Product Eng 17:90-2 O '46

Bean sorting. il Sci Am 174:171 Ap '46

Coal pulverizer balls sorted mechanically. il diag Elec World 125:116 My 11 '46

Countersunk rivets sorted by head sizes. il Aero Digest 51:58 D 15 '45

Electronics in engineering; magnetic sorting bridge. il (p83) Engineer 181:82 Ja 25 '46

Engine mounting selection machine automatically determines load characteristics. il diags Product Eng 17:104-6 F '46

Mixed metal magic. J. Markus. il Sci Am 175:169-71 O '46

700 tons of food sorted daily by electron tubes. il Elec World 125:136 My 25 '46; diag Electronics 19:152 Jl '46

Sorting alloys; triboelectric instrument. N. F. Agnew. il diag Electronics 19:124-5 S '46

Sorting metals by tribo-electrification. A. Doscheck. il Steel 117:106+ D 24 '45

SOUND

Acoustic intensity distribution from a piston source. A. O. Williams, jr. and L. W. Labaw. Acoustical Soc Am J 16:231-6; 17:219-27 Ap '45, Ja '46

Acoustic transmission through a fluid lamina. I. Rudnick. il Acoustical Soc Am J 17:245-53 Ja '46

Electronics chart of sound levels. Electronics 19B:81 (Buyers guide no) Je 15 '46

Jungle acoustics; study carried out during wet season in Panama. C. F. Eyring. il Acoustical Soc Am J 18:257-70 O '46

Modulation of sound decay curves. R. B. Watson. il diags Acoustical Soc Am J 18: 119-29 Jl '46

Thermal and acoustic effects attending absorption of microwaves by gases. W. D. Hershberger and others. bibliog il RCA R 7:422-31 S '46

War influence on acoustic trends; abstract. H. S. Knowles. il Electronics 19:246+ Ja '46

See also

Acoustics, Architectural
Bells
Electroacoustics
Hearing
Noise
Phonetics
Polarization (sound)
Sound waves
Soundproofing
Supersonic waves
Television—Sound transmission
Vibration

Absorption

Absorption and scattering by sound-absorbent cylinders. R. K. Cook and P. Chrzanowski. bibliog diags J Res Nat Bur Stand 36:393-410 Ap '46; Same. Acoustical Soc Am J 17:315-25 Ap '46

Absorption of supersonic waves in liquids. C. E. Teeter, jr. bibliog il diag Acoustical Soc Am J 18:488-95 O '46

Absorption of ultrasonic waves in benzene. J. Quinn. bibliog diags Acoustical Soc Am J 18:185-9 Jl '46

Compressional viscosity and sound absorption in water at different temperatures F. E. Fox and G. D. Rock. bibliog Phys R 70:68-73 Jl 1 '46

Design and construction of anechoic sound chambers. L. L. Beranek and H. P Sleeper, jr. il diags Acoustical Soc Am J 18: 140-50 Jl '46

Dispersion of the velocity and anomalous absorption of sound in hydrogen. E. S. Stewart. bibliog Phys R 69:632-40 Je 1 '46

Ultrasonic propagation in liquids; application of pulse technique to velocity and absorption measurements at 15 megacycles. J. R. Pellam and J. K. Galt. il diags J Chem Phys 14:608-14 O '46

Ultrasonic propagation in liquids; theoretical study of the free volume model of the liquid state. C. Kittel. bibliog J Chem Phys 14:614-24 O '46

See also

Sound absorbent materials

Apparatus

Audio aid for vacuum-leak hunting. V. Wouk. il diags Electronics 19:138-41 F '46

Auditory signals for instrument flying. T. W. Forbes. il J Aeronautical Sci 13:255-8 My '46

Blind inspectors gage by sound. il diag Am Mach 89:111 N 22 '45; Mach 52:174 Jl '46

Buried cable faults located by sonic detector. F. S. Benson and others. il diags Elec World 125:82-5 Je 22 '46

Directional characteristics of a free-edge disk mounted in a flat baffle or in a parabolic horn. F. H. Slaymaker and others. il diags Acoustical Soc Am J 18:355-70 O '46

Effects of finite baffles on response of source with back enclosed. R. H. Nichols, jr. diag Acoustical Soc Am J 18:151-4 Jl '46

Electronic sound effects circuit; reproduction of battle sounds used in training men for the army. H. Syzling. il diag Electronics 19:214+ Ja '46

Fault location narrowed by tone on d.c. network. P. B. Hull. Elec World 124:84-5 D 22 '45

Generalized plane wave horn theory. V. Salmon. bibliog diags Acoustical Soc Am J 17:199-211 Ja '46

Inductive pick-up for fault location. G. L. Danner. diags Elec World 125:130 F 16 '46

New ultrasonics instrument; Crystalab ultrasonorator. Chem Ind 58:834 My '46

Photoelectric aid for the blind; beam of light reflected by objects within 20-foot radius creates coded tone signals in earphone. il Electronics 19:204+ Ja '46

Range extender for general radio 760A sound analyzer. J. D. Cobine and J. R. Curry. il diags R Sci Instr 17.190-4 My '46

Reading aid for the blind; letters converted into distinctive sounds. V. K. Zworykin and L. E. Flory. il diags Electronics 19: 84-7 Ag '46

Sensory aid for the blind; photoelectric ranging device gives aural indication of distance of obstacle. L. Cranberg. il diags Electronics 19:116-19 Mr '46

Small acoustical tube for measuring absorption of acoustical materials in auditoriums. D. P. Loye and R. L. Morgan. il Acoustical Soc Am J 17:326-8 Ap '46

Sound spectrograph. W. Koenig and others. il diags Acoustical Soc Am J 18:19-49 Jl '46

Troubles in steam turbines or other rotating equipment detected by resonance tube. il Mach 52:171 Ag '46

Visible speech cathode-ray translator. R. R Riesz and L. Schott. il diags Acoustical Soc Am J 18:50-61 Jl '46

Visible speech translators with external phosphors. H. Dudley and O. O. Gruenz, jr il diags Acoustical Soc Am J 18:62-73 Jl '46

See also

Acoustic patents
Electroacoustic transducers
Hearing aids, Mechanical
Hydrophone
Loud speaking apparatus
Microphones
Phonograph
Radio apparatus
Reflectoscope
Sound—Measurement
Sound—Recording and reproducing
Telephone
Whistles

Attenuation

Attenuation of sound in circular ducts. E. Fisher. Acoustical Soc Am J 17:121-2 O '45; Correction. 17:338 Ap '46

Propagation of sound in the atmosphere; attenuation and fluctuations. V. O. Knudsen. bibliog il Acoustical Soc Am J 18:90-6 Jl '46

Bibliography

References to contemporary papers on acoustics. Acoustical Soc Am J 17:302-4 Ja '46 [cont quarterly]

Diffraction

Theory of propagation of sound in a half-space of variable sound velocity under conditions of formation of a shadow zone. C. L Pekeris. diags Acoustical Soc Am J 18:295-315 O '46

Measurement

Absolute bels. F. S. G. Scott. diags Wireless Eng 23:132-9 My '46

Analysis of plane discontinuities in cylindrical tubes. J. W. Miles. bibliog diags Acoustical Soc Am J 17:259-84 Ja '46

Combatting the noise problem in gas pressure regulators. W. A. La Violette. il plan Gas Age 98:101-4+ O 3 '46

Distortion analyzer; Hewlett-Packard's newest instrument. il R Sci Instr 17:201 My '46

Effect of branch take-off design on noise in ventilating duct systems. O. Imalis and others. plan diags Heating-Piping 18:115-18 Ap '46

Effects of finite baffles on response of source with back enclosed. R. H. Nichols, jr. diag Acoustical Soc Am J 18:151-4 Jl '46

Fifty horsepower siren. R. C. Jones. il map diags Acoustical Soc Am J 18:371-87 O '46

Measurement of sound. E. N. Kemler and C. R. Freberg. il Heat & Ven 43:69-70 F '46

Motional impedance analysis applied to a dynamic microphone. J. E White. Acoustical Soc Am J 18:155-60 Jl '46

Noise and its suppression. N. Fleming. Inst Chem Eng Trans 20:30-2 bibliog(p35); Discussion. 35-7 '42

SOUND—Measurement—*Continued*
Progress in refrigerant compressor testing as an aid to design; noise investigations. L. Hanson. il diags Refrig Eng 52:131-6+ Ag '46
Rectification of signal and noise. V. J. Francis and E. G. James. diags Wireless Eng 23:16-25 Ja '46
Signal and noise levels in magnetic tape recording. D. E. Wooldridge. bibliog il diags Elec Eng 65:Trans 343-52 Je '46
Silencing of aircraft. N. Fleming. Roy Aeronautical Soc J 50:640-4 S '46
Simplified flow resistance measurements. R. W. Leonard. diags Acoustical Soc Am J 17: 240-1 Ja '46
Sound-pressure measurement standard. F. Massa. il diags Electronics 19:218+ My '46
Sound pressure measurement standard announced by Massa laboratories, inc. il R Sci Instr 17:160 Ap '46
Ultrasonic condenser microphone. T. H. Bonn. bibliog il diags Acoustical Soc Am J 18:496-502 O '46

Recording and reproducing

Auditory perception. J. D. Goodell and B. M. H. Michel. bibliog diag Electronics 19:142-8 Jl '46
Business recording equipment. R. Stone. il diags Radio N 34:32-4+ N '45
Communications test employs film recorder. il Ry Mech Eng 120:41 Ja '46
Embossing sound on film. S. Kempner. il Radio N 35:36-7+ Je '46
Endless belt recorder. F. W. Roberts and A. W. Skoog. il diags Machine Design 18:99-104 Jl '46
Film-type recorder finds airline use; logging of messages between the control tower and planes landing and taking off. il Air Transport 4:65 Je '46
Improved sound reproducer. C. A. Volf. il Radio N 35:38-9+ Ja '46
Recorder for train communication. il Ry Age 119:1050 D 29 '45
Recording CAA traffic control instructions. K. M. MacIlvain. il diags Electronics 19: 116-19 My '46
Recording the war trials in four languages. il Electronics 19:202+ My '46
Reverberation chambers for rerecording. M. Rettinger. diags Soc Motion Picture Eng J 45:350-7 N '45
Serviceman's recording studio. R. Paige. il Radio N 35:35+ Ap '46
Signal and noise levels in magnetic tape recording. D. E. Wooldridge. bibliog il diags Elec Eng 65:Trans 343-52 Je '46
Sound inscribed on paper tape; Brush magnetic recorders. il Bsns W p50+ Ja 26 '46
Sound-on-film; device takes dictation. il Sci Am 174:277 Je '46
Sound on paper made possible by new magnetic coating. il Sci Am 174:156 Ap '46
Sound recording; abstracts of papers at AIEE winter meeting. il Electronics 19:242+ Ap '46
Stereophon sound recording system; developed by Dr Carlheinz Becker. diags Acoustical Soc Am J 17:356-7 Ap '46
Three-band variable equalizer. L. D. Grignon. diags Soc Motion Picture Eng J 46:64-74 Ja '46
Two-way radiotelephone has automatic recorder; Union sulphur co. operation of pipe line. il Elec World 125:128+ My 11 '46
Variable-area release from variable-density original sound tracks. J. P. Livadary and S. J. Twining. bibliog Soc Motion Picture Eng J 45:380-8 N '45
Visible patterns of sound. R. K. Potter. il Science 102:463-70 N 9 '45
Visible speech patterns transmit intelligence; can be read by totally deaf person. il Electronics 19:200+ Ja '46
Visual language; sound analytical devices portray patterns of sound; developed by Bell telephone laboratories. Pub Util 36: 777-8 D 6 '45
Volume expander design. R. W. Ehrlich. il diags Electronics 18:124-7 D '45
Westrex master sound film reproducer. G. S. Applegate and J. C. Davidson. il Soc Motion Picture Eng J 46:278-83 Ap '46
Westrex standard sound film reproducer. G. S. Applegate and J. C. Davidson. il Soc Motion Picture Eng J 46:272-7 Ap '46

See also
Moving picture sound recording
Phonograph
Speech, Visible

Magnetic wire recording

B-H curve tracer for magnetic-recording wire. T. H. Long and G. D. McMullen. il diag Elec Eng 65:Trans 146:9 Mr '46
Continuous wire record; plays back display message without re-wind. Sci Am 175:131 S '46
High quality sound recording on magnetic wire; abstract. L. C. Holmes. Electronics 19:236+ Ja '46
Magnetic wire recorder tensioning mechanism. il diags Product Eng 17:372 My '46
New wire recorder head design. T. H. Long. bibliog il diags Elec Eng 65:Trans 216-20 Ap '46
Recorders coming; device using wire. il Bsns W p54-6 D 29 '45
Theoretical response from a magnetic-wire record. M. Camras. diags Inst Radio Eng Proc 34:597-602 Ag '46
Wire recording. D. W. Pugsley. il diags Elec Eng 65:316-21 Jl '46
Wire recording; Armour magnetic-wire sound recorder and reproducer; abstract. il Mech Eng 68:257-8 Mr '46

Scattering

Theory of the propagation of sound in scattering and absorbing media. M. P. Givens and others. diags Acoustical Soc Am J 18: 284-95 O '46

Transmission thru sea water

Early echo ranging sonar. il Electronics 19: 274+ Jl '46
Echo ranging sonar; technical details of model QCS/T equipment. R. J. Evans. il diags Electronics 19:88-93 Ag '46
Navy radio and electronics during World war II. J. B. Dow. Inst Radio Eng Proc 34:285-6 My '46
Recent results in submarine geophysics. M. Ewing and others. bibliog diags Geol Soc Bul 57:909-34, fold map(pl 1) pl 2-12 O '46
Sonar location of submarines. il diag Product Eng 17:[no 7] 138-9 Jl '46
Sonobuoy; reveals the presence of submerged submarines to patrol ships and planes. il diags Electronics 19:154-5 Ap '46

Velocity

Dispersion of the velocity and anomalous absorption of sound in hydrogen. E. S. Stewart. bibliog Phys R 69:632-40 Je 1 '46
Some properties of very intense shock waves. R. G. Sachs. Phys R 69:514-22 My 1 '46
Theory of propagation of sound in a half-space of variable sound velocity under conditions of formation of a shadow zone. C. L. Pekeris. diags Acoustical Soc Am J 18:295-315 O '46
Ultrasonic propagation in liquids; application of pulse technique to velocity and absorption measurements at 15 megacycles. J. R. Pellam and J. K. Galt. il diags J Chem Phys 14:608-14 O '46
Ultrasonic propagation in liquids; theoretical study of the free volume model of the liquid state. C. Kittel. bibliog J Chem Phys 14:614-24 O '46

SOUND absorbent materials
Absorption and scattering by sound-absorbent cylinders. R. K. Cook and P. Chrzanowski. bibliog diags J Res Nat Bur Stand 36:393-410 Ap '46; Same. Acoustical Soc Am J 17:315-25 Ap '46
Absorption of sound by coated porous rubber wallcovering layers. C. W. Kosten. bibliog diags Acoustical Soc Am J 18:457-71 O '46
Aircraft sound-proofing; improved by newly developed material; fiberglas. Sci Am 175: 74 Ag '46
Discussion of the acoustical properties of fiberglas. W. M. Rees and R. B. Taylor. Soc Motion Picture Eng J 46:52-63 Ja '46
Effect of non-uniform wall distributions of absorbing material on the acoustics of rooms. H. Feshbach and C. M. Harris. bibliog plan diags Acoustical Soc Am J 18:472-87 O '46

SOUND absorbent materials—*Continued*
Effect of position on the acoustical absorption by a patch of material in a room. C. M. Harris. diags Acoustical Soc Am J 17:242-4 Ja '46
Simplified flow resistance measurements. R. W. Leonard. diags Acoustical Soc Am J 17: 240-1 Ja '46
Small acoustical tube for measuring absorption of acoustical materials in auditoriums. D. P. Loye and R. L. Morgan. il Acoustical Soc Am J 17:326-8 Ap '46
Sound conditioning spurs sales. J. J. Rowland. il diags Radio N 36:30-1+ N '46
Soundproofing with plastics; resin impregnated glass fiber. il Mod Plastics 23:117 Jl '46
Working conditions in a machine shop improved by sound-conditioning. F. A. Westbrook. il Mach 52:188 Je '46

See also
Soundproofing

SOUND chambers. See Acoustics, Architectural

SOUND laboratories
Electro-acoustic laboratory at Harvard university; war work. il Chem & Eng N 24: 228-9 Ja 25 '46
Massachusetts institute of technology has announced establishment of Acoustics laboratory. R Sci Instr 16:391 D '45

SOUND production by fishes
Underwater noise due to marine life. D. P. Loye and D. A. Proudfoot. Acoustical Soc Am J 18:446-9 O '46

SOUND production by insects
Supersonic insects. W. H. Pielemeier. Acoustical Soc Am J 17:337-8 Ap '46

SOUND recording. See Moving picture sound recording; Sound—Recording and reproducing

SOUND spectrograph. See Spectrograph, Sonic

SOUND waves
Acoustic transmission through a fluid lamina. I. Rudnick. il Acoustical Soc Am J 17:245-53 Ja '46
Analysis of plane discontinuities in cylindrical tubes. J. W. Miles. bibliog diags Acoustical Soc Am J 17:259-84 Ja '46
Attenuation of sound in circular ducts. E. Fisher. Acoustical Soc Am J 17:121-2 O '45; Correction. 17:338 Ap '46
Determination of the wave forms and laws of propagation and dissipation of ballistic shock waves. J. W. M. DuMond and others. diags Acoustical Soc Am J 18:97-118 Jl '46
Heat-capacity lag in gas dynamics. A. Kantrowitz. bibliog diags J Chem Phys 14:150-64 Mr '46
Masking of speech by sine waves, square waves, and regular and modulated pulses. S. S. Stevens and others. diags Acoustical Soc Am J 18:418-24 O '46
Propagation of plane sound waves in rarefied gases. H. Tsien and R. Schamberg. Acoustical Soc Am J 18:334-41 O '46
Propagation of sound in an inhomogeneous and moving medium. D. Blokhintzev. Acoustical Soc Am J 18:322-34 O '46
Propagation of sound in the atmosphere; attenuation and fluctuations. V. O. Knudsen. bibliog il Acoustical Soc Am J 18:90-6 Jl '46
Ray computation for non-uniform fields. J. S. Saby and W. L. Nyborg. diags Acoustical Soc Am J 18:316-22 O '46
Reflection of sound signals in the troposphere. G. W. Gilman and others. bibliog il diags Acoustical Soc Am J 18:274-83 O '46
Sound spectrograph. W. Koenig and others. il diags Acoustical Soc J 18:19-49 Jl '46
Theory of propagation of sound in a half-space of variable sound velocity under conditions of formation of a shadow zone. C. L. Pekeris. diags Acoustical Soc Am J 18: 295-315 O '46
Theory of the propagation of sound in scattering and absorbing media. M. P. Givens and others. diags Acoustical Soc Am J 18:284-95 O '46
Toward a theory of intervals. D. B. Irvine. Acoustical Soc Am J 17:350-5 Ap '46
Transmission, reflection, and guiding of an exponential pulse by a steel plate in water. M. F. M. Osborne and S. D. Hart. il Acoustical Soc Am J 17:1-18 Jl '45; 18:170-84 Jl '46
Wave equation in a medium with a variable index of refraction. P. G. Bergmann. Acoustical Soc Am J 17:329-33 Ap '46

See also
Supersonic waves

SOUNDING
Bendix-Marine supersonic depth sounder. il Marine Eng 50:262 N '45
Echo depth sounder for shallow water. G B. Shaw. il map diags Electronics 19:88-92 S '46
Electronic depth recorder; echo sounding device. il Electronics 18:168 D '45

SOUNDPROOFING
Acoustical ceiling treatment employs simple installation of fiberglas. il diag Arch Forum 84:184 My '46
Aircraft acoustical problems and possible solutions. K. R. Jackman. bibliog il diags Aviation 45:75-9 Jl; 83-9 Ag; 71-8 S; 69-73 O '46
Demountable soundproof rooms; two sheets of steel cemented to two sheets of composition board with a rockwool blanket between. W. S. Gorton. il diags Acoustical Soc Am J 17:236-9 Ja '46
Effect of position on the acoustical absorption by a patch of material in a room. C. M. Harris. diags Acoustical Soc Am J 17: 242-4 Ja '46
Effects of acoustical treatment in industrial areas. F. K. Berrien and C. W. Young. Acoustical Soc Am J 18:453-7 O '46
Fundamentals in vehicle acoustics. T. M. Prudden. Mech Eng 68.875-8 O '46
Isolation of sound in buildings; with time saver standards. R. R. J. Tinkham. bibliog diags Arch Rec 99:114-17+ My '46
Noise and its suppression. N. Fleming. Inst Chem Eng Trans 20:33-5 bibliog(p35); Discussion. 35-7 '42
Quiet, please! employee efficiency and machine life upped by killing vibration. J. P. Callahan. il diags Am Mach 90:102-3 F 28 '46
Sidelights on sound isolation in air conditioning. il diags Sheet Metal Worker 37:38-40 Mr '46
Silencing of aircraft. N. Fleming. Roy Aeronautical Soc J 50:639-63 bibliog(p663); Discussion. 663-76 S '46
Sound conquests. il Bsns W p54 Ja 19 '46
Stinson cuts down noise in Voyager. Aviation N 4:17 N 26 '45

See also
Acoustics, Architectural
Sound absorbent materials

SOUP industry and trade

Cuba
Cuban market for canned and dehydrated soups. For Comm W 22:32 Mr 23 '46

SOUTH
Trend to south and west is found in population and business survey. Heat & Ven 43: 98+ Je '46

See also
Political parties—Southern states
Southeast
Southwest
Trade unions—Southern states

Economic conditions
Progress of the South as compared with that of other sections. M. P. Callaway. Manuf Rec 114:35+ N '45
Southern business leaders see gainful swing upward. J. Mebane. Manuf Rec 114:52-3+ D '45
Targets for southern aim. L. F. Gordon. Manuf Rec 115:37+ F '46

Industries and resources
Bulkier payrolls for the South. J. Mebane. Manuf Rec 115:48+ O '46
Economists survey the South. Bsns W p32+ O 26 '46
Industrialization of the South; prewar development; wartime expansion. Index 25 no 4: 73-85 [D] '45

SOUTH—Industries and resources—*Continued*
Labor drives South. il Fortune 34:134-41+ N '46
Opportunities for engineering research in the South. E. N. Kemler. Manuf Rec 114:41-2 N; 56-7+ D '45
Southern states seek to extend industrial gains made during war. il Steel 118:88-9 Mr 18 '46
Southern unions hold firm. Bsns W p82+ Mr 2 '46
See also
Metal working industries—Southern states
Southern research institute
SOUTH AFRICA
Natural products of the empire. Van Eck. Chem Age (Lond) 55:13 Jl 6 '46
See also
Fruit trade—South Africa
Gold mines and mining—South Africa
Advertising
Booklet pictures South Africa as land of opportunity. Ptr Ink 214:64+ Ja 11 '46
Commerce
Our trade outlook in South Africa. Comm & Fin Chr 163:1785+ Ap 4 '46
Trade tussle; British and U. S. exporters renew rivalry for South African market. Bsns W p106 Ja 19 '46
Economic conditions
Gold! a startling borehole yield gives South Africa a wild boom. H. Solow. il maps Fortune 34:105-17 O '46
News by countries. For Comm W 25:22-4 O 12 '46
South Africa in 1945. Economist 150:sup7 Mr 23 '46
Race problems
Indians in South Africa. Economist 151:498+ S 28 '46
SOUTH AMERICA
Land and politics; review of R. H. Sharp's South America uncensored, by W. Ebenstein. J Land & Pub Util Econ 22:63-5 F '46
See also
Latin America
Mines and mineral resources—South America
Commerce
Selling Sweden; country hopes to hold South American sales gains. Bsns W p118+ N 17 '45
South American trade hurdles. G. F. Berger. Banking 38:118 Ap '46
See also
Latin America—Commerce
SOUTH BUFFALO railway
South Buffalo's practices are condemned by examiner. Ry Age 121:150+ Jl 27 '46
SOUTH CAROLINA
Industries and resources
South Carolina resources extolled. R. M. Cooper. Manuf Rec 114:53+ N '45
$3,400,000 pilot plant in South Carolina produces alumina from kaolin. il Manuf Rec 115:54 My '46
SOUTH CAROLINA university
Library
Report of a survey of the University of South Carolina library for the University of South Carolina, February—May, 1946. L. R. Wilson and M. F. Tauber. 134p Univ. of South Carolina, Columbia '46
SOUTH DAKOTA
See also
Manganese mines and mining—South Dakota
SOUTH SEA islands
Art of the South Seas at the Museum of modern art. il maps plans Arch Forum 84: 97-104 My '46
SOUTHEAST
See also
Cotton—Southeastern states
Real estate business—Southeastern states
Industries and resources
Industrial development in the Southeast. J. P. Ferris. il Mech Eng 68:787-91 S '46
SOUTHEASTERN classified advertising managers association
Southern classified managers form new association. Ptr Ink 214:122 Ja 25 '46
SOUTHEASTERN underwriters association
Annual meeting, Virginia Beach, Va., May 20-22. East Underw 47:24 My 31 '46
Geared to meet public law 15. East Underw 47:14 My 3 '46
Plan of operation; president's address at Pinehurst, N.C., meeting. C. S. Whitner. East Underw 46:18+ N 9 '45; Abstract. Nat Underw 49:13 N 8 '45
SOUTHERN advance bag and paper company
Preferred stock offered. Comm & Fin Chr 162:3119 D 24 '45
SOUTHERN airways company
Stock offered. Comm & Fin Chr 164:1764 O 7 '46
SOUTHERN Pacific railroad
Annual report. Comm & Fin Chr 163:1576+ Mr 25 '46
Annual report, 62d, year ended December 31, 1945. Ry Age 120:935-8 My 4 '46
Bond issue oversubscribed. Comm & Fin Chr 163:821 F 11 '46
Bonds offered. Comm & Fin Chr 163:1035 F 25 '46
Bonds offered. Comm & Fin Chr 163:1772 Ap 1 '46
SOUTHERN paint and varnish production club
Annual meeting, New Orleans, March 21-22. Paint Oil & Chem R 109:6-7 Ap 4 '46; Oil Paint & Drug Rep 149:7+ Ap 1 '46
SOUTHERN railway
Annual report, 1945. Comm & Fin Chr 163: 1656-7, 1772 Mr 28-Ap 1 '46
Railroad progress impressive. il Manuf Rec 115:39 Je '46
SOUTHERN research institute, Birmingham, Alabama
Research for southern industry. il Manuf Rec 115:118-19+ Ja '46
Southern research institute holds first anniversary meeting. R. F. Gould. il Chem & Eng N 24:40-3 Ja 10 '46
SOUTHERN states iron roofing company
Savannah firm enters aluminum roofing field. il Manuf Rec 115:46+ Mr '46
SOUTHERN textile association
Officers elected. Textile World 96:111 Ja '46
SOUTHERN union gas company
Preferred stock offered. Comm & Fin Chr 163: 468 Ja 28 '46
SOUTHWEST
Southwest destined to be bright spot. W. N. Deramus. Manuf Rec 115:105 Ja '46
Industries and resources
Industrial and agricultural conference fosters Gulf Southwest development. Manuf Rec 115:50+ Je '46
SOUTHWEST natural gas company
Refinancing operation concluded. Comm & Fin Chr 162:2861 D 10 '45
SOUTHWESTERN power administration
Interior stymied; public power aspirations for steam plants. Bsns W p53 Jl 20 '46
No need for an S. P. A. E. Thomas. Manuf Rec 115:33+ Ag '46
SPA hydro program, summary and fallacies; steam and hydro costs compared. map Elec World 125:60-3 Mr 30 '46
Summary of utility group's offer to distribute federal hydro power. Pub Util 38:564-5 O 24 '46
SOUTHWESTERN public service company
Preferred stock offered. Comm & Fin Chr 163: 1908-9 Ap 8 '46
SOVIET-HUNGARIAN trade agreement. See commercial treaties and agreements

SOYBEAN flour
Soy flour in baking; abstract. K. F. Finney. Food Ind 18:972+ Je '46
Stability of soybean flours; effect of accelerated oxidation. L. J. Filer, jr, C. J. Martin and B. F. Daubert. bibliog il Ind & Eng Chem 37:1180-3 D '45

SOYBEAN milk
Bibliography
Soybean or vegetable milk; résumé and bibliography. A. K. Smith and A. C. Beckel. bibliog(124 references) Chem & Eng N 24: 54-6 Ja 10 '46

SOYBEAN oil
Catalytic isomerization of vegetable oils; evaluation of oils in bodying, varnishes and alkyd resins. L. B. Falkenburg and others. bibliog il Ind & Eng Chem 38:1002-9 O '46
Catalytic isomerization of vegetable oils; nickel catalysts. S. B. Radlove and others. bibliog flow sheet diag Ind & Eng Chem 38:997-1002 O '46
Drying oils situation viewed from divers angles. Oil Paint & Drug Rep 149:7+ Ap 15 '46
Hexane used as solvent for soybean oil extraction. R. E. Greenfield. il Oil & Gas J 44:101-2 F 9 '46
Laboratory study of continuous vegetable oil extraction; countercurrent extractor, rising-film evaporator, and oil stripper. A. C. Beckel, P. A. Belter and A. K. Smith. il diags Ind & Eng Chem Anal ed 18:56-8 Ja '46
Non-break soybean oil; patent. Food Ind 18: 963 Je '46
Polymerization of drying oils; rubberlike product from vegetable oils, Norepol. J. C. Cowan, W. C. Ault and H. M. Teeter. bibliog flow sheet il Ind & Eng Chem 38: 1138-44 N '46
Soybean industrial utilization studied. Oil Paint & Drug Rep 150:7+ S 2 '46
Soybean processing; illustrations with text. Food Ind 18:337-41 Mr '46
Specific heats of vegetable oils from 0° to 280° C. P. E. Clark, C. R. Waldeland and R. P. Cross. bibliog diag Ind & Eng Chem 38:350-3 Mr '46

SOYBEANS
Growing importance of soybean crop in our national agricultural economy. W. Eastman. Paint Oil & Chem R 109:14+ S 19 '46
Lime hydrolysis of soybean protein; foaming properties of the hydrolyzate. J. M. Perri, jr. and F. Hazel. bibliog diags Ind & Eng Chem 38:549-54 My '46
New agricultural products used in candy; oil-seed, cereal and legume products. H. H. Hall and others. il Food Ind 18:1008-10+ Jl '46
Oil and protein from soybeans. Can Chem & Process Ind 29:827 D '45
Proteins as industrial raw materials. A. K. Smith. bibliog il Chem Ind 58:974-7 Je '46
Soy areas bullish; processors expanding facilities. Bsns W p45 Ap 27 '46
Soybean protein production; effects of temperature and water-flake ratio. A. C. Beckel, P. A. Belter and A. K. Smith. bibliog Ind & Eng Chem 38:731-4 Jl '46
Soybean whip; whipping cream substitute. Bsns W p44+ O 12 '46

SPAATZ, Carl A. 1891-
Spaatz to receive Collier award. Aviation N 4:10 D 17 '45

SPACE (architecture)
Area charts for acute general hospitals; time-saver standards. Arch Rec 100:126+ Ag '46

SPACE buyers. See Advertising agencies—Space buyers

SPACE charge
Beam tetrode characteristics; the effect of electron deflections. S. Rodda. bibliog Wireless Eng 23:140-5 My '46
Influence of space charge on the bunching of electron beams. L. Brillouin. Phys R 70:187-96 Ag 1 '46
Space charge in cylindrical magnetron. L. Page and N. I. Adams, jr. Phys R 69:494-500 My 1 '46
Space charge in plane magnetron. L. Page and N. I. Adams, jr. Phys R 69:492-4 My 1 '46

SPAIN
German assets in Spain. Chem Age (Lond) 55:45-6 Jl 13 '46

Commercial policy
Special combined import-export transactions authorized. For Comm W 25:20-1 O 12 '46

Economic conditions
Franco Spain in crisis; economy shifts and dips. il For Comm W 23:6-9+ Je 22 '46

Foreign relations
United States
Intervention in Spain unwise! W. B. Barry. Comm & Fin Chr 163:1344+ Mr 14 '46
Should United States break off diplomatic relations with Spain? Gallup poll. Iron Age 157:117+ Je 6 '46

Politics and government
Emigré Spain. Economist 150:258 F 16 '46

SPALLING
Spalling of refractory brick. Paper Ind 27:1396 D '45
Spalling of silica bricks. T. W. Howie. Blast F & Steel Pl 34:284-5 F '46

SPANISH language
Don't refuse jobs in Spanish; they're easier than they seem. P. R. Russell. Inland Ptr 117:76 Ap '46

Dictionaries
Common usage dictionary, Spanish-English, English-Spanish. R. Weiman and O. A. Succar, eds. 303p $3 Crown publishers, 419 4th av, New York 16 '46

Translation
ABC rules (3 only) for Latin-American copy writing. L. G. Dillon. Ptr Ink 215:81-2+ Je 21 '46
He learned about Latin-American Spanish the hard way; insurance publisher uses North American translator. R. W. Osler. Ptr Ink 215:69 Ap 19 '46

SPARK gap
Influence of irradiation on the measurement of impulse voltages with sphere-gaps. J. M. Meek Inst E E J 93 pt 2:97-110 bibliog(p109-10) Ap '46; Abstracts and discussions. Electrician 135:608-10 N 30 '45; Elec R (Lond) 137:778-9 N 30 '45; Discussion. Inst E E J 93 pt 2:110-15 Ap '46
Lowering of electrical breakdown field strength at microwave frequencies due to externally-applied magnetic field. D. Q. Posin. Phys R 69.541 My 1 '46
New series capacitor protective device. R. E. Marbury and J. B. Owens. il diags Elec Eng 65:Trans 142-6 Mr '46; Same abr. Power Pl Eng 50:82-5 S '46
Spark gap converter as high-frequency power source for induction heating. O. Weitmann. il diag Steel 117:114-15+ N 19 '45

SPARK plugs
Spark plugs; abstract. R. M. Ward. S A E J 54:sup57-81+ Ag '46

SPARK testing. See Steel—Testing—Spark testing

SPECIAL libraries association
Reports of secretary, treasurer and editors; Reports of chapters, groups, committees and special representatives. Special Lib 37: 239-70 O '46
State of the Association. H. H. Henkle. Special Lib 37:235-9 O '46
37th annual convention, June 13-15, 1946; preliminary program; who's who among the speakers. Special Lib 37:135-42 My-Je '46
Work of the Special libraries association. E. S. Cavanaugh. Assn of Sp Lib & Inf Bur Proc 1945:34-6

Insurance group
Annual meeting, Boston, June 13-15. East Underw 47:10 Je 21 '46
Librarians elect Mrs Andrews chairman; other officers. Nat Underw 50:2 Je 20 '46

SPECIAL sales
30 ways to stimulate a product's retail sales P. Bradstreet. Adv & Sell 39:80+ S '46

One-cent sales
Liggett one-cent sale policy hit by FTC. Oil Paint & Drug Rep 150:79 O 21 '46
Primary aim of one-cent sale is to attract new users. il Ptr Ink 215:36-7 Ap 19 '46

SPECIAL weeks. See Advertising campaigns—Special weeks

SPECIALIZATION in industry
Sell, then buy; specialists, familiar with all phases of a particular process, and fabricators, who assemble and sell, are supplementary figures in modern industry. E. L. Cady. il Sci Am 174:210-12 My '46

SPECIALTY industries
Specialties; trends in 1946. D. S. Parris. il Dom Comm 34:40-3 Ja '46

SPECIALTY stores
Hoving's first; another period of retail store amalgamation foreseen. Bsns W p79 Je 8 '46
Operating results of department and specialty stores in 1945. M. P. Brown. (Bur. of business research bul. no. 124) 53p pa $2.50 Harvard univ. Graduate school of business administration, Division of research, Soldiers Field, Boston 63 '46

SPECIFIC dispersion of rays. See Dispersion of rays

SPECIFIC gravity
A.P.I. hydrometer indication table; high-temperature extension for heavy oils. J. Griswold, comp. Pet Refiner 25:136a-136c Je '46
Analysis for naphthene ring in mixtures of paraffins and naphthenes. M. R. Lipkin, C. C. Martin and S. S. Kurtz, jr. bibliog Ind & Eng Chem Anal ed 18:376-80 Je '46
Apparent specific gravity of refined sugar. G. P. Meade. diag Ind & Eng Chem 38: 904-5 S '46
Application of the differential manometer to the measurement of fluid density and specific gravity with special reference to temperature effects. R. D. Cowherd. diags Paper Tr J 123:33-40 O 3 '46
Assembly and calibration of a density balance for liquid hydrocarbons. A. F. Forziati and others. diags J Res Nat Bur Stand 35:513-19 D '45
Continuous measurement of specific gravity; apparatus for process control. L. B. Lambert. diags Chem Age (Lond) 54:461-3 Ap 27 '46
Correction factor for specific gravity and volume differences in fragment analysis. F. Chayes. Econ Geol 41:749-60 N '46
Densities of GR-S latices. C. C. Winding. diags Ind & Eng Chem 37:1203-6 D '45
Determination of the density of a fine powder. W. R. Ruby and R. P. Loveland. bibliog il diags J Phys Chem 50:345-63 Jl '46
Equation relating density, refractive index, and molecular weight for paraffins and naphthenes. M. R. Lipkin and C. C. Martin. bibliog Ind & Eng Chem Anal ed 18:380-2 Je '46
Evaluation of urinary lead determinations; the significance of the specific gravity. L. Levine and J. P. Fahy. bibliog J Ind Hygiene 27:217-23 O '45
Molecular weights of viscous hydrocarbon oils; correlation of density with viscosities. A. E. Hirschler. bibliog Inst Pet J 32:133-61 Mr '46
Note on the density and heat of combustion of benzoic acid. R. S. Jessup. bibliog J Res Nat Bur Stand 36:421-3 Ap '46
Purification and properties of 29 paraffin, 4 alkylcyclopentane, 10 alkylcyclohexane, and 8 alkylbenzene hydrocarbons. A. F. Forziati and others. bibliog J Res Nat Bur Stand 36:129-36 F '46
Rapid specific-gravity method for estimating the iron content of Birmingham, Ala. red ores. I. L. Feld and others. 2pls U S Bur Mines Rep of Invest 3838:1-6 '46
Simple hydrostatic gravitometer for rapid determination of the specific gravity of liquids. W. Seaman and J. J. Hugonet. bibliog il Ind & Eng Chem Anal ed 18:141-4 F '46
Solubility and density isotherms; potassium and ammonium nitrates in isopropanol solutions. A. R. Thompson and M. C. Molstad. bibliog Ind & Eng Chem 37:1244-8 D '45
Species density analysis of silicate glass structure. J. S. Lukesh. Science 104:199-201 Ag 30 '46
Study of factors of technique in glass density determinations by a sink-float method; abstract. R. D. Duff. Glass Ind 27:286-7 Je '46
Temperature-density relation for gasoline-range hydrocarbons. J. Griswold and J. Chew. bibliog Ind & Eng Chem 38:364-7 Ap '46
Viscosities and densities of solvent-vegetable oil mixtures. F. C. Magne and E. L. Skau. bibliog diags Ind & Eng Chem 37:1097-1101 N '45
0°-50° A.P.I. versus specific gravity; conversion table. W. L. Nelson. Oil & Gas J 45:107 S 14 '46

See also
Gravimetric analysis
Gravitometers

SPECIFIC heat
Heat capacities at low temperatures of Na_2TiO_3, $Na_2Ti_2O_5$ and $Na_2Ti_3O_7$. C. H. Shomate. Am Chem Soc J 68:1634-6 Ag '46
Heat capacities at low temperatures of the metatitanates of iron, calcium and magnesium. C. H. Shomate. bibliog Am Chem Soc J 68.964-6 Je '46
Heat capacities, heats of transition, heats of fusion and entropies of cyclopentane, methylcyclopentane and methylcyclohexane. D. R. Douslin and H. M. Huffman. bibliog Am Chem Soc J 68:173-6 F '46
Heat capacity and entropy, heats of fusion and vaporization and the vapor pressure of butene-1; the zero point entropy of the glass; the entropy of the gas from molecular data. J. G. Aston and others. bibliog Am Chem Soc J 68:52-7 Ja '46
Heat capacity, heat of fusion and entropy of 11-*n*-decylheneicosane. F. B. Fischl and others. Am Chem Soc J 67:2075-9 D '45
Heat-capacity lag in gas dynamics. A. Kantrowitz. bibliog diags J Chem Phys 14: 150-64 Mr '46
Heat capacity of a two-phase system, with applications to vapor corrections in calorimetry. H. J. Hoge. bibliog J Res Nat Bur Stand 36:111-18 F '46
High-temperature heat contents of the metatitanates of calcium, iron and magnesium. B. F. Naylor and O. A. Cook. bibliog Am Chem Soc J 68:1003-5 Je '46
Historic researches; specific, latent, and atomic heat. Engineer 180:453-4 D 7 '45
Some characteristics of brines; with a method for heat capacity determinations. W. A. Pennington. il Refrig Eng 51:135-9+ F '46
Specific heats at low temperatures of TiO, Ti_2O_3, Ti_3O_5, and TiN. C. H. Shomate. Am Chem Soc J 68:310-12 F '46
Specific heats of dehydrated vegetables and egg powder; abstract. F. Stitt and E. K. Kennedy. Food Ind 18:446 Mr '46
Specific heats of hevea, GR-S, and GR-I stocks. W. H. Hamill, B. A. Mrowca and R. L. Anthony. bibliog diags Ind & Eng Chem 38:106-10 Ja '46
Specific heats of vegetable oils from 0° to 280° C. P. E. Clark, C. R. Waldeland and R. P. Cross. bibliog diag Ind & Eng Chem 38: 350-3 Mr '46
Thermal conductivity, expansion and specific heat of insulators at extremely low temperatures. G. B. Wilkes. il diags Refrig Eng 52:37-42 bibliog(p42); Discussion. 42+ Jl '46
Thermal data; the heat capacity, entropy and free energy of urea. R. A. Ruehrwein and H. M. Huffman. bibliog Am Chem Soc J 68:1759-61 S '46

SPECIFIC surface
Determination of specific surface by permeability measurements. W. F. Keyes. bibliog Ind & Eng Chem Anal ed 18:33-4 Ja '46
Measurement of the size characteristics of powders by photo-extinction methods; theoretical considerations. H. E. Rose and H. B. Lloyd. bibliog diags Soc Chem Ind J 65:52-8 F '46

SPECIFIC surface—*Continued*
Rapid method for determining specific surface of fine particles. A. Pechukas and F. W. Gage. bibliog diags Ind & Eng Chem Anal ed 18:370-3 Je '46
Rapid method for the determination of the specific surface and mean particle size of black powders. F. Frith and R. A. Mott. Soc Chem Ind J 65:81-7 Mr '46

SPECIFIC volume
Over-all specific volume of kapok. W. H. Rees. bibliog diag Textile Inst J 37:T121-39, pl 1-2 My '46
Phase equilibria in hydrocarbon systems; *n*-butane—decane system in the condensed region. H. H. Reamer, B. H. Sage and W. N. Lacey. bibliog diag Ind & Eng Chem 38:986-9 O '46
Studies on siloxanes; the specific volume and viscosity in relation to temperature and constitution. C. B. Hurd. bibliog Am Chem Soc J 68:364-70 Mr '46

SPECIFICATIONS
Control system for drawings and specifications. J. T. Gleick. Western Soc E J 50: 177-8 D '45
Methods of specifying materials. J. L. McCloud. il Materials & Methods 23:412-13 F '46
Should a single materials specification system be established? opinions of engineers. Machine Design 18:101-6+ Mr '46; Same. Ind Stand 17:172-9 Jl '46

SPECTACLES
Fashion is eye glasses; for work and play. il Mod Plastics 23:96-8 Jl '46

Advertising
Ad campaign promotes jeweled specs. N. Kelne. il Ptr Ink 215:74 Ap 19 '46

SPECTROGRAPH
Apparatus for recording pressure on a spectrographic plate; simultaneously with the recording of the spectrum itself. E. L. Crawford, jr. and C. Huggett. il diags R Sci Instr 17:213-15 Je '46
Effect of plate calibration errors in spectrographic analysis. E. Fast. Opt Soc Am J 36:424-6 Jl '46
Energy distribution of diffraction gratings as a function of groove form; calculations by an equation of Henry A. Rowland. R. F Stamm and J. J. Whalen. bibliog diags Opt Soc Am J 36:2-12 Ja '46
Infra-red absorption cell for liquids. N. D. Coggeshall. il diags R Sci Instr 17:343-4 S '46
Lens to supplant the spectrograph slit. C. M. King. il diags Opt Soc Am J 36:164-8 Mr '46
Method of eliminating calculations in routine quantitative spectrographic analysis by means of a curved galvanometer scale. J. C. Henderson-Hamilton and A. Lourie. Soc Chem Ind J 64:309-12 N '45
Multi-step sector photometer. J. A. Van den Akker. bibliog il diags Opt Soc Am J 36: 561-8 O '46
New instruments for emission spectroscopy make increased use of electronics. R. H. Munch. il Ind & Eng Chem 37:sup91-2 D '45
Photoelectric Raman spectrograph for quantitative analysis. D. H. Rank and R. V. Wiegand. bibliog il diags Opt Soc Am J 36:325-34 Je '46
Quantitative tests for off-axis parabolic mirrors. L. G. Schulz. Opt Soc Am J 36:588-94 O '46
Quantometer. il R Sci Instr 17:76 F '46
Quantometer for raped spectrographic examination of metals and alloys. R. H. Müller. il Ind & Eng Chem Anal ed 18:sup23-4 Ag '46
Robot analyzes materials; Westinghouse automatic spectrograph uses infrared rays. il Bsns W p55-7 Ag 31 '46
Semiautomatic spectrographic analysis. R. H. Zachariason. il Ind & Eng Chem Anal ed 17:749-50 D '45
Spectrograph technique on the charging floor. J. T. Rozsa. bibliog il plan Iron Age 157: 42-6 Mr 28 '46
Study of the alpha-particles from Po with a cyclotron-magnet alpha-ray spectrograph. W. Y. Chang. bibliog diags Phys R 69:60-77 F 1 '46
Theory of the electrostatic beta-particle energy-spectrograph. F. T. Rogers, jr. Phys R 69:537 My 1 '46
Two bilateral spectrograph slits. H. Roemer and R. A. Oetjen. bibliog il Opt Soc Am J 36:47-51 Ja '46
Versatile arc-spark stand. J. W. Macedo. il diag Ind & Eng Chem Anal ed 18.76-7 Ja '46
Versatile infra-red spectrograph. R. A. Oetjen. bibliog il diags Opt Soc Am J 35:743-54 D '45
See also
Diffraction gratings

SPECTROGRAPH, Mass
Assignment of mass to 46-hr. samarium and 9.2-hr. europium by a mass spectrograph. R. J. Hayden and M. G. Inghram. Phys R 70:89 Jl 1 '46

SPECTROGRAPH, Sonic
Sound spectrograph. W. Koenig and others. il diags Acoustical Soc Am J 18:19-49 Jl '46

SPECTROGRAPHY
Experiments on the use of infra-red sensitive phosphors in photography of the spectrum. F. W. Paul. il Opt Soc Am J 36:175-7 Mr '46
High speed spectrography. L. E. Owen. il Iron Age 158:50-3 Ag 8; 61-4 Ag 15 '46
Internal standard method of spectrographic analysis as applied to the determination of lead in high purity zinc. L. Griffith and J. N. Kirkbride. diags Soc Chem Ind J 65:39-48 F '46
Precise timer and temperature controller for photographic processing. L. E. Owen. il diag R Sci Instr 17:155-6 Ap '46
Spectrograph exposure control. J. R. Cosby. bibliog il diags Electronics 19:123-5 Ap '46
Spectroscopy applied to ferrous and nonferrous materials. W. J. Poehlman. bibliog il diags Welding J 24:sup564-72 N '45; Abstract. Mech Eng 68:255-6 Mr '46

SPECTROMETERS
Advantages of high-speed electronic recording in industrial process measurements. D. M. Considine and D. P. Eckman. il diags Am Inst Chem Eng Trans 42:710-13, 717-18 Ag '46; Same. Steel 118:133 My 20 '46; Same. Rayon 27:268-9 My '46; Excerpt (X Ray spectrometer). Chem Ind 58:786-7 My '46
β-Radiations of uranium X_1. S. Jnanananda. bibliog diag Phys R 69:570-4 Je 1 '46
Commercial use of direct reading spectrochemical analysis of magnesium alloys. J. L. Saunderson and T. M. Hess. il plan diag Metal Prog 49:947-55 bibliog(p954) My '46
Controlling quality with X-ray spectrometer. J. S. Buhler. il diags Rock Prod 49:68-9+ My '46
Electronic metal analyzer. S. R. Winters. il Radio N 36:28-9+ N '46
Energy distribution of diffraction gratings as a function of groove form; calculations by an equation of Henry A. Rowland. R. F. Stamm and J. J. Whalen. bibliog diags Opt Soc Am J 36:2-12 Ja '46
Experiments with a slow neutron velocity spectrometer. R. F. Bacher and others. plans diag Phys R 69:443-51 My 1 '46
Fingerprinting hydrocarbons and compounds. il Pet Refiner 25:115-18 Jl '46
Geiger counter used in powder metallurgy. E. S. Kopecki. il diags Iron Age 157:48-51 F 28 '46
Geiger-counter X-ray spectrometer; abstract. N. T. Farinacci and others. Chem & Met Eng 53:254+ Je '46
Neutron beam spectrometer studies of boron, cadmium, and the energy distribution from paraffin. J. Rainwater and W. W. Havens, jr. bibliog plan Phys R 70:136-53 Ag 1 '46
Photoelectric instrument for direct spectrochemical analysis. J. L. Saunderson and others. il plan diags Opt Soc Am J 35:681-97 N '45
Proposed neutron spectrometer in the 10-1000 kev range. B. T. Feld. Phys R 70: 429 S 1 '46
Silver crystal; new optical material to find applications in infrared production devices. il Bsns W p56+ Ap 13 '46

SPECTROMETERS—*Continued*
Sintered-glass valves; application to spectrometer calibration and to preparation of known mixtures. R. C. Taylor and W. S. Young. diags Ind & Eng Chem Anal ed 17: 811-14 D '45
Slow neutron cross sections of indium, gold, silver, antimony, lithium, and mercury as measured with a neutron beam spectrometer. W. W. Havens, jr. and J. Rainwater. bibliog Phys R 70:154-73 Ag 1 '46
Small prism infra-red spectrometry; Perkin-Elmer infra-red spectrometer. R. B. Barnes and others. il diag J Ap Phys 16:77-86 F '45; Correction. 17:532 Je '46
Structure in the X-ray *K* absorption edge of metallic potassium. J. B. Platt. bibliog Phys R 69:337-46 Ap 1 '46

Testing
Pure hydrocarbons; story of API project 46. R. L. Demmerle. il Chem & Eng N 24:2020-8 Ag 10 '46

SPECTROMETERS, Mass
Applications of the mass spectrometer to refinery process control. W. S. Young. bibliog il diag Nat Pet N 38 pt 2:R212-14+ Mr 6 '46
Demonstration mass spectrometer. W. H. Eberhardt. il diag J Chem Educ 23:220-2 My '46
Gas flow in the mass spectrometer. R. E. Honig. bibliog il diags J Ap Phys 16:646-54 N '45
Gas locator for high-vacuum systems; application of the mass spectrometer. il Electronics 19:158 Je '46
Leak detection by mass spectrometry. il diag Chem Ind 58:413 Mr '46
Leak detector used for testing gasketed studs on transformer cover; use of mass spectrometer and helium. il Elec World 126:87 O 26 '46
Mass measurement with a single field mass spectrometer. E. P. Ney and A. K. Mann. Phys R 69:239 Mr 1 '46
Mass-spectrographic study of the isotopes of silicon. E. P. Ney and J. H. McQueen. Phys R 69:41 Ja 1 '46
Mass spectrometer; a flexible tool for industrial analysis and research. N. D. Coggeshall. bibliog il diags Chem Ind 58:420-3 Mr '46
Mass spectrometer analyzes gases. il Oil & Gas J 44:143 N 24 '45
Mass spectrometer as an analytical tool. A. K. Brewer. il Min & Met 27:207-9 Ap '46
Mass spectrometer type of leak detector. H. A. Thomas and others. il diags R Sci Instr 17:368-72 O '46
Metastable ions formed by electron impact in hydrocarbon gases. J. A. Hipple and others. bibliog diag Phys R 69:347-56 Ap 1 '46
Physics research division broadens its activities. G. M. Webb and others. il Pet Eng 18:230+ O '46
Pulsed mass spectrometer. W. E. Stevens. Ind & Eng Chem Anal ed 18:sup23 Je '46
Simultaneous linear equations in absorption spectrophotometry and mass spectrometry. J. L. Saunderson and H. H. Grossman. Opt Soc Am J 36:243 Ap '46

SPECTROPHOTOMETERS
Fluorometric attachment for the Beckman spectrophotometer. M. H. Fletcher, C. E. White and M. S. Sheftel. diags Ind & Eng Chem Anal ed 18:204-5 Mr '46
Improved measurements for industrial processes. D. M. Considine and D. P. Eckman. il Steel 118:98 My 27 '46
Indirect calibration of the filter photometer by means of the spectrophotometer; considerations on use of standards. C. L. Comar. bibliog Ind & Eng Chem Anal ed 18:626-8 O '46
Reflectance measuring attachment for the Beckman spectrophotometer. G. E. Pride. il diag Opt Soc Am J 36:510-13 S '46

SPECTROPHOTOMETERS, Photoelectric
Photoelectric spectrophotometer for the Schumann region. E. P. Little. diags Opt Soc Am J 36:168-71 Mr '46

SPECTROPHOTOMETRY
Aids to computation in spectrophotometric analysis of binary mixtures; illustrative data for benzene-toluene mixtures. M. Fred and F. W. Porsche. diags Ind & Eng Chem Anal ed 18:603-4 O '46
Changes in stored dried eggs; spectrophotometric and fluorometric measurement of changes in lipides. H. J. Dutton and B. G. Edwards. bibliog flow sheet Ind & Eng Chem 37:1123-6 N '45
Complex formation with high molecular weight amines; a spectrophotometric study of the dodecylamine-cupric acetate system. F. K. Broome, A. W. Ralston and M. H. Thornton. Am Chem Soc J 68:849-51 My '46
Determination of acetone; ultraviolet spectrophotometric method. G. L. Barthauer, F. V. Jones and A. V. Metler. bibliog Ind & Eng Chem Anal ed 18:354-5 Je '46
Determination of carotenoids and lipid amine-aldehyde products in dehydrated egg. H. J. Dutton and B. G. Edwards. bibliog Ind & Eng Chem Anal ed 18:38-41 Ja '46
Device to facilitate the reading of spectrophotometric curves. G. Reimann and E. J. Carmine. il Opt Soc Am J 36:235-6 Ap '46
Multi-step sector photometer. J. A. Van den Akker. bibliog il diags Opt Soc Am J 36: 561-8 O '46
Quantitative determination of some inhibitors in polymers by ultraviolet light absorption. F. W. Banes and L. T. Eby. Ind & Eng Chem Anal ed 18:535-8 S '46
Simultaneous linear equations in absorption spectrophotometry and mass spectrometry. J. L. Saunderson and H. H. Grossman. Opt Soc Am J 36:243 Ap '46
Spectrophotometric and colorimetric determination of the colors of the TCCA standard color cards. G. Reimann and others. bibliog (33 titles) il Opt Soc Am J 36:128-59 Mr '46; Same. J Res Nat Bur Stand 36:209-47 Mr '46; Same cond. Am Dyestuff Rep 35:323-9+ Jl 1 '46; Same cond. Textile Col 68:17-21+ Je '46
Spectrophotometric changes during oxidation of vitamin A oils. G. R. Halpern. bibliog Ind & Eng Chem Anal ed 18:621-5 O '46
Spectrophotometric determination of nitrates in plating baths. A. Dolance and P. W. Healy. Ind & Eng Chem Anal ed 17:718-19 N '45
Spectrophotometric estimation of methoxy-cinchona alkaloids. M. M. Stimson and M. A. Reuter. Am Chem Soc J 68:1192-6 Jl '46
Spectrophotometric studies of the oxidation of fats; oxygen absorption and chromophore production in fatty esters. R. T. Holman and G. O. Burr. bibliog Am Chem Soc J 68:562-6 Ap '46
Spectrophotometric studies on solubilization of hydrocarbons. W. Heller and H. B. Klevens. J Chem Phys 14:567 S '46

SPECTROSCOPE
Petroleum research goes electronic. R. Sneddon. il Pet Eng 17:60+ N '45
Simple cell for spectroscopic examination of volatile liquids. R. A. Oetjen and others. diag Opt Soc Am J 36:615-16 O '46
Specially designed infrared spectroscope. il Chem Ind 58:644 Ap '46
Theory of a microwave spectroscope. W. E. Lamb, jr. bibliog diag Phys R 70:308-17 S 1 '46

SPECTROSCOPY
Alternating-current bolometer for infra-red spectroscopy. C. H. Schlesman and F. G. Brockman. bibliog diags Opt Soc Am J 35: 755-60 D '45
Analytical spectroscopy. R. H. Müller. Ind & Eng Chem Anal ed 18:25 F '46
Counters for use in nuclear spectroscopy. M. L. Wiedenbeck. bibliog diags R Sci Instr 17:35-7 Ja '46
Electrodeless discharges at high frequencies and low pressures. C. R. Nisewanger and others. Opt Soc Am J 36:581-7 O '46
Electronic spectroscopy. G. C. Sziklai and A. C. Schroeder. il diags J Ap Phys 17: 763-7 O '46

SPECTROSCOPY—*Continued*
Electronically balanced recorder for flight testing and spectroscopy. A. J. Williams, jr. and others. il diags Elec Eng 65:Trans 205-8 Ap '46
Nuclear spectroscopy and energy distribution of charged particles inelastically scattered by nuclei. E. Guth. Phys R 68:280 D 1 '45
Nuclear spectroscopy and inelastic scattering of particles by nuclei. E. Guth. Phys R 68:279-80 D 1 '45
Spectroscopy in the ultra-violet and visible bands. R. G. Russell and N. D. Coggeshall. bibliog il diag Chem Ind 58:586-9 Ap '46
Spectroscopy, past, present, and future; atomic emission spectra (excluding Röntgen spectra). W. F. Meggers. bibliog(378 references) Opt Soc Am J 36:431-48 Ag '46
Synthetic optical crystals are essential to modern infrared instruments. R. H. Munch. il Ind & Eng Chem 38:sup75-6 Mr '46

Nomenclature

Spectroscopists discuss nomenclature. Chem Phys R 69:539 My 1 '46

SPECTRUM
β-Ray spectrum of K^{40}. B. Dželepow and others. bibliog Phys R 69:538-9 My 1 '46
Inversion spectrum of ammonia. W. E. Good. Phys R 69:539 My 1 '46
Light source for the primary standard of wave-length. C. Hsueh. il diags Opt Soc Am J 36:160-4 Mr '46
Low energy β-spectrum of Cu^{64}. H. Lewis and D. Bohm Phys R 69:129 F 1 '46
Molecular beam magnetic resonance method; the radiofrequency spectra of atoms and molecules. J. B. M. Kellogg and S. Millman. bibliog diags Rs Mod Phys 18:323-52 Jl '46
Probability of excitation of the nucleus ^{206}Pb in the α-disintegration of polonium. N. Feather. bibliog Phys R 70:88 Jl 1 '46
Resonance spectrum of iodine. D. H. Rank. bibliog il Opt Soc Am J 36:239-41 Ap '46
Spectroscopy, past, present, and future; atomic emission spectra (excluding Röntgen spectra). W. F. Meggers. bibliog(378 references) Opt Soc Am J 36:431-48 Ag '46
Structure of benzene; introductory consideration of the spectral properties of the vibrations of some deuterated benzenes. C. R. Bailey and others. Chem Soc J p222-35 Ap '46
Water spectrum near one-centimeter wavelength. C. H. Townes and F. R. Merritt. bibliog Phys R 70:558 O 1 '46

See also
Raman effect
Spectrography
Spectroscopy
Spectrum analysis
Stark effect
Zeeman effect

Absorption spectra

Absorption spectra; cyclic β-diketones. E. R. Blout, V. W. Eager and D. C. Silverman. bibliog Am Chem Soc J 68:566-71 Ap '46
Absorption spectra; ketazines. E. R. Blout, V. W. Eager and R. M. Gofstein. Am Chem Soc J 68:1983-6 O '46
Absorption spectra of acridines; steric interference with ionisation. D. P. Craig. Chem Soc J p534-7 Je '46
Absorption spectra of acridines; the hydroxyacridines. A. Albert and L. N. Short. Chem Soc J p760-3 N '45
Absorption spectra of some 2,4-dinitrophenylhydrazones. J. D. Roberts and C. Green. bibliog Am Chem Soc J 68:214-16 F '46
Absorption spectra of some para substituted aniline derivatives; the presence of *x'* bands. W. D. Kumler. Am Chem Soc J 68:1184-92 Jl '46
Absorption spectra of the negative ions of two diaminotriphenylmethane dyes. B. M. Tolbert and G. E. K. Branch. Am Chem Soc J 68:315-19 F '46
Absorption spectrum of fluorobenzene in the near ultraviolet. S. H. Wollman. il J Chem Phys 14:123-30 Mr '46
Absorption spectrum of metal-ammonia solutions. R. A. Ogg, jr. bibliog J Chem Phys 14:114-15 F '46
Absorption spectrum of the antimony trichloride-ergosterol reaction product. A. Mueller. Ind & Eng Chem Anal ed 18:214-15 Mr '46
Color and constitution; interpretation of absorptions of dyes containing heterocyclic nuclei of different basicities. L. G. S. Brooker and others. Am Chem Soc J 67: 1875-89 N '45
Cupric complex ions; absorption spectra and equilibria in the cupric-nitrite system. A. Kossiakoff and D. V. Sickman. Am Chem Soc J 68:442-4 Mr '46
Dissociation spectra of covalent polyatomic molecules. R. Samuel. bibliog(66 references) il diag Rs Mod Phys 18:103-47 Ja '46
Indirect calibration of the filter photometer by means of the spectrophotometer; considerations on use of standards. C. L. Comar. bibliog Ind & Eng Chem Anal ed 18:626-8 O '46
Intensities of electronic transitions in ammonia. R. J. Thompson and A. B. F. Duncan. bibliog J Chem Phys 14:573-7 O '46
Inversion spectrum of ammonia. W. E. Good. il diag Phys R 70:213-18 Ag 1 '46
Isotope effect and the ratio rule. W. F. Edgell bibliog J Chem Phys 13:539-46 D '45
Kinetics of OH radicals as determined by their absorption spectrum; attempt to trace OH radicals in the thermal hydrogen-oxygen reaction. O. Oldenberg and others. bibliog J Chem Phys 14:16-18 Ja '46
Near ultraviolet absorption of pyridine vapor. H. Sponer and H. Stücklen. bibliog il J Chem Phys 14:101-12 F '46
Resolution of a rotational line of the OCS molecule and its Stark effect. T. W. Dakin and others. il Phys R 70:560 O 1 '46
Simultaneous spectrophotometric determination of titanium, vanadium, and molybdenum. A. Weissler. bibliog Ind & Eng Chem Anal ed 17:695-8 N '45
Studies in light absorption; *p*-benzoquinones. E. A. Braude. Chem Soc J p490-7 Ag '45
Studies in light absorption; 2 : 4-dinitrophenylhydrazones. E. A. Braude and E. R. H. Jones. Chem Soc J p498-503 Ag '45
Tyndall spectra, their significance and application W. Heller and E. Vassy. J Chem Phys 14:565 S '46
Ultraviolet absorption spectra of allyl and propenyl substituted derivatives of diethylstilbestrol and hexestrol. E. Kaiser and V. L. Koenig. bibliog Am Chem Soc J 68: 740-2 My '46

See also
Spectrum, Infrared
Spectrum, Ultraviolet

Band spectra

Asymmetric rotor; punched-card methods of constructing band spectra. G. W. King, P. C. Cross and G. B. Thomas. bibliog J Chem Phys 14:35-42 Ja '46
Homogeneous perturbations in band spectrum of AgH molecule. R. F. Schmid and L. Gerö. Phys R 70:226 Ag 1 '46
New band system in the green excited in a mixture of xenon and oxygen and the energy of dissociation of CO. C. Kenty and others. il Phys R 69:36 Ja 1 '46
Perturbations in the ultraviolet band spectrum of P_2. E. J. Marais. bibliog il Phys R 70:499-510 O 1 '46

Excitation

Constancy of spectral line excitation in quantitative spectrographic analysis. F. L. Jones. bibliog Soc Chem Ind J 64:317-22 D '45

Fine structure

Fine structures in Raman spectra. D. H. Rank and J. A. Van Horn bibliog diags Opt Soc Am J 36:454-9 Ag '46

Forbidden lines

Forbidden lines of bismuth BiI. S. Mrozowski. bibliog il Phys R 69:169-72 Mr 1 '46

Intensity

Experimental determination of the intensities of infra-red absorption bands. E. B. Wilson, jr and A. J. Wells. J Chem Phys 14:578-80 O '46
Intensities of electronic transitions in ammonia. R. J. Thompson and A. B. F. Duncan. bibliog J Chem Phys 14:573-7 O '46

SPECTRUM—Intensity—*Continued*
Intensity distribution among the rotational lines of AlO. F. P. Coheur and P. M. Coheur. Phys R 69:240 Mr 1 '46
Spectral intensity measurements with phototubes and the oscillograph. G. H. Dieke and others. diags Opt Soc Am J 36:185-91 Ap '46

Mass spectra

Effects of high initial energies on mass spectra. H. W. Washburn and C. E. Berry. Phys R 70:559 O 1 '46

Pressure effects

Apparatus for recording pressure on a spectrographic plate; simultaneously with the recording of the spectrum itself. B. L. Crawford, jr. and C. Huggett. il diags R Sci Instr 17:213-15 Je '46
General theory of pressure broadening of spectral lines. A. Jabloński. bibliog Phys R 68:78-93 Ag 1 '45; Correction. 69:31 Ja 1 '46
Pressure broadening of spectral lines. H. M. Foley. bibliog Phys R 69:616-28 Je 1 '46
Self-broadening in the 14μ band of HCN. H. M. Foley. Phys R 69:628-31 Je 1 '46

Tables, etc.

Asymmetric rotor; punched-card methods of constructing band spectra. G. W. King, P. C. Cross and G. B. Thomas. bibliog J Chem Phys 14:35-42 Ja '46
Deep configurations of Ti I, Ti II, V II, V III. A. Many. bibliog Phys R 70:511-15 O 1 '46
Preliminary description and analysis of the first spectrum of uranium. C. C. Kiess and others. pl J Res Nat Bur Stand 37:57-72 Jl '46
Zeeman effect in the spectrum of chlorine I. J. B. Green and J. T. Lynn. Phys R 69: 165-9 Mr 1 '46

SPECTRUM, Infrared
Alternating-current bolometer for infra-red spectroscopy. C. H. Schlesman and F. G. Brockman. bibliog diags Opt Soc Am J 35: 755-60 D '45
Analyses of mixtures of light gases by infrared absorption. N. D. Coggeshall and E. L. Saier. bibliog il diag J Ap Phys 17:450-6 Je '46
Analysis of multicomponent mixtures of hydrocarbons in the liquid phase by means of infra-red absorption spectroscopy. D. L. Fry and others. il J Ap Phys 17:150-61 Mr '46
Analyzing complex chemicals by infrared spectroscopy; abstract. W. D. Seyfried and S. H. Hastings. Can Chem & Process Ind 30:104 O '46
Applications of infra-red methods in the structural examination of synthetic rubber. J. E. Field and others. il J Ap Phys 17:386-92 My '46
Applications of infrared spectroscopy to DDT. J. R. Downing and others. bibliog Ind & Eng Chem Anal ed 18:461-7 Ag '46
Electric circuit models for the vibration spectrum of polyatomic molecules. G. Kron. diags J Chem Phys 14:19-31 Ja '46
Experimental determination of the intensities of infra-red absorption bands. E. B. Wilson, jr. and A. J. Wells. J Chem Phys 14: 578-80 O '46
Experiments on the use of infra-red sensitive phosphors in photography of the spectrum. F. W. Paul. il Opt Soc Am J 36:175-7 Mr '46
Impurities in petroleum butadiene from copper salt process; mass and infrared spectrometric measurements. C. E. Starr, jr. and W. F. Ratcliff. bibliog flow diag il diag Ind & Eng Chem 38:1020-5 O '46
Industrial spectroscopy; 1946 conference. Chem Age (Lond) 55:108-9 Jl 27 '46
Infra-red absorption cell for liquids. N. D. Coggeshall. il diags R Sci Instr 17:343-4 S '46
Infrared emission spectra of liquids. S. F. Kapff. Science 104:274 S 20 '46
Infra-red examination of plastics; abstract. G. B. B. M. Sutherland. Chem & Ind p167 Ap 20 '46
Infra-red spectra of *p*-benzene-d_2 and *p*-benzene-d_4. F. A. Miller and B. L. Crawford, jr. J Chem Phys 14:292-3 Ap '46
Infra-red spectra of thiols, sulphides, and disulphides. I. F. Trotter and H. W. Thompson. Chem Soc J p481-8 Je '46
Infrared spectroscopy in organic chemistry. R. N. Jones. bibliog il Can Chem & Process Ind 30:85-8+ Mr '46
Infra-red spectroscopy saves time in industrial analysis and research. N. D. Coggeshall. bibliog il diag Chem Ind 58:256-9 F '46
Motions of molecules in condensed systems: selection rules, relative intensities, and orientation effects for Raman and infra-red spectra. R. S. Halford. J Chem Phys 14:8-15 Ja '46
Motions of molecules in condensed systems; the infra-red spectra for benzene solid, liquid, and vapor in the range from 3 to 16.7μ. R. S. Halford and O. A. Schaeffer. bibliog J Chem Phys 14.141-9 Mr '46
Notes on the infra-red spectrum and molecular structure of ozone. A. Adel and D. M. Dennison. bibliog J Chem Phys 14:379-82 Je '46
Robot analyzes materials; Westinghouse automatic spectrograph uses infrared rays. il Bsns W p55-7 Ag 31 '46
Simple cell for spectroscopic examination of volatile liquids. R. A. Oetjen and others. diag Opt Soc Am J 36:615-16 O '46
Small prism infra-red spectrometry; Perkin-Elmer infra-red spectrometer. R. B. Barnes and others. il diag J Ap Phys 16:77-86 F '45; Correction. 17:532 Je '46
Structure of benzene; experimental methods for infra-red spectroscopy; note on the infra-red spectrum of hexadeuterobenzene. C. R. Bailey, S. C. Carson and C. K. Ingold. diag Chem Soc J p252-5 Ap '46
Structure of benzene; inactive fundamental frequencies of benzene, hexadeuterobenzene, and the partly deuterated benzenes. N. Herzfeld, C. K. Ingold and H. G. Poole. Chem Soc J p316-33 Ap '46
Structure of benzene; infra-red spectra of 1 : 4-dideuterobenzene and 1 : 2 : 4 : 5-tetradeuterobenzene; description and analysis. C. R. Bailey and others. Chem Soc J p288-99 Ap '46
Structure of benzene; Raman and infra-red spectra of monodeuterobenzene; description and analysis. C. R. Bailey and others. Chem Soc J p299-316 Ap '46
Structure of benzene; Raman and infra-red spectra of 1 : 3 : 5-trideuterobenzene; description and analysis. C. R. Bailey and others. Chem Soc J p255-72 Ap '46
Versatile infra-red spectrograph. R. A. Oetjen. bibliog il diags Opt Soc Am J 35:743-54 D '45
Vibrational spectra of esters and ketones. H. W. Thompson and P. Torkington. Chem Soc J p640-5 O '45
Water vapor absorption of electromagnetic radiation in the centimeter wave-length range. G. E. Becker and S. H. Autler. diag Phys R 70:300-7 S 1 '46

SPECTRUM, Ultraviolet
Determination of acetone; ultraviolet spectrophotometric method. G. L. Barthauer, F. V. Jones and A. V. Metler. bibliog Ind & Eng Chem Anal ed 18:354-5 Je '46
Furans; the ultraviolet absorption of isomeric furaldoximes. R. F. Raffauf. bibliog Am Chem Soc J 68:1765-6 S '46
Near ultraviolet absorption spectrum of toluene vapor. N. Ginsburg and others. bibliog il J Chem Phys 14:511-17 S '46
Perturbations in the ultraviolet band spectrum of P_2. E. J. Marais. bibliog il Phys R 70:499-510 O 1 '46
Photoelectric spectrophotometer for the Schumann region. E. P. Little. diags Opt Soc Am J 36:168-71 Mr '46
Raman and ultraviolet-absorption spectra of the dimethyl ether-boron trifluoride complex. F. V. Dunderman and S. H. Bauer. bibliog J Phys Chem 50:32-9 Ja '46
Some factors influencing the ultraviolet absorption spectra of polynuclear aromatic compounds; a general survey. R. N. Jones. bibliog Am Chem Soc J 67:2127-50 D '45
Some factors influencing the ultraviolet absorption spectra of polynuclear aromatic compounds; the spectra of aryl carbinols and polybenzfluorenes. R. N. Jones. Am Chem Soc J 67:2021-7 N '45

SPECTRUM, Ultraviolet—*Continued*

Spectroscopic analysis; application of the ultra-violet absorption method to the analysis of mixtures containing aromatic hydrocarbons. R. R. Gordon and H. Powell. pl Inst Pet J 31:423-49 N '45

Spectroscopy in the ultra-violet and visible bands. R. G. Russell and N. D. Coggeshall. bibliog il diag Chem Ind 58:586-9 Ap '46

Ultraviolet absorption spectra of allyl and propenyl substituted derivatives of diethylstilbestrol and hexestrol. E. Kaiser and V. L. Koenig. bibliog Am Chem Soc J 68:740-2 My '46

Ultraviolet absorption spectra of cytosine and isocytosine. M. M. Stimson and M. A. Reuter. bibliog Am Chem Soc J 67:2191-3 D '45

Ultraviolet absorption spectra of dioxadiene and dioxene. L. W. Pickett and E. Sheffield. bibliog Am Chem Soc J 68:216-20 F '46

Ultraviolet absorption spectra of organic molecules; mechanical interference of substituent groups with resonance configurations. W. H. Rodebush and I. Feldman. bibliog Am Chem Soc J 68:896-9 My '46

Ultraviolet absorption spectrum of 9,9'-phenanthroin. R. N. Jones. Am Chem Soc J 67.1956-7 N '45

Ultraviolet absorption spectrum of ozone. W. H. Eberhardt and W. Shand, jr. bibliog J Chem Phys 14:525-30 S '46

Ultraviolet spectra and dissociation constants of *p*-hydroxybenzoic acid, methyl, ethyl, *n*-butyl, and benzyl *p*-hydroxybenzoate and potassium *p*-phenolsulfonate. E. E. Sager and others. bibliog J Res Nat Bur Stand 35: 521-38 D '45

SPECTRUM, X ray

Structure in the X-ray *K* absorption edge of metallic potassium. J. B. Platt. bibliog Phys R 69:337-46 Ap 1 '46

SPECTRUM analysis

Analysis of multicomponent mixtures of hydrocarbons in the liquid phase by means of infra-red absorption spectroscopy. D. L. Fry and others. il J Ap Phys 17:150-61 Mr '46

Analytical spectroscopy. R. H. Müller. Ind & Eng Chem Anal ed 18:25 F '46

Analyze additive lubricants in minutes instead of hours with spectrographic method. L. E. Calkins and M. M. White. il Nat Pet N 38 pt 2:R519+ Jl 3 '46

Applications of infrared spectroscopy to DDT. J. R. Downing and others. bibliog Ind & Eng Chem Anal ed 18:461-7 Ag '46

Commercial use of direct reading spectrochemical analysis of magnesium alloys. J. L. Saunderson and T. M. Hess. il plan diag Metal Prog 49:947-55 bibliog(p954) My '46

Constancy of spectral line excitation in quantitative spectrographic analysis. F. L. Jones. bibliog Soc Chem Ind J 64:317-22 D '45

Determination of acetone; ultraviolet spectrophotometric method. G. L. Barthauer, F. V. Jones and A. V. Metler. bibliog Ind & Eng Chem Anal ed 18:354-5 Je '46

Determination of critical concentrations for the formation of soap micelles by the spectral behavior of pinacyanol chloride. M. L. Corrin and others. bibliog J Chem Phys 14:480-6 Ag '46

Effect of plate calibration errors in spectrographic analysis. E. Fast. Opt Soc Am J 36:424-6 Jl '46

Electrical equipment for spectrographic analysis. R. S. Coulter. il diags Materials & Methods 23:1298-1302 My '46

Evaluation of spectrographic analytical data. H. V. Churchill and J. R. Churchill. Ind & Eng Chem Anal ed 17:751-4 D '45

Fingerprinting hydrocarbons and compounds. il Pet Refiner 25:115-18 Jl '46

Flame method of spectrochemical analysis. W. A. Roach. il diags Soc Chem Ind J 65: 33-9 F '46

High speed spectrography. L. E. Owen. il Iron Age 158:50-3 Ag 8; 61-4 Ag 15 '46

Improved method of flame photometry. J. W. Berry, D. G. Chappell and R. B. Barnes. diags Ind & Eng Chem Anal ed 18:19-24 Ja '46

Impurities in petroleum butadiene from copper salt process; mass and infrared spectrometric measurements. C. E. Starr, jr. and W. F. Ratcliff. bibliog flow diag il diag Ind & Eng Chem 38:1020-5 O '46

Indirect calibration of the filter photometer by means of the spectrophotometer; considerations on use of standards. C. L. Comar. bibliog Ind & Eng Chem Anal ed 18:626-8 O '46

Infra-red absorption cell for liquids. N. D. Coggeshall. il diags R Sci Instr 17:343-4 S '46

Infrared spectroscopy in organic chemistry. R. N. Jones. bibliog il Can Chem & Process Ind 30:85-8+ Mr '46

Infra-red spectroscopy saves time in industrial analysis and research. N. D. Coggeshall. bibliog il diag Chem Ind 58:256-9 F '46

Internal standard method of spectrographic analysis as applied to the determination of lead in high purity zinc. L. Griffith and J. N. Kirkbride. diags Soc Chem Ind J 65:39-48 F '46

Method of eliminating calculations in routine quantitative spectrographic analysis by means of a curved galvanometer scale. J. C. Henderson-Hamilton and A. Lourie. Soc Chem Ind J 64:309-12 N '45

Method of quantitative spectrochemical analysis based on line widths. P. Coheur. Opt Soc Am J 36:498-500 S '46

Microdetermination of antimony in biological material; spectrographic method. J. Cholak and D. M. Hubbard. bibliog J Ind Hygiene 28:121-4 Jl '46

Micro-spectrographic method for the quantitative analysis of steel segregates. J. Convey and J. H. Oldfield. il Engineering 160: 481-4 D 7 '45; Abstracts. Engineer 180:464-5 D 7 '45; Iron Age 156:63 D 13 '45; Discussion. Engineering 160:476-7 D 7 '45; Engineer 180:464-5 D 7 '45

Modern equipment for spectrographic analysis. A. S. Nickelson and F. W. J. Garton. Chem Age (Lond) 55:109 Jl 27 '46

New instruments for emission spectroscopy make increased use of electronics. R. H. Munch. il Ind & Eng Chem 37:sup91-2 D '45

Non-destructive testing methods; spectrographic examination. R. LeGrand. il Am Mach 90:138-9 My 23 '46

Photoelectric instrument for direct spectrochemical analysis. J. L. Saunderson and others. il plan diags Opt Soc Am J 35: 681-97 N '45

Photoelectric Raman spectrograph for quantitative analysis. D. H. Rank and R. V. Wiegand. bibliog il diags Opt Soc Am J 36:325-34 Je '46

Physics research division broadens its activities; Universal oil products company. G. M. Webb and others. layout plan Pet Eng 17:61-2+ S; 18:224+ O '46; Same cond. Pet Processing 1:44+ S '46

Preliminary description and analysis of the first spectrum of uranium. C. C. Kiess and others. pl J Res Nat Bur Stand 37:57-72 Jl '46

Quantitative determination of ergosterol, cholesterol, and 7-dehydrocholesterol; antimony trichloride method. F. W. Lamb, A. Mueller and G. W. Beach. bibliog Ind & Eng Chem Anal ed 18:187-90 Mr '46

Quantitative spectrographic analysis of ceramic materials. R. W. Smith and J. E. Hoagbin. bibliog il diags Am Cer Soc J 29:222-8 Ag 1 '46

Quantometer. il R Sci Instr 17:76 F '46

Robot analyzes materials; Westinghouse automatic spectrograph uses infrared rays. il Bsns W p55-7 Ag 31 '46

Semiautomatic spectrographic analysis. R. H. Zachariason. il Ind & Eng Chem Anal ed 17:749-50 D '45

Solution intake unit for improved operation of the flame photometer. A. T. Myers. diags Ind & Eng Chem Anal ed 18:585 S '46

Some physical properties of DDT and certain derivatives. H. L. Andrews and others. pl Pub Health Rep 61:450-6 Mr 29 '46

Spectrochemical analysis of lead base metals. B. B. Dull and L. J. Hibbert. Opt Soc Am J 36:53-6 Ja '46

SPECTRUM analysis—*Continued*

Spectrochemical analysis with the oscillograph. G. H. Dieke and H. M. Crosswhite. diags Opt Soc Am J 36:192-5 Ap '46

Spectro-chemical analyzer; Quantometer developed by Applied research laboratories. il Steel 118:116 Ap 22 '46

Spectrochemical determination of small amounts of aluminum in steel. R. Spiers, P. Fischer and K. L. Proctor. bibliog Ind & Eng Chem Anal ed 17:772-4 D '45

Spectrographic analysis of austenitic nickel-chrome steel. S. D. Steele and J. M. Johnston. il Soc Chem Ind J 64:278-83 O '45

Spectrographic analysis of zinc-base alloys. L. Larrieu. il diags Ind & Eng Chem Anal ed 18:403-7 Jl '46

Spectrographic determination of boron in steel. C. H. Corliss and B. F. Scribner. bibliog J Res Nat Bur Stand 36:351-64 Ap '46

Spectrographic determination of calcium in microbiological culture media. E. J. Eastmond. bibliog diag Opt Soc Am J 36:57-60 Ja '46

Spectrophotometric studies of the oxidation of fats; oxygen absorption and chromophore production in fatty esters. R. T. Holman and G. O. Burr. bibliog Am Chem Soc J 68:562-6 Ap '46

Spectroscopic analysis; application of the ultra-violet absorption method to the analysis of mixtures containing aromatic hydrocarbons. R. R. Gordon and H. Powell. pl Inst Pet J 31:428-49 N '45

Spectroscopic analysis in the petroleum industry. F. Gill and R. R. Gordon. diags Pet Refiner 25:141-7 Je '46

Spectroscopy applied to ferrous and nonferrous materials. W. J. Poehlman. bibliog il diags Welding J 24:sup564-72 N '45; Abstract. Mech Eng 68:255-6 Mr '46

Spectroscopy in the ultra-violet and visible bands. R. G. Russell and N. D. Coggeshall. bibliog il diag Chem Ind 58:586-9 Ap '46

Use of heterochromous lines in spectrographic photometry. S. Levy and O. W. Christine. Opt Soc Am J 36:503-6 S '46

Use of infra-red spectroscopy in analysis. H. W. Thompson. Chem Age (Lond) 55:108 Jl 27 '46

Versatile arc-spark stand. J. W. Macedo. il diag Ind & Eng Chem Anal ed 18:76-7 Ja '46

Vibrational spectra of esters and ketones. H. W. Thompson and P. Torkington. Chem Soc J p640-5 O '45

See also
Spectroscope

SPECULATION

Collusion of underwriters and corporations to get investors' dollars. J. A. Warner. Comm & Fin Chr 164:1932+ O 17 '46; Discussion. 164:2076+ O 24 '46

Investment pricing tug-of-war; cautions from past parallels. B. F. Winkelman. Trusts & Estates 83:39-42 Jl '46

Scores curb on free markets. E. Schram. Comm & Fin Chr 163:1637+ Mr 28 '46

Stock market and inflation. E. Schram. Comm & Fin Chr 163:709+ F 7 '46

Stock market prices and credit. Nat City Bank p112-14 O '46; Same. Comm & Fin Chr 164:1789+ O 10 '46

Wall Street sees storm signal; SEC action in Higgins case. Bsns W p58+ F 23 '46

See also
Hedging
Investments
Securities
Stock exchange
Stocks—Margin buying

SPECULUM metal

Speculum metal; telescope reflectors. R. B. Cooke. Min & Met 27:403 Jl '46

SPECULUM plating

Speculum for brightness. F. P. Peters. il Sci Am 174:207-9 My '46

Speculum plating and its uses. J. Ireland. il Materials & Methods 22:1400-2 N '45

SPEECH

Effects of amplitude distortion upon the intelligibility of speech. J. C. R. Licklider. Acoustical Soc Am J 18:429-34 O '46

Effects of ear protective devices on the intelligibility of speech in noise. K. D. Kryster. il Acoustical Soc Am J 18:413-17 O '46

How and why we're training our salesmen to improve their speech; Ortho pharmaceutical corporation. B. J. Todd. il Sales Management 56:127+ Mr 15 '46

Intelligibility of bands of speech in noise. J. P. Egan and F. M. Wiener. Acoustical Soc Am J 18:435-41 O '46

Masking of speech by sine waves, square waves, and regular and modulated pulses. S. S. Stevens and others. diags Acoustical Soc Am J 18:418-24 O '46

Monitored live-voice as a test of auditory acuity. R. Carhart. bibliog Acoustical Soc Am J 17:339-49 Ap '46

Training for voice communication; improving intelligibility of army air force personnel in talking over the interphone and radio. J. W. Black and H. M. Mason. Acoustical Soc Am J 18:441-5 O '46

See also
Phonetics

SPEECH, Visible

Basic phonetic principles of visible speech. G. A. Kopp and H. C. Green. il Acoustical Soc Am J 18:74-89 Jl '46

Introduction to technical discussions of sound portrayal. R. K. Potter. Acoustical Soc Am J 18:1-3 Jl '46

Portrayal of visible speech. J. C. Steinberg and N. R. French. il Acoustical Soc Am J 18:4-18 Jl '46

Visible patterns of sound. R. K. Potter. il Science 102:463-70 N 9 '45

Visible speech cathode-ray translator. R. R. Riesz and L. Schott. il diags Acoustical Soc Am J 18:50-61 Jl '46

Visible speech patterns transmit intelligence; can be read by totally deaf person. il Electronics 19:200+ Ja '46

Visible speech translators with external phosphors. H. Dudley and O. O. Gruenz, jr. il diags Acoustical Soc Am J 18:62-73 Jl '46

Visual language; sound analytical devices portray patterns of sound; developed by Bell telephone laboratories. Pub Util 36:777-8 D 6 '45

SPEECH association of America

Directory

Directory of the Speech association of America, 1946. 244p pa $1 Speech assn. of America, 111 Switzler, Hall, Univ. of Missouri, Columbia, Mo. '46

SPEED

Deflections and critical speeds of stepped shafts; engineering data sheet. H. L. Blood. bibliog Machine Design 18:155-7 Je '46

Differentiation/instantaneous speed. C. Turnbull. Electrician 135:625-6 D 7 '45

See also
Airplanes—Speed
Railroads—Train speed

SPEED indicators

True air speed indicator. il diag Aero Digest 52:44+ My '46

See also
Tachometers

SPEED variation

Adjustable speed magnetic drive. G. Stangland. il diags Power Pl Eng 50:82-6 Jl '46

Adjustable-voltage control; basic principles and circuits. E. U. Lassen. il diags Product Eng 17:[no 7] 142-7 Jl '46

Brad Foote hydrostatic clutch or speed control unit. il diag Automotive & Aviation Ind 94:52+ Ja 15 '46; Machine Design 17:109-10 D '45; Product Eng 17:22 Ja '46; Diesel Power 24:320-1+ Mr '46; Mech Eng 68:261-2 Mr '46

Central-station auxiliary-drive motors for constant and adjustable speed. H. Gibson. il diags Elec Eng 64:Trans 746-50 N '45

Constant speed regulation; four systems for maintaining preset speed. J. E. Jones. il diags Product Eng 17:100-2 O '46

Electric drives for wide speed ranges. H. E. Nason. diags Western Soc E J 51:31-7 Mr '46

Electric equipment for Cornell variable density wind tunnel. C. C. Clymer and M. A. de Ferranti. il diags Elec Eng 65:Trans 554-63 Ag-S '46

SPEED variation—*Continued*
Electronic equipment facilitates wire-rope manufacture. P. Somerville, L. R. Hunt and J. D. Campbell. il diags Mach 52:171-5 Ja '46
Finishing-range drives coordinated in numerous ways. R. B. Moore. diags Textile World 96:153+ Mr '46
Graham variable-speed drive protects against overloads. il Am Mach 89:162 N 22 '45
Improved control of mine hoist drives. J. G. Ivy. il diags Can Min J 67:20-3 Ja '46
Industrial application of Rototrol regulators. W. R. Harris. il diags Elec Eng 65:Trans 118-23 Mr '46
Magnetic drive; device adapted to variable speed centrifugal pumping. C. W. Camp. il diags Water & Sewerage Works 93:243-6 Je '46
Magnetic drives. F. A. Annett. diags Power 90:89-96 F '46
Mechanical devices for automatically governing speed; drawings. Product Eng 17:288-9 Ap '46
Motor speed adjustment by electronic control. S. S. Wolff. il diags Product Eng 17: 353-7 My '46
Multispeed rig gives high flexibility between rotary table and pumps. K. B. Barnes. il Oil & Gas J 45:133-4 Je 15 '46
Polyphase commutator regulator for speed control. A. G. Conrad and others. diags Elec Eng 65:Trans 321-7 Je '46
Practical considerations that affect gear durability in speed reducers. K. N. Mills. il diags Product Eng 17:358-61 My '46
Simplified thyratron motor control. H. H. Leigh. il diags Gen Elec R 49:18-27 S '46
Simplified variable-voltage drive is key to improved mechanical design. W. E. Happel and G. A. Caldwell. il diag Product Eng 17:127-9 Ag '46
Speed selector; development of planetary motion. il Mech Eng 68:903 O '46
Three adjustable-speed systems for low power drives. R. S. Elberty. il diags Product Eng 17:90-3 Jl '46
Two-gear speed-reduction mechanism redesigned to obtain uniform rotation. G. W. Newton. diags Mach 53:195-6 O '46
Variable-speed motors; operating drives up to 24,000 r.p.m. diags Elec R (Lond) 139: 53-6 Jl 12 '46
Variable-V-planetary speed selector. Rubber Age 59:570 Ag '46

SPEKKER absorptiometer. See Absorptiometer

SPELLING reform
What kind of spelling do you like, conventional or fonetic? E. N. Teall. Inland Ptr 117:59-60 Ag '46

SPENCE bill. See Banks and banking—Holding companies

SPENCER, Charles A, 1813-1881
Scientific instrument division of American optical company; (formerly Spencer lens company). por(front) Am Cer Soc Bul 25: 210-13 Je 15 '46

SPENCER, Herbert, 1849-1900
Scientific instrument division of American optical company; (formerly Spencer lens company). por Am Cer Soc Bul 25:210-13 Je 15 '46

SPENCER, Kenneth, 1888-1946
Sketch. por East Underw 47.28-9 Ag 2 '46; Nat Underw 50:15+ Ag 1 '46

SPENCER chemical company
Spencer Chemical takes over Jayhawk Ordnance. Oil Paint & Drug Rep 149:3+ Je 17 '46

SPENCER KELLOGG and sons, inc.
Thumbnail stock appraisal. Mag of Wall St 77:211 N 24 '45

SPENDING. See Consumption (economics); Purchasing

SPERMATOZOA
Effect of dilution on fertilizing capacity of rabbit spermatozoa. M. C. Chang. bibliog Science 104:361-2 O 18 '46

SPHALERITE
Minor elements in sphalerites from Belgium. P. Evrard. bibliog Econ Geol 40:568-74 D '45

SPHERE gap. See Spark gap

SPHERES
Accuracy of lumping in an electric circuit representing heat flow in cylindrical and spherical bodies. V. Paschkis and M. P. Heisler. bibliog diag J Ap Phys 17:246-54 Ap '46
Measurement of the radius of curvature of concave spheres. D. H. Rank. Opt Soc Am J 36:108-10 F '46

SPHERICAL surfaces
Film-lubrication between spherical surfaces; with an application to the theory of the four-ball lubricant testing instrument. J. Howlett. J Ap Phys 17:137-49 Mr '46

SPHEROIDIZING of steel. See Steel—Metallography

SPICES
Effect of spices and flavoring materials on growth of yeasts; abstract. A. H. Webb and F. W. Tanner. Food Ind 17:1402 N '45
Fine ground spices; patent. Food Ind 18.124+ Ja '46

SPIDERS
DDT and the black widow spider. W. Van Riper. Science 104:111 Ag 2 '46

SPIEGEL, inc.
Besieged Spiegel; child labor case, OPA case, and strike. Bsns W p92-3 Je 15 '46
Rebuilding plan takes hold. Barron's 26:7 My 20 '46
Resurgent Spiegel. Bsns W p86+ My 18 '46
Teamsters win stronghold. Bsns W p80+ Je 22 '46

SPIEGELEISEN
Spiegeleisen, 19 to 21 pct; prices, monthly, 1929-1945; tabulation. Iron Age 157:172 Ja 3 '46

SPILITE
Spilite and manganese problems of the Olympic peninsula, Washington. C. F. Park, jr. bibliog map Am J Sci 244:305-23, pl 1-4 My '46

SPILLWAYS
Air entrainment on spillway faces. G. H. Hickox. il Civil Eng 15:562-3 D '45
Cavitation: experiences of the Bureau of reclamation. J. E. Warnock. il diags Am Soc C E Proc 71:1041-56 S '45; Discussion. D. A. Abrams. bibliog 72:1123-9 O '46
Coaster gate and handling equipment for river outlet conduits in Shasta dam. J. E. Warnock and H. J. Pound. il diags A S M E Trans 68:199-206 Ap '46
Construction procedures at Fontana. O. Reed. il diag Civil Eng 16:210-12 My '46
Determination of pressures within a siphon spillway. I. M. Nelidov. Am Soc C E Proc 71:297-306 Mr '45; Discussion. il diags 71: 1537-44; 72:557-8 D '45, Ap '46
Energy dissipation at Fontana spillway. A. A. Meyer. il plan diag Eng N 135:738-41 N 29 '45; Discussion. E. M. Graf. plan diags 136:366 Mr 7 '46
French engineers build dam with spillway over the powerhouse. il plan diag Eng N 137:182-3 Ag 8 '46
Model and prototype studies on unique spillway; Fontana dam. A. J. Peterka. il diags Civil Eng 16:249-51 Je '46; Discussion. 16: 359, 461-2 Ag, O '46
Model study of Brown canyon debris barrier. K. J. Bermel and R. L. Sanks. il map diag Am Soc C E Proc 72:613-28 My '46
Semi-circular spillway in action at Norfolk's Lake Burnt Mills. il Eng N 135:653 N 15 '45
Spillway designed for long-range savings; Fontana Dam spillway. A. A. Meyer. il plan diags Civil Eng 16:165-7 Ap '46
Spillway gates and equipment on TVA projects. K. C. Roberts. il diags Civil Eng 16: 13-16 Ja '46
Unique caissons make spillway repairs possible at Grand Coulee. R. Sailer and B. G. Davis. il diags Civil Eng 16:381-4 S '46
Vibration damage to spillway gates; Bonneville dam. il diag Eng N 136:420-1 Mr 21 '46
Wagon drills mounted on trucks as jumbos; enlargement of the spillway at Saluda dam. il Eng N 136.475-6 Ap 4 '46

SPINACH
Soil nitrogen and thrips injury to spinach. S. H. Wittwer and L. Haseman. Science 103:331-2 Mr 15 '46

SPINAL cord
Spinal cord circulation in poliomyelitis. N. Nelson. Science 104:49-50 Jl 19 '46

SPINDLES (machine tools)
Spindle-control and collet-operating mechanism for screw machines. A. W. Jansson. diags Mach 52:189-91 Jl '46

Testing
Capacitive micrometer. R. W. Dayton and G. M. Foley. il diags Electronics 19:106-7 S '46

SPINEL
Synthetic spinel used for German bearings. Iron Age 158:64 Jl 18 '46

SPINNING
Cotton-and-wool knitting yarns multiply spinning costs. P. M. Thomas. il Textile World 95:108-10+ N '45
Germans spin synthetics to resemble worsted yarn. D. B. Wicker. il Textile World 96: 105-6 My '46
Germans trailed U.S. in throwing and twisting. E. C. Geier. il diags Textile World 96: 123+ Ap '46
It pays to spin for quality; teaching methods. C. M. Bowden. il diags Textile World 96:143+ S '46
Mill overseers use unique spinning-room reports. C. M. Bowden. Textile World 96:151+ F '46
Scheduling production saves overseer's time. F. H. Gunther and M. Gross. il Textile World 96:137+ F '46
Zein fibers; preparation by wet spinning. C. B. Croston, C. D. Evans and A. K. Smith. il diag Ind & Eng Chem 37:1194-8 D '45

See also
Cotton spinning
Rayon spinning
Woolen and worsted spinning

Tables, calculations, etc.
Assigning doffer's task simplified by table. F. H. Gunther and M. Gross. il Textile World 96:139+ Je '46
Spinning overseers should review twist fundamentals; use of twist gear conversion chart. F. H. Gunther and M. Gross. il diag Textile World 96:98-9+ Ja '46

SPINNING, Metal. See Metal spinning

SPINNING machinery
German cotton-spinning machines have new devices. J. L. Truslow and R. M. Jones. Textile World 96:110-11 My '46
Old-model frames can be modernized. J. M. Hardy. il Textile World 96:104-5 O '46
Points in modern ring spinning. A. E. Whitehead. Textile Inst J 37:P119-20 Je '46
Ring spinning frames adapted to woolens in Germany. J. T. Truslow. il diag Textile World 96:109-10 My '46
Shaw long-draft spinning proves success at China Grove. il diag Textile World 96:131+ O '46

Gearing
Spinning overseers should review twist fundamentals; use of twist gear conversion chart. F. H. Gunther and M. Gross. il diag Textile World 96:98-9+ Ja '46

SPINNING of airplanes. See Airplanes—Spinning

SPIRAL gearing. See Gearing, Spiral

SPIROHYDANTOIN
Alkaline hydrolysis of fluorenone-spirohydantoin. G. H. Harris, B. R. Harriman and K. W. Wheeler. bibliog Am Chem Soc J 68: 846-8 My '46

SPIROMETERS
Apparatus for determining the respiratory volume of large aquatic birds. E. Dehner. diag Science 103:171-2 F 8 '46

SPIROPENTANE
Reduction of pentaerythrityl tetrabromide in ethanol with zinc; isolation of spiropentane. V. A. Slabey. bibliog Am Chem Soc J 68: 1335-6 Jl '46

SPITZNAGEL, Harold
Presenting brickwork by Harold Spitznagel; views and plans. por Brick & Clay Rec 109:24-9 S '46

SPLICES. See Knots and splices

SPLINES. See Keys and keyways (machinery)

SPLIT-up of stocks. See Stocks—Split-up

SPODUMENE
Production of lithium chloride from spodumene by a lime-gypsum roast process. W. M. Sternberg and others. U S Bur Mines Rep of Invest 3848:1-10 '46
Studies on the flotation of spodumene from the Edison mine, Keystone, South Dakota. G. A. Munson and K. L. Erickson. bibliog pl U S Bur Mines Rep of Invest 3892:1-8 '46

SPOILAGE
Rough handling affects spoilage of canned food. C. L. Smith. Food Ind 18:522-3 Ap '46

SPOKANE, Washington

Industries
Spokane sees prosperous future as aluminum plants are reopened. il Steel 119.88 Jl 1 '46

SPONGE iron. See Iron, Sponge

SPONGE rubber. See Rubber, Sponge

SPONGES
Cuba's position in the sponge trade. G. A. Villoldo. il For Comm W 24:6-7+ Ag 24 '46

SPONTANEOUS combustion
Cold facts on coal storage. il Safety Eng 91: 46+ My '46
How can I avoid spontaneous combustion? diags Power 90:703+ O '46
Industrial safety gleanings; fire risk from wool oils. Chem Age (Lond) 54:189 F 16 '46
Relative spontaneous heating tendencies of coals. J. L. Elder and others. bibliog diags U S Bur Mines Tech Pa 681:1-24; pa 10c Supt. of doc. '45

SPORN, Philip
Philip Sporn wins A.I.E.E. Edison medal. por(front cover) Elec World News ed 124: 6-7 D 29 '45

SPORTING goods
Labor, materials shortages limit output of firearms, fishing tackle, golf clubs. il Steel 119.87-8 O 14 '46
Retailer merchandises sports goods line by weekly hunting and fishing flights. Ptr Ink 216:126 S 20 '46
Sporting goods and equipment market rise. J. Jackson. il Dom Comm 34:56-9 Jl '46

Advertising
Sports goods ads keyed to production as industry fights to meet demand. Ptr Ink 214: 115+ F 22 '46

SPORTS
See also
Baseball
Bowling
Fishing
Football
Skating rinks

SPORTS, Lighting for
Sports lighting lead development. Elec World 126:98 Ag 31 '46

SPORTS buildings. See Recreation buildings

SPOT tests. See Microanalysis

SPOT welding. See Electric welding

SPRAYING and dusting
Fog or aerosol applicator for DDT. C. T. Vorhies and L. P. Wehrle. Science 102:648 D 21 '45

SPRAYING apparatus
Automatic spray enameling machine developed by Ferro enamel corp. il Steel 119: 124 O 7 '46
Chemical destruction of agricultural pests. Engineering 162:65 Jl 19 '46
Compact household sprayer. il diag Product Eng 17:92 O '46
DDT steam sprayer. R. B. Formeister. il Food Ind 18:505 Ap '46
Electrostatic spraying of porcelain enamels. L. C. Goldberg. il Cer Ind 46:65-8 F '46
High-clearance of crop-spraying vehicle. il plan Engineering 162:341-2 O 11 '46
Sprayers for dispensing concentrated insecticides. H. O. Shroeder and A. W. Lindquist. il diags Soap & San Chem 22:149-51+ Je '46
Spraying of gear lubricants. D. E. Whitehead. il diag Power Pl Eng 50:89+ Mr '46

See also National association of manufacturers of spraying and dusting equipment; Schori process

SPRAYING materials
See also
Cattle fly sprays
Fly sprays and repellents
Insecticides

SPRAYING of paint. See Paint spraying

SPREADING
Pressures against which oils will spread on solids. E. R. Washburn and E. A. Anderson. bibliog J Phys Chem 50:401-6 S '46

SPRINGFIELD, Massachusetts
Water supply
Survival and retirement experience with water works facilities, as of December 31, 1942. Am Water Works Assn J 38:662-85 My '46

SPRINGS
Survey of groundwater resources; wells and springs in southern Ontario. A. K. Watt. maps Water & Sewage 84:60-5+ Ap '46
See also
Hot springs

SPRINGS (mechanism)
Aluminum spring may be the answer. A. Gelb. il Machine Design 18:137-40+ My '46
Dynamics of package cushioning. R. D. Mindlin. il diags Bell System Tech J 24: 353-461 Jl '45
Electrical contact springs; radio section discussion meeting. Inst E E J 93 pt 3:242 Jl '46
Hexagonal damping spring eliminates torsional fluctuations; automatic spark advance, Willys four-cylinder jeep engine. D. D. Stone. il diag Product Eng 16:824-5 D '45
Homemade stretcher reclaims $1.80 valve springs for further use. diag Pet Processing 1:100 O '46
Isolation of vibration in spring mounted apparatus; with reference book sheets. J. N. MacDuff. diags Product Eng 17:[no 7] 106-9, 159, 161, 163 Jl; 154-6 Ag '46
Liquid spring. il diag Engineer 181:101 F 1 '46; Mech Handling 33.156-8 Mr '46; Iron Age 157:64 Ap 25 '46
Scratches on spring wire. A. Oreffice. Metal Prog 50:309 Ag '46
Spring materials; moduli of elasticity and allowable stresses; engineering file facts. H. Carlson. Materials & Methods 23:185 Ja '46
Standard springs for pipe hangers; table; data sheet. Power 90:343 My '46
Standardized bouncing-pin contact springs speed adjustments for knock-test engines. Nat Pet N 38 pt 2:R257 Ap 3 '46
See also
Automobiles—Springs and suspension
Car springs
Locomotives—Springs
Motor buses—Springs and suspension
Motor trucks—Springs and suspension

Design
Helical steel springs; design chart; reference book sheet. C. P. Nachod. Product Eng 16:892 D '45
How to design rubber torsion springs. A. S. Krotz. il Machine Design 18:147-9+ S '46
Laminated springs; private car systems. A. Blum. diags Automobile Eng 35:497-501 N '45
Nomogram facilitates helical spring design; engineering data sheet. C. P. Nachod. Machine Design 18:149-50 F '46
Nonlinear springs. M. A. Sadowsky. Franklin Inst J 240:469-76 D '45
Plate spring. K. Walz. diags Product Eng 17:114-17 O '46
Stranded wire helical springs for machine guns. H. H. Clark. il diags Product Eng 17:[no 7] 154-8 Jl '46
Utilizing residual forming stresses in flat steel springs. W. C. Troy. diags Mach 52: 152-7 Je '46

Manufacture
Carbon and alloy steel materials for cold-formed springs. F. P. Zimmerli. il Product Eng 17:119-22 O '46
Carbon and alloy steel materials for hot-formed springs. H. C. Keysor. il Product Eng 17:86-9 N '46
Die for forming irregular-shaped spring. L. Kasper. diags Mach 52:185-6 Ja '46
Heat treating beryllium copper for peak performance. H. G. Williams. bibliog il Iron Age 156:58-64 D 6 '45
Hot-coiling automotive suspension springs; Eaton manufacturing co. il Mach 53:190-4 N '46
Spring-forming attachment for lathes. il Oil & Gas J 44:143-4 Ap 27 '46

Testing
Failure of spring loops by stress-corrosion. R. W. Parsons. Metal Prog 48:1310-11 D '45

SPRINKLER leakage insurance. See Insurance, Sprinkler leakage

SPRINKLERS
Lawn sprinkling problem. plans diag Dom Eng 168:110+ Ag '46

SPRINKLING systems
Automatic protection. Nat Safety N 53:136 Mr '46
Fires are worse in winter; equipment must be protected. il Nat Safety N 52:34+ N '45
Magnesium fires controlled by automatic sprinklers. Am Mach 89:129 D 6 '45
Sprinkler protection for magnesium storage. Nat Safety N 52:119-20 D '45

SPROUL, Robert Gordon, 1891-
University of California. il por Fortune 33: 150-9+ Je '46

SPRUCE
Decomposition products in waste sulphite liquor from spruce; abstract. T. Höpner. Paper Ind 28:728 Ag '46
Observations on spruce regeneration. H. D. Long. il, Pulp & Pa of Can 47:67-8 Mr '46
Reaction between thio compounds and lignin. F. E. Brauns and M. A. Buchanan. bibliog Paper Tr J 122:49-52 My 23 '46; Same cond. Paper Ind 28:424+ Je '46
Sodium bisulphite on sprucewood; abstract. K. Freudenberg and others. Paper Ind 28: 728 Ag '46
Stability of the methoxyl groups in methylated hydrochloric acid spruce lignin. F. E. Brauns. bibliog Am Chem Soc J 68: 1721-4 S '46
Thiophenol spruce lignin. F. E. Brauns and W. H. Lane. bibliog Paper Tr J 122:38-40 F 21 '46
Wood treatment with urea resin-forming systems (dimensional stability). M. A. Millett and A. J. Stamm. bibliog Mod Plastics 24:150-3+ O '46

SPRUCE budworms
DDT as budworm cure doubted; abstract. J. C. W. Irwin. Paper Tr J 123:30 Jl 11 '46

SPRUE
Therapeutic effect of folic acid in tropical sprue. T. D. Spies and others. Science 104: 75-6 Jl 26 '46
Use of synthetic L. casei factor in the treatment of sprue. W. J. Darby and others. bibliog Science 103:108 Ja 25 '46

SPUR gearing. See Gearing, Spur

SQUARE (instrument)
Die maker's square has inspection peephole. H. C. De Heer. Am Mach 90:135 Ag 1 '46
Toolmaker's square comes apart for relapping. F. J. Lovejoy. diag Am Mach 90:128 Jl 4 '46

SQUARE contingency. See Chi square

SQUARE root
Math tips; square root: the easy way. P. Swain. Power 90:55 Ja '46
Square root method and its use in correlation and regression. P. S. Dwyer. bibliog Am Stat Assn J 40:493-503 D '45
Square root of sum of squares; engineering data sheet. C. P. Nachod. Machine Design 18:155-6 Jl '46
Table of multiples of the square root of three. R. C. Morris. Elec World 125:108-9 Je 8 '46

SQUIBB, E. R., and sons
Annual report. Comm & Fin Chr 162:3200 D 31 '45
Half-year's tax saving. Barron's 25:9 N 12 '45

STABILITY, Chemical. See Chemical stability

STABILIZATION in industry
Have we lost fight for stabilization. W. C. Hanson. Mag of Wall St 79:124-6+ N 9 '46
How can we avoid boom and bust economy in the United States. N. H. Jacoby. Comm & Fin Chr 163:2637+ My 16 '46
Present position of stabilization program. C. Bowles. Comm & Fin Chr 163:2652+ My 16 '46
Prospects of economic stabiliaztion. R. Weisman. Comm & Fin Chr 164:1535+ S 26 '46
Symposium on fiscal and monetary policy. L. W. Mints, A. H. Hansen, H. S. Ellis, A. P. Lerner, and M. Kalecki. R Econ Stat 28:60-84 My '46

See also
Business cycles
Employment—Stability
Production and sales, Coordination of Seasonal industries

STACY, Walter Parker, 1884-
Portrait. Bsns W p19 D 22 '45

STADIUMS
Four columns support large stadium roof. il plan diags Eng N 137:454-5 O 3 '46

STAGE lighting
Evolution of stage lighting; use in military training; abstract. L. G. Applebee. Light & Lighting 39:63-4 Ap '46
Stage and colour lighting; new automatic change system. il Electrician 136:523-4 Mr 1 '46

STAGE setting and scenery. See Theater—Stage setting and scenery

STAGGERED hours
Eliminating staggered hours causes transit congestion in New Orleans. il Mass Transportation 42:30-2 Ja '46

STAHL, Georg Ernst, 1660-1734
Sketch. Engineer 182:92-4 Ag 2 '46

STAINED glass
Stained glass windows; abstract. Mech Eng 68:652 Jl '46

STAINLESS steel. See Steel, Stainless

STAINS
See also
Stonework—Stains

Removal
Stain removers. M. A. Lesser. bibliog Soap & San Chem 22:33-5+ Mr '46

STAINS and staining (microscopy)
Iodine as a cytological stain. F. B. Adamstone and A. B. Taylor. Science 104:111 Ag 2 '46
New glass device for staining cover-glass preparations. R. Wichterman. il Science 103:23-4 Ja 4 '46
Note on staining plasmodia. A. W. Ratcliffe. Science 103:630-1 My 17 '46
Rapid staining method for rickettsia orientalis. C. F. Clancy and D. M. Wolfe. Science 102:483 N 9 '45
Stain for the identification of bleached sulphite and bleached kraft. F. W. Stocker and L. G. Durant. col pl Pulp & Pa of Can 47:67-9 Ap '46; Same cond, without pl. Paper Ind 27:1711-13 F '46
Use of wetting agents in histological fixatives. R. L. Chermock and H. E. Muller. Science 103:731-2 Je 21 '46
Wilson stain for identification of papermaking fibers. J. H. Graff. Paper Ind 27:1363 D '45

STAINS and staining (wood)
Recent developments in wood finishes. P. S. Kennedy. Mech Eng 68:213-14 Mr '46

STAIRWAYS
Better detail plate; construction details for basement stairs. R. J. Alexander. diags Am Bld 68:112-13 Je '46
Better detail plate; construction details for service and attic stairs. R. J. Alexander. diags Am Bld 68:94-5 Jl; 88-9 Ag '46
Construction and maintenance of ladders and stairs for mines; proposed American standard. Min Cong J 32:54-5 Jl '46
Method of building semi-circular brick steps. R. C. McConkey. plan Brick & Clay Rec 109:27 Ag '46
Non-skid steps. S. M. Munson. il Nat Safety N 54:37 Ag '46
Stairs and ramps; safety aspects. il Nat Safety N 53:104+ Mr '46
Woodwork company redesigns complete line; Curtis companies. il Am Bld 68:86-9 Je '46

STAIRWAYS, Concrete
Concrete spiral stairway connects parkway bridges in Los Angeles. il diags Eng N 136: 845 My 30 '46
New plant making precast steps and other specialty items; Lister concrete products. H. E. Swanson. il Rock Prod 49:186-7+ Ag '46
Precast concrete treads and platforms simplify stair construction and repair. H. S. Ayres. diags Eng N 136:419 Mr 21 '46

STAIRWAYS, Steel
Steel stair details for apartment house; timesaver standards; diagrams. Arch Rec 99: 99 Ja '46

STAMFORD, Connecticut
General strike; Stamford's labor holiday in sympathy with Yale & Towne strikers. il Bsns W p100-2 Ja 12 '46

STAMPING
Adjustable spindles and interchangeable rolls make stamping trimmer versatile. il diags Product Eng 17:94-5 N '46
Development of forgings and stampings. J. T. Robinson. il Steel 118:110-11+ Mr 18 '46
Drawing, stretching, stamping of aluminum. H. L. Smith, jr. il Steel 119:88-90+ Jl 22 '46
Flexible tools for stamping light metals. Mech Eng 68:157 F '46
Forging and pressforming, 1945. T. C. Du Mond. il Materials & Methods 23:117-19 Ja '46
Hydraulic lift control quadrant made of stamped parts. il diags Product Eng 17: [no 7] 105 Jl '46
Making small parts at high speed; Ford motor co. il Steel 117:124-5+ N 12 '45
Material thickness no barrier to presswork. il Iron Age 157:63 Je 20 '46
Metal stamping; composite of abstracts. Metal Prog 50:132+ Jl '46
New equipment; stamping and forming presses. il Iron Age 157:81-6 My 9 '46
Production processes; their influence on design. R. W. Bolz. il diags Machine Design 17:131-6 D '45
Stamping clutch lever parts for garden tractor; Farm equipment division, Ellinwood industries. L. Barrett. il Steel 118:96+ Je 10 '46
Stamping developments; abstract. Mech Eng 68:906 O '46
Stamping machine parts. C. Carmichael. il diags Steel 119:74-5+ Ag 26 '46
Stampings producers; directory. Machine Design 18:228-33 O '46
Statistical quality control of metal stampings. G. R. Armstrong. Iron Age 157:46-8 F 21 '46
What technical men expect in 1946; forging, drawing and stamping. Steel 118:282+ Ja 7 '46

STAMPS, Rubber. See Rubber stamps

STAND oils
Viscosity of linseed stand oil at high shearing stresses. D. Tollenaar and H. Bolthof. bibliog Ind & Eng Chem 38:851-3 Ag '46

STANDARD brands, inc.
Braun for Adams; retains public relations firm. Bsns W p76+ F 23 '46
Preferred stock offered. Comm & Fin Chr 164: 2326 N 4 '46
Selected companies, with an open road to higher earnings and dividends. Mag of Wall St 77:759, 801 Mr 30 '46

STANDARD costs. See Cost accounting—Standard costs

STANDARD deviation. See Variation (statistics)

STANDARD gas and electric company
Move to revise Standard Gas plan gains momentum. O. Ely. Pub Util 37:37-8 Ja 3 '46
Proxy fight looms. Comm & Fin Chr 162: 2520 N 26 '45
Values behind Standard Gas rise; assets appear to promise increased realization for preferred stocks. E. Etherington. Barron's 26:11+ Ap 15 '46

STANDARD gas and electric company—*Cont.*
What is Standard Gas $4 preferred worth? Comm & Fin Chr 162:2574+ N 29 '45

STANDARD life insurance company
Pendulum swings too far; why Standard life of Indiana cut out monthly and quarterly premium business. H. V. Wade. Life Ins Courant 51:322-3 Jl '46

STANDARD milling company
Securities offered. Comm & Fin Chr 163:1290 Mr 11 '46

STANDARD of living
Economics of research; justification of industrial research lies in the betterment of man's lot. R. Presgrave. Can Chem & Process Ind 30:61-3 O '46
50% higher standard of living possible. W. H. Davis. Comm & Fin Chr 163:2087 Ap 18 '46
Living wage standards fallacies. F. E. Lee. Comm & Fin Chr 162:3001+ D 20 '45
La mesure du confort de l'homme; les calories externes. M. E. Houdry. Génie Civil 123:146, 149 Je 1 '46
New pattern of living standards. J. D. C. Weldon. il Mag of Wall St 78:316-18+ Je 22 '46
Tertiary production as a postwar international economic problem. A. G. B. Fisher. R Econ Stat 28:146-51 Ag '46
What the public thinks; anticipated standard of living five years from now; chart. Iron Age 157:99 Ja 3 '46
Why our standard of living is highest. R. T. Haslam. Comm & Fin Chr 164:2074+ O 24 '46

See also
Cost of living

STANDARD oil companies
Standard is strong in disunion. maps Bsns W p71-2+ Je 22 '46

STANDARD oil company (New Jersey)
Court rules Jersey Standard entitled to some Farben patents. Nat Pet N 37:46 N 14 '45
$85,000,000 debentures publicly offered. Comm & Fin Chr 163:2770 My 20 '46
Many engineering developments discussed by Standard (N.J.) groups. K. B. Barnes. Oil & Gas J 44:60-1 Mr 23 '46
Thirty years of labor peace; unique relationship with its workers. il Fortune 34:166-71 N '46
Thumbnail stock appraisal. Mag of Wall St 78:752 S 28 '46

STANDARD oil company of Indiana
FTC adopts own attorney's ideas in Indiana Standard case; modified order draws dissent from L. B. Mason. Nat Pet N 38:11-16 Ag 14 '46
FTC files motion to change order in Detroit area case. Nat Pet N 38:3-4 Ja 30; 12+ F 6; 3-4 F 27; 11 Mr 6 '46
FTC takes Detroit case under advisement. Nat Pet N 38 5-6 My 1 '46
Next move may be up to refiners if court upholds order of FTC. D. Klepper. Nat Pet N 37:14 N 28 '45
Thumbnail stock appraisal. Mag of Wall St 77:453 Ja 19 '46

STANDARD time. See Time, Standard

STANDARDIZATION
Active standards program helps China's industries. S. T. Shang. Ind Stand 16:234-5 N '45
Applied finishes standardization and basic principles of procedure; Sperry gyroscope company. S. B. Ashkinazy. il Product Eng 17:24-8 Ja '46
How to make more with less. il diags Ind Stand 17:225-9 S '46
National standardization, adventure in free enterprise. H. B. Bryans. Ind Stand 17:2-3 Ja '46
New opportunity for free enterprise; exchange of letters between H. A. Wallace, C. E. Wilson and H. B. Bryans. Ind Stand 17:65-9 Ap '46
Postwar plans for safety standardization. C. Ainsworth. Mech Eng 68:449-52 My '46; Same. Ind Stand 17:13-17 Ja '46
Standardization and the antitrust laws. J. D. Hayes. Ind Stand 17:74-7 Ap '46; Same. Soc Motion Picture Eng J 46:516-25 Je '46
Standardization for passenger cars; abstract. A. W. Clarke. Iron Age 156:118 D 6 '45
Standardization in the chemical industry; employment practices, employee training. W. von Pechmann. Ind & Eng Chem 38: sup85-6 O '46
Standardization of color finishes for machinery and equipment. D. L. Hadley and C. B. Rider. diag Steel 118:121-2+ Ja 28 '46
Standardization of materials-handling equipment. N. Warshaw. Mech Eng 68:545-6 Je '46
Standardization of temperature and electrical measurements. E. Goddess. il diags Product Eng 17:212-15 Mr '46
Standardization tomorrow? what the aircraft industry has accomplished. B. C. Boulton. diags Mech Eng 67:729-34 N '45; Same abr Machine Design 17:162-3 D '45; 18:126-8 F '46
Standards for versatility; complete international co-operation must be gained. E. L. Cady. il Sci Am 174:14-16 Ja '46
Voluntary standardization; weapon for peace. D. Armstrong. Ind Stand 17:248-9 O '46

See also
Electric equipment—Standards
Machine tools—Standards
Machine tools—Preferred numbers

STANDARDS
Compromise on standards; Commerce dept. revamps its setup. Bsns W p82+ Mr 30 '46
Division of simplified trade practices and the Division of commercial standards now in Commerce department. Oil Paint & Drug Rep 149:3 My 27 '46
Final report of the Policy committee on standards. C. E. Wilson. Ind Stand 17:69-71 Ap '46
How commercial standards function in marketing. I. J. Fairchild. Ind Marketing 31: 48+ Ja '46
Monthly information sheet. [10p] pa British standards institution, 28 Victoria st, Westminster, London, SW 1 '46
Preparation of British standards. P. Good. Chem & Ind p118-20; Discussion. 120-2 Mr 16 '46
Return of standards determination to private enterprise favored. Steel 118:84+ Mr 18 '46
Standards and free enterprise. H. Coonley. Ind Stand 17:71-3 Ap '46
Why navy appreciates work on standards. C. A. Dunn. Ind Stand 17:246-8 O '46

See also
Cost accounting—Standard costs
Electric standards
Preferred numbers
Products, Certification of
Quality of products
Safety standards
Textile standards
Time study
Weights and measures

also subdivision Standards under various subjects, e.g.
Color
Drafting room practice
Hosiery
Machine tools
Machinery
Moving pictures
Refrigeration and refrigerating machinery
Roads
Shipbuilding
Water meters

also United nations standards coordinating committee

Bibliography

ASA standard activities; standards approved or considered since November. Ind Stand 16:285 D '45 [cont monthly]
American standards; with price list and index. Ind Stand 17:1-23 pt 2 Mr '46
Index to A S.T.M. standards; including tentative standards, as of December, 1945. 224p Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '45 [issued yearly]
NBS acts on standards and recommendations. Ind Stand 16:229; 17:91-2, 211, 266 O '45, Ap, Ag, O '46
New standards from other countries (cont). Ind Stand 16:254-5; 17:94, 105, 151, 183, 224, 263 N '45, Ap-Jl, S-O '46
New standards in ASA library (cont). Ind Stand 16:255-6, 282-4; 17:23-4, 90-1, 156-7, 184-5, 210, 238-9, 265 N '45-Ja, Ap, Je-O '46

China

Active standards program helps China's industries. S. T. Shang. Ind Stand 16:234-5 N '45

STANDARDS—*Continued*

Denmark

Danish standards association has active standards program. H. E. Glahn. Ind Stand 16:236 N '45

Latin America

Latin-American standards now number more than five hundred. E. A. Pratt. Ind Stand 17:180 Jl '46

Mexico

Interchange of standards promotes international trade; American standards association in continuous cooperative contact with Mexican standards department. G. S. Case. Ind Stand 16:243 N '45

Norway

Standards activity in Norway expands to meet postwar needs. K. Heiberg. Ind Stand 16:237 N '45

Russia

Russia joins United nations standards coordinating committee. Ind Stand 17:212 Ag '46

South Africa

Head of South African bureau describes standards program. J. Ritchie. Ind Stand 17:264 O '46

South African government sets up Bureau of standards. Ind Stand 16:277 D '45

STANDARDS, Engineering

Colleges urged to teach standards. G. M. Aron. Ind Stand 17:231 S '46

International unification of engineering standards; agreements reached in three-country conference. diag Product Eng 17:324-6 Ap '46

Should a single materials specification system be established? opinions of engineers. Machine Design 18:101-6+ Mr '46; Same. Ind Stand 17:172-9 Jl '46

Standard bushes; development by Glacier metal co. il Automobile Eng 36:253-4 Je '46

Why Packard made new drawings for the Rolls Royce Merlin engine. il diags Product Eng 17:81-5 N '46

See also

Electric standards
Standardization
Weights and measures

also subdivision Standards under various subjects, e.g.

Bridges
Building
Electric equipment
Gearing
Lighting
Machine tools
Machinery
Roads
Screw threads

STANDARDS, International

Conference on screw threads reaches basic agreements. Ind Stand 16:223-4 O '45

Drafting-room practice, with respect to interchangeable components discussed at Ottawa conference on the unification of engineering standards. il diags Machine Design 18:133-6 F '46

Inch screw thread practice unified. diags Ind Stand 17:36-42 F '46

International standards conference makes good progress. Machine Design 17:146 N '45

International unification of engineering standards; agreements reached in three-country conference. diag Product Eng 17:324-6 Ap '46

Permanent international standards organization now being set up. Ind Stand 16:233 N '45

Plan merger of standards groups. P. G. Agnew. Ind Stand 17:217 S '46

Standards and world trade. H. J. Wollner. il Ind Stand 17:147-9 Je '46

Standards council votes cooperation on international standards projects. Ind Stand 16:253 N '45

Standards for versatility; complete international co-operation must be gained. E. L. Cady. il Sci Am 174:14-16 Ja '46

What about international standards for building dimensions? Ind Stand 17:161-3 Jl '46

See also United nations standards coordinating committee

STANDARDS, National bureau of. See United States—Standards, National bureau of

STANDARDS of measurement. See Measurement

STANLEY, Robert Crooks, 1876-

Portrait. Can Min J 67:308 My '46

STANLEY, Wendell M. 1904-

Nichols medal awarded to Stanley; scientific contributions of the medalist. V. du Vigneaud. Chem & Eng N 24:752-5 Mr 25 '46

William H. Nichols medalist for 1946, Wendell M. Stanley, his career. R. L. Shriner. pors Chem & Eng N 24:750-2 Mr 25 '46

STANNIC chloride. See Tin chlorides

STAPHYLOCOCCI

Disinfecting with aerosols; abstract. B. I. Gandel'sman and others. Soap & San Chem 22.149 F '46

Inquiry into the germicidal performance of quarternary ammonium disinfectants. E. G. Klarmann and E. S. Wright. il Soap & San Chem 22:125+ Ja; 139+ Ag '46

Presence in normal serum of inhibiting substances against bacillus subtilis and staphylococcus aureus. C. W. Buggs and others. Science 103:363-4 Mr 22 '46

Reciprocal sensitivities of staphylococcus aureus to streptomycin, streptothricin and penicillin. M. Sullivan and others. Science 104:397 O 25 '46

STAPLE fibers, Rayon. See Rayon fibers

STARCH

Allyl ether of starch; abstract. W. S. Penn. Paint Oil & Chem R 109:28 O 31 '46

Application of X-ray analysis to structural problems in textiles; abstract. R. E. Rundle. Am Dyestuff Rep 34:526+ D 17 '45; Same. Rayon 26:637-8 D '45

Chemicals increase versatility of starch adhesives. A. Frieden. il Chem Ind 59:641-4 O '46

Chlorination of starch with phosphorus pentachloride. H. N. Barham, E. S. Stickley and M. J. Caldwell Am Chem Soc J 68: 1018-24 Je '46

Enzymic synthesis and degradation of starch; the amylolytic function of the Q-enzyme of the potato. E. J. Bourne, A. Macey and S. Peat. Chem Soc J p882-8 D '45

Enzymic synthesis and degradation of starch; the synthesis of amylopectin. E. J. Bourne and S. Peat. Chem Soc J p877-82 D '45

Film properties and utilization of resin-starch. C. C. Kesler and others. bibliog Paper Tr J 122:39-43 Mr 28 '46; Same cond. Paper Ind 28:712+ Ag '46

Mixed allyl ethers of starch. R. M. Hamilton and E. Yanovsky. bibliog Ind & Eng Chem 38:864-6 Ag '46

Nitration of starches with nitrogen pentoxide in presence of sodium fluoride. G. V. Caesar and M. Goldfrank. bibliog diag Am Chem Soc J 68:372-5 Mr '46

Production of 2,3-butanediol from acid-hydrolyzed starch. G. E. Ward, O. G. Pettijohn and R. D. Coghill. bibliog Ind & Eng Chem 37:1189-94 D '45

Serious corn shortage basis of starch scarcity. G. Montgomery. Textile World 96:227+ My '46

Starch. W. N. Haworth. il Chem Soc J p543-9 Je '46

Starch usage in the paper industry. J. P. Casey. Paper Ind 28:268+ My '46

Treating starch for obtaining stable thickeners, sizing pastes, etc; U.S. patent. Am Dyestuff Rep 35:440 S 9 '46

See also

Cornstarch
Potato starch

Analysis

Estimation of iodine color of starches and starch fractions. S. A. Watson and R. L. Whistler. bibliog Ind & Eng Chem Anal ed 18:75-6 Ja '46

Manufacture

Production of starch from sweet potatoes. il Chem & Eng N 24:474-5 F 25 '46

Root starch made in the Florida Everglades from sweet potatoes. il Chem & Met Eng 53:110-11 Mr '46

STARCH factories
Starch plant uses curved corners for cleanliness; Clewiston, Fla. plant of U.S. sugar corp. il diag Arch Forum 85:103 O '46

STARFISHES
Fluctuations in abundance of marine animals. M. D. Burkenroad. Science 103:684-6 Je 7 '46

STARK, C. A.
Major Stark chief of War department's contract insurance branch. por East Underw 47:32 Jl 5 '46; Nat Underw 50:16 Jl 4 '46

STARK effect
Resolution of a rotational line of the OCS molecule and its Stark effect. T. W. Dakin and others. il Phys R 70:560 O 1 '46

STARS
Finding the navigational stars (cont). B. C. Kenny. il Aero Digest 51:62+ D 15 '45
Statistical hypotheses in stellar dynamics. H. Jehle. Phys R 70:538-55 O 1 '46

Spectra
Scandium in stars. A. S. King. bibliog Electrochem Soc Trans 89 (preprint 10): 127-31 '46

STARS, New
Atomic bombs and novae. D. B. McLaughlin. Science 103:760 Je 28 '46

STARVATION
Famine edema and the mechanism of its formation. A. Keys and others. bibliog Science 103:669-70 My 31 '46

STATE, The
Human rights in Roman law countries. C. de Visscher. Ann Am Acad 243:53-9 Ja '46

STATE advertising
Advertising by the states. 2d rev ed 40p pa $1 Council of state governments, 1313 E. 60th st, Chicago 37 '46
Advertising helps to balance state's agriculture with its industry; Mississippi communities pay for plants with bond issues which are retired through earnings. D. Markstein. il Ptr Ink 214:75+ Mr 1 '46
Booklet promotes Keystone state's advantages. Ptr Ink 213:138 N 30 '45
Group of four Florida agencies to handle state's ad budget. Ptr Ink 213:128 N 23 '45
Maine uses advertising to get jobs for veterans. R. I. Miller. Ptr Ink 217:39 O 4 '46
Michigan sponsors $325,000 tourist campaign. il Ptr Ink 214:102 Mr 22 '46
States and cities expand campaigns for new industry; analysis of 10 recent programs. D. Markstein. il Ptr Ink 216:46-7 S 13 '46
Successful test ads for state promotion; Louisiana advertises for tourists and industries. D. Markstein. il Ptr Ink 215:87 My 17 '46
Washington state apple commission explains ads to own citizens. Ptr Ink 214:70 F 8 '46

STATE aid. See Municipal finance—State aid

STATE banks. See Banks and banking, State

STATE employees
Training public health workers; programs sponsored by state health departments under title VI of the Federal social security act and the Federal venereal disease control act (1938-44). J. M. Mountin and E. K. Hankla. Pub Health Rep 61:725-48 bibliog (p739) My 24 '46

STATE finance
Cash bonus plans would mean big increase in states' debts. B. Jones. Barron's 26:9 F 18 '46
Red ink coming. Fortune 33:226-7 Ja '46
State and municipal finances. Nat City Bank p22-3 F '46
State bonus bond flood unlikely; present trends away from cash payments. B. Jones. Barron's 25:14 N 12 '45

See also state subdivisions under heading Finance, e.g. Finance—Mississippi

STATE governments
See also
Highway departments
Public utilities commissions
State laws

Federal relations
Case of Saratoga; state gets no federal tax immunity. Bsns W p28+ Ja 19 '46
Federal finance and the states. L. C. Warren. Comm & Fin Chr 163:757+ F 7 '46
Federal taxation of public business enterprises; Saratoga Springs case may lead to removal of discriminatory exemptions enjoyed by state, municipal, and coöperative commercial projects. L. Gates. Pub Util 38:14-24 Jl 4 '46
New York fights federal taxes on state business; case arising from taxation of Saratoga Springs bottled water business. Elec World 124:137 D 8 '45
New York's bottled water business must pay taxes; Supreme court declares business activities of states can be taxed by government. Elec World 125:147-8 Ja 19 '46

See also
Federal power commission
Roads—Federal aid

STATE income tax. See Income tax, State

STATE insurance. See Insurance, State

STATE laws
Chattel mortgage contracts; with summary of state laws. C. B. Everberg. Credit & Fin Management 48:20+ F '46
Compulsory sickness insurance legislation in the states, 1939-44. A. Stucke. Pub Health Rep 60:1551-64 D 28 '45
Conditional sales contracts; with summary of state laws. C. B. Everberg. Credit & Fin Management 48:19-22+ Ja '46
Fire insurance laws, taxes and fees; data on insurance statutes in 1945-46 edition. Spectator (Property ed) 11:16-17 Ja 10 '46
Fixed flour sizes; a simplification achievement. W. F. Janssen. il map Mod Packaging 19:96-7+ D '45
Legislation on hospital surveys, construction, and licensing considered by state legislatures in 1945. M. M. Guerin. Pub Health Rep 60:1519-39 D 21 '45
1945 state legislation affecting trusts and estates. W. L. Cloutier. Trusts & Estates 82:99-105 Ja '46
Prudent man rule of trust investments; survey on practice of states. R. Neill, jr. Trusts & Estates 82:90-1 Ja '46
Rural land-use legislation in the states; the war years. H. Walker, jr. bibliog J Land & Pub Util Econ 22:232-58 Ag '46
School shop safety legislation; tabulation by states; with time-saver standards. Arch Rec 100:123 Jl '46
State labor legislation in 1945. M. L. Mel. Mo Labor R 62:248-53 F '46
State license regulations; survey by Illinois insurance department discloses what commonwealths require. Weekly Underw 154: 150-1+ Ja 12 '46
State veterans' programs. rev ed 53p pa $1 Council of state governments, Chicago 37 '45
States tighten reins on instalment selling. B. Jones. Barron's 25:15 N 26 '45
Stop payment order statutes. Banking 38:128 My '46
Suggested state postwar legislation; federal-state program for 1946-1947. Council of state governments, 1313 E. 60th st, Chicago '45
Toward uniformity in state laws. J. De Jong. Banking 39:82+ N '46

STATE legislatures
Legislative sessions in 1946. Mo Labor R 61: 991-2 N '45

STATE liability
State not liable for fire set by inmate escaped from institution. East Underw 47:27 O 25 '46
State not liable to truck owner for damage when park bridge fell. East Underw 47:32 Ap 26 '46

STATE libraries. See Libraries, State

STATE rights
USES at issue; federal control of employment services. Bsns W p100-2 D 29 '45

See also
Federal power commission
Insurance companies—Regulation

STATEROOMS. See Ships—Staterooms

STATIC. See Radio communication—Interference

STATIC electricity. See Electricity, Static

STATICS
See also
Elasticity
Graphic statics

STATION wagons. See Automobiles

STATIONERY
Feminine letter writers set styles for stationery box wraps. il Mod Packaging 19: 112-17+ Je '46
See also
Hotels—Stationery
Letterheads

STATISTICAL association, American. See American statistical association

STATISTICAL mechanics
Application of the methods of molecular distribution to solutions of large molecules. B. H. Zimm. bibliog diag J Chem Phys 14:164-79 Mr '46
Free volume and entropy in condensed systems; fluctuation entropy and free volume in some monatomic crystals. H. S. Frank. J Chem Phys 13:478-92 N '45
Note on communal entropy; remarks on a paper by Henry S. Frank; discussion by O. K. Rice. J Chem Phys 14:348-50 My '46
Statistical hypotheses in stellar dynamics. H. Jehle. Phys R 70:538-55 O 1 '46
Statistical mechanical theory of transport processes; general theory. J. G. Kirkwood. bibliog J Chem Phys 14:180-201 Mr '46; Correction. 14:347 My '46
Statistical mechanics of linear association equilibria. P. J. Flory. bibliog J Chem Phys 14:49-50 Ja '46
Statistical mechanics of multimolecular adsorption. T. L. Hill. bibliog J Chem Phys 14:263-7, 441-53 Ap, Jl '46
Thermodynamic properties of ethylbenzene vapor from 300° to 1500°K. F. G. Brickwedde and others. bibliog J Chem Phys 13.547-53 D '45
See also
Bose-Einstein statistics

STATISTICAL methods
Actuarial analysis of the operating life of B-29 aircraft engines. O. L. Altman and C. G. Goor. Am Stat Assn J 41:190-203 Je '46
Analysis of Latin squares when some observations are missing. D. B. De Lury. Am Stat Assn J 41:370-89 S '46
Analysis of special electronic-tube tests. J. H. Campbell and C. G. Donsbach. flow charts A S M E Trans 68:481-6 Jl '46
Apportionment of representatives in Congress on the basis of special populations. M. B. Ullman. Am Stat Assn J 40:484-92 D '45
Binomial coefficients; derivation of a formula. H. Sohon. J Eng Educ 36:414-19 Mr '46
Correlation methods applied to steel problems. Blast F & Steel Pl 33:1409-10 N '45
Dollars for your thoughts; Ordnance department statistical methods of quality control to prevent destruction of tank armor during tests. L. E. Simon. Ind Stand 17:203-6 Ag '46
Effect of dimensions of specimens upon the precision of strength data. J. Tucker, jr. bibliog Am Soc T M Proc 45:952-60 '45
Estimation of spatial grain size. W. A. Johnson. il diags Metal Prog 49:87-92, data sheet 1192-B Ja, Je '46
Evaluating intercity air traffic. W. J. Platt. Air Transport 4:55-8 S; 79+ O '46
Factors affecting insulation resistance of large d-c machines. J. S. Johnson and C. Weil. Elec Eng 65:Trans 705-10 N '46
Figures won't lie; must be properly selected and interpreted. H. S. Taylor. Barron's 25:11 D 24 '45
Graphical solutions of statistical problems; applications of Probability graph paper. F. Levi. Engineer 182:338-40, 362-4 O 18-25 '46
How chemical engineers can use statistical methods. E. I. Stearns. bibliog diags Chem & Met Eng 53:119-21 My '46
How statistical methods can improve chemical processes. W. R. Pabst. Chem Ind 59:479-83 S '46
Improvement of precision by repeated measurements; application to analytical control methods. J. Mandel. bibliog Ind & Eng Chem Anal ed 18:280-4 My '46
Industrial quality control; reviews. Am Stat Assn J 41:111-15 Mr '46
Life quality predictions by statistical methods. E. B. Ferrell. Machine Design 18:141-4 F '46
Mathematics as a tool in the water-works laboratory. H. A. Thomas, jr. N E Water Works Assn J 60:153-61 Je '46
Maximum stresses present at failure of brittle materials. J. Tucker, jr. Am Soc T M Proc 45:961-73 bibliog(p973); Discussion. 974-5 '45
Mortality: people and property. H. M. Gault. Spectator (Life ed) 153:19-23+ My; 25-7+ Je; 154:30-2+ Jl '46
New approach to accident frequency rates. H. P. Goode. il Safety Eng 92:25-6+ Ag '46
Personnel work on the grill. D. A. Stewart and D. J. Bolanovich. Personnel J 24:282-8 F '46; Discussion (Statistics on the grill). H. G. Heneman, jr. 25:171-7 N '46
Punched-card technique for computing means, standard deviations, and the product-moment correlation coefficient and for listing scattergrams. N. R. Bartlett. Science 104: 374-5 O 18 '46
Quality control reports issued by the Quality control program, Carnegie institute of technology; reviews. Am Stat Assn J 41: 115-25 Mr '46
Quality control through product testing. P. L. Alger. Elec Eng 65:11-12 Ja '46
Quality reports for management. M. A. Brumbaugh. Elec Eng 65:391-3 Ag-S '46
Rapid measurement of an index of fibre length. R. de Montigny and P. Zborowski. diag Pulp & Pa of Can (Convention no) 47: 99-112, 115 [F] '46; Same cond. Paper Ind 28:882+ S '46; Correction. Pulp & Pa of Can (Convention no) 47:294 [F] '46
Safety of structures. A. M. Freudenthal. bibliog Am Soc C E Proc 71:1157-91 O '45; Discussion. 72:251-5, 885-8 F, Je '46
Significance tests for industrial injury rates. D. C. Stewart. Edison Elec Inst Bul 13: 361-3+ D '45
Simplified method of calculating standard errors. R. G. Newton. Chem & Ind p322-3 O 20 '45
Some statistical studies of surface quality controls; semi-finished killed steel. H. J. Forsyth. il Blast F & Steel Pl 34:469-74+ Ap '46
Statistical approach in industrial research. A. Lesser, jr. bibliog Iron Age 158:50-5 Ag 22 '46
Statistical control applied to wrench manufacture. F. J. Robbins. Metal Prog 50:287-90 Ag '46
Statistical control in the physical testing of rubber. J. D. Heide. India Rubber World 114:653-6+ Ag '46
Statistical control in workshop administration. W. T. O'Dea. Inst Mech Eng J & Proc 154:1-8; Discussion. 9-11 Je '46
Statistical control of accidents. J. M. Howell and L. Johnson. Iron Age 158:56-9 Jl 18 '46
Statistical control of the production process. A. M. Mood. il Food Ind 18:1189-91, 1372-4+ Ag-S '46
Statistical design of experiments. J. W. Hopkins. Can Chem & Process Ind 30:113-16+ My '46
Statistical method and results of a study of factors affecting open hearth production rate. A. P. Woods and C. R. Taylor. Blast F & Steel Pl 34.847-54+ Jl '46
Statistical methods in quality control. Elec Eng 64:181-2, 249-50, 299, 328-9, 363-4, 401-2, 448-50; 65:23-4, 81-3, 117-19, 466-8 My, Jl '45-Mr, O '46
Statistical methods in quality control, by P. C. Clarke and G. R. Armstrong. Review, by G. R. Gause. Am Stat Assn J 41:130-2 Mr '46
Statistical methods in research. H. M. Smallwood. bibliog J Chem Educ 23:352-6 Jl '46
Statistical quality control at Lockheed; abstract. J. R. Crawford and P. C. Hammer. Metal Prog 50:150+ Jl '46

STATISTICAL methods—*Continued*
Statistical quality control in war production. H. Working. Am Stat Assn J 40:425-47 D '45
Statistical quality control of metal stampings. G. R. Armstrong. Iron Age 157:46-8 F 21 '46
Statistics, an engineering tool; review of a few practical publications on statistical methods. H. M. Tompkins. Chem & Eng N 24:2774-5 O 25 '46
System of laboratory evaluation; Aluminum research laboratories. H. V. Churchill. Ind & Eng Chem Anal ed 18:66 Ja '46
Systematic sampling pays in controlling filling weights; use in can-filling weight control; Shewhart charts. H. P. Goode and G. I. Dundas. il Food Ind 17:1468-70 D '45
Tolerances on assemblies. B. Epstein. diags Am Mach 90:119-21 Ja 3 '46
Use of adjusting factors in the analysis of data with disproportionate subclass numbers. R. E. Patterson. Am Stat Assn J 41:334-46 S '46
Use of control charts in the analytical laboratory. G. Wernimont. bibliog Ind & Eng Chem Anal ed 18:587-92 O '46
Use of statistical methods in quality control program. W. T. Rogers. Steel 118:119-20 F 11 '46; Same. Blast F & Steel Pl 34:233-5 F '46; Abstract. Chem & Met Eng 53:274+ Ap '46
Using statistics to control mass-production quality; North American Philips company. E. Goddess. il Factory Management 104: 110-12 F '46
Wartime analysis method may aid insurance companies; cuts data needed for spot-checking by about 50%; sequential analysis. Nat Underw 50.9 Ja 10 '46; Same. Nat Underw (Life ed) 50:8 F 22 '46

See also
Business forecasting
Chi square
Correlation (statistics)
Demand curve
Frequency distribution
Graphic methods
Index numbers (economics)
Probabilities
Sampling (statistical methods)
Trend measurement
Variation (statistics)

Bibliography

Statistical methodology index; a quarterly guide to current literature. O. K. Buros, ed. Am Stat Assn J 40:539-52 D '45 [cont quarterly]

Study and teaching

Analytical statistics in industry. H. Working. J Eng Educ 36:407-13 Mr '46

STATISTICIANS
Advancing statistical front. W. A. Shewhart. Am Stat Assn J 41:1-15 Mr '46

See also American statistical association; Snyder, Carl

Directories

American statistical association membership directory, 1945. Am Stat Assn J 40:553-662 pt 2 D '45

STATISTICS
Advancing statistical front. W. A. Shewhart. Am Stat Assn J 41:1-15 Mr '46
Statistical miasma and administrative blunders. A. M. Sakolski. Comm & Fin Chr 163:1634+ Mr 28 '46

See also
Business statistics
Census
Commercial statistics
Correlation (statistics)
Criminal statistics
Economic statistics
Frequency distribution (statistics)
Government statistics
Index numbers (economics)
Industrial statistics
Market statistics
Sampling (statistical methods)
Statistical mechanics
United States—Census, Bureau of

also subdivision Statistics under various subjects, e.g.
Accidents, Industrial
Chemical industries
Crops
Employment
Mortality
Railroads
Rubber industry and trade
Wages

also Great Britain—Statistics

Bibliography

Bibliography of sources of statistical data. (In Statistical abstract of the United States, 1944-45, p956-86) U.S. Dept. of commerce, Bur. of the Census, Washington 25, D.C.; $1.75 Supt. of doc. '45
Book reviews. Published in quarterly numbers of Journal of the American statistical association

International aspects

One statistical world. E. Latham. Am Stat Assn J 41:275-92 S '46

Periodicals

New guide to Britain's economy; Monthly digest of statistics. Chem Age (Lond) 54:253-4 Mr 9 '46

Study and teaching

Should engineers study statistics. H. Working. bibliog J Eng Educ 36:557-64 My '46

STATISTICS, International

See also
United nations—Statistical commission (proposed)

STATUES
Where are the dogs of yesteryear; foundry cast statuary. J. L. Morrison. il Foundry 74: 108-10+ O '46

See also
Sculpture

STATUTE of limitations. See Limitation of actions

STAYBOLTS
Progress in staybolt application; report by Master boiler makers' association. diags Ry Mech Eng 120:75-9 F '46
Staybolt materials and application. G. R. Greenslade. Ry Mech Eng 120:561 O '46

STEAM
Buzz bomb propulsion by boiler-developed power. Chem & Eng N 24:660 Mr 10 '46
Coal pulverized by steam expansion; abstract. J. I. Yellott and A. D. Singh. diag Power 89:916 Mid-D '45
Computations on the denitration of aqueous mixtures of sulphuric and nitric acids with steam. G. E. Stephenson. Inst Chem Eng Trans 20:103-5 '42; Same. Soc Chem Ind J 62:17-20 F '43; Discussion. Inst Chem Eng Trans 20:105-6 '42
Copper hoods and ducts solve hatter's problem; removing steam used in treating felt. il Sheet Metal Worker 37:49+ S '46
Corrosion of plant equipment by steam and water. R. C. Ulmer. il Power Pl Eng 50: 72-5+ O; 90-2 N '46; 51:108-9+ Ja '47
DDT steam sprayer. R. B. Formeister. il Food Ind 18:505 Ap '46
Evaporators generate clean steam from impure water for many uses. J. B. Forbes. il diags Power 90:151-3 Mr '46
Factors affecting the drying of machine-made paper; use of steam. Paper Ind 27: 1566-8 Ja '46
First he wants the steam dry, then he wants it wet; from same boiler. diags Power Pl Eng 50:106-7 Jl; 107 Ag '46
Hydrogen by the steam-hydrocarbon process. il Chem & Met Eng 53:122-3 My '46
Making steam is a complex business. J. C. Gore. diags Power Pl Eng 50:92-4 Je '46
New plant will provide pattern for synthetic-liquid fuels industry. F. R. Staley. flow diag il Oil & Gas J 44:118+ Ap 27 '46
Road rebuilt with steam-dispersed asphalt. H. J. Ludden. il Eng N 137:241-3 Ag 22 '46
Special studies of the feedwater-steam system of the 2000-psi boiler at Somerset station of Montaup electric company. W. D. Bissell and others. diags A S M E Trans 68:429-39 My '46; Excerpts. Power Pl Eng 50:79-80 Ja '46; Discussion. A S M E Trans 68:439-42 My '46
Steam; its generation and use in the gas industry. D. Hicks. Gas J (Lond) 248:600 Discussion. 601 O 9 '46
Stress-rupture characteristics of various steels in steam at 1200 F. J. T. Agnew and others. bibliog diag A S M E Trans 68:309-15 My '46

STEAM—*Continued*
Uncatalyzed reaction of natural gas and steam. A. S. Gordon. bibliog diag Ind & Eng Chem 38:718-20 Jl '46

See also
Boilers
Condensers (steam)
Electric plants (central stations)
Evaporators
Exhaust steam
Feed water purification
Steam engineering and other headings beginning Steam
Superheated steam

Tables, calculations, etc.

Irreversibility in the theoretical regenerative steam cycle. R. E. Hansen. A S M E Trans 67.557-60 O '45; Discussion. flow diag 68: 267-70 Ap '46

See also
Steam flow

STEAM, Natural
Power sources other than atomic with future possibilities. E. Podolsky. Mech Eng 68:655 Jl '46

STEAM accumulators
Electric boilers and steam accumulators. il diags Engineer 181:388-9 Ap 26 '46

How to calculate the accumulator capacity of a boiler. M. H. Kuhner. Power Pl Eng 50:98-9 Ja '46

STEAM automobiles. See Automobiles, Steam

STEAM boilers. See Boilers

STEAM compressors
Condensing by compression; a locomotive experiment. H. Holcroft. il diag Engineer 182: 227-9, 248-9 S 13-20 '46

Steam compressors meet need for high pressure steam. C. G. Turgiss. bibliog diag Power Pl Eng 50:96-7 Ag '46

What the power engineer needs to know about steam compressors. G. D. Winans. il diag Power Pl Eng 50:118+ Ja '46

STEAM cooking
Cooking beetroots; new application for electrode boiler. il Elec R 139:136 Jl 26 '46

See also
Pressure cookers

STEAM distribution

See also
Electric plants (central stations)—Steam distribution
Steam pipe lines

STEAM ejectors. See Air ejectors; Steam jets

STEAM engineering
Inside story of navy and high-pressure steam; abstract. H. G. Bowen. Blast F & Steel Pl 34:114 Ja '46

See also
Boilers
Electric plants (central stations)—Steam distribution
Marine engineering
Power (mechanics)
Steam engines and other headings beginning Steam
Steamboats

Study and teaching

Laboratory for teaching steam-turbine principles. F. K. Fisher and W. R. Harris. il diags Power 90:764-6 N '46

New technique in teaching power plant operation; power plant unit for use by engineering colleges. F. H. Pumphrey. diags Power Pl Eng 49:92-4 N '45

Suggested educational courses for steam power-plant operating engineers. J. D. Swenson. il Power 90:183-4 Mr '46

Training of practical engineers. F. D. Mosher. Power Pl Eng 49:102-4 O '45; Discussion. 50:108 Ja '46

STEAM engineers
Call to arms; organizing, training and licensing of power plant engineers. T. W. Benson. Power Pl Eng 50:110+ My '46

STEAM engines
Calculations for engine flywheel. A. H. Moulton. Power Pl Eng 50:105-6 Ag '46

Care and operation of steam engines. Locomotive 45:246-51 O '45

Cornish engines in London; description. il Engineering 161:619 Je 28 '46

How about a Corliss with three eccentrics? diag Power Pl Eng 49:122 O; 122+ N '45

New power unit for Liberty ship conversion. O. J. Baggerud. Marine Eng 51:162+ F '46

Reciprocating-pump; questions and answers for power engineers; steam end; construction and operation. E. F. Wright. il diags Power 90:628+ S '46

Sad case of the ailing Corliss; how not to run a power plant. W. S. White. Power Pl Eng 50:94-6 My '46

Steam engine questions; diameter and weight of flywheel; piston stroke and flywheel revolution. diags Power Pl Eng 50:108 Ap '46

Steam giant gives way to electric power; history of vertical Corliss engine, at Plymouth cordage co. plant. C. B. Hudson. il diags Power 90:693-5 O '46

What hp will this engine develop? diags Power Pl Eng 49:120+ N '45

What is wrong with this engine; loss of pressure in receiver between cylinders. diags Power 90:190-3 Mr '46; Discussion. S. C. Page. 90:564+ Ag '46

See also
Locomotives
Motor trucks, Steam
Steam turbines

Control

How can I correct this engine governor? diags Power 90:332-3+ My '46

Failure

Automatic drains and non-return valves on steam engine exhaust pipes. diag Locomotive 45:226-7 O '45

History

How the Cornish engine came to London. H. W. Dickinson. Engineering 161:510 My 31 '46

Kew Bridge and Campden Hill pumping stations of the Metropolitan water board; Cornish and Bull engines. Engineer 181:507 My 31 '46

Mechanical engineering industry of Clydeside: its origin and development. C. A. Oakley. Engineer 180:366-7, 391-2 N 9-16 '45

STEAM fittings
Piping unit heaters and steam main drips; with cost data. T. W. Reynolds. diags Heat & Ven 43:65-72 My '46

STEAM flow
Chart for flow of saturated and superheated steam. D. S. Davis. il Chem & Met Eng 53:146 My '46

How to calculate steam flow through slots? Power Pl Eng 50:114 My; 105 Jl '46

Measurement of steam flow; suitable instruments aid economy. T. F. Hurley. diags Chem Age (Lond) 53:559-62 D 15 '45

Steam flow nomograph. D. S. Davis. Paper Ind 28:229 My '46

Supersaturated steam flow; chart; data sheet. P. Freneau. Power 90:489 Jl '46

Visible flow indication. il Chem Age (Lond) 55: 42 Jl 13 '46

STEAM generators. See Boilers

STEAM hammers
Induction hardening ram tapers on steam hammers. J. C. Hartley. Metal Prog 49:753 Ap '46

Induction hardening steam hammer piston rods. il Steel 118:121+ Mr 25 '46; Same. Materials & Methods 23:1350 My '46

STEAM heaters
Piping unit heaters and steam main drips; with cost data. T. W. Reynolds. diags Heat & Ven 43:65-72 My '46

Proper condensate elimination is vital to unit heater performance. R. V. Williams. diag Heating-Piping 18:86 Ag '46

Sizing piping for unit heaters. S. R. Lewis. Heating-Piping 18:94 Mr '46

Unit heaters; steam and hot water types. J. E. York. il diags Heat & Ven 43:68-78 Ap '46

STEAM heating
Department store cuts steam cost from $15,000 to $10,000; Gimbel brothers store, Milwaukee. il Heating-Piping 18:86-9 Mr '46

STEAM heating—*Continued*
Does night shutoff of heating pay? A. S. Griswold. il Heat & Ven 43:65-8 O '46
Dual heating plan; combination radiant and convection system. Dom Eng 167:118+ Mr '46
Heating, piping, and air conditioning at Oak Ridge. J. K. Fairbairn. il Heating-Piping 17:527-9 O-N '45
Improving old steam heating systems. Dom Eng 168:102-3+ Ag '46
Individual and district heating systems; with cost data. D. V. H. Smith. Engineer 181: 251-2 Mr 15 '46
Plant-designed system solves forge-shop heating problems; Wyman-Gordon co. C. J. Lloyd. il diags Power 90:252-4+ Ap '46
Superheated heating steam. M. S. Gerend. diag Power 90:339+ My '46
Theory and design of steam-system vent valves. F. Jehle. diags Product Eng 17: 142-6 O '46
War plant wasted lots of fuel; changes made save 26%. S. R. Lewis. il Heating-Piping 18:96-7 Ap '46
Why greater pressure drop with live steam than with exhaust steam? diags Power Pl Eng 50:102 Ap; 110+ Je '46

See also
Boilers, Heating
Steam heaters
Steam pipe coverings
Steam pipes

Control

Let's look at the control of a ventilation system utilizing all outside air. A. J. Keating. plans Dom Eng 167:146-7 Mr '46
Lights indicate building temperature. diag Elec World 125:120+ Je 8 '46
Several ways to accomplish zone control. Dom Eng 167:146-7 F '46

Panel system

Baseboard radiant heat. F. R. Brophy. il Dom Eng 168:94-5 Jl, 150+ Ag '46
Novel heating method. plans Dom Eng 167: 114-15 Mr '46; Discussion. diags 167:122-4+ Ap '46
Radiant panel heating installation in garage. diags Dom Eng 168:126+ S '46

Return systems

Piping details are important in steam heating returns. T. W. Reynolds. diags Heat & Ven 43:77-80 Jl '46
Proper condensate elimination is vital to unit heater performance R. V. Williams. diag Heating-Piping 18:86 Ag '46
Theory vs. practice; case of a vacuum return pump. J. J. Woolfenden. Heat & Ven 42:80 N '45
Using a low pressure steam trap as a flash tank. T. W. Reynolds. diag Heat & Ven 43: 93-4 S '46
What's a flash tank? Heating-Piping 18:77+ Jl '46

Tables, calculations, etc.

Greenhouse heating calculations. Heat & Ven 43:78-9 F '46
Using a low pressure steam trap as a flash tank. T. W. Reynolds. diag Heat & Ven 43: 93-4 S '46

STEAM heating, Industrial
Automatic heating of a 1500m., 3 lift gas holder. D. R. Campbell. Am Gas J 165:29-30 Jl '46
District holder heating plant. A. A. Putnam. Am Gas J 165:29 Jl '46

See also
Steam plants—Combined power and process steam
Steam plants—Process steam

Cost

Tank insulation job that will pay for itself in two years; Flintkote asphalt tanks. A. W. Kalkhoff. il Factory Management 104:107 S '46

STEAM irons
Steam irons; are they essential laundering equipment? il Consumers Res Bul 17:23-6 Ja '46

STEAM jets
Condenser and steam-jet air ejector; a team for maintaining exhaust vacuum. P. Freneau. il diag Power 90:85-8+ F '46
How to use metering characteristics of steam jet ejectors. P. Freneau. diag Chem & Met Eng 53:104-7 Je '46
Steam ejector made from standard pipe fittings serves in emergency. diag Pet Refiner 25:134 Mr '46
Steam jet ejector has many functions. G. Spangler. il diags Elec World 125:164+ Ap 13 '46

STEAM locomotives. See Locomotives

STEAM meters
Measurement of steam flow; suitable instruments aid economy. T. F. Hurley. diags Chem Age (Lond) 53:559-62 D 15 '45

STEAM motor trucks. See Motor trucks, Steam

STEAM pipe coverings
Care and upkeep of heat insulation. U. W. Smith. il Power Pl Eng 49:87-9 D '45
Preventing wasteful heat losses with pipe and boiler insulation. il Dom Eng 168:134-5+ Jl '46
Surfacing techniques for thermal insulation on hot and cold pipes and ducts. E. T. Cope. il diags Heating-Piping 17:513-18 O-N '45

STEAM pipe lines
How about vent valves for high-pressure steam lines? il Power Pl Eng 50.108-9 O '46
Well planned pipe tunnels aid efficient central plant heating; ducts containing heating, water and electric services. S. R. Lewis. Heating-Piping 18:82-3 Jl '46

See also
Piping (power plants)

STEAM pipes
Cracking in service of 0 5% molybdenum steel steam piping. Engineer 182:149-50 Ag 16 '46; Same. Engineering 162:209 Ag 30 '46; Abstract. Elec R (Lond) 139:537 O 4 '46
Further observation of graphitization in aluminum-killed carbon-molybdenum-steel steam piping. R. W. Emerson and M. Morrow. bibliog il plan A S M E Trans 68:597-607 Ag '46
Intermediate pressures; types of steam installations in commercial, industrial, institutional buildings. diags Dom Eng 166:136 D '45; 167:124+ Ja; 124+ F; 122+ Mr; 128+ Ap '46
Keep the steam lines dry. T. F. Cunningham. diag Power Pl Eng 50:102 S '46
Piping details are important in steam heating returns. T. W. Reynolds. diags Heat & Ven 43:77-80 Jl '46
Piping unit heaters and steam main drips; with cost data. T. W. Reynolds. diags Heat & Ven 43:65-72 My '46
Theory and design of steam-system vent valves. F. Jehle. diags Product Eng 17: 142-6 O '46

See also
Heating from central stations
Piping (power plants)
Steam pipe coverings

Corrosion

Tests to determine qualities of amine; investigation of cyclohexylamine for controlling CO_2 corrosion in condensate return lines. M. Gelfand. Power Pl Eng 49:82-3+ O '45

Tables, calculations, etc.

Calcul des brides d'assemblage des tuyauteries de vapeur à haute pression. H. de Koenigwarter. diags Génie Civil 123:6-7, 22-4 Ja 1-15 '46; Discussion. R. Nithart. 123.281 O 15 '46
Intermediate pressures; types of steam installations in commercial, industrial institutional buildings (cont). diags Dom Eng 166:136+ D '45

STEAM plants
Heat savings mean fuel savings. il Rayon 27:549-50 O '46
Intermediate pressures; types of steam installations in commercial, industrial, institutional buildings (cont). diags Dom Eng 166:136+ D '45; 167:124+ Ja; 124+ F; 122+ Mr; 128+ Ap '46

STEAM plants—*Continued*
New light on steam-plant problems; abstracts of papers, ASME annual meeting. il diags Power 89.911-13 Mid-D '45
Operating experience in Great Britain. E. Moran. Power Pl Eng 50:94-6 Jl '46
Plant tabulations show design trends in highly active steam-power construction. charts Power 90:372-3 Je '46
Progress in steam generation. Blast F & Steel Pl 34:1157-8 S '46
What will the postwar European power plants be like? S. A. Tucker. il diags Power 90:604-8 S '46

See also
Boiler plants
Boilers
Electric plants
Feed water
Piping (power plants)
Power plants
Steam
Steam, Natural
Steam engines
Steam turbines

Auxiliaries

Application of electric motors to power station auxiliaries. A. E. Beardmore. il Power Pl Eng 50:72-5+ F; 78-80+ Mr; 62-5 Ap '46
Holding power plant auxiliaries during power disturbances; relays in control circuits of starters operated by battery. T. Maynz. diag Power Pl Eng 50.88-90 Je '46
Modern practice in power-plant auxiliary equipment and systems. H. N. Muller, jr. il diags Elec Eng 64:Trans 868-72 D '45
Power station auxiliaries. T. H. Carr. Elec R (Lond) 139:409-10 S 13 '46
Power systems for auxiliary drives in steam-electric stations. J. B. McClure and S. I. Whittlesey. bibliog il diags Elec Eng 64: Trans 844-51 D '45
Protection of powerhouse auxiliaries. diags Elec Eng 65:Trans 746-51 N '46
Southwark station to have separate auxiliary generators. J. H. Harlow and F. R. Ford. diags Power Pl Eng 50:60-3+ Je '46
Which supply for auxiliaries, transformer or house generator? H. W. Eales. diags Elec World 126:94-6 S 14 '46

See also Steam plants—Diesel engine auxiliaries

By-product power

See also
Steam plants—Combined power and process steam

Combined power and process steam

B. T. U. in the paper industry. G. R. Wadleigh. Paper Ind 28:535-7 Jl '46
Change in steam-process needs compels water-treatment revisions; Dow magnesium plant. J. P. Warren. flow diags Power 90: 250-1 Ap '46
Constant appraisal promotes active plant betterment; Forstmann woolen co. il Power 90:154-6 Mr '46
Extraction turbines for industrial power. L. E. Newman. diag Blast F & Steel Pl 34:756-9 Je '46; Abstract. Power Pl Eng 50:92 My '46
How Seagram integrates two new power plants with spray driers; flue gas supplies heat. il plans diags Power Pl Eng 50:58-63+ Mr '46
How to design plant for process steam and power. W. A. Shoudy. il diags Power 90: 30-2+, 101-3+, 176, 314-16, 460-2, 526-7 Ja-Mr, My-Ag '46
Plant proves its sound design and high efficiency in changing fuel situation; wood waste mixed with other fuel at pulp plant of Weyerhaeuser timber co. T. W. Stewart. flow diag il Power 90:450-2 Jl '46
Power helps wrest magnesium from the sea. J. P. Warren. flow diag il diag Power 90: 74-7 F '46
Relative merits of 200, 400, 600 and 1200 pound pressure plants for steam and power generation. F. E. Laramore. Paper Ind 28: 1038+ O '46; Same abr. Paper Tr J 123: 173-4 O 10 '46
Reorganization of industrial factory steam and power supply; with cost data. G. D. Arden. diags Inst E E J 93 pt 1:137-41 Mr '46
Six years at 600 pounds at General Electric; design, cost, and performance data. L. R. Biggs. il diags Power Pl Eng 50:70-7 S '46
Steam and blast-furnace air for Fontana. H. H. Hyde. il diags Power Pl Eng 49:74-80 D '45
Steam and power generation in the American refinery. W. F. Ryan. il diags Oil & Gas J 45:78-81 Je 29; 76-8 Jl 6; 85+ Jl 13; 97-8+ Jl 20 '46
Steam; its generation and use in the gas industry. D. Hicks. Gas J (Lond) 248:600; Discussion. 601 O 9 '46
Textile mills supply; Sladen Wood mills. il Elec R (Lond) 138:359-62 Mr 8 '46
Three stoker-fired boilers replace nine hand-fired units in three plants; Consumers' gas co. of Toronto. il diags Power 90:432-6 Jl '46
Turbine installation and maintenance. H. P. Dahlstrand. flow diag diags Paper Tr J 123:154-67 O 10 '46

See also Electric plants (central stations)—Steam distribution

Condensate recovery

Change in condensate return on dryers saves fuel; Denston felt & hair co. A. Welz. il diags Textile World 96:100-1 Ag '46
High-pressure process-steam condensate; chart; data sheet. Power 90:417 Je '46
Tests to determine qualities of amine; investigation of cyclohexylamine for controlling CO_2 corrosion in condensate return lines. M. Gelfand. Power Pl Eng 49:82-3+ O '45

Costs

How to design plant for process steam and power; how many boilers; with cost data. W. A. Shoudy. il diags Power 90:526-7 Ag '46
Reorganization of industrial factory steam and power supply; with cost data. G. D. Arden. diag Inst E E J 93 pt 1:140-1 Mr '46

Design

Design and cost factors for steam and power generation in the American refinery. W. F. Ryan. il diag Oil & Gas J 45:97-8+ Jl 20 '46

Diesel engine auxiliaries

How a Diesel will fit in a steam plant; with cost data. A. C. Kirkwood. Power Pl Eng 50:92-4 O '46; Same cond. Diesel Power 24:958-9 Ag '46

Efficiency

Let's look at the heat balance. W. A. Shoudy. diags Power 90:101-3+ F '46
Power station efficiency; causes of variation from optimum. C. H. Fielding. Elec R (Lond) 138:365-6 Mr 8 '46

Equipment

Air lift elevates ash in sluicing system. A. W. Groenewold and W. E. Kinnebrew. diag Elec World 124:61 D 22 '45
Condenser and steam-jet air ejector; a team for maintaining exhaust vacuum. P. Freneau. il diag Power 90:85-8+ F '46
Cooling tower equipment; instrument panels. C. H. Fielding. diags Elec R (Lond) 138: 567-8 Ap 12 '46
Detect coal stoppage at three locations; Dubuque station of Interstate power co. C. Blazing. il Elec World 124:85 D 22 '45
Evaporators generate clean steam from impure water for many uses. J. B. Forbes. il diags Power 90:151-3 Mr '46
Generation at Blackburn. il Elec R (Lond) 138:635-41 Ap 26 '46
Hams Hall B generating station, Birmingham. il plan Engineering 161:97-9, 108 F 1 '46
High plant economy at Stamford. flow diag il diags Elec World 124:68-71 N 24 '45
Kearsley power station extensions. il Engineer 182:376-7 O 25 '46
Lee of Conshohocken modernizes plant and power. il plan diag Power 90:750-3 N '46
Long Island lighting completes Glenwood station. W. Welch, jr. il diags Power 90:20-3 Ja '46

STEAM plants—Equipment—*Continued*
Malmö power station extension. O. G. Hammar. il layout plan diags Engineer 182:162-4, 192-4, 216-18 Ag 23-S 6 '46
Modernized piping and heating services aid plant efficiency. H. M. Nobis. il diags Heating-Piping 17:549-52 O-N '45
Modernizing Rockford, Illinois, generating station. W. E. Hopkins and R. S. Kibler. flow diags il plans diags Power Pl Eng 50: 70-6 Jl; 114-16+ Ag '46
Modernizing the coal-handling control at Philo. A. H. Beiler. il diags Power Pl Eng 50:78-81+ Ag; 86-90 S '46
New unit of Florida power corporation at Bayboro plant in St Petersburg adds 25,000 kw to system capacity. il diag Power Pl Eng 49:90-1 N '45
One thousand F; new high in steam temperature; Atlantic City electric co. P. Sporn. map plan diags Elec World 126.60-7 Ag 17 '46
Power plant in the country; New York state electric & gas corporation plant at Bainbridge. C. H Vivian. il diag Comp Air Mag 51:146-52 Je '46
Simple design, reliability keynote Jennison station. W. W Perry and W. Greacen, 3d. il diags Elec World 124:118-21 D 8 '45
Southwark station aimed to be simple and reliable. E. L. Hopping. il plans diags Elec World 125:70-5 Je 22 '46
Springdale adds 80,000-kw unit. il diag Power Pl Eng 50:112-13 Jl '46
Steam compressors meet need for high pressure steam. C. G. Turgiss. bibliog diag Power Pl Eng 50:96-7 Ag '46
Steam generation at KVP. F. D. Beaudry. Pulp & Pa of Can 47:87-9 O '46
Steam plant; Brompton pulp and paper company. J. T. Edwards. il Pulp & Pa of Can 47:77-8 Jl '46
Steam-plant design promotes good housekeeping; Graniteville co. il diags Power 90: 767-9 N '46
Third unit makes Atkinson largest power generating plant in Georgia. il Manuf Rec 115:112-13+ Ja '46
Wedge-type collectors used at Conners Creek H. E. Macomber. il Elec World 125: 75 Mr 30 '46
West Penn Power adds new unit at Springdale station. G. D. Burleigh. il diags Power 90:356-9, 440-3 Je-Jl '46

See also
Coal handling
Condensers (steam)
Pumps, Feed water
Steam turbines
Stokers, Mechanical

High pressure

Battersea B. il Elec R (Lond) 139:479-85 S 27 '46
Determining output of high pressure boiler. Dom Eng 168:155-6 O '46
One thousand F; new high in steam temperature; Atlantic City electric co. P. Sporn. map plan diags Elec World 126:60-7 Ag 17 '46
Relative merits of 200, 400, 600 and 1200 pound pressure plants for process steam and power generation. F. E. Laramore. Paper Ind 28:1038+ O '46; Same abr. Paper Tr J 123:173-4 O 10 '46
Steam and power generation in the American refinery. W. F. Ryan. il diag Oil & Gas J 45:78-81 Je 29 '46

See also
Steam plants—Superposition

Maintenance and repair

Sad case of the ailing Corliss; how not to run a power plant. W. S. White. Power Pl Eng 50:94-6 My '46
Steam turbines; operation and maintenance. diag Power 89:822-5 D '45

Process steam

Low-gravity crude oil successfully treated by central steam heating for fuel use. N. Williams. il diag Oil & Gas J 45:110-12+ Jl 20 '46
New boiler gives needed capacity and reduces steam costs 20%; E. B. Eddy co. il diags Power 90:286-9+ My '46

See also
Steam plants—Combined power and process steam

Superposition

Base load economy, firmed capacity at Hell Gate. W. E. Caldwell. plan diags Elec World 124:116-19 N 10 '45
Consolidated Edison continues development program. R. F. Brower. il map Power 89: 840-2 D '45
Consolidated Edison lays plans to complete waterside modernization. M. J. Steinberg. il plans Power 90:504-7 Ag '46
Marion high-pressure unit no. 10 completes five years of service. R. A. Baker. il diags Power 90:578-82+ S '46
Superimposed H.P. plant; abstract. T. H. Carr. Electrician 137:996 O 11 '46
Topping at Hell Gate. R. T. Roberts; H. Knecht. flow diag il plan diags Power Pl Eng 49:70-5+ N '45; 50:58-65 F '46

STEAM platens
Lukens steam platens. H. B. Lewis. il diag Welding J 25:142-3 F '46

STEAM pressure cookers. See Pressure cookers

STEAM separators
Explosion of steam separator causes heavy use and occupancy loss. Locomotive 46:59 Ap '46

STEAM tables
Steam tables for molding dies. J. H. Burkham. diags Mod Plastics 23:156-62 F '46

STEAM traps
Intermediate pressures; types of steam installations in commercial, industrial, institutional buildings. diags Dom Eng 167:124+ Ja '46
Nine helpful suggestions about return or pumping steam traps. Heating-Piping 18: 120 F '46
19 practical pointers on separating steam traps. Heating-Piping 18:118-19 F '46
Using a low pressure steam trap as a flash tank. T. W. Reynolds. diag Heat & Ven 43: 93-4 S '46
Why doesn't trap work all the time? diags Power 90:477-9+ Jl '46
Yarway impulse steam traps. diag Marine Eng 50:272 N '45

STEAM trucks. See Motor trucks, Steam

STEAM turbine locomotives. See Locomotives, Steam turbine

STEAM turbines
Hotter steam causes turbine parts to grow. il Elec World 124:156 N 10 '45
Laboratory for teaching steam-turbine principles. F. K. Fisher and W. R. Harris. il diags Power 90:764-6 N '46
Progress in engineering knowledge during 1945; steam electric stations. P. L. Alger and others. diags Gen Elec R 49:47-8 F '46
Steam turbines; special section. bibliog il diags Power 89:789-836 D '45
Turbine installation and maintenance. H. P. Dahlstrand. flow diag diags Paper Tr J 123: 154-67 O 10 '46
Turbine sizes fixed by new standards. Sci Am 175:81 Ag '46

See also
Locomotives, Steam turbine

Bearings

Steam turbines; bearings. diags Power 89:799 D '45

Blades

Stainless steels for turbine blading. J. H. G. Monypenny. il Engineering 160:432-3, 458-60, 478-80 N 23-D 7 '45; Discussion. 161:16, 64-5 Ja 4, 18 '46
Steam turbines; nozzles and blades or buckets. diags Power 89:794-6 D '45

Control

Automatic regulation of turbine generators to relieve power-supply systems of steel-mill load swings. W. W. Eberhardt and others. Elec Eng 64:Trans 751-8 N '45

STEAM turbines—Control—*Continued*
Steam turbines; governing. diags Power 89: 814-19 D '45
Steam turbines; valves and valve gear. diags Power 89:797-8 D '45

Design

How the Springdale 80,000-kw turbine is built. il diags Power Pl Eng 50:81-3+ O '46
Steam turbines; mechanical-drive turbines. diags Power 89:811-13 D '45
Steam turbines; types and applications. diags Power 89:802-10 D '45
Turbine evolution stabilized, upping of doubtful economy. J. R. Carlson. il diags Elec World 125:76-8 Mr 16 '46

Efficiency

Steam turbines; estimating turbine performance. diags Power 89:826-36 D '45

Extraction

Extraction turbines for industrial power. L. E. Newman. diag Blast F & Steel Pl 34: 756-9 Je '46; Abstract. Power Pl Eng 50:92 My '46
Irreversibility in the theoretical regenerative steam cycle. R. E. Hansen. A S M E Trans 67:557-60 O '45; Discussion. flow diag 68: 267-70 Ap '46

Failure

This bearing failure strips turbine blades. G. Barrett. diag Power 90:115 F '46
Turbines still explode. J. F. Slavinsky. Power Pl Eng 49:116 N '45

Foundations

Dynamic factors affecting turbine foundation design. S. Vesselowsky. diag Elec World 126:60-1 Ag 3 '46
Some essentials of turbine-generator foundation design. il plans diags Eng N 137:316-20 S 5 '46

Lubrication

Development of improved turbine oils. C. N. Smith and G. H. S. Snyder. pl Inst Pet J 32:313-22 Je '46
Inhibitors in turbine oils reduce oxidation and prevent rust. E. W. Gardiner. il diags Power 90:169-71+ Mr '46
Maintenance of lubricating oils for prime movers. B. Hunter. Marine Eng 51:117-18 S '46; Same. il Power Pl Eng 50:79+ S '46
Practical information concerning steam turbine lubricating oil. S. F. Whirl. il Power Pl Eng 50:64-7 Je '46
Rusting characteristics of turbine lubricating oils. W. P. Kuebler. il Mech Eng 68:889-93 O '46
Shell turbine oil. Marine Eng 50:216 N '45
Steam turbines; lubrication. diags Power 89: 820-1 D '45
Turbine-oil purification. il diag Elec R (Lond) 137:571-3 O 19 '45

Manufacture

Casting turbogenerator parts; Allis-Chalmers mfg. co. il Foundry 74:90-1 Ag '46
Special attachments speed turbine bucket production; General Electric's Lynn River works. il Iron Age 157:64-5 Ja 10 '46

Protection

Protection of steam turbines by Centrifix. B. R. Wright. diag Marine Eng 50:224 N '45

Repair

Repairs to steam turbine unit following hydrogen explosion; caused by use of hydrochloric acid for scale removal. E. D. St. John. il diags Power Pl Eng 50:64-8 Mr '46
Steam turbine repaired by metallizing. H. M. Atwood. il Power Pl Eng 49:71 O '45; Same. Power 90:43 Ja '46; Same. Steel 118: 108+ Mr 11 '46

Safety devices

Relief valve application. M. C. Randall. diag Power Pl Eng 49:130+ D '45

Standards

Standardized steam turbines. Mech Eng 68: 360-1 Ap '46

Tables, calculations, etc.

Estimated turbine steam rates for 60-cycle, condensing turbine-generator sets; charts; data sheet. Power 90:637 S '46
Steam-turbine size factor; with chart; data sheet. L. E. Newman. Power 90:61 Ja '46

Testing

Troubles in steam turbines or other rotating equipment detected by resonance tube. il Mach 52:171 Ag '46

STEAM turbines, Marine

Auxiliary turbo-generators. F. V. Smith. il diags Marine Eng 51:108-19 F '46
Can exhaust turbines rejuvenate Liberty ships for postwar trade? coupling engine and turbine to common propeller shaft. S. A. Tucker. il plan diags Power 90:158-60 Mr '46
Explosion of a turbo-generator. Marine Eng 51:125 Je '46
New power unit for Liberty ship conversion. O. J. Baggerud. Marine Eng 51:162+ F '46
Power plants for postwar vessels. A. C. Rohn and W. E. Hammond. Marine Eng 50:154-61 N '45
Reduction of losses in power generation and consumption in marine power plants. L. M. Goldsmith. il Nat Pet N 39 pt 2:R154+ F 6 '46

Gearing

Design and fabrication of welded steel reduction gear drives. G. L. Snyder. il diags Welding J 25:699-703 Ag '46

Lubrication

Turbine oils of today. R. E. Burness. Marine Eng 51:160+ Ap '46

Testing

Engineering stethoscope. il Marine Eng 51:129 Ag '46

STEAM water heaters

Steam heated booster water heaters. M. B. Mackay. Am Gas J 164:20-1, 52 Ap; 39-43+ My '46

STEAMBOAT lines

American passenger ship fleet. Marine Eng 50:132-5 N '45
Eleven steamship companies plan to obtain 89 new passenger ships. Marine Eng 51:100 F '46
Peninsular & Oriental steam navigation company. il maps Fortune 34:120-7+ S '46
Postwar European passenger tonnage. il diag Marine Eng 51:103-6 Je '46
Three lines plan new fleets for South American service. Marine Eng 50:147 N '45
Union-Castle mail steamship company, limited, annual general meeting, London. Economist 151:112 Jl 20 '46

See also
Stowaways

Accounting

Steamship accounting; American president lines. A. B. Poole. N A C A Bul 27:1148-69 Ag 1 '46

Airline competition

Steamship lines face possible loss of half luxury travel to air. M. Mickel. Aviation N 6:27 Jl 15 '46

Airplane auxiliaries

Air transportation by surface carriers; proposed amendment to Merchant marine act. J. A. Eubank. Marine Eng 51:119-20 Jl '46
C & S seeking probe of Waterman flights. Aviation N 6:28 S 9 '46
Sea-air plea; CAB urged to alter policy. Bsns W p51-2+ S 14 '46
Ship lines fight for right to give air service. P. A. Johnston. Barron's 26:5+ My 13 '46
Should the surface carriers be allowed in air transportation? J. A. Eubank; S. G. Tipton. Aviation 45:40-2 S '46
Steamship lines file protest; claim they'll lose half of business if not allowed to fly. B. Stubblefield. Air Transport 4:83+ S '46
Swedish aeronautics board approves sea-air integrated service. Barron's 26:13 O 28 '46
Waterman may carry sea-air fight to court. Aviation N 6:32 Jl 1 '46

STEAMBOAT lines—*Continued*

Finance

Controversy exists over ship reserve funds; abstract. J. J. Burns. Marine Eng 51:120 Je '46

History

Story of Samuel Cunard recounted in Atlantic Mutual booklet. Weekly Underw 154: 1554-5 Je 15 '46

Railroad operation

Government competition with private shipping lines proposed; bill would authorize government-owned Alaska railroad to operate vessels. Marine Eng 51:136 F '46

Sweden

Sweden building transatlantic liner. il Marine Eng 51:84-6 O '46

STEAMBOATS

Alcoa launches three new ships. il Marine Eng 51:92-3 O '46

Balaena; floating whale factory ship. Marine Eng 51:132+ Je '46

Colliers based on Liberty ship design. E. B. Williams. il plans diags Marine Eng 51: 86-92 Mr '46

Del Norte of the Delta line launched. il Marine Eng 51:120-1+ F '46

Experience with merchant ship propulsion machinery in war. D. S. Brierley. Marine Eng 50:171-3 D '45; Abstract. Mech Eng 68: 159-60 F '46; Discussion. Marine Eng 50: 173-4 D '45; Mech Eng 68:160-1 F '46

Ingalls yard building Brazilian ships. Marine Eng 51:122-3 Jl '46

Large passenger-carrying ships for certain essential trade routes. J. L. Bates. diags Marine Eng 50:136-47 N '45; Discussion. 51:158+ Ja '46

Launch of the turbo-electric liner Hinemoa. il Engineer 181:521 Je 7 '46

Liner Panama ready for Canal zone service. il Marine Eng 51:112+ O '46

Liner Republic becomes hospital ship. il Marine Eng 51:142-4 Ja '46

Luxury liner for the Delta line. il Marine Eng 50:162-3 N '45

Marine power plant efficiency. F. V. Smith. diags Marine Eng 51:101-3 Jl '46

Modern ships of the American merchant marine. F. V. Smith. il diags Gen Elec R 48:34-42 D '45

New American South African C-3's. H. L. Seward. il plans diags Marine Eng 51:100-9 My '46

New ships for the Great White Fleet. il plans diags Marine Eng 50:136-48 D '45

Ocean liners of the future as projected by Maritime commission; illustrations with text. Marine Eng 51:114-15 Ja '46

Ore carrier S. S. Venore. H. F. Robinson and E. P. Worthen. flow diag il plans diags Marine Eng 51:116-31 Ja '46; Abstract. Mech Eng 68:161-2 F '46; Discussion. Marine Eng 51:145-7+ Ja '46

Pascagoula built ship makes first voyage; Mormacgulf. il Manuf Rec 115:180+ Jl '46

Power plants for postwar vessels. A. C. Rohn and W. E. Hammond. Marine Eng 50:154-61 N '45

President Cleveland, postwar Pacific liner launched. il Marine Eng 51:117 Jl '46

Progressive engineering features on cargo liner Mormacgulf. O. W. Page. il plans diags Marine Eng 51:90-100 Jl '46

Proposed conversion of light cruiser to 28-knot express liner. A. R. Anderson and M. Costagliola. il plans Marine Eng 51:104-7 F '46

Queen Elizabeth, Cunard White Star liner. il plan diags Engineer 182:366-9, 368-8, 411-12 O 25-N 8 '46; Abstract. Engineering 162: 379 O 18 '46

Queen Elizabeth; electrical equipment of the Cunard White Star liner. il Elec R (Lond) 137:693-6 N 16 '45

Reduction of losses in power generation and consumption in marine power plants. L. M. Goldsmith. il Nat Pet N 38 pt 2:R154+ F 6 '46; Same. Power Pl Eng 50:54-7 Ap '46

Santa Barbara, new Grace liner. il plans diags Marine Eng 51:92-8 Ag '46

Swedish Lloyd liner Saga. il Engineer 181:494 My 31 '46

Whaling factory ships, Southern Venturer and Norhval. il plan Engineer 180:456-8, 488-9 D 7-14 '45

See also

Boilers, Marine
Coast guard cutters
Freight ships
Naval architecture
Ship propulsion
Shipbuilding
Shipping
Ships
Steam turbines, Marine
Steamboat lines

History

H.M.S. Carnarvon; reminiscences of a naval engineer. E. C. Smith. il diags Engineering 160:485-7, 509-11 D 14-21 '45

Reconstruction

Tug Kanak converted to Diesel drive. il Marine Eng 51:154+ Ap '46

STEARIC acid

Nitrogen and stearic acid adsorption by supported and unsupported catalysts. H. E. Ries, jr and others. J Chem Phys 14:465-6 Jl '46

Unsaturated alcohol esters of the 9,10-dihydroxystearic acids; preparation of elaidyl alcohol. D. Swern, E. F. Jordan, jr. and H. B. Knight. bibliog Am Chem Soc J 68: 1673-4 Ag '46

STEATITE

Coatings for wire-wound resistors; electric resistors. E. E. Marbaker. il Am Cer Soc J 28:329-42 D 1 '45

Dielectric properties of steatite porcelain; dielectric test results of round robin by test procedure in Jan-1-10, 1944. G. N. Howatt, comp. Am Cer Soc J 29:117-23 My 1 '46

Steatite glazes. L. E. Thiess. il Am Cer Soc J 29:84-6 Mr 1 '46

Steatite tests reveal properties at high heat. R. W. Ferguson. Elec World 125:92+ Ap 27 '46

Joining to metals

Hermetically sealed steatite. H. H. Hausner. bibliog diags Am Cer Soc J 29:123-8 My 1 '46

Testing

Mechanical abnormalities of extruded steatite. J. J. Gingold. Am Cer Soc J 29:228-30 Ag 1 '46

STEEL

Alloy steel or alloy-treated steel? H. T. Chandler. Metal Prog 48:1104-8 N '45; Discussion. 49:561 Mr '46

Carbon and alloy steel materials for hot-formed springs. H. C. Keysor. il Product Eng 17:86-9 N '46

Cemented steels are perfected. il Bsns W p50+ My 25 '46

Cemented steels; infiltration of molten low melting metal into steel powder compact; development of American electro metal corp. E. S. Kopecki. il diags Iron Age 157: 50-4 My 2 '46

Cemented steels, new high-strength powder metallurgy product. F. P. Peters. il diags Materials & Methods 23:987-91 Ap '46

Corrosion of steel by gaseous chlorine; effect of time and temperature. G. Heinemann, F. G. Garrison and P. A. Haber. bibliog diag Ind & Eng Chem 38:497-9 My '46

Duplex metal produced by new powder-metallurgy technique; Sinteel G. Sci Am 174: 209 My '46

Effect of composition and environment on corrosion of iron and steel. C. P. Larrabee. Marine Eng 51:134-5 F '46

Effect of hydrostatic pressure on plastic flow under shearing stress. P. W. Bridgman. diag J Ap Phys 17:692-8 Ag '46

Effect of steelwork on heat loss through glass tank bottoms. H. T. Smyth. diags Am Cer Soc J 29:31-6 F 1 '46

Manufacture of H.P.N. steel in Belgium, Luxembourg and Germany; Hamborn, low-phosphorus, low-nitrogen steel. Engineer 181:158 F 15 '46

Metallurgy; wartime developments being integrated with peacetime production. J. Z. Briggs. il Iron Age 157:124-9+ Ja 3 '46

STEEL—*Continued*

Modern steels in railroad construction. H. M. Priest. Welding J 25:646-9 Jl '46

Nonferrous metals aid in steel's use. J. Levin. J Chem Educ 23:142-4 Mr '46

Our metals developments since first World war. W. E. Jominy. Iron Age 157:132+ My 2 '46

Permanent magnet steels; including Alnico group, Comol, Silmanal, Vectolite, Cunico, Cunife and others. W. E. Ruder. il Iron Age 157:65-9 My 9 '46

Progress in British steel. E. N. Simons. Steel 118:90 F 11 '46

Sorption of water vapor at low pressure on the surface of some cold-rolled steels at 20°. M. H. Armbruster. Am Chem Soc J 68: 1342-7 Jl '46

Standard SAE steels and steels sintered from electrolytic iron powder and graphite; table. P. Schwarzkopf. Product Eng 17:126 F '46

Steel fights back; basic industrial material. F. P. Peters. il Sci Am 174:101-3 Mr '46

Steels for die casting die blocks. J. L. Erickson. Materials & Methods 24:389-96 Ag '46

Use of future steels to depend on costs. M. N. Landis. Steel 118:97 My 13 '46

Use of steel marks turning point in motor design. F. C. Rushing. il diags Steel 119:94+ S 30 '46

Variable heat flow in steel; abstract. R. Jackson and others. Metal Prog 49:150+ Ja '46

Variety in steel; abstract. R. E. Zimmerman. Blast F & Steel Pl 33:1538 D '45

Velocity of dilatation and Rayleigh waves in metal bars. J. H. McMillen. il diags Acoustical Soc Am J 18:190-9 Jl '46

Wetting of steel surfaces by esters of unsaturated fatty acids. N. F. Miller. bibliog il diags J Phys Chem 50:300-19 Jl '46

See also

Bridges, Iron and steel
Case hardening
Chromium nickel steel
Chromium steel
Concrete, Reinforced
Corrosion and anti-corrosives
Foundry practice
Iron
Manganese steel
Molybdenum steel
Nickel steel
Open hearth process
Pipes, Steel
Rails
Rolling (metal work)
Rolling mills
Sheet metal
Sheet steel
Springs (mechanism)
Steel, Aircraft and other headings beginning Steel
Tool steel
Tubes, Steel

Aging

Comparison of aluminum and titanium deoxidation for preventing strain aging embrittlement in low carbon steel. G. F. Comstock and J. R. Lewis. il Am Soc for Metals Trans 34:425-37; Discussion. 437-42 '45

Analysis

Application of colorimetry to the analysis of corrosion-resistant steels; photometric determination of copper. O. I. Milner. bibliog Ind & Eng Chem Anal ed 18:94-6 F '46

Cenco-Derge oxygen determination apparatus. il Blast F & Steel Pl 34:1172 S '46

Color determination of tungsten, titanium and columbium. C. M. Johnson. il diags Iron Age 157:66-9 Ap 4 '46

Determination of copper in cast iron and steels with quinaldic acid. J. F. Flagg and D. W. Vanas. bibliog Ind & Eng Chem Anal ed 18:436-8 Jl '46

Determination of manganese and chromium in high chromium steels. H. W. Tomb. Iron Age 157:64 Je 13 '46

Determination of nitrogen in ferro-alloys by direct Nesslerisation. W. C. Newell. Engineering 160:505 D 14 '45

Determination of sulphur-in-steel; Griffin and Tatlock apparatus. il Automobile Eng 36:128-9 Mr '46

Determination of tungsten and columbium in stainless steels. C. M. Johnson. Iron Age 157:66-8 Ap 11 '46

Fluorometric determination of aluminum in steels, bronzes, and minerals. A. Weissler and C. E. White. bibliog Ind & Eng Chem Anal ed 18:530-4 S '46

Hexamethylenetetramine in separations of titanium and columbium. K. W. Traub. Ind & Eng Chem Anal ed 18:122-4 F '46

Metallic impurities in steel. C. G. Carlsson. Iron Age 156:71 D 6 '45

Micro-spectrographic method for the quantitative analysis of steel segregates. J. Convey and J. H. Oldfield. il Engineering 160: 481-4 D 7 '45; Abstracts. Engineer 180:464-5 D 7 '45; Iron Age 156:63 D 13 '45; Discussion. Engineering 160:476-7 D 7 '45; Engineer 180:464-5 D 7 '45

Modified moly spot test. R. G. Townsend. Iron Age 157:49 Ap 11 '46

Novel test sample speeds tap carbon analysis. il Steel 118:148 Ja 28 '46

Origin and constitution of certain non-metallic inclusions in steel. J. R. Rait and H. W. Pinder. il Engineering 162:141-4, 165-7 Ag 9-16 '46; Abstract. Metal Prog 50:710+ O '46

Photometric determination of silicon in steels. C. H. R. Gentry and L. G. Sherrington. Soc Chem Ind J 65:90-2 Mr '46

Polarographic determination of nickel in steel and nickel ore. P. W. West and J. F. Dean. diag Ind & Eng Chem Anal ed 17:686-8 N '45

Preliminary investigation of the constitution of mild-steel arc-weld deposits. H. A. Sloman and others. il Welding J 25:sup39-52 Ja '46; Same cond. Engineering 160:197, 217-20, 238-9 S 7-21 '45

Rapid method for determination of copper in steel; especially suitable for foundry control. F. B. Clardy, J. C. Edwards and J. L. Leavitt. bibliog Ind & Eng Chem Anal ed 17:791-2 D '45

Semiquantitative tests for moly in steel. W. E. Thrun and C. R. Heidbrink. Iron Age 158:41 O 3 '46

Separation of stainless steels by spot tests. H. W. Miller. chart Oil & Gas J 44:294-5 Ja 26 '46

Spectrochemical analysis with the oscillograph. G. H. Dieke and H. M. Crosswhite. diags Opt Soc Am J 36:192-5 Ap '46

Spectrochemical determination of small amounts of aluminum in steel. R. Spiers, P. Fischer and K. L. Proctor. bibliog Ind & Eng Chem Anal ed 17:772-4 D '45

Spectrograph technique on the charging floor. J. T. Rozsa. bibliog il plan Iron Age 157: 42-6 Mr 28 '46

Spectrographic analysis of austenitic nickel-chrome steel. S. D. Steele and J. M. Johnston. il Soc Chem Ind J 64:278-83 O '45

Spectrographic determination of boron in steel. C. H. Corliss and B. F. Scribner. bibliog J Res Nat Bur Stand 36:351-64 Ap '46

Spectrophotometric determination of titanium in steels. A. Weissler. bibliog Ind & Eng Chem Anal ed 17:775-7 D '45

Spot tests for alloys in steels. W. A. Mudge. Metal Prog 49:348-9 F '46

Sulphur-in-steel determination apparatus. il Chem Age (Lond) 54:113 Ja 26 '46

Bibliography

Review of iron and steel literature for 1945. E. H. McClelland. Blast F & Steel Pl 34: 244-9 F '46 [reprinted with additions by Carnegie Library of Pittsburgh]

Survey of literature on the manufacture and properties of iron and steel, and kindred subjects. Iron & Steel Inst J 150:1A-170A no 2 '44

Survey of literature on the manufacture and properties of iron and steel, and kindred subjects. Iron & Steel Inst J 151:1A-161A no 1 '45

Blackening

Blackening of steel. F. L. Atkin. Materials & Methods 23:1058 Ap '46

Metal surface preparation for black oxide finishing. A. P. Shulze. il Metal Finishing 44:102-4 Mr '46

Brittleness

Comparison of aluminum and titanium deoxidation for preventing strain aging embrittlement in low carbon steel. G. F. Comstock and J. R. Lewis. il Am Soc for Metals Trans 34:425-37; Discussion. 437-42 '45

STEEL—Brittleness—*Continued*

DeForest brittle temperature research. P. R. Shepler. bibliog il diag Welding J 25:sup321-32 Je '46

Lockwasher breakage resulting from hydrogen embrittlement. W. L. Fleischmann. il diags Product Eng 17:[no 7] 150-2 Jl '46

Properties and characteristics of 27% chromium-iron. H. D. Newell. Metal Prog 49: 989-91+ My '46

Relation of strain aging to the stress-corrosion cracking of mild steel. J. T. Waber and H. J. McDonald. bibliog(90 titles) il Welding J 25.sup223-34 Ap '46; Discussion. G. F. Comstock. 25:sup699+ O '46

Some causes of brittle failures in welded mild steel structures. H. E. Kennedy. il diags Welding J 24:sup588-98 N '45

Strain age embrittlement; abstract. W. E. Bardgett. Materials & Methods 22:1474 N '45

Temper embrittlement of aircraft steels. P. A. Haythorne. bibliog Iron Age 158:51-5 Ag 29 '46

Case hardening

See Case hardening

Cathodic protection

Corrosion of sludge digester parts corrected by application of cathodic protection. G. A. Parkes. il diags Water & Sewage Works 93:R242-6 Ap '46

Magnesium gives high cathodic protection to pipelines and buried structures. L. M. Oldt. Nat Pet N 38 pt 2:R186-7 Mr 6 '46

Cleaning

Acidic atmosphere evaluation of cleaning on the corrosion of steel. C. W. Smith. il Electrochem Soc Trans 89 (preprint 25): 289-306 '46

Advances in sodium hydride descaling baths; abstract. H. L. Alexander. Iron Age 158: 75-6 O 10 '46

Descaling stainless steel; sodium hydride descaling process. il Steel 117:120-1+ N 19 '45

Descaling without electric current; sodium hydride process. Automotive & Aviation Ind 93:112+ N 15 '45; Excerpt. Mach 52:187 F '46

Enameling steel cleaned by heating to 900° F. F. W. Rozene. diags Cer Ind 46:63-4 F '46

Flame cleaning of steel, using gas; preparation for painting. A. J. Pfetzing. il Gas Age 96:13-14 N 29 '45; Abstract. Materials & Methods 23:824 Mr '46

Good enameling steels determined by analysis and cleaning methods. E. E. Marbaker. Iron Age 157:150-2+ F 14 '46

High-pressure water jets for descaling. diags Iron Age 158:52 Jl 11 '46

Sodium hydride descaling. L. W. Townsend. il Steel 117:122-3+ N 12 '45

Sodium hydride descaling process. H. N. Gilbert. il diag Metal Finishing 43:492-5+ D '45

Vacuum-blast cleaner minimizes dust hazard. il Iron Age 157:65 Ap 25 '46

Color

See also
Steel—Blackening

Copper content

Additions improve cast steels; abstract. H. F. Taylor, H. F. Bishop and R. C. Wayne. Iron Age 158:57 Jl 11 '46

Investigation of the weldability of copper-bearing steels. N. H. Keyser and C. H. Lorig. bibliog diags Welding J 25:sup597-611 O '46

See also
Chromium copper silicon steel

Corrosion

See Corrosion and anti-corrosives; Corrosion research

Damping capacity

Influence of the heat treatment of steel on the damping capacity at low stresses. L. Frommer and A. Murray. bibliog diags Iron & Steel Inst J 151:45-53 no 1 '45

Decarburization

Carbon rod rectification; treatment of steel salt baths prevents decarburization. S. M. DePoy. il Steel 119:114+ Jl 15 '46

Corrosion resistance of stainless steels; results of decarburization tests. J. M. Margolin and others. il diags Iron Age 157:50-5 My 23 '46

Decarburization in highly stressed steels. P. A. Haythorne. bibliog il Iron Age 158:52-61 Jl 4 '46

Practical tool room heat treatment; avoiding decarburization F. J. McMulkin. Iron Age 157:56-9 Je 13 '46

Preventing surface decarburization in large shaved transmission gears; controlled furnace atmosphere. E. G. de Coriolis. il diag Iron Age 156:56-61 N 29 '45

Rectification of high temperature salt baths; use of graphite rod. R. S. Burpo, jr. il Materials & Methods 24:109-11 Jl '46

Defects

Effect of fisheyes on impact strength of high-tensile manganese-titanium steel plate. M. R. Gross and others. bibliog il Metal Prog 49:1173-80 Je '46

Internal and external hot tears. H. F. Bishop and H. F. Taylor. bibliog il diags Foundry 74:82-7+ Jl '46

Magnetic analysis inspection of metals. H. L. Edsall. il Materials & Methods 22:1731-5 D '45

Supersonic testing; detection of cracks in steel by means of short length sound waves. il Automobile Eng 36:265-72 Je '46

Supersonic testing in a steel plant; Sperry supersonic reflectoscope; Republic steel corp. J. V. Russell and H. E. Pellett. il Iron Age 157:38-43 Ja 31 '46

See also
Steel—Overheating and burning

Deoxidation

Comparative graphitization of some low-carbon steels with and without molybdenum and chromium. G. V. Smith and others. bibliog il A S M E Trans 68:589-95 Ag '46

Comparison of aluminum and titanium deoxidation for preventing strain aging embrittlement in low carbon steel. G. F. Comstock and J. R. Lewis. il Am Soc for Metals Trans 34:425-37; Discussion. 437-42 '45

Effects of deoxidation practice; probable relationship between spheroidization and graphitization in presence of aluminum deoxidizing additions indicated. G. V. Smith and others. il Steel 117:114-17+ D 3 '45

Final additions to an acid electric heat. C. C. Wissmann. Metal Prog 48:1298-9 D '45

Influence of heat-treatment upon the susceptibility to graphitization of high-aluminum-deoxidized carbon-molybdenum steel. F. Eberle. il Welding J 25-sup307-12 My '46; Same. A S M E Trans 68:625-30 Ag '46

Structural changes in carbon and molybdenum steels during prolonged heating at 900 to 1100 F., as affected by deoxidation practice. G. V. Smith and others. il Am Soc T M Proc 45:486-503 bibliog(p502-3); Same cond. Pet Eng 16:210+ S '45; Discussion. Am Soc T M Proc 45:504-6 '45

Descaling

See Steel—Cleaning

Failure

Conditions of fracture of medium steel ship plates. D. F. Windenburg and W. P. Roop. il diags Welding J 24:sup580-7 N '45

Corrosion cracking in mild steel; abstract. J. T. Waber and H. J. McDonald. Materials & Methods 23:488 F '46

Cracking in service of 0.5% molybdenum steel steam piping. Engineer 182:149-50 Ag 16 '46; Same. Engineering 162:209 Ag 30 '46

Einfluss der erschmelzungsart und wärmebehandlung auf die schweissrissigkeit und schweissfestigkeit dünner bleche aus stählen mit etwa 1% Mn. W. Eilender and others. Stahl & Eisen 63:784-8 O 28 '43; Abstract (Influence of the melting technique and heat treatment on cracking and resistance of welded sheet steel containing about 1 per cent Mn). Welding J 25:sup531-3 S '46

STEEL—Failure—*Continued*
Failure of autobody sheet in deep drawing operations; discussion of paper by K. J. B. Wolfe. H. W. McQuaid. Steel 118:122+ Ap 29 '46
Failure of spring loops by stress-corrosion. R. W. Parsons. Metal Prog 48:1310-11 D '45
Investigation of the phenomenon of cleavage type fractures in low-alloy structural ship steels. H. J. Gershenow and G. G. Luther. bibliog il diags Welding J 25:sup611-15 O '46
Relation of strain aging to the stress-corrosion cracking of mild steel. J. T. Waber and H. J. McDonald. bibliog(90 titles) il Welding J 25:sup223-34 Ap '46; Discussion. G. F. Comstock. 25:sup699+ O '46
Significance of impact-test data in design of engineering structures. D. F. Windenburg. il diag Product Eng 17:81-3 S '46
Stress corrosion cracking of mild steel; abstract. F. H. Smith. Materials & Methods 24:156 Jl '46
Stress-rupture characteristics of various steels in steam at 1200 F. J. T. Agnew and others. bibliog diag A S M E Trans 68: 309-15 My '46
What causes roll failures? S. C. Spalding. il diag Am Mach 90:127-31 Ap 25 '46

See also
Steel—Brittleness

Finishing

Allowable working stresses for steels. C. Lipson and G. Noll. Product Eng 17:205-8 Mr '46
Automatic press finishes ID of tubes. il Iron Age 157:59 Je 20 '46
Finishing operations. Steel 119:130-2 S 23 '46
How to work stainless steel. H. L. Flynn. Am Mach 90:123-4 F 28 '46
Lengthening the life of steel; shot peening; abstract. C. F. Kettering. Nat Safety N 52:98-9 D '45
Merchant mill and alloy finishing facilities at Fontana. R. M. Bickerstaff. il plan(insert) Blast F & Steel Pl 33:1513-22 D '45
Protection of stainless steel; retention of surface polish. Chem Age (Lond) 55:140-1 Ag 3 '46
Some statistical studies of surface quality controls; semi-finished killed steel. H. J. Forsyth. il Blast F & Steel Pl 34:469-74+ Ap '46
Surgical instrument finishing and plating. J. G. Cowley and F. McKnight. il Metal Finishing 44:150-2 Ap '46
Treatment of steel strip before fabrication. W. F. Coxon. Engineering 162:78 Jl 26 '46

See also
Steel—Blackening

Graphitization

See Steel—Metallography

Hydrogen content

Preliminary investigation of the constitution of mild-steel arc-weld deposits. H. A. Sloman and others. il Welding J 25:sup39-52 Ja '46; Same cond. Engineering 160:197, 217-20 S 7-14 '45
Relation between the hydrogen content of weld metal and its oxygen content. L. Reeve. bibliog diag Welding J 24:sup618-23 N '45

Hydrogen effect

Effect of fisheyes on impact strength of high-tensile manganese-titanium steel plate. M. R. Gross and others. bibliog il Metal Prog 49:1173-80 Je '46
Lockwasher breakage resulting from hydrogen embrittlement. W. L. Fleischmann. il diags Product Eng 17:[no 7] 150-2 Jl '46

Inclusions

Microscopical examination of samples of lead-bearing and lead-free steels and ingot irons. T. H. Schofield. bibliog Iron & Steel Inst J 151:277-80, pl 31-2; Discussion. 294-9 no 1 '45
Mode of occurrence of lead in lead-bearing steels and the mechanism of the exudation test. W. E. Bardgett and R. E. Lismer. Iron & Steel Inst J 151:281-93, pl 33-40b; Discussion, 294-301 no 1 '45
Origin and constitution of certain nonmetallic inclusion in steel. J. R. Rait and H. W. Pinder. il Engineering 162:141-4, 165-7 Ag 9-16 '46; Abstract. Metal Prog 50:710+ O '46

Joining to aluminum

See Aluminum—Joining to steel, etc.

Lead content

Examination of two ingots of free-cutting steel, one containing lead and the other lead-free. C. S. Graham. diag Iron & Steel Inst J 151:273-5, pl 29-30; Discussion. 294-9 no 1 '45
Microscopical examination of samples of lead-bearing and lead-free steels and ingot irons. T. H. Schofield. bibliog Iron & Steel Inst J 151:277-80, pl 31-2; Discussion. 294-9 no 1 '45
Mode of occurrence of lead in lead-bearing steels and the mechanism of the exudation test. W. E. Bardgett and R. E. Lismer. Iron & Steel Inst J 151:281-93, pl 33-40b; Discussion. 294-301 no 1 '45

Machinability

See Steel cutting

Metallography

Annealing cycles; effect of cooling transformation upon subsequent isothermal reactions. C. A. Liedholm and W. C. Coons. bibliog il Metal Prog 49:104-7 Ja '46
Atomic structure of steels; method of X-ray analysis. A. M. B. Parker. bibliog diags Steel 118:89+ F 25 '46
Centrifugal casting of gun tubes; effect on macrostructure. J. A. Clark. il Metal Prog 49:98 Ja '46
Cold heading die steel; relationship between hardenability and austenitic grain size. A. S. Jameson. bibliog il Steel 118:82-5+ Ja 21 '46
Cycle annealing of hypo-eutectoid steels. G. R. Brophy. il Iron Age 156:69-71 D 13 '45
Development of sigma phase in 27% Cr-Fe; photomicrographs. J. J. Heger. il Metal Prog 49:976B My '46
Dimensional stability of steel; subatmospheric transformation of retained austenite. S. G. Fletcher and M. Cohen. diag Am Soc for Metals Trans 34:216-37 bibliog(p236-7); Discussion. 237-49 '45
Effect of cold rolling on the structure of Hadfield manganese steel. N. P. Goss. bibliog il Am Soc for Metals Trans 34: 630-8; Discussion. 638-44 '45
Effect of heat treatment on steel castings. E. E. Howe. il Foundry 74:98-9+ S '46
Effect of metallurgical changes due to welding upon the fatigue strength of carbon-steel plates. W. M. Wilson and others. il Welding J 25:sup431-3 Ag '46
Effect of overheating on the transformation characteristics of a nickel-chromium-molybdenum steel. K. Winterton. bibliog Iron & Steel Inst J 151:79-85, pl 2-3 no 1 '45; Abstract. Metal Prog 49:144+ Ja '46
Effect of structural changes in steel on fatigue life of bearings. A. B. Jones. il diags Steel 119.68-70+ S 30 '46; Abstract. Iron Age 158:74-5 Jl 4 '46
Effect of undissolved carbides on hardenability. R. J. Hafsten. bibliog il Steel 119:112+ Ag 19 '46
Effects of deoxidation practice; probable relationship between spheroidization and graphitization in presence of aluminum deoxidizing additions indicated. G. V. Smith and others. il Steel 117:114-17+ D 3 '45
Effects of grain growth inhibitors in fine grained steels. J. W. Halley. Steel 119:98-9+ S 2 '46
Electrical observations of the austenite-martensite transformation in steel. A. W. McReynolds. bibliog il diags J Ap Phys 17: 823-33 O '46
Factors affecting the hardenability and related properties of boron treated steels. R. A Grange and T. M. Garvey. Steel 118:98+ Je 10 '46
Failure of autobody sheet in deep drawing operations; discussion of paper by K. J. B. Wolfe. H. W. McQuaid. Steel 118:122+ Ap 29 '46

STEEL—Metallography—*Continued*

Ferrous physical metallurgy; review of 1945. J. H. Hollomon. Min & Met 27:89-93 F '46

Fine austenitic grain size benefits steel; abstract. G. Delbart and R. Potaszkim. Iron Age 157:58 Mr 21 '46

Fracture testing of alloy steels for aircraft engine forgings. R. D. Haworth, jr. and A. F. Christian. il Am Soc T M Proc 45: 407-40; Discussion. 441-7 '45

Gas carburising. I. Jenkins. il Engineering 162:285-7 S 20 '46

Grain-growth inhibitors in steel; abstract. J. W. Halley. Materials & Methods 24:958 O '46

Graphitization in hypo-eutectoid steels; abstract. M. A. Hughes and J. G. Cutton. Iron Age 157:74 F 14 '46; Same. Blast F & Steel Pl 34:287+ F '46

Graphitization in some cast steels. A. J. Smith and others. bibliog il Welding J 25: sup257-68 My '46; Same. A S M E Trans 68:609-20 bibliog(p620); Discussion. 621-4 Ag '46

Heat treating carburized sintered steel. G. Stern and J. Greenberg. il Iron Age 157: 56-61 Ap 25 '46

Heat treatment of heavy cast steel sections. P. C. Rosenthal and G. K. Manning. il diag Foundry 74:70-5 Ag '46

Heat treatment of high-speed steel. M. Cohen and P. Gordon. il diags Iron Age 157:42-7 F 28; 52-7 Mr 7; 68-73 Mr 14; 61-5 Mr 21; 55-62 Mr 28 '46

Improving the formability of NE 8630 steel sheet. J. L. Waisman and W. T. Snyder. il Metal Prog 49:755-60 Ap '46

Induction hardening of plain carbon steels; a study of the effect of temperature, composition, and prior structure on the hardness and structure after hardening. D. L. Martin and F. E. Wiley. il Am Soc for Metals Trans 34:351-96 bibliog(p394-6); Discussion. 396-406 '45

Influence of centrifugal casting upon the structure and properties of steel. L. Northcott and D. McLean. Iron & Steel Inst J 151:303-16, pl 41-4 no 1 '45; Same. Engineering 159:197-200 Mr 9 '45; Same. Steel 118:94-8+ Ap 29 '46; Excerpt. Engineer 180: 65 Jl 27 '45; Discussion. Iron & Steel Inst J 151:316-28 no 1 '45; Engineering 160:75-6 Jl 27 '45; Engineer 180:65 Jl 27 '45

Iron-carbon equilibrium diagram; data sheet. Metal Prog 50:96B Jl '46

Iron-carbon equilibrium diagram; data sheet. R. Whitfield. Metal Prog 48:1312B D '45

Low-temperature behavior of ferritic steels. H. W. Gillett and F. T. McGuire. Steel 119: 76+ Ag 12 '46

Machinability and structure of ferrous materials. C. Sykes. diag Engineering 161:573 Je 14 '46

Machinability of two NE steels. R. C. Gibbons. il Steel 119:106+ S 23 '46

Machining troubles decline when the metallurgist sits in. N. E. Woldman and R. C. Gibbons. il Am Mach 90:104-8 N 7 '46

Martensite formation range for engineering steels; chart; engineering file facts. Materials & Methods 23:1621 Je '46

Martensite transformation. A. R. Troiano and A. B. Greninger. il Metal Prog 50:303-7 Ag '46

Metallographic etchant to distinguish oxidation in steel. A. M. Hall. il Metal Prog 50:92-6 Jl '46

Metallurgical aspects of machinability. F. J. Robbins. il Iron Age 157:42-7 Mr 21; 47-51 Mr 28 '46

Modern methods in the heat-treatment of steel. E. R. Mertz. bibliog A S M E Trans 68:637-42 Ag '46

Morphology and kinetics of the constituents in quenched steels. A. M. Portevin. Metal Prog 50:311-13 Ag '46

New etching reagent for the detection of oxygen segregations in steel. L. Fine. il Metal Prog 49:108-12 Ja '46

Physical properties of an austenitic weld-metal and its structural transformation on straining. K. Winterton. Iron & Steel Inst J 151:87-91, pl 4 no 1 '45; Same. Welding J 24:sup308-10 My '45

Progress report on the spot welding of high-tensile carbon and low-alloy steels. W. F. Hess and others. bibliog il Welding J 25: sup503-12 S '46

Properties and characteristics of 27% chromium-iron. H. D. Newell. il Metal Prog 49:986-9 My '46

Report on behavior of ferritic steels at low temperatures. H. W. Gillett and F. T. McGuire. 2 pts pt 1 55p; pt 2 155p [figures, diags, etc. p 17-155] pa $4 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '45

Review of Steel standardization group's method for the determination of critical points of steel. Metal Prog 49:1169-71 Je '46

16-25-6 alloy for gas turbines; with photomicrographs. M. Fleischmann. il Iron Age 157:44-53 Ja 17; 50-60 Ja 24 '46

Some observations on the austempering and isothermal transformation of steels, with special reference to the production of martensite. F. C. Thompson and L. R. Stanton. diags Iron & Steel Inst J 151:133-70, bibliog(p168-70) pl 13-16; Discussion. 171-80 no 1 '45; Abstracts. Metals & Alloys 21: 494+ F '45; Metal Prog 48:894+ O '45

Some observations on the effect of oxygen on carbon in steel. L. Fine and C. H. Maak. bibliog il Welding J 25:sup283-7 My '46

Structural changes in carbon and molybdenum steels during prolonged heating at 900 to 1100 F., as affected by deoxidation practice. G. V. Smith and others. il Am Soc T M Proc 45:486-503 bibliog(p502-3); Same cond. Pet Eng 16:210+ S '45; Discussion. Am Soc T M Proc 45:504-6 '45

Study of subzero treatments applied to molybdenum-tungsten high speed steel. R. G. Kennedy, jr. il diag Am Soc for Metals Trans 34:250-92 bibliog(p291-2); Discussion. 292-309 '45

Subzero treatment simplifies hardening of alloy carburizing steels. H. E. Boyer and H. C. Miller. il diag Materials & Methods 23:730-4 Mr '46

Temperature range of martensite formation. R. A. Grange and H. M. Stewart. Steel 118:126+ My 20 '46

Tensile properties of unstable austenite and its low-temperature decomposition products. A. H. Cottrell. bibliog diags Iron & Steel Inst J 151:93-104, pl 5-6 no 1 '45

Tessellated stresses. F. László. diags Iron & Steel Inst J 147:173-99 no 1; 148:137-59 no 2 '43; 150:183-207 no 2 '44; 152:207-28 no2 '45; Discussion. 150:207-9 no 2 '44

Thermal characteristics, microstructures and physical properties of some low and medium alloyed cast steels. W. L. Meinhart. bibliog il Iron Age 157:44-54 Je 27 '46

Use of direct transformation data in determining preheat and postheat requirements for arc welding deep hardening steels and weld deposits. L. F. Bowne, jr. bibliog il Welding J 25:sup234-41 Ap '46

Welding stabilized 18-8 stainless. R. J. Hafsten. il Iron Age 158:60-4 Jl 11 '46

See also

Piping (power plants)—Graphitization

Nitriding

See Case hardening—Nitriding process

Nitrogen content

Nitrogen in Bessemer steel. Iron Age 158:49 O 3 '46

Observations on the impact strength of alloy steels hardened from cyanide baths. S. M. Lenhoff and L. F. Roth. il Metal Prog 49:960-7 My '46

Relation of strain aging to the stress-corrosion cracking of mild steel. J. T. Waber and H. J. McDonald. bibliog(90 titles) il Welding J 25:sup223-34 Ap '46

Overheating and burning

Effect of overheating on the transformation characteristics of a nickel-chromium-molybdenum steel. K. Winterton. bibliog Iron & Steel Inst J 151.79-85, pl 2-3 no 1 '45; Abstract. Metal Prog 49:144+ Ja '46

STEEL—Overheating and burning—*Continued*
Overheating experiments. J. Woolman and H. W. Kirkby. Mech Eng 68:738-9 Ag '46
Overheating of steel; abstracts and discussions. Engineering 161:496-8 My 24 '46; Engineer 181:491-3 My 31 '46

Oxygen content

Cenco-Derge oxygen determination apparatus. il Blast F & Steel Pl 34:1172 S '46
Metallographic etchant to distinguish oxidation in steel. A. M. Hall. il Metal Prog 50:92-6 Jl '46
Metallurgical aspects of high quality pressure welded joints for landing gear; influence of oxygen. L. Fine and others. il Metal Prog 49:350-5 F '46
New etching reagent for the detection of oxygen segregations in steel. L. Fine. il Metal Prog 49:108-12 Ja '46
Relation between the hydrogen content of weld metal and its oxygen content. L. Reeve. bibliog diag Welding J 24:sup618-23 N '45
Some observations on the effect of oxygen on carbon in steel. L. Fine and C. H. Maak. bibliog il Welding J 25:sup283-7 My '46

Patents

Patent rights to new steel given to public by U.S. steel corp. and Carnegie-Illinois steel corp. Steel 118:76 My 27 '46; Iron Age 157:117 My 30 '46

Phosphorus content

Basic-lined cupola; report presented at annual meeting of Institute of British foundrymen. Engineering 162:19-20 Jl 5 '46
Phosphorus reaction in basic open-hearth practice. Y. K. Zea. Iron & Steel Inst J 151:459-504 bibliog(p504); Discussion. p540-67 no 1 '45
Study of the basic open-hearth process, with particular reference to slag constitution. A. H. Jay. diags Iron & Steel Inst J 151:505-36 bibliog(p536) pl 50; Discussion. 536-70 no 1 '45

Prices

Average monthly quotations in 1945. Steel 118:352 Ja 7 '46
Bars, structural, sheet, strip, plates, etc, monthly, 1930-1945; tabulations. Iron Age 157:228+ Ja 3 '46
Canada raises steel prices $5 per ton; other adjustments also made. Iron Age 157:119 Ap 4 '46
Finished steel composite price, 1933-1945; tabulation. Iron Age 157:171 Ja 3 '46
High tensile, low alloy steels; cents per pound; tabulation. Iron Age 158:110 Ag 8 '46 [cont weekly]
Iron and steel prices. Engineer 182:153 Ag 16 '46
Labor dept. examines consumers' prices of steel products. W. Fazar and F. Bean. Iron Age 157:118-145H Ap 25 '46
OPA clarifies amendment to price schedule no. 6 as it applies to steel products. Steel 118:64-5 Mr 25 '46
OPA clarifies steel price rise order for borderline products. Iron Age 157:101 Mr 21 '46
OPA makes ammendment to steel price schedule no. 6. Iron Age 157:102-3 Mr 7 '46
OPA steel policy. Bsns W p17 D 1 '45
Steel price increases range from $2 to $12 a ton. Steel 118:59-60 Mr 11 '46
Steelmakers to seek price relief. W. M. Rooney. Steel 119:75-7 S 23 '46

Protection

Anti-rust method; Banox. Bsns W p42+ My 11 '46
Corrosion-resisting properties of electrodeposited tin-zinc alloys. R. M. Angles and R. Kerr. il Engineering 161:289-92, 300 Mr 29 '46
Development of new applications for ceramic coatings. Iron Age 157:157-9 F 14 '46
Effect of various surface treatments in cleaning and preparing copper, nickel and steel for chromium plating. W. M. Tucker and R. L. Flint. bibliog diag Electrochem Soc Trans 88 (preprint 28):325-45 '45; Same. Metal Finishing 44:340-3+, 389-93 Ag-S '46
Electroplated pipe interiors. S. G. Bart. il Steel 118:96-7+ Je 24 '46
Finish durability improved with vitreous phosphate coating; Banox process. C. T. Roland and H. I. Rosenbloom. il Steel 118: 122+ Je 17 '46
Fire-retardant paints for steel surfaces, by New York paint and varnish production club. Paint Oil & Chem R 108:129-36 N 1 '45; Abstract. Oil Paint & Drug Rep 148: 43-4 N 12 '45
Formulation of anti-corrosive compositions for ships' bottoms and underwater service on steel; effect of the pigment and of the medium. F. Fancutt and J. C. Hudson. Iron & Steel Inst J 150:269-333, pl 25-6; Discussion. 333-8 no 2 '44
Hard chromium plate and its uses. J. M. Hosdowich. il diags Materials & Methods 24:896-900 O '46
Magnesium melting pots maintained by metal spraying; process inhibiting scale formation. il Steel 118:130+ F 4 '46
New phosphate coating protects metal; Banox process. Blast F & Steel Pl 34:751-2 Je '46
Nickel plating on steel by chemical reduction. A. Brenner and G. E. Riddell. 2 pls diag J Res Nat Bur Stand 37:31-41 Jl '46
Phosphatization of steel parts; abstract. A. A. Sokolovsky and Z. M. Koulagina. Chem Eng 53:293 O '46
Protection of structural steel with paint. G. Diehlman. bibliog Paint Oil & Chem R 109:12+ Jl 11 '46
Protective value of lead and lead-tin deposits on steel. A. H. Du Rose. il diag Electrochem Soc Trans 89 (preprint 7): 101-12 '46
Rustproof coating of glassy phosphate; Banox process. il Steel 118:155 My 6 '46; Mech Eng 68:653 Jl '46; Heat & Ven 43:108 Ag '46
Rustproof method aids paint bond, protects steel in fabrication; glassy phosphate coating; Banox process. Iron Age 157:168 My 2 '46
Silicon-impregnated steels. H. K. Ihrig. il Iron Age 157:73-8 Ap 4 '46
Use of a tin undercoat to improve the corrosion resistance of painted steel. E. S. Hedges and others. il Engineering 160:505-8 D 14 '45; Same, without il. bibliog Steel 118:103+ Ap 22 '46; Abstracts Materials & Methods 22:1490+ N '45; Iron Age 156:64 D 6 '45
Zinc coating for shafts and submerged structures; with cost data; abstract. K. Stangeland and L. McWilliams. Am Water Works Assn J 38:162 Ja '46
Zinc coating structural members. il Steel 119: 122 S 2 '46

See also
Steel—Cathodic protection

Rimmed steel

Analytical survey of a rimming-steel ingot; abstract. J. S. Vatchagandhy and G. P. Contractor. Iron Age 156:70 N 15 '45
Ladle reactions in rimmed steel. F. G. Norris and E. B. Hughes. Iron Age 157:72-6 Je 6 '46
Melting rimmed steel in the electric arc furnace. E. S. Kopecki. il Iron Age 158:62-5 S 26 '46

Scaling

Preventing scale formation in billet heating furnaces. H. Stanley. Materials & Methods 23:1623 Je '46
Selective carburizing by the mill scale method. R. B. Seger. il Steel 119:76 Ag 26 '46

Specifications

British EN alloy specifications. J. H. G. Monypenny. Iron Age 156:71-6 N 15 '45
Specifications, new style; humorous article. D. Carb. Metal Prog 49:571-4 Mr '46

Standards

Review of Steel standardization group's method for the determination of critical points of steel. Metal Prog 49:1169-71 Je '46
Revised standard carbon and alloy steels; reference book sheet. Am Mach 90:137, 139 Ag 1 '46
Standard steels; tabulations; engineering file facts. Materials & Methods 24:947 O '46
Steel for the immediate future. M. N. Landis. Am Mach 90:199-201 S 12 '46

STEEL—*Continued*

Strength

Allowable working stresses for steels. C. Lipson and G. Noll. Product Eng 17:205-8 Mr '46

Are new standards possible with metals produced by modern metallurgical science? C. O. Brown. Ind & Eng Chem 38:sup69-70 Jl '46

Biaxial fatigue strength of low-carbon steels. G. K. Morikawa and L. Griffis. il diags Welding J 24:sup167-74 Mr '45; Abstract. Metal Prog 49.800+ Ap '46

Compression and impact tests for steel acceptance proposed. D. F. Windenburg. diag Civil Eng 16:442-3 O '46

Correlation of stress concentration with fatigue strength of engine components. C. W. Gadd and others. diags S A E J 53:640-7 N '45

Creep strength of steels; table and chart. W. L. Nelson. Oil & Gas J 45:147 O 19 '46

Diagram for yield ratio and P value; data sheet. R. F. Mather. Metal Prog 49:552B Mr '46

Effect of alloying elements on mechanical properties. M. Gensamer. Iron Age 157:66-71 F 14 '46; Abstracts. Metal Prog 49:731-4 Ap '46

Effect of fiber on notched bar tensile strength properties of a heat treated low alloy steel. G. Sachs and others. bibliog diags Am Soc for Metals Trans 34:505-16 '45

Effect of fisheyes on impact strength of high-tensile manganese-titanium steel plate. M. R. Gross and others. bibliog il Metal Prog 49:1173-80 Je '46

Effect of metallurgical changes due to welding upon the fatigue strength of carbon-steel plates. W. M. Wilson and others. il Welding J 25:sup425-50 Ag '46

Effect of triaxiality on the technical cohesive strength of steels. G. Sachs and J. D. Lubahn. bibliog il diags Welding J 25:sup53-64 Ja '46

Effects of notches of varying depth on the strength of heat treated low alloy steels. G. Sachs and others. Am Soc for Metals Trans 34.517-39 bibliog(p539); Discussion. 539-44 '45

Fatigue strength of 5¼-in. shaft as related to design of large parts; abstract. O. J. Horger and others. Metal Prog 49:1228+ Je '46

Fatigue strength of hardened steels; abstract. H. Staudinger. Materials & Methods 23:494 F '46

Fatigue strength of steel forgings. C. Lipson and G. Noll. il Product Eng 17:130-1 S '46

Impact resistance of welded stainless. J. G. Henderson. bibliog Steel 118:94+ My 13 '46

Increased use of high-strength steels in structural applications. il Steel 117:102-4 D 3 '45

Observations on the impact strength of alloy steels hardened from cyanide baths. S. M. Lenhoff and L. F. Roth. il Metal Prog 49:960-7 My '46

Raised yield strength in bend tests. G. Brewer. Metal Prog 48:1306-10 D '45

Strength of countersunk screws in shear and tension. H. Adams. il diags Product Eng 17:380-3 My '46

Strength of normalized steel, computed from its analysis; data sheet. C. K. Donoho and W. McCulloch. Metal Prog 48:1112-B N '45

Strength of thin steel compression flanges. G. Winter bibliog il diags Am Soc C E Proc 72:199-226 F '46; Discussion. 72:909-12, 1188-90 Je, O '46

Testing bolts for strength and ductibility. D. E. Lehane. Steel 119:86-7+ Jl 22 '46

Torsional vs. tensile properties of steels. M. C. Fetzer. il Steel 118:92-4+ Je 24 '46

Sulfur content

Determination of sulphur-in-steel; Griffin and Tatlock apparatus. il Automobile Eng 36: 128-9 Mr '46

Effect of sulphur on quality of sulphite treated steels. G. D. Boyer. il Steel 119: 96-7+ Jl 8 '46

Machinability of sulphurized steels. H. M. Clarke. Steel 117:116+ D 17 '45

Sulfur prints

Sulfur print method for the study of crack growth in the corrosion-fatigue of metals. R. C. Brumfield. il diag Am Soc T M Proc 45.544-53 '45

Testing

A S.T.M. committee A-1 on steel; report. Blast F & Steel Pl 34:sup70+ Ap '46

Detection of cracks in steel by means of supersonic waves; summaries and discussion. C. H. Desch, D. O. Sproule and W. J. Dawson. Engineer 181:467-8 My 24 '46; Engineering 161:472-3 My 17 '46

Détermination simplifiée de l'endurance de l'acier et des autres métaux. A. Buchwald. Génie Civil 123:37-8 F 1 '46

Effect of overstress in fatigue on the endurance life of steel. J. B. Kommers. diag Am Soc T M Proc 45:532-41 '45; Abstract. Metal Prog 49:170+ Ja '46; Discussion. Am Soc T M Proc 45:542-3 '45

Effect of rate of strain on mild steel. R. P. Andrew. diag Engineering 162:171-2 Ag 23 '46; Discussion. J. A. Pope. 162:304 S 27 '46

Effect of tempering on mechanical properties. G. K. Manning and G. P. Krumlauf. bibliog Iron Age 158.44-50 O 24; 50-5 O 31 '46

Exposure chart for radiography of steel; data sheet. H. R. Isenburger. Metal Prog 49: 760C-760D Ap '46

Hardenability testing in material control E. H. Snyder. Steel 119:72-3+ Ag 26 '46

High-voltage radiography; 1 and 2 million-volt equipment permits examination of steel sections up to 12 in thick. D. Goodman. il diags Iron Age 157:58-61 F 21 '46

Influence of the heat treatment of steel on the damping capacity at low stresses. L. Frommer and A. Murray. bibliog diags Iron & Steel Inst J 151:45-53 no 1 '45

Instrument uses supersonic vibrations to determine quality prior to welding; Sperry supersonic reflectoscope. O. R. Carpenter. Blast F & Steel Pl 34:1147-8 S '46; Same abr. Steel 118 121 O 14 '46

Magnetic analysis inspection of metals. H. L. Edsall. il Materials & Methods 22:1731-5 D '45

Method for evaluating toughness of steel. S. A. Herres and A. F. Jones. il diags Metal Prog 50:462-9 S '46

Mode of occurrence of lead in lead-bearing steels and the mechanism of the exudation test. W. E. Bardgett and R. E. Lismer. Iron & Steel Inst J 151:281-93, pl 33-40b; Discussion. 294-301 no 1 '45

Preliminary study of the notched-bead slow-bend test for weldability of steels. C. B. Voldrich and others bibliog il diags Welding J 25:sup77-90 F '46

Raised yield strength in bend tests. G. Brewer. Metal Prog 48:1306-10 D '45

Recent developments in nondestructive testing. F. T. Sisco. Min & Met 27:442 Ag '46

Relationship between preliminary heat treatment and response to nitriding of some nitriding steels. C. C. Hodgson and H. O. Waring. bibliog Iron & Steel Inst J 151:55-70, pl 1 no 1 '45

Report on behavior of ferritic steels at low temperatures. H. W. Gillett and F. T. McGuire. 2 pts pt 1 55p; pt 2 155p [figures, diags, etc. p 17-155] pa $4 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '45

Review and summary of weldability testing carbon and low alloy steels; ship hull construction. G. G. Luther and others. bibliog(53 titles) il diags Welding J 25:sup376-96 Jl '46

Running steel in contact without lubrication. R. C. Edwards. il Iron Age 157:56-7 F 28 '46

Rust determination in presence of steel; preferential solvent and its application. F. Gibadlo. bibliog Iron Age 157:58-9 Ap 18 '46

Shackles for central loading; testing of mild steel. B. Lloyd-Evans. il diags Engineering 161:546 Je 7 '46

Stress relief of weldments for machining stability. J. R. Stitt. il diags Ohio State Univ Eng Exp Sta Bul 121:1-47 '44; 123:1-23 '45 (pa ea 50c); Same. Welding J 24:sup331-49 Je '45; 25:sup30-9 Ja '46

STEEL—Testing—*Continued*
Studies of plastic flow of steel, especially in two-dimensional compression. P. W. Bridgman. il diags J Ap Phys 17:225-43 Ap '46
Study of size effect and notch sensitivity in fatigue tests of steel. H. F. Moore. diags Am Soc T M Proc 45:507-21 '45; Abstract. Materials & Methods 23:538 F '46; Discussion. Am Soc T M Proc 45:522-31 '45
Supersonic testing; detection of cracks in steel by means of short length sound waves. il Automobile Eng 36:265-72 Je '46
Supersonic testing in a steel plant; Sperry supersonic reflectoscope; Republic steel corp. J. V. Russell and H. E. Pellett. il Iron Age 157:38-43 Ja 31 '46
Template for checking modulus of steel. W. B Seens. Metal Prog 49:345 F '46
Tensile properties of several special steels and certain other materials under pressure. P. W. Bridgman. bibliog J Ap Phys 17:201-12 Mr '46
Torsional vs. tensile properties of steels. M. C. Fetzer. il Steel 118:92-4+ Je 24 '46
X-ray diffraction study of notch-bend test. J T. Norton and others. bibliog il diags Welding J 25:sup269-76 My '46

See also
Brinell hardness test
Rails—Testing
also subdivision Testing under various Steel headings, e.g. Steel, Aircraft—Testing

Spark testing
Training spark testers. E. W. Lundahl. diags Iron Age 158:65-7 Jl 18 '46

Temperature effect
Conditions of fracture of medium steel ship plates. D. F. Windenburg and W. P. Roop. il diags Welding J 24:sup580-7 N '45
Effect of carbide spheroidization upon the rupture strength and elongation of carbon-molybdenum steel. S. H. Weaver. Iron Age 158:63 Ag 22 '46
Effect of combined stresses on the mechanical properties of steels between room temperature and -188C. D. J. McAdam, jr. and others. Am Soc T M Proc 45:448-81 bibliog(p463-4); Discussion. 482-5 '45
Effect of various elements on the hot workability of steel; abstracts. H. K. Ihrig. Materials & Methods 23:200 Ja '46; Metal Prog 49:806+ Ap '46
Graphitization in some cast steels. A. J. Smith and others. bibliog il Welding J 25: sup257-68 My '46; Same. A S M E Trans 68:609-20 bibliog(p620); Discussion. 621-4 Ag '46
Low-temperature behavior of ferritic steels. H. W. Gillett and F. T. McGuire. Steel 119: 76+ Ag 12 '46
Stainless steels for turbine blading. J. H. G. Monypenny. Engineering 160:478-9 D 7 '45
Stress-rupture characteristics of various steels in steam at 1200 F. J. T. Agnew and others. bibliog diag A S M E Trans 68: 309-15 My '46
Stressed metals at elevated temperatures; abstract. W. Siegfried. Materials & Methods 22:1536+ N '45
Structural changes in carbon and molybdenum steels during prolonged heating at 900 to 1100 F., as affected by deoxidation practice. G. V. Smith and others. il Am Soc T M Proc 45:486-503 bibliog(p502-3); Same cond. Pet Eng 16:210+ S '45; Discussion. Am Soc T M Proc 45:504-6 '45
Temper embrittlement of aircraft steels. P. A. Haythorne. bibliog Iron Age 158:51-5 Ag 29 '46
Temperature effects being studied on large welded girders. L. Grover. il Eng N 137: 502-3 O 17 '46

Uses
Growing use of numerous fine steels in varied industries; abstract. R. E. Zimmerman. Iron Age 156:142+ N 22 '45
Steel in homes; steel winning increasing acceptance. il Steel 119:78-9 S 16 '46; Same. Iron Age 158:164-7 S 26 '46

Welding
Applications of lime ferritic electrodes. O. T. Barnett. il diag Steel 119:96-7+, 80-4+ Ag 19-26 '46
Arc welded steel joints; abstract. H. Cornelius and F. Bollenrath. Materials & Methods 22:1818 D '45
Biaxial fatigue strength of low-carbon steels. G. K. Morikawa and L. Griffis. il diags Welding J 24:sup167-74 Mr '45; Abstract. Metal Prog 49:800+ Ap '46
Characteristics of low alloy high tensile steel. J. K. Zanetti. il Materials & Methods 24:370-3 Ag '46
Conversion of cast steel plunger crosshead to welded design; with cost data. J. R. Morrill. il diags Welding J 25:448-9 My '46
Cooling and heating rates of plates, cylinders and spheres. V. Paschkis. bibliog diag Welding J 25:sup497-502 S '46
Critical review of the weld stress problem. J T. Norton and D Rosenthal. bibliog Welding J 25:sup277-82 My '46
Design and fabrication of welded steel reduction gear drives G. L Snyder. il diags Welding J 25:699-703 Ag '46
Effect of certain block and other special welding procedures on residual welding stresses. F. Jonassen and others. diags Welding J 25: sup492-6 S '46
Effect of temperature gradients upon the introduction of residual stresses in weldments or steel castings J. R. Stitt. il Welding J 25:sup485-7 Ag '46
Einfluss der erschmelzungsart und wärmebehandlung auf die schweissrissigkeit und schweissfestigkeit dünner bleche aus stählen mit etwa 1% Mn. W. Eilender and others. Stahl & Eisen 63:784-8 O 28 '43; Abstract (Influence of the melting technique and heat treatment on cracking and resistance of welded sheet steel containing about 1 per cent Mn). Welding J 25:sup531-3 S '46
Electrodes for welding chromium-molybdenum steel. D. L. Mathias and G. M. Leigh. bibliog il Welding J 25:399-405 My '46
Fabrication of welded steel pressure vessels; abstract. O R. Carpenter. Materials & Methods 23:1382+ My '46
Factors affecting weld cracking and how to overcome such conditions. L. K. Stringham. il Welding J 25:440-1 My '46
Fatigue behavior in reverse bending of welded sheet steel. R. L'Hermite and D. Seferian. il diags Welding J 25:sup512-17 S '46
Fatigue properties of flash welds. H. J. Grover and others. il diags Welding J 24: sup599-617 N '45
Fish eyes in arc welds. J. B. Arthur. il Iron Age 157:52-3 My 16 '46
Flash welding alloy-steel rings. P. B. Scharf. il Iron Age 156:50-3 Ag 16 '45; Same. diags Welding J 25:313-17 Ap '46
Flash welding of hard-drawn high-carbon steel wire. R. W. Bennett and R. D. Williams. il diag Welding J 25:sup658-68 O '46
Graphitization in some cast steels. A. J. Smith and others. bibliog il Welding J 25: sup257-68 My '46; Same. A S M E Trans 68:609-20 bibliog(p620); Discussion. 621-4 Ag '46
High quality tank manufacture. W. P. Hindman. il diags Mach 52:135-42 Ja '46
Instrument uses supersonic vibrations to determine quality prior to welding; Sperry supersonic reflectoscope. O. R. Carpenter. Blast F & Steel Pl 34:1147-8 S '46
Investigation of the weldability of copper-bearing steels. N. H. Keyser and C. H. Lorig. bibliog diags Welding J 25:sup597-611 O '46
Metallographic etchant to distinguish oxidation in steel. A. M. Hall. il Metal Prog 50:92-6 Jl '46
Metallurgical aspects of high quality pressure welded joints for landing gear. L. Fine and others. il Metal Prog 49:350-5, 530-6 F-Mr '46
Metallurgy as applied to welding. R. B. Lincoln. il Welding J 24:1143-7 D '45
New view of welding; metallurgical features in welded steels; abstract. H. O'Neill. Chem Age (Lond) 54:19 Ja 5 '46
Phénomènes d'auto-trempe en soudure. A. Portevin and others. Génie Civil 123:266 O 1 '46

STEEL—Welding—*Continued*
Physical properties of an austenitic weld-metal and its structural transformation on straining; abstract. K. Winterton. Metal Prog 49:148+ Ja '46
Preliminary investigation of the constitution of mild-steel arc-weld deposits. H. A. Sloman and others. il Welding J 25:sup39-52 Ja '46; Same cond. Engineering 160:197, 217-20, 238-9 S 7-21 '45
Preliminary study of the notched-bead slow-bend test for weldability of steels. C. B. Voldrich and others. bibliog il diags Welding J 25:sup77-90 F '46
Progress report on the spot welding of high-tensile carbon and low-alloy steels. W. F. Hess and others. bibliog il Welding J 25: sup503-12 S '46
Quantitative measurement of the cracking tendency in welds. R. D. Stout and others. bibliog il diags Welding J 25:sup522-31 S '46
Quantitative measurement of welding response by bead welds. R. D. Stout and others. Welding J 24:sup625-8 D '45
Reduction of residual welding stresses by the use of austenitic electrode. F. Jonassen and others. diags Welding J 25:sup489-91 S '46
Reinforcement of branch pieces. J. S. Blair. il diags Engineering 162:1-4, 217-21, 228, 508-11, 529-33, 540, 553-6, 577-81, 588, 605 Jl 5, S 6, N 29-D 27 '46
Relation between the hydrogen content of weld metal and its oxygen content. L. Reeve. bibliog diag Welding J 24:sup618-23 N '45
Repairing contractors' and steel mill equipment with manganese applicator bars. L. A. Davis. il diag Welding J 25:969-74 O '46
Review and summary of weldability testing carbon and low alloy steels; ship hull construction. G. G. Luther and others. bibliog(53 titles) il diags Welding J 25:sup376-96 Jl '46
Selecting spot-welding schedules for low-carbon steel. J. Heuschkel. bibliog il diags Welding J 25:sup700-28 O '46
Selection of steel for welding. S. L. Hoyt. Welding J 24:1180-7 D '45
Simplifying construction by automatic stud welding. il Iron Age 157·65-7 Je 27 '46
Some causes of brittle failures in welded mild steel structures. H. E. Kennedy. il diags Welding J 24:sup588-98 N '45
Some observations on the effect of oxygen on carbon in steel. L. Fine and C. H. Maak. bibliog il Welding J 25:sup283-7 My '46
Spot welding of NE 8715, NE 8630 and SAE 4340 in the 0.062-in. thickness. W. F. Hess and others. bibliog il Welding J 25:sup123-8 F '46
Stress relief of weldments for machining stability. J. R. Stitt. il diags Ohio State Univ Eng Exp Sta Bul 121:1-47 '44; 123:1-23 '45 (pa ea 50c); Same. Welding J 24:sup331-49 Je '45; 25:sup30-9 Ja '46
Summary of the spot welding of high-tensile carbon and low-alloy steels. W. D. Doty and W. J. Childs. bibliog Welding J 25: sup624-30 O '46
Tensile properties of unstable austenite and its low-temperature decomposition products; abstract. A. H. Cottrell. Metal Prog 48:1130+ N '45
Tool and die welding. A. R. Butler and F. E. Kessler. il Welding J 25:953-61 O '46
Tool maintenance and die repair. P. D. Scott. Welding J 25:442 My '46
Use of direct transformation data in determining preheat and postheat requirements for arc welding deep hardening steels and weld deposits. L. F. Bowne, jr. bibliog il Welding J 25:sup234-41 Ap '46
Variation in quality of spot welds in low-carbon steel over a range of welding variables. J. J. Riley. il Welding J 25:833-42 S '46
Water-gas reaction applied to welding-arc atmospheres. M. W. Mallett. bibliog Welding J 25:sup396-9 Jl '46
Weldability tests of cast steels. F. S. McKenna and C. E. Jackson. il diags Welding J 24:sup573-9 N '45
Welding alloy steel piping. E. R. Seabloom. il diags Heating-Piping 18:67-70 O '46
Welding galvanized steel. E. F. Pellowe and F. F. Pollak. diags Iron Age 156:64-5 N 15 '45
Welding mild steel. H. O. Westendarp, jr. Steel 117:94-5+ N 26 '45
Welding multi-layer steel pressure vessels; A. O. Smith corp.; illustrations with text. Materials & Methods 23:1578-82 Je '46
Welding of hardenable steels with high-alloy (austenitic) electrodes. S. A. Herres and A. M. Turkalo. il diags Welding J 25: sup669-96 bibliog(sup686, 696) O '46
Welding of nickel-alloy steels. T. N. Armstrong. bibliog diags Iron Age 157:36-41 Ja 24; 49-55 Ja 31; 69-76 F 7; 56-60 F 14 '46
Welding of propulsion shafting of centrifugally cast steel. H. W. Hiemke and J. C. Blake. il diags Welding J 24:1040-5 N '45; Discussion. J. T. Vann. 25:333-5 Ap '46
Welding of 3½% Ni-0.40% carbon class An steel forgings; repairing damaged propeller shafting. B. Ronay. il diags Welding J 25: 495-503 Je '46
X-ray diffraction study of notch-bend test. J. T. Norton and others. bibliog il diags Welding J 25:sup269-76 My '46

See also
Steel, Stainless—Welding
Steel, Structural—Welding
Steel construction—Welding
Tubes, Steel—Welding

STEEL, Aircraft
Einfluss der erschmelzungsart und wärmebehandlung auf die schweissrissigkeit und schweissfestigkeit dünner bleche aus stählen mit etwa 1% Mn. W. Eilender and others. Stahl & Eisen 63:784-8 O 28 '43; Abstract (Influence of the melting technique and heat treatment on cracking and resistance of welded sheet steel containing about 1 per cent Mn). Welding J 25:sup531-3 S '46
Evaluation of aeroplane metals. J. A. Van Den Broek. il diags Roy Aeronautical Soc J 50:811-28 O '46
Nickel in the B-29; abstract. Metal Prog 48: 1148+ N '45
Nondimensional buckling curves, their development and application. F. P. Cozzone and M. A. Melcon. bibliog J Aeronautical Sci 13:511-17 O '46
Quality control in the production of basic electric furnace aircraft and bearing steels. W. J. Reagan. Blast F & Steel Pl 34:995-1001 Ag '46
Simplification and standardization of steels for naval aircraft. N. E. Promisel. Steel 119:98-9+ N 4 '46
Tailoring 18-8; properties investigated by Ryan Aeronautical to find best formula for exhaust manifold equipment. W. G. Hubbell. il Steel 118:112-13+ My 20 '46
Tensile elastic properties of typical stainless steels and nonferrous metals as affected by plastic deformation and by heat treatment. D. J. McAdam, jr. and R. W. Mebs. il diags U S Nat Advisory Com for Aeronautics 1940:309-86 bibliog(p356-7) '41
Triple alloy structural tubing. C. M. Schwitter. bibliog il Iron Age 158:46-9 Ag 22 '46
Use of stainless steel as a structural material in jet-propelled aircraft. G. Brewer. il diags Metal Prog 50:84-8 Jl '46

Testing
Decarburization in highly stressed steels. P. A. Haythorne. bibliog il Iron Age 158:52-61 Jl 4 '46
Fracture testing of alloy steels for aircraft engine forgings. R. D. Haworth, jr. and A. F. Christian. il diag Am Soc T M Proc 45:407-40; Discussion. 441-7 '45
Nitriding of aircraft steels; depth hardness data covering several aircraft steels not commonly considered nitriding grades. P. A. Haythorne. bibliog il Iron Age 157:44-8 Ja 31 '46
Temper embrittlement of aircraft steels. P. A. Haythorne. bibliog Iron Age 158:51-5 Ag 29 '46

STEEL, Aluminum clad
Aluminum coated sheet steel. il Heat & Ven 43:74-5 Je '46
Aluminum dipcoated steel. il Materials & Methods 24:90-4 Jl '46

STEEL, Automobile
Correlation of stress concentration with fatigue strength of engine components. C. W. Gadd and others. diags S A E J 53:640-7 N '45

STEEL, Automobile—*Continued*
Failure of autobody sheet in deep drawing operations; discussion of paper by K. J. B. Wolfe. H. W. McQuaid. Steel 118:122+ Ap 29 '46
Rolling its own; Kaiser-Frazer buys into a new steel company. Bsns W p19 Je 8 '46
Weight of steel purchased for a typical automobile in pounds. Automotive & Aviation Ind 95:42 O 1 '46

Testing

Study of the damaging effect of fatigue stressing on SAE X4130 steel J. A. Bennett. bibliog diags J Res Nat Bur Stand 37:123-39 Ag '46

STEEL, Clad
Clad steel processing equipment for chemical and allied industries. E. C. Gosnell. Steel 119:156+ O 14 '46
Production of clad steels by rolling. C. H. Wick. il diags Mach 52:158-63 Jl '46

See also
Steel, Aluminum clad

STEEL, Cold treatment of
Cold treatment of die steel. W. J. Jabsen and P. J. Krebs. il Metal Prog 50:299 Ag '46
Dimensional stability of steel; subatmospheric transformation of retained austenite. S. G. Fletcher and M. Cohen. diag Am Soc for Metals Trans 34:216-37 bibliog(p236-7); Discussion. 237-49 '45
Freeze fitting of auto parts; refrigeration used to shrink cylinder block valve inserts. il Steel 119:96 Ag 12 '46
Heat treatment of high-speed steel. M. Cohen and P. Gordon. bibliog Iron Age 157:55-62 Mr 28 '46
Low tempering after deep freezing. C. A. E. Wilkins. Metal Prog 49:125 Ja '46
Stabilizing dimensions by deep freezing; abstract. G. E. Marbaix. Mech Eng 68:650-1 Jl '46
Study of subzero treatments applied to molybdenum-tungsten high speed steel. R. G. Kennedy, jr. il diag Am Soc for Metals Trans 34:250-92 bibliog(p291-2); Discussion. 292-309 '45
Sub-zero treatment of high speed steel, with special reference to intermittent cutting; abstract. K. J. B. Wolfe. Iron Age 158:61-4 Ag 15 '46
Subzero treatment simplifies hardening of alloy carburizing steels. H. E. Boyer and H. C. Miller. il diag Materials & Methods 23:730-4 Mr '46
Tool steel super-cooled in deepfreeze units. il Elec World 125:142+ F 16 '46

STEEL, Cold working of
Carbon and alloy steel materials for cold-formed springs. F. P. Zimmerli. il Product Eng 17:119-22 O '46
Cold forming Oldsmobile three-piece bumpers. C. O. Herb. il Mach 52:141-9 Ag '46
Cold riveting for maximum strength. il Steel 117:145+ N 12 '45
Effect of cold rolling on the structure of Hadfield manganese steel. N. P. Goss. bibliog il Am Soc for Metals Trans 34:630-8; Discussion. 638-44 '45
How to work stainless steel. H. L. Flynn. diags Am Mach 90:119-22 F 28 '46
Progress report on the spot welding of high-tensile carbon and low-alloy steels; comparison of spot-weld properties in cold-rolled vs. heat-treated steels. W. F. Hess and others. bibliog il Welding J 25:sup509-12 S '46
16-25-6 alloy for gas turbines. M. Fleischmann. il Iron Age 157:50-60 Ja 24 '46

STEEL, Corrosion resisting
Heat and corrosion resistant cast steels; properties, characteristics, applications, etc. Machine Design 18:151-6 F '46
Heat and corrosion resistant high temperature alloys; reference book sheet. Product Eng 17:151+ S '46

See also
Chromium nickel steel
Chromium steel
Steel, Stainless

STEEL, Galvanized
Corrosion of galvanized hot water storage tanks. J. M. Bialosky. bibliog Am Water Works Assn J 38:1012-17; Discussion. O. Rice. 1017-20 S '46
Deterioration of tower galvanizing checked periodically. N. A. Kerstein and L. E. Gibson. il Elec World 126:82 O 26 '46
Failures of domestic hot water storage tanks. C. P. Hoover. bibliog il Am Water Works Assn J 38:1005-11 S '46
Welding galvanized steel. E. F. Pellowe and F. F. Pollak. diags Iron Age 156:64-5 N 15 '45

STEEL, Hardening of
Bright-hardening of tools and machine parts in controlled atmospheres. C. E. Peck. flow diag il diag Mach 52:158-63 F; 178-80 Mr '46
Calculating hardenability; abstract. W. Crafts and J. L. Lamont. Materials & Methods 23:540 F '46
Calculation of Jominy curves; chart; data sheet. Metal Prog 50:484b S '46
Effect of tempering on mechanical properties. G. K. Manning and G. P. Krumlauf. bibliog Iron Age 158:44-50 O 24; 50-5 O 31 '46
Effect of undissolved carbides on hardenability. R. J. Hafsten. bibliog il Steel 119:112+ Ag 19 '46
Experiments on sodium cyaniding of high speed steel prior to hardening. J. McIntyre. il Am Soc for Metals Trans 34:202-12; Discussion. 213-15 '45
Extending the Jominy scale. J. Erb. bibliog diag Iron Age 157:48-51 Je 13 '46
Factors affecting the hardenability and related properties of boron treated steels. R. A. Grange and T. M. Garvey. Steel 118:98+ Je 10 '46
Flame cutting, flame hardening and welding on railroads. J. W. Kenefic. il Welding J 25:299-307 Ap '46
Graphite molds for casting Jominy bars. P. M. Sanders. diag Metal Prog 50:91 Jl '46
Hardenability and its estimation; symposium. Metal Prog 48:1289-91 D '45
Hardenability bands in steel specification. Am Mach 90:92 Ja 31 '46
Hardenability test for quenched and tempered steel. E. J. Wellauer. bibliog diag Iron Age 158:62-6 S 5 '46
Hardenability testing in material control. E. H. Snyder. Steel 119:72-3+ Ag 26 '46
High-speed hardening without atmospheres; use of molten boric acid bath. W. B. MacNerland. il Steel 118:107+ Je 3 '46
High speed heating with gas provides heat treat tool. C. W. Eigenbrot. il diag Materials & Methods 23:1313-16 My '46
Induction hardening as applied to farm machinery. F. F. Vaughn. il S A E J 54:38-43; Discussion. 43-4 Ja '46
Machine tool materials; abstract. E. G. Green. Materials & Methods 24:170 Jl '46
Manufacture of file hard precision gears. W. G. Guthrie. il Metal Prog 48:1300-5 D '45
Martensite transformation. A. R. Troiano and A. B. Greninger. il Metal Prog 50:303-7 Ag '46
Precipitation hardening stainless steel; Stainless W. il Steel 118:136+ Mr 4 '46
Precise control of steel hardening; Springfield armory. H. A. Knight. il Materials & Methods 22:1736-8 D '45
Production of starter ring gears revolutionized by electronic process. il Mach 52:192 Ja '46
Rectification of high temperature salt baths; use of graphite rod. R. S. Burpo, jr. Materials & Methods 24:109-11 Jl '46
Selection of die steels for cold work. W. H. Wills. il Iron Age 156:58-61 N 22 '45
Selection of die steels for cold working metals. G. M. Butler. Steel 119:124+ Ag 19 '46
Sources of error in diamond-pyramid hardness measurements. W. N. Hindley. il Engineering 161:286-7 Mr 22 '46; Abstract. Metal Prog 49:610+ Mr '46
16-25-6 alloy for gas turbines. M. Fleischmann. il Iron Age 157:50-60 Ja 24 '46
Study of subzero treatments applied to molybdenum-tungsten high speed steel. R. G. Kennedy, jr. il diag Am Soc for Metals Trans 34:250-92 bibliog(p291-2); Discussion. 292-309 '45
Use of direct transformation data in determining preheat and postheat requirements for arc welding deep hardening steels and weld deposits. L. F. Bowne, jr. bibliog il Welding J 25:sup 234-41 Ap '46

STEEL, Hardening of—*Continued*
Welding of nickel-alloy steels. T. N. Armstrong. Iron Age 157:36-41 Ja 24 '46
See also
Brinell hardness test
Case hardening
Steel, Quenching of

STEEL, Heat resisting
Creep resistant alloy steels. S. E. Wolfson and M. P. Myahkov. Iron Age 156:58-63 Ag 2 '45; Abstract. Metal Prog 50:342+ Ag '46
Effects of deoxidation practice; probable relationship between spheroidization and graphitization in presence of aluminum deoxidizing additions indicated. G. V. Smith and others. il Steel 117:114-17+ D 3 '45
Functions of alloying elements in heat resisting steels. H. Dobkin. bibliog Steel 119: 78-9+ O 28 '46
German high temperature turbine blade steels. Iron Age 158:52 Jl 11 '46
German stainless steels. A. L. Feild. Iron Age 156:60-7 D 20 '45
Heat and corrosion resistant cast steels; properties, characteristics, applications, etc. Machine Design 18:151-6 F '46
Heat and corrosion resistant high temperature alloys; reference book sheet. Product Eng 17:151+ S '46
Heat-resisting alloys for gas producers; abstract. J. Sissener. Materials & Methods 24: 162+ Jl '46
Heat-resisting steel for gas turbines. Aeronautical Eng R 4:131 D '45
Heat-resisting steels; abstracts. L. F. Keeley. Chem & Ind p382 D 8 '45; Chem Age (Lond) 53:520 D 1 '45
High strength, high temperature alloy S-816. T. Y. Wilson. il Materials & Methods 24: 885-90 O '46
Metallurgical development of materials for turbosuperchargers and aircraft gas turbines. W. L. Badger. il diags Iron Age 158: 40-5 Jl 25; 60-6 Ag 1 '46
Patent rights to new steel given to public by U.S steel corp. and Carnegie-Illinois steel corp. Steel 118:76 My 27 '46; Iron Age 157:117 My 30 '46
Properties and characteristics of 27% chromium-iron. H. D. Newell. bibliog (148 titles) il Metal Prog 49:977-91+ My '46
Properties of steels for high temperature service; engineering file facts. R. S. Burpo, jr. comp. Materials & Methods 23:769, 771 Mr '46
Public receives rights to new high-temp. steel; developed by United States steel corp. of Delaware and Carnegie-Illinois steel corp. Elec World 125:200 Je 8 '46
16-25-6 alloy for gas turbines; with photomicrographs. M. Fleischmann. il Iron Age 157:44-53 Ja 17; 50-60 Ja 24 '46
Stainless and heat resisting steels. J. S. Ewing. il Pet Eng 17:124+ F '46
Stainless steel; present and future prospects; with production statistics, 1929-1945. T. W. Lippert. il Iron Age 157:120-3 Ja 3 '46

STEEL, Heat treatment of
Behavior of 18-8 Ti-stabilized stainless. E. H. Wyche. bibliog Iron Age 158:55-6 Ag 15 '46
Carbon rod rectification; treatment of steel salt baths prevents decarburization. S. M. DePoy. il Steel 119:114+ Jl 15 '46
Comparative graphitization of some low-carbon steels with and without molybdenum and chromium. G. V. Smith and others. bibliog il A S M E Trans 68:592-5 Ag '46
Controlled low-temperature stress relieving. T. W. Greene and A. A. Holzbaur. il diags Welding J 25:supl71-85 Mr '46
Critical survey of controlled atmospheres. E. J. Funk, jr. and D. Von Ludwig. bibliog il Iron Age 158:42-7 S 19; 74-9 S 26; 50-4 O 3 '46
Cycle annealing of hypo-eutectoid steels. G. R. Brophy. il Iron Age 156:69-71 D 13 '45
Decarburization in highly stressed steels. P. A. Haythorne. bibliog il Iron Age 158:52-61 Jl 4 '46
Dimensional stability of steel; subatmospheric transformation of retained austenite. S. G. Fletcher and M. Cohen. diag Am Soc for Metals Trans 34:216-37 bibliog(p236-7); Discussion. 237-49 '45
Effect of fiber on notched bar tensile strength properties of a heat treated low alloy steel. G. Sachs and others. bibliog diags Am Soc for Metals Trans 34:505-16 '45
Effect of heat treatment on steel castings. E. E. Howe. il Foundry 74:98-9+ S '46
Effect of overheating on the transformation characteristics of a nickel-chromium-molybdenum steel. K. Winterton bibliog Iron & Steel Inst J 151.79-85, pl 2-3 no 1 '45; Abstract. Metal Prog 49:144+ Ja '46
Effect of variations in composition and heat treatment of chromium steel; abstract. G. F. Comstock. Steel 118:130-1 Ja 28 '46
Effects of notches of varying depth on the strength of heat treated low alloy steels. G. Sachs and others. diags Am Soc for Metals Trans 34:517-39 bibliog(p539); Discussion. 539-44 '45
Einfluss der erschmelzungsart und wärmebehandlung auf die schweissrissigkeit und schweissfestigkeit dünner bleche aus stählen mit etwa 1% Mn. W. Eilender and others. Stahl & Eisen 63:784-8 O 28 '43; Abstract (Influence of the melting technique and heat treatment on cracking and resistance of welded sheet steel containing about 1 per cent Mn). Welding J 25: sup531-3 S '46
Failure of spring loops by stress-corrosion. R. W. Parsons. Metal Prog 48:1310-11 D '45
Flash welding alloy-steel rings. P. B. Scharf. il Iron Age 156:50-3 Ag 16 '45; Same. diags Welding J 25:313-17 Ap '46
Fracture testing of alloy steels for aircraft engine forgings. R. D. Haworth, jr. and A. F. Christian. il diag Am Soc T M Proc 45:407-40; Discussion. 441-7 '45
Heat-treated rivets for high strength joints; Hi-Shear rivets. N. L. Marvin. il Materials & Methods 23:1574-7 Je '46; Excerpt. Mech Eng 68:820 S '46
Heat treating alloy steels; abstract. Q. C. McMillan. Materials & Methods 23:530+ F '46
Heat treating carburized sintered steel. G. Stern and J. Greenberg. il Iron Age 157:56-61 Ap 25 '46
Heat treatment and stabilization of high carbon stainless steels. H. E. Boyer and H. C. Miller. il Materials & Methods 24:637-41 S '46
Heat treatment of heavy cast steel sections. P. C. Rosenthal and G. K. Manning. il diag Foundry 74:70-5 Ag '46
Heat treatment of high-speed steel. M. Cohen and P. Gordon. il diags Iron Age 157:42-7 F 28; 52-7 Mr 7; 68-73 Mr 14; 61-5 Mr 21; 55-62 Mr 28 '46
Heat treatment of stainless steel. H. Solakian. il diag Iron Age 157 46-9 My 30 '46
Helpful hints in ordering heat-treatment. Am Mach 90:111 N 7 '46
How design affects heat-treatment; reference book sheet. diags Am Mach 90:145, 147 N 7 '46
How to work stainless steel. H. L. Flynn. Am Mach 90:111-12 F 28 '46
Improving the formability of NE 8630 steel sheet. J. L. Waisman and W. T. Snyder. il Metal Prog 49:755-60 Ap '46
Influence of heat-treatment upon the susceptibility to graphitization of high-aluminum-deoxidized carbon-molybdenum steel. F. Eberle. il Welding J 25:sup307-12 My '46; Same. A S M E Trans 68:625-30 Ag '46
Influence of the heat treatment of steel on the damping capacity at low stresses. L. Frommer and A. Murray. bibliog diags Iron & Steel Inst J 151:45-53 no 1 '45
Insuring dimensional accuracy through heat treating. H. Dobkin. diags Steel 118:90-1+ F 18 '46
Mechanical properties and some metallurgical features of copper brazed joints. R. F. Tylecote. bibliog il diags Welding J 25:sup 242-9 Ap '46
Modern methods in the heat-treatment of steel. E. R. Mertz. bibliog A S M E Trans 68:637-42 Ag '46
New heat treatment shop; Anderson, Boyes & co. il Gas J (Lond) 248:679 O 23 '46
Practical tool room heat treatment. F. J. McMulkin. bibliog Iron Age 157:60-5 Je 6; 56-9 Je 13; 64-8 Je 20; 55-9 Je 27 '46

STEEL, Heat treatment of—*Continued*
Processing stainless steel; abstract. H. S. Schaufus and W. H. Braun. Materials & Methods 23:522+ F '46
Production line heat treatment of stainless bar stock; Allegheny Ludlum steel corp. J. F. Sullivan. il plan diag Metal Prog 49: 523-5 Mr '46
Progress report on the spot welding of high-tensile carbon and low-alloy steels. W. F. Hess and others. bibliog il Welding J 25: sup503-12 S '46
Properties and characteristics of 27% chromium-iron. H. D. Newell. bibliog(148 titles) il Metal Prog 49:977-91+ My '46
Relationship between preliminary heat treatment and response to nitriding of some nitriding steels. C. C. Hodgson and H. O. Waring. bibliog Iron & Steel Inst J 151:55-70, pl 1 no 1 '45
Result of stabilizing heat treatment on welded 18-8 stainless. W. G. Hubbell. il Iron Age 155:56-60 Je 21 '45; Same. Aero Digest 50: 98+ Jl 1 '45; Abstract. Metal Prog 49:1230+ Je '46
Review of Steel standardization group's method for the determination of critical points of steel. Metal Prog 49:1169-71 Je '46
Salt bath for heat treating 18-8; aircraft exhaust manifold; Ryan aeronautical co. K. Whitcomb. il Metal Prog 50:294-8 Ag '46; Same cond. Automotive & Aviation Ind 95: 36-9+ Jl 15 '46
Salt bath treatment of rockets. A. E. Carpenter. Materials & Methods 22:1468 N '45
16-25-6 alloy for gas turbines; with photomicrographs. M. Fleischmann. il Iron Age 157:44-53 Ja 17; 50-60 Ja 24 '46
Some observations on the austempering and isothermal transformation of steels, with special reference to the production of martensite. F. C Thompson and L. R. Stanton. diags Iron & Steel Inst J 151:133-70, bibliog(p168-70) pl 13-16; Discussion. 171-80 no 1 '45
Some users' experience with lithium atmospheres for heat treating; with cost data. R. S. Burpo, jr. il diag Materials & Methods 24:622-5 S '46
Stress relief of weldments for machining stability. J. R. Stitt. il diags Ohio State Univ Eng Exp Sta Bul 121:1-47 '44; 123: 1-23 '45 (pa ea 50c); Same. Welding J 24: sup331-49 Je '45; 25:sup30-9 Ja '46
Temperature range of martensite formation. R. A. Grange and H. M. Stewart. Steel 118: 126+ My 20 '46
Thermal characteristics, microstructures and physical properties of some low and medium alloyed cast steels. W. L. Meinhart. bibliog il Iron Age 157:44-54 Je 27 '46
Time-temperature relations in tempering high carbon steels; chart; data sheet. J. H. Hollomon and L. D. Jaffe. Metal Prog 49: 352, 352B F '46
Tool steels, types and treatment. R. S. Burpo, jr. bibliog Materials & Methods 24:119-34 Jl '46
Triple alloy structural tubing. C. M. Schwitter bibliog il Iron Age 158:46-9 Ag 22 '46
What technical men expect in 1946; heat treating. Steel 118:276-8+ Ja 7 '46
Workable classification of toolsteels. C. L. Hibert. il Metal Prog 49:333-41 F '46; Discussion. S. M. DePoy. 49:974 My '46

See also
Annealing
Case hardening
Furnaces, Heat treating
Steel—Overheating and burning
Steel, Quenching of
Tempering

STEEL, Molten
Improvement in design of immersion pyrometers for liquid steel temperatures. D. Manterfield and J. R. Thurston. Metal Prog 50:504+ S '46
Pyrometry of liquid iron and steel; abstract. H. T. Clark. Materials & Methods 23:1376+ My '46
Temperature measurement of liquid steel. D. Manterfield. bibliog il diags Iron Age 158: 52-7 Jl 25 '46

STEEL, Powdered
Heat treating carburized sintered steel. G. Stern and J. Greenberg. il Iron Age 157: 56-61 Ap 25 '46
Set prices for new powders and flake of stainless steel. Iron Age 158:138 S 19 '46

STEEL, Quenching of
Air-cooled salt baths for interrupted quenching. H. W. Schramm. Materials & Methods 23:1626 Je '46
Automatic press holds gears and prevents distortion during quenching. il diags Product Eng 17:94-5 S '46
Cold-die quenching. A. F. Gallistel. il diag Steel 118.128-9+ Mr 4 '46
Hardenability test for quenched and tempered steel. E. J. Wellauer. bibliog diag Iron Age 158:62-6 S 5 '46
Hot oil quenching. D. C. Miner. il diags Steel 118:88-9+ Ap 29 '46
Importance of a proper quench. J. McElgin il Iron Age 157:50-1 F 21 '46
Interruptible quenching. C. H. Lekberg. Am Gas J 164:31-4 Ap '46
Morphology and kinetics of the constituents in quenched steels. A. M. Portevin. Metal Prog 50:311-13 Ag '46
Practical tool room heat treatment. F. J. McMulkin. Iron Age 157:64-8 Je 20 '46
Quenching water requirements of induction heated parts; Caterpillar tractor co. B R. Miller. il Metal Prog 49:750-2 Ap '46; Mech Eng 68.617-18 Jl '46
Tensile properties of unstable austenite and its low-temperature decomposition products. A. H. Cottrell. bibliog diags Iron & Steel Inst J 151.93-104, pl 5-6 no 1 '45

STEEL, Reinforcing
Action of steel in reinforced concrete pavement; abstract. W. R. Wooley. Am Concrete Inst J 17:562-3 Ap '46
Licenses U.S. Steel to make Hi-Bond bars. il Concrete 54:20-1 S '46

See also
Concrete, Reinforced
Concrete reinforcing steel institute

Testing
Investigation of the strength of welded stirrups in reinforced concrete beams. O. Moretto. il diags Am Concrete Inst J 17: 141-62 N '45
Prestretched reinforcing bars show high strength in University of Iowa tests. B. J. Lambert and N. L. Ashton. il Civil Eng 15:564 D '45

STEEL, Stainless
Alloys beat the heat; key materials of turbosuperchargers, gas turbines, and jet engines. F. P. Peters. il diag Sci Am 174: 152-4 Ap '46
Annealing stainless steel. A. E. Carpenter. Materials & Methods 22:1789 D '45
Carnegie-Illinois announces new stainless steel that is expected to find wide use; Stainless W. Steel 118:59 Ja 14 '46; Blast F & Steel Pl 34:235 F '46
Check chart for turning stainless steels; for tapping stainless steels; reference book sheet. Am Mach 90:145, 147 O 10 '46
Descaling stainless steel; sodium hydride descaling process. il Steel 117:120-1+ N 19 '45
Determination of tungsten and columbium in stainless steels. C. M. Johnson. Iron Age 157:66-8 Ap 11 '46
Drawing stainless cylinders; Lalance & Grosjean co. L. E. Browne. il Steel 117:116-17+ D 10 '45
Flame cutting stainless steel. G. E. Bellew. il Iron Age 158.42-5 Jl 11 '46
German stainless steels. A. L. Feild. Iron Age 156:60-7 D 20 '45
Heat treatment and stabilization of high carbon stainless steels. H. E. Boyer and H. C. Miller. il Materials & Methods 24:637-41 S '46
Heat treatment of stainless steel. H. Solakian. il diag Iron Age 157:46-9 My 30 '46
Hints on working stainless steel; Spatz sheet metal works. il diags Sheet Metal Worker 37:52-3+ O '46
How to work stainless steel. H. L. Flynn. il diags Am Mach 90:105-24 F 28 '46
Introducing Stainless W, a new product. R. Smith and others. Ry Age 120:678-80 Mr 30 '46
Machining stainless steels. E Von Hambach. diags Steel 119:62-7 S 30; 116-18+ O 7; 112-13+ O 14 '46

STEEL, Stainless—*Continued*
New age-hardening stainless steel provides strength without cold working; Stainless W. T. C. Du Mond. Materials & Methods 23:432-3 F '46
New type stainless steel developed; Stainless W. Iron Age 157:108 Ja 10 '46; Same cond. Mech Eng 68:258-9 Mr '46; Excerpt. Blast F & Steel Pl 34:416 Mr '46
Passivation of stainless steel. E. M. Mahla and N. A. Nielsen. il diag Electrochem Soc Trans 89 (preprint 27):319-41 bibliog(p339-41) '46
Phosphoric acid vs. materials of chemical plant construction; stainless steel. H. C. Esgar. Chem Eng 53:203-4+ Ag '46
Precipitation hardening stainless steel; Stainless W. il Steel 118:136+ Mr 4 '46
Processing stainless steel; abstract. H. S. Schaufus and W. H. Braun. Materials & Methods 23:522+ F '46
Production line heat treatment of stainless bar stock; Allegheny Ludlum steel corp. J. F. Sullivan. il plan diag Metal Prog 49: 523-5 Mr '46
Production technique for stainless steels; abstract. E. J. Chelius. Iron Age 156:76-7 D 13 '45
Protection of stainless steel; retention of surface polish. Chem Age (Lond) 55:140-1 Ag 3 '46
Salt bath for heat treating 18-8; aircraft exhaust manifold; Ryan aeronautical co. K. Whitcomb. il Metal Prog 50:294-8 Ag '46; Same cond. Automotive & Aviation Ind 95: 36-9+ Jl 15 '46
Separation of stainless steels by spot tests. H. W. Miller. chart Oil & Gas J 44:294-5 Ja 26 '46
Set prices for new powders and flake of stainless steel. Iron Age 158:138 S 19 '46
Sodium hydride descaling. L. W. Townsend. il Steel 117:122-3+ N 12 '45
Sodium hydride descaling process. H. N. Gilbert. il diag Metal Finishing 43:492-5+ D '45
Stainless and heat resisting steels. J. S. Ewing. il Pet Eng 17:124+ F '46
Stainless explores new fields. il Bsns W p17-18 O 5 '46
Stainless steel age hardens. Sci Am 174:154 Ap '46
Stainless steel fabricator expands facilities; Heintz mfg co. J. Anthony. il Iron Age 157:114-16 Ja 31 '46
Stainless steel in the petroleum industry. J. S. Ewing. Pet Eng 17:108+ Jl '46; Same abr. il Nat Pet N 38 pt 2:R243-6 Ap 3 '46
Stainless steel jewelry. il Manuf Rec 115:43 Mr '46
Stainless steel; present and future prospects; with production statistics, 1929-1945. T. W. Lippert. il Iron Age 157:120-3 Ja 3 '46
Stainless steel scrap. L. F. Weitzenkorn. il Blast F & Steel Pl 33:1511-12+ D '45
Stainless steels classified by AISI types. Machine Design 18:199 O '46
Stainless steels for turbine blading; J. H. G. Monypenny. il Engineering 160:432-3, 458-60, 478-80 N 23-D 7 '45; Discussion. 161: 16, 64-5 Ja 4, 18 '46
Stainless steels; Materials & methods manual. E. L. Cady. il Materials & Methods 22:1761-76 D '45
Stainless steels; modern machining practice. Automobile Eng 36:124-6 Mr '46
Stainless W; new chrome-nickel type steel. Bsns W p52+ Ja 19 '46
Tough stainless demands rugged tooling. P. Hallin. diags Am Mach 90:101-3 N 7 '46
Use of adhesives in cold drawing stainless steel tubing. H. K. Ihrig. il diags Steel 119:102-4+ O 21 '46
Use of stainless steel as a structural material in jet-propelled aircraft. G. Brewer. il diags Metal Prog 50:84-8 Jl '46

See also
Chromium nickel steel
Chromium steel

Patents

Stainless suit; claim against Rustless. Bsns W p53 Ja 5 '46

Testing

Chemical propellants; corrosion and stability studies. F. Bellinger and others. bibliog il diags Ind & Eng Chem 38:310-20 Mr '46
Corrosion resistance of stainless steels; results of decarburization tests. J. M. Margolin and others. il diags Iron Age 157:50-55 My 23 '46
Tensile properties of several special steels and certain other materials under pressure. P. W. Bridgman. bibliog J Ap Phys 17:201-12 Mr '46
Test for passivated stainless steels. E. E. Everett. Metal Prog 49:125-7 Ja '46

Welding

Arc welding stainless steel. J. H. Read. Materials & Methods 23:479 F '46
Atomic hydrogen welding in aviation. F. S. Dever. il Welding J 25:309-12 Ap '46
Causes of defects when welding stainless steels; data sheet. F. S. Dever. il Factory Management 103:168+ N '45
Chemical factors affecting the welding properties of stabilized 18-8 stainless steel; oxyacetylene and atomic hydrogen welding. F. H. Page, jr. Welding J 24:929-32 O '45; Discussion. 25:56-7 Ja '46
Crack sensitivity of chromium-nickel stainless weld metal. R. D. Thomas, jr. il Metal Prog 50:474-9 S '46
Effect of three variables in spot-welding. H. Van Sciver. il Metal Prog 48:1292-5 D '45
High-speed spotwelding. B. Gross. il Iron Age 157:52-5 F 21 '46
How to work stainless steel. H. L. Flynn. diags Am Mach 90:114-18 F 28 '46
Impact resistance of welded stainless. J. G. Henderson. bibliog Steel 118:94+ My 13 '46
Multiple tip torches speed stainless steel welding. W. P. Brotherton. il Iron Age 157:70-3 Je 20 '46
Physical properties of an austenitic weld-metal and its structural transformation on straining. K. Winterton. Iron & Steel Inst J 151:87-91, pl 4 no 1 '45; Same. Welding J 24:sup308-10 My '45
Poke welding of stainless steel cold storage sheathing on ocean-going vessels. R. K. Waldvogel. il Welding J 25:738-44 Ag '46
Resistance welding of stainless steels. J. J. Riley. il diag Am Mach 90:112-15 N 7; 108-12 N 21; 134-8 D 5 '46
Resistance welding on stainless steel aircraft engines and accessories. F. G. Harkins and W. L. Hales. il diags Welding J 25:39-46 Ja '46
Shop notes on welding stainless steel. V. J. Shanahan. Welding J 24:727-9 Ag '45; Discussion. J. B. Arthur. 25:31-2 Ja '46
Stainless steel trailer operation reorganized by Fruehauf. J. Geschelin. il Automotive & Aviation Ind 95:34-6+ O 1 '46
Three coatings for stainless steel welding electrodes. O. T. Barnett. diags Steel 118: 98-100+ Mr 25 '46
Weldability factors for 18-8 stainless. F. H. Page, jr. Iron Age 156:58-61 D 27 '45
Welding stabilized 18-8 stainless. R. J. Hafsten. il Iron Age 158:60-4 Jl 11 '46
Welding stainless steel. C. C. Hermann. diags Materials & Methods 23:713-16, 992-4 Mr-Ap '46
Welding the stainless steels. J. L. Filbert. Welding J 25:642-4 Jl '46

STEEL, Strip
Cold-rolled carbon steel strip; reference book sheets. diags Am Mach 90:121, 123 Ja 31 '46
Elastic anisotropy in electrical strip steel. F. G. Benford. Metal Prog 49:94-5 Ja '46
Electrotinning of wide steel strip at high speed; abstract. S. S. Johnston and G. C. Jenison. flow sheet il diags Steel 119:102-4 Jl 8 '46
Handling 23,000-pound coils; Jones & Laughlin steel corp. il Steel 118:128-30 Je 24 '46
Steel company of Canada, ltd. follows modern practice in production of slabs and blooms; strip production. C. Longenecker. il layout plan diags Blast F & Steel Pl 34:973-8, 1129-42 Ag-S '46
Treatment of steel strip before fabrication. W. F. Coxon. Engineering 162:78 Jl 26 '46

STEEL, Structural

Importation of steel building materials into Cuba, 1939 and 1944. For Comm W 21.33 N 24 '45

Increased use of high-strength steels in structural applications. il Steel 117:102-4 D 3 '45

Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. Iron Age 157:288G-288H Ja 3 '46

Steel for one more river; army engineers produced meter beams to bridge rivers of northern Europe; operation of Hadir steel works. P. Queneau. il Min & Met 27:398-9 Jl '46

Steel in home; steel winning increasing acceptance. il Steel 119:78-9 S 16 '46; Same. Iron Age 158:164-7 S 26 '46

Steel industry statistics; finished steel; comp. by the American iron and steel institute. Steel 117:insert S11 D 17 '45

Stress and strain in plastic flow. W. P. Roop bibliog il diags Welding J 25:799-823 S '46

Triple alloy structural tubing. C. M. Schwitter. bibliog il Iron Age 158:46-9 Ag 22 '46

Use of metals in postwar homes may rise to ten tons per unit. C. W. Farrier. Steel 118:60-1 Ja 14 '46

See also

Bridges, Iron and steel
Concrete, Reinforced
Steel, Aircraft
Steel, Reinforcing
Steel construction

also American institute of steel construction

Testing

Compression and impact tests for steel acceptance proposed. D. F. Windenburg. diag Civil Eng 16:442-3 O '46

Effect of stress distribution on yield points. F. G. E. Peterson. il diags Am Soc C E Proc 72:445-59 bibliog(p458-9) Ap '46; Discussion. bibliog 72:1032-40 S '46

Welding

Analyzing stresses in welded H-section trusses. il Steel 119:99+ Jl 22 '46; Iron Age 158:45 Jl 25 '46

Effect of metallurgical changes due to welding upon the fatigue strength of carbon-steel plates. W. M. Wilson and others. il Welding J 25:sup425-50 Ag '46

Effect of periods of rest on the fatigue strength of welded joints. diags Welding J 25:sup518-21 S '46

Investigation of the effect of welding on the transition temperature of navy high-tensile, low-alloy steels. G. G. Luther and others. bibliog il diags Welding J 25:sup634-45 O '46

Investigation of the strength of welded stirrups in reinforced concrete beams. O. Moretto. il diags Am Concrete Inst J 17: 141-62 N '45

Problem of fracture; failure of welded steel structures and recommended research. J. H. Hollomon. bibliog il diags Welding J 25: sup534-83 S '46

Residual stresses in welded structures; report of an investigation. W. M. Wilson and C. Hao. il diags Ill U Eng Exp Sta Bul 361:1-78 '46 (pa 75c)

Temperature effects being studied on large welded girders. L. Grover. il Eng N 137: 502-3 O 17 '46

Welding of high-strength constructional steels with ferritic electrodes. S. A. Herres and P. E. Woodward. bibliog il diags Welding J 25:sup646-58 O '46

STEEL alloys

Alloy steel or alloy-treated steel? H. T. Chandler. Metal Prog 48:1104-8 N '45; Discussion. 49:561 Mr '46

British EN alloy specifications. J. H. G. Monypenny. Iron Age 156:71-6 N 15 '45

Carbon and alloy steel materials for cold-formed springs. F. P. Zimmerli. il Product Eng 17:119-22 O '46

Carbon and alloy steel materials for hot-formed springs. H. C. Keysor. il Product Eng 17:86-9 N '46

Characteristics of low alloy high tensile steel. J. K. Zanetti. il Materials & Methods 24: 370-3 Ag '46

Chromium and nickel contents of alloyed steels determine extent of resistance to corrosion, oxidation, and temperature. C. O. Brown. Ind & Eng Chem 38:sup71-2 Ag '46

Copper as an alloy in iron and steel. G. K. Manning and P. C. Rosenthal. il Min & Met 26:601-5 D '45

Cycle annealing of hypo-eutectoid steels. G. R. Brophy. il Iron Age 156:69-71 D 13 '45

Development of alloy and tool steel manufacture in India during World war II. P. H. Kutor. Blast F & Steel Pl 34:741-5+ Je '46; Abstract. Materials & Methods 24: 438+ Ag '46

Effect of alloying elements on mechanical properties. M. Gensamer. Iron Age 157:66-71 F 14 '46; Abstracts. Metal Prog 49:731-4 Ap '46

Effects of boron in steel. R. B. Corbett and A. J. Williams. bibliog U S Bur Mines Rep of Invest 3816:1-21 '45; Excerpts. Iron Age 156:54-7 O 11 '45; Abstract. Metal Prog 49: 804+ Ap '46

Ferrous metallurgy in Russia; recent work on cast iron and alloy steels. W. G. Cass. Chem Age (Lond) 55:407-10 O 5 '46

Final additions to an acid electric heat. C. C. Wissmann. Metal Prog 48:1296-9 D '45

Functions of alloying elements in heat resisting steels. H. Dobkin. bibliog Steel 119: 78-9+ O 28 '46

Growing use of numerous fine steels in varied industries; abstract. R. E. Zimmerman. Iron Age 156:142+ N 22 '45

High strength, high temperature alloy S-816. T. Y. Wilson. il Materials & Methods 24: 885-90 O '46

Making of electric furnace alloy steels. W. J. Reagan. il diags Blast F & Steel Pl 34: 236-40, 345-9+ F-Mr '46

Metals and alloys in the petroleum industry. J. H. Wilson. Inst Pet J 32:231-4 Ap '46

Post war view of alloy steels; abstract. R. S. Archer. Automotive & Aviation Ind 94:35 Je 15 '46

Pressure welding's flexibility solves alloy pipe problems. E. P. Jones. il Oil & Gas J 45:238+ S 21 '46

Revised standard alloy steels; reference book sheet. Am Mach 90:139 Ag 1 '46

Sigma phase; abstract. F. B. Foley. Metal Prog 49:1224+ Je '46

Steel selection chart. P. L. Alger and others. Gen Elec R 49:15 F '46

Steels and irons, 1945. F. P. Peters. il Materials & Methods 23:86-9 Ja '46

Steels for die casting die blocks. J. L. Erickson. Materials & Methods 24:389-96 Ag '46

Steels for nitriding. R. S. Burpo, jr. Materials & Methods 22:1461, 1463 N '45

Substitute metallurgical products. A. M. Portevin; trans. by W. M. Baldwin, jr. Metal Prog 50:485-90 S '46

Thermal characteristics, microstructures and physical properties of some low and medium alloyed cast steels. W. L. Meinhart. bibliog il Iron Age 157:44-54 Je 27 '46

Triple alloy structural tubing. C. M. Schwitter. bibliog il Iron Age 158:46-9 Ag 22 '46

What's new in alloy steels? J. M. Hodge and M. A. Grossmann. il Machine Design 18:67-71 O '46

See also

Chromium copper silicon steel
Chromium nickel steel
Chromium steel
Cobalt steel
Ferroalloys
Iron alloys
Manganese steel
Molybdenum steel
Nickel steel
Steel, Automobile
Steel, Stainless
Steel, Structural
Tool steel

Analysis

Determination of tungsten and columbium in stainless steels. C. M. Johnson. Iron Age 157:66-8 Ap 11 '46

Spectrographic analysis of austenitic nickel-chrome steel. S. D. Steele and J. M. Johnston. il Soc Chem Ind J 64:278-83 O '45

Testing

Creep resistant alloy steels. S. E. Wolfson and M. P. Myahkov. Iron Age 156:58-63 Ag 2 '45; Abstract. Metal Prog 50:342+ Ag '46

STEEL alloys—Testing—*Continued*
Effect of fiber on notched bar tensile strength properties of a heat treated low alloy steel. G. Sachs and others. bibliog diags Am Soc for Metals Trans 34:505-16 '45
Effects of notches of varying depth on the strength of heat treated low alloy steels. G. Sachs and others. Am Soc for Metals Trans 34:517-39 bibliog(p539); Discussion. 539-44 '45
Fracture testing of alloy steels for aircraft engine forgings. R. D. Haworth, jr. and A. F. Christian. il diag Am Soc T M Proc 45:407-40; Discussion. 441-7 '45
Theory of the mechanism of rusting of low alloy steels in the atmosphere. H. R. Copson. il Am Soc T M Proc 45:554-80 bibliog(p579-80); Discussion. 581-90 '45
Wrought heat resisting alloys for gas turbine service. C. T. Evans, jr. bibliog Metal Prog 48:1083-95+ N '45

STEEL bands
Car bracing with steel bands; transportation of chemicals. T. P. Callahan. il diag Chem Ind 57:1062-3 D '45

STEEL bars
Bethlehem centralizes bar mills. il Iron Age 156:77 N 15 '45
Handling bar stock. B. Melnitsky. il Steel 119:108+ Ag 26 '46
Production line heat treatment of stainless bar stock; Allegheny Ludlum steel corp. J. F. Sullivan. il plan diag Metal Prog 49: 523-5 Mr '46
Roll out the bar stock, handling tool-steel bar stock in toolroom stores. J. W. Ingraham. il plan diags Am Mach 90:86-7 Ja 31 '46
Steel industry statistics; finished steel; comp. by the American iron and steel institute. Steel 117:insert S10-13 D 17 '45

STEEL bins. See Bins, Steel

STEEL buildings
All-steel hangars for lightplanes. il Aero Digest 51:55 D 15 '45
Pacific hospitals built of sheet steel. il diags Eng N 135:729-31 N 29 '45

See also
Steel houses

STEEL castings
Bore cracks in cast steel fittings and valve bodies; abstract. H. F. Taylor and others. Iron Age 157:76 Je 6 '46
Cast steels; chromium and molybdenum alloy types; specifications, characteristics, applications, etc. Machine Design 17:155-60 D '45
Cast steels; vanadium, copper and silicon alloy types; properties, characteristics, applications, etc. Machine Design 18:153-8 Ja '46
Cast-to-shape tool steels. il Steel 119:84+ Jl 22 '46
Centrifugal casting of steel in wartime Germany. C. W. Briggs. il diags Foundry 74: 96-7+ O '46
Converter process in steel foundries. J. H. Hall. il Foundry 74:83+ Mr; 107+ Ap; 174+ My '46
Designs steel lugs for blast furnace cooling plates. diags Steel 118:128 Mr 18 '46
Developments in the design and use of side-blown converter plants. P. C. Fassotte. Iron & Steel Inst J 150:339-48, pl 27; Discussion. 349-58 no 2 '44; Same cond. Engineering 158:104-6 Ag 11 '44
Effect of heat treatment on steel castings. E. E. Howe. il Foundry 74:98-9+ S '46
Feeding metal to molds; abstract. S. T. Jazwinski and S. L. Finch. Materials & Methods 23:802 Mr '46
First report of the Foundry practice subcommittee. diags Iron & Steel Inst J 151: 329-81, pl 45; Discussion. 382-90 no 1 '45
Flame-gouging of steel castings. A. E. Blake, jr. il Materials & Methods 22:1428-31 N '45
German steel casting industry. C. W. Briggs. il map diags Foundry 74:90-5+ Ap '46; Same cond. Steel 118:94-6+ Ap 15 '46
German steel foundry practice; illustrations with text. M. T. Ganzauge. Foundry 74:184 Je '46
Heat and corrosion resistant cast steels; properties, characteristics, applications, etc. Machine Design 18:151-6 F '46
Heat treatment of heavy cast steel sections. P. C. Rosenthal and G. K. Manning. il diag Foundry 74:70-5 Ag '46
High impact values of steel castings for use at extremely low temperatures. Mach 52: 190-1 Je '46
High-pressure feeding of static molds. S. T. Jazwinski and S. L. Finch. il diags Iron Age 157:59-63 Ja 10; 54-63 Ja 17 '46
Influence of centrifugal casting upon the structure and properties of steel. L. Northcott and D. McLean. Iron & Steel Inst J 151:303-16, pl 41-4 no 1 '45; Same. Engineering 159:197-200 Mr 9 '45; Same. Steel 118: 94-8+ Ap 29 '46; Excerpt. Engineer 180:65 Jl 27 '45; Abstract. Metal Prog 47:277+ F '45; Discussion. Iron & Steel Inst J 151:316-28 no 1 '45; Engineering 160:75-6 Jl 27 '45; Engineer 180:65 Jl 27 '45
Internal and external hot tears. H. F. Bishop and H. F. Taylor. bibliog il diags Foundry 74:82-7+ Jl '46
Large castings required for huge forging press; illustrations with text. Foundry 74: 140 S '46
Large steel castings in West Coast plant. il Iron Age 156:61 N 22 '45
Manganese alloy cast steels; materials work sheet. Machine Design 17:157-62 N '45
Quality control of high-tensile steel castings. W. West, C. C. Hodgson and H. O. Waring. bibliog il diag Iron Age 156:52-5 N 29 '45; Abstract. Materials & Methods 23:222 Ja '46
Side feeding of steel castings; influence of the mechanism of freezing. B. Gray. diags Iron & Steel Inst J 150:5-17, pl 1-4 no 2 '44
Steel casting technique considered at three meetings, American foundrymen's association. Foundry 74:148+ Je '46
Steel castings find new applications. C. E. Sims. il Foundry 74:76-81+ Ja '46
Steel castings produced centrifugally; Youngstown alloy casting corp. E. Bremer. il Foundry 74:78-81+ N '46
Steel founders meet in Technical, operating conference. Foundry 74:136+ Ag '46
Thermal characteristics, microstructures and physical properties of some low and medium alloyed cast steels. W. L. Meinhart. bibliog il Iron Age 157:44-54 Je 27 '46
Wartime developments in steel castings. G. Vennerholm. il Metal Prog 50:75-80 Jl '46
West Coast steel foundry uses large furnaces. R. L. Collier. il Foundry 73:98-100 D '45; Same. Marine Eng 51:126+ Jl '46
What technical men expect in 1946; casting. Steel 118:334-6+ Ja 7 '46

See also
Steel ingots

Repair

Incentive system for repair welding steel castings. W. S. Hansen. il Foundry 74: 150+ O '46

Statistics

Shipments in '45 of steel castings topped 1.9 million net tons. Iron Age 158:144 Jl 18 '46; Foundry 74:156 S '46
World production of steel ingots and castings, by countries, 1929-1945; tabulation. Steel 118:346 Ja 7 '46

Testing

Application of radiography to the improvement of foundry technique. R. Jackson. diags Iron & Steel Inst J 151:225-59 bibliog(p258-9) pl 17-28; Discussion. 259-71 no 1 '45
Characteristics and properties of some cast chromium-molybdenum steels. N. A. Ziegler and W. L. Meinhart. il diag Am Soc for Metals Trans 34:589-627 bibliog(88 titles, p623-7); Discussion. 627-9 '45
Electrolytic manganese in acid-steel tests at Atlas steel casting co. and the Detroit steel casting co. R. T. C. Rasmussen. U S Bur Mines Rep of Invest 3830:1-20 '45
Hardenability test for quenched and tempered steel. E. J. Wellauer. bibliog diag Iron Age 158:62-6 S 5 '46
Influence of melting conditions on the physical properties of steel castings. H. T. Protheroe. diags Iron & Steel Inst J 150: 157-79, pl 18-22; Discussion. 180-2 no 2 '44; Same cond. Engineering 158:358-60, 399-400 N 3, 17 '44

STEEL castings—Testing—*Continued*
Inspects heavy steel sections with 1000-kilovolt X-ray unit; Bethlehem steel co. il Steel 118:122-4 Mr 25 '46; Same. Foundry 74:94-5+ Je '46
Studies on susceptibility of casting steels to graphitization. J. J. Kanter. il A S M E Trans 68:581-7 Ag '46
Weldability tests of cast steels. F. S. McKenna and C. E. Jackson. il diags Welding J 24:sup573-9 N '45
X-ray in the steel foundry. il Steel 118:143 F 4 '46

STEEL coating
Steam turbine repaired by metallizing. H. M. Atwood. il Power Pl Eng 49:71 O '45; Same. Power 90.43 Ja '46; Same. Steel 118·108+ Mr 11 '46

STEEL columns. See Columns, Steel

STEEL construction
Barns of steel; vast market. il Bsns W p38+ Ag 17 '46
Industrial bridge-type structure of unusual design; used to support conveyor belt; Kalamazoo vegetable parchment co. W. M. Laughlin. il diags Roads & Bridges 83:53-5+ N '45
More effective use of rivets and bolts; new standards, revised specifications and construction techniques. F. H. Frankland. il diags Eng N 136·341-3 Mr 7 '46
Site-welded steel farm buildings demonstrate low-cost, superior construction at University of Wisconsin. il plan Arch Forum 84: 214-15 Ap '46
Steel in modern building construction. C. F. Block. il Steel 119:98-101+ Jl 8 '46
Steel on farms. Sci Am 175:222 N '46
Unique hangar built for army test work; to permit largest army aircraft to be tested at extreme temperatures. il diag Eng N 137:28-32 Jl 11 '46

See also
Bridges, Iron and steel
Concrete, Reinforced
Joists, Steel
Riveting
Stairways, Steel
Steel, Structural
Steel buildings
Steel houses
Towers, Steel

Concrete encasement
Milk plant designed for rapid erection. il diags Eng N 137:234-7 Ag 22 '46

Design
Allowable stress in beams; revision of the American institute of steel construction specification. T. P. Young. Eng N 137:321 S 5 '46
Analysis of slender angle girts. J. E. Early. diags Civil Eng 16:267 Je '46
Fluted central column new feature in tank design; elevated water supply tank for Washington, D.C. il Eng N 136:734-6 My 2 '46
Four columns support large stadium roof. il plan diags Eng N 137:454-5 O 3 '46
Highlights in design of three immense auto assembly plants. il Eng N 137:599-601 O 31 '46
Spacing girder stiffeners; nomograph. B. L. Parker. Eng N 136:870 My 30 '46
Strength of beams as determined by lateral buckling. K. de Vries. diags Am Soc C E Proc 72:985-1011 S '46
Torsion in steel spandrel girders. J. E. Lothers. diags Am Soc C E Proc 72:307-21 Mr '46; Discussion. 72:906-8, 1199-200 Je, O '46
Welded H-trusses of standard design aid development of conveyorized layout; General electric co. factory, Tiffin, Ohio. il plan diag Eng N 137:360-3 S 19 '46

Erection
Spectacular rigging operation; erection of a large gas holder. H. B. McDermid. diags Power Pl Eng 50:94 Ag '46
Unusual erection problems encountered at Brazil's big steel plant. J. B. Gibson. il Eng N 137:120-3 Jl 25 '46

Fire protection
Lightweight fire-protection for steel; vermiculite-gypsum plaster. diags Arch Rec 100:124-5 O '46

Specifications
Steel building code changes analyzed. T. R. Higgins. il Eng N 137:529-33 O 17 '46

Tables, calculations, etc.
Anchor bolt calculations. S. M. Jorgensen. Pet Refiner 25:97-101 My '46

Welding
Codes for arc and gas welding in building construction. L. M. Dalcher. il diags Welding J 25:829-32 S '46
Controlling distortion; navy welding engineers join sections of steel floating dry docks. W. F. Dawson. il Steel 119:100-1+ S 2 '46
First all-welded steel gas storage holder in Massachusetts. R. C. Bauer and W. R. Stevens. il Am Gas Assn Mo 28:39-41 Ja '46; Same. Am Gas J 164:31-4 Ja '46; Same. Gas Age 97:29-31+ F 7 '46
Inspection of welded construction; Bureau of yards and docks of the Navy dept. A. E. Poole. Welding J 25:341 Ap '46
Large gas holders at Long Beach feature all-welded construction. H. O. Hill. il Welding J 25:745-6 Ag '46
Site welding of farm units deemed practical. Iron Age 157:147-8 F 14 '46
Some problems of welding design and fabrication of steel floating drydocks. A. Amirikian. il diags Welding J 25:929-35 O '46
Steel erection method; locating and holding structural steel parts to be field welded. il Steel 118.107+ Je 10 '46
Steel house construction. A. Fetz. diags Welding J 25:733-7 Ag '46
Strain gages used to analyze stresses in welded trusses. il Product Eng 17:136 O '46
Temperature strains in structural members. T. Baldwin and J. O. Cowburn. diag Engineering 162:265-7 S 20 '46
Wartime advances in welding. il diags Arch Rec 100:111-15 Jl '46
Welded frame for a 16-story building; hospital at Hartford, Conn. A. E. Poole and L. F. Booth. il diags Eng N 137:577-9 O 31 '46
Welded pier leg, shear leg and trolley of a 15-ton ore bridge. G. F. Wolfe. il diag Welding J 25:921-7 O '46

STEEL construction, American institute of. See American institute of steel construction

STEEL construction, Subaqueous
Loading with water to design capacity forces steel cylinders below driven depth; wharf built on San Francisco Bay plant of Bethlehem steel co., shipbuilding division. il diag Eng N 136:974-7 Je 27 '46
Piers and wharves on steel cylinders. E. H. Harlow. il Eng N 137:33-5 Jl 11 '46

STEEL containers. See Containers, Steel

STEEL cutting
Check chart for turning stainless steels; for tapping stainless steels; reference book sheet. Am Mach 90:145, 147 O 10 '46
Cutter life as affected by the mounting of cemented carbide blanks. F. W. Lucht. il diags Steel 119:80-3+ Jl 22 '46
Effect of work position in face milling of steel with carbide cutters. F. W. Lucht. il diags Iron Age 156:72-6 D 6; 64-8 D 13 '45; pt 1 rev 157:64-8 Ja 24 '46; Same. A S M E Trans 68:151-60 F '46
Flame cutting stainless steel. G. E. Bellew. il Iron Age 158:42-5 Jl 11 '46
Flame-gouging of steel castings. A. E. Blake, jr. il Materials & Methods 22:1428-31 N '45
Friction sawing; abstract. J. M. Lewis. Materials & Methods 24:706+ S '46
Fundamental data on oxyacetylene cutting technique (cont). G. V. Slottman. il diags Am Mach 89:122-5 N 22; 102-4 D 6; 110-12 D 20 '45; 90:94-6 Ja 3; 110-13 Ja 31; 134-5 F 14 '46
High-speed friction sawing. H. J. Chamberland. il Steel 118:96-7+ Mr 25 '46
How to work stainless steel. H. L. Flynn. diags Am Mach 90:107-10 F 28 '46
Hydropress blanks boiler plate; Caterpillar tractor co. W. J. Kamp. il diags Am Mach 90:99-101 Mr 14 '46

STEEL cutting—*Continued*
Machinability; American investigations into an important production factor. Automobile Eng 35:553 D '45
Machinability and structure of ferrous materials. C. Sykes. diag Engineering 161:573 Je 14 '46
Machinability of sulphurized steels. H. M. Clarke. Steel 117:116+ D 17 '45
Machinability of two NE steels. R. C. Gibbons. il Steel 119:106+ S 23 '46
Machinability testing apparatus and tests. D. G. W. Curry. il Engineering 161:597-8 Je 21 '46
Machining stainless-steel valves. A. P. Nelson. il Mach 52:148-53 Jl '46
Machining stainless steels. E. Von Hambach. diags Steel 119.62-7 S 30; 116-18+ O 7; 112-13+ O 14 '46
Machining troubles decline when the metallurgist sits in. N. E. Woldman and R. C. Gibbons. il Am Mach 90:104-8 N 7 '46
Mechanism of tool vibration in the cutting of steel. R. N. Arnold. il diags Engineer 180:355-6, 379-80 N 2-9 '45; Discussion. 180: 350-2 N 2 '45
Metallurgical aspects of machinability. F. J. Robbins. il Iron Age 157:42-7 Mr 21; 47-51 Mr 28 '46
Negative rake turning with carbide tools; machining of steel forgings. C. Edgar. diags Steel 117:132+ D 3 '45
Some recent Canadian contributions to oxygen cutting. R. A. Dunn. il Welding J 25: 946-52 O '46
Stack cutting plates with multiple torch setup. M. Keaveny. il Steel 118:126+ Mr 25 '46
Stainless steels; modern machining practice. Automobile Eng 36:124-6 Mr '46
Steel warehouse and flame cutting. L. J. Quetsch. il Welding J 25:24-5 Ja '46
Stress relief of weldments for machining stability. J. R. Stitt. il diags Ohio State Univ Eng Exp Sta Bul 121:1-47 '44; 123: 1-23 '45 (pa ea 50c); Same. Welding J 24: sup331-49 Je '45; 25:sup30-9 Ja '46
Tool wear as a measure of machinability. C. Eatough. il diag Engineering 161:622-3 Je 28 '46
Top surface speeds on tough alloys with negative-rake carbide tools. W. L. Sandham. il diags Am Mach 90:87-9 Jl 4 '46; 112-16 Jl 18 '46

STEEL drums. See Containers, Steel

STEEL floors. See Floors, Steel

STEEL forgings
Bethlehem axle plant modernized. R. E. Penrod. il Iron Age 158:60-3 O 10 '46
Drop forgings for gas turbine application. C. I. Schweizer. il Materials & Methods 24:642-5 S '46
Fatigue strength of steel forgings. C. Lipson and G. Noll. il Product Eng 17:130-1 S '46
Forging high-alloy rounds with V-type dies. E. Ghrist. il diags Iron Age 158:44-9 Ag 1 '46
Forging practice in wartime Germany. C. W. Heppenstall, jr. il Iron Age 158:55-7 Ag 1 '46
Impact forging improves steel's physical properties. R. E. W. Harrison. Am Mach 90:138-40 Ap 11 '46
Marshall shops make nickel-steel driving rods. il Ry Mech Eng 120:358-62 Jl '46
Precision atmosphere forging; A. O. Smith corp. E. G. de Coriolis. il Steel 118:90-4 Ap 8 '46
Time-temperature relations in tempering mechanical and forging steels; data sheet. J. H. Hollomon and L. D. Jaffe. Metal Prog 49:96, 96B Ja '46
Upsetting cylinder barrels; Tube turns. G. W. Birdsall. il diag Steel 117:52-6 D 31 '45
Upsetting tubular members simplified by special grippers. L. R. Pistoles. il diags Iron Age 158:42-8 Ag 15 '46

Testing
Hardenability test for quenched and tempered steel. E. J. Wellauer. bibliog diag Iron Age 158:62-6 S 5 '46
Testing cylindrical forgings. J. E. Petermann. il diag Steel 119:96-8+ S 16 '46

STEEL founders' society of America
Fall meeting, Atlantic City. Steel 117:89 D 3 '45
Technical and operating conference, Columbus, June 13-15. Foundry 74:136+ Ag '46

STEEL handling
Handling bar stock. B. Melnitsky. il Steel 119:108+ Ag 26 '46
Handling 23,000-pound coils; Jones & Laughlin steel corp. il Steel 118:128-30 Je 24 '46
Roll out the bar stock; handling tool-steel bar stock in toolroom stores. J. W. Ingraham. il plan diags Am Mach 90:86-7 Ja 31 '46
Sheet steel handling simplified; Baker industrial truck for loading and unloading steel. il Iron Age 157:57 My 2 '46

STEEL houses
British set drive for steel house. Iron Age 157:76 My 30 '46
Denver building code blocks this economical answer to veterans' housing need. il plans Arch Forum 84:9 Ap '46
Guaranteed-market contract placed for 10,000 steel houses. Steel 119:76 O 21 '46
Higgins sees a land of porcelain enamel steel houses. C. T. Post. Iron Age 157.110-11 Mr 7 '46
Houses built to last a century; Thermo-Namel system of construction. Barron's 26: 5 N 11 '46
Independent steel roof system shelters space enclosed by unit panels. il plans diags Arch Forum 84:96 My '46
Porcelain-enameled steel houses to be Higgins' chief postwar project. il Steel 118: 119 Mr 4 '46
Steel house construction. A. Fetz. diags Welding J 25:733-7 Ag '46

STEEL industry and trade
Exporters see no improvement in new accelerated licensing plan. G. F. Sullivan. Iron Age 158:88-9 O 3 '46
Foreign funds for purchase of American steel seen unlimited. J. Anthony. il Iron Age 158: 95-6 Jl 11 '46
How to spot and train apprentice salesmen for management jobs; Carnegie-Illinois Steel's program. R. Righter. il. Sales Management 57:120+ O 1 '46
Placing of orders for steel on mills and warehouses; abstract. C. A. Livesey. Iron Age 157:94-6 My 30 '46
Study prognosticates declining demand for American steel in Europe. Iron Age 157: 164 Ap 4 '46
World production; many nations have plans to compete in postwar markets. il Iron Age 157:156-9 Ja 3 '46
World steel hungry. B. K. Price. il Steel 118: 225-7 Ja 7 '46

See also
Iron industry and trade
Rolling mills
Sheet steel
Steel—Prices
Steel workers
Steel works

also American institute of steel construction

Advertising
Top-budget mystery show continues U.S. Steel's public relations program. V. J. Dallaire. Ptr Ink 215:36 Je 21 '46
U.S. Steel shows how to merchandise technical literature. M. L. Nelson and H. J. Anderson. il Ind Marketing 31:38-9 Jl '46

Coal properties
H. C. Frick opens Robena mine to supplement its coking coal reserves. Iron Age 158:98 S 19 '46

Finance
High production raises steel income; third quarter net earnings of 21 producers. Steel 119:109 N 11 '46
Net earnings of steel industry in 1945 continued downtrend; financial analysis of 26 companies. Steel 118:130, insert My 6 '46
Silver lining in the steel strike cloud; once wage, price problems are settled, big sales and good profits are likely. B. W. Corrado. Barron's 25:3+ D 17 '45
Steel earnings drop in first half. Steel 119: 96 Ag 5 '46

STEEL industry and trade—Finance—*Cont.*
Steel earnings reports support producers' position on wages. Steel 118:94-5 F 4 '46
Steel industry's earnings decline; first quarter of 1946. Steel 118:84 My 20 '46
Tax cushions vs 18-18½¢ wage increases; the steel industry. H. L. Blackburn. Mag of Wall St 77:568-9+ F 16 '46

Securities

Looking ahead with the steels; with financial analysis of leading producers. G. W. Mathis. il Mag of Wall St 78:571-3+ Ag 17 '46
Realistic survey of the steels; with position of leading stocks. J. C. Clifford. Mag of Wall St 77:641-3+ Mr 2 '46

Statistics

Alloy steel production down but still better than prewar rate; statistics, 1939-1946. Iron Age 158:104 S 5 '46
Annual steel capacity by districts, 1936, 1938, 1945; tabulation. Iron Age 156:117 D 13 '45
Decline of steel shipments in 1945 reflects letdown following war. Steel 118:62 F 25 '46
First half steel output drops 15,778,368 tons below output in like period of 1945. Steel 119:75 Jl 15 '46
Industry strives for peacetime footing; with charts, tables, etc. Steel 118:254-61 Ja 7 '46
Iron and steel exports maintained high yearly average in war years. Steel 119:48 Jl 29 '46
New data are included in Steel Institute's statistical report. Steel 117:102-3 N 12 '45
Production of open hearth, Bessemer and electric steel ingots and steel for castings, 1944-1945; tabulation. Iron Age 157:103 Ja 17 '46
Production of sheet and strip steel since 1939; tonnage distributed through warehouses; chart. Steel 118:50 Ap 22 '46
Regional warehouse statistics made available by CPA comprehensive report. map Iron Age 157:112-14 My 2 '46
Steel in 1946. T. Campbell. Iron Age 157:76-81 Ja 3 '46
Steel industry statistics; comp. by the American iron and steel institute. Steel 117:insert S 1-16 D 17 '45
Steel volume handled by co-ops seen growing despite quota limitations. C. T. Post. il Iron Age 157:120A Ap 4 '46
Summary of production of iron and steel products, 1941-1945; tabulation. Iron Age 158:106 S 5 '46
Wartime steel records revised; show mid-1945 trade status; cost and production tables. Iron Age 157:110-11 Ja 10 '46

See also
Steel ingots—Statistics

Australia

Australia pushes expansion of its steel industry. map Bsns W p114 D 1 '45

Belgium

Belgian steel export drive aided by rapid deliveries. J. R. Hight. Iron Age 157:99-101 Je 27 '46
Iron and steel production of Belgium, 1940-44. For Comm W 21:33 N 24 '45

Canada

Canada's 1945 steel output declines from peak levels in 1944. Iron Age 157:143 F 21 '46
Canada's steel capacity grows but production declines; production 1923-1945. Iron Age 156:114 D 13 '45
Canadian steel mill expansions foretell reduced imports. F. Sanderson. Iron Age 157:97-8 Ap 11 '46
Canadian steel shortage might force establishment of priorities. Iron Age 157:170+ My 2 '46
Dollar parity seen as slight boon to Canadian steel purchasers. Iron Age 158:101 Jl 25 '46
Steel industry statistics; Canadian steel capacity; comp. by the American iron and steel institute. Steel 117:insert S 15-16 D 17 '45
U.S. steel strike felt in Canada. Bsns W p104-5 F 2 '46

China

China as steel outlet. W. L. Montgomery. Steel 118:70 Ap 22 '46
Random notes on Chinese steel industry. J. K. Stafford. il Metal Prog 50:470-3 S '46
Rebirth of Chinese steel production. Min & Met 27:513 O '46

Europe

Europe turns left; trend toward nationalization of key industries; iron and steel production expected to rise throughout 1946. V. Delport. il Steel 118:344-5+ Ja 7 '46
Foreign reconstruction. J. R. Hight. il Iron Age 157:160-3+ Ja 3 '46

France

French communists seek nationalization of steel industry. J. R. Hight. Iron Age 158:120-1 O 10 '46
French iron and steel industry staging slow recovery. J. R. Hight. Iron Age 157:86+ Ja 17 '46
French steel expansion program hinges on increased coal production. Iron Age 157:126 My 9 '46
French steel; recovery hopes and plans. Fortune 34:251 O '46
Fuel shortage limits French output. L. Jaudoin. il Steel 118:348-9+ Ja 7 '46
Trade association acquires control of French steel industry. il Iron Age 158:116 O 10 '46

Germany

Allied control commission sets maximum German steel output. Steel 118:77 Ja 21 '46
Britain would increase German steelmaking capacity. J. R. Hight. Iron Age 157:108+ Ap 25 '46
British debate Ruhr steel nationalization; now running at loss. Iron Age 158:149-53 S 5 '46
FEA estimates post-war German steel consumption at 5 million tons annually. L. W. Moffett. Iron Age 157:82+ Ja 10 '46
General review of German metallurgical practices. J. H. Frye. il Metal Prog 49:76-86 Ja '46
German stainless steels. A. L. Feild. Iron Age 156:60-7 D 20 '45
German steel casting industry. C. W. Briggs. il map diags Foundry 74:90-5+ Ap '46; Same cond. Steel 118.94-6+ Ap 15 '46
German steel castings industry. C. W. Briggs and M. T. Ganzauge. U S Bur Mines Information Circ 7362:1-105 '46
German toolsteel and special steel industry. J. P. Gill. Metal Prog 49:122-4 Ja '46
German tool steels; report on war-time manufacturing practice. Chem Age (Lond) 53:518 D 1 '45
Saar coal mines under French management average 24,000 tons daily; steel industry. Iron Age 158:146 S 5 '46
Shows Allied bombings of Germany's steel plants not decisive. Iron Age 156:148+ N 22 '45

Great Britain

Britain faces big task. J. A. Horton. il Steel 118:346-7+ Ja 7 '46
Britain's battle of steel. P. Einzig. Comm & Fin Chr 164:1453+ S 19 '46
Britain's steel production; war-time statistics. Chem Age (Lond) 53:410 N 3 '45
British government plans to name permanent control board. J. R. Hight. Iron Age 158:102-3 Ag 29 '46
British iron and steel. J. A. Horton. il Steel 118:78-9 Ap 15 '46
British steel nationalization believed unlikely before 1948. J. A. Horton. il Steel 119:56-7 Ag 26 '46
British steel nationalization certain of labor support. Iron Age 157:110-12 My 23 '46
British steel nationalization debate. J. R. Hight. Iron Age 157:82+ Je 13 '46
British steel prices increased to compensate for higher costs. Steel 118:70 Ja 14 '46
British steel war production suffered lack of rich foreign ores. Iron Age 156:116 N 22 '45
Change in distribution of British ore output. J. R. Hight. Iron Age 157:108-10 Mr 21 '46

STEEL industry and trade—Great Britain —*Continued*
Churchill takes lead in opposing nationalization of the British steel industry. J. R. Hight. il Iron Age 157:88, 90, 101-2 Ap 25 '46
Coming nationalization of British steel industry a test case. C. R. Raphael. Comm & Fin Chr 164:605+ Ag 1 '46
Exporting coal and steel. Economist 150:461-2 Mr 23 '46
Government to acquire majority shares in British steel firms. Steel 119:91 O 7 '46
Industry nationalization in Britain. O. R. Hobson Comm & Fin Chr 164:210 Jl 11 '46
John Summers and sons, limited; statement by the chairman. R. F. Summers. Economist 150:944 Je 8 '46
Nationalisation of iron and steel; extracts from debate in House of Commons. Engineer 181:495-7 My 31 '46
1945 British steel exports high. Iron Age 157:118 Ja 31 '46
Plan for steel. Economist 150:759-60, 847-8, 889-90 My 11, 25-Je 1 '46
Politics and steel in Britain. P. Einzig. Comm & Fin Chr 163:2218+ Ap 25 '46
Progress in British steel. E. N. Simons. Steel 118:90 F 11 '46
Reconstruction of the iron and steel industry. Engineer 181:434-6, 452-3 My 10-17 '46
Second thoughts on steel. Economist 151: 281-2 Ag 24 '46
Steel decision; large measure of public ownership. Economist 150:658-9 Ap 27 '46
Steel faces nationalization. Bsns W p97-8 Je 15 '46
Steel in war; British iron and steel federation statistics. Economist 149:646-8 N 3 '45
Steel nationalisation. Economist 150:499 Mr 30 '46
Steel policy. Economist 150:547-8 Ap 6 '46
Steel prices. Economist 150:25 Ja 5 '46
Steel supplies and exports. Engineer 182:345 O 18 '46
Whitehead iron and steel company, limited; statement by the chairman at annual meeting. G. H. Latham. Economist 151:151 Jl 27 '46

India

Development of alloy and tool steel manufacture in India during World war II. P. H. Kutor. Blast F & Steel Pl 34:741-5+ Je '46
India's iron and steel foreign trade declines during wartime period. Iron Age 156:160 D 6 '45

Italy

Needs of Italian steel industry include greater integration. il map Iron Age 158:121A-121F O 10 '46

Japan

Japan produced 9,656,000 tons of steel in peak year. Blast F & Steel Pl 34 867 Jl '46; Same Iron Age 157:160-1 My 9 '46
Rise and fall of Japanese industrial empire. E. Brewin. map Iron Age 158:114-25 O 17 '46

Norway

Norway planning own integrated mill with 200,000-ton capacity; statistics. Iron Age 158:147-8 S 5 '46
Norway plans steel mill to halve imports. map Bsns W p114 Ag 24 '46

Ohio

Mahoning valley strives to hold its steel-making position. G. R. Reiss. il Steel 117: 102-4 D 10 '45

Pittsburgh

Pittsburgh seen losing position of world's steel center. T. E. Lloyd. Iron Age 157:92-5 My 16 '46

Rhodesia

Discusses possibilities of southern Rhodesia as a steel producer. W. B. Dawson. Iron Age 158:140-5 S 19 '46

Russia

British labor views the USSR steel industry. il Iron Age 158:71A-71B, 72-6 S 12 '46
Ferrous metallurgy in Russia; recent work on cast iron and alloy steels. W. G. Cass. Chem Age (Lond) 55:407-10 O 5 '46
Modern Russian steel production methods; abstract. E. Roberts. Iron Age 156:171 D 13 '45
Plan of Soviet steel industry calls for ore, fuel treatments. Iron Age 157:132-4 Ja 17 '46
Russia emerges from war as world's no. 2 producer. il Steel 118:68-9 Ja 21 '46
Soviet steel industry shifted eastward during the war; abstract. P. Korobov. Iron Age 156:107+ N 29 '45

Scotland

Scottish industry worried about over-rationalization. J. R. Hight. Iron Age 158:82+ Jl 11 '46

Siberia

Kuznetsk pig iron and steel wartime production increase reported. Iron Age 156:100-1 D 20 '45

Sweden

Coal replaced wood in making Swedish steel during World war II. M. Tigerschiold. Iron Age 157:157-60 Je 20 '46
Sweden develops specialized steels for foreign markets. H. G. Tonndorf il Iron Age 157: 125+ Je 6 '46

Switzerland

Swiss steel firms starve for coal; send men to Belgium. Iron Age 157:156 Je 27 '46

Texas

More Texas steel. Bsns W p46+ Ja 26 '46

United States

Adequacy of United States steel capacity. C. Williams. Barron's 26:9+ S 23 '46
Domestic market summary. G. H. Manlove. il Steel 118:350-1+ Ja 7 '46
Hard-to-get steel; when will there be enough? Bsns W p71-8 S 28 '46
In the outlook; steel operations. Bsns W p20 Mr 16 '46
Large, healthy steel industry seen needed for national security. il Steel 118:73-5 F 18 '46
New pattern for steel. Bsns W p15-16 Je 8 '46
New record set by warehouses. Steel 118:54-5 Ja 14 '46
President names steel fact-finding board; urges OPA to act on prices. Steel 118:418-19 Ja 7 '46
Report of U.S. Tariff commission on iron and steel. Iron Age 157:96+ Ap 4 '46
Reports quarter of population lives in iron and steel towns. Iron Age 157:141 My 16 '46
Rise in productivity seen as key to build healthy economic life; abstract. C. F. Hood. Iron Age 157:136+ Mr 7 '46
Sheet bar subsidy. Bsns W p18 Je 15 '46
Silver lining in the steel strike cloud; once wage, price problems are settled, big sales and good profits are likely. B. W. Corrado. Barron's 25:3+ D 17 '45
Small producers fear discrimination in deliveries; hearing before Senate small business committee. Iron Age 157:114-15 F 14 '46
State vs. customers; present steel situation. E. M. Voorhees. Comm & Fin Chr 163: 2914+ My 30 '46
Status of the steel industry at the close of 1945. W. S. Tower. Blast F & Steel Pl 34:67-8 Ja '46
Steel export tonnage was nearly 36 million for 5-yr war period. Iron Age 157:148 Je 27 '46
Steel in 1946. T. Campbell. Iron Age 157:76-81 Ja 3 '46
Steel in the war. D. A. Fisher. 164p United States steel corporation, 71 Broadway, New York 6 '46
Steel industry facing enforced export allocations. T. Campbell. Iron Age 156:107-8 D 13 '45
Steel industry strong factor in reconversion. W. S. Tower. Comm & Fin Chr 163:49+ Ja 3 '46
Steel industry's 1945 net declines. Steel 118: 94 Mr 4 '46
Steel seen holding its position. E. C. Kreutzberg. Steel 119:55-6 Ag 12 '46

STEEL industry and trade—United States— *Continued*
Steel strategy? eastern efforts to obtain lower rates to the Coast believed inspired by West's hopes for own industry. Bsns W p22+ D 8 '45
Tax cushions vs 18-18½¢ wage increases; the steel industry. H. L. Blackburn. Mag of Wall St 77:568-9+ F 16 '46
Warehouses received 16 pct of finished steel output in 1945; abstract. W. S. Doxsey. Iron Age 157:177-80 F 7 '46
What the public thinks; public opinion on industrial and related topics presented in graphic form. Iron Age 157:92-8 Ja 3 '46
See also
Geneva steel company — United States steel corporation

STEEL ingots
Analytical survey of a rimming-steel ingot; abstract. J. S. Vaichagandhy and G. P. Contractor. Iron Age 156:70 N 15 '45
Manufacture of steel products from billet-size ingots. R. W. Scholl. il Steel 118:88-9+ Ja 21 '46
Nailing tags on steel ingots. W. J. Long. Materials & Methods 24:423 Ag '46
Practical interpretation of theoretical steel making for the benefit of management and operator; pouring and solidification. C. F. Christopher. diags Blast F & Steel Pl 34: 715-20, 990-4, 1123-8 Je, Ag-S '46
Soaking pit operation. D. M. McGeary and R. D. Hindson. il diags Blast F & Steel Pl 34:861-5, 986-9 Jl-Ag '46
Some statistical studies of surface quality controls; semi-finished killed steel. H. J. Forsyth. il Blast F & Steel Pl 34:469-74+ Ap '46
Variable heat flow in steel. R. Jackson and others. diags Iron & Steel Inst J 150:211-67, pl 23-4 bibliog(p267); Discussion. 267-8 no 2 '44

Molds
How to cast ingot molds. P. Dwyer. diags Foundry 74:158+ F '46; Same. Steel 118: 126-8 Mr 18 '46
Making cast iron ingot molds; Bethlehem steel co. P. Dwyer. il Foundry 74:84-6+ Ap '46
Mechanized mold preparation; special lifting rig. A. W. Thornton. il Metal Prog 50:89-90 Jl '46
Mold coatings. C. R. Funk. il diag Blast F & Steel Pl 34:1251-6 O '46
Practical interpretation of theoretical steel making for the benefit of management and operator; solidification and mold design. C. F. Christopher. diags Blast F & Steel Pl 34:1123-8 S '46

Statistics
Steel industry statistics; comp. by the American iron and steel institute. Steel 117:insert S 6-9 D 17 '45
Steel ingot capacity by districts, 1936, 1938, 1945; tabulation. S. H. Barmasel. Iron Age 156:116 D 13 '45
Steel ingot production and operating rates, monthly, 1929, 1939-1945; tabulation. Steel 118:353 Ja 7 '46
Steel ingot production, monthly, 1920-1945; tabulations. Iron Age 157:171, 224 Ja 3 '46
World production of steel ingots and castings, by countries, 1929-1945; tabulation. Steel 118:346 Ja 7 '46

Testing
Examination of two ingots of free-cutting steel, one containing lead and the other lead-free. C. S. Graham. diag Iron & Steel Inst J 151:273-5, pl 29-30; Discussion. 294-9 no 1 '45

STEEL joists. See Joists, Steel

STEEL lining
Plant welder does good job lining flash chamber with stainless steel. il Pet Refiner 25: 154+ Je '46

STEEL mergers
Eaton returns to steel; starts new venture with Kaiser and Frazer. Bsns W p19-20 Je 15 '46
Steel guidepost; Sharon's purchase of Farrell works. Bsns W p32 N 24 '45

STEEL metallurgy
Basic-lined cupola; report presented at annual meeting of Institute of British foundrymen. Engineering 162:19-20 Jl 5 '46
Chemical engineering concept in steel industry. R. E. Zimmerman. il Chem & Met Eng 53:131-3 My '46
Coal replaced wood in making Swedish steel during World war II. M. Tigerschiold. Iron Age 157:157-60 Je 20 '46
Constitution of basic steel furnace slags. J. R. Rait and H. J. Goldschmidt. diags Iron & Steel Inst J 151:391-458 bibliog(62 titles, p456-8) pl 46-9; Discussion. 550-7 no 1 '45
Development of alloy and tool steel manufacture in India during World war II. P. H. Kutor. Blast F & Steel Pl 34:741-5+ Je '46
Developments in the design and use of side-blown converter plants. P. C. Fassotte. Iron & Steel Inst J 150:339-48, pl 27; Discussion. 349-58 no 2 '44; Same cond. Engineering 158:104-6 Ag 11 '44
Effect of sulphur on quality of sulphite treated steels. G. D. Boyer. il Steel 119: 96-7+ Jl 8 '46
Effects of grain growth inhibitors in fine grained steels. J. W. Halley. Steel 119:98-9+ S 2 '46
Electrolytic manganese in acid-steel tests at Atlas steel casting co. and the Detroit steel casting co. R. T. C. Rasmussen. U S Bur Mines Rep of Invest 3830:1-20 '45
Electrolytic manganese in low-carbon steel; tests at the Stanley works, Bridgeport, Conn. F. Sillers, jr. and R. T. C. Rasmussen. U S Bur Mines Rep of Invest 3911:1-18 '46
Electrolytic manganese vs. ferromanganese addition agents. R. T. C. Rasmussen and F. Sillers, jr. Iron Age 156:80+ D 6 '45
Ferrous production metallurgy; review of 1945. H. K. Work and H. B. Emerick. il Min & Met 27:86-8 F '46
General review of German metallurgical practices. J. H. Frye. il Metal Prog 49:76-86 Ja '46
German steel casting industry. C. W. Briggs. il map diags Foundry 74:90-5+ Ap '46; Same cond. Steel 118:94-6+ Ap 15 '46
German steel castings industry. C. W. Briggs and M. T. Ganzauge. U S Bur Mines Information Circ 7362:1-105 '46
German steel industry. T. W. Lippert. il Iron Age 156:56-8 D 20 '45
German toolsteel and special steel industry. J. P. Gill. Metal Prog 49:122-4 Ja '46
Influence of melting conditions on the physical properties of steel castings. H. T. Protheroe. diags Iron & Steel Inst J 150: 157-79, pl 18-22; Discussion. 180-2 no 2 '44; Same cond. Engineering 158:358-60, 399-400 N 3, 17 '44
Ladle reactions in rimmed steel. F. G. Norris and E. B. Hughes. Iron Age 157:72-6 Je 6 '46
Manufacture of steel for basic rope wire; abstract. R. D. Hindson. Steel 119:240+ N '46
Melting and casting. E. F. Cone. il Materials & Methods 23:110-12 Ja '46
Metallurgical aspects of machinability. F. J. Robbins. il Iron Age 157:42-7 Mr 21; 47-51 Mr 28 '46
Origin and constitution of certain non-metallic inclusions in steel. J. R. Rait and H. W. Pinder. il Engineering 162:141-4, 165-7 Ag 9-16 '46; Abstract. Metal Prog 50:710+ O '46
Raw materials for steel making. Steel 119: 124-5 S 23 '46
Smelting low-grade ores by the Krupp-Renn process. diags Iron Age 157:70-5 My 9 '46
Spectrograph technique on the charging floor. J. T. Rozsa. bibliog il plan Iron Age 157:42-6 Mr 28 '46
Speculations on future steelmaking. Steel 119:94+ Jl 29 '46
Stainless steel scrap. L. F. Weitzenkorn. il Blast F & Steel Pl 33:1511-12+ D '45
Steelmakers test usefulness of electrolytic manganese. R. T. C. Rasmussen and F. Sillers, jr. Steel 117:138+ N 19 '45
Steelmaking practice. Steel 119:128-9 S 23 '46

STEEL metallurgy—*Continued*
Technical sessions, Iron and steel division; A.I.M.E. annual meeting. Min & Met 27: 229 Ap '46
Wartime advances in steel technology. J Chem Educ 23:470-3 O '46
What technical men expect in 1946; iron and steel production. Steel 118:326-8+ Ja 7 '46
What technical men expect in 1946; metallurgy. Steel 118:264-8+ Ja 7 '46
Why tool steels do not act alike; compilation of metallurgical facts. S. C. Spalding. Am Mach 90:107-12 Mr 14 '46

See also
Bessemer process
Case hardening
Furnaces, Steel making
Iron metallurgy
Open hearth process
Steel—Decarburization
Steel—Metallography
Steel, Hardening of
Steel, Heat treatment of
Steel alloys
Steel castings
Steel ingots
Steel works

Bibliography

Metallurgical research program of the Bureau of mines relating to iron and steel. R. S. Dean. U S Bur Mines Rep of Invest 3920: 1-17 '46

Duplex process

Advantages of the duplexing process; abstract. N. F. Duffy. Iron Age 158:70 O 17 '46

Electrometallurgy

Constitution of basic steel furnace slags. J. R. Rait and H. J. Goldschmidt. Iron & Steel Inst J 151:417-33 no 1 '45
Electric furnace steel committee, Iron and steel division, A.I.M.E., 3d annual conference, Cleveland, Dec. 4-5. Steel 117:112+ D 17 '45; Iron Age 156:75-8 D 13 '45; Foundry 74:150+ Ja '46
Electric steel making in the arc furnace. C. Wissmann. Electrochem Soc Trans 88 (preprint 12):135-41 '45
Electrical steel research laboratory; Joseph Sankey and sons. Engineer 182:377 O 25 '46
Final additions to an acid electric heat. C. C. Wissmann. Metal Prog 48:1296-9 D '45
First electronic frequency converting equipment installed for melting alloy steels. Blast F & Steel Pl 34:1300 O '46; Same cond. il Iron Age 158:57 N 7 '46
Making of electric furnace alloy steels. W. J. Reagan. il diags Blast F & Steel Pl 34:236-40, 345-9+ F-Mr '46
Melting rimmed steel in the electric arc furnace. E. S. Kopecki. il Iron Age 158: 62-5 S 26 '46
Quality control in the production of basic electric furnace aircraft and bearing steels. W. J. Reagan. Blast F & Steel Pl 34:995-1001 Ag '46
Seamless tube piercing and steel for the process; abstract. N. Hamilton. Blast F & Steel Pl 33:1428 N '45
Slags in acid electric steelmaking. C. C. Wissmann. il diags Metal Prog 49:735-8 Ap '46

See also
Electric furnaces, Steel making

Study and teaching

Training of metallurgical engineers in the steel industry. F. C. Wright. Blast F & Steel Pl 34:373-5 Mr '46

STEEL pavements. See Pavements, Steel

STEEL piling. See Sheet piling

STEEL plates
Forming heavy plate with Kirksite dies; Curtiss-Wright corp. L. R. Pistoles. il Iron Age 157:74-5 Mr 14 '46
Forming heavy steel plates; abstract. Materials & Methods 22:1828 D '45
Hydropress blanks boiler plate; Caterpillar tractor co. W. J. Kamp. il diags Am Mach 90:99-101 Mr 14 '46
Poisson's ratio of some structural alloys for large strains. A. H. Stang and others. bibliog pl J Res Nat Bur Stand 37:211-21 O '46
Theory for axial rigidity of structural members having ovaloid or square perforations. M. Greenspan. bibliog diags J Res Nat Bur Stand 37:157-61 S '46

See also
Ship plates

Testing

Effect of metallurgical changes due to welding upon the fatigue strength of carbon-steel plates. W. M. Wilson and others. il Welding J 25:sup425-50 Ag '46

STEEL products warehouse association
Annual meeting, 4th, Cleveland. Steel 117: 90-1 D 10 '45

STEEL research
Aufgaben der werkstofforschung in der feinmechanischen technik. H. Lüpfert. bibliog il V D I 87:481-8 Ag 7 '43; Abstract (Metallurgical research problems in the precision parts industry). Product Eng 17:116 Ag '46
Battelle memorial institute conducts extensive research related to steel plant operations. il Blast F & Steel Pl 34:1271-6 O '46
Corrosion resistance of stainless steels; results of decarburization tests. J. M. Margolin and others. il diags Iron Age 157:50-55 My 23 '46
Dr W. H. Hatfield's services to metallurgy. G. B. Waterhouse. Engineering 161:461 My 17 '46; Abstract. Engineer 181:424-5 My 10 '46
Ferrous physical metallurgy; review of 1945. J. H. Hollomon. Min & Met 27:89-93 F '46
Science and the steel industry. C. H. Desch. Engineering 161:476, 485-6 My 17-24 '46; Excerpts. Engineer 181:432-4 My 10 '46
Variable heat flow in steel. R. Jackson and others. bibliog diags Iron & Steel Inst J 150:211-67, pl 23-4 no 2 '44; Abstract. Metal Prog 49:150+ Ja '46; Discussion. Iron & Steel Inst J 150:267-8 no 2 '44

STEEL rings. See Rings, Steel

STEEL scaffolding. See Scaffolding, Steel

STEEL stairways. See Stairways, Steel

STEEL straps
Cargo bombs used in Pacific war theater; container with special steel strapping for cargo dropped without parachute. Iron Age 156:162 N 22 '45

STEEL strikes
Accuses big business of evil conspiracy; radio address. P. Murray. Comm & Fin Chr 163: 380+ Ja 24 '46
Impact of steel strike shown in production data. Steel 118.112 My 6 '46
Steel deadlock in Canada. Bsns W p108 Jl 27 '46
Steel strike affects huge share of all U.S. industry. Bsns W p16 Ja 26 '46
Steel strike mystery. Bsns W p92 F 9 '46
U.S. steel strike felt in Canada. Bsns W p104-5 F 2 '46

STEEL tables. See Tables, Steel

STEEL tanks. See Tanks, Steel

STEEL towers. See Towers, Steel

STEEL tubes. See Tubes, Steel

STEEL using industries
Steel consuming industries; prospects for 1946. T. E. Lloyd and S. H. Brams. il Iron Age 157:110-19+ Ja 3 '46

Statistics

Classification of billings of steel products by consuming industries, year 1945; tabulation. Steel 118:66-7 Mr 25 '46
Consumption figures indicate steel has held its ground during past 20 years. J. V. Sherman. Iron Age 157:118-20 Je 6 '46

STEEL waste
Chevrolet makes parts directly from steel chips; production of bearing lock sleeves. il diags Mach 53:184-7 N '46
Demand for steel scrap creates a good market for old ships. Marine Eng 51:111-13 Ag '46
Saving steel scrap segments; Chrysler corp.'s Dodge division; illustrations with text. Steel 119:106-7 Jl 1 '46
Stainless steel scrap. L. F. Weitzenkorn. il Blast F & Steel Pl 33:1511-12+ D '45

STEEL wool
Equipment for steel wool manufacture. il diags Mach 52:165-7 My '46
Steel wool; characteristics of materials and manufacture. L. E. Browne. il Steel 118: 86-7+ F 25 '46

STEEL work
Compressed air aids automotive parts production; Midland steel products co. il Steel 118:90-1+ F 25 '46
Deep drawing and bulging of stainless steel; manufacture of dairy equipment; International harvester co. J. E. Obernesser. il diags Steel 119:96-9+ Jl 1 '46
Filler metal flow in brazed steel joints. diags Iron Age 157:60-1 Ap 11 '46
General review of German metallurgical practices. J. H. Frye. il Metal Prog 49:76-86 Ja '46
How to work stainless steel. H. L. Flynn. il diags Am Mach 90:105-24 F 28 '46
Precision production of steel aircraft gears. O. E. Brown. il Materials & Methods 23: 1303-6 My '46
Railworthy wheel-making at Armco's Butler steel plant. il Steel 119:106-8+ Jl 15 '46
Tables of rolling pressures and power requirements for rolling steel shapes (cont). F. Waldorf, comp. Blast F & Steel Pl 34: 130, insert, 250, insert, 370, insert, 482, insert, 594, insert, 746, insert, 866, insert Ja-Jl '46
Wire reels; redesigned for fabrication from alloy steel. il diag Steel 117:108 N 26 '45

See also
Steel castings
Steel cutting
Steel forgings
Steel metallurgy

STEEL workers
Allegheny Ludlum drops veteran superseniority setup in re-employment. Iron Age 157: 122 Ap 4 '46
Annual steel wage to be important labor issue in 1947. T. Campbell. Iron Age 157: 93-4 Mr 28 '46
Bethlehem Steel program promotes employees' safety and health. L. A. Shoudy. il Steel 118:80-3 F 18 '46
Divided house; feud between two unions in Howard Hughes' tool plant, Houston. Bsns W p32-3 Mr 9 '46
First meeting of the I.L.O. Iron and steel committee. Inst Labour R 53:364-71 My-Je '46
Fluoride fumes cloud Ford labor picture; strike looms. il Iron Age 158:106 N 7 '46
Food helped to win; in-plant feeding; Irvin works of Carnegie-Illinois steel corporation. il Nat Safety N 52:80-1 O '45
For wage equity; job catalog completed by Big Steel and C.I.O. union. Bsns W p106+ O 5 '46
Individualism pays; unorthodox steel company and equally unusual union keep mills running. Bsns W p37-8 Je 22 '46
Jobs cataloged in basic steel. Bsns W p102 My 18 '46
President names steel fact-finding board; urges OPA to act on prices. Steel 118:418-19 Ja 7 '46
Republic Steel talks to workers about their company, their jobs, their future. C. W. Ruth. Sales Management 57:44-6 Ag 15 '46
Rigidity of payrolls held threat to continuation of free enterprise. D. R. G. Cowan. Steel 119:122-3 N 11 '46
Steel earnings reports support producers' position on wages. Steel 118:94-5 F 4 '46
Steel labor briefs; background of dispute. Iron Age 157:99 Ja 17 '46
Steel wage impasse; radio address by B. F. Fairless; letter by P. Murray to Secretary Schwellenbach. Comm & Fin Chr 162:2497+ N 22 '45
U.S. Steel and USWA agree on basic policy on plant standard rates. Iron Age 158:86 O 3 '46
U.S. Steel, union reach agreement on elimination of wage inequities. Steel 119:81 O 7 '46
Wage structure of the fabricated structural-steel industry, January 1945 J. W. Bloch and E. Bunn. Mo Labor R 62:621-30 Ap '46
What the public thinks; labor relations in steel companies; chart. Iron Age 157:98 Ja 3 '46
World's steelworkers aim toward guaranteed employment, wages; first meeting of Iron and steel committee of International labor organization, Cleveland, April 23-29. Steel 118:105-6+ My 6 '46

See also
Steel strikes
United steelworkers of America

Canada
Union status in collective agreements in the iron and steel industry, Canada, 1945. Mo Labor R 62:424 Mr '46

STEEL works
Sharon steel corp. purchases Farrell steelworks. il Steel 117:90+ N 19 '45; Iron Age 156:108-9 N 15 '45
Small steel mill ownership changing. Steel 119:110-11+ N 11 '46
U.S. Steel takes title to Geneva steel plant, steps up operations. Steel 119:89 Jl 1 '46

See also
Blast furnaces
Foundries
Iron works
Rolling mills
Steel metallurgy
Steel workers

Costs
Dead banking of blast furnaces; with cost data. L. E. Riddle. il Blast F & Steel Pl 34:733-40 Je '46
Fuel cost economy at the blast furnace and its relation to coal selection and preparation. W. M. Bertholf. Blast F & Steel Pl 34:727-32+ Je '46; Same. Steel 119:122-4+ Jl 15 '46
Postwar Fontana operation depends on lower cost. J. Anthony. Iron Age 156:102-4 N 29 '45

Electric equipment
Allis-Chalmers reviews developments in 1945. Blast F & Steel Pl 34:sup68+ Ap '46
Hot and cold strip rolling; John Summers & sons. il Elec R (Lond) 139:167-71, 439-43, 599-602 Ag 2, S 20, O 18 '46
Iron and steel manufacture; recent electrical progress. L. Sanderson. Elec R (Lond) 137: 661-2 N 9 '45
Modern ore-bridge installation. G. W. Heumann and W. C. Raube. il diags Gen Elec R 48:7-12 D '45
Orderly storage of spare parts cuts production delays; Edgewater Steel's electric shop. A. W. McAuly. il Factory Management 104: 142-5 My '46
Steel slab production; electrical applications. il Elec R (Lond) 139:167-71 Ag 2 '46

Employees
See Steel workers

Equipment
Carbon products in steel plants; abstract. F. Vosburgh. Materials & Methods 24:704 S '46
Emergency handling of steel plant water service. G. E. Stedman. il Steel 119:122-4 Jl 8 '46
Labor saving devices in the open hearth shop; slag and flue dust removal. B. D. McCarthy. il Steel 118:122+ Ap 8 '46
Openhearth bottom repairs; mechanical device, extracting liquid metal from cavities preparatory to patching. J. B. McIntyre. diags Iron Age 157:62-4 My 23 '46
Pipemaker starts large improvement program; National tube co. J. D. Knox. il Steel 119:132-4+ Ag 19 '46
Soaking pit operation. D. M. McGeary and R. D. Hindson. il Blast F & Steel Pl 34: 721-6, 861-5, 986-9 Je-Ag '46
Steel plant is serviced by modern water works; mills of Kaiser co, Fontana. G. E. Stedman. il Steel 118:116-18+ F 25 '46
Welded pier leg, shear leg and trolley of a 15-ton ore bridge. G. F. Wolfe. il diag Welding J 25:921-7 O '46

Fuel
Coal replaced wood in making Swedish steel during World war II. M. Tigerschiold. Iron Age 157:157-60 Je 20 '46
Fuel economy in iron and steel-works; abstracts of papers. M. Tigerschiold and others. Engineer 181:445; Discussion. 446-7 My 17 '46

STEEL works—Fuel—*Continued*
Problems in fuel efficiency. C. Hulse and R. J. Sargent. Blast F & Steel Pl 34:1292-4 O '46

Heating and ventilation

Mill building ventilation; preheating fresh air. D. Henderson. il plan diags Steel 118: 98-9+ Mr 11 '46

Maintenance and repair

Automatic welding in steel plant maintenance; abstracts. H. E. Holman. Iron Age 158:76 O 10 '46; Steel 119:132+ O 14 '46
Repairing contractors' and steel mill equipment with manganese applicator bars. L. A. Davis. il diag Welding J 25:969-74 O '46

Management

Correlation methods applied to steel problems. Blast F & Steel Pl 33:1409-10 N '45
Labor's philosophy and cost reduction programs. J. N. Scanlon. Factory Management 103:314+ D '45
Problems involved in starting up an iron and steel plant. il Steel 118:166+ My 6 '46
Use of statistical methods in quality control program. W. T. Rogers. Steel 118:119-20 F 11 '46; Same. Blast F & Steel Pl 34: 233-5 F '46

Power

American association of iron and steel engineers, annual meeting, Cleveland; abstracts of power papers. Power 90:770+ N '46
Electric power in a steel plant; Bethlehem steel company plant, Lackawanna. R. W. Graham. diags Elec Eng 64:Trans 816-18 D '45
Electric power supply for steel mill loads. F. W. Cramer. Blast F & Steel Pl 34:579-83+ My '46
Fundamentals of electronic frequency conversion. M. M. Morack. bibliog il diags Power Pl Eng 50:58-65 My '46
Shunt capacitors for reduced cost, increased capacity. W. H. Cuttino. il diag Blast F & Steel Pl 34:368-9+ Mr '46
Steam and blast-furnace air for Fontana. H. H. Hyde. il diags Power Pl Eng 49:74-80 D '45
Steam generation in steel mills; operating on coke oven gas, blast furnace gas, pulverized coal and coke breeze. F. X. Gilg. il diags Blast F & Steel Pl 34:138+ Ja '46
Treating to prevent scale introduces carry-over problem; Youngstown, Ohio, plant of the Republic steel corp. E. M. Griffiths. diags Power 90:26-9 Ja '46

See also
Rolling mills—Power

Safety measures

Day with a safety director. il Nat Safety N 53:19-21+ Ap '46
Hidden factor in a flow chart; safe handling in steel works. E. Mandry. il Safety Eng 91:22-4+ My '46
Telling the safety story in the Weirton steel employees bulletin. J. A. Jones. il Nat Safety N 54:32-3+ Jl '46

Brazil

Brazilian steel plant increases capacity; Companie Siderugical Belgo-Mineira. il Steel 119:146+ Ag 5 '46
Foundry for Volta Redonda plant. Blast F & Steel Pl 33:1400-2 N '45
Unusual erection problems encountered at Brazil's big steel plant. J. B. Gibson. il Eng N 137:120-3 Jl 25 '46
Volta Redonda, Brazilian steel plant starts production. il Steel 118:129 Ap 1 '46; Iron Age 157:107 Mr 21 '46; Blast F & Steel Pl 34:372 Mr '46
Volta Redonda, largest steel plant in Latin America, now ready to begin production. For Comm W 22:30 Mr 9 '46

Chile

Chile's integrated steel plant expected to start operations in 1948. Iron Age 157:107 F 28 '46; Same. Steel 118:120 Ja 21 '46

Germany

German steel industry. T. W. Lippert. il Iron Age 156:54-9 D 20 '45
German steel mills trail American equipment. J. L. Hyland. Iron Age 158:113 Ag 1 '46

Great Britain

British federation makes known its modernization plan in white paper. J. R. Hight. il Iron Age 157:114-25+ My 23 '46
Steelmaker in England plans expansion of plant facilities. Steel 117:66 D 24 '45

Ireland

Irish steel co. readying second openhearth project. J. R. Hight. Iron Age 158:72+ O 3 '46

Japan

Japan's Yawata steel plant survives the war. A. F. Matthews. il Iron Age 157:104-5 My 23 '46

Luxembourg

Steel for one more river; army engineers produced meter beams to bridge rivers of Northern Europe; operation of Hadir steel works. P. Queneau. il Min & Met 27:398-9 Jl '46

Mexico

Mexican steel plant to expand ingot and rolling capacity. T. E. Lloyd. il Iron Age 158:121 S 26 '46

Russia

British labor views the USSR steel industry. il Iron Age 158:71A-71B, 72-6 S 12 '46

Siberia

Kuznetsk Works capacity slated to be increased 50% by 1950. il Steel 118:92-3 My 20 '46

South Africa

Operation of 44 in. blooming mill in South African plant conforms to latest practice. il plan Blast F & Steel Pl 34:1265-70 O '46
Plans for new continuous strip mill in South Africa; abstract. H. J. Van der Bijl. Iron Age 157:126+ F 21 '46

Utah

See also
Geneva steel company

STEELMAN, John Roy, 1900-
Returns to the wars. por Fortune 33:185 F '46

STEERING gear
Heavy duty propelling and steering device aids in marine operations of oil industry. il Pet Eng 17:228+ My '46
Oil gear type DH hydraulic steering gear pumps. il Marine Eng 50:266+ N '45
Sellers hydraulic telemotor. il Marine Eng 51: 133 My '46

See also
Automobiles—Steering gear

STEINKRAUS, Herman W. 1890-
Portrait. Bsns W p20 D 8 '45
Steinkraus and labor management. por Fortune 33:194+ My '46

STELLITE
Cobalt-base high temperature alloys for gas turbines and superchargers. L. E. Browne. Steel 118:88-91+ My 27 '46
Grinding operations on stellite and Hastelloy products; illustrations with text. Mach 53: 148-9 S '46
Lower costs in precision work by mass methods; Haynes stellite company; illustrations and text. flow sheet Factory Management 104:98-101 My '46
Mass production of precision castings; illustrations with text; Haynes stellite co. diags Steel 118:96-100+ Ap 8 '46
Precision-cast parts of high-temperature alloys. W. O. Sweeny. il diags Product Eng 17:121-6 S '46
Precision casting; Haynes stellite company. il Mech Eng 68:467-8, 637-9 My, Jl '46
Secret wartime high-temperature alloys now available for peacetime use. Mach 52:183-7 Jl '46

STENCHES. See Odors

STENCILS and stencil cutting
Fast stenciling on tubing. il Iron Age 156:74 N 22 '45

STENOGRAPHERS
Reducing the cost of training new stenographers. J Account 82:157 Ag '46
See also
Dictating machine operators

STENOGRAPHIC departments
Cutting typing and stenographic costs. il Am Bsns 16:20-4+ Ja '46

STENOTRONE. See Vacuum tubes

STERCULIA oil
Fatty oil of the seeds of sterculia foetida; abstract. A. Steger and J. van Loon. Paint Oil & Chem R 109:18 Mr 7 '46

STEREOCHEMISTRY
Biotin; a stereochemical correlation of *dl*-biotin, *dl*-allobiotin and *dl-epi*-allobiotin. S. A. Harris and others. bibliog Am Chem Soc J 67:2102-6 D '45
Inactive by internal compensation. G. F. Wright. Science 104:190 Ag 23 '46
Neighboring groups and reactivity. S. Winstein and E. Grunwald. Am Chem Soc J 68:536-7 Mr '46
Stereochemistry of the benzidine transformation. D. L. Hammick and S. F. Mason. Chem Soc J p638-41 Jl '46

STEREOISOMERISM. See Isomerism

STEREOPHON system. See Sound—Recording and reproducing

STEREOPHONIC broadcasting. See Radio broadcasting

STEREOPLANIGRAPH
Economics of photogrammetry; with cost data. L. T. Eliel. Am Soc C E Proc 71:287-96 Mr '45; Discussion. 71:907-15, 1282-8; 72: 401-4 Je, O '45, Mr '46

STEREOPTER. See Eye—Examination

STEREOSCOPE
Preliminary observations on geological use of aerial photographs. F. A. Melton. diags Am Assn Pet Geologists Bul 29:1756-65 D '45

STEREOSCOPIC photography. See Photography, Stereoscopic

STEREOSCOPIC radiography. See Radiography, Stereoscopic

STERIC hindrance
Absorption spectra of acridines; steric interference with ionisation. D. P. Craig. Chem Soc J p534-7 Je '46
Further studies on steric deformation. R. C. Ellingson and A. H. Corwin. Am Chem Soc J 68:1112-15 Je '46
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance. I. Dostrovsky and E. D. Hughes. Chem Soc J p157-94 Mr '46
New steric effect in organic chemistry. H. C. Brown. bibliog Science 103:385-7 Mr 29 '46
On steric effects. T. L. Hill. J Chem Phys 14:465 Jl '46
Some factors influencing the ultraviolet absorption spectra of polynuclear aromatic compounds; a general survey. R. N. Jones. bibliog Am Chem Soc J 67:2127-50 D '45
Steric deformation; the synthesis of N-methyl etioporphyrin. W. K. McEwen. bibliog Am Chem Soc J 68:711-13 Ap '46
Steric strain in compounds with tertiary butyl groups; steric strain in polyisobutylene. H. C. Brown and G. K. Barbaras. J Chem Phys 14:114 F '46
Vinyl alcohols; increased hindrance. R. C. Fuson, D. H. Chadwick and M. L. Ward. bibliog Am Chem Soc J 68:389-93 Mr '46

STERILITY
Sterility induced in growing rats on a tryptophane-deficient diet. W. F. Keller. Science 103:137 F 1 '46

STERILIZATION
Electronic sterilization. H. A. Benjamin and O. F. Ecklund. il Food Ind 18:523-4 Ap '46

STERILIZERS
Intermediate pressures; types of steam installations in commercial, industrial, institutional buildings; hospital sterilizer equipment. diags Dom Eng 167:128+ Ap '46

STERILIZERS, Electric
Phenolic base for home sterilizer. il Mod Plastics 23:105 Je '46

STERLING-WINTHROP research institute
Sterling-Winthrop research institute. il Chem & Eng N 24:1388 My 25 '46

STEROIDS
Aminosteroids; α- and β-forms of 7-aminocholesterol J. Barnett, B. E. Ryman and F. Smith. Chem Soc J p524-6 Je '46
Aminosteroids; preparation of 3 : 7-diketocholestene. J. Barnett, B. E. Ryman and F. Smith. Chem Soc J p526-8 Je '46
Aminosteroids; some mono- and di-aminosteroids. J. Barnett, B. E. Ryman and F. Smith. Chem Soc J p528-30 Je '46
Application of the method of molecular rotation differences to steroids; naturally occurring sterols and their simple derivatives. D. H. R. Barton. bibliog Chem Soc J p813-19 N '45
Application of the method of molecular rotation differences to steroids; unsaturated sterols and their derivatives. D. H. R. Barton. bibliog(70 references) Chem Soc J p512-22 Je '46
Catalytic acetylation of steroid compounds. B. Whitman and E Schwenk. Am Chem Soc J 68:1865-6 S '46
Dipole moments of steroids W. D. Kumler. Am Chem Soc J 67:1901-6 N '45
Hydrogenolysis of steroid thioacetals with modified Raney nickel catalyst. S. Bernstein and L. Dorfman. Am Chem Soc J 68: 1152-3 Jl '46
New method of producing fused ring structures related to the steroids; a synthesis of equilenin. W. S. Johnson, J. W. Petersen and C. D. Gutsche. bibliog Am Chem Soc J 67:2274-5 D '45

STEROLS
Application of the method of molecular rotation differences to steroids; naturally occurring sterols and their simple derivatives. D. H. R. Barton. bibliog Chem Soc J p813-19 N '45
Application of the method of molecular rotation differences to steroids; unsaturated sterols and their derivatives. D. H. R. Barton. bibliog(70 references) Chem Soc J p512-22 Je '46
Synthesis of substances related to the sterols; *dl-cis*-equilenin. A. J. Birch, R. Jaeger and R. Robinson. Chem Soc J p582-6 S '45
Twenty years and onwards. I. M. Heilbron. Chem & Eng N 24:1035-9 Ap 25 '46

STETHOSCOPE
Industrial applications
Engineering stethoscope il Marine Eng 51:129 Ag '46

STEVENAGE, England
Proposed new town. plan Engineer 181:436 My 10 '46

STEVENS, John Cyprian, 1876-
Portrait. Bsns W p21 N 10 '45

STEVENS, Stanley Smith
Stevens elected to membership in the National academy of sciences. por Acoustical Soc Am J 18:219 Jl '46

STEWARTS and Lloyds, limited
Statement by the chairman. A. G. Stewart. Economist 150:982 Je 15 '46

STIBONIC acids
Preparation of stibonic acids by the Scheller reaction. G. O. Doak and H. G. Steinman. bibliog Am Chem Soc J 68:1987-9 O '46
Some reactions of arylstibonic acids. G. O. Doak and H. G. Steinman. Am Chem Soc J 68:1989-91 O '46
Structure of arylstibonic acids. G. O. Doak. bibliog diag Am Chem Soc J 68:1991-5 O '46

STICKERS
Manufacturers and media use labels as supplementary advertising. N. Kelne. Ptr Ink 216:104+ Jl 12 '46

STIFFNESS tester
Taber stiffness gauge. il R Sci Instr 16:326 N '45

STILBAMIDINE
Attempts to find new chemotherapeutic amidines; nuclear substituted derivatives of 4 : 4′-and 3 : 3′-diamidinostilbene. J. N. Ashley and J. O. Harris. Chem Soc J p567-72 Jl '46

STILBAMIDINE—*Continued*
Bromination of 4 : 4′-diamidino-αγ-diphenoxypropane and of 4 : 4′diamidinostilbene. A. J. Henry. Chem Soc J p870-3 D '45

STILBENE
Observations on the equilibrium between *cis-* and *trans-*stilbene. D. C. Downing and G. F. Wright. bibliog Am Chem Soc J 68:141-2 Ja '46
Synthetic analogues of progesterone. W. C. J. Ross. Chem Soc J p536-8 Ag '45

STILBENE chlorides
Role of neighboring groups in replacement reactions; the reaction of stilbene dichlorides with silver acetate. S. Winstein and D. Seymour. bibliog Am Chem Soc J 68: 119-22 Ja '46

STILBESTROL
Alternative route to stilboestrol. A. E. W. Smith. Chem Soc J p572-3 Jl '46
New napthalene derivatives structurally related to stilboestrol. B. J. F. Hudson. Chem Soc J p76-8 F '46
Synthetic estrogens and the relation between their structure and their activity. U. V. Solmssen. Chem R 37:495-542, 590-2 D '45

STILBESTROL, Analogs of
New synthetic oestrogens; the synthesis of 4 : 4′-dihydroxy-α : β : 2 : 2′-tetromethylstilbene and 4 : 4′-dihydroxy-α : β : 2 : 2′-tetramethyldibenzyl. B. J. F. Hudson and E. Walton. Chem Soc J p85-7 F '46

STILES-CRAWFORD effect
Influence of the Stiles-Crawford effect on measurements with the Pufrich photometer. G. Hansen. bibliog diags Opt Soc Am J 36:321-5 Je '46
Theory of the Stiles and Crawford effect. B. O'Brien. bibliog diags Opt Soc Am J 36:506-9 S '46

STILWELL road. See Ledo road

STIMULANTS
See also
Cocoa

STIRRERS
Collapsible metal stirrer. J. D. Reid and E. M. Buras, jr. diags Science 104:326 O 4 '46
Electromagnetic stirring device. W. N. McIntosh. il diags Ind & Eng Chem Anal ed 18:338 My '46
Magnetic stirring apparatus. il R Sci Instr 16:324 N '45
Stirrer bearing from broken hypodermic. A. B. Cramer and H. J. Wright. Science 102:536 N 23 '45
Stirring device for mixing glass as it comes from continuous tank; patent. diag Glass Ind 27:133 Mr '46
See also
Agitators

STOCK control. See Stores systems

STOCK dividends. See Dividends

STOCK exchange
Another 1929? Economist 151:401-2 S 14 '46; Same. Iron Age 158:97+ O 3 '46
Bank investments, the postwar boom and the stock market. J. F. Hughes. Comm & Fin Chr 163:2503+ My 9 '46
Bear markets; their length and their damage. Bsns W p72 S 14 '46
Bear panic. E. Gould. Comm & Fin Chr 164: 1459, 1463 S 19 '46
Big bull market; 1929 crash. P. Sann and V. Riesel. il Banking 38:42-3+ Ap '46
Birth of a spiral? Bsns W p106 F 2 '46
Bond lull ending. Bsns W p74+ F 2 '46
Bull market is not over. J. L. Rowe. Comm & Fin Chr 164:1647+ O 3 '46
Bull market is over. J. H. Lewis. Comm & Fin Chr 164:477+ Jl 25 '46
Bull market to follow emotional liquidation. G. Y. Billard. Comm & Fin Chr 164:481+ Jl 25 '46
Buyers' strike in the stock market. O. Ely. Pub Util 38:427-8 S 26 '46
Caffrey doubts Sabath's charge of short-selling in market break. Comm & Fin Chr 164: 1376+ S 12 '46
Case for a bear market. B. Ravits. Barron's 26:3 S 9 '46
Coast marts busy; San Francisco and Los Angeles exchanges. Bsns W p71 D 29 '45
Colored glasses and the stock market. D. Langmuir. Comm & Fin Chr 164:1645+ O 3 '46
Current chills and market outlook. G. Y. Billard. Comm & Fin Chr 163:1783+ Ap 4 '46
Current low bond yields a dangerous cause of bullishness. F. W. La Farge. Comm & Fin Chr 163:3+ Ja 3 '46
Diagnosing the dip. M. S. Benjamin. Comm & Fin Chr 164:2203+ O 31 '46
Economics behind current stock market uncertainty. M. D. Safanie. Comm & Fin Chr 164·1008+ Ag 22 '46
End of the beginning. Fortune 34:2-4 O '46
Future activity of cash securities market. A. S. Klauber. Comm & Fin Chr 163:1345+ Mr 14 '46
Future of the bull market. L. S. Mott. Comm & Fin Chr 163:3473+ Je 27 '46
Higher profit margins forecast larger dividends. E. B. Gould. Comm & Fin Chr 164: 884+ Ag 15 '46
How long do bear markets last? Barron's 26: 12 S 9 '46
Inflation in the stock market. E. Schram. Comm & Fin Chr 163:243+ Ja 17 '46
Investment market. H. E. Dickhuth. Banking 38:36 N '45 [cont monthly]
Is a stock market collapse coming? L. W. Maxwell. Comm & Fin Chr 163:1630+ Mr 28 '46
Is the bull market over? J. Coe. Comm & Fin Chr 164.1373+ S 12 '46
Lively, but more sedate. Bsns W p90 F 9 '46
Margin prohibition and the market break; Boston and New York addresses. E. Schram. Comm & Fin Chr 164:1649+ O 3 '46
Market outlook. G. Y. Billard. Comm & Fin Chr 162:3131+; 164:884+, 1264+, 1459+, 1657+ D 27 '45, Ag 15, S 5, 19, O 3 '46
Market outlook and appropriate investment policy. W. F. Edwards. Comm & Fin Chr 163:1085+ F 28 '46
Market stands at point where declines began. C. B. Weigel. Barron's 26:12 Ap 22 '46
Near-term risks. E. Gould. Comm & Fin Chr 163:2505+ My 9 '46
No basic change in underlying stock market conditions. S. Frohlich. Comm & Fin Chr 164·1137+ Ag 29 '46
No grounds for further stock liquidation. E. Gould. Comm & Fin Chr 164:2076+ O 24 '46
One-way streets or the rising market fallacy. M. E. Peloubet. Comm & Fin Chr 163.959+ F 21 '46
Outlook for security prices. F. W. La Farge. Comm & Fin Chr 163:2911+ My 30 '46
Outlook for the stock market in 1946. F. W. La Farge. Comm & Fin Chr 163:125+ Ja 10 '46
Present reaction of stocks no indication of bear market. R. Tanhauser. Comm & Fin Chr 164·609+ Ag 1 '46
Price rises or deflation? E. Gould. Comm & Fin Chr 163:1091 F 28 '46
Profits; key to stock tumble. Bsns W p17-18 S 14 '46
Prospect for higher stock prices. G. Y. Billard. Comm & Fin Chr 163:3056+, 3200, 3345, 164:745+ Je 6, 13, 20, Ag 8 '46
Prospects for higher stock prices. R. W. Babson. Comm & Fin Chr 163:3212, 3357 Je 13-20 '46
Prospects of early 1946 markets. A. T. Miller. Mag of Wall St 77:312-13 D 22 '45
Psychological pitfalls in appraising stock market values. M. D. Popovic. Comm & Fin Chr 162:2451+ N 22 '45
Rail stocks' market swings and their duration over the last 50 years. J. H. Stallings. Barron's 26:15 My 13 '46
Reasons for extended stock rise. C. A. Taggart. Comm & Fin Chr 163:372+ Ja 24 '46
Reasons for further bull market; abstract. L. P. Ayres. Comm & Fin Chr 163:2647 My 16 '46
Reasons for stock market break. A. E. Van Court and A. Slater. Comm & Fin Chr 164: 2082+ O 24 '46
Selective market ahead. M. S. Benjamin. Comm & Fin Chr 164:1137+ Ag 29 '46
Some Wall Street bankers believe events of next few months will determine stock trend. E. Germain. Comm & Fin Chr 164:1782+ O 10 '46

STOCK exchange—*Continued*
Special survey of longer range market factors. A. T. Miller. Mag of Wall St 77:186-7+ N 24 '45
Stock break justified by economic background. L. O. Hooper. Comm & Fin Chr 164:1531+ S 26 '46
Stock break; why? what next? J. F. Reilly. Comm & Fin Chr 164:1784+ O 10 '46
Stock market in 1937 and today. R. A. Rotnem. Comm & Fin Chr 163:125+ Ja 10 '46
Stock market outlook; coal strike inflationary. G. Y. Billard. Comm & Fin Chr 163:2356+ My 2 '46
Stock market outlook; market analyst feels main uptrend has not been reversed. G. Y. Billard. Comm & Fin Chr 163:1215+ Mr 7 '46
Stock market prices and credit. Nat City Bank p112-14 O '46; Same. Comm & Fin Chr 164:1789+ O 10 '46
Stock ownership and thin markets. L. O. Hooper. Comm & Fin Chr 164:2333+ N 7 '46
Stock prices advance sharply. Fed Res Bul 31:1189-90 D '45
Stock prices lag behind rise in industrial output; present gap is widest in 70-year record of uneven response to Nation's growth. B. Ravits. Barron's 25:11 N 26 '45
Stocks bump hard again. Bsns W p118, Mr 16 '46
Stocks may keep rising despite economic difficulties. B. Ravits. Barron's 26:11 My 6 '46
Thinness of the market. L. H. Bradshaw. Comm & Fin Chr 164:1264+ S 5 '46
Today's market. A. T. Miller. Mag of Wall St 77:374-5 Ja 5 '46 [cont bi-weekly]
Trend reverses; Wall Street reasons it out. Bsns W p118-19 F 23 '46
Urges SEC to investigate odd-lot business. A. J. Sabath. Comm & Fin Chr 164:1456+ S 19 '46
Wall Street trying hard to explain stock selloff. E. German. Comm & Fin Chr 164:1380+ S 12 '46
We are in a bear market. J. R. Bancroft. Comm & Fin Chr 164:1533+ S 26 '46
What do the charts forecast? A. J. Messing. Comm & Fin Chr 162:2322+ N 15 '45
What does Dow theory say now? analysis of current market situation. T. W. Phelps. Comm & Fin Chr 163:1494+ Mr 21 '46
What does the stock market break portend? M. Palyi. Comm & Fin Chr 164:2069+ O 24 '46
Where do we stand in the market cycle? F. K. Dodge. il Mag of Wall St 78:676-7+ S 14 '46
Why boom in new issues worries Wall Street. G. E. Shea, jr. Barron's 26:3+ Jl 22 '46

See also
Bonds
Brokers
Investments
Securities
Speculation
Stocks
also names of exchanges, e.g.
Amsterdam stock exchange
Chicago stock exchange
Cincinnati stock exchange
London stock exchange
New York stock exchange
Philadelphia stock exchange

History

Where does bull market go? graphs of three bull markets. Bsns W p15 Ap 13 '46

Regulation

Wall Street sees storm signal; SEC action in Higgins case. Bsns W p58+ F 23 '46

See also
Securities and exchange commission

STOCK liquidation agreements
Charitable foundation for business interests. H. S. Koster. Trusts & Estates 82:583-4 Je '46
Closely held business; valuation and transfer of interests. Trusts & Estates 82: 539 Je '46
Corporate recapitalization at death of controlling stockholder. H. S. Koster. Trusts & Estates 81:461-2 D '45
Effect of section 126 on business-liquidation agreements. E. T. Roehner. bibliog J Account 80:364-8 N '45
Financing of stock retirements. J. Kellam. Weekly Underw 155:570 S 7 '46

See also Insurance, Business—Stock liquidation agreements

STOCK options. See Stock purchase options

STOCK ownership. See Employees as stockholders; Stockholders

STOCK purchase agreements. See Stock liquidation agreements

STOCK purchase options
Blow to options; Treasury's new ruling on stock offerings to corporate official. Bsns W p48+ My 4 '46
Employee stock options; abstract. V. E. Ferrall. J Account 81:417 My '46
Stock options and incentives. Fortune 33:160 Je '46
Stock purchase options under the new treasury rules P. D. Seghers. bibliog J Account 81:452-7 Je '46

Accounting

Accounting for compensation in the form of stock options. J. L. Dohr. J Account 80: 439-43 D '45
Stock options. J. S. Seidman. J Account 82: 66 Jl '46

STOCK ranges. See Ranges

STOCK taking. See Inventories—Accounting

STOCKBROKERS. See Brokers

STOCKHOLDERS
Annual meeting, a democratic forum. L. D. Gilbert. Comm & Fin Chr 163:960+ F 21 '46
Family rule ebbs; trend toward diversified ownership. Bsns W p57-8+ Ag 17 '46
Selling utility companies to their stockholders; stockholders' report and what it should contain. H. H. Young. Pub Util 36:679-87 N 22 '45
Stock ownership and thin markets. L. O. Hooper. Comm & Fin Chr 164:2333+ N 7 '46
Stockholder relations; administrative set-up for closer liaison. S. C. Gale. Trusts & Estates 82.231 F '46
Stockholders tell what they want in annual reports. Ptr Ink 214:24 Ja 25 '46
Who owns the corporations? facts vs. popular illusions on the modern stockholder. Trusts & Estates 82:459-64 My '46
Widening distribution of corporate ownership. Nat City Bank p65-7 Je '46

See also
Banks and banking—Stockholders
Employees as stockholders
Stock purchase options

STOCKPILING. See Minerals—Stockpiling

STOCKPILING act, 1946
President signs stockpiling bill; objects to buy American provision. Comm & Fin Chr 164:662 Ag 1 '46

STOCKROOMS. See Stores systems

STOCKS
Another look at General Motors, Western Union, Bendix Aviation, Columbia Broadcasting, Pillsbury Mills, Purity Bakeries, Transcontinental & Western Air. S. Devlin. il Mag of Wall St 78:280-1+ Je 8 '46
Are stocks too high? R. W. Babson. Comm & Fin Chr 162:2711 D 6 '45
Building an estate with common stocks. R. Pitman. Mag of Wall St 78:99+ Ap 27 '46
Capital goods shares vs. consumer goods shares. R. Colston. Mag of Wall St 77:250-2+ D 8 '45
Common stocks of high investment caliber. J. C. Clifford. Mag of Wall St 77:395-7+ Ja 5 '46
Companies with 16-year growth trends; stocks surpassing highs of 1929 and late thirties all in industrial category. B. Ravits. Barron's 25:6 N 19 '45
Eight selected companies with an open road to higher earnings and dividends. Mag of Wall St 77:757-9+ Mr 30 '46
Eight special situations for profit, for income; companies in a position to forge ahead; thumbnail stock appraisals. Mag of Wall St 78:19-23 Ap 13 '46

STOCKS—*Continued*

Estimated optimum earnings on 200 stocks during early post-war period; tabulation. L. H. Bradshaw. Comm & Fin Chr 162:2581 N 29 '45

Family rule ebbs; trend toward diversified ownership. Bsns W p57-8+ Ag 17 '46

Financial survey of specialty stocks; tabulation. Mag of Wall St 78:700-1 S 14 '46

Five selected stocks for 1946 re-investment. Mag of Wall St 77:329-31+ D 22 '45

Four diversified issues with established earnings potentials. Mag of Wall St 78:460-1 Jl 20 '46

Four issues with possibilities for appreciation; thumbnail stock appraisal. Mag of Wall St 78:340-1 Je 22 '46

Heavy industry shows lag but stocks have favorable outlook. L. H. Bradshaw. Comm & Fin Chr 163:3059+ Je 6 '46

How to minimize this year's taxes; study of security porifolios essential. H. L. Blackburn. Mag of Wall St 77:191-2+ N 24 '45

Investment appraisals of newcomers on the stock exchange. W. A. Howell. il Mag of Wall St 78:760-1+ S 28 '46

Investment company portfolios, third quarter; study by National association of investment companies. Comm & Fin Chr 162:2575+ N 29 '45

Newcomers on the stock exchange. J. C. Clifford. il Mag of Wall St 78:220-1+ My 25 '46

1946 boom in new stock issues. Bsns W p78 My 18 '46

1946 special re-appraisals of values, earnings and dividend forecasts. il Mag of Wall St 77:517-29+, 580-9+, 637-49+, 703-11+, 765-77+; 78:509-21+, 570, 629, 689 F 2-Mr 30, Ag 3-S 14 '46

Outlook for different industries, second half of 1946. R. W. Babson. Comm & Fin Chr 163:3212 Je 13 '46

Outstanding stock gains reflect both war and peace; textiles and chain stores preponderant among issues which in 1945 surpassed 1929 highs. B. Ravits. Barron's 26:9+ Ja 21 '46

Progressive stocks in changing markets; adapting growth factor to specific requirements. R. Fiske, jr. Trusts & Estates 83: 144+ Ag '46

Reappraisal of leading specialty stocks; tabulation. Mag of Wall St 77:648-9 Mr 2 '46

Repeat performance? common stock is in favor with the investing public. Fortune 32:274+ D '45

Selecting stocks. R. W. Babson. Comm & Fin Chr 164:1457+ S 19 '46

Six common stocks with investment potentials; thumbnail stock appraisal. Mag of Wall St 78:750-2 S 28 '46

Six heavy goods companies in favored position. Mag of Wall St 78.212-14+ My 25 '46

Six investment securities for capital building Mag of Wall St 78:148-50+ My 11 '46

Six issues with continuous dividend records; thumbnail stock appraisal. Mag of Wall St 78.273-5 Je 8 '46

Six low priced stocks with unrealized profit potentials; thumbnail stock appraisals. il Mag of Wall St 78:87-90 Ap 27 '46

Six selected profit opportunities; thumbnail stock appraisal. Mag of Wall St 77:209-11 N 24 '45

Six stocks below 1937 high; thumbnail stock appraisal. Mag of Wall St 77:275-7 D 8 '45

Six strategic stocks for defensive investment. Mag of Wall St 79:86-8+ O 26 '46

Special reappraisal survey of low-priced stocks. J. S. Williams. Mag of Wall St 77: 390-2+ Ja 5 '46

Ten potential market leaders for 1946; thumbnail stock appraisal. Mag of Wall St 77:452-7 Ja 19 '46

Ten stock groups likely to out-perform market in 1946. H. M. Gartley and H. E. Dickinson. Comm & Fin Chr 163.370+ Ja 24 '46

Timely survey of publishing and broadcasting stocks; with statistics on leading companies G. L. Merton. Mag of Wall St 79:89-91 O 26 '46

Weeding-out weak spots in your investment portfolio. H. F. Travis. Mag of Wall St 79:25-7 O 12 '46

What should the banker's attitude be toward common stocks? L. O. Hooper. Comm & Fin Chr 163:3469+ Je 27 '46

Widow's advisers differ on investment policy. W. J. Galligan. Barron's 26:3+ S 23 '46

See also

Banks and banking—Stock
Bonds
Corporations
Dividends
Employees as stockholders
Investments
Securities
Speculation
Stock exchange
Stock purchase options

also subdivision of industries, e.g.

Agricultural machinery industry
Chain stores
Electric apparatus industry
Electric utilities
Insurance companies
Office equipment industry
Petroleum industry and trade
Public utilities
Railroad supplies industry
Railroads
Retail trade

Securities under names

also names of exchanges, e g. New York stock exchange

Insider trading

SEC would prohibit allotments of new issues to insiders. Comm & Fin Chr 163:2514 My 9 '46; Discussions. 163:2071+, 2215+ Ap 18, 25 '46

Leverage

Declines in leverage investment company shares from 1946 highs range to 63%. L. Tomlinson. Barron's 26:11 N 11 '46

Six stocks with leverage possibilities. Mag of Wall St 78:393-5+ Jl 6 '46

Margin buying

Canadian exchanges raise margins. Comm & Fin Chr 163:972 F 21 '46

Customers' brokers urge restoration of margin trading. Comm & Fin Chr 163:2787 My 23 '46

Eccles turns down request by G. F. Mand, to permit the substitution of issues in margin accounts. Comm & Fin Chr 164: 744+ Ag 8 '46

Ends margin trading; FRB issues order raising margins to 100%. M. S. Eccles. Comm & Fin Chr 163:373+ Ja 24 '46; Same. Fed Res Bul 32:121 F '46

Higher margin requirements. Trusts & Estates 82:141 F '46

Margin prohibition and the market break; Boston and New York addresses. E. Schram. Comm & Fin Chr 164:1649+ O 3 '46

Margin requirements for purchasing securities; amendments to Regulations T and U. Fed Res Bul 32:126-7 F '46

Margin trading prohibition and disorderly markets. W. Cabell. Comm & Fin Chr 164: 2204+ O 31 '46; Discussion. 164:2336+ N 7 '46

Regulations T and U; withdrawal of stock upon deposit of cash; substitution on stock certificates; addition to outstanding loan. Fed Res Bul 31:1197-8 D '45

Stock market prices and credit. Nat City Bank p112-14 O '46; Same. Comm & Fin Chr 164:1789+ O 10 '46

Wall Street believes a strong case can be argued for resumption of margin trading. E. A. R. Germain. Comm & Fin Chr 164: 744+ Ag 8 '46

Marketing

SEC speaks up; artificial stimulation of new issues, other unethical acts flayed. Bsns W p66-8+ Ap 27 '46

Odd lots

Urges SEC to investigate odd-lot business. A. J. Sabath. Comm & Fin Chr 164:1456+ S 19 '46

Price-earnings ratios

Evaluating stocks above 1929 highs. H. Owen. Mag of Wall St 77:337-9+ D 22 '45

Wall Street looks at earnings. Bsns W p65-6+ N 17 '45

STOCKS—*Continued*

Price fluctuations

Relationship between price change and price level for common stocks. Z. Szatrowski. Am Stat Assn J 40:467-83 D '45

Price forecasting

Method devised for forecasting stock trends; study by Shields & company. Comm & Fin Chr 164:1655 O 3 '46

Price indexes and averages

Annual revision of M.W.S. common stock index; 1946 grouping of the 300 component issues. F. A. Griffin. Mag of Wall St 77: 575, 608-9 F 16 '46

Are we facing a permanently higher price 1944-Dec. 1945; weekly Dec. 1945. Fed Res Bul 32:61 Ja '46 [cont monthly]

Barron's index of 30 low-priced stocks discontinued. Barron's 26:1+ My 13 '46

Bull market; postwar version. Bsns W p41 My 25 '46

Common stock index. Published in bi-weekly numbers of Magazine of Wall street

Earnings on the Dow-Jones industrial average, quarterly, 1934-1945; chart. Barron's 26:1 My 6 '46

Ending dates of all bull and bear markets since 1886; charts. J. L. Steffen, comp. Barron's 26:14 Jl 29 '46

Four year bull market; Magazine of Wall street common stock index; graphs, chart, table. Mag of Wall St 78:68-9 Ap 27 '46

Industrial stock price trends since 1870; abstract. F. R. Macaulay. Comm & Fin Chr 164:1009+ Ag 22 '46

Latest developments in specific industries and individual companies; action of Barron's group stock averages, highs of 1937 and 1946 compared. Barron's 26:1 O 21 '46

Leaders and laggards for 1946. F. K. Dodge. chart Mag of Wall St 77:504-5+ F 2 '46

Market laboratory data; daily fluctuations of the Dow-Jones averages, Sept. 1944-Dec. 1945; chart. Barron's 25:12 D 10 '45

New actuaries' investment index. Economist 151:148 Jl 27 '46

Relationship between price change and price level for common stocks. Z. Szatrowski. Am Stat Assn J 40:467-83 D '45

Sharp drop in earnings on D-J industrials in first quarter. Barron's 26:8 Je 3 '46

Stock groups moving in divergent directions. F. A. Griffin. Mag of Wall St 78:736+ S 28 '46

True level of stock market revealed by new index; Barron's total value stock indexes. L. Tomlinson. Barron's 26:13 Je 3 '46

Variations in effect of new taxes cloud early 1946 earnings statements; effect on Barron's 50-stock average. Barron's 25:1 D 31 '45

Weighing to-day's market; comparison of M.W.S. common stock price index and Dow Jones industrial average; with graph, 1926-1945. F. A. Griffin. Mag of Wall St 77: 340-1+ D 22 '45

Prices

Are stocks too high? abstract. G. Soule. Management R 35:98-100 Mr '46

Are we facing a permanently higher price level? H. B. Dorsey. Comm & Fin Chr 164: 1777+ O 10 '46

Blue chips stage a victory celebration. Bsns W p70 Mr 16 '46

Impact of peace on stock prices. Bsns W p85 Ja 12 '46

Living costs versus stock prices. J. Toppell. Comm & Fin Chr 164:1932 O 17 '46

London versus New York stock prices. M. Winkler. Comm & Fin Chr 164:1460+ S 19 '46

Monthly range of prices on the New York stock exchange, 1945. Comm & Fin Chr 163: 621-31 Ja 31 '46

OPA removal and stock prices. E. Gould. Comm & Fin Chr 164:339+ Jl 18 '46

Profit margin and stock prices. E. Gould. Comm & Fin Chr 163:2914+ My 30 '46

Stock market at a glance. Published in weekly numbers of Barron's

Stock prices lag behind rise in industrial output; present gap is widest in 70-year record of uneven response to Nation's growth. B. Ravits. Barron's 25:11 N 26 '45

Trend of stock prices over the coming months. R. D. Naess. Comm & Fin Chr 164:197+ Jl 11 '46

Short interest

Short interest decreases 8,360 shares. Barron's 26:15 Jl 29 '46

Short selling

Caffrey doubts Sabath's charge of short-selling in market break. Comm & Fin Chr 164: 1376+ S 12 '46

Split-up

Banana split a la Zemurray; United fruit co.'s three-for-one stock plan. il Bsns W p42+ My 4 '46

Evaluating recent and potential split-ups. P. Dobbs. Mag of Wall St 77:262-4 D 8 '45

Evaluating recent and potential split-ups. H. F. Travis. il Mag of Wall St 78:276-7+ Je 8 '46

Significance of the stock split-up; with tabulation showing performance of 185 split-ups announced since Jan. 1, 1946. L. O. Hooper. Comm & Fin Chr 164:1925+ O 17 '46

Split shares; hotfoot for market. Bsns W p62+ Ap 27 '46

Stock split-ups. E. Schram. Comm & Fin Chr 163:2134 Ap 18 '46

Year of fission; stock split-ups multiply. Bsns W p34-5 F 9 '46

Valuation

Bases of common stock valuation. L. Roth. Comm & Fin Chr 164:66+ Jl 4 '46

Earnings factor in common stock valuation. F. P. Breckinridge Comm & Fin Chr 164: 743+ Ag 8 '46

Evaluating stocks above 1929 highs. H. Owen. Mag of Wall St 77:337-9+ D 22 '45

See also

Banks and banking
—Stock—Valuation

Yields

Latest developments in specific industries and individual companies analyzed; tabulations. Barron's 26:1+ N 4 '46

STOCKS, Preferred

Dividend payments of preferred stocks listed on New York stock exchange, 1945 compared with 1944. Trusts & Estates 82:406 Ap '46

High rate utility preferreds face call. Barron's 26:1+ Ja 28 '46

Latest developments in specific industries and individual companies analyzed; tabulations. Barron's 26:1+ N 4 '46

New lows for callable preferred stocks indicate fear of early replacement. Barron's 25: 1 D 10 '45

New York proposals for preferred stock protection. P. E. Jackson. Comm & Fin Chr 163:1499+ Mr 21 '46

Preferred stocks in to-day's investment program. R. Pitman. Mag of Wall St 78:39+ Ap 13 '46

Values in convertible preferreds. Barron's 26:13 My 13 '46

Wants preferred stocks to broaden life insurance investments; Life insurance investment research committee. Comm & Fin Chr 162:2477 N 22 '45

Accounting

Preferred-stock call premium and expenses, Federal power commission opinion in matter of Oklahoma gas and electric company. V. Z. Brink. J Account 81:521 Je '46

Refinancing

Refinancing preferred stock; reduction in the dividend rate of Rochester gas and electric corporation. E. J. Howe. Pub Util 37:603-13 My 9 '46

STOCKWELL, Howard A.

Portrait. Steel 119:48 O 28 '46

STOKELY-VAN CAMP, Inc.

Greater stability likely in Stokely's net. Barron's 26:6 N 4 '46

STOKELY-VAN CAMP, inc.—*Continued*
Merger agreement signed with Columbus foods corp. Comm & Fin Chr 162:2687 D 3 '45
Terms of conversion in merger. Comm & Fin Chr 163:2015 Ap 15 '46

STOKER manufacturers' association
Annual meeting, 29th, Colorado Springs, June 3-4. Sheet Metal Worker 37:76+ Jl '46; Dom Eng 168:129+ Jl '46

STOKERS, Mechanical
Application of electric motors to power station auxiliaries. A. E. Beardmore. il Power Pl Eng 50:79 Mr '46
Ash-plate failures; Gloucester segemental ash-plate design to withstand several conditions. il Elec R (Lond) 138:193 F 1 '46; diag Engineering 161:294 Mr 29 '46
Automatic heating trouble shooting. Sheet Metal Worker 37:78-9 F '46
Automatic water heating, utilizing subbituminous coal. V. F. Parry and others. 6pls U S Bur Mines Rep of Invest 3890:1-11 '46
Boiler fireman's handbook (cont). J. R. Darnell. il diags Power Pl Eng 49:111-13 N '45
Burning bituminous and subbituminous coals on an anthracite, ash-removal-type, domestic stoker. H. F. Yancey and K. A. Johnson. bibliog pl U S Bur Mines Rep of Invest 3849:1-14 '45; Abstract. Heat & Ven 43:73 Jl '46
Construction and operation of underfeed stokers. K. Steiner. il diags Heat & Ven 42:73-9 D '45
Experiences with a spreader stoker installation; Rothschild plant of the Marathon corporation. A. Urban. Paper Tr J 123:167-71 O 10 '46; Same cond. Paper Ind 28:1042-3 O '46
Hold-fire controls for bituminous coal stokers. C. C. Wright and others. diag Heating-Piping 18:101-7 Ag '46
Mines must meet demand for stoker fuel. C. V. Beck. Min Cong J 32:91 F '46
Nu-way water-sealed underfeed stokers. Engineering 160:533 D 28 '45
Smoke elimination program that works; rules for stoker installations. R. R. Tucker. diags Heating-Piping 17:605-10 D '45
Stoker industry aids smoke abatement work. L. L. Connell. il Heating-Piping 18:96-9 Jl '46; Same. Dom Eng 168:146-7+ S '46
Stoker industry's prospects; abstract. M. G. Bluth. Sheet Metal Worker 37:102+ Ja '46
Study of stoker fuel beds. O. de Lorenzi. Pulp & Pa of Can 47:79-81 Ap '46
Tests of bituminous-anthracite mixtures on industrial stokers. J. F. Barkley and others. U S Bur Mines Rep of Invest 3916:1-16, pl 1-7 '46
Three-stoker-fired boilers replace nine hand-fired units in three plants; Consumers' gas co. of Toronto. il diags Power 90:432-6 Jl '46
Wellman Smith Owen stoker-fired furnace control system. il Engineer 181:368 Ap 19 '46

Statistics
Annual recapitulation of mechanical stoker sales. Dom Eng 167:151 Ap '46

STOKES' law
Stokes' law and the limiting conductance of organic ions. E. Gonick. diag J Phys Chem 50:291-300 Jl '46

STOMACH
Diseases
Effect of tocopherols in preventing gastric ulcers in rats. J. L. Jensen. Science 103: 586-7 My 10 '46
Gastric mucigogue action of the alkyl sulfates. H. Shay and others. bibliog Science 103:50-2 Ja 11 '46
Relation of endocrine glands to the gastric secretory depressant in urine (urogastrone) role in human peptic ulcer. J. Kaulbersz and others. bibliog Science 102:530-1 N 23 '45

STONE, Edward C. 1878-
Lincolniana hobby. por East Underw 46:94 D 14 '45

STONE, Harlan Fiske, 1872-1946
Sketch. Comm & Fin Chr 163:2418 My 2 '46

STONE, Robert LeGrande, 1912-
Technical secretary of American ceramic society. bibliog por Am Cer Soc Bul 25:276 Jl 15 '46

STONE
See also
Dolomite
Granite
Limestone
Masonry
Pulpstones
Quarries and quarrying
Rocks
Sandstone

STONE, Crushed
Belt conveyor for crushed stone. E. E. Wright. il plan diag Mech Handling 33:300-3 My '46
Big rock protects harbor; Basalt rock co. has contract for jetty at Alameda naval air base. il map diags Rock Prod 48:92-5+ D '45
Crushing ten thousand tons daily for airport runway sub-base; Morrison-Knudsen co. il diag Rock Prod 48:96-9 D '45
Dust concentrations in stone crushing operations. A. C. Stern and others. Ind Med 15:165-8 F '46
Examples of aggregates operations; crushed-stone quarry operations in Illinois. il Rock Prod 48:90-1 O '45
Expect big crushed stone volume in 1946. B. Nordberg. il Rock Prod 49:94-7 Ja '46
Fifty years of progress; early experiences in crushed stone and cement business. R. C. Newhouse. Rock Prod 49:102-3 Je '46
One-man stone riprap made in a primary crusher. il Eng N 136:906-7 Je 13 '46
Reduce oversize stone with drop ball. T. C. Cooke. il Rock Prod 49:56-7 S '46
Stockpiling 85,000 tons of stone ballast for runway base; Kanawha County airport, Charleston, W.Va. il Roads & Sts 89:82-3 F '46
Twenty million years of primary crushing; Granite rock co., Watsonville, Calif. R. E. Fowle. il diag Rock Prod 48:119-20+ D '45
See also
Ballast

STONE construction
See also
Stonework

STONE polygons. See Polygon formations (geology)

STONE sand. See Sand—Stone sand

STONEWARE
Stoneware suction filters; batch operating technique. Chem Age (Lond) 54:694-6 Je 22 '46

STONEWORK
Stains
Causes of masonry stains found. Eng N 136: 412 Mr 21 '46

STOP mechanism
Old stop-motion magnet used as filling stop motion. diags Textile World 96:166 S '46

STOP payment. See Checks—Stop payment

STOPING methods. See Mining methods

STORAGE
High-lift trucks utilize vertical storage space; Merck & company, Rahway, N.J. il Factory Management 104:97 Ap '46
Mobile storage system; Stormor mobile units. il plans Arch Forum 84:183 My '46
Navy builds storage facilities. il Arch Forum 84:126-7 Mr '46
Orderly storage of spare parts cuts production delays; Edgewater Steel's electric shop. A. W. McAuly. il Factory Management 104: 142-5 My '46
Protective packaging. O. C. Rutledge. il Gen Elec R 48:16-19 D '45
Saving space with vertical storage. il Factory Management 104:106-7 F '46
Steel packaging; reusable and resealable steel drums for export shipment and prolonged storage. W. L. Hardy. il Steel 117: 96-8+ D 17 '45
Storage loss by fire. il Safety Eng 91:59-60 F '46

STORAGE—*Continued*
Tree stores plug and ring gages; stand with revolving shelves. L. D. Berg. diags Am Mach 90:121 Mr 14 '46

See also
Apples—Storage
Canned meat—Storage
Coal storage
Cold storage
Eggs, Dried—Storage
Food—Storage
Fruit, Dried—Storage
Gas, Natural—Storage
Gasoline storage
Grinding wheels—Storage
Ordnance—Storage
Pattern storage
Stores systems
Water storage
Wheat—Storage
Wood storage

STORAGE batteries
Battery plates dried with infrared lamps. E. Jirik and A. J. McIlwraith. il Elec World 126:150+ S 14 '46
Proper service helps conserve batteries as well as bring in additional profits. Nat Pet N 38:20 My 22 '46
Resistance welding with storage-battery power. J. D. Gordon. il Mach 52:167-70 Ag '46; Same cond, with diag. Mech Eng 68: 797-801 S '46
Sea water battery powers locator buoy; aid in sea-rescue work. diags Product Eng 17: 156 N '46
Wood for storage battery separators. L. V. Peakes, jr. and others. il Ind & Eng Chem 38.780-8 Ag '46

Charging
Constant 6 volt d.c. supply. C. C. Springer. il diag Radio N 35:44-5+ Je '46
Constant voltage battery chargers. il Electrician 136:967-8 Ap 12 '46
Effect of temperature on battery charging. O. H. Bauer. Elec World 126:96 Jl 6 '46
Low-cost battery charging. W. B. Atchinson. il Factory Management 103:155 N '45
Storage battery charging and full-floating operation. I. F. Freed. il Elec World 125:92-5 F 16; 70-3 Mr 2 '46

Manufacture
Conveyors aid the manufacture of accumulators. il diag Mech Handling 32:674-80 D '45

Testing
Modern and old batteries compared by test. H. D. Stanley. Elec World 125:103 Je 22 '46
Storage battery charging and full-floating operation. I. F. Freed. Elec World 125:70-3 Mr 2 '46

STORAGE bins. See Bins

STORAGE cabinets. See Cabinets (furniture)

STORAGE closets. See Closets

STORAGEWALL. See Closets

STORE buildings
Better detail plates; wall construction details for urban stores. R. J. Alexander. diags Am Bld 67:94-5 D '45
From sign shop to hobby shop; Peoria builder makes speedy conversion. il Am Bld 68:95 Mr '46
Modern stores pay dividends to builders and merchants. il plan diags Am Bld 68:68-9 Ag '46
Old building made new through complete modernizing; Walk-over shoe store, Memphis, Tenn. il plans Am Bld 68:80-1 Jl '46
Sixty small towns in California study Main Street face-lifting; Business planning institute of California. il Sales Management 56: 142+ Ja 15 '46
Stores; remodeling jobs. il plans Arch Forum 84:118-22 F '46
Taxpayer; Seattle store building. il map plans Arch Forum 83:154-5 N '45

See also
Retail trade—Store layout

Air conditioning
Air conditioning women's apparel stores; Lerner stores corp. B. A. Jacobi. il Heat & Ven 43:65-8 F '46
Dust removal cuts merchandise losses; air conditioning system with electronic air cleaner; American sporting goods co. store. il Heat & Ven 43:51-2 Je '46
Estimate sheet aids store cooler sizing. il Heating-Piping 18:98-100 Mr '46

Fronts
Boone, Iowa, plans new Main street. il Am Bld 68:108-9+ Ap '46
Burlingame, Calif. points way to business remodeling. il diags Am Bld 68:108-9+ Je '46
Does your store need modernizing? D. R. Crone. il Dom Comm 34:19-20 My '46
Main Street building; cross section of commercial building in Iowa, Minnesota, South Dakota and Arkansas. il Am Bld 67:84-7 D '45
Modernize your Main street; portfolio of store fronts; with blueprints. il Am Bld 67: 67-81 N '45
Remodeled shop demonstrates value of open front: Camera shop, Berkeley, Calif. il plan Arch Forum 85:146 O '46
Store location and sales volume. Dom Eng 168:95-6 Ag '46

Heating and ventilation
Department store cuts steam cost from $15,000 to $10,000; Gimbel brothers store, Milwaukee. il Heating-Piping 18:86-9 Mr '46
What's new in commercial heating? H. S. Birkett. il Gas Age 97:31-3+ Mr 7 '46

Lighting
All-industry approach to commercial lighting; Wisconsin electric power co. C. N. Laupp. il plan diags Elec World 125:64-6 Ja 5 '46
Combinations for commercial lighting. il Elec West 97:77 Ag '46
Half-sold is half-lighted. N. H. Boynton. il Elec World 126:65-7 Jl 20 '46
Light for merchandising. Elec West 95:93 N '45
Lighting and brightness for selling. K. C. Welch. diags Illum Eng 41:386-418 My '46
Modernize with light. A. F. Loewe. il Radio N 36:30-1+ Ag '46
New concepts in store lighting. K. C. Welch. diags Arch Rec 100:117-20 Ag '46
Possibilities of accent lighting as a utility lighting sales activity. diags Edison Elec Inst Bul 14:277-9 Ag '46
Small store lighting sells more of same. A. B. Goldsworthy. il Elec World 125:180+ Ap 13 '46
Spokane is off to good start in store lighting modernization. il Elec World 126:108 Ag 3 '46
Store model depicts lighting fundamentals. C. Zersen. il Elec World 125:94+ Mr 30 '46
Survey shows bright future for commercial fluorescent lighting. Sales Management 56: 96 F 15 '46
Three musts of store lighting. R. J. Chapin. Elec World 125:138 My 11 '46
Women's specialty shop uses a concentration of light as customer come-on; Graysons shop, Hollywood. il plan Arch Forum 85: 132-3 O '46

STORE equipment. See Retail trade—Store equipment

STORE fronts. See Store buildings—Fronts

STORE layout. See Retail trade—Store layout

STORE management. See Retail trade—Store management

STORE windows. See Show windows

STORES (retail trade)
Building types; reference studies in design and planning. il plans diags Arch Rec 99: 99-121 F '46
Plan for a super market appliance store. Ptr Ink 215:48 Ap 12 '46
What should you discuss with your architect? M. Lapidus. plan J Retailing 22:37-41 Ap '46

See also
Bakers and bakeries
Bookstores
Candy stores
Chain stores
Children's apparel stores
Department stores
Drug stores
Electric shops (retail trade)
Florists' shops
Furniture stores
Hosiery stores
Jewelry stores
Market stores
Men's stores
Retail trade
Roadside stores
Self service stores
Shoe stores
Store buildings
Women's apparel shops

STORES (retail trade)—*Continued*

Leasing

Some considerations in leasing a new store. A. H. Fuldner. J Retailing 22:42-3+ Ap '46

STORES systems

Better stock handling at half the old cost; Detrola Radio. G. H. Funk. il Factory Management 104:105-7 Jl '46

How Jewel Tea speeds control of inventory of business forms. P. Eastman. il Am Bsns 16:20-1 Ag '46

Improved inventory control. B. Melnitsky. Steel 119:76-7+ Jl 29 '46

Laboratory engineers find self-service stockrooms a new source of help. S. J. Radliff and W. S. Budlong. il plan Gen Elec R 49: 25-7 Jl '46

Management control for stock inventories. R. H. Wilson. Factory Management 104:142-5 Ag '46

Modernized stock control plan; Lehn & Fink products corporation. J. C. Metsch. il Am Bsns 15:14-15+ D '45

Orderly storage of spare parts cuts production delays; Edgewater Steel's electric shop. A. W. McAuly. il Factory Management 104: 142-5 My '46

Reduction in materials handling machine stock by Office of quartermaster general. Iron Age 158:162+ O 17 '46

Self-service stockrooms reduce operating costs; Bell telephone laboratories' experience. R. H. Wilson. Barron's 26:26 S 16 '46

Timely action on parts coding will avoid postwar confusion. J. Callahan. il Am Mach 89:137-8 N 22 '45

See also

Banks and banking—Stores systems
Inventories
Mine management—Stores systems
Pattern storage
Tool rooms

STORKE, Arthur D.

To head Climax molybdenum co. por Bsns W p44 Ap 13 '46

STORMS

Static d-f reveals storm location. il Electronics 19:212+ F; 224+ Ap '46

Storm finder; static direction device enabled planes to avoid bad weather. Bsns W p31 Ja 5 '46

See also

Hurricanes
Rain and rainfall
Snow

STORPEDO. See Containers (for air transport)

STOVES

1946 leading range designs; illustrations with text. Cer Ind 46:60-2 My '46

See also

Electric stoves
Gas stoves
Heaters

also Institute of cooking and heating appliance manufacturers

STOWAGE

Preventing damage to ship cargoes by ventilation and dehumidification. J. Leeming. il diags Heat & Ven 43:53-7 Je '46

STOWAWAYS

Charges reversed; shipping firms spend large sums for care of stowaways. Bsns W p24+ Jl 13 '46

STRAIGHTENING

Chart on metal bending and straightening. Power Pl Eng 50:108 Ag '46

Heating for bending and straightening; reference book sheet. diags Am Mach 90:141 Ag 15 '46

Peen straighten steel by hammering. diags Steel 117:96 D 24 '45

Straightening bent propeller shafts. il diags Steel 118:108 Ja 21 '46

Straightening fixture. diags Steel 118:124 F 25 '46

Straightening of warped shafts. T. F. Burch. Metal Prog 50:91 Jl '46

STRAIGHTENING machines

Bronx bar and tube straightening machine. il Engineering 161:355 Ap 12 '46

Car-side straightener. il Ry Mech Eng 119: 603 D '45

Fielding and Platt combined stretching and de-twisting machine. il Automobile Eng 35: 495-6 N '45

Roller levelling machines for armour plate. il Engineering 162:56-8, 60 Jl 19 '46

STRAIN gages

Analyzing stresses in welded H-section trusses. il Steel 119:99+ Jl 22 '46; Iron Age 158:45 Jl 25 '46

Constant time interval reference potential indicator for use with R-C coupled amplifiers. E. W. Kammer. il diags R Sci Instr 17:102-6 Mr '46

Electric resistance wire strain gauges. diags Engineering 162:121-3 Ag 9 '46

Electric strain gauges. A. B. White. diags Elec R (Lond) 139:175-6 Ag 2 '46

Electric strain gages aid machine design. V. E. Hillman. il diags Iron Age 157:50-3 Ap 11 '46

Electric strain gages analyze stresses in welded trusses. il Civil Eng 16:371 Ag '46

Electrical measurement of strain. S. C. Redshaw. il diags Roy Aeronautical Soc J 50: 568-602; Discussion. 603-12, 998-1001 Ag, D '46

Electrical robot in laboratory model measures stress in piping systems. L. C. Andrews. il Nat Pet N 38 pt 2:R108+ F 6 '46

Fast stress-strain machine. S. L. Dart and others. il diags R Sci Instr 17:106-8 Mr '46

Method for the measurement of residual welding stresses. J. L. Meriam and others. il Welding J 25:sup 340-3 Je '46

Mobile electronometer records stresses in vehicle road test by electric strain gage method. J. Geschelin. il Automotive & Aviation Ind 95:28-31+ O 15 '46

New strain gauges used by Cleveland firm to measure stress flow in loaded structures. il Arch Forum 85:138 Ag '46

Practical electric resistance strain gage procedures for structural tests on ships. W. V. Bassett. il Am Soc T M Proc 45:651-66 bibliog(p666); Discussion. 667-70 '45

Pressure sensing unit developed from strain gage. Electronics 18:252+ D '45

Sensitive ball bearing test unit measures small changes in torque. J. L. Snead and H. Gisser. il diags Product Eng 17:129-31 O '46

Spot welding of heavier gages of aluminum alloy; instruments for rapid measurement of current and tip force. R. C. McMaster and N. A. Begovich. il diags Welding J 24:sup644-52 D '45

Strain gages used to analyze stresses in welded trusses. il Product Eng 17:136 O '46

Strain gages used to test welded building trusses. il Bsns W p56 Je 29 '46

Stress analysis; electric systems for gauging static and dynamic strains. il Automobile Eng 36:401-6 S '46

Stress analysis methods. W. M. Murray. il diag Materials & Methods 23:1004-5 Ap '46

Stress gages simplify analysis. S. B. Williams. il Machine Design 18:132-6+ Jl '46

Stress measurement by electrical means; electric strain gauges. R. E. Kern and S. B. Williams. bibliog il diags Elec Eng 65:Trans 100-7 Mr '46

Stress-strain relations in ceramic materials. M. Lassettre and J. O. Everhart. il Am Cer Soc J 29:261-6 S 1 '46

Test-welded 80-ft. trusses with 144 strain gages. il Eng N 137:15 Jl 4 '46

STRAINERS

Automatic welding process increases production threefold; production of strainers for well pumps. il Mach 52:184-5 F '46

STRAINS and stresses

Allowable stress in beams; revision of the American institute of steel construction specification. T. P. Young. Eng N 137:321 S 5 '46

Allowable working stresses for steels. C. Lipson and G. Noll. Product Eng 17:205-8 Mr '46

Aluminum-alloy strain distribution at elevated temperatures. G. Sachs and others. il diags Am Mach 89:114-17 N 22 '45

Anchor bolt calculations. S. M. Jorgensen. Pet Refiner 25:97-101 My '46

STRAINS and stresses—*Continued*

Annealing of styrene and related resins. J. Bailey. il Mod Plastics 24:127-31 O '46

Can compression stress cause fatigue failures? J. C. Straub. Am Mach 90:120 O 24 '46

Circles of stress and strain compared. J. C. Rathbun. Eng N 137:376-9 S 19 '46

Circular calibration ring with two axes of symmetry. G. Brewer. diags Product Eng 17:115-19 F '46

Correlation of stress concentration with fatigue strength of engine components. C. W. Gadd and others. diags S A E J 53: 640-7 N '45

Critical stresses in a circular ring; testing of rocks and concrete. E. A. Ripperger and N. Davids. bibliog Am Soc C E Proc 72:159-68 F '46; Discussion. il diag 72:1185-7 O '46

Effect of alloying elements on mechanical properties. M. Gensamer. Iron Age 157:66-71 F 14 '46; Abstracts. Metal Prog 49:731-4 Ap '46

Effect of combined stresses on the mechanical properties of steels between room temperature and -188C. D. J. McAdam, jr. and others. Am Soc T M Proc 45:448-81 bibliog(p463-4); Discussion. 482-5 '45

Effect of hydrostatic pressure on plastic flow under shearing stress. P. W. Bridgman. diag J Ap Phys 17:692-8 Ag '46

Effect of notches upon limiting strain in high-strength aluminum alloys. O. A. Wheelon and St J. Barrett. il diags J Aeronautical Sci 13:401-4 Ag '46

Effect of overstress in fatigue on the endurance life of steel. J. B. Kommers. diag Am Soc T M Proc 45:532-41 '45; Abstract. Metal Prog 49:170+ Ja '46; Discussion. Am Soc T M Proc 45:542-3 '45

Effect of rate of strain on mild steel. R. P. Andrew. diag Engineering 162:171-2 Ag 23 '46; Discussion. J. A. Pope. 162:304 S 27 '46

Effect of stress distribution on yield points. F. G. E. Peterson. il diags Am Soc C E Proc 72:445-59 bibliog(p458-9) Ap '46; Discussion. bibliog 72:1032-40 S '46

Failure of ductile metals in tension. G. Sachs and J. D. Lubahn. bibliog diag A S M E Trans 68:271-6 My '46

Geometrical aspect of failure theories. R. Jenney. diags Civil Eng 16:125-6 Mr '46

Glue-line stresses in laminated wood. A. G. H. Dietz and others. diags A S M E Trans 68:329-35 My '46

Hankinson formula applications for stresses at timber joints. F. C. Smith. Eng N 135:50 Jl 12 '45; Discussion. C. J. Hogue. 136:1005 Je 27 '46

How stress measurements aid crankshaft design. S. Oldberg and C. Lipson. il diags Machine Design 17:127-32 N '45

Impact stress in elastic bodies calculated by the energy method. M. F. Spotts. bibliog diags Product Eng 17:200-4 Mr '46

Improving engine parts by direct measurement of strain. R. G. Anderson. bibliog il diags S A E J 54:466-75+ S '46; Same cond. Machine Design 18:137-42 S '46; Abstract. Metal Prog 49:967-8 My '46

Influence of the heat treatment of steel on the damping capacity at low stresses. L. Frommer and A. Murray. bibliog diags Iron & Steel Inst J 151:45-53 no 1 '45

Instability of thin-walled tubes subjected to internal pressure. G. Espey. A S M E Trans 68:281-5 My '46

Maximum stresses present at failure of brittle materials. J. Tucker, jr. Am Soc T M Proc 45:961-73 bibliog(p973); Discussion. 974-5 '45

Mechanical stress relief in transmission lines; effect of adding towers determined by study of models. J. N. Swarr. diag Elec World 126:77-8 O 12 '46

Mechanical stresses in transformer windings. E. Billig. il diags Inst E E J 93 pt 2:227-43 bibliog(p239-40) Je '46; Abstracts. Electrician 135:673 D 14 '45; Engineering 161:9 Ja 4 '46; Discussion. Electrician 135:706-8 D 21 '45; Inst E E J 93 pt 2:243-8 Je '46

Necking of tensile-test specimens. J. D. Lubahn. A S M E Trans 68:277-9 My '46

Observations on the behavior of aluminum allow test girders. R. L. Moore. bibliog il diags Am Soc C E Proc 72.729-48 Je '46

Piles and pile foundations; field determination of damaging stresses during driving. R. D. Chellis. il diag Eng N 136:863-5 My 30 '46

Plastic strain in isotropic strain-hardening material. H. W. Swift. diags Engineering 162:381-4 O 18 '46

Poisson's ratio of some structural alloys for large strains. A. H. Stang and others. bibliog pl J Res Nat Bur Stand 37:211-21 O '46

Possible role of shear in calendering. J. A. Van den Akker. bibliog diags Paper Ind 28:57-9 Ap '46

Pre-stressing rotating disks used in turbines and compressors. H. Dobkin. diags Steel 118:104-6+ Je 3 '46

Residual stresses can be beneficial or might cause failure of part. J. O. Almen. il diags Product Eng 17:81-5 Ag '46

Rigid-frame structures subject to non-uniform thermal action; foundations for boilers and oil refinery furnaces. C. C. H. Tommerup. diags Am Soc C E Proc 72:759-80 Je '46

Safety of structures. A. M. Freudenthal. bibliog Am Soc C E Proc 71:1157-91 O '45; Discussion. 72:251-5 F '46

Some stress-corrosion studies on austenitic cast irons. J. B. Urban and others. diags A S M E Trans 68:633-6 Ag '46; Same. Foundry 74:88-90+ N '46

Strain analysis by photogrid method. W. F. Brown, jr. and M. H. Jones. il Iron Age 158:50-5 S 12 '46; Excerpt. Mech Eng 68: 987 N '46

Strain hardening under combined stresses. W. Prager. bibliog J Ap Phys 16:837-40 D '45

Strength of beams as determined by lateral buckling. K. de Vries. diags Am Soc C E Proc 72:985-1011 S '46

Strength of screw threads of Whitworth form. J. V. Inglesby. Roy Aeronautical Soc J 50: 710-17 S '46

Stress analysis methods. W. M. Murray. il diag Materials & Methods 23:1002-6 Ap '46

Stress analysis of lightweight trailer by aviation methods. T. F. Fletcher. il diags Automotive & Aviation Ind 93:32-6 D 15 '45

Stress analysis of tube-sinking. G. Sachs and W. M. Baldwin, jr. bibliog diags A S M E Trans 68:655-62 Ag '46

Stress and strain in plastic flow. W. P. Roop. bibliog il diags Welding J 25:799-823 S '46

Stress conditions for the failure of saturated concrete and rock. K. Terzaghi. diags Am Soc T M Proc 45:777-92 bibliog(p791-2); Discussion. 793-801 '45

Stress gages simplify analysis. S. B. Williams. il Machine Design 18:132-6+ Jl '46

Structural model testing. O. W. Loudenslager. bibliog il diags S A E J 54:18-25 Ja '46

Studies of plastic flow of steel, especially in two-dimensional compression. P. W. Bridgman. il diags J Ap Phys 17:225-43 Ap '46

Sum and difference method for calculating stresses in disks. A. M. G. Moody and M. L. Land. diag Product Eng 17:147-52 O '46

Temperature strains in structural members. T. Baldwin and J. O. Cowburn. diag Engineering 162:265-7 S 20 '46

Tessellated stresses. F. László. diags Iron & Steel Inst J 147:173-99 no 1; 148:137-59 no 2 '43; 150:183-207 no 2 '44; 152:207-28 no 2 '45; Discussion. 150:207-9 no 2 '44

Testing cylindrical forgings. J. E. Petermann. il diag Steel 119:96-8+ S 16 '46

Theory for axial rigidity of structural members having ovaloid or square perforations. M. Greenspan. bibliog diags J Res Nat Bur Stand 37:157-61 S '46

Thermal stresses in wrought-steel wheels. R. L. Kenyon. il diags Ry Mech Eng 120:400-5 Ag '46

Transfer of stress grid to metal; use of light-sensitive paint; Transfax. N. C. Ferguson Metal Prog 50:300-2 Ag '46

STRAINS and stresses—*Continued*
Utilizing residual forming stresses in flat steel springs. W. C. Troy. diags Mach 52: 152-7 Je '46

See also
Airplanes—Stresses
Bending moment
Bridges—Load
Building
Columns
Concrete construction—Design
Creep of materials
Creep of metals
Deformation (mechanics)
Earth pressure
Elasticity
Fatigue in metals
Girders
Graphic statics
Hysteresis (mechanics)
Load (mechanics)
Notched bar testing
Poisson's ratio
Ships—Strains and stresses
Soil mechanics
Steel construction—Design
Strain gages
Strength of materials
Torsion
Trusses
Welding—Stresses

Brittle coating test

Continental finds Stresscoat analysis valuable guide in redesigning engine parts. J. Geschelin. il Automotive & Aviation Ind 95:36-9+ Ag 15 '46

Developing parts for production; brittle lacquer method of stress analysis (Stresscoat). G. W. Birdsall. il diags Steel 117: 104-8+ D 17 '45

Engine reliability enhanced by stresscoat analysis. C. S. Ricker. il Aviation 45:115+ Ja; 86-8 Mr '46

STRAPPING tools
Photoelasticity solves a knotty snap-ring problem; to retain a shaft on the strapping tool. R. E. Orton. il diags Machine Design 18:115-16 F '46

STRATIGRAPHIC geology. See Geology, Stratigraphic

STRAUB, Walter F.
Beeman on U.S. business. por Bsns W p21 Mr 30 '46

STRAW
Insulation of rotary straw cookers. J. T. MacDonald. Pulp & Pa of Can 47:103 S '46

Le mécanisme de la fabrication du papier de paille par macération. G. Bertrand and J. Delga. Génie Civil 123:26-7 Ja 15 '46

Mechanism of paper manufacture from straw digestion; abstract. G. Bertrand and J. Delga. Paper Ind 28:592 Jl '46

Meeting of fibrous agricultural residues committee. Paper Tr J 121:50-4 D 20 '45

Meeting of TAPPI fibrous agricultural residues committee; report. Paper Tr J 123:48-9 S 12 '46

Straw cellulose for feeding-stuffs; an aid in fighting the food shortage. Chem Age (Lond) 54:277-8 Mr 16 '46

See also
Flax straw

STRAW board. See Paper board

STRAW hats
Dominican straw hats: industry is on upgrade. For Comm W 23:40 Ap 27 '46

STRAWBERRIES, Frozen
Freezing experiments on strawberries; abstract. E. A. Fieger and others. Food Ind 18:1466 S '46

Stored frozen stock produces better preserves. H. H. Thompson and others. bibliog il Food Ind 18:1341-3+ S '46

STRAWBOARD. See Paper board

STRAY currents
Water works industry's attitude on grounding and stray current problems. C. F. Meyerherm. Am Water Works Assn J 37: 1293-9 D '45

STREAM flow
Cooling-water benefits from increased river flows. M. LeBosquet, jr. N E Water Works Assn J 60:111-16 Je '46; Abstract. Water Works & Sewerage 92:326-7 N '45

Discharge and sediment relationships in an open channel. L. G. Straub. il Civil Eng 16:490-1 N '46

Elongate intrenched meanders of Conodoguinet Creek, Pa. A. N. Strahler. bibliog pl diag maps Am J Sci 244:31-40 Ja '46

Flood flow formulas. H. B. Kinnison. Boston Soc C E J 33:1-19; Discussion (Applications of Kinnison-Colby flood formulas). B. L. Bigwood. 3 fold pls 20-8 Ja '46

See also
Stream measurement

STREAM measurement
Some problems and considerations in open channel flow measurement. R. E. Sprenkle. il diags Water Works & Sewerage 92:345-9 N '45

STREAM pollution. See Water pollution

STREET accidents
Study question of street accidents. W. C. Ropiequet. Nat Underw 49:28 D 20 '45

STREET cars
1945 model all-electric PCC car now test operating in Pittsburgh. il Mass Transportation 41:276-8+ O '45

Progress in vehicle design. W. E. P. Duncan. Bus Transportation 24:42-4 D '45

Washington preview; transit riders vote their preferences. il Bus Transportation 24:70-1 D '45

STREET cleaning

See also
Refuse collection
Snow removal

STREET cleaning apparatus
Leaf-handling and disposal devices aid suburban street cleaning. il Eng N 136:849 My 30 '46

New street sweepers for Toronto. il Water & Sewage 84:46 S '46; Same. Roads & Bridges 84:98 O '46

Streets cleaned by pressure flushing in Seattle. il Eng N 137:586 O 31 '46

STREET departments

Records

Milwaukee's street inventory record will facilitate predictions of future pavement requirements and reconstruction. R. W. Gamble. il diags map Eng N 136:63-7 Ja 10 '46

STREET lighting
Birmingham modernizes street lighting. Elec World 126:92+ Ag 31 '46

Filaments win street tests; fluorescent and incandescent lamps compared. il Elec West 96:108 Je '46

Fluorescent street lighting a possibility but filament lamps still the best. Franklin Inst J 240:496 D '45

How to position series lighting wire at corners; diagrams. Elec World 124:152 D 8 '45

Improvement in effectiveness of street lighting needed. W. N. C. Clinch. Electrician 137:725-6 S 13 '46

Lighting the streets of to-morrow. H. G. Fallon. Light & Lighting 39:149-50 Ag '46

Locates faults in street light circuits; exploring coil method. C. E. White. diags Elec World 126:87 Ag 17 '46

New goals set for highway lighting; standards set for National system of interstate highways. H. E. Mahan. il Eng N 137:580-3 O 31 '46

Now's the time to sell street lighting. H. G. Clum. Elec World 125:85-6 My 11 '46

Photographic representation of street lighting installations. R. G. Hopkinson. il Illum Eng 41:169-79 F '46

Planned promotion sells planned street lighting; Duquesne light co. L. H. Lingemann and F. B. Mahon. il Elec World 124:112-14 D 8 '45

Portslade street lighting. E. Heaps. il Electrician 137:724 S 13 '46

Public lighting; administration; abstracts. E. C. Lennox Electrician 137:727-8 S 13 '46; Light & Lighting 39:197 N '46

Public lighting and the modern use of gas; abstracts. P. C. Sugg. Gas J (Lond) 248: 681-2 O 23 '46; Light & Lighting 39:198 N '46

Public lighting conference; papers and discussions. Elec R (Lond) 139:445-7 S 20 '46

Public lighting engineer; his organisation, staff and training. R. Parker. Electrician 137:729-30 S 13 '46

STREET lighting—*Continued*
Recommended practice of street and highway lighting, 1945. diags Illum Eng 41:105-30 bibliog(p128-30) F '46; Excerpts. Elec World 126:108 O 12 '46
Street lighting. E. C. Lennox. il Inst E E J 93 pt 2:170-83 bibliog(p183) Ap '46; Abstracts. Electrician 135:503-4 N 9 '45; Light & Lighting 38:165 N '45; Discussion. Inst E E J 93 pt 2:183-90; 94 pt 2:58-60 Ap '46, F '47; Electrician 135:535-7 N 16 '45; Elec R (Lond) 137:709-10 N 16 '45
Street lighting lamps, their characteristics. Elec World 125:108 Ja 5 '46
Studies of fluorescent street lighting. bibliog il diags Illum Eng 41:146-68 F '46

Control

Control of street lighting; Rythmatic system. il Engineer 182:343-4 O 18 '46; Same. Electrician 137:929-30 O 4 '46
Multiple street lighting with electronic control. il Elec World 125:150 Ap 13 '46
Photoelectric street lighting control. C. E. Marshall. il diags Electronics 19:134-6 S '46
Remote control by high-frequency currents. Engineering 162:163 Ag 16 '46

Safety aspects

Arterial highway lighted for safety. D. E. Luckey. il Elec World 125:124 Je 8 '46
Examples for peace time in war-time traffic safety lighting. F. G. Davidson. il Elec World 125:176 Ap 13 '46
For better street lighting. E. C. Powers. Pub Util 38:286-7 Ag 29 '46
4,000,000 new lights needed on highways; abstract. A. F. Dickerson. Elec World 125:168 F 16 '46
Improved street illumination reduces accident rates in Los Angeles. il Eng N 136:858 My 30 '46
More benefits of proper plant lighting; yards and premises; promotion of street lighting. il Safety Eng 91:30-1 My '46
New collapsible lighting standards designed to cut highway fatalities; better street lighting needed. Eng N 136:995 Je 27 '46
Recommendations for planning modern street lighting. S. R. Williams. diags Illum Eng 41:131-45 F '46
Safer streets. il Bsns W p28 Ag 24 '46
Street lighting from the motorists' point of view. E. Fryer. Electrician 137:731-2 S 13 '46

Standards

New specification for street lighting; abstracts. J. W. T. Walsh; F. C. Smith. Gas J (Lond) 247:190 Ja 30 '46; Light & Lighting 39:21-3 F '46

STREET lighting fixtures
Association of public lighting engineers; exhibition. Gas J (Lond) 248:487-8 S 18 '46
Association of public lighting engineers conference; lighting and control equipment to be exhibited. il Electrician 137:653-8 S 6 '46
Experimental applications of tubular fluorescent lamps to street lighting; abstracts. L. J. Davies and W. D. Sinclair. il Electrician 137:732-4 S 13 '46; diags Elec R (Lond) 139:448-50 S 20 '46
New collapsible lighting standards designed to cut highway fatalities; better street lighting needed. Eng N 136:995 Je 27 '46
Newton Sieray minor lantern. il Electrician 136:603 Mr 8 '46
Set lighting standards with positioning jig. D. E. Luckey. diags Elec World 126:104+ Jl 20 '46
Socket picker for ornamental lamps. il diags Elec World 125:63 Ja 5 '46
Street lighting. E. C. Lennox. il Inst E E J 93 pt 2:170-83 bibliog(p183) Ap '46; Abstract. Electrician 135:503-4 N 9 '45; Discussion. Inst E E J 93 pt 2:183-90 Ap '46; Electrician 135:535-7 N 16 '45
Street-lighting equipment. il Elec R (Lond) 139:373-7 S 6 '46
Street lighting equipment inventory reduced; standardization by Jersey central power & light co. H. G. Glum. il diags Elec World 124:122-4 N 10 '45
Street lighting units displayed by utility. W. B. Hurley. il Elec World 124:126+ N 24 '45

STREET openings
Distribution maintenance work in small street openings. E. F. Schuldt. Gas Age 98:46+ O 31 '46

STREET railroads
See also
Electric railroads
Rapid transit
Subways
Trolley buses
also subdivision Rapid transit under names of cities, e.g. Chicago—Rapid transit

Accidents

Comparative claims costs and risks; street cars, trackless trolley coaches and gas buses. M. J. Thompson. Bus Transportation 25:52-3 O '46

Employees

Don't hate your customers; advice to motormen and conductors. P. S. Arkwright. Mass Transportation 42:296-7 Jl '46
Union wage rates of city streetcar and bus operators, July 1, 1945. H. Abowitz and A. V. Simi Mo Labor R 62:112-17 Ja '46; Same, with additional tabulations. (Rates paid in each city, p6-11.) U S Bur Labor Statistics Bul 856:1-11 '45

Fare collection

Weekly pass simplifies fare collection. W. Jackson. Mass Transportation 41:283 O '45

Fares

Inflation threat; will ten cent fare be an answer? A. J. Lundberg and others. Mass Transportation 41:322-3+ N '45
Intervention of Office of price administration in Indianapolis fare increase. Mass Transportation 42:27-9 Ja '46
OPA fare report stirs Detroit. Bus Transportation 25:43-5 Mr '46
OPA intervention has political pattern; court battles over proposed increase in fares, San Francisco. Mass Transportation 42:25-6 Ja '46
OPA's big squeeze to hit transit? fare increase controversies in Detroit and Indianapolis. Mass Transportation 41:360-2 D '45
Ten-cent fare announcement by Department of street railways in Detroit; with comments by W. A. Jackson. Mass Transportation 41:330-1+ N '45
See also
Rapid transit—Fares

Finance

Transit earnings remain at wartime levels. O. Ely. Pub Util 38:369-70 S 12 '46
See also Third avenue transit corporation

Maintenance and repair

Mr Manager, it is your job to set maintenance level. A. F. McDougald. Mass Transportation 41:318-19+ N '45

Management

Roy Fitzgerald talks for National; interview with C. W. Stocks. il maps Bus Transportation 25:48-53 S '46
Seven steps transit must take. W. R. Pollard. Bus Transportation 24:44-7 D '45

Motor bus substitution

Chicago invests $23 million in modernization. C. W. Stocks. il map Bus Transportation 25:54-60 S '46

Public relations

Don't hate your customers; advice to motormen and conductors. P. S. Arkwright. Mass Transportation 42:296-7 Jl '46

Securities

Are the transit stocks attractive? Comm & Fin Chr 162:3134+ D 27 '45
Transit company stocks. Pub Util 36:717; 37: 238, 699; 38:370 N 22 '45, F 14, My 23, S 12 '46

Track reclamation

Old rail removed in 3-ft. pieces. Eng N 136: 787 My 16 '46
Problem of abandoned track. J. F. Smythe. il Bus Transportation 25:58-9 F '46

STREET railroads—*Continued*

Traffic

Eliminating staggered hours causes transit congestion in New Orleans. il Mass Transportation 42:30-2 Ja '46

STREET traffic

Automobile; sacred cow of America. G. C. Hecker; J. L. Wilson. Mass Transportation 42:152-4 Ap '46

City traffic engineering activities; report by Eno foundation for highway traffic control. il map Roads & Bridges 84:60-1+ F '46

Cost of traffic congestion in the city of Montreal. D. Beaubien. il Roads & Bridges 84:59-60+ My '46

Expressways and buses to relieve Detroit's traffic congestion; with cost data. il plans Roads & Bridges 84:49-58 Ja '46

Fact findings by Philadelphia committee for the relief of traffic congestion. Mass Transportation 41:367+ D '45

Fundamental requirement number one; what can transit officials do to reduce traffic congestion? L. Williams. il Bus Transportation 25:91-2 S '46

It costs $500 per car per year for street-widening and parking cars. R. N. Watt. Mass Transportation 42:126-7 Mr '46

Los Angeles surveys; city planners discuss future of transit. il map Bus Transportation 25:48-9 F '46

More cities establish parking lots to ease traffic congestion. Eng N 136.933 Je 13 '46

New York state to build highways through cities as check on decentralization. L. A. Bergman. il Civil Eng 16:477 N '46

New York state's urban program; arterial routes at state expense. B. D. Tallamy. il Roads & Sts 89:94+ Ag '46

New York tackles traffic problem. Arch Rec 98:134+ D '45

One-day traffic survey in Buffalo. Roads & Sts 89:84 Ap '46

Our cities are suffering from poor circulation. A. J. Lundberg. Mass Transportation 42:33-4 Ja '46

Push traffic problem solution plans. Eng N 137:404 S 26 '46

Subways and traffic congestion, with particular reference to Toronto's problems; proposed subway. C. A. Meadows. map plans diag Roads & Bridges 84:51-3+ My '46

Traffic congestion; symposium. Bus Transportation 25:81-3 My '46

Traffic outrage; New York's traffic sufferers. il plans Fortune 34:122-9 O '46

Traffic planning studies in American cities. J. T. Lynch. maps diags Pub Roads 24:161-78 O '45

Transit's creeping paralysis; traffic congestion and automobile parking. Mass Transportation 41:364-7 D '45

Urban highway improvement is urgent need. H. A. Macdonald. il Roads & Bridges 83: 69-70+ D '45

Urban traffic-congestion problem. H. A. MacDonald il plan Roads & Bridges 84: 76-9+ Ap '46

What can be done about traffic congestion? L. Williams and others. il Civil Eng 16: 149-53, 202-6, 260-4 Ap-Je '46

What kind of card will transit get when they ration street space? H. G. Morris. Mass Transportation 42:162-3 Ap '46

See also
Automobile parking
Traffic signals

STREETS

City practices in mapping street subsurface structures. Pub Works 77:36+ Ag '46

Soil-cement streets for subdivisions, Alexandria, Virginia. D. A. Loftus. il Roads & Sts 89:84-5 F '46

Urban highway improvement is urgent need. H. A. Macdonald. il Roads & Bridges 83: 69-70+ D '45

See also

Business streets	Roads
City planning	Snow removal
Parkways	Street lighting
Pavements	Street traffic

also subdivision Streets under names of cities, e.g. Chicago—Streets; Detroit—Streets

Drainage

See also
Catch basins

Ice control

Cincinnati's cliff dwellers get stepped-up winter protection. C. E. Brokaw. il Pub Works 77:30+ Ag '46

Snow and ice control in the District of Columbia. W. A. Xanten. il Roads & Sts 89:104-6 Jl '46

Use of rock salt for removing ice and snow from streets. il Pub Works 77:19-20 Ja '46

Intersections

Two-bridge rotary for controlled access interchange; Shirley memorial highway in Arlington, Virginia. D. W. Loutzenheiser. il plan Roads & Sts 89:85-8 Ap '46

Maintenance and repair

Cincinnati protects its streets by extensive resurfacing and sealing; with cost data. il Eng N 137:302-6 S 5 '46

STRENGTH of materials

Atomic physics and the strength of metals. N. F. Mott. Engineering 161.558-60 Je 14 '46; Excerpt. Engineer 181:469-70 My 24 '46

Crystal strength. R. D. Conrad. Welding J 25:sup450 Ag '46

Détermination simplifiée de l'endurance de l'acier et des autres métaux. A. Buchwald. Génie Civil 123:37-8 F 1 '46

Effect of notches on static and fatigue strength. D. W. Drake. bibliog il diags J Aeronautical Sci 13:259-69 My '46

Effect of specimen shape on the compressive strength properties of laterally supported plywood specimens. J. A. Liska. il diags Am Soc T M Proc 45:935-42 '45

Factors controlling the strength of brazed joints; from final report N.R.C. 560. C. Rhyne, jr. il Welding J 25:599-611 Jl '46

Impact strength of arc-welded joints in aircraft steel. H. O. Klinke. il Welding J 23: sup633-4 D '44; Same. Aero Digest 52:82-3 Je '46

Investigation of the strength of riveted joints in copper sheets. W. M. Wilson and A. M. Ozelsel. il diags Ill U Eng Exp Sta Bul 360:1-81 '46 (pa $1)

Investigation of the strength of welded stirrups in reinforced concrete beams. O. Moretto il diags Am Concrete Inst J 17:141-62 N '45

Magnesium alloys for aircraft. F. A. Rappleyea. il Aero Digest 53.87-8+ S '46

Mechanical properties and some metallurgical features of copper brazed joints. R. F. Tylecote. bibliog il diags Welding J 25:sup 242-9 Ap '46

Shear properties of metals and alloys; engineering file facts. R. S. Burpo, jr. comp. Materials & Methods 23:1341, 1343, 1345, 1617, 1619; 24:143, 145 My-Jl '46

Significance of impact-test data in design of engineering structures. D. F. Windenburg. il diag Product Eng 17:81-3 S '46

Spot weld strengths and structures of 75ST Alclad aluminum alloy. M. L. Ochieano. il diags Product Eng 17:102-5 S '46

Symposium on notch effects in high-strength aluminum alloys. L. Schapiro and others. il diags J Aeronautical Sci 13:391-404 Ag '46

See also

Bending moment	Fatigue in metals
Building materials	Glass—Strength
Columns	Graphic statics
Deformation (mechanics)	Rubber—Strength
Elasticity	Steel—Strength
Factor of safety	Strains and stresses
	Wood—Strength

STREPTAMINE

Degradation of streptomycin and the structure of streptidine and streptamine. H. E. Carter and others. Science 103:53-4, 540 Ja 11, Ap 26 '46

STREPTIDINE

Degradation of streptomycin and the structure of streptidine and streptamine. H. E. Carter and others. Science 103:53-4, 540 Ja 11, Ap 26 '46

STREPTIDINE—*Continued*
Streptomyces antibiotics, hydrolytic cleavage of streptomycin to streptidine. R. L. Peck and others. Am Chem Soc J 68:29-31 Ja '46
Streptomyces antibiotics; the structure of streptidine. R. L. Peck and others. Am Chem Soc J 68:776-81 My '46

STREPTOBIOSAMINE
Streptomyces antibiotics; degradation of streptomycin to streptobiosamine derivatives. N. G Brink and others. bibliog Science 102.506-7 N 16 '45

STREPTOCOCCI
Glutamine-rich peptone for cultivation of hemolytic streptococci. N. Grossowicz and N. Lichtenstein. bibliog Science 102:509-10 N 16 '45
Growth response of tetrahymena geleii W to folic acid and to the streptococcus lactis R factor. G. W. Kidder and R. C Fuller, 3d. bibliog Science 104:160 Ag 16 '46
Hemolytic streptococcal sore throat; antibody response following treatment with penicillin, sulfadiazine, and salicylates. L. A. Rantz, P. J. Boisvert and W. W. Spink. bibliog Science 103:352-3 Mr 22 '46
Method for determining bacterial resistance and susceptibility to sulfonamides and penicillin. R. D. Reid and D. T. Anderson. Science 103:454-5 Ap 12 '46
Penicillin blood-level determinations with a streptococcus dysgalactiae resistant to normal blood inhibitors. J. C. Kakavas and E. G. Scott. bibliog Science 104:327-8 O 4 '46

STREPTOMYCIN
Activity of streptomycin in experimental syphilis. W. B. Dunham and G. Rake. Science 103:365 Mr 22 '46
Administration of streptomycin in peanut oil and beeswax and in solvecillin. J. A. Kolmer and others. bibliog Science 104:315-17 O 4 '46
Antibacterial action of penicillin, penicillin X, and streptomycin on hemophilus influenzae. W. L. Hewitt and M. Pittman. bibliog Pub Health Rep 61:768-78 My 31 '46
Composition of streptomycin reineckate. J. Fried and O. Wintersteiner. il Science 104: 273-4 S 20 '46
Danger from streptomycin. Chem & Eng N 24.1552 Je 10 '46
Degradation of streptomycin and the structure of streptidine and streptamine. H. E. Carter and others. Science 103:53-4, 540 Ja 11, Ap 26 '46
Degradative studies of streptomycin. I. R. Hooper and others. bibliog Am Chem Soc J 68:2120 O '46
Drug pretesting need climaxed in sales parley on streptomycin. Oil Paint & Drug Rep 149: 3+ F 25 '46
Effect of streptomycin on budwood infected with phytomonas pruni. J. G. Brown and D. M. Hoep. Science 104:208 Ag 30 '46
Formation of maltol by the degradation of streptomycin. J. R. Schenck and M. A. Spielman. Am Chem Soc J 67:2276 D '45
Grants for study of streptomycin. Chem & Eng N 24:812+ Mr 25 '46
Influence of streptomycin on type b. haemophilus influenzae. H. E. Alexander and G. Leidy. bibliog Science 104:101-2 Ag 2 '46
Interference with the antibacterial action of streptomycin by reducing agents. A. Bondi, jr. and others. bibliog Science 103:399-401 Mr 29 '46
Medicine from earth; discovery of streptomycin. Fortune 34:104-5 Jl '46
Preliminary studies on the absorption and excretion of streptomycin in dogs. B. E. Graham and others. Science 103:364-5 Mr 22 '46
Progress in drugs, fine chemicals and biological products during 1945. G. C. Green. Chem Age (Lond) 54:185-6 F 16 '46
Reciprocal sensitivities of staphylococcus aureus to streptomycin, streptothricin, and penicillin. M. Sullivan and others. Science 104:397 O 25 '46
Some pharmaceutical developments in 1945. E. H. Volwiler and D. W. MacCorquodale. Chem & Eng N 24:347 F 10 '46
Streptomyces antibiotics; degradation of streptomycin to streptobiosamine derivatives. N. G. Brink and others. bibliog Science 102:506-7 N 16 '45
Streptomyces antibiotics; dihydrostreptomycin. R. L. Peck, C. E. Hoffhine, jr. and K. Folkers. Am Chem Soc J 68.1390-1 Jl '46
Streptomyces antibiotics; hydrolytic cleavage of streptomycin to streptidine. R. L. Peck and others. Am Chem Soc J 68:29-31 Ja '46
Streptomyces antibiotics; isolation of streptomycin. F. A. Kuehl, jr. and others. bibliog Am Chem Soc J 68:1460-2 Ag '46
Streptomyces antibiotics; N-methyl-*l*-glucosamine from streptomycin. F. A. Kuehl, jr. and others. Am Chem Soc J 68:536 Mr '46
Streptomyces antibiotics; the degradation of streptomycin and dihydrostreptomycin with ethyl mercaptan. F. A. Kuehl, jr. and others. bibliog Am Chem Soc J 68:2096-101 O '46
Streptomycin civilian distribution outlined. Oil Paint & Drug Rep 150:3+ Jl 22 '46
Streptomycin clinical study is funded. Oil Paint & Drug Rep 149:3 Mr 11 '46
Streptomycin depots put in 1,652 hospitals. Oil Paint & Drug Rep 150:4 S 9 '46
Streptomycin free to physicians. Oil Paint & Drug Rep 149·3 My 6 '46
Streptomycin in experimental plague. J. W. Hornibrook. Pub Health Rep 61:535-8 Ap 12 '46
Streptomycin producers advisory group formed. Oil Paint & Drug Rep 149:5 Ja 21 '46
Streptomycin quotas for civilians Sept. 1. Oil Paint & Drug Rep 150:5 Ag 26 '46
Streptomycin run; demand for miracle drug. Bsns W p58+ N 10 '45
Streptothricin and streptomycin; abstract. S. A. Waksman and A. I. Schatz. Chem & Eng N 24:1055 Ap 25 '46
Studies on the toxicity of streptomycin for man; a preliminary report. R. A. Hettig and J. D. Adcock. Science 103:355-7 Mr 22 '46
Tuberculostatic action of streptothricin and streptomycin with special reference to the action of streptomycin on the chorioallantoic membrane of the chick embryo. E. W. Emmart. bibliog Pub Health Rep 60:1415-21, pl 1-2 N 30 '45
Tularemic pneumonia; treatment with streptomycin. R L. Peterson and R. R. Parker. Pub Health Rep 61:1231-4 Ag 23 '46

Analysis
Estimation of streptomycin in body fluids. C. W. Price and others. Science 103:56-7 Ja 11 '46
Polarographic analysis of streptomycin. G. B. Levy, P. Schwed and J. W. Sackett. Am Chem Soc J 68:528-9 Mr '46

Manufacture
Begin large-scale streptomycin production; Merck & co., Elkton, Va. il Chem Ind 59: 496 S '46
Production of streptomycin. H. Silcox. bibliog il Chem & Eng N 24:2762-4 O 25 '46
Streptomycin engineered into commercial production. R. W. Porter. flow sheet(p142-5) il Chem Eng 53:94-8 O '46
Streptomycin in Britain; Boots planning large-scale production. il Chem Age (Lond) 55:436-7 O 12 '46

STREPTOTHRICIN
Reciprocal sensitivities of staphylococcus aureus to streptomycin, streptothricin, and penicillin. M. Sullivan and others. Science 104:397 O 25 '46
Streptomyces antibiotics; isolation of streptothricin. R. L. Peck and others. Am Chem Soc J 68:772-6 My '46
Tuberculostatic action of streptothricin and streptomycin with special reference to the action of streptomycin on the chorioallantoic membrane of the chick embryo. E. W. Emmart. bibliog Pub Health Rep 60:1415-21, pl 1-2 N 30 '45

STRESSCOAT. See Strains and stresses—Brittle coating test

STRESSES. See Strains and stresses

STRETCHERS (litters)
Device for lifting injured from ship holds. il Marine Eng 51:130 S '46

STRETCHING

Aluminum-alloy strain distribution at elevated temperatures. G. Sachs and others. il diags Am Mach 89:114-17 N 22 '45

Drawing, stretching, stamping of aluminum. H. L. Smith, jr. il Steel 119:88-90+ Jl 22 '46

Elevated-temperature stretch-flanging of some aluminum alloys. E. G. Thomsen and others. il diags A S M E Trans 68:643-6 Ag '46

Practical effect of stretching synthetic yarns; presented by Piedmont section. Am Dyestuff Rep 35:26-8 Ja 14 '46; Same cond. Rayon 27:77-8 F '46

Stretch-forming aluminum alloys at elevated temperature. G. Sachs and others. diags Am Mach 89:98-100 D 6 '45

Stretch-forming; Boeing aircraft co. A. Jacobson. il Steel 117:100-1+ D 17 '45

STRETCHING machines

Fielding and Platt combined stretching and de-twisting machine. il Automobile Eng 35:495-6 N '45

STRIKES

Allis-Chalmers deadlock. Bsns W p84+ Ag 3 '46

A-C tide turns. Bsns W p102+ S 21 '46

American strike scene. C. S. Slocombe. Personnel J 24:203-6 D '45

Causes of labor strife; statement before House Labor committee. W. Green. Comm & Fin Chr 164:129+ Jl 4 '46

Chicago is battle ground in employing printers' stand against I.T.U. demands. Inland Ptr 118:29-31 N '46

Chicago typographical union ends long strike. Inland Ptr 116:72 O '45

City's intervention balked in Pittsburgh strike. Pub Util 38:549-51 O 24 '46

C.I.O. courts government aid. il Bsns W p15-17 D 1 '45

Debunks idea that right to strike is sacred. W. A. Stanfill. Steel 118:86 Je 3 '46

Decorously idle; white-collar employees of Boston engineering office keep up their strike. Bsns W p100+ My 25 '46

Doomed formula? fact finding receives setback when G.M. withdraws from hearings. Bsns W p96 Ja 5 '46

Farmers divided; one group helps strikers, another forms vigilante committee. Bsns W p94+ Mr 2 '46

Federal threat in farm equipment strikes. Bsns W p102+ Je 8 '46

Fishing fleet idle in Boston. Bsns W p97 Ja 26 '46

Flint weathering the strike. Bsns W p19-20 F 16 '46

Foremen's test at Bohn. Bsns W p94 Mr 16 '46

Fortune survey; reaction to the winter strikes? Fortune 33:14 Je '46

Fortune survey; what is proper during a strike? Fortune 34:16 N '46

G.M. strike brings showdown. Bsns W p17-18 N 24 '45

General strike settled at Rochester, N.Y. Eng N 136:888 Je 6 '46

General strike; Stamford's labor holiday in sympathy with Yale & Towne strikers. il Bsns W p100-2 Ja 12 '46

Glass strike. Bsns W p106+ D 1 '45

How a governor stopped a threatened utility strike in Virginia. W. M. Tuck. Pub Util 38:267-76 Ag 29 '46

Labor front still embattled. Bsns W p93-4 F 23 '46

Might versus right! O. W. Adams. Comm & Fin Chr 162:2703+ D 6 '45

Nation idles down. Bsns W p99-102 Ja 26 '46

1945 strike map. Bsns W p84 My 4 '46

No fundamental solution reached. Nat City Bank p61-5 Je '46

One-day protest; maritime unions demand more ships to bring veterans home. Bsns W p107 D 8 '45

One down; C.I.O. loss of Western Union strike. Bsns W p90+ F 16 '46

Pittsburgh enjoins power strikers; injunction dissolved. R. N. Larkin. Elec World 126:114-15, 119-20 S 28 '46

Pittsburgh gets injunction, halts Duquesne Light strike. il Elec World 126:103-4 S 14 '46

Plenty at stake; San Francisco machinist strike. Bsns W p92-3 Mr 9 '46

Public favors 1-yr strike moratorium; Gallup poll. Iron Age 157:121 My 9 '46

Public opinion now favors G.O.P. labor policy; Gallup poll. Iron Age 158:113 Jl 4 '46

Real tug of war; New York harbor crews' strike. Bsns W p75 F 9 '46

Record strike wave cripples United States production. L. Sullivan. Manuf Rec 115: 46+ O '46

Right to manage reestablished by strike; abstracts. G. A. Price. Factory Management 104:280+ S '46; Pub Util 38:304-6 Ag 29 '46

Security measures against stoppages. S. Shuchter. Factory Management 104:206+ Ap '46

Seizure worry; Allis-Chalmers strike. Bsns W p87 Je 15 '46

Seven remedies for strikes; abstract. E. Johnston. Management R 35:364-7 S '46

Should strikes in electric utilities be outlawed? L. H. Hill. Elec World 126:68-9 O 26 '46

Six-year no-strike plan in St Louis by 42 laundries, dry cleaning firms, and linen and towel supply houses. Bsns W p100 D 15 '45

Spotlights on the General Motors strike. L. Westrate; H. W. Anderson. Automotive & Aviation Ind 94:17-19+ Ap 1 '46

Strike averted in maritime industry. Mo Labor R 63:82-4 Jl '46

Strike disorders. Bsns W p80+ Mr 9 '46

Strike fizzles; settlement at Allis-Chalmers plants. Bsns W p100+ O 12 '46

Strike holdover. Bsns W p102+ Mr 23 '46

Strike losses set record. Bsns W p99 D 8 '45

Strike subsidies? New York City's agreement to aid men voluntarily idle. Bsns W p63-4+ F 9 '46; Same. Factory Management 104: 292+ Mr '46

Strike that can make history; Pittsburgh's test. Bsns W p92+ O 5 '46

Strikes against electric utilities. Elec World 125:71-97 My 25 '46

Strikes and the public interest; abstract. S. H. Slichter. Management R 35:34-6 F '46

Strikes and their impact on public opinion. T. R. Sills. Am Pet Inst Proc 25(1):99-103 '45

Telephone strike set. Bsns W p97 Mr 2 '46

Textile pattern; agreement on 65c minimum hourly wage. Bsns W p106+ Mr 16 '46

Three men in search of the truth; fact finder in General Motors dispute. Bsns W p19 D 22 '45

To strike or not to strike. H. S. Simpson and J. A. Dash. Mass Transportation 42:382-5 S '46

TWA pilot strike forecasts wage pattern for airlines. B. Stubblefield. Aviation N 6:7 O 28 '46

Trucking crisis; New York city tie-up. Bsns W p93 S 7 '46

Two major labor union questions loom on horizon of U.S. graphic arts industry. Inland Ptr 117:31-2 Jl '46

Unionists unite to discipline Rochester. Bsns W p98 Je 1 '46

Utility dilemma. Bsns W p106-7 Ja 12 '46

What is back of the strikes? L. Criscuolo. Comm & Fin Chr 163:725+ F 7 '46

What the factory worker really thinks. Factory Management 103:86-7 D '45

What to do about strikes. T. W. Kheel. Comm & Fin Chr 163:370+ Ja 24 '46

You may never have a strike, but. Management R 35:46-8 F '46

See also

Coal strikes
Insurance, Riot and civil commotion—Strike coverage
Labor disputes
Railroad strikes
Steel strikes
United automobile workers of America

Advertising

Chicago merchants place variety of ads to explain coal strike effects. Ptr Ink 215: 113+ My 10 '46

Don't cross that picket line! strike ads not effective. J. G. Schneider. Adv & Sell 39:60 F '46

Story of a strike told in excerpts from the company's advertising. Adv & Sell 39:53-4 F '46

STRIKES—Advertising—*Continued*
Strike advertising is not like competitive product copy. L. Graves. il Ptr Ink 214:52+ Mr 1 '46
Strike advertising shows lack of know-how. F. Rudge. il Ptr Ink 214:21-2+ F 1 '46
What advertising can do during a strike; GE advertising used to preserve employee and community good-will. F. LaClave. il Ptr Ink 214:23-4+ Mr 22 '46

Economic aspects

Big strikes; profit and loss. Bsns W p94+ Mr 23 '46
Business conditions; strike situation. Nat City Bank p13-16 F '46
Demurrage charges on strike-bound cars. G. L. Wilson. bibliog Ry Age 120:194-7 Ja 19 '46
Local strikes throttle trade; ordeal of three cities. Bsns W p16 F 16 '46
Nationwide strikes are a sword over our heads; First national bank of Boston. Comm & Fin Chr 163:3069+ Je 6 '46
Plain talk needed to avert new round of strikes; union rank-and-file misled on real effect of wage boosts. H. S. Taylor. Barron's 26:3 S 30 '46
Retail trade holds up well in strike areas despite workers' loss of income. Barron's 26:1 Ja 21 '46
Strike costs told; Western Union reports its losses. Bsns W p86+ Ap 20 '46
Strikes and shortages. L. H. Haney. Comm & Fin Chr 163:2350+ My 2 '46
Strikes and the cost of living. H. S. Percival. Pub Util 37:415-22 Mr 28 '46
Strikes intensifying inflationary forces. M. S. Eccles. Comm & Fin Chr 163:2652+ My 16 '46
What do strikes cost labor? il Am Bsns 16: 16-17+ Ag '46
When labor strikes everybody loses; effects of GM strike. il Factory Management 104: 120-8 My '46

Law

Case bill probably indicates legislative trend. Factory Management 104:84-5+ Mr '46
Case bill pushed. Bsns W p76+ F 9 '46
Case bill veto emphasizes need for immediate labor legislation. E. M. Friedman. Comm & Fin Chr 163:3202+ Je 13 '46
Case bill veto message; text. H. S. Truman. Comm & Fin Chr 163:3205+ Je 13 '46
Case strike-curb bill. Factory Management 104:266+ Mr '46
Curb on U.P.W.A.; Congress putting riders on appropriation bills. Bsns W p91-2 Je 22 '46
Good and the bad in the pending Case anti-strike bill. T. W. Kheel. Comm & Fin Chr 163:832+ F 14 '46
Governmental reaction to utility strikes; legislation enacted and proposed. Elec World 125:95-7 My 25 '46
House passes anti-strike legislation. Comm & Fin Chr 163:879 F 14 '46
How workers and management stand on labor controls. Factory Management 104:82-8 Jl '46
Individual freedom and industrial peace. R. A. Taft. Comm & Fin Chr 164:201+ Jl 11 '46
Labor angle; Case bill. Bsns W p96 F 16 '46
Labor-management relations in public utilities; New Jersey's law safeguarding against public utility strikes. W. E. Edge. Pub Util 38:69-72 Jl 18 '46
Louisiana curb; Labor plans court test of measure outlawing strikes. Bsns W p88+ Jl 27 '46
Majority favors legislation to enforce industrial peace; Gallup poll. Iron Age 157: 107 Je 27 '46
NLRB fettered; law requires Board to conduct strike vote. Bsns W p100+ N 17 '45
Need for new labor law. D. R. Richberg. Comm & Fin Chr 163:241+ Ja 17 '46
President and House take strike action; text of Truman's radio address and address to Congress; text of House strike-control bill. Comm & Fin Chr 163:2973+ My 30 '46
Public favors congressional action on strikes. Iron Age 157:99+ F 28 '46
Public favors law to prohibit utility strikes; Gallup poll. Iron Age 157:109 Ap 25 '46
Public workers and the right to strike. C. S. Rhyne. Eng N 137:292-5 S 5 '46
Repeal the Smith-Connally act now. il Factory Management 103:82-7 N '45
Seven out of ten think Congress should do something about strikes; Gallup poll. Iron Age 157:107+ Ap 18 '46
State's right?; curbs on strikes in public utilities. il Bsns W p98+ Ap 6 '46
Truman asks Congress to enact strike curb measure. Comm & Fin Chr 162:2793+ D 6 '45
Union relations with public ownership. W. R. LaDue. Am Water Works Assn J 38:914-20 Ag '46
Utility has duty to supply power to picketed homes; Long Island lighting co. must furnish service to building project on which utility employees refuse to work because of strike. Elec World News ed 125:7 Ja 12 '46
Wagner act and strikes. R. E. Willis. Comm & Fin Chr 163:2786+ My 23 '46
Why I voted against Truman anti-strike bill. F. C. Smith. Comm & Fin Chr 163:2909+ My 30 '46

Statistics

Labor's record; strikes by years, 1928-1945; by months, 1941-1945; tabulations. Automotive & Aviation Ind 94:66-7 Mr 15 '46
Strike record; graph. Bsns W p19 O 12 '46
Strikes and lockouts: man-days idle during the month, 1941-1945; graph. Survey of Cur Bsns 26:11 F '46
Trade disputes in 1945. Economist 150:766 My 11 '46
Volume of strikes since Wagner act. Comm & Fin Chr 163:761 F 7 '46
Work stoppages caused by labor-management disputes in 1945: Mo Labor R 62:718-35 My '46; Same, with additional data. U S Bur Labor Statistics Bul 878:1-41; pa 10c Supt. of doc. '46
Work stoppages in 1945; preliminary estimates. Mo Labor R 62:245-7 F '46
Work stoppages in January 1946. Mo Labor R 62:425-9 Mr '46 [cont monthly]

Canada

Steel deadlock. Bsns W p108 Jl 27 '46
Strikes spread. Bsns W p112 Jl 20 '46

Great Britain

Industrial disputes in the United Kingdom and British dominions, 1935-45. J. A. Flexner and M. B. Cheney. Mo Labor R 62:610-15 Ap '46
London gas strike. Gas J (Lond) 246:771 N 28 '45

STRINGED instruments
See also
Violin

STRIP steel. See Steel, Strip

STRIPPER wells. See Petroleum—Stripper wells

STRIPPING operations. See Coal mines and mining—Stripping operations; Mining methods—Stripping operations

STROBOSCOPIC instruments
Gaseous discharge tubes and applications. R. C. Hilliard. il diags Electronics 19:122-7 Mr '46
Instruments for stroboscopy; abstract. P. Drewell. Materials & Methods 22:1532+ N '45
Stroboscope engineering gives answers. D. McConnell. il diag Textile World 96:135+ Mr '46

STRONTIUM
Adsorption of strontium and barium ions and their exchange on hydrous ferric oxide. J. D. Kurbatov, J. L. Kulp and E. Mack, jr. Am Chem Soc J 67:1923-9 N '45

STRONTIUM compounds
Strontium chemicals; pictured flow sheet. Chem & Met Eng 53:152-5 Ja '46

STRONTIUM oxide
Study of oxide cathodes by X-ray diffraction methods; methods, conversion studies, and thermal expansion coefficients. A. Eisenstein. bibliog il diags J Ap Phys 17:434-43 Je '46
Study of oxide cathodes by X-ray diffraction methods; oxide coating composition. A. Eisenstein. bibliog il J Ap Phys 17:654-63 Ag '46

STRONTIUM sulfide
Light storage in infra-red sensitive phosphors. R. T. Ellickson. Opt Soc Am J 36: 501-2 S '46

STRUCTURAL carbon. See Carbon, Structural

STRUCTURAL clay products institute
Annual meeting, French Lick, Ind. Dec. 11-13. Brick & Clay Rec 107:39-44 D '45

STRUCTURAL engineering
Critical stresses in a circular ring; testing of rocks and concrete. E. A. Ripperger and N. Davids. bibliog Am Soc C E Proc 72:159-68 F '46

See also
Building
Concrete construction
Foundations
Steel construction
Strains and stresses
Strength of materials
Wind pressure

Design

Action of impulsive loads on elastic structures. J. B. Wilbur. diags Boston Soc C E J 33:163-73 Jl '46

Analysis of unsymmetrical beams by the method of segments. S. Lifsitz. diags Am Soc C E Proc 72:323-35 Mr '46; Discussion. 72:1191-8 O '46

Column formulas. W. R. Osgood. Am Soc C E Proc 70:1565-71 D '44; Discussion. 71:229-39, 349-50, 753-60, 921-5, 1359-69; 72:103-10 F-Mr, My-Je, N '45, Ja '46

Column stress by successive deflections; graphic and analytical studies. L. T. Wyly. diags Eng N 135:660-3 N 15 '45; Correction. 135:857 D 27 '45

Design live loads in buildings. J. W. Dunham. plans Am Soc C E Proc 72:429-43 Ap '46; Discussion. 72:1161-4 O '46

Efficiency in structure; tall apartment buildings. F. N. Severud. il plans diags Arch Rec 99:81-8 Ja '46

Moment ratios simplify continuity analysis. F. S. Merritt. il Eng N 135:604-7, 672-6 N 1, 15 '45; Discussion. 136:143 Ja 24 '46

Moment-stiffness relations in continuous frames with prismatic members. G. H. Dell. Am Soc C E Proc 72:587-611 My '46; Discussion. I. Oesterblom. 72:1182-4 O '46

Moments computed graphically by Australian method. A. J. Keeble. Eng N 136:294-6 F 21 '46

Safety of structures. A. M. Freudenthal. bibliog Am Soc C E Proc 71:1157-91 O '45; Discussion. 72:111-14, 251-5, 559-60, 885-8 Ja-F, Ap, Je '46

See also
Bridge design
Concrete construction —Design
Steel construction—Design

Study and teaching

Device for classroom demonstration of moving loads. D. D. Haines. il Civil Eng 16: 176-7 Ap '46

Tables, calculations, etc.

Geometrical aspect of failure theories. R. Jenney. diags Civil Eng 16:125-6 Mr '46

Interrelation of certain structural concepts. C. Weiss. Am Soc C E Proc 71:63-76 Ja '45; Discussion. 71:769-77, 916-20, 1111-27, 1301-4, 1370-4; 72:241-4 My-Je, S-N '45, F '46

Matrix analysis of continuous beams. S. U. Benscoter. diags Am Soc C E Proc 72: 1091-122 O '46

STRUCTURAL steel. See Steel, Structural

STRUCTURES, Theory of
Interrelation of certain structural concepts. C. Weiss. Am Soc C E Proc 71:63-76 Ja '45; Discussion. 71:769-77, 916-20, 1111-27, 1301-4, 1370-4; 72:241-4 My-Je, S-N '45, F '46

See also
Bending moment
Graphic statics

STRUTS, Airplane. See Airplane struts

STRYCHNINE
Discussion on strychnine and brucine. Chem & Ind p264-5 Jl 13 '46

STUDEBAKER corporation
Studebaker; model termination. Bsns W p66+ D 29 '45

STUDENTS
Selective service. M. H. Trytten. J Eng Educ 36:626-33 Je '46

See also
Foreign students in the United States
Graduate students

STUDENTS, Interchange of
Exchanges of staff and students between British and American universities. R. A. Johnson. Assn of Sp Lib & Inf Bur Proc 1945:41-2

STUDIOS

See also
Radio broadcasting studios

STUFFING boxes
Mechanical seals. D. R. Lewis. il diag Machine Design 18:125-8 S '46

STUPAKOFF, Simon H. 1854-1928
Portrait. Am Cer Soc Bul 24:409 N 15 '45

STUPAKOFF ceramic and manufacturing company
History. il Am Cer Soc Bul 24:410-14 N 15 '45

STYRALOY
Styraloy; a new thermoplastic; abstract. India Rubber World 114:234 My '46

STYRENE
Alkoxy- and aryloxystyrenes. R. L. Frank and others. bibliog Am Chem Soc J 68:1365-8 Jl '46

Annealing of styrene and related resins. J. Bailey. il Mod Plastics 24:127-31 O '46

Azeotropic purification of styrene. L. Berg, J. M. Harrison and C. W. Montgomery. bibliog flow sheet Ind & Eng Chem 38: 1149-52 N '46

Copolymerization of styrene and allyl chloride. T. Alfrey and J. G. Harrison, jr. bibliog Am Chem Soc J 68:299-301 F '46

Copolymerization of styrene and maleic anhydride. T. Alfrey and E. Lavin. Am Chem Soc J 67:2044-5 N '45

Copolymers of dimethylstyrene vinyl fatty esters with butadiene. P. O. Powers. Ind & Eng Chem 38:837-9 Ag '46

Depolarization of light scattered from polymer solutions. P. Doty and H. S. Kaufman. bibliog diag J Phys Chem 49:583-95 N '45

Determination of the solubility of styrene in water and of water in styrene. W. H. Lane. Ind & Eng Chem Anal ed 18:295-6 My '46

Electron microscopical replica techniques for the study of organic surfaces; low pressure polystyrene-silica technique and silver-silica double evaporation method. R. B. Barnes and others. bibliog il diags J Ap Phys 16:730-9 N '45

Further investigations of polarity in hydrocarbons possessing conjugated systems. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:244-7 F '46

Kinetics of anionotropic rearrangement; oxotropic formation of the styrene system. E. A. Braude, E. R. H Jones and E. S. Stern. diag Chem Soc J p396-404 My '46

Kinetics of the thermal polymerization of styrene C. Walling, E. R. Briggs and F. R. Mayo. bibliog Am Chem Soc J 68:1145-9 Jl '46

Laboratory preparation of thin-walled plastic capillaries. R. K. Ness. R Sci Instr 17:344 S '46

Mechanism of modifier action in the GR-S polymerization. H. R. Snyder and others. bibliog Am Chem Soc J 68:1422-8 Ag '46

Modified styrenes. Product Eng 17:301 Ap '46

Polymerization of alpha-methylstyrene. A. B. Hersberger, J. C. Reid and R. G. Heiligmann. bibliog il diag Ind & Eng Chem 37: 1073-8 N '45

Polymerisation of styrene; experiments with high-frequency currents. N. V. Shorygina and E. I. Petrova. Chem Age (Lond) 55:43 Jl 13 '46

Polystyrene on petroleum horizon. J. D. Constance. Oil & Gas J 44:317-18 D 29 '45

Preparation and polymerization of four isomeric dimethylstyrenes. C. S. Marvel, J. H. Saunders and C. G. Overberger. bibliog Am Chem Soc J 68:1085-8 Je '46

STYRENE—*Continued*
Preparation and polymerization of some alkyl styrenes. C. S. Marvel, R. E. Allen and C. G. Overberger. bibliog Am Chem Soc J 68:1088-91 Je '46
Preparation and polymerization of some substituted styrenes. C. S. Marvel and others. bibliog Am Chem Soc J 68:736-8 My '46
Preparation and polymerization of the six nuclear isomeric dichlorostyrenes. C. S. Marvel and others. bibliog Am Chem Soc J 68.861-4 My '46
Preparation of cross-linked polystyrenes; report at 26th Kuko (Plastics committee) meeting in Ludwigshafen. H. Hopff and E. Eckardt. Mod Plastics 23:153+ Jl '46
Preparation of salts of 2-phenylethene-1-sulfonic acid. F. G. Bordwell and others. bibliog Am Chem Soc J 68:139 Ja '46
Regulator theory in emulsion polymerization; chain transfer of low molecular weight mercaptans in emulsion and oil-phase. W. V. Smith. bibliog Am Chem Soc J 68:2059-64 O '46
Regulator theory in emulsion polymerization; control of reaction rate by diffusion for high molecular weight mercaptans. W. V. Smith. Am Chem Soc J 68:2064-9 O '46
Regulator theory in emulsion polymerization; regulator reaction in copolymerizing systems. W. V. Smith. Am Chem Soc J 68: 2069-71 O '46
Relation between specific refractivity of polymers and atomic structure of polymer unit. R. H. Wiley. bibliog Ind & Eng Chem 38:959-60 S '46
Thermal expansion and second-order transition effects in high polymers; time effects. R. S. Spencer and R. F. Boyer. J Ap Phys 17:398-404 My '46
Use of liquid phase oxidation for the preparation of nuclearly substituted styrenes; methyl *p*-vinylbenzoate. W. S. Emerson and others. bibliog Am Chem Soc J 68:674-6 Ap '46
Use of liquid phase oxidation for the preparation of nuclearly substituted styrenes; *p*-vinylphenyl acetate. W. S. Emerson and others. Am Chem Soc J 68:1665-8 Ag '46
Vinyl aromatic compounds; fluorinated derivatives. M. W. Renoll. bibliog Am Chem Soc J 68:1159-61 Jl '46

See also
Styraloy

Analysis

Determination of 4-vinyl-1-cyclohexene (butadiene dimer) in recycle styrene. H. A. Laitinen, A. S. O'Brien and S. Wawzonek. bibliog Ind & Eng Chem Anal ed 17:769-72 D '45
Recording infra-red analyzers for butadiene and styrene plant streams. N. Wright and L. W. Herscher. il diags Opt Soc Am J 36:195-202 Ap '46

Electric properties

Dielectric properties of some homogeneous materials at high electric stress. A. E. W. Austen. bibliog diags Inst E E J 92 pt 1: 373-7 O '45
Plastic compositions for dielectric applications. W. C. Goggin and R. F. Boyer. bibliog il Ind & Eng Chem 38:1090-6 N '46
Plastics and the electrical industry. P. R. S. Gibson. il diags Electrician 137:582-5 Ag 30 '46
Plastics for electrical uses; polystyrene. J. Taylor. Electrician 135:541-2 N 16 '45
Polystyrene plastics as high frequency dielectrics. A. von Hippel and L. G. Wesson. bibliog il diags Ind & Eng Chem 38:1121-9 N '46
Resonance methods of dielectric measurement at centimetre wavelengths. F. Horner and others. diags Inst E E J 93 pt 3:53-68 Ja '46

Industrial applications

Designed for baby; infant's training seat. il Mod Plastics 23:119 Mr '46
Frames by the thousands. il Mod Plastics 23: 152 D '45
Impregnating magnesium casting; with data on resin-styrene compound. S. A. Moore. il Iron Age 157:76-80 Mr 14 '46
Impregnation of magnesium alloy castings; copolymer of styrene and linseed oil. H. Dobkin. diags Foundry 74:84-5+ N '46
Matching pocket radio and luggage. il Mod Plastics 23:102 Je '46
Modified polystyrene molding powder; Plexene M. Mod Plastics 23:151 Ap '46
Monomeric styrene available to industry. Chem & Eng N 24:654 Mr 10 '46
New surface lacquer for polystyrene. il Mod Plastics 23:122 Je '46
Pan-shaped polystyrene light shields; troffer fluorescent lighting system. C. T. Masterson. il diag Mod Plastics 23:107 Ag '46
Phenolics stamp out the price; stamp kit of cotton-flock-filled phenolic. il Mod Plastics 23:132 Ag '46
Polystyrene and ethyl cellulose chime housings. il diag Mod Plastics 23:136-7 Ag '46
Polystyrene for plating baths. il Mod Plastics 23:138 Ja '46
Precision casting with plastic patterns; Illinois precise casting co. C. T. Post. il diags Iron Age 156:54-9 N 15 '45
Styrene copolymer solvent reacting varnishes; Fosterite. N. C. Foster. il Electrochem Soc Trans 90 (preprint 24).307-14 '46
Styrene copolymers; a study of their uses in surface coatings. D. H. Hewitt and F. Armitage. Chem Age (Lond) 54:315-16 Mr 23 '46
Styrene-diene resins in rubber compounding. A. M. Borders, R. D. Juve and L. D. Hess. bibliog il Ind & Eng Chem 38:955-8 S '46
Styrofoam, new thermal insulation. O. R. McIntire and D. W. McCuaig. il Refrig Eng 52:217-20+ S '46

Manufacture

Bauxite, dehydrogenation catalyst for styrene production. W. H. Wood and R. G. Capell. bibliog il diag Ind & Eng Chem 37:1148-52 D '45
Dow process for styrene production. J. E. Mitchell, jr. bibliog flow sheets flow diag diag Am Inst Chem Eng Trans 42:293-308 Ap '46; Abstract. Chem & Met Eng 53:280+ My '46
Monsanto buys Texas styrene plant. Chem & Eng N 24:2512 S 25 '46
Plastics step-up; Monsanto's new Texas plant. Bsns W p60-1+ S 7 '46
Styrene production by catalytic dehydrogenation; low pressure operation. J. M. Mavity and others. bibliog Am Inst Chem Eng Trans 41:519-28 O '45
Styrene production by catalytic dehydrogenation; operation at ordinary pressures with benzene as diluent. J. M. Mavity, E. E. Zetterholm and G. L. Hervert. bibliog Ind & Eng Chem 38:829-32 Ag '46

STYRENE chlorohydrin
Preparation of styrene chlorohydrin. W. E. Hanby and H. N. Rydon. Chem Soc J p114 F '46

STYROFOAM. See Styrene—Industrial applications

STYRYLQUINOLINE
Studies in the quinoline series; some derivatives of 4-styrylquinoline. M. A. Clapp and R. S. Tipson. bibliog Am Chem Soc J 68: 1332-4 Jl '46

SUBAQUEOUS blasting. See Blasting, Subaqueous

SUBAQUEOUS construction. See Concrete construction, Subaqueous; Steel construction, Subaqueous

SUBAQUEOUS excavation. See Excavation, Subaqueous

SUBAQUEOUS metal cutting. See Metal cutting, Subaqueous

SUBAQUEOUS pipe laying. See Pipe laying, Subaqueous

SUBAQUEOUS welding. See Electric welding, Arc—Subaqueous welding

SUBCONTRACTING
Small plant set-up for peacetime subcontracting; Lights, inc., Alhambra, Calif. R. A. Trumpis. il Factory Management 104: 104-5 Je '46

SUBDIVISION of land. See Land—Subdivision

SUBJECT headings
Subject heading list for naval research libraries. 3d ed 499p Office of research and inventions, Navy dept, Washington, D.C. '46
Subject headings for public health. 147p Public health division, Municipal reference lib, Los Angeles pub. lib. '45
Subject index of the library of Industrial relations section, Princeton university. H. C. Benjamin, ed. rev ed 46p pa 75c Industrial relations section, Dept. of economics and social institutions, Princeton university, Princeton, New Jersey '45

SUBLIMATION apparatus
Simple sublimation apparatus. J. Pitha. diags J Chem Educ 23:403 Ag '46

SUBMARINE boats
Early echo ranging sonar. il Electronics 19: 274+ Jl '46
Echo ranging sonar; technical details of model QCS/T equipment. R. J. Evans. il diags Electronics 19:88-93 Ag '46
Navy releases sonar story. il Electronics 19: 284+ My '46
Sonar for submarines; used for underwater listening. R. S. Lanier and C. R. Sawyer. il diags Electronics 19:99-103 Ap '46
Sonar location of submarines. il diag Product Eng 17:[no 7] 138-9 Jl '46
Sonar tactics in the war. Electronics 19:286+ Je '46
Sonobuoy; reveals the presence of submerged submarines to patrol ships and planes. il diags Electronics 19:154-5 Ap '46

Accidents
Classical tragedy; loss of the Thetis. Economist 150:446-7 Mr 23 '46

SUBMARINE cables. See Electric cables, Submarine

SUBMARINE diving. See Diving, Submarine

SUBMARINE mines. See Mines, Submarine

SUBMARINE photography. See Photography, Submarine

SUBMARINE telegraph. See Telegraph, Submarine

SUBMARINE warfare
Anti-U-boat weapons. Engineer 180:472 D 7 '45
H-f direction finder used in U-boat warfare. Electronics 19:304+ Mr '46
War against the U-boats. il Engineer 182: 235-6, 258 S 13-20 '46

SUBMERGED combustion. See Combustion, Submerged

SUBMERGIBLE pumps. See Pumps, Submergible

SUBPOENA
Bank subject to disclosure of commercial and personal bank account records of depositors to O.P.A. Banking law J 63:385-8 My '46

SUBROGATION
Fire companies' subrogation tempo has stepped up. Nat Underw 50:14+ N 7 '46
Insurer suing as subrogee of assured has burden of showing assured free from concurrent negligence. Weekly Underw 155: 1091 N 2 '46

SUBSIDENCES (earth movements)
See also
Mine subsidences

SUBSIDIES
Actual consumers take over subsidy burden as commodity prices rise. Barron's 26:11 Jl 8 '46
Billions in subsidies. N. T. Carruthers. il Mag of Wall St 78:139-41 My 11 '46
Budget and subsidies. Fortune 33:82 Mr '46
Building material subsidies approved; Congress finally okays Patman bill. Arch Forum 84:6 Je '46
Butter blowoff; impending price increase sets off fight over subsidy issue. Bsns W p40+ Ja 19 '46
Farm subsidies; a fallacious policy. J. W. Flannagan, jr. Comm & Fin Chr 162:2880+ D 13 '45
Metal subsidies; statement before Senate committee on banking and currency. J. D. Conover. Min Cong J 32:46-51+ My '46
NHA drafting $8 a ton bonus plan to step up pig iron output. K. Rannells. Iron Age 158.110 S 12 '46
Sheet bar subsidy. Bsns W p18 Je 15 '46
Subsidies; a price control delusion. J. Backman. Trusts & Estates 82:354-5 Ap '46
Subsidy and housing. C. Abrams. J Land & Pub Util Econ 22:131-9 My '46
Subsidy is essential to return of battlefield scrap to this country. R. W. Wolcott. il Iron Age 158:98 O 24 '46
Wasting a valuable national resource; recovery of bituminous coal could be increased by government subsidy. H. N. Eavenson. Min & Met 27:260-1 My '46; Discussion. L. E. Young; E. McAuliffe. Min Cong J 32:56-61 Ap '46
See also
Petroleum—Stripper well subsidies

SUBSISTENCE homesteads
Eden liquidated; Arthurdale plants sold; tenants buying homes. il Bsns W p22+ Jl 27 '46

SUBSTANDARD risks. See Insurance, Accident —Substandard risks; Insurance, Life—Substandard risks

SUBSTATIONS, Electric. See Electric substations

SUBSTITUTES
Substitute metallurgical products. A. M. Portevin; trans. by W. M. Baldwin, jr. Metal Prog 50:485-94 S '46
See also
Carbon black, Substitutes for
Gasoline, Substitutes for
Mica, Substitutes for
Rubber, Substitutes for
Sugar, Substitutes for
Tin, Substitutes for

SUBSTITUTION (chemistry)
p-Aminodimethylaniline; orientation of groups in the disubstituted molecule. E. E. Ayling, J. H. Gorvin and L. E. Hinkel. Chem Soc J p530-2 Je '46
Anomalous reaction between ammonia and 9-chlorofluorene; substitution of the labile hydrogen in fluorene derivatives. L. A. Pinck and G. E. Hilbert. bibliog Am Chem Soc J 68:377-80 Mr '46
Attempts to prepare cyclopolybenzoylenes. C. F. Koelsch and C. E. Bryan. bibliog Am Chem Soc J 67:2041-3 N '45
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of substituent groups in the thionaphthenquinones. C. E. Dalgliesh and F. G. Mann. Chem Soc J p893-909 D '45
Effect of substituent groups upon the course of the condensation reaction between benzenediazonium salts and phenols. J. C. Colbert and R. M. Lacy. bibliog Am Chem Soc J 68:270-1 F '46
Heterocyclic basic compounds; basically-substituted isoalloxazine derivatives. R. R. Adams, C. A. Weisel and H. S. Mosher. bibliog Am Chem Soc J 68:883-7 My '46
Kinetics of anionotropic rearrangement; substituent effects in the oxotropic formation of the butadiene system; comparison of the electron-attracting properties of the ethylenic and acetylenic bonds. E. A. Braude and E. R. H. Jones. Chem Soc J p128-30 F '46
Kinetics of anionotropic rearrangement; substituent effects in the oxotropic formation of the vinylacetylene system. E. A. Braude and E. R. H. Jones. Chem Soc J p122-7 F '46
Kinetics of the reaction of sodium 2-haloethanesulfonates with aqueous alkali. E. F. Landau, W. F. Whitmore and P. Doty. bibliog Am Chem Soc J 68:816-19 My '46
Mechanism of substitution at a saturated carbon atom; rôle of steric hindrance. I. Dostrovsky and E. D. Hughes. Chem Soc J p157-94 Mr '46
Preparation and polymerization of some substituted styrenes. C. S. Marvel and others. bibliog Am Chem Soc J 68:736-8 My '46
Preparation of substituted diphenylethylamines and diphenylethanolamines. W. D. McPhee and E. S. Erickson, jr. bibliog Am Chem Soc J 68:624-7 Ap '46

SUBSTITUTION (chemistry)—*Continued*
Some factors influencing the ultraviolet absorption spectra of polynuclear aromatic compounds; a general survey. R. N. Jones. bibliog Am Chem Soc J 67:2127-50 D '45
Some 7-substituted 4-aminoquinoline derivatives. A. R. Surrey and H. F. Hammer. bibliog Am Chem Soc J 68:113-16 Ja '46
Syntheses of 2-monosubstituted and 2 : 3-disubstituted quinoxalines. A. H. Gowenlock, G. T. Newbold and F. S. Spring. Chem Soc J p622-5 S '45
Theoretical discussion of further substitution in disubstituted naphthalenes; heteronuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. Soc Dyers & Col J 62: 241-2 Ag '46
Theoretical discussion of further substitution in homonuclear mononitronaphthylamines. H. H. Hodgson and D. E. Hathway. bibliog Soc Dyers & Col J 61:283-5 N '45
Ultraviolet absorption spectra of organic molecules; mechanical interference of substituent groups with resonance configurations. W. H. Rodebush and I. Feldman. bibliog Am Chem Soc J 68:896-9 My '46
See also
Sandmeyer reaction

SUBTILIN
Some physical and biologic properties of subtilin and other antibiotics. H. H. Anderson and others. bibliog Science 103:419-20 Ap 5 '46

SUBURBAN development
Financing water mains in newly opened areas; with particular reference to requirements of real estate developers, Milton, Mass W. P. Melley. diags Water Works & Sewerage 92:358-60 D '45
Residential community near Ishington, Canada; planned neighborhood offers mass purchase and building economy, owner association protection. il map plans Arch Forum 83:128-30 N '45
Residential development on Marin peninsula; two San Francisco designers get skillful solution for tricky site. il maps plans diag Arch Forum 83:136-9 N '45
See also
Housing—Glenview, Illinois
Land—Subdivision

SUBURBAN homes
Chicago builder plans compact suburban homes. il plans Am Bld 68:98-9 Je '46
Co-op houses; group of Chicago families combine their efforts and pool design ideas in a harmonious setting for suburban living. il plans Arch Forum 84:89-95 Ja '46
Expansible row house adaptable to minimum lot conditions in New York suburbs. il plans Arch Forum 85:106-8 Jl '46
Langley, Va.; eight-room house in rural setting. il plans Arch Forum 85:94-5 Ag '46

SUBURBAN propane gas corporation
Securities offered. Comm & Fin Chr 162:3237-8 D 31 '45

SUBWAY stations
Moscow's new subway stations. For Comm W 22:22 F 2 '46

SUBWAYS
Subways and traffic congestion, with particular reference to Toronto's problems; proposed subway. C. A. Meadows. map plans diag Roads & Bridges 84:51-3+ My '46
See also
London, England—Subways
Rapid transit

Cost
Dearborn Street subway, Chicago, Ill.; unit prices. Eng N 137:607 O 31 '46

Finance
New York city's subway snafu. L. D. Farrar. Pub Util 37:531-42 Ap 25 '46

SUCCESS
Adventure in realism; business has its romantic side, too. W. C. North. Credit & Fin Management 48:20+ Ag '46
Auto-Soler steps-up success with strong sales tactics. G. E. Stedman. il Ind Marketing 31:60+ Ja '46
Faith and prayer make risky loans good; unusual approach pays off for Memphis woman lender. R. L. Holman. Barron's 26: 15 Ag 12 '46
Horatio Alger story; how advertising developed a weakling into a giant; Taylor-Reed Cocoa Marsh. E. M. Housman. il Ptr Ink 216:33-5 S 20 '46
Introduced door-to-door, now advertised coast-to-coast; Mrs Vera Nyman's Soil-off. L. F. Thomann. il Ptr Ink 217:54 N 8 '46
Sunroc refrigeration co., inc.; engaging family business in water coolers. il Fortune 34: 150-5 O '46
Those most likely to succeed in peace-time business. J. E. Bullard. Credit & Fin Management 47:20+ N '45
White-collar man. il Fortune 33:124-7+ Je '46

SUCCINIC anhydride
Mechanism of condensation of the anhydrides of mono- and di-substituted succinic acids with aromatic hydrocarbons under the conditions of the Friedel-Crafts reaction. M. A. Saboor. Chem Soc J p922-5 D '45

SUCCINIC dehydrogenase
Effect of ribonucleinase on succinic dehydrogenase and cytochrome oxidase. C. A. Zittle. Franklin Inst J 240:504-5 D '45
Nature of the inhibition of ribonucleinase and succinic dehydrogenase by mononucleotides. C. A. Zittle. bibliog Franklin Inst J 241:154-5 F '46

SUCH, Irwin H.
Appointed editor of Steel. por Steel 118:83 My 20 '46

SUCKER rods
Stretch of sucker rods. E. A. Stephenson. Oil & Gas J 45:301-2 S 21; 113 S 28; 113 O 5; 109 O 12 '46

SUCROSE. See Sugar

SUDAN

Commercial policy
Modification of import and export license requirements. For Comm W 22:20 F 23 '46

SUEZ canal company
Extract from report of board of directors. Economist 150:233 F 9 '46
Extract from the president's speech; at general meeting. Economist 151:274 Ag 17 '46
U.S. held Suez stock may lose dividend. Barron's 26:1+ Ja 21 '46

SUGAR
Chemical process for the production of lactic acid from sucrose. W. N. Haworth and others. Soc Chem Ind J 65:95-6 Mr '46
Important nutritional value in sweets is not the sugar. Consumers Res Bul 17:25 My '46
Influence of adsorption on the crystallisation of sucrose from impure solutions. S. E. Coalstad. Soc Chem Ind J 65:206-8 Jl '46
Kinetics of sucrose crystallization; sucrose-nonsucrose solutions. A. Van Hook. bibliog Ind & Eng Chem 38:50-3 Ja '46
Sugar and sugar by-products in the plastics industry; abstract. L. Long. Mod Plastics 23:168+ Ja '46
See also
Beets and beet sugar
Sirups
Sugars

Manufacture and refining
Apparent specific gravity of refined sugar. G. P. Meade. diag Ind & Eng Chem 38:904-5 S '46
Asbestos as filter aid in sugar refining. T. Liu. Ind & Eng Chem 38:521-4 My '46
Defecation of refinery sirups; phosphoric acid and lime as pipe line defecants. G. G. Halvorsen and A. R. Bollaert. bibliog diag Ind & Eng Chem 38:385-9 Ap '46
Extraction of aconitic acid from sorgo. E. K. Ventre and others. bibliog Ind & Eng Chem 38:201-4 F '46
Filtration of subsider muds and the effect of bagacillo as a filter aid. S. E. Coalstad. diags Soc Chem Ind J 65:175-80 Je '46

By-products
Sugar byproduct; calcium aconitate. Bsns W p51 F 23 '46

SUGAR, Substitutes for
Principal mineral contents of typical sugar substitutes. Consumers Res Bul 17:25 My '46

SUGAR analysis
Chromatographic isolation of cane juice constituents. W. W. Binkley and M. L. Wolfrom. bibliog Am Chem Soc J 68:1720-1 S '46
Chromatography of sugars and related polyhydroxy compounds. B. W. Lew, M. L. Wolfrom and R. M. Goepp, jr. bibliog Am Chem Soc J 68:1449-53 Ag '46
Determination of moisture in sugar solutions with Karl Fischer reagent. F. W. Zerban and L. Sattler. il Ind & Eng Chem Anal ed 18:138-9 F '46
Determination of reducing sugars; mathematical expression of reducing action in the Lane and Eynon and volumetric ferricyanide methods. F. W. Zerban, W. J. Hughes and C. A. Nygren. bibliog Ind & Eng Chem Anal ed 18:64-5 Ja '46
Electrometric method for the estimation of sucrose and reducing sugars. S. E. Coalstad. diag Soc Chem Ind J 65:230-2 Ag '46
Selecting and storing potatoes to avoid darkening; influence on finished product of reducing sugars. A. F. Ross and others. il Food Ind 18:1011-13+ Jl '46
Sugar interconversion under reducing conditions. M. L. Wolfrom and others. bibliog Am Chem Soc J 68:578-80 Ap '46
See also
Xylose—Analysis

SUGAR factories
From the log of experience; dust in sugar refineries. diags Chem Eng 53:223-4+ Ag '46

Accidents
Reopening idle plants; two killed while repairing condenser in sugar refinery. Safety Eng 92:54 Ag '46

Employees
Industrial medicine in the Philippine Islands. J. S. Felton. Ind Med 15:129+ F '46

Equipment
Cube sugar storage conveyors; factory of Tate & Lyle. il Mech Handling 33:354-6 Je '46

SUGAR industry and trade
Bigger U.S. sugar supply in sight. Barron's 26:5 O 28 '46
Higher prices to boost sugar supply. Barron's 26:5 Jl 22 '46
Larger sugar ration probable as first of new Cuban crop arrives here. Barron's 26:7 F 18 '46
Manual of sugar companies 1945. 33d ed 259p $1.50 Farr and co, 120 Wall st, New York 5 '46
Sugar price to rise. Barron's 26:5 Ag 26 '46
Sugar prospects for 1946. G. L. Wright. Comm & Fin Chr 162:2324+ N 15 '45
Sugar ration boost depends on Cuban crop. Barron's 25:9 D 17 '45
Sugar supply for civilian use. G. F. Dudik. il Dom Comm 34:39-41 Je '46
Who gets the sugar? Barron's 26:7 Ap 29 '46
World sugar production declines. For Comm W 22:39 Ja 26 '46

Statistics
Sugar entries into the United States from offshore areas by months, 1941-1945; graph. For Comm W 21:30 D 15 '45

Argentina
Argentine sugar industry. For Comm W 23:42 Je 1 '46

Australia
Australian exports of sugar, 1944-45 and July 1945. For Comm W 21:31 N 24 '45

Costa Rica
Costa Rica's granulated-sugar production, 1940-1945. For Comm W 23:42 Je 1 '46

Cuba
Cuban sugar agreement viewed as step in long term program. Food Ind 18:1219 Ag '46
Cuban sugar profits limited. J. Lyons. Mag of Wall St 78:24 Ap 13 '46
Exports of sugar from Cuba, 1945. For Comm W 23.35 Je 29 '46
Price rise for bigger Cuban sugar crop. Barron's 25:15 D 17 '45
Sugar diplomacy. Bsns W p29-30 Ja 12 '46
Upswing in Cuba's sugarcane acreage. P. G. Minneman. il For Comm W 21:7+ D 15 '45

Egypt
Egypt's sugar industry may need our machinery. H. D. Robison. il For Comm W 23:10-11+ Ap 27 '46

Florida
Everglades sugar harvest sets new records. il Manuf Rec 115:42 Je '46

India
Sugar production in India. For Comm W 22:30-1 Ja 12 '46

Ireland
Eire's sugar situation; it's looking up a bit. For Comm W 23:9 Ap 13 '46

Philippine Islands
Sugar; a Philippine dilemma. H. Leopold. il map Food Ind 18:1344-5+ S '46

Russia
Russia's empty sugar bowl. Fortune 33:230+ My '46

South Africa
South African sugar industry. For Comm W 21:46 N 10 '45

Spain
Spanish sugar production, 1925-45. For Comm W 22:37 Mr 23 '46

Sweden
Consumption, production, and imports of sugar, 1941-1945. For Comm W 23:42 Je 1 '46

Turkey
Turkish sugar industry, with figures for 1940-1945. For Comm W 23:32 Ap 13 '46

SUGAR research
Sugar research rewarded; levulose, commercially available. Bsns W p76-8 S 14 '46

SUGAR workers
See also
Sugar factories—Employees

Hawaiian Islands
Hawaiian sugar workers idle. Bsns W p113 S 14 '46

SUGARS
Action of alkaline reagents on 2 : 3-1 : 6- and 3 : 4-1 : 6-dianhydro β-talose; constitutional synthesis of chondrosamine and other amino-sugar derivatives. S. P. James and others. Chem Soc J p625-8 Jl '46
Action of copper sulfate on the phenylosazones of the sugars; the D-,L- and D,L-arabinose phenylosotriazoles. W. T. Haskins, R. M. Hann and C. S. Hudson. Am Chem Soc J 68:1766-9 S '46
Binders and base materials for active carbon; functions of sugars, coal tar pitch, anthracite, and cellulose. J. J. Morgan and C. E. Fink. bibliog il diag Ind & Eng Chem 38:219-28 F '46
Catalytic hydrogenolysis of nitrate esters. L. P. Kuhn. Am Chem Soc J 68:1761-2 S '46
Chemical interactions of amino compounds and sugars. L. F. Cavalieri and M. L. Wolfrom. bibliog Am Chem Soc J 68:2022-5 O '46
Chromatography of sugars and related polyhydroxy compounds. B. W. Lew, M. L. Wolfrom and R. M. Goepp, jr. bibliog Am Chem Soc J 68:1449-53 Ag '46
D-gluco-L-*tagato*-octose. M. L. Wolfrom and A. Thompson. bibliog Am Chem Soc J 68:1453-5 Ag '46
Glycosylation of hydrocarbons by means of the Grignard reagent. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67:1972-7 N '45
How sugars affect dispersibility of pectins in gel powders. C. W. Woodmansee and others. bibliog il Food Ind 18:356-8 Mr '46

SUGARS—*Continued*
Lead tetraacetate oxidations in the sugar group; the structure of arlitan, a monoanhydride of sorbitol. R. C. Hockett and others. bibliog Am Chem Soc J 68:922-6 Je '46
Preparation of D-rhamnose from methyl α-D-mannopyranoside. W. T. Haskins, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 68:628-32 Ap '46
Reaction of aromatic hydrocarbons with polyacetylglycosyl derivatives of hydrocarbons. C. D. Hurd and W. A. Bonner. Am Chem Soc J 67:1977-9 N '45
Selecting and storing potatoes to avoid darkening; influence on finished product of reducing sugars. A. F. Ross and others. il Food Ind 18:1011-13+ Jl '46
Sugar interconversion under reducing conditions. M. L. Wolfrom and others. bibliog Am Chem Soc J 68:122-6, 578-80, 1443-8 Ja, Ap, Ag '46
Unfermentable reducing substances in molasses; anhydrides and amino acid condensation products of reducing sugars. L. Sattler and F. W. Zerban. bibliog Ind & Eng Chem 37:1133-42 N '45
Yeasts from wood sugar stillage. E. F. Kurth. bibliog Ind & Eng Chem 38:204-7 F '46
See also
Aldoses
Carbohydrates
Fermentation
Fructose
Fucose
Glucose
Optical rotation
Polysaccharides
Saccharification
Sugar
Wood saccharification

SUGGESTION systems
Avoiding suggestion system pitfalls. D. Carter. Factory Management 103:282+ N '45
Bausch & Lomb booklet stimulates employe ideas. Sales Management 56:118 Ja 15 '46
Bread and butter problems of a sales manager; salesmen have suggestions, too. Adv & Sell 39:89 Mr '46
Employee suggestion system for the small plant or store. D. Wilhelm, jr. U S Bur For & Dom Com, Economic (Small Business) Ser 45:1-18; pa 10c Supt. of doc. '46
How to get ideas accepted by men higher up; ten checking points for the man who finds ways to improve the business. R. H. Walton. Ptr Ink 213:30 D 21 '45
Ideas from employee suggestion systems in use on railroads. Ry Age 119:890-1 D 1 '45
$1000 for the boss; $50 for me. R. B. Shapiro. Personnel J 24:338-44 Mr '46
Pay for suggestions? F. Jeddeloh. Am Mach 90:166+ My 9 '46
Procedure for a successful suggestion system; Johnson & Johnson, New Brunswick. W. E. Groth. il Factory Management 104: 113-20 F '46
Safety suggestions pay off. G. D. Cross. il Nat Safety N 54:36-7+ S '46
Suggestions from women workers. A. Tinney. il Am Bsns 16:20-1+ Jl '46
Work simplification plan highly successful at G.P.O. G. C. Compton. il Inland Ptr 117: 40-4 Ag '46

SUGGESTIONS, Citizens'
City fathers advertise for trouble; Corpus Christi variation of plant suggestion box. R. McDaniel. Ptr Ink 216:39 Ag 9 '46

SUICIDE
Suicides; relationships between suicide rate and weather, education, income per capita and other factors. W. G. Bowerman. il Spectator (Life ed) 154:6-11 O '46

SULFA drugs. See Sulfonamides

SULFADIAZINE
2 - *p* - Aminobenzenesulphonamidopyrimidines; preparation by a novel route. F. L. Rose and G. Swain. Chem Soc J p689-92 O '45
Dissociation constant, solubility, and the *p*H value of the solvent. H. A. Krebs and J. C. Speakman. Chem Soc J p593-5 S '45
Hemolytic streptococcal sore throat; antibody response following treatment with penicillin, sulfadiazine, and salicylates. L. A. Rantz, P. J. Boisvert and W. W. Spink. bibliog Science 103:352-3 Mr 22 '46
Mass sulfadiazine prophylaxis of respiration diseases in U.S. navy; abstract. A. F. Coburn. J Ind Hygiene 27:sup 180 N '45
Studies of the acute diarrheal diseases; further studies on the relative efficacy of sulfonamides in shigellosis. J. Watt and S. D. Cummins. bibliog Pub Health Rep 60: 1355-61 N 16 '45

SULFAGUANIDINE
Alkyl derivatives of sulfaguanidine. F. Bergmann. bibliog Am Chem Soc J 68:765-6 My '46
Synthesis of sulphanilylguanidine. S. Birtwell and others. Chem Soc J p491-4 Je '46

SULFAIODINES
Sulphaiodines discussed; abstract. P. Goedrich. Oil Paint & Drug Rep 148:3 D 10 '45

SULFAMETHAZINE
Studies of the acute diarrheal diseases; further studies on the relative efficacy of sulfonamides in shigellosis. J. Watt and S. D. Cummins. bibliog Pub Health Rep 60: 1355-61 N 16 '45

SULFAMIC acid
Analysis of sodium nitrite by sulfamic acid. R. C. Brasted. diag J Chem Educ 23:320-1 Jl '46
Dipolar ion structures of the 2-thiazolylsulfamic acids. C. D. Hurd and N. Kharasch. bibliog Am Chem Soc J 68:653-8 Ap '46
Sulfamic acid in electrochemical processes in Italy. W. G. Cass. Chem & Eng N 24:1585 Je 10 '46

SULFANILAMIDE
p-Aminobenzenesulphonamide derivatives of pyrimidine as antibacterial agents. F. L. Rose and G. A. P. Tuey. Chem Soc J p81-5 F '46
2 - *p* - Aminobenzenesulphonamidopyrimidines; preparation by a novel route. F. L. Rose and G. Swain. Chem Soc J p689-92 O '45
Anhydrides of polyhydric alcohols; 2 : 5-diamino 1 : 4-3 : 6-dianhydro mannitol and sorbitol and their sulphanilamide derivatives. R. Montgomery and L. F. Wiggins. Chem Soc J p393-6 My '46
Antibacterial action of an oxidation product of sulfanilamide. G. Barkan and L. Goldsmith. bibliog Am Chem Soc J 68:733-4 My '46
Derivatives of sulfanilamide; N^4-(*p*-aminobenzoyl)-sulfanilamide and related compounds. E. J. Chu. bibliog Am Chem Soc J 67:2243-4 D '45
N^1-(aminoalkyl)-sulfanilamides and N^1-(acetamidoalkyl)-sulfanilamides. L. H. Amundsen and L. A. Malentacchi. Am Chem Soc J 68:584-5 Ap '46
Structure and activity of sulfanilamides. F. G. Bordwell, A. B. Colbert and B. Alan. bibliog Am Chem Soc J 68:1778-81 S '46
Studies in chemotherapy; antimalarials; halogenated sulfanilamidoheterocycles. J. P. English and others. bibliog Am Chem Soc J 68:453-8 Mr '46
Studies in chemotherapy; some sulfanilamidoheterocycles. J. H. Clark and others. bibliog Am Chem Soc J 68:96-9 Ja '46
Sulphonamides; the action of amines on ethyl 4-sulphanilamidobenzoate; some alternative preparative methods for sulphanilamidobenzamides. J. H. Gorvin. Chem Soc J p736-8 N '45
Sulphonamides; the action of ammonia on sulphanilamidobenzoic esters in the light of the general theory of ester ammonolysis. J. H. Gorvin. Chem Soc J p732-5 N '45
Synthetic antimalarials; the preparation of certain derivatives of sulfanilamide. N. L. Drake and others. bibliog Am Chem Soc J 68:1602-6 Ag '46

SULFANILAMIDOCARBOXYTHIAZOLE
Intestinal antiseptic; 2-sulfanilamido-5-carboxythiazole. P. S. Winnek. Science 103: 719-20 Je 21 '46

SULFANILAMIDOCHLOROPYRIMIDINE
Studies in chemotherapy; antimalarials; halogenated sulfanilamidoheterocycles. J. P. English and others. bibliog Am Chem Soc J 68:453-8 Mr '46

SULFANILAMIDOQUINOXALINE
Substituted sulfaquinoxalines; the isolation and synthesis of 3-hydroxy-2-sulfanilamidoquinoxaline and of related quinoxalines. J. R. Stevens, K. Pfister, 3d and F. J. Wolf. Am Chem Soc J 68:1035-9 Je '46

SULFANILIC acid
Colorimetric determination of nitrites. B. F. Rider and M. G. Mellon. bibliog Ind & Eng Chem Anal ed 18:96-9 F '46

SULFANILYLGUANIDINE. See Sulfaguanidine

SULFANILYLTHIOUREA
Sulfathiourea. F. Bergmann. bibliog Am Chem Soc J 68:761-4 My '46

SULFAPYRAZINE
Studies of the acute diarrheal diseases; further studies on the relative efficacy of sulfonamides in shigellosis. J. Watt and S. D. Cummins. bibliog Pub Health Rep 60:1355-61 N 16 '45

SULFAPYRIDINE
Polymorphism of sulfapyridine. R. N. Castle and N. F. Witt. il Am Chem Soc J 68:64-6 Ja '46

SULFAQUINOXALINE
2-(4-Homosulfanilamido)-quinoxaline. F. J. Wolf, R. M. Wilson, jr. and M. Tishler. Am Chem Soc J 68:151-2 Ja '46
Substituted sulfaquinoxalines; the isolation and synthesis of 3-hydroxy-2-sulfanilamidoquinoxaline and of related quinoxalines. J. R. Stevens, K. Pfister, 3d and F. J. Wolf. Am Chem Soc J 68:1035-9 Je '46

SULFATE process. See Paper making—Sulfate process

SULFATES
Autoxidation process for sulphuric acid and sulphate production. H. E. Keyes. bibliog flow sheets il diag Chem & Met Eng 53: 126-30 My '46

See also
Rare earth sulfates

SULFATHIAZOLE
Carboxy derivatives of sulfonamidothiazoles. J. M. Sprague, R. M. Lincoln and C. Ziegler. bibliog Am Chem Soc J 68:266-9 F '46

SULFATHIOUREA. See Sulfanilylthiourea

SULFATION
Action of sulfating agents on proteins and model substances; concentrated sulfuric acid. H. C. Reitz and others. bibliog Am Chem Soc J 68:1024-31 Je '46
Action of sulfating agents on proteins and model substances; pyridine-chlorosulfonic acid. H. C. Reitz and others. bibliog Am Chem Soc J 68:1031-5 Je '46

SULFENAMIDES
Sulfenic acids and their derivatives. N. Kharasch and others. bibliog(116 references) Chem R 39:269-332 O '46

SULFENIC acids
Sulfenic acids and their derivatives. N. Kharasch and others. bibliog(116 references) Chem R 39:269-332 O '46

SULFENYL halides
Sulfenic acids and their derivatives. N. Kharasch and others. bibliog(116 references) Chem R 39:269-332 O '46

SULFIDES
Alkylphenol sulfides as vulcanizing agents. G. M. Wolf and others. bibliog Ind & Eng Chem 38:1157-66 N '46
Corrosion of constructional materials by sulphur and sulphides. J. R. West. Chem Eng 53:225 O '46
Hydrogenation of compounds containing divalent sulfur. R. Mozingo and others. bibliog Am Chem Soc J 67:2092-5 D '45
Infra-red sensitive phosphors. F. Urbach and others. Opt Soc Am J 36:372-81 Jl '46
Infra-red spectra of thiols, sulphides, and disulphides. I. F. Trotter and H. W. Thompson. Chem Soc J p481-8 Je '46
Oxidation of lubricating oils; mechanism of sulfur inhibition. G. H. Denison, jr. and P. C. Condit. bibliog Ind & Eng Chem 37: 1102-8 N '45
Precipitation of platinum metals by organic monosulfides; determination of platinum with thiophenol and rhodium with thiobarbituric acid. J. E. Currah and others. bibliog Ind & Eng Chem Anal ed 18:120-2 F '46
Rubber, polyisoprenes and allied compounds; the formation of dialkyl sulphide dihalides and its bearing on the problem of determining the unsaturation of vulcanised rubber. G. F. Bloomfield. Soc Chem Ind J 64:274-8 O '45
Structure of alkylphenol resin tackifiers for GR-S. G. E. P. Smith, jr., J. C. Ambelang and G. W. Gottschalk. bibliog il Ind & Eng Chem 38:1166-70 N '46
Structure of ethylene polysulfides. H. E. Westlake, jr. and others. bibliog Am Chem Soc J 68:748-51 My '46

Analysis
Determination of alkyl disulfides in the absence and presence of mercaptans. I. M. Kolthoff and others. bibliog diag Ind & Eng Chem Anal ed 18:442-4 Jl '46

SULFITE liquor
Aerating a river to reduce pollution; Flambeau river in Wisconsin. il plan Eng N 136:416-18 Mr 21 '46
Economic and market aspects of ethyl alcohol from sulphite waste liquor. R. D. Tousley. Paper Tr J 123:37-40 S 5 '46
Group of Wisconsin mills plan reclamation yeast plant; utilization of waste sulphite liquor. Paper Ind 28:620+ Ag '46
Heat recovery in pulp and paper mills; evaporating and burning waste sulphite liquor. F. Setterwall. Pulp & Pa of Can 46: 1004-5 D '45
Magnesium base sulphite pulping; possible methods of disposing of or utilizing solids in sulphite waste liquor. R. S. Hatch. Paper Tr J 122:54-6 Mr 14 '46; Same cond. Paper Ind 28:716+ Ag '46
Magnesium-base sulfite pulping process; one solution of problems involved in stream pollution. H. R. Murdock. Ind & Eng Chem 38:sup83-4 My '46
National council for stream improvement takes over waste abatement activities of Wisconsin pulp manufacturers. Pub Works 76:44 D '45
Production of lactic acid by fermentation of sulfite waste liquor; abstract. R. H. Leonard and W. H. Peterson. Can Chem & Process Ind 30:100 O '46
Production of wood-sugar in Germany and its conversion to yeast and alcohol. J. F. Saeman and others. il diags Paper Tr J 123: 38-46 S 19 '46
Prospective postwar costs of producing alcohol from ethylene, molasses, grain, waste sulphite liquor, and wood waste. R. D. Tousley. bibliog il Pulp & Pa of Can 47:48-55 Ja '46
Protein feed from sulphite waste liquor; production of Torula yeast. R. D. Walker, jr. and R. A. Morgen. bibliog diag Paper Tr J 123:43-7 Ag 8 '46
Scale formation in the evaporation of sulphite waste liquors; abstract. C. Nyman. Paper Ind 28:1056 O '46
Sulphite alcohol; Puget sound pulp & timber co.'s plant in Bellingham. Bsns W p34+ S 28 '46
Waste sulfite liquor disposal; abstract. J. R. Salvesen. Chem & Eng N 24:2781 O 25 '46

Analysis
Decomposition products in waste sulphite liquor from spruce; abstract. T. Höpner. Paper Ind 28:728 Ag '46
Sodium bisulphite on sprucewood; abstract. K. Freudenberg and others. Paper Ind 28: 728 Ag '46

SULFITE process. See Paper making—Sulfite process

SULFOLANES
Dimethylsulfolane; abstract. H. G. Staaterman and others. flow diag Pet Processing 1:85-6 O '46

See also
Tetrahydrothiophene

SULFONAMIDES
p-Aminobenzenesulphonamide derivatives of pyrimidine as antibacterial agents. F. L. Rose and G. A. P. Tuey. Chem Soc J p81-5 F '46
2-*p*-Aminobenzenesulphonamidopyrimidines; preparation by a novel route. F. L. Rose and G. Swain. Chem Soc J p689-92 O '45
Carboxy derivatives of sulfonamidothiazoles. J. M. Sprague, R. M. Lincoln and C. Ziegler. bibliog Am Chem Soc J 68:266-9 F '46
Disinfectants and antiseptics; sulfa drugs. E. G. Klarmann. Soap & San Chem 22:127+ F '46

SULFONAMIDES—*Continued*
Interactions between proteins and azosulfonamides. I. M. Klotz and others. Science 104:264 S 20 '46
Intestinal antiseptic; 2-sulfanilamido-5-carboxythiazole. P. S. Winnek. Science 103: 719-20 Je 21 '46
N^1-(aminoalkyl)-sulfanilamides and N^1-(acetamidoalkyl)-sulfanilamides. L. H. Amundsen and L. A. Malentacchi. Am Chem Soc J 68:584-5 Ap '46
Progress in drugs, fine chemicals and biological products during 1945. G. C. Green. Chem Age (Lond) 54:206-7 F 23 '46
Reactions of alkyl*iso*formanilides; with carboxylic acids, sulphonic acids, and sulphonamides. E. B. Knott. Chem Soc J p686-9 O '45
Sharp & Dohme sulfa drugs patent award made. Oil Paint & Drug Rep 150:4 S 30 '46
Some sulphanilamidophenyl cyanides and related compounds. A. H. Cook and others. Chem Soc J p861-4 D '45
Structure and activity of sulfanilamides. F. G. Bordwell, A. B. Colbert and B. Alan. bibliog Am Chem Soc J 68:1778-81 S '46
Studies in chemotherapy; antimalarials; the synthesis of substituted metanilamides and related compounds. J. P. English and others. bibliog Am Chem Soc J 68:1039-49 Je '46
Studies of the acute diarrheal diseases; further studies on the relative efficacy of sulfonamides in shigellosis. J. Watt and S. D. Cummins. bibliog Pub Health Rep 60:1355-61 N 16 '45
Studies on the acute diarrheal diseases; the sulfonamides in shigellosis. A. V. Hardy. Pub Health Rep 61:857-66 Je 14 '46
Substances allied to benzylamine-*p*-sulphonamide. T. Dewing. Chem Soc J p466-7 Je '46
Sulfa drugs and the treatment of furunculosis in trout. J. S. Gutsell. Science 104: 85 Jl 26 '46
Sulphonamides; the action of amines on ethyl 4-sulphanilamidobenzoate; some alternative preparative methods for sulphanilamidobenzamides. J. H. Gorvin. Chem Soc J p736-8 N '45
Sulphonamides; the action of ammonia on sulphanilamidobenzoic esters in the light of the general theory of ester ammonolysis. J. H. Gorvin. Chem Soc J p732-5 N '45

See also
Sulfadiazine
Sulfanilamide
Sulfapyridine
Sulfathiazole

Testing

Method for determining bacterial resistance and susceptibility to sulfonamides and penicillin. R. D. Reid and D. T. Anderson. Science 103:454-5 Ap 12 '46

SULFONATES
Studies of sulfonates; some surface and interfacial tension measurements with aqueous solutions of certain alkanesulfonates. E. C. Lingafelter, O. L. Wheeler and H. V. Tartar. bibliog Am Chem Soc J 68:1490-3 Ag '46
X-ray crystallographic studies of organic sulfonates; the hemihydrates of certain sodium 1-alkane-sulfonates. L. H Jensen and E. C. Lingafelter. Am Chem Soc J 68:1729-30 S '46

Analysis

Analysis of oil-soluble petroleum sulfonates; extraction-adsorption method. F. Brooks, E. D. Peters and L. Lykken. diags Ind & Eng Chem Anal ed 18:544-7 S '46
Direct volumetric determination of the organic sulfonate content of synthetic detergents. T. U. Marron and J. Schifferli. bibliog Ind & Eng Chem Anal ed 18:49-50 Ja '46

SULFONATION
Mechanism of the sulfonation of aromatic amines; sulfonation with fuming sulfuric acid. E. R. Alexander. bibliog Am Chem Soc J 68:969-73 Je '46
Preparation of salts of 2-phenylethene-1-sulfonic acid. F. G. Bordwell and others. bibliog Am Chem Soc J 68:139 Ja '46
Sulphonation of naphthalene; abstracts. R. Lantz. Soc Dyers & Col J 61:337-8 D '45

SULFONES
4-Amino-4′-hydroxylaminodiphenyl sulfone, its acetyl and D-glucosyl derivatives. E. L. Jackson. bibliog Am Chem Soc J 68:1438-42 Ag '46
8-Amino-6-quinolyl methyl sulfone. H. Gilman and A. E. Lindblad. bibliog Am Chem Soc J 68:982-3 Je '46
Chemotherapeutic agents of the sulphone type; sulphones containing a *p*-aminophenyl group. J. Walker. Chem Soc J p630-3 O '45
Chemotherapeutic agents of the sulphone type; sulphones related to benzamidine and benzylamine. A. T. Fuller, I. M. Tonkin and J. Walker. Chem Soc J p633-40 O '45
Configuration of sulfoxides; mixed crystals of sulfoxides with sulfones. H. Rheinboldt and E. Giesbrecht. bibliog Am Chem Soc J 68:973-8 Je '46
Derivatives of *p,p′*-diaminodiphenyl sulfone. H. Heymann and L. F. Fieser. bibliog Am Chem Soc J 67:1979-86 N '45
Derivatives of *p,p′*-diaminodiphenyl sulfone. H. Heymann and C. Heidelberger. bibliog Am Chem Soc J 67:1986-90 N '45
4 : 4′-Dinitrodiphenylsulphone. H. Burton and W. A. Davy. Chem Soc J p542 Je '46
Reactions of sulfur dioxide with unsaturated hydrocarbons. O. Grummitt and A. Ardis. bibliog il J Chem Educ 23:73-7 F '46
Substances allied to benzylamine-*p*-sulphonamide. T. Dewing. Chem Soc J p466-7 Je '46
Substituted diethylaminoalkylthioalkylamines; 4-aminoquinoline derivatives. W. Huber and others. Am Chem Soc J 68:322-3 F '46
Synthesis of amino-sulphones. A. A. Goldberg and D. M. Besly. Chem Soc J p566-71 S '45
Synthesis of diamino sulphones. A. A. Goldberg. Chem Soc J p826-9 N '45

See also
Methyl sulfone
Promizole

SULFONIC acids
Preparation of salts of 2-phenylethene-1-sulfonic acid. F. G. Bordwell and others. bibliog Am Chem Soc J 68:139 Ja '46
Reactions of alkyl*iso*formanilides; with carboxylic acids, sulphonic acids, and sulphonamides. E. B. Knott. Chem Soc J p686-9 O '45

Analysis

Analysis of oil-soluble petroleum sulfonates; extraction-adsorption method. F. Brooks, E. D. Peters and L. Lykken. diags Ind & Eng Chem Anal ed 18:544-7 S '46

SULFONYL chloride
Chemistry of xanthic acid derivatives; the interaction of sulphonyl chlorides and potassium ethyl xanthate. G. Bulmer and F. G. Mann. Chem Soc J p680-6 O '45

SULFOSALICYLIC acid
Conductometric titrations with organic reagents; determination of copper with cupferron, and iron with sulfosalicylic acid. J. F. Corwin and H. V. Moyer. bibliog Ind & Eng Chem Anal ed 18:302-4 My '46

SULFOXIDES
Configuration of sulfoxides; mixed crystals of sulfoxides with sulfones. H. Rheinboldt and E. Giesbrecht. bibliog Am Chem Soc J 68:973-8 Je '46

See also
Methyl sulfoxide

SULFUR
Control of sulfur in electrolytic manganese. J. Koster. bibliog diags Electrochem Soc Trans 89 (preprint 26):307-17 '46
Corrosion of constructional materials by sulphur and sulphides. J. R. West. Chem Eng 53:225 O '46
Cycle stocks from catalytic cracking; hydrogenation and desulfurization. C. L. Brown, A. Voorhies, jr. and W. M. Smith. bibliog il diag Ind & Eng Chem 38:136-40 F '46
Entrainment of cobalt and sulfur in iron separations. E. T. Pinkney, R. Dick and R. S. Young. bibliog Am Chem Soc J 68: 1126-8 Je '46

SULFUR—*Continued*
Hamilton tubular sulphur melter. G. G. Vincent and A. Cook. diags Pulp & Pa of Can (Convention no) 47:129-30+ [F] '46; Same cond. Paper Ind 27:1576-7 Ja '46
Modifying the viscosity of sulfur. R. Fanelli. bibliog il diag Ind & Eng Chem 38:39-43 Ja '46
Molecular structure of coal: a record of experiments with coal and sulphur; abstract. A. McCulloch. Chem & Ind p374 D 1 '45
Observations on the angular scattering of light by sulfur sols. V. K. LaMer and I. Johnson. Am Chem Soc J 67:2055-6 N '45
Paper capacitors containing chlorinated impregnants; effects of sulfur. D. A. McLean, L. Egerton and C. C. Houtz. bibliog diag Ind & Eng Chem 38:1110-16 N '46
Reactions of aliphatic hydrocarbons with sulfur; production of olefins, diolefins, and thiophene. H. E. Rasmussen, R. C. Hansford and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:376-82 Ap '46
Structure of ethylene polysulfides. H. E. Westlake, jr. and others. bibliog Am Chem Soc J 68:748-51 My '46
Sulphur, important material in two world wars. W. W. Duecker. Chem & Met Eng 52:110-11 N '45

See also
Coal—Sulfur content
Gas—Sulfur content
Gasoline—Sulfur content
Iron—Sulfur content
Lubricating oils—Sulfur content
Petroleum refining—Sulfur removal
Steel—Sulfur content
Sulfuration
Vulcanization

Analysis

Apparatus for the determination of organic sulphur compounds in manufactured gas. I. J. W. MacHattie and N. L. McNiven. bibliog il diags Can Chem & Process Ind 30: 87-90+ Jl '46; Same. Am Gas J 165:47-51 O '46
Detection of elemental sulfur in gasoline by the Sommer test. G. E. Mapstone. Ind & Eng Chem Anal ed 18:498-9 Ag '46
Determination of sulfur in sulfur compounds with benzidine hydrochloride. W. S. Platner. bibliog Ind & Eng Chem Anal ed 18: 334-5 My '46
Mechanism of modifier action in GR-S polymerization. F. T. Wall, F. W. Banes and G. D. Sands. Am Chem Soc J 68:1429-31 Ag '46
Radioactive studies; analytical procedure for measurement of long-lived radioactive sulfur, S^{35}, with a Lauritzen electroscope and comparison of electroscope with special Geiger counter. F. C. Henriques, jr. and others. bibliog diags Ind & Eng Chem Anal ed 18:349-53 Je '46
Sulphur determination. Mech Eng 68:982 N '46
Sulphur-in-steel determination apparatus. Il Chem Age (Lond) 54:113 Ja 26 '46

Isotopes

Radioactive studies; analytical procedure for measurement of long-lived radioactive sulfur, S^{35}, with a Lauritzen electroscope and comparison of electroscope with special Geiger counter. F. C. Henriques, jr. and others. bibliog diags Ind & Eng Chem Anal ed 18:349-53 Je '46

Manufacture

Heavy chemical industry in 1945; sulphur and sulphur materials. P. Parrish. diag Chem Age (Lond) 54:44-5 Ja 12 '46

SULFUR, Liquid
Pressure drop chart for sulphur flow. C. E. Butterworth. Chem & Met Eng 53:116 Je '46
Shipping liquid sulphur is practical. Chem Eng 53:111 S '46

SULFUR bacteria
Anaerobic corrosion of buried iron pipes; abstract. O. B. Wilson. Am Water Works Assn J 38:1212-13 O '46
Anaerobic corrosion of iron in soil; with particular consideration of soil redox potential as indicator of corrosiveness. R. L. Starkey and K. M. Wight. bibliog(203 titles) il diags Am Gas Assn Proc 1945:307-412; Abstract. Am Water Works Assn J 38:1210-12 O '46
Corrosion of concrete; abstract. C. D. Parker. Am Water Works Assn J 38:1214 O '46
Role of sulphur bacteria in the formation of the so-called sedimentary copper ores and pyritic ore bodies. C. Schouten. il Econ Geol 41:517-38 Ag '46

SULFUR compounds
Chemistry of xanthic acid derivatives; the thermal decomposition of disulphurdicarbothionic esters. G. Bulmer and F. G. Mann. Chem Soc J p674-7 O '45
Desulfurization of petroleum hydrocarbons. R. M. Reed. bibliog flow chart il Oil & Gas J 44:219-20+ Mr 30 '46
Effect of compounds of sulfur on reheat volume change of fire-clay and high-alumina refractories. A. R. Lesar and others. bibliog il Am Cer Soc J 29:70-5 Mr 1 '46
Evaluation of sulfur compounds in gasolines. F. C. Moriarty. Pet Refiner 25:106-8 O '46
Hydrogenation of compounds containing divalent sulfur. R. Mozingo and others. bibliog Am Chem Soc J 67:2092-5 D '45
Mechanism of action of organic chlorine and sulphur compounds in extreme-pressure lubrication. C. F. Prutton and others. bibliog 2pls Inst Pet J 32:90-118 F '46
Nomenclature of the sulfur compounds in petroleum; abstract. J. S. Ball and W. E. Haines. Oil & Gas J 45:150 O 19 '46
Observations on the development of extreme pressure (E.P.) properties by chlorine and sulphur additives in mineral oil, as assessed by the Four ball machine. W. Davey. diags Inst Pet J 32:575-81 S '46
Organic sulphur compounds; experiments with 1-thia-γ-pyrones; thermal rearrangement of 1-thia-γ-pyrone derivatives into the isomeric 1-thia-α-pyrone derivatives. A. Schönberg and W. Asker. Chem Soc J p604-8 Jl '46
Oxidation of lubricating oils; mechanism of sulfur inhibition. G. H. Denison, jr. and P. C. Condit. bibliog Ind & Eng Chem 37: 1102-8 N '45
Removal of sulphur compounds from town gas by catalytic hydrogenation. E. B. Maxted and J. J. Priestley. il diags Gas J (Lond) 247:471-2+, 515-16, 556-7, 593 Mr 20-Ap 10 '46
Some organic arsenicals containing the arsenic—sulfur linkage. W. H. C. Ruegeberg, A. Ginsburg and W. A. Cook. Am Chem Soc J 68:1860-2 S '46
Sulfur analog of the plasmochin type; 8-(γ-diethylaminopropylamino)-6-quinolyl methyl sulfide. H. Gilman and others. Am Chem Soc J 68.1577-9 Ag '46
Sulphur compounds from Pánuco gasoline. W. Friedmann and C. Rodriquez. bibliog Pet Refiner 22:61-5 Ja '43; 25:101-8 F '46
Sulphur derivatives of thiazoles. E. M. Gibbs and F. A. Robinson. Chem Soc J p925-7 D '45

See also
Mercaptans
Sulfides
Sulfonamides
Sulfuric acid
Thiocyanates
Thiones

Analysis

Apparatus for the determination of organic sulphur compounds in manufactured gas. I. J. W. MacHattie and N. L. McNiven. bibliog il diags Can Chem & Process Ind 30: 87-90+ Jl '46; Same. Am Gas J 165:47-51 O '46

Terminology

Sulfur in petroleum; nomenclature of the sulfur compounds in petroleum. J. S. Ball and W. E. Haines. Chem & Eng N 24:2765-9 O 25 '46

SULFUR dioxide
Activation of linseed oil by sulfur dioxide; abstract. L. I. Waterman. C. van Vlodrop and M. J. Pfauth. Paint Oil & Chem R 109:18B+ Mr 7 '46
Addition compounds of sulfur dioxide with pyridine and the picolines. K. R. Hoffman and C. A. VanderWerf. bibliog Am Chem Soc J 68:997-100 Je '46
Autoxidation process for sulphuric acid and sulphate production. H. E. Keyes. bibliog flow sheets il diag Chem & Met Eng 53: 126-30 My '46

SULFUR dioxide—*Continued*
How the SO_2 process worked on Three Kids manganese ore. D. N. Vedensky. il diag Eng & Min J 147:58-64 Jl '46
Hydrogen sulfide from sulfur dioxide and methane. S. W. Walker. bibliog flow sheet Ind & Eng Chem 38:906-12 S '46
Reactions of sulfur dioxide with unsaturated hydrocarbons. O. Grummitt and A. Ardis. bibliog il J Chem Educ 23:73-7 F '46
Spot reaction experiments; water as a participant in reactions of sulfur dioxide. F. Feigl. J Chem Educ 22:558-60 N '45
Storage of dried fruit; influence of moisture and sulfur dioxide on deterioration of apricots. E. R. Stadtman and others. Ind & Eng Chem 38:99-104 Ja '46
Use of absorption towers for recovery of pressure relief gases. A. G. Hellstrom. diags Pulp & Pa of Can (Convention no) 47:119-22 [F] '46; Same cond. Paper Ind 27:1572-4 Ja '46

Analysis

Automatic apparatus for determination of small concentrations of sulfur dioxide in air; new countercurrent absorber for rapid recording of low and high. M. D. Thomas, J. O. Ivie and T. C. Fitt. bibliog il diags Ind & Eng Chem Anal ed 18:383-7 Je '46
Determination of sulfur dioxide in fruits. J. D. Ponting and G. Johnson bibliog Ind & Eng Chem Anal ed 17:682-6 N '45
How to test your kiln for sulphur. M. J. Bozsin. Brick & Clay Rec 109:50+ Ag '46

SULFUR dioxide, Liquid
Liquid sulphur dioxide improves crop yields. Chem & Met Eng 53:180 Mr '46

SULFUR dyes
Dyeing cotton hanks with sulfur colors. Am Dyestuff Rep 35:471-4 O 7 '46

SULFUR industry and trade
No reconversion problems for sulphur. J. T. Claiborne, jr. il Min Cong J 32:67-9 F '46
Outlook for 1946. L. M. Williams, jr. Comm & Fin Chr 163.594+ Ja 31 '46

Statistics

Enough sulphur and sulphuric acid for $25,000,000,000 of industry products. Chem & Met Eng 53:98-9 Ja '46

Italy

Italy's sulfur industry. C. A. Botsford. il For Comm W 22:12-13 Ja 19 '46

SULFUR mines and mining
Sulphur, important material in two world wars. W. W. Duecker. Chem & Met Eng 52: 110-11 N '45

Italy

Italy's sulfur industry. C. A. Botsford. il For Comm W 22:12-13 Ja 19 '46

SULFUR prints. See Steel—Sulfur prints

SULFURATION
Sulfurization of unsaturated compounds. H. E. Westlake, jr. bibliog(94 references) Chem R 39:219-39 O '46

SULFURIC acid
Action of sulfating agents on proteins and model substances; concentrated sulfuric acid. H. C. Reitz and others. bibliog Am Chem Soc J 68:1024-31 Je '46
Action of sulfuric acid on tertiary carboxylic acids. E. Campaigne and C. M. Suter. bibliog Am Chem Soc J 68:880-2 My '46
Activity coefficients of sulfuric acid in aqueous solutions of ethanol at 25° C. H. D. Crockford and S. A. Wideman. J Phys Chem 50:418-22 S '46
Alkylation of isoparaffins; application of the carbonium-ion theory. F. G. Ciapetta. bibliog Ind & Eng Chem 37:1210-16 D '45
Combination of acids employed in pickling process. E. W. Mulcahy. diags Steel 118: 122-4 Ap 15 '46
Computations on the denitration of aqueous mixtures of sulphuric and nitric acids with steam. G. E. Stephenson. Inst Chem Eng Trans 20:103-5 '42; Same. Soc Chem Ind J 62:17-20 F '43; Discussion. Inst Chem Eng Trans 20:105-6 '42
Continuous dilution chart for sulphuric acid. A. Bunk. Chem & Met Eng 53:165 F '46
Corrosion-fatigue properties of some hard lead alloys in sulfuric acid. D. J. Mack. bibliog il diag Am Soc T M Proc 45:629-50 '45; Abstract. Metal Prog 49:176+ Ja '46
Determination of small amounts of aromatic hydrocarbons in aqueous solutions. H. E. Morris, R. B. Stiles and W. H. Lane. bibliog Ind & Eng Chem Anal ed 18:294 My '46
Determination of the solubility of styrene in water and of water in styrene. W. H. Lane. Ind & Eng Chem Anal ed 18:295-6 My '46
Disposal of sludge from acid washing of coke-oven light oil; sulfuric acid recovery. E. Preston. Blast F & Steel Pl 34:122-3 Ja '46
Equilibria in ternary systems containing oxalates. L. M. Hill, T. P. Goulden and E. Hatton. Chem Soc J p78-81 F '46
Exchange of hydrogen and tritium ions during alkylation, catalyzed by tritium sulfuric acid. T. D. Stewart and D. Harman. Am Chem Soc J 68.1135-6 Je '46
Kinetics of nitration of aromatic nitro compounds in sulfuric acid. F. H. Westheimer and M. S. Kharasch. bibliog Am Chem Soc J 68:1871-6 O '46
Mechanical and metallurgical control of sulfuric acid corrosion in petroleum processes; abstract. E. R. Wilkinson. Oil & Gas J 45: 96 O 12 '46
Mechanism of the sulfonation of aromatic amines; sulfonation wtih fuming sulfuric acid. E. R. Alexander. bibliog Am Chem Soc J 68:969-73 Je '46
Preparation of cellulose acetate; action of sulfuric acid. C. J. Malm, L. J. Taughe and B. C. Laird. bibliog Ind & Eng Chem 38:77-82 Ja '46
Standard electrode potentials of the mercury-mercurous sulfate electrode in methanol at 20, 25, 30 and 35°. E. W. Kanning and M. G. Bowman. bibliog Am Chem Soc J 68:2042-6 O '46
Storage tank dispenses sulfuric acid safely. plan diags Pet Processing 1:18-19 S '46
Studies of rosin sizing; use of sulfuric acid. D. Price and D. D. Cameron. bibliog Pulp & Pa of Can (Convention no) 47:142-8 [F] '46; Excerpts. Paper Ind 27:1890-3 Mr '46
Sulphuric acid air-lift used as an air dryer. W. Cowen and J. A. Storrow. diags Soc Chem Ind J 64:334-5 D '45
Sulfuric acid alkylation process. flow charts il Oil & Gas J 44:156-8 Mr 30 '46
Sulphuric acid equilibrium cell determines air moisture content continuously. A. E. Kroll and P. G. Foust, jr. diag Chem & Met Eng 53:115-16 Je '46
Sulphuric acid refining in the production of aviation and motor fuel. F. Sager. bibliog Pet Refiner 25:127-30 Je '46
Sulfuric-acid solutions; weight, specific gravity, etc; table. W. L. Nelson. Oil & Gas J 44:321 D 29 '45
Surface finishing of beryllium copper. il Iron Age 156:60-3 N 15 '45
Ternary system silver sulfate-sulfuric acid-water at 25°. E. L. Simons and J. E. Ricci. bibliog Am Chem Soc J 68:1413-16 Ag '46
Use of sulfuric acid-dichromate mixture in cleaning glassware. R. J. Henry and E. C. Smith. Science 104:426-7 N 1 '46
Vapor phase above the system sulfuric acid-water. E. Abel. bibliog(133 references) J Phys Chem 50:260-83 My '46
Zinc and sulphuric acid; the Imperial smelting corporation at war. Chem Age (Lond) 53:595 D 22 '45

Analysis

Improved analysis of fuming and concentrated sulphuric acid by water titration. J. C. D. Brand. Chem Soc J p585-8 Jl '46

Manufacture

Autoxidation process for sulphuric acid and sulphate production. H. E. Keyes. bibliog flow sheets il diag Chem & Met Eng 53: 126-30 My '46
Determining niter supply in sulphuric acid plants. P. F. J. Kok. Chem Eng 53:127 S '46
Heavy chemical industry in 1945; sulphuric acid. P. Parrish. il Chem Age (Lond) 54: 45-8 Ja 12 '46

SULFURIC acid—Manufacture—*Continued*
London's chemical industry; sulphuric acid in East and West Ham. W. A. Parks and E. A. Rudge. il Chem Age (Lond) 54:359-62 Ap 6 '46
Recovering alkylation spent acid. J. A. Lee. flow sheet(p146-9) il Chem & Met Eng 53:102-5 Jl '46; Same, without flow sheet and il. Chem Age (Lond) 55:285-7 S 7 '46
Vinegar Hill zinc plant produces zinc and lead flotation concentrates and sulphuric acid. G. H. Pett. flow sheets il Min Cong J 31: 22-7 N '45

Statistics

Enough sulphur and sulphuric acid for $25,000,000,000 of industry products. Chem & Met Eng 53:98-9 Ja '46
Production and consumption of sulphuric acid by areas; 1944-1945. Chem & Met Eng 53:290 Jl '46
Sulphuric acid industry. Chem & Ind p75 F 16 '46
Sulphuric acid production; quarterly statistical summary. Chem Age (Lond) 54:550 My 18; 55:172 Ag 10 '46; Same abr. Chem & Ind p310 Ag 17 '46
Sulphuric acid production; six-monthly statistical summary. Chem Age (Lond) 54: 164-5 F 9 '46
Sulphuric acid returns for the third quarter of 1945. Chem Age (Lond) 53:539-40 D 8 '45

SULFURIZATION. See Sulfuration

SULFUROUS acid
Acid plant instrumentation. A. J. Legault. Pulp & Pa of Can 47:104-5 S '46
Extraction of alumina from clay; sulfite-sulfate process. O. Redlich and others. bibliog flow sheets diag Ind & Eng Chem 38:1181-7 N '46
Thoughts on acid making. A. H. Lundberg. Pulp & Pa of Can 47:98-103 S '46

SULLIVAN, Louis Henry, 1856-1924
Boston pays tribute to its greatest architect. por Arch Forum 85:12 O '46

SULZER engine
Sulzer oil engine; two-stroke opposed-piston model employed in commercial vehicles. il diags Automobile Eng 35:527-8 D '45

SUMATRA

Economic conditions

Backwash of war swirls around big Indonesian island; economy shaken by unrest, impairment, dearths, delays. D. V. Knibb. il map For Comm W 23:6-9+ My 4 '46

SUMMER
Transmission of solar radiation through flat glass under summer conditions. G. V. Parmelee. bibliog diags Heating-Piping 17: 562-73; Discussion. 573-6 O-N '45

SUMMIT, New Jersey

Water supply

Survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:131-51 Ja '46

SUN

See also
Solar radiation
Sunspots

Corona

Photoelectric sight for solar telescope; control of drive mechanism of Harvard college observatory solar coronagraphic telescope. W. O. Roberts. il diags Electronics 19:100-3 Je '46
Solar astronomy at Climax; studies of synthetic eclipses of the sun used to foretell atmospheric conditions on earth. W. O. Roberts. il Min & Met 27:363 Je '46

SUN chemical company
Thumbnail stock appraisal. Mag of Wall St 78:89 Ap 27 '46

SUN glasses
Fashion in eye glasses; for work and play. il Mod Plastics 23:96-8 Jl '46
Oculens promotion stresses high fashion appeal in sun glasses. il Sales Management 57:62+ Jl 1 '46
Sunglasses boxed for sex appeal. il Mod Packaging 19:113+ My '46
Sun goggles for air travelers. il Mod Plastics 24:93 O '46

Advertising

Fashion is theme of advertising for sun glasses; textiles, sport clothes, compacts, build department-store promotion around sun glasses. il Ptr Ink 215:44-5 Ap 26 '46

SUN life assurance company of Canada
Annual report. Comm & Fin Chr 163:1035 F 25 '46

SUN spots. See Sunspots

SUNBURN
Sunburn and industrial absenteeism. L. Stambovsky. Ind Med 15:341-3 My '46

SUNDARESAN, N. O.
India's executive director of World bank. por Comm & Fin Chr 164:72 Jl 4 '46

SUNFLOWER seed
New-type seed promises to stimulate Canada's sunflower industry. For Comm W 23: 40 Je 15 '46

SUNLIGHT
Short cuts to solar angles; with time-saver standards. H. P. Maas. il map diags Arch Rec 99:125-8+ Mr '46

See also
Heliotherapy

SUNLIGHT, Artificial
Artificial sunlight. Gen Elec R 49:71 F '46
Artificial sunlight. Science 102:sup14 D 28 '45

SUNRAY oil corporation
Plans disclosed for merger of Sunray and Transwestern. Oil & Gas J 45:84 My 11 '46
Securities offered. Comm & Fin Chr 164:733 Ag 5 '46

SUNROC refrigeration company
Sunroc refrigeration co., inc.; engaging family business in water coolers. il Fortune 34:150-5 O '46

SUNSET
Sunset shadow bands. R. L. Ives. Opt Soc Am J 35:736 N '45

SUNSHINE
Heat gain from winter sunshine in the U.S. il map Heat & Ven 43:63-6 Mr '46

SUNSHINE mining company
Stocks with leverage possibilities. Mag of Wall St 78:394, 423 Jl 6 '46

SUNSPOTS
Apparent visible violet radiation in the recent large sunspot group. J. C. Bartlett, jr. Science 103:681 Je 7 '46
Short wave radio emission from the sun. Engineering 161:164 F 15 '46
Sunspots and business activity. H. T. Stetson. il Dun's R 54:18-19, 62 O '46
Sunspots and radio communication. Franklin Inst J 241:369-71 My '46; Same cond. Electronics 19:291 Je '46
Weather cycles and their causes. H. P. Gillette. Roads & Sts 89:104+ Ap '46

SUPERCHARGERS
Cobalt-base high temperature alloys for gas turbines and superchargers. L. E. Browne. Steel 118:88-91+ My 27 '46
Metallurgical development of materials for turbosuperchargers and aircraft gas turbines. W. L. Badger. il diags Iron Age 158: 40-5 Jl 25; 60-6 Ag 1 '46; Abstract. Metal Prog 50:510+ S '46

See also
Airplane engines—Superchargers
Airplanes—Cabins—Supercharging
Diesel engines—Superchargers

Bearings

Bearing design and installation in highspeed superchargers. Z. Fox. il diags Product Eng 17:8-11 Ja '46

Lubrication

Seals for preventing oil leakage in high speed superchargers. Z. Fox. il diags Product Eng 17:158-62 F '46

Manufacture

Single department saves backtracking in producing supercharger drives. il Am Mach 90: 114-15 Ja 3 '46

SUPERCHARGERS—Manufacture—*Continued*
Supercharger manufacture; factory in abandoned chalk mine; Sir George Godfrey and partners, ltd. il plan Automobile Eng 36:25-8 Ja '46

SUPERCONDUCTIVITY. See Electric conductivity

SUPERHEATED steam
Chart for flow of saturated and superheated steam. D. S. Davis. il Chem & Met Eng 53:146 My '46
Coal pulverized by steam expansion; abstracts. J. I. Yellott and A. D. Singh. diag Power 89:916 Mid-D '45; Elec World 125:85 F 16 '46
Irreversibility in the theoretical regenerative steam cycle. R. E. Hansen. A S M E Trans 67:557-60 O '45; Discussion. flow diag 68: 267-70 Ap '46
One thousand F; new high in steam temperature; Atlantic City electric co. P. Sporn. map plan diags Elec World 126.60-7 Ag 17 '46
Superheated heating steam. M. S. Gerend. diag Power 90:339+ My '46

SUPERHEATERS
Adventures of a pound of steam. A. C. Kirkwood. Heating-Piping 17:628-9 D '45
Investigation of end cracking. A. T. Westbrook. il Ry Mech Eng 120:563 O '46
Proposed steam producer evaporates highpressure steam outside furnace; modification of Benson boiler. diags Power 90:663-5 O '46
Stop tube failure in superheater by adding corrosion inhibitors. E. Q. Camp and others. flow diag il diag Nat Pet N 38 pt 2: R192+ Mr 6 '46

Testing
Testing device for superheater units; locomotive shops of the St Louis-San Francisco. il Ry Mech Eng 119:596-7 D '45

SUPERHIGHWAYS. See Roads—Superhighways

SUPERMARKETS. See Market stores

SUPERSONIC waves
Absorption of supersonic waves in liquids. C. E. Teeter, jr. bibliog il diag Acoustical Soc Am J 18:488-95 O '46
Absorption of ultrasonic waves in benzene. J. Quinn. bibliog diags Acoustical Soc Am J 18:185-9 Jl '46
Acoustic intensity distribution from a piston source. A. O. Williams, jr. and L. W. Labaw. Acoustical Soc Am J 16:231-6; 17: 219-27 Ap '45, Ja '46
Action des ultra-sons sur les colloïdes. N. Marinesco. il diag Chimie & Ind 55:87-95 F '46
Compressional viscosity and sound absorption in water at different temperatures. F. E. Fox and G. D. Rock. bibliog Phys R 70:68-73 Jl 1 '46
Detecting the invisible; non-destructive inspection with supersonic frequencies; electronic mine-detectors. J. Markus. il Sci Am 174:104-6 Mr '46
Detection of cracks in steel by means of supersonic waves; summaries and discussion. C. H. Desch, D. O. Sproule and W. J. Dawson. Engineer 181:467-8 My 24 '46; Engineering 161:472-3 My 17 '46
Directional characteristics of a free-edge disk mounted in a flat baffle or in a parabolic horn. F. H. Slaymaker and others. il diags Acoustical Soc Am J 18:355-70 O '46
Effect of ultrasonic waves on the conductivity of salt solutions. F. E. Fox and others. il diag Phys R 70:329-39 S 1 '46
Flaws detected by supersonic waves; Reflectoscope. J. W. Dice. il diag Elec World 125:98+ F 2 '46
Hypersonic analyzer betters testing technique. il diag Iron Age 156:74 D 13 '45; Mach 52:184 Ja '46; Electronics 19:166 Mr '46; Machine Design 18:103 Ja '46; Mod Plastics 23:143 F '46; Product Eng 17:198 Mr '46
Inspecting forged axles at the Le Tourneau plant by means of supersonic waves; Reflectoscope. J. C. Smack. il diags Automotive & Aviation Ind 93:32-5+ N 15 '45
Instrument uses supersonic vibrations to determine quality prior to welding; Sperry supersonic reflectoscope. O. R. Carpenter. Blast F & Steel Pl 34:1147-8 S '46; Same abr. Steel 119:121 O 14 '46
Light metal alloys; degassing by sonic vibrations; abstract. W. Esmarch, T. Rommel and K. Benther. Automobile Eng 36:41 Ja '46
Metal inspection by supersonic echoes; supersonic reflectoscope. il diags Diesel Power 24:312-15 Mr '46
New aspect of ultrasonics B. K. Sahay. Acoustical Soc Am J 17:285-6 Ja '46
New ultrasonics instrument; Crystalab ultrasonorator. Chem Ind 58:834 My '46
Non-destructive testing methods; supersonic inspection. R. Le Grand. il diags Am Mach 90:131-3 My 23 '46
Ray computation for non-uniform fields. J. S. Saby and W. L. Nyborg. diags Acoustical Soc Am J 18:316-22 O '46
Recent developments in nondestructive testing. F. T. Sisco. Min & Met 27:478 S '46
Refinements in supersonic reflectoscopy; polarized sound. F. A. Firestone and J. R. Frederick. il diags Acoustical Soc Am J 18:200-11 Jl '46
Standing wave technique of thickness measurements. J. B. Butler and J. B. Vernon. bibliog Acoustical Soc Am J 18:212-15 Jl '46
Supersonic beam detects flaws in metals and plastics; Brush hypersonic analyzer. il Elec World 125:104 Je 22 '46
Supersonic flaw detector. R. B. De Lano, jr. bibliog il diag Electronics 19:132-6 Ja '46
Supersonic insects. W. H. Pielemeier. Acoustical Soc Am J 17:337-8 Ap '46
Supersonic inspection. il Steel 117:94+ D 24 '45
Supersonic inspection of materials. H. R. Clauser. il diags Materials & Methods 24: 379-84 Ag '46
Supersonic inspection of materials and parts; abstract. D. Erdman. il S A E J 54:74 O '46
Supersonic non-destructive testing; Sperry supersonic reflectoscope. il diag Product Eng 17:154 N '46
Supersonic reflectoscope for interior inspection. F. A. Firestone. il diags Metal Prog 48:505-12 S '45; Same. Acoustical Soc Am J 17:287-99 Ja '46
Supersonic testing; detection of cracks in steel by means of short length sound waves. il Automobile Eng 36:265-72 Je '46
Supersonic testing in a steel plant; Sperry supersonic reflectoscope; Republic steel corp. J. V. Russell and H. E. Pellett. il Iron Age 157:38-43 Ja 31 '46
Supersonic wave drag of thin airfoils. A. E. Puckett. bibliog diags J Aeronautical Sci 13: 475-84 S '46
Ultrasonic adsorption in copper acetate and ethyl acetate. R. T. Beyer and M. C. Smith. bibliog diag Acoustical Soc Am J 18:424-8 O '46
Ultrasonic ambient noise in tropical jungles. J. S. Saby and H. A. Thorpe. Acoustical Soc Am J 18:271-3 O '46
Ultrasonic condenser microphone. T. H. Bonn. bibliog il diags Acoustical Soc Am J 18: 496-502 O '46
Ultrasonic generator. F. W. Smith, jr. and P. K. Stumpf. bibliog il diags Electronics 19:116-19 Ap '46
Ultrasonic propagation in liquids; application of pulse technique to velocity and absorption measurements at 15 megacycles. J. R. Pellam and J. K. Galt. il diags J Chem Phys 14:608-14 O '46
Ultrasonic propagation in liquids; theoretical study of the free volume model of the liquid state. C. Kittel. bibliog diag J Chem Phys 14:614-24 O '46
Ultrasonic trainer circuits for teaching use of airborne radar for bombing or navigation. F. J. Larsen. il diags Electronics 19: 126-9 Je '46
Les ultra-sons en métallurgie. N. Marinesco. il diags Chimie & Ind 55:180-91 Mr '46
Use of ultra sound metal coating; abstract. C. D. Townsend. Mech Eng 68:462 My '46
Variable path ultrasonic interferometer for the four megacycle region with some measurements on air, CO_2, and H_2. J. L. Stewart. bibliog diags R Sci Instr 17:59-65 F '46

SUPERSONIC wind tunnels. See Wind tunnels

SUPERTHERM heating system. See Hot water heating, Industrial

SUPERVISORY workers
Are management's views of supervision faulty? Q. W. File. Personnel J 24:242-9; Discussion. 251-4 Ja '46
Are you a good supervisor? E. J. Tangerman. Air Transport 3:117 O; 49 N; 118 D '45; 4:78 Ja; 101 F; 99 Mr; 92 Ap; 84 My; 85 Je; 52 Jl; 68 Ag '46
How Rio Grande supervisors are kept posted Ry Age 121:683 O 26 '46
How to get your ideas across. J. F. Blair. Am Bsns 15:8-9+ D '45
Some reflections on the responsibilities of supervisors in the field of labor relations. G. R. Schenck. Paper Tr J 122:143-6 Je 20 '46
Stuck at thirty-five. Personnel J 24:270-8 Ja '46
Supervisors are only subordinate officials; I.C.C. decision brings group under labor act. Ry Age 121:235+ Ag 10 '46
Supervisors are paid bonus for improved operation; Sonoco Products. W. H. Miller, jr. il Factory Management 104:92-6 Je '46
Supervisors kept in the know by weekly get-together; National cash register company. W. E. Bahl. Factory Management 104:122 Ag '46
Technique of supervision. J. F. Bender. Credit & Fin Management 48:13-14 S '46
We give our supervisors economic and company facts; Minneapolis-Honeywell regulator co., 12 weekly meetings of 1 hour each. C. W. Drew. il Factory Management 104: 120-4 S '46

See also
Employment managers
Foremen
Sales managers

Rating
Measuring supervisory effectiveness; abstract. R. P. Brecht. Management R 35:10-12 Ja '46
Merit rating system for supervisors; Inland manufacturing division, General motors corporation. C. K. Haas. Factory Management 103:127-30 N '45
Method for evaluating supervisory personnel; Interaction Chronograph. E. D. Chapple and G. Donald, jr. Harvard Bsns R 24 no 2:197-214 [Ja] '46

Training
Basic economics for supervisors; abstract. C. W. Drew. Management R 35:272-4 Jl '46
Better supervisors because they know their product; Hytron corporation. R. C. Berman. diags Factory Management 103:100-4 D '45
Cooperative training; dare management try it? R. Hersey. Advanced Management 10: 146-54 D '45
Developing better managers. H. W. Lundin. Am Water Works Assn J 38:907-10 Ag '46
Personnel case-studies aid supervisor training. R. T. Taylor. il Textile World 96:112-13+ O '46
Planned development of supervisors. P. Carroll, jr. Personnel J 25:2-8 My '46
Selling safety to supervisors cuts accidents 67 percent. A. R. Lateiner. il Factory Management 104:102-4 My '46
30 training courses for supervisors of truck fleets designed to promote safety, efficiency. Nat Pet N 38:38+ F 6 '46
Training prospective officers. L. L. White. Ry Age 121:257-9 Ag 17 '46; Same. Ry Mech Eng 120:446-8 S '46
Training supervisors in preventive maintenance. J. Harsany. il Min Cong J 32:74-7 Ag '46

SUPPLY and demand
Whose boom? whose bubble? what's ahead for manufacturers of consumer goods? H. Hartogensis. Adv & Sell 38:101+ N '45

See also
Competition
Consumption (economics)
Demand curve
Prices

SUPREME court. See United States—Supreme court

SURETY and fidelity insurance. See Insurance, Surety and fidelity

SURETY association of America
Corporate suretyship geared for reconversion. E. V. Roth. Weekly Underw 154:828-30 Mr 30 '46
Public information program. D. Porter. East Underw 46:98 D 14 '45

SURETYSHIP and guaranty
Legal phases of guarantees; possible safeguards in opening new accounts. C. B. Everberg. Credit & Fin Management 47:4-7+ D '45

SURFACE active substances
Precipitation and saponification using surface-active agents. E. M. Losee. Can Chem & Process Ind 30:90+ S '46
Surface active compounds; their use in textile operations. H. H. Mosher. Am Dyestuff Rep 35:168-73 Ap 8 '46; Abstract. Soap & San Chem 22:75 Jl '46
Synthetic detergents in the modern tannery. P. I. Smith. il Soap & San Chem 22:46-7 My '46

SURFACE phenomena
Effect of sodium silicates on iron oxide surfaces. F. Hazel. bibliog J Phys Chem 49: 520-37 N '45
Electron diffraction camera for the study of high temperature surface reactions. E. A. Gulbransen. il diags J Ap Phys 16:718-24 N '45
Jones-Ray effect, wettability, and zeta-potential. H. M. Cassel. bibliog J Chem Phys 14:462 Jl '46
Les journées des états de surface (Paris, 23-26 octobre 1945). Génie Civil 123:60 Mr 1 '46
Measurement of surface potential or contact potential differences. A. A. Frost. diag R Sci Instr 17:266-8 Jl '46
Modified Kelvin method for measuring contact potential differences. W. E. Meyerhof and P. H. Miller, jr. diags R Sci Instr 17:15-17 Ja '46
Nature of surface activity; abstract. A. Carroll. Soap & San Chem 22:67 F '46
New developments in the study of surface chemistry. E. A. Gulbransen. il diags Metal Prog 49:553-9 Mr '46
Spectral emissivities of oxidized and unoxidized surfaces. T. R. Harrison. Elec World 125:112 Je 22 '46
Surface chemistry in relation to biology. E. K. Rideal. Can Chem & Process Ind 29: 861-2+ D '45
Total emissivities of oxidized and unoxidized surfaces. T. R. Harrison. Elec World 125: 104 Je 8 '46

See also
Accommodation coefficients
Adsorption
Catalysis
Films
Friction
Specific surface
Spreading
Surface tension
Wetting

SURFACE plates
Surface plates for precision. A. M. Grasse. il Am Mach 90:125-7 O 24 '46

SURFACE tension
Correction factor for surface tension of glass by drop-weight method. A. D. Prater and A. E. Badger. Glass Ind 27:339+ Jl '46
Determination of surface tension by the sessible bubble method. O. L. Wheeler, H. V. Tartar and E. C. Lingafelter. bibliog diag Am Chem Soc J 67:2115-19 D '45
Effect of molybdenum and other oxides on surface tension of silicate melts and on properties of refractories and abrasives. C. R. Amberg. bibliog diag Am Cer Soc J 29:87-93 Ap 1 '46
Properties of freshly formed surfaces; influence of temperature and concentration on the dynamic and static surface tensions of aqueous decoic acid solutions. C. C. Addison. Chem Soc J p579-85 Jl '46
Studies of sulfonates; some surface and interfacial tension measurements with aqueous solutions of certain alkanesulfonates. E. C. Lingafelter, O. L. Wheeler and H. V. Tartar. bibliog Am Chem Soc J 68: 1490-3 Ag '46
Surface tension is real. G. Pickett. J Ap Phys 17:61 Ja '46
Surface tension of aluminum sulfate solutions. H. L. Cupples. J Phys Chem 50:256-60 My '46
Surface tension of chloroform: its variation with the composition of the gas phase. H. L. Cupples. bibliog J Phys Chem 50:412-17 S '46

SURFACE tension—*Continued*
Test of Langmuir's interpretation of the Jones-Ray effect. L. A. Wood and L. B. Robinson. bibliog J Chem Phys 14:258-62 Ap '46
Time-dependence of boundary tensions of solutions; role of diffusion in time-effects. A. F. H. Ward and L. Tordai. bibliog J Chem Phys 14:453-61 Jl '46

SURFACES
Automatic roto shaving for fine surfaces. W. Praeg. il Iron Age 156:56-7 D 27 '45
Calculation of aspherical correcting surfaces. M. Herzberger and H. O. Hoadley. Opt Soc Am J 36:334-40 Je '46
Chemical treatment of highly finished metal surfaces. Mach 52:166-8 Jl '46; Same abr. Mech Eng 68:904 O '46
Effect of surface scratches on Alclad sheet. Iron Age 158:40 O 3 '46
Electron microscopical replica techniques for the study of organic surfaces; low pressure polystyrene-silica technique and silver-silica double evaporation method. R. B. Barnes and others. bibliog il diags J Ap Phys 16: 730-9 N '45
Evaluating surface durability of gears. T. H. Wickenden and others. il diags Machine Design 18:142-6 Jl '46; Same Automotive & Aviation Ind 95:36-40 Ag 1 '46
Film and surface cleanliness. J. C. Harris. bibliog Metal Finishing 44:328-30+ Ag; 386-8 S '46
Heat transfer from a cylindrical surface to air in parallel flow with and without unheated starting sections. M. Jakob and W. M. Dow. bibliog diags A S M E Trans 68: 123-34 F '46
Modern flat surface grinding practice. J. C. Arndt and W. S. Hallowell. il Mach 52:168-72 My; 158-63 Je; 169-73 Jl '46
Oil removal by alkaline cleaners; effect of surface condition of metals. S. Spring and L. F. Peale. bibliog il Ind & Eng Chem 38:1063-6 O '46
Properties of freshly formed surfaces; influence of temperature and concentration on the dynamic and static surface tensions of aqueous decoic acid solutions. C. C. Addison. Chem Soc J p579-85 Jl '46
Research on metallic surfaces organized in France. A. M. Portevin. Metal Prog 49:560 Mr '46
Role of surface area in dehydrocyclization catalysis. A. S. Russell and J. J. Stokes, jr. diag Ind & Eng Chem 38:1071-4 O '46
Surface area measurements of activated carbons, silica gel and other adsorbents. L. G. Joyner, E. B. Weinberger and C. W. Montgomery. bibliog Am Chem Soc J 67: 2182-8 D '45
Surface chemistry of glass molds; improvements in gray iron molds or methods of using them. W. E. Thrun and H. K. McGrath. bibliog Glass Ind 27:340-2+ Jl '46
Surface finish; what surface profile is really like, as shown by ordinary and electron microscopes. L. H. Milligan. il diag Diesel Power 24:336-8 Mr '46
Surface layers on quartz and topaz. D. D'Eustachio. bibliog il diags Phys R 70: 522-8 O 1 '46
Surfaces of solids; a first- and a second-order phase change in the adsorbed film of *n*-heptane on graphite. G. Jura and others. bibliog J Chem Phys 14:344-7 My '46
Surfaces of solids; a unitary thermodynamic theory of the adsorption of vapors on solids and of insoluble films on liquid subphases. G. Jura and W. D. Harkins. bibliog Am Chem Soc J 68:1941-52 O '46
Surfaces of solids; adsorbed films of water and normal heptane on the surface of graphite. W. D. Harkins, G. Jura and E. H. Loeser. bibliog Am Chem Soc J 68: 554-7 Ap '46
Surfaces of solids; first-order phase changes of adsorbed films on the surfaces of solids: the film of *n*-heptane on ferric oxide. G. Jura and others. bibliog J Chem Phys 14: 117-23 Mr '46
Work hardened surfaces of fatigue specimens. F. C. Hull and H. R. Welton. il Metal Prog 48:1287-8 D '45

See also
Bearing surfaces
Boundary value problems
Electric double layer
Films
Glass—Surface
Metal finishing
Specific surface

Smoothness testing
Checking surface finish; Comparoscope. il Steel 118:115+ Ja 28 '46
Comtor surface smoothness comparator. il Mach 52:220 D '45
Evaluation of the roughness of lithographic printing plates. G. A. H. Elton and G. Macdougall. bibliog il Soc Chem Ind J 65:212-15 Jl '46
Glossmeter for smoothness comparisons of machine-finished surfaces. R. S. Hunter. pl diag J Res Nat Bur Stand 36:385-91 Ap '46; Same. il Opt Soc Am J 36:178-81 Mr '46
Measurement of surface roughness. C. J. Posey. diags Mech Eng 68:305-6+ Ap '46
New approach in evaluating surface roughness of gear teeth. L. D. Martin. il diags Product Eng 17:110-14 S '46
New methods for measuring surface roughness; abstract. diag Product Eng 17:117 Ag '46
Replica method for roughness measurement. R. Smoluchowski. il R Sci Instr 17:309 Ag '46
Roughness tests of glass. Gen Elec R 49:67 Mr '46
Vergleich der oberflächenrauhigkeit feinstbearbeiteter ebener flächen. J. Kluge and G. Bochmann. il diag V D I 88:179-81 Ap 1 '44; Same cond (Comparison of roughness of super-finished plane surfaces). Product Eng 17:401-2 My '46

SURGE tanks
Pneumatic surge tank solves water hammer problem; experience at Bath, Maine. M. A. Libby. il diag Water & Sewage Works 93: 98-9 Mr '46

SURGERY
Practical surgical approach to the subclavian structures. K. B. Hanson and W. Hoyt. il diags Ind Med 15:426-7 Jl '46

See also
Fractures (surgery)
Grafting (surgery)

SURGICAL dressings
New absorbable material for use in neurological and general surgery. E. B. Spitz and others. Science 102:621-2 D 14 '45
New dressing for burns and extensive abrasions. G. S. King. Ind Med 14:796-7 O '45
Preliminary report on the use of tantalum oxide, type 400. C. T. Olson. Ind Med 14: 949-52 D '45
Valuable surgical aid discovered; Celluronic acid. Chem & Eng N 24:1837 Jl 10 '46

See also
Bandages and bandaging

Advertising
Bauer & Black campaign rides tide of wartime interest in first aid. C. K. Perkins. il Sales Management 56:41-4 Mr 15 '46

SURGICAL fabrics. See Bandages and bandaging

SURGICAL instruments and apparatus
Locator probe aids medical science; indicates presence of metals in the body. il Gen Elec R 49:54-5 O '46
Summary report on the production of German medical, surgical and sundry rubber goods. Rubber Age 58:338-42+ D '45

Manufacture
Manufacture of surgical instruments; Fred Haslam & co. F. McKnight and J. G. Cowley. il Steel 119:126-7+ Ag 5 '46
Surgical instrument finishing and plating. J. G. Cowley and F. McKnight. il Metal Finishing 44:150-2 Ap '46

SURGICAL supplies industry
Plasma builds civilian market through surgical supply houses; Hyland laboratories of Los Angeles. il Sales Management 56:139-40 Ja 15 '46

SURINAM. See Dutch Guiana

SURPLUS
Earning of earned surplus. E. A. Kracke. J Account 82:18-27 Jl '46
Surplus debate begets surplusage. E. A. Kracke. J Account 81:273-81 Ap '46

SURPLUS products
AAF's 700,000 items indicate magnitude of surplus disposal task. H. S. Robinson, 2d. il Iron Age 158:112+ Ag 1 '46
Basic problems and methods in oversea surplus sales; statement by the Foreign Liquidation Commissioner; abstract. T. B. McCabe. For Comm W 22:13 Mr 16 '46
Big cigar deal; manufacturers take back 40 million surplus. Bsns W p80+ Ap 27 '46
Bulk of government-owned surplus to be liquidated by early 1947. Steel 119:76-7 Jl 8 '46
China acquires great amount of U.S. civilian-type surplus property. For Comm W 24. 18+ S 14 '46
Disposal of surplus property as an aid to small business. L. F. Arnold. Dom Comm 34:3-6 Ag '46
European surplus disposals gain despite dollar shortage. J. R. Hight. il map Iron Age 157:115-18+ Mr 14 '46
For sale at site. Bsns W p22+ Je 15 '46
FLC report to Congress reveals billion-dollar mark passed for surplus disposal overseas. For Comm W 24:14+ Ag 3 '46
Government realizes 39 per cent return on capital goods disposals. Steel 118:96 F 4 '46
How one company insures use of its surplus equipment; United States rubber company. H. E. Nutting. il Factory Management 104: 87-9 Je '46
How to order surplus water and sanitation property at a discount; with directory of offices for surplus property disposal. il Pub Works 77:25-6 Mr '46
Light on surplus. Bsns W p17-18 Mr 30 '46
Probe of surplus sales through agents planned by senate group. Steel 119:89 O 14 '46
Release of surplus textiles bogs down at critical time. G. Montgomery. flow chart Textile World 95:137+ D '45
Shock absorbers; cushion impact of surplus sales on producing industry. Bsns W p21 My 4 '46
Surplus; a threat or a promise? Bsns W p17-18 Mr 23 '46
Surplus disposal faces crisis. Bsns W p17-18 D 15 '45
Surplus equipment should be available to educational institutions at reasonable prices. Mach 52:174 Ag '46
Surplus property purchase procedure; instructions to eligible public health claimants. Am Water Work Assn J 38:371-5 Mr '46
Surplus war property abroad sold for $1 billion in April-June quarter. Comm & Fin Chr 164:809 Ag 8 '46
U.S. surpluses abroad, big, challenging problem. N. I. Dalton. For Comm W 21:3-4+ D 15 '45
Veterans get top priority in purchasing war surplus equipment and supplies. H. J. Ashe. Inland Ptr 116:69 D '45-Ja '46
WAA faces overhauling. Bsns W p19 O 5 '46
WAC's big sale; new method of disposal gets first test at Port Hueneme. il Bsns W p21-2 Mr 2 '46
War surplus sales rise steeply in biggest U.S. bargain headache. Sales Management 56: 105-6+ Mr 1 '46
War surplus; sell it while it's hot. Fortune 33:104-5+ Mr '46
War surplus; yardstick or club? T. N. Sandifer. Pub Util 36:820-8 D 20 '45
When the government sells its surplus of your product. Ptr Ink 216:90+ S 20 '46

See also
Airplanes—Surplus airplanes
Industrial demobilization—Government plants
Machine tool industry—Surplus tools
Machinery—Surplus machines
Ships—Surplus ships

Advertising
Advertisements in Spanish and Portuguese appeal to prospective foreign purchasers of domestic surplus war property. For Comm W 25:16 O 26 '46
Much retail ad space being devoted to converted surplus government merchandise. T. M. Jones. il Ptr Ink 213:60 D 21 '45
Trade, consumer ad program. Ptr Ink 214:106 Mr 8 '46

Insurance aspects
War assets disposal creates insurance demand; war projects joint rating plan applicable to insurance operations. Nat Underw 50:1+ O 10 '46; Correction. 50:10 O 24 '46

SURPLUS property act of 1944
Farms and homes from surplus military lands. A. T. M. Lee. J Land & Pub Util Econ 21:331-8 N '45

SURPLUS property administration
Chemical surplus; SPA has 26 plants for disposal. Bsns W p42+ D 1 '45
SPA expects to dispose of about $15 billion in surplus declarations. L. W. Moffett. Iron Age 156:70+ D 27 '45
Surplus property administration reports on chemical plants. Chem & Eng N 24:48-50 Ja 10 '46
SPA resale policy. Bsns W p88 Ja 26 '46

SURPLUS war plants. See Industrial demobilization—Government plants

SURVEYING
Application of radar equipment to electronic surveying. F. G. Watson. Civil Eng 16: 294-5 Jl '46
Elements of surveying. E. A. Stephenson and D. D. Haines. il diags Oil & Gas J 44:137-8 My 4; 45:125-6 My 11; 159-60 My 18; 139-40 My 25; 97-8 Je 1; 103-4 Je 8; 139-40 Je 15; 133 Je 22; 123-4 Je 29; 105 Jl 6; 117 Jl 13; 121 Jl 20; 211 Jl 27; 247 Ag 10; 131 Ag 24 '46
Surveying for fast construction; Clinton engineer works. H. R. Kornberg. il plan Eng N 135:812-14 D 13 '45
Surveyor's parabolic vertical curve simplified. J. A. Oakey. Civil Eng 16:459-60 O '46
That three-point problem again. R. M. Wilson. Civil Eng 16:72 F '46

See also
Azimuth
Hydrographic surveying
Leveling
Petroleum—Well surveying
Photographic surveying
Topographical maps
Topographical surveying
Transit, Surveyor's
Triangulation

also American congress on surveying and mapping

SURVEYING, Aerial
Air-surveying methods for highway location. D. N. Kendall. il Roads & Bridges 84:61-2+ S '46
Controlling plane position in aerial magnetic surveying. H. Jensen and J. R. Balsley, jr. il diags Eng & Min J 147:94-5+ Ag '46
Mechanics of operating shoran. L. F. Jones. Civil Eng 16:296 Jl '46
Shoran surveys by army demonstrate accuracy. C. I. Aslakson. Civil Eng 16:297 Jl '46
Space resection problems in photogrammetry. P. H. Underwood. Am Soc C E Proc 72:939-62 S '46
Trimetrogon aerial photography; oil industry's newest surveying tool. R. W. Disney. il map diags Oil & Gas J 45:112-15 O 19 '46

SURVEYING, Photographic. See Photographic surveying

SURVEYING instruments
Elements of surveying; the instruments. E. A. Stephenson and D. D. Haines. il diags Oil & Gas J 44:137-8 My 4; 45:125-6 My 11; 159-60 My 18; 139-40 My 25 '46
War-developed equipment for peacetime use; construction equipment, surveying and mapping instruments and bridging developments. il Eng N 136:929-30 Je 13 '46

See also
Transit, Surveyor's

SURVEYOR'S transit. See Transit, Surveyor's

SURVEYS, Geological. See Geological surveys

SURVEYS, Social. See Social surveys

SURVIVAL (after airplane accidents, shipwrecks, etc.)
Pilots: know the knack of survival after force-down; account taken from official report. il Aviation 45:101-2+ Ja '46

SURVIVORSHIP, Presumption of
Common disaster law and life insurance. J. D. Cranny. Life Ins Courant 51:408-13 S '46

SUSPENSION bridges. See Bridges, Suspension

SUSPENSIONS
Determinations and calculations of physical constants of water suspensions of pigments. W. V. Torrey. Paper Tr J 122:53-4 F 14 '46
Flocculation of suspensions by immiscible liquids. E. K. Fischer, E. N. Harvey, jr. and A. S. Dyer. bibliog Am Chem Soc J 68:522-3 Mr '46
Preparation of electron microscope specimens for determination of particle size distribution in aqueous suspensions. A. M. Cravath and others. il J Ap Phys 17:309-10 Ap '46

See also
Dispersion
Electric precipitation
Sedimentation
Separation

SUSPENSOID catalytic cracking process. See Gasoline—Manufacture

SUTHERLAND, Thomas
Peninsular & Oriental steam navigation company. Fortune 34:127+ S '46

SUTURES
Destruction of organic matter in blood fibrin and chromacized medical catgut by wet oxidation; determination of iron in blood and of chromium in sutures. G. F. Smith. bibliog Ind & Eng Chem Anal ed 18:257-9 Ap '46

SVEDBERG, Theodor, 1884-
Sketch. por (cover) Chem & Eng N 24:1327 My 25 '46

SWAGING
Torque tube bearing swage utilized for light, inexpensive, quickly made fitting. il diag Aviation 45:101 Jl '46

SWAGING machines
Fittings are attached to cable by cable swaging machine. il Steel 117:148 N 19 '45

SWAMPS. See Marshes

SWEATERS
Sweaters for all occasions is new goal of industry. M. E. Poole. il Dom Comm 34.35-7 Ag '46

SWEDEN

See also
Forests and forestry—Sweden
Hydroelectric plants—Sweden
Mines and mineral resources—Sweden
Paper industry and trade—Sweden
Public lands—Sweden
Radio broadcasting—Sweden
Trade unions—Sweden

Commerce

Opportunity for American business in Sweden; U.S. depended upon to provide goods Germany supplied. H. G. Tonndorf. Barron's 26:5 Mr 25 '46
Selling Sweden; country hopes to hold South American sales gains. Bsns W p118+ N 17 '45
Sweden and world trade. H. Eriksson. Comm & Fin Chr 162:3013+ D 20 '45

Commercial policy

Sweden actively furthering free foreign trade. G. Myrdal. Comm & Fin Chr 164:477+ Jl 25 '46
What competition will Sweden give U.S. business? M. Feldman. Adv & Sell 39:110+ Ap '46

Economic conditions

News by countries. For Comm W 23:35-7 My 18; 32 Je 1; 24:35 Jl 13 '46
Reconversion in Sweden; world conflict's effects. R. P. Donogh. il For Comm W 22:3-7+ Mr 2 '46
Sweden and inflation. Economist 151:378-9 S 7 '46
Sweden in 1945. Economist 150:sup9 Mr 23 '46

Economic policy

Full employment in Sweden. A. Bjornberg. Comm & Fin Chr 164:333+ Jl 18 '46

SWEDISH sculpture. See Sculpture, Swedish

SWEEPING compounds. See Floor cleaning

SWEET-ORR and company
Tradition upheld; family company, sticks to work clothing. il Bsns W p30+ O 5 '46

SWEET potatoes
How to make canned ham and sweet potatoes. W. W. Bailey. il Food Ind 18:678-80+ My '46
Production of starch from sweet potatoes. il Chem & Eng N 24:474-5 F 25 '46
Ratio of carotene to carotenoid pigments in sweet-potato varieties. B. D. Ezell and M. S. Wilcox. bibliog Science 103:193-4 F 15 '46
Root starch made in the Florida Everglades from sweet potatoes. il Chem & Met Eng 53:110-11 Mr '46
Rotary machine solves lye peeler problems; details of construction. F. H. Thurber and P. W. Bohne il diag Food Ind 18:10-11+ Ja '46
Sweet potato gels; something new. G. L. Baker and C. W. Woodmansee. il Food Ind 18:196-7 F '46
Sweet potato starch. R. F. Gould. il Chem & Eng N 24:1518-20 Je 10 '46
Sweet potato starch becomes a domestic industry. il Chem Ind 58:416-19 Mr '46

Advertising

Branding lifts yam sales from dribbles to carloads; Dezauche & son, Opelousas, La. R. McDaniel. il Sales Management 56:59-60+ My 20 '46
Yams in packages, air delivered; Dezauche & son, Opelousas, La. il Mod Packaging 20:106-7+ O '46

Analysis

Determination of total beta-carotene in sweet potatoes and sweet potato products; improved method; extraction, purification, and spectrophotometric measurement. R. T. O'Connor, D. C. Heinzelman and M. E. Jefferson. bibliog(30 references) Ind & Eng Chem Anal ed 18:557-62 S '46

SWEET potatoes, Dried
Commercially dehydrated vegetables; oxidative enzymes, vitamin content, and other factors. M. F. Mallette and others. bibliog Ind & Eng Chem 38:437-41 Ap '46

SWELLING
Dimensional and structural changes in swollen synthetic fibers. B. R. Roberts. bibliog Rayon 27:243-5, 297-9 My-Je '46
Recent advances in the physics and chemistry of rubber; relation between the swelling and the mechanical properties of vulcanized rubber. G. Gee. bibliog Rubber Age 60:71-3+ O '46
Swelling of rubber; comparison of swelling behaviour of vulcanized natural rubber and GR-S in organic liquids. F. S. Rostler and others. bibliog Rubber Age 59:299-309 Je '46
Swelling of rubber; study of reclaiming oils with regard to swelling action on GR-S and natural rubber K. S. Rostler and R. M. White. bibliog diag Rubber Age 58:585-90 F '46
Swelling of rubber; swelling behaviour of vulcanized natural rubber and GR-S in mixtures of hydrocarbons. F. S. Rostler and K. S. Rostler. bibliog Rubber Age 60:57-68 O '46
Swelling stresses in gels. Chem & Ind p323 O 20 '45

SWENSON, Oscar W. 1865-
Moles honor two prominent contractors. por Explosives Eng 24:19 Ja '46; Comp Air Mag 51:50 F '46

SWIFT and company
Annual report. Comm & Fin Chr 162:3238 D 31 '45

SWIM, Allan Laverne
Portrait. Bsns W p104 My 18 '46

SWIMMING pools

Heating

Heating and purifying swimming pool water, diags Power Pl Eng 50:106 Jl '46

SWIMMING pools—Heating—*Continued*
Large water heater at Texas A. and M. heats water for swimming pool. il Gas Age 97:48 Mr 7 '46

SWINDLERS and swindling
Beware; easy money ahead. B. Watson. Dom Comm 34:9-16 Ag '46
Business protects the public; fraud prevention at the consumer level. P. S. Williams. Credit & Fin Management 48:28-9 Ag '46
Clearing house to detect unethical stock transactions. D. D. Murphy. Comm & Fin Chr 163:971+ F 21 '46
Fraud in sale of securities. E. Cornell. Comm & Fin Chr 162:2577+ N 29 '45
Fraud in securities transactions and the protection of investors. E. M. Hanrahan. Comm & Fin Chr 164:1648+ O 3 '46
Investment education and publicity. H. Johnson. Comm & Fin Chr 163:1637+ Mr 28 '46
One a minute; suckers, especially vets and war workers. Bsns W p34-6+ Ja 26 '46

See also
Fraud

SWINE
Argentine hog situation. For Comm W 21:45 N 10 '45
Heparin of pig tissue. W. C. Risser. bibliog Am Chem Soc J 68:341-2 F '46
Quarter century of experience in feeding garbage to hogs in the Los Angeles area. il Eng N 137:450-4 O 3 '46

SWING bridges. See Bridges, Swing

SWITCHES, Electric. See Electric switchgear

SWITZERLAND
United nations and Switzerland. W. E. Rappard. Ann Am Acad 246:64-71 Jl '46

See also
Chemical industries—Switzerland
Hydroelectric plants—Switzerland
Labor and laboring classes—Switzerland
Machine tool industry—Switzerland
Railroads—Electrification—Switzerland
Railroads—Switzerland
Tobacco industry and trade—Switzerland
Tourist trade—Switzerland
Trade unions—Switzerland

Commerce

Swiss barter products. Bsns W p116 Je 1 '46
Swiss resume trading with Germany. Comm & Fin Chr 164:1930+ O 17 '46

Commercial policy

Import permits removed on additional products; other changes. For Comm W 23:30 Je 8 '46
Import permits removed on numerous articles; permits now required for certain products on reserved commodities list. For Comm W 23:30 My 4 '46

Economic conditions

Swiss recovery begins. Economist 149:797 D 1 '45
Switzerland in 1945. Economist 150:sup9 Mr 23 '45

Industries and resources

Swiss family Nestlé. il Fortune 33:116-23+ F '46
Switzerland; clocks and watches; complete control of exportation and industry provided. For Comm W 23:35 Je 22 '46

SYDNEY, Australia

Harbor

Captain Cook graving dock at Sydney. M. W. Mehaffey. il diag Eng N 136:130-7 Ja 24 '46

SYDNONES
Sydnones; a new class of compound containing two adjacent nitrogen atoms. R. A. Eade and J. C. Earl. Chem Soc J p591-3 Jl '46

SYENITE

See also
Nepheline syenite

SYLVANIA electric products, inc.
Annual report. Comm & Fin Chr 164:150 Jl 8 '46
Sees huge fluorescent market. Barron's 26:6 F 4 '46

SYLVITE
Salts cored successfully with oil field equipment; carnallite, sylvite and halite deposit, Utah. C. L. Severy. il diag Eng & Min J 147:85-7 Ag '46

SYMBOLS
Allen's dictionary of abbreviations and symbols. E. F. Allen. 189p Coward-McCann, 2 W. 45th st, New York '46
Timely action on parts coding will avoid postwar confusion. J. Callahan. il Am Mach 89:137-8 N 22 '45

See also
Electric symbols
Electronics—Symbols
Radio symbols
Welding—Symbols

SYMPOSIUMS
Symposia feature 110th ACS meeting. Chem & Eng N 24:2180-2 Ag 25 '46

SYNAGOGS
California synagogue in mission tradition; Temple Israel of Hollywood. il plan Arch Rec 100:104 O '46

SYNCHRONIZING
Mechanical oscillators and their electrical synchronization. S. W. Herwald and others. bibliog il diags A S M E Trans 68:713-18 O '46
La synchronisation des moteurs électriques de commande individuelle des machines. M. Rosset. diags Génie Civil 123:179 Jl 1 '46
Synchronizing electric motors. diag Electronics 19:166+ Ja '46

See also
Synchroscope
Television—Synchronization

SYNCHRONOUS condensers. See Condensers (electricity)

SYNCHRONOUS machines. See Electric generators, Synchronous

SYNCHRONOUS motors. See Electric motors, Synchronous

SYNCHROSCOPE
Unique engine-synchronism indicator for aircraft. D. B. Pearson. bibliog il diags Elec Eng 65:Trans 650-3 O '46

SYNCHROTRON
New method for displacing the electron beam in a synchrotron. J. S. Clark and others. Phys R 70:562-3 O 1 '46
Orbits of particles in the racetrack. R. Serber. Phys R 70:434-5 S 1 '46
Racetrack: a proposed modification of the synchrotron. H. R. Crane. diag Phys R 69: 542 My 1 '46
Stability of electron orbits in the synchrotron. N. H. Frank. Phys R 70:177-83 Ag 1 '46
Stability of orbits in the racetrack. D. M. Dennison and T. H. Berlin. Phys R 69:542-3 My 1 '46
Stability of synchrotron orbits. D. M. Dennison and T. H. Berlin. Phys R 70:58-67 Jl 1 '46
Synchro-betatron, electron accelerator guide fields. H. F. Kaiser and E. C. Greanias. il diag Phys R 69:536-7 My 1 '46
Synchrotron whirls electrons; variation of the cyclotron. Electronics 19:264+ Jl '46
Theory of the synchrotron. D. Bohm and L. Foldy. bibliog Phys R 70:249-58 S 1 '46

SYNTHESIS
Antimalarials; α-alkyl and dialkylaminomethyl-2-phenyl-4-quinolinemethanols. R. E. Lutz and others. bibliog Am Chem Soc J 68:1813-31 S '46
Application of the Hofmann reaction to the synthesis of heterocyclic compounds; synthesis of 3-alkyl-2 : 4-diketo-1 : 2 : 3 : 4-tetrahydroquinazolines from *N*-alkylphthalamides. F. S. Spring and J. C. Woods. Chem Soc J p625-8 S '45
Applications of the 1,4-addition of Grignard reagents to α,β-unsaturated acid derivatives; synthesis of compounds related to hexestrol. S. Wawzonek. bibliog Am Chem Soc J 68:1157-9 Jl '46
1-Arylcyclohexanecarboxylic acids. M. Rubin and H. Wishinsky. Am Chem Soc J 68:828-32 My '46
Biotin; synthesis of *dl*-biotin, *dl*-allobiotin and *dl-epi*-allobiotin. S. A. Harris and others. bibliog Am Chem Soc J 67:2096-100 D '45

SYNTHESIS—*Continued*
Catalytic synthesis of hydrocarbons and oxygenated compounds from ketene and its relation to the Fischer-Tropsch synthesis. B. R. Warner, M. J. Derrig and C. W. Montgomery. bibliog Am Chem Soc J 68: 1615-17 Ag '46
Contribution to the study of nicotine and the synthesis of 7-azaindole and derivatives. G. R. Clemo and G. A. Swan. Chem Soc J p603-7 S '45
Diglycerol by a new ether synthesis. H. J. Wright and R. N. Du Puis. Am Chem Soc J 68:446-8 Mr '46
Direct synthesis of 2-methylbenzothiazolium salts. L. G. S. Brooker and H. W. J. Cressman. bibliog Am Chem Soc J 67:2046 N '45
Electro-organic chemical preparations. S. Swann, jr. bibliog tables Electrochem Soc Trans 88 (preprint 23):237-54 '45
Enzymic synthesis and degradation of starch; the synthesis of amylopectin. E. J. Bourne and S. Peat. Chem Soc J p877-82 D '45
Experiments on the synthesis of α-biotin. R. Ghosh, J. F. W. McOmie and J. P. Wilson. Chem Soc J p705-6 O '45
Experiments relating to the synthesis of patulin; a study of hydrogenated γ-pyrones. J. Attenburrow and others. Chem Soc J p571-7 S '45
Experiments relating to the synthesis of patulin; derivatives of 2 : 3-diketo-4-acetyltetrahydrofuran. E. T. Borrows and B. A. Hems. Chem Soc J p577-8 S '45
4-(*p* - Hydroxyphenyl) - cyclohexanecarboxylic acid and derivatives. W. S. Johnson, C. D. Gutsche and R. D. Offenhauer. Am Chem Soc J 68:1648-50 Ag '46
Improved syntheses of acridines; the dechlorination of 5-chloroacridines and a new synthesis of acridine. A. Albert and J. B. Willis. bibliog Soc Chem Ind J 65:26-8 Ja '46
α - Isopropyl-5-methyl - 2-oxo - 4 - imidazolidine - propionic acid, a structural isomer of desthiobiotin. G. B. Brown and M. F. Ferger. bibliog Am Chem Soc J 68:1507-8 Ag '46
1 - Methyl - 3-ethyl-4-(*p*-hydroxyphenyl)-Δ^3-cyclohexenylethylcarbinol, an open-model of estradiol. M. Rubin and H. Wishinsky. Am Chem Soc J 68:338-40 F '46
New aldehyde synthesis. M. L. Wolfrom and J. V. Karabinos. bibliog Am Chem Soc J 68:1455 Ag '46
New method for the synthesis of α-chloroketones. J. F. Bunnett and D. S. Tarbell. bibliog Am Chem Soc J 67:1944-6 N '45
New syntheses of heterocyclic compounds; 3-azaphenthiazines. V. A. Petrow and E. L. Rewald. Chem Soc J p591-3 S '45
New syntheses of heterocyclic compounds; Schmidt rearrangement of 1 : 3-dimethyl-2-azafluorenone. V. A. Petrow. Chem Soc J p200-3, 888-91 Mr, O '46
New synthesis of 4-quinazolones. H. W. Grimmel, A. Guenther and J. F. Morgan. bibliog Am Chem Soc J 68:542-3 Ap '46
New synthesis of 7,8-diaminoquinoline. F. Linsker and R. L. Evans. bibliog Am Chem Soc J 68:149-50 Ja '46
Preparation and synthetic applications of alkyl chlorosilicates. D. F. Peppard, W. G. Brown and W. C. Johnson. bibliog Am Chem Soc J 68:70-2 Ja '46
Preparation of riboflavin; synthesis of alloxazines and isoalloxazines. M. Tishler, J. W. Wellman and K. Ladenburg. bibliog Am Chem Soc J 67:2165-8 D '45
Quinolines; the synthesis of 3-methyl-4-(1'-methyl - 4' - diethylaminobutylamino) - quinoline and some 6-substituted derivatives. E. A. Steck, L. L. Hallock and A. J. Holland. bibliog Am Chem Soc J 68:129-32 Ja '46
Quinolines; the synthesis of 8-substituted 3-methyl - 4 - (1' - methyl - 4' - diethylaminobutylamino) - quinolines. E. A. Steck, L. L. Hallock and A. J. Holland. Am Chem Soc J 68:132-3 Ja '46
Simple synthesis of *dl*-desthiobiotin and related substances. R. Duschinsky and L. A. Dolan. bibliog Am Chem Soc J 67:2079-84 D '45
Simplified synthesis of N-aryl-glycamines. L. M. Jampolsky and H. M. Wuest. Am Chem Soc J 68:1777-8 S '46
Steric deformation; the synthesis of N-methyl etioporphyrin. W. K. McEwen. bibliog Am Chem Soc J 68:711-13 Ap '46
Studies in the synthesis of the antirachitic vitamins; Δ^5-androstenol-3 and its partial dehydrogenation with benzoquinone. N. A. Milas and C. R. Milone. bibliog Am Chem Soc J 68:738-40 My '46
Substituted lepidines. C. E. Kaslow and N. B. Sommer. Am Chem Soc J 68:644-7 Ap '46
Sulfathiourea. F. Bergmann. bibliog Am Chem Soc J 68:761-4 My '46
Syntheses of 2-monosubstituted and 2 : 3-disubstituted quinoxalines. A. H. Gowenlock, G. T. Newbold and F. S. Spring. Chem Soc J p622-5 S '45
Synthesis and properties of 1 : 7-dialkyl xanthines. F. G. Mann and J. W. G. Porter. Chem Soc J p751-60 N '45
Synthesis and thermal decomposition of di-triethylmethyl, *t*-butyl pentamethylethyl and *t*-butyl 1-methylcyclohexyl-1 peroxides. N. A. Milas and L. H. Perry. bibliog Am Chem Soc J 68:1938-40 O '46
Synthesis in the study of nucleotides. A. R. Todd. bibliog Chem Soc J p647-53 Jl '46
Synthesis of 3-alkyl-4-methylquinolines. A. L. Searles and H. G. Lindwall. bibliog Am Chem Soc J 68:988-90 Je '46
Synthesis of amino acids from ethyl acetamidomalonate and ethyl acetamidocyanoacetate; the use of primary halides. N. F. Albertson. bibliog Am Chem Soc J 68:450-3 Mr '46
Synthesis of antimalarials. D. S. Breslow and others. bibliog Am Chem Soc J 68:1232-8, 1317-19 Jl '46
Synthesis of antimalarials; the synthesis of certain compounds related to quinacrine. D. S. Breslow and others. bibliog Am Chem Soc J 68:100-2 Ja '46
Synthesis of aromatic aldehydes. L. N. Ferguson. bibliog(302 references) Chem R 38: 227-54 Ap '46
Synthesis of diaminoacridines. A. A. Goldberg and W. Kelly. Chem Soc J p102-11 F '46
Synthesis of diamino sulphones. A. A. Goldberg. Chem Soc J p826-9 N '45
Synthesis of 2,4-dichloropropiophenone. J. T. Sheehan. Am Chem Soc J 68:1672 Ag '46
Synthesis of β,β'-dipropyladipic acid. C. F. Koelsch. Am Chem Soc J 68:148-9 Ja '46
Synthesis of 4-hydroxyquinolines. C. C. Price and others. bibliog Am Chem Soc J 68:1204-8, 1251-9, 1279-83 Jl '46
Synthesis of 1-keto-1,2,3,4,9,10-hexahydrophenanthrene. W. S. Johnson, H. C. E. Johnson and B. Petersen. bibliog Am Chem Soc J 68:1926-9 O '46
Synthesis of *dl*-methionine. D. Goldsmith and M. Tishler. Am Chem Soc J 68:144 Ja '46
Synthesis of methyl ketones and diethyl acylmalonates. H. G. Walker and C. R. Hauser. bibliog Am Chem Soc J 68:1386-8 Jl '46
Synthesis of 3-methyl-5-(*p*-methoxyphenyl)-4-carbethoxy-2-cyclohexen-1-one. E. C. Horning and R. E. Field. bibliog Am Chem Soc J 68:387-9 Mr '46
Synthesis of 3-methyl*iso*quinolines. G. R. Clemo and J. H. Turnbull. Chem Soc J p533-5 Ag '45
Synthesis of Δ^1-pyrrolines. J. V. Murray and J. B. Cloke. bibliog Am Chem Soc J 68:126-9 Ja '46
Synthesis of some 8-aminoquinolines. R. H. Baker and others. bibliog Am Chem Soc J 68:1532-6 Ag '46
Synthesis of some C-substituted pentitols. J. English, jr. and P. H. Griswold, jr. bibliog Am Chem Soc J 67:2039-41 N '45
Synthesis of some organic compounds of gold. C. W. Denko and A. K. Anderson. Am Chem Soc J 67:2241 D '45
Synthesis of substances related to the sterols; *dl-cis*-equilenin. A. J. Birch, R. Jaeger and R. Robinson. Chem Soc J p582-6 S '45
Synthesis of substituted 4-aminoquinolines. C. C. Price and V. Boekelheide. bibliog Am Chem Soc J 68:1246-50 Jl '46

SYNTHESIS—*Continued*
Synthesis of the monoacid chloride and the monoalkyl esters of the maleic acid anhydride addition product of l-pimaric acid. M. M. Graff bibliog Am Chem Soc J 68: 1937-8 O '46

Synthesis of toluene by hydroforming and recovery by azeotropic distillation. F. L. Hartley. flow diags Pet Eng 17:156+ D '45; Same. Pet Refiner 24:131-6 D '45

Synthesis of α,β-unsaturated esters. A. Galat. Am Chem Soc J 68:376-7 Mr '46

Synthesis of unsymmetrical selenides. T. W. Campbell and J. D. McCullough. bibliog Am Chem Soc J 67:1965-6 N '45

Ullmann synthesis of biaryls. P. E. Fanta. bibliog(271 references) Chem R 38:139-96 F '46

See also
Fischer-Tropsch process
Polymerization
Water—Synthesis

SYNTHETIC organic chemical manufacturers association
Annual meeting, 24th, New York, Dec. 11. Oil Paint & Drug Rep 148:3 D 17 '45

SYNTHETIC products
Chemical utilization of natural gas limited only by commercial demand. A. L. Foster. Oil & Gas J 44:83-4+ My 4 '46

Investigation by the U S. government technical oil mission. W. J. Schroeder. Am Pet Inst Proc 25(3):24-9 '45; Same cond. Oil & Gas J 44:112+ N 24 '45

Postwar research forges ahead; synthetic organics. H. B. McClure. Chem Ind 59:261 Ag '46

Production of synthetic lubrication oil by condensation and polymerization G. G. Pritzker. bibliog Nat Pet N 38 pt 2:R606+ Ag 7 '46; [cont as] Pet Processing 1:58-9+ S '46

Report on investigations by fuels and lubricants teams at the I. G. Farbenindustrie, A. G., works, Ludwigshafen and Oppau. R. Holroyd, ed. 33pls U S Bur Mines Information Circ 7375:1-75 '46

See also
Resinous products
Textile fibers, Synthetic

SYNTHINE process. See Fischer-Tropsch process

SYNTILITE
Syntilite party. Textile Col 68:33 My '46

SYPHILIS
About the chemical nature of syphilis antigen. E. Fischer and F. Velasco. bibliog Science 103:455-6 Ap 12 '46

Activity of streptomycin in experimental syphilis. W. B. Dunham and G. Rake. Science 103:365 Mr 22 '46

Effect of choline chloride on the Kahn flocculation reaction. E. Volkin and others. bibliog Am Chem Soc J 67:2210-12 D '45

SYRACUSE, New York
Water supply
Survival and retirement experience with water works facilities as of Dec. 31, 1940. Am Water Works Assn J 37:1374-84 D '45

SYRACUSE university
Education of planners at Syracuse university. L. C. Dillenback and R. F. Steadman. J Land & Pub Util Econ 21:317-19 N '45

SYRIA
See also
Irrigation—Syria
Economic conditions
News by countries. For Comm W 24:32-3+ Jl 6 '46

SYRINGES, Hypodermic. See Hypodermic syringes

SZILARD, Leo
Portrait. Fortune 33:121 Je '46

SZYMCZAK, Mencelaus Stephen, 1894-
Reconstruction key. por Bsns W p17 Ag 3 '46

To direct trade in U.S. zone of occupation in Germany. Comm & Fin Chr 164:663 Ag 1 '46

T

TCC process. See Gasoline—Manufacture

TDE. See Tetrachlorodiphenylethane

TNT. See Trinitrotoluene

TABLES
Contact resins in decorative surfacing; plastic-impregnated fabric laminated to plywood base. il Mod Plastics 23:132-3 Jl '46

TABLES, Computing
Table of multiples of the square root of three. R. C. Morris. Elec World 125:108-9 Je 8 '46

TABLES, Steel
Spot welding accelerates tryouts for new products; Progressive welder company production of steel tables. Iron Age 157:55 Ap 11 '46

TABLEWARE
Chinaware industry plans to hold domestic market. E. R. Killam. il Dom Comm 34:51-4 O '46

Complete dinnerware sets thrown on the wheel. il Cer Ind 46:86 My '46

Lead replacements in dinnerware glazes. H. J. Orlowski and J. Marquis. il Ohio State Univ Eng Exp Sta Bul 125:1-58 '46; Same. Am Cer Soc J 28:343-57 D 1 '45

Manufacture of Noritake resumed in Japan. For Comm W 24:32 Jl 27 '46

Symposium on future of American ceramics; abstract. Cer Ind 46:58-60 Je '46

Translucent dinnerware in modern shapes. il Cer Ind 46:48 My '46

Use of soda feldspar in whiteware bodies. G. A. Loomis and A. R. Blackburn. bibliog il Am Cer Soc J 29:48-57 F 1 '46

Water spotting of semivitreous dinnerware in the decorating process. W. D. Spore. Am Cer Soc Bul 25:82-5 Mr 15 '46

Women vote on china and glassware. Cer Ind 47:49 Jl '46

TABLEWARE, Plastic
Experiment in restaurant tableware. P. Fuller. il diags Mod Plastics 24:100-3 S '46

Nuplaware plate and cup set. il Mod Plastics 23:110 Mr '46

TABS. See Airplanes—Control

TABULATING machines
Remington Rand runs tabulating school for government employes. Sales Management 56:100 Mr 15 '46

TACA airways
Stock offered. Comm & Fin Chr 163:2485 My 6 '46

TACHOMETERS
A.T. hand tachometer. il Automobile Eng 35:548 D '45

Accurate hand tachometer. Mech Eng 68:739 Ag '46

Electronic tachometer checks speeds accurately over wide range. il Mach 53:208 N '46

Metron hand tachometer. il Rayon 27:159 Mr '46

Metron type 25A electric hand tachometer. il Rayon 26:612 N '45

Precision tachometer for use in wind-tunnel testing. R. K. Fairley and H. L. Clark. il diags A S M E Trans 68:719-22 O '46

TACKINESS. See Adhesion

TACOMA, Washington
Bridges
Box members distinguish concrete bridge. il diag Eng N 136:996-7 Je 27 '46

Lessons in bridge design taught by aerodynamic studies; Tacoma Bridge investigations indicate instability of stiffening girders for suspended spans. F. B. Farquharson. il Civil Eng 16:344-5 Ag '46; Discussion. D. B. Steinman. 16:462 O '46

Redesign of Tacoma Narrows bridge. C. E. Andrew. il diag Eng N 135:716-21 N 29 '45; Discussion. 136:303-4 F 21 '46

TACONITE
Mesabi taconite sinter costs set at $6. Iron Age 156:174-8 D 13 '45

TAGS
Tags that tell, and sell, Spiegel's planned program. R. Epstein. il Mod Packaging 19:98-100+ D '45

Textile labels; the retailer must still be educated. il Mod Packaging 19:104-7+ Ja '46

See also
Safety tags

TAHOE, Lake, California
Highest seaplane base turns away business. E. E. Thorp. il Aviation 45:47 Je '46

TAILINGS
Exploration of tailing ponds in the Russellville, Ala., brown-ore district. A. Brown. 7pls U S Bur Mines Rep of Invest 3894:1-31 bibliog(p24) '46

TAILOR shops
Tailor shop uses interior as show window, mirror wall to double size; Richard Bennett associates, New York city. il plan Arch Forum 85:134 O '46

TAILORING
See also
Fur coats

TAILSTOCKS. See Lathes—Tailstocks

TAJIKISTAN
See also
Mines and mineral resources—Tajikistan

TALBOT, Gertrude
Personalities in industrial advertising. por Ind Marketing 30:190 D '45

TALC
It worked with saggers, why not with glass pots; adding talc to glass pot batches. il Cer Ind 47:74+ S '46; Same. Brick & Clay Rec 109:56+ O '46

Study of several groups of organic binders under low-pressure extrusion; flours, starches, gums, alcohols and cellulose derivatives, wood extracts and alginates. C. C. Treischel and E. W. Emrich. Am Cer Soc J 29:129-32 My 1 '46

Talc and soapstone industry in Canada. Can Chem & Process Ind 30:58 Mr '46

See also
Steatite

TALL oil
Collector for sulphate soap for production of tall oil. W. P. Thielens and R. R. Fuller. diags Paper Tr J 123:33-4 O 31 '46

Polymerization of drying oils; rubberlike product from vegetable oils, Norepol. J. C. Cowan, W. C. Ault and H. M. Teeter. bibliog flow sheet il Ind & Eng Chem 38:1138-44 N '46

Tall oil in surface coatings. Paint Oil & Chem R 108:144-5 N 1 '45

Tall oil size; substitute for rosin; abstract. V. V. Juvonen. Paper Ind 28:728 Ag '46

Tall oil treatment; U.S. patent. P. Wengraf. Am Dyestuff Rep 35:398 Ag 12 '46

What's ahead in raw materials. O. Kress. Paint Oil & Chem R 108:60+ N 1 '45

Analysis

Analysis of tall oil. Chem Age (Lond) 54:643 Je 8 '46

Analysis of tall oil; abstract. H. Niehlen. Soap & San Chem 21:47 D '45

TALLOW
Chlorine dioxide for fat bleaching. E. R. Woodward and G. P. Vincent. il plan diags Soap & San Chem 22:40-3+ S '46

Report of the Bureau of agricultural and industrial chemistry; improved tallow emulsifiers; abstract. O. E. May. Rubber Age 59:198 My '46

Sodium chlorite is successfully used for bleaching tallow. J. B. Tuttle and E. R. Woodward. bibliog il Chem & Met Eng 53: 114-15 My '46

TANGANYIKA territory
Commerce

Foreign trade establishes a record. For Comm W 22:25-6 F 23 '46

TANGENT chasers. See Thread cutting

TANGIER, Morocco
News by countries; Tangier international zone. For Comm W 24:30-1 Ag 3 '46

TANK cars
Report of tank-car committee; A.A.R. mechanical division. Ry Age 121:270 Ag 17 '46; Same. Ry Mech Eng 120:458-9 S '46

Rubber-lined tank cars. T. P. Callahan. il Chem Ind 58:634+ Ap '46

Shipping liquid sulphur is practical. Chem Eng 53:111 S '46

Simple air jet cools tank cars quickly. diag Nat Pet N 38 pt 2:R580 Ag 7 '46

Tankcar cross-haul elimination being studied. Oil Paint & Drug Rep 150:5+ S 30 '46

Tank car shortage relief action taken by government. Oil Paint & Drug Rep 150:3 O 14 '46

U.S. may lose 90% of investment on war-built tank cars. Nat Pet N 37:44-5 D 19 '45

Welded aluminum alloy tank cars. A. H. Woollen. Welding J 25:129-30 F '46

Advertising

CFAC honors industrial campaigns; institutional advertisements in color General American transportation co. Ind Marketing 31:40+ Je '46

TANK ships
Axis might have defeated U.S. tanker fleet if brains and teamwork hadn't been on our side. R. E. Bjorkback. il map Nat Pet N 38:30+ My 22 '46

Dynafuel, newest tanker in Sun Oil fleet. il Marine Eng 51:133 Ag '46

Government begins sale of 591 tankers to industry; unadjusted sales prices listed. Nat Pet N 38:51 My 1 '46

Great Lakes tankers emerged from global war's trying test with a shining past and an experience-tested future. J. R. Dean. il Nat Pet N 37:28+ D 19 '45

History of tankers lauds role played in supplying oil for World war II. Nat Pet N 38:50+ Ap 10 '46

Maritime commission completes turbo-electric tanker program. Marine Eng 51:147 F '46

Phoenix, all-welded tanker. W. A. Stewart. il plans diags Marine Eng 51:88-99 Je '46

Privately owned tankers assure U.S. leadership in water transport of petroleum, USMC says. Nat Pet N 38:48 S 18 '46

Structural investigations in still water on the welded tanker Neverita; abstract. F. Bull and others. Engineer 181:385 Ap 26 '46; Discussion. 181:385-6 Ap 26 '46; Engineering 161:425-6 My 3 '46

Tanker tonnage and control, worldwide. Oil & Gas J 44:180-2 D 29 '45

U.S. government continues to hold tanker rates at well-defined levels. W. W. Burns. il Oil & Gas J 45:130-1 Jl 27 '46

Year end will probably find Maritime commission out of tanker business. W. W. Burns. il Oil & Gas J 45:60-1 S 28 '46

See also
Loading and unloading—Tank ships

Repair

Flooding of engine rooms. Marine Eng 51:108 O '46

TANK trucks
Air loading simplifies bulk shipments; brewer's trucks transfer grain from rail siding to plant bins. il diags Food Ind 18: 870-1 Je '46

Big Bob, the world's largest transport truck, hauls oil. H. Taylor. il Nat Pet N 37:46+ N 21 '45

Delivery efficiency and proper dispatching of oil tank trucks helps bolster profits. Nat Pet N 38:34 Jl 10 '46

Distribution costs key competitive efficiency; tank truck delivery study. F. M. Surface. Adv & Sell 39:82+ F '46; Same. Ind Marketing 31:36 F '46

N.T.T.C. sets up clearing house plan to expedite the disposal of surplus tank truck equipment. H. Ridder. Nat Pet N 38:24+ Ja 23 '46

Oil tank truckers seek uniformity in operations; meeting of National tank truck carriers, inc. Nat Pet N 38:50+ O 16 '46

TANK trucks—*Continued*
Postwar oil transportation; for-hire tank truck operations vs. private carriers; discussion at National petroleum assn. convention. Nat Pet N 38:47 O 2 '46
Reversion to prewar oil trucking rules handicaps North Carolina transporters. H. Taylor. Nat Pet N 38:27 Ja 23 '46
Tank trucks haul yeast and malt; glass-lined and stainless steel tanks used by Boston brewer; platform trucks for economy in beer and ale deliveries. il Food Ind 18:201-2 F '46

Radio equipment

May apply two-way radio to tank trucks; abstract. H. F. Chaddick. Nat Pet N 38:22 Mr 13 '46

TANKERS. See Tank ships

TANKS
Capacity of storage tanks increased by adding to base. diags Eng N 135:748 N 29 '45
Improved mixing device for large charge stock tanks. E. H. Atwood. diag Pet Refiner 25:125-6 Mr '46
Tanks for electroplating solutions. G. B. Hogaboom, jr. and N. Hall. il Metal Finishing 44:63-6 F '46

See also
Acid tanks
Airplanes—Fuel tanks
Boilers
Electric transformers—Tanks
Gas holders
Gasoline tanks
Hot water tanks
Oil tanks
Pressure vessels
Rendering tanks
Settling tanks
Sewage tanks
Surge tanks
Tank cars
Tank ships
Tank trucks
Water tanks

Cleaning

Tanks are troublemakers. il Safety Eng 92: 17+ Ag '46

Lining

Simple method of lining tanks with lead. il Sheet Metal Worker 37:52 Jl '46

Manufacture

Automatic welding process; boiler and tank fabrication. R. H. Newton. il diag Steel 119:108+ S 16 '46

Measurement

Calibrating horizontal cylindrical tanks with ellipsoidal heads. Pet Refiner 25:132 Mr '46
Capacities of spherical tanks. L. T. Monson. Oil & Gas J 45:90-1 Ag 3 '46
Contents of 55-gal. drum measured with yard stick; charts comp. from measurements of Ethanol. Textile World 96:170 F '46
Nomograph for total volume of cylindrical tanks. C. J. Major. Chem & Met Eng 53: 116-17 Ap '46

Underground installation

Preventing buried tanks from floating. S. Lewis. Heating-Piping 18:82 S '46; Discussion. K. Steiner. 18:93 O '46

TANKS, Concrete

See also
Gasoline tanks, Concrete
Oil tanks, Concrete

TANKS, Military
Amphibious tank propulsion units. diags Engineer 180:506 D 21 '45
Armoured fighting vehicles of the war. C. Gibb. il Engineer 181:5-8, supp 8 Ja 4 '46
Meteor tank engine. il diags Automobile Eng 36:235-45 Je '46
Suspension and track of German track laying vehicles; abstract. T. Franzen. il diags S A E J 54:sup27-8 Je '46
Tank and automotive development. J. M. Colby. il J Ap Phys 16:767-71 D '45
Testing air cleaners for tanks. il Engineering 160:394 N 16 '45

Transmission

Evolution of a tank transmission. H. E. Merritt. diags Engineer 181:343-4, 366-7 Ap 12-19 '46; Discussion. 181:339-41 Ap 12 '46; Engineering 161:353-4, 378-9 Ap 12-19 '46
Highlights of German tank transmission design and development; abstract. E. McEwen. diags S A E J 54:sup23-5 Je '46
Remarkable gear box; Merritt-Brown design for tanks. il diags Automobile Eng 36:279-83 Jl '46

TANKS, Plastic
Transparent plastic tank and cover for the Warburg manometric apparatus. W. Robbie and others. diags Science 103:144-5 F 1 '46

TANKS, Ship model. See Ship model tanks

TANKS, Steel
Design of concrete piers for horizontal storage tanks. O. L. Garretson and H. R. Zeigler. il Pet Refiner 25:131-3 S '46

Lining

A. O. Smith corporation, adventurer in the field of ceramics. il Am Cer Soc Bul 25: 169-72 My 15 '46

Manufacture

Atomic bomb development was hastened by welding; manufacture of tanks. A. F. Davis. il diag Welding J 25:118-19 F '46; Same cond. Materials & Methods 23:193 Ja '46
Car-type furnaces used in manufacture of tanks by Chicago bridge & iron co. Steel 118:93 Ap 29 '46
Gantry aids welded tank production. il diags Iron Age 158:70-1 S 12 '46
High-quality tank manufacture. W. P. Hindman. il diags Mach 52:135-42 Ja '46
Hot-spinning heavy tank heads. C. H. Wick. il diags Mach 53:141-7+ S '46

TANKS, Wood
Phosphoric acid vs. materials of chemical plant construction. S. E. Chaney. Chem & Met Eng 53:230 Jl '46

TANNERIES

See also
Tanning

TANNIC acids. See Tannins

TANNIN solutizer process. See Gasoline—Manufacture

TANNING
New chemicals used in English tanneries. P. I. Smith. Chem Eng 53:98-9 S '46
Synthetic detergents in the modern tannery. P. I. Smith. il Soap & San Chem 22:46-7 My '46

TANNING materials
Chestnut extract shortage acute. Oil Paint & Drug Rep 149:5 Ap 1 '46
Leather chemicals. K. E. Bell. Chem Ind 59: 273 Ag '46
Man-made tan; Exan. Sci Am 174:260 Je '46
Serious drop in chestnut extract. J. G. Schnitzer. il Dom Comm 34:17-18 Ap '46

TANNINS
Improvement of keeping quality of edible fats by some commercially available tannins; abstract. H. T. Spannuth and others. Food Ind 18:1283 Ag '46
Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in cyclohexene and gasoline. H. F. Lewis and others. bibliog il Ind & Eng Chem 37:1108-11 N '45
Use of tannins as oxidation catalysts in regenerating treating solutions; abstracts. J. Happel and S. P. Cauley. flow diag Pet Processing 1:146-7 O '46; Chem Eng 53: 242+ S '46

Analysis

Sensitive and selective test for gallotannin (tannic acid) and other tannins. F. Feigl and H. E. Feigl. Ind & Eng Chem Anal ed 18:62-3 Ja '46

TANTALITE
Australian tantalite developed for radar still vital to industry. Iron Age 158:134+ Ag 22 '46
Beryl-tantalite pegmatites of northeastern Brazil. W. D. Johnston, jr. bibliog il maps diags Geol Soc Bul 56:1015-69, pl 1-5 N '45

TANTALUM
Metastable state of 22 microseconds in Ta^{181}. S. DeBenedetti and F. K. McGowan. diag Phys R 70:569 O 1 '46

TANTALUM—*Continued*
Powder metallurgy and the refractory metals. A. L. Percy. il Steel 118:106-8+ Je 17 '46
Spiral concentrator recovers tantalum ores at the Harding mine. J. A. Wood. flow sheet il Min Cong J 32:44-5 Ja '46
Tantalum's new uses. Min & Met 27:446 Ag '46

TANTALUM oxide

Therapeutic use

Preliminary report on the use of tantalum oxide, type 400. C. T. Olson. Ind Med 14:949-52 D '45

TAPE, Adhesive. See Adhesive tape

TAPE, Insulating. See Insulating tape

TAPE, Luminous
Luminous paints and tapes. Consumers Res Bul 17:21-2 Je '46

TAPER pins
Step-drilling taper-pin holes; proposed standard; reference book sheets. H. W. Fahrlander, comp. diag Am Mach 90:129, 131 Ja 3 '46
Tapered pin provides rapid staking of brass upright in plastic base. diags Am Mach 90:84 Ja 31 '46

TAPERS
Device for cutting tapers will handle unusually large sizes. E. J. O'Donnell. il Am Mach 89:132 D 6 '45
Follower rest permits heavy single-cut taper turning. C. C. Robb. diag Am Mach 90:140 S 26 '46
How would you machine this long taper? D. T. Armstrong. diag Am Mach 89:130 S 13 '45; Discussion. 89:118-20 N 22 '45; 90:126-8 F 14 '46
Micrometer bracket aids taper-checking. S. Framurz. diags Am Mach 90:132 Ag 1 '46
Taper form grinding of piston skirts. il diags Iron Age 158:56-7 O 17 '46
Tooling for tapers; manufacture of fuse firing pin and striker. J. J. Meadows. diags Iron Age 158:68-72 Jl 18 '46

TAPPING
Check chart for tapping stainless steels; reference book sheet. Am Mach 90:147 O 10 '46
Hand tapping aids. E. R. Goddard. diags Am Mach 90:125 Ag 29 '46
Lathework quickly threaded or tapped with grip slide holder. il Am Mach 90:154 Ag 1 '46
Machining stainless steels. E. Von Hambach. diags Steel 119:64-7 S 30 '46
Positioning fixture permits tapping to 4½-in. depth an unmachined heavy walled pipe. il Steel 118:111 F 11 '46
Practical precision in miniature; Hamilton Watch, American Bosch, and Kollsman Instrument reveal secrets involved in drilling 0.004-in. holes and tapping 0.008-in. ones. H. S. Wharen. il diags Am Mach 90:103-7 My 23 '46
Tap rpm. for various cutting speeds; table; reference book sheet. Am Mach 90:147 My 9 '46
Tapping quadruple Acme threads. il Iron Age 158:57 Jl 25 '46
Tapping speeds for various materials; table; reference book sheet. Am Mach 90:145 My 9 '46

TAPS
Blake spiral-point tap sharpener grinds straight on angular flutes. il Am Mach 90: 153 O 24 '46
Emergency pipe tap meets the deadline. M. W. Elmendorf. il Am Mach 90:144 Mr 28 '46
Tap drills for small sizes of American National fine thread, class 3 fit; tables; reference book sheet. Am Mach 90:157 My 23 '46
Tap-grinding attachment. il Engineering 162: 211 Ag 30 '46

TAR
Determination of tar fog in gas. E. H. M. Badger and D. S. Wilson. il diag Soc Chem Ind J 65:119-21, 166-9 Ap, Je '46
See also
Coal tar products
Road tar

TAR as fuel
Burning tar under power boilers. H. Laudani. il Power Pl Eng 49:106-8 N '45

TAR distillation
Association of tar distillers; annual report. Chem Age (Lond) 54:397-8 Ap 13 '46
Some solvent extraction developments in Germany; tr. by J. P. Jones. E. Terres. Nat Pet N 38 pt 2:R181-2+ Mr 6 '46
Studies in coal tar bases; separation of β-and γ-picolines and 2:6-lutidine. E. A. Coulson and J. I. Jones. Soc Chem Ind J 65:169-75 Je '46
Technologie; un exemple de récupération et de traitement des phénols dans une importante distillerie de goudron. M. Suprin. diags Chimie & Ind 55:7-15 Ja '46

TARGET airplanes. See Airplanes, Target

TARIFF
La douane en France et à l'étranger. L. de Sainte-Lorette. Chimie & Ind 55:141-6 F '46
See also
Free trade and protection

Argentina

New nomenclature completed for Argentine import tariff and certain modifications in present tariff valuations and rates projected. For Comm W 23:20 My 18 '46

Canada

Canada cancels new tariff rates. Comm & Fin Chr 162:2582 N 29 '45
Detail of budget tariff changes. For Comm W 24:20-2 Jl 20 '46
Tariff changes in new Canadian budget. For Comm W 21:25-6 N 10 '45
Tariff crisis; Ottawa cancels two increases in duties. Bsns W p120-1 N 17 '45

China

China's trade-control and tariff regulations; changes effected since end of Japanese war. il For Comm W 21:5+ D 1 '45

France

La douane en France et à l'étranger. L. de Sainte-Lorette. Chimie & Ind 55:141-6 F '46

Mexico

Import duties increased sharply on various textiles and hosiery of artificial fibers, and import tariff nomenclature modified. For Comm W 22:27 Mr 23 '46

Paraguay

New 6 percent ad valorem surtax on imports. For Comm W 24:22 S 7 '46

United States

Coconut oil import duty lifting asked. Oil Paint & Drug Rep 149:5+ Ap 1 '46
Hits global planning in tariff policy. H. W. Rose. Comm & Fin Chr 164:2265+ O 31 '46
United States import duties, June 1946. For Comm W 25:22 O 26 '46

Waxes

Waxes tariff ruling. Oil Paint & Drug Rep 149:5 Ja 14 '46

Venezuela

Customs tariff board reorganized. For Comm W 22:18 Mr 16 '46

TARIFF commission. See United States—Tariff commission

TARRED roads. See Roads, Tarred

TARTARIC acid
L'hydrolyse des lies de vin en vue d'en extraire le tartre. A. Baouman. Génie Civil 123:173-4 Jl 1 '46

TARTRATES
How tartrates are recovered from winery wastes. Z. Halperin. flow sheet il Food Ind 17:1181-2+, 1291+ O-N '45

TASMANIA
See also
Hydroelectric plants—Tasmania

TASTE
Good taste. Tech R 48:97+ D '45
See also
Flavor
Water purification—Taste and odor removal

TASTE (esthetics). See Esthetics

TAUTOMERISM

Associating effect of the hydrogen atom; the N-H-N bond; the structure and tautomerism of cyanamides. L. Hunter and H. A. Rees. Chem Soc J p617-21 S '45

Mesohydric tautomerism. L. Hunter. Chem Soc J p806-9 N '45; abstract and discussion. Chem & Ind p391 D 15 '45

See also
Isomerism

TAX administration

Administration of Section 722; joint committee on internal revenue taxation. M. Austin. J Account 81:259-64 Mr '46

Dobson rule and tax administration. N. D. Cann. bibliog J Account 82:401-13 N '46

Phases of tax administration. N. D. Cann. Am Gas Assn Mo 28:445-7+ O '46

Problems of income tax administration. H. B. Fernald. J Account 80:342-7 N '45

TAX adjustment act of 1945

Five financial aids in restoring peacetime business. S. H. Apfel. Dun's R 54.16-20+ My '46

TAX court. See United States—Tax court

TAX evasion and avoidance

Controversy exists over ship reserve funds; abstract. J. J. Burns. Marine Eng 51:120 Je '46

Estate planning; the rôle of the accountant. E. N. Polisher. J Account 82:140-7 Ag '46

How new tax law affects company operations. J. K. Lasser. il Dun's R 54:15-22 Mr '46

New tax law: what to do now to save taxes. H. K. Marks. Adv & Sell 38:39+ D '45

Paul on the partnership cases. bibliog J Account 80:390-1 N '45

Principles of tax absorption; a reappraisal. V. A. Miletti. Trusts & Estates 83:233-5 S '46

Progress toward income tax equality. B. C. McCabe. Edison Elec Inst Bul 14:241-3+ Jl '46

Sanctuary closed; single-picture corporations attacked by U.S. Bsns W p26+ Ag 3 '46

Selling a business. J. Rabkin. J Account 82: 245-6 S '46

Tax considerations in security transactions. D. Smith. Comm & Fin Chr 162:2874+ D 13 '45

See also
Electric utilities—Nonprofit corporations
Excess profits tax
Tax fraud
Taxation, Exemption from

TAX exemption. See Taxation, Exemption from

TAX fraud

Fraud cases in the federal income tax law. I. Kalish and S. S. Mandell. J Account 82: 305-13 O '46

TAX liens

Income tax lien after acquired property. Banking 38:98 Mr '46

TAX refunds

Congress finally having its way on tax refunds; Treasury's blockade on Section 722 appeals is broken. J. P. Reeves. Barron's 26:12 O 7 '46

Five financial aids in restoring peacetime business. S. H. Apfel. Dun's R 54:16-20+ My '46

Tax credits will cut industry's 1946 losses, but leave no prop for next year; experience of General motors corp. Barron's 26:1 S 23 '46

Tax reduction by carry-backs and carry-overs; summary of present legislation. J. H. Landman. J Account 81:282-5 Ap '46

Your tax man should govern your 1946 business policies. J. K. Lasser. Adv & Sell 39: 62+ Jl '46

TAXATION

Taxation of community property. W. L. Nossaman. Trusts & Estates 83:161-5 Ag '46

See also
Capital levy
Debts, Public
Excess profits tax
Gift tax
Income tax
Inheritance tax
Mine taxation
Municipal taxation
Sales tax
Tariff
also subdivision Taxation under special subjects, e g.
Banks and banking
Cooperative associations
Corporations
Gasoline
Insurance companies
Partnership
Public utilities
Railroads
Taxation of securities

Accounting

Tax accounting in renegotiation and termination. J. H. Landman. Management R 35: 134-5 Ap '46

Tax clinic. J. K. Lasser, ed. Published in monthly numbers of Journal of accountancy

Your tax man should govern your 1946 business policies. J. K. Lasser. Adv & Sell 39: 62+ Jl '46

Law

Tax reduction by carry-backs and carry-overs; summary of present legislation. J. H. Landman. J Account 81:282-5 Ap '46

Canada

Canadian tax refunds. Bsns W p112 Ja 26 '46

Centralized tax? Bsns W p106+ Ja 19 '46

Dominion and provincial taxation. Economist 150:175 F 2 '46

New tax court? Bsns W p112 Je 8 '46

Proposed revision of Canada's taxes; Income war tax act and Succession duty act. Trusts & Estates 81:391-2 N '45

Taxation in Canada. Economist 150:843-4 My 25 '46

See also
Inheritance tax—Canada

China

China's direct tax laws revised. For Comm W 23:24 My 4 '46

Connecticut

Taxing the dead in Connecticut. M. L. Hayward. Barron's 26:32 S 16 '46

Cuba

Cuba; application and amount of gross sales tax revised. For Comm W 23:24-5 My 25 '46

Germany

Forgotten incentive; German government's policy with respect to taxation and depreciation schedules. Bsns W p119 D 8 '45

Great Britain

Problem of rates. Economist 149:710-11, 741-3, 782-3 N 17-D 1 '45

Taxes and incentive. Economist 150:545-6 Ap 6 '46

See also
Income tax—Great Britain

Guatemala

Net-profits-tax rates modified. For Comm W 23:28 My 11 '46

Iowa

Tax law tested. Bsns W p70-1 Ag 10 '46

Japan

New Japanese tax law. B. V. Tornborgh. Barron's 26:10 Je 3 '46

Kentucky

Tax imposed by statute on shares of banking institutions; city of Frankfort v. State national bank of Frankfort, Court of appeals of Kentucky. Banking Law J 63:53-61 Ja '46

Morocco

Direct taxation in French Morocco. For Comm W 24:13-14 Ag 31 '46

Ohio

Taxation of municipal utilities; abstract of Ohio Supreme court decision no. 30128. Am Water Works Assn J 37:1293-7 D '45

Philadelphia

Wage tax bargain. Bsns W p39 Ja 12 '46

TAXATION—*Continued*

Philippine Islands

United States taxation of citizens in Philippines. For Comm W 23:23 Je 8 '46

Shanghai

Business license tax for the municipality of Shanghai. For Comm W 25:18 O 26 '46

Toledo, Ohio

Toledo wage tax; city couples 1% levy on payrolls with 1% income tax on corporate net profits. Bsns W p70+ Ja 19 '46

United States

Correlation of income, estate, and gift taxes. L. Eisenstein. J Account 81:327 Ap '46

Current federal tax notes. P. G. Evans. Trusts & Estates 82:106-8 Ja '46 [cont monthly]

Current tax issues. J. J. O'Connell, jr. Comm & Fin Chr 164:1931+ O 17 '46

Federal taxation in the United States; history of existing tax system and Proposals for revision. Index 26 no 2:25-39 [Je] '46; Same (pt 2, Proposals for revision). Comm & Fin Chr 164:209+ Jl 11 '46

Layman's approach to our post-war tax problems. J. W. Hanes. Comm & Fin Chr 164: 337+ Jl 18 '46

Long-range federal tax program; Committee on taxation and public revenue, Commerce and industry association of New York. Comm & Fin Chr 163:1261+ Mr 7 '46

Looks to lower taxes to assure high production. H. H. Heimann. Comm & Fin Chr 164: 1061+ Ag 22 '46

New tax policy. B. Ruml. Comm & Fin Chr 163:2909+ My 30 '46

New York's bottled water business must pay taxes; Supreme court declares business activities of states can be taxed by government. Elec World 125:147-8 Ja 19 '46

1945 tax act. H. L. Viser. Pet Eng 17:226-7 Ja '46

On the way, a tax revision. Bsns W p15-16 Ja 5 '46

Outlook for federal taxation. H. R. Bowen. Comm & Fin Chr 162:3002+ D 20 '45

Postwar taxation and economic progress. H. Groves. Comm & Fin Chr 163:1686+ Mr 28 '46

Problems of tax revision. R. Blough. Comm & Fin Chr 163:2219+ Ap 25 '46

Protection and not regulation, function of government; postwar tax program. J. F. Stiles. Nat Underw (Life ed) 49:12 N 16 '45

Rebuilding the tax structure. H. E. Humphreys, jr. Comm & Fin Chr 162:2875+ D 13 '45

Recommends five major steps to strengthen present tax structure. H. M. Groves. Iron Age 157:142-4 My 16 '46

Report of IBA federal tax committee. Comm & Fin Chr 162:2722 D 6 '45

Six billion dollar tax cut. Survey of Cur Bsns 25:5 N '45

Tax clinic. J. K. Lasser, ed. Published in monthly numbers of Journal of accountancy

Tax digest for investors and business men. B. V. Tornborgh. Published in weekly numbers of Barron's

Tax policies for prosperity. B. Ruml. Comm & Fin Chr 163:713+ F 7 '46

Tax program. R. Magill. Comm & Fin Chr 162:3001+ D 20 '45

Tax program for a solvent America. H. L. Lutz. Comm & Fin Chr 164:1697+ O 3 '46

Tax program for a solvent America; advocacy and critique of committee on postwar tax policy report. M. E. Richardson. J Account 81:63-8 Ja '46

Tax program for a working America. R. Magill. Comm & Fin Chr 163:1088+ F 28 '46

Tax program for prosperity; NAM program. H. E. Humphreys, jr. Comm & Fin Chr 164: 2342+ N 7 '46

Taxes; what should be done? proposals of U.S. Chamber of commerce. J. L. Connolly. Comm & Fin Chr 163:2506+ My 9 '46

See also

Corporations—Taxation
Excess profits tax
Income tax—United States
Tariff—United States
Tax adjustment act of 1945

TAXATION, Double

Assign succession duties to Dominion? Trusts & Estates 81.397 N '45

Commerce and industry association of New York urges halting double tax on residents and corporations in US and Britain. Comm & Fin Chr 163:2428 My 2 '46

Double taxation relief. Economist 149:721-2 N 17 '45

Tax relief by mutual agreement. Bsns W p98 Ag 3 '46

TAXATION, Exemption from

Business conducted by charitable organizations; current tax abuses. J Account 81: 153 F '46

Case of Saratoga; state gets no federal tax immunity. Bsns W p28+ Ja 19 '46

Clubs taxable? Internal revenue bureau eyes A.A.A., other auto groups. Bsns W p28+ Jl 20 '46

Farm co-ops led tax-exempt groups in '43 income; unions were fourth. Nat Pet N 37:3 N 21 '45

Federal taxation of public business enterprises; Saratoga Springs case may lead to removal of discriminatory exemptions enjoyed by state, municipal, and coöperative commercial projects. L. Gates. Pub Util 38:14-24 Jl 4 '46

Into the tax-exemption fold; Ramsey accessories mfg. corp. Bsns W p67-8+ Ja 26 '46

Nation's tax base being gnawed away; taxpayers carry increasing number of exempt activities. A. Cotter. Barron's 26:6 Ap 22 '46

New York fights federal taxes on state business; case arising from taxation of Saratoga Springs bottled water business. Elec World 124:137 D 8 '45

Public service ads seen threatened by Wood-Rankin tax proposal. Ptr Ink 215:124 Je 14 '46

Saratoga decision failed to clarify question of taxing public power agencies. O. Ely. Pub Util 37:233-4 F 14 '46

Sees way open for repeal of federal tax exemptions; effect of New York Saratoga Springs decision. P. G. Evans. Comm & Fin Chr 163:725+ F 7 '46

Should government-owned utilities be taxed? TVA and REA coöperatives. B. C. McCabe. Pub Util 37:333-42 Mr 14 '46

Tax exemption threatens national economy. C. W. Kellogg. Edison Elec Inst Bul 14:5-6+ Ja '46

See also

Cooperative associations—Taxation

TAXATION, Municipal. See Municipal taxation

TAXATION, State

See also

Income tax, State

also state subdivisions under Taxation, e.g. Taxation—Kentucky

TAXATION of securities

Tax imposed by statute on shares of banking institutions; city of Frankfort v. State national bank of Frankfort, Court of appeals of Kentucky. Banking Law J 63:53-61 Ja '46

TAXICAB companies

Radio communication

Roger takes a cab; how taxi radio communication works and reduces dead mileage of company cars in Philadelphia. D. J. David. Pub Util 38:610-11 N 7 '46

TAXICAB drivers

Angry pilgrimage; driver-veterans deploy on Washington. il Bsns W p19 Mr 2 '46

TAXICABS

G.I. cab ride; veterans taxi associations boxed in by legal monopolies. Bsns W p31-3 Ag 3 '46

G.I.'s find an ally; effort to get permit to run cabs in Philadelphia. Bsns W p21 Ja 26 '46

Mobile two-way F-M in cabs. il Electronics 19:182+ S '46

Old cabs must do. il Bsns W p32+ Ja 12 '46

TAXPAYERS (architecture). See Buildings, Temporary

TAYLOR, Frederick Winslow, 1856-1915
Art of cutting metals; work of F. W. Taylor, O. W. Boston. Mech Eng 68:302-4+ Ap '46

TAYLOR, George William, 1901-
Father of the Little Steel formula. por(cover) Bsns W p8 O 5 '46

TAYLOR, Glen H.
Cowboy senator reserves right to strike. por Bsns W p7 Jl 20 '46

TAYLOR, Howard
Howard Taylor first recipient of AFA's Simpson gold medal. Iron Age 157:171 Ap 25 '46

TAYLOR, William Chittenden, 1886-
Presentation for honorary degree of Doctor of science. por Am Cer Soc Bul 25:277 Jl 15 '46

TAYLOR instrument companies
Common stock offered. Comm & Fin Chr 163: 695 F 4 '46
Taylor Instrument; eleven miles of instrument panels at Oak Ridge. il diags Fortune 34:88-95+ Ag '46

TAYLOR model basin. See Ship model tanks

TEA
Some recent developments in the chemistry of tea. A. E. Bradfield bibliog Chem & Ind p242-4 Je 29 '46
Tea; growing and processing. F. Engledow. Chem & Ind p220-1 Je 8 '46

TEA bags
Non-woven textiles; their packaging applications; Webril, Bonnlinn and Masslinn for silica gel bags, tea bags and closures for multi-wall paper bags. il diag Mod Packaging 19:100-5+ F '46

TEA industry and trade

Brazil

Tea raising in Brazil; old industry advances. K. Wernimont and A. D. Costa. il For Comm W 23:10-12+ Ap 6 '46

Great Britain

Tea statistics. Economist 150:980 Je 15 '46

TEACHERS
See also
College professors and instructors
Engineering colleges —Professors and instructors

Salaries

Family allowances for teachers. Mo Labor R 63:243-6 Ag '46

TEACHING
School texts for tomorrow's buyers; business and education cooperate on new consumer study units. R. Amberson. Ptr Ink 214.46+ Ja 11 '46
See also
Engineering colleges
Engineering education
Industrial education
Visual instruction

TEAMSTERS union. See International brotherhood of teamsters, chauffeurs, warehousemen and helpers of America

TEAPOTS
Artist combines function and beauty in dripless teapot design. il Cer Ind 46:74 F '46

TEASER campaigns. See Advertising campaigns—Teaser campaigns

TECHNICAL association of the pulp and paper industry
Abridgments of papers presented by title at annual meeting, New York, Feb. 19, 1945. Paper Ind 26:1660+; 27:88+, 252+, 422+, 592+, 754+, 934-46+, 1415-20+ Mr-S, D '45
Abridgments from papers presented at annual meeting, New York, Feb. 25-28, 1946. Paper Ind 27:1894-902+; 28:114+, 284-95, 422+, 576+, 712+, 878+, 1043-6+ Mr-O '46
Accounting of a stewardship. R. G. Macdonald. Paper Tr J 122.114+ F 28 '46
Annual meeting program, New York, Feb. 25-28, 1946. Paper Tr J 122:24+ Ja 24 '46
Annual meeting, 31st, New York, Feb. 25-28. Chem & Eng N 24:923 Ap 10 '46; Paper Tr J 122:106+ F 28 '46; Paper Ind 27.1825-6+ Mr '46
Autumn meeting, Detroit, Sept. 26-28. Paper Ind 28:994+ O '46; Paper Tr J 123:65+ O 10 '46
Engineering conference, 1st, Milwaukee, Oct. 2-4. Paper Tr J 123:65-7+ O 10 '46
Fall meeting, New Orleans, Oct. 14-16. Paper Tr J 123:48-50 O 24 '46
TAPPI and the strawboard industry. R. G. Macdonald. Paper Tr J 123:35-7 S 19 '46
What the year accomplished. V. P. Edwardes. Paper Tr J 122:108+ F 28 '46

TECHNICAL education
A.S.R.E. joins E.C.P.D.'s efforts in accrediting technical curricula. map Refrig Eng 51:546 Je '46
Coordinated program for preparation of engineering technicians. E. E. Ericson. J Eng Educ 37:162-7 O '46
LeTourneau establishes Texas school; LeTourneau technical institute. il plan Manuf Rec 115:50-1+ My '46
Problems in the development of technical institutes in California. R. J. Smith. J Eng Educ 37:72-6 S '46
Technical institutes; second annual survey of non-degree-granting technical institutes. L. F. Smith. Mech Eng 68.736-7 Ag '46
Training of the fuel technologist; abstracts. J. W. Whitaker. Mech Handling 33:37-9+ Ja '46; Engineering 161:165 F 15 '46
See also
Aeronautic schools
Apprentices
Chemical education
Employees, Training of
Engineering colleges
Engineering education
Forestry schools and education
Industrial education
International training administration
Mining schools and education
Textile education
Vocational education
also Massachusetts institute of technology

Engineering, science and management war training

War project called E.S.M.W.T. and its permanent lessons for American engineering schools. D. C. Jackson and F. D. Carvin. J Eng Educ 36:327-36; Comment. J. W. Studebaker. 336-7 Ja '46

Great Britain

Education and industry. P. F. R. Venables. Gas J (Lond) 247:432-3; Discussion. 433-5 Mr 13 '46
Education and training. Electrician 135:461-2 N 2 '45
Technological education; Percy committee's recommendations. Elec R (Lond) 137:681 N 9 '45

TECHNICAL illustration
Technical illustration as an aid to marketing. F. R. Gruger, jr. il diags Ind Marketing 30:36-8+ D '45; 31:34-6+ Je '46

TECHNICAL industrial intelligence committee
Technical investigation in Germany in World war II. D. B. Keyes. Chem Ind 57:1053 D '45
What do we want from Germany? help needed by government in securing and compiling data on German industry and science. P. A. Deutsch. il Food Ind 18:847-8 Je '46

TECHNICAL institutes. See Technical education

TECHNICAL libraries
Libraries, advance scouts for research. L. O. Lewton. bibliog Chem & Met Eng 53:112-13+ Mr '46
Neglected aspect of research; preliminary library research. T. Coulson. Franklin Inst J 241:187-93 Mr '46
Problems of information service in industry. E. N. Simons. Assn of Sp Lib & Inf Bur Proc 1945:50-9; Discussion. 59-64
Special librarian and technical progress. F. E. Fitzgerald. Special Lib 37:35-40 F '46
Technical library in a shipyard; Bethlehem steel company, Quincy, Mass. L. G. Hill. Special Lib 37:40-3 F '46
Technical library of tomorrow. N. C. Hill. J Chem Educ 23:474-7 O '46
See also
Aeronautic libraries
Chemical libraries
Engineering societies library, New York

TECHNICAL literature
Engineer's gold mine; value of technical data file. H. E. Brooks. Power Pl Eng 50:100 S '46
M.I.T. radar research leads to extensive engineering series; publication of series of books on physics and electrical engineering arranged. Iron Age 156:164+ D 13 '45
Modified Holmstrom system of documentation; Moore's loose-leaf filing system. A. G. Clement and R. H. S. Robertson. il J Doc 1:217-21 Mr '46
Scientific cleanup; U.S. sale of reproductions of enemy technical documents. Bsns W p19 My 18 '46
Technical filing system for the pulp and paper industry. J. D. Clark. Paper Ind 27: 1359+ D '45
See also
Patents

TECHNICAL products
Numbered products promote customer confidence. il Ind Marketing 31:41+ Ap '46
Perhaps you can use a technical manual; spreading technical information not covered by catalogs, sales pamphlets, etc. F. Stalnaker. il Ptr Ink 214:34+ Mr 15 '46
See also
Equipment industries
Industrial market
Machinery industry

Advertising

American Brass winning DMAA theme: make it right from the start. C. E. Woodward. il Ind Marketing 31:47-8+ F '46
Cutler-Hammer promotes industrial progress; full-color ad series. il Ind Marketing 30: 47+ O '45
Feature function in industrial ads to up their pulling power; how-and-why copy sells dial indicators and gages to technical audiences. I. A. Hunt. il Ptr Ink 213:36+ D 21 '45
Graton & Knight advertising stresses a product it does not make! leather belting campaign partly devoted to pivot bases. il Ind Marketing 30:39+ N '45
Greenfield changes ad strategy; from specific product tell-all to broad institutional sell-all. R. C. Helbig. Ind Marketing 31:52+ Ap '46
How Carrier licked the catalog problem for a multiple-market line; product catalogs and market catalogs. L. M. Beals. il Sales Management 56:129-30+ Ap 15 '46
How to make whatever's in a name something to touch; Dresser Industries. S. A. Hunt. il Ind Marketing 31:30-1+ Ja '46
Multiple use of ad plates in a major sales campaign; Edward valve & mfg. company. W. A. Marsteller. il Ind Marketing 30:50+ N '45
Numbers are good copy; B & W advertising shows figures need not be cold. C. M. Neighbors. il Ind Marketing 31:54+ Je '46
Q and A type copy builds industrial prestige; case history of Dayton grinding wheels. E. H. Mook. Ptr Ink 213:126 D 7 '45
Sealed Power gears copy five ways for five markets. J. E. Norwood. Ind Marketing 31: 48+ S '46
Shipshape industrial catalog; how Raybestos builds one. J. W. Brush, jr. il Sales Management 57:131-2+ Jl 15 '46
Simple method proves readers like technical house organ; Foote mineral co. uses humorous approach and easy-to-mark reply card. J. N. Johnston. Ptr Ink 216:43 Ag 16 '46
Some of our best advertising is being written in research laboratories. J. A. Cairns. Adv & Sell 39:42 Je '46
Technical illustration as an aid to marketing. F. R. Gruger, jr. il Ind Marketing 31:34-6+ Je '46
U.S. Steel shows how to merchandize technical literature. M. L. Neison and H. J. Anderson. il Ind Marketing 31:38-9 Jl '46
Westinghouse electronics industry campaign. il Ind Marketing 31:37+ F '46
Working formula for technical manuals; design specialists revamped literature. G. Cushing. il diag Ind Marketing 31:44+ S '46
See also
Advertising, Industrial
Bearings, Anti-friction—Advertising
Brake linings—Advertising
Dredges—Advertising

TECHNICAL schools. See Technical education

TECHNICAL services, Office of. See United States—Technical services, Office of

TECHNICAL societies
Technical societies organize for greater service to Midwest; Chicago technical societies council. L. A. Bain. Chem Eng 53:104-7 Ag '46

TECHNICAL workers
Careful utilization of non-technical personnel stretches supply of technical workers. Nat Pet N 38:pt 2:R42-3 Ja 2 '46
Future employment for technical persons. Can Chem & Process Ind 30:50-1+ Ag '46
Is the mining industry neglecting its future technical and supervisory talent. E. Just. Eng & Min J 146:74-9 D '45
Technical manpower distribution shown by Roster figures. Chem Ind 58:69 Ja '46
Technical personnel bureau reports manpower problems. Pulp & Pa of Can 46:1009 D '45
See also
Radio workers

TECHNICAL writing
How to apply more know-how to writing operations. B. H. Hopkins. Chem & Met Eng 53:110-11 Je '46
Organization of the technical report. F. O. Slate. J Chem Educ 23:439-40 S '46
Preparation and publication of I.R.E. papers. H. M. Stote. Inst Radio Eng Proc 34 [Waves & Electrons 1]:5W-9W Ja '46
Turbo-encabulator in industry; satire. J. H. Quick. Power Pl Eng 50:100 Ag '46
Working formula for technical manuals; design specialists revamped literature. G. Cushing. il diag Ind Marketing 31:44+ S '46
Writing laboratory course; Rensselaer polytechnic institute. F. Abbuhl. J Eng Educ 36:269-71 D '45
See also
Engineering reports

TECHNOLOGY
Challenge of advancing technology. B. J. Stern. Ann Am Acad 242:46-52 N '45
Partners in science; research scientists, inventors, and engineers. L. W. Chubb. Chem & Eng N 24:1325-7 My 25 '46; Same abr. Machine Design 18:101-4 Ag '46
Problem children of technology and banking. R. P. Soule. Chem & Eng N 24:614-18 Mr 10 '46
Science, technology, and man. P. Le Rolland. Mech Eng 68:961-2+ N '46
Technology and medicine. K. S. Lion. Tech R 48:232-4+ F '46
Trends in technology. E. L. Shaner. Am Gas Assn Mo 28.95-6 Mr '46
What are the possibilities in the future development of technology? abstract. W. Davis. Refrig Eng 51:330+ Ap '46
See also
Building
Ceramics
Chemistry, Technical
Concrete
Dyes and dyeing
Electric engineering
Engineering
Food technology
Glass manufacture
Inventions
Machinery
Manufactures
Metallurgy
Paper making
Pottery
Printing
Radio communication
Railroad engineering
Rubber
Soap
Steel
Technical education
Textile industry

Bibliography

ASLIB book-list; quarterly recommendations of recently published scientific and technical books. Assn. of special libraries and information bureaux, 52 Bloomsbury st, London, W.C.1 '46 (12s 6d)
German wartime technical developments. Iron Age 157:67 Je 27; 158:39 Ag 29; 80 S 26; 67 O 10 '46

TECHNOLOGY—Bibliography—*Continued*
Industrial and scientific technical reports released by the army and navy; index [377 titles]. Chem & Met Eng 52:220+ N '45
OTS reports. Chem & Eng N 24:2392+ S 10 '46
Reports on enemy science and technology available at Liaison office; National research council, Ottawa. Can Chem & Process Ind 30:62+ My '46
Scientific, medical, and technical books, published in the United States of America, 1930-1944; a selected list of titles in print with annotations. R. R. Hawkins, ed. 1114p $20 R. R. Bowker co, 62 W. 45th st, New York 19 '46
Technical books of 1945 and early 1946. R. R. Hawkins. Library Journal [New York] 71: 703-10 My 15 '46

Social aspects
Economics of research; justification of industrial research lies in the betterment of man's lot. R. Presgrave. Can Chem & Process Ind 30:61-3 O '46
Industrial way of life. P. Meadows. il Tech R 48:285-8+ Mr '46

TECHNOLOGY instrument corporation
Organized for development and manufacture of electronic and laboratory equipment. Acoustical Soc Am J 17:359-60 Ap '46

TEENTIMERS, inc.
Teen-age market: it's terrif. il Bsns W p72+ Je 8 '46

TEETH
Shadowed replicas of tooth surfaces. D. B. Scott and R. W. G. Wyckoff. bibliog Pub Health Rep 61:697-700, pl 1-6 My 17 '46
Typical structures on replicas of apparently intact tooth surfaces. D. B. Scott and R. W. G. Wyckoff. Pub Health Rep 61:1397-1400, pl 1-6 S 27 '46

Diseases and defects
Dental caries experience in relocated children exposed to water containing fluorine. H. Klein. Pub Health Rep 60:1462-7 D 7 '45; Same. Water & Sewage 84:17+ Ja '46

TEETH, Artificial
This is about teeth. Fortune 34:151 Jl '46

TEFLON
Heat and chemical resistant plastic; Teflon. il Materials & Methods 23:1571-3 Je '46
Polytetrafluoroethylene. W. E. Hanford and R. M. Joyce. pl Am Chem Soc J 68:2032-5 O '46
Polytetrafluoroethylene; heat-resistant, chemically inert plastic. M. M. Renfrew and E. E. Lewis. bibliog il Ind & Eng Chem 38:870-7 S '46
Properties of polytetrafluoroethylene of interest to the electric industries. E. B. Yelton. il Electrochem Soc Trans 90 (preprint 15):219-27 '46
Teflon developed by Du Pont. il Chem & Met Eng 53:145 Ap '46; il Product Eng 17:418 My '46
Teflon; new industrial resin. il Mod Plastics 23:134-5 Je '46
Teflon; new noble metal of the plastics. il Chem Ind 58:781 My '46

TEGUCIGALPA, Honduras

Water supply
Colloidal turbidity of tropics water removed by slow sand filters. il map plan diags Eng N 136:355-7 Mr 7 '46

TELEDELTOS. See Paper, Recording

TELEGRAPH
Electronic regeneration of teleprinter signals. H. F. Wilder. diags Elec Eng 65:Trans 34-40 Ja '46
Mid-Continent streamlines Tel-and-Tel with unitized dispatcher's control table. E. T. W. Hall and L. C. Lamer. il Oil & Gas J 45: 266+ S 21 '46
Preview of the Western union system of radio beam telegraphy; some wire line practices. J. Z. Millar. il Franklin Inst J 241:397-413 Je '46

See also
Electric communication
Radio telegraph
Railroads—Telegraph
Teletype

Radio relays
Microwave radio relay system. Barron's 25:5 D 10 '45
Radio beams to supplant wire channels of Western Union. Elec Eng 65:46 Ja '46
Western Union will erect radio beam circuits in East. Elec World 125:70 Ap 27 '46

Rates
Telegraph rate increase for Western Union granted. Pub Util 38:192-3 Ag 1 '46

See also
Telegraph, Submarine—Rates

Great Britain
Nationalisation of Cable and wireless, ltd. Economist 149:686-7; 150:1018 N 10 '45, Je 22 '46

See also
Cable and wireless, ltd.

Greece
Telecommunications system. For Comm W 21: 25 N 17 '45

TELEGRAPH, Carrier current
Performance characteristics of various carrier telegraph methods. T. A. Jones and K. W. Pfleger. fold pl Bell System Tech J 25:483-531 Jl '46
Probability distributions of sinusoidal oscillations combined in random phase. M. Slack. Inst E E J 93 pt 3:76-86 bibliog(p80) Mr '46

TELEGRAPH, Military. See Military telegraph

TELEGRAPH, Submarine

See also
Cable laying and supply ships

Rates
Bermuda telecommunications conference. Pub Util 36:841-2 D 20 '45

TELEGRAPH companies

See also
Western union telegraph company

Employees
One down; C.I.O. loss of Western Union strike. Bsns W p90+ F 16 '46

Securities
Modernization enhances communications outlook; with statistics of leading companies. S. Devlin. il Mag of Wall St 78:337-9 Je 22 '46

TELEGRAPH offices
Telegram conveyors; Central telegraph office, London. il plan Mech Handling 33:2-6 Ja '46

TELEMETERING
Application of power-line carrier. R. C. Cheek. il diags Power Pl Eng 49:76-81 N '45
Automatic load and frequency control in Northwest power pool. S. B. Smith and M. L. Blair. map Elec World 124:56-60 D 22 '45
Communications control and signal electronics in pipe line operations. L. E. Adler. il Pet Eng 17:220+ Mr '46
Control method on gravity-flow line in metropolitan area. A. J. Downey. Oil & Gas J 45:226+ S 21 '46
Device for obtaining readings from unattended stations. G. H. Davis. diags Am Gas J 164:29-30 Je '46
How control village water system from pressure? J. E. Sullivant. diags Power Pl Eng 49:122+ D '45
New d.c. system for remote positioning. R. W. Smeaton. il diag Elec World 125:77 Mr 30 '46
New material in Standard on automatic stations. G. Sutherland and G. S. Lunge. il Ind Stand 17:56-8 Mr '46; Same. Edison Elec Inst Bul 14:116+ Ap '46; Same. Elec Eng 65:223-4 My '46
New system of radio telemetering; aircraft flight testing and flying of radio-controlled aircraft. D. W. Moore, jr. il diags Aeronautical Eng R 5:30-1+ S '46

TELEMETERING—*Continued*
Radiosonde telemetering systems. V. D. Hauck and others. bibliog il diag Electronics 19:120-3 My '46
Selsyn indicating systems for remote readings. F. Wisk. diags Electronics 18:276+ D '45
Supervisory control of 30,000-kva hydroelectric plant. C. W. Bohner and A. P. Maness. il map plan diag Elec Eng 65:Trans 337-42 Je '46
Telemarking; long-distance transmission of information on water levels. C. F. Wertz. il Water & Sewage Works 93:182-3 My '46
Telemetering and remote control. H. J. Keeling. bibliog Pet Refiner 25:128-9 Ja '46

TELEMOTOR. See Steering gear

TELEPHONE
Mid-Continent streamlines Tel-and-Tel with unitized dispatcher's control table. E. T. W. Hall and L. C. Lamer. il Oil & Gas J 45: 266+ S 21 '46

See also
Electric communication
Electric lines—Inductive interference
Light telephone
Military telephone
Mine telephone
Radio communication
Radio communication—Wire line connections
Radio telephone
Railroads—Telephone
Telephone, Carrier current

Amplifying apparatus
Telephone amplifier for telephone lines used by broadcasters. H. K. Van Jepmond. diag Electronics 19:139 Mr '46

Dial telephone
See Telephone, Automatic

Long distance
Automatic ticketer makes infallible records; makes possible placing of toll calls by direct dialing. il diags Machine Design 17:147-50 N '45
New tube has 10,000 gain over band width of 800 mc.; widespread applications in long distance telephony, and in television. il Elec World News ed 126:20-1 S 21 '46

Noise
Practical aspects of telephone interference arising from power systems. P. B. Frost and E. F. H. Gould. il diags Inst E E J 93 pt 1:255-67 bibliog(p267); Discussion. 267-74, 591-94 Je, D '46

Radio telephone connection
FM radio relay; can be used as connecting link between remote or isolated areas and existing telephone lines. J. M. Lee. il Radio N 34:54-5+ D '45
Pulse-modulated radio relay equipment. J. J. Kelleher. il diags Electronics 19:124-9 My '46
Radio in the utility field. B. C. Burden. il diag Pub Util 37:343-51 Mr 14 '46
Recent developments in communication engineering; amplitude and frequency modulated, multi-channel radio links. A. H. Mumford. diags Inst E E J 93 pt 3:9-11 Ja '46; Same. Inst E E J 93 pt 1:48-50 Ja '46

Rates
Rate base cut; Supreme court holds that intercompany profits may not be figured into costs. Bsns W p28 F 2 '46
Southern Bell seeking higher business rates. Pub Util 38:552-3 O 24 '46

Testing
Transmission rating of telephone systems. W. A. Codd. bibliog diag Elec Eng 65:Trans 694-8 O '46

Greece
Telecommunications system. For Comm W 21:25 N 17 '45

Scotland
Some aspects of the war effort of the Engineering department of the post office. S. J. Smith. Inst E E J 93 pt 1:126-8 Mr '46

TELEPHONE, Automatic
Automatic telephony; Strowger system. il Electrician 137:715-17 S 13 '46
Automatic ticketer makes infallible records; makes possible placing of toll calls by direct dialing. il diags Machine Design 17:147-50 N '45
Utilization of automatic telephone equipment of rotary type by International telephone & telegraph corporation. Pub Util 36:708-9 N 22 '45

TELEPHONE, Carrier current
Adaptation of power systems for carrier installations. W. H. Blankmeyer. il diag Elec World 125:61-3 Mr 2 '46
Application of power-line carrier. R. C. Cheek. il diags Power Pl Eng 49:76-81 N '45
Applications of thin permalloy tape in wideband telephone and pulse transformers. A. G. Ganz. bibliog il Elec Eng 65:Trans 177-83 Ap '46
Carrier phone arrives via REA; test operation in Arkansas. W. B. Whichard. Pub Util 37:28-32 Ja 3 '46
Carryphone in service on Pennsylvania; portable inductive telephone. W. R. Triem. il Ry Age 121:764-6 N 9 '46
Communications control and signal electronics in pipe line operations. L. E. Adler. il Pet Eng 17:220+ Mr '46
Developments in rural telephone service of interest to electric utilities. A. E. Silver. il diag Edison Elec Inst Bul 14:202-4 Je '46; Excerpt. Elec World 125:80 Je 8 '46
Field trials of rural power line carrier telephone systems in Arkansas and Alabama. Edison Elec Inst Bul 14:47+ F '46
Hitchhike phones; transmission over ordinary power lines. il Bsns W p39 Ja 26 '46
Install carrier telephone equipment on line tower. J. L. Buckley. il Elec World 124: 144 D 8 '45
Measurement of carrier circuit impedances. W. H. Blankmeyer. il diags Elec World 126: 49-51 Ag 3 '46
Mica capacitors for carrier telephone systems; silvered capacitors. A. J. Christopher and J. A. Kater. il diags Elec Eng 65:Trans 670-4 O '46
New crystal channel filter for broad band carrier systems. E. S. Willis. il diags Elec Eng 65:Trans 134-8 Mr '46
Power-line carrier channels doubled by single sideband. Power Pl Eng 50:70 Ap '46
Power-line voice; experiments on use of rural electric wires to bring telephones to farms. Bsns W p52+ D 22 '45
Probability distributions of sinusoidal oscillations combined in random phase. M. Slack. Inst E E J 93 pt 3:76-86 bibliog(p80) Mr '46
Rural power line telephone service. S. Rapp. diags Elec West 96:56-8 Ja '46
Transmission networks for frequency modulation and television; with discussion of coaxial cable system. H. S. Osborne. il maps diags Elec Eng 64:392-7 N '45

TELEPHONE, Military. See Military telephone

TELEPHONE, Mine. See Mine telephone

TELEPHONE, Portable
Mine rescue life-line telephone assemblies. J. J. Forbes and others. diags U S Bur Mines Rep of Invest 3875:1-11, pl 1-13 '46

TELEPHONE answering service
Radiopaging; mobile message service introduced by Telephone answering service. Pub Util 38:366 S 12 '46

TELEPHONE cables

Coaxial cables
Making talk cheaper. C. D. Hart. il Manuf Rec 115:116-17+ Ja '46
Method for terminating and tapping coaxial and shielded cable; operations outlined and illustrated. Elec World 125:160 Ap 13 '46
New methods of locating cable faults, particularly on high-frequency cables. F. F. Roberts. diags Engineer 181:222-3 Mr 8 '46
Transmission networks for frequency modulation and television; with discussion of coaxial cable system. H. S. Osborne. il maps diags Elec Eng 64:392-7 N '45

Testing
New methods of locating cable faults, particularly on high-frequency cables. F. F. Roberts. diags Engineer 181:222-3 Mr 8 '46

TELEPHONE companies
Bell system has made great progress in meeting enormous demand for service. Pub Util 38:230-2 Ag 15 '46
FCC to investigate recorder device uses; telephone companies involved. Pub Util 36: 727 N 22 '45
Public utility planning for growth; telephone system. D. W. Hansen. diags Western Soc E J 51:3-13 Mr '46

See also
American telephone and telegraph company
Anglo-Portuguese telephone company, limited

Accounting

Cost accounting in the telephone business. T. S. Vanneman. N A C A Bul 27:1035-45 Jl 1 '46
High court upholds FCC in N.Y. telephone co. case; decision bolsters original cost theory of accounting. Elec World 125:77 F 2 '46; Pub Util 37:323-4 F 28 '46

Employees

N.F.T.W.'s coup; settlement obtained from Western Electric, Bell Telephone, and A.T.& T. Bsns W p96-7 Mr 16 '46
Plant training in a public utility. H. C. Walker. Elec Eng 65:13-16 Ja '46

Finance

Bell telephone system; looking ahead ten years. L. A. Wilson. Pub Util 36:839-40 D 20 '45

Public relations

Finding out what people think of a public utility service. A. H. Richardson and C. T. Smith. Edison Elec Inst Bul 14:281-5 Ag '46

Securities

Modernization enhances communications outlook; with statistics of leading companies. S. Devlin. il Mag of Wall St 78:337-9 Je 22 '46

Great Britain

Telephone and general trust, limited; annual general meeting. Economist 150:903 Je 1 '46

TELEPHONE company buildings
Rural telephone exchange includes living quarters for chief operator. il plans Arch Forum 84:91 Je '46

TELEPHONE conversation
Methods for maintaining good customer relations; training telephone service employees; interview with V. Pack. F. A. Herr. Am Gas J 163:23-6 D '45
Training for voice communication; improving intelligibility of army air force personnel in talking over the interphone and radio. J. W. Black and H. M. Mason. Acoustical Soc Am J 18:441-5 O '46

Recording devices

See Telephone recorders

TELEPHONE conversation as evidence
Failure to forward summons; company notified by telephone; digest of recent cases. J. L. Roesch. Spectator (Property ed) 12: 34-6 Jl 25 '46

TELEPHONE exchanges
Telephone developments at Faraday building, London. Engineering 162:79 Jl 26 '46; Engineer 182:86 Jl 26 '46; Electrician 137:168 Jl 19 '46

TELEPHONE in business
Efficiency and manners analyzed in novel telephone program by New York Central. Ry Age 121:410-11 S 7 '46
Movietime phone service to plug specific films. Ptr Ink 216:69 Ag 30 '46
Phonefficiency. E. N. Bivens. Spectator (Life ed) 154:55-7 Ag '46
Successful telephone prospecting. A. M. O'Connell. Nat Underw 49:13 N 22 '45
Successfully uses phone to speed campaign on underinsurance. W. W. Hargert. East Underw 47:23 Ag 23 '46
Will department stores dominate frozen food selling; by phone? Frostmaster plan of delivery from low-rent outlying points. il Sales Management 56:58+ My 1 '46

TELEPHONE lines
Developments in rural telephone service of interest to electric utilities. A. E. Silver. il diags Edison Elec Inst Bul 14:199-204 Je '46
Method to provide line clearance at a telephone pole. diags Elec World 126:136 S 28 '46
Public utility planning for growth; telephone system. D. W. Hansen. diags Western Soc E J 51:3-13 Mr '46

Protection

See also
Electric lines—Inductive interference

Rural service

See Telephone service, Rural

TELEPHONE operators
Efficiency and manners analyzed in novel telephone program by New York Central. Ry Age 121:410-11 S 7 '46

TELEPHONE receivers

Testing

Curve-tracer for acoustic devices; quality control over production of handset receivers obtained. R. K. Hellmann. il diags Electronics 18:130-3 D '45
Laboratory method for objective testing of bone receivers and throat microphones. E. H. Greibach. il diags Elec Eng 65:Trans 184-7 Ap '46

TELEPHONE recorders
Controversial phone recorder promoted in new sales film. Ptr Ink 217:120 O 4 '46
FCC to investigate recorder device uses; telephone companies involved. Pub Util 36:727 N 22 '45
Phone privacy; A.T. & T. opposes recording equipment on public lines. Bsns W p18-19 Ja 19 '46
Recorder rules; FCC gives tentative O.K. Bsns W p25-6 Ag 17 '46
Telephone recording devices; statement by FCC. Pub Util 38:292-3 Ag 29 '46
Testimony for FCC investigation into telephone-conversation recording devices. K. S. McHugh and others. Pub Util 37:170-2 Ja 31 '46

TELEPHONE rentals, limited
Annual general meeting, 17th, London. Economist 151:600 O 12 '46

TELEPHONE service, Rural
Carrier phone arrives via REA; test operation in Arkansas. W. B. Whichard. Pub Util 37:28-32 Ja 3 '46
Developments in rural telephone service of interest to electric utilities. A. E. Silver. il diags Edison Elec Inst Bul 14:199-204 Je '46; Excerpt. Elec World 125:80 Je 8 '46
Field trials of rural power line carrier telephone systems in Arkansas and Alabama. Edison Elec Inst Bul 14:47+ F '46
Joint rural line service in Connecticut; abstract. G. J. Williams. Elec World 126:128 S 28 '46
More and better telephone service for farmers. H. S. Osborne. Pub Util 37:427-9 Mr 28 '46
Poles in rural areas; joint use for power and telephones. Electrician 136:462 F 22 '46
Power-line voice; experiments on use of rural electric wires to bring telephones to farms. Bsns W p52+ D 22 '45
Proposal that federal loans be made for rural telephone service. F. M. Vinson. Pub Util 36:840 D 20 '45
REA now seeking rural telephone loan authority. Pub Util 36:775 D 6 '45
Rural power line telephone service. S. Rapp. diags Elec West 96:56-8 Ja '46
Rural telephone service by radio to be tested in vicinity of Cheyenne Wells, Colorado. diag Pub Util 37:841-2 Je 20 '46
State data on farm telephone service and REA customers; tabulation. Pub Util 37:31 Ja 3 '46
Successful trial installation points way for joint use of poles in rural areas. H. J. Scholz and F. M. Craft. il diags Edison Elec Inst Bul 13:327-9 N '45; Same. Elec World 124:76-8 N 24 '45

TELEPHONE workers. See Telephone companies—Employees; Telephone operators

TELEPHONE workers, National federation of. See National federation of telephone workers

TELERAN. See Television aids to aviation

TELESCOPE

Atmospheric limitations on the performance of telescopes. A. C. Hardy. Opt Soc Am J 36:283-7 My '46

Effect of modifying the spherical aberration on the resolution of a lens erecting telescope. D. H. Rank. diag Opt Soc Am J 36:302-6 My '46

Electronic night sight; target illuminated by infrared light; combination orthicon and cathode-ray tube with built-in electron multiplier converts reflected light into visible image. il diag Electronics 19:95 Je '46

Invisible light aids marksman; locating enemy at night by means of infrared light beam and electronically operated telescopic sight. il diag Radio N 35:35+ Je '46

Photoelectric sight for solar telescope; control of drive mechanism of Harvard college observatory solar coronagraphic telescope. W. O. Roberts. il diags Electronics 19:100-3 Je '46

Precision of telescope pointing for outdoor targets. F. E. Washer and H. B. Williams. bibliog Opt Soc Am J 36:400-11 Jl '46; Same cond. J Res Nat Bur Stand 36:479-88 My '46

Simple drive for small telescopes. C. G. Wates. diags Sci Am 175:47-8 Jl '46

Speculum metal; telescope reflectors. R. B. Cooke. Min & Met 27:403 Jl '46

Telescoptics. A. G. Ingalls. il Published in monthly numbers of Scientific American

Bearings

200-in. telescope; California institute of technology. Mech Eng 68:355 Ap '46

Manufacture

200-inch telescope; chemical and engineering problems in its construction. R. L. Waterfield. Chem Age (Lond) 55:133-6 Ag 3 '46

Mirrors

Telescope mirror grinding and polishing machine of the vertical-spindle, hand-lever type. H. Paul. il Sci Am 173:381-2; 174: 47-8 D '45-Ja '46

TELETYPE

Automatic air traffic control. L. LeKashman. il Aero Digest 53:40-2+ Ag '46

Control plan ends assembly delays; teletype system speeds production in General Motors truck and coach division at Pontiac. R. J. French. il Am Bsns 15:16-17+ N '45

Globe buys Radiotype. Bsns W p64 D 15 '45

Marconi radio-teletype. D. W. Bond. il Aero Digest 53:61+ O '46

Novel system mechanizes all car records; hook-up of teletype and card-punch machines on New Haven. J. L. Barngrove, jr. il Ry Age 120:394-8 F 23 '46

Radio teletype in the AACS. R. Lambe. il Radio N 35:52-3+ Mr '46

Radiotypewriter brings new services to management. il Am Bsns 16:28 Ag '46

Signal corps on-and in-the air; airborne radioteletype communications system. C. E. Jackson. il Radio N 35:94+ Ja '46

Teletypewriter switching network installed on Pennsylvania. il Ry Age 121:14 Jl 6 '46

TELEVISION

Fortune survey; parlor television. Fortune 33: 220 Ja '46

Interest in television boosted by FCC and by new technical developments. Ptr Ink 216: 93+ Jl 12 '46

Introduction to television (cont). E. M. Noll. il diags Radio N 34:48-50+ D '45; 35:52-3+ Ja; 54-6+ Mr; 55-6+ My; 50-2+ Je; 36: 47+ Jl; 53-5+ S; 52-3+ N '46

Networks and video 1945. Adv & Sell 39:122 F '46

Practical television. R. A. Monfort. il diags Radio N 35:38-41+ My '46 (to be cont)

Radio progress during 1945; television. bibliog Inst Radio Eng Proc 34 [Waves & Electrons 1]:173w-4w Ap '46

Survey of the problem of post-war television. B. J. Edwards. bibliog map Inst E E J 91 pt 3:163-70 D '44; Abstract. Elec R (Lond) 134:258 F 25 '44; Discussion. Inst E E J 91 pt 3:170-81 D '44; 93 pt 3:216-20 My '46

Television, a case of war neurosis. il maps Fortune 33:104-9+ F '46

Television advances; abstracts of I.R.E. papers. diag Electronics 19:96-7 Mr '45

Television's $64 question; how far to go? J. A. Ecclesine. il Adv & Sell 39:49+ F '46

Transient delay line useful in radar, television, or test oscilloscope work. J. M. Lester. il diags Electronics 19:147-9 Ap '46

See also

Moving picture theaters—Television

Radio facsimile

Color

Color television; abstract. P. C. Goldmark. Electronics 19:192+ Jl '46

Color television controversy creates opportunity for facsimile. il Ptr Ink 215:128+ My 17 '46

Color television deal. Bsns W p74+ Mr 16 '46

Color television on ultra high frequencies. il diags Electronics 19:109-15 Ap '46

Color video now? demonstrations by CBS. il Bsns W p16 F 9 '46

CBS televises in color, calls it critical factor in selling advertisers on video. il Ptr Ink 214:107+ F 8 '46

Experimental color television system. R. D. Kell and others. bibliog il diags RCA R 7: 141-54 Je '46

Television tussle. Bsns W p21-2 D 22 '45

Video challenge. Bsns W p32+ Ag 10 '46

Where color television stands. D. G. Fink. Electronics 19:104-7 My '46

Military use

Airborne television; military and civil use. il plan diag Aero Digest 52:80-1+ My '46

Electronics at Bikini; telemetering, radio and radar monitoring, television and stratovision measured effects of atomic bombs. D. G. Fink and C. L. Engleman. il Electronics 19:84-9 N '46

Photographic aspects

Advertising photographer looks at television; finds a lack of photographic know-how. V. Keppler. il Ptr Ink 213:22-3 N 16 '45

New film for photographing the television monitor tube. C. F. White and M. R. Boyer. il Soc Motion Picture Eng J 47:152-64 Ag '46

Unified approach to film, pickup tubes, and the eye; abstract. A. Rose. Electronics 19: 190+ Jl '46

Unified approach to the performance of photographic film, television pickup tubes and the human eye. A. Rose. bibliog il diags Soc Motion Picture Eng J 17:273-94 O '46

Sound transmission

Method of transmitting sound on the vision carrier of a television system. D. I. Lawson and others. il diags Inst E E J 93 pt 3: 251-67; Discussion. 267-74 Jl '46

Transmission of television sound on the picture carrier. G. L. Fredendall and others. bibliog il diags Inst Radio Eng Proc 34: 49P-61P F '46

Video and audio on one carrier; Pye videosonic system. il diags Electronics 19:208+ Ap '46

Standards

Industrial standardization work in television; abstract. D. B. Smith. Electronics 19:244+ Ja '46

Study and teaching

Television comes to the library; Yorkville branch of New York public library, television studio. D. Hudelson. Special Lib 36: 478-80 D '45

Synchronization

Synchronizing generators for electronic television. A. R. Applegarth. il diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:128W-39W Mr '46

TELEVISION advertising
Boost for video; television demonstration in Philadelphia store reveals selling power. Bsns W p84 D 8 '45
CBS televises in color, calls it critical factor in selling advertisers on video. il Ptr Ink 214:107+ F 8 '46
Department store's television show tries out new merchandising stunts. Ptr Ink 214:116 F 8 '46
Direct-wire television as merchandising medium for department stores. H. E. Taylor, jr. il Radio N 35:38-40+ Ap '46
Education in bank methods via television; Land title bank and trust company of Philadelphia. il Burroughs Clearing House 30:8 S '46
Fabrics advertised by television. Ptr Ink 217:76 N 1 '46
Frontier of bank merchandising. il Banking 39:33 S '46
Gimbel bros. Philadelphia, test in-store television advertising. il Sales Management 55:163 N 15 '45
How television fits into Elgin's 1946 ad campaign. Sales Management 57:40 S 15 '46
Intra-store television and the national advertiser; Gimbels of Philadelphia experiments with 20 units in store. V. J. Dallaire. il Ptr Ink 213:45-6 D 14 '45
Potential video audience. Adv & Sell 39:114 Jl '46
Sponsored television films ready for store showings. Ptr Ink 215:140 My 17 '46
Television and distribution. A. B. Du Mont. Comm & Fin Chr 164:1927+ O 17 '46
Television animates a slogan; Adler shoes. il Ptr Ink 216:68 S 6 '46
Television is ready for the big time. Sales Management 56:171-2 F 15 '46
Television used as sales aid in store. Elec World 124:124+ N 24 '45
Television will click as an advertising medium; no insurmountable financial problem. P. L. Chamberlain. il Ptr Ink 217:38-9 O 11 '46
U.S. Rubber; pioneer in television. C. J. Durban. il Sales Management 57:33-4+ O 1 '46
What should an agency do about television today? J. Southwell. Adv & Sell 39:66+ My '46
Will television commercials be one-minute movie shorts? Sales Management 56:84+ Ap 15 '46

Cost

How television will justify its cost. G. L. Moskovics. il Ptr Ink 215:28+ Ap 5 '46
What is the cost of present television programming? J. Southwell. il Adv & Sell 39:37+ Ap '46

Testing

Tests television with booklet offer; Durez experiment shows present status of medium. R. Manville. il Ptr Ink 214:71-2 Ja 25 '46

TELEVISION aids to aviation
New eye for pilots; Teleran. il diag Bsns W p63-4 Mr 23 '46
Teleran for air traffic control. R. LeKashman. il diags Aero Digest 52:82-4 Ja '46
Teleran proposal; system of navigation and traffic control, utilizing existing television and radar. P. J. Herbst and others. plan diags Electronics 19:124-7 F '46
Television-aviation partnership. A. W. Bernsohn. il diags Aero Digest 53:24-5+ S '46
Television-radar air navigation; Teleran. diags Product Eng 17:498 Je '46
Tool for traffic control, Teleran; traffic maps and aircraft located by radar could be televised to planes. il map diag Air Transport 4:73-4+ Ja '46
See also Television apparatus on aircraft

TELEVISION antennas
Television for urbanized areas; facts for servicemen to know when installing antennas. G. Duvall. il diags Radio N 35:88+ Ja '46
Versatile antenna. Bsns W p46+ D 8 '45

TELEVISION apparatus
Aluminum coating in television tube. Gen Elec R 49:54 Je '46
Analysis of three self-balancing phase inverters. M. S. Wheeler. diags Inst Radio Eng Proc 34:67P-70P F '46
Application of a spherical reflector and aspherical correcting lens to CRT projection television; abstract. D. W. Epstein. Opt Soc Am J 36:350-1 Je '46
Cathode-follower circuits. K. Schlesinger. bibliog diags Inst Radio Eng Proc 33:843-55 D '45
Ekco television pattern generator. il Electrician 135:605-6 N 30 '45
Electron guns for television application. G. A. Morton. bibliog diags Rs Mod Phys 18:362-78 Jl '46
High-impedance cable. H. E. Kallmann. diags Inst Radio Eng Proc 34:348-51 Je '46
Image formation in cathode-ray tubes and the relation of fluorescent spot size and final anode voltage. G. Liebmann. bibliog diags Inst Radio Eng Proc 33:381-9 Je '45; Discussion. 34:580-6 Ag '46
New tube has 10,000 gain over band width of 800 mc.; widespread application in long distance telephony, and in television. il Elec World News ed 126:20-1 S 21 '46
Portable television console. il Electronics 19:200+ Mr '46
See also
Television cameras

Patents

Scophony suit; Justice dept. charges that American and British companies monopolized television patents for movie reproduction. Bsns W p90+ D 22 '45

Testing

Transient video analyzer. C. Moritz. il diags Electronics 19:130-5 Je '46

TELEVISION apparatus industry
Television; perfected or not, millions want to buy receivers. Sales Management 57:54 Jl 1 '46
Television sets prices, output goals. Barron's 26:18 Ap 22 '46

Advertising

RCA plans 1946 ad campaign for black and white television receivers. Ptr Ink 213:56 D 21 '45
Why should potential television advertisers start now? J. Southwell. Ptr Ink 215:42-3 Je 28 '46

TELEVISION apparatus on aircraft
Airborne television has commercial future. il Product Eng 17:416 My '46
Airborne television; military and civil use. il plan diag Aero Digest 52:80-1+ My '46
Airborne television uses demonstrated. Aviation N 5:12 Ap 1 '46; il Bsns W p68 Mr 30 '46; Electronics 19:296+ My '46
Technical papers on airborne television. V. K. Zworykin and others. RCA R 7:291-366 S '46
Television-aviation partnership. A. W. Bernsohn. il diags Aero Digest 53:24-5+ S '46
Television equipment for guided missiles. C. J. Marshall and L. Katz. bibliog il diags Inst Radio Eng Proc 34:375-401 Je '46

TELEVISION broadcasters association
Second television conference and exhibition Ptr Ink 217:126 O 18 '46

TELEVISION broadcasting
Color television on ultra high frequencies. il diags Electronics 19:109-15 Ap '46
Drafting aids to relay profiling; Contourograph for profiling terrain along the line-of-sight television path between Washington and Philadelphia. il Electronics 18:316+ D '45
More color video; R.C.A. demonstrates its three-dimensional television. Bsns W p83-4 D 15 '45
New television system; linking sound with vision on single carrier wave. Electrician 135:540 N 16 '45
Pye television system; picture and the accompanying sound broadcast on a single wavelength. il Engineering 161:104-5 F 1 '46
Sports, early diet of radio, nourish television. il Bsns W p18 Je 29 '46
Studio technique in television. D. C. Birkinshaw and D. R. Campbell. il plans diags Inst E E J 92 pt 3:165-70; Discussion. 179-81; 93 pt 3:293-4 S '45, Jl '46

TELEVISION broadcasting—*Continued*
Television blazing new commercial trail. P. A. Johnston. Barron's 26:3+ F 18 '46
Television equipment; Videosonic system. Elec R (Lond) 137:686 N 9 '45
Television net; Du Mont links New York and Washington. Bsns W p76+ Ap 20 '46
Transmission networks for frequency modulation and television; with discussion of coaxial cable system. H. S. Osborne. il maps diags Elec Eng 64:392-7 N '45
Video and audio on one carrier; Pye videosonic system. il diags Electronics 19:208+ Ap '46
Video ban hit; NBC attacks Petrillo's orders as retarding television. Bsns W p94 My 11 '46
Video milestone; sending picture and sound on one frequency. Bsns W p90+ N 17 '45
Wave guides for piping television programs. S. J. Mallory. il map diags Radio N 34: 36-7+ D '45

Airplane relaying
Television-aviation partnership. A. W. Bernsohn. il diags Aero Digest 53:24-5+ S '46

Moving pictures
Film, the backbone of television programming. R. B. Austrian. Soc Motion Picture Eng J 45:401-13 D '45
Relation of television to motion pictures. A. B. Du Mont. Soc Motion Picture Eng J 47:238-47 S '46
Scophony suit; Justice dept. charges that American and British companies monopolized television patents for movie reproduction. Bsns W p90+ D 22 '45
Television reproduction from negative films. E. Meschter. Soc Motion Picture Eng J 47:165-81 Ag '46
Television resolution as a function of line structures. M. Cawein. bibliog Inst Radio Eng Proc 33:855-64 D '45
Video movie center in New York metropolitan area. Adv & Sell 39:128 Ag '46

Programs
Field television. R. E. Shelby and H. P. See. bibliog il RCA R 7:77-93 Mr '46

TELEVISION broadcasting stations
Television transmitter station in Washington, D.C. for Bamberger broadcasting service. il map plans Arch Forum 83:150-1 N '45

TELEVISION broadcasting studios
DuMont television studios open commercial network. il Sales Management 56:120+ My 1 '46
Studio technique in television. D. C. Birkinshaw and D. R. Campbell. il plans diags Inst E E J 92 pt 3:165-79; Discussion. 179-81; 93 pt 3:293-4 S '45, Jl '46
Television must sound right; fallacies in studio design and equipment must be corrected. R. Hubbell. il Radio N 35:46-7+ F '46

Lighting
Appraisal of illuminants for television studio lighting. R. E. Farnham. il Soc Motion Picture Eng J 46:431-40 Je '46
Carbon arcs for motion picture and television studio lighting. F. T. Bowditch and others. bibliog il diag Soc Motion Picture Eng J 46:441-53 Je '46

TELEVISION cameras
Cat's eye television; new camera tube, Image Orthicon. S. G. Ebert. Barron's 25: 16 N 19 '45
Current oscillator for television sweep. G. C. Sziklai. patent list il diags Electronics 19: 120-3 S '46
Field television. R. E. Shelby and H. P. See. bibliog il RCA R 7:77-93 Mr '46
Image Orthicon; a sensitive television pickup tube. A. Rose and others. bibliog il diags Inst Radio Eng Proc 34:424-32 Jl '46
Image Orthicon camera. R. D. Kell and G. C. Sziklai. il diags RCA R 7:67-76 Mr '46
Mimo-miniature Image Orthicon. P. K. Weimer and others. il diags RCA R 7:358-66 S '46
Miniature airborne television equipment; experimental results in guiding medium-angle bomb. R. D. Kell and G. C. Sziklai. il diags RCA R 7:338-57 S '46
Naval airborne television reconnaissance system. R. E. Shelby and others. bibliog il diags RCA R 7:303-37 S '46
New television tube assures 24-hour coverage; eye, a wartime secret, known as RCA Image Orthicon. il Elec Eng 64:466 D '45
Portable video pickup equipment. W. A. Howard. il Electronics 19:124-9 Ag '46
Sensitive television camera tube; Image Orthicon. diag Electronics 18:330 D '45
Super-sensitive television camera design; RCA Image Orthicon. il diag Product Eng 17:15 Ja '46
Television in the dark; Image Orthicon tube. V. Zeluff. il diag Sci Am 174:11-12 Ja '46
Unified approach to the performance of photographic film, television pickup tubes and the human eye. A. Rose. bibliog il diags Soc Motion Picture Eng J 17:273-94 O '46

TELEVISION education. See Television in education

TELEVISION in education
Can televisors and educators get together? R. D. Levitt. il Adv & Sell 39:66+ S '46

TELEVISION interference. See Television transmission—Interference

TELEVISION patents. See Television apparatus—Patents

TELEVISION projection
Projection television; patents. diag Electronics 19:212+ N '46
Report of the Committee on television projection practice. Soc Motion Picture Eng J 47:118-19 Ag '46

TELEVISION receiving apparatus
Carrier-frequency amplifiers. C. C. Eaglesfield. diags Wireless Eng 22:523-32; 23:67-74 N '45, Mr '46
Current oscillator for television sweep. G. C. Sziklai. patent list il diags Electronics 19: 120-3 S '46
Development of an ultra low loss transmission line for television. E. O. Johnson. il RCA R 7:272-80 Je '46
Local oscillator radiation and its effect on television picture contrast. E. W. Herold. bibliog diags RCA R 7:32-53 Mr '46
R. f. chokes at u.h.f. W. J. Stolze. il diags Radio N 35:54-5+ Ja '46
Some considerations in the design of wideband radio-frequency amplifiers for television, radar and similar applications. J. E. Cope. bibliog il diags Inst E E J 92 pt 3:237-46 D '45
Television for urbanized areas; facts for servicemen to know when installing antennas. G. Duvall. il diags Radio N 35:88+ Ja '46
Television lens. il Sci Am 175:36 Jl '46
Television receiver (cont). E. M. Noll. il diags Radio N 34:48-50+ D '45; 35:52-3+ Ja; 54-6+ Mr; 55-6+ My; 50-2+ Je; 36:47+ Jl; 53-5+ S; 52-3+ N '46
Television receivers. R. A. Monfort. il diags Radio N 36:41-4+ Ag '46
Zenith to produce color tele receivers exclusively. Ptr Ink 214:116 F 22 '46

Power supply
Television voltage circuits. E. M. Noll. il diags Radio N 35:50-2+ Je '46

Repair
Servicing of radio and television receivers; Radio section discussion meeting. Inst E E J 93 pt 3:362-3 S '46

Testing
Service considerations in megacycle bands; test equipment. C. J. Sheridan. il diags Radio N 35:38-9+ Mr '46
Universal test instrument. M. Silver. il diags Radio N 35:32-4+ F '46

TELEVISION studios
Television comes to the library; Yorkville branch of New York public library, television studio. D. Hudelson. Special Lib 36: 478-80 D '45
See also
Television broadcasting studios

TELEVISION transmission
Image orthicon; a sensitive television pickup tube. A. Rose and others. bibliog il diags Inst Radio Eng Proc 34:424-32 Jl '46

TELEVISION transmission—*Continued*
Method of measuring the degree of modulation of a television signal. T. J. Buzalski. il diags RCA R 7:265-71 Je '46
Method of transmitting sound on the vision carrier of a television system D. I. Lawson and others. il diags Inst E E J 93 pt 3: 251-67; Discussion. 267-74 Jl '46
Naval airborne television reconnaissance system. R. E. Shelby and others. bibliog il diags RCA R 7:303-37 S '46
Simple optical method for the synthesis and evaluation of television images. R. E. Graham and F. W. Reynolds. il diags Inst Radio Eng Proc 34 [Waves & Electrons 1]: 18W-30W Ja '46
Synchronizing generators for electronic television. A. R. Applegarth. il diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:128W-39W Mr '46
Television program shown on theatre screen; microwave relay equipment used in feeding signals to screen. il Elec World 125:124 Ap 27 '46
Television resolution as a function of line structures. M. Cawein. bibliog Inst Radio Eng Proc 33:855-64 D '45
Transmission of television sound on the picture carrier. G. L. Fredendall and others. bibliog il diags Inst Radio Eng Proc 34: 49P-61P F '46
Wave guides for piping television programs. S. J. Mallory. il map diags Radio N 34:36-7+ D '45

Interference

Approximate method of calculating reflections in television transmission. D. A. Bell. diags Inst E E J 93 pt 3.352-4 S '46
Local oscillator radiation and its effect on television picture contrast. E. W. Herold. bibliog diags RCA 7:32-53 Mr '46
Motor-car ignition interference. C. C. Eaglesfield. il diags Wireless Eng 23:265-72 O '46

TELEVISION transmitters
Miniature airborne television equipment; experimental results in guiding medium-angle bomb. R. D Kell and G. C. Sziklai. il diags RCA R 7:338-57 S '46

Power supply

Grounded-grid power amplifiers. E. E. Spitzer. bibliog diags Electronics 19:138-41 Ap '46

Testing

Test oscilloscope for television stations. A. H. Brolly and W. R. Brock. il diag Electronics 19:120-2 N '46

TELLERS. See Banks and banking—Tellers

TELLERS' cages. See Bank buildings—Tellers' cages

TELLURIUM
Influence of tellurium as a chill-inducing medium in cast iron; abstract. Materials & Methods 24:976 O '46
Magnetron; part played by tellurium copper. Electrician 136:810 Mr 29 '46
Operations and plants of International nickel company of Canada; copper refining; recovery of secondary metals. Can Min J 67: 454-5 My '46
Tellurium corewashes; abstract. J. O. Vadeboncoeur. Iron Age 157:73 F 14 '46

Isotopes

Decay scheme for Te^{121}. S. B. Burson and others. bibliog Phys R 70:566 O 1 '46
Isotopic constitution of tellurium, silicon, tungsten, molybdenum, and bromine. D. Williams and P. Yuster. bibliog Phys R 69:556-67 Je 1 '46
Radioactive Te from Sb bombardment. J. E. Edwards and M. L. Pool. bibliog il Phys R 69:140-4 Mr 1 '46

Physiological effect

Tellurium; toxicity of ingested elementary tellurium for rats and rat tissues. R. H. De Meio. bibliog J Ind Hygiene 28:229-32 S '46

TELLURIUM tetrachloride
Apparatus for the preparation of tellurium tetrachloride. J. F. Suttle and R. P. Geckler. diag J Chem Educ 23:135-6 Mr '46

TELPHERAGE. See Cableways

TEMISKAMING and northern Ontario railway
Ontario northland railway. Can Min J 67:249 Ap '46

TEMPERATURE
Application of the differential manometer to the measurement of fluid density and specific gravity with special reference to temperature effects. R. D. Cowherd. diags Paper Tr J 123:33-40 O 3 '46
Change of latent heat of vaporization with temperature. G. Su. bibliog Ind & Eng Chem 38.923-6 S '46
Correlating viscosities of gases with temperature and pressure. D. F. Othmer and S. Josefowitz. bibliog Ind & Eng Chem 38: 111-16 Ja '46
Correlation of viscosities of liquids with temperatures. M. S. Telang. bibliog J Phys Chem 49:579-82 N '45
Dependence of the viscosities of liquids on reduced temperature, and a relation between viscosity, density, and chemical constitution. L. H. Thomas. bibliog Chem Soc J p573-9 Jl '46
Dependence of tuning of wind instruments on temperature. R. W. Young. bibliog Acoustical Soc Am J 17:187-91 Ja '46
Determination of the pressure-viscosity coefficient and molecular weight of lubricating oils by means of the temperature-viscosity equations of Vogel and Eyring. A. Cameron. bibliog Inst Pet J 31:401-14 O '45
Effect of temperature on the pH of natural waters. W. F. Langelier. chart Am Water Works Assn J 38:179-85 F '46
Effective temperatures of molecules in relation to the temperatures of sources. N. R. Tawde. Phys R 70:432 S 1 '46
Heat of vaporization as a function of pressure and temperature J E. Haggenmacher. bibliog Am Chem Soc J 68:1633-4 Ag '46
High-temperature crystal chemistry of A_mBX_n compounds with particular reference to calcium orthosilicate. M. A. Bredig. bibliog J Phys Chem 49:537-53 N '45
Mechanism of solvent action; influence of molecular size and shape on temperature dependence of solvent ability. A. K. Doolittle. Ind & Eng Chem 38:535-40 My '46
Mesure du module de Young et de sa variation en fonction de la température; usage d'un fil de transmission acoustique. C. Florisson. Génie Civil 123:221 Ag 15 '46
Motion of a particle in a temperature gradient; thermal repulsion as a radiometer phenomenon. P. Rosenblatt and V. K. LaMer bibliog diags Phys R 70:385-95 S 1 '46
On the application and derivation of the new viscosity-temperature relationship of liquids. M. S. Telang. bibliog(72 references) J Phys Chem 50:373-86 Jl '46
Storage of dried fruit; influence of temperature on deterioration of apricots. E. R. Stadtman and others. Ind & Eng Chem 38: 541-3 My '46
Temperature and dielectric constant effects in the decomposition of nitrosotriacetoneamine. C. V. King and F. Lionetti. bibliog Am Chem Soc J 67:2248-50 D '45
Temperature-density relation for gasoline-range hydrocarbons. J. Griswold and J. Chew. bibliog Ind & Eng Chem 38:364-7 Ap '46
Temperature dependence of secondary electron emission from oxide-coated cathodes. M. A. Pomerantz. Phys R 70.33-40 Jl 1 '46
Temperature dependence of water vapor permeability of organic polymer films. P. M. Doty, W. H. Aiken and H. Mark. bibliog diag Ind & Eng Chem 38:788-91 Ag '46
Temperature patterns and heat transfer for a wall containing a submerged metal member. C. F. Kayan. bibliog diags Refrig Eng 51:533-7+ Je '46; Discussion. 52:143+ Ag '46
Temperature-time distribution in rectangular bars. W. M. Rohsenow and others. bibliog A S M E Trans 68:135-41 F '46
Vapor pressure, temperature curves; chart; data sheet. Power 90:271d Ap '46
Vapor pressure-temperature nomographs. S. B. Lippincott and M. M. Lyman. Ind & Eng Chem 38:320-3 Mr '46

See also
Electric cables—Temperature
Electric machinery—Temperature
Heat

TEMPERATURE—*Continued*

Measurement

Calculation of temperature distribution in catalytic converters. L. M. Grossman. bibliog Am Inst Chem Eng Trans 42:535-51 Je '46

Calibration of pit furnaces for airplane propellers. C. A. Liedholm. il diags Metal Prog 49:361-8 F '46

Determination of cable temperatures by means of reduced-scale models. A. Gemant and J. Sticher. bibliog il diag Elec Eng 65: Trans 475-82 Jl '46

Determination of the boiling range of chlorinated hydrocarbons. W. Williams. Ind & Eng Chem Anal ed 18:157-60 Mr '46

Determination of the temperature rise and the maximum safe current through multiconductor electric cables. H. P. Iskenderian and W. J. Horvath. diag J Ap Phys 17: 255-62 Ap '46

Effect of steelwork on heat loss through glass tank bottoms. H. T. Smyth. diags Am Cer Soc J 29:31-6 F 1 '46

Effect of surface finish and wall thickness on the operating temperature of graphite radio-tube anodes. L. L. Winter and H. G. MacPherson. il diag Inst Radio Eng Proc 33:834-7 D '45

Improved hot wire cell for accurate measurements of thermal conductivities of gases over a wide temperature range; results with air between 87° and 375° K. W. J. Taylor and H. L. Johnston. bibliog diag J Chem Phys 14:219-33 Ap '46

Latent heat-temperature nomographic chart. I. J. Hooks and F. Kerze, jr. Chem & Met Eng 53:117 Ap '46

Local coefficients of heat transfer for air flowing around a finned cylinder. W. H. McAdams and others. bibliog il diags A S M E Trans 67:613-20 N '45

Logarithmic mean temperature difference; chart. Oil & Gas J 44:85 Ja 5 '46

Logarithmic temperature scale. M. B. Donald. bibliog Chem & Ind p342 S 14 '46

Mean temperatures in thermal conductivity measurements. L. W. Phillips and H. A. Robinson. Refrig Eng 51:43-5 Ja '46

Measurement of rate of heating of steel slabs in reheating furnaces; abstract. J. W. Percy. Iron Age 158:74-5 O 10 '46

Measurement of temperature C. W. Hewlett. diags Gen Elec R 49:18-25 Ag '46

Measurements of temperatures in metal cutting. A. O. Schmidt and others. bibliog il A S M E Trans 68:47-9 Ja '46; Discussion. 68:568 Jl '46

Measuring and controlling temperature and pressure; special section. E. W. Feller. il diags Power 90:215-46 Ap '46

New equipment; testing and measuring instruments. il Iron Age 158:71-2 O 17 '46

New recorder for machine temperatures. H. S. Day. il diags Gen Elec R 49:30-2 S '46

New test apparatus for measuring the coolness of textiles. R. H. Armitage. Rayon 26:587-8 N '45

Photometric equipment for blocking-layer light-sensitive cells. H. T. Wrobel and H. H. Chamberlain. il diags Gen Elec R 49:25-9 Ap '46

Pressure combustion; optical method for measuring temperature of fuels burning under pressure. diag Automobile Eng 36: 349 Ag '46

Rate of temperature change in shortlength round timbers. J. D. MacLean. A S M E Trans 68:1-16 bibliog(p 14) Ja '46

Selection and application of refinery instruments. A. Krieg. diags Pet Eng 17:74+ F '46

Selection, installation and maintenance of refinery process control instruments. E. Bainbridge. il diag Pet Refiner 25:155-9 Ap '46

Shutdown versus hot-spot temperatures in polyphase induction motors. C. P. Potter and A. E. Frohardt. il diag Elec Eng 65: Trans 56-8 F '46

Standardization of temperature and electrical measurements. E. Goddess. il diags Product Eng 17:212-15 Mr '46

Taking coal pile temperatures. J. R. Darnell. diag Power Pl Eng 50:102 Je '46

Temperature determinations in orifice meter runs. M. McIlvaine. Pet Refiner 24:153-4 N '45

Thermal conductivites of eight common gases between 80° and 380°K. H. L. Johnston and E. R. Grilly. bibliog J Chem Phys 14: 233-8 Ap '46

Thermistors detect temperature variations of one-millionth of a degree. il Sci Am 175: 126-7 S '46

Total emissivities of oxidized and unoxidized surfaces. T. R. Harrison. Elec World 125: 104 Je 8 '46

See also

Alloys, Temperature indicating
Bolometers
Calorimeters and calorimetry
Pyrometers and pyrometry
Thermocouples
Thermometers and thermometry

Physiological effect

Effect of environmental temperature on mouse susceptibility to poliomyelitis virus. D. F. Holtman. Science 103:137-8 F 1 '46

Engineer, physiologist and psychologist are involved in heating, conditioning. B. von H. Gilmer. il diag Heating-Piping 18:77-9 Je '46; Discussion. 18:93-5 Jl '46

Environmental protection; reproduction of various climatic conditions. W. F. Roden. il Refrig Eng 52:17-21+ Jl '46

Experimental investigation of the effect of change in atmospheric conditions and noise upon performance; investigation on desirability of air conditioning naval vessels. M. S. Viteles and K. R. Smith. Heating-Piping 18:107-12 Mr '46; Abstract. Dom Eng 167:144 F '46

Heat and human life. Engineer 182:57 Jl 19 '46

How radiant heating maintains the body in healthful comfort. T. N. Adlam. diags Power 90:539-40 Ag '46

Limits of factors of safety in the human body. E. F. Du Bois. bibliog Mech Eng 68: 626-7 Jl '46; Same. Heating-Piping 18:71 O '46

Physiological response of subjects exposed to high effective temperatures and elevated mean radiant temperatures, such as those in ships' engine rooms. C. M. Humphreys and others. Heating-Piping 18:101-6 Mr '46

See also

Heat stroke

Regulation

Controlling aluminum melting temperature W. H. Gunselman. Foundry 74:91+ Jl '46

Design of mechanical auxiliaries for TVA hydroelectric plants. H. J. Petersen. il Power Pl Eng 50:134 S '46

Electronic temperature control. C. H. Joy. il diags Cer Ind 47:89-90 S '46

Precise timer and temperature controller for photographic processing. L. E. Owen. il diag R Sci Instr 17:155-6 Ap '46

Taylor Instrument; diaphragm-motor valve. il Fortune 34:88, 94+ Ag '46

Time and temperature control for compression molding. A. Hermann. diags Mod Plastics 23:137-43+ D '45

See also

Temperature regulators

TEMPERATURE, Animal and human

Environmental protection; reproduction of various climatic conditions. W. F. Roden. il Refrig Eng 52:17-21+ Jl '46

Fur and feathers; a response to falling temperature? R. B. Cowles. Science 103:74 Ja 18 '46

Scientific facts on room temperature and clothing. W. Schweisheimer. Rayon 27:367-8 Jl '46

Some observations on general skin temperature responses to local heating of human subjects in a cold environment; abstract. C. Martinez and M. B. Visscher. J Ind Hygiene 28:sup27-8 Mr '46

TEMPERATURE, Low

Conference on low-temperature calorimetry. Chem & Eng N 24:2782 O 25 '46

TEMPERATURE, Low—*Continued*

Developments in the field of testing procedures for the evaluation of natural and synthetic rubbers and plastic elastomers, sponsored by Bureau of ships, Navy department; low temperature tests. T. A. Werkenthin. bibliog il diags Rubber Age 59:317-23 Je '46

Effect of combined stresses on the mechanical properties of steels between room temperature and -188C. D. J. McAdam, jr. and others. Am Soc T M Proc 45:448-81 bibliog(p463-4); Discussion. 482-5 '45

High impact values of steel castings for use at extremely low temperatures. Mach 52: 190-1 Je '46

Low temperatures at low cost; testing electronic parts. H. N. Brown. Franklin Inst J 240:487-95 D '45

Low-temperature behavior of ferritic steels. H. W. Gillett and F. T. McGuire. Steel 119: 76+ Ag 12 '46

New device aids low-temperature research; helium cryostat. Materials & Methods 24: 952 O '46

Nickel steel tubing adapted to -320 degrees F. H. D. Newell. Blast F & Steel Pl 33:1540 D '45

Solubility of DDT in kerosenes; effect of auxiliary solvents at subzero temperatures. E. E. Fleck and H. L. Haller. Ind & Eng Chem 38:177-8 F '46

Superconductivity; resistance phenomena in conductors at temperatures near absolute zero. C. W. Hewlett. diags Gen Elec R 49: 19-25 Je '46

Temperatures near the absolute zero; adiabatic demagnetization of paramagnetic salts. C. W. Hewlett. diag Gen Elec R 49: 7-10 My '46

Thermal conductivity, expansion and specific heat of insulators at extremely low temperatures. G. B. Wilkes. il diags Refrig Eng 52:37-42 bibliog(p42); Discussion. 42+ Jl '46

Thermal conductivity of insulating materials at low mean temperatures. F. B. Rowley and others. il Refrig Eng 50:541-4 D '45; Discussion. 51:47+ Ja '46

Value of cryogenic (low temperature) work in the training of a research engineer. R. M. Buffington. Refrig Eng 52:228 S '46

See also

Absolute zero
Cold—Therapeutic use
Cryogenic laboratories
Freezing
Refrigeration and refrigerating machinery
Testing laboratories—Cold rooms

TEMPERATURE indicating alloys. See Alloys, Temperature indicating

TEMPERATURE regulators

Accurate temperature control; Sunvic proportioning head of toluene regulator. il Engineer 181:230 Mr 8 '46

Automatic control of furnace temperature and pressure. il diags Engineer 182:321-2 O 11 '46

Automatic cutoff for electrically heated water still. L. M. White and G. E. Secor. diags Ind & Eng Chem Anal ed 18:332-3 My '46

Flow measurement and a new temperature time cycle controller. R. H. Munch. il Ind & Eng Chem 38:sup75-6 Je '46

Measuring and controlling temperature and pressure; special section. E. W. Feller. il diags Power 90:215-46 Ap '46

Recorder-controller for temperature and humidity. V. D. Hauck and others. il diags Electronics 19:96-9 S '46

Advertising

Seven-point program for introducing a new product; Minneapolis-Honeywell two-year campaign on Moduflow pulls inquiries. H. E. Green. il Ptr Ink 214:24-5+ Mr 8 '46

TEMPERING

Effect of tempering on mechanical properties. G. K. Manning and G. P. Krumlauf. bibliog Iron Age 158:44-50 O 24; 50-5 O 31 '46

Heat treatment of high-speed steel. M. Cohen and P. Gordon. il diags Iron Age 157:52-7 Mr 7; 68-73 Mr 14; 61-5 Mr 21 '46

Low tempering after deep freezing. C. A. E. Wilkins. Metal Prog 49:125 Ja '46

Rates of tempering in cobalt steels. E. A. Loria. bibliog Am Soc for Metals Trans 34: 407-14 '45

Time-temperature relations in tempering mechanical and forging steels; data sheet. J. H. Hollomon and L. D. Jaffe. Metal Prog 49:96, 96B Ja '46

Underwater high frequency tempering. M. Lozinsky and B. Kholmsky. Iron Age 158:76 S 12 '46

Underwater high-frequency tempering of steel. M. Lozinsky. Product Eng 17:137 O '46

See also

Quenching

TEMPLATES. See Templets

TEMPLE university

See also

Fels research institute of Temple university school of medicine

TEMPLES

See also

Bahai temples
Synagogs

TEMPLETS

Patterns speeded aircraft and ship production. Sci Am 174:33 Ja '46

Reproducing from patterns or templets by electronic control. Mach 52:175 Ja '46

Ryan's photo template process. D. E. Clark. il Aero Digest 53.78-9+ Ag '46

Strip templets for cutting difficult shapes. il diags Steel 117:118-19+ D 10 '45

Template for checking modulus of steel. W. B. Seens. Metal Prog 49:345 F '46

Templet or model for plant layout. R. W. Mallick and J. H. Sansonetti. il plan diags Am Mach 90:101-4 Ag 15 '46

Templets from plastic sheet; abstract. P. Glanzer. Materials & Methods 23:510 F '46

TEMPLETS, Magnetic

New layouts quick, with magnetic templets; patented method used at LaMeasure brothers laundry & dry cleaning company, Detroit. il plans Factory Management 104:90-1 Je '46

TEMPORARY buildings. See Buildings, Temporary

TENAFLY, New Jersey

Sewerage

Sludge index control by chlorination. J. K. Adams. il Water & Sewerage Works 93: 240-2 Je '46

TENEBRESCENCE (term)

Luminescence and tenebrescence as applied in radar. H. W. Leverenz. bibliog il diags fold chart RCA R 7:199-239 Je '46

TENNESSEE

See also

Chattanooga, Tennessee—Industries
Zinc mines and mining—Tennessee

TENNESSEE gas and transmission company

Common stock issue oversubscribed. Comm & Fin Chr 163:320 Ja 21 '46

Securities offered. Comm & Fin Chr 163: 2016 Ap 15 '46

TENNESSEE river

Navigation on the Tennessee river. C. T. Barker. il diags maps Eng N 136:285-8, 351-4 F 21, Mr 7 '46

TENNESSEE valley

Industrial development in the Southeast. J. P. Ferris. il Mech Eng 68.787-91 S '46

TENNESSEE Valley authority

Court upholds TVA's condemnation power. Elec World 125:69 Mr 30 '46

Factual analysis of TVA. H. Massue. Edison Elec Inst Bul 14:193-4 Je '46

Fertilizer policy drawn tighter in new Kefauver TVA bill. Oil Paint & Drug Rep 148: 3+ D 31 '45

House group asks repayment of TVA power costs. Pub Util 38:28-30 Jl 4 '46

Tennessee library council and TVA specialists develop coordinated group of small libraries. il plans Arch Forum 84:118-21 Ja '46

TENNESSEE Valley authority—*Continued*
TVA after twelve years. J. T. Murphy. Pub Util 36:694-701 N 22 '45
TVA book of revelations. J. P. Callahan. Pub Util 38:240-5 Ag 15 '46
TVA fiscal 1945 report shows growth of system. Elec World News ed 125:5-6 Ja 12 '46

Bibliography

Congressional hearings, reports, and documents relating to TVA, 1933-1946. A. M. Norwood, comp. 53p Technical lib, Tennessee Valley authority, Knoxville, Tenn. '46
Indexed bibliography of the Tennessee Valley authority, cumulative supplement January 1943-December 1944. B. L. Foy, comp. 60p, 21p Technical lib, Tennessee Valley Authority, Knoxville, Tenn. '45
Indexed bibliography of the Tennessee Valley authority; cumulative supplement, January-December 1945. B. L. Foy, comp. 46p, 17p Technical lib, Tennessee Valley Authority, Knoxville, Tenn. '46
Regional authority developments; a selected list of references, including legislative bills introduced in Congress, 1933-1945. 13p Technical lib, Tennessee Valley authority, Knoxville, Tenn. '46

TENNESSEE Valley project
Burning in the Tennessee valley; debris from reservoir clearing. H. E. Davis. il Civil Eng 15:69-70 F '46
Design developments; structures of the Tennessee Valley authority; symposium. il map plans diags Am Soc C E Proc 71:1194-1232 O '45; Discussion. 72:423-6, 537-46 Mr-Ap '46
Design of mechanical auxiliaries for TVA hydroelectric plants. H. J. Petersen. il diags A S M E Trans 68:663-72; Discussion. 672-3 O '46
Kentucky dam on the Tennessee river. H. Wiersema. il maps plan diags Engineering 161:337-9, 348, 385-8, 396, 433-6, 444 Ap 12, 26, My 10 '46
Reservoir clearing in the Tennessee valley; completely cleared drawdowns feature TVA reservoirs. H. E. Davis. il Civil Eng 16: 27-30 Ja '46
Spillway gates and equipment on TVA projects. K. C. Roberts. il diags Civil Eng 16: 13-16 Ja '46
Taming of the Tennessee; article in Collier's attracts comment; correspondence between W. L. Chenery and B. C. McCabe. Pub Util 36:721-5 N 22 '45
Tennessee Valley authority and the war. il diags map Engineer 181:190-1, 214-16, 236-9, 260-2, 282-4, 306-8 Mr 1-Ap 5 '46

TENSION control. See Rolling (metal work)—Tension control; Winding machines—Tension control

TENTS
For safe grandstands and tents; new American standard. il Ind Stand 17:219-21 S '46
Quartermaster fights the weather; tentage, and water resistant clothing. W. M. Lee. Am Dyestuff Rep 35:72-6 F 11 '46
Tent standards; National bureau of standards acts to prevent another disaster like that at Hartford. Weekly Underw 155:308 Ag 10 '46
War-time camouflaging of tents in the Sudan. A. J. Henry. Chem & Ind p290-1 Ag 3 '46

TERBIUM
Rare-earth metal oxides; the direct oxidation of praseodymium and terbium sesquioxides. J. K. Marsh. Chem Soc J p15-17 Ja '46

TERBORGH, George
Bogey of economic maturity; review by D. S. Tucker. Mech Eng 67:836-8 D '45; Review, by A. H. Hansen. R Econ Stat 28: 13-17; Review (Great guessing game: Terborgh versus Hansen) by D. M. Wright. 18-22 F '46

TEREDOS
Blasting out teredos. Pub Works 76:32 N '45
Drives shotcrete-encased piles; Southern railway's method of protecting waterfront formations against teredo and limnoria. il Ry Age 119:888-9 D 1 '45

TERGITOL-7
Useful selective bactericidal property of Tergitol-7. A. L. Pollard. Science 103:758-9 Je 28 '46

TERMINALS
Dockmen get a lift; mechanical equipment for moving freight at trucking terminals. F. Davin. il Nat Safety N 54:22-3+ Jl '46
Jersey City truck terminal provides haven for drivers as well as transfer point for long distance freight. il plan Arch Forum 85:95 O '46
New maritime station at Southampton. plans Engineer 182:8 Jl 5 '46
Railway Express terminal gets public address system. il Ry Age 120:965 My 11 '46
Terminal authority, Chicago's postwar need. J. D'Esposito. Western Soc E J 50:123-32 S '45
Trends in marine terminal design. diags Arch Rec 100:122 S '46

See also
Airlines—Terminals
Motor bus lines—Terminals
Petroleum pipe lines—Terminals
Petroleum shipping terminals
Ports
Produce terminals
Railroads—Terminals

TERMINALS, Produce. See Produce terminals

TERMINOLOGY. See subdivision Terminology under special subjects. e.g. Accounting—Terminology; Business—Terminology; Geology—Terminology

TERMITES
How to apply copper termite shields. diags Am Bld 67:113 O '45; Discussion. W. A. Scales. 68:90 My '46
Resistance of treated cotton fabrics to attack by termites and micro-organisms. R. A. St George and M. S. Furry. il Am Dyestuff Rep 35:207-10 Ap 22 '46

TERNE plate
Lead-tin plating; abstract. A. E. Carlson and J. M. Kane. Materials & Methods 24:182+ Jl '46
Strength of spot welds in lead, lead alloys and terne plate. J. Heuschkel. il Product Eng 16:872-6 D '45

Testing

Quality of terneplate. Iron Age 156:44 D 27 '45

TERPENE alcohol. See Alcohols

TERPENES
General method of color grading. R. H. Osborn and W. C. Kenyon. bibliog Ind & Eng Chem Anal ed 18:523-30 S '46
Production of isoprene from turpentine derivatives. B. L. Davis, L. A. Goldblatt and S. Palkin. bibliog diags Ind & Eng Chem 38: 53-7 Ja '46
Solvents in the paint industry; terpenes and terpene substitutes. R. B. Pollak. Paint Oil & Chem R 109:16+ Mr 21 '46
Studies in the terpene series; action of dilute aqueous salt solutions on 3,3,5-trimethylcyclohexanol and 1,1,3-trimethyl-X-cyclohexene. V. N. Ipatieff, H. Pines and R. C. Olberg. Am Chem Soc J 68:1709-10 S '46
Sulfurization of unsaturated compounds. H. E. Westlake, jr. bibliog(94 references) Chem R 39:224-7 O '46

Analysis

Determination of the terpene alcohol content of steam-distilled pine oil. V. E. Grotlisch and H. N. Burstein. bibliog Am Soc T M Proc 45:1015-22 '45
Studies in the terpene series; method for the determination of rings in bicyclic dihydroterpenes; isomerization of pinane in the presence of dilute aqueous salt solutions. V. N. Ipatieff and H. Pines. Am Chem Soc J 67:1931-44 N '45

TERRA cotta
Building experts specify structural tile, terra cotta for many uses. E. P. Lewin. il Brick & Clay Rec 108:33-5 Mr '46
Extruded terra cotta being used for first time on outside walls of home. il plans Brick & Clay Rec 108:34 Ap '46

TERRA sigillata
Surface decoration on terra sigillata and on Greek black-painted vases. E. F. Prins de Jong and A. J. Rijken. bibliog Am Cer Soc Bul 25:5-7 Ja 15 '46

TERRACES (geology)
Eustatic shore lines in the Pacific. H. T. Stearns. bibliog Geol Soc Bul 56:1071-7, pl 1-2 N '45

TERRACING machinery
I.H.C. experiment; exclusive distribution of farm terracing machine. Bsns W p56 S 28 '46

TERRESTRIAL magnetism. See Magnetism, Terrestrial

TERRY, Florence
One woman airline; Terry air transport, F. Terry. por Aviation N 5:18 My 20 '46

TERRY air transport
One-plane carrier. Air Transport 4:81 Je '46

TERRY fabrics
Terry effect, fancy to eye, is simple to produce. T. Hargreaves. il diags Textile World 96:106-7 Je; 117+ Ag '46

TERTIARY production. See Production

TERYLENE
Terylene. Chem & Ind p374 O 12 '46

TESSELLATED stresses. See Strains and stresses

TESTIMONY. See Evidence (law)

TESTING
Hypersonic analyzer betters testing technique. il diag Iron Age 156:74 D 13 '45; Mach 52:184 Ja '46; Electronics 19:166+ Mr '46; Machine Design 18:103 Ja '46; Mod Plastics 23:143 F '46; Product Eng 17:198 Mr '46
Low temperatures at low cost; testing electronic parts. H. N. Brown. il diag Franklin Inst J 240:487-95 D '45
New equipment. il Iron Age 158:75-6 Jl 18; 65-8 Ag 15 '46
New equipment; testing and measuring instruments. il Iron Age 158:71-4 O 17 '46
Nondestructive tests cut costs. il Bsns W p50+ Jl 6 '46
Supersonic beam detects flaws in metals and plastics; Brush hypersonic analyzer. il Elec World 125:104 Je 22 '46
Testing unit obtains data on stiff of flexible materials. il Sci Am 174:125 Mr '46
Tests or traditions? simulated-service tests. F. P. Peters. il Sci Am 175:149-52 O '46

See also
Brinell hardness test
Electric testing
Impact
Magnetic testing
Oil testing
Testing laboratories
Testing machines
Textile testing
also subdivision Testing under various subjects, e.g.
Corrosion and anti-corrosives
Hardness
Metals
Plastic materials
Steel
also American society for testing materials

TESTING laboratories
Building materials research laboratory features novel movable partitions; Johns-Manville corp. il diag Eng N 137:169-71 Ag 8 '46
Laboratory for the testing of refrigeration and air conditioning units. R. C. Cross and J. S. Hansen. il diag Refrig Eng 52:122-4+ Ag '46
Railroad laboratory employs interior colors as safety devices; Rock Island's Chicago laboratory. il Arch Forum 85:101 O '46
Research center; new facilities of Allis-Chalmers mfg. co.; flexible pilot mill. il Steel 117:80+ D 24 '45
Rock Island opens new laboratories; devoted to scientific controls for selecting and purchasing materials and supplies. il plan Ry Age 120:359-65 F 16 '46
Tropical testing chamber; Army service forces, Fort Belvoir, Va. T. F. Cooke and R. E. Vicklund. il Ind & Eng Chem Anal ed 18:59-60 Ja '46
Use of control charts in the analytical laboratory. G. Wernimont. bibliog Ind & Eng Chem Anal ed 18:587-92 O '46

See also
American gas association—Appliance testing laboratory
Sound laboratories
Underwriters' laboratories
United States testing company

Cold rooms
Bavarian motor works altitude-test facilities. E. E. Stoeckly. il diags A S M E Trans 68:743-50 O '46
Design of a refrigerated altitude chamber. C. J. Lyall. il Mech Eng 68:537-8 Je '46
Low temperature rooms for communication equipment study; Signal corps laboratory of Fort Monmouth, N.J. G. Mackas. diag plans Refrig Eng 51:121-2+ F '46
Low temperature test chamber unit; developed for North American Philips co. il diag Product Eng 17:455 Je '46
Man-made wind at 130 to -67 F tests aircraft-engine gasoline injectors; American Bosch corp. laboratory. il plan Power 90:6-8 Ja '46
New cold room built to test rubber; B. F. Goodrich co. il Elec World 125:141 F 2 '46
New cold room reaches 90 F; installed by B. F. Goodrich company. il Heat & Ven 43:85 My '46

Weather rooms
Environmental protection; reproduction of various climatic conditions. W. F. Roden. il Refrig Eng 52:17-21+ Jl '46
Pressure chamber will house aircraft; North American aviation, inc. il Aviation N 6:22 Jl 29 '46

TESTING machines
Adjustable force-measuring beam. il diags Steel 117:102+ D 17 '45
Automaton bubble-tests light-metal castings. R. Cummings. diags Am Mach 90:116-17 Ja 3 '46
Baldwin fatigue testing machine. il Steel 117: 150+ N 19 '45
Barnes tensile-strength testing machine. il Mach 52:206 D '45
Bendix roll test machine; for testing strength of aircraft wheels. il Automotive & Aviation Ind 95:42 O 1 '46
Brake linings; inertia machine for investigating properties of friction materials. il Automobile Eng 36:317-18 Jl '46
Compression testing of clay. S. Serota. diag Engineer 182:35 Jl 12 '46
Cutting fluids; lubricant testing machines. W. H. Oldacre. bibliog il Mech Eng 68:341-2 Ap '46
Denison and son universal testing machine. il Engineer 180:424 N 23 '45
Developments in the field of testing procedures for the evaluation of natural and synthetic rubbers and plastic elastomers, sponsored by Bureau of ships, Navy department. T. A. Werkenthin. bibliog il diags Rubber Age 59:173-9, 317-23, 445-50, 579-83 My-Ag '46 (to be cont)
Dimethyl-silicone-polymer fluids and their performance characteristics in unilaterally loaded journal bearings. J. E. Brophy and others. il A S M E Trans 68:355-60 My '46
Effect of repeated loading on the bond strength of concrete. C. W. Muhlenbruch. bibliog il diags Am Soc T M Proc 45:824-45 '45
Electronic robot tests Dodge engines. R. Le Grand. il Am Mach 90:106-7 O 24 '46
Fatigue testing machine built for Northwestern university. L. T. Wyly. il Civil Eng 16: 471 O '46
Film-lubrication between spherical surfaces; with an application to the theory of the four-ball lubricant testing instrument. J. Howlett. J Ap Phys 17:137-49 Mr '46
Firestone precision groove cracking machine. il Rubber Age 59:601 Ag '46
Hot-strength characteristics of moulding sands. W. Davies and W. J. Rees. diags Engineering 161:190-2 F 22 '46
Lubricant tests by the four-ball oil tester. C. F. Krienke. diag Pet Refiner 25:141-4 S '46
Machinability testing apparatus and tests. D. G. W. Curry. il Engineering 161:597-8 Je 21 '46
Machinability testing methods using pendulum machines. A. S. Kenneford. diags Engineering 161:599-600 Je 21 '46
Measuring heat distortion of plastics. G. Lubin. il diag Mod Plastics 23:163-4+ Mr '46
Mechanical oscillators and their electrical synchronization. S. W. Herwald and others. bibliog il diags A S M E Trans 68:713-18 O '46

TESTING machines—*Continued*
Mechanical testing of extreme pressure lubricants (with special reference to hypoid oils). H. L. West. bibliog 8pls Inst Pet J 32:206-29 Ap '46
Metals testing; electrical equipment used in making bolts and studs; A. P. Newall & co. il Elec R (Lond) 139:361-4 S 6 '46
Metals tortured in new testing method; pneumatic fatigue-testing machine. il Gen Elec R 49:54 O '46; Elec World News ed 126:19 N 2 '46
New machine for measuring wear resistance of walkway materials. A. W. Cizek, jr. and others. il Am Soc T M Proc 45:943-51 '45
New pneumatic fatigue testing development described at meeting; abstracts. F. B. Quinlan. Iron Age 158:134+ Ag 15 '46; Mech Eng 68:831 S '46; Franklin Inst J 242:196 S '46; Mach 53:171 S '46; Automotive & Aviation Ind 95:27+ Ag 15 '46
Pneumatic fatigue test for gas turbine buckets. il diags Steel 119:112-13+ S 9 '46
Power-operated Brinell machines. S. R. Williams. il Metal Prog 49:102 Ja '46
Proving rings for calibrating testing machines. B. L. Wilson and others. bibliog il diags U S Nat Bur Stand Circ C454:1-21; pa 10c Supt. of doc. '46
Puncture tester for shipping containers. R. L. Beach and C. J. Falk. il Gen Elec R 49:36-9 Ag '46
Reaction-type vibration test table. il India Rubber World 113:804+ Mr '46
Relation between the impact and flexural tests for molded plastics. L. E. Welch and H. M. Quackenbos, jr. bibliog il diags A S M E Trans 68:547-56 Jl '46
Shackles for central loading; testing of mild steel. B. Lloyd-Evans. il diags Engineering 161:546 Je 7 '46
Tangyes 25-ton universal testing machine. il diags Engineering 162:81 Jl 26 '46
Tensile strength of paraffin waxes. F. W. Padgett and R. B. Killingsworth. bibliog il diags Paper Tr J 122:37-43 My 9 '46
Testing by sound; Brush hypersonic testing machine. il Mod Plastics 23:143 F '46
Testing machine for rigid plastics. il Engineer 181:582 Je 28 '46
Testing-machine grip designed for plastics. il Iron Age 157:63 F 21 '46
Thermal stresses in wrought-steel wheels. R. L. Kenyon. il diags Ry Mech Eng 120: 400-5 Ag '46
Vacuveyor unit for detecting leaky cans; vacuum-testing machine. il Comp Air Mag 51:47 F '46
Variable cycle alternate immersion corrosion testing machine. C. H. Mahoney and others. il Am Soc T M Proc 45:719-21 '45

See also
Brinell hardness test
Dynamometers
Gear testing machines
Textile testing machines

TESTING machines, Textile. See Textile testing machines

TESTS, Ability. See Ability tests

TETRAACETYLGLUCOSYL chloride
Competition of acetate and chloride functions of tetraacetylglucosyl chloride for Grignard reagents. W. A. Bonner. Am Chem Soc J 68:1711 S '46

TETRAARYLETHYLENES. See Ethylene

TETRABIPHENYLYLDIFURYLETHANE
Difuryl tetra-arylethanes. H. E. French and D. R. Smith. bibliog Am Chem Soc J 67: 1949-50 N '45

TETRACHLORODIPHENYLETHANE
TDE, 1,1-dichloro-2,2-bis (*p*-chlorophenyl) ethane, as an anopheline larvicide; comparison with DDT. C. C. Deonier and H. A. Jones. Science 103:13-14 Ja 4 '46

TETRACHLOROETHANE
Solvents in the paint industry. R. B. Pollak. bibliog Paint Oil & Chem R 109:12+ Ap 4 '46
Systems containing isobutanol and tetrachloroethane; liquid-vapor and liquid-liquid equilibria. R. H. Fritzsche and D. L. Stockton. bibliog diags Ind & Eng Chem 38:737-40 Jl '46

TETRACHLOROETHYLENE

Analysis
Determination of chlorinated hydrocarbon vapors in air. R. W. Schayer and H. H. Ackerman. diag J Ind Hygiene 28:237-40 S '46

TETRACHLOROQUINONE
Dehydrogenation of tetrahydrocarbazoles by chloranil. B. M. Barclay and N. Campbell. Chem Soc J p530-3 Ag '45

TETRACRESYL silicate
Application of high temperature liquid as a heat or energy transfer medium for domestic and industrial uses. O. O. Oaks. il diags Heating-Piping 18:119-23 Ja '46; Abstract. Gas Age 97:40+ F 21 '46
Liquid heat powers domestic utilities; Pierce foundation proves practicability of a single energy-source for the house. il diags Arch Forum 84:212-14 Ap '46

TETRAETHYL lead
Changes in regulations pertaining to tetraethyl lead gasoline. Pub Health Rep 61: 1487-8 O 11 '46

Analysis
Determination of tetraethyllead in gasoline by X-ray absorption. M. V. Sullivan and H. Friedman. il diag Ind & Eng Chem Anal ed 18:304-6 My '46

TETRAFLUOROETHYLENE, Polymeric. See Teflon

TETRAHYDROANTHRACENE
Studies in the anthracene series; methyl ketones and carbinolamines derived from 1,2,3,4-tetrahydroanthracene. E. A. Garlock, jr. and E. Mosettig. bibliog Am Chem Soc J 67.2255-9 D '45

TETRAHYDROCARDOL
Relation of hypersensitiveness to poison ivy and to the pure ingredients in cashew nut shell liquid and related substances. H. Keil and others. bibliog Ind Med 14:825-30 N '45

TETRAHYDROFURAN
Experiments relating to the synthesis of patulin; derivatives of 2 : 3-diketo-4-acetyltetrahydrofuran. E. T. Borrows and B. A. Hems. Chem Soc J p577-8 S '45
Preparation of tetrahydrofuran polymers as a synthetic lubricant for metals; abstract. F. H. Roberts. Chem & Met Eng 53:224+ My '46
Tetrahydrofuran compounds; some acid derivatives. R. D. Kleene. Am Chem Soc J 68:718 Ap '46
Thermal decomposition of tetrahydrofuran. C. H. Klute and W. D. Walters. bibliog Am Chem Soc J 68:506-11 Mr '46

TETRAHYDROFURFURYL alcohol
Preparation of dihydropyran, δ-hydroxyvaleraldehyde and 1,5-pentanediol from tetrahydrofurfuryl alcohol. L. E. Schniepp and H. H. Geller. bibliog Am Chem Soc J 68: 1646-8 Ag '46

TETRAHYDRONAPHTHALENE. See Tetralin

TETRAHYDRONAPHTHOL
Two new effective insect repellents, NMRI-201 and NMRI-448. L. A. Jachowski, jr. and M. Pijoan. Science 104:266-9 S 20 '46

TETRAHYDROPHTHALIC anhydride
Determination of small amounts of 4-vinyl-1-cyclohexene (butadiene dimer) in tetrahydrophthalic anhydride. B. Warshowsky and P. J. Elving. Ind & Eng Chem Anal ed 18:276 Ap '46

TETRAHYDROPYRONE
Experiments relating to the synthesis of patulin; a study of hydrogenated γ-pyrones. J. Attenburrow and others. Chem Soc J p571-7 S '45

TETRAHYDROTHIOPHENE
Some tetrahydrothiophene β-keto ester derivatives. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:2213-16 D '45

TETRAHYMENA geleii W. See Ciliata

TETRALIN
Catalytic dehydrogenation of 1-substituted 1,2,3,4-tetrahydronaphthalene derivatives. M. S. Newman and T. J. O'Leary. bibliog Am Chem Soc J 68.258-61 F '46

TETRALOL. See Tetrahydronaphthol

TETRALONE
Derivatives of acetyl hydroxy furans and their conversion into substituted acetones. A. L. Wilds, W. J. Close and J. A. Johnson, jr. bibliog Am Chem Soc J 68:89-92 Ja '46
2'Ketodihydro - 1,2 - cyclopentenonaphthalene and derivatives of naphtho[1.2-*b*]furan. A. L. Wilds and J. A. Johnson, jr. bibliog Am Chem Soc J 68:86-9 Ja '46

TETRAMETHYLAMMONIUM chloride
Polarographic reduction of carbon dioxide; description and interpretation of the waves. P. Van Rysselberghe. G. J. Alkire and J. M. McGee. Am Chem Soc J 68:2050-5 O '46
Polarographic reduction of carbon dioxide; polymerization and adsorption at the dropping mercury cathode. P. Van Rysselberghe. bibliog Am Chem Soc J 68:2047-9 O '46

TETRAMETHYLCYCLOBUTANEDIONE
Cleavage of cyclic beta diketones; tetramethyl-1,3-cyclobutanedione. J. L. E. Erickson and G. C. Kitchens. bibliog Am Chem Soc J 68:492-6 Mr '46

TETRAMETHYLHEXENE
Depolymerization of 3,4,5,5-tetramethyl-2-hexene and 3,5,5-trimethyl-2-heptene in relation to the dimerization of isoamylenes. F. C. Whitmore and W. A. Mosher. bibliog Am Chem Soc J 68:281-4 F '46
2,2,5,5-Tetramethyl-3-hexene. F. L. Howard and others. Am Chem Soc J 68:2121 O '46

TETRANITROMETHANE
Detection of conjugated unsaturated fatty acids with tetranitro methane; abstract. H. P. Kaufmann and P. Kirsch. Paint Oil & Chem R 109:30 Mr 21 '46

TETRAPHENANTHRYLETHYLENE
9-Vinylphenanthrenes; di- and tetraphenanthrylethylenes. F. Bergmann and S. Israelashwili. bibliog Am Chem Soc J 67:1951-6 N '45

TETRAPHENYL tin. See Tin tetraphenyl

TETRAPHENYLDIFURYLETHANE
Difuryl tetra-arylethanes. H. E. French and D. R. Smith. bibliog Am Chem Soc J 67: 1949-50 N '45

TETRYL
Manufacture
Dinitromethylaniline as an intermediate in the manufacture of tetryl. A. G. Hill and K. H. Klipstein. flow diag Am Inst Chem Eng Trans 42:527-34 Je '46

Physiological effect
Tetryl exposure; analysis of four years of medical experience. C. N. Fischer and H. D. Murdock. Ind Med 15:428-9 Jl '46

TEXAS
Lone star state. il Manuf Rec 115:106-64 Jl '46
See also
Clay—Texas
Gas, Natural—Texas
Leather industry and trade—Texas
Petroleum—Texas
Public health—Texas
Roads—Texas
Steel industry and trade—Texas

Industries and resources
Manufacturing; growth of Texas economy. il Manuf Rec 115:117-24 Jl '46
Texas makes substantial industrial advances in first postwar year. Steel 119:84 S 9 '46
See also
Houston, Texas—Industries

TEXAS and New Orleans railroad
Bonds offered. Comm & Fin Chr 163:2627 My 13 '46

TEXAS and Pacific railway
Annual report. Comm & Fin Chr 163:2200 Ap 22 '46

TEXAS company
Annual report. Comm & Fin Chr 163:1615 Mr 25 '46

TEXAS university
Defense research laboratory
Defense research conducted at Texas. Chem & Eng N 24:1422 My 25 '46

TEXTBOOKS
Textbooks short; famine in college textbooks. Bsns W p42 Mr 9 '46
See also
Engineering—Textbooks
Mechanical engineering—Textbooks
Mechanics—Textbooks
Periodicals—Use in teaching

TEXTILE analysis
Quantitative determination of phenolic fungicides. S. Gottlieb and P. B. Marsh. bibliog Ind & Eng Chem Anal ed 18:16-19 Ja '46
Systematic scheme of identification for organic finishing agents. J. H. Skinkle. diag Am Dyestuff Rep 35:449-52 S 23 '46
See also
Cotton—Analysis
Wool—Analysis

TEXTILE chemicals
Alphabetical list of new products developed since Nov. 1944. Am Dyestuff Rep 34:481-8 D 3 '45
Alrosol finds many textile uses. Rayon 27:106 F '46
Glycerine increases its textile uses. G. Leffingwell and M. A. Lesser. bibliog Rayon 27: 262-4 My '46
Historical development of textile glycerine applications. W. J. Pickett. Rayon 27:374 Jl '46
Recovery and utilization of process chemicals in the viscose rayon industry. P. W. Frisk. il diag Rayon 27:461-3 S '46
Surface active compounds; their use in textile operations. H. H. Mosher. Am Dyestuff Rep 35:168-73 Ap 8 '46
Systematic scheme of identification for organic finishing agents. J. H. Skinkle. diag Am Dyestuff Rep 35:449-52 S 23 '46
Textile chemicals. D. H. Powers. Chem Ind 59:277 Ag '46
See also
Dyes and dyeing
Starch

TEXTILE chemistry
Emulsions and their applications to textiles. H. A. Neville. bibliog Am Dyestuff Rep 34.534-6 D 17 '45
Function of the chemist in the textile industry; abstract. W. Harrison. Soc Dyers & Col J 62:4 Ja '46
Solubility of lime in textile scouring liquors; abstract. R. G. Fargher and F. W. Thomas. Chem & Ind p87 F 23 '46
See also
Bleaching
Cotton finishing
Dyes and dyeing—Chemistry
Nylon
Resinous products—Textile uses
Sizing (textiles)
Textile analysis
Textile chemicals
Textile finishing
Waterproofing of textiles
Wool—Chemistry

TEXTILE chemists and colorists, American association of. See American association of textile chemists and colorists

TEXTILE color card association
Benefit to industry of measured standards. J. F. Warner. Am Dyestuff Rep 35:332-3 Jl 1 '46; Same. Textile Col 68:22-3+ Je '46
Spectrophotometric and colorimetric determination of the colors of the TCCA standard color cards. G. Reimann and others. bibliog(33 titles) il Opt Soc Am J 36:128-59 Mr '46; Same. J Res Nat Bur Stand 36: 209-47 Mr '46; Same cond. Am Dyestuff Rep 35:323-9+ Jl 1 '46; Same cond. Textile Col 68:17-21+ Je '46
Standard angular conditions for the colorimetry of textiles. E. I. Stearns. Am Dyestuff Rep 35:330-1 Jl 1 '46; Same abr. Textile Col 68:24-5+ Je '46

TEXTILE design
Art and the textile industry. plan Textile Col 68:20-1+ Ag '46
Asks better understanding of professional designers. R. B. Farnum. Textile Col 67:205-6+ D '45

TEXTILE design—*Continued*

5000 years of fibres and fabrics at the Brooklyn museum, January 22-March 21. il Textile Col 68:21-3 F '46

Passion for polka dots; Kathryn Eyles. Textile Col 68.29 Ap '46

Silk, again; All-American silk prints. il Textile Col 67:121 N '45

See also

Textile printing

TEXTILE drying

Cloth printing speeded by infrared drying aids. il Textile World 96:125 Ja '46

Dielectric heating analyzed for textile applications. R. A. Rusca. bibliog il diags Textile World 96:118-21+ My '46

Dielectric heating cuts twist-setting and drying time. C. N. Batsel il diag Textile World 96:139+ S '46; Same. Radio N 36:44-5+ O '46

Dyeing textiles; drying and moisture control. K. S. Laurie. Elec R (Lond) 137:819-20 D 7 '45

Progress in drying and curing of resin-treated textile fabrics. M. J. Pagerie. il Rayon 27: 477-8 S '46

See also

Rayon drying

TEXTILE education

Education and the bleaching, dyeing, printing and finishing industries. A. W. Doyle. bibliog Soc Dyers & Col J 62:101-8 Ap '46

Educators hear plea for teaching humanities as well as technical knowledge. Textile Col 68:41+ Ja '46

General education in textiles. H. D. Smith. Rayon 27:123-5, 182-3 Mr-Ap '46

TEXTILE engineering

Engineering is quick to reflect modern trends. il Textile World 96:112-13 F '46

TEXTILE fabrics

Development of plastics for peacetime textiles. D. H. Powers. Am Dyestuff Rep 35: 76-8 F 11 '46

Fabric buyers ask converters to stress style. R. Corby. Textile Col 68:10-11+ F '46

Fabric exhibit at the victory convention, New York. il Am Dyestuff Rep 35:44-50 Ja 28 '46

German textile technology reports. il diag Textile World 96:101-15 My '46

Glamor and utility in plastic fabrics. il Mod Plastics 23:106-9 F '46

Inside of electrical machines; fabrics used in insulations. R. H. Robinson. diag Electrician 137:41-4 Jl 5 '46

New concepts in textile processing. Rayon 26:584-6 N '45

Scaffolding threads in yarn and cloth structure; use of alginate rayon. A. Johnson. il Textile Inst J 36:P203-15; Discussion. P216 D '45

Some uses of calcium alginate rayon; simplified methods of making crêpes, astrakhans and pile fabrics. A. Johnson and J. B. Speakman. bibliog 4pl Soc Dyers & Col J 62:97-100 Ap '46

See also

Army fabrics
Balloon fabrics
Blankets
Bleaching
Cotton fabrics
Dress goods
Duck (textile)
Elastic fabrics
Felt
Fulling
Kapok
Knit goods
Laundry
Mildew
Nylon fabrics
Rayon fabrics
Ribbon
Rugs
Singeing (textiles)
Sizing (textiles)
Terry fabrics
Textile fibers
Textile finishing
Textile printing
Textile research
Tire fabrics
Upholstery

Antiperspirant effect

Action of antiperspirant creams on fabrics. R. R. Bien. Am Dyestuff Rep 35:269-71+ Je 3 '46

Antiseptic treatment

Improved method for quantitative impregnation of textiles with germicidal emulsifiable oils. Science 104:60-1 Jl 19 '46

Bibliography

Review of periodicals. Published in monthly numbers of Rayon textile monthly

Coating

Bright future for coated fabrics; Tolex and other vinyl coated fabrics. il Mod Plastics 23:104-7 Jl '46

Butyral for consumer fabrics. Bsns W p52+ O 19 '46

Calendering and coating with polyvinyl resins. Rayon 27.543-4 O '46

Clear butyral coating for upholstery; transparency, low modulus and adhesive properties. il Mod Plastics 24:126-7 S '46

Coated fabrics charge abandonment. J. D. Lippmann Textile Col 67:174-5+ D '45

Coated fabrics in Germany. Chem & Eng N 24:828 Mr 25 '46

Coating with polyvinyl chloride latex. M. S. Moulton. il diags Mod Plastics 24:117-20 O '46

Covering up with plastics. C. A. Breskin. il Sci Am 175:214-16 N '46

Electrocoating fabrics. Franklin Inst J 241: 161-2 F '46

Improved coating techniques produce better art leather; vinyl resins. S. Wineman and H. F. Reves. il Textile World 96:114-15 Jl '46

Latest developments in coating textile fabrics. Rayon 26:651-3 D '45

Plastics as coatings. P. F. Corbin. flow sheets diags Product Eng 17:117-18 O '46

Precise control means quality coated fabrics. C. N. Rabold. il Textile World 96:102-3 Ag '46

Some pitfalls in accelerated testing. R. E. Thomas. Am Dyestuff Rep 35:280-2 Je 3 '46

Vinyl butyral plastic for textile coating. Science 104:418-19 N 1 '46

Defects

Creases formed at the loom. H. E. Wenrich. il diags Rayon 27:359-60, 420-2 Jl-Ag '46

New techniques for the inspection of textiles. H. F. Schoenfelder. diags Rayon 27:483-5, 546-8 S-O '46; Same. Ind Stand 17:255-60 O '46

QM's visual inspection gages. H. F. Schonenfelder. il Textile Col 68:22-3+ Jl '46

Flame resistance

See Textile fabrics—Inflammability

Heat transmission

Effect of fiber content and care on resiliency, thickness, and thermal conductivity of blankets. P. A. Gilmore and K. P. Hess. Rayon 27:252-6 My '46

Heat and water vapor transfer through fabrics. S. Baxter. bibliog diags Textile Inst J 37:T39-57 Mr '46; Correction. 37:T140 My '46

Some observations upon the effect of colour on the absorption and emission of radiation by a textile fabric. W. H. Rees and L. W. Ogden. il Textile Inst J 37:T113-20 Ap '46

Transmission of heat through textile fabrics. F. T. Peirce and W. H. Rees. bibliog diags Textile Inst J 37:T181-204 S '46

Inflammability

Evaluation of fabrics as to their flammability; presented by New York section. il Am Dyestuff Rep 35:20-5 Ja 14 '46

Flammability testing of fabrics; abstracts. C. W. Dorn. il Textile World 96:131 Ja '46; Rayon 27:79-80 F '46

Operating instructions and test procedure for A.A.T.C.C. flammability tester; tentative test method. il diags Am Dyestuff Rep 35: 230-2 My 6 '46

Inspection

QM's visual inspection gages. H. F. Schonenfelder. il Textile Col 68:22-3+ Jl '46; Abstract. Textile World 96:234 Ap '46

Moisture absorption

New test apparatus for measuring the coolness of textiles. R. H. Armitage. Rayon 26:587-8 N '45

Permeability

New test apparatus for measuring the coolness of textiles. R. H. Armitage. Rayon 26:587-8 N '45

TEXTILE fabrics—*Continued*

Protection

Bancroft's new ban flame finish for fabrics; protects against fire and mildew. il Rayon 27:84 F '46

Cloth treatment makes many materials water- and mildew-proof. Sci Am 174:115 Mr '46

DDT and its textile applications. F. L. Goodall and others. bibliog Soc Dyers & Col J 62:189-98 Jl '46

Deleterious effects of fungi. F. J. Sowa. Rayon 27:257-9 My '46

Dyeing of cotton with mineral khaki; fungicidal and bactericidal efficiencies of cotton yarn treated by various mineral khaki processes. E. Race, F. M. Rowe and J. B. Speakman. bibliog diag Soc Dyers & Col J 61:310-21, pl 1-2 D '45

Dyeing of cotton with mineral khaki; the effect of exposure to weathering agencies on yarns pigmented with copper, chromium and iron compounds. E. Race and F. M. Rowe. bibliog il diags Soc Dyers & Col J 62:19-29 Ja '46

Dyeing of cotton with mineral khaki; the incorporation of copper with chromium and iron in mineral khaki for the production of an effective fungicide and bactericide. E. Race, F. M. Rowe and J. B. Speakman. bibliog il Soc Dyers & Col J 62.9-19, pl 1-2 Ja '46

Fungicides in war and peace. H. N. Mitchell. il Textile Col 68:14-15+ F; 22-3+ Mr; 26-7 Ap '46

Hundred mills specify mildewproofing wants. R. E. Horsey. il Textile World 96:123 Ag '46

Mildew and rot resistance of textiles and effectiveness of textile fungicides. H. D. Barker. Am Dyestuff Rep 35:274-6+ Je 3 '46

Mildew proofing treatment. Rayon 26:666 D '45

Textiles, gas resistant; British patent. Am Dyestuff Rep 35 476 O 7 '46

Tropicalization; Hyamine 3258 for mildewproofing; abstract. Mech Eng 68:256-7 Mr '46

See also

Cotton fabrics—Protection — Fireproofing of textiles

Shrinkage

Elimination of chaos from shrinkage testing. Am Dyestuff Rep 35:366-74 Jl 29 '46; Abstract. Textile Col 68:18-19+ Jl '46

Shrinkage of fabrics during raising. C. P. Atkinson and C. S. Whewell. Textile Inst J 36:P156-7 O '45

See also

Cotton fabrics—Shrinkage — Woolen and worsted fabrics—Shrinkage

Rayon fabrics—Shrinkage

Testing

Advanced fabric wear tester. W. H. Masterson. Am Dyestuff Rep 35:192+ Ap 22 '46

IP machine used to measure friction of textiles. R. A. Armitage. il Textile World 96: 202 Ja '46

Mildew and rot resistance of textiles and effectiveness of textile fungicides. H. D. Barker. Am Dyestuff Rep 35:274-6+ Je 3 '46

Some pitfalls in accelerated testing. R. E. Thomas. Am Dyestuff Rep 35:280-2 Je 3 '46

Standard testing of yarns and fabrics. A. W. Bayes. Textile Inst J 36:P182-5; Discussion. P185-6 N '45

Textile testing for consumers; retailers need more information about use-life of products. I. D. Wolf. Ind Stand 16:269-71 D '45

Tomorrow's textiles, yesterday's tests; standard tests and specifications often fail to provide information concerning performance and usability. J. B. Goldberg. Ind Stand 16:274-5 D '45

Water resistance

Army's water repellent clothing. J. E. Simpson. il Am Dyestuff Rep 35:243-52, 272+ My 20, Je 3 '46

Committee on water resistance; report. G. Slowinske. Am Dyestuff Rep 35:147 Mr 25 '46

Drop-penetration apparatus for evaluating water repellent fabrics. A. M. Sookne and others. bibliog diags Am Dyestuff Rep 35: 295-8+ Je 17 '46

Minimum standards program. A. Cornhall. Textile Col 68:14-15 S '46

Quartermaster fights the weather; tentage, and water resistant clothing. W. M. Lee. Am Dyestuff Rep 35:72-6 F 11 '46

Seeks wholly waterproof fiber; abstract. W. W. Watkins. Textile World 96:139 Jl '46

Water repellent finishes; wax and aluminum salts; patent. Am Dyestuff Rep 35:458 S 23 '46

Waterproof fabric woven from pliofilm thread. Chem & Met Eng 53:148 Ap '46

See also

Cotton fabrics—Water resistance — Waterproofing of textiles

TEXTILE fabrics, Metallized

Metallization of non-conductive materials; British patent. Am Dyestuff Rep 35:475 O 7 '46

TEXTILE fibers

Facts and fiction about fibers and finishes. R. B. Seymour. Am Dyestuff Rep 35:128-30 Mr 11 '46

Fibrous proteins; Leeds symposium. Chem Age (Lond) 54:703-4 Je 22 '46

Fibrous proteins; symposium of the Society of dyers and colorists. Am Dyestuff Rep 35:452-5 S 23 '46; Abstract. Chem Age (Lond) 54:703-4 Je 22 '46

Fungus resistance of various fibres. H. N. Mitchell. Textile Col 68:22-3+ Mr '46

Molecular structure of fibres; a review of the present position. W. T. Astbury. Textile Inst J 36:P154-5 O '45

New peanut fiber. Bsns W p58 My 4 '46

Regenerated fibres from natural polymers. D. Entwistle. bibliog 2pls diags Soc Dyers & Col J 62:261-72 S '46

Techniques changing for major textile fibers. il Textile World 96:108-9 F '46

See also

Cotton fibers — Manila hemp
Flax — Ramie
Hemp — Silk
Jute — Wool

Moisture content

Calorimetric investigation of moisture in textile fibers; abstract. F. C. Magnee and others. Am Dyestuff Rep 35:462 S 23 '46

Fine points of regain. L. L. Lewis. bibliog diag Rayon 27:305-7 Je '46

Method of correlation of equilibrium moisture regain in textile fibers; theoretical and industrial implications; abstract. J. C. Whitwell. Am Dyestuff Rep 34:525-6 D 17 '45

Moisture adsorption of textile yarns at low temperatures. R. C. Darling and H. S. Belding bibliog Ind & Eng Chem 38:524-9 My '46; Discussion. 38:1203-4 N '46

Moisture relationships of jute; adsorption isotherm and heat of wetting. W. G. Macmillan and others. bibliog Textile Inst J 37:T13-24 F '46

Strength

How molecular structure determines the strength of textile fibers; abstract. H. Eyring. Am Dyestuff Rep 34:526 D 17 '45; Same. Rayon 26:638 D '45

Testing

Physical properties of knitted fabric made of natural and synthetic fibers. H. M. Fletcher. bibliog il Rayon 27:309-12, 364-7 Je-Jl '46

TEXTILE fibers, Metallic

Aluminum; new waterproof yarn. il Textile Col 68:20-1+ S '46

Dobeckmun shows aluminum plies and twists. il Rayon 27:523 O '46

TEXTILE fibers, Synthetic

Animalisation of cellulose fibres and waterproofing at Dormagen. Soc Dyers & Col J 62:288 S '46

Annual synthetics number. il Textile World 96:101-20 S '46

Chemurgy and modern textiles. F. Bonnet. Rayon 27:236-7, 289-90 My-Je '46

TEXTILE fibers, Synthetic—*Continued*
Dimensional and structural changes in swollen synthetic fibers. B. R. Roberts. bibliog Rayon 27:243-5, 297-9 My-Je '46
German chemical industries; continuous and staple fibers and related products. Chem & Met Eng 52:206+ N '45
German fibers. il Chem & Met Eng 53:162-3 F '46
Manufacture of Velon monofilaments. G. P. Rowland, jr. il Rayon 27:540-2 O '46
New synthetic fibers constantly being developed. Textile World 96:117 S '46
PC fiber (after-chlorinated polyvinylchloride) used for industrial fabrics in Germany. J. B. Quig. Textile World 96:108 My '46
Regenerated fibres from natural polymers. D. Entwistle. bibliog 2pls diags Soc Dyers & Col J 62:261-72 S '46
Report of Snia Viscosa. Chem Age (Lond) 54:731 Je 29 '46
Seeks wholly waterproof fiber; abstract. W. W. Watkins. Textile World 96:139 Jl '46
Structure and elastic properties of synthetic fibres; abstract. W. T. Astbury. Chem & Ind p110 Mr 9 '46
Terylene. Chem & Ind p374 O 12 '46
Use of high tenacity specialty yarns growing. R. Levine. Rayon 27:524 O '46
Zein fibers; preparation by wet spinning. C. B. Croston, C. D. Evans and A. K. Smith. il diag Ind & Eng Chem 37:1194-8 D '45

See also
Aralac
Dyes and dyeing—Synthetic fibers
Nylon
Rayon
Vinyon
Wool, Artificial

Blending

Synthetics predominate in three-fiber blends. C. M. Bowden. il Textile World 96:104-7 S '46

TEXTILE finishing
Facts and fiction about fibers and finishes. R. B. Seymour. Am Dyestuff Rep 35:128-30 Mr 11 '46
Finishes grab textile spotlight; new formulas for treating, proofing, resisting, repelling and strengthening. il Bsns W p42-4 Ap 20 '46
Finishes make fashion news. Textile Col 68: 24+ My '46
Finishing-range drives coordinated in numerous ways. R. B. Moore. diags Textile World 96:153+ Mr '46
Future of finishing. R. J. Smith. Soc Dyers & Col J 61:269-72; Discussion. 273 N '45
German dyeing and finishing are below U.S. standards. C. N. Rabold. il diags Textile World 96:139+ Ap '46
Germans developed many kinks in finishing. F. S. Richardson. Textile World 96:103-5 My '46
Glycerine increases its textile uses. G. Leffingwell and M. A. Lesser. bibliog Rayon 27:262-4 My '46
Hundred mills specify mildewproofing wants. R. E. Horsey. il Textile World 96:123 Ag '46
Influence of advances in other industries on textile printing and finishing. R. J. Hannay. Am Dyestuff Rep 35:352-4 Jl 15 '46; Same. Soc Dyers & Col J 62:173-5 Je '46
Instrumentation in textile processing. il Rayon 27:209-12 Ap '46
Mechanics of zone control in resin finishing; presented by Northern New England section. diags Am Dyestuff Rep 35:13-19 Ja 14 '46
Modern textile finishes. F. W. Perry. Am Dyestuff Rep 35:427-9 S 9 '46
Much expected from textile finishes. il Textile World 96:111-12 F '46
New concepts in textile processing. Rayon 26:584-6 N '45
Plastics and their application to textiles. C. D. Weston. bibliog diag Textile Inst J 37: P25-37 F '46
Progress in drying and curing of resin-treated textile fabrics. M. J. Pagerie. il Rayon 27: 477-8 S '46
Survey reveals vast market for improved textile finishes; American cyanamid co. T. Armstrong. Sales Management 56:124+ Ja 15 '46
Systematic scheme of identification for organic finishing agents. J. H. Skinkle. diag Am Dyestuff Rep 35:449-52 S 23 '46
Techniques standardized for finishing mixed fabrics. C. N. Rabold. Textile World 96:111-14 S '46
Two new single-layer coatings used for screen printing in Germany. M. L. Crossley and F. S. Richardson. il Textile World 96: 114-15 My '46
Wet processing in Germany. F. S. Richardson. Am Dyestuff Rep 34:463+ N 19 '45
Zein for finishing textiles; patent. Am Dyestuff Rep 35:504 O 21 '46

See also
Bleaching
Cotton finishing
Creasing of textiles
Dyes and dyeing
Napping of textiles
Rayon finishing
Singeing (textiles)
Sizing (textiles)
Textile fabrics—Coating
Textile oils
Waterproofing of textiles
Woolen and worsted finishing

TEXTILE industry
Analysis of post-war prospects in textiles. A. M. McIssac and others. Rayon 27:117 Mr '46
Converting markets. Textile Col 67:176+ D '45
Developments in textiles in 1945. M. Harris and G. Frankenberg. Chem & Eng N 24: 327-9 F 10 '46
$8,000,000,000 textile industry; is it ripe for brand name promotion? J. C. Cumming. il Sales Management 54:52+ Ap 15; 53-4+ Je 1; 55+ Je 15; 55:100-2 Jl 1; 142+ Jl 15; 71+ Ag 1; 124+ S 1; 153-4+ S 15; 163-4+ O 1; 171+ N 1; 118+ N 15; 146+ D 1; 154+ D 15 '45; 56:93-4+ Ja 1; 164+ Ja 15; 110+ F 1; 161-3 F 15; 121+ Mr 1; 160+ Mr 15 '46 [reprint 25c]
Highlights at Hershey; first national textile seminar. Textile Col 68:16-17+ Ag '46
How you can pre-test the product and the market for soft goods items. P. White and M. White. Sales Management 57:108+ Jl 1 '46
Industry plans to renovate, modernize, and expand. H. E. Reed. il map Textile World 95:103-6 N '45
Launderer looks to the textile industry. T. D. Reeve. Textile Inst J 37:P449-54 S '46
One textile industry; theme of Seminar at Hershey. il diag Textile World 96:91-3+ Ag '46
Peacetime applications of war developments in textiles. Am Dyestuff Rep 35:68-78 F 11 '46
Release of surplus textiles bogs down at critical time. G. Montgomery. flow chart Textile World 95:137+ D '45
Substitute for sample; Textron's viewer box shows products in use in full color. E. M. Housman. il Ptr Ink 213:23-4 D 21 '45
Tacit warranty; decision that textile product must suit buyer's purpose. Bsns W p63 Ja 12 '46
Textile industry knits itself; trend toward vertical integration of rayon and cotton mills emphasized by Textron's latest acquisition. Bsns W p68+ My 18 '46
Textile labels; the retailer must still be educated. il Mod Packaging 19:104-7+ Ja '46
Textile men should be leaders of American industry. E. D. Fowle. Textile World 96: 153+ F '46
Textiles, a field day for new packaging. il Mod Packaging 19:93-9+ Je '46
Textiles bring high prices in Mediterranean countries; European and African situation. W. G. Ashmore. Textile World 95:119+ D '45
What is happening to distribution methods? Uptown converters process rayon and silk griege goods. A. J. Cohen. Textile Col 68: 22-3+ S '46

See also
Carpets
Clothing trade
Cotton trade
Dye industry
Dyes and dyeing
Hosiery trade
Knit goods
Rayon industry
Rugs
Silk trade
Textile fibers
Textile mills
Weaving
Wool trade

Advertising

Buyers thought Chatham made only one product, so advertising points out equally good products in other lines. V. J. Dallaire. il Ptr Ink 216:32-3 Ag 2 '46

TEXTILE Industry—Advertising—*Continued*
Demand for mills affects quarter of industry; brands and advertising. W. B. Dall. Textile World 96:230+ Jl '46
Dramatically lighted color photography features Canadian ad campaign; Gordon Mackay & co. G. D. Johnstone. Ptr Ink 215.66+ Je 7 '46
$8,000,000,000 textile industry; is it ripe for brand name promotion? J. C. Cumming. il Sales Management 54:52+ Ap 15; 53-4+ Je 1; 55+ Je 15; 55:100-2 Jl 1; 142+ Jl 15; 71+ Ag 1; 124+ S 1; 153-4+ S 15; 163-4+ O 1; 171+ N 1; 118+ N 15; 146+ D 1; 154+ D 15 '45; 56:93-4+ Ja 1; 164+ Ja 15; 110+ F 1; 161-3 F 15; 121+ Mr 1; 160+ Mr 15 '46 [reprint 25c]
External house organ interests varied outlets; merchandises consumer and trade advertising; Pepperell news sheet. R. Webster. il Ptr Ink 216:45-7 Jl 5 '46
Pictures replace samples both for education and promotion. il Ptr Ink 215:46 My 31 '46

Bibliography
Free for the asking. Published in monthly numbers of Textile world
Review of periodicals. Published in monthly numbers of Rayon textile monthly

Exhibitions
Apparel exhibit to show why California needs textile mills. Sales Management 56:89 Mr 1 '46
Research committee exhibit at the Victory convention. il Am Dyestuff Rep 35:149-52 Mr 25 '46

Finance
Bulwark of free enterprise. Rayon 27:4 Ja '46
Growth of American textile factoring. Rayon 27:6-7 Ja '46

Regulation
Cost absorption in textile industry. S. B. Sells. Comm & Fin Chr 163:1784+ Ap 4 '46

Securities
Another look at the textile industry with financial statistics on leading manufacturers. H. S. Coffin. Mag of Wall St 79:81-3+ O 26 '46

Statistics
Changing tempo in textiles; statistical review and forecast. W. B. Dall and others. il Textile World 96:101-14 F '46
Fiber consumption declines in 1945. Comm & Fin Chr 163:2103 Ap 13 '46
Textile inventories outstrip shipments; graph. Bsns W p38 Jl 6 '46

Belgium
Belgian yarn and cloth production, 1945 compared with 1938. For Comm W 23:46 Je 1 '46

China
China is serious about developing its textile industry. H. Leopold. il Textile World 96:133+ Ap '46
Chinese textiles; Chungking government seeks Japanese silk and cotton business in Asia. Bsns W p116 F 23 '46

Egypt
Wages and hours in Egyptian textile industry, 1943 and 1945. Mo Labor R 62:945 Je '46

Germany
Developments in Germany; victory convention, New York city, January 4. Am Dyestuff Rep 35:118-27 Mr 11 '46
Fiber research, textile finishing in Germany. Chem & Met Eng 52:196+ N '45
German chemical industries; continuous and staple fibers and related products. Chem & Met Eng 52:206+ N '45
German dyeing and finishing are below U.S. standards. C. N. Rabold. il diags Textile World 96:139+ Ap '46
German textile technology reports. il diag Textile World 96:101-15 My '46
Germans trailed U.S. in throwing and twisting. E. C. Geier. il diags Textile World 96:123+ Ap '46
Textile printing industry in Germany. E. Broadbent. Am Dyestuff Rep 35:221-2+ My 6 '46
Wet processing in Germany. F. S. Richardson. Am Dyestuff Rep 34:463+ N 19 '45
See also
Woolen and worsted manufacture—Germany

Great Britain
British knitters combine to promote products in world markets. Ptr Ink 213:140 D 14 '45
British textiles challenge private enterprise. C. H. Grattan. Barron's 26:11+ Ap 8 '46
Industrial scientific research with particular reference to exports; Mather lecture. W. H. Glover. Textile Inst J 37:P94-103 My '46
Recent textile developments in Britain. A. J. Hall. Am Dyestuff Rep 34:494-6 D 3 '45
Textile doings in Great Britain. E. R. Streat. Rayon 27:140-1 Mr '46
Textile institute; annual general meeting; May 1st, 1946; presidential address. Textile Inst J 37:P91-3 My '46
Textiles in war-time. C. Weir. Textile Inst J 37:P438-44 S '46
Trade in textiles. Economist 150:600-1 Ap 13 '46
Tripartite working parties for industries. Textile Inst J 36:P161 3 O '45
See also
Cotton trade—Great Britain
Courtaulds, limited
Rayon industry—Great Britain
Wool trade—Great Britain

Italy
Italy's textile mills are key to her economic recovery. Textile World 96:201-2 Ag '46
Italy's textiles; vital factor in rehabilitation. M. E. Poole. il For Comm W 23:8-11+ Je 1 '46

Japan
Japan looks to textiles for reparations. Textile World 95:147+ N '45
Japanese mills are well equipped and well run. F. E. Rowe, jr. il Textile World 96:129+ Jl '46; Same. Rayon 27:485-7 S '46
Textile revival. Bsns W p120 S 28 '46

Mexico
Mexican mills hesitate to go modern. E. Hediger. il Textile World 96:87-90+ Ag '46
Mexican textile company to improve industry with machinery; Industrial company of Orizaba. For Comm W 21:43 N 10 '45

Netherlands
Holland making textile recovery. Textile World 96:260 S '46

New England
New England revelation. H. D. Hodgkinson Textile Col 68:26-7 My '46

Poland
Brief review of the Polish textile industry. L. G. Manitius. Textile Inst J 36:P158-60 O '45

Shanghai
Shanghai textile plants. For Comm W 22:5+ Ja 26 '46

Southern states
Cotton and woolen mills in big merger; program of J. P. Stevens and company. J. A. Daly. il Manuf Rec 115:49+ O '46
Merger expected; twelve textile mills in South. Bsns W p64 Je 8 '46

Sweden
New Swedish institute for textile research. For Comm W 24:33 Jl 27 '46

United States
Boom-and-bust in textiles. A. W. Zelomek. Comm & Fin Chr 164:1010+ Ag 22 '46
Changing tempo in textiles; statistical review and forecast. W. B. Dall and others. il Textile World 96:101-14 F '46
Demand for mills affects quarter of industry; with list of mill mergers and acquisitions, Jan. 1944-June 1946. W. B. Dall. plan Textile World 96:101-6+ Jl '46

TEXTILE industry—United States—*Cont.*
From soup to nuts; trends toward vertical integration in textile industry. H. L. Blackburn. il Mag of Wall St 78:79-81+ Ap 27 '46
Textile breadlines. Textile Col 68:16-17+ Jl '46
Textiles; trends in 1946. R. P. Sweeny. il Dom Comm 34:43-4 Ja '46
War (and peace) baby. Bsns W p119 Mr 16 '46

Yugoslavia

Textiles in Yugoslavia; will local industry recover? E. Kekich and D. E. Kennedy. il For Comm W 22:6-9+ Ja 12 '46

TEXTILE laboratories
Cluett, Peabody & co. increases research; research laboratory to be erected in Troy. Rayon 27:488 S '46
Four U.S.D.A. laboratories work on new synthetics. il Textile World 96:118-20 S '46
Laboratory control improves mill operation. H. L. Pratt. il Textile World 96:133+ My '46
Laboratory controls rayon piece goods finishing; Capitol piece dye works. E. S. Dunlap. il Textile World 96:123+ O '46
U.S. Testing expands its portable laboratory program. il Textile Col 67:124-5 N '45

See also American association of textile chemists and colorists—Laboratories

TEXTILE machinery
Molded textile scroll condenser. il Mod Plastics 23:120 Mr '46
Power transmission by V-belt drives in textile mills. T. Hall. Textile Inst J 37:P109-16 Je '46
Refinements are keynote of 1945's new textile equipment. il Textile World 96:109-11 F '46
Static eliminated by grounding or neutralizing. H. S. Knowlton. il diags Textile World 96:110-13+ Je '46
Stroboscope engineering gives answers. D. McConnell. il diag Textile World 96:135+ Mr '46
Swiss machines show novel developments; illustrations with text. E. Honegger. diags Textile World 96:106-10 O '46
Tension and density control being produced by Kidde on winding machines. il Textile World 95:141-2 D '45
Textile machines redesigned. Bsns W p58+ S 28 '46
Textile problems on static electricity. H. E. Wenrich. il diags Rayon 27:249-51, 302-4 My-Je '46
Textile World's show in print. il Textile World 96:108-15 Mr '46

See also
Bobbins
Carding machines
Cotton machinery
Hosiery machines
Knitting machines
Lace machinery
Looms
Rolls (textile machinery)
Spinning machinery
Textile testing machines
Warping machines
Woolen and worsted machinery

Control

Electrons guide the loom; yarn tester, stop-motion set-ups, of high-frequency heating. V. Zeluff. il Sci Am 175:211-13 N '46

Inspection

Good inspection forms aid loom maintenance. F. L. Byrd. Textile World 96:118-21 O '46
Thorough machine inspections are basis of good maintenance. F. L. Byrd. Textile World 96:108-13 Jl '46
Use of effective forms aids machinery inspections. F. L. Byrd. Textile World 96:104-7+ Ag '46

Lubrication

Developments in ball and roller bearing lubrication. Rayon 27:43-5 Ja '46

Testing

Data from activity-recording instruments applied to textile machinery. C. S. Parsons. il A S M E Trans 68:557-63; Discussion. 563-4 Jl '46

TEXTILE machinery industry

Great Britain

Countries of destination of textile machinery exported from the United Kingdom, 1938, 1944, and 1945. For Comm W 21:33 D 15 '45
Engineering outlook. Engineering 161:244-6 Mr 15 '46
Supply of textile machinery; report of the Working party for the cotton industry. Engineer 181:529 Je 7 '46
Textile machinery prospects. Economist 151: 262-3 Ag 17 '46

India

India in search of textile machinery. Economist 151:684+ O 26 '46

TEXTILE mills
Cheney brothers completely converted from wartime production. H. R. Mallory. il Rayon 27.233-5 My '46
Industry plans to renovate, modernize, and expand. H. E. Reed. il map Textile World 95:103-6 N '45
Mill of the future. il Textile World 95:107 N '45
Should textile mills be windowless? R. A. Palmer. il Textile World 96:121+ Ja '46

See also
Cotton mills
Hosiery mills
Knitting mills
Rayon mills
Water supply for textile mills
Woolen and worsted mills

Accounting

Standard cost application in the textile industry. G. C. Lyon. N A C A Bul 27:1131-47 Ag 1 '46

Air conditioning

Air conditioning a Canadian windowless textile mill. G. L. Wiggs. il plan diags Heating-Piping 18:118-22 Jl '46
Evaporative cooling for textile mills; practice in the Argentine. G. T. Lang. il Heat & Ven 42:89-94 D '45

Electric equipment

Complete slasher room control. il diag Rayon 27:549-50 O '46
Dielectric heating analyzed for textile applications. R. A. Rusca. bibliog il diags Textile World 96:118-21+ My '46
Electrons guide the loom; yarn tester, stop-motion set-ups, of high-frequency heating. V. Zeluff. il Sci Am 175:211-13 N '46
Radio heating in textile industry; with cost data. C. N. Batsel. il diag Radio N 36:44-5+ O '46
Requirements of dielectric heating can be calculated from formulas; textile applications. il Textile World 95:151+ N '45
Short-circuits need speedy interruption. D. L. Beeman. il diag Textile World 96:155+ F '46
Textile industry making use of electronics. il Rayon 27:153-5 Mr '46

Employees

See Textile workers

Equipment

Check list for steam gauges in textile mill usage. E. W. Fair. Rayon 27:381 Jl '46
Instrumentation in textile processing. il Rayon 27:209-12 Ap '46
Materials handling reveals mill engineering skill; illustrations with text. Textile World 96:125+ S '46
Modern salt and brine usage in textile plants. N. M. Agnew. flow sheet il diags Am Dyestuff Rep 35:157-63 Mr 25 '46
Progress in increased production and profits through modernization. il Rayon 27:501-6 S '46
Textile World's show in print. il Textile World 96:101-16, 248 Mr '46

See also
Bleacheries—Equipment
Textile machinery

Fires and fire protection

Accident and fire prevention in textile mills, Rayon 26:667-70 D '45

TEXTILE mills—Fires and fire protection—*Continued*
Carbon dioxide is suitable agent to fight textile fires. F. B. Allen. il Textile World 95:104-5 D '45
See also
Cotton mills—Fires and fire protection

Floors
Floor stiffening overcomes vibration. C. J. Shannon. diags Textile World 96:97 Ja '46

Heating and ventilation
Heat savings mean fuel savings. il Rayon 27:549-50 O '46

Lighting
Fluorescent lamp life calculated to determine replacements. R. R. Wylie. Textile World 95:122-3 N '45; Same. Am Mach 89:145, 147 D 20 '45
Fluorescent lighting in mill; W. and B. Crowther, ltd. il Electrician 136:1589 Je 14 '46
Lighting an important factor in textile production quality and profits. il Rayon 27: 85-7 F '46

Maintenance and repair
Maintenance control can be tailored to fit average textile mill. C. M. Bowden. Textile World 96:102-4 Ja '46
New tools help the fixer in reaming and grinding. H. E. Wenrich. il Textile World 96:115+ Ag '46
Use of effective forms aids machinery inspections. F. L. Byrd. Textile World 96:104-7+ Ag '46
See also
Textile machinery—Inspection

Management
Control of weave-room seconds requires systematic check-ups. H. I. Jackson. Textile World 95:102-3 D '45
Laboratory control improves mill operation. H. L. Pratt. il Textile World 96:133+ My '46
Progress in increased production and profits through modernization. il Rayon 27:501-6 S '46
Scheduling production saves overseer's time. F. H. Gunther and M. Gross. il Textile World 96:137+ F '46

Power
Power transmission an important factor in costs and quality of textiles. il Rayon 27: 377-9 Jl '46
Steam giant gives way to electric power; history of vertical Corliss engine, at Plymouth cordage co. plant. C. B. Hudson. il diags Power 90:693-5 O '46

Records
Activity recorder charts weaver efficiency; total loom stops, warp and filling stops by machine. C. S. Parsons. Textile World 96: 127+ Ap '46
Control of weave-room seconds requires systematic check-ups. H. I. Jackson. Textile World 95:102-3 D '45
Good inspection forms aid loom maintenance F. L. Byrd. Textile World 96:118-21 O '46
Thorough machine inspections are basis of good maintenance. F. L. Byrd. Textile World 96:108-13 Jl '46
Use of effective forms aids machinery inspections. F. L. Byrd. Textile World 96:104-7+ Ag '46

Safety measures
Accident and fire prevention in textile mills. il Rayon 26:667-70 D '45
Accident prevention in the dyeing and finishing industry. J. B. H. Morton. Soc Dyers & Col J 62:229-34 Ag '46
Solvent vapors dangerous when uncontrolled. M. Foy. il Textile World 96:118-19+ Je '46
There's safety for your help in these Textile worker safety cards. Textile World 95: 120-1 N '45

Water supply
See Water supply for textile mills

TEXTILE oils
Oiling of jute; comparative fibre-lubricating properties of oil mixtures as studied by fibre length analysis of card slivers. W. G. Macmillan and M. K. Sen. Textile Inst J 37.T141-50 Je '46
Oils used in the processing of textile fibres. G. E. Cowlishaw. Textile Inst J 37:P45-50 Mr '46
See also
Wool oiling

TEXTILE patents
Patent digest. P. Wengraf. Published in American dyestuff reporter
Patent reports. Published in monthly numbers of Rayon textile monthly
Patented enemy technology now available to American mills. diags Textile World 96:89-92 Ja '46
See also
Rayon—Patents

TEXTILE printing
Cloth printing speeded by infrared drying aids il Textile World 96:125 Ja '46
Factors which cause or prevent agglomeration of pigment particles; presented by Rhode Island section. il Am Dyestuff Rep 35:3-12 Ja 14 '46
Germans place quality above volume in textile printing E Broadbent. Textile World 96: 111-12 My '46
Influence of advances in other industries on textile printing and finishing. R. J. Hannay. Am Dyestuff Rep 35:352-4 Jl 15 '46; Same. Soc Dyers & Col J 62:173-5 Je '46
Pigment printing method (zein dispersion) U.S. patent. P. Wengraf. Am Dyestuff Rep 35:398 Ag 12 '46
Pigments on textiles; use of resinous binders. Rayon 26:606 N '45
Powder film replaces back gray in printing. diag Textile World 96:133 Ja '46
Preparation lowers loss in fabric printing. T. N. Patrick. il Textile World 96:145+ Jl '46
Review of recent developments in printing. P. L. Meunier. Am Dyestuff Rep 35:309-10 Je 17 '46
Soaping is key step in preparing cloth for printing. T. N. Patrick. il Textile World 96:151+ Mr '46
Specky effects in textile printing; abstract. Am Dyestuff Rep 34:516 D 3 '45
Textile printing industry in Germany. E. Broadbent. Am Dyestuff Rep 35:221-2+ My 6 '46
Vat printing; organic phosphates added to the pastes; patent. Am Dyestuff Rep 35:458 S 23 '46
See also
Cotton printing
Rayon printing
Woolen and worsted printing

TEXTILE research
Abstracts of research papers read at Textile research institute 16th annual meeting. Rayon 26:636-8 D '45
Army textiles are unsuitable, say QM officers. G. Montgomery. diag Textile World 95:155+ N '45
Concerning textile research. E. R. Schwarz. il Am Dyestuff Rep 35:107-10 F 25 '46
Custom tailored product research, a four-way tool for management; Textile research department of American viscose corp. il Sales Management 56:42-5 F 15 '46
Future of industrial textile research. M. Harris. Am Dyestuff Rep 35:103-5 F 25 '46
Implied warranty threat stimulates AATCC research. il Textile World 96:120-1 F '46
Industrial scientific research with particular reference to exports; Mather lecture. W. H. Glover. Textile Inst J 37:P94-103 My '46
New Swedish institute for textile research. For Comm W 24:33 Jl 27 '46
145th research committee meeting. Am Dyestuff Rep 35:140-1 Mr 25 '46
Plans and progress in textile research. W. Delaney. Textile Col 68:14-15+ Ja '46
Problems for future quartermaster textile research. S. J. Kennedy. Am Dyestuff Rep 34:511-15+ D 3 '45
Proceedings of the Conference on quartermaster textile research. 61p pa $1 Textile research institute, 10 E. 40th st, New York 16 '45

TEXTILE research—*Continued*
Quartermaster studies the wantability of textiles. I. Blunt. Textile Col 67:168-9+ D '45
Research administration in the textile industry. G. E. Hopkins. Rayon 27:537-9 O '46
Research committee exhibit at the Victory convention. il Am Dyestuff Rep 35:149-52 Mr 25 '46
Research emphasis shifts to peacetime needs. il Textile World 96:113 F '46
Research needs in subsistence and personal equipment. W. H. McLean. Mech Eng 68: 203-5 Mr '46; Same. Rayon 27:350-2 Jl '46
Textile research of the A.A.T.C.C. W. D. Appel. Am Dyestuff Rep 35:91-4 F 25 '46

TEXTILE research institute
Annual meeting, New York, Nov. 9. Textile World 95:125+ N '45; Am Dyestuff Rep 34:525-6+ D 17 '45; Rayon 26:624-5, 636-8 D '45
Industry-wide research is geared to aid production. Rayon 27:455-6 S '46

TEXTILE schools
New York converters enthusiastic about a good textile high school. Textile Col 67: 112-13+ N '45
Plans for Georgia Tech textile school. H. A. Dickert. Am Dyestuff Rep 35:153-6+ Mr 25 '46

TEXTILE sizing. See Sizing (textiles)

TEXTILE standards
Recommendations affecting standards for textile materials. diags Am Soc T M Proc 45 329-34 '45
Standardisation in textiles. J. Lomax. Textile Inst J 37:P37-8 F '46
Tomorrow's textiles, yesterday's tests; standard tests and specifications often fail to provide information concerning performance and usability. J. B. Goldberg. Ind Stand 16:274-5 D '45

See also
Hosiery—Standards
Yarn—Standards

TEXTILE technical associations of Canada, Federation of. See Federation of textile technical associations of Canada

TEXTILE testing
American association of textile chemists and colorists research workers report. Oil Paint & Drug Rep 149:5+ Ja 14 '46
Dyeing of cotton with mineral khaki; fungicidal and bactericidal efficiencies of cotton yarn treated by various mineral khaki processes. E. Race, F. M. Rowe and J. B. Speakman. bibliog diag Soc Dyers & Col J 61:310-21, pl 1-2 D '45
Dyeing of cotton with mineral khaki; the effect of exposure to weathering agencies on yarns pigmented with copper, chromium and iron compounds. E. Race and F. M. Rowe. bibliog il diags Soc Dyers & Col J 62:19-29 Ja '46
Dyeing of cotton with mineral khaki; the incorporation of copper with chromium and iron in mineral khaki for the production of an effective fungicide and bactericide. E. Race, F. M. Rowe and J. B. Speakman. bibliog il Soc Dyers & Col J 62:9-19, pl 1-2 Ja '46
Electronics in textile testing. E. R. Schwarz. bibliog il diag Am Dyestuff Rep 35:198-204 Ap 22 '46
Elimination of chaos from shrinkage testing. Am Dyestuff Rep 35:366-74 Jl 29 '46; Abstract. Textile Col 68:18-19+ Jl '46
Implied warranty threat stimulates AATCC research. il Textile World 96:120-1 F '46
Standard testing of yarns and fabrics. A. W. Bayes. Textile Inst J 36:P182-5; Discussion. P185-6 N '45
Textile testing for the consumer. I. D. Wolf. Textile Col 68:20+ F '46
Vectographs used to identify textile defects. Textile World 96:234 Ap '46

See also
Cotton—Testing
Textile fabrics—Testing
Textile fibers—Testing
Yarn—Testing

TEXTILE testing machines
Advanced fabric wear tester. W. H. Masterson. Am Dyestuff Rep 35:192+ Ap 22 '46
American association of textile chemists and colorists; flammability of textiles. H. E. Hager. Am Dyestuff Rep 35:145 Mr 25 '46
AATCC men describe new testing machines. il Textile World 96:121+ Mr '46
Coil tester accurately gages yarn diameters. A. E. McKenna. il diag Textile World 96: 120-1+ Je '46
IP machine used to measure friction of textiles. R. A. Armitage. il Textile World 96: 202 Ja '46
Shirley analyzer aids card-waste studies. G. W. Pfeiffenberger. diag Textile World 95: 127+ N '45

TEXTILE workers
Aptitude tests aid placing of workers at Clearwater. il Textile World 96:137+ O '46
Assigning doffer's task simplified by table. F. H. Gunther and M. Gross. il Textile World 96:139+ Je '46
Bibb company builds 160-unit village for housing workers. il plan Textile World 95: 109 D '45
Cannon mills offers help to veterans. H. M. Trotter. il Textile World 96:125+ Je '46
Congressional action on textile wage advance opposed. W. P. Jacobs. Textile World 95: 137+ N '45
Education and the bleaching, dyeing, printing and finishing industries. A. W. Doyle. bibliog Soc Dyers & Col J 62:101-8 Ap '46
Effects of noise in the textile industry. W. Schweisheimer. Rayon 26:593 N '45
New labor relations factor in the textile engineering field. J. J. McElroy. Rayon 27: 87-8, 141-3 F-Mr '46; Same. Mech Eng 68: 344-6 Ap '46; Discussion. 68:914-15 O '46
Old China sends us young textile students. E. Mauldin. il Textile World 96:101-2 Ap '46
Output per man-hour shows virtually no gain. J. Gambatese. Textile World 96:232 Ap '46
Personnel case-studies aid supervisor training. R. T. Taylor. il Textile World 96:112-13+ O '46
Shut up, Clarence! local 110, Textile workers union of America and American velvet co. Fortune 34:188+ N '46
Textile labor situation. J. A. Daly. Manuf Rec 115:34, 74-5 S '46
Textile pattern; agreement on 65c minimum hourly wage. Bsns W p106+ Mr 16 '46
Textile wages move up, while others are moving down. J. M. Gambatese. Textile World 96:141 Je '46
Textile workers gained by staying on essential jobs. J. Gambatese. Textile World 96: 176 Jl '46
Textile workers seek parity. Bsns W p76+. My 4 '46
Textiles must help disabled American veterans. L. F. Timmerman. Textile Col 68.12-13 Mr. '46
Wartime personnel policies can assist in peacetime problems. Textile World 96:114 F '46

See also
Carpet factories—Employees
Cotton mills—Employees
Knitting mills—Employees
Woolen and worsted mills—Employees

TEXTILE workers union of America
Textile workers seek parity. Bsns W p76+ My 4 '46
Union housing; project at Front Royal, Virginia. Bsns W p106+ F 16 '46

TEXTILE world (periodical)
C. W. Bendigo appointed editor of Textile world. E. D. Fowle. Textile World 96:93 Ja '46

TEXTRON, inc.
Textile industry knits itself. Bsns W p68+ My 18 '46

THALLIUM
Silver-thallium bearing alloys; abstracts. F. R. Hensel. Materials & Methods 23:206 Ja '46; Metal Prog 49:390+ F '46

THALLIUM bromide
Preparation of mixed thallium bromide-iodide for infra-red transmission. O. F. Tuttle and P. H. Egli. J Chem Phys 14:571 S '46

THALLIUM compounds
Trimethylthallium. H. Gilman and R. G. Jones. bibliog Am Chem Soc J 68:517-20 Mr '46

THALLIUM iodide
Preparation of mixed thallium bromide-iodide for infra-red transmission. O. F. Tuttle and P. H. Egli. J Chem Phys 14:571 S '46

THALLIUM sulfide
Thallous sulfide photo-conductive cells. A. von Hippel and others. bibliog il diags J Chem Phys 14:355-78 Je '46

THAWING
Effect of freezing and thawing on concrete pavements. il Roads & Bridges 84:65-8+ Ja '46
Frozen coal thawed by radiant heat. il diags Comp Air Mag 50:323 D '45; Same abr. Power Pl Eng 50:69 Mr '46
Rapid emergency method of thawing hydrants with sulfuric acid. E. E. Jacobson. Water & Sewage Works 93:R42 Ap '46
Thawing pits speed dumping of frozen cars at Hauto. R. R. Richart. il diags Coal Age 51:98-100 F '46

THAWING, Electric
Electric heating prevents freezing on exposed water line. A. R. Gruehr. diags Eng N 135:743 N 29 '45
Preventing freezing of coal chutes; Electrical section, Engineering division, A.A.R. report. diags Ry Mech Eng 120:36-7 Ja '46

THEATER
Encyclopedia of the arts. D. D. Runes and H. G. Schrickel, eds. 1064p $10 Philosophical library, 15 E. 40th st, New York '45

Stage setting and scenery
Acrylic and acetate in the Ice follies. il Mod Plastics 23:124-5 Je '46

THEATERS
Community theater; Q theater, Kew gardens. il plans diags Arch Forum 84:97-103 Je '46
Motion pictures, the theater, and race relations. J. T. McManus and L. Kronenberger. Ann Am Acad 244:152-8 Mr '46
Playhouse; legitimate theater for Hollywood utilizes war-developed welded ship construction. il map plans diag Arch Forum 83:149 N '45

See also
Moving picture theaters

Lighting

See also
Stage lighting

THEATERS, Open air
Aeronautics in opera; Cincinnati proposes new amphitheater with jet-propelled balloon as roof. il Arch Forum 85:10 S '46

THEFT
Bad packing serious factor in port of Manila pilferage losses. East Underw 47:21 My 31 '46
Theft of goods and filching of time. E. G. Thomssen. Soap & San Chem 22:73+ S '46

See also
Automobiles—Theft
Embezzlement
Larceny

THEFT insurance. See Insurance, Theft

THEOBROMINE
Investigation of some coloured iminazolidines derived from theobromine. A. R. Todd and N. Whittaker. Chem Soc J p628-33 Jl '46

THERAPEUTICS

See also
Aluminum, Powdered—Therapeutic use
Bibliotherapy
Chemotherapy
Cold—Therapeutic use
Electrotherapeutics
Heliotherapy
Vaccines
X rays—Therapeutic use

THERAPEUTICS, Physiological. See Physical therapy

THERMAL waters. See Hot springs

THERMIC siphons. See Locomotive boilers—Thermic siphons

THERMISTORS. See Electric resistors

THERMIT welding. See Welding—Thermit process

THERMOCHEMISTRY
Correlating equilibrium constants; chemical reactions and heats of reaction. D. F. Othmer and A. H. Luley. bibliog Ind & Eng Chem 38:408-12 Ap '46
Electron diffraction camera for the study of high temperature surface reactions. E. A. Gulbransen. il diags J Ap Phys 16:718-24 N '45
Heat of formation of boric oxide. B. J. Todd and R. R. Miller. Am Chem Soc J 68:530 Mr '46
Heats of combustion and formation at 25° C of the alkylbenzenes through $C_{10}H_{14}$, and of the higher normal monoalkylbenzenes. E. J. Prosen and others. bibliog J Res Nat Bur Stand 36:455-61 My '46
Heats of formation and combustion of the normal alkylcyclopentanes and cyclohexanes and the increment per CH_2 group for several homologous series of hydrocarbons. E. J. Prosen and others. bibliog J Res Nat Bur Stand 37:51-6 Jl '46
Heats of formation, hydrogenation, and combustion of the monoolefin hydrocarbons through the hexenes, and of the higher 1-alkenes, in the gaseous state at 25° C. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 36:269-75 Mr '46
Heats of formation of liquid methyl sulfoxide and crystalline methyl sulfone at 18°. T. B. Douglas. Am Chem Soc J 68:1072-6 Je '46
Interaction energies and thermochemical data. J. R. Lacher. Am Chem Soc J 68:526-7 Mr '46

See also
Combustion
Combustion, Heat of
Combustion analysis
Melting points
Solution, Heat of
Soret effect
Specific heat
Thermodynamics
Vapor pressure
Vaporization, Heat of
Wetting, Heat of

THERMOCHROMISM
Reactions of thermochromic ethylenes. A. Schönberg, A. F. A. Ismail and W. Asker. Chem Soc J p442-6 Je '46

THERMOCOLOR paints. See Paint, Temperature indicating

THERMOCOUPLES
Compact thermocouple staking tool works in confined locations. F. E. Farley. diags Am Mach 90:142 Mr 14 '46
Electronically balanced recorder for flight testing and spectroscopy. A. J. Williams, jr. and others. il diags Elec Eng 65:Trans 205-8 Ap '46
Field ultra-high frequency vacuum thermocouples. R Sci Instr 17:116 Mr '46
Graphical determination of unshielded-thermocouple thermal correction. W. M. Rohsenow. bibliog A S M E Trans 68:195-8 Ap '46
Quality control of high-tensile steel castings. W. West, C. C. Hodgson and H. O. Waring. il Iron Age 156:54-5 N 29 '45
Shielding of thermocouples from the effects of radiation. G. V. Parmelee and R. G. Huebscher. diags Heating-Piping 18:144-6 F '46
Temperature measurement of liquid steel. D. Manterfield. bibliog il diags Iron Age 158: 52-7 Jl 25 '46
Thermocouple vacuum gage. H. Robinson and M. C. Flanagan. il diags Gen Elec R 49: 42-4 My '46

See also
Thermopiles

THERMODYNAMICS
Application of the methods of molecular distribution to solutions of large molecules. B. H. Zimm. bibliog diag J Chem Phys 14: 164-79 Mr '46
Derivation, interpretation, and application of the second law of thermodynamics. P. G. Nutting. Science 104:317 O 4 '46
Energy levels and thermodynamic functions for molecules with internal rotation; unsymmetrical tops attached to a rigid frame. K. S. Pitzer. J Chem Phys 14:239-43 Ap '43
Entropy and the second law of thermodynamics. A. E. Martell. J Chem Educ 23:166-8 Ap '46
Gasoline explosion pressures. M. S. Plesset and F. R. Gilmore. bibliog diag A S M E Trans 68:89-97 F '46
Heat capacities, heats of transition, heats of fusion and entropies of cyclopentane, methylcyclopentane and methylcyclohexane. D. R. Douslin and H. M. Huffman. bibliog Am Chem Soc J 68:173-6 F '46

THERMODYNAMICS—*Continued*

Heat capacity, heat of fusion and entropy of 11-*n*-decylheneicosane. F. B. Fischl and others. Am Chem Soc J 67:2075-9 D '45

Heat capacity, vapor pressure, heats of fusion and vaporization of cyclopropane; entropy and density of the gas. R. A. Ruehrwein and T. M. Powell. bibliog Am Chem Soc J 68:1063-6 Je '46

Heat content, free-energy function, entropy, and heat capacity of ethylene propylene, and the four butenes to 1,500°K. J. E. Kilpatrick and K. S. Pitzer. bibliog J Res Nat Bur Stand 37:163-71 S '46

Heats, equilibrium constants, and free energies of formation of the acetylene hydrocarbons through the pentynes, to 1,500° K. D. D. Wagman and others. bibliog J Res Nat Bur Stand 35:467-96 D '45

Heats, equilibrium constants and free energies of formation of the alkylbenzenes. W. J Taylor and others. bibliog J Res Nat Bur Stand 37:95-122 Ag '46

Heats, equilibrium constants and free energies of formation of the monoolefin hydrocarbons. J. E. Kilpatrick and others. bibliog J Res Nat Bur Stand 36:559-612 Je '46

High-temperature heat contents of Na_2TiO_3, $Na_2Ti_2O_5$ and $Na_2Ti_3O_7$. B. F. Naylor. bibliog Am Chem Soc J 67:2120-2 D '45

High-temperature heat contents of TiO, Ti_2O_3, Ti_3O_5, and TiO_2. B. F. Naylor. bibliog Am Chem Soc J 68:1077-80 Je '46

High-temperature heat contents of titanium carbide and titanium nitride. B. F. Naylor. bibliog Am Chem Soc J 68:370-1 Mr '46

Hydrocarbon thermodynamics. W. C. Edmister. bibliog Pet Eng 17:79-83 Mr; 130+ Ap; 211+ My '46

Introduction to thermodynamics. D. MacRae. J Chem Educ 23:366-74 Ag '46

Low-pressure properties of water from -160 to 212 F. J. A. Goff and S. Gratch. bibliog Heating-Piping 18:125-36 F '46

Low-temperature thermal data on the five isomeric hexanes. D. R. Douslin and H. M. Huffman. bibliog Am Chem Soc J 68:1704-8 S '46

Mollier diagram for hydrocarbons. Oil & Gas J 44:109 F 9 '46

New psychrometric chart; with examples of problems solved by its use. E. P. Palmatier and D. D. Wile. diags Refrig Eng 52: 31-6, 74, insert Jl '46; Discussion. 52:141-2+ Ag '46

On higher order transitions. P. W. Bridgman. Phys R 70:425-8 S 1 '46

Practical petroleum engineering; fluid flow; graphic solutions of design problems; thermodynamics of gas flow. P. Buthod and B. W. Whiteley. chart Oil & Gas J 44: 130-2 N 24 '45

Some aspects of chemical engineering thermodynamics; abstracts. E. Woollatt. Chem Age (Lond) 54:263 Mr 9 '46; Chem & Ind p101 Mr 2 '46

Statistical mechanical theory of transport processes; general theory. J. G. Kirkwood. bibliog J Chem Phys 14:180-201 Mr '46; Correction. 14:347 My '46

Statistical mechanics of linear association equilibria. P. J. Flory. bibliog J Chem Phys 14:49-50 Ja '46

Steady flow of a gas through a tube with heat exchange or chemical reaction. P. Chambre and C. Lin. bibliog diags J Aeronautical Sci 13:537-42 O '46

System iron-oxygen; equilibrium and thermodynamics of liquid oxide and other phases. L. S. Darken and R. W. Gurry. bibliog il Am Chem Soc J 68:798-816 My '46

Thermal expansion and second-order transition effects in high polymers. R. F. Boyer and R. S. Spencer. bibliog J Ap Phys 15: 398-405; 16:594-607; 17:398-404 Ap '44, O '45, My '46

Thermodynamic criterion for the fracture of metals; a criticism. C. Zener. Phys R 70: 225-6 Ag 1 '46

Thermodynamic equilibria of higher order. E. F. Lype. bibliog Phys R 69:652-65 Je 1 '46

Thermodynamic equilibria of higher order. R. Oldenburger. Phys R 70:433-4 S 1 '46

Thermodynamic evaluation of binary and ternary liquid systems. K. Wohl. bibliog Am Inst Chem Eng Trans 42:215-49 Ap '46

Thermodynamic functions of cyclohexane-methanol mixtures. S. E. Wood. bibliog Am Chem Soc J 68:1963-6 O '46

Thermodynamic properties and potential energy of solid argon. O. K. Rice. bibliog J Chem Phys 12:289-95; 14:321-4 Jl '44, My '46

Thermodynamic properties of ethylbenzene vapor from 300° to 1500°K. F. G. Brickwedde and others. bibliog J Chem Phys 13: 547-53 D '45

Thermodynamic properties of gaseous 1,3-butadiene and the normal butenes above 25°C; equilibria in the system 1,3-butadiene, *n*-butenes, and *n*-butane. J. G. Aston and others. bibliog J Chem Phys 14:67-79 F '46

Thermodynamic properties of gases; carbon dioxide. R. L. Sweigert, P. Weber and R. L. Allen. bibliog Ind & Eng Chem 38:185-200 F '46; Excerpt. Refrig Eng 51:460+ My '46

Thermodynamic properties of ilmenite and selective reduction of iron in ilmenite. C. H. Shomate and others. bibliog U S Bur Mines Rep of Invest 3864:1-19, pl 1-2 '46

Thermodynamic properties of liquid argon. O. K. Rice. J Chem Phys 14:324-38 My '46

Thermodynamic properties of manganese. K. K. Kelley; B. F. Naylor; C. H. Shomate. bibliog U S Bur Mines Tech Pa 686:1-33; pa 10c Supt. of doc. '46

Thermodynamic properties of methane. C. S. Matthews and C. O. Hurd. fold pl Am Inst Chem Eng Trans 42:55-77; Discussion. 78 F '46

Thermodynamic properties of propane and butane. Oil & Gas J 44:89-90 F 2 '46

Thermodynamic properties of solid and liquid ethylbenzene from 0° to 300° K. R. B. Scott and F. G. Brickwedde. bibliog diag J Res Nat Bur Stand 35:501-12 D '45

Thermodynamic properties of the three crystalline forms of methylammonium chloride. J. G. Aston and C. W. Ziemer. bibliog diag Am Chem Soc J 68:1405-13 Ag '46

Thermodynamic studies of dilute solutions in molten binary alloys. J. A. Yanko and others. bibliog diags Electrochem Soc Trans 89 (preprint 13):151-65 '46

Thermodynamic study of the tin-antimony system. R. O. Frantik and H. J. McDonald. bibliog Electrochem Soc Trans 88 (preprint 21):219-27 '45

Thermodynamic study of the tin-silver system. R. O. Frantik and H. J. McDonald. Electrochem Soc Trans 88 (preprint 22): 229-36 '45

Thermodynamics for the air conditioning engineer. E. P. Palmatier. diags Heat & Ven 43:66-72 Jl; 83-94 Ag '46

Thermodynamics of aqueous solutions of calcium chloride at temperatures from 15-35° from e. m. p. measurements on cells with transference. H. G. McLeod and A. R. Gordon. bibliog Am Chem Soc J 68:58-60 Ja '46

Thermodynamics of dilute solutions of high polymers. P. J. Flory. bibliog diags J Chem Phys 13:453-65 N '45

Thermodynamics of 2,2-dimethylbutane, including the heat capacity, heats of transitions, fusion and vaporization and the entropy. J. E. Kilpatrick and K. S. Pitzer. bibliog Am Chem Soc J 68:1066-72 Je '46

Value of heat with special reference to the heat pump. O. Faber. il diags Inst Mech Eng J & Proc 154:144-63 bibliog(p162-3) S '46; Same cond. Engineer 179:339-40, 358-60 Ap 27-My 4 '45; Abstract. Mech Eng 979-81 N '46; Discussion. Inst Mech Eng J & Proc 154:163-78 S '46; Engineer 179:336-8 Ap 27 '45

See also

Boiling
Entropy
Equation of state
Evaporation
Free energy
Heat, Mechanical equivalent of
Melting points
Solution, Heat of
Specific heat
Vapor pressure

Terminology

Semantics of thermodynamics. W. F. Luder. bibliog J Chem Educ 23:54-9, 110-15 F-Mr '46

THERMODYNAMICS research laboratory. See Pennsylvania university—Thermodynamics research laboratory

THERMOELECTRICITY
Thermoelectric generator for portable equipment. J. M. Lee. il Electronics 19:196+ My '46

See also
Calotron
Thermocouples

THERMOFOR process. See Gasoline—Manufacture

THERMOLUMINESCENCE. See Luminescence

THERMOMETERS and thermometry
Application of platinum resistance thermometry to some industrial physicochemical problems. D. R. Stull. bibliog il diags Ind & Eng Chem Anal ed 18:234-42 Ap '46
Automatic recorder for resistance thermometry. D. R. Stull. bibliog il diag R Sci Instr 16:318-21 N '45
Direct reading thermometer for high temperature use. Iron Age 158:53 Ag 8 '46
Dry bulb thermometers are misleading in winter air conditioning. E. J. Davis. Heating-Piping 18:106 Jl '46; Discussion. 18:97 S '46
Gallium thermometer. Mech Eng 68:905 O '46
Measurement of temperature. C. W. Hewlett. diags Gen Elec R 49:18-25 Ag '46
Measuring and controlling temperature and pressure; temperature elements. E. W. Feller. diags Power 90:228-37 Ap '46
Possible use of Brownian motion for low temperature thermometry. A. W. Lawson and E. A. Long. Phys R 70:220-1 Ag 1 '46
Simple carbon dioxide vapor pressure thermometer. H. C. Andersen. diag R Sci Instr 17:112-13 Mr '46
Sol-air thermometer. C. O. Mackey and L. T. Wright, jr. il diag Heating-Piping 18:107-11 My '46
Some effects of electronic transitions upon precision thermometry. W. R. Ham and C. H. Samans. Science 104:38 Jl 12 '46
Thermometry; three hundred fifty years of progress. J. J. Moran. Paper Ind 28:692+ Ag '46

See also
Bolometers
Calorimeters and calorimetry
Pyrometers and pyrometry
Temperature
Thermocouples

History
Historic researches; specific, latent, and atomic heat. diag Engineer 180:452-3 D 7 '45

THERMOMULLITE. See Mullite

THERMOPILES
Rapid response thermopiles. L. Harris. il Opt Soc Am J 36:597-603 O '46

See also
Thermocouples

THERMOSTATS
British multi-step thermostats. il Elec R (Lond) 138:215 F 8 '46
Control of radiant heating systems. J. A. Cutler. diag Power Pl Eng 50:114-16 O '46
Efficient automatic heating of multiple occupancy buildings. W. R. Miller. Sheet Metal Worker 37:56+ Mr '46
Electric heaters and their control. J. W. Harrison. il Machine Design 18:120-4 S '46
High-capacity sensitive relay. R. A. Fulton and F. Munger. diag Science 104:373-4 O 18 '46
How to select and maintain thermostats. C. W. Wood. il Factory Management 104:152-6 Mr '46
Intermittent heat control unit. il Product Eng 16:832 D '45
Let's look at the control of a ventilation system utilizing all outside air. A. J. Keating. plans Dom Eng 167:146-7 Mr '46
Locating unit heater thermostats. T. W. Reynolds. diag Heat & Ven 43:69 Je '46
Thermostat; outline of its history. A. R. J. Ramsey. Engineering 161:391, 413 Ap 26-My 3 '46

THÉVENIN theorem
Extended employment of Thévenin's theorem. A. Lee and D. K. C. MacDonald. diags Wireless Eng 22:534-7 N '45
Three-phase circuit calculations. G. W. Stubbings. Electrician 137:526-7 Ag 23 '46

THIALS. See Aldehydes

THIAMIN. See Vitamins—Vitamin B_1

THIAMORPHOLINE
Thiamorpholines, oxides and dioxides. W. F. Hart and J. B. Niederl. bibliog Am Chem Soc J 68:714-15 Ap '46

THIAPYRONE
Action of Grignard reagents; replacement of the oxygen atoms of ketones by two hydrocarbon radicals by the action of Grignard reagents. A. Schönberg and W. Asker. Chem Soc J p609-10 Jl '46
Organic sulphur compounds; experiments with 1-thia-γ-pyrones; thermal rearrangement of 1-thia-γ-pyrone; derivatives into the isomeric 1-thia-α-pyrone derivatives. A. Schönberg and W. Asker. Chem Soc J p604-8 Jl '46

THIAZOLE
Contributions to the chemistry of synthetic antimalarials; some δ-diethylamino-α-methylbutylamino-derivatives of pyridine and thiazole. J. N. Ashley and J. F. Grove. Chem Soc J p768-9 N '45

THIAZOLECARBOXYLIC acid
Aminoalkyl esters of thiazolecarboxylic and thiazoyl-4-acetic acids. E. R. H. Jones, F. A. Robinson and M. N. Strachan. Chem Soc J p87-91 F '46

THIAZOLES
Reaction of ketones with halogens and thiourea. R. M. Dodson and L. C. King. bibliog Am Chem Soc J 67:2242-3 D '45
Sulphur derivatives of thiazoles. E. M. Gibbs and F. A. Robinson. Chem Soc J p925-7 D '45

THIAZOLIDIONE
Some 5-*spiro*thiazolidiones. E. R. H. Jones, F. A. Robinson and M. N. Strachan. Chem Soc J p91-2 F '46

THIAZOLYLACETIC acid
Aminoalkyl esters of thiazolecarboxylic and thiazoyl-4-acetic acids. E. R. H. Jones, F. A. Robinson and M. N. Strachan. Chem Soc J p87-91 F '46

THIAZOLYLSULFAMIC acid
Dipolar ion structures of the 2-thiazolylsulfamic acids. C. D. Hurd and N. Kharasch. bibliog Am Chem Soc J 68:653-8 Ap '46

THICKENERS
Alkali resistant locust bean gum-thickener; patent. Am Dyestuff Rep 35:460 S 23 '46
Napalm. L. F. Fieser and others. il diag Ind & Eng Chem 38:768-73 Ag '46
Napalm reconverts from incendiaries to soap. G. E. McCadden. il Chem Eng 53:115 S '46

THICKNESS measurement
Continuous gaging with X ray micrometer. R. C. Woods and F. Fua. il diags Iron Age 156: 50-1 N 29 '45
Electronics in engineering; measurement of depth of coatings; thickness of metals. Engineer 181:83 Ja 25 '46
Gauge for measuring thickness of metal; Glenn L. Martin company. il Blast F & Steel Pl 34:375 Mr '46; Mach 52:224 My '46; Iron Age 158:67 Jl 18 '46
Gage for inspecting bonds of laminated materials or measuring sheet thickness. il Mach 52:224 My '46
Gamma ray inspection method; Penetron used to determine loss in wall thickness of equipment serving gas-distillate wells. E. H. Short, jr. il Oil & Gas J 45:119+ Je 29 '46
Instrument for measuring coating thickness; Filmeter. Aeronautical Eng R 5:93 F '46
Measuray for continuous or spot checking of thickness of moving materials. il Mach 53: 228 N '46
Measuring eccentricity of welding electrode coatings. H. P. Zade. il diags Iron Age 157:46-9 Ap 11 '46
Method for determining small amounts of gold, and its use in ascertaining the thickness of electrodeposited gold coatings. W. S. Clabaugh. diag J Res Nat Bur Stand 36:119-27 F '46

THICKNESS measurement—*Continued*
Microscope micrometer measures thickness of transparent materials. il Sci Am 174:228 My '46
Non-destructive testing methods; film thickness gages. R. Le Grand. il diags Am Mach 90:136-7 My 23 '46
Non-destructive testing methods; thickness gages measure irregularities in tubing. R. Le Grand. il diags Am Mach 90:134-5 My 23 '46
Refinery electronics. V. Zeluff. il diags Sci Am 173:278-80 N '45
Standing wave technique of thickness measurements. J. B. Butler and J. B. Vernon. bibliog Acoustical Soc Am J 18:212-15 Jl '46
Thickness measurement of thin coatings by X-ray absorption. H. Friedman and L. S. Birks. diags R Sci Instr 17:99-101 Mr '46

THIENYLMETHYLACETIC acids
Antispasmodics; β-diethylaminoethyl esters of substituted 2-thienylmethylacetic acids. F. F. Blicke and F. Leonard. bibliog Am Chem Soc J 68:1934-6 O '46

THINKING. See Thought and thinking

THIOACETALS. See Mercaptals

THIOACETAMIDE
Controlling orange decay; thiourea, thioacetamide, 2-aminothiazole, and quinosol in aqueous solution. J. F. L. Childs and E. A. Siegler. bibliog Ind & Eng Chem 38:82-7 Ja '46

THIOACETIC acid
Electron diffraction investigation of the molecular structure of thioacetic acid. W. Gordy. J Chem Phys 14:560-2 S '46

THIOALDEHYDES. See Aldehydes

THIOBARBITURIC acid
Precipitation of platinum metals by organic monosulfides; determination of platinum with thiophenol and rhodium with thiobarbituric acid. J. E. Currah and others. bibliog Ind & Eng Chem Anal ed 18:120-2 F '46
4-Thio- and 2,4-dithiobarbituric acid derivatives. C. O Wilson and others. bibliog Science 104:100-1 Ag 2 '46
4-Thio and 2,4-dithio 5,5-dialkylthiobarbituric acids. J. H. Boothe and C. O. Wilson. bibliog Am Chem Soc J 68:448-50 Mr '46

THIOCARBONATES
Chemistry of xanthic acid derivatives; the preparation and comparative properties of isomeric xanthates and dithiocarbonates. G. Bulmer and F. G. Mann. Chem Soc J p666-74 O '45

THIOCARBONYLS
Thiocarbonyls; thiofluorenone. E. Campaigne and W. B. Reid, jr. bibliog Am Chem Soc J 68:769-70 My '46

THIOCYANATES
Control of body lice; abstract. J. R. Busvine. Soap & San Chem 22:131 Mr '46
Phosphorus chlorothiocyanate and chlorodiisocyanate; silicon methoxythiocyanate. H. H. Anderson. bibliog Am Chem Soc J 67:2176-7 D '45
Rearrangements in compounds of carbon, silicon, germanium and tin containing halogens, isocyanate and thiocyanate. G. S. Forbes and H. H. Anderson. bibliog Am Chem Soc J 67:1911-14 N '45
Ternary systems $NaSCN-Ca(SCN)_2-H_2O$, $KSCN-Ca(SCN)_2-H_2O$, $NH_4SCN-Ca(SCN)_2-H_2O$ and $Ca(SCN)_2-AgSCN-H_2O$ at 25°. A. K. McKerrow, V. J. Occleshaw and F. Drabble. Chem Soc J p1-5 Ja '46

THIODIGLYCOL
Rate of oxidation of thiodiglycol and triethylamine by hydrogen peroxide. S. D. Ross. Am Chem Soc J 68:1484-5 Ag '46

THIOETHERS. See Sulfides

THIOFLUORENONE
Thiocarbonyls; thiofluorenone. E. Campaigne and W. B. Reid, jr. bibliog Am Chem Soc J 68:769-70 My '46

THIOGLYCOLIC acid. See Mercaptoacetic acid

THIOINDIGO
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of substituent groups in the thionaphthenquinones. C. E. Dalgliesh and F. G. Mann. Chem Soc J p893-909 D '45

THIOKETONES. See Thiones

THIOKOL
Polysulfide synthetic rubbers. S. M. Martin, jr. il Product Eng 17:65-8 Ja '46

THIOLS
Dialkylaminoalkyl diarylthiolacetates. R. O. Clinton and U. J. Salvador. Am Chem Soc J 68:2076-7 O '46
Infra-red spectra of thiols, sulphides, and disulphides. I. F. Trotter and H. W. Thompson Chem Soc J p481-8 Je '46
Reversible inactivation of gliotoxin by thiols. C. J. Cavallito, J. H. Bailey and W. F. Warner. Am Chem Soc J 68:715 Ap '46

THIOMOLYBDATES
Catalytic removal of organic sulphur compounds from coal gas by metallic thiomolybdates. E. B. Maxted and A. Marsden. Soc Chem Ind J 65:51-2 F '46

THIONAPHTHENE
Syntheses in the thionaphthene series. D. S. Tarbell and D. K. Fukushima. bibliog Am Chem Soc J 68:1456-60 Ag '46

THIONAPHTHENEQUINONE
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the action of chloramine-T on the thionaphthenquinones. C. E. Dalgliesh and F. G. Mann. Chem Soc J p913-17 D '45
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of solvents and catalysts. C. E. Dalgliesh and F. G. Mann. Chem Soc J p910-13 D '45
Comparative reactivity of the carbonyl groups in the thionaphthenquinones; the influence of substituent groups in the thionaphthenquinones. C. E. Dalgliesh and F. G. Mann. Chem Soc J p893-909 D '45

THIONES
Thio-Michler ketone and bis-(dimethylaminopyridyl)-thioketone. D. S. Tarbell and V. P. Wystrach. Am Chem Soc J 68:2110 O '46
Thiones and thials. E Campaigne. bibliog(235 references) Chem R 39:1-77 Ag '46

THIONYL chloride
Action of thionyl chloride on 2 : 4-dimethylthiazole-5-carboxylic acid. W. R. Boon. Chem Soc J p601-3 S '45
Purification of thionyl chloride. D. L. Cottle. Am Chem Soc J 68:1380-1 Jl '46

THIONYL halides
Experiments on the interaction of hydroxy compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases. W. Gerrard and M. J. Richmond. Chem Soc J p848-57 D '45

THIOPHANE
Carbalkoxythiophanones. E. E. Moore and M. B. Moore. Am Chem Soc J 68:910 My '46

THIOPHENE
Acylation of 4-hydroxy-3-carbethoxy-2-methylthiophen. J. H. Beynon and A. B. A. Jansen. Chem Soc J p600-1 S '45
Alkylation of thiophene by olefins and alcohols. W. M. Kutz and B. B. Corson. Am Chem Soc J 68:1477-9 Ag '46
Aminomethylation of thiophene. H. D. Hartough, S. J. Lukasiewicz and E. H. Murray, jr. Am Chem Soc J 68:1389-90 Jl '46
Derivatives of 2'-keto-3,4-imidazolidothiophene. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:2252-5 D '45
Hydrogenation of compounds containing divalent sulfur. R. Mozingo and others. bibliog Am Chem Soc J 67:2092-5 D '45
Physical properties of 2- and 3-methylthiophene. F. S. Fawcett. bibliog Am Chem Soc J 68:1420-2 Ag '46
Reactions of aliphatic hydrocarbons with sulfur; production of olefins, diolefins, and thiophene. H. E. Rasmussen, R. C. Hansford and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:376-82 Ap '46
Some derivatives of 3,4-dioxythiophene. E. W. Fager. Am Chem Soc J 67:2217-18 D '45
Some tetrahydrothiophene β-keto ester derivatives. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:2213-16 D '45
Thiophene; once expensive, will alter familiar products. Sci Am 174:215 My '46

THIOPHENE—*Continued*

Analysis

Colorimetric determination of less than 0.001% S as thiophen in pure benzoles. K. H. V. French. Soc Chem Ind J 65:15-23 Ja '46

THIOPHENEALDELHYDE

Convenient synthesis of 2-thiophenaldehyde. F. W. Dunn, T. D. Waugh and K. Dittmer. bibliog Am Chem Soc J 68:2118 O '46

THIOPHENOL. See Benzenethiol

THIOURACIL

Effect of thiouracil and thyroactive substances on mouse susceptibility to poliomyelitis virus. D. F. Holtman. Science 104.50-1 Jl 19 '46

Effect of thiouracil upon pigmentation in the tadpole. W. G. Lynn and Sister Alfred de Marie. Science 104:31 Jl 12 '46

Studies in chemotherapy; antithyroid compounds; synthesis of 5- and 6-substituted 2-thiouracils from β-oxoesters and thiourea. G. W. Anderson and others. bibliog Am Chem Soc J 67:2197-200 D '45

Studies in chemotherapy; oxidation of 2-thiouracil and related compounds by iodine. W. H. Miller, R. O. Roblin, jr. and E. B. Astwood. bibliog Am Chem Soc J 67:2201-4 D '45

THIOUREA

Comparative toxicity of thiourea to four mutants of drosophila melanogaster. E. D. Goldsmith and M H Harnly bibliog Science 103:649-51 My 24 '46

Controlling orange decay; thiourea, thioacetamide, 2-aminothiazole, and quinosol in aqueous solution. J. F. L. Childs and E. A. Siegler. bibliog Ind & Eng Chem 38:82-7 Ja '46

Cyclic thioureas. F. B. Zienty. bibliog Am Chem Soc J 68:1388-9 Jl '46

Reaction of acetophenone with thiourea and oxidizing agents. R. M. Dodson and L. C. King. Am Chem Soc J 68:871 My '46

Reaction of ketones with halogens and thiourea. R. M. Dodson and L. C. King. bibliog Am Chem Soc J 67:2242-3 D '45

Studies in chemotherapy; antithyroid compounds; synthesis of 5- and 6-substituted 2-thiouracils from β-oxoesters and thiourea. G. W. Anderson and others. bibliog Am Chem Soc J 67:2197-200 D '45

Studies in chemotherapy; oxidation of 2-thiouracil and related compounds by iodine. W. H. Miller, R. O. Roblin, jr. and E. B. Astwood. bibliog Am Chem Soc J 67:2201-4 D '45

THIRD avenue transit corporation

Improved earnings on Third ave. railway adjustment 5s 1960. H. Barnett. Barron's 26:9 F 4 '46

Two moves may aid Third Ave. adjustment 5s. Barron's 26:7 S 30 '46

THIRD parties (law)

Third party practice in federal court. C. W. Heyl. East Underw 47:30+ S 6 '46

THIXOTROPY

Characteristic shear value; a coefficient of thixotropic breakdown. I. Shapiro. Am Chem Soc J 68:2122-3 O '46

Equations of thixotropic breakdown for the rotational viscometer. H. Green and R. N. Weltmann. bibliog Ind & Eng Chem Anal ed 18:167-72 Mr '46

Fundamentals of consistency and viscosity. J. J. Bikerman. bibliog Pet Refiner 25:120-6 F '46

THOMAS A. Edison, inc. See Edison, Thomas A., inc.

THOMPSON, Roy Leland, 1891-

Portrait. Bsns W p15 Ag 3 '46

THOMPSON products, inc.

Crawford's fight with C.I.O. Bsns W p88+ Ag 31 '46

Stocks offered. Comm & Fin Chr 163:1773 Ap 1 '46

THOMSON, Joseph Ellis, 1882-1944

Memorial. E. S. Moore. bibliog por(pl 11) Geol Soc Proc 1945:271-3 Je '46

THORIA. See Thorium oxide

THORIUM

Thorium reclamation; recovery from gas-mantle residues. A. G. Arend. il diag Chem Age (Lond) 55:259-62 Ag 31 '46

Analysis

Rapid analysis of Fischer synthesis catalyst. C. H. Hale. diag Pet Refiner 25:117-20 Je '46

THORIUM oxide

Studies of binary and ternary combinations of magnesia, calcia, baria, beryllia, alumina, thoria and zirconia in relation to their use as porcelains. R. F. Geller and others. bibliog pls diags J Res Nat Bur Stand 36:277-312 Mr '46

Thoria-alumina catalyst best for isoparaffin synthesis, zinc oxide is less efficient, for use in the Fischer-Tropsch reaction. il Oil & Gas J 44:86+ Ja 19 '46

THOUGHT and thinking

Creative thinking and how to develop it. W. H. Easton. Mech Eng 68.697-704 Ag '46

I think; suggestions for engineering teachers. B. F. Bailey. J Eng Educ 36:621-5 Je '46

THREAD

See also

Linen thread

THREAD cutting

Efficient way to cut coarse threads. D. T. Armstrong. diags Am Mach 90:134 Ag 1 '46

Lathework quickly threaded or tapped with grip slide holder. il Am Mach 90:154 Ag 1 '46

Machining stainless steels. E. Von Hambach. il diags Steel 119:116-18+ O 7 '46

Producing continuous threads in widely spaced holes. H Moore. diags Am Mach 90:140 My 9 '46

Rapid return mechanism speeds thread cutting. R. T. Plitt. diag Am Mach 90:143 O 10 '46

Semi-automatic retracting tool simplifies thread cutting. J. R. E. Paquin. diags Am Mach 89:139 D 20 '45

Tap and die holder speeds short lathe threading jobs. B. Mogal. Am Mach 90:132 O 24 '46

Thread cutting with dieheads. H. Schlarman. il diags Am Mach 90:104-6 Mr 14; 108-10 Mr 28; 108-9 Ap 11; 104-7 Ap 25; 133-6 My 9; 143-7 My 23; 133-8 Je 6; 146-8 Je 20; 119-23 Jl 4; 137-40 Jl 18 '46

Understand the lathe threading dial to get its full advantage. W. W. Quist. diags Am Mach 90:135 O 24 '46

See also

Taps

THREAD rolling

Recent applications of the thread-rolling process; threading, knurling, serrating, and burnishing operations performed on new thread-rolling machine. il diag Mach 52:161-4 D '45

Steinle centreless generator of increased capacity. il Automobile Eng 36:350 Ag '46

THREADING machines

Automatic nipple threading, reaming, and chamfering machine. il Mach 53:185 S '46

Converts thread grinders from single to multi-ribbed units; wheel dressing device. il Steel 117:90 D 31 '45

Coventry thread-grinding machines. il diag Engineer 180:489-91 D 14 '45

Landis centerless thread grinder. il Am Mach 90:164 Je 6 '46; Mach 52:200-1 Je '46

Landmaco work-holding fixture assures thread concentricity. il Am Mach 89:154 N 22 '45

Machine tool design responds to needs of industry; how machining operations will be affected. il diags Am Mach 90:122-4 Mr 28 '46

Oil spray collection on thread-grinding machines. il Engineer 180:423 N 23 '45; Engineering 160:477 D 7 '45; Chem Age (Lond) 53:488 N 24 '45

Pratt & Whitney thread miller. il Steel 117:150 N 19 '45

Recent applications of the thread-rolling process; threading, knurling, serrating, and burnishing operations performed on new thread-rolling machine. il diag Mach 52:161-4 D '45

THREADING machines—*Continued*
Thread grinding; abstract. M. Jellis and A. James. Materials & Methods 23:232+ Ja '46

THREE wheel cars. See Automobiles—Three wheel cars

THRIFT. See Saving

THRIPS
Soil nitrogen and thrips injury to spinach. S. H. Wittwer and L. Haseman. Science 103:331-2 Mr 15 '46

THROAT
Diseases
Hemolytic streptococcal sore throat; antibody response following treatment with penicillin, sulfadiazine, and salicylates. L. A. Rantz, P. J. Boisvert and W. W. Spink. bibliog Science 103:352-3 Mr 22 '46

THROMBIN
Engineering technique commercializes human blood fractionation. J. R. Callaham. flow diag il Chem & Met Eng 53:101-3 Je '46

THRUST bearings. See Bearings, Thrust

THRUST faults. See Faults (geology)

THUMB index
Visible index system; Guidex. il Inland Ptr 116:86 F '46

THUNDERSTORMS
Radio-sondes and thunderstorm forecasting. R. M. Poulter. Inst E E J 93 pt 1:167-9 Ap '46
Rumbling of thunder. A. T. Jones. Science 102:407-8 O 19 '45; Discussion. 103:26-7, 632+ Ja 4, My 17 '46
Spotting hurricanes and thunderstorms by radar. S. R. Winters. il Radio N 35:45+ Mr '46
Theoretical aspects of thunderstorms. O. H. Gish. Elec World 126:140+ S 14 '46

THYMINE
Convenient syntheses of thymine and 5-methylisocytosine. H. W. Scherp. Am Chem Soc J 68:912-13 My '46

THYMOL
Experiments with anti-bacterial rubber. J. Risler. Rubber Age 59:316 Je '46

THYMOL-barbitone test
Thymol-barbitone test in clinical practice. C. P. McCord and others. bibliog Ind Med 14:835-9 N '45; Abstract. J Ind Hygiene 28: sup41 Mr '46

THYMONUCLEOHISTONE
X-ray-induced depolymerization of thymonucleohistone and of sodium thymonucleate. A. H. Sparrow and F. M. Rosenfeld. bibliog Science 104:245-6 S 13 '46

THY-MO-TROL. See Electric motors, Direct current—Control

THYRATRON
Betatron pulsing system has many industrial applications. I. Paul and T. J. Wang. il diags Electronics 19:156-60 Ja '46
Counting rate and frequency meter. E. Lorenz and others. diags R Sci Instr 17:276-9 Jl '46
Electronic exciter for 81,250-kva. turbo-alternator. H. A. P. Langstaff and R. F. Lawrence. il diags Elec World 125:88-91 Mr 16 '46
Electronic exciter for large generators. W. R. Farley and C. R. Marcum. diags Power Pl Eng 50:68-70 Ap '46
Electronic register control for multicolor printing. W. D. Cockrell. il diags Elec Eng 65:Trans 617-22 Ag-S '46
Electronic relays; thyratron type. W. D. Macgeorge. il diag Elec World 126:87-8 Ag 17; 71-2 Ag 31 '46
Electronics applied to machine tools; abstract. B. T. Anderson. Materials & Methods 23:1098+ Ap '46
Extending thyratron life. H. W. Gerlicher. diag Electronics 19:210+ N '46
Gate circuit for chronographs; device used in determining velocity of projectiles. L. B. Tooley. diags Electronics 19:144-5 My '46
Grid-controlled rectifiers for r-f heating. B. Boyd. il diags Electronics 19:125-7 O '46
High speed oscillograph for transient measurements. N. Rohats. il diag Electronics 19: 135-7 Ap '46
Hydrogen thyratron; abstract. H. Heins. diag Product Eng 17:319 Ap '46
Hydrogen thyratrons. H. Heins. il diags Electronics 19:96-102 Jl '46
Initiation of discharge in arcs of the thyratron type. C. J. Mullin. bibliog diag Phys R 70:401-5 S 1 '46
Nerve stimulator; thyratron-type relaxation oscillator for biological research and medical therapy. W. I. Weiss. diags Electronics 19:155 F '46
Pulse response of thyratron grid-control circuits. C. H. Gleason and C. Beckman. diags Inst Radio Eng Proc 34:71P-7P F '46
Simplified thyratron motor control H. H. Leigh. il diags Gen Elec R 49:18-27 S '46
Thyratron pulser tube for industrial microwaves. diag Electronics 19:170+ My '46
What you should know about industrial electronics. il Am Mach 90:132 Ap 25 '46

THYRITE
Nonlinear circuit element applications. H. E. Kallmann. bibliog diags Electronics 19:130-6 Ag '46

THYROID gland
Effect of thiouracil and thyroactive substances on mouse susceptibility to poliomyelitis virus. D. F. Holtman. Science 104: 50-1 Jl 19 '46
Mechanism of the therapeutic effect of iodine on the thyroid gland. E. De Robertis and W. W. Nowinski. bibliog Science 103:421 Ap 5 '46
Studies in chemotherapy; antithyroid compounds; synthesis of 5- and 6-substituted 2-thiouracils from β-oxoesters and thiourea. G. W. Anderson and others. bibliog Am Chem Soc J 67:2197-200 D '45
Synthesis and properties of 1 : 7-dialkyl xanthines. F. G. Mann and J. W. G. Porter. Chem Soc J p751-60 N '45

TICKET offices, Airline. See Airlines—Ticket offices

TICKET scalping. See Railroads—Ticket scalping

TICKET vending machines
Service impersonal. il Bsns W p32 S 28 '46

TICKETS, Airline. See Airlines—Tickets

TICKETS, Railroad. See Railroads—Tickets

TIDAL power
Tidal power in Canada. Elec R (Lond) 138: 342 Mr 1 '46

TIDE water associated oil company
Annual report. Comm & Fin Chr 163:2016+ Ap 15 '46

TIDES
Effect of obstructions in tidal estuaries. A. M. Binnie. Engineering 161:241-2 Mr 15 '46
See also
Tidal power

TIE-in sales. See Sales policies

TIES, Railroad. See Railroad ties

TILE construction
All ceramic home. il diag Brick & Clay Rec 108:35-6+ Ja '46
All ceramic house is built on an engineered, floating foundation. il diags Brick & Clay Rec 108 29-30 Ap '46
All-ceramic house is built with single wall unit. il plans diags Brick & Clay Rec 109: 28-9 Ag '46
Brick and tile construction; views and plans. Brick & Clay Rec 107:25-8 N; 20-4 D '45
Building experts specify structural tile, terra cotta for many uses. E. P. Lewin. il Brick & Clay Rec 108:33-5 Mr '46
Clay products use in modern construction. E. P. Lewin. il Brick & Clay Rec 107:25-6+ D '45
Clay tile lintels; diagrams and table. Brick & Clay Rec 109:31 S '46
Cooling towers of clay tile. il diags Brick & Clay Rec 107:31 N '45
Economies in clay masonry construction. il plan diags Brick & Clay Rec 109:33-4 S '46
For good food and fireside chats; brick and tile interiors; illustrations. Brick & Clay Rec 107:26 O '45
Good practice in constructing farm buildings of clay tile. diags Brick & Clay Rec 108: 26-7 Je '46

TILE construction—*Continued*
Interlocking cavity wall uses only two units. diags Brick & Clay Rec 108:25 Je '46
Silo construction details and tables. diags Brick & Clay Rec 108:31-2 F '46
Specify tile for small commercial buildings. il Brick & Clay Rec 108:23 My '46
Tender chickens go to market from tile poultry houses. il diags Brick & Clay Rec 107: 31 O '45

TILES
Ceramic-tile industry plans anticipate peak production. B. L. Gunsallus. il Dom Comm 34:50-5 S '46
Dug wells lined with concrete and tile solve Amazon water supply problem. J. A. Logan and J. L. Hummel. il diags Eng N 136.908-11 Je 13 '46
Investigations on crazing; autoclave test results on crazing of sanitary ware and wall tile. L. Mattyasovsky-Zsolnay. Am Cer Soc J 29:203-4 Jl 1 '46
Investigations on crazing; backing cement and crazing of wall tile. L. Mattyasovszky-Zsolnay. Am Cer Soc J 29:204 Jl 1 '46
Kraftile dealers profit by special promotion of Patio tile. il Brick & Clay Rec 108:37-9 Mr '46
Properties of brick and tile clays. R. H. Ellis-Anwyl. il Brick & Clay Rec 108:54+; Discussion. 58+ Ja '46

Manufacture

Increasing the life of brick and tile dies; hard-metal liners and a method for resurfacing them. P. W. Tefft. diag Am Cer Soc Bul 24:417-18 N 15 '45

TILES, Plastic
Thermoplastic binder for floor tiles. il Mod Plastics 23:110-11 Ag '46

TIMBER
See also
Lumbering
Mine timber
Wood

TIME, Standard
Report of the astronomer royal for year ended April 30, 1945. Engineering 160:500-1 D 14 '45
Royal observatory; annual report of the Astronomer Royal; year ended April 30, 1946. Engineering 162:293 S 27 '46

TIME measurement
Experimental arrangement for the measurement of small time intervals between the discharges of Geiger-Müller counters. B. Rossi and N. Nereson. diags R Sci Instr 17: 65-71 F '46
Measurement of time; abstract. H. S. Jones. Electrician 136.1446 My 31 '46
Some precision circuit techniques used in wave-form generation and time measurement. B. Chance. il diags R Sci Instr 17: 396-415 O '46
Standard of frequency and its applications. C. F. Booth and F. J. M. Laver. diags Inst E E J 93 pt 3:223-36 bibliog(p235-6); Discussion. 236-41 Jl '46
Time research; two watch companies sponsor studies. Air Transport 4:96 My '46
See also
Chronoscope

TIME signals, Radio
Electronic time. Bsns W p32 D 1 '45
New pocket radio system to carry commercials. Ptr Ink 215.97+ Je 7 '46
Report of the astronomer royal for year ended April 30, 1945. Engineering 160:500-1 D 14 '45
Royal observatory; annual report of the Astronomer Royal; year ended April 30, 1946. Engineering 162:293 S 27 '46
Standard of frequency and its applications. C. F. Booth and F. J. M. Laver. diags Inst E E J 93 pt 3:223-36 bibliog(p235-6); Discussion. 236-41 Jl '46

TIME signals, Television
How television fits into Elgin's 1946 ad campaign. Sales Management 57:40 S 15 '46

TIME study
Applying wage incentives to job shop operation; Edo aircraft corporation. R. P. Wright. diags Factory Management 104: 113-16 Ja '46
Assigning doffer's task simplified by table. F. H. Gunther and M. Gross. il Textile World 96:139+ Je '46
Effort can be measured. R. M. Barnes. Am Mach 90.98-9 Ag 29 '46
Labor on gravity installations; average time allowances. Sheet Metal Worker 37:72+ S '46
Loading the conveyor right increases take-home pay; paint spraying operation, General Electric plant. H. C. Geppinger. il plan diag Factory Management 103:121-3 D '45
Never-ending studies. E. L. Cady. il Sci Am 174:68-9 F '46
Setting time standards without a stopwatch; Springfield armory. R. A. Olsen. il Factory Management 104:92-6 F '46
Simplified formulas put more jobs on incentive; Black-Clawson co. M. A. Young. il Factory Management 103:118-22 N '45
Standard movement time approach to incentives. R. A. Olsen. il Factory Management 104:126-30 Mr '46
Time budget for drilling operations. W. K. Powell. Pet Eng 17:68+ F '46
Time study can win friends and still cut costs. J. W. Marks. Am Mach 90:97-9 Ag 1 '46
Top cutters in mechanized mines; time study, conveyor set-up. P. R. Paulick. Min Cong J 32:25+ Ja '46
Union interest in engineering techniques. W. Gomberg. Harvard Bsns R 24 no 3:356-65 [Ap] '46
Wage incentive system benefits workers and management; job welding shop. C. E. Sommarstrom and J. J. Baer. il Automotive & Aviation Ind 93:24-5+ D 15 '45
Waverly press creates own precision methods; efficiency standards, based upon careful time and motion studies. G. C. Compton. Inland Ptr 116:38-40 O '45
Work measurement; factory management and maintenance. R. M Barnes. il Factory Management 104:145-52 Jl '46
Work standards; utilization of time study. J. W. Hendry. Automobile Eng 36:164-6 Ap '46

Study and teaching

Training time study men. T. R. Turnbull. il Iron Age 158:50-4 Ag 1 '46

TIME study (of machinery)
Data from activity-recording instruments applied to textile machinery. C. S. Parsons. il A S M E Trans 68:557-63; Discussion. 563-4 Jl '46
Machine utilization and economical assignment. J. W. Field. Factory Management 104:288+ Ag '46

TIMING devices
Continuous slide film projector has electrical timing device. il diags Product Eng 17:98 S '46
Current developments in instrumentation in analysis. R. H. Müller. Ind & Eng Chem Anal ed 18:sup21-2 S '46
Electronic timer. J. K. Taylor and J. G. Reid, jr. diag Ind & Eng Chem Anal ed 18:79 Ja '46
Electronic timer for aircraft de-icer. D. W. Bloser and G. R. Holt. il diags Electronics 18:152-5 D '45
Intermittent motion for changing timing interval for air-valve functioning. diags Mach 52:182 My '46
Machine gun rate-of-fire indicator; non-military uses indicated. A. D. Peterson. il diags Electronics 18:134-8 D '45
Measuring pulse characteristics. A. Easton. bibliog diags Electronics 19:150-4 F '46
Motor-driven automatic timer matches generator voltage with process cycle; power for anodizing. A. R. Wismer. il diag Power 90:161-3 Mr '46
Nitrogen-helium discharge lamp to provide timing marks on recording drum oscillograph. Electrician 136·1591 Je 14 '46
Paper screen signaling missile passage in ballistics. H. Lamport and M. G. Schorr. R Sci Instr 17:280 Jl '46
Precise timer and temperature controller for photographic processing. L. E. Owen. il diag R Sci Instr 17:155-6 Ap '46
Special alloys for gun synchronizer; KR-Monel and Hiperco. H. C. Roters. il Metal Prog 50:89 Jl '46

TIMING devices—*Continued*
Time interval meter. Gen Elec R 48:68 D '45
Timing a Meteor aircraft; systems used for world speed record flights at Herne bay. Electrician 135:591-2 N 30 '45
Timing devices; merits and limitations of three types. L. A. Steiner. il plan diag Chem Age (Lond) 54:453-7 Ap 27 '46
Transient delay line useful in radar, television, or test oscilloscope work. J. M. Lester. il diags Electronics 19:147-9 Ap '46
Tube-seasoning timer for controlling time schedule of cathode-ray tube seasoning racks. M. Silverman. il diag Electronics 19: 145 F '46
Variable timing up to thirty seconds; instrument for controlling exposure time in photographic printing or enlarging. D. G. Haines. diag Electronics 19:154+ Jl '46

See also
Chronograph

TIN
Developments in tin and tin alloy coatings. E. S. Hedges. Chem & Ind p370-2; Discussion. 372-3 D 1 '45

Analysis

Differential reduction of iron and tin. A. C. Simon and others. Ind & Eng Chem Anal ed 18:496-7 Ag '46
Systematic polarographic metal analysis; determination of tin, lead, nickel, and zinc in copper-base alloys. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 18:429-32 Jl '46

Prices

Price range of $474 a ton upsets world's scrambled tin market. Iron Age 158:139-40+ Ag 8 '46
Straits tin at New York, monthly, 1929-1945; tabulation. Iron Age 157:250 Ja 3 '46

TIN, Substitutes for
Substitutes for tin in the manufacture of automobiles. C. E. Heussner and E. T. Johnson. Automotive & Aviation Ind 94: 158+ Mr 15 '46; Abstracts. Mach 59:193 Ap '46; S A E J 54:97 O '46

TIN alloys
Binary alloys of indium and tin. C. G. Fink and others. Electrochem Soc Trans 88 (preprint 15):161-73 '45
Chill-cast tin alloys; abstract. W. T. Pell-Walpole. Materials & Methods 22:1798 D '45
Corrosion-resisting properties of electro-deposited tin-zinc alloys. R. M. Angles and R. Kerr. il Engineering 161:289-92, 300 Mr 29 '46
Developments in tin and tin alloy coatings. E. S. Hedges. Chem & Ind p370-2; Discussion. 372-3 D 1 '45
Electrodeposition of tin-zinc alloys; abstract. R. M. Angles. Engineering 161:427 My 3 '46
Protective value of lead and lead-tin deposits on steel. A. H. Du Rose. il diag Electrochem Soc Trans 89 (preprint 7):101-12 '46
Thermodynamic studies of dilute solutions in molten binary alloys. J. A. Yanko and others. bibliog diags Electrochem Soc Trans 89 (preprint 13):151-65 '46
Thermodynamic study of the tin-antimony system. R. O. Frantik and H. J. McDonald. bibliog Electrochem Soc Trans 88 (preprint 21):219-27 '45
Thermodynamic study of the tin-silver system. R. O. Frantik and H. J. McDonald. Electrochem Soc Trans 88 (preprint 22):229-36 '45

See also
Bronze
Solder and soldering

Analysis

Some applications of vacuum distillation technique in the analysis of alloys. J. W. Price. bibliog Soc Chem Ind J 64:283-5 O '45

TIN cans
Adequate supply of tin cans doubtful despite official help. Food Ind 18:885 Je '46
American Continental Can firms indicted as trust. Oil Paint & Drug Rep 150:3+ Jl 1 '46
Better base plate for better food cans. B. S. Clark and K. W. Brighton. il Mod Packaging 19:148-52+ Mr '46
Can makers indicted. Bsns W p26 Jl 13 '46
Face lifting for tin cans; benefits from developments to conserve critical materials; improved for peacetime use. J. C. Whetzel. il Tech R 48:37-8+ N '45
Note on the effect of tinplate and of lacquered surfaces on the oxidative deterioration of butterfat. C. H. Lea. Soc Chem Ind J 65: 136-8 My '46
Problems in packaging liquid soaps. H. E. Peterson. Soap & San Chem 22:45-6+ Ap '46
What's ahead in raw materials; paint and the can situation. H. F. White. Paint Oil & Chem R 108:40+ N 1 '45

Manufacture

Control of the lead poisoning hazard in can manufacturing; bodymaking machine (side-seamer). M. Eisenbud and J. W. McEwan. il diags J Ind Hygiene 27:284-8 D '45
Conveyors in the food industries; can-handling conveyors. il plan Mech Handling 33:282-7 My '46
Protective chemical treatment for tinplate. R. Kerr. Soc Chem Ind J 65:101-4 Ap '46

TIN chlorides
α-Methylenic reactivity in olefinic systems; the reaction between olefins and phenyl *iso*-cyanate; evidence relating to the catalytic action of stannic chloride. J. W. Baker and J. B. Holdsworth. pl diag Chem Soc J p724-32 N '45

TIN compounds
Rearrangements in compounds of carbon, silicon, germanium and tin containing halogens, isocyanate and thiocyanate. G. S. Forbes and H. H. Anderson. bibliog Am Chem Soc J 67:1911-14 N '45

TIN industry and trade
CPA takes dim view of world tin availabilities in near future. J. J. Croston. For Comm W 24:40 S 21 '46
Question, where is the tin? answered. J. R. Hight. Iron Age 158:84+ Ag 1 '46
Rise in tin supply to be slow. Barron's 26:5 Jl 1 '46
Tin supply still dim on word from Pacific. Food Ind 17:1518+ D '45
World tin position; excess of supply unlikely. Chem Age (Lond) 55:472 O 19 '46

Statistics

Tin, 1945. S. D. Strauss. Eng & Min J 147: 80-1 F '46
Tin statistics and future policy. Economist 150:426-7 Mr 16 '46
Tin stocks drop as imports continue light. Steel 118:89 Mr 25 '46

Malaya, British

Far Eastern tin supply outlook improved. Barron's 26:7 Ja 7 '46
First official Malayan tin report optimistic. J. R. Hight. Iron Age 157:120-1 F 7 '46

TIN metallurgy
Longhorn tin smelter. Chem Age (Lond) 54: 20 Ja 5 '46
Making tin flotation work; Bolivian ores. A. M. Gaudin and others. bibliog flow sheet il diag Eng & Min J 147:54-9 O; 72-4 N '46 (to be cont)
Modernized device makes tin plant possible; Buckman tilting concentrator. J. B. Huttl. flow sheet il Eng & Min J 147:84-7 My '46

TIN mines and mining

Alaska

Investigation of the Lost River tin deposit, Seward peninsula. H. E. Heide. bibliog 32pls U S Bur Mines Rep of Invest 3902:1-57 '46

Bolivia

Making tin flotation work; Bolivian ores. A. M. Gaudin and others. bibliog flow sheet il diag Eng & Min J 147:54-9 O; 72-4 N '46 (to be cont)

California

Survey of tin in California. R. H. Bedford and F. T. Johnson. U S Bur Mines Rep of Invest 3876:1-14, pl 1-2 '46

TIN mines and mining—*Continued*

Mexico

Tin in the Mexican hills. R. M. Atwater, jr. Min & Met 27:543 N '46

Morocco

Tin and tungsten deposits of French Morocco. E. T. Heck. il map Econ Geol 41:383-9 Je '46

Netherlands Indies

Tin production in Netherlands Indies. For Comm W 23:44 Je 15 '46

TIN ores

Making tin flotation work; Bolivian ores. A. M. Gaudin and others. bibliog flow sheet il diag Eng & Min J 147:54-9 O; 72-4 N '46 (to be cont)

TIN plate

Better base plate for better food cans. B. S. Clark and K. W. Brighton. il Mod Packaging 19:148-52+ Mr '46

Developments in tin and tin alloy coatings. E. S. Hedges. Chem & Ind p370-2; Discussion. 372-3 D 1 '45

Protective chemical treatment for tinplate. R. Kerr. Soc Chem Ind J 65:101-4 Ap '46

Strikes cause CPA to cut third quarter export of tinplate. G. Hardy. Iron Age 157: 115-16 Je 20 '46

See also

Terne plate

TIN plating

Continuous electro-tinning on steel strip in the manufacture of tin-plate; discussion. Inst E E J 93 pt 1:355 Ag '46; Same. Engineering 162:335 O 4 '46; Same cond. Electrician 136:1029 Ap 19 '46

Electrotinning of wide steel strip at high speed. S. S. Johnston and G. C. Jenison. flow sheet il diags Steel 119:102-4 Jl 8 '46; Abstract. Metal Finishing 44:285 Jl '46

Face lifting for tin cans; benefits from developments to conserve critical materials; improved for peacetime use. J. C. Whetzel. il Tech R 48:37-8+ N '45

Flowing tin by radiant heat; abstract. H. L. Halstead. Materials & Methods 22:1518+ N '45

Observations on alkaline electrotinning; improving corrosion resistance; abstracts. T. C. Timby. Iron Age 158:58-9 Jl 25 '46; Steel 119:104 Jl 8 '46

Protective value of electro-tin as an undercoating. S. Wernick. Metal Finishing 44: 13-15, 67+ Ja-F '46

Tinning of cast iron. R. A. Cresswell il Engineering 161:526-8, 550-1 My 31-Je 7 '46

Use of a tin undercoat to improve the corrosion resistance of painted steel. E. S. Hedges and others. il Engineering 160:505-8 D 14 '45; Same, without il. bibliog Steel 118:103+ Ap 22 '46; Abstracts. Materials & Methods 22:1490+ N '45; Iron Age 156: 64 D 6 '45

TIN research

Research in tin; progress reported from Greenford. Chem Age (Lond) 54:502 My 4 '46

Tin research institute; report of activities, 1942-44. Engineering 161:285 Mr 22 '46

TIN tetraphenyl

Tetraphenyl tin developed by Hooker electrochemical company. Chem & Met Eng 53: 145 Ap '46

TINIAN island

Skimming trench solves a coral island water supply problem; installation on Tinian island. J. P. Lawlor. il diags Eng N 136:993-5 Je 27 '46

TIRE fabrics

Better tires from cotton. F. L. Teuton. il Manuf Rec 115:48-9+ F '46

B & W lines pares tire costs; advantages of rayon fabrics; abstract. G. Heiber. il Bus Transportation 25:70-2 My '46

Building industrial and consumer preference for rayon cord tires. B. M. Lewy. il Ind Marketing 31:43-4 F '46

Comparison of elastic properties of some tire cords; abstract. E. Honold and H. Wakeham. Am Dyestuff Rep 35:462 S 23 '46

Cotton's tire bid; Wilds 13. Bsns W p30+ Mr 30 '46

Dipping of rayon tire cord. C. H. Beaver. il Rayon 27:467-9 S '46

General relations for flow in solids and their application to the plastic behavior of tire cords. W. J. Lyons. bibliog J Ap Phys 17:472-82 Je '46

Logging tires today and what we may expect tomorrow. H. T. Humby. il Pulp & Pa of Can 47:69-71 Mr '46

Moisture relations of tire cords in tires. H. Wakeham and others. il India Rubber World 113:659-62+ F '46

Place of rayon in tires. W. D. R. Straughn. bibliog Rayon 27:241-3, 291-2 My-Je '46; Same abr. Textile World 96:118-19+ F '46

Relationships of cotton fiber properties to strength and elongation of tire cord. R. W. Webb and H. B. Richardson. Rubber Age 58:847-8 D '45

Some technical aspects of the use of high-tenacity viscose process rayon in tires. W. W. Owen. il diags India Rubber World 114:515-20 Jl '46

Two-for-one twisters for tire cord twisting. Rubber Age 59:186 My '46

U.S. Rubber to stay in rayon tire cord. il Rayon 27:60-1 F '46

Testing

Cotton vs. rayon cord test; abstract. India Rubber World 114:79 Ap '46

Fatigue failure of rayon tire cord. R. C. Waller and W. E. Roseveare. bibliog il J Ap Phys 17:482-91 Je '46

Hysteresis and related elastic properties of tire cords. H. Wakeham and E. Honold. bibliog il J Ap Phys 17:698-711 Ag '46

Study of the H test for evaluating the adhesive properties of tire cord in natural and GR-S rubbers. W. J. Lyons and others. India Rubber World 114:213-17+ My '46

Tire testing agencies issue report on cotton cord tires. Rubber Age 58:359 D '45

TIRE factories

Fisk Tire. il Factory Management 104:B58-B60 pt 2 Ap '46

Employees

Basic tire pacts. Bsns W p94+ Je 8 '46

These deaf-mutes are good factory workers; Akron experience. B. M. Schowe. il Factory Management 104:123-5 Ag '46

Equipment

Air valve designed to meet specific need; machinery for making tires. il Comp Air Mag 51:195 Jl '46

General tire co.'s new tire building machine; illustrations with text. Rubber Age 58:216-17 N '45

General's automatic tire building machine. il India Rubber World 113:382-3 D '45

Goodyear's tire machine; illustrations with text. Rubber Age 58:724-5 Mr '46; India Rubber World 113:843-4 Mr '46

Management

Top management trains foremen in management; Goodyear tire & rubber co. K. Umbaugh. il Factory Management 104:120-4 Mr '46

Power

Lee of Conshohocken modernizes plant and power. il plan diag Power 90:750-3 N '46

TIRE industry and trade

Airport stores; tire companies plan for retailing to air amateurs. Bsns W p80 Mr 16 '46

Decrease in prices for tires, batteries foreseen by TBA men at Chicago session. Nat Pet N 38:3-4 Je 5 '46

Expect constantly increasing supply of tires to reach oil outlets as production gains. Nat Pet N 38:40 Ap 17 '46

General Tire on the loose; growth and diversification. il Fortune 34:112-19+ Jl '46

How Goodyear aids dealer planning. Adv & Sell 38:69+ D '45

Nine-point service program helps Goodyear build independent dealers. il Sales Management 55:88-90 D 1 '45

Patterned sales strategy: story behind Socony's new Mobil tire; effort to provide Mobilgas dealers with complete servicing program for motorists. E. Kinney. il Sales Management 56:56+ F 15 '46

TIRE industry and trade—*Continued*
Report of the director of rubber programs, WPB. R. S. Wilson and G. M. Tisdale. India Rubber World 113:373-6+ D '45
Tire sales war is in the offing. Bsns W p68+ Ap 20 '46
Tire shortage begins to yield. il Bsns W p15-17 N 24 '45
Tires still scarce. il Bsns W p21-2+ Ja 12 '46
Tires turn back; more natural rubber. Bsns W p19 Jl 13 '46
Truck tire competition resumes prewar pace. Nat Pet N 38:11 My 22 '46
U.S. Rubber's dealers council: what it is, how it works. W. D. Baldwin. Sales Management 55:99+ D 1 '45
See also Firestone tire and rubber company

Advertising

Fisk tires trade-mark; how it doubles in brass. il Sales Management 56:107+ Je 15 '46
How to succeed selling tires; B. F. Goodrich co. booklet. Ptr Ink 214:73 F 15 '46

Securities

Prospects bright for tire and rubber companies; with position of leading shares. W. Black. Mag of Wall St 77:646-7+ Mr 2 '46

Statistics

Design of a sample for dealers' inventories. W. E. Deming and W. Simmons. Am Stat Assn J 41:16-33 Mr '46
Estimated automotive pneumatic casing and tube shipments, production and inventory, Dec. 1945, years 1945 and 1941; tabulation. Nat Pet N 38:24 Mr 6 '46
Estimated U.S.A. automotive pneumatic casings shipments, production, and inventory; 1945, 1943, 1941; tabulations. India Rubber World 114:397-9 Je '46

Great Britain

Tyres and the war. Engineering 162.116 Ag 2 '46

TIRE valve caps
Package at work, a salesman for Schrader's tire valve cores and caps. il Mod Packaging 20:114-18 S '46

TIRES, Airplane
Rotovanes save ton on tandem gear. il Aviation N 6:21 S 16 '46

Care

Safe landings demand safe tires. A. C. Martin. il Aviation 45:96-7 Ja '46

Retreading and recapping

Aircraft tire retreading possible. il Aero Digest 52:78 Ja '46

TIRES, Automobile
New Studebaker to use mystery small tire. Bsns W p16 Ap 20 '46
1946 passenger cars, rear axle, tires and frames; specifications tabulated. Automotive & Aviation Ind 94:110 Mr 15 '46
Survey shows motorists prefer rayon cord tires. Rubber Age 59:83 Ap '46
Tire wear and cost on selected roadway surfaces. R. A. Moyer and G. L. Tesdall. bibliog il diags Iowa Eng Exp Sta (Ames) Bul 161:1-127 '45; Conclusions. Pub Roads 24: 248-50 Jl '46
See also
Tire fabrics
Tire industry and trade

Advertising

See Tire industry and trade—Advertising

Failure

Tire failure accidents for 1941-44 period analyzed in ICC report. Rubber Age 59:328 Je '46

Manufacture

Comparison of latices for tire cord dipping. H. H. Gillman and others. bibliog Rubber Age 58:591-5 F '46
General's automatic tire building machine. il India Rubber World 113:382-3 D '45
See also
Tire factories

Retreading and recapping

Electric heat cuts tire recapping costs. R. A. Potter. il Elec World 126:112 O 26 '46

Testing

Application of the torsional hysteresis test to tires. H. Wakeham and E. Honold. diags India Rubber World 113:377-81 D '45
Firestone precision groove cracking machine. il Rubber Age 59:601 Ag '46

TIRES, Motor bus

Care

B & W lines pares tire costs; advantages of rayon fabrics; abstract. G. Heiber. il Bus Transportation 25:70-2 My '46

TIRES, Motor truck
Air wrench speeds tire changing. il Coal Age 51:161 My '46
Factors influencing stress in concrete pavement from applied loads; tire contact studies. G. S. Paxson. il Concrete 54:2-8 My '46
Logging tires today and what we may expect tomorrow. H. T. Humby. il Pulp & Pa of Can 47:69-71 Mr '46
Rubber in open pit mining. J. G. Berry. il Min Cong J 32:51-2 Je '46
Truck tire competition resumes prewar pace. Nat Pet N 38:11 My 22 '46

Care

100,000-mile truck tire is here, only if operators plan it that way. B. Sorci. Nat Pet N 38:42 O 23 '46

Retreading and recapping

Recaps pay off; rubber industry looks for resoling of truck tires to be a common postwar practice. Bsns W p42+ F 23 '46

TIRES, Rubber
Large tires increase efficiency of scraper. Steel 119:138 Ag 5 '46
New French rapid transit car; equipped with rubber tires. M. Victor. Materials & Methods 24:970 O '46
Observations of the German rubber industry. E. W. Glen. Mech Eng 68:461-2 My '46; Abstracts. India Rubber World 114:81 Ap '46; S A E J 54:sup30 Je '46
Rubber tires serve as skip guides in mine shafts. il plan diag Comp Air Mag 51:196 Jl '46
Study of the H test for evaluating the adhesive properties of tire cord in natural and GR-S rubbers. W. J. Lyons and others. India Rubber World 114:213-17+ My '46
Tyres and the war. Engineering 162:116 Ag 2 '46

Care

So-called rubber preservative coatings. Consumers Res Bul 17:26 F '46
Suggestions for care of your tires. Roads & Sts 88:102-3+ D '45
Tire advice; maintaining correct pressure. K. Thompson. Roads & Sts 89:112 Ja '46

Inflation system

Tyre pressure control whilst running; amphibian vehicle. diags Engineer 182:108-9 Ag 2 '46; il Engineering 162:296-8 S 27 '46; Automobile Eng 36:441-2 O '46; Discussion. S. E. Opperman. Engineering 162:352 O 11 '46

Manufacture

Reclaimed rubber during reconversion; synthetic rubber scrap tires. J. M. Ball and R. L. Randall. il India Rubber World 114: 368-73 Je '46; Same abr. Can Chem & Process Ind 30:24-8+ Je '46
See also
Rubber, Artificial—Tire use

Repair

This rig services tires only; Harrison construction company's tires get attention on Charleston airport job. il Roads & Sts 88: 101-2 D '45

TIRES, Tractor
Pneumatic tyres for farm tractors. Engineering 161:201-2 Mr 1 '46

TISSUES
Aging of tissues; necessity for research. W. D. MacNider. Science 104:405-6 N 1 '46

TISSUES—*Continued*
Fast neutron energy absorption in gases, walls, and tissue. P. C. Aebersold and G. A. Anslow. bibliog Phys R 69:17-21 Ja 1 '46
Heparin of pig tissue. W. C. Risser. bibliog Am Chem Soc J 68:341-2 F '46
Possibility of a histochemical method for localizing adenosinetriphosphatase. F. Moog and H. B. Steinbach. bibliog Science 103: 144 F 1 '46; Reply. D. Glick. 103:599 My 10 '46
Preparation and properties of serum and plasma proteins; a system for the separation into fractions of the protein and lipoprotein components of biological tissues and fluids. E. J. Cohn and others. bibliog Am Chem Soc J 68:459-75 Mr '46
Small mica window Geiger-Müller counter for measurements of radioactive isotopes in vivo. E. Strajman. diags R Sci Instr 17: 232-4 Je '46
See also
Muscle

TITANIA. See Titanium oxides

TITANIUM
Behavior of 18-8 Ti-stabilized stainless; detecting and combating intergranular corrosion; effects of titanium and columbium. E. H. Wyche. bibliog il Iron Age 158:61-5 Ag 8; 54-6 Ag 15 '46
Comparison of aluminum and titanium deoxidation for preventing strain aging embrittlement in low carbon steel. G. F. Comstock and J. R. Lewis. il Am Soc for Metals Trans 34:425-37; Discussion. 437-42 '45
Deep configurations of Ti I, Ti II, V II, V III. A. Many. bibliog Phys R 70:511-15 O 1 '46
Neglected metal that promises to become of great importance. Min Cong J 32:28 Je '46
Preparation and properties of ductile titanium; abstract. R. S. Dean and others. Iron Age 157:68 Mr 7 '46
Small-scale tests of selective reduction of iron in titaniferous iron ores. R. J. O'Dea. U S Bur Mines Rep of Invest 3886:1-19 '46
Titanium, a growing industry. O. Herres. Min & Met 27:210-12 Ap '46
Titanium, 1945. C. E. Nighman. Eng & Min J 147:86 F '46
Titanium-stabilized iron for enameling. E. Wainer. bibliog il Am Cer Soc Bul 25:248-59 Jl 15 '46
Titanium uses. Bsns W p44 Jl 13 '46

Analysis
Color determination of tungsten, titanium and columbium. C. M. Johnson. il diags Iron Age 157:66-9 Ap 4 '46
Hexamethylenetetramine in separations of titanium and columbium. K. W. Traub. Ind & Eng Chem Anal ed 18:122-4 F '46
Simultaneous spectrophotometric determination of titanium, vanadium, and molybdenum. A. Weissler. bibliog Ind & Eng Chem Anal ed 17:695-8 N '45
Spectrophotometric determination of titanium in steels. A. Weissler. bibliog Ind & Eng Chem Anal ed 17:775-7 D '45

TITANIUM carbide
High-temperature heat contents of titanium carbide and titanium nitride. B. F. Naylor. bibliog Am Chem Soc J 68:370-1 Mr '46

TITANIUM compounds
Heat capacities at low temperatures of the metatitanates of iron, calcium and magnesium. C. H. Shomate. bibliog Am Chem Soc J 68:964-6 Je '46
High dielectric constant ceramics. A. von Hippel and others. bibliog il Ind & Eng Chem 38:1097-1109 N '46
High-temperature heat contents of Na_2TiO_3, $Na_2Ti_2O_5$ and $Na_2Ti_3O_7$. B. F. Naylor. bibliog Am Chem Soc J 67:2120-2 D '45
High-temperature heat contents of the metatitanates of calcium, iron and magnesium. B. F. Naylor and O. A. Cook. bibliog Am Chem Soc J 68:1003-5 Je '46
High titania dielectrics. E. Wainer. diags Electrochem Soc Trans 89 (preprint 3):47-71 bibliog(71 references, p69-70) '46
What's ahead in raw materials; titanium pigments. D. K. Pickens. Paint Oil & Chem R 108:44+ N 1 '45
See also
Sodium titanates

TITANIUM hydride
Titanium hydride increases compact density. H. L. Strauss, jr. diags Steel 118:138+ My 6 '46

TITANIUM nitride
High-temperature heat contents of titanium carbide and titanium nitride. B. F. Naylor. bibliog Am Chem Soc J 68:370-1 Mr '46
Specific heats at low temperatures of TiO, Ti_2O_3, Ti_3O_5, and TiN. C. H. Shomate. Am Chem Soc J 68:310-12 F '46

TITANIUM ores
Titaniferous magnetite deposits of the Lake Sanford area, New York. R. C. Stephenson. bibliog pls fold maps diags (New York State museum bul. 340) 95p Univ. of the State of New York, Albany '45
See also
Ilmenite

TITANIUM oxides
Application of crystallographic techniques to titanium pigments. C. H. Moore, jr. bibliog diags Can Chem & Process Ind 30:40-4 O '46
Centrifugal sedimentation method for particle size distribution. A. E. Jacobsen and W. F. Sullivan. bibliog il Ind & Eng Chem Anal ed 18:360-4 Je '46
Comparison of effect of TiO_2 and PbO on light absorption of some colored glasses. W. Colbert. diags Am Cer Soc J 29:40-5 F 1 '46
Comparison of effect of TiO_2 and PbO on refractive index of glasses. W. Colbert. diags Am Cer Soc J 29:45-7 F 1 '46
High dielectric constant ceramics. A. von Hippel and others. bibliog il Ind & Eng Chem 38:1097-1109 N '46
High-temperature heat contents of TiO, Ti_2O_3, Ti_3O_5, and TiO_2. B. F. Naylor. bibliog Am Chem Soc J 68:1077-80 Je '46
High titania dielectrics. E. Wainer. diags Electrochem Soc Trans 89 (preprint 3):47-71 bibliog(71 references, p69-70) '46
Scarce pigment. Bsns W p51 Ap 27 '46
Specific heats at low temperatures of TiO, Ti_2O_3, Ti_3O_5, and TiN. C. H. Shomate. Am Chem Soc J 68:310-12 F '46
Super opaque titanium enamels; abstract. C. M. Andrews and A. I. Andrews. Materials & Methods 23.800 Mr '46
Titanium dioxide renders lightweight paper stock opaque. E. Schmatolla. il Inland Ptr 117:51 My '46

Analysis
Spectrophotometric determination of titania in portland cement. J. J. Diamond. bibliog Rock Prod 49:103-4+ Ap '46

TITANIUM steel
Fabrication and enameling performance of titanium enameling steel. F. R. Porter. il Am Cer Soc Bul 25:259-66 Jl 15 '46
Some interesting properties of titanium steels. G. F. Comstock. bibliog Am Cer Soc J 29: 1-7 Ja 1 '46

TITICACA, Lake
Geological investigations around Lake Titicaca. N. D. Newell. maps Am J Sci 244:357-66 My '46

TITLES, Copyright of. See Copyright—Titles

TITLES of honor and nobility
Birthday honours list. Engineering 161:591, 615 Je 21-28 '46; Engineer 181:573 Je 21 '46
New year honours list. Engineering 161:15, 63, 87 Ja 4, 18-25 '46

TITLES of scientific papers. See Scientific literature

TITRIMETERS
New instruments for measuring vacuum and a new titrimeter are now available. R. H. Munch. il Ind & Eng Chem 37:sup91-2 N '45

TIXIER, Adrien, 1893-1946
Tribute. Int Labour R 53:1-4 Ja-F '46

TIZARD, Sir Henry Thomas, 1885-
Award of Franklin medal. Franklin Inst J 242:79 Jl '46

TOASTERS, Electric. See Electric toasters

TOBACCO
Frenching response of tobacco seedlings to isoleucine. R. A. Steinberg. Science 103: 329-30 Mr 15 '46
Perique crop fails. Bsns W p38+ Je 29 '46
See also
Cigarets

Acreage adjustment
Acreage allotments and land prices; with special reference to tobacco areas. J. E. Mason. bibliog J Land & Pub Util Econ 22: 176-81 My '46

TOBACCO industry and trade
Distressed burley; growers go on warpath as prices sag. Bsns W p44+ Ja 19 '46
Favored leaf; flue-cured tobacco crop. Bsns W p24+ F 2 '46
Middleton squares; distinctive tobacco tins. il Mod Packaging 20:96-8 O '46
Playing it safe; tobacco farmers support retention of federal acreage controls. Bsns W p18 Jl 20 '46
Tobacco and related products. Published in Foreign commerce weekly
Tobacco co. earnings favored by recent increase in ceiling prices. H. M. Wootten. Comm & Fin Chr 163:2365 My 2 '46
Tobacco trouble; auction method of buying. Bsns W p32+ N 17 '45
See also
Cigar industry and trade
Cigaret industry and trade

Advertising
George Washington Hill dead; great exponent of advertising. Ptr Ink 216:49+ S 20 '46

Securities
Tobaccos enter a new phase; with position of leading companies. J. C. Clifford. il Mag of Wall St 78:516-18+ Ag 3 '46
What's ahead for tobaccos? with position of leading companies. S. Devlin. Mag of Wall St 77:588, 613 F 16 '46

Belgium
Situation in Belgium. For Comm W 22:37 Ja 5 '46

Brazil
Brazilian crop and foreign trade; state of Baia. For Comm W 21:35 D 1 '45

Ceylon
Tobacco production and imports. For Comm W 21:35 D 1 '45

Costa Rica
Tobacco acreage, consumption, and imports. For Comm W 21:40 D 22 '45

Dominican Republic
Tobacco statistics, 1940, 1943-1945. For Comm W 21:41 D 22 '45

Greece
Greece's aromatic tobacco; possibilities and enigmas. P. Hudson. For Comm W 23:12-13+ Je 22 '46

Italy
Italy's tobacco trade; critical problems faced. J. I. Kross. il For Comm W 23:12-13+ Je 1 '46

Netherlands
Dutch say their tobacco industry is on road to recovery. For Comm W 23:36 My 4 '46

Persia
Iranian tobacco industry. For Comm W 21: 38 D 29 '45

Philippine Islands
Philippine tobacco operations at low levels. A. H. Carroll and C. A. Boonstra. il For Comm W 25:3-4+ N 2 '46
What of the Philippine tobacco and cigar situation? For Comm W 22:25 Mr 16 '46

Portugal
United States, chief source of Portuguese imports. For Comm W 21:36 D 1 '45

Switzerland
Swiss tobacco business; U.S. sales may increase. A. H. Carroll. il For Comm W 23: 8-9+ Ap 27 '46

TOBACCO mosaic virus
Properties of a virus inactivator from yeast. W. N. Takahashi. Science 104:377 O 18 '46

TOBACCO seed
One-ounce barn, it sells tobacco seed. il Mod Packaging 19:125 Mr '46

TOBACCO smoke
Tobacco smoke composition. F. Fromm. Science 104.376 O 18 '46

TOBACCO workers
Union agreements in the tobacco industry, January 1945. E. T. Royer. U S Bur Labor Statistics Bul 847:1-25; pa 5c Supt. of doc. '45

TOCOPHEROL. See Vitamins—Vitamin E

TODD shipyards corporation
Todd war record produces 21,000 ships. Marine Eng 50:186 D '45

TOILET goods
Carefully selects dealers for line in new field; Mark Cross company's men's toiletries. il Ptr Ink 216:104+ S 6 '46
Dressing table sparklers. il Mod Plastics 23: 123 Mr '46
Entering the cosmetic industry. L. A. Barber. il Dom Comm 34:16-18+ F '46
Man's toiletry a man can use. il Mod Packaging 19:99+ Ag '46
Merchandising to a timid market; men's toiletry items. E. M. Housman. il Ptr Ink 213:24-7+ N 30 '45
See also
Cosmetics
Dentifrices
Lotions
Perfumery
Soap

Advertising
Sex angle used to sell toiletries to men. il Ptr Ink 217:44 N 1 '46

Exhibitions
Soaps at toiletries show of Chicago associated toiletries salesmen. Soap & San Chem 22: 59+ S '46

TOILET goods association
Annual meeting, New York, May 15-17. Oil Paint & Drug Rep 149:7+ My 20 '46
Annual meeting, 10th, New York, May 15-17. Soap & San Chem 22:47-9+ Je '46

TOILET rooms
Modern facilities include underground toilets at Hayden. G. R. Harris and C. H. Lambur. il plan diag Coal Age 51:96-8 Ja '46

TOILET seats, Infant's
Designed for baby; infant's training seat. il Mod Plastics 23:119 Mr '46

TOKYO
Rapid transit
Vivid picture of transit in Tokyo. J. E. Shissler. Mass Transportation 42:128-9 Mr '46

TOKYO electric light company
Legal proceedings taken to protect holders of Tokyo Electric bonds. Comm & Fin Chr 163:384 Ja 24 '46

TOLEDO, Ohio
Toledo's new move toward industrial peace. Factory Management 104:142-6 S '46

Bridges
Bridge deck modernized by adding median strip and resurfacing. il Roads & Sts 89: 94-6 Ap '46

TOLEDO, Peoria & western railroad
Blood on the rails; fight over McNear's T.P.& W.R.R. il Bsns W p100+ F 16 '46
T.P.&W. in court. Bsns W p28+ Mr 2 '46

TOLERANCE
Design tolerances for transparent acrylic plastics. il diags Product Eng 17:[no 7] 110-11 Jl '46
Drawing office practice in relation to interchangeable components. C. A. Gladman. diags Inst Mech Eng J & Proc 152:Proc 388-401; Discussion. 401-18 Mr '46

TOLERANCE—*Continued*
Fits and tolerances of involute splines. G. L. McCain. Automotive & Aviation Ind 94:24-7 My 15 '46
Materials and manufacturing processes determine economical tolerances. A. L. Klein. diags Product Eng 17:374-6 My '46
Practical precision in miniature; Hamilton Watch, American Bosch, and Kollsman Instrument reveal secrets involved in drilling 0.004-in. holes and tapping 0.008-in. ones. H. S. Wharen. il diags Am Mach 90: 103-7 My 23 '46
Revised gear-blank tolerances cut costs. K. E. Bauerle. diags Am Mach 89:132-5 N 22 '45
S.P.I. standard for tolerances on molded plastics parts. Product Eng 17:172-6 F '46
Tolerances on assemblies. B. Epstein. diags Am Mach 90:119-21 Ja 3 '46
Tooling for tapers; manufacture of fuse firing pin and striker. J. J. Meadows. diags Iron Age 158:68-72 Jl 18 '46

See also
Fits (machinery)

TOLL bridges. See Bridges—Tolls

TOLL roads. See Roads—Tolls

TOLL system. See Telephone—Long distance

TOLMAN, Richard Chace, 1881-
Portrait. Fortune 33:118 Je '46

TOLUENE
Accurate temperature control; Sunvic proportioning head of toluene regulator il Engineer 181:230 Mr 8 '46
Effect of added components on the relative volatility of two binary mixtures. O. L. Updike, jr. and others. bibliog Am Inst Chem Eng Trans 41:717-36 D '45
Extractive distillation of hydrocarbon mixtures in a packed column. R. S. Dicks and C. S. Carlson. bibliog il diag Am Inst Chem Eng Trans 41:789-803 D '45
Heats, equilibrium constants and free energies of formation of the alkylbenzenes. W. J. Taylor and others. bibliog J Res Nat Bur Stand 37:95-122 Ag '46
Monomercuration of aromatic hydrocarbons. A. J. Barduhn and K. A. Kobe. bibliog diag Ind & Eng Chem 38:247-8 Mr '46
Near ultraviolet absorption spectrum of toluene vapor. N. Ginsburg and others. bibliog il J Chem Phys 14:511-17 S '46
Some factors influencing the ultraviolet absorption spectra of polynuclear aromatic compounds; the spectra of aryl carbinols and polybenzfluorenes. R. N. Jones. Am Chem Soc J 67:2021-7 N '45
Toluene offered at 10c per gallon. Oil Paint & Drug Rep 149:3+ Ap 29 '46
Toluene plants disposal provides SPA with problem. Oil Paint & Drug Rep 148:7+ D 3 '45
Toluene sales policy set. Oil Paint & Drug Rep 149:3+ F 18 '46

See also
Trinitrotoluene

Analysis

Aids to computation in spectrophotometric analysis of binary mixtures; illustrative data for benzene-toluene mixtures. M. Fred and F. W. Porsche. diags Ind & Eng Chem Anal ed 18:603-4 O '46
Analysis of ternary mixtures of methylcyclohexane-toluene-aniline. C. S. Carlson, A. E. Schubert and M. R. Fenske. Ind & Eng Chem Anal ed 18:109-11 F '46

Manufacture

Application of experimental vapor-liquid equilibria to an analysis of the operation of a commercial unit for the purification of toluene from petroleum. H. G. Drickamer and H. H. Hummel. diags Am Inst Chem Eng Trans 41:607-29 O '45
Catalytic reforming process of Standard oil company of California. E. O. Saegebarth. il diag Pet Eng 17:95-6+ My '46
Principles of reactor design; toluene from benzene plus xylenes. L. N. Johanson and K. M. Watson. bibliog flow diag Nat Pet N 38 pt 2:R629-30+ Ag 7 '46; [cont as] Pet Processing 1:67+ S '46
Synthesis of toluene by hydroforming and recovery by azeotropic distillation. F. L. Hartley. flow diags Pet Eng 17:156+ D '45; Same. Pet Refiner 24:131-6 D '45; Abstract. Chem & Met Eng 53:268+ Ja '45
Toluene recovery by extractive distillation; erection of a commercial plant on the foundation of laboratory data. C. L. Dunn and others. diags Am Inst Chem Eng Trans 41:631-44 O '45
Vapor-liquid equilibria in phenol-hydrocarbon systems. H. G. Drickamer and others. bibliog(p603) diags Am Inst Chem Eng Trans 41:555-605 O '45

TOLUENESULFONATES
Kinetics of the reaction of hydroxyl ion with the meso and racemic di-*p*-toluenesulfonates of butylene glycol-2,3. F. C. Foster and L. P Hammett. bibliog Am Chem Soc J 68:1736-41 S '46

TOLUIC acid
Effect of phenylacetic acid derivatives on the types of penicillin produced by penicillium chrysogenum Q176. K. Higuchi and others. Am Chem Soc J 68:1669 Ag '46

TOLUIDINE hydrochloride
Direct volumetric determination of the organic sulfonate content of synthetic detergents. T. U. Marron and J. Schifferli. bibliog Ind & Eng Chem Anal ed 18:49-50 Ja '46

TOLYL pyrroline
2-Tolylpyrrolines and the rearrangement and hydrolysis of aryl cyclopropyl ketimines. J. B. Cloke and others. bibliog Am Chem Soc J 67:2155-8 D '45

TOMATO juice
Nutritive value of canned foods; influence of temperature and time of storage on vitamin contents. N. B. Guerrant, M. G. Vavich and R. A. Dutcher. bibliog Ind & Eng Chem 37:1240-3 D '45
Processing tomato juice. E. J. Cameron. Food Ind 18:524 Ap '46

Analysis

Determination of ascorbic acid; application of the indophenol-xylene extraction method to determination in large numbers of tomato and tomato juice samples. W. L. Nelson and G. F. Somers. bibliog diag Ind & Eng Chem Anal ed 17:754-6 D '45

TOMATOES
Absorption of phenol vapors by plants. E. G. Beinhart. Science 103:207-8 F 15 '46
Attaining high C; tomatoes from different localities and amounts of vitamin C. Bsns W p38 Mr 2 '46
Phytofluene; isolation from canned tomato paste. L. Zechmeister and A. Sandoval. bibliog Am Chem Soc J 68:197-201 F '46

Analysis

Determination of ascorbic acid; application of the indophenol-xylene extraction method to determination in large numbers of tomato and tomato juice samples. W. L. Nelson and G. F. Somers. bibliog diag Ind & Eng Chem Anal ed 17:754-6 D '45
Nutritive value of canned foods; comparison of vitamin values obtained by different methods of assay. N. B. Guerrant, M. G. Vavich and O. B. Fardig. bibliog Ind & Eng Chem Anal ed 17:710-13 N '45

Diseases and pests

Interpretation of resistance to fusarium wilt in tomato. W. C. Snyder and others. bibliog Science 103:707-8 Je 14 '46

Transportation

Trucks haul tomatoes the year round; Tom-A-Toe produce co., Atlanta. il plan diag Food Ind 18.1368-9 S '46

TOMATOES, Dried
Common ailments of quality in processed foods. C. W. Kaufman. Food Ind 18:14 Ja '46
Dried tomato product; patent. Food Ind 18: 608 Ap '46
Tomato flakes; abstract. D. K. Tressler. Food Ind 18:836 My '46

TOMBS
Concrete burial vaults recommended standards. Rock Prod 49:189 Ag '46

TOMBS—*Continued*
Manufacture burial vaults in two plants; additions to block plant; Katterjohn concrete products. H. E. Swanson. il Rock Prod 49: 130-2 S '46

TOMBSTONES
Tombstones by mail. Bsns W p88 Mr 16 '46

TONE
Analyses of the tones of a few wind instruments. F. A. Saunders. Acoustical Soc Am J 18:395-401 O '46

TONGS
Handling materials with tongs, grips and grapples. J. E. Hyler. il Mech Handling 33: 288-96, 357-63+ My-Je '46
Tong with a brain. il Safety Eng 91:68 Ap '46

TOOL boxes
Personalized tool kit. il diags Aero Digest 52: 67 Je '46

TOOL engineering
Careful tool layouts shorten screw-machine cycles. A. Ainsworth. plans Am Mach 90: 108-10 Ap 25 '46
Jig and fixture economics. J. W. Hendry. diag Automobile Eng 35:509-10 N '45
Reconversion problems in aircraft tooling. N. A. Lombard. Mech Eng 68:794-6 S '46
Smart tool engineering speeds up production grinding. W. G. Johnson. il Steel 118:84-5+ F 25 '46
Tool-engineer training helps prevent production errors; AC spark plug division, General motors corporation. W. F. Eitel. il diag Am Mach 90:104-7 Mr 28; 114-16 Ap 11 '46
Tool engineering and profits; abstracts. R. E. Flanders. Iron Age 157:65-7 Ap 18 '46; Steel 118:158-9 My 6 '46
What price airplanes? mass production and tool engineering will lower costs. A. M. Sargent. Aero Digest 53:26-7 O '46

TOOL owners union
Tool owners union calls Americans to battle against pressure groups. Sales Management 57:42-4 Jl 1 '46
Tool owners union; life savings of 50,000,000 thrifty Americans invested in country's means of production. K. J. Garland. East Underw 47:14 Jl 12 '46
Why I organized the Tool owners union. A. W. Rucker. Factory Management 104:138-9 Ag '46

TOOL rooms
Flexible tool control repays costs many times over; General Electric's Pittsfield apparatus works. C. W. Reagan. il Factory Management 104:90-1 Ag '46
Guard your tools. M. L. Borden. Am Mach 90:120-3 Ap 25 '46
Organizing a tool room system. W. J. Brooking. Management R 35:123-5 Ap '46
Roll out the bar stock; handling tool-steel bar stock in toolroom stores. J. W. Ingraham. il plan diags Am Mach 90:86-7 Ja 31 '46
Tool kits cut costs; Van Norman tool control. M. Mastalerz. Am Mach 90:129-31 Ag 15 '46

TOOL steel
Carbon rod rectification; treatment of steel salt baths prevents decarburization. S. M. DePoy. il Steel 119:114+ Jl 15 '46
Cast-to-shape tool steels. il Steel 119:84+ Jl 22 '46
Composition, heat treatment and surface treatment of high speed steels; abstract. G. A. Roberts. Iron Age 157:147 Ja 17 '46
Conditions affecting the quality of steel for cold-heading dies. A. S. Jameson. bibliog il diags Steel 117:98-101+ O 29; 100-4+ N 26 '45; 118:82-5+ Ja 21 '46
Development of alloy and tool steel manufacture in India during World war II. P. H. Kutor. Blast F & Steel Pl 34:741-5+ Je '46; Abstract. Materials & Methods 24: 438+ Ag '46
Die steels for cold-working dies; tabulations; data sheet. G. M. Butler, comp. Mach 53: 221 S '46
Experiments on sodium cyaniding of high speed steel prior to hardening. J. McIntyre. il Am Soc for Metals Trans 34:202-12; Discussion. 213-15 '45
Forging high-alloy rounds with V-type dies. E. Ghrist. il diags Iron Age 158:44-9 Ag 1 '46
German toolsteel and special steel industry. J. P. Gill. Metal Prog 49:122-4 Ja '46
German tool steels; report on war-time manufacturing practice. Chem Age (Lond) 53:518 D 1 '45
Hardening of high speed tools. T. F. Burch. diag Metal Prog 49:1172 Je '46
Heat treatment of high-speed steel. M. Cohen and P. Gordon. il diags Iron Age 157:42-7 F 28; 52-7 Mr 7; 68-73 Mr 14; 61-5 Mr 21; 55-62 Mr 28 '46
High-speed hardening without atmospheres; use of molten boric acid bath. W. B. MacNerland. il Steel 118:107+ Je 3 '46
Improving high speed steels; Latrobe desegatizing process. il Steel 118:116 Je 3 '46
New uses for Hardsteel. F. G. Gepfert. il Iron Age 156:68 D 13 '45
Practical tool room heat treatment. F. J. McMulkin. bibliog Iron Age 157:60-5 Je 6; 56-9 Je 13; 64-8 Je 20; 55-9 Je 27 '46
Selection of die steels for cold work. W. H. Wills. il Iron Age 156:58-61 N 22 '45
Selection of die steels for cold working metals. G. M. Butler. Steel 119:124+ Ag 19 '46
Sub-zero treatment of high speed steel, with special reference to intermittent cutting; abstract. K. J. B. Wolfe. Iron Age 158:64 Ag 15 '46
Tool materials. J. E. Attwood. Engineering 161:596 Je 21 '46
Tool steel super-cooled in deepfreeze units. il Elec World 125:142+ F 16 '46
Tool steels, types and treatment. R. S. Burpo, jr. bibliog Materials & Methods 24: 119-34 Jl '46
Why tool steels do not act alike; compilation of metallurgical facts. S. C. Spalding. Am Mach 90:107-12 Mr 14 '46
Workable classification of toolsteels. C. L. Hibert. il Metal Prog 49:333-41 F '46; Discussion. S. M. DePoy. 49:974 My '46

Testing
Study of subzero treatments applied to molybdenum-tungsten high speed steel. R. G. Kennedy, jr. il diag Am Soc for Metals Trans 34:250-92 bibliog(p291-2); Discussion. 292-309 '45

TOOLS
Assembly tools that speed straight-line production; Friez instrument division, Bendix aviation corporation. E. W. Zabriskie. il Factory Management 103:105-8 D '45
Butt welding for small tools. H. J. Chamberland. il Aero Digest 52:48-9+ Mr '46
Collins company, Collinsville, Conn.; a phenomenon of Yankee shrewdness and conservatism. il Fortune 33:110-15+ Ja '46
Committee approach to industrial packaging; Black & Decker mfg. co., Towson, Md. il Mod Packaging 19:130-2 Ap '46
Gauge and toolmakers' exhibition. il Engineer 181:45-6, 59-61, 91-3 Ja 11-25 '46; Engineering 161:42-4, 65-8, 113-14, 136-8 Ja 11-18, F 1-8 '46; Automobile Eng 36:81-4 F '46; Electrician 136:101-2 Ja 11 '46
Grinding precision tools. H. J. Chamberland. il Steel 119:126+ O 7 '46
Hand tool for sheet metal crimping. il Iron Age 157:80 Je 6 '46
Hand tool hazards and how to avoid them. il Roads & Sts 88:105-6 N '45
Hand tools; safety aspects. il Nat Safety N 53:120+ Mr '46
Hard carbides find non-cutting uses. P. M. McKenna. diags Am Mach 90:117-20 Ag 15 '46
Hints on small tools. E. R. Goddard. diags Am Mach 90:142 S 12; 142 O 10; 134 O 24 '46
Interchangeable tools for Douglas transports; list. Aviation 45:47 Ag '46
New equipment. il diag Iron Age 156:68-72 D 20 '46; 157:75-8 Ja 31; 69-74 Mr 7; 69-72 Ap 18; 81-4 Je 6; 158:63-6 Jl 25; 59-72 Ag 29; 67-70 S 5; 67-70 N 7 '46
Portable power tools. il Factory Management 104:162 Mr '46
Safe practices for hand tools. D. Attaway. il Pet Eng 17:55-8 Ap '46

TOOLS—*Continued*
Sapphire as a production tool. R. F. Waindle. il Am Mach 90:101-4 Je 6 '46

Six special tools from English shops. diags Am Mach 90:139-40 F 14 '46

33d annual review number; tools and accessories. il diag Am Mach 90:133-46 Ja 17 '46

See also
Cutting tools
Electric tools, Portable
Files and rasps
Machine tools
Machinery
Parallels
Pneumatic tools
Saws
Tool rooms
Tool steel

TOOLS, Plastic
Small but the real thing; model maker's plane and the balsa stripper. il Mod Plastics 23: 111 Mr '46

TOOTHBRUSHES
Dental merchandising; new product, new package, new sales aids for Dr West. il Mod Packaging 19:144 Je '46

Tooth brush makers may have to offer both hog and synthetic bristles. Ptr Ink 214: 52+ Ja 18 '46

TOPAZ
Surface layers on quartz and topaz. D. D'Eustachio. bibliog il diags Phys R 70: 522-8 O 1 '46

TOPOGRAPHICAL maps
Preliminary observations on geological use of aerial photographs. F. A. Melton. diags Am Assn Pet Geologists Bul 29:1756-65 D '45

Topographic surveys; progress report of the Committee of the surveying and mapping division on topographic surveys. Am Soc C E Proc 72:483-97 Ap '46; Discussion. 72: 1175-81 O '46

TOPOGRAPHICAL surveying
Topographic surveys; progress report of the Committee of the surveying and mapping division on topographic surveys. Am Soc C E Proc 72:483-97 Ap '46; Discussion. 72: 1175-81 O '46

See also
Photographic surveying
Surveying, Aerial

TORNADO insurance. See Insurance, Tornado

TORNADOES
Wind losses in 1945. S. D. Flora. il Rough Notes 89:15-16 Mr '46

See also
Insurance, Tornado

TOROIDAL coils. See Electric coils

TORONTO, Ontario

Sewerage

North Toronto activated sludge sewage treatment plant. G. Phelps. flow diag il Water & Sewage 84:25+ S '46

Sewage treatment in Canada; with particular reference to practices in the greater Toronto area. A. E. Berry. il Water & Sewage 84:26-8+ S '46

Toronto fights a disposal battle; plant to elimate pollution hazard. il Eng N 137: 439-41 O 3 '46

Toronto sewage-treatment plant. il plan Water & Sewage 84:21-4+ S '46

Streets

Subways and traffic congestion, with particular reference to Toronto's problems; proposed subway. C. A. Meadows. map plans diag Roads & Bridges 84:51-3+ My '46

Water supply

Cleaning reservoirs in Toronto. il Water & Sewage 84:13-14+ Ja '46

TORPEDOES
Development of the torpedo. P. Bethell. il diags Engineering 159:403-5, 442-3; 160:4, 41-3, 301-3, 341-4, 365-7, 529-31; 161:73-4, 121-3, 169-70, 242-4 My 25, Je 8, Jl 6, 20, O 19, N 2-9, D 28 '45, Ja 25, F 8, 22, Mr 15 '46

Rocket-powered torpedoes for underwater use. il Marine Eng 51:110 S '46

TORQUE
Controlled clutching licks high breakaway torques; utilization of centrifugal force with mercury as hydraulic medium. H. J. Zimmermann. il diags Machine Design 18: 137-41 Jl '46

Ideal torques for handwheels and knobs. A. Raines and J. H. Rosenbloom. il Machine Design 18:145-8 Ag '46

Measurement of small running torques with a driving-type dynamometer. H. A. Brelsford. il diag Product Eng 17:120-1 F '46

Mechanical torque-limiting devices. N. C. Weyth and A. F. Gagne. diags Machine Design 18.127-30 My '46

Selection of screw thread for maximum axial force. E. E. Modes. diags Product Eng 17: 244-5 Mr '46

Sensitive ball bearing test unit measures small changes in torque. J. L. Snead and H. Gisser. il diags Product Eng 17:129-31 O '46

Torque values for standard AN bolts and nuts used in airplane construction. Iron Age 158:59 O 10 '46

TORQUE converters
Construction and operation of the White hydro torque transmission. R. Brunken. il diags Automotive & Aviation Ind 94:18-20+ Mr 1 '46

Hydraulic torque converters and couplings. N. A. D'Arcy, jr. il Pet Eng 17:68+ N '45

Hydraulic transmissions. il diags Diesel Power 23:1324-9+ N '45

Torque converters for passenger cars; abstracts. R. J. Miller. Automotive & Aviation Ind 94:198 Mr 15 '46; S A E J 54:sup54+ Ag '46

Transmissions giving uninterrupted acceleration. P. M. Heldt. il diags S A E J 54: 332-5 Jl '46

Trends in automotive transmissions. C. Carmichael. il diags Machine Design 18:141-5 My '46

TORQUE meters
Cradled dynamometers and cradled gears; torque-measuring equipments. H. M. Martin. il diags Gen Elec R 49:20-5 Mr '46

Electromagnetic torquemeter. M. W. Hively and D. P. Livermore. il diags A S M E Trans 68:723-6; Discussion. 726-7 O '46

TORSION
Application of the torsional hysteresis test to tires. H. Wakeham and E. Honold. diags India Rubber World 113:377-81 D '45

Calculating torsional stiffness of shafts; engineering data sheet. C. Carmichael. Machine Design 18.153-4 Mr '46

Charts for fuselage torsion versus control-surface flutter. W. T. Thomson. A S M E Trans 68:51-6 Ja '46

Effects of torsional vibration. W. K. Wilson. bibliog Engineering 162:88-90 Jl 26 '46

Introductory discussion of torsional vibration. R. D. Watson. diags Diesel Power 24:602-4+ 705-7+ My-Je '46

Torsion bar provides coupling flexibility. J. H. Potter. il diags Machine Design 18:122-4 Je '46

Torsion in steel spandrel girders. J. E. Lothers. diags Am Soc C E Proc 72:307-21 Mr '46; Discussion. 72:906-8 Je '46; 72:1199-200 O '46

Torsion with variable twist T. von Kármán and W. Chien. bibliog diags J Aeronautical Sci 13:503-10 O '46

Torsional oscillating motion with self-synchronized impulse; mechanical resonant scanner for radar. D. B. Nichinson. il diags Product Eng 17:110-12 Ag '46

TORTS
Bank depositor cannot bring tort action against comptroller for recovery of abandoned funds. Banking Law J 63:726-9 O '46

TOURIST baggage insurance. See Insurance, Tourist baggage

TOURIST camps, hostels, etc.
California motel builders beat materials shortages; use adobe brick, fashioned on the property. il plan Am Bld 68:90 Ag '46

California motel offers comfort to travelers. il plans Am Bld 68:106-7 Je '46

Heating motor courts by gas. C. H. Dean. il Am Gas Assn Mo 28:153-5+ Ap '46

TOURIST camps, hostels, etc.—*Continued*
35 rental units in distinctive motel in Santa Barbara, Calif. il plans Am Bld 68:60-1+ Ag '46

TOURIST trade
Having a grand time; travel outlook. M. B. Leach. il Banking 38:44-5, 123-4 Ja '46
How New Hampshire measures her vacation business. A. M. Heath. Ptr Ink 213:38+ D 28 '45
Tourists again; U.S. citizens turn to vacationlands. Bsns W p22+ My 11 '46
Vacationist buys a lot more than bed, board, and fun in California; All-year club of southern California. D. Thomas. Sales Management 56:120+ Ja 15 '46

Canada
Preliminary estimates of tourist expenditures, 1945, and revised statistics, 1944. 36p pa 25c Canada. Dominion bur. of statistics, Ottawa '46
Tourism; potent factor in Canadian economy. R. W. Rinden. il For Comm W 21: 5-7+ D 29 '45

Chile
Chile and Peru planning many new tourist hotels. For Comm W 24:12-13 Jl 6 '46

Ireland
Castles in Eire. Economist 151:18 Jl 6 '46

Latin America
Latin American aspects of postwar tourism. M. E. Gilmore. il For Comm W 22:10-11+ Ja 12 '46
Urges U.S. insurers to tackle problem of insuring U.S. tourists in Latin America. V. Lemmon. Nat Underw 49:42 N 15 '45

Panama
Panama plans for tourist trade. For Comm W 22:25 F 16 '46

Peru
Chile and Peru planning many new tourist hotels. For Comm W 24:12-13 Jl 6 '46

Switzerland
Switzerland; world resort. Fortune 34:212+ Jl '46

TOURISTS' motor bus lines. See Motor bus lines, Tourists'

TOURNALAYER. See Concrete houses

TOWBOATS
Codrington, Diesel river towboat. il Marine Eng 51:118-20 Mr '46
Coral Sea; seagoing Diesel tug. il Marine Eng 51:121-2 Je '46
Diesel-electric harbor tugboats for the navy. il Marine Eng 51:128 Ag '46
Diesel towboat Chilli Simpson. il Marine Eng 51:130-2 F '46
Electronic intercom system helps coal tugboats conquer river fog. il Min Cong J 31:68 N '45
Elisha Woods, Diesel towboat. il Marine Eng 51:125-6 Ag '46
Floyd Hamilton; Diesel tug. il Marine Eng 51:119-20 Je '46
George T. Horton, river towboat. Marine Eng 51.166 Ja '46
Havana Zephyr, Diesel towboat. il Marine Eng 51:102-4 Ag '46
Havoline Diesel-electric tugboat. il Marine Eng 51:121-2+ S '46
Lehigh Diesel river towboat. il Marine Eng 51:118-22 Ap '46
River towboat construction at Dravo. il Marine Eng 51:133-4 F '46
Towboat engine installation establishes a precedent. il Marine Eng 51:146 Mr '46
Tracy tug modernized by Todd Hoboken yard. il Marine Eng 51:108 Ag '46
Tug Kanak converted to Diesel drive. il Marine Eng 51:154+ Ap '46
Tugboats idle. Bsns W p100 Mr 23 '46
Turecamo Boys new postwar tug. il Marine Eng 51:107 Ap '46

Employees
Earnings on tugboats and barges in New York harbor, January 1945. M. L. Plunkett. Mo Labor R 61:1192-1200 D '45

TOWERS, Steel
Erecting a 145-ft. deisobutanizing tower; illustrations with text. D. Attaway. Pet Eng 17:102+ My '46
Quick method of tower demolition keeps wreckage near base area. il Eng N 135: 688-9 N 22 '45
Steel tower economics. P. J. Ryle. diags Inst E E J 93 pt 2:263-74 Je '46; Abstract. Electrician 136:109 Ja 11 '46; Discussion. Inst E E J 93 pt 2.275-84, 642-4 Je, D '46; Electrician 136:163-4 Ja 18 '46
Vibration studies on steel towers of Boulder transmission lines. J. K. Minasian. il Civil Eng 16:62-3 F '46

TOWING tanks. See Ship model tanks

TOWMOTOR corporation
Stock offered. Comm & Fin Chr 164:324 Jl 15 '46

TOWN planning. See City planning

TOWNER rating bureau
Towner rating bureau draws N.Y. examiner's fire. H. A. Kahn. Nat Underw 49:21+ D 13 '45; Excerpts. East Underw 46:101 D 14 '45

TOWNS. See Cities and towns

TOWNSEND, Willard S.
President, United transport service employees, C.I O. por Fortune 34:150 N '46

TOWNSEND equation
Ionization currents in non-uniform electric fields. P. L. Morton. bibliog diag Phys R 70.358-66 S 1 '46

TOWNSHIP roads. See Roads, Township

TOXINS and antitoxins
Ambiguity of international antitoxic units. I. C. Hall. bibliog Science 103:423-4 Ap 5 '46
Isolation and crystallization of tetanal toxin from the filtrates of clostridium tetani. L. Pillemer and others. bibliog il Science 103: 615-16 My 17 '46
Lecithinase activity of clostridium perfringens toxin. E. J. Theriault. (Public health rep supp 188) bibliog U.S. Public health service, Washington; pa 10c Supt. of doc '45
Molecular size and shape of botulinus toxin G. Kegeles. bibliog Am Chem Soc J 68:1670 Ag '46
Purification and crystallization of clostridium botulinum type A toxin. C. Lamanna and others. Science 103:613-14 My 17 '46
See also
Antigens and antibodies
Immunity

TOY industry and trade
Outstanding year in toy industry is in prospect. M. K. Tate. il Dom Comm 34:55-9 O '46
Sales of bubble-blowing sets keep toy industry busy. E. J. Dever, jr. il Ptr Ink 214: 28+ Ja 4 '46
Santa Claus hopes; famous village revives as toy plant locates there; rival promoters become subdued. il Bsns W p29-30+ N 17 '45
Toy industry back on peacetime basis. B. K. Price. il Steel 119:67-8 Ag 19 '46
Toy trouble; buyers jam American toy fair. il Bsns W p26+ Mr 23 '46
Toys demand better pre-packs and eye appeal. il Mod Packaging 19:98-102 My '46
Toys that tick, that go: Kelmar corp. bids for juvenile market. il Sales Management 55:130 D 1 '45
See also
Dolls

Advertising
Dated toys ease youngsters' growing and learning woes. il Sales Management 56: 165-6 F 15 '46
Guidance council assists makers, vendors on toy advertising, selling. N. Kelne. Ptr Ink 216:82+ Jl 26 '46
16-page ad and reprints solve catalog problem; Lionel ad in Liberty. E. M. Housman. il Ptr Ink 217:56+ N 8 '46
War baby grows up, no reconversion required; Noma electric corporation adds toys. il Ptr Ink 213:142+ N 16 '45

TOY industry and trade—*Continued*

Japan

Situation in Japanese toy industry. For Comm W 25:28 N 2 '46

TOY trains. See Railroads—Models

TOYS

Louis Marx, toy king. il Fortune 33:122-7+ Ja '46

See also

Molding machines (for plastics)—
Miniature presses
Rubber toys

TOYS, Plastic

Animation in a molded toy. il Mod Plastics 23:146 Ap '46

Baby toys must be tough. il Mod Plastics 23:95 Je '46

Building in miniature with vinyl blocks. il Mod Plastics 24:103 O '46

Construction sets turn to plastics. il Mod Plastics 23:96-7 Je '46

Every fourth toy is plastic. il Mod Plastics 23:91-4 Je '46

High fidelity in model trains. M. Frisbie. il Mod Plastics 23:133-5 Ag '46

Time to play. il Mod Plastics 23:95-101 D '45

TRACE analysis

Determination of traces of acetylene in liquid oxygen in rectifying columns. H. P. McKoon and H. D. Eddy. bibliog diags Ind & Eng Chem Anal ed 18:133-6 F '46

TRACE elements in agriculture. See Agricultural chemistry

TRACING paper

White mineral oil and petrolatum in the manufacture of specialty papers. R. K. Rhodes. Paper Tr J 123:59-62 S 26 '46

TRACK cleaning machinery. See Railroads—Track cleaning machinery

TRACK scales

See also

Locomotives—Weighing

TRACTOR industry and trade

How Ferguson puts the smell and feel of the soil into tractor sales talks. il Sales Management 56:40-3 Je 15 '46

Advertising

Caterpillar customers tell what they read and why they buy; door to door research. L. Hosler. il Ind Marketing 30:56+ D '45

Statistics

Farm and industrial tractor production, 1937-1945; tabulations. Automotive & Aviation Ind 94:79 Mr 15 '46

TRACTOR tires. See Tires, Tractor

TRACTORS

Atom semi-crawler tractor. il Engineering 161:19 Ja 4 '46

Can farmers afford their new tools? L. Haystead. il Fortune 34:177+ S '46

Garner-Straussler tractor. il plan diags Automobile Eng 36:143-7 Ap '46

Junior tractor. Bsns W p52 Ja 5 '46

Rubber tracks for agriculture. C. O. Slemmons. il diags S A E J 53:713-18 D '45

S A E National annual tractor meeting, Milwaukee, Sept. 12. S A E J 54:27-9+ O '46

Tractor design. diags Automobile Eng 35: 271-7, 369-75; 36:157-63 Jl, S '45, Ap '46

Tractor jack combines hydraulic power and ingenuity to ease job. il Sci Am 174:222 My '46

Two British crawler tractors. il Engineer 182:307 O 4 '46

Bearings

Aluminum bearings for Caterpillar engines. G. B. Grim. il Automotive & Aviation Ind 95:28-9+ N 1 '46

Cost of operation

Diesel engine requirements for farm tractors; comparison with gasoline engines; abstract. L. A. Gilmer. il Nat Pet N 38:31+ S 25 '46

Economics of the application of Diesel power to farm tractor operation; comparison with gasoline engines; abstract. H. F. Bryan. Nat Pet N 38:34 S 25 '46

Fuel

Agricultural tractors operated on generator gas; abstract. H. Lute. diags Product Eng 16:866-8 D '45

Manufacture

Precision presswork in assembly; Ford-Ferguson tractor; abstract. P. D. Aird. Materials & Methods 23:532+ F '46

Quenching water requirements of induction heated parts; Caterpillar tractor co. B. R. Miller. il Metal Prog 49:750-2 Ap '46

Radiator production accelerated by induction soldering; International harvester co. il Iron Age 158:55 O 24 '46

Stamping clutch lever parts for garden tractor; Farm equipment division, Ellinwood industries. L. Barrett. il Steel 118:96+ Je 10 '46

Specifications

American tractors; tabulation. Automotive & Aviation Ind 94:122-5 Mr 15 '46

TRACTORS, Industrial

Dispatch system controls intraplant trucking; B. F. Goodrich company. il Factory Management 104.120-1 Jl '46

Fire hazards of gasoline tractors. Nat Safety N 52:125 N '45

Lansing Bagnall petrol-driven industrial tractor. il Engineer 181:473 My 24 '46

Lansing Bagnall 20-B H.P. industrial tractor. il Engineering 162:321 O 4 '46

Ransomes, Sims & Jefferies electric tractor. il Mech Handling 33:43-4 Ja '46

TRACTORS, Military

Albion tractor. il diags Automobile Eng 36: 3-12 Ja '46

German army transport; detailed study and analysis of captured enemy vehicles. il diags Automobile Eng 35:471-81, 515-25 N-D '45

See also

Tanks, Military

TRADE. See Commerce

TRADE acceptances. See Acceptances, Trade

TRADE agreements

Annual wage for packers? packinghouse workers new contracts. Bsns W p86+ Jl 6 '46

Collective bargaining at work; master agreement between Building trades employers' association and Building and construction trades council. New York. T. S. Holden. Arch Rec 99:91-6 My '46

Collective bargaining in health; question of sick leave with pay, and health and hospital coverage. A. Fletcher. Min & Met 27:522-3 N '46

Delays at Ford; U.A.W. council opposes clauses on productivity and promotion. Bsns W p104 Mr 16 '46

End in sight? fourth Allis-Chalmers local returns to work. Bsns W p90 O 19 '46

Ford gains security. Bsns W p96 Mr 2 '46

Government collective agreement with civil servants in Saskatchewan. Mo Labor R 61: 972-3 N '45

Indexing union contracts. M. Hoag. Special Lib 37:106-10 Ap '46; Discussion. C. D. Gull. 37:223 S '46

Industrial relations in Switzerland, 1938-44. Mo Labor R 61:1175-7 D '45

Labor relations control. B. C. Ashwin. Personnel J 24:322-8 Mr '46

Lewis still no. 1; victories in soft coal strike. Bsns W p97 Je 8 '46

Management revisions of union agreements. Management R 34:425-7 N '45

Management strategy in labor contract negotiations. R. L. Greenman and E. B. Greenman. Advanced Management 11:111-19 S '46

Non-wage issues; General Electric seeks U.E. agreement on union security and piece-rate standards. Bsns W p96+ Ap 27 '46

Put employer rights in the union contract. A. E. Meder. Factory Management 104:266+ Ag '46

TRADE agreements—*Continued*
Security provisions in labor contracts. E. T. Reisner. bibliog Personnel J 25:67-71 Je '46
Six-year no-strike plan in St Louis by 42 laundries, dry cleaning firms, and linen and towel supply houses. Bsns W p100 D 15 '45
Uniformity drive; C.I.O. rubber workers seek corporation-wide contracts. Bsns W p78+ Ag 3 '46
Union agreements in the cotton-textile industry. R. Theodore. Mo Labor R 62:413-23 Mr '46
Union agreements in the tobacco industry, January 1945. E. T. Royer. U S Bur Labor Statistics Bul 847:1-25; pa 5c Supt. of doc. '45
Wage agreements and settlement of disputes in Norway, 1945. Mo Labor R 61:1173-5 D '45

See also
Collective bargaining

Maintenance of membership clauses

See Trade unions—Maintenance of membership

Wage clauses

Case against retroactive pay adjustments. E. Stevens. N A C A Bul 27:778-80 My 1 '46
Escalator scale; adjustments as living cost indexes change called for in St Louis garment contract. Bsns W p92 F 2 '46

TRADE agreements, Commercial. See Commercial treaties and agreements

TRADE association executives, American. See American trade association executives

TRADE associations
Do associations represent the small business firm? C. J. Judkins. Dom Comm 34:15-20 Jl '46
Organization of industry; British and American trade groups compared. W. Mitchell, jr. il Dun's D 54:15-17+ Je '46
Role of organized industry in labor relations. W. Mitchell, jr. il Dun's R 54:9-11+ S '46
Three industrial trade groups seek five billion dollar sales goal; American supply & machinery manufacturers, National supply & machinery distributors, and Southern supply & machinery distributors. map Sales Management 57:106+ S 1 '46

See also
Advertising, Association
Export associations
Gas associations
Paper associations
Retail associations
Trade unions

also names of associations, e.g.
American institute of steel construction
American petroleum institute
American trade association executives
Glass container manufacturers' institute
National association of electric companies
National association of manufacturers
National paint, varnish and lacquer association
Steel products warehouse association

Directories

Alphabetical list of scientific and trade organizations in the chemical and allied fields. Chem Ind 55:685-6 pt 2 (Buyers guidebook no) N '44
Alphabetical list of scientific and trade organizations in the chemical and allied fields. Chem Ind 57.745-6 pt 2 (Buyers guidebook no) N '45

Educational work

Natural gas home study course at University of Kansas. C. M. Young. Am Gas Assn Mo 28:377-8+ S '46
250,000 salesmen needed! here's how electric industry will select and train them; National electrical wholesalers association three-part program. il Ptr Ink 216:43 Jl 12 '46

Insurance service

35.08% saving for New York insurance group. Sheet Metal Worker 37:47+ F '46

Service

Wholesalers' committees aid industrial marketing; National electrical wholesalers association apparatus and warehousing committees. C. G. Pyle. Ind Marketing 30:46+ O '45

TRADE characters. See Advertising characters

TRADE directories
Aero equipment and trade literature digest index; list of items described in Aero equipment digest section from May 1, 1945, to October 15, 1945; with addresses of manufacturers. Aero Digest 52:171-3+ Ja '46
Buyers' guide; bus parts, materials, accessories, shop equipment and tools; 1946 directory. Bus Transportation 25:225-39+ Je '46
Buyers' guide of refinery equipment. Oil & Gas J 44:B1-104 sec 2 Mr 30 '46
Buyers guidebook number, 20th annual revision. R. L. Taylor, ed. Chem Ind 55:1-905 pt 2 (Buyers guidebook no) N '44 (pa $2)
Buyers guidebook number, 21st annual revision. R. L. Taylor, ed. Chem Ind 57:1-985 pt 2 (Buyers guidebook no) N '45 (pa $2)
Catalog files and directories preferred for reference Ind Marketing 31:78 My '46
Classified index of products used in waterworks and sewerage field. Water & Sewage Works 93:R2-12 Ap '46
Directory of manufacturers' equipment, 1946; machinery, equipment and supplies for the rock products' industries. Rock Prod 49: 179-241 Ja '46
Directory of materials. Machine Design 18: 168-256 O '46
Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. Sheet Metal Worker 37:173-90 Ja '46
Electronics buyers' guide. Electronics 19B: [305-416] insert D1-D112 Je 15 '46; Additions and corrections. 19:217-18 N '46
Gas engineering and appliance directory. Gas Age 97:75-162 Je 13 '46
Inland Printer's 1946 directory of equipment and supplies. Inland Ptr 116:95-137 D '45-Ja '46
1945 guide book of the frozen food locker industry. 216p bibliog(p192-6) Locker publications co, 1421 Walnut st, Des Moines, Iowa '46
1946 directory of heating, piping, and air conditioning equipment for industrial, commercial, institutional and public buildings; classified by products, trade names and manufacturers' addresses. Heating-Piping 18:265-366 Ja '46
1946 directory of manufacturers; buyers' guide of over 400 power products. Power 89:sup199-298 Mid-D '45
Products index, with addresses of manufacturers and agents. Roads & Bridges 84: 157-68 Je '46
Where-to-buy; products directory of current advertisers in *Steel*. Steel 119:1-44 sec 2 O 21 '46

See also
Air conditioning industries—Directories
Building trades—Directories
Diesel engines—Directories
Electric apparatus industry—Directories
Equipment industries—Directories

Bibliography

Business reference publications. Ind Marketing 30:133-4 O 25 '45

TRADE discount. See Discount, Trade

TRADE-in policies
Convenient engine-trade plan offered by Continental; provides rebuilt power plants as replacements for used engines. il Aviation 45:84 My '46

TRADE journals
848 business papers report advertising up 15.57%; annual survey; list of journals classified by industry. Ptr Ink 214:85+ F 22 '46
Predict business papers in for a postwar facelifting. Ind Marketing 30:72+ O '45

See also
Advertising mediums—Trade journals
Business periodicals

TRADE journals—*Continued*

Advertising service

Pre-testing gets big response to long questionnaire; 460 construction truck operators each spent an hour or more answering 200 and more questions for McGraw-Hill. R. H. Ganly. il Ptr Ink 214:29-31 Mr 1 '46

Costs

J. K. Lasser study reveals rising business paper publishing costs. Ind Marketing 31: 35+ S '46

Directories

Market data book number, 1946. Ind Marketing 30:1-536 O 25 '45

Editors

Business paper editors receive editorial achievement awards; with biographical notes. Ind Marketing 30:37-9+, 190-1 O '45

Industrial editors speak-up confidentially in one-day clinic. R. Newcomb. il Ind Marketing 31:41-2+ F '46

38 editorial achievement awards presented to business paper editors. il Ind Marketing 31:34-6+ O '46

Reader interest

New business paper study based on 5 point program. Ind Marketing 31:33+ My '46

Europe

Wynkoop finds continent hungry for business news. Ind Marketing 31:28+ Ag '46

TRADE marks

Coca-cola; polar-cola. Adv & Sell 39:94 Jl '46

Company merges two trade-marks; retains identity of both; American-LaFrance-Foamite corp. also to use single trade-name, Alfco. il Ptr Ink 217:39 O 25 '46

FTC trademark orders subject to review by courts. Oil Paint & Drug Rep 149:3+ Ap 1 '46

Fisk tires trade-mark; how it doubles in brass. il Sales Management 56:107+ Je 15 '46

Indians' mark; code of standards for jewelry and curios. il Bsns W p31 Ag 24 '46

International accord needed to eliminate chaos in trade-marks. Iron Age 157:109 My 23 '46

Jobs for brand-name trade-marks; principles governing their choice and treatment. W. J. Halliday. Ptr Ink 213:102+ D 28 '45

New trade marks. Soap & San Chem 22:51+ Ja '46 [cont monthly]

New trade-marks of the textile industry. il Published in monthly numbers of Rayon textile monthly

Nine-step trade-mark revision program pays dividends; Rockwell mfg. co., Pittsburgh, builds good-will and prestige; linking subsidiaries and their products to each other and the parent company. H. E. Green. il Ptr Ink 215:38-9+ My 3 '46

Patent commissioner Ooms would register world's trade-marks. Ptr Ink 215:114 My 10 '46; Bsns W p21 My 11 '46

Patents and trade marks. Published in monthly numbers of India rubber world

Trade character flies; speedbird, emblem of British overseas airways corporation. G. W. A. Wynne. Ptr Ink 216:74 S 13 '46

Trade-mark applications [chiefly Latin American]. Published in Foreign commerce weekly

Trade-marks with corporate name. Adv & Sell 39:94+ Jl '46

Trademark tests; Pillsbury's Golden Bake Mix and General Mills' Cheerioats. Bsns W p90 D 15 '45

Trademarks of the month; checklist of chemical and chemical specialties trademarks. Chem Ind 58:176 Ja '46 [cont monthly]

Why 60 giftware producers use a single trade-mark. Sales Management 56:138+ Je 1 '46

Your trademark, are you making the most of it? McQuade & co., paint manufacturer, redesigns entire family of labels. il Mod Packaging 20:105 O '46

See also

Advertising characters
Patent laws and legislation
Patents
Private brands
Trade names

Advertising

Ad campaign to push California brand is set by apparel makers. il Sales Management 56:46+ F 1 '46

How to prevent unauthorized use of trade name; Pan American defends exclusive right to Clipper. il Ptr Ink 216:42 Jl 12 '46

Color

Color helps in trade-mark identification tests. C. L. Bigelow. Ptr Ink 217:85-6+ O 25 '46

Law

Broader trademark protection offered by Lanham act. Chem Ind 59:721 O '46

Lanham act. Mod Packaging 19:100-3 Ag '46

Provisions of the proposed federal trade-mark law. L. B. Stoughton. Ptr Ink 215:46-7 Je 21 '46

Trademark bill agreement reached. Oil Paint & Drug Rep 150:3+ Jl 1 '46

Trademark law; underlying philosophy of Lanham act. Bsns W p80+ Jl 20 '46

Trade-mark law with new features effective July 1947; Lanham act. C. W. Ooms. Dom Comm 34:6-8 Ag '46

What the new trade-mark law means to advertisers. C. W. Ooms. Ptr Ink 217:44-5+ O 4 '46

When can you use name of locality as a trade-mark? difference between technical trade-mark and geographical mark. A. A. Singer. Ptr Ink 216:51-2+ Ag 23 '46

Protection

Facts about copyrighting labels; misconceptions regarding registration of trade marks. A. W. Gray. Adv & Sell 38:44 D '45

TRADE names

Accent on Bayer; spotlights the brand name. il Mod Packaging 19:104-5+ Ag '46

Calling no names. F. Vandewart. Adv & Sell 39:160d Mr '46

Carborundum, one name for the family. il Mod Packaging 19:120-3 Je '46

Company merges two trade-marks; retains identity of both; American-LaFrance-Foamite corp. also to use single trade-name, Alfco. il Ptr Ink 217:39 O 25 '46

Condensed review of some recently developed materials, arranged alphabetically by trade names. Mach 53:171-83 O '46

Index and trade name dictionary. Chem Ind 55:817-905 pt 2 (Buyers guidebook no) N '44

Index and trade name dictionary. Chem Ind 57:891-985 pt 2 (Buyers guidebook no) N '45

Iron, steel and nonferrous metals listed by tradenames. Machine Design 18:168-99 O '46

Look out for these fifty trade-name troublemakers. W. A. Lawrence. Adv & Sell 39:76+ Ja '46

Nonmetallics listed by tradenames. Machine Design 18:218-25 O '46

Plastic listed by tradenames and by type; list of producing companies. Machine Design 18 207-17 O '46

Trade names of manufacturers' equipment. Rock Prod 49:242-54 Ja '46

12 trade names reduced to 1; Pyrene fire extinguisher. il Mod Packaging 19:116-19 Ag '46

Protection

How to prevent unauthorized use of trade name; Pan American defends exclusive right to Clipper. il Ptr Ink 216:42 Jl 12 '46

TRADE pacts. See Commercial treaties and agreements

TRADE practices

Beauty unmasked; Arden case imperils two trade practices: demonstrators and push money. Bsns W p77-9 Ja 5 '46

Credit jewlers adopt fair trade practice rules. Ptr Ink 215:92 Je 28 '46

FTC and business can be friends under trade practice plan. G. A. Nichols. Ptr Ink 216: 44-5 S 27 '46

FTC prepares for new role; Arden demonstrator decision. Bsns W p64-6 Je 22 '46

FTC sponsors industrial competition, self regulation. S. E. Cohen. Ind Marketing 31: 66+ Mr '46

Form committee to combat discount houses and back door selling. Ptr Ink 213:68 D 14 '45

TRADE practices—*Continued*

Proposed trade practice rules for equipment distributors. Roads & Bridges 84:64+ Ag '46

Trade practice rules drawn for waterproofing industry. Concrete 54:10 N 4 '46

See also

Dealer relations
Federal trade commission
Price fixing
Price fixing, Resale
Price policies
Sales policies

TRADE relations

Ideal pattern of merchandising cooperation; checklist. R. F. Chisholm. Ptr Ink 215:67-8+ My 17 '46

Trade relations and work of the Vendor relations committee of the N.R.D.G.A. I. D. Wolf. J Retailing 21:131-3+ D '45

TRADE routes

Foreign trade route and vessel requirements. Marine Eng 50:132-5 D '45

TRADE schools

Vocational school, Winfield, Kan. il map plans Arch Forum 83:110-11 D '45

See also

Bulova school of watchmaking
Newport News shipbuilding and dry dock company—Apprentice school
Radio schools and training
Textile schools

TRADE union buildings

Six union projects illustrate requirements of building's newest client. il plans Arch Forum 84:122-8 My '46

TRADE union libraries

See also

American federation of labor—Library

TRADE unions

American foreman unionizes. E. Dale. J Bsns 19:25-30 Ja '46

Amish aloof; Mennonites may ballot on unionization at Wilson bros. plants. Bsns W p90+ Je 29 '46

Asks Labor department aid in halting union coercion. Nat Pet N 38:13-14 S 18 '46

Engineer and the union. H. D. Burns. bibliog Elec Eng 65:445-8 O '46

Good trade-unionism. Fortune 34:3-4 Jl '46

How the union disillusioned us; Sinclair company. D. T. Pierce. il Factory Management 104:94-7 Ja '46

Immediate measure to strengthen the professional and economic position of the engineering profession. Mech Eng 68:807-15 S '46

Industrial relations charter for the Americas; right to organize and bargain collectively. H. S. Roberts. Mo Labor R 62:908-10 Je '46

Is unionization the answer? O. Eisenschiml. Chem & Eng N 24:1176-82 My 10 '46

Labor is big business; abstract. V. Riesel. Management R 35:5-7 Ja '46

Labor's cause. Fortune 34:2-4 N '46

Labor's post-war problems. C. Jordan. Pulp & Pa of Can 46:952+ N '45

Management should not fear clerical unionization. H. E. Niles; L. Merrill. Nat Underw (Life ed) 49:11 N 16 '45

Management-union struggle to attain employee goodwill. D. B. Straus. Comm & Fin Chr 164:1845, 1853 O 10 '46

Must labor and management fight? summary of survey of top management and labor leaders made by Nejelski & company. J. M. Goldsen and others. Advanced Management 11:70-3 Je '46

National collective bargaining. S. Barkin. Personnel J 25:150-60 N '46

Responsibility of organized labor for employment. S. Slichter. Management R 35:120-2 Ap '46

Strike one; American baseball guild, new independent union. Bsns W p92+ Ap 27 '46

Suspicions and resentments affect labor productivity; belief widespread that only union pressure can win economic gains. R. M. Bleiberg. Barron's 26:3+ N 4 '46

Trends in industrial relations. D. R. Richberg. Comm & Fin Chr 164:1536+ S 26 '46

Two major labor union questions loom on horizon of U.S. graphic arts industry. Inland Ptr 117:31-2 Jl '46

Union embargo; Kansas City local refuses to load CCC wheat destined for Mexico, urging milling in U.S. Bsns W p20 Je 8 '46

Union interest in engineering techniques. W. Gomberg. Harvard Bsns R 24 no 3:356-65 [Ap] '46

Union relations; help or hindrance in future mining progress? Coal Age 51:80a-80d Mr '46

Union relations with private ownership. V. H. Ely. Am Water Works Assn J 38:921-9 Ag '46

Unionization in air transport; comparison with railroad unions. T. W. Kheel and D. B. Straus. Air Transport 4:29-33 My '46

Unions and veterans; including a directory of leading unions and illustrations by Bernard Seaman. A. M. Ramsay. 32p pa 25c Public affairs press, 2153 Florida av, Washington 8, D.C. '46

Unions in dark; locals at two atomic bomb projects progress despite secrecy. Bsns W p80+ Je 15 '46

Unions' lip service to unfettered private enterprise misleading. C. H. Grattan. Barron's 26:3+ O 14 '46

Utility unions and memberships. Elec World 125:93 My 25 '46

What management is asking unions for; abstract. J. O. Rice. Management R 35:37-9 F '46

White-collar unionization; abstract. H. Rushmore. Management R 35:8-9 Ja '46

Who should pay costs of union functions? L. Westrate. Automotive & Aviation Ind 94: 17+ F 1 '46

Why men are loyal to unions; problems of the personnel man. R. W. Ells. il Am Bsns 16:8-9+ Ja '46

See also

Advertising, Trade union
American federation of labor
Arbitration, Industrial
Association of Catholic trade unionists
Congress of industrial organizations
Housing projects, Trade union
Industrial relations
Insurance agents—Unions
Labor and laboring classes
Open and closed shop
Radio broadcasting—Trade union programs
Strikes
Trade agreements

also names of unions, e.g.

American federation of musicians
Building service employees international union
Foreman's association of America
International association of machinists
International ladies' garment workers' union
International longshoremen's and warehousemen's union
International typographical union
Mechanics educational society of America
National federation of telephone workers
Oil workers international union
Textile workers union of America
United automobile workers of America
United brewery, flour, cereal and soft drink workers of America
United financial employees
United mine workers of America
United retail, wholesale and department store employees of America
United rubber workers of America
United steelworkers of America

Benefit funds

Congress probe of health, welfare plans proposed; coal mine situation uncertain. Nat Underw 50:18 Jl 11 '46; Same. Nat Underw (Life ed) 50:4 Jl 12 '46

Employer contributions to union benefit funds, United States. Mo Labor R 62:867-9 Je '46

How one union uses its welfare funds; International ladies garment workers union. Bsns W p92 Je 8 '46

NECA members agree to give to IBEW pension fund. Elec World News ed 125:8 Ap 20 '46

Unions increase demands for employer-financed benefits. C. H. Grattan. Barron's 25:3+ D 10 '45

TRADE unions—*Continued*

Biography

Who's who in labor. 480p Dryden press, 386 Fourth av, New York 16 '46

Communist problem

A.F.L. attacks C.I.O. Bsns W p82+ Ag 31 '46
Communist influence in American labor movement. E. Lyons. Comm & Fin Chr 163: 3053+ Je 6 '46
Dayton: union battleground; Communist issue in electrical manufacturing industry. Bsns W p76+ Je 15 '46
Opinion on extent of communism in trade unions; Gallup poll. Iron Age 158:164-5 Jl 18 '46
Unions with communists; widening cleavage between non-communists and communists in CIO unions. Economist 150:884 Je 1 '46; Same. Iron Age 157:103+ Je 13 '46
U.A.W. turmoil. Bsns W p92+ Jl 6 '46

Directories

New York trade union directory and manual. 175p pa $1 Greater New York CIO council, 1133 Broadway, New York 10 '46

Educational work

Management-labor cooperation in training apprentices. W. F. Patterson. il Arch Rec 100:95-100 Ag '46
Trade union studies, a British experiment. M. Starr. Mo Labor R 63:397-8 S '46

Health service

Health program; auto union's institute. Bsns W p89-91 Ag 17 '46
Philadelphia International ladies garment workers union health plan. J. A. Langbord and S. C. Stein. Ind Med 15:389-91 Je '46

History

Labour unions, their history and organization. D. C. McLaren. Can Min J 67:618-24 Je '46

Insurance plans

Security provisions in labor contracts. E. T. Reisner. bibliog Personnel J 25:67-71 Je '46

International aspects

CIO's international aims. J. B. Carey. Comm & Fin Chr 163:525+ Ja 31 '46
International trade union movement. Int Labour R 53:276-9 Mr-Ap '46

Jurisdictional disputes

A.F.L. loses prize; Oak Ridge workers uphold no-union vote in Eastman plant. Bsns W p101 S 21 '46
Atom plant poll inconclusive; Oak Ridge, Tenn. ballot. il Bsns W p77 Ag 31 '46
Beer war looms; A.F.L. teamsters' ban on breweries operating under C.I.O. Bsns W p85-6 N 2 '46
Cannery blockade; strikeless tie-up continues in California. Bsns W p102 Mr 30 '46
Cannery strike; northern California packers. Bsns W p88+ Mr 9 '46
Divided house; feud between two unions in Howard Hughes' tool plant, Houston. Bsns W p32-3 Mr 9 '46
Dixie battlefield; C.I.O. and A.F.L. drives to organize the South. Bsns W p94+ My 11 '46
Double campaign; drives to organize governmental workers. Bsns W p80-1 My 4 '46
I.A.M. defeated at Westinghouse plant. Bsns W p90+ Ag 31 '46
Jurisdictional labor problem; Foote and Davies case, Atlanta, and Adcraft or Pacific press case, Los Angeles; abstract. H. O'Brien. Inland Ptr 117:44-5 Je '46
No Moses coup; exodus from C.I.O. union proves a flop. Bsns W p94+ Je 29 '46
Oak Ridge; union prize. Bsns W p92+ Jl 20 '46
Prophetic raid; A.F.L. union takes over Chicago C.I.O. local in merchandising. Bsns W p93-4+ Ja 5 '46

Law

Antitrust suit; Justice dept.'s attack on truck-owner union members. Bsns W p92-4 Mr 2 '46
Government and union-employer relations; an analysis of statutes and administrative regulations. L. Magnusson. bibliog 36p pa $1 Public administration service, 1313 E. 60th st, Chicago '45
Mutual responsibility essential to labor-management peace; Senate joint resolution 133. H. F. Byrd. Manuf Rec 115:42+ F '46
Something has to be done; immediate labor-law reforms. C. O. Gregory. Fortune 34: 132-3+ N '46
Union procedure under the Wagner act. M. M. Shipman and P. E. Anderson. Oil Paint & Drug Rep 150:3 Jl 1; 3 Jl 8 '46
Union relations with public ownership. W. R. LaDue. Am Water Works Assn J 38:914-20 Ag '46
Unions should be controlled is opinion of majority of workers; Macfadden Wage earner forum. Comm & Fin Chr 163:438 Ja 24 '46

Maintenance-of-membership

Negotiating maintenance-of-membership demands. Management R 35:88 Mr '46

Management

Garment workers. il Fortune 34:172-9+ N '46

Negro members

Unions and Negro employment. H. R. Northrup. Ann Am Acad 244:42-7 Mr '46

Officials

Ten who deliver; random selection of smart union operators. Fortune 34:146-51 N '46
Understanding union administration. P. Taft. Harvard Bsns R 24 no2:245-57 [Ja] '46
Union leader: a collective portrait; abstract. C. W. Mills and M. Atkinson. Management R 35:215-17 Je '46
Wanted: mature labor leaders. B. M. Selekman. Harvard Bsns R 24 no4:405-26 [Jl] '46; Abstract. Personnel J 25:87-9 S '46

Periodicals

Industry's isolation ward; labor press may reconcile some differences. M. Dodge. il Sales Management 57:37-40 S 1 '46

Political activities

Business and politics; leftist organizations have succeeded in dominating administration's policies. J. W. Hanes. Comm & Fin Chr 163:835+ F 14 '46
Fortune survey; should labor play politics? Fortune 34:16+ N '46
Union-led third party movement receives little public support; Republican strength moves West; Gallup poll. Iron Age 157:109 Mr 7 '46
What the factory worker really thinks about productivity, nationalization of industry, and labor in politics. Factory Management 104:81-8 Ja '46

See also
Congress of industrial relations—Political action committee

Political aspects

Analysis shows CIO and AFL positions on second labor management conference, price control, wage stabilization, production. Food Ind 18:1564 O '46

Public relations

Let's take the lead in giving workers economic facts. Factory Management 104:124-9 Je '46
Public wants regulation of labor unions; Gallup poll. Iron Age 157:99 Je 13 '46
Why the public is confused by the labor situation. W. Williams. Factory Management 104:95-6 Mr '46

Recreational work

Garment workers' summer dormitory; International ladies garment workers union, Forest Park, Pa. il plan Arch Rec 100:96-7 S '46

Safety work

Labor enlists for safety; leaders to serve on NSC governing boards. Nat Safety N 54:101+ O '46

TRADE unions—*Continued*

Social work

Bibliography

Organized labor's participation in social work. M. M. Otto, comp. Russell Sage Foundation Library Bul 163:1-8 O '45 (pa 10c)

Argentina

Regulation of workers' organisations in Argentina. Int Labour R 52:677-80 D '45

Belgium

Christian trade-union movement. H. Pauwels. Ann Am Acad 247:56-61 S '46

Regrouping of Belgian trade unions. Int Labour R 52:428-30 O '45

Socialist and communist trade unions. J. Bondas and P. Finet. Ann Am Acad 247:47-55 S '46

Brazil

Trade unions in Brazil. Economist 151:627-8 O 19 '46

Canada

Trade-union membership in Canada, 1944. Mo Labor R 61:1178-9 D '45

Union status in collective agreements in the iron and steel industry, Canada, 1945. Mo Labor R 62:424 Mr '46

What Canadian workers think about labor unions and labor's policies. Factory Management 104:100-1 S '46

France

Definition of representative industrial organisations in France. Int Labour R 52:680-2 D '45

Fourth estate. Economist 151:57 Jl 13 '46

Twenty-sixth National congress of the French general confederation of labour. Int Labour R 53:431-5 My-Je '46

Germany

Trade unionism in Germany. Economist 150:99-100 Ja 19 '46

Great Britain

British trades union congress 77th annual meeting, Sept. 10-14, 1945. Int Labour R 52:560-4 N '45

Closed shop week. Economist 151:651-2 O 26 '46

Liberty and the unions. Economist 151:321-2 Ag 31 '46

Meeting of British trades union congress, 1945. Mo Labor R 61:1179-81 D '45

Trade union membership in 1944. Economist 149:883 D 15 '45

Trade union studies, a British experiment. M. Starr. Mo Labor R 63:397-8 S '46

Trade unions and production. Economist 150:522-4 Ap 6 '46

Hollywood, California

More trouble in paradise; in Hollywood, management and unions prefer labor politics to policy. il Fortune 34:154-9+ N '46

India

Wartime developments in trade union organisation in India. bibliog Int Labour R 53:349-63 My-Je '46

Latin America

See also Confederation of Latin American workers

Mexico

How not to operate a railroad; control of Mexico's railways by labor unions. O. M. Stevens. Ry Age 120:672-4 Mr 30 '46; Same. Western Soc E J 51:82-9 Je '46

Plant seizures; Mexican workers take over du Pont subsidiaries' dynamite factories. Bsns W p114+ S 14 '46

Netherlands

Labor and employer organizations during German occupation. E. Kupers. Ann Am Acad 245:62-9 My '46

New Jersey

Labor law tested; New Jersey act prevents disruption of gas service. Bsns W p70+ Ap 13 '46

Norway

Underground trade-union activity in Norway during the war. Mo Labor R 61:979-81 N '45

Russia

U.S.S.R. trade union movement and the general welfare of the workers. Int Labour R 52:426-8 O '45

Southern states

C.I.O., A.F.L. report Dixie organizing gains. Bsns W p32 O 26 '46

C.I.O. launches organizing drive, Operation Dixie. Bsns W p92 Ap 27 '46

Dixie campaign. Bsns W p104+ Ag 24 '46

Labor drives South. il Fortune 34:134-41+ N '46

Southern unions hold firm. Bsns W p82+ Mr 2 '46

Textile labor situation. J. A. Daly. Manuf Rec 115:34, 74-5 S '46

Wason predicts. Bsns W p92+ Je 1 '46

Sweden

Employer combines limit Swedish unions. H. G. Tonndorf. Factory Management 104:270+ Je '46

Switzerland

Trade-union growth and international policy in Switzerland. Mo Labor R 61:981-3 N '45

United States

Atomic unions; organizers at Oak Ridge. Bsns W p95-6 Je 1 '46

Competition and monopoly in organized labor markets. T. J. Anderson, jr. Comm & Fin Chr 164:65+ Jl 4 '46

Curtain raisers; union conventions. Bsns W p110+ S 28 '46

Dangers of organized labor control. D. R. Richberg. Comm & Fin Chr 163:2915+ My 30 '46

East-West union; waterfront and seagoing units planning autonomous confederation. Bsns W p94+ F 16 '46

Extent of collective bargaining and union recognition in 1945. Mo Labor R 62:567-72 Ap '46

Fortune survey; how does organized labor rate today? Fortune 34:5-6+ N '46

Labor union status and capitalism's future. E. C. Griffith. Comm & Fin Chr 163:3473+ Je 27 '46

Labor unionism in American agriculture. U S Bur Labor Statistics Bul 836:1-457; pa 70c Supt. of doc. '45

Labor unionism in American agriculture. S. Jamieson. bibliog Mo Labor R 62:25-36 Ja '46

Labor unions, then and now. G. H. Fisher. Manuf Rec 114:51+ D '45

NLRB allows foremen unionization. Coal Age 51:154+ Ap '46

Organizers' race; A.F.L. petitions for poll of atomic workers. Bsns W p97 Jl 6 '46

Postwar labor trends. H. K. Breckenridge. Edison Elec Inst Bul 14:237-40 Jl '46

Reuther: F.O.B. Detroit; new model union leader. il Fortune 32:148-51+ D '45

Superunion? proposed merger of seven maritime labor groups. Bsns W p99-100 My 18 '46

Union membership increased 11 million between 1930 and 1945; abstract. E. L. Warren. Iron Age 157:172 F 7 '46

Unionization of foremen upheld by National labor relations board. Steel 118:77+ Mr 18 '46

Unions' union? independent labor groups may join central organization. Bsns W p94 Mr 9 '46

U.S.A.; United steelworkers of America is unionism at its biggest. il Fortune 34:142-5 N '46

Where is labor headed? P. T. Sheldrick. il Mag of Wall St 78:200-1+ My 25 '46

Where is organized labor going? D. R. Richberg. Comm & Fin Chr 163:1501+ Mr 21 '46

See also American federation of labor; Confederated unions of America; Congress of industrial organizations; United brotherhood of carpenters and joiners of America

TRADE waste
Advances in sewage treatment and present status of the art; third progress report of the committee of Sanitary engineering division, 1944 and 1945. bibliog(165 titles) Am Soc C E Proc 72:835-43 Je '46
Chemical engineers' approach to industrial waste problems. J. E. Tarman. Am Water Works Assn J 38:333-41 Mr '46
Control of taste and odor from industrial waste; with cost data. C. D. Adams. Am Water Works Assn J 38:702-9; Discussion. 710-12 Je '46
Cooperative study of inter- and intraindustry pollution problems yields far better results than independent efforts. H. R. Murdock. Ind & Eng Chem 38:sup83-4 F '46
Disposal of industrial wastes. G. E. Symons. bibliog il diags Water Works & Sewerage 92:391-6 D '45
Disposal of refinery wastes. L. C. Burroughs. il plans Pet Refiner 25:81-8 Jl '46
Effect of effluents from industrial plants upon sewage treatment processes. H. R. Murdock. Ind & Eng Chem 38:sup81-2 Jl '46
Industrial waste problems and treatment. bibliog il Pub Works 77:25-8+ Ap '45
Inhibition of sludge digestion by penicillin manufacturing wastes; abstract. F. W. Gilcreas. Water & Sewage Works 93:327 Ag '46
Public health aspects of industrial waste disposal. F. M. Stead. Eng N 137:598 O 31 '46
Purdue's 2d industrial waste conference. Water & Sewage Works 93:89-91 F '46
Rental of municipal sewage systems to dispose of liquid wastes. H. R. Murdock. Ind & Eng Chem 38:sup81-2 Je '46
Research in the design of lagoons has been stimulated by developments in the use of chemicals for processing waste. H. R. Murdock. Ind & Eng Chem 37:sup97-8 D '45
Sewage and industrial wastes in 1945. F. W. Mohlman. il diags Water & Sewage Works 93:45-56 F '46; Same. Water & Sewage 84: 21-5+ Mr '46
Treatment and disposal of waste waters containing chromate. J. Grindley. Soc Chem Ind J 64:339-44 D '45
Waste conference, 2d, Purdue, Jan. 10-11. Chem & Eng N 24:356-7 F 10 '46

See also
Acid waste
Canneries—Waste
Coal mines and mining—Waste disposal
Gas works—Waste
Metallurgical plants—Waste
Munition factories—Waste
Paper mills—Waste
Petroleum—Water problem
Petroleum waste
Refuse disposal
Sewage disposal
Sewerage
Sulfite liquor
Waste, Utilization of
Waste products
Water pollution

TRADEMARKS. See Trade marks

TRADES union congress. See Trade unions—Great Britain

TRADING areas. See Market areas; Shopping areas

TRADING estates. See Unemployment—Relief measures—Manufacturing

TRADING with the enemy
Official statement anent dropping Proclaimed list. For Comm W 24:49-50 Jl 13 '46
Proclaimed list today in the liberated areas. For Comm W 23:15 My 18 '46
Prosecution of suit on note by assignee of alien enemy payee not barred by provision of Trading with the enemy act. Banking Law J 62:965-6 D '45
Statement by Department of state, on behalf of the government agencies concerned with the proclaimed list of certain blocked nationals. For Comm W 23:19 Ap 6 '46

TRAFFIC circles
Congestion relief on N.J. highway promised by overpassing a traffic circle. il Roads & Sts 89:80-2+ Je; 86-7 S '46

TRAFFIC clubs of America, Associated. See Associated traffic clubs of America

TRAFFIC departments, Industrial
Traffic suggestions for production executives. C. E. Jones. Paper Ind 28:985-6 O '46

TRAFFIC engineering
Better engineering recommended to President's highway conference. Civil Eng 16: 242-4 Je '46
City traffic engineering activities; report by Eno foundation for highway traffic control. il map Roads & Bridges 84:60-1+ F '46
Express highway planning in metropolitan areas. J. Barnett. il maps Am Soc C E 72:287-305 Mr '46; Discussion. 72:722-4, 1057-69 My, S '46
New England highway traffic authorities meet in Boston. Roads & Sts 89:98+ Ag '46
New England traffic engineering conference, 3d, Cambridge, Mass., July 11-13. Eng N 136:953 Je 20 '46
New York state's urban program; arterial routes at state expense. B. D. Tallamy. il Roads & Sts 89:94+ Ag '46
Urban traffic-congestion problem. H. A. MacDonald. il plan Roads & Bridges 84:76-9+ Ap '46
What can be done about traffic congestion? traffic engineering and enforcement methods. R. A. Mitchell. il Civil Eng 16:260-2 Je '46

See also
Road traffic
Street traffic

TRAFFIC lines
Bridge deck modernized by adding median strip and resurfacing; bridge at Toledo. il Roads & Sts 89:94-6 Ap '46
Buoys and lifelines of highways; reflectorized signs and pavement markings. J. O. Martineau. il Roads & Bridges 84:87-9+ Ap '46
Curbs sandblasted before repainting yellow non-parking zones. il Roads & Sts 89:71 Ag '46
Markings are too confusing. Roads & Sts 89: 81 Ag '46
Standard white traffic marker used by Oklahoma City, Okla. R. Lee. diags Pub Works 77:37 My '46

TRAFFIC signals
New program device for traffic control systems. il Pub Works 76:65-6 N '45

TRAFFIC signs
Traffic signs; report of Ministry of transport departmental committee. Light & Lighting 39:65-7 Ap '46

TRAFFIC surveys
Effect of roadway width on vehicle operation; study of speed and placement on two-lane concrete roads. A. Taragin. il diags Pub Roads 24:143-60 O '45; Abstract. Concrete 54:2-5+ F '46
Metropolitan traffic surveys improved by home-interview method. D. L. Trueblood. il map Eng N 136:58-62 Ja 10 '46
One-day traffic survey in Buffalo. Roads & Sts 89:84 Ap '46
Requirements of modern highway bridges; load and traffic studies aid engineers in designing new structures. P. L. Pratley. Roads & Bridges 84:110+ Ap '46
Traffic planning studies in American cities. J. T. Lynch. maps diags Pub Roads 24:161-78 O '45

TRAGACANTHIC acid
Chemistry of gum tragacanth; tragacanthic acid. S. P. James and F. Smith. Chem Soc J p739-46 N '45

TRAILER coach manufacturers association
Trailer coach makers to revamp ads, sell product for permanent housing. Ptr Ink 217: 134 O 18 '46

TRAILERS
Compressor trailer releases truck units. B. J. Dowd. il Elec World 126:90 Ag 17 '46
Laws governing length of semi-trailers vary, chart shows state requirements. Nat Pet N 37:54 N 21 '45
New spring developed for Fruehauf trailer line. il Automotive & Aviation Ind 95:48 Jl 1 '46
Refrigerated aluminum trailer. il Automobile Eng 36:135-6 Mr '46
Signal corps trailer chassis has torsion bar suspension. il diag Product Eng 17:142 S '46
Stress analysis of lightweight trailer by aviation methods. T. F. Fletcher. il diags Automotive & Aviation Ind 93:32-6 D 15 '45

TRAILERS—*Continued*
Stressed aluminum body and air springs among weight saving features of Fairchild semi-trailer. il Automotive & Aviation Ind 93:30-1+ N 15 '45
Torsion bar suspension system on Fruehauf tandem axle trailers. il diags Automotive & Aviation Ind 94:22-3+ Ja 15 '46
Trailers ease Colorado university housing. Eng N 136:92 Ja 17 '46
Trailers for handling network transformers. N. J. Bukey. il Elec World 125:77-8 Ap 27 '46
Trucks haul tomatoes the year round; Tom-A-Toe produce co., Atlanta. il plan diag Food Ind 18:1368-9 S '46
Welded trailer design features novel truck-mounted front suspension. A. F. Davis. il Welding J 25:737 Ag '46

Advertising

Fruehauf ties in advertising campaign with new building construction. il Ind Marketing 31:74 F '46

Manufacture

American bantam car co. sets up to build cargo truck trailers. il Iron Age 157:123 Ap 4 '46
Merry-go-round assembly raises output 10 to 100 percent; Mercury manufacturing company. J. J. Sichman, jr. il Factory Management 104:156-7 Je '46
1946 truck-trailer production to set new mark. V. Bell. il Steel 119:92-3 O 7 '46
Stainless steel trailer operation reorganized by Fruehauf. J. Geschelin. il Automotive & Aviation Ind 95:34-6+ O 1 '46
Truck trailer production, 1942-1945; civilian and military; tabulations. Automotive & Aviation Ind 94:78 Mr 15 '46

Transportation

Design of a truck carrier; automotive truck trailer carried by ship. W. M. Rice. il plan diag Marine Eng 51:124-5 My '46

TRAILERS, Automobile. See Automobile trailers

TRAIN dispatching. See Railroads—Train dispatching

TRAIN ferries
Safe loading of car floats. il Ry Mech Eng 120:425-6+ Ag '46

TRAINING within industry
Five-year existence of wartime government agency. J Eng Educ 36:452-3 Mr '46

TRAINING within industry foundation
Incorporated in New Jersey as a non-profit organization. J Eng Educ 36:454 Mr '46

TRAINS. See Railroads—Trains

TRAINS, Toy. See Railroads—Models

TRAINSHEDS. See Railroads—Trainsheds

TRANSAMERICA corporation
Fish for Giannini's; Transamerica corp.'s newest venture. il Bsns W p56+ Mr 30 '46

TRANS-CANADA airlines
T.C.A. expansion. Bsns W p116 N 24 '45
TCA handles radio for North Atlantic. Aviation N 6:36 S 2 '46

TRANSCARPATHIAN Ukraine. See Ukraine

TRANSCAUCASIA
Caucasian chequerboard. map Economist 149: 934-5 D 29 '45

TRANSCONTINENTAL and western air, inc.
Airlines whet Street's appetite. Bsns W p68+ D 15 '45
TWA loan definitely establishes financial maturity of airlines. Aviation N 4:32 D 17 '45

Flight engineer school

TWA opens Flight engineers' school. Aero Digest 51:72 N 15 '45

TRANSDUCERS, Electromechanical. See Electromechanical transducers

TRANSFORMATIONS (mathematics)
See also
Lorentz transformation

TRANSFORMER oil. See Insulating oil

TRANSFORMERS, Electric. See Electric transformers

TRANSFORMERS, Radio. See Radio transformers

TRANSIT, Surveyor's
Accurate trigonometric leveling uses ordinary transit. O. B. Misz. diags Eng N 136: 362-3 Mr 7 '46

TRANSIT operations. See Banks and banking—Transit operations

TRANSITE
Scituate, Mass. builds wells of non-corrosive materials; transite screen and well pipe. W. J. Lumbert. il diags Pub Works 76:25-6 N '45

TRANSJORDAN
See also
Irrigation—Transjordan

TRANSLATORS
He learned about Latin-American Spanish the hard way; insurance publisher uses North American translator. R. W. Osler. Ptr Ink 215:69 Ap 19 '46

TRANSPARENT containers. See Containers, Transparent

TRANSPARENT plastic materials. See Plastic materials, Transparent

TRANSPLANTATION (physiology)
Successful transfer of ovaries between dogs of different breed. L. F. Whitney. Science 103:654-5 My 24 '46
See also
Grafting (surgery)

TRANSPOLAR flight. See Aviation—Transpolar flight

TRANSPORTATION
Transportation, a measurement of civilization. H. Bartholomew. Mass Transportation 42:200-1 My '46
Transportation equipment; prospects for 1946. Steel 118:sup22-5 Ja 7 '46
Transportation problem. W. J. Cunningham. Harvard Bsns R 25 no 1:58-73 [O] '46
See also
Aeronautics, Commercial
Aircraft
Airlines
Airplanes
Automobiles
Barges
Cableways
Carriers
Commerce
Electric railroads
Electric traction
Freight car service
Freight cars
Freight handling
Freight ships
Gasoline pipe lines
Highway transportation
Mechanical handling
Merchant marine
Mine haulage
Motor bus lines
Motor ships
Motor trucks
Motor trucks in freight service
Motor vehicles
Packing for shipment
Petroleum pipe lines
Pipe lines
Pneumatic conveying
Ports
Postal service
Railroads
Rapid transit
River traffic
Road traffic
Roads
Shipment of goods
Shipping
Ships
Steamboat lines
Street railroads
Street traffic
Streets
Terminals
Towboats
Traffic departments, Industrial
Traffic engineering
Trailers
Trolley buses
Trucks
Waterways

Statistics

Bus industry, and other transportation; basic facts, 1942-1945; tables. C. W. Stocks. Bus Transportation 25:58-61 Ja '46
Economy in war and transition; domestic transportation. Survey of Cur Bsns 26:20-1 F '46

Alaska

Basic transportation system first need for industrializing Alaska. il Steel 118:80-2 Mr 25 '46

China

China is taking steps to restore and improve its transportation facilities damaged by war. Comm & Fin Chr 163:3355 Je 20 '46

Ethiopia

Ethiopian transport. map Economist 150:803 My 18 '46

TRANSPORTATION—*Continued*

France

L'avenir des transports et de l'automobile; la politique française de la route. P. Prévost. Génie Civil 123:147-8 Je 1 '46
Reconstruction in France. Engineer 181:76-7 Ja 25 '46

Great Britain

British transport's rôle in nationalization. O. R. Hobson. Pub Util 38:25-7 Jl 4 '46
Co-ordination of road and rail freight transport. Engineer 182.87 Jl 26 '46
Policy for transport. Economist 151:549-50, 590-1+ O 5-12 '46
Propose coordination of British transport. Ry Age 121:375-6 Ag 31 '46

Mississippi

Story of Mississippi. il Manuf Rec 115:93-5 Ja '46

Netherlands

Transportation system during German occupation. K. Vonk. Ann Am Acad 245:70-8 My '46

Pacific coast

Transit crusade; antitrust suit filed against Southern Pacific co., Standard Oil, and bus concerns. Bsns W p48+ N 10 '45

Poland

Transport in Poland. Engineer 182:210 S 6 '46

Russia

Transport in the development of Soviet policy; abstract. P. Wohl. Mech Eng 68:567-9 Je '46

Texas

Featuring Texas. il Manuf Rec 115:148-52 Jl '46

United States

Coordinated transport department is urged by Senate committee. Aviation N 6:9-10 S 23 '46
Emerging developments in intercity transportation. H. M. Mayer. bibliog Ann Am Acad 242:53-66 N '45
Essential giant; nation's primary dependence on railroads. Bsns W p17 Je 1 '46
Hale's chart of passenger miles in United States by various means of transportation. Mass Transportation 42:319 Ag '46
Lea inquiry plans not revolutionary. C. F. Lea. Ry Age 120:371-2 F 16 '46
Lea questionnaire draws more replies on National transportation policy. Ry Age 120:775+ Ap 13 '46
National transportation policy. D. D. Conn. Comm & Fin Chr 164:2085+ O 24 '46
Response to transport inquiry questionnaire; abstract. B. H. Meyer. Ry Age 120:410-11 F 23 '46
Solving the transportation problem. O. Harris. Comm & Fin Chr 162:3017+ D 20 '45
Solving transportation problem. O. Harris. Comm & Fin Chr 163:2361+ My 2 '46
Status of major projects, 1946. il Eng N 136: 232-3 F 7 '46
Toward a national transportation policy. Ry Age 119:392-9 D 1 '45

TRANSPORTATION, Military

Military marine transportation. Marine Eng 51:81-3 O '46
Transportation training centre, Royal engineers, Longmoor. il map Engineer 181:420-1, 444-5 My 10-17 '46; Same. Engineering 161: 535, 540 Je 7 '46

See also
Airplanes, Military transport
Hospital ship
Motor trucks, Military
Railroads—Military use
Railroads, Military
Transports
United States—Air service, Army—Transport command
United States—Army—Transportation corps

TRANSPORTATION advertising. See Advertising cards

TRANSPORTATION association of America

Airlines chief distorts its stand; Transport Association denies it favors regional monopolies; abstract. C. R. Smith. Ry Age 120:121 Ja 5 '46

TRANSPORTATION in war

See also
Railroads in war

TRANSPORTATION of employees. See Employees, Transportation of

TRANSPORTATION workers

First session of the I L.O. Inland transport committee. Int Labour R 53:207-14 Mr-Ap '46
Wage rates and relative economy and fitness in the transportation industry. D. H. Mater. J Bsns 18:183-208 O '45

TRANSPORTS

Bethlehem troopship conversions. il Marine Eng 51:109-10 Ag '46

TRANSURANIUM elements

Chemical and radioactive properties of the heavy elements. G. T. Seaborg. Chem & Eng N 23:2190-3 D 10 '45
Impact of nuclear chemistry; the heavy elements. G. T. Seaborg. il diags Chem & Eng N 24:1192-8 My 10 '46
Transuranium elements. G. T. Seaborg. bibliog il diags Science 104:379-86 O 25 '46

See also
Neptunium
Plutonum

TRANSVAAL

See also
Gold mines and mining—Transvaal

TRANS WORLD airline

Starters in the big transoceanic race. il Bsns W p20 F 9 '46

TRAPS

See also
Rat traps

TRASH racks

Trashracks built of concrete and timber. C. W. Bennett. il Eng N 135:747 N 29 '45

TRAUMA

Prevention of disability in traumatic conditions of extremities; abstract. J. L. Lindquist. Ind Med 15:68+ Ja '46
Trauma and disease. R. M. Brown. Ind Med 15:575-9 O '46

See also
Ear—Injuries
Eye—Injuries
Wounds

TRAUMATIC shock. See Shock

TRAVEL

Going abroad? here's how; survey of travel conditions. Bsns W p17-18 Ja 5 '46
Vacation market is made up of 30 million wage earners. A. K. Dawson. il Dom Comm 34:57-60 Ag '46

See also
Air travel
Ocean travel
Oil companies—Travel service bureaus
Railroads—Passenger traffic
Tourist trade

Cost

Dollar-hour travel costs for air, rail, bus transportation; tables. Sales Management 56:46+ Je 1 '46

TRAVEL bureaus

Business in answers; saga of "Ask Mr Foster." F. Smith. il Adv & Sell 39:35+ Ja '46

See also
Oil companies—Travel bureaus

TRAVEL risks. See Insurance, Life—Travel risks

TRAVELING banks. See Banks and banking—Traveling banks

TRAVELING carnivals. See Carnivals, Traveling

TRAVELING exhibits. See Exhibits, Traveling

TRAYS (containers)

Simplified boxes and trays. il Mod Packaging 19:112-14+ Jl '46

TRAYS, Refrigerator. See Refrigerator trays

TREAT, Amos S. and company

SEC absolves Amos S. Treat & company. Comm & Fin Chr 163:2361+ My 2 '46

TREATIES
International agreements can protect specific rights. R. N. Baldwin. Ann Am Acad 243:134-8 Ja '46

See also
Commercial treaties and agreements
Financial treaties and agreements

TREE breeding. See Forests and forestry

TREE farms. See Woodlots

TREE felling
Felling trees electrically. Franklin Inst J 241: 228 Mr '46

TREE planting
Reclamation and conservation of stripped-over lands. L. E. Sawyer; J. W. Bristow; R. T. Laing. il Min Cong J 32:26-36 Jl '46

See also
Forests and forestry

TREE trimming. See Electric lines—Tree problem

TREES
Tree paint. Chem & Eng N 24:680 Mr 10 '46

See also
Aspen
Conifers
Pine
Redwood
Spruce

TREES for tomorrow, inc.
Forestry project founded by nine paper mills. M. N. Taylor. il Paper Ind 27:1806-9 Mr '46

TRENCHES
Advantages of steel sheeting for use in trench excavation. W. T. Adams. il diags Pub Works 77:17-18 F '46

TRENCHING machinery
Special trenching rig cuts beveled ditch section. C. R. Hanes. il Roads & Sts 89:84-5 Ja '46

Starters in the big transoceanic race. il Mech Handling 33:46 Ja '46

Trenching machine for agricultural drainage. il(p132) Engineering 161:127 F 8 '46

TREND measurement
Trend prediction important in planning. H. P. Seelye. diags Elec World 125:79-81 Je 22 '46

TRIANGLES
Charts for solution of oblique-angle and right triangles; reference book sheets. L. Kasper. Product Eng 17:161, 163 N '46

See also
Pythagorean proposition

TRIANGULATION
Balanced design in urban triangulation. C. D. Hopkins. map diags Am Soc C E Proc 71: 1315-26 N '45; Discussion. 72:561-2, 1013-18 Ap, S '46

TRIAZAFLUORENE
New syntheses of heterocyclic compounds; triazafluorenes and asaphenazines from 4-chloro-3 : 5-dinitropyridine. V. A. Petrow and J. Saper. Chem Soc J p588-91 Jl '46

TRIAZINES
Alkoxy-*s*-triazines; anti-histamine activity. J. Controulis and C. K. Banks. Am Chem Soc J 67:1946-8 N '45

TRIAZOLE
Action of copper sulfate on the phenylosazones of the sugars; the D-,L- and D,L-arabinose phenylosotriazoles. W. T. Haskins, R. M. Hann and C. S. Hudson. Am Chem Soc J 68:1766-9 S '46

Arsenicals containing the 1,2,5-triazole nucleus. R. F. Coles and C. S. Hamilton. bibliog Am Chem Soc J 68:1799-801 S '46

Derivatives of 1,2,4-triazole and of pyrazole. D. B. Sharp and C. S. Hamilton. bibliog Am Chem Soc J 68:588-91 Ap '46

TRIBOELECTRICITY. See Electricity, Static

TRIBROMOFLUOROPHENOL
Polymeric compounds formed by the decomposition of 2,4,6-tribromo-3-fluorophenol bromide and the sodium salt of 2,4,6-tribromo-3-fluorophenol. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 68:397-400 Mr '46

TRIBUTYL phosphate
Tributyl phosphate as a solvent for preparing concentrated and oil-miscible solutions of 2,4-dichlorophenoxyacetic acid and similar substances. W. B. Ennis, jr. and others. Science 103:476 Ap 19 '46

TRICALCIUM phosphate. See Calcium phosphates

TRICHINA and trichinosis
Trichinae killed by 120-deg. F. dehydration. L. A. Spindler and others. il Food Ind 18: 342-4+ Mr '46

TRICHLOROETHANE
System acetone-water-1,1,2-trichloroethane; ternary liquid and binary vapor equilibria. R. E. Treybal, L. D. Weber and J. F. Daley. bibliog diags Ind & Eng Chem 38: 817-21 Ag '46

TRICHLOROETHYLENE
Condensation of saturated halides with unsaturated compounds; condensation of alkyl chlorides with polychloroölefins. L. Schmerling. Am Chem Soc J 68:1655-7 Ag '46

Determination of the boiling range of chlorinated hydrocarbons. D. Williams. Ind & Eng Chem Anal ed 18:157-60 Mr '46

Occupational dermatitis due to the inhalation of trichlorethylene gas. K. C. Baker and C. J. White. bibliog Ind Med 15:389 Je '46

Trichlorethylene; physiological effects. Nat Safety N 53:64+ Ja '46

Analysis

Determination of chlorinated hydrocarbon vapors in air. R. W. Schayer and H. H. Ackerman. diag J Ind Hygiene 28:237-40 S '46

TRICHLOROMETHANE
Complex formation with high molecular weight amines; a spectrophotometric study of the dodecylamine-cupric acetate system. F. K. Broome, A. W. Ralston and M. H. Thornton. Am Chem Soc J 68:849-51 My '46

TRICHLOROPHENYL isocyanate
Preparation of 2,4,6-trichlorophenyl isocyanate. R. R. McNary and L. Magid. Am Chem Soc J 68:673-4 Ap '46

TRICHLOROQUINOLINE
Antimalarials; 7-chloro-4-hydroxy- and 4,7-dichloro-1-methylcarbostyrils. R. E. Lutz and others. bibliog Am Chem Soc J 68:1810-12 S '46

Antimalarials; hydrolysis and methanolysis of 2,4,7-trichloroquinoline. R. J. Rowlett, jr. and R. E. Lutz. Am Chem Soc J 68: 1288-91 Jl '46

Antimalarials; the synthesis of 2,4,7-trichloroquinoline. R. E. Lutz and others. Am Chem Soc J 68:1285-8 Jl '46

TRICOT machines. See Knitting machines

TRICRESYL phosphate
Motion of a particle in a temperature gradient; thermal repulsion as a radiometer phenomenon. P. Rosenblatt and V. K. LaMer. bibliog diags Phys R 70:385-95 S 1 '46

Tricresyl phosphate; abstract. E. G. Egan. Chem & Met Eng 53:272+ My '46

TRIESTE
Battle of Trieste. Economist 151:243-4 Ag 17 '46

Solution for Trieste. Economist 150:741-2 My 11 '46; Same. Iron Age 157:103+ My 23 '46

TRIETHYLCHLOROSILICANE
Preparation of triethylchlorosilane from ethyl orthosilicate. P. A. Di Giorgio and others. Am Chem Soc J 68:1380 Jl '46

TRIETHYLPHOSPHATE
Fractional separation of hafnium and zirconium by means of triethylphosphate. H. H. Willard and H. Freund. bibliog Ind & Eng Chem Anal ed 18:195-7 Mr '46

TRIETHYLAMINE
Rate of oxidation of thiodiglycol and triethylamine by hydrogen peroxide. S. D. Ross. Am Chem Soc J 68:1484-5 Ag '46

TRIETHYLSILICANE
Reaction between triethylsilane and methyllithium. H. Gilman and S. P. Massie, jr. Am Chem Soc J 68:1128 Je '46

TRIETHYLENE glycol
Air sterilization by triethylene glycol; abstract. F. R. Weaver. Chem Eng 53:262+ Ag '46

Comparison of the chronic toxicity of triethylene glycol with that of diethylene glycol. O. G. Fitzhugh and A. A. Nelson. bibliog J Ind Hygiene 28:40-3 Mr '46

Dehumidifying and air sterilization with triethylene glycol. diags Heat & Ven 43:78-80 Ja '46

Di- and triethylene glycols as manostat fluids. W. J. Runckel and D. M. Oldroyd. Ind & Eng Chem Anal ed 18:80-1 Ja '46

Dispersion and control of triethylene glycol vapors for aerial disinfection; abstract. T. T. Puck. Ind Med 15.484 Ag '46

TRIFLUOROMETHYLSTYRENE
Preparation and polymerization of some substituted styrenes. C. S. Marvel and others. bibliog Am Chem Soc J 68:736-8 My '46

TRIFLUOROTOLUENE
Metalation of benzotrifluoride. J. D. Roberts and D. Y. Curtin. bibliog Am Chem Soc J 68:1658-60 Ag '46

TRIGLYCERIDES. See Glycerides

TRIGONOMETRY
Trigonometry versus micrometer stops in turning and facing. D. T. Armstrong. diag Am Mach 90:149-50 My 23 '46

TRI-ISOPROPANOLAMINE palmitate
Industrial application of chemicals. Oil Paint & Drug Rep 150:39 S 30 '46

TRILOBITES
Revision of some late upper Cambrian trilobites from New York, Vermont and Quebec. F. Rasetti. bibliog Am J Sci 244:537-46, pl 1 Ag '46

Two upper Cambrian (trempealeau) trilobites from Dutchess county, New York. C. Lochman. bibliog Am J Sci 244:547-53, pl 1 Ag '46

TRIMESIC acid
Identification of trimesic acid from the oxidation of *s*-trialkyl aromatic hydrocarbons. J. V. Karabinos, J. I. Wright and H. F. Hipsher. Am Chem Soc J 68:906 My '46

TRIMETHYLACETAMIDE
N-substituted tri-alkyl acetamides. W. M. Degnan and C. J. Shoemaker. bibliog Am Chem Soc J 68:104-5 Ja '46

TRIMETHYLAMINE oxide
Trimethylamine oxide boron fluoride. A. B. Burg and J. H. Bickerton. Am Chem Soc J 67:2261 D '45

TRIMETHYLBUTANE
Boiling points of three isomeric heptanes. F. S. Fawcett. diag Ind & Eng Chem 38: 338-40 Mr '46

Vapor-liquid equilibria of binary hydrocarbon systems. J. M. Harrison and L. Berg. Ind & Eng Chem 38:117-20 Ja '46

TRIMETHYLCYCLOHEXANOL
Studies in the terpene series; the action of dilute aqueous salt solutions on 3,3,5-trimethylcyclohexanol and 1,1,3-trimethyl-X-cyclohexene. V. N. Ipatieff, H. Pines and R. C. Olberg. Am Chem Soc J 68:1709-10 S '46

TRIMETHYLCYCLOHEXENE
Studies in the terpene series; the action of dilute aqueous salt solutions on 3,3,5-trimethylcyclohexanol and 1,1,3-trimethyl-X-cyclohexene. V. N. Ipatieff, H. Pines and R. C. Olberg. Am Chem Soc J 68:1709-10 S '46

TRIMETHYLETHYLENE
Depolymerization of 3,4,5,5-tetramethyl-2-hexene and 3,5,5-trimethyl-2-heptene in relation to the dimerization of isoamylenes. F. C. Whitmore and W. A. Mosher. Am Chem Soc J 68:281-4 F '46

TRIMETHYLHEPTENE
Depolymerization of 3,4,5,5-tetramethyl-2-hexene and 3,5,5-trimethyl-2-heptene in relation to the dimerization of isoamylenes. F. C. Whitmore and W. A. Mosher. Am Chem Soc J 68:281-4 F '46

TRIMETHYLPENTANE. See Isooctane

TRIMETHYLTHALLIUM. See Thallium compounds

TRIMETHYLENEDIAMINE
Some coördination compounds of cobalt containing trimethylenediamine and neopentanediamine. J. C. Bailar, jr. and J. B. Work. bibliog Am Chem Soc J 68:232-5 F '46

TRIMETROGON photography. See Photographic surveying

TRIMMERS, Paper hangers'
Zinc alloy die castings simplify wallpaper trimmer. il Product Eng 17:458 Je '46

TRINIDAD
Situation in Trinidad. For Comm W 21:23 D 22 '45

See also
Electricity supply—Trinidad
Petroleum industry and trade—Trinidad

TRINITROFLUORENONE
Molecular complexes with 2,4,7-trinitrofluorenone. M. Orchin and E. O. Woolfolk. bibliog Am Chem Soc J 68:1727-9 S '46

TRINITRONAPHTHALENE
Further nitration of 1 : 3-, 1 : 6-, 2 : 6-, and 2 : 7-dinitronaphthalenes, and the preparation of 1 : 3 : 6-trinitronaphthalene. H. H. Hodgson and E. R. Ward. Chem Soc J p533-4 Je '46

Preferential reduction of nitro groups in polynitro-compounds; the preparation of 4 : 5-dinitro-2-naphthylamine from 1 : 3 : 8-trinitronaphthalene and a comparison of sodium sulphide reductions of available dinitronaphthalenes. H. H. Hodgson and E. R. Ward. Chem Soc J p794-6 N '45

TRINITROTOLUENE
Control of taste and odor from industrial waste; TNT wastes. C. D. Adams. Am Water Works Assn J 38:702-4; Discussion. 710-12 Je '46

Analysis

Estimation of ammonium picrate in wastes from bomb- and shell-loading plants; some reactions of ammonium picrate in water and sewage. C. C. Ruchhoft and F. I. Norris. bibliog Ind & Eng Chem Anal ed 18: 480-3 Ag '46

Manufacture

New techniques improve TNT manufacture. P. J. Raifsnider. il Chem Ind 57:1054-6 D '45

TNT industry explodes danger myth. P. J. Raifsnider. il Chem Ind 58:70-1 Ja '46

TRINITROTOLUENE poisoning
Medical study of the effect of TNT on workers in a bomb and shell loading plant and Report of fatal case of aplastic anemia. R. F. Sievers and others. (Pub. health bul. 291) il 98p bibliog(70 titles) U.S. Public health service, Washington; pa 25c Supt. of doc. '45

Metabolites of 2,4,6-trinitrotoluene (TNT) excreted in the urine of dogs. R. K. Snyder. bibliog il J Ind Hygiene 28:59-75 My '46

Summary of twenty-two trinitrotoluene fatalities in World war II. W. J. McConnell and R. H. Flinn. bibliog J Ind Hygiene 28:76-86 O '46; Abstract. Nat Safety N 54:112+ O '46

TNT industry explodes danger myth. P. J. Raifsnider. il Chem Ind 58:70-1 Ja '46

TRIPHENYLBENZENE
Ultraviolet absorption spectra of organic molecules; mechanical interference of substituent groups with resonance configurations. W. H. Rodebush and I. Feldman. bibliog Am Chem Soc J 68:896-9 My '46

TRIPHENYLBROMOFURAN
2,4,5-Triphenyl-3-furyllithium and 3,4,6-triphenyl-2-pyridyllithium. H. Gilman and D. S. Melstrom. bibliog Am Chem Soc J 68:103-4 Ja '46

TRIPHENYLETHYLAMINE
Oxidation of compounds possessing the primary amino group; β,β,β-triphenylethylamine. L. Hellerman. bibliog Am Chem Soc J 68:825-8 My '46

TRIPHENYLETHYLENE
Synthetic analogues of progesterone. W. C. J. Ross. Chem Soc J p536-8 Ag '45

Synthetic estrogens and the relation between their structure and their activity. U. V. Solmssen. Chem R 37:542-50 D '45

TRIPHENYLMETHANE
Some pyridyl analogues of triphenylmethane. H. J. Kahn and V. A. Petrow. Chem Soc J p858-61 D '45

TRIPHENYLMETHYL group
Trityl derivatives of xylofuranose. R. J. McIlroy. Chem Soc J p100-1 F '46

TRIPHENYLPROPIONITRILE
Action of Grignard reagents upon β,β,β-triphenylpropionitrile; stability of the triphenylethyl grouping. R. L. Garner and L. Hellerman. Am Chem Soc J 68:823-5 My '46

TRIPOLITANIA
Tripolitanian administration. Economist 151: 588 O 12 '46

TRIPTANE
Alkylation of paraffins in the presence of homogeneous catalysts; synthesis of neohexane and triptane. A. A. O'Kelly and A. N. Sachanen. bibliog flow diag il Ind & Eng Chem 38:462-7 My '46

TRITIUM
Calculation of the binding energies of H^3 and He^4 with a new potential. M. Wang. Phys R 70:492-4 O 1 '46

Exchange of hydrogen and tritium ions during alkylation, catalyzed by tritium sulfuric acid. T. D. Stewart and D. Harman. Am Chem Soc J 68:1135-6 Je '46

Radioactive studies; analytical procedure for measurement of radioactive hydrogen (tritium). F. C. Henriques, jr., and C. Margnetti. bibliog diag Ind & Eng Chem Anal ed 18:420-2 Jl '46

TROLITAX
Manufacture of laminates in Germany; based on the production manual of Dynamit A.-G. il diags Mod Plastics 24:147-9+, insert O '46

TROLLEY bus brakes. See Brakes, Trolley bus

TROLLEY buses
Allis-Chalmers trolley coach differential system. G. W. DeSellem. Mass Transportation 42:246-7 Je '46

Comparative claims costs and risks; street cars, trackless trolley coaches and gas buses. M. J. Thompson Bus Transportation 25:52-3 O '46

History of first articulated coach. F. R. Fageol. Mass Transportation 42:323+ Ag '46

Hollywood had trackless trolleys long before Arbuckle and Eldean. Mass Transportation 42:295 Jl '46

Place of the trolley coach in urban transportation. W. F. Irvin. Mass Transportation 42:248-52 Je '46; Abstract. Bus Transportation 25:70-1 Jl '46

Progress in vehicle design. W. E. P. Duncan. Bus Transportation 24:42-4 D '45

Riding stimulant; patronage increase and other advantages prompt Wilkes-Barre management to expand use of trolley bus. E. C. Hoffman. il Bus Transportation 25: 37-9 Mr '46

Trolley buses, 1946; illustrations and brief descriptions. Bus Transportation 25:85-6 S '46

Trolley coach finds favor in Portland. Mass Transportation 42:214 My '46

Westram trolley bus. il Bus Transportation 25:196 Ap '46

What the 1945 figures show. C. W. Stocks. Bus Transportation 25:56-7 Ja '46

Air conditioning

It's wonderful; how Atlanta feels about air conditioned trolley bus. R. Whitfield. il Bus Transportation 24:56-60 D '45

Public goes for airconditioning; summary of replies to questionnaire. Mass Transportation 41:289 O '45

Transportation history with air conditioning. il Dom Eng 166:157+ N '45

Lighting

Fluorescent bus-lighting. diags Elec R (Lond) 137:873-4 D 14 '45

Maintenance and repair

Accent on prevention rather than cure; trolley coach maintenance procedures and practices in Fort Wayne. J. B. Moriarty and N. W. Glass. il plan Bus Transportation 25: 61-3 Je '46

Power supply

Energy consumption of trolley-buses. J. E. Frith. Elec R (Lond) 138:387-8 Mr 8 '46

Statistics

Bus industry, and other transportation; basic facts, 1942-1945; tables. C. W. Stocks. Bus Transportation 25:58-60 Ja '46

Trolley bus operations in 1945. Bus Transportation 25:70-2 Ja '46

Trolley coach operations in North America; tabulation. Mass Transportation 42:253 Je '46

TROLLEY wire
Aluminum-steel trolley wires; abstract. L. Albert. Materials & Methods 24:960+ O '46

TROOP ships. See Transports

TROPANONE
Tropanone and its homologs L. C. Keagle and W. H. Hartung. bibliog Am Chem Soc J 68:1608-10 Ag '46

TROPICAL jungles. See Jungles

TROPICS
Functions and development of a tropical marine laboratory. F. G. W. Smith. Science 103:609-11 My 17 '46

Refrigerated storage and transport of meat in the tropics. E. Griffiths and M. J. Hickman. il Engineering 161:453-6 My 10 '46

Tropical house at University of Pennsylvania's botanical garden. Science 103:595 My 10 '46

Tropical testing chamber; Army service forces, Fort Belvoir, Va. T. F. Cooke and R. E. Vicklund. il Ind & Eng Chem Anal ed 18:59-60 Ja '46

Diseases and hygiene

General considerations for sanitation and public health in tropical industry. A. Gage. Ind Med 15:278+ Ap '46

Geopathology, a branch of biometeorology. F. Sargent, 2d. Science 103:316-17 Mr 8 '46

New Tropical-Medicine Institute in Liberia should aid economics of many regions. T. T. Mackie. For Comm W 25:16 O 12 '46

No tropical diseases transplanted to U.S. as a result of World war. F. R. Dieuaide. East Underw 47:11 N 1 '46

Tropical disease education program of the United States public health service. W. S. Boyd and others. Pub Health Rep 61:707-11 My 17 '46

Tropical diseases and geopathology. F. R. Dieuaide. Science 102:656-8 D 28 '45

See also
Malaria
Schistosomiasis
Sprue
Tsutsugamushi disease

TROPOSPHERE. See Atmosphere

TROUT
Sulfa drugs and the treatment of furunculosis in trout. J. S. Gutsell. Science 104:85 Jl 26 '46

TROUT fishing
Fly fishing and trout flies; with portfolio of paintings. Fortune 33:126-33+ My '46

TROUT lake, Wisconsin
Sediments of Trout lake. H. Twenhofel and others. bibliog Geol Soc Bul 56:1099-1142, pl 1-3 D '45

TRUCKS
Collis new plant handling truck. il Mech Handling 33:111-12 F '46

Eccles hand trucks. il Mech Handling 32:654-5 N '45

Graiseley pedestrian controlled hand truck. il Mech Handling 33:175 Mr '46

Handling materials with lifting, tiering and special trucks; Chem & Met report. il diags Chem & Met Eng 52:119-30 N '45 [reprints 25c]

History of the lift truck in the paper industry. T. F. Moriarty. il Paper Ind 28:226-9 My '46

TRUCKS—*Continued*
Maker of wheels for carrier planes spots peacetime market; Northrop Gaines trucks. il Sales Management 55:119+ D 1 '45
Planning the pallet system. A. J. Martin, jr. and J. F. Roberts. il diags Factory Management 104:97-108 Mr '46
Some tried and proven methods for truck leveling. M. E. Powers. diags Inland Ptr 118:57 O '46
See also
Electric trucks, Industrial
Motor trucks

TRUMAN, Harry S. 1884-
Calls for unity; Jackson day address. por Comm & Fin Chr 163:1685+ Mr 28 '46
Democratic party family fight; Truman's radio address to people an attack on Party. R. A. Taft. Comm & Fin Chr 163:122+ Ja 10 '46
Fortune survey; how much has Truman slipped? Fortune 33:5-6 Je '46
Fortune survey; Truman and his men. Fortune 33:221 Ja '46
Fortune survey; Truman and transition. Fortune 32:309-10 D '45
Mr Truman faces it. pors Fortune 33:100-9+ Ja '46; Reply. C. A. Beard. 33:10 F '46
More education for atomic age; address at Fordham university. Comm & Fin Chr 163: 2701+ My 16 '46
Places blame for reconversion snags; failure of Congress to enact program for full production and full employment; radio address. por Comm & Fin Chr 163:122+ Ja 10 '46
Presidential popularity declines in past year; Gallup poll. Iron Age 158:107+ Jl 18 '46
President's philosophy. Banking 39:17-18+ Jl '46
Six form inner ring of Truman advisers. Bsns W p7 D 8 '45
Text of Truman's message to Congress on state of the union and 1947 fiscal year budget. por Comm & Fin Chr 163:437+ Ja 24 '46
Voters think President turns to leftward course. Iron Age 157:117+ F 14 '46
What Truman wants, and may get; proposals to Congress on domestic affairs. Bsns W p5 Ja 26 '46

TRUSSES
Brooklyn bridge; tests of metals removed from cables and stiffening trusses. H. E. Wessman. bibliog Am Soc C E Proc 72.57-68 Ja '46
Cantilevered concrete trusses provide open working areas in hangar; Caquot hangar at the Santos Dumont airport in Rio de Janeiro. A. J. Boase. il plans diags Eng N 136:850-5 My 30 '46
Deep foundation and welded truss feature unusual Australian bridge. il diag Eng N 135:864-7 D 27 '45
Engine house gets aluminum roof trusses. il diag Ry Age 121:362-3 Ag 31 '46
How parts of large pin-connected truss were replaced without falsework. H. S. Rockoff and F. H. Stowell. il diags Roads & Sts 88: 69-72+ N '45
Welded H-trusses of standard design aid development of conveyorized layout; General electric co. factory, Tiffin, Ohio. il plan diag Eng N 137:360-3 S 19 '46

Testing
Analyzing stresses in welded H-section trusses. il Steel 119:99+ Jl 22 '46; Iron Age 158:45 Jl 25 '46
Strain gages used to test welded building trusses. il Bsns W p56 Je 29 '46
Test-welded 80-ft. trusses with 144 strain gages. il Eng N 137:15 Jl 4 '46

TRUST companies
How to get more trust business. A. Herrick. Trusts & Estates 83:166-8 Ag '46
See also
Banks and banking —Trust departments
Estate planning
Investment trusts
also American bankers association—Trust division

Accounting
Know trust costs. W. J. Weig. Trusts & Estates 83:87-9 Jl '46
See also
Trusts and trustees —Accounting

Advertising
Service designed for the rich now sold to the masses; trust service for small estates. I. I. Sperling. Ptr Ink 216.51 Ag 9 '46
This type of appeal gets trust accounts. Bankers Mo 63:146 Mr '46

Customer relations
Human element in trust relationships. T. B. Williams. Trusts & Estates 83:263-6 S '46

Fees
See Trust fees

Investments
See Trusts and trustees—Investments

Law
See also
Trusts and trustees

Lawyers' cooperation
Key roles in estate analysis; functions of attorney, underwriter and trustman. H. T. Powers. Trusts & Estates 83:377-42 O '46
Let's row in the same boat; tangible opportunities for collaboration of attorneys, underwriters and trustmen. H. S. Redeker. Trusts & Estates 82:309-12 Mr '46
Policy for cooperation between lawyers and trust institutions. W. E. Bruns. Trusts & Estates 82:291-3 Mr '46

Life underwriters' cooperation
Co-operative movement in estate analysis; estate analysts association proves effective. C. Patch, jr. Trusts & Estates 82:501-2 My '46
Key roles in estate analysis; functions of attorney, underwriter and trustman. H. T. Powers. Trusts & Estates 83:337-42 O '46
Let's row in the same boat; tangible opportunities for collaboration of attorneys, underwriters and trustmen. H. S. Redeker. Trusts & Estates 82:309-12 Mr '46
Pension plans from underwriters' viewpoint; joint opportunities for trustees and insurance men. W. N. Watson. Trusts & Estates 81:467-70 D '45
See also
Insurance, Life—Trust company cooperation

Management
Trust operating economies; drafting and other suggestions for improving efficiency of trust service. L. A. Hoffman. Trusts & Estates 82:399-404, 513-16; 83:177-80 Ap-My, S '46

New business
Get trust business through bank staff. M. E. Feiwell. Trusts & Estates 83:267-70 S '46

Regulation
State supervision of trust business. G. T. Stephenson. Trusts & Estates 82:313-16 Mr '46

TRUST departments. See Banks and banking —Trust departments

TRUST fees
Comparative fees of executors. F. O. Shelton. Trusts & Estates 81:491-2 D '45
Fees for charitable trusts. A. J. Drueding. Trusts & Estates 83:239-40 S '46

TRUST receipts
Sales under trust receipts. C. B. Everberg. Credit & Fin Management 48:14-17 Je '46

TRUSTS, Industrial
Anti-trust enforcement must follow decontrol. W. Berge. Comm & Fin Chr 164:749+ Ag 8 '46
A. & P. shares some secrets; testimony in antitrust action. Bsns W p78+ Ap 6 '46
Can makers indicted. Bsns W p26 Jl 13 '46

TRUSTS, Industrial—*Continued*
Economic concentration and World war II; remarks in presenting report of Senate Small business committee. J. E. Murray. Comm & Fin Chr 164:253+ Jl 11 '46
Flat glass industry files answer to anti-trust suit. Glass Ind 27:292+ Je '46
Future of economic liberalism; threat of recent trends toward monopoly; address before National lawyers guild. W. Berge. Comm & Fin Chr 164:341+ Jl 18 '46
G.E. monopoly? antitrust case in Trenton may fix competitive pattern for light bulb industry. Bsns W p21-2+ Mr 16 '46
Private monopoly versus a free economy. J. H. McGrath. Comm & Fin Chr 163:3058+ Je 6 '46
Sellers' warning; court decision in A. & P. case signal to many integrated setups. Bsns W p18 S 28 '46
Transit crusade; antitrust suit filed against Southern Pacific co., Standard Oil, and bus concerns. Bsns W p48+ N 10 '45
Trusts redefined; tobacco decision. Bsns W p24+ Je 15 '46
Vanadium corner; U.S. charges six producers and processors. Bsns W p 16 Jl 6 '46
Vanadium firms indicted as trust. Oil Paint & Drug Rep 150:4+ Jl 1 '46

See also
Glass container industry
Monopolies
Mortgage conference of New York
Petroleum industry and trade—United States—Anti-trust suit
Price fixing

also United States—Justice department—Antitrust division

International trusts

Canada and international cartels. 72p pa 25c Canada. Department of justice, Combines investigation commission, Ottawa '45
Canada looks into cartel question. Paper Tr J 121:64+ N 22 '45
Cartel foes, inc.; Canadian report asks joint action by big nations. Bsns W p22+ N 17 '45
Controlling world trade; cartels and commodity agreements. E. S. Mason. 289p $2.50 McGraw-Hill book co. New York '46; Review. Comm & Fin Chr 164:935 Ag 15 '46
Effect of cartels on the managerial function. W. Berge. Comm & Fin Chr 163:2219+ Ap 25 '46
End of cartel; seven companies fined in dyestuffs combine. Bsns W p19 Ap 27 '46
Federal trade commission report on international phosphate cartels. Chem Ind 59.86+ Jl '46
Match suit ends. Bsns W p20-1 Ap 13 '46
Match trust suit ended by consent. Oil Paint & Drug Rep 149:3+ Ap 15 '46
What about cartels to-day? N. T. Carruthers. Mag of Wall St 79:135-7+ N 9 '46

Law

American Continental Can firms indicted as trust. Oil Paint & Drug Rep 150:3+ Jl 1 '46
Antitrust action in the plumbing industry. Bsns W p21 Mr 30 '46
Antitrust reform; Canada. Bsns W p100-1 Je 22 '46
Curb on mergers; Kefauver bill, H. R. 4810. Bsns W p18-19 Ja 5 '46
Enforcement of the anti-trust laws. W. Berge. Comm & Fin Chr 163:1689+ Mr 28 '46
Free enterprise and anti-trust laws. T. C. Clark. Comm & Fin Chr 164:2217+ O 31 '46
Investor's stake in the anti-trust laws. B. A. Javits. Comm & Fin Chr 162:3130+ D 27 '45
Justice department still seeking evidences of antitrust law violations on Wall Street. E. Germain. Comm & Fin Chr 164:1144+ Ag 29 '46
Standardization and the antitrust laws. J. D. Hayes. Ind Stand 17:74-7 Ap '46; Same. Soc Motion Picture Eng J 46:516-25 Je '46
Trade regulation aids small business. B. W. Roper. Dom Comm 34:3-6 O '46

Japan

Japan has a bank problem; domination by combines, called Zaibatsu. S. E. Neel and R. Vernon. il Banking 39:45-6+ O '46
MacArthur the trust buster. Bsns W p113-14+ D 1 '45

TRUSTS and trustees

Exercising trustees discretionary powers. L. A. Steinhardt. Comm & Fin Chr 164:883+ Ag 15 '46; Excerpt. Trusts & Estates 83: 260-2 S '46
Holding trust assets in name of nominee. R. W. Sprague. Trusts & Estates 83:258 S '46
Insurance options for trustees; greater liberality in company practices urged for beneficiaries' interests. W. C. Fenniman. Trusts & Estates 82:577-80+ Je '46
New York courts without jurisdiction to remove foreign resident trustee of foreign property. Banking Law J 63:665-8 S '46
1945 state legislation affecting trusts and estates. W. L. Cloutier. Trusts & Estates 82:99-105 Ja '46
Proceedings of Probate and trust law divisions, American bar association. Trusts & Estates 82:21-105 Ja '46
Recent decisions. Published in monthly numbers of Trusts and estates
Should trust companies encourage co-trusteeships? L. B. Staver. Trusts & Estates 83: 153-8 Ag '46; Same Comm & Fin Chr 164: 883+ Ag 15 '46
Standard clauses for wills; tested forms for testamentary trusts. R. R. Neuhoff. Trusts & Estates 82:285-90, 373-9, 479-86, 569-75; 83:45-52, 131-7 Mr-Jl, S '46
Suggestions for drafting trusts. R. M. Alton. Trusts & Estates 83:392-5 O '46
Trust and probate decisions, 1944-1945. E. S. Lindemann. Trusts & Estates 82:81-9 Ja '46
Trust company acting improperly as executor and guardian of joint owners of savings account; husband and wife. Banking Law J 62:763-5 O '45
Trustee, who is bank director and stockholder, and bank both held liable to beneficiaries of trust; case of Epworth orphanage v. Long, decided by Supreme court of South Carolina. Banking Law J 63:291-312 Ap '46
Trustee's dealings with an affiliate; nature of interest leading to self-dealing. B. Schwartz. bibliog Trusts & Estates 81:377-83 N '45

See also
American bankers association—Trust division
Banks and banking—Trust departments
Employees' trusts
Executors and administrators
Investment trusts
Pension trusts

Accounting

Changes in accounting and tax apportionment; new Virginia legislation analyzed. L. B. Gunn. Trusts & Estates 83:190-1 Ag '46
Deductibility of litigation expenses. R. N. Golub. J Account 80:407-9 N '45
Improved form of summary statement for fiduciaries. E. Saxe. J Account 80:361-3 N '45
Objectives of intermediate court accounting. F. A. Ohleyer. Banking Law J 62:749-62 O '45; Same cond. Trusts & Estates 80:183-9 F '45

Bibliography

Trust and probate literature, 1944-1945. F. H. Schauer. Trusts & Estates 82.92-8 Ja '46

Charitable trusts

Charitable foundation for business interests. H. S. Koster. Trusts & Estates 82:583-4 Je '46
Fees for charitable trusts. A. J. Drueding. Trusts & Estates 83:239-40 S '46

Common trust funds

Common trust fund proves successful. W. E. Anderson. Trusts & Estates 82:589-91 Je '46
Common trust funds growing up; poll shows preferences on valuation dates, income accounting and other factors. R. Ward. Trusts & Estates 82:301-3 Mr '46
Common trusts and new business. A. W. Whittlesey. Trusts & Estates 81:471-5 D '45; Excerpt. Banking Law J 63:13+ Ja '46
Investments for common trust funds. T. W. Matthews. Trusts & Estates 83:81-5 Jl '46

TRUSTS and trustees—Common trust funds— *Continued*
Legal aspects of common trust funds. P. E. Farrier. Trusts & Estates 82:595-7 Je '46
New trust horizons with common trust funds. A. W. Whittlesey. Trusts & Estates 83:77-80 Jl '46
Reappraisal of the common trust fund. B. M. Wingfield. Trusts & Estates 82:197-201 F '46
Service designed for the rich now sold to the masses; trust service for small estates. I. I. Sperling. Ptr Ink 216:51 Ag 9 '46

Employees' trusts

See Employees' trusts

Investments

Advocates prudent investor rule; abstracts. P. C. Madeira, jr. Comm & Fin Chr 162: 2879+ D 13 '45; Trusts & Estates 82:298+ Mr '46
Amortization of premiums on investments; liability of trustee for loss of premium. L. Schaefler. Trusts & Estates 81:455-8 D '45
Changing styles in stocks; market behavior can be used to advantage. R. Morris. Trusts & Estates 83:357-8+ O '46
Five advantages of prudent man rule; abstract. J. I. Bogen. Trusts & Estates 83:175 Ag '46
Flexibility in legal list investment; New Jersey and New York modernizing requirements. Trusts & Estates 82:511 My '46
Invest in social change; common stock levels and purchasing power increase. J. Kalb. Trusts & Estates 82:586+ Je '46
Investment facilities of small trust departments. Trusts & Estates 81:385 N '45
Investments for common trust funds. T. W. Matthews. Trusts & Estates 83:81-5 Jl '46
Legal list as guide for trustees; study being made to determine need for prudent man rule. B. P. Leeb. Trusts & Estates 82:593-4 Je '46
Massachusetts rule of trust investments. M. A. Shattuck. bibliog Trusts & Estates 82: 23-44 Ja '46
Plea for trustees. Economist 150:102-4 Ja 19 '46
Portfolio classification by risks; check and balance method for adapting trust securities to current conditions. H. G. Bruns. Trusts & Estates 82:487-90 My '46
Prudent man rule for trust investment; advantages as contrasted with legal list. M. O. Shattuck. Banking Law J 63:93-4+ F '46
Prudent man rule of trust investments; survey on practice of states. R. Neill, jr. Trusts & Estates 82:90-1 Ja '46
Trust investment under revolution. H. L. Greer. Trusts & Estates 83:171-3 Ag '46
Trustee's duty in a world of changing values; is there an obligation to preserve purchasing power? L. S. Headley. Trusts & Estates 82:207-8+ F '46
Vicissitudes of railroad credit; elastic yardsticks replacing legal straitjacket. G. Garbutt. Trusts & Estates 83:243-6 S '46

Living trusts

New tests for taxing living trusts. Trusts & Estates 82:609-10 Je '46

Pension trusts

See Pension trusts

Small trust funds

Encouraging small estates. R. E. MacDougall. Trusts & Estates 81:373-5 N '45
Seeking small estates and trusts. L. H. Roseberry. Trusts & Estates 81:481-6 D '45; Excerpts. Banking Law J 62:933-7 D '45

See also
Trusts and trustees—Common trust funds

Taxation

Amendments to federal income, estate, and gift tax laws proposed by ABA Trust division. Comm & Fin Chr 163:1010 F 21 '46
Doctrine of Clifford case defined by new regulations. Trusts & Estates 82:225-6 F '46
Federal tax revision; proposed amendments affecting estates and trusts. G. Craven. Trusts & Estates 82:177-82 F '46
New ruling on obligation trusts. Trusts & Estates 83:288 S '46
State and federal taxation, 1944-1945. W. L. Nossaman. Trusts & Estates 82:47-54 Ja '46
Tax trend threatens concept of property; report of ABA division. East Underw 47:1+ F 1 '46

TRYPANOCIDES

Attempts to find new chemotherapeutic amidines; nuclear substituted derivatives of 4 : 4'-and 3 : 3'-diamidinostilbene. J. N. Ashley and J. O. Harris. Chem Soc J p567-72 Jl '46
Treatment of trypanosomiasis with p-arsenosophenylbutyric acid; results in 319 cases of early trypanosoma gambiense infections. H. Eagle. bibliog Pub Health Rep 61:1019-34 Jl 12 '46

TRYPANOSOMA cruzi

Complement-fixation tests for American trypanosomiasis in Texas. D. J. Davis and T. D. Sullivan. Pub Health Rep 61:1083-4 Jl 19 '46

TRYPANOSOMIASIS. See Sleeping sickness

TRYPSIN

Antagonism between heparin and plasma trypsin. M. Rocha e Silva and S. O. Andrade. bibliog Science 102:670 D 28 '45

TRYPTOPHAN

Sterility induced in growing rats on a tryptophane-deficient diet. W. F. Keller. Science 103:137 F 1 '46

Analysis

Determination of tryptophane, phenylalanine, and methionine; a rapid procedure. W. C. Hess and M. X. Sullivan. bibliog Ind & Eng Chem Anal ed 17:717 N '45
Micro-Kjeldahl determination of nitrogen in gramicidin and tryptophan; comparison of Gunning-Arnold-Dyer and Friedrich methods. L. M. White and G. E. Secor. bibliog Ind & Eng Chem Anal ed 18:457-8 Jl '46

TSUTSUGAMUSHI disease

Apparent serological heterogeneity among strains of tsutsugamushi disease (scrub typhus). I. A. Bengtson. Pub Health Rep 60.1483-8 D 14 '45
Complement fixation in tsutsugamushi disease (scrub typhus). I. A. Bengtson. bibliog Pub Health Rep 61:895-900 Je 14 '46
Food of nymphs and adults of neoschöngastia indica (Hirst 1915). G. W. Warton and R. K. Carver. Science 104:76-7 Jl 26 '46
Method for the preparation of tsutsugamushi (scrub typhus) antigen from infected yolk sacs. N. H. Topping and C. C. Shepard. Pub Health Rep 61:778-81 My 31 '46
Separation of the complement-fixing agent from suspensions of yolk sac of chick embryo infected with the Karp strain of tsutsugamushi disease (scrub typhus). I. A. Bengtson. Pub Health Rep 61:1403-8 S 27 '46
Serological study of 37 cases of tsutsugamushi disease (scrub typhus) occurring in Burma and the Philippine Islands. I. A. Bengtson. Pub Health Rep 61:887-94 Je 14 '46

TUBE bending

Economic aspects of tube bending. R. Shaw, jr. il Steel 119:94-5+ S 2 '46
Equipment and appliances; Staffa oil hydraulic tube bender. il Electrician 137:107 Jl 12 '46
Hand tool for bending small tubing and cable. il Elec World 125:130+ My 11 '46; Aero Digest 52:56 Ap '46
New Servel machine bends tubing in various shapes. Cer Ind 47:68 O '46

TUBE expanders

Fairey precision tube expander. il diag Engineering 160:348 N 2 '45
Old condenser tubes get new lease on life; expander helps to stop leakage. F. F. Fisher. diags Power 90:248a, 249+ Ap '46

TUBERCLE bacilli

Inhibition of growth of mycobacterium tuberculosis by a mold product; the effect on pathogenic human tubercle bacilli; mycocidin. I. E. Gerber and M. Gross. Science 103:167-9 F 8 '46

TUBERCLE bacilli—*Continued*
Method for obtaining standard suspensions of tubercle bacilli in the form of single cells. W. F. Wells. diag Science 104:254 S 13 '46

TUBERCULIN
Some epidemiological aspects of sensitivity to histoplasmin and tuberculin. M. L. Furcolow and others. bibliog Pub Health Rep 61: 1132-44 Ag 2 '46

TUBERCULOSIS
Administrative aspects of mass radiography. P. A. Brehm. Ind Med 15:391-3 Je '46
Antibacterial action of phenanthrene-related substances. W. Raab. bibliog Science 103: 670-1 My 31 '46
Antitubercular studies; 1,1,1-trichloro-2,2-bis-(*p*-aminophenyl)-ethane. A. Burger, E. Graef and M. S. Bailey. bibliog Am Chem Soc J 68:1725-6 S '46
Arrested tuberculous are safe workers. Nat Safety N 53:134 Ja '46
BCG vaccination against tuberculosis. Pub Health Rep 61:801-2 Je 7 '46
BCG vaccination in Denmark. J. Holm. Pub Health Rep 61:1298-1315 S 6 '46
Chemotherapy in tuberculosis. Pub Health Rep 61:825-6 Je 7 '46
Control of occupational tuberculosis in hospitals. L. Brahdy. J Ind Hygiene 27:234-7 O '45
Experience with BCG vaccine in the control of tuberculosis among North American Indians. J. D. Aronson and C. E. Palmer. Pub Health Rep 61:802-20 Je 7 '46
Geographic differences in sensitivity to histoplasmin among student nurses. C. E. Palmer. maps Pub Health Rep 61:475-87 Ap 5 '46
Heart disease and tuberculosis. Pub Health Rep 61:1425-6 O 4 '46
How much control of tuberculosis; excerpts. W. H. Frost. Pub Health Rep 61:652-4 My 3 '46
Increase in tuberculosis proportionate mortality among nonwhite young adults. J. Yerushalmy. Pub Health Rep 61:251-8 F 22 '46
Indolent early tuberculosis. Pub Health Rep 61:821-3 Je 7 '46
Industrialization of India and its likely effect on tuberculosis problems; abstract. P. K. Sen. J Ind Hygiene 28:sup4 Ja '46
Isolation of mycobacterium tuberculosis from gastric contents neutralized after varying periods. M. G. Sprick and J. W. Towey. bibliog Pub Health Rep 61:648-51 My 3 '46
Laryngeal swabs for detection of tuberculosis; abstract. E. Nassau. Pub Health Rep 61: 830 Je 7 '46
Modalities of bed rest. W. M. Peck. diag Pub Health Rep 61:626-43, pl 1-6 My 3 '46
Present state of the chemotherapy of tuberculosis. A. Burger. bibliog J Chem Educ 22:586-7+ D '45
Rehabilitating the tuberculous. Pub Health Rep 61:823-5 Je 7 '46
Rehabilitation and aftercare in tuberculosis. H. E. Hilleboe and N. C. Kiefer. Pub Health Rep 61:285-94 Mr 1 '46
Review of tuberculosis control demonstrations and the program of grants-in-aid. F. J. Weber. Pub Health Rep 61:643-8 My 3 '46
Some epidemiological aspects of sensitivity to histoplasmin and tuberculin. M. L. Furcolow and others. bibliog Pub Health Rep 61: 1132-44 Ag 2 '46
Teamwork in tuberculosis control. Pub Health Rep 61:473-5 Ap 5 '46
Tuberculosis; abstract. J. D. Wassersug. J Ind Hygiene 28:sup3 Ja '46
Tuberculosis control. Nat Safety N 53:62 Ja '46
Tuberculosis control in Denmark. J. Holm. Pub Health Rep 61:1426-43 O 4 '46
Tuberculosis control issue. Pub Health Rep 61:979-1015 Jl 5 '46
Tuberculosis in Holland during the war; abstract. H. Van Den Berg. Pub Health Rep 61:313-14 Mr 1 '46
Tuberculosis in industry from the viewpoint of the physician in industry; abstract. M. Pollak. Nat Safety N 54:44 Ag '46
Tuberculosis in Sweden and the fight against it in recent years. J. Lundquist. Pub Health Rep 61:826-9 Je 7 '46
Tuberculosis record systems. Pub Health Rep 61:625-6 My 3 '46
Tuberculostatic action of streptothricin and streptomycin with special reference to the action of streptomycin on the chorioallantoic membrane of the chick embryo. E. W. Emmart. bibliog Pub Health Rep 60:1415-21, pl 1-2 N 30 '45
Victory over tuberculosis. Nat Safety N 53: 52 F '46
What is early tuberculosis? H. E. Hilleboe. Pub Health Rep 61:1295-7 S 6 '46

Hospitals and sanatoriums
Need for hospital facilities for the tuberculous. bibliog Pub Health Rep 61:1131-2 Ag 2 '46

Statistics
Tuberculosis mortality in each state, 1944; tabulation. Pub Health Rep 61:144-5 F 1 '46
Tuberculosis mortality in major cities, United States, 1942-43. R. V. Kasius and E. H. Pitney. bibliog Pub Health Rep 61:297-312 Mr 1 '46
Tuberculosis mortality in major cities; United States, 1944. E. H. Pitney and R. V. Kasius. bibliog Pub Health Rep 61:1443-54 O 4 '46
Tuberculosis mortality in the United States and in each state; 1944. J. Yerushalmy and I. M. Moriyama. maps Pub Health Rep 61: 487-516 Ap 5 '46
Tuberculosis throughout the world. S. E. Yelton. bibliog maps Pub Health Rep 61: 1144-60 Ag 2 '46

TUBERCULOSIS *in cattle*
Control of bovine tuberculosis in the United States. bibliog Pub Health Rep 61:1315-23 S 6 '46

TUBES
Advantages of double-flared tubing; oxygen systems of combat airplanes. L. Virgile. diags Aero Digest 51:89+ D 1 '45
Bimetallic double-wall tubing for combating corrosion. diags Product Eng 17:102-3 F '46
Effect of turbulence promoters on heat transfer coefficients for water flowing in horizontal tubes. L. G. Seigel. bibliog il diags Heating-Piping 18:111-14 Je '46
Exchanger tubes. W. L. Nelson. Oil & Gas J 44:113 Mr 23 '46
Flareless fitting for joining metal tubing. il Steel 119:87 S 30 '46
Heat-flux pattern in fin tubes under radiation. A. R. Mumford and E. M. Powell. diags A S M E Trans 67:693-5 N '45
Heat transfer and pressure loss in small commercial shell-and-finned-tube heat exchangers. R. M. Armstrong. il diags A S M E Trans 67:675-81 N '45
Heat transfer through tubes with integral spiral fins. D. L. Katz and others. il diags A S M E Trans 67:665-73; Discussion. 673-4 N '45
Hydraulic tubing design. B. J. McCabe. diags Aero Digest 52:95-6+ Je '46
Influence of tube shape on heat-transfer coefficients in air to air heat exchangers. F. H. Green and L. S. King. bibliog il diag A S M E Trans 68:115-22 F '46
Tube spacing in finned-tube banks; gas coolers for industrial use. S. L. Jameson. diags A S M E Trans 67:633-42 N '45

See also
Boiler tubes
Gas tubing
Pipes
Tube bending

Manufacture
Beading tool for tubes. il diags Engineering 160:455 N 30 '45
Folding in tube-sinking. G. Sachs and W. M. Baldwin, jr. bibliog il diags A S M E Trans 68:647-54 Ag '46
Pneumatic machine does tube burring quickly and accurately. C. Lusk and R. E. Mooreman. diag Am Mach 89:140 D 20 '45
Precision seamless tubing by electrodeposition; Ekko process of United States rubber co. J. Albin. il diags Iron Age 157:54-8 Ja 10 '46
Stress analysis of tube-sinking. G. Sachs and W. M. Baldwin, jr. bibliog diags A S M E Trans 68:655-62 Ag '46
Tube-ends of ⅝-to 3-in. diameter beaded in automatic-cycle machines; North American aviation, inc. E. W. Cooper. il diags Am Mach 90:126-8 Mr 14 '46

TUBES—Manufacture—*Continued*
Use and servicing of carbide mandrels in tube mills. diags Steel 119:86+ O 28 '46

See also
Tubes (containers)—Manufacture
Tubes, Steel—Manufacture

Testing

Probolog spots corrosion, cracks, holes in exchanger tubes. il Oil & Gas J 44:121 D 15 '45

TUBES (containers)
Desiccant for drugs; guards the potency of oral penicillin. il Mod Packaging 19:121 Ja '46
Soda straws guard the navy's time; chain used for a marine chronometer packed in cellophane straw. il Mod Packaging 19:127 N '45

Manufacture

Collapsible tubes. F. T. Sisco. Min & Met 27: 443 Ag '46; Same. Mech Eng 68:897 O '46
Impact extrusions. H. Chase. bibliog il diags Materials & Methods 23:1317-20 My '46

TUBES, Aluminum
Flaring tubes with carbide lathe-center tip. diag Mach 52:150 Ja '46
Instability of thin-walled tubes subjected to internal pressure. G. Espey. A S M E Trans 68:281-5 My '46

TUBES, Brass
How to put a point on brass tubing. L. L. Dodds. diags Am Mach 90:126 Jl 4 '46

TUBES, Copper
Assembling copper tubes with solder fittings. il Paper Ind 28:1021 O '46
Weights of small seamless copper tubes; engineering file facts; table. Materials & Methods 22:1787 D '45

Manufacture

Four methods for producing copper tubing. D. K. Crampton. Steel 117:89 D 10 '45

TUBES, Glass. See Glass tubing

TUBES, Plastic
Equipment and technique of extrusion; details of processing extruded sheets, tubing and wire coating. R. B. Akin. il diags Mod Plastics 24:134-42 O '46
Plastic tubing insulation for anodizing tank. W. G. Nutzel. Elec World 126:112 S 14 '46

TUBES, Steel
Carbon steel tubing with gun barrel finish finding new uses. Blast F & Steel Pl 34:1160 S '46
Internal pressure chart for round steel tubing; reference book sheet. B. Ostlind. Product Eng 16:891 D '45
Internal pressure chart; safe working hydraulic pressures for round steel tubes. Steel 119:144-5 Ag 5 '46
Nickel steel tubing adapted to -320 degrees F. H. D. Newell. Blast F & Steel Pl 33:1540 D '45
Plastic coated metal tubing; cellulose acetate butyrate. il diags Product Eng 17:307-8 Ap '46
Properties and characteristics of 27% chromium-iron. H. D. Newell. bibliog(148 titles) il Metal Prog 49:977-91+ My '46
Steel industry statistics; finished steel; comp. by the American iron and steel institute. Steel 117:insert S 12-13 D 17 '45
Stop tube failure in superheater by adding corrosion inhibitors. E. Q. Camp and others. flow diag il diag Nat Pet N 38 pt 2:R192+ Mr 6 '46
Tensions internes dans les tubes en acier centrifugé. J. Caillaud. Génie Civil 123:12 Ja 1 '46
Triple alloy structural tubing. C. M. Schwitter. bibliog il Iron Age 158:46-9 Ag 22 '46

See also
Pipes, Steel

Manufacture

Automatic press finishes ID of tubes. il Iron Age 157:59 Je 20 '46
Centrifugal casting of steel in wartime Germany. C. W. Briggs. il diags Foundry 74: 96-7+ O '46
Detroit seamless steel tubes co. has for 45 years manufactured steel tubes. C. Longenecker. il Blast F & Steel Pl 34:231-2 F '46
Forming tubular products and closing tube ends by flame spinning. il Steel 117:92-3 N 26 '45
Machine built with manifold dies points steel tubes. il Steel 118:141+ Ap 1 '46
Seamless tube piercing and steel for the process; abstract. N. Hamilton. Blast F & Steel Pl 33:1428 N '45
Tailor-made boiler tubing; use of oxyacetylene pressure-welding. il Steel 118:108+ Mr 18 '46
Use of adhesives in cold drawing stainless steel tubing. H. K. Ihrig. il diags Steel 119: 102-4+ O 21 '46

Testing

Tubing without troubles; electronic sleuth; Probolog. V. Zeluff. il Sci Am 175:108-10 S '46

Welding

High-strength pressure welded joints. C. B. Voldrich and J. L. Zambrow. Steel 118:98-9+ Ap 15 '46; Same abr. Automotive & Aviation Ind 94:34-6+ My 15 '46
Pressure gas welding of alloy steel tubing. J. L. Zambrow and R. D. Williams. bibliog il diags Welding J 25:sup585-96 O '46

TUBES, Vacuum. See Vacuum tubes

TUBING calipers. See Calipers

TUCKER, Preston
Plans output of its new car in 8 to 10 months. il Iron Age 158:106-7 Jl 25 '46
Tucker advances; Ypsilanti engineer leases Dodge engine plant at Chicago for torpedo car production. Bsns W p24+ S 28 '46
Tucker solidifies auto venture. Bsns W p28 F 23 '46

TUG boats. See Towboats

TULAREMIA
First case to be reported in Alaska. R. B. Williams. Pub Health Rep 61:875-6 Je 14 '46
Tularemia, attemped transmission by each of two species of fleas; xenopsylla cheopis (Roths.) and diamanus montanus (Baker). F. M. Prince and M. C. McMahon. bibliog Pub Health Rep 61:79-85 Ja 18 '46
Tularemic pneumonia; treatment with streptomycin. R. L Peterson and R. R. Parker. Pub Health Rep 61:1231-4 Ag 23 '46
Viability of dried bacterium tularense. R. P. Miller. Pub Health Rep 61:1084-5 Jl 19 '46

TULSA, Oklahoma

Industries

United for Tulsa. il Bsns W p18-19 N 24 '45

TULSA industries, inc.
United for Tulsa. il Bsns W p18-19 N 24 '45

TUMBLERS, Glass
Better product, but it looks like cheaper rivals; what to do? Libbey Glass heat-treated tumbler. K. C. White. il Sales Management 56:60+ Mr 1 '46

Manufacture

Machine for burning the moil off from tumblers and forming a bead on the edge of the ware; patent. diag Glass Ind 27:401-2 Ag '46

TUMBLING barrels
Cleaning and de-whiskering nails. A. J. Lehman. il plan Steel 118:123+ F 18 '46
Roto-finish process. A. H. Allen. il plan diags Steel 118:98-100+ Je 24 '46

TUMORS
Addition of α-naphthylmethylmagnesium and α-naphthylmethylcadmium chlorides to alkylidenemalonic esters. B. Riegel, S. Siegel and W. M. Lillienfeld. bibliog Am Chem Soc J 68:984-5 Je '46
Age factor in adaptability of a sarcoma virus to other animal species. F. Duran-Reynals. bibliog Science 103:748-9 Je 28 '46
Linkage and crossing-over between black pigmentation and susceptibility to induced fibrosarcoma in mice. L. C. Strong. Science 103:554 My 3 '46

TUNA fish
Pak-C-Lector packs rapidly; cuts, weighs and fills, continuously and automatically, tuna or other products. il Food Ind 18:527 Ap '46
Planes trail tuna; California fishermen will use aircraft. Bsns W p31 My 11 '46

TUNG oil
Antiskinning agents derived from nitroparaffins. H. G. Johnson. bibliog Ind & Eng Chem 37:1176-8 D '45
Changes in wood oil and tung oil on prolonged storage. G. Eisenschiml. Paint Oil & Chem R 109:16+ Ap 4 '46
Drying oil and oleoresinous varnish films; increase in acidity on aging. V. J. Frilette. bibliog Ind & Eng Chem 38:493-6 My '46
Drying oils and oil seeds in the British empire; abstract. G. T. Bray. Chem Age (Lond) 55:475-7 O 19 '46
Drying oils situation viewed from divers angles. Oil Paint & Drug Rep 149:4 Ap 8 '46
High prices stimulate research for development of tung oil production in South Africa. Chem Eng 53:182+ Ag '46
How much tung oil can we get from China? For Comm W 24:33 S 14 '46
South holds promise as tung oil producer. il Manuf Rec 115:184 Jl '46
Specific heats of vegetable oils from 0° to 280° C. P. E. Clark, C. R. Waldeland and R. P. Cross. bibliog diag Ind & Eng Chem 38:350-3 Mr '46
Studies in tung oil and oiticica oil; abstract. A. Steger, J. van Loon and P. J. van Vlimmern. Paint Oil & Chem R 109:18+ Ja 10 '46
Tung oil exports for 1946 estimated. Oil Paint & Drug Rep 150:5 Ag 12 '46
Tung oil in China. Woo Tsungwen. Oil Paint & Drug Rep 149:7+ Mr 18 '46
Tung-oil situation, China. For Comm W 24:36 Ag 3 '46
Unique plant produces tung and peanut oils; Continental commodities corp. Madagascar plant. D. Gordon. flow sheet Chem & Met Eng 52:106-7 N '45
What's ahead in raw materials; tung oil. M. P. Austin. Paint Oil & Chem R 108:54 N 1 '45
Wood oil situation in China and difficulties affecting it as viewed by an expert. S. C. Wood. Paint Oil & Chem R 109:18+ My 30 '46

TUNGSTEN
Abundance of tungsten in igneous rocks. E. B. Sandell. bibliog Am J Sci 244:643-8 S '46
Codeposition of tungsten and nickel from an aqueous ammoniacal citrate bath. L. E. Vaaler and M. L. Holt. bibliog Electrochem Soc Trans 90 (preprint 9):151-62 '46
Powder metallurgy and the refractory metals. A. L. Percy. il Steel 118:106-8+ Je 17 '46
Tungsten contact life exceeds that of silver. H. C. Miller. Elec World 125:89 Mr 2 '46
Tungsten in cast iron; abstract. S. W. Palmer. Engineering 160:340 O 26 '45
Tungsten, 1945. H. W. Davis. Eng & Min J 147:90 F '46
War job of tungsten and molybdenum products. M. H. McClement. Steel 118:141 Mr 4 '46
World tungsten position. Chem Age (Lond) 55:293 S 7 '46

Analysis
Color determination of tungsten, titanium and columbium. C. M. Johnson. il diags Iron Age 157:66-9 Ap 4 '46
Determination of tungsten and columbium in stainless steels. C. M. Johnson. Iron Age 157:66-8 Ap 11 '46
Determination of tungsten in silicate rocks. E. B. Sandell. bibliog Ind & Eng Chem Anal ed 18:163-7 Mr '46

Isotopes
Decay schemes for isotopes W^{187} and W^{185}. W. H. Sullivan. bibliog Phys R 68:277 D 1 '45
Isotopic constitution of tellurium, silicon, tungsten, molybdenum, and bromine. D. Williams and P. Yuster. bibliog Phys R 69: 556-67 Je 1 '46

TUNGSTEN, Powdered
Activated adsorption of nitrogen on a finely divided tungsten powder. R. T. Davis, jr. bibliog diag Am Chem Soc J 68:1395-1402 Ag '46

TUNGSTEN alloys
Electrodeposition of nickel-cobalt-tungsten alloys from an acid plating bath. P. F. Hoglund and M. L. Holt. bibliog Electrochem Soc Trans 88 (preprint 24):255-65 '45; Same. Metal Finishing 44:248-51+ Je '46
Heavy Alloy aids machine design; tungsten powder metallurgy product. G. H. S. Price. il Iron Age 158:62-3 S 19 '46
Tungsten firm develops high density alloys. Iron Age 157:151 Je 27 '46

TUNGSTEN carbide
Boring cast iron valve guides with Carboloy boring bars diags Steel 119:153 S 23 '46
Carbide mandrels; proper use and care; abstract. A. E. Glen. diags Mech Eng 68:831-3 S '46
German cemented carbide industry in 1945. G. Comstock. Metal Prog 49:117-21 Ja '46
Lapping tungsten carbides. il Automobile Eng 36:155 Ap '46
Light pressure on tungsten carbide increases life of diamond lapping wheels. Mach 53: 196 O '46
Molybdenum steel riveting. diag Engineer 182:262 S 20 '46
Nazi tungsten hoard proved insufficient. H. Crump. Am Mach 90:148 Ja 31 '46
Structure of hard metals; abstract. W. Dawihl and J. Hinuber. Materials & Methods 22:1530 N '45; Same. Oil & Gas J 44:91 Mr 23 '46
Use and servicing of carbide mandrels in tube mills. diags Steel 119:86+ O 28 '46

See also
Cutting tools, Carbide

Manufacture
Recent new plants; Carboloy. il Factory Management 104:B64-B66 pt 2 Ap '46

TUNGSTEN mines and mining

Morocco
Tin and tungsten deposits of French Morocco. E. T. Heck. il map Econ Geol 41:383-9 Je '46

Virginia
Exploration of the Mecklenburg county, Va. tungsten area. B. E. Argyle. U S Bur Mines Rep of Invest 3857:1-5, pl 1-3 '46

TUNGSTEN ores
Stages and epochs of mineralization in the San Juan mountains, Colorado, as shown at the Dunmore mine, Ouray county, Colorado. V. C. Kelley and C. Silver. bibliog il maps diags Econ Geol 41:139-59 Mr '46
Tungsten mineralization in the United States. P. F. Kerr. (Memoir 15) 241p, 23 pls bibliog(p211-26) Geological soc. of America, 419 W. 117th st, New York '46

TUNGSTEN plating
Electrodeposition of nickel-cobalt-tungsten alloys from an acid plating bath. P. F. Hoglund and M. L. Holt. bibliog Electrochem Soc Trans 88 (preprint 24):255-65 '45; Same. Metal Finishing 44.248-51+ Je '46

TUNGSTEN steel

Analysis
Photometric determination of silicon in steels. C. H. R. Gentry and L. G. Sherrington. Soc Chem Ind J 65:90-2 Mr '46

TUNING
Dependence of tuning of wind instruments on temperature. R. W. Young. bibliog Acoustical Soc Am J 17:187-91 Ja '46

TUNING forks
Tuning-fork frequency standard developed by General radio co. il R Sci Instr 17:160 Ap '46

TUNIS (state)

Economic conditions
News by countries. For Comm W 24:21-4 Ag 3 '46

TUNISIA. See Tunis (state)

TUNNEL air
Observations on the use of a Diesel freight locomotive through a railway tunnel. L. B. Berger and H. L. McGuire. 5pls U S Bur Mines Rep of Invest 3887:1-20 '46

TUNNEL lining
Boulder Dam spillway tunnel; damage attributed to cavitation. D. A. Abrams. bibliog Am Soc C E Proc 72:1123-9 O '46
Building a one-mile sewer by tunneling; Baltimore, Md. il Eng N 136:788-91 My 16 '46
Gunite tunnel lining test reveals difficulties in application. il Eng N 135:579 N 1 '45; Discussion. L. J. Sullivan. 136:143 Ja 24 '46
Lining the Continental Divide tunnel. il Concrete 53:10-13+ D '45
Practical repair methods for disintegrated concrete tunnel lining. W. W. Morrison and E. E. Seelye. il diags Eng N 136:998-1001 Je 27 '46
Repair of Mount Royal tunnel. C. P. Disney. il diags Roads & Bridges 84:33-8 Je '46
Repairs Kingwood bore by novel methods. il diag Ry Age 120:1258-61 Je 29 '46
Seven-mile El Mirador tunnel in Mexico. il Eng N 137:158-60 Ag 8 '46
Stresses in the linings of shield-driven tunnels. A. Bull. diags Am Soc C E Proc 70: 1363-94 N '44; Discussion. 71:101-6, 240-56, 745-7, 885-96, 1151-2, 1355-8, 1551-5; 72:256-68 Ja-F, My-Je, S, N-D '45, F '46

TUNNEL shields
Shield used in rock tunnel where hazards are unusual; Brooklyn-Battery vehicular tubes. il diags Civil Eng 16:482-5 N '46

TUNNEL ventilation
Design of injectors for low-pressure air flow. G. E. McElroy. bibliog U S Bur Mines Tech Pa 678:1-50; pa 10c Supt. of doc. '45
Diesels to replace electrics on Boston & Maine's Fitchburg division; improved ventilation of Hoosac tunnel. il plan Ry Mech Eng 120:318-20 Je '46
Hoosac tunnel gets new propeller fans. il plan Ry Age 120:399-401 F 23 '46
New ventilating equipment installed for Hoosac tunnel. il Eng N 136:346 Mr 7 '46
Power requirements of Hoosac tunnel ventilation. il Elec World 126:108+ Ag 17 '46

TUNNEL wrecking
Railroad tunnels daylighted by company forces; Southern Pacific tunnels eliminated by excavation or by line relocation. E. E. Mayo. il Civil Eng 16:9-12 Ja '46

TUNNELS and tunneling
Building a one-mile sewer by tunneling; Baltimore, Md. il Eng N 136:788-91 My 16 '46
Colorado and Big Thompson rivers scheme. il map Engineer 182:183-5, 203-5, 246-7 Ag 30-S 6, 20 '46
Machine mucking speeds Hudson coal tunnel-driving work. R. R. Richart. il diags Coal Age 51:79-83 Ja '46
New interest in 26-mi. Tehachapi bore; with map of proposed tunnel. Eng N 136:386 Mr 14 '46
Rock tunneling in the Roslyn-Cle Elum field in central Washington. T. Murphy. il plan diags Min Cong J 32:22-5 Jl '46
Seven-mile El Mirador tunnel in Mexico. il Eng N 137:158-60 Ag 8 '46
Tunneled sewer avoids traffic snarls, Hartford, Conn. il Eng N 137:437-8 O 3 '46
Two important tunnels built in 1945; Northern Pacific and Rio Grande single-track bores through the Rockies. il diag Ry Age 120: 952-5, 1056-8 My 11, 25 '46
Underpinning interior columns to permit tunnel construction; Asbury Park press building. A. G. DiGiacinto. il plan diag Civil Eng 16:215-16 My '46

See also
Aqueducts
Pipe laying
Sewerage
Tunnel lining

Accidents
Lightning strikes on the job; Apalachia tunnel. G. K. Leonard. il diags Civil Eng 15: 545-7 D '45

Cost
Governors Island shaft, Brooklyn-Battery tunnel, New York city; unit prices. Eng N 136:808+ My 16 '46

History
Tunneling through the ages; use of compressed air. il Comp Air Mag 51:80-3 Mr '46

Hoosac tunnel
Hoosac tunnel gets new propeller fans. il plan Ry Age 120:399-401 F 23 '46
New ventilating equipment installed for Hoosac tunnel. il Eng N 136:346 Mr 7 '46
Power requirements of Hoosac tunnel ventilation. il Elec World 126:108+ Ag 17 '46

Moffat tunnel
Joint operation aided by C.T.C.; installation on heavy grades on route of the Denver & Salt Lake. il maps Ry Age 120:725-8 Ap 6 '46

Repair
Fighting wear on hydro works; Southern California Edison co. facilities in Sierra Nevada mountains. il Elec West 96:101-3 Je '46
Practical repair methods for disintegrated concrete tunnel lining. W. W. Morrison and E. E. Seelye. il diags Eng N 136:998-1001 Je 27 '46
Repair of Mount Royal tunnel. C. P. Disney. il diags Roads & Bridges 84:33-8 Je '46
Repairs Kingwood bore by novel methods. il diag Ry Age 120:1258-61 Je 29 '46
Traffic conditions improved in Montreal tunnel; repairs to tunnel under Lachine canal. H. A. Gibeau. il Roads & Bridges 83:59+ D '45

Vehicular tunnels
Precision control in sinking prefabricated sections for Maas tunnel in Rotterdam, Holland. il diags Eng N 136:336-40 Mr 7 '46
Shield used in rock tunnel where hazards are unusual; Brooklyn-Battery vehicular tubes. il diags Civil Eng 16:482-5 N '46

TUNNELS and tunneling, Subaqueous
Dartford tunnel compressed air stations. il diag Engineer 181:125-6 F 8 '46
H. & M; railroad under water. diag Bsns W p75-6+ Jl 6 '46
Mystic cable tunnel; design and construction. O. S. Bray. diags Boston Soc C E J 33:68-81 Ap '46
Precision control in sinking prefabricated sections for Maas tunnel in Rotterdam, Holland. il diags Eng N 136:336-40 Mr 7 '46
Shield used in rock tunnel where hazards are unusual; Brooklyn-Battery vehicular tubes. il diags Civil Eng 16:482-5 N '46
Traffic conditions improved in Montreal tunnel; repairs to tunnel under Lachine canal. H. A. Gibeau. il Roads & Bridges 83:59+ D '45

See also
English Channel tunnel

TUNNY. See Tuna fish

TURBIDIMETERS
Direct reading scale for Hellige turbidimeter. A. A. Hirsch. il diag Water & Sewage Works 93:84-5 F '46
Method of using turbidimeter as colorimeter. A. C. Fowler. Rock Prod 48:90 N '45

TURBIDIMETRIC analysis
Determination of calcium content and total hardness of water; nephelometric-photometric procedure. A. Saifer and F. D. Clark. bibliog Ind & Eng Chem Anal ed 17: 757-9 D '45
Determination of methyl chloride in air. J. L. Franklin, E. L. Gunn and R. L. Martin. diags Ind & Eng Chem Anal ed 18:314-16 My '46

TURBINE pumps. See Pumps, Turbine

TURBINES
Better method of representing and studying water-turbine performance. R. A. Sutherland. A S M E Trans 68:675-82; Discussion. 682-6 O '46

See also
Air turbines
Gas turbines
Steam turbines

TURBINES—*Continued*

Design

Nantahala turbine. J. P. Growdon and others. il layout plan diags A S M E Trans 68: 687-96; Discussion. 696-700 O '46

TURBO-ENCABULATOR. See Technical writing

TURBULENCE

Effect of turbulence promoters on heat transfer coefficients for water flowing in horizontal tubes. L. G. Seigel. bibliog il diags Heating-Piping 18:111-14 Je '46

Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. bibliog 71:1141-7, 1415-24; 72: 857-63 S, N '45, Je '46

TURKEY

See also
Kurdistan

Commerce

Turkey will spend $600,000 for road-building equipment. For Comm W 23:18 My 18 '46

Turkey's trade outlook. Economist 149:797 D 1 '45

Economic conditions

News by countries. For Comm W 22:22-4 Mr 9 '46

Foreign relations

Russia

Can Turkey stand it? Economist 151:546-7 O 5 '46

Politics and government

Turkish dilemma. Economist 150:788-90 My 18 '46

Population

See Population—Turkey

TURKEY brooders. See Poultry brooders

TURKEYS

Bank talks turkey; First national bank of Portland extends lending program to turkey raiser and breeder. il Banking 38:47-8 Mr '46

Better turkeys. Bsns W p44+ N 17 '45

See also
Insurance, Turkeys

TURKISH toweling. See Terry fabrics

TURNER, Francis Mills, 1890-

Francis Turner honored at dinner. por Chem & Eng N 24:1061 Ap 25 '46

TURNING

Lathe tool turns ball races and spherical bearings. G. Pabst. diag Am Mach 90:136 F 28 '46

Negative rake turning with carbide tools, machining of steel forgings. C. Edgar. diags Steel 117:132+ D 3 '45

Roller follow-rests permit heavy cuts in slender shaft turning. J. Taylor. diags Am Mach 90:139 O 10 '46

Single-point turning research. J. F. Allen. il diag Iron Age 157:66-70 Ja 10; 69-72 Ja 17 '46

Turning a small rod from beryllium copper. D. T. Armstrong. diags Am Mach 90:143 Mr 28 '46

TURNOVER

Terms and working capital; effect of turnover on operating funds. E. V. Kidd. Credit & Fin Management 48:11-12+ Mr '46

Turning the spotlight on turnover. A. C. Kiechlin. Inland Ptr 116:73-4 N '45

Which is the better way? better turnover makes for better capital position. J. L. Vesper. Credit & Fin Management 48:14-15+ Ag '46

TURNOVER, Labor. See Labor turnover

TURPENTINE

Production of isoprene from turpentine derivatives. B. L. Davis, L. A. Goldblatt and S. Palkin. bibliog diags Ind & Eng Chem 38:53-7 Ja '46

Resin impregnation of catfaces; effect of new methods of turpentining upon the resin content of slash pine. H. Skolnik and A. G. Snow, jr. Paper Tr J 122:52-3 Mr 21 '46

Solvents in the paint industry. R. B. Pollak. bibliog Paint Oil & Chem R 109:5-7 Mr 7 '46

Analysis

Composition of gum turpentine of Coulter pine. N. T. Mirov. bibliog Ind & Eng Chem 38:405-8 Ap '46

Statistics

Naval stores supplies decline. Chem & Met Eng 53:109 Ja '46

TURTLES

Observations of behavioral development in the loggerhead turtle (Caretta caretta). K. U. Smith and R. S. Daniel. il Science 104:154-6 Ag 16 '46

TWO-family houses. See Architecture, Domestic—Two-family houses

TYLOSE HBR. See Cleaning compositions

TYNDALL effect

Determination of particle sizes from Tyndall spectra. W. Heller and others. J Chem Phys 14:566 S '46

Tyndall spectra, their significance and application. W. Heller and E. Vassy. J Chem Phys 14:565 S '46

TYNER, Howard Dale, 1903-

Portrait. Am Cer Soc Bul 25:48 F 15 '46

TYPE and type founding

Caslon cavalcade; an appreciation. A. R. Hopper. il Inland Ptr 116:56-8 N '45

Should it be hand lettering or type? A. R. Hopper. Adv & Sell 39:74+ Ap '46

Using type to recapture spirit of the gay nineties. J. M. Secrest. il Ptr Ink 216:34-5 Ag 9 '46

Victor Hammer, master printer, has created and cut a new uncial type design. P. Standard. il Inland Ptr 116:57-8 Mr '46

See also
Initials

TYPE metal

Spectrochemical analysis of lead base metals. B. B. Dull and L. J. Hibbert. Opt Soc Am J 36:53-6 Ja '46

TYPESETTING

Clever system effects savings in the cost of monotype composition. il Inland Ptr 116:59 D '45-Ja '46

Formulas won't solve the problems of letterspacing. H. K. Keel and H. W. Smith. Inland Ptr 116:64-6 N '45; 50-1 F '46

No formula for letterspacing. B. J. Voss. Inland Ptr 117:60 Jl '46

Time-saving ideas for the composing room. plan Inland Ptr 116:47 F '46

See also
Initials

TYPESETTING machines

New metals; new materials; new methods may influence future design of typesetting and printing machinery. Inland Ptr 116:56 F '46

See also
Monotype

TYPEWRITERS, Automatic

Take a letter, please, Miss Soong; electro-automatic Chinese typewriter. il Bsns W p44 Jl 13 '46

TYPEWRITING

See also
Typists

TYPHOID fever

Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; extent of immunization against smallpox, diphtheria, and typhoid fever. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 61:97-109 Ja 25 '46

Typhoid vanishing in U.S. cities; statistics, 1945. M. N. Baker. Eng N 137:312-13 S 5 '46

TYPHUS fever

Epidemiological significance of seasonal variations in rodent-ectoparasite distribution. A. S. Rumreich and J. A. Koepke. bibliog Pub Health Rep 60:1421-8 N 30 '45

First Inter-American typhus conference, Mexico city, Oct. 1945. Science 103:17 Ja 4 '46

Nature of the soluble antigen from typhus rickettsiae. C. C. Shepard and R. W. G. Wyckoff. Pub Health Rep 61:761-7, pl 1-4 My 31 '46

TYPHUS fever—*Continued*
Prevalence of typhus complement-fixing antibodies in human serums in San Antonio, Tex. D. E. Davis and M. Pollard. Pub Health Rep 61:928-31 Je 21 '46
Serological relationships in the epidemic-endemic typhus group as determined by complement fixation. I. A. Bengtson. Pub Health Rep 61:1379-85 S 20 '46
Specificity of epidemic and murine typhus. V. Groupé and R. Donovick. bibliog Science 103:330-1 Mr 15 '46
Study of rodent ectoparasites in Mobile, Ala. L. C. Cole and J. A. Koepke. bibliog(40 titles) map Pub. Health Rep 61:1469-87 O 11 '46

TYPISTS
Cutting typing and stenographic costs. il Am Bsns 16:20-4+ Ja '46

TYROSINE
Amino acid conversion products; 3,5-diiodotyrosine derivatives. S. W. Fox. Am Chem Soc J 68:194-5 F '46
Inactivation of hypertensin. E. Cruz-Coke. Science 104:86 Jl 26 '46
Polymer reaction product of tyrosine and formaldehyde. A. E. Brown. bibliog Am Chem Soc J 68:1011-15 Je '46
See also
Fluorotyrosine

TYROTHRICIN
Progress in drugs, fine chemicals and biological products during 1945. G. C. Green Chem Age (Lond) 54:184 F 16 '46

U

U.A.W. See United automobile workers of America

UGANDA
Economic conditions
News by countries. For Comm W 21:32-3 N 10 '45

UHRMANN, Carl John, 1900-
On European mission. por Am Cer Soc Bul 24:439 N 15 '45

UINTA mountains, Utah
Late paleozoic and early mesozoic stratigraphy of Uinta mountains, Utah. H. D. Thomas and M. L. Krueger. bibliog il map diags Am Assn Pet Geologists Bul 30:1255-93 Ag '46

UKRAINE
What Russia got in the Transcarpathian Ukraine. E. Bouianovsky. map For Comm W 24:5+ Ag 24 '46

ULLMANN reaction
Ullmann synthesis of biaryls. P. E. Fanta. bibliog(271 references) Chem R 38:139-96 F '46

ULTRASONIC waves. See Supersonic waves

ULTRAVIOLET rays
Action of ultraviolet light upon cellulose and cellulose triacetate. E. Heuser and G. N. Chamberlin. bibliog Am Chem Soc J 68: 79-83 Ja '46
Black light and color magic. il diags Arch Rec 100:115-19 S '46
Black light applied to plastic signs. il Mod Plastics 23:144-5 Ap '46
Effect of ultraviolet light on glass containing silver. A. E. Badger and F. A. Hummel. Phys R 68:231 N 1 '45
Fading of groundwood by light; inhibition of fading through the use of ultraviolet absorbing compounds. P. A. Nolan. Paper Tr J 121:35-9 D 6 '45
Quantitative determination of some inhibitors in polymers by ultraviolet light absorption. F. W. Banes and L. T. Eby. Ind & Eng Chem Anal ed 18:535-8 S '46
Use of ultraviolet light in tracing the course of a drug through the body. C. H. Taft. Science 103:340-1 Mr 15 '46
See also
Glass—Ultraviolet rays transmission
Industrial applications
Means of detecting sulfur in coal; use of near ultra-violet light. Blast F & Steel Pl 34: 1145 S '46
Lamps
Bactericidal lamp; size of automobile headlight bulb. il Sci Am 175:178 O '46
Better light and better health in this schoolroom; fluorescent and germicidal lamps. L. E. Weber. il Elec World 125:132 My 25 '46
Danger in the air; germicidal lamp installation by E. W. Rose company. il Safety Eng 91 10-11 My '46
Effectiveness of air disinfection. A. C. Stern. il Heat & Ven 43:95-7 Ag '46
Fading of colored textiles. A. H. Taylor. Illum Eng 41:35-8 Ja '46
Lamp application research; sunlamps. L. C. Porter and J. E. Davenport. il Gen Elec R 49:11-13 O '46
Locating uranium with the ultraviolet lamp. J. DeMent. bibliog il Min Cong J 32:26-30 My '46
Passenger car auxiliaries; ultra-violet lamps, as drinking water sterilizers. H. H. Hanft. il Ry Mech Eng 120:92 F '46
Plastics precede production; meat-saving germicidal Sanilite lamp unit; casting plastics paved way for molded product. C. Simmons. il Sci Am 174:170-1 Ap '46
Refrigeration limitations, and aids; with pointers on use of bacterial lamps. A. W. Ewell. Refrig Eng 50:523-4+ D '45
Scorched fibers revived by application of ultra-violet rays. il Sci Am 173:305 N '45
Sterile air was an absolute necessity; Avoset processed cream; California milk products co. il Elec West 95:91 N '45
Transmittance and reflectance of germicidal (λ2537) energy. M. Luckiesh and A. H. Taylor. bibliog diags Opt Soc Am J 36:227-34 Ap '46
Ultraviolet for air sanitation. A. R. Dennington. il Heat & Ven 43:57-8 Jl '46
Ultraviolet lamps as germ killers. il diags Sheet Metal Worker 37:64+ Ap '46
Ultraviolet protection for an entire school. il Elec West 95:89 N '45
Measurement
Measurement of ultraviolet radiation useful in heliotherapy. W. W. Coblentz. il Opt Soc Am J 36:72-6 F '46
Physiological effect
Effect of long ultraviolet radiation on the human eye. E. Ludvigh and V. E. Kinsey. Science 104:246 S 13 '46
Homologous serum jaundice; experimental inactivation of etiologic agent in serum by ultraviolet irradiation. J. W. Oliphant and A. Hollaender. Pub Health Rep 61:598-602, pl 1 Ap 26 '46

ULTRAVIOLET spectrum. See Spectrum, Ultraviolet

UNCLAIMED deposits. See Bank deposits, Unclaimed

UNCLAIMED policies. See Insurance, Life—Policy settlement—Unclaimed policies

UNDECYLENIC acid
Addition of olefinic esters to maleic anhydride. J. Ross, A. I. Gebhart and J. F. Gerecht. bibliog Am Chem Soc J 68:1373-6 Jl '46

UNDERGROUND construction
Air conditioning an essential for underground invasion headquarters. W. B. Hutchinson. il plan Heating-Piping 17:538-40 O-N '45
Underground garages advocated. Eng N 136: 919 Je 13 '46
See also
Concrete construction, Underground
Factories, Underground
Pipe lines
Sewerage
Tunnels and tunneling
Underground structures

UNDERGROUND corrosion. See Corrosion and anti-corrosives—Underground corrosion

UNDERGROUND factories. See Factories, Underground

UNDERGROUND power plants. See Power plants, Underground

UNDERGROUND structures
City practices in mapping street subsurface structures. Pub Works 77:36+ Ag '46
Location of underground services. Engineering 162:136-7 Ag 9 '46; Abstract. Engineer 182:98 Ag 2 '46
Location of underground services. Gas J (Lond) 248:230 Ag 7 '46
Preventing buried tanks from floating. S. Lewis. Heating-Piping 18:82 S '46; Discussion. K. Steiner. 18:93 O '46
Sub-surface works and the London traffic plan. H. F. Cronin. Engineering 162:342 O 11 '46
Well-planned pipe tunnels aid efficient central plant heating; ducts containing heating, water and electric services. S. R. Lewis. Heating-Piping 18:82-3 Jl '46

UNDERGROUND water. See Water, Underground

UNDERTAKERS
Funeral directors improving services. M. K. Tate. il Dom Comm 34:29-31+ My '46

UNDERWEAR
See also
Hosiery
Slips (underwear)

Advertising

$8,000,000,000 textile industry; is it ripe for brand name promotion? J. C. Cumming. Sales Management 55:146+ D 1 '45

UNDERWRITER (term)
Needless restriction on "underwriters"; editorial. Nat Underw (Life ed) 50:10 Ap 26 '46

UNDERWRITERS laboratories
Annual meeting, Chicago, April 5. East Underw 47:23 Ap 12 '46; Nat Underw 50:3 Ap 11 '46
Laboratories' progress. A. Small. Nat Underw 50:4 S 19 '46
War brought no startling changes in fire fighting. Nat Underw 50:6 Mr 14 '46

UNDERWRITERS salvage company of New York
Reclaims huge values in damaged property. J. G. McClure, jr. East Underw 47:15+ My 3 '46; Same. Weekly Underw 154:1128 My 4 '46; Abstract. Nat Underw 50:2 My 2 '46

UNEMPLOYMENT
What the public thinks; anticipated unemployment one year from now and five years from now; charts. Iron Age 157:102-3 Ja 3 '46
See also
Employment
Right to labor
Stabilization in industry

Relief measures

Land settlement
See also
Subsistence homesteads

Manufacturing
Employment under British distribution of industry act, 1945. Mo Labor R 61:1148-9 D '45

Public works
Planning of public investment in Australia. R. I. Downing. bibliog Int Labour R 52:352-79 O '45
States build reserve shelf of public works. P. B. Fleming. il Civil Eng 16:486-8 N '46

Belgium

Belgium's unemployment problem. L. Dupriez. Ann Am Acad 247:148-54 S '46

Buffalo, New York

Buffalo's worry; jobless lists are soaring. Bsns W p31 Mr 23 '46

California

Unemployment compensation plan held inefficient in California. Steel 119:90 Jl 15 '46

United States

Doomsday seers fail; predictions of government economists. L. Haney. Comm & Fin Chr 163:134 Ja 10 '46
No mass unemployment again! S. Chase. Comm & Fin Chr 162:2324+ N 15 '45
Selective labor; jobs go begging as workers spurn lower pay. Bsns W p94+ N 24 '45

UNEMPLOYMENT insurance. See Insurance, Unemployment

UNFAIR competition. See Competition, Unfair

UNION agreements. See Trade agreements

UNION asbestos and rubber company
Common stock offered. Comm & Fin Chr 163:233 Ja 14 '46

UNION bag and paper corporation
Investment securities for capital building. Mag of Wall St 78:149-50 My 11 '46

UNION bank of commerce, Cleveland. See Banks and banking—Cleveland

UNION carbide and carbon corporation
Annual report. Comm & Fin Chr 163:1483 Mr 18 '46

UNION catalogs. See Catalogs, Union

UNION contracts. See Trade agreements

UNION electric company of Missouri
Preferred stock offered. Comm & Fin Chr 163:2771 My 20 '46

UNION française des organismes de documentation. See Documentation—France

UNION lists. See Periodicals—Bibliography—Union lists

UNION Pacific railroad
Annual report, 49th, year ended December 31, 1945. Ry Age 120:931-3 My 4 '46; Same. Comm & Fin Chr 163.2374-5 My 2 '46
Bonds offered. Comm & Fin Chr 163:1483-4 Mr 18 '46
George F. Ashby to head Union Pacific. Ry Age 119:1056-7 D 29 '45
Sells debentures at record low. Comm & Fin Chr 163:822-3 F 11 '46

UNION switch and signal company
Williams heads W.A.B. and U.S. & S; other officers. Ry Age 120:825 Ap 20 '46

UNIONMELT process. See Electric welding—Unionmelt process

UNIT heaters. See Heaters; Hot water heaters; Steam heaters

UNIT processes
New unit operations and equipment open new vistas for postwar chemical engineering. il Chem & Met Eng 53:135-46 F '46
Oak Ridge gives industry a unit operation; gas diffusion. J. F. Hogerton. il Chem & Met Eng 52:98-101 D '45
Pilot plant for study of unit operations; Allis-Chalmers mfg. co. il Chem & Met Eng 52:108-9 N '45
Tenth unit process symposium. bibliog il diags Ind & Eng Chem 38:242-61 Mr '46
Unit operations review. Ind & Eng Chem 38:3-38 Ja '46

UNITED air lines
How United air lines speeds mail handling. il Am Bsns 16:22-3+ Ap '46
Organization chart of United air lines. Air Transport 4:23 Jl '46
Twenty years along United's main line. Air Transport 4:27 Jl '46
U.A.L. charter service. Bsns W p36+ Ap 20 '46

UNITED aircraft corporation
Annual report. Comm & Fin Chr 163:2486 My 6 '46

UNITED automobile workers of America (International union, United automobile, aircraft, and agricultural implement workers of America)
Cards on table; automobile workers and management swap demands. Bsns W p102-4+ D 22 '45
Comeback drive; U.A.W. campaign to boost foundry wages. Bsns W p102 O 5 '46
C.I.O. courts government aid. Bsns W p15-17 D 1 '45
CIO United auto workers union annual meeting, 10th, Atlantic City. Iron Age 157:117 Ap 4 '46
Delays at Ford; U.A.W. council opposes clauses on productivity and promotion. Bsns W p104 Mr 16 '46

UNITED automobile workers of America (International union, United automobile, aircraft, and agricultural implement workers of America)—*Continued*
Fact-finding board reports on General Motors dispute. Comm & Fin Chr 163:292-3 Ja 17 '46
Fact-finding in the General Motors strike. Bsns W p100 D 22 '45
Ford asks union for work guarantees. Factory Management 104:278+ Ja '46
Ford demands Union accept responsibility. Comm & Fin Chr 162:2501 N 22 '45
Ford employs new strategy; negotiations with C.I.O.'s U.A.W. Bsns W p96+ D 8 '45
Ford's pay offer to unions. Comm & Fin Chr 162:3036 D 20 '45
G.M. case delayed; strike advertising is issue in Detroit NLRB hearings. Bsns W p72+ F 9 '46
G.M. peace terms short of union goal. Bsns W p17 Mr 16 '46
G.M. powder keg. Bsns W p108 N 17 '45
General Motors presents demands on unions; Truman names GM fact-finding board. Comm & Fin Chr 162:3053 D 20 '45
G.M. strike brings showdown. Bsns W p17-18 N 24 '45
How much more? U.A.W. undecided on new Chrysler wage demands. Bsns W p98-100 S 21 '46
Industry opposes basing factory wage rates on company profits. L. Westrate. Automotive & Aviation Ind 93:17+ N 15 '45
Kaiser-Frazer signs agreement with United automobile workers. Steel 118:67-8 Ja 14 '46
Pork-chopping. Bsns W p106+ My 18 '46
Reuther: F.O.B. Detroit; new model union leader. il Fortune 32:148-51+ D '45
Reuther; the big if in autos. Bsns W p90+ Ap 6 '46
Reuther's gains. Bsns W p82+ My 4 '46
Sun peeps out; amicable Ford-U.A.W. talks. il Bsns W p102-4+ D 15 '45
Two-way bargaining demand by Ford. Bsns W p93 N 24 '45
U.A.W. changes its tune. Bsns W p90+ O 26 '46
U.A.W. feels oats. Bsns W p104+ Mr 30 '46
U.A.W. giants gird for battle. Bsns W p90 Mr 16 '46
U.A.W. pot boils. Bsns W p107-8 F 23 '46
U.A.W. turmoil. Bsns W p92+ Jl 6 '46
What they say about fact-finding; statements by Board, General Motors and U.A.W. Comm & Fin Chr 163:50-1, 53 Ja 3 '46
When labor strikes everybody loses; effects of GM strike. il Factory Management 104: 120-8 My '46
Wildcat wave. Bsns W p108+ S 28 '46
Windsor formula. Bsns W p70+ F 9 '46
With collective bargaining established union's next step is management control. L. Westrate. Automotive & Aviation Ind 93:17+ D 1 '45

UNITED biscuit company of America
Thumbnail stock appraisal. Mag of Wall St 77:209 N 24 '45

UNITED brewery, flour, cereal and soft drink workers of America
Brewer union goes C.I.O. Bsns W p100+ Je 29 '46

UNITED brotherhood of carpenters and joiners of America
Boss carpenter; Big Bill Hutcheson rules all those who work with wood. il Fortune 33: 118-25+ Ap '46; Same without il. Arch Forum 84:110-11+ Ap '46

UNITED carbon company
Columbian Carbon vs. United Carbon; a comparative audit. S. Devlin. il Mag of Wall St 78:29-31+ Ap 13 '46

UNITED cigar-Whelan stores corporation
Going to stage a business show? here's how United-Whelan does it; banquet for suppliers, employes as actors. il Sales Management 56:58+ Ap 15 '46

UNITED electrical, radio and machine workers
Electrical union rearranges a mansion for national headquarters, New York. il plans Arch Forum 84:125 My '46
No Moses coup; exodus from C.I.O. union proves a flop. Bsns W p94+ Je 29 '46
U.E.'s broadside; union charges of sitdown by radio and appliance makers. Bsns W p94+ D 29 '45

UNITED engineering trustees, inc.
Report for 1944-1945. Mech Eng 68:85 Ja '46; Abstract. Elec Eng 65:47 Ja '46

UNITED financial employees
Employee loyalty blocks Wall Street union drive. R. M. Bleiberg. Barron's 26:11 O 28 '46
In the banks, too. Bsns W p79-80 S 7 '46
Irishman in Wall Street. Fortune 34:186 N '46
652 employees of Stock Exchange authorize strike, says union. Comm & Fin Chr 164: 881+ Ag 15 '46
Union is closing in on Street; independent U.F.E. seeks to be exclusive bargainer for employees of major brokerage houses. Bsns W p65-6 Ag 3 '46
United financial employees pushing plans to organize employees of Wall Street firms. Comm & Fin Chr 164:485+ Jl 25 '46
UFE threatens to affiliate with national labor body to push unionism in Wall Street. E. Germain. Comm & Fin Chr 164:1935+ O 17 '46
Wall Street union runs into legal snag in its attempt to obtain election in brokerage firm. E. A. R. Germain. Comm & Fin Chr 164:1009+ Ag 22 '46
Wall Street truce. Bsns W p70+ O 19 '46

UNITED foremen of America
Wooing foremen; C.I.O.'s U.F.A. trying to organize supervisors in Pennsylvania steel mills. Bsns W p86-7 Mr 9 '46

UNITED frozen food distributors, inc.
Delivered frozen; new food merchandising setup. Bsns W p94 D 8 '45

UNITED fruit company
Banana split a la Zemurray. il Bsns W p42+ My 4 '46
Stocks for defensive investment. Mag of Wall St 79:88+ O 26 '46
United Fruit; investment audit. H. Coffin. il Mag of Wall St 78:91-3+ Ap 27 '46
United Fruit to show big increase in net. Barron's 26:6 Je 10 '46

UNITED gas improvement company
Exchange offer to reduce shares. Barron's 25:7 D 3 '45
Hearing on plan to distribute securities. Comm & Fin Chr 162:3239 D 31 '45
Share exchange would lift UGI net. Barron's 26:8 Mr 4 '46

UNITED light and railways company
Bigger earnings for United. Barron's 26:1+ My 20 '46
Company and subsidiary obtain $75,000,000 in bank loans to retire bonds. Comm & Fin Chr 162:2862 D 10 '45
New debt cut steps. Barron's 25:8 D 24 '45

UNITED mine workers of America
Catch-all muffs; Lewis' raid on C.I.O. textile workers, American Viscose employees. Bsns W p98 Jl 6 '46
Catchall union; District 50 of United mine workers of America. Fortune 34:184+ N '46
J & L takes legal action in attempt to rescind recent UMW foremen's contract. Iron Age 158:98 Jl 25 '46
Labor catchall; John Lewis' big District 50. Bsns W p95-8+ O 5 '46
Lewis strategy; nine proposals on wages and work conditions. Bsns W p102 Mr 16 '46

UNITED nations
American people would prefer a strong UN; Gallup poll. Iron Age 158:95 Ag 29 '46
Birth of UNO. Economist 149:621-2 N 3 '45
Byrnes statement on UNO London meeting. Comm & Fin Chr 163:2056-7 Ap 15 '46
Can the United nations organization succeed? C. A. Eaton. Comm & Fin Chr 163:1347+ Mr 14 '46
Closing for stocktaking. Economist 150:241-2 F 16 '46
Egg-crate ceilings in U.N. assembly auditoriums provide high level illumination; eliminate uncomfortable variations in brightness. il diags Arch Forum 85:183 O '46
Eire and Uno. Economist 151:261 Ag 17 '46
Essential human rights. W. D. Lewis and J. R. Ellingston, eds. Ann Am Acad 243: vii-x Ja '46

UNITED nations—*Continued*
First UNO session comes to close. Comm & Fin Chr 163:1013 F 21 '46
Human rights are basic to success of United nations. H. Bonnet. Ann Am Acad 243:6-7 Ja '46
International relations in a scientific age. N. J. Padelford. il Tech R 48:561-4+ Jl '46
London UNO meeting. T. Connally. Comm & Fin Chr 163:1542+ Mr 21 '46
Making the United nations work. E. M. Patterson, ed. Ann Am Acad 246:1-142 Jl '46
Not for compromise; Iranian dispute. S. Welles. Comm & Fin Chr 163:2363+ My 2 '46
Organizing for peace and world trade; role of international agencies. Index 26 no 3: 49-57 [S] '46
Pro and con of the UNO as an instrument for peace. G. E. Levine; M. T. Rudolph. Am Inst Banking Bul 28:8-12 Ap '46
Report on UNO. A. H. Vandenberg. Comm & Fin Chr 163:1261+ Mr 7 '46
United nations; a handbook on the new world organization. L. Dolivet. 152p pa $1.75 Farrar, Straus and co, 580 Fifth av, New York 19 '46
United nations and American foreign policy. T. Connally. Comm & Fin Chr 163:1785+ Ap 4 '46
UN and American foreign policy. R. Strausz-Hupe. Comm & Fin Chr 163:2077+ Ap 18 '46
UN and big business. T. Lie. Comm & Fin Chr 163:2640+ My 16 '46
UN's future will follow Paris meetings. A. W. May. Comm & Fin Chr 164:334+ Jl 18 '46
United nations London meeting. J. F. Dulles. Comm & Fin Chr 163:1262+ Mr 7 '46
U.N. names petroleum adviser amid speculation over world oil-control plans. W. W. Burns. il Oil & Gas J 45:80-1 O 26 '46
United nations news. Published monthly by Woodrow Wilson foundation, 45 E. 65th st, New York 21
UN observations; first anniversary. A. W. May. Comm & Fin Chr 164:66+ Jl 4 '46
UNO, greatest of our hopes. S. Gavrilovic. Comm & Fin Chr 163:1347+ Mr 14 '46
UNO—world's big job for '46. Bsns W p15-16 D 29 '45
UN's struggle for peace; address at opening of General assembly, Oct. 23 1946. H. S. Truman. Comm & Fin Chr 164:2073+ O 24 '46
Veterans express dissatisfaction at UNO progress; Gallup poll. Iron Age 157:99 My 23 '46
World assembly. Economist 150:41-2 Ja 12 '46
World federation of trade unions and the representation of non-governmental bodies in the United nations organisation. Int Labour R 53:276-8 Mr-Ap '46
World opinion of United nations reaches new low; Gallup poll. Iron Age 158:103 Ag 1 '46

See also
Food and agriculture organization of the United nations
International trade organization (proposed)
World health organization

Atomic energy commission

See Atomic energy commission (United nations)

Charter

Economic rights in the United nations charter. H. V. Evatt. Ann Am Acad 243:4-5 Ja '46
Human rights in the United nations charter. E. R. Stettinius, jr. Ann Am Acad 243:1-3 Ja '46
We will defend the UNO charter. J. F. Byrnes. Comm & Fin Chr 163:1218+ Mr 7 '46

Printing

Headaches in printing U.N. charter. Inland Ptr 116:77 N '45

Commission on human rights

Possible functions of the Commission on human rights. O. F. Nolde. Ann Am Acad 243:144-9 Ja '46

Economic and social council

Economic and social council convenes. Bsns W p8 My 25 '46
Economic laws must be observed by all nations to avoid inflation; report to Council. W. W. Aldrich. Comm & Fin Chr 164:1012+ Ag 22 '46
Initiates major economic and social activities. A. W. May. Comm & Fin Chr 163:2350+ My 2 '46
United nations vigorously planning better social and economic world. A. W. May. Comm & Fin Chr 163:2638+, 2782+, 2910+ My 16-30 '46

Headquarters

United nations choose gas for heating, cooking, hot water, for New York city headquarters. il Gas Age 98:20 O 17 '46

Security council

Crisis, limited. Economist 150:493-5 Mr 30 '46; Same. Iron Age 157:107+ Ap 11 '46
Green chairs in the Bronx. Economist 150:539 Ap 6 '46; Same. Iron Age 157:113+ Ap 18 '46
Political issues engulf UN. A. W. May. Comm & Fin Chr 163:2069+, 2213+ Ap 18-25 '46
Seeking compromise in Soviet-Iranian situation. A. W. May. Comm & Fin Chr 163: 2502+ My 9 '46
Soviet withdraws from Council sabotaging UNO. A. W. May. Comm & Fin Chr 163: 1629+ Mr 28 '46
UN beset by diplomatic offensives. A. W. May. Comm & Fin Chr 163:1925+ Ap 11 '46
Un lays another egg; sub-committee on Spain report; other problems. A. W. May. Comm & Fin Chr 163:3054+ Je 6 '46
U.N.'s big little bank; banking facilities provided by Chemical bank and trust company at Hunter college. R. O'Neill. il Banking 38: 39-40 My '46
UNO faces an important test; Security council meets in New York. Bsns W p15-16 Mr 23 '46
War of nerves subsides at Hunter college. A. W. May. Comm & Fin Chr 163:1781+ Ap 4 '46

Statistical commission (proposed)

International statistical coordination; Bureau of budget reports work being done through UNO to establish a statistical commission under the Economic and social council. Comm & Fin Chr 164:538 Jl 25 '46

Belgium

Belgium and the United nations. W. Loridan. Ann Am Acad 247:165-70 S '46

Canada

Canada puts itself at disposal of United nations organization. Iron Age 157:112-13 Mr 7 '46

UNITED nations advertising council (proposed)
Let's pool the pens; United nations advertising council proposed; abstract. E. P. Gerth. Adv & Sell 39:70 F '46

UNITED nations center (proposed)
Homes seek UNO; choice narrowed to the New York and Boston areas. Bsns W p22+ Ja 5 '46
Program preview; capital for the United nations. E. Allen. il map Arch Rec 99:82-5 Mr '46
Second chance; will UNO design repeat Geneva fiasco? il Arch Forum 84:10 Mr '46
UNO darkens provincial door. il map Bsns W p17-18 F 9 '46
UNO site voted. Bsns W p32+ F 23 '46

UNITED nations conference on international organization, San Francisco
San Francisco conference, its structure and documentation. N. Signor. Special Lib 37: 3-6 Ja '46

Library

Special library at the conference. P. Kruse. Special Lib 36:431-5 N '45

UNITED nations educational, scientific and cultural organization
Banquet in conjunction with Chicago meeting of ACS and National chemical exposition. Chem & Eng N 24:2604-7 O 10 '46

UNITED nations educational, scientific and cultural organization—*Continued*
Constitution. Int Labour R 53:65-8 Ja-F '46
Preliminary organization, London meeting. Chem & Eng N 24:1904-6 Jl 25 '46
UNESCO to work for world-wide scientific unity. Elec Eng 65:485 O '46
UNESCO toward a united future; a selected list of references. C. Reb and G. Sanders, comp. Booklist [ALA] 43:46-8 O 15 '46

UNITED nations food and agriculture organization. See Food and agriculture organization of the United nations

UNITED nations monetary and financial conference
Russia indicates failure to sign Bretton agreements due to need of further study. Comm & Fin Chr 163:174 Ja 10 '46
Signing at Washington by 28 nations of Bretton Woods agreements. Comm & Fin Chr 163:45 Ja 3 '46

UNITED nations relief and rehabilitation administration
After Unrra? Economist 151:177 Ag 3 '46; Same. Iron Age 158:107+ Ag 15 '46
Lehman leaves UNRRA. Comm & Fin Chr 163:1550 Mr 21 '46
Tools for peace; UNRRA's program for industrial recovery. Bsns W p22+ My 25 '46
UNRRA and Europe. Economist 151:283-4 Ag 24 '46
UNRRA in the Dodecanese islands. For Comm W 24.17 Ag 10 '46
UNRRA seeks ways to buy surplus tools. Iron Age 157:126 My 23 '46
UNRRA's fate? Comm & Fin Chr 164:1133 Ag 29 '46
UNRRA's role in U.S exports J. Kunstenaar. il For Comm W 23 11-13+ Je 15 '46
UNRRA's work in Italy helps make wheels turn. il For Comm W 23:16-17+ Je 1 '46

UNITED nations standards coordinating committee
All-union committee on standards of the USSR. Science 104:186-7 Ag 23 '46
Russia joins Committee. Ind Stand 17:212 Ag '46

UNITED office and professional workers union
White-collar woe; organizing drive by C.I.O. il Bsns W p100+ S 28 '46

UNITED parcel service
Parcel coup; United Service gets Macy account. Bsns W p41-2 Jl 6 '46

UNITED petroleum corporation
Former world wrestling champion comes out on top in petroleum business; Earl Caddock, president of United petroleum corp. E. Lamm. Nat Pet N 38:34 Ja 9 '46

UNITED public workers of America
Curb on U.P.W.A ; Congress putting riders on appropriation bills. Bsns W p91-2 Je 22 '46

UNITED retail, wholesale and department store employees of America
Prophetic raid; A.F.L. union takes over Chicago C.I.O. local in merchandising. Bsns W p93-4+ Ja 5 '46
Wolchok front. Bsns W p96+ My 25 '46

UNITED rubber workers of America
Rubber next? C.I O. negotiations with Big Four tire companies. Bsns W p102+ F 23 '46
Still divided. Bsns W p104+ D 29 '45
Uniformity drive; C.I.O. rubber workers seek corporation-wide contracts. Bsns W p78+ Ag 3 '46
United rubber workers of America, 1935-45. H. S. Roberts. Mo Labor R 62:601-6 Ap '46

UNITED STATES

Agriculture, Department of
Department of agriculture's skein of activity. Ptr Ink 213:109-10+ D 7 '45
Muddle in agriculture. Fortune 32:250 D '45
Service and publications of the U.S. department of agriculture. R. M. Lawrence. il map Chem Ind 59:75-80+ Jl '46

Air coordinating committee
Truman establishes new air policy group on broader basis. Aviation N 6:7-8 S 30 '46

Air service, Army
Air corps fund of $1,199,500,000 passes House after budget cut. Aviation N 6.9-10 Jl 1 '46
Air forces out to clinch lease on the sky. Bsns W p7 My 18 '46
Air forces university. il Manuf Rec 115:55+ O '46
AAF and petroleum research; airplane engine fuel; rocket propellants. D. L. Putt. Am Pet Inst Proc 25(3):30-7 '45
AAF development center plans meeting careful industry scrutiny S. Hershey. Aviation N 5:10 Ap 29 '46
AAF plans for the future. R. K. Winkleblack. il Automotive & Aviation Ind 95:30-1+ Ag 1 '46
AAF's Aviation petroleum branch kept the tanks full of avgas. il Nat Pet N 38.34+ Mr 6 '46
AAF's 700,000 items indicate magnitude of surplus disposal task. H. S. Robinson, 2d. il Iron Age 158:112+ Ag 1 '46
Army ordnance research work cited as rebuttal to AAF demands. il Aviation N 6:7 Jl 8 '46
Ground school and engineering school; some notes on training. G. D. Stout. J Eng Educ 36 612-17 Je '46
Guided missiles unit established by AAF. il Aviation N 5:20 F 18 '46
Problems of high altitude communication. J. Weichbrod. Acoustical Soc Am J 18:161-6 Jl '46
Selling to the army air forces. N. S. Atwell. Aero Digest 52:26-7+ Mr; 53:28-9+ O '46
Spaatz reorganizes AAF, plans combat-ready force-in-being. Aviation N 5:10 Mr 18 '46
Specialized photography applied to engineering in the Army air forces. P. M. Thomas and C. H. Coles. il Soc Motion Picture Eng J 46:220-30 Mr '46
Supersonic plane and jet bombers revealed by Army air forces; drive for research funds. il Aviation 45:68-9 Jl '46

Air technical service command
ATSC maintenance never halts. il Aviation 44:125-7 D '45
ATSC review and long-range air-research program. Aeronautical Eng R 5:73 F '46
Control of engineering projects; organization and statistical control used by army air forces Equipment laboratory. T. B. Holliday. Product Eng 17:177-81 Mr '46
Industrial medical services; Middletown air technical service command. L. E. Terry. Ind Med 14:967-9 D '45

Safety program
Following the flag with AAF safety. H. D. Immel. il Nat Safety N 52.76-7+ O '45
Ground safety; program of Air materiel command. F. L. Anderson. il Safety Eng 92:14-16+ S '46
Tighter defense against occupational disease; supply and maintenance centers operated under the ATSC. il Factory Management 103:124-6 N '45

Air service, Navy
Air power given main emphasis in immediate post-war navy plans. S. Hershey. Aviation N 5:9-10 F 11 '46
Naval airborne television reconnaissance system. R. E Shelby and others. bibliog il diags RCA R 7:303-37 S '46
Ready air reserve planned by navy. Aviation N 5:10 F 11 '46

Transport service
ETA—minus E; flight control plan, Naval air transport service. S. Bangs. il Air Transport 4:29-34 F '46
Flying boats. C. H. Schildhauer. il map Aeronautical Eng R 5:5-9+ Mr '46
NATS cuts a pattern for DC-4 maintenance. E. L. Ryder; S. Bangs. il diags Air Transport 3:34-41 D '45
Uncle Sam's arctic airline; Naval air transport service. P. Wollstadt. il Nat Pet N 37:44+ D 5 '45

UNITED STATES—*Continued*

Alien property custodian

APC aim is speed. Bsns W p19 Jl 6 '46
Alien property custodian issues order affecting stock in certain seized corporations. For Comm W 24:21 S 28 '46
Alien property office terminated. Oil Paint & Drug Rep 150:3 O 21 '46

American ethnology, Bureau of

One hundred years of Smithsonian anthropology. F. H. H. Roberts, jr. Science 104:123-4 Ag 9 '46

Appropriations and expenditures

Interior bill provides for much construction. Eng N 137:23 Jl 11 '46
Truman requests increased funds for CAA, CAB; NACA boost ok'd. W. Kroger. Aviation N 5:7 Ja 28 '46

Armed services

Armed forces. Fortune 34:108-9+ S; 38 O '46
Biggest radio network; 178 service radio stations have kept radio talent before soldiers and foreign civilians. T. H. A. Lewis. Ptr Ink 213:119 D 7 '45
Navy's arms unification plan. J. V. Forrestal. Comm & Fin Chr 162:2795 D 6 '45
President proposes merger plan. Comm & Fin Chr 163:3402-3 Je 20 '46
President urges armed service merger. Comm & Fin Chr 162:3174-5 D 27 '45
Public favors merger of armed forces; Gallup poll. Iron Age 157:97 My 16 '46
Service unification advocates intensify educational campaign. Aviation N 5:9-10 Ap 8 '46

See also
United States—Air service
United States—Army
United States—Navy

Pay, allowances, etc.

Military family allowances in the United States, Canada, and Great Britain, 1945. M. T. Waggaman. Mo Labor R 63:94-7 Jl '46

Army

Good idea to have officers and enlisted men enjoy same social privileges; Gallup poll. Iron Age 157:130+ My 16 '46
Rebuild the army. Fortune 33:90-1 F '46
Sales strategy behind the campaign for recruiting a peacetime army. T. Armstrong. il Sales Management 56:109+ Mr 15 '46
Volunteer army. Bsns W p38+ D 1 '45

See also
Military service

Clothing

Army's water repellent clothing. J. E. Simpson. il Am Dyestuff Rep 35:243-52, 272+ My 20-Je 3 '46
Environmental protection; reproduction of various climatic conditions. W. F. Roden. il Refrig Eng 52:17-21+ Jl '46

Education

Comparison of instruction in colleges and military service schools. D. C. Nicholson. J Chem Educ 23:78-81 F '46
Post-war training for Signal corps reserve officers. C. W. Janes and J. O. Sweeny. J Eng Educ 36:299-301 D '45
Program for peacetime scientific training of Quartermaster corps reserve officers. Science 104:293 S 27 '46
Science instruction at the University study center, United States army, Florence, Italy. J. E. Bentley. Science 104:357-60 O 18 '46
Science section of Biarritz American university. S. A. Cain. Science 103:129-32 F 1 '46

See also
United States military academy, West Point

Engineer corps

Corps of engineers names new division heads. pors Eng N 136:316-17 F 28 '46
New collection system for waterborne commerce statistics. Marine Eng 51:116 O '46
Ruhr coal; how army engineers tackled the dictator of western Europe. P. Queneau and J. Peperakis. il Min & Met 27:175-7 Mr '46

Equipment and supplies

Army's soap problems; abstract. J. E. Simpson. Soap & San Chem 22:79 Ag '46
Invisible light aids marksman; locating enemy at night by means of infrared light beam and electronically operated telescopic sight. il diag Radio N 35:35+ Je '46
Research needs in subsistence and personal equipment. W. H. McLean. Mech Eng 68: 203-5 Mr '46; Same. Rayon 27:350-2, 401-2 Jl-Ag '46
U.S. army repair ships in the Pacific. W. K. Vaughan. il Marine Eng 51:112-15 Jl; 140+ Ag; 138+ S '46
Welded design as applied to lightweight army and navy structures. H. A. Oldenkamp. il Welding J 25:33-7 Ja '46
World and its wars run on oil with aid from Quartermaster Fuels and lubes division. R. E. Bjorkback. Nat Pet N 37:28+ D 12 '45

Medical and sanitary affairs

Army industrial medical program at a port of embarkation. J. S. Felton. il plans diag Ind Med 14:854+ N '45
Army water supply in World war II. W. A. Hardenbergh. Am Water Works Assn J 38: 952-8 Ag '46
Malaria control in Assam. R. S. Wilmot. il Civil Eng 16:60-1 F '46
Need for creation of a Sanitary corps of engineers. R. Eliassen; W. A. Hardenbergh. Water & Sewage Works 93:394-5 O '46
Okinawa; DDT and water treatment. A. E. Stilson. map Am Water Works Assn J 38: 625-36 My '46
Review of some army sewage treatment problems and results. il Pub Works 76:24-5+ D '45
Sanitary engineer's part in the war; part played by malaria control units. A. J. Horn. Pub Works 77:34-7 My '46
War-time activities of the Engineering division and the Sanitary corps, U.S. army. W. A. Hardenbergh. Paper Tr J 123:44-6 Jl 11 '46

Negro troops

Army policies toward Negro soldiers. A. M. Rose. Ann Am Acad 244:90-4 Mr '46

Ordnance and ordnance stores

Ordnance supply system. E. E. MacMorland. il diags Mech Eng 67:789-97; 68:17-23, 145-51, 206-11 D '45-Mr '46
Research and development in the Ordnance department, U.S. army. G. M. Barnes and others. il diag J Ap Phys 16:745-806 D '45
Research needs for weapons. G. M. Barnes. Mech Eng 68:196-8+ Mr '46
Work of the mobile ordnance repair shops. S. G. Dunlap. Welding J 24:1139-41 D '45

Printing

Army printer. W. P. Wentzy. Inland Ptr 116: 39-40 N '45

Psychological examinations

Inequalities in adult capacity; from military data. W. V. Bingham. bibliog Science 104: 147-52 Ag 16 '46

Research

Army puts research, development on top general staff level. Iron Age 158:95-6 O 3 '46

Safety program

Safety report, Germany. E. R. Grannis. il Nat Safety N 53:18-19+ My '46

See also United States—Air service, Army—Safety program

Service forces

Tropical testing chamber; Army service forces, Fort Belvoir, Va. T. F. Cooke and R. E. Vicklund. il Ind & Eng Chem Anal ed 18:59-60 Ja '46

Signal corps

Army's radio relay equipment. A. R. Boone. il diags Radio N 35:25-8+ Ja '46

UNITED STATES—Army—Signal corps—*Cont.*
Post-war training for Signal corps reserve officers. C. W. Janes and J. O. Sweeny. J Eng Educ 36.299-301 D '45

Textile requirements

Washable woolens for the army; abstract. H. F. Clapman. Textile Col 67:123+ N '45

See also
Army fabrics
United States—Army—Clothing

Transportation

See also
Transports

Transportation corps

E.T.O. army transportation. E. C. Ringberg. il Ry Mech Eng 120:245-8+ My '46
Experience of a transportation officer in the ETO. R. Kimball. N E Water Works Assn J 60:21-6 Mr '46
Military marine transportation. Marine Eng 51:81-3 O '46
New transport head assumes command; Major General E. H. Leavey. Ry Age 119:949 D 8 '45
What the transportation corps is doing. Ry Age 121:602-3 O 12 '46

Army institute of pathology

Army institute of pathology and American registry of pathology. Science 104:272-3 S 20 '46

Bibliography

Some guides to U.S A. publications. R. H. Heindel. Assn of Sp Lib & Inf Bur Proc 1945:28-30

See also
Government publications

Cabinet

Mr Truman faces it. pors Fortune 33:100-9+ Ja '46; Reply. C. A. Beard. 33:10 F '46

Capitol

Cooler air and longer sessions; air conditioning, Senate and House chambers. il Heating-Piping 18:76-7 O '46

Census, Bureau of

Better and more frequent census reports planned; to start in 1946. Steel 117:94-5 D 3 '45
Business can use the census. P. M. Hauser. Ptr Ink 214:45-6+ Ja 25 '46
Census of manufactures to be restored in 1946. M. R. Conklin. Ind Marketing 30:98+ O '45
Chemical marketing statistics program of Bureau of census. J. A. Van Swearingen. Chem & Met Eng 53:132-3 Ja '46
Services and publications of the Bureau of the census; information sources for chemical market research. R. M. Lawrence. bibliog il Chem Ind 58:252-5+ F '46

Bibliography

Facts for industry; list of publications; index of products covered. 44p U.S. Bur. of the census, Dept. of commerce, Washington 25, D.C. '46

Chemical warfare service

Chemical warfare service pays tribute to industry leaders. Chem & Eng N 23:2206-7 D 10 '45
Chemistry goes to the battlefield; M.I.T.'s chemical engineering building used as laboratory for Chemical warfare service. F. W. Holt, jr. il Tech R 48:103-6 D '45
Chlorine institute annual meeting, New York. Chem & Eng N 24:472-3 F 25 '46
Toxicity data files of the CWS; abstract. E. L. Wardell. Chem Eng 53:236+ S '46

Civilian production administration

CPA attacks the bottlenecks. Bsns W p15-17 D 8 '45
C.P.A. burner priorities. Sheet Metal Worker 37:62+ S '46
CPA's objective. J. D. Small. Comm & Fin Chr 163:2074+ Ap 18 '46
Consulting technical committees of the CPA Rubber division. Rubber Age 58:610 F '46
Industrial building hit by CPA curb. Steel 118:109+ Ap 1 '46

Coast and geodetic survey

Coast and geodetic survey aids trade. F. W. Connor. il Dom Comm 34:11-12 Mr '46

Coast guard

Coast guard begins ice patrol. il Marine Eng 51:125-6 Mr '46
Coast guard revises method of approving equipment items. Marine Eng 51:98 S '46

See also United States coast guard academy, New London, Connecticut

Commerce

British Empire preference aids U.S. exports. T. P. McCarthy. Barron's 25:3+ D 3 '45
Capital flow between U.S and foreign countries; what is the outlook? For Comm W 24:19 Ag 10 '46
Current trends in international transactions. A. E. Taylor. Comm & Fin Chr 164:2078+ O 24 '46; Same. For Comm W 25:8-9+ N 9 '46
Economy in war and transition; international trade and financial transactions. Survey of Cur Bsns 26:23-6 F '46
Effect of foreign trade on Canadian and U.S. industry. G. E. Jackson. Comm & Fin Chr 163:961+ F 21 '46
How will the forces of economic geography and scientific invention affect our foreign trade? H. Feis. For Comm W 21:23 N 17 '45
Importance of importing; to achieve world-trade success, we must buy more from abroad. P. Wiers. For Comm W 22:3-4+ Ja 5 '46; Same. Comm & Fin Chr 163:374+ Ja 24 '46
International transactions of the United States during first quarter 1946. Survey of Cur Bsns 26:16-21 Jl '46
Intra-Pacific trade. P. Wiers. il map(p8) For Comm W 24:9-12+ Ag 17 '46
Loans foster foreign trade; with tabulation of U.S. imports and exports, by country, first four months of 1946. Bsns W p109-10 Jl 20 '46
Opinion on the relation between foreign trade and employment. E. E. Poulton. Mo Labor R 61:858-62 N '45
Postwar demand for United States exports. J. H. Adler. R Econ Stat 28:23-33 F '46
Turn in tide of repatriation of foreign money from United States? R. Carleson. il Mag of Wall St 78:619-21+ Ag 31 '46
U.S. dollars; worldwide need. Bsns W p113-14+ My 18 '46
U.S. foreign trade and international transactions since the end of the war. Nat City Bank p40-1 Ap '46
U.S. foreign trade in first half of 1945. il For Comm W 21:5-7+ N 10 '45
United States foreign trade; total exports and total imports and distribution of trade by economic classes, leading commodities, and leading countries; 1936-38 monthly average, monthly figures 1945 and Jan. 1946-date. For Comm W 23:16-24 Je 15 '46 [cont monthly]
U.S. international transactions in 1945. For Comm W 22:3-5+ Ja 19 '46
United States international transactions; second quarter of 1946. Survey of Cur Bsns 26:7-9 O '46
United States trade; exports and imports, 1945 and Jan. 1946-date; graphs. For Comm W 23:7 Je 15 '46 [cont monthly]
U.S. trade in the year of the great transition. G. A. Witherow. maps For Comm W 22: 3-7+ Mr 30 '46
U.S. trade with U.S.S.R. during calendar year '45; with tabulations by principal commodities. For Comm W 23:10+ Je 29 '46
War period foreign transactions of the United States government. G. L. Bach. Survey of Cur Bsns 26:7-15+ Mr '46

UNITED STATES—Commerce—*Continued*
With imports near 15 year high; what it means to U.S. business. H. M. Tremaine. il Mag of Wall St 78:681-3+ S 14 '46

See also
Aeronautics, Commercial—United States
Chamber of commerce of the United States
Export trade
Interstate commerce
Merchant marine—United States
Shipping—United States
United States—Commercial policy
United States commercial company

China
See China—Commerce

Far East
See Far East—Commerce

France
See France—Commerce—United States

Great Britain
See Great Britain—Commerce

India
See India—Commerce

Italy
See Italy—Commerce—United States

Latin America
See Latin America—Commerce

Russia
See Russia—Commerce

South Africa
See South Africa—Commerce

Commerce, Department of

Aid for industry; Commerce dept. will seek businessmen's cooperation. Bsns W p38+ D 15 '45
Aids for business; Wallace plans. Bsns W p50+ N 10 '45
Changes in Commerce dept. few; appointment of Averell Harriman as secretary. Steel 119:36 S 30 '46
Commerce department charts aids; new Construction division. Arch Rec 98:10 N '45
Commerce department news. Steel 118:118-19 Ap 1 '46
Compromise on standards; Commerce dept. revamps its setup. Bsns W p82+ Mr 30 '46
Co-operation ahead for ASA and Commerce department. Elec Eng 65:183 Ap '46
Demoralization in the Commerce department. H. M. Bratter. Comm & Fin Chr 164:886+ Ag 15 '46
Department of commerce expands activities. Iron Age 158:68+ Ag 29 '46
Division of simplified trade practices and the Division of commercial standards now in Commerce department. Oil Paint & Drug Rep 149:3 My 27 '46
Information program for world traders. E. E. Schnellbacher. For Comm W 22:10-11+ Ja 19 '46
Program for the Department of commerce; interview with H. A. Wallace. L. Velie. il Dun's R 53:14-17+ O '45

Bibliography
Data published by Department of commerce; monthly list by subject. Dom Comm 34:42-5+ Je '46 [cont monthly]

Office of international trade
See United States—International trade, Office of

Office of technical services
See United States—Technical services, Office of

Office of war areas trade
See United States—International trade, Office of—War areas trade office

Office of world trade policy
See United States—International trade, Office of—World trade policy office

Office of world trade promotion
See United States—International trade, Office of—World trade promotion office

Small business office
Department of commerce and Reconstruction finance corp. set up new offices to service small business. Steel 119:60+ Jl 22 '46

Commercial policy

Aims of our foreign investment policy. O. H. Korican. Harvard Bsns R 24 no 4:498-511 [Jl] '46
American program for world trade. J. A. Farley. Comm & Fin Chr 162:2333+ N 15 '45
Choice for business. Fortune 33:3 Je '46
Essentials of success in international trade. E. E. Schnellbacher. il For Comm W 21:3-4+ D 29 '45
Foreign trade and American prosperity. J. A. de Haas. Comm & Fin Chr 163:829+ F 14 '46
Government financing of reconstruction and foreign trade. W. Chatfield-Taylor. Comm & Fin Chr 162:2453+ N 22 '45
Inconsistencies in our trade policy. H. M. Bratter. Comm & Fin Chr 163:2216+ Ap 25 '46
Inconsistencies of our foreign trade policies. O. G. Saxon. Comm & Fin Chr 164:1653+ O 3 '46
Policy of world trade expansion. H. A. Wallace. Comm & Fin Chr 162:2321+ N 15 '45
Problems in international trade relations. A. Paul. Comm & Fin Chr 164:337+ Jl 18 '46
Program for trade policy; Committee for financing foreign trade. W. W. Aldrich. Comm & Fin Chr 164:203+ Jl 11 '46
Tariff league chides attempt to link world trade and employment. Iron Age 157:126 F 28 '46
U.S. global foreign trade policy. C. Wilcox. Comm & Fin Chr 164:1650+ O 3 '46
U.S. trade with Japan; new plans announced. For Comm W 22:12+ Mr 23 '46

See also
Free ports and zones
Tariff—United States
United States—International trade, Office of
United States commercial company

Conciliation service

Akron experiment; forecasts more separate-industry branches. Bsns W p84 Mr 9 '46
Conciliation service in thirty-third year of settling labor disputes. Oil & Gas J 44:48 Mr 2 '46
Conciliation service needs revitalizing; abstract. A. C. Croft. Iron Age 156:98 D 27 '45
Conciliation service undergoes overhauling. Steel 118:71+ Ap 8 '46
Labor department streamlines its conciliation service. E. L. Warren. Iron Age 157:108-10+ Ap 18 '46
More conciliation; training course and fuller flow of information for federal men who settle labor disputes. Bsns W p101-2 Ap 6 '46
Non-coercive government action in labor disputes. E. L. Warren. Comm & Fin Chr 163:1784+ Ap 4 '46
Paid arbitration; free service discontinued by Conciliation office. Bsns W p90 Je 22 '46
Peace at a price; passing arbitration fees to participants. Bsns W p104+ S 14 '46
What labor conciliation offers. E. L. Warren. map Aero Digest 53:22-3+ S '46

Congress

Apportionment of representatives in Congress on the basis of special populations. M. B. Ullman. Am Stat Assn J 40:484-92 D '45
Capitol dilemma; Congress recognizes inefficiencies. Bsns W p24+ Mr 9 '46
Congressional reorganization bill signed. Comm & Fin Chr 164:937 Ag 15 '46
National Congress; report by joint committee on Organisation of the Congress. Economist 150:797 My 18 '46; Same. Iron Age 157:97+ My 30 '46

UNITED STATES—Congress—*Continued*
Plot against streamlining Congress is scuttlebutt; charges arise from one more attempt to discredit legislators. H. S. Taylor. Barron's 26:3 N 11 '46
Production alone can save us; failure of Congress to enact social measures. W. Green. Comm & Fin Chr 164:489+ Jl 25 '46
79th Congress adjourns; summary of legislation. Comm & Fin Chr 164:934 Ag 15 '46
See also
Lobbying

House of representatives
House of representatives; term of office; proposed amendment; Gallup poll. Iron Age 158:107+ O 17 '46

Pensions
See Congressmen—Pensions

Constitution
Protection of human rights under the United States constitution. N. T. Dowling. Ann Am Acad 243:96-100 Ja '46
Supreme court and business planning. A. A. Ballantine. Harvard Bsns R 24 no2:151-63 [Ja] '46

Constitutional law
Human rights in England and the United States. W. D. Lewis. Ann Am Acad 243: 60-6 Ja '46

Contract settlement, Office of
War contracts settled. Bsns W p20 My 4 '46

Cultural relations
Symposium, Links with the U.S.A. R. H. Heindel and others. Assn of Sp Lib & Inf Bur Proc 1945:25-46; Discussion. 46-9
U.S. speaks up; State dept. plans global information service. Bsns W p40+ Ja 12 '46
See also
Great Britain—Cultural relations—United States
Latin America—Cultural relations—United States

Defenses
Airplane in national defense; reprinted from Annals of the American academy of political and social science, May, 1927. W. Mitchell. Aero Digest 51:35-7 D 15 '45
America's war machine hibernates. J. Robitscher. il Manuf Rec 114:41-4 D '45
Fortune survey; high command. Fortune 32: 309 D '45
Let's cut our military costs with trade, travel and the facts. P. D. Reed. Comm & Fin Chr 164:2385+ N 7 '46
Nation's defense problem. R. P. Patterson. Comm & Fin Chr 163:1353+ Mr 14 '46
Navy offers national security plan. Comm & Fin Chr 162:3055 D 20 '45
Times call for mobilization of engineers and scientists. H. S. Aurand. il Civil Eng 16: 475-6 N '46
World leadership means military preparedness; Army day address. H. S. Truman. Comm & Fin Chr 163:1981+ Ap 11 '46
See also
United States—Armed services

Diplomatic and consular service
See also
United States—Foreign service

Economic conditions
American survey; is a slump coming? Economist 151.664-8 O 26 '46; Same cond. Iron Age 158:139+ N 14 '46
Another 1929? Iron Age 158:97+ O 3 '46; Same. Economist 151:401-2 S 14 '46
Basic problems in the American economy. W. L. Batt. Factory Management 104:304+ F '46
The boom. il Fortune 33:97-104+ Je '46
Bunk and billions. Fortune 33:86-7 My '46
Current price developments. Fed Res Bul 32: 833-43 Ag '46
Economy in war and transition; review of 1945. Survey of Cur Bsns 26:1-31 F '46
Expanded money supply and economic activity. H. P. Wald. Survey of Cur Bsns 26:8-15 My '46; Abstract. Dom Comm 34: 4-6 Je '46
Government, business, and consumer spending levels explored. E. B. George. il Dun's R 54:15-19+ Ap '46
How stable is the American economy? S. H. Slichter. Comm & Fin Chr 164:1925+ O 17 '46
Impact of the war on civilian consumption. Economist 149:637-44 N 3 '45
Maintenance of full employment after the transition period; a comparison of the problem in the United States and the United Kingdom. M. Kalecki. Int Labour R 52: 449-64 N '45
La mesure du confort de l'homme; les calories externes. M. E. Houdry. Génie Civil 123:146 Je 1 '46
Reconversion director's year-end report. J. W. Snyder. Comm & Fin Chr 163:614 Ja 31 '46
Transition to peacetime production, second quarter 1946. Survey of Cur Bsns 26:3-8 Jl '46
U.S. and Britain; an economic contrast. Bsns W p49 Mr 30 '46
We are in the highest boom of all time. J. Hirsch. Barron's 26:3+ S 2 '46
What's ahead for business? L. H. Haney. Comm & Fin Chr 162:2569+ N 29 '45; Excerpts. Credit & Fin Management 47:24+ D '45
See also
Business conditions
Cost of living—Statistics
Debts, Public—United States
Finance—United States
Income—United States
Labor and laboring classes—United States
Negroes—Economic conditions
Prices—United States
Wages—United States

Economic policy
Charts price control and fiscal policy in quarterly report to President and Congress; At the crossroads; abstract. J. R. Steelman. Comm & Fin Chr 164:338+ Jl 18 '46
Frame of America's future. V. Jordan. Am Pet Inst Proc 25(1):25-31 '45
Full employment plus for America. I. Mosher. il Dun's R 53:11-14+ N '45
Full production and sound fiscal policy can prevent inflation. S. M. Foster. Comm & Fin Chr 162:3131+ D 27 '45; Same. Life Ins Courant 51:10-12 Ja '46; Same. Weekly Underw 154:98-9 Ja 5 '46; Same. Spectator (Life ed) 153:16-19 Ja '46; Same cond. Nat Underw (Life ed) 49:3+ D 28 '45; Excerpts. East Underw 46:3 D 28 '45
High-level employment now and forever. R. A. Taft. Comm & Fin Chr 163:835+ F 14 '46
It is later than you think. L. Ruthenburg. Gas Age 98:21-3+ Jl 25 '46
Liberalized price control until mid-1947 advocated in CED report. Steel 118:100+ Mr 4 '46
Our economic responsibilities in the world today. W. A. Harriman. Comm & Fin Chr 164:2208+ O 31 '46
Truman seeks wider legislative program without boost in debt. Steel 118:94 Ja 28 '46
Warning from the West. Economist 151:1-2 Jl 6 '46; Same. Iron Age 158:111+ Jl 18 '46
See also
Committee for economic development
Economic planning
Economic policy
Finance—United States
Government regulation of industry
Industry and state—United States
Inflation (finance)
Railroads and state—United States
Reconstruction finance corporation
Taxation—United States

Economic relations
Importance of economic relations to world peace. W. L. Clayton. Comm & Fin Chr 163:2072+ Ap 18 '46
In Europe on L.A. time. G. Burck. Fortune 33:4 Je '46

UNITED STATES—Economic relations—*Cont.*
International economic interests of the U.S. W. L. Clayton. For Comm W 23:14+ My 18 '46
World looks at the United States; as others see us in international trade. W. L. Batt. Credit & Fin Management 47:15-17+ D '45

France

See France—Economic relations—United States

Latin America

See Latin America—Economic relations—United States

Employment service

In what way can the U.S. employment service be of help to industry? F. W. Hunter. Ind Med 15.525 S '46
Nonfarm placements by U.S. employment service in 1945. Mo Labor R 62:755-7 My '46
President vetoes bill rescinding appropriations because of rider turning USES over to states. Comm & Fin Chr 163:55 Ja 3 '46
USES at issue; federal control of employment services. Bsns W p100-2 D 29 '45
USES still potent. Bsns W p94+ Ag 10 '46

Executive departments

Our regulatory commissions. J. C. Hammer. Pub Util 36:702-3 N 22 '45
Payroll ax handed to Truman. Bsns W p17-19 D 22 '45

See also
Administrative procedure act, 1946
Federal communications commission and names of other commissions beginning Federal
Interstate commerce commission
Presidents (United States)
United States—Cabinet

Federal bureau of investigation

FBI's old grads. Bsns W p19-20 Jl 20 '46

Federal power commission

See Federal power commission

Federal trade commission

See Federal trade commission

Finance

See Finance—United States

Fish and wildlife service

Flying biologists match migrations of birds in making survey trips. CAA J 7:90 Jl 15 '46

Food and drug administration

FDA authority on adulterated goods curtailed by court in Phelps Dodge case. Oil Paint & Drug Rep 150:5 O 7 '46
FDA challenged. Bsns W p40 Je 22 '46
FDA extolled on 40th birthday. Oil Paint & Drug Rep 150:7+ Jl 1 '46
Report, 1945. Chem & Eng N 24:623 Mr 10 '46

Foreign and domestic commerce, Bureau of

Bureau of foreign and domestic commerce; information sources for chemical market research. R. M. Lawrence. bibliog il Chem Ind 58:62-5+ Ja '46

See also
United States—International trade, Office of

Foreign economic administration, Office of

Foreign economic administration activities in the chemicals field. M. Williams. bibliog Chem & Eng N 23:2322-7 D 25 '45
Weak Germany? drastic FEA proposals for deindustrialization. Bsns W p19-22 Ja 5 '46

Foreign relations

American public rejects isolationism; Gallup poll. Iron Age 157:125 Ap 4 '46
Byrnes and Wallace. Economist 151:441-2 S 21 '46; Same. Iron Age 158:119+ O 10 '46
Colmer committee reports on trip to Europe. Comm & Fin Chr 162:2374 N 15 '45
Confusion in international affairs. A. Capper. Comm & Fin Chr 164:877+ Ag 15 '46
Course of our foreign policy. P. J. Hurley. Comm & Fin Chr 163:837+ F 14 '46
Fortune survey; how should the U.S. back up its foreign policy? Fortune 34:10 Jl '46
Neo-isolation. Economist 151:134-5 Jl 27 '46; Same. Iron Age 158:113+ Ag 8 '46
Observations on world outlook. H. Hoover. Comm & Fin Chr 164:889 Ag 15 '46
Oil in United States' foreign policy. J. A. Loftus. map Oil & Gas J 45:74-6 Ag 17 '46
One world or two? Economist 150:825-6 My 25 '46; Same. Iron Age 157:121+ Je 6 '46
Our foreign policy; courage or chaos. J. Abbink. Comm & Fin Chr 163:245+ Ja 17 '46
Our international policies. A. M. Landon. Comm & Fin Chr 163:834+ F 14 '46
Our new foreign policy. C. Savage. Comm & Fin Chr 164:746+ Ag 8 '46
Proposes Anglo-American federation open to others as move to avert war. H. F. Willkie. Comm & Fin Chr 163:1848 Ap 4 '46
State dept. should increase proselytizing functions; American attitudes toward Russia; Gallup polls. Iron Age 158:103+ S 5 '46
U.S. foreign policy no threat to Russia. J. F. Byrnes. Comm & Fin Chr 164:1846+ O 10 '46
U.S. international commitments may lead to disaster. F. L. Crawford. Comm & Fin Chr 164:879+ Ag 15 '46
World leadership means military preparedness; Army day address. H. S. Truman. Comm & Fin Chr 163:1981+ Ap 11 '46

See also
United States—Cultural relations
United States—Economic relations
United States—State department

China

See China—Foreign relations—United States

Great Britain

See Great Britain—Foreign relations—United States

Italy

See Italy—Foreign relations—United States

Latin-America

See Latin America—Foreign relations—United States

Russia

See Russia—Foreign relations—United States

Spain

See Spain—Foreign relations—United States

Yugoslavia

See Yugoslavia—Foreign relations—United States

Foreign service

New Foreign service act sharpens aids to traders. N. Ostroff. For Comm W 24:3-4+ S 21 '46
U.S. foreign service. il Fortune 34:81-7+ Jl '46

Forest products laboratory

Forest products laboratory reviews its wartime accomplishments and previews its future. il Paper Ind 27:1250-8 N '45
Timber products research secrets; technical developments of U.S. Forest products laboratory. il Eng N 135:678-80 N 15 '45

Geological survey

Charge U. S. Geological survey competes with private interests in well drilling; Minnesota well drillers association. Eng N 136:327 Mr 7 '46
Data available from other Department of interior agencies. R. M. Lawrence and L. A. Monroe. map Chem Ind 58:582-4 Ap '46
Staff changes of the U. S. Geological survey. Science 102:640 D 21 '45
U.S. Geological survey folios offered by the Newark public library, Newark, N.J. Special Lib 36:455-6 N '45

UNITED STATES—*Continued*

Government printing office

GPO starts expansion program by acquiring fourteen branch plants. Inland Ptr 117:45-6 Jl '46

Work simplification plan highly successful at G.P.O. G. C. Compton. il Inland Ptr 117: 40-4 Ag '46

See also
Government publications

Government property

Surplus stake; government owned real estate. Arch Forum 83:32 N '45

U.S. army and navy installations abroad; salient facts as to those disposed of and still controlled. For Comm W 22:46 Mr 2 '46

See also
Industrial demobilization—Government plants

Health, education, security, Department of (proposed)

Health secretary in cabinet proposed. Oil Paint & Drug Rep 150:7+ Ag 12 '46

History

Civil war

Science and the Civil war. I. B. Cohen. il diag Tech R 48:167-70+ Ja '46

20th century

Before the wars; hopes and follies of the age of Taft. W. Hobson. Fortune 33:145-7+ Ja '46

Hydrographic office

U.S. navy Hydrographic office has established Division of oceanography. Science 103:528-9 Ap 26 '46

Industries and resources

American productivity; audit of the war years and a prediction. C. R. Walker. il Fortune 33:150-6+ Ja; 130-3+ F '46

America's industrial war front; Printers' Ink market exploration. W. P. Burn. map Ptr Ink 214:29-32 Ja 4 '46

Job changes during the war; maps. Factory Management 104:97 My '46

Natural resources and urban development. O. W. Freeman. bibliog Ann Am Acad 242:30-45 N '45

Planned modernization to meet world competition. W. Gates. il Mag of Wall St 78:70-2+ Ap 27 '46

See also subdivision United States under names of various industries, e.g. Airplane industry and trade—United States

Interior, Department of

Data available from other Department of interior agencies. R. M. Lawrence and L. A. Monroe. il maps Chem Ind 58:582-5+ Ap '46

Eyes on Interior; Ickes' exit. Bsns W p17-19 F 23 '46

Oil and gas division

Authority of OGD. H. D. Ralph. Oil & Gas J 45:70+ Je 8 '46

Hallanan named temporary OGD chairman; permanent organization plans under way. H. D. Ralph. Oil & Gas J 45:56-7 Je 29 '46

Interior department Oil-gas division set up; National petroleum council to be formed. H. Yocom. Nat Pet N 38:5 My 8 '46

National petroleum council appointed. Oil Paint & Drug Rep 149:4 Je 24 '45

New Oil and gas division may be potent agency. Pub Util 37:837 Je 20 '46

International trade, Office of

Commerce department's new Office of international trade. A. Paul. For Comm W 22:3-5+ Mr 9 '46

Commercial intelligence crux of successful trade. E. F. Becker. For Comm W 24:3-5+ Ag 3 '46

Government promotion of international trade; changes in organization of Department. A. Paul. Comm & Fin Chr 163:289+ Ja 17 '46

International trade unit set up to administer export controls; new Department of commerce agency, Office of international trade operations. Steel 117:92+ D 3 '45

Trade stimulant. Bsns W p21-2 Ap 20 '46

Wallace names Arthur Paul his assistant to direct Department's international trade activities. For Comm W 21:15 D 15 '45

Insurance division

Program of Insurance division of Office of international trade, Department of commerce. J. Sachs. Weekly Underw 155:958-9 O 19 '46

War areas trade office

Activities of new office. M. H. Marker. For Comm W 23:8-9+ Ap 20 '46

World trade policy office

World trade policy weighed by new office. J. L. McCamy. For Comm W 22:6-7+ Mr 23 '46

World trade promotion office

Objective of new office; foreign trader's agent in government. G. L. Bell. For Comm W 23:13-15+ Ap 6 '46

Interstate commerce commission

See Interstate commerce commission

Justice, Department of

Problems of the Justice department; address before American bar association. T. C. Clark. Comm & Fin Chr 162:3135+ D 27 '45

Antitrust division

Antitrust division fights for small business. T. C. Clark. il Dom Comm 34:3-5+ F '46

War-sired monopoly is target of crusade. Bsns W p7 My 25 '46

Labor, Department of

Conciliation service

See United States—Conciliation service

Labor statistics, Bureau of

Services and publications of the U.S. Bureau of labor statistics. R. M. Lawrence. il Chem Ind 59:487-92 S '46

Why Hinrichs resigned from Labor department; letter of resignation. Comm & Fin Chr 164:255 Jl 11 '46

Library of Congress

See Library of Congress

Maritime commission

Note on turnover in government personnel; United States shipping board after World war I and United States maritime commission after World war II. J. W. Culliton. Harvard Bsns R 24 no 4:512-17 [Jl] '46

Merchant marine

See Merchant marine—United States

Mines, Bureau of

Bureau of mines gets ammonia plant to make synthetic fuels survey. Nat Pet N 37:34 N 28 '45

Bureau of mines western offices reorganize. Steel 117:96-7 D 3 '45

Bureau of mines will continue major metallurgical programs; Congress grants $4 million appropriation. Steel 118:65 Ja 14 '46

Mine bureau projects long term program to develop new deposits. Iron Age 157:163-6 F 14 '46

Missouri ordnance works becomes Bureau of mines demonstration plant. Chem & Eng N 24:39 Ja 10 '46

Natural gas research activities of the U.S. Bureau of mines. E. G. Dahlgren. il Gas Age 97:41-4+ My 2 '46

Permanent buildings taking a big share of funds for Bureau of mines program for development of synthetic liquid fuels. Nat Pet N 38 pt 2:R173-4+ Mr 6 '46

Services and publications of the U.S. Bureau of mines. R. M. Lawrence. Chem Ind 58:429-32+, 596-7 Mr-Ap '46

UNITED STATES—Mines, Bureau of—*Cont.*

Bibliography

Bibliography of Bureau of mines publications dealing with health and safety in the mineral and allied industries. S. J. Davenport. 190p Supt. of doc, Washington 25, D.C. '46

National advisory committee for aeronautics

Lightplane improvement projects offered NACA by CAA, AOPA, AIA. B. Stubblefield. Aviation N 5:13 Mr 25 '46

NACA bares wartime research for lightplane manufacturers; Langley field conference. il Aviation N 6:25-6 S 30 '46

National museum

Century of progress in Smithsonian biology. R. Kellogg. Science 104:132-41 Ag 9 '46

Department of engineering and industries

Background of the Smithsonian's museum of engineering and industries. F. A. Taylor. Science 104:130-2 Ag 9 '46

Navy

Advanced metal preservation methods employed by U.S. navy in laying up vessels. I. H. Such. il Steel 118:90-2+ Ap 29 '46

Changes in naval warfare; abstract. J. Forrestal. Iron Age 157:144 F 21 '46

Naval engineering duty in wartime. R. Doughton, jr. il Metal Prog 50:455-61 S '46

Naval wartime communication problems. J. O. Kinert. Inst Radio Eng Proc 34 [Waves & Electrons 1]:193-5 Ap '46

Navy builds; portfolio of photographs. Arch Forum 84:121-36 Mr '46

Navy completing award on $70 million storage facilities for inactive fleet. Eng N 136:379 Mr 14 '46

Navy department declares U.S. policy; American warships in the Mediterranean. Comm & Fin Chr 164:1990 O 17 '46

Navy's guided-missile program announced. Marine Eng 51:86 O '46

Need for sea power continues. C. W. Nimitz. Marine Eng 51:122-3 My '46

Postwar navy outlined in annual report of Navy Secretary. J. Forrestal. Marine Eng 51:128-33 Mr '46

Research needs of the navy. H. G. Bowen. Mech Eng 68:194-5+ Mr '46

See also

Naval bases
Navy yards and naval stations
Oil reserves (United States navy)
United States—Air service, Navy
Warships—United States

Bibliography

Bibliography of publications containing lists or other data pertaining to United States naval vessels. H. P. Beers. Bulletin of Bibliography [F. W. Faxon co, Boston] 18: 160-3, 182-4 My-S '45

Civil engineer corps

Navy's civil engineer corps reorganizes for peace; sketches, portraits. Eng N 136:750-1 My 9 '46

Construction battalions

At the top of the world; Seabee camps at Point Barrow and Umiat. P. Wollstadt. il map Nat Pet N 37:28-31 N 28 '45

Pontoon manufacture in the Pacific. H. W. Risteen. il plans Mech Eng 68:215-20 Mr '46

Seabees who drilled Point Barrow, Alaska, Umiat well fought cold, mud but found oil. P. Wollstadt. Nat Pet N 37:14 N 14 '45

Dental service

Mobile dental units for the navy. R. G. Skerrett. il Comp Air Mag 51:20-1 Ja '46

Education

Ensigns in the making; V-12 program. W. H. Buracker. il Tech R 48:359+ Ap '46

War-born techniques in training manuals; methods used in 18 instruction books produced by the Sharples corporation for the navy. W. D. Lindsey. il Ptr Ink 214:24-5+ F 8 '46

Equipment and supplies

Address; Navy's interest in petroleum and petroleum products. B.. Moreell. Am Pet Inst Proc 25(1):51-6 '45

How the navy salvages war equipment. R. G. Skerret. il Comp Air Mag 51:217-21 Ag '46

Meet Tempo J: the well-oiled muscle behind navy's punch; Navy fuels division. R. E. Bjorkback. pors Nat Pet N 37:53-4+ N 14 '45

Navy plant salvages two grades of fuel oil from sludge from tank cleanings. il Nat Pet N 38 pt 2.R356+ My 1 '46

Navy radio and electronics during World war II. J. B. Dow. Inst Radio Eng Proc 34:284-7 My '46

Spray coatings for heavy-duty packaging; vinyl resin solution with webbing agent, polyvinyl chloride for packaging navy equipment. il Mod Plastics 23:152-3 Ap '46

Welded design as applied to lightweight army and navy structures. H. A. Oldenkamp. il Welding J 25:33-7 Ja '46

Laboratories

See Naval ordnance laboratory; Naval research laboratory

Medical and sanitary affairs

Influences on dental defects in naval personnel. C. A. Schlack and J. E. Birren. bibliog map Science 104:259-63 S 20 '46

See also

United States—Navy—Dental service

Navy department

Navy Bumblebee project works to coordinate missile program. Aviation N 5:7 Je 24 '46

Who's who in navy air conditioning. Heating-Piping 18:130-2 S '46

Insurance requirements

N.A.I A. seeks to keep navy ships store cover at local level. Nat Underw 50:3+ N 7 '46

Naval research, Office of

Science dons a uniform; basic research passing into hands of army and navy. Bsns W p19-22+ S 14 '46

Officials

See Public officers

Ordnance department

Standby tool processing under army ordnance plan progressing. Steel 118:70 F 18 '46

Patent office

American patent system; its relation to technical library techniques. C. W. Ooms. J Chem Educ 23:478-81 O '46

Patent office carrying heaviest load in history; abstract. C. W. Ooms. Steel 118:98+ F 4 '46

Patent office reforms expected to speed up patent procedure. C. W. Ooms. Steel 118: 82 Je 3 '46

Patent office seeks new system for filing of technical material. Iron Age 158:128+ Jl 25 '46

Plan streamlining of patent office. Chem Ind 58:843 My '46

U.S. Patent office streamlining to handle expected invention boom. Am Mach 90:132j Ja 3 '46

United States patent system; present status and proposed reforms. C. W. Ooms. il Product Eng 17:265-7 Ap '46

Petroleum administration for war

Staff of Petroleum administration for war, Washington and districts. Oil & Gas J 44: 179-84 N 17 '45

Politics and government

Administrative procedure act; editorial. Comm & Fin Chr 164:607+ Ag 1 '46

Administrative procedure act; text of legislation enacted by Congress to regulate and curb judicial powers of government agencies. Comm & Fin Chr 164:619+ Ag 1 '46

UNITED STATES—Politics and government —*Continued*
Dangers of governmental concentration. H. W. Sumners. Comm & Fin Chr 163:1501+ Mr 21 '46
Fortune survey; problems for politicians. Fortune 33:221-2 Ja '46
Increased federal power weakening democracy. H. W. Sumners. Comm & Fin Chr 163:1930+ Ap 11 '46
Truman proposes government reorganization. Comm & Fin Chr 163:2834 My 23 '46
Truth will drive you mad. Fortune 33:87 My '46
What is the government doing to our political system? H. W. Dodds. Comm & Fin Chr 164:77+ Jl 4 '46

Postal service

See Postal service—United States

Price administration, Office of

Accounting and price control. J Account 80: 417-18 D '45; Discussion. P. M. Green. 81: 156-7 F '46
American prices and OPA. Economist 151:264 Ag 17 '46; Same. Iron Age 158:117+ S 12 '46
Battle for production. G. K. Creighton. J Retailing 22:23-30 F '46
Cost accounting in price determination. M. L. Black, jr. and H. B. Eversole. J Account 82:367-72 N '46
Industrial cost-accounting practices; Office of price administration; statement of Paul M. Green. J Account 81:519-21 Je '46
Intervention of Office of price administration in Indianapolis fare increase. Mass Transportation 42:27-9 Ja '46
Is OPA right on price control? Yes! Z. L. Potter; No! E. N. Allen. Sales Management 56:92-3 Mr 15 '46
NAM presents arguments for end of OPA. Comm & Fin Chr 163:1508 Mr 21 '46
New OPA bill offers a choice. Bsns W p17 Jl 27 '46
OPA faces Senate test. Bsns W p15-16 Ap 27 '46
OPA intervention has political pattern; court battles over proposed increase in fares, San Francisco. Mass Transportation 42:25-6 Ja '46
OPA is finding a few teeth. Bsns W p15-17 Ag 3 '46
OPA put on spot. Bsns W p18 Je 1 '46
OPA receives enthusiastic public support; Gallup poll. Iron Age 157:119+ Mr 14 '46
OPA revived for fiscal year with greatly curtailed power. Oil Paint & Drug Rep 150:3+ Jl 29 '46
OPA should be abolished. A. Wiley. Comm & Fin Chr 164:882+ Ag 15 '46
OPA writes its testament. Bsns W p15-16 Ap 6 '46
Political and economic aspects of new OPA and its effects upon business. W. Gates. Mag of Wall St 78:616-18+ Ag 31 '46
Price administration and the postwar fact finder; basic information about price control useful to accountants. C. V. Burns. J Account 81:372-6 My '46
Public thinks continuance of OPA essential; Gallup poll. Iron Age 157:117 Je 6 '46
Report on cost accounting in industry; Office of price administration. P. M. Green. J Account 82:443-4 N '46
Speaking of booby traps; OPA inflationary. H. L. Lutz. Comm & Fin Chr 164:197+ Jl 11 '46
Text of new OPA bill. Comm & Fin Chr 164:609+ Ag 1 '46
What price price control? Fortune 33:100-1+ My '46

Library

Library serves in the war against inflation. W. M. Johnson. Special Lib 36:440-2 N '45

Public buildings administration

Design and construction manuals prepared by PBA. Eng N 136:116 Ja 24 '46

Public health service

Announcement of examination for sanitary engineer (regular corps) and nurses. Pub Health Rep 51:358-9 Mr 8 '46
Coordination of pollution control by U.S. Public health service favored in statement by American society of civil engineers; text. Civil Eng 16.81 F '46
Regular corps appointments for dental officers. Pub Health Rep 61:356-8 Mr 8 '46
Regular corps appointments for medical officers. Pub Health Rep 61:355-6 Mr 8 '46
Review of tuberculosis control demonstrations and the program of grants-in-aid. F. J. Weber. Pub Health Rep 61:643-8 My 3 '46
Tropical disease education program of the United States public health service. W. S. Boyd and others. Pub Health Rep 61:707-11 My 17 '46
United States Public health service communicable disease center. J. M. Andrews. Pub Health Rep 61:1203-10 Ag 16 '46

See also
Water supply—
Standards

Bibliography

Public health service publications; list of publications issued during the period January-December 1945. Pub Health Rep 61: 1034-43 Jl 12 '46

Public roads administration

Girding for the big postwar task. T. H. MacDonald. Roads & Sts 89:88-9 F '46

Publication board, Office of

Library division of the Office of the publication board. J. Orne. Special Lib 37:203-9 S '46
OPB reports. Chem & Eng N 24:1837-9 Jl 10 '46
Scientific information from enemy sources and government-sponsored research. J. C. Green. Chem & Eng N 24:1795-9 Jl 10 '46

Bibliography

OPB bibliography. R Sci Instr 17:122-3 Mr '46

Quartermaster corps

New techniques for the inspection of textiles. H. F. Schoenfelder. diags Rayon 27:483-5, 546-8 S-O '46; Same. Ind Stand 17:255-60 O '46
Program for peacetime scientific training of Quartermaster corps reserve officers. Science 104:293 S 27 '46
Quartermaster research program offers attractive careers to scientists. J. S. Jacobs. Rayon 27:533-6, 591-5 O-N '46
Reduction in materials handling machine stock by Office of quartermaster general. Iron Age 158.162+ O 17 '46
Research needs in subsistence and personal equipment. W. H. McLean. Mech Eng 68: 203-5 Mr '46; Same. Rayon 27:350-2, 401-2 Jl-Ag '46
World and its wars run on oil with aid from Quartermaster Fuels and lubes division. R. E. Bjorkback. Nat Pet N 37:28+ D 12 '45

See also Quartermaster food and container institute for the armed forces

Laboratories

Army appetizers; war-developed table products. Bsns W p86 F 23 '46
Quartermaster food institute. Chem & Eng N 24:1688 Je 25 '46

Reclamation, Bureau of

Expanding reclamation program; harnessing western rivers for irrigation, power production, flood control, and other purposes; with cost data. K. Markwell. il Civil Eng 16:207-9 My '46
Reclamation bureau policy declaration limits foreign work to special cases. il Eng N 136:885 Je 6 '46
Reclamation construction awards total 109 million in fiscal 1946. Eng N 137:341 S 12 '46

Sanitary affairs

Water supply, sewerage, garbage disposal needs placed at $7 billion. Eng N 136:949 Je 20 '46

UNITED STATES—*Continued*

Scientific research and development, Office of

Great science debate; the atom touched off debate on national science policy. il Fortune 33:116-21+ Je '46

Shipping board, 1916-1936

Note on turnover in government personnel; United States shipping board after World war I and United States maritime commission after World war II. J. W. Culliton. Harvard Bsns R 24 no 4:512-17 [Jl] '46

Social conditions

Health and welfare services. E. C. Potter. bibliog Ann Am Acad 242:139-48 N '45

Social life and customs

American family. M. F. A. Montagu. il Tech R 48:281-4+ Mr '46

How the automobile has changed life of Americans. F. M. Reck. il Nat Pet N 37: 37+ N 28; 27-8+ D 5 '45

Standards, National bureau of

Bureau of standards, adviser to industry; abstract. Management R 35:234-6 Je '46

Bureau of standards organizes radio work in new division; Central radio propagation laboratory. Ind Stand 17:235 S '46

Henry W. Bearce retires as chief of the Division of weights and measures of the National bureau of standards. Ind Stand 16 259 N '45

Lyman J. Briggs retires as director, Dr E. U. Condon named. Ind Stand 16:244-5 N '45

State department

State department blundering. K. S. Wherry. Comm & Fin Chr 164:746+ Ag 8 '46

Topside on the ship of state. Economist 150: 334 Mr 2 '46; Same. Iron Age 157:115+ Ap 25 '46

U.S. speaks up; State dept. plans global information service. Bsns W p40+ Ja 12 '46

Statistics

Financial, industrial, and commercial statistics. Fed Res Bul 32:38-87 Ja '46 [cont monthly]

Statistical abstract of the United States, 1946; sixty-seventh number 1039p U S. Bur. of the census, Washington; $2.25 Supt. of doc. '46

See also

United States—Census, Bureau of

Strategic services, Office of

Good man is hard to find. il Fortune 33:92-5+ Mr '46

Supreme court

Case of Saratoga; state gets no federal tax immunity. Bsns W p28+ Ja 19 '46

Changed attitude toward Supreme court; Gallup poll. Iron Age 158:136-7 Jl 11 '46

Court trends. Bsns W p18 Ag 24 '46

Labor's docket; union interest in Supreme court hearing on anti-closed-shop law. Bsns W p106+ N 17 '45

Nine robed men; how high court balance is tipped, right and left. Bsns W p20 Mr 2 '46

Supreme court and business planning. A. A. Ballantine. Harvard Bsns R 24 no2:151-63 [Ja] '46

Supreme court; which way? Bsns W p36+ O 19 '46

Tariff commission

Services and publications of the U.S. Tariff commission. R. M. Lawrence. Chem Ind 58:795-800+ My '46

Tax court

Employees' salary compensation; tax judges show greater leniency in recent years. V. R. Wolder. Credit & Fin Management 48: 24+ Je '46

Technical services, Office of

Consolidates work of Office of publication board, TIIB, National inventors council, and Production, research and development division. Chem & Eng N 24:1889 Jl 25 '46

Office of technical services in Commerce department set up by Wallace. Product Eng 17:135-6 O '46

OTS reports. Chem & Eng N 24:2392+ S 10 '46

OTS reports interest in war research data. Oil Paint & Drug Rep 150:7 O 14 '46

Technical aid agency set up. il Steel 119:80-1 Ag 19 '46

Treasury department

Services and publications of the Federal reserve system, S.E.C. and Treasury department. W. C. Chadbourne. bibliog il Chem Ind 59:663-8 O '46

Veterans' administration

Insurance training course of Veterans' administration may reach 30,000. H. C. Hallam. Nat Underw (Life ed) 50:3+ O 18 '46

War assets administration

See War assets administration

War department

Research and development division

Army's research program. H. S. Aurand. Mech Eng 68:785-6+ S '46

Scientific and military cooperation. D. D. Eisenhower. Econ Geol 41:390-2 Je '46

War department research and development. A. Leggin. il Chem & Eng N 24:2760-1 O 25 '46

War department research and development division. Science 104:369 O 18 '46

War production board

In recognition of service; onetime members of WPB. pors Bsns W p16 S 28 '46

Statistical materials collected by the War production board. D. Novick. R Econ Stat 28:131-4 Ag '46

Protective coatings branch

Protective coatings branch, WPB. W. Martin. Paint Oil & Chem R 108:100-2 N 1 '45

UNITED STATES airlines, inc.

Stock offered. Comm & Fin Chr 163:3463 Je 24 '46

U.S. Airlines, with 14 C-47's, plans added routes, schedules. Aviation N 5:17 My 20 '46

UNITED STATES chamber of commerce. See Chamber of commerce of the United States

UNITED STATES coast guard academy, New London, Connecticut

Glued-laminated arches with sawed laminations; drill hall, Coast guard academy, New London, Conn. E. A. Dubin. bibliog il diags Mech Eng 67:813-19+ D '45

UNITED STATES commercial company

Enemy trade; what's ahead? il Bsns W p113-14 O 5 '46

Trading with the enemy. Fortune 34:215-16 Jl '46

UNITED STATES fidelity and guaranty company

50th anniversary. East Underw 47:30-1+ F 15 '46

Fifty years of suretyship and insurance; review. East Underw 47:31 S 20 '46

UNITED STATES finishing company

Plans recapitalization. Comm & Fin Chr 164: 996-7 Ag 19 '46

UNITED STATES industrial chemicals, inc.

Annual report. Comm & Fin Chr 164:151 Jl 8 '46

Thumbnail stock appraisal. Mag of Wall St 78:340 Je 22 '46

UNITED STATES information libraries

U.S. information libraries prove their worth. R. M. Gurin and H. M. Baumgartner. Library Journal [New York] 17:137-41 F 1 '46

UNITED STATES junior chamber of commerce

U.S. junior chamber of commerce broadens aviation referendum. M. Mickel. Aviation N 5:34 Ap 15 '46

UNITED STATES lines company

Net to top wartime peak. Barron's 26:7 S 30 '46

UNITED STATES military academy, West Point
Laboratory for basic electronics; United States military academy. P. M. Honnell and W. E. Strohm. il diags Elec Eng 65:75-80 F '46
Lighting of the cadet barracks. W. G. Darley and G. J. Taylor. il plans Illum Eng 41:419-30 My '46
West Point and the AAAS. S. Forman. Science 104:47 Jl 19 '46

UNITED STATES naval academy, Annapolis
U.S. naval postgraduate school. H. A. Spanagel. J Eng Educ 36:280-1 D '45

UNITED STATES naval photographic services depot, Hollywood
U.S. naval photographic services depot. F. M. Hearon. Soc Motion Picture Eng J 45: 294-6 O '45

UNITED STATES playing card company
Diversified issues. Mag of Wall St 78:460 Jl 20 '46

UNITED STATES plywood corporation
Investment securities for capital building. Mag of Wall St 78:150, 174+ My 11 '46
Preferred stock offered. Comm & Fin Chr 164:997 Ag 19 '46

UNITED STATES potters' association
Annual meeting, 67th, Pittsburgh, Dec. 11-12. Cer Ind 46:70-1 Ja '46

UNITED STATES rubber company
Annual report. Comm & Fin Chr 163:948 F 18 '46
Debentures offered. Comm & Fin Chr 163: 2772 My 20 '46
Financial position. H. S. Coffin. Mag of Wall St 77:630-1 Mr 2 '46
Peak peacetime sales seen. Barron's 26:14 Mr 18 '46
U.S. Rubber; pioneer in television. C. J. Durban. il Sales Management 57:83-4+ O 1 '46

UNITED STATES savings and loan league
Annual meeting, 53d, Chicago. Comm & Fin Chr 162:2717, 3173 D 6, 27 '45

UNITED STATES smelting, refining and mining company
Gold mining to help U.S. Smelting net. Barron's 26:20 Ja 28 '46

UNITED STATES steel corporation
Animated annual statement; United States steel corporation's new sound motion picture, Behind the annual report. L. S. Metcalfe. il Banking 38:114 N '45
Annual report. Comm & Fin Chr 163:1719-21 Ap 1 '46; Abstract. Iron Age 157:96 Mr 28 '46
Department of justice to pass on U.S. steel bid for Geneva steel works. K. Rannells. Iron Age 157:92 My 30 '46
Financial and operating story since 1902; tables. Steel 118:120-1 Ap 1 '46
Geneva mill sale approved on Coast. Steel 118:94 Je 3 '46
Justice department approves sale of Geneva plant to U.S. Steel. Iron Age 157:111 Je 20 '46
Quarterly report; number of stockholders. Comm & Fin Chr 163:696 F 4 '46
Steel stocks; a better buy than they seem. L. V. Plum. Barron's 26:12-13 Jl 22 '46
U.S. Steel given good chance to get Geneva steel works. K. Rannells. il Iron Age 157: 116-17 My 9 '46
U.S. Steel takes title to Geneva steel plant, steps up operations. Steel 119:89 Jl 1 '46
U.S. Steel's first quarter net income below like period of 1945. Steel 118:110 My 6 '46
U.S. Steel's Geneva bid supported. Steel 118: 100 My 20 '46

UNITED STATES sugar corporation
U.S. Sugar begins operations at $7,000,000 starch plant. il Manuf Rec 115:38-9+ F '46

UNITED STATES testing company
U.S. Testing expands its portable laboratory program. il Textile Col 67:124-5 N '45

UNITED steel companies
Magnitude of war contribution. W. B. Jones. Economist 149:767 N 24 '45

UNITED steelworkers of America
Annual meeting, Atlantic City, May 14-18. Iron Age 157:100 My 23 '46
Steel fact-finding board says union did not violate its contract. Iron Age 157:105-6 Mr 7 '46
Steel union reveals strength. il Bsns W p89-90+ My 25 '46
U.S.A.; United steelworkers of America is unionism at its biggest. il Fortune 34:142-5 N '46

UNITED transit company
Debentures and preferred stock offered. Comm & Fin Chr 162:2436-7 N 19 '45

UNITED typothetae of America. See Printing industry of America, inc.

UNITED utilities, inc.
Exempt from Holding co. act. Comm & Fin Chr 162:2314 N 12 '45

UNITED wallpaper, inc.
Newcomers on the Stock Exchange. W. A. Howell. Mag of Wall St 78:783 S 28 '46

UNITED world pictures, inc.
World pictures; new movie organization set up by Rank, Universal, and International. Bsns W p44+ D 8 '45

UNITS
Equivalent values of electrical, mechanical, and heat units; data sheet. Factory Management 104:166 Mr '46
New units for the measurement of radioactivity; rutherford and roentgen-per-hour at one meter. E. U. Condon and L. F. Curtiss. R. Sci Instr 17:249 Je '46; Same. Phys R 69:672-3 Je 1 '46; Same. Science 103:712 Je 14 '46; Same. J Chem Phys 14:399 Je '46; Same. Chem & Eng N 24:1802 Jl 10 '46
See also
Absolute bel (term) Weights and measures
Magnetic units

UNIVERSAL atlas cement company
Many changes announced. Concrete (mill sec) 54:104 Ja '46

UNIVERSAL camera corporation
Class A common stock offered. Comm & Fin Chr 162:2437 N 19 '45

UNIVERSAL joints. See Joints, Universal

UNIVERSAL pictures company
Annual report. Comm & Fin Chr 163:697 F 4 '46
New distribution and producing affiliates organized. Comm & Fin Chr 162:2688 D 3 '45
Preferred stock offered. Comm & Fin Chr 163:1036+ F 25 '46
Production activities of this corp. and of International pictures corp. to be merged. Comm & Fin Chr 164:998 Ag 19 '46

UNIVERSAL winding. See Radio coils

UNIVERSE
Expanding universe and the origin of elements. G. Gamow. bibliog Phys R 70:572-3 O 1 '46

UNIVERSITIES. See Colleges and universities

UNIVERSITY study centers. See United States—Army—Education

UNIVERSITY teachers of insurance, American association of. See American association of university teachers of insurance

UNSATURATED compounds
Condensation of saturated halides with unsaturated compounds; condensation of alkyl chlorides with polychloroölefins. L. Schmerling. Am Chem Soc J 68:1655-7 Ag '46
Condensation of saturated halides with unsaturated compounds; the condensation of alkyl halides with monohaloölefins. L. Schmerling. bibliog Am Chem Soc J 68: 1650-4 Ag '46
Kinetics of halogen addition to unsaturated compounds; bromine addition in carbon tetrachloride, chlorobenzene, and chloroform. P. B. D. de la Mare, R. A. Scott and P. W. Robertson. Chem Soc J p509-12 Ag '45
Kinetics of halogen addition to unsaturated compounds; nitrocinnamic acids. I. Hartman and P. W. Robertson. Chem Soc J p891-3 D '45
Kinetics of halogen addition to unsaturated compounds; αβ-unsaturated aldehydes. P. B. D. de la Mare and P. W. Robertson. Chem Soc J p888-91 D '45

UNSATURATED compounds—*Continued*
Michael condensation of fluorene with unsaturated compounds. L. A. Pinck and G. E. Hilbert. bibliog Am Chem Soc J 68:2014-17 O '46
Some polar factors affecting the properties of unsaturated compounds; abstract. C. C. Price. Chem & Eng N 24:2468 S 25 '46
Sulfurization of unsaturated compounds. H. E. Westlake, jr. bibliog(94 references) Chem R 39:219-39 O '46

UNSATURATED ketones. See Ketones

UPHOLSTERY
Bright future for coated fabrics; Tolex and other vinyl coated fabrics. il Mod Plastics 23:104-7 Jl; 24:122-6 S '46
Comparison of strip and grab breaking strength of two classes of upholstery fabrics. B. V. Morrison and J. C. Wilbur. bibliog Rayon 27:361-3 Jl '46
Covering up with plastics. C. A. Breskin. il Sci Am 175:214-16 N '46
New material for upholstery. il Mod Plastics 23:91-8, 126-7 Ag-S '46
Plastic products. il Mod Plastics 23:105 My '46

See also
Leather, Substitutes for

Testing
Testing upholstery, drapery fabrics is explained. Textile Col 68:51-2 S '46

UPPER atmosphere. See Atmosphere, Upper

UPTHEGROVE, Daniel, 1871-1946
Daniel Upthegrove retires from presidency of Cotton Belt. por Ry Age 121:474-5 S 21 '46

URAL area
Next phase in the Urals; new plans and potentials. L. M. Herman. map For Comm W 22:5-7+ F 9 '46
Urals; present center of Soviet industrial power. E. Boulanovsky. il map For Comm W 23:3-5+ Je 22 '46

URANIUM
Atomic power search widens; Manhattan district to build uranium pile; new program of research. Bsns W p19-21 Ap 20 '46
Australia's uranium. Eng & Min J 147:82 Mr '46
Demonstration plant for atomic energy catalytic cracking process announced; said to use catalyst of a uranium ore. Nat Pet N 38:41 Jl 24 '46
Electromagnetic processes of the atomic bomb project. R. R. Wisner. il Power Pl Eng 50:82-5+ My '46; Excerpt (Uranium recovery) Chem & Eng N 24:1382-3 My 25 '46
Fluorochemistry of uranium. J. De Ment. bibliog il J Chem Educ 23:213-19 My '46
Formation of tetravalent uranium during the uranyl-sensitized photochemical decomposition of oxalic acid. J. J. McBrady and R. Livingston. bibliog diag J Phys Chem 50:176-90 My '46
Locating uranium with the ultraviolet lamp. J. DeMent. bibliog il Min Cong J 32:26-30 My '46
La mine Eldorado de Port Radium, le plus grand centre mondial de production d'uranium (Canada). E. Lemaire. il maps Génie Civil 123:201-4, 213-15 Ag 1-15 '46
Polarography of uranium; polarography in strongly acid solution. I. M. Kolthoff and W. E. Harris. Am Chem Soc J 68:1175-9 Jl '46
Preliminary description and analysis of the first spectrum of uranium. C. C. Kiess and others. pl J Res Nat Bur Stand 37:57-72 Jl '46
Preliminary study of the photochemical system uranyl-iodide. J. J. McBrady and R. Livingston. bibliog J Phys Chem 50:339-45 Jl '46
Purity requirements of nucleonics materials. R. L. Doan. Chem & Eng 24:1907-9 Jl 25 '46
Research pays dividend; pure uranium by the Rentschler-Marden process. il Comp Air Mag 51:51 F '46
Les richesses mondiales en uranium; ses gisements en France. E. Lemaire and V. Charrin. map Génie Civil 123:86-7 Ap 1 '46
Soviet source of uranium; tyuyamunite. Min & Met 27:521 O '46
Spontaneous emission of neutrons from uranium. G. Scharff-Goldhaber and G. S. Klaiber. Phys R 70:229 Ag 1 '46
Unusual colors produced by uranium in glasses. W. Colbert and N. J. Kreidl. diags Opt Soc Am J 35:731-5 N '45
Uranium and radium in the postwar period. S. C. Lind. Electrochem Soc Trans 89 (preprint 14):167-9 '46
Uranium fission; discoveries leading to a chain reaction. M. L. Eidinoff. bibliog J Chem Educ 23:60-5 F '46
Uranium fission plant in Canada. Engineering 160:491 D 14 '45
Uranium ores; pitchblende and carnotite; abstract. E. U. Condon. Mech Eng 68:42 Ja '46
What's future of uranium and kin? W. Janssen. Dom Comm 34:19-21 F '46
Who has the earth's uranium? K. F. Mather. R Sci Instr 16:390 D '45

See also
Glass—Uranium content

Isotopes
Atomic energy from U^{238}. L. A. Turner. bibliog Phys R 69:366 Ap 1 '46
β-Radiations of uranium X_1. S. Jnanananda. bibliog diag Phys R 69:570-4 Je 1 '46
Clinton, a monument to teamwork; building Clinton engineer works for construction of atomic bomb. E. H. Marsden. il map Eng N 135:781-3 D 13 '45
Development of atomic energy. A. W. Kramer. il Power Pl Eng 50:87-92 Ja '46
Power supply aspects of nuclear research; separating isotopes of uranium by electromagnetic means. R. R. Wisner. Elec World 125:55 F 2 '46
Radioactive element 94 from deuterons on uranium. G. T. Seaborg and others. Phys R 69:366-7 Ap 1 '46
Uranium; source of atomic energy. G. E. Kidd. diags Pet Eng 17:240+ Mr '46

URANIUM tetrafluoride
Uranium tetrafluoride. H. S. Booth, W. Krasny-Ergen and R. E. Heath. diag Am Chem Soc J 68:1969-70 O '46

URANYL sulfate
Preliminary study of the photochemical system uranyl-iodide. J. J. McBrady and R. Livingston. bibliog J Phys Chem 50:339-45 Jl '46

URBAN fringe surveys
Urban fringe studies of two Wisconsin cities; Janesville and Madison; a summary. R. B. Andrews. J Land & Pub Util Econ 21:375-82 N '45

URBAN redevelopment laws. See Housing laws

URBANISM. See Cities and towns

UREA
Effect of concentrated urea solution on the precipitating power of antiovalbumin: significance of formation of protein complexes. D. H. Campbell and J. E. Cushing. bibliog Science 102:564-6 N 30 '45
Metal test specimens mounted in urea. il Mod Plastics 24:121 O '46
New blowing agent for sponge rubber; mixture of biuret and urea. H. F. Schwarz. il India Rubber World 114:211-12+ My '46
Structure of urea—formaldehyde resins. C. S. Marvel and others. bibliog Am Chem Soc J 68:1681-6 S '46
Thermal data; the heat capacity, entropy and free energy of urea. R. A. Ruehrwein and H. M. Huffman. bibliog Am Chem Soc J 68:1759-61 S '46
Wood treatment with urea resin-forming systems (dimensional stability). M. A. Millett and A. J. Stamm. bibliog Mod Plastics 24: 150-3+ O '46

UREASE
Specificity of the action of urease. C. L. Deasy. Am Chem Soc J 68:1664 Ag '46

URETHANE
Effect of urethane on lymphatic leukemia in rats. J. B. Murphy and E. Sturm. Science 104:427 N 1 '46

UREY, Harold Clayton, 1893-
Portrait. Fortune 33:121 Je '46

UREYLENEBENZOYLPROPIONIC acid
Improved synthesis of γ-(3,4-ureylenecyclohexyl)-butyric acid. J. P. English and others. Am Chem Soc J 67:2263-5 D '45

UREYLENECYCLOHEXYLBUTYRIC acid
Improved synthesis of γ-(3,4-ureylenecyclohexyl)-butyric acid. J. P. English and others. Am Chem Soc J 67:2263-5 D '45

URINE

Analysis

Evaluation of urinary lead determinations; approximate upper limit of urinary lead excretion for persons at work. L. Levine and J. P. Fahy. J Ind Hygiene 28:98-9 My '46

Evaluation of urinary lead determinations; the significance of the specific gravity. L. Levine and J. P. Fahy. bibliog J Ind Hygiene 27:217-23 O '45

Metabolites of 2,4,6-trinitrotoluene (TNT) excreted in the urine of dogs. R. K. Snyder. bibliog il J Ind Hygiene 28:59-75 My '46

Quantitative differentiation of minute amounts of the coproporphyrin isomers (I and III) based on fluorescence behavior. S. Schwartz and others. Science 103:338-40 Mr 15 '46

UROGASTRONE
Relation of endocrine glands to the gastric secretory depressant in urine (urogastrone). J. Kaulbersz and others. bibliog Science 102: 530-1 N 23 '45

URONIC acids
Acylation of polyuronides with formamide as a dispersing agent. J. F. Carson and W. D. Maclay. bibliog Am Chem Soc J 68:1015-17 Je '46

Preliminary study of the polyuronide hemicellulose of phormium tenax (N Z. flax). R. J. McIlroy, G. S. Holmes and R. P. Mauger. Chem Soc J p796-9 N '45

Uronic acid component of heparin. M. L. Wolfrom and F. A. H. Rice. Am Chem Soc J 68:532 Mr '46

Analysis

Determination of uronic acids. R. M. McCready, H. A. Swenson and W. D. Maclay. bibliog diag Ind & Eng Chem Anal ed 18: 290-1 My '46

UROSELECTAN B. See Iodoxyl

URUGUAY
See also
Irrigation—Uruguay

Commerce

Uruguay has record international trade. M. P. Bur. il For Comm W 24:10-11 Jl 6 '46

Uruguayan dollar bonds at par. J. Lyons. Mag of Wall St 78:687-8+ S 14 '46

Economic conditions

Latin America's economy as world conflict ended. For Comm W 24:44 Jl 27 '46

News by countries. For Comm W 23:37+ My 18; 38-9 Je 15; 24:32 Jl 20; 42-3 Ag 17; 28 S 14; 25:38-9 O 19 '46

USE and occupancy insurance. See Insurance, Use and occupancy

USURY
California court rules on case entailing sale of accounts; usurious rate of interest involved. W. R. Montgomery. Credit & Fin Management 48:32+ Mr '46

Notes charging ten per cent interest and providing for future adjustments held not usurious. Banking Law J 63:606-8 Ag '46

Usury not defense to note of larger sum than that received by borrower. Banking Law J 63:424-6 My '46

UTAH
See also
Mines and mineral resources—Utah

UTAH power and light company
Bonds offered. Comm & Fin Chr 163:2487 My 6 '46

One-stock capital for Utah Power & Light. Barron's 26:8 Ja 14 '46

Plan approved by SEC. Comm & Fin Chr 162:2521 N 26 '45

Public utility securities. Comm & Fin Chr 163:1220 Mr 7 '46

UTILITIES, Public. See Public utilities

UTILITY units. See Houses—Mechanical equipment

UVERITE
Uverite; a mill addition opacifier for porcelain enamel. C. J. Harbert and J. W. Iliff. bibliog Am Cer Soc J 29:93-8 Ap 1 '46

V

V.I.P. service, inc.
He makes privileges pay their way; Bill Murphy. Bsns W p78 Mr 16 '46

V loans. See Loans, Bank—Defense loans

V-12. See Seasickness

VACATION houses
Designed for a week end and vacation house. H. Stubbins, jr. il plan Arch Rec 99:91 F '46

VACATIONS
Holiday facilities in Denmark. Int Labour R 53:429-30 My-Je '46

Legal provision for paid vacations in Argentina. Mo Labor R 61:1185-6 D '45

Simple formula for the accrual of the vacation pay. C. W. Bendel. N A C A Bul 27: 916-22 My 15 '46

Vacation issue; C.I.O. plans court tests. Bsns W p90-1 Ag 3 '46

Vacation market is made up of 30 million wage earners. A. K. Dawson. il Dom Comm 34:57-60 Ag '46

Vacations, 1946. Economist 151:214 Ag 10 '46; Same. Iron Age 158:101+ Ag 29 '46

Workers' vacations in the Soviet Union. Mo Labor R 61:1186-7 D '45

VACCINES
BCG vaccination against tuberculosis. Pub Health Rep 61:801-2 Je 7 '46

BCG vaccination in Denmark. J. Holm. Pub Health Rep 61:1298-1315 S 6 '46

Evaluation of three plague vaccines against infection in guinea pigs induced by natural and artificial methods. N. E. Wayson and others. Pub Health Rep 61:1511-18 O 18 '46

Experience with BCG vaccine in the control of tuberculosis among North American Indians J. D. Aronson and C. E. Palmer. Pub Health Rep 61:802-20 Je 7 '46

Flu immunity? results obtained by army. Bsns W p20 Ja 19 '46

Influenza vaccine. Science 102:sup10 N 23 '45

VACUUM
Air fills the bag; vacuum method of packaging powdered asbestos. W. B. Foxhall. il Heat & Ven 43.89 Ja '46

Condenser and steam-jet air ejector; a team for maintaining exhaust vacuum. P. Freneau. il diag Power 90:85-8+ F '46

Metal coating by vacuum evaporation. F. C. Benner. il Mod Plastics 23:110-11 F '46

Refrigerating a 29.3-inch vacuum at -130 F uses 35 horsepower per ton; calibration of radio meteorographs. il Power 90:325[issue p105] My '46

Some problems of vacuum technique from a chemical engineering standpoint; abstract. H. Griffiths. Chem & Ind p342-3 N 3 '45; Same abr. Chem Age (Lond) 53:440 N 10 '45

VACUUM apparatus
High vacuum equipment. il Chem & Met Eng 53:148 My '46

Leakage of rubber sleeve joints under high vacuum. G. S. Muirhead. Chem & Ind p298 Ag 10 '46

Method of opening vacuum desiccators. J. D. Reid. Science 102:483 N 9 '45

Oil-sealed spherical joints for high-vacuum application. C. E. Thorp and H. L. Landay. il diags Ind & Eng Chem Anal ed 17: 741-2 N '45

Plastic dome for ignition testing at high altitude. il Aero Digest 51:95+ D 1 '45

VACUUM apparatus—*Continued*
Simple automatic control for vacuum systems. J. J. Spadaro, H. L. E. Vix and E. A. Gastrock. diag Ind & Eng Chem Anal ed 18:214 Mr '46
Simple automatic pressure-regulating device for use with vacuum lines. W. S. Clark. diags Science 103:145-6 F 1 '46
Useful seal for dynamic vacuum systems. D. D'Eustachio. diags R Sci Instr 16:377-8 D '45
Vacuum mats aid in speeding veterans' precast concrete houses; with cost data; Whitmarsh village. il diags Concrete 54:31-4+ S '46
Vacuveyor unit for detecting leaky cans; vacuum-testing machine. il Comp Air Mag 51:47 F '46

Testing
Audio aid for vacuum-leak hunting. V. Wouk. il diags Electronics 19:138-41 F '46
Frequency modulated oscillator for leak hunting in vacuum systems. W. M. Brubaker and V. Wouk. il diag R Sci Instr 17:97-8 Mr '46
Gas locator for high-vacuum systems; application of the mass spectrometer. il Electronics 19:158 Je '46
Leak detection by mass spectrometry. il diag Chem Ind 58:413 Mr '46
Leak detector. il Gen Elec R 49:55 O '46
Mass spectrometer type of leak detector. H. A. Thomas and others. il diags R Sci Instr 17:368-72 O '46

VACUUM cleaners
Abandons door-to-door selling in favor of dealers; Eureka vacuum cleaners. F. La Clave. il Ptr Ink 215:68+ My 10 '46
Adding color to vacuum cleaners. il Mod Plastics 23:116-18 Mr '46
Eureka reinstates the dealers. Bsns W p42+ Ag 31 '46
Package promotion sells two vacuum cleaners and a tool kit at one throw. il Mod Packaging 19:124-5 Ag '46
Portable vacuum cleaner has one-piece welded steel frame. il Product Eng 16:831 D '45

Manufacture
Making vacuum cleaners; Vactric, ltd. il Elec R (Lond) 138:915-18 Je 14 '46

VACUUM gages
Advantages of high-speed electronic recording in industrial process measurements. D. M. Considine and D. P. Eckman. il diags Am Inst Chem Eng Trans 42:719-21 Ag '46: Same. Chem Ind 58:983-4 Je '46; Same. Rayon 27:269-70 My '46; Same. Steel 118: 98+ My 27 '46
Application of the ion gage in high vacuum measurement. H. E. Van Valkenburg. il diags Gen Elec R 49:38-42 Je '46
Current developments in instrumentation in analysis; Alphatron vacuum gage. R. H. Müller. il diag Ind & Eng Chem Anal ed 18:sup25-6 Ap '46
Easily constructed all-metal vacuum gauge. R. T. Webber and C. T. Lane. diag R Sci Instr 17:308 Ag '46
High vacuum measurement with the McLeod gage. E. W. Flosdorf. il diags Chem & Met Eng 52:102-4 N '45
Measuring high vacuums with the thermal and ionization gauge. J. G. Seiter. il diag Paper Ind 28:813-15 S '46
Radium-type vacuum gage. G. L. Mellen. bibliog il diags Electronics 19:142-6 Ap '46
Reliable high vacuum gauge and control system. R. G. Picard and others. il diags R Sci Instr 17:125-9 Ap '46
Sensitive vacuum gauge with linear response for measuring pressures in range between zero and 10 millimeters of mercury. J. R. Downing and G. Mellen. il diags R Sci Instr 17:218-23 Je '46
Thermocouple vacuum gage. H. Robinson and M. C. Flanagan. il diags Gen Elec R 49:42-4 My '46
See also
Ionization gage

VACUUM pumps
Evacuation and dehydration of field installations. H. A. Blair and J. N. Calhoun. il diags Refrig Eng 52:125-9+ Ag '46
Some problems of vacuum technique from a chemical engineering standpoint; abstract. H. Griffiths. Chem & Ind p342-3 N 3 '45; Same abr. Chem Age (Lond) 53:440 N 10 '45
Use of silicones as diffusion pump oils. G. P. Brown. R Sci Instr 16:316-18 N '45
Vacuum pumps developed by Kerr dental mfg co. il Steel 119:116 Jl 1 '46

VACUUM switches. See Electric switchgear

VACUUM tube amplifiers. See Amplifiers, Vacuum tube

VACUUM tube voltmeters. See Voltmeters, Vacuum tube

VACUUM tubes
Beam production in radial beam tubes, beam power tubes and other low voltage electronic devices. A. M. Skellett. bibliog il diags Rs Mod Phys 18:379-83 Jl '46
Calculation of amplifier valve characteristics. G. Liebmann. diag Inst E E J 93 pt3:138-52 bibliog(p 151) My '46
Cavity oscillator circuits. A. M. Gurewitsch. il diags Electronics 19:135-7 F '46
Characteristics of vacuum tubes for radar intermediate frequency amplifiers. G. T. Ford. il diags Bell System Tech J 25:385-407 Jl '46
Design and use of directly coupled pentode trigger pairs; sample diagrams for pulse generator, electronic switch, and scaling circuit V. H. Regener. R Sci Instr 17:180-4 My '46
Development of pulse triodes and circuit to give one megawatt at 600 megacycles. R. R. Law and others. il diag RCA R 7:253-64 Je '46
Development of radio valves for radar; abstract. J. H. E. Griffiths. Engineering 161: 367 Ap 19 '46
Development of radio valves; how radar accelerated research; abstracts of papers at Radiolocation convention. Electrician 136:805-7 Mr 29 '46
Dissociation energies of surface films of various oxides as determined by emission measurements of oxide coated cathodes. H. Jacobs. bibliog diags J Ap Phys 17:596-603 Jl '46
Effect of grid-support wires on focusing cathode emission. C. Yeh. Inst Radio Eng Proc 34:444-7 Jl '46
Effect of surface finish and wall thickness on the operating temperature of graphite radio-tube anodes. L. L. Winter and H. G. MacPherson. il diag Inst Radio Eng Proc 33:834-7 D '45
Electrolysis phenomena in soft-glass stems of rectifier tubes. J. Gallup. il diag Am Cer Soc J 29:277-81 O 1 '46
Electron transit time in time-varying fields. A. B. Bronwell. diags Inst Radio Eng Proc 33:712-16 O '45; Discussion. L. A. Ware and H. B Phillips. 34:151 Mr '46
Electron tube design. A. G. Arend. il Electrician 135:700-2 D 21 '45
Foreign vacuum tube; German-made repeater tube. Franklin Inst J 240:436 N '45
Fundamentals of electron tubes. R. B. Immel. diags Power Pl Eng 49:96-7 Ag; 112-13 S; 110-12 O; 113-15 N; 115-16+ D '45; 50: 104+ Ja '46
Gaseous discharge tubes and applications. R. C. Hilliard. il diags Electronics 19:122-7 Mr '46
Image orthicon; a sensitive television pickup tube. A. Rose and others. bibliog il diags Inst Radio Eng Proc 34:424-32 Jl '46
Influence of space charge on the bunching of electron beams. L. Brillouin. Phys R 70:187-96 Ag 1 '46
Ionization gauge of simple construction. C. M. Fogel bibliog diag Inst Radio Eng Proc 34:302-5 My '46
Magnetically-controlled gas discharge tubes. R. E. B. Makinson and others. bibliog diags J Ap Phys 17:567-72 Jl '46
Mechanical modulation of electron flow; Vibrotron will find application in phonograph pickups, microphones, etc. il diag Electronics 19:178+ Jl '46; R Sci Instr 17:282 Jl '46
Modulation products; calculation from equidistant ordinates. A. Bloch. Wireless Eng 23:227-30 Ag '46

VACUUM tubes—*Continued*
New modulation tube for frequency modulation; Phasitron. il diags Electronics 19: 204+ F '46
New tube has 10,000 gain over band width of 800 mc.; widespread applications in long distance telephony, and in television. il Elec World News ed 126:20-1 S 21 '46
Physical limitations in electron ballistics. J. R. Pierce. bibliog diags Bell System Tech J 24:305-21 Jl '45
Physical processes in the recovery of TR tubes. H. Margenau and others. il diags Phys R 70:349-57 S 1 '46
Power amplifiers with disk-seal tubes. H. W. Jamieson and J. R. Whinnery. bibliog il diags Inst Radio Eng Proc 34:483-9 Jl '46
Practical radio course; superheterodyne converter and mixer tubes. A. A. Ghirardi. il diags Radio N 36:46-52+ S; 52-4+ O '46
Preferred list of army-navy electron tubes as of Nov. 1, 1945. Electronics 19:300 Mr '46
Proximity fuze tubes; abstract. M. A. Acheson. il Electronics 19:228+ Ja '46
Radio progress during 1945; electron tubes. bibliog Inst Radio Eng Proc 34 [Waves & Electrons 1]:168w-73w Ap '46
Recent developments in converter tubes; abstract. W. A. Harris and R. F. Dunn. Electronics 19:240+ Ja '46
Robot calculator; ENIAC, Electronic numerical integrator and computer. il Bsns W p50+ F 16 '46
Stenotrone. B. L. Granovsky and T. A. Suetin. Electronics 19:204+ N '46
Tube for SCR 270 radar. il Electronics 18: 308+ D '45
Use of zirconium in the vacuum tube. A. N. Rogers. bibliog Electrochem Soc Trans 88 (preprint 19):205-10 '45
Vacuum-contained push-pull triode transmitter. H. A. Zahl and others. bibliog il diag Inst Radio Eng Proc 34 [Waves & Electrons 1]:66W-9W F '46
Vacuum tubes; microwave tubes; abstracts of I.R.E. papers. il diags Electronics 19:98-100 Mr '46
Wonder tube; Bell laboratories device. il Bsns W p46+ Jl 13 '46

See also
Amplifiers, Vacuum tube
Cathode ray tubes
Electric discharges
Geiger-Müller counters
Klystron
Magnetron
Phasitron
Photoelectric cells
Radio receiving apparatus
Radio rectifiers
Radio transmitters
Resnatron
Thyratron
Voltmeters, Vacuum tube
X ray tubes

Cold cathode tubes

Electronic relays; cold cathode type. W. D. MacGeorge. diags Elec World 126:75 Ag 3 '46

Control uses

Adjustable speed magnetic drive. G. Stangland. il diags Power Pl Eng 50:82-6 Jl '46
Contouring control for machine tools. il Electronics 19:178+ F '46
Control and recording with floating grid. E. L. Deeter. il diags Electronics 19:172+ Ja '46
Electronic a-c voltage regulator. L. D. Harris. diags Electronics 19:150-1 Ja '46
Electronic contactors for control applications. W. D. MacGeorge. il diags Electronics 19: 186+ Ap '46
Electronic control of electric blanket. il Electronics 19:186+ F '46
Electronic control widens scope of oxy-acetylene cutting machines. il Mach 52:189 Ja '46
Electronic drive for windup reels. K. P. Puchlowski. il diags Elec Eng 65:Trans 585-91 Ag-S '46
Electronic equipment facilitates wire-rope manufacture. P. Somerville, L. R. Hunt and J. D. Campbell. il diags Mach 52:171-5 Ja '46
Electronic make and break for relay operation. R. B. Harvey. diags Ind & Eng Chem Anal ed 18:331-2 My '46
Electronic motor control; drive for vertical milling machine. M. Morgan. il diags Machine Design 18:114-19 S '46
Electronic relays. W. D. MacGeorge. diags Elec World 126:87-8 Jl 20; 75 Ag 3; 87-8 Ag 17; 71-2 Ag 31 '46
Electronic relays provide control for machine elements. K. Keller. il diags Machine Design 18:119-22 Ag '46
Electronic timer for aircraft de-icer. D. W. Bloser and G. R. Holt. il diags Electronics 18:152-5 D '45
Electronically controlled blanket. Barron's 26:24 Ja 7 '46
Electronics and precision grinding machines; development of Churchill machine tool company. il Engineer 182:300-1 O 4 '46
Electronics in industry; exhibition at Rugby works of British Thomson-Houston company. Engineering 162:68 Jl 19 '46
Exciter-regulator for aircraft alternators. P. T. Hadley and others. il diags Electronics 19:120-2 Jl '46
Four-channel electronic switch; permits display of four or more transients at once on cathode-ray oscilloscope screen. N. A. Moerman. il diags Electronics 19:150-3 Ap '46
How to install and maintain electronic controls. H. L. Palmer. il diags Factory Management 103:147-9 N; 152-4 D '45
Industrial electronics. il Engineer 182:54-5 Jl 19 '46; Elec R (Lond) 139:93-4 Jl 19 '46; Electrician 137:165-7 Jl 19 '46
Machine-tool contour controller. J. M. Morgan. il diags Electronics 19:92-6 O '46
Motor speed adjustment by electronic control. S. S. Wolff. il diags Product Eng 17:353-7 My '46
New electronic timing relay for reducing outages on power circuits. F. S. Dlouhy. diags Elec Eng 65:Trans 407-11 Jl '46
Nonlinear circuit element applications. H. E. Kallmann. bibliog diags Electronics 19:130-6 Ag '46
Pulse response of thyratron grid-control circuits. C. H. Gleason and C. Beckman. diags Inst Radio Eng Proc 34:71P-7P F '46
Recorder-controller for temperature and humidity. V. D. Hauck and others. il diags Electronics 19:96-9 S '46
Reproducing from patterns or templets by electronic control. Mach 52:175 Ja '46
Soap dispenser for dish-washing. Electronics 19:182+ O '46
Synchronizing electric motors. diag Electronics 19:166+ Ja '46
Tool control accomplished by sensitive electronic set-up. il Sci Am 174:174 Ap '46
Variable timing up to thirty seconds; instrument for controlling exposure time in photographic printing or enlarging. D. G. Haines. diag Electronics 19:154+ Jl '46
Voltage stabilization; use of thermionic valves for wattmeter testing. W. Easton. il diag Elec R (Lond) 138:1013-15 Je 28 '46
Will industrial electronic control use microwaves? W. C. White. il diags Gen Elec R 49:8-11 S '46

Generating action

Beam tetrode characteristics; the effect of electron deflections. S. Rodda. bibliog Wireless Eng 23:140-5 My '46
Family of high-frequency generators announced by RCA. il Elec World 126:100 Ag 31 '46
High-voltage rectified power supply using fractional-mu radio-frequency oscillator. R. L. Freeman and R. C. Hergenrother. diags Inst Radio Eng Proc 34 [Waves & Electrons 1]:145W-7W Mr '46
Magnetron and the klystron. T. F. Wall. diags Engineering 161:184-5 F 22 '46
Study of locking phenomena in oscillators. R. Adler. bibliog diags Inst Radio Eng Proc 34:351-7 Je '46

See also
Magnetron
Oscillators

History

Saga of the vacuum tube (cont). G. F. J. Tyne. bibliog il Radio N 34:51-2+ N '45; 35:54-6+ F; 52-4+ Ap '46

Industrial applications

Automatic OS reporting of trains by electronics on the Rock Island. il Ry Age 120: 666-7 Mr 30 '46

VACUUM tubes—Industrial applications—*Continued*
Bad beans given the bounce; electronic sorting mechanism. il diags Food Ind 18:1031+ Jl '46; Product Eng 17:90-2 O '46
Bean sorting. il Sci Am 174:171 Ap '46
Betatron pulsing system has many industrial applications. I. Paul and T. J. Wang. il diags Electronics 19:156-60 Ja '46
Detection of detonation and other operating abnormalities in aircraft engines by means of special instrumentation. J. W. Streett. il diags S A E J 53:660-9 N '45
Electronic applications extensive among utilities; P.E.A. summary; table. H. N. Ekvall. Elec World 124:70-1 D 22 '45
Electronic bypass for measuring purposes. L. A. Finzi. il diag Electronics 19:196+ F '46
Electronic inspection. V. Zeluff. il Sci Am 174:59-61 F '46
Electronic pipe locators, leak detectors. H. A. Fore. il Pet Eng 17:206+ Mr '46
Electronic regeneration of teleprinter signals. H. F. Wilder. diags Elec Eng 65:Trans 34-40 Ja '46
Electronic vulcanizing on commercial basis; manufacture of Foamex mattresses. il Electronics 19:164+ Ja '46
Electronics afloat; shipbuilding and ship equipment. I. Kamen. il Radio N 36:56-7+ S '46
Electronics are no longer an engineer's dream. E. H. Alexander. Steel 117:81 D 24 '45
Electronics for the marine industry. il Marine Eng 51:124-6 Ap '46
Electronics in engineering. il Engineer 181: 82-3 Ja 25 '46
Electronics in industry; abstract. M. C. Walker. Materials & Methods 24:450+ Ag '46
Electronics in the petroleum industry. V. G. Gabriel. bibliog il diags Pet Eng 17:107+ Je '46
Electrons guide the loom; yarn tester, stop-motion set-ups, of high-frequency heating. V. Zeluff. il Sci Am 175:211-13 N '46
Future of electronics in aviation. J. D. Goodell and D. J. Coleman. il Radio N 35: 25-8+ F '46
Geophysical prospecting equipment. D. Sheffet. il diags Electronics 18:116-23 D '45
Industrial electronic tubes. H. S. Dusenbery. diags Elec West 95:86-8 D '45
Industrial electronics; abstracts of I.R.E. papers. Electronics 19:104-5 Mr '46
Industrial electronics symposium. il Mech Handling 33:578-9+ S '46
Industrial electronics; visit to B.T.-H. Rugby works. il Chem Age (Lond) 55:105-6 Jl 27 '46
Machine gun rate-of-fire indicator; non-military uses indicated. A. D. Peterson. il diags Electronics 18:134-8 D '45
Magnetic testing of metals. P. E. Cavanagh and others. bibliog il diags Electronics 19: 114-21 Ag '46
Maintenance of industrial electronic equipment. Power Pl Eng 50:92-3 S; 98-9 O '46
Maintenance testing of dynamotors. H. M. Tremaine. il diag Electronics 19:158+ Je '46
New electronic applications in the paper industry. D. B. Gearhart. il Paper Tr J 121: 66+ N 22 '45
Testing heat exchanger tubing. il Electronics 19:174+ Ag '46
Textile industry making use of electronics. il Rayon 27:153-5 Mr '46
Thyratron pulser tube for industrial microwaves. diag Electronics 19:170+ My '46
Train position indicator. E. A. Dahl. il diags Electronics 19:122-4 O '46
Treasure finding modernized; electronic metal locators. W. E. Osborne. il diags Radio N 36:30-1+ S '46
What you should know about industrial electronics. il diags Am Mach 89:103 D 20 '45; 90:87 Ja 3; 88 Ja 31; 138 F 14; 104 F 28; 138 Mr 14; 111 Mr 28; 142 Ap 11; 132 Ap 25; 138 My 9; 116 My 23; 116 Je 6; 154 Je 20; 124 Jl 4; 141 Jl 18; 130 Ag 1; 184 Ag 15; 122 Ag 29; 138 S 12; 132 S 26; 138 O 10; 130 O 24; 138 N 7 '46

Manufacture

Better supervisors because they know their product; Hytron corporation. R. C. Berman. diags Factory Management 103:100-4 D '45
Chemicals that cause trouble; toxic, irritating and flammable substances create safety and health problems in manufacture of electric lamps and electronic tubes. A. Korbelak. Nat Safety N 53:37-8+ My '46
Fine wires in the electron-tube industry. G. A. Espersen. bibliog il diag Inst Radio Eng Proc 34 [Waves & Electrons 1]:116W-20W Mr '46
Induction heating in radio electron-tube manufacture. E. E. Spitzer. bibliog il diag Inst Radio Eng Proc 34 [Waves & Electrons 1]:110W-15W Mr '46
Lathe for large tube construction. il Electronics 19:156 Je '46
Microscopic electronic parts by the million; Sylvania electric products inc. il Steel 118: 95+ Je 24 '46
P charts, what they are and what they do; Heintz & Kaufman radio tube manufacturers. il Factory Management 104:129-36 S '46
Reducing heat loads in industrial air conditioning; manufacture of vacuum tubes, RCA Victor division of Radio corporation of America. L. R. St Onge. il diags Refrig Eng 51:35-8; Discussion. 38+ Ja '46
Some materials and methods for X-ray and power tube manufacture. C. F. Lindsay. il Materials & Methods 23:406-11 F '46
Theory and practice of glass-metal seals. A. J. Monack. bibliog il diags Glass Ind 27: 389-94+ Ag '46

Measurement uses

A-c galvanometer. A. L. Quirk and H. D. Hall. il diags Electronics 18:147-9 D '45
Application of the ion gage in high vacuum measurement. H. E. Van Valkenburg. il diags Gen Elec R 49:38-42 Je '46
Capacitive micrometer; principle also used for dilatometer, manometer, roughness-gage and hardness testing apparatus. R. W. Dayton and G. M. Foley. il diags Electronics 19:106-11 S '46
Continuous gaging with X ray micrometer. R. C. Woods and F. Fua. il diags Iron Age 156:50-1 N 29 '45
Echo depth sounder for shallow water. G. B. Shaw. il map diags Electronics 19:88-92 S '46
Electric measuring instruments. D. M. Nielsen. diags Elec Eng 65:66-74 F '46
Electronic chronoscope for measuring velocities of detonation of explosives. C. R. Nisewanger and F. W. Brown. 9pls bibliog U S Bur Mines Rep of Invest 3879:1-18 '46
Electronic comparator gage. W. H. Hayman. il diags Electronics 19:134-6 Jl '46
Electronic fuel gaging for aircraft use. il diag Electronics 18:234+ D '45
Electronic metal analyzer. S. R. Winters. il Radio N 36:28-9+ N '46
Electronic timer. J. K. Taylor and J. G. Reid, jr. diag Ind & Eng Chem Anal ed 18:79 Ja '46
Fuel consumption indicator. D. W. Moore, jr. il diag Electronics 19:152-3 Mr '46
Improved measurements for industrial processes. D. M. Considine and D. P. Eckman. il diags Steel 118:114-16+ My 20; 94-6+ My 27 '46; Same cond. bibliog Rayon 27:267-71 My '46
Measurement applications of the dynatron. W. M. Ross. diag Electronics 18:320+ D '45
Measurement of ocean waves generated by atomic bombs; Bikini Atoll test plans. N. J. Holter. il diags Electronics 19:94-8 My '46
Pacitor measures fuel electronically. diags Air Transport 3:44 D '45
Pressure-time curves in electronic observation of engines. W. F. Brown. il diags Electronics 19:168+ F '46
Radium-type vacuum gage. G. L. Mellen. bibliog il diags Electronics 19:142-6 Ap '46
Rapid moisture testing of granular material. J. H. Jupe. il diag Electronics 19:180+ My '46
Sylvania gas pressure measuring tube. il Iron Age 157:52 Mr 21 '46
Tank contents gauge; Pacitor gauge. il Elec R (Lond) 138:347 Mr 1 '46; Electrician 136:970 Ap 12 '46

See also
Voltmeters, Vacuum tube

VACUUM tubes—*Continued*

Miniature tubes

Circuits for sub-miniature tube. il diags Electronics 19:154-6 My '46
Miniature radio, using subminiature tubes; pocket radio manufactured by Belmont radio corporation. diags Mech Eng 68:734-6 Ag '46
Newly developed Vibrotron tube. il diag Radio N 36:104 Ag '46

Noise

Calculated frequency spectrum of the shot noise from a photo-multiplier tube. R. D. Sard. diags J Ap Phys 17:768-77 O '46
Fluctuations of electric current. D. A. Bell. bibliog Inst E E J 93 pt 3:37-44 Ja '46
Rectification of signal and noise. V. J. Francis and E. G. James. diags Wireless Eng 25:16-25 Ja '46
Response of biased, saturated linear and quadratic rectifiers to random noise. D. Middleton. bibliog diags J Ap Phys 17:778-801 O '46
Theory of valve and circuit noise. N. R. Campbell and V. J. Francis. bibliog diags Inst E E J 93 pt 3:45-52 Ja '46

See also
Radio receiving apparatus—Noise

Scientific applications

Electronic calculator; Eniac. il Sci Am 174: 248 Je '46
Electronic computer assures solution of scientific problems. Iron Age 157:132-4 F 28 '46
Electronic computers. W. Shannon. diags Electronics 19:110-13 Ag '46
Improved electronic stimulator. R. K. McCombs and F. C. Walz. bibliog diags R Sci Instr 16:249-52 S '45; Abstract. Electronics 19:222+ Mr '46
Ionosphere measuring equipment. P. G. Sulzer. il diags Electronics 19:137-41 Jl '46
Stabilized d-c high-voltage supply, using rectified high frequency; electron diffraction instrument. A. M. Gurewitsch and P. C. Noble. il diags Gen Elec R 48:46-52 D '45
Ultrasonic generator. F. W. Smith, jr. and P. K. Stumpf. bibliog il diags Electronics 19:116-19 Ap '46

Testing

Analysis of special electronic-tube tests. J. H. Campbell and C. G. Donsbach. flow charts A S M E Trans 68.481-6 Jl '46
Vacuum tube analyzer. L. G. Sands. il diags Radio N 34:38-40+ N '45

Velocity modulation tubes

Electron ballistics in high-frequency fields. A. L. Samuel. diags Bell System Tech J 24:322-52 bibliog(p350-2) Jl '45
Elementary treatment of longitudinal debunching in a velocity modulation system. E. Feenberg. J Ap Phys 17:852-5 O '46
Signal-noise ratio at v.h.f. M. J. O. Strutt and A. van der Ziel. bibliog Wireless Eng 23:246-7 S '46
Velocity modulation. J. E. Kauke. il diags Radio N 35:44-5+ F '46

See also
Klystron

VALENCE
Molecular constants and chemical theories; some remarks on physical constants and theories of higher valence states. R. Samuel. bibliog J Chem Phys 13:572-84 D '45

See also
Chemical bonds
Molecules

VALERALDEHYDE
5-Hydroxypentanal and some of its reactions. G. F. Woods and H. Sanders. bibliog Am Chem Soc J 68:2111 O '46

VALERIC acid
Syntheses of δ-cyclopentyl-*n*-valeric acid. G. H. Coleman, J. E. Callen and C. A. Dornfeld. bibliog Am Chem Soc J 68:1101-2 Je '46

VALEROLACTONE
Observations on the effects of gamma-valerolactone upon experimental animals. W. B. Deichmann and others. il diag J Ind Hygiene 27:263-8 N '45

VALINE
Synthetic preparation of 2-chloro-2'-hydroxydiethyl sulfide, reaction with cysteine and valine, and measurement of reaction rate in aqueous media. W. M. Grant and V. E. Kinsey. Am Chem Soc J 68:2075-6 O '46

VALLEY authorities. See Columbia Valley authority (proposed); Hydroelectric plants—Government ownership; Missouri Valley authority (proposed); Tennessee Valley authority

VALUABLE papers insurance. See Insurance, Valuable papers

VALUATION
Accounting for fully amortized emergency facilities having substantial continuing usefulness. C. G. Blough. J Account 80:428-32 D '45
Problem of rates. Economist 149:782-3 D 1 '45
Relationship of the accountant and the appraiser. C. Crocheron. J Account 81:27-33 Ja '46
La valeur du matériel et des établissements industriels. A. Barbedette. Génie Civil 123: 4-6, 20-2 Ja 1-15 '46
Valuation for rating. Economist 149:741-3 N 24 '45
Valuation of pledged property for gift-tax purposes. J Account 80:480-1 D '45

See also
Depreciation
Insurance, Fire—Valuation of property
Inventories—Accounting
Real property—Valuation
Stocks—Valuation

VALUE
Cost and value in accounting. W. A. Paton. J Account 81:192-9 Mr '46
La valeur du matériel et des établissements industriels. A. Barbedette. Génie Civil 123: 4-6, 20-2 Ja 1-15 '46

VALVES
Air valve designed to meet specific need; machinery for making tires. il Comp Air Mag 51:195 Jl '46
Clog-proof valve for coal sampler. diags Elec World 126:104 Jl 20 '46
Design of mechanical auxiliaries for TVA hydroelectric plants. H. J. Petersen. il A S M E Trans 68:666 O '46; Same abr. il Power Pl Eng 50:134 S '46
Different methods of attaching bonnet to body of valve. il Paper Ind 28:96-7 Ap '46
Different types of bonnet design in globe and angle valves. diags Paper Ind 28:261 My '46
Electro-magnetic liquid flow control valve. G. G. Blake. diags Chem & Ind p46 F 2 '46
15 good tips on valve maintenance and repair. diags Heating-Piping 17:624-5 D '45
High-pressure-steam valve gasket leak repaired in service. il Pet Refiner 25:151 Je '46
High-pressure valves. il diags Steel 118:120 Mr 18 '46
How about vent valves for high-pressure steam lines? il Power Pl Eng 50:108-9 O '46
How to select, install and care for valves. diags Power Pl Eng 49:109-10 N '45
Improper assembly prevents value opening. D. H. Bergman. diag Power 90:622 S '46
Injection of plastic packing stops valve leak, keeps unit on-stream; has other uses. diag Pet Processing 1:17-18 S '46
Know-how of installing valves. diags Paper Ind 27:1884 Mr '46
Low-resistance valve and indicating flowmeter for respiratory measurements. L. Silverman and R. C. Lee. bibliog diags Science 103:537-9 Ap 26 '46
Measuring and controlling temperature and pressure; temperature valves. E. W. Feller. diags Power 90:238-40 Ap '46
Metal packless vacuum valve. E. Topanelian, jr. and N. D. Coggeshall. il diag R Sci Instr 17:38 Ja '46
Power brake valves; abstract. E. F. Loweke. diags Automotive & Aviation Ind 94:33-4 Ja 15 '46

VALVES—*Continued*
Purposes, characteristics and use of control valves. R. H. Munch. diag Ind & Eng Chem 38:95-6 S '46
Refrigerating practice; thermoexpansion valve as it behaves in service. G. Holman. il diags Power Pl Eng 49:110-12 D '45
Relief valve application. M. C. Randall. diag Power Pl Eng 49:130+ D '45
Resistance of valves and fittings to flow of fluids; diags and chart. Power Pl Eng 50:112 O '46
Review of power and mechanical equipment; piping, fittings and valves. il diags Power 89:902-3 Mid-D '45
Simple automatic pressure-regulating device for use with vacuum lines. W. S. Clark. diags Science 103:145-6 F 1 '46
Small packless valve. W. S. Young. diags Ind & Eng Chem Anal ed 17:742 N '45
Theory and design of steam-system vent valves. F. Jehle. diags Product Eng 17:142-6 O '46
Useful control valve for solids in suspension. J. D. Wilkerson. diag Chem & Met Eng 53: 137 Ja '46
Valve characteristics in automatic control. S. D. Ross. bibliog il Ind & Eng Chem 38: 878-84 S '46
Welded valves; abstract. E. Califro. Materials & Methods 23:1658+ Je '46
What characteristic means in a diaphragm control valve. B. Irwin. il Power Pl Eng 50:84-7+ O '46
What good is a valve if it doesn't work when needed? L. W. Mauger. il Heating-Piping 17:547-8 O-N '45

See also
Automobile engines—Valves
Diesel engines—Valves
Internal combustion engines—Valves
Safety valves

Advertising
Multiple use of ad plates in a major sales campaign; Edward valve & mfg. company. W. A. Marsteller. il Ind Marketing 30:50+ N '45

Control
Automatic controlling mechanisms for valve operation. diags Product Eng 17:482-3 Je; [no 7] 128-9 Jl '46
Measuring and controlling temperature and pressure; pressure valves. E. W. Feller. diags Power 90:221-7 Ap '46
Servo-operated steam valve control for marine use. diag Engineer 180:515 D 21 '45
Thompson products Rotocap will give positive, controlled valve rotation. diags Am Mach 90:164 My 9 '46

Electric control
Automatic controlling mechanisms for valve operation. diags Product Eng 17:[no 7] 128-9 Jl '46
Johnson direct-acting solenoid valve. il Rubber Age 59:482 Jl '46
Motor-operated valves on Sun Houdry unit in continuous service since 1937. F. R. Staley. il Oil & Gas J 44:215+ Mr 30 '46
Why design details are important in motorized control valves. S. D. Ross. bibliog il diags Power Pl Eng 50:120+ Ag; 112-15 S '46

Manufacture
Machining stainless-steel valves. A. P. Nelson. il Mach 52:148-53 Jl '46

VALVES, Electron. See Vacuum tubes

VALVES, Hydraulic
Bent on living; Electrol, inc., meets peacetime competition. Bsns W p80 S 14 '46
Check-valves end water-hammer risk. H. A. Knudson. il Eng N 137:310-12 S 5 '46
DoAll hydraulically controlled finish grinder. il Steel 119:86 Ag 26 '46
Hydraulic change-over valve. il diag Engineering 162:153 Ag 16 '46
Ismailia lever-operated self-seating stop valve. diags Engineering 162:198 Ag 30 '46
Ismailia lever stop valve. diags Engineer 182:64 Jl 19 '46
Leakage in capillary seals of hydraulic valves and pumps. P. G. Exline. Product Eng 17:290-6 Ap '46
Machine hydraulics. A. H. Dall. diags Machine Design 18:87-90 O '46
Modified gate valve for control of water flow. G. R. Robertson. diags Ind & Eng Chem Anal ed 18:459 Jl '46
Valves, piping and design data for control of hydraulic systems. V. M. Weltzien. il diags Product Eng 17:86-9 O '46

Electric control
Electro-hydraulic brake control. il diag Steel 118:120 Je 3 '46
New developments in combination controls. J. W. Kelly. il diags A S M E Trans 68: 701-6 O '46

VALVES, Safety. See Safety valves

VANADIUM
Deep configurations of Ti I, Ti II, V II, V III. A. Many. bibliog Phys R 70:511-15 O 1 '46
Kinetics of the pentavalent vanadium—iodide reaction; correlation with the induced catalysis of the oxygen—iodide reaction. J. B. Ramsey, E. L. Colichman and L. C. Pack. bibliog Am Chem Soc J 68:1695-8 S '46
Vanadium corner; U.S. charges six producers and processors. Bsns W p16 Jl 6 '46
Vanadium firms indicted as trust. Oil Paint & Drug Rep 150:4+ Jl 1 '46
Vanadium in cast iron; abstracts. J. W. Grant. Iron Age 156:78 D 13 '45; Engineering 160:518 D 21 '45; Materials & Methods 23:218+ Ja '46
Vanadium, 1945. E. K. Jenckes. Eng & Min J 147:89 F '46

Analysis
Simultaneous spectrophotometric determination of titanium, vanadium, and molybdenum. A. Weissler. bibliog Ind & Eng Chem Anal ed 17:695-8 N '45

Isotopes
Disintegration schemes of radioactive substances; Mn^{52} and V^{48}. W. C. Peacock and M. Deutsch. bibliog Phys R 69:306-13 Ap 1 '46
Experimental test of beta-ray theory for the positron emitters Na^{22}, V^{48}, Mn^{52}, Co^{58}. W. M. Good and others. bibliog diag Phys R 69:313-20 Ap 1 '46

VANADIUM chlorides
Electron diffraction investigation of vanadium tetrachloride. W. N. Lipscomb and A. G. Whittaker. bibliog Am Chem Soc J 67: 2019-21 N '45

VANADIUM steel
See also
Chromium vanadium steel

VAN ALSTYNE, Noel and company
Birched by SEC. Bsns W p64+ Mr 9 '46
SEC renders decision in Van Alstyne, Noel case; sale of Higgins stock before registration was a violation of Securities act. Comm & Fin Chr 163:1270 Mr 7 '46

VANCOUVER, British Columbia
Water supply
Why chlorination of Vancouver water has been discontinued. E. A. Cleveland. map Water & Sewage 84:20-2+ Je '46

VANCOUVER island, British Columbia
Highway reconstruction on Vancouver island. O. W. Smith. il map Roads & Bridges 84: 59-62+ Ja '46

VAN DE GRAAFF generator
Two-million volt industrial radiography; use of Van de Graaff electrostatic generator. L. Cardenas. il Iron Age 157:52-5 Je 13 '46

VAN DER POL'S equation
Method of van der Pol and its application to non-linear control problems. B. V. Bulgakov. bibliog Franklin Inst J 241:31-54 Ja '46

VAN DER WAALS equation. See Equation of state

VANILLA
Exports of vanilla beans, Society islands, French oceania; vanilla-bean production and trade, Madagascar. For Comm W 21:45-6 N 10 '45
Vanilla-bean exports, Society islands. For Comm W 23:46 My 18 '46
Vanilla-bean outlook for 1946. For Comm W 22:29 F 2 '46

VANILLIC acid
Vanillic acid esters as food preservatives. I. A. Pearl and J. F. McCoy. il Food Ind 17:1458-61+ D '45

VANILLIN
Reactions of vanillin and its derived compounds; the reaction of vanillin with silver oxide. I. A. Pearl. bibliog Am Chem Soc J 68:429-32 Mr '46
Reactions of vanillin and its derived compounds; the reaction of vanillin with alkali and silver nitrate. I. A. Pearl. Am Chem Soc J 68:1100-1 Je '46

VAN NORMAN company
Thumbnail stock appraisal. Mag of Wall St 78:90 Ap 27 '46

VAPOR lock. See Airplane engines—Fuel feeding

VAPOR pressure
Antoine equation for vapor-pressure data. G. W. Thomson. bibliog(59 references) Chem R 38:1-39 F '46
Chart and tables for vapor pressures of organics above 1 atm. E. Berl. Chem & Met Eng 53:122-4 Mr '46
Correlating equilibrium constants; chemical reactions and heats of reaction. D. F. Othmer and A. H. Luley. bibliog Ind & Eng Chem 38:408-12 Ap '46
Correlating vapor pressure and latent heat data. L. Seglin. bibliog Ind & Eng Chem 38:402-5 Ap '46
Correlating viscosities of gases with temperature and pressure. D. F. Othmer and S. Josefowitz. bibliog Ind & Eng Chem 38: 111-16 Ja '46
Correlating viscosity and vapor pressure of liquids. D. F. Othmer and J. W. Conwell. bibliog Ind & Eng Chem 37:1112-15 N '45
Device for determining vapor pressure of one drop of pure liquid. S. Natelson and J. L. Zuckerman. bibliog diags Ind & Eng Chem Anal ed 17:739-40 N '45
Dissociation pressure of ammonium carbamate. E. P. Egan, jr. J. E. Potts, jr. and G. D. Potts. bibliog diag Ind & Eng Chem 38:454-6 Ap '46
Heat capacity and entropy, heats of fusion and vaporization and the vapor pressure of butene-1; the zero point entropy of the glass; the entropy of the gas from molecular data. J. G. Aston and others. bibliog Am Chem Soc J 68:52-7 Ja '46
New charts record vapor pressures of inorganics above 1 atm. E. Berl. Chem & Met Eng 53:130-1+ Ja '46
Physical and chemical properties of organometallic compounds; vapour pressures and freezing points of simple metal alkyls of groups II, III, and V. C. H. Bamford, D. L. Levi and D. M. Newitt. diags Chem Soc J p468-71 Je '46
Rapid and direct measurement of vapor pressure of liquid metals. A. H. Weber and G. Plantenberg. diag Phys R 69:649-51 Je 1 '46
Simple carbon dioxide vapor pressure thermometer. H. C. Andersen. diag R Sci Instr 17:112-13 Mr '46
Studies in vapor-liquid equilibria. T. T. Puck and H. Wise. bibliog diag J Phys Chem 50:329-39 Jl '46
System ammonium nitrate-ammonia-water; partial vapor pressures and solution densities. J. F. Shultz and G. V. Elmore. bibliog diags Ind & Eng Chem 38:296-8 Mr '46
Vapor phase above the system sulfuric acid-water. E. Abel. bibliog(133 references) J Phys Chem 50:260-83 My '46
Vapor pressure and vapor-liquid equilibria in the system furfural—2-methylfuran. R. F. Holdren and R. M Hixon. diags Ind & Eng Chem 38:1061-2 O '46
Vapor pressure nomograph for non-branched paraffinic hydrocarbons. E. Berl. Chem & Met Eng 53:166 F '46
Vapor pressure, temperature curves; chart; data sheet. Power 90:271d Ap '46
Vapor pressure-temperature nomographs. S. B. Lippincott and M. M. Lyman. Ind & Eng Chem 38:320-3 Mr '46
Vapor pressure-viscosity relations in methylpolysiloxanes. D. F. Wilcock. bibliog Am Chem Soc J 68:691-6 Ap '46
Vapor pressures and saturated liquid and vapor densities of the isomeric hexanes. W. S. Kay. bibliog diag Am Chem Soc J 68:1336-9 Jl '46
Vapor pressures of hydrocarbon mixtures. Oil & Gas J 44:131 F 16 '46
Volumetric behavior of 1-butene. R. H. Olds, B. H. Sage and W. N. Lacey. bibliog Ind & Eng Chem 38:301-3 Mr '46

VAPORIZATION
First-order change which involves the vaporization in two dimensions of *N*-heptane on the surface of silver. G. Jura and others. J Chem Phys 13:535-6 N '45
Free volume and entropy in condensed systems; entropy of vaporization in liquids and the pictorial theory of the liquid state. H. S. Frank. bibliog diags J Chem Phys 13: 493-507 N '45

VAPORIZATION, Heat of
Change of latent heat of vaporization with temperature. G. Su. bibliog Ind & Eng Chem 38:923-6 S '46
Correlating vapor pressure and latent heat data. L. Seglin. bibliog Ind & Eng Chem 38:402-5 Ap '46
Heat of vaporization as a function of pressure and temperature. J. E. Haggenmacher. bibliog Am Chem Soc J 68:1633-4 Ag '46
Heat of vaporization of helium II below 1.5°K. J. E. Haggenmacher. Phys R 69: 242-3 Mr 1 '46
Historic researches; specific, latent, and atomic heat. Engineer 180:476-7 D 14 '45

VAPORIZERS
Simple vaporizing device for the attainment of bactericidal concentrations of glycol vapors in air. T. N. Harris and J. Stokes, jr. bibliog diag Science 104:423-5 N 1 '46

VAPORS
Absolute decomposition velocity of vapors. G.-M. Schwab and N. Theophilides. diag J Phys Chem 50:427-40 S '46
Composition of vapors from boiling binary solutions; apparatus for determinations under pressure. D. F. Othmer and F. R. Morley. bibliog diags Ind & Eng Chem 38: 751-7 Jl '46
Diffusion of vapors through polymers. P. Doty. bibliog J Chem Phys 14:244-51 Ap '46
Equation for the line of saturation of liquids and vapors. J. E. Haggenmacher. Am Chem Soc J 68:1123-6 Je '46
Heat capacity of a two-phase system, with applications to vapor corrections in calorimetry. H. J. Hoge. bibliog J Res Nat Bur Stand 36:111-18 F '46
Sorption of condensable vapours by porous solids; linear isothermals and the Langmuir equation. A. G. Foster. bibliog Chem Soc J p773-6 N '45
Sorption of condensable vapours by porous solids; multimolecular adsorption. A. G. Foster. Chem Soc J p769-73 N '45
Ventilation requirements for industrial solvents. W. C. L. Hemeon. il diags Heat & Ven 42:95-8 D '45; 43:69-73 Ja; 82-6 Mr; 79-81 Ap '46

See also
Adsorption
Electric precipitation
Evaporation
Fumes
Gases
Solvents
Steam
Vapor pressure
Vaporization
Water vapor

VARIATION (statistics)
Application of variance analysis to some problems of petroleum technology. H. M. Davies. Inst Pet J 32:465-81 bibliog(p481); Discussion. 481-91 Ag '46
Linear regression functions with neglected variables. H. L. Jones. Am Stat Assn J 41: 356-69 S '46
Simplified method of calculating standard errors. R. G. Newton. Chem & Ind p322-3 O 20 '45
Slide-disk calculator; device for making root-mean-square calculations; adapted to computation involving deviations from a mean. G. S. Merrill. il diag Gen Elec R 49:30-3 Je '46
Statistical methods in quality control; control charts for action on variables. Elec Eng 65:23-4 Ja '46

VARIATION (statistics)—*Continued*
Statistical methods in quality control; control charts for analysis of variables. Elec Eng 64:448-50 D '45
Use of adjusting factors in the analysis of data with disproportionate subclass numbers. R. E. Patterson. Am Stat Assn J 41:334-46 S '46

VARIETY stores. See Five- and ten-cent stores

VARLEY, Cornelius, 1781-1873
Cornelius Varley's microscope stage. R. S. Whipple. il diags Engineering 162:314-15 O 4 '46

VARLON
New wallpaper, Varlon, made with synthetic resin. Bsns W p68 Ja 12 '46
Wallpaper built on thermoplastics. il Mod Plastics 23:140-1 Ap '46

VARNISH, Colored
Permanently colored varnishes; abstract. W. S. Penn. Paint Oil & Chem R 109:9 Ap 18 '46

VARNISH, Insulating
Arc welding machines aid varnish baking. il diags Elec World 125:78-9 Mr 30 '46; Same. Power Pl Eng 50:101-2 Mr '46
Film-forming materials used in insulation; Radio section discussion meeting. Inst E E J 93 pt 3:344 S '46; Abstracts. Electrician 135:672 D 14 '45; Elec R (Lond) 137: 857 D 14 '45; Engineering 161:7 Ja 4 '46
Inside of electrical machines. R. H. Robinson. il diags Electrician 136:1239-43; 137:314-17 My 10, Ag 2 '46
Insulation varnish applied by rolling armatures through tank. il diags Product Eng 17: 96-7 S '46
New insulating process; applies insulating varnish to armatures and stators; Zanderoll process. il Steel 119:134+ Ag 5 '46
Quality control of insulating varnishes. L. P. Hart, jr. il Gen Elec R 49:8-15 Ap '46
Silicone motor insulation. Chem & Met Eng 53:215-16 Mr '46
Styrene copolymer solvent reacting varnishes; Fosterite. N. C. Foster. il Electrochem Soc Trans 90 (preprint 24):307-14 '46

Testing

Inside of electrical machines. R. H. Robinson. il diag Electrician 137:169-72 Jl 19 '46

VARNISH analysis
Determination of the oil content of varnishes; abstract. E. F. M. Schrijver. Paint Oil & Chem R 109:10 Ap 18 '46
Determining the oil content of varnishes and enamels; abstract. C. P. A. Kappelmeier and W. R. van Goor. Paint Oil & Chem R 109:20 Ap 4 '46

VARNISH and varnishing
Catalytic isomerization of vegetable oils; evaluation of oils in bodying, varnishes and alkyd resins. L. B. Falkenburg and others. bibliog il Ind & Eng Chem 38:1002-9 O '46
Drying oil and oleoresinous varnish films; increase in acidity on aging. V. J. Frilette. bibliog Ind & Eng Chem 38:493-6 My '46
Evaluation of resins; symposium in London. Chem Age (Lond) 53:613-17 D 29 '45
Faster varnishing; Zanderoll process for coating of armatures and stators. il Bsns W p58-9 D 8 '45
Modernization pays dividends in varnish industry; Vita-Var corp., Newark. R. W. Porter. il Chem & Met Eng 53:116-17 Ja '46
Progress, 1926-1946; paints, varnishes. il Am Bld 68:120+ O '46
Protective coatings industry; paints, varnishes, and lacquers; review of year's activities. V. C. Bidlack. bibliog Chem & Eng N 24:344-6 F 10 '46
Synthetic resins; their use in varnish and allied industries. A. E. Williams. il diags Chem Age (Lond) 55:439-46 O 12 '46
Tall oil in surface coatings, by Golden Gate paint and varnish production club. Paint Oil & Chem R 108:144-5 N 1 '45
Use of ester gum in surface coatings. R. Mansell. Paint Oil & Chem R 109:9-10+ Je 13 '46
Viscosity of cellulose derivatives and resins in mixed solvents. S. R. Palit. bibliog Paint Oil & Chem R 109:14+ Jl 11 '46

See also
Drying oils
Lacquer and lacquering
Shellac
Tung oil

Standards

A.S.T.M. standards on paint, varnish, lacquer, and related products; specifications, methods of testing, definitions of terms. 528p pa $2.75 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '46

Testing

Accelerated alkali resistance tests, by Western New York paint and varnish production club. Paint Oil & Chem R 108:120-1 N 1 '45
Newer methods for determining the physical properties of baking varnishes; abstract. F. Eisenstecken and H. Kickermann. Paint Oil & Chem R 109:46 Ag 22 '46
Stress-strain properties of paint films; abstract. G. Zeidler and H. Hesse. Paint Oil & Chem R 109:28 Jl 11 '46
Survey of methods used in South and Southwest for the testing of paints and varnishes, by Dallas paint and varnish production club. Paint Oil & Chem R 108:145+ N 1 '45

VARNISH research
Antiskinning agents derived from nitroparaffins. H. G. Johnson. bibliog Ind & Eng Chem 37:1176-8 D '45
Permeation and sorption of water vapor in varnish films; abstract. A. M. Thomas and W. L. Gent. Paint Oil & Chem R 108: 12+ D 27 '45
Study of anti-oxidants and anti-skinning agents, by Cleveland paint and varnish production club. bibliog il Paint Oil & Chem R 108:9-10+ N 15 '45

VARVARESSOS, Kyriakos
Executive director of the world bank. por Comm & Fin Chr 163:3475 Je 27 '46

VASES
Surface decoration on terra sigillata and on Greek black-painted vases. E. F. Prins de Jong and A. J. Rijken. bibliog Am Cer Soc Bul 25:5-7 Ja 15 '46

VAT dyes. See Dyes and dyeing—Vat dyes

VAULTS
Bank vaults withstood force of atom blasting in Hiroshima. Weekly Underw 155:40 Jl 6 '46; il Banking 39:94 Ag '46

VAULTS (electric installation)
Door latch for street vault grating. R. W. Coursey. il diag Elec World 126:104+ Ag 17 '46
How to mark network vaults and equipment. diag Elec World 125:108 Je 22 '46
Multi-purpose channels for transformer vaults. R. W. Coursey. diag Elec World 126:88 Ag 31 '46
Underground vault water alarm. A. A. Straub. diag Elec World 125:128+ My 25 '46

See also
Electric lines

VAULTS (sepulchral). See Tombs

VECTOGRAPHS
New techniques for the inspection of textiles. H. F. Schoenfelder. diags Rayon 27:483-5, 546-8 S-O '46; Same. Ind Stand 17:255-60 O '46
QM's visual inspection gages. H. F. Schonenfelder. il Textile Col 68:22-3+ Jl '46; Abstract. Textile World 96:234 Ap '46

VECTOLITE. See Magnetic materials

VECTOR analysis
Drawing the circle diagram of the induction motor. G. W. Stubbings. Electrician 136:884 Ap 5 '46
Symmetrical components; graphical introduction. B. J. Prigmore. diags Elec R (Lond) 139:567-8 O 11 '46
Theory for three-element broadside arrays. C. W. Harrison, jr. diags Inst Radio Eng Proc 34:204-9 Ap '46
Transformer diagrams. T. A. Ledward. Electrician 136:1441-2 My 31 '46

VECTOR analysis—*Continued*
Vector analysis of Scott-connected transformer. J. M. DeGuilmo. diag Elec World 124:94 D 22 '45
Vectorial treatment of transmission lines. J. P. Shanklin. diags Electronics 18:162+ D '45

VEGETABLE gardening
Garden plot; needed to help fight world famine. Bsns W p41 Ap 20 '46

VEGETABLE milk. See Soybean milk

VEGETABLE oils. See Oils and fats

VEGETABLES
Absorption of phenol vapors by plants. E. G. Beinhart. Science 103:207-8 F 15 '46
Association campaign to create new uses for its product; advertising ice to promote vegetable display idea. E. M. Housman. il Ptr Ink 214:28-30 F 15 '46
Dividends from double cropping; south Texas farmers plant cotton or sorghums in spring and vegetables in winter. H. Severson. il Banking 39:56-7+ N '46
Estimated production of Cuban processed fruits and vegetables, 1937-41 average; yearly figures, 1942-1945. For Comm W 23: 43 Je 22 '46
β-Glycoside formation in plants from absorbed chemicals. L. P. Miller. Science 103. 458 Ap 12 '46
Inhibition of oxidation of ascorbic acid by certain vegetable extracts. R. Reder. Science 103:201-2 F 15 '46
Kansas City wholesale fruit and vegetable market. H. G. Wales. J Bsns 19:161-75 Jl '46
Nutritive value of vegetable products. W. B. Adam. Chem & Ind p302-3 Ag 10 '46
Onions en route, supply of other vegetables expected to be above average. Bsns W p26 Mr 16 '46
Short and long food chains among vegetable crops. J. H. MacGillivray. Science 102:533-5 N 23 '45
Vitamin C in vegetables; abstract. O. Ribeiro. Chem Eng 53:266+ Ag '46

See also
Canned food
Cookery—Vegetables
Drying (fruits and vegetables)
Peeling machines
Produce terminals
Vegetable gardening

also names of vegetables, e.g.
Beans
Cabbage
Carrots
Corn
Potatoes
Sweet potatoes
Tomatoes

Analysis

Commercially dehydrated vegetables; oxidative enzymes, vitamin content, and other factors. M. F. Mallette and others. bibliog Ind & Eng Chem 38:437-41 Ap '46
Radio-frequency dielectric properties of dehydrated carrots; application to moisture determination by electrical methods. W. C. Dunlap, jr. and B. Makower. bibliog diag J Phys Chem 49:601-22 N '45
Vitamin-*C* content of vegetables; effect of cooking on cabbage. L. H. Lampitt and others. Soc Chem Ind J 64:260-2 S '45
Vitamin-*C* content of vegetables; the influence of variety. L. H. Lampitt and others. bibliog Soc Chem Ind J 64:262-4 S '45

Prepackaging

Analyzing the problems of prepackaging perishables. R. E. Bauer. il Food Ind 18:360-1+ Mr '46
Films for produce; their physical characteristics and requirements. H. Platenius il Mod Packaging 20:139-43+ O '46
Grower packaging of produce; California leads the way. il plan Mod Packaging 19: 103-9+ My '46
Pre-packaging forum; produce industry. M. P. Rasmussen and others. Mod Packaging 20:132-5 O '46
Pre-packaging: produce growers' reply to processed competition? A. L. Martin. il Sales Management 56:70+ F 1 '46
Produce pre-packaging in New York and New England. M. P. Rasmussen and H. Platenius. il Mod Packaging 19:98-104 Jl; 128-34+ Ag '46

Preservation

Preservation of potatoes for human consumption. T. Rendle. il Chem & Ind p354-9 N 17 '45

Storage

Fresh vegetables come from tile storage. W. B. Ward. il diag Brick & Clay Rec 107:33 N '45

Transportation

Air transport of perishables. il Aero Digest 52:76-7+ Ja '46
Packaged spinach; western vegetable growers plan new shipping methods. Bsns W p83-4 Mr 16 '46
Produce by air; pre-packaged and pre-cooled. il Mod Packaging 19:96-100+ N '45

VEGETABLES, Dried
Anhydrous food; dehydration process developed by Birdseye. Bsns W p52+ N 17 '45
Food packaging studies; significance of WVTR of non-metal packages for dehydrated foods. R. F. Brooks and G. J. Hucker. Mod Packaging 19:144-5+ Ag '46
Food packaging studies; water-vapor protection by certain non-metal packages. R. E. Thomas and others. Mod Packaging 19:143+ Jl '46
Grand Rapids test; dehydrated foods accepted by 2 out of 3. J. C. Moore. il Mod Packaging 19:138-40 F '46
New drying process for fresh vegetables; Birdseye anhydrous process. Barron's 25:16 N 19 '45
Nutritive value of dehydrated vegetables and fruits. P. L. Pavcek and others. bibliog Ind & Eng Chem 38:853-6 Ag '46
Specific heats of dehydrated vegetables and egg powder; abstract. F. Stitt and E. K. Kennedy. Food Ind 18:446 Mr '46

Advertising

Intensive point-of-sale promotion pays; vegetable dehydration industry sales test in Grand Rapids grocery stores. B. Stanton. Ptr Ink 214:57 Ja 4 '46

Moisture content

Moisture determination in dehydrated vegetables; vacuum oven method. B. Makower, S. M. Chastain and E. Nielsen. Ind & Eng Chem 38:725-31 Jl '46

Storage

Commercially dehydrated vegetables; oxidative enzymes, vitamin content, and other factors. M. F. Mallette and others. bibliog Ind & Eng Chem 38:437-41 Ap '46

VEGETABLES, Frozen
Need of technological supervision in the food industry. H. C. Diehl. Refrig Eng 51:123-5+, 223-6+ bibliog(45 titles, p226+); Discussion. 268+ F-Mr '46

See also
Beans, Frozen
Peas, Frozen

Testing

Enzyme activity; index of quality in frozen vegetables. M. A. Joslyn. bibliog(50 references) Food Ind 18:1204-10+ Ag '46

VEGETABLES, Strained. See Infants' food

VEHICLES

See also
Automobiles
Motor buses
Motor trucks
Motor vehicles

VELOCITY
Behavior of a hot-wire anemometer subjected to a periodic velocity. R. C. Martinelli and R. D. Randall. bibliog diag A S M E Trans 68:75-9 Ja '46
Direction-indicating velocity tube. W. S. Hamilton. il Civil Eng 16:265-7 Je '46
Methods of producing uniform velocity distribution. R. L. Stoker. diags Ind & Eng Chem 38:622-4 Je '46
Velocity and acceleration in cam design. J. S. Kahr. diags Product Eng 17:246-9 Mr '46

See also
Sound—Velocity

VELOCITY modulation tubes. See Vacuum tubes—Velocity modulation tubes

VELON
Glamor and utility in plastic fabrics. il Mod Plastics 23:106-9 F '46
Manufacture of Velon monofilaments. G. P. Rowland, jr. il Rayon 27:540-2 O '46
Multi-filament Velon is newest synthetic yarn. il Textile World 95:117 N '45

VENDING machines
Adding punch to amusement devices. il Mod Plastics 23:82 My '46
Electronic cooking in slot machine. il Electronics 19:164+ Mr '46; Gen Elec R 49:71 F '46; Food Ind 18:336 Mr '46
Nickel paradise. Bsns W p86+ N 17 '45
Pinball payoff. Bsns W p36+ Ap 27 '46
Pin-ball proving ground; plastics can endure rough treatment. C. A. Breskin. il Sci Am 175:24-6 Jl '46
Plan to sell term insurance by vending machine. Nat Underw (Life ed) 50:4 S 6 '46
Policy machines for air accident now in use; Insurograph. Nat Underw 50:32 O 3 '46
Robot salesmen to take on new lines, both hot and cold. R. Z. Greene. il Sales Management 56:74+ Mr 15 '46
Self-service gas; automatic coin-operated pump. Bsns W p42+ S 28 '46
Slot machine policy; Associated aviation underwriters originates, dispenses policies for air travelers; experiment at New York terminal. East Underw 47:37 O 25 '46
Utility the thing in vending machines. il Mod Plastics 23:80-1 My '46

See also
Automatic canteen company of America
Ticket vending machines

Insurance requirements

Vending machine owners have need for public liability cover. Nat Underw 50:13 Ag 29 '46
Vending machine people are urged to insure. Nat Underw 50:12 Jl 18 '46

VENDOR relations committee. See National retail dry goods association—Vendor relations committee

VENDORS and purchasers
Right of a trader to select his own customers. Adv & Sell 39:76, 184+ Ap '46

VENEERS and veneering
More than half of the wood used in veneer production becomes waste during processing. H. R. Murdock. Ind & Eng Chem 38: sup83-4 Ag '46

VENEREAL diseases
Venereal disease education; abstract. R. A. Koch, L. Arnstein and A. C. Painter. Ind Med 15:241-2 Mr '46
Venereal disease; what stake has industry in its control? Ind Med 15:224-6 Mr '46; Same. Safety Eng 92:57-60 S '46

VENETIAN blinds

Advertising

Advertising ties local manufacturer to retailers; Miller table pad and venetian blind mfg. co., Brooklyn. Ptr Ink 216:64+ Ag 23 '46
No more free plugs, venetian blind industry plans national ad campaign. I. J. Jacobs. Ptr Ink 214:98 Mr 29 '46

VENEZUELA

See also
Chemists—Venezuela
Labor laws and legislation—Venezuela
Public works—Venezuela

Commerce

Latin America means business; Venezuela plans to purchase machinery and materials. Banking 39:45+ N '46
Venezuela needs U.S. goods. Comm & Fin Chr 164:1698 O 3 '46

Commercial policy

Export control regulations modified. For Comm W 21:38 N 10 '45
Venezuelan customs law again revised. For Comm W 22:24-5 Mr 9 '46

Economic conditions

Latin America's economy as world conflict ended. For Comm W 24:6 Jl 27 '46
News by countries. For Comm W 21:32 N 17 '45; 23:32 My 11; 39+ Je 15; 24:32 Jl 20; 43+ Ag 17; 33-4 S 21; 25:24-5 O 12 '46

Politics and government

Venezuela's revolution. Economist 149:755 N 24 '45

VENOM
Antivenin serum for snake bites. H. W. Boggess. Oil & Gas J 45:111 Jl 13 '46

VENTILATING pipes. See Air pipes

VENTILATION
Circulation in sanitary ventilation by bactericidal irradiation of air. W. F. Wells. bibliog diags Franklin Inst J 240:379-95 N '45
Let's look at the control of a ventilation system utilizing all outside air. A. J. Keating. plans Dom Eng 167:146-7 Mr '46
Problem in air recirculation when using dust collectors. J. M. Dalla Valle. Heat & Ven 43:71 F '46
Selecting the right fan for heating and ventilating. N. P. Runge. Dom Eng 167:148+ Ja '46

See also
Air conditioning
Air diffusers
Air filters
Air pipes
Air pollution
Air purification
Cooling
Dust removal
Electric fans, Ventilating
Exhaust systems
Fans, Mechanical
Heating
Humidity
Kitchens—Ventilation
Mine ventilation
Tunnel ventilation
Ventilators

also subdivision Heating and ventilation under various subjects, e.g.
Airplanes
Electric plants (central stations)
Factories
Foundries
Motor buses
Moving picture theaters
Printing offices
School buildings
Ships

Bibliography

Index to reference data, sheets 1 to 308. Heat & Ven 43:91-3 Ja '46

Standards

New British report suggests background, top-up heating. C. Tasker. il Heating-Piping 18: 89-92 S '46

Tables, calculations, etc.

Air velocities near exhaust hoods; chart and calculations; reference data. diags Heat & Ven 43:78a-78b Ap '46
Energy losses at suction hoods. A. D. Brandt and R. J. Steffy. il diags Heating-Piping 18: 105-16 bibliog(p112); Discussion. 116-19 S '46

Terminology

Definitions of terms used in heating, ventilating and air conditioning; reference data. Heat & Ven 43:94a-94b Ag; 88a-88b S '46

VENTILATION equipment

See also
Air conditioning equipment
Ventilators

Safety measures

Accidents involving ventilating equipment. L. W. Hutchins. Heat & Ven 43:84-5 My '46

VENTILATION research
American society of heating and ventilating engineers, committee on research annual report, 1945. Heating-Piping 18:137-43 F '46

VENTILATORS
Industrial unit ventilators. J. E. York. diags Heat & Ven 43:70-4 S '46
Make-up air. T. W. Reynolds. diags Heat & Ven 43:65-6 Ap '46
One control knob operates window power ventilator. il diags Product Eng 17:94-5 Ag '46
Portable ventilator expels fumes from confined areas. R. Philbrook. diag Am Mach 89:132 D 6 '45

VENTILATORS—*Continued*
Rectangular ducts and fittings (cont). O. W. Kothe. diags Sheet Metal Worker 36:58+ N; 53-4 D '45; 37:146-7 Ja '46
Schoolroom unit ventilators. J. E. York. diags Heat & Ven 43:69-71 O '46
Selecting roof ventilators. C. R. Gelert. plan Heating-Piping 18:89-90 Ag '46
Splitting up a ventilation problem. P. R. Jordan. diags Sheet Metal Worker 37:122+ Ja '46

VENTURI meters
Le tarage des compteurs Venturi. A. Vibert. Génie Civil 123:138-41 Je 1 '46

VERHOEFF stereopter. See Eye—Examination

VERMICULITE
Arena floor is insulated with mascrete; Boston arena. C. Stiles. il Concrete 54:22-3 Ap '46
Lightweight concrete opens up new markets; vermiculite concrete; Pacific building material co. il Rock Prod 49:265-7 Ja '46
Lightweight fire-protection for steel; vermiculite-gypsum plaster. diags Arch Rec 100: 124-5 O '46
Vermiculite; a modern insulation and constructional material. N. C. Jones. Chem & Ind p 195-6 My 18 '46
Vermiculite added to fired clay products offers new uses. R. F. Rea. il Brick & Clay Rec 108:54+ Mr '46
Vermiculite insulating brick; abstract. R. F. Rea. Brick & Clay Rec 108:68 My '46

VERMONT
See also
Hydroelectric plants—Vermont

VERNEY corporation
Stock offered. Comm & Fin Chr 164:325 Jl 15 '46

VERTEBRATES, Fossil
Progress in paleontological research on the Pacific coast, 1917-1944. C. Stock. Geol Soc Bul 57:326-33 bibliog(p344-51) Ap '46

VETERANS
All-service center for veterans, Houston, Tex. B. M. Wingfield. Banking 38:39+ F '46
Ex GI's have no gripe about government treatment; Gallup poll. Iron Age 158:91 O 3 '46
Has advertising any use for a hero? P. J. Kelly. il Adv & Sell 38:42+ N '45
Job of a generation; ABA program to aid veterans. J. L. Cooley. Banking 38:38-9+ Ja '46
Program for business and industry to help veterans. J. C. Stephan. Ind Marketing 31: 56+ F '46
Unions and veterans; including a directory of leading unions and illustrations by Bernard Seaman. A. M. Ramsay. 32p pa 25c Public affairs press, 2153 Florida av, Washington 8, D.C. '46
Veterans' clubs help returned servicemen. Factory Management 104:133 Ja '46
Veterans express dissatisfaction at UNO progress; 23 per cent would return to services if pay were upped; Gallup polls. Iron Age 157:99+ My 23 '46
Veterans get top priority in purchasing war surplus equipment and supplies. H. J. Ashe. Inland Ptr 116:69 D '45-Ja '46
Veterans' guidance in advertising and selling committee. Adv & Sell 39:92+ O '46
Veterans information directory. 131p pa $2 Public affairs press, 2153 Florida av, Washington 8, D.C. '46
When a veteran asks your advice, don't pass the buck. Ptr Ink 213:19-20 N 30 '45
See also
American legion magazine

Bibliography
Employment, rehabilitation and veteran adjustment; a bibliography, 1940-1945. P. S. Burnham, comp. 27p pa $1 Public Administration service, 1313 E. 60th st, Chicago 37 '46

Business plans
Advice to the chemist back from war who wants to set up a small business. C. O. Brown. Ind & Eng Chem 38:sup73-4 Ja '46
Angry pilgrimage; driver-veterans deploy on Washington. il Bsns W p19 Mr 2 '46
Army manual warns veterans profit-and-loss still operates in service-station business. Nat Pet N 37:58+ N 21 '45
Butcher, baker, candlestick maker; GI's bonanza or booby-trap? A. M. Sullivan. il Dun's R 54:20-4+ Ap '46
Co-op prefab; Atlanta veterans combine to build; U.S. homes, inc. il plan Arch Forum 85:16+ S '46
Foreign-trade prospects for the veteran today. W. S. Thomas and others. il For Comm W 23:3-5+ Je 29 '46
G.I. cab ride; veterans taxi associations boxed in by legal monopolies. Bsns W p31-3 Ag 3 '46
G.I. Joe: are you thinking about him as a potential dealer? W. H. Knowlton. Sales Management 55:149-50+ N 15 '45
G.I.'s find an ally; effort to get permit to run cabs in Philadelphia. Bsns W p21 Ja 26 '46
How can credit men best serve veterans entering business. Credit & Fin Management 47:32 N '45
How Chicago credit men are helping veterans in their business plans. J. W. Heylmun. Credit & Fin Management 48:28-30 Mr '46
Soldier beware; opportunities and pitfalls in the aviation industry. K. R. MacDonald. il Aviation 45:38-41+ Jl '46
These are the businesses the veterans choose. A. M. Meyers, jr. Adv & Sell 39:108+ Ja '46
Vet co-op pays off on better service; Detroit's Servicemen's dairy co-operative association. K. Detzer. il Am Bsns 16:10-11+ Ag '46
Veterans prefer fields of retailing and servicing. R. D. Stith. Dom Comm 34:7-8 Ap '46
See also
Veterans—Occupations

Education
Agency building and the returned veteran. J. R. Gregory. Rough Notes 89:34+ My '46
Availability of technically trained men. M. H. Trytten. Chem & Eng N 24:1656-9 Je 25 '46
C. L. U. veterans training under G.I. bill. D. McCahan. Weekly Underw 154:121+ Ja 5 '46
Do we really need engineers and scientists? A. R. Cullimore. J Eng Educ 36:320-6 Ja '46
Education for veterans; statements from leading architectural schools. Arch Forum 83:44+ N '45
Education in refrigeration; opportunity for A.S.R.E. to promote sound training for veterans. R. C. Jordan. Refrig Eng 51:39-41 Ja '46
Educators hold annual conference. Inland Ptr 117:71 Jl '46
England's business training scheme. Personnel J 25:121-6 O '46
GI bill of rights amended. J Account 81:96-7 F '46
G.I. on-the-job training program offered by ad agencies and publishers. N. Kelne. Ptr Ink 215:111+ Ap 5 '46
Government will aid apprenticed veterans. Am Mach 90:106 F 14 '46
How an agency trains veterans under the G.I. bill of rights. H. E. Cassidy. Ptr Ink 216:81-2+ S 27 '46
How to pay ex-servicemen taking on-the-job sales training. J. H. Caldwell. il Sales Management 56:148-51 Ap 15 '46
Illinois' on-the-job program; training veterans. S. P. Tomaso. il Burroughs Clearing House 30:15-17+ My '46
Insurance slow to adopt on-the-job vet training. Nat Underw 50:2+ Ap 4 '46; Same. Nat Underw (Life ed) 50:3+ Ap 5 '46
Management attitude; Life insurance agency management association guide for training under G.I. bill. Spectator (Life ed) 153:32-3+ Mr '46; Same abr. Nat Underw (Life ed) 50:8+ F 22 '46
Many operators express concern as ex-GI's rush to flying schools. W. Kroger. Aviation N 5:7-8 Mr 4 '46

VETERANS—Education—*Continued*
Marathon instructs vets in mechanized logging. Pulp & Pa of Can 47:71+ Mr '46
Michigan on-the-job training plan for veterans gets wide support. East Underw 46: 22 D 28 '45
More mechanics and fewer engineers needed; trade schooling of veterans should supplement professional courses. A. M. Cooper. Barron's 26:13 My 20 '46
New on-the-job limits are not retroactive. Nat Underw 50:20 Ag 22 '46; Nat Underw (Life ed) 50:3+ Ag 23 '46
New VA set of standards due to clarify veterans training. Aviation N 5:11 Ap 1 '46
New York printers on-the-job veteran training program shows good progress. G. C. Compton. Inland Ptr 117:52-3 Ap '46
On-the-job program for vets. S. F. Keeble and E. Emmons. Nat Underw (Life ed) 50:24 My 17 '46
On-the-job training. Sheet Metal Worker 37: 70+ My '46
On the job training; bank employees. W. Powers; A. James. il Banking 38:36-8+ F '46
On-the-job training programs for veterans in Illinois. J. A. Beaumont. J Retailing 22:62-4 Ap '46
Ontario views the veteran. Pulp & Pa of Can 46:937 N '45
Operators studying requirements for training under G. I. bill. Aviation N 5:10 F 25 '46
Passing judgement; training-on-the-job program. H. D. Josephson. Spectator (Life ed) 153:11+ My '46
Phony training? veterans' vocational aid will be checked. Bsns W p22+ Mr 23 '46
Revision of veterans on-the-job training required under law. East Underw 47:1+ Ag 23 '46; Same. Weekly Underw 155:417+ Ag 24 '46
Rochester employing printers, with printing crafts union, have developed outstanding training programs for war veterans and other beginners. il Inland Ptr 117:77-8 Je '46
St Joseph lead co, Edwards division, trains veterans for mining. Eng & Min J 147: 105 Ap '46
Special library for disabled veterans; Bulova school of watchmaking, Woodside, New York. M. E. Schaaf. Special Lib 37:12-14 Ja '46
Standards for on-the-job veteran training. Mo Labor R 62:904-5 Je '46
There's real business in that GI flight training program. P. B. Woolley. il Aviation 45: 38-9 My '46
Three emergency colleges for veterans. Science 104:366-7 O 18 '46
Train Hancock war vets in administration. East Underw 47:4 F 15 '46
Training and retail store combine to help the veteran. B. Tolk. Ptr Ink 215:37 Ap 26 '46
Training veterans under G.I. bill held sound. C. J. Zimmerman. Nat Underw (Life ed) 50:5+ My 31 '46
20th Century-Fox to hit foreign market with vets trained in film exploitation. N. Kelne. Ptr Ink 215:117+ Je 14 '46
Veterans administration on-the-job training pushed in insurance; G.I. bill entitles vet to subsidies while training. Nat Underw 50:3+ Ja 31 '46; Same. Nat Underw (Life ed) 50:3+ F 1 '46
Veterans learn watchmaking in an air conditioned school; Bulova school of watchmaking. il Heat & Ven 43:90 Ja '46
Veterans on-the-job training program. E. Adams. il Pet Eng 17:184+ S '46
Veterans' retraining program in geology. W. H. Bradley. Science 103:177 F 8 '46
Veterans' training course turns out journeymen craftsmen. I. L. Bateman. il Elec World 126:60-1 Jl 20 '46
Vets administration lists costs for G.I. flight training courses. W. Kroger. Aviation N 5: 7 My 27 '46
Vets attend short refresher course in well logging. E. H. Short, jr. il diag Oil & Gas J 44:73-5 Mr 23 '46

Employment

Apprentice training for garage mechanics open to servicemen. Nat Pet N 37:32 N 14 '45
Better business with buttons. B. White. Ind Marketing 31:29-30+ Ap '46
Boston finds many veterans who are qualified for sales jobs. il Sales Management 55:144 N 15 '45
Business needs veterans. R. D. Murphy; E. D. Millea. Nat Underw (Life ed) 50:7+ My 10 '46
Experiences with veterans in industry; follow-up report. J. F. Johnson and R. P. Walsh. Ind Med 14:789-94 O '45
Filled up. Fortune 33:225 Ja '46
First aid for job seeking veterans. P. Caruthers. Adv & Sell 38:72+ N '45
Give the veterans a hearing. N. Evans. Adv & Sell 39:34 Ap '46
Help wanted in Wall Street; expanding business offers opportunities for returning service men. J. P. Broderick. Barron's 26:19 Ja 7 '46
How one veteran got his job. J. R. Hare. Adv & Sell 39:40+ Mr '46
How St Louis pre-tests veterans for sales aptitude. Sales Management 56:118+ Ap 15 '46
How the foreman can help the veteran. F. A. Magoun. Factory Management 104:300+ Je '46
How Toronto ad-sales club helps veterans get jobs. Ptr Ink 215:92 Ap 12 '46
How veterans can be reconverted into skilled masons; apprentice program. T. W. Cole. Brick & Clay Rec 107:34+ N '45
How you can use the vet's war skills. J. Stone. Adv & Sell 39:68+ Je '46
Industry cooperates in hiring veterans. il Am Mach 89:126-30 N 22 '45
Industry needs the veteran; abstract. L. B. Hershey. Safety Eng 90:51 D '45
Inherited rights; ex-servicemen claim jobs in mines as birthright. Bsns W p94 Ja 26 '46
Is one of the applicants for that job a veteran? G. G. Blackburn. il Pulp & Pa of Can 47:59-62 My '46
Job opportunities for returning veterans. O. N. Bradley. Factory Management 104:258+ F '46
Job-seeking servicemen o.k. advertising industry's cooperation; P.I. survey. W. Wegge. Ptr Ink 215:56+ Je 14 '46
New York advertisers help vets perfect job-finding techniques. Sales Management 55: 159+ D 1 '45
Oil company plants can be approved for training if employment of vets as apprentices is planned. Nat Pet N 38:45 F 20 '46
Old-timers out; civil service rules give superseniority to veterans. Bsns W p98 Ja 19 '46
Philadelphia plan places ex-servicemen with printers. Ptr Ink 213:159 D 14 '45
Pressure on idlers. Bsns W p26+ S 21 '46
Price of error; Ford liable for back pay under superseniority ruling. Bsns W p106+ Ag 24 '46
Printing trade associations plan jobs for war vets and relief for the industry's manpower shortage. Inland Ptr 116:46 F '46
Radio jobs for G.I. Joe. T. Wayne. il Radio N 34:25-8+ N '45
Recognize veterans for what they're worth. E. W. Fair. Chem & Met Eng 52:105 N '45
Recruiting service men. C. Lamb. Nat Underw (Life ed) 49:5 N 23 '45
Return of veterans; impact on the labor market. Survey of Cur Bsns 25:7-8 D '45
Selling as a career for veterans; Boston Sales managers club procedure and that of Stone & Forsyth. N. R. Catharin. Ptr Ink 214: 55-6+ Ja 25 '46
Take a look at mining, ex-serviceman; extensive information including wages and salaries and list of mining schools. il Eng & Min J 146:74-80 N '45
Ten-point check list for employers of veterans. H. B. West. Adv & Sell 39:53+ Ag '46
Texas GI's form sidewalk building association. Concrete 54:8 Je '46
Unemployed veterans; graph. Bsns W p29 Mr 9 '46
Urges insurers to enroll veterans in training on job. B. A. Hedges. Nat Underw (Life ed) 49:12B N 23 '45; Same. Nat Underw 49:20+ D 13 '45

VETERANS—Employment—*Continued*
Veteran and the trust department; survey of attitudes reveals basis for approach. R. M. Alton. Trusts & Estates 82:135-8 F '46
Veteran in the valley. il Fortune 33:118-21+ Ja '46
Veterans and large companies; combat veteran needed in employment department. E. A. McKay. Personnel J 25:139-41 O '46
Veterans get Los Angeles sales jobs with minimum of foot-work. Sales Management 56:103-4 My 20 '46
Veterans in industry. G. E. Tucker. Personnel J 24:334-7 Mr '46
Veterans' slant on life insurance selling career. C. J. Zimmerman. Nat Underw (Life ed) 49:1 N 16 '45
Veterans' unemployment past peak. R. C. Goodwin. Comm & Fin Chr 163:3485 Je 27 '46
Veterans vs. unions. Bsns W p106 F 23 '46
Victory without fanfare. R. S. Durstine. Adv & Sell 39:34 F '46
What the factory worker really thinks. Factory Management 103:91-2 D '45

See also
Veterans—Reemployment
Veterans, Disabled—Employment

Housing

Administration's housing program; statement by the President; report of Federal housing expediter. Comm & Fin Chr 163:877+ F 14 '46
Case for rental housing; symposium. il Arch Rec 99:67-76 My '46
First aid for the housing problem; Bank of America's program for veterans. E. Burke. Burroughs Clearing House 30:24-6+ Ap '46
Home planning service for veterans; mutual savings banks in Worcester, Mass. il Burroughs Clearing House 30:6-7 F '46
Houses for veterans? Housing expediter Wyatt's program. Banking 38:66+ Mr '46
Housing starts at home; Deutschmann's plan for Canton veterans. Bsns W p50 O 19 '46
Minimum standards for veterans' homes. M. Kane. Banking 39:63 Jl '46
More than talk about GI housing; banks organize Rochester civic homes, inc. E. B. Milliman. il plan Banking 38:60-1 My '46
Nation's home builders tell Sergeant Brown the truth; open letter. F. W. Cortright. Am Bld 68:84-5 Jl '46
New homes for veterans. J. E. Cummings. il Mag of Wall St 77:534 F 2 '46
New York builds homes for city's war veterans; temporary shelters moved from Georgia. il Eng N 136:380 Mr 14 '46
Pre-fabricated homes; solution to veterans' housing needs. J. E. Cummings. il Mag of Wall St 77:653+ Mr 2 '46
Producers council answers the veterans housing plan. Dom Eng 167:134+ Mr '46
Providing rental housing for G.I.'s; project sponsored by banks in Rochester, N.Y. H. V. Odle. il plan Burroughs Clearing House 30:18-19+ Jl '46
$6,000 GI house; Cleveland trust company finances low cost veterans' houses in suburban Painesville. M. C. Faught. il plan Banking 39:33-5 Ag '46
Subsidy for veterans' homes. J. E. Cummings. il Mag of Wall St 77:594 F 16 '46
Sweat-equity housing; owner completion protects vets and mortgagees, simplifies builders' role; banker's plan in Cleveland; builder's plan in Denver. il Arch Forum 85:8 Ag '46
Veterans don't want Wyatt's houses; ex-servicemen are seeking flats, suburbs cool to inrush of GI's. H. S. Taylor and R. Masiello. Barron's 26:3+ My 13 '46
Veterans' housing priorities; outline of stop construction order. Banking 38:58+ My '46
Veterans' housing program order 1; general restrictions on construction and repairs; text. Am Bld 68:110-11 Ap '46
Veterans return to new freedom gas homes; project at Vanderbilt university. E. E. Bryan. il plan Gas Age 98:33+ Ag 22 '46

See also
Veterans—Loans

Housing priorities

See Veterans—Laws and legislation

Insurance

See Insurance, Life—Veterans' policies; Insurance, Military and naval service

Land settlement

Soldier settlement in the British empire. D. G. Marshall. J Land & Pub Util Econ 22: 259-65 Ag '46
Thank you farm; Spartanburg county, S.C. gives farm to veteran. G. Webb. il Banking 38:53-5 Ja '46

Laws and legislation

Administration of veterans' housing priorities. J. B. Blandford, jr. Comm & Fin Chr 163: 255+ Ja 17 '46
American law of veterans. R. T. Kimbrough and J. B. Glen. 1277p $10 Lawyers co-operative pub. co, Rochester, New York '46
Benefits for ex-servicemen in five British countries and the United States. M. H. Schoenfeld and J. R. Mock. Mo Labor R 61:900-9 N '45
CPA sets up reconversion housing program to provide priorities for veterans' homes. Am Bld 68:128 F '46
G-I terminal leave bonds. Comm & Fin Chr 164:1699 O 3 '46
Liberalization of GI bill of rights. Mo Labor R 62:595-6 Ap '46
Michigan's veterans' trust fund. D. C. Clark. Banking 39:123 S '46
Protection of veterans' unemployment benefits during work stoppages in New York. Mo Labor R 62:758 My '46
Reemployment rights of veterans. Mo Labor R 62:618-19 Ap '46
Social security amendment helps veterans' dependents. Nat Underw (Life ed) 50:10 O 4 '46
State veterans' programs. rev ed 53p pa $1 Council of state governments, Chicago 37 '45
Truman signs $2.7 billion GI terminal pay bill. Comm & Fin Chr 164:1063 Ag 22 '46
Veteran unemployment insurance; government gives self-employed veterans a helping hand during first few months. H. J. Ashe. Inland Ptr 116:67-8 O '45
Veterans' emergency housing act, 1946. Mo Labor R 63:92-3 Jl '46

See also
Veterans—Loans

Loans

A.B.A. stand on G.I. bill. N. P. Gregory. Burroughs Clearing House 30:25 N '45
A.B.A. Veterans committee studies loan procedure. Banking 39:117-18 N '46
Alternatives to no; text by J. W. Irwin; cartoons by B. Kirkpatrick. Banking 38:44-5 My '46
Amendments to GI bill of rights. W. T. Robinson. Banking Law J 63:289-90 Ap '46
Banking procedure; G.I. home loans; California bank, Los Angeles. M. Donnelly. il Burroughs Clearing House 30:17-19+ Je '46
Better service for war veterans. C. R. Davis. Burroughs Clearing House 30:20-1+ F '46
Financial counsel for veterans; Community advisory service center of Bridgeport, Conn. G. G. Griggs. Banking 38:36+ Mr '46
Full protection on GI loans advocated. D. E. Satterfield. Nat Underw (Life ed) 49:8 D 7 '45
G.I. bill amendments. Burroughs Clearing House 30:25-6 D '45
G.I. cartoonist helps banks tell home loan story to veterans. il Ptr Ink 215:99 Ap 12 '46
G.I. home loan. N. M. Giffen, jr. il Mag of Wall St 77:781+; 78:37+, 97+, 160+, 225+, 286+, 346+ Mr 30-Je 22 '46
GI loans speeded by amendments. Banking 38:63 Ap '46
Guaranteed business loans to veterans. B. W. Roper. Dom Comm 34:15-16 My '46
Home loans to veterans. M. Kane. Banking 38:63 My '46
How one bank helps veterans; Oneida county savings bank, Rome, New York. P. W. Albright. Banking 38:120 N '45

VETERANS—Loans—*Continued*
Limitations on national bank real estate loans to veterans; instructions to national bank examiners with respect to effect of 1945 amendments to Title III of Servicemen's readjustment act of 1944; text. Fed Res Bul 32:474-7 My '46
New regulations liberalizing veterans insurance under Readjustment act of 1946. Comm & Fin Chr 163:1402 Mr 14 '46
One bank's experience with GI loans; Schenectady (N.Y.) savings bank. K. Macfarlane. Banking 39:48-9 O '46
Protection for veterans. W. Powers. Banking 38:42-3 N '45
Real estate loans are made when homes are found; we found the homes; Naperville, Ill. National bank. L. H. Clemens. il Bankers Mo 63:502-4 O '46
RFC mortgage co. provides market for housing loans to veterans. Comm & Fin Chr 164:1702 O 3 '46
17 months of GI loan experience; Veterans' financial service of Rochester, N.Y. R. R. McGuire. Banking 39:46+ Ag '46
So you want to go into your own business? W. A. Howell. Mag of Wall St 77:153+, 407+ N 10 '45, Ja 5 '46
Veterans are using GI business loans. S. C. Saunders. il Dom Comm 34:11-13 My '46
Veterans' guaranteed loans; amendments to Servicemen's readjustment act of 1944 affecting real estate loans. Fed Res Bul 32: 126 F '46
We're learning a lot on GI loans. E. R. Parsons. il Banking 39:36-7+ Jl '46

Occupations

Casey at the bat, in behalf of salesmanship; tells veterans opportunities in selling. il Sales Management 56:42-3 Mr 15 '46
G.I. mechanic's outlook. F. B. Howe. il Aero Digest 52:56+ Je '46
Guidance group finds promising sales talent among veterans. C. K. Brett. Sales Management 56:77+ My 20 '46
I want to sell. N. Evans. Adv & Sell 39:33-4+ Ap '46
Industrial advertising as a career for the ex-serviceman. R. D. Towne. il Ptr Ink 214: 32-4+ F 8 '46
Small-town agency, stepping stone to big city job; one veteran's experience. I. L. Goldman. Ptr Ink 214:31-2 F 15 '46
So you want to go into advertising? M. O'Dea. Ptr Ink 213:33-4+ D 28 '45
What ex-servicemen think about jobs in advertising. P.I. survey. W. Wegge. Ptr Ink 215:75-6+ Je 21 '46
What the veteran wants to know about jobs in advertising; false encouragement is no encouragement. J. McCarthy. Ptr Ink 213: 32+ N 23 '45

Political activities

Public reaction to veterans' seizure of control at Athens, Tenn. Iron Age 158:101+ S 19 '46

Readjustment problems

Reconverting the veteran. Paper Ind 27:1410-11 D '45
Veteran returns. D. Haller. Manuf Rec 115: 124+ Ja '46

Reemployment

Allegheny Ludlum drops veteran superseniority setup in re-employment. Iron Age 157: 122 Ap 4 '46
Benefits for ex-servicemen in five British countries and the United States. M. H. Schoenfeld and J. R. Mock. Mo Labor R 61:900-1 N '45
Cannon mills offers help to veterans. H. M. Trotter. il Textile World 96:125+ Je '46
Counselor to company's home-coming veterans; Thomas A. Edison, inc. Ptr Ink 214: 76+ F 15 '46
Foreman's part in veteran rehiring. L. Stessin. Paper Ind 27:1217-18 N '45
Kimberly-Clark's program for re-employing returning veterans. M. J. Schulenberg. il Paper Ind 27:1213-16 N '45
Many happy returns; veteran re-employment program; Lyon metal products, inc. N. Ormond. il Safety Eng 91:18+ Mr '46
Mill prepared in advance for return of its handicapped veterans; Alexander Smith & sons carpet co. J. C. Samuel. il Textile World 96:133+ F '46
New slant on GI seniority. H. J. Ashe. Inland Ptr 118:66 O '46
Oil companies find worries about returned veterans largely unfounded. F. P. S. Glassey. Nat Pet N 38:36+ Mr 13 '46
Practical problems involved in employing returned servicemen. J. I. Hennessy. Am Water Works Assn J 38:76-84 Ja '46
Proper placement eases veterans' return to work; Gerity-Adrian manufacturing corporation. D. S. Miller. il Factory Management 103:114-15 N '45
Reinstatement training of ex-service personnel. R. N. Le Fevre. Gas J (Lond) 247:885 My 29 '46
Returning G.I. looks at his job. Elec West 96:89-92 Je '46
Road back; personnel's responsibility. W. J. Barrett. Ind Med 15:383-8 Je '46
Seniority guide; Utah federal court decision. Bsns W p90+ Je 15 '46
Seniority issue. Bsns W p98+ Mr 30 '46
Seniority settled; Supreme court decision in Fishgold case. Bsns W p104 Je 1 '46
Superseniority ruling sought by union and Western cartridge co. Iron Age 156:106 D 20 '45
Supreme court clarifies one seniority question. M. M. Shipman and P. E. Anderson. Oil Paint & Drug Rep 149:7+ Je 17 '46
Supreme court rules on vet's super-seniority. Comm & Fin Chr 163:3112 Je 6 '46
Union-company chart solves GI seniority; Caterpillar tractor company. G. W. Torrence. il Factory Management 104:140-1 My '46
Veteran reemployment. R. Smith, jr. Paint Oil & Chem R 108:86-7 N 1 '45
Veteran's reemployment rights in seasonal industries. Mo Labor R 62:919-20 Je '46
Welcome servicemen back to jobs in rock products industries. N. C. Rockwood. Rock Prod 49:103-5+ Ja '46
What's happening to veterans in typical plants. P. French. il Factory Management 104:122-4 Jl '46

See also
Insurance, Life—Agents—Reemployment

Seniority rights

See Veterans—Reemployment

State aid

Cash bonus plans would mean big increase in states' debts. B. Jones. Barron's 26:9 F 18 '46
Slight majority would be willing to pay higher taxes to have state governments pay bonus to veterans; Gallup poll. Iron Age 157:97+ My 16 '46
State bonus bond flood unlikely; present trends away from cash payments. B. Jones. Barron's 25:14 N 12 '45

Australia

Australian re-establishment and employment act. Int Labour R 52:516-21 N '45
On the job training for veterans; bank within a bank, Sydney, Australia. A. James. il Banking 38:37-8 F '46

Great Britain

Benefits for ex-servicemen in five British countries and the United States. M. H. Schoenfeld and J. R. Mock. Mo Labor R 61:900-9 N '45

New Zealand

Re-establishment of ex-service personnel in New Zealand. Int Labour R 52:522-5 N '45

South Africa

Re-employment and training of ex-volunteers in South Africa. Int Labour R 53:232-4 Mr Ap '46

VETERANS, Disabled
Disabled veterans' problems get attention at N.Y. safety congress. East Underw 47:38 Ap 12 '46
Safe driving for disabled G.I.'s. Safety Eng 91:60 F '46

VETERANS, Disabled—*Continued*

Employment

Again appeals for disabled; nothing in workmen's compensation policy to hinder employment of veterans who have been hurt in service. J. D. Dorsett. Weekly Underw 155:125+ Jl 20 '46; Excerpt. Nat Underw 50:13 Jl 18 '46

Declaration of attitude of Zurich insurance companies. Weekly Underw 153:1407 D 15 '45

Effective program for disabled veterans; Fisher body division, General Motors. J. A. Goldberg. Safety Eng 92:48 S '46

Employment of veterans encouraged in Oklahoma. Nat Underw 50:21 Jl 25 '46

Handicapped vets find jobs through machinery changes. H. E. Conrad. Iron Age 158:99 Ag 29 '46

Handling the disabled veteran. Paper Ind 27: 1098+ O '45

Mill prepared in advance for return of its handicapped veterans; Alexander Smith & sons carpet co. J. C. Samuel. il Textile World 96:133+ F '46

Places for the handicapped. O. F. R. Bruce, jr. il Nat Safety N 52:20-1+ N '45

Putting the disabled veteran back to work, III. Ind Med 15:24-7 Ja '46; Discussion. 15: 298-9 Ap '46

Survey shows disabled workers have better than average records. Iron Age 158:179 O 17 '46

Veteran overcomes blindness handicap; assembles switch boxes. Nat Safety N 54: 39 S '46

What plan does the Veterans' administration recommend for the utilization of disabled veterans? O. W. Price. Ind Med 15:525-6 S '46

Workmen's compensation insurance no job bar to disabled veterans. J. D. Dorsett. Weekly Underw 155:38 Jl 6 '46; Same abr. East Underw 47:32 Jl 12 '46; Same abr. Nat Underw 50:19 Jl 4 '46

Rehabilitation

Another chance to live. W. H. Bolton. Personnel J 24:228-30 D '45

Helping disabled American veterans. G. H. Reaney. East Underw 47:46 Mr 1 '46

Industrial rehabilitation; abstract. A. J. Jackson. J Ind Hygiene 28:sup15-16 Ja '46

Industry's stake in rehabilitation. Nat Safety N 53:8-9 Mr '46

Jobs for the wounded; Loose-Wiles employment of men incapacitated in war service. J. A. J. Jones. il Food Ind 17:1318-20 N '45

Navy and industry help amputees back to work. il Factory Management 104:128-32 F '46

Textiles must help disabled American veterans. L. F. Timmerman. Textile Col 68:12-13 Mr '46

What is being done; cooperation from industry. Ind Med 15:sup34+ F '46; Same cond. Safety Eng 91:82-3 Ap '46

VETERANS, Mentally disabled

Employment examination for psychiatric casualties. F. W. Dershimer. Ind Med 14:996+ D '45

Handling the disabled veteran. Paper Ind 27: 1098+ O '45

Psychoneurotics; follow-up study of enlisted men discharged from the army; abstract. Nat Safety N 52:46 N '45

VETERANS' administration. See United States —Veterans' administration

VETERANS air express

Flies anything any place any time. G. Herrick. il map Air Transport 4:36-8 Jl '46

Non-scheduled line in European flights; Veterans air express. Aviation N 5:28+ My 13 '46

VETERANS' information centers

Veterans' information centers; a survey of their operation and services. J. K. Gurwell. 49p pa $1.50 Public administration service, 1313 E. 60th st, Chicago '45

VETERINARY medicine

This $100,000,000 market is ripe for expansion; animal health industry. W. T. Doyle. Ptr Ink 217:48-9 N 8 '46

VIBRATION

Damping capacity and the fatigue of metals. R. F. Hanstock and A. Murray. il diags Engineering 161:358-60, 381-3 Ap 12-19 '46; Discussion. Engineer 181:284-5 Mr 29 '46

Driving-point impedance of an infinite solid plate. R. C. Jones. Acoustical Soc Am J 17:334-6 Ap '46

Equations for computing elastic constants from flexural and torsional resonant frequencies of vibration of prisms and cylinders. G. Pickett. Am Soc T M Proc 45: 846-63 bibliog(p859-60); Discussion. 864-5 '45

Experimental investigation of forced vibrations in a mechanical system having a nonlinear restoring force. C. A. Ludeke. diags J Ap Phys 17:603-9 Jl '46

Flexural vibration of unrestrained cylinders and disks. G. Pickett. bibliog J Ap Phys 16:820-31 D '45

Forced vibrations of piezoelectric crystals. H. Ekstein. bibliog diags Phys R 70:76-84 Jl 1 '46

Ground vibrations of helicopters. M. L. Deutsch. bibliog J Aeronautical Sci 13:223-8+ My '46

Isolation of vibration in spring mounted apparatus; with reference book sheets. J. N. MacDuff. diags Product Eng 17:[no 7] 106-9, 159, 161, 163 Jl; 154-6 Ag '46

Oscillations in electrical and mechanical systems. J. Willis. Inst E E J 92 pt 1:453 D '45

Superficial density of the energy of natural vibrations. A. Brager and A. Schuchowitsky. bibliog J Chem Phys 14:569-70 S '46

Torsional oscillating motion with self-synchronized impulse; mechanical resonant scanner for radar. D. B. Nichinson. il diags Product Eng 17:110-12 Ag '46

Vibration damage to spillway gates; Bonneville dam. il diags Eng N 136:420-1 Mr 21 '46

Vibrations from blasting; their nature, measurement and effect. L. D. Leet. il diags Explosives Eng 24:41-4+, 85-9 Mr-My '46

Vibrations of a whirling wire. A. V. Masket. Acoustical Soc Am J 18:216 Jl '46

See also

Airplanes—Vibration
Automobiles—Vibration
Balancing of machinery
Electric lines—Vibration
Gas pipes—Vibration
Machinery—Vibration
Sound waves

Measurement

De Havilland piezoelectric vibration pickup. Electronics 19:158+ O '46

Determination of higher modes of vibration by a method of sweeping; abstract. L. Beskin and R. M. Rosenberg. Aeronautical Eng R 5:13-14 Ap '46

Dynamic characteristics of rubber supports from vibration table data. E. G. Chilton. bibliog il diag J Ap Phys 17:492-5 Je '46

Effects of torsional vibration. W. K. Wilson. bibliog Engineering 162:88-90 Jl 26 '46

Evaluation of vibration isolation materials for refrigerating equipment. E. S. Bishop and J. A. Galazzi. bibliog il diags Refrig Eng 51:233-9 Mr '46; Discussion. 51:339+ Ap '46

Introductory discussion of torsional vibration. R. D. Watson. diags Diesel Power 24:602-4+, 705-7+ My-Je '46

Light-weight crystal vibration pick-up. C. B. Cunningham. il plan diag R Sci Instr 17: 454 O '46

Nomograph aids solution of vibration problems; engineering data sheet. M. Nord and S. F. Ciricillo. Machine Design 17:155-6 N '45

Polar diagram for tuning of exhaust pipes. T. Warming. diags A S M E Trans 68:31-3; Discussion. 34 Ja '46

Practicability of vibration control in light aircraft. D. C. Kennard, jr. il diags A S M E Trans 68:81-8 F '46

Reed vibrometer. il R Sci Instr 17:347 S '46

Vibration frequency ratios of bottom mounted apparatus; reference book sheets. J. N. MacDuff. Product Eng 17:[no 7] 159, 161, 163 Jl '46

See also

Convectron

VIBRATION absorbers
Acceleration damper; development, design, and some applications. P. Lieber and D. P. Jensen. diags A S M E Trans 67:523-30 O '45; Discussion. 68:175-6 F '46
Catwalk for installing vibration dampers on long spans. M. A. Kirsch. il Elec World 126:87 Jl 20 '46
Damps low-frequency vibrations; patent assigned to General motors corp. diag Machine Design 18:164 Mr '46
Evaluation of vibration isolation materials for refrigerating equipment. E. S. Bishop and J. A. Galazzi. bibliog il diags Refrig Eng 51:233-9 Mr '46; Discussion. 51:339+ Ap '46
Robinson vibration absorbing mount. diag R Sci Instr 17:75 F '46
Unique tool speeds damper installation; prevention of line vibration. il Elec World 124: 160+ N 10 '45
Vibration-absorbing levelers for machinery. Aeronautical Eng R 4:125 D '45
Vibration absorption mounts. il diag Aero Digest 53:90 O '46
Vibration and shock testing of mobile equipment. J. H. Best. il diag Electronics 19: 126-9 Ap '46
Viscous torsional vibration damper; Houdaille-Hershey corp. diag Diesel Power 24: 453-4+ Ap '46

VIBRATION of molecules. See Molecules—Vibration

VIBRATORS
Mechanical oscillators and their electrical synchronization. S. W. Herwald and others. bibliog il diags A S M E Trans 68:713-18 O '46

VIBROTRON. See Miniature tubes; Vacuum tubes

VICALLOY. See Magnetic materials

VICK chemical company
Thumbnail stock appraisal. Mag of Wall St 78:273 Je 8 '46
Vick Chemical plan to keep business from growing old. J. A. Murphy. Am Bsns 16: 8-10+ Je '46

Library
Financial library of the Vick chemical company. M. P. Goslin. Special Lib 36:444-6 N '45

VICK formation
Vick formation of pre-Tuscaloosa age of Alabama coastal plain. L. C. Conant. bibliog map Am Assn Pet Geologists Bul 30:711-15 My '46

VICKERS, limited
Peace-time activities; address by chairman at annual general meeting. A. A. Jamieson. Economist 150:816 My 18 '46

VICKERY, Howard Leroy, 1892-1946
Sketch. por Marine Eng 51:101+ Ap '46; Welding J 25:450 My '46
Vice Admiral Vickery receives Morehead medal; presentation by G. O. Carter; response by H. L. Vickery. por Marine Eng 51:110-12 Mr '46

VICTOR chemical works
Preferred shares offered. Comm & Fin Chr 163:357 Ja 21 '46

VIENNA
Rapid transit
Vienna; Baumgarten reporting. A. W. Baumgarten. maps Mass Transportation 42:238-42 Je '46

VILLAGES
Villages don't have to die. L. Haystead. Fortune 32:192+ D '45

VINEGAR
Method of making high strength vinegar; patent. Food Ind 18:769 My '46

VINSOL resin. See Gums and resins

VINSON, Frederick Moore, 1890-
Britain views Vinson transfer. P. Einzig. Comm & Fin Chr 163:3341+ Je 20 '46
Vinson named Chief justice. Comm & Fin Chr 163:3265; 164:134 Je 13, Jl 4 '46

VINYL acetate
Absolute rate constants in the polymerization of liquid vinyl acetate. P. D. Bartlett and C. G. Swain. Am Chem Soc J 67:2273-4 D '45
Plastics notes; vinyl materials for electrical uses. J. Taylor. Electrician 135:474-5 N 2 '45

VINYL alcohol
Polyvinyl alcohol in Germany. G. M. Kline. il Mod Plastics 23:165-7 Ja '46
Structure of polyvinyl alcohol. A. D. McLaren and R. J. Davis. bibliog Am Chem Soc J 68:1134-5 Je '46
Vinyl alcohols; cleavage of enol peroxides. R. C. Fuson, E. W. Maynert and W. J. Shenk, jr. Am Chem Soc J 67:1939-41 N '45
Vinyl alcohols; increased hindrance. R. C. Fuson, D. H. Chadwick and M. L. Ward. bibliog Am Chem Soc J 68:389-93 Mr '46
Vinyl alcohols; reduction of hindered diaryl ketenes by the Grignard reagent. R. C. Fuson and others. bibliog Am Chem Soc J 67:1937-9 N '45

VINYL benzoic acid
Preparation and polymerization of *p*-cyanostyrene, *p*-vinylbenzoic acid and its methyl ester. C. S. Marvel and C. G. Overberger. bibliog Am Chem Soc J 67:2250-2 D '45

VINYL chloride
Coating with polyvinyl chloride latex. M. S. Moulton. il diags Mod Plastics 24:117-20 O '46
Condensation of saturated halides with unsaturated compounds; the condensation of alkyl halides with monohaloölefins. L. Schmerling. bibliog Am Chem Soc J 68: 1650-4 Ag '46
Depolarization of light scattered from polymer solutions. P. Doty and H. S. Kaufman. bibliog diag J Phys Chem 49:583-95 N '45
Diffusion of plasticisers from polyvinyl chloride compositions; abstract and discussion. P. A. Small. Chem & Ind p125 Mr 16 '46
Experiments in coloring polyvinyl chloride masses. F. Gournay. India Rubber World 114:280-2 My '46
Geon in the wire and cable industry. G. A. Fowles. il Rubber Age 58:703-8 Mr '46
German chemical industries; polyvinyl chloride. Chem & Met Eng 52:180+ D '45
Impregnation with Geon. Chem Ind 58:442 Mr '46
Oven for measurement of volatility of plasticizers in polyvinyl chloride and chloride-acetate copolymer compositions. D. K. Rider and J. K. Sumner. il Ind & Eng Chem Anal ed 17:730-3 N '45
Plastics notes; vinyl materials for electrical uses. J. Taylor. Electrician 135:473-5 N 2 '45
Plastics technology; Geon latex. G. W. Flanagan. il diag India Rubber World 114:83-4 Ap '46
Plastics technology; integration of the plastics and rubber industries. R. P. Kenney. il India Rubber World 114:682-4 Ag '46; Same cond. il Mod Plastics 24:106-7 S '46
PC fiber (after-chlorinated polyvinylchloride) used for industrial fabrics in Germany. J. B. Quig. Textile World 96:108 My '46
Thermoplastic cables. H. Barron, J. N. Dean and T. R. Scott. bibliog Inst E E J 91 pt 2:297-309 Ag '44; Discussion. 91 pt 2: 309-16; 92 pt 2:633-42 Ag '44, D '45
Vinyl plastics; abstract. G. E. Henry. Materials & Methods 23:1364+ My '46

VINYL chloroacetate
Relation between specific refractivity of polymers and atomic structure of polymer unit. R. H. Wiley. bibliog Ind & Eng Chem 38: 959-60 S '46

VINYL compounds
Bright future for coated fabrics; Tolex and other vinyl coated fabrics. il Mod Plastics 23:104-7 Jl; 24:122-6 S '46
Building in miniature with vinyl blocks. il Mod Plastics 24:103 O '46
Butyral for consumer fabrics. Bsns W p52+ O 19 '46
Compar outlasts metal in sandblasting. il Mod Plastics 23:148 Mr '46
Compounding and fabrication of vinyl resin; Bound Brook, N.J., plant of Bakelite corp. J. A. Lee. il Chem Eng 53:120-4 Ag '46; Same, without il. Chem Age (Lond) 55: 379-81 S 28 '46
Copolymers of dimethylstyrene vinyl fatty esters with butadiene. P. O. Powers. Ind & Eng Chem 38:837-9 Ag '46

VINYL compounds—*Continued*
Covering up with plastics. C. A. Breskin. il Sci Am 175:214-16 N '46
Kinetics of anionotropic rearrangement; substituent effects in the oxotropic formation of the vinylacetylene system. E. A. Braude and E. R. H. Jones. Chem Soc J p122-7 F '46
Multi-purpose protective covering; sealing caps, sleeves and tubing of vinyl materials. il Mod Plastics 24:101-2 O '46
Navy's gyro gunsight equipped with Resistoflex compar. il Marine Eng 50:232 D '45
New material for upholstery. il Mod Plastics 23:91-8, 126-7 Ag-S '46
New method of protecting machines for shipment of storage; sprayed coating. il Mach 53:154-6 O '46; Aero Digest 53:89+ O '46
New petroleum product for plastics; plasticized vinyl paste or plastisol. Mod Plastics 24:198 O '46
New plastic covering protects idle equipment; strip-off coating available for factory equipment going in storage, cocoon system. A. V. Gemmill. il Food Ind 18:1540-1 O '46
New polyvinyl type resin. Mod Plastics 23:150 Ap '46
New vinyl fields; plastisols. Bsns W p53 Jl 13 '46
Organosols, new dispersion coatings. J. Hoyt. diags Mod Packaging 19:193+ Mr '46
Plastic calculators in war and peace. il Mod Plastics 23:130-1 Jl '46
Plastic film assures safe storage and shipment of machinery. il Iron Age 158:96-7 Ag 29 '46; Product Eng 17:152-3 N '46
Postwar uses of vinyl elastomers; abstract. J. Southwell. India Rubber World 114:78 Ap '46
Potential market for vinyls; abstract. J. J. Newman. Chem Eng 53:270 O '46
Radical chain processes in vinyl and diene reactions. H. S. Taylor and A. V. Tobolsky. bibliog Am Chem Soc J 67:2063-7 D '45
Sheet vinyl electrotype processing. il Mod Plastics 23:111-13 Jl '46
Spray coatings for heavy-duty packaging; vinyl resin solution with webbing agent, polyvinyl chloride for packaging navy equipment. il Mod Plastics 23:152-3 Ap '46
Use of liquid phase oxidation for the preparation of nuclearly substituted styrenes; *p*-vinylphenyl acetate. W. S. Emerson and others. Am Chem Soc J 68:1665-6 Ag '46
Vinyl aromatic compounds; fluorinated derivatives. M. W. Renoll. bibliog Am Chem Soc J 68:1159-61 Jl '46
Vinyl aromatic compounds; the vapor phase dehydration of arylmethylcarbinols. D. T. Mowry, M. Renoll and W. F. Huber. bibliog Am Chem Soc J 68:1105-9 Je '46
Vinyl aromatic compounds; *o*-,*m*- and *p*-vinylbiphenyls. W. F. Huber and others. Am Chem Soc J 68:1109-12 Je '46
Vinyl bags for low-pressure molding. il Mod Plastics 23:133-4 F '46
Vinyl butyral plastic for textile coating. Science 104:418-19 N 1 '46
9-Vinylphenanthrenes; di- and tetraphenanthrylethylenes. F. Bergmann and S. Israelashwili. bibliog Am Chem Soc J 67:1951-6 N '45
Vinyl resin finishes; their properties, formulations, and the new dispersion coatings; the organosols. R. W. Quarles. il diags Can Chem & Process Ind 30:33-6+ Ap '46
See also
Koroseal
Vinyl alcohol

VINYL cyclohexene
Analysis
Determination of small amounts of 4-vinyl-1-cyclohexene (butadiene dimer) in tetrahydrophthalic anhydride. B. Warshowsky and P. J. Elving. Ind & Eng Chem Anal ed 18:276 Ap '46
Determination of 4-vinyl-1-cyclohexene (butadiene dimer) in recycle styrene. H. A. Laitinen, A. S. O'Brien and S. Wawzonek. bibliog Ind & Eng Chem Anal ed 17:769-72 D '45

VINYL ether
Vinyl ethyl ether and other vinyl ethers. C. D. Hurd and D. G. Botteron. bibliog Am Chem Soc J 68:1200-1 Jl '46

VINYL halides
Bending force constants for halogenated ethylenes. K. S. Pitzer and N. K. Freeman. bibliog J Chem Phys 14:586-8 O '46

VINYL sulfide
Dipole moment and resonance in vinyl sulfide and six unsaturated chlorohydrocarbons. N. B. Hannay and C. P. Smyth. bibliog Am Chem Soc J 68:1005-8 Je '46

VINYL thiophene
Preparation of 2-thienylmethylcarbinol and α-vinylthiophene. R. T. Nazzaro and J. L. Bullock. Am Chem Soc J 68.2121-2 O '46

VINYLIDENE chloride
Glamor and utility in plastic fabrics. il Mod Plastics 23:106-9 F '46

VINYLITE
General American covered hopper car, for the transportation of Vinylite. il Ry Age 121:726 N 2 '46
Vinylite plastics, new applications of a product of the Bakelite corporation. Mach 52:185 D '45

VINYON
Dyeing of vinyon. J. A. Woodruff. Am Dyestuff Rep 35:194-7+ Ap 22 '46

VIOLIN
Mechanical action of instruments of the violin family. F. A. Saunders. diags Acoustical Soc Am J 17:169-86 Ja '46

VIRGINIA
See also
Labor laws and legislation—Virginia
Manganese mines and mining—Virginia
Mines and mineral resources—Virginia
Roads—Virginia
Water, Underground—Virginia

VIRGINIA academy of science
Annual meeting, 24th, Richmond, May 9-11. Science 104:14 Jl 5 '46

VIRIDINE green
Absorption spectra of the negative ions of two diaminotriphenylmethane dyes. B. M. Tolbert and G. E. K. Branch. Am Chem Soc J 68:315-19 F '46

VIRUSES
Age factor in adaptability of a sarcoma virus to other animal species. F. Duran-Reynals. bibliog Science 103:748-9 Je 28 '46
Biochemical studies on influenza virus. W. M. Stanley. Chem & Eng N 24:755-8 Mr 25 '46
Distemperoid virus interference in canine distemper. R. G. Green and C. S. Stulberg. bibliog Science 103:497-8 Ap 26 '46
Epidemic of a severe pneumonitis in the bayou region of Louisiana; comparative study of the viruses of lymphogranuloma venereum, psittacosis, and Louisiana pneumonitis. C. L. Larson and B. J. Olson. bibliog Pub Health Rep 61:69-78 Ja 18 '46
Inactivation of partially purified poliomyelitis virus in water by chlorination. S. G. Lensen and others. bibliog Am Water Works Assn J 38:1069-77 S '46
Molecular weights and other properties of viruses as determined by light absorption. G. Oster. bibliog Science 103:306-8 Mr 8 '46
Nichols medal awarded to Stanley; scientific contributions of the medalist. V. du Vigneaud. Chem & Eng N 24:752-5 Mr 25 '46
William H. Nichols medalist for 1946, Wendell M. Stanley, his career. R. L. Shriner. Chem & Eng N 24:750-2 Mr 25 '46
Culture mediums
Direct culture of rheumatic virus. W. J. Mac Neal and others. Science 103:620-1 My 17 '46
Growth and distribution of murine encephalomyelitis virus in the developing chick embryo. J. T. Riordan and M. J. Sá-Fleitas. bibliog Science 103:499-500 Ap 26 '46

VISCOMETERS. See Viscosimeters

VISCOSE
Newly developed process stabilizes viscose fabrics; abstract. J. Epelberg. diag Textile World 96:114-15 Je '46
Shrinkage phenomena on cellulose films. R. Prince and J. Seiberlich. il J Phys Chem 50:222-35 My '46

VISCOSIMETERS

Equations of thixotropic breakdown for the rotational viscometer. H. Green and R. N. Weltmann. bibliog Ind & Eng Chem Anal ed 18:167-72 Mr '46

Factors affecting results obtained with the Mooney viscometer. R. A. Taylor. il diag U S Nat Bur Stand Circ C451:1-14; pa 5c Supt. of doc. '45

Hoeppler falling ball viscosimeter. il R Sci Instr 17:74 F '46

Improved falling sphere viscometer for use with opaque liquids. C. A. McDowell and B. Y. Walker. diag Chem & Ind p323 O 20 '45

Jet viscometer with variable rate of shear. W. J. Morris and R. Schnurmann. diag R Sci Instr 17:17-22 Ja '46

Kinematic viscometer for opaque and very viscous liquids. E. H. Zeitfuchs. bibliog il diags Oil & Gas J 44:99-100+ Ja 12 '46

Photographic-viscometric apparatus and technique. J. L. Riley and G. W. Seymour. bibliog il diags Ind & Eng Chem Anal ed 18:387-90 Je '46

Slags in acid electric steelmaking; use of viscosimeter. C. C. Wissmann. diags Metal Prog 49:736-7 Ap '46

See also

Consistometers

VISCOSITY

Application and derivation of the new viscosity-temperature relationship of liquids. M. S. Telang. bibliog(72 references) J Phys Chem 50:373-86 Jl '46

Behavior of macromolecules in inhomogeneous flow. H. A. Kramers. J Chem Phys 14: 415-24 Jl '46

Compressional viscosity and sound absorption in water at different temperatures. F. E. Fox and G. D. Rock. bibliog Phys R 70:68-73 Jl 1 '46

Correlating viscosities of gases with temperature and pressure. D. F. Othmer and S. Josefowitz. bibliog Ind & Eng Chem 38: 111-16 Ja '46

Correlating viscosity and vapor pressure of liquids. D. F. Othmer and J. W. Conwell. bibliog Ind & Eng Chem 37:1112-15 N '45

Correlation of viscosities of liquids with temperatures. M. S. Telang. bibliog J Phys Chem 49:579-82 N '45

Dependence of the viscosities of liquids on reduced temperature, and a relation between viscosity, density, and chemical constitution. L. H. Thomas. bibliog Chem Soc J p573-9 Jl '46

Effect of salts on the viscosity of pectinic acid solutions. H. Lotzkar and others. bibliog J Phys Chem 50:200-10 My '46

Fundamental study of clay; effect of particle size on properties of casting slips. S. S. Kocatopcu. bibliog Am Cer Soc J 29:99-107 Ap 1 '46

Fundamentals of consistency and viscosity. J. J. Bikerman. bibliog diags Pet Refiner 24: 119-24 D '45; 25:111-17 Ja; 120-6 F '46

Graphic solutions of design problems; viscosity of petroleum liquids. P. Buthod and B. W. Whiteley. charts Oil & Gas J 44:100-2 N 10 '45

Hexanolamine caprylate and diisopropylamine caprylate as colloidal electrolytes. E. Gonick. Am Chem Soc J 68:177-81 F '46

Influence of method of deësterification on the viscosity and acid behavior of pectinic acid solutions. T. H. Schultz and others. bibliog J Phys Chem 49:554-63 N '45

Influence of the modifier on the nature of aluminum alloys; effect of sodium on viscosity. G. Akimow. Metal Prog 49:973-4 My '46

Intrinsic viscosity of polymer solutions. P. Debye. diags J Chem Phys 14:636-9 O '46

Methods of specifying the properties of viscoelastic materials. T. Alfrey and P. Doty. bibliog diags J Ap Phys 16:700-13 N '45

Modifying the viscosity of sulfur. R. Fanelli. bibliog il diag Ind & Eng Chem 38:39-43 Ja '46

Molecular weights of viscous hydrocarbon oils; correlation of density with viscosities. A. E. Hirschler. bibliog Inst Pet J 32: 133-61 Mr '46

Nitrocellulose lacquers; evaluation of low-viscosity-type nitrocelluloses in furniture finishing compositions. W. Koch, H. C. Phillips and R. Wint. Ind & Eng Chem 38:518-21 My '46

Notes on the rate process theory of flow. A. Bondi. bibliog J Chem Phys 14:591-607 O '46

Photoelectric instrument for light scattering measurements and a differential refractometer. P. P. Debye. il diags J Ap Phys 17:392-8 My '46

Photogelation of rubber sols in the absence of accelerators. R. Buckingham and G. V. Planer. diag Soc Chem Ind J 65:6-8 Ja '46

Physical chemistry of lubricating oils. A. Bondi. bibliog diags Pet Refiner 25:119-32 Jl '46

Recent work in the field of high pressures; effects on viscosity. P. W. Bridgman. bibliog Rs Mod Phys 18:44-8 Ja '46

Structure of cellulosic rayons; chain-length determinations in cuprammonium solution. F. Howlett and others. bibliog Textile Inst J 37:T77-88 Ap '46

Studies on siloxanes; the specific volume and viscosity in relation to temperature and constitution. C. B. Hurd. bibliog Am Chem Soc J 68:364-70 Mr '46

Temperatures of zero conductance and infinite viscosity of some negatively charged colloidal systems; ferric vanadate, molybdate, tungstate, borate, arsenate, and phosphate. S. P. Mushran and S. Prakash. J Phys Chem 50:251-6 My '46

Two-phase, two component flow in the viscous region. R. C. Martinelli, J. A. Putnam and R. W. Lockhart. diag Am Inst Chem Eng Trans 42:681-702; Discussion. 702-5 Ag '46

Vapor pressure-viscosity relations in methylpolysiloxanes. D. F. Wilcock. bibliog Am Chem Soc J 68:691-6 Ap '46

Viscosities of pure hydrocarbons. J. M. Geist and M. R. Cannon. bibliog diags Ind & Eng Chem Anal ed 18:611-13 O '46

Viscosity and plasticity; abstract. E. N. da C. Andrade. Chem Age (Lond) 53:543-4 D 8 '45

Viscosity and stability of paint emulsions; abstract. H. Wagner. Paint Oil & Chem R 109: 46 Ag 22 '46

Viscosity blending chart. W. L. Nelson. Oil & Gas J 45:107 Jl 6 '46

Viscosity-molecular weight relation for natural rubber. W. C. Carter, R. L. Scott and M. Magat. bibliog Am Chem Soc J 68:1480-3 Ag '46

Viscosity; most important property of lubricating oil. C. M. Larson. diags Power 90.508-10 Ag '46

Viscosity of cellulose derivatives and resins in mixed solvents. S. R. Palit. bibliog Paint Oil & Chem R 109.14+ Jl 11 '46

Viscosity of crude oils. W. L. Nelson. Oil & Gas J 44:70 Ja 5; 87 Ja 12 '46

Viscosity of linseed stand oil at high shearing stresses. D. Tollenaar and H. Bolthof. bibliog Ind & Eng Chem 38:851-3 Ag '46

Viscosity of molten aluminum and its alloys. G. Akimow. diag Metal Prog 49:99 Ja '46

Viscosity of oils. W. L. Nelson. Oil & Gas J 45:163 My 18 '46

Viscosity of pine gum. W. J. Runckel and I. E. Knapp. bibliog il Ind & Eng Chem 38: 555-6 My '46

Viscosity-temperature relationships of paint vehicles; abstract. P. G. Meerman. Paint Oil & Chem R 109:20 Ap 4 '46

See also

Consistometers
Fluidity
Plasticity
Surface tension

Measurement

Contribution to the solution character of a few rubbery polymers. H. Naidus and H. Mark. India Rubber World 113:229-30 N '45

Determination of the pressure-viscosity coefficient and molecular weight of lubricating oils by means of the temperature-viscosity equations of Vogel and Eyring. A. Cameron. bibliog Inst Pet J 31:401-14 O '45

Photographic-viscometric apparatus and technique. J. L. Riley and G. W. Seymour. bibliog il diags Ind & Eng Chem Anal ed 18:387-90 Je '46

Shape and size of pectinic acid molecules deduced from viscometric measurements. H. S. Owens and others. bibliog Am Chem Soc J 68:1628-32 Ag '46

VISCOSITY—Measurement—*Continued*
These methods avoid trouble in converting viscosity units. B. Miller. Chem & Met Eng 52:115 D '45
Viscosities and densities of solvent-vegetable oil mixtures. F. C. Magne and E. L. Skau. bibliog diags Ind & Eng Chem 37:1097-1101 N '45
Viscosity by various instruments; conversion table. W. L. Nelson. Oil & Gas J 45:103 Ag 31 '46
Viscosity conversion tables. Oil & Gas J. 44: B103 sec 2 Mr 30 '46
Viscosity of lubricants under high pressure. M. D. Hersey and R. F. Hopkins. bibliog(48 titles) Mech Eng 67:820-4 D '45; Discussion. 68:576-83 Je '46
See also
Viscosimeters

VISES
Precision toolmaker's vise will never distort. R. B. Boone. diags Am Mach 90:137 F 28 '46
Quick-acting self-aligning toolmaker's drill vise. L. L. Dodds. il diags Am Mach 90: 143 My 9 '46
Universal vise holds small parts for soldering and welding. A. Matson. diag Am Mach 89:141 D 20 '45

VISIBILITY
Laboratory technique in solving visibility problems; abstract. W. R. Stevens and J. M. Waldram. Light & Lighting 39:84-5 My '46
Visibility-levels; report no.2 of Committee on standards of quality and quantity for interior illumination, Illuminating engineering society. bibliog Illum Eng 41:351-60 My '46
Visual thresholds of steady point sources of light in fields of brightness from dark to daylight. H. A. Knoll and others. diags Opt Soc Am J 36:480-2 Ag '46

VISIBLE records. See Records, Visible

VISIBLE speech. See Speech, Visible

VISITORS
ILG tacks up a welcome sign on the factory's big front door. L. B. Colby. il Sales Management 57.40-2 Jl 15 '46
Plants welcoming public as visitors again; tips on how to handle them. E. J. Cunningham. il Ptr Ink 213:162+ D 14 '45
To hold open house is good public relations; but sponsor should be good promoter, good host and bit of a showman. Ptr Ink 217:68+ N 1 '46
Visitation of plants. E. G. Thomssen. Soap & San Chem 21:63+ N '45

VISUAL instruction
Audio-visual classroom planning. P. Will, jr. il plans diags Arch Rec 99:66-77 F '46
Device for classroom demonstration of moving loads. D. D. Haines. il Civil Eng 16: 176-7 Ap '46
Training post-war workers; visual aids. C. R. Coneway. il Nat Safety N 53:28-9+ F '46
Use of audio-visual aids in engineering instruction. W. G. Gnaedinger and C. L. Barker. J Eng Educ 36:175-9 N '45

Catalogs
1946 catalog. ns no.35:1-143 South Carolina, University. Extension division audio visual aids bureau, Columbia, S.C. 19 Jl '46

VITAL statistics
See also
Birth rate
Diseases—Statistics
Longevity
Mortality—Statistics
Population—Statistics
Sickness

VITALLIUM
Cobalt-base high temperature alloys for gas turbines and superchargers. L. E. Browne. Steel 118:88-91+ My 27 '46
High temperature alloys; research on materials for gas turbines. N. J. Grant. Iron Age 157:50-6 My 30; 77-80 Je 6; 60-3 Je 20 '46
Metallurgical development of materials for turbosuperchargers and aircraft gas turbines. W. L. Badger. il Iron Age 158:40-5 Jl 25, 60-6 Ag 1 '46
Precision-cast parts of high-temperature alloys. W. O. Sweeny. il diags Product Eng 17:121-6 S '46
Superalloys for high temperature service in gas turbines and jet engines; round-table discussion at National metal congress. F. S. Badger and others. il diags Metal Prog 50: 97-122 Jl '46

VITAMINS
Commercially dehydrated vegetables; oxidative enzymes, vitamin content, and other factors. M. F. Mallette and others. bibliog Ind & Eng Chem 38:437-41 Ap '46
Effect of freezing rate on vegetables; appearance, palatability, and vitamin content of peas and snap beans. F. A. Lee, W. A. Gortner and J. Whitcombe. bibliog il Ind & Eng Chem 38:341-6 Mr '46
Enrichment of rice with synthetic vitamins and iron. M. F. Furter and others. bibliog il diag Ind & Eng Chem 38:486-93 My '46
Keeping vitamins in rice. Bsns W p54 Ja 5 '46
Large-scale production of liver oils from some New Zealand fish; abstract. M. M. Cunningham and C. Scott. Food Ind 17: 1401 N '45
Proportioning vitamins in cattle feeds. Food Ind 18:1642+ O '46
Studies of vitamin deficiency; effects of diets restricted in thiamine and riboflavin. M. K. Horwitt and others. Science 104:407-8 N 1 '46
Use of vitamins in industry. Nat Safety N 53:52 F '46
Vimms vanish from retail market. Bsns W p102+ Ap 13 '46
Vitamin content of peas; effect of freezing, canning, and dehydration. C. H. Mahoney and others. bibliog Ind & Eng Chem 38:654-7 Je '46
Vitamin patents freed. Bsns W p35 Ja 19 '46
Vitamin retention in processed meat; effect of storage. J. F. Feaster and others. bibliog Ind & Eng Chem 38:87-90 Ja '46
Vitamin spread; patent. Food Ind 18:435 Mr '46

Analysis
Nutritive value of canned foods; comparison of vitamin values obtained by different methods of assay. N. B Guerrant, M. G. Vavich and O. B. Fardig. bibliog Ind & Eng Chem Anal ed 17:710-13 N '45
Nutritive value of canned foods; influence of temperature and time of storage on vitamin contents. N. B. Guerrant, M. G. Vavich and R. A. Dutcher. bibliog Ind & Eng Chem 37:1240-3 D '45

Vitamin A
Apparent antagonism between vitamin A and carotenoids in the fowl. M. Rubin and H. R. Bird. bibliog Science 103:584-6 My 10 '46
Chemical conversion of β-carotene into vitamin-A. R. F. Hunter and N. E. Williams. Chem Soc J p554-6 S '45
Color reaction of vitamin A on acid earths. G. G. Mayer and H. Sobotka. bibliog Science 102:158 Ag 10 '45; Reply. H. M. Espoy. Science 103:175 F 8 '46
Crystalline vitamin A methyl ether. A. R. Hanze and others. Am Chem Soc J 68:1389 Jl '46
Effect of the prepartum diet of the cow on the vitamin A reserves of her newborn offspring. G. H. Wise and others. bibliog Science 103:616-18 My 17 '46
New vitamin A; abstract. C. D. Robeson and J. G. Baxter. Food Ind 18:1284 Ag '46
Spectrophotometric changes during oxidation of vitamin A oils. G. R. Halpern. bibliog Ind & Eng Chem Anal ed 18:621-5 O '46
Synthesis of biologically active vitamin A substances. N. A. Milas. bibliog Science 103:581-3 My 10 '46
Twenty years and onwards. I. M. Heilbron. Chem & Eng N 24:1035-9 Ap 25 '46
Vitamin A deterioration in fortified oleomargarine; abstract. E. B. Boyce and others. Food Ind 18:1635 O '46
Vitamin A to prolong life. Food Ind 18:43 Ja '46

Analysis
Activated glycerol dichlorohydrin; new colorimetric reagent for vitamin A. A. E. Sobel and H. Werbin. Ind & Eng Chem Anal ed 18:570-3 S '46

VITAMINS—Vitamin A—Analysis—*Continued*
Availability of carotene from kale. E. Orent-Keiles and others. Science 103:498-9 Ap 26 '46
Chemical determination of vitamin A in dried whole eggs. C. R. Thompson and others. bibliog Ind & Eng Chem Anal ed 18:113-15 F '46
Chemical determination of vitamin A in mixed feeds and feedstuffs. W. Brew and M. B. Scott. bibliog Ind & Eng Chem Anal ed 18:46-8 Ja '46
Chromatographic estimation of vitamin A in mixed feeds. M. L. Cooley, J. B. Christiansen and C. H. Schroeder. bibliog Ind & Eng Chem Anal ed 17:689-92 N '45
Colorimetric vitamin A reagent. Chem Eng 53:141 S '46
Determination of vitamin A in liver. W. D. Gallup and J. A. Hoefer. bibliog Ind & Eng Chem Anal ed 18:288-90 My '46
Drill sampling device for fish livers; precision and accuracy. F. B. Sanford and G. C. Bucher. il Ind & Eng Chem Anal ed 18: 269-71 Ap '46
2-Phenylazo-*p*-cresol, a photometric standard for vitamin A. H. R. Kreider. bibliog Ind & Eng Chem Anal ed 17:694-5 N '45

Vitamin B complex

Folic acid takes its place in the vitamin B series. H. Gee. il Food Ind 18:1186-8+ Ag '46
Nicotinic acid; vitamin becomes an industry. Chem Ind 57:1057 D '45
Peptide nature of vitamin Bc conjugate from yeast. J. J. Pfiffner and others. Am Chem Soc J 68:1392 Jl '46
Vitamin content of casein. M. D. Cannon and others. bibliog Science 102:529-30 N 23 '45

Vitamin B_1

Adsorption of aneurin (vitamin B_1) on sand. H. N. Ridyard. bibliog diag Soc Chem Ind J 65:92-5 Mr '46
Alterations in the cardiac conduction mechanism in experimental thiamine deficiency. W. D. King and W. H. Sebrell. bibliog Pub Health Rep 61:410-14, pl 1-2 Mr 22 '46
Electrocardiographic alterations in adult rats as a result of acute thiamine deficiency. J. M. Hundley and W. H. Sebrell. bibliog Pub Health Rep 61:847-56, pl 1-5 Je 14 '46
Isomer of thiamin. C. C. Price, N. J. Leonard and R. H. Reitsema. bibliog Am Chem Soc J 68:766-9 My '46
Thiamine deficiency and high estrogen findings in uterine cancer and in menorrhagia. J. E. Ayre and W. A. G. Bauld. bibliog Science 103:441-5 Ap 12 '46
Thiamine depletion of human subjects on a diet rich in thiamine. H. T. Ness and others. Science 103:198-9 F 15 '46
Vitamin-B_1 in fortified and natural high vitamin flours. J. J. C. Hinton. bibliog Chem & Ind p94-7 Mr 2 '46
Water-insoluble forms of thiamine and niacin. W. Huber, W. Boehme and S. C. Laskowski. bibliog Am Chem Soc J 68:187-90 F '46

Analysis

Nonfluorescent lubricant for fluorophotometry. A. Koff and M. Frederick. Ind & Eng Chem Anal ed 17:745 N '45

Vitamin B_2

Microbiological synthesis of riboflavin; a theory concerning its inhibition. A. Leviton. diag Am Chem Soc J 68:835-40 My '46
Preparation of riboflavin; synthesis of alloxazines and isoalloxazines. M. Tishler, J. W. Wellman and K. Ladenburg. bibliog Am Chem Soc J 67:2165-8 D '45

Analysis

Excessively high riboflavin retention during braising of beef; comparison of methods of assay. W. F. Hinman and others. bibliog Ind & Eng Chem Anal ed 18:296-301 My '46
Use of enzyme in riboflavin determination; free and combined riboflavin. L. Rosner, E. Lerner and H. J. Cannon. bibliog Ind & Eng Chem Anal ed 17:778-9 D '45

Vitamin C

Ascorbic-citric acids prevent browning of cut fruit. H. G. Luther and G. O. Cragwall. il Food Ind 18:690-2+ My '46
Attaining high C; tomatoes from different localities and amounts of vitamin C. Bsns W p38 Mr 2 '46
Benzophenone-ascorbic acid. P. E. Papadakis. Am Chem Soc J 67:2051 N '45
High ascorbic acid content of the West Indian cherry. C. F. Asenjo and A. R. Freire de Guzmán. bibliog Science 103:219 F 22 '46; Reply. Science 104:230-1 S 6 '46
Inhibition of oxidation of ascorbic acid by certain vegetable extracts. R. Reder. Science 103:201-2 F 15 '46
New vitamin C for old. B. M. Newman. il Sci Am 175:220-2 N '46
Nutritive value of canned foods; factors affecting ascorbic acid content of canned grapefruit and orange juices. F. C. Lamb. bibliog Ind & Eng Chem 38:860-4 Ag '46
Synthetic vitamin C holds key to food and beverage protection. A. A. Lund. J Chem Educ 22:595 D '45
Vitamin-*C* content of vegetables; effect of cooking on cabbage. L. H. Lampitt and others. Soc Chem Ind J 64:260-2 S '45
Vitamin-*C* content of vegetables; the influence of variety. L. H. Lampitt and others. bibliog Soc Chem Ind J 64:262-4 S '45
Vitamin C in vegetables; abstract. O. Ribeiro. Chem Eng 53:266+ Ag '46

Analysis

Deproteinization by metaphosphoric acid; review of its value for the analyst. A. A. Horvath. bibliog(50 references) Ind & Eng Chem Anal ed 18:229-33 Ap '46
Determination of ascorbic acid; application of the indophenol-xylene extraction method to determination in large numbers of tomato and tomato juice samples. W. L. Nelson and G. F. Somers. bibliog diag Ind & Eng Chem Anal ed 17:754-6 D '45
Iodimetric titrimetric determination of vitamin C; abstract. J. Adams, M. M. Acker and H. A. Frediani. Can Chem & Process Ind 30:83 Ap '46
Use of 2,4-dinitrophenylhydrazine for the determination of ascorbic acid. M. Pijoan and H. J. Gerjovich. Science 103:202-3 F 15 '46

Vitamin D

Antibacterial action of phenanthrene-related substances. W. Raab. bibliog Science 103: 670-1 My 31 '46
Studies in the synthesis of the antirachitic vitamins; Δ^5-androstenol-3 and its partial dehydrogenation with benzoquinone. N. A. Milas and C. R. Milone. bibliog Am Chem Soc J 68:738-40 My '46
Vitamin D patents dedicated to public. Oil Paint & Drug Rep 149:7+ Ja 21 '46

Analysis

Spectrophotometric procedure for quantitative estimation of vitamins D. J. B. DeWitt and M. X. Sullivan. bibliog Ind & Eng Chem Anal ed 18:117-19 F '46

Vitamin E

Cardiac failure in cattle on vitamin E-free rations as revealed by electrocardiograms. T. W. Gullickson and C. E. Calverley. bibliog Science 104:312-13 O 4 '46
Determination of tocopherol in plant tissue. M. E. Wall and E. G. Kelley. bibliog Ind & Eng Chem Anal ed 18:198-201 Mr '46
Effect of tocopherols in preventing gastric ulcers in rats. J. L. Jensen. Science 103: 586-7 My 10 '46
Treatment of myopathies and industrial injuries with wheat germ oil. M. Ant. Ind Med 15:399+ Je '46

Vitamin K

Vitamin aspirin; reduces hemorrhage danger. Bsns W p56 F 16 '46

VITRIFIED clay pipes. See Pipes, Vitrified clay

VOCATIONAL education
Third conference of American states members of the International labour organisation, Mexico City, April 1946. Int Labour R 53: 317-39 My-Je '46
See also
Apprentices
Chemical education
Employees, Training of
Engineering education
Forestry schools and education
Industrial education
Manual training
Mining schools and education
School shops
Technical education
Textile education
Trade schools
Veterans—Education
Cooperative plan
Apprentices are earning while learning; Washburne trade school, Chicago. il Am Bld 68:68-9 My '46
LeTourneau establishes Texas school; LeTourneau technical institute. il plan Manuf Rec 115:50-1+ My '46
New project to give Texas new steel consuming industry; Le Tourneau technical institute of Texas; industrial plant for concrete house building machinery. il Iron Age 157:95 F 28 '46
Part-time cooperative training on the college level; Department of retailing at Washington university. I. F. Blood. J Retailing 21:151-3 D '45
Water in your backlog; backlog of men; how can educators and industry cooperate. I. L Hillman. Credit & Fin Management 48:6-7 Ag '46
Young America learns how; vocational building trades program at Highland Park high school, in suburban Chicago. il Am Bld 68:64-5+ My '46
Directories
Where to find vocational training in New York city. 107p Vocational Advisory Service, 95 Madison av, New York 16 '46
Brazil
Organisation of commercial apprenticeship in Brazil. Int Labour R 53:410-11 My-Je '46
France
Retraining of French ex-servicemen and displaced persons. Mo Labor R 62:80-1 Ja '46
Great Britain
Vocational training in Great Britain. Int Labour R 53:408-10 My-Je '46
New Zealand
Apprenticeship in New Zealand. Int Labour R 53:96-8 Ja-F '46
Russia
Vocational training in the U.S.S.R. Int Labour R 52:691-2 D '45
VOCATIONAL guidance
Awards and educational activities of ACS local sections. R. F. Gould. Chem & Eng N 24:629-31+ Mr 10 '46
Bibliography
Aids in counseling. 6p U.S. Dept. of labor, Washington '46
VOCATIONAL schools. See Trade schools; Vocational education
VOICE
Monitored live-voice as a test of auditory acuity. R. Carhart. bibliog Acoustical Soc Am J 17:339-49 Ap '46
Training for voice communication; improving intelligibility of army air force personnel in talking over the interphone and radio. J. W. Black and H. M. Mason. Acoustical Soc Am J 18:441-5 O '46
VOLATILITY
Effect of added components on the relative volatility of two binary mixtures. O. L. Updike, jr. and others. bibliog Am Inst Chem Eng Trans 41:717-36 D '45
Oven for measurement of volatility of plasticizers in polyvinyl chloride and chloride-acetate copolymer compositions. D. K. Rider and J. K. Sumner. il Ind & Eng Chem Anal ed 17:730-3 N '45
VOLCANIC ash, tuff, etc.
Blast holes shot into volcanic slag; use of shells; seabee project, building road on New Britain. G. A. Cunney. il Civil Eng 16:71 F '46
Illite, montmorillonite, halloysite, and volcanic ash as whiteware body ingredients. L. Mattyasovszky-Zsolnay. Am Cer Soc J 29: 254-60 S 1 '46
VOLCANOES
Contribution to the petrography of Haleakala volcano, Hawaii. G. A. Macdonald and H. A. Powers. bibliog map Geol Soc Bul 57:115-23 Ja '46
Postglacial forest succession and climate in the Oregon Cascades. H. P. Hansen. bibliog maps Am J Sci 244:710-34 O '46
Radioactivity in the earth's crust. J. Alexander. Min & Met 27:449 Ag '46
Volcanic heat. J. Verhoogen. bibliog Am J Sci 244:745-71 N '46
See also
Steam, Natural
VOLTAGE
Calculating voltage drop in industrial a.c. circuits. L. H. Gussow. Elec World 125:60-3 Ja 5 '46
Chart determines line voltage drop. N. E. Dillow. Elec World 125:88 Mr 30 '46
Effect of voltage variations. Product Eng 17: 239-40 Mr '46
Evaluation of restriking voltages. J. R. Mortlock. diags Inst E E J 92 pt 2:562-79 bibliog(p575) D '45; Discussion. 93 pt 2:393-4 Ag '46
Formulas for voltage drops on unbalanced secondary circuits. J. W. Anderson, 3d. diags Elec World 125:50-3 Ap 27 '46
Influence of irradiation on the measurement of impulse voltages with sphere-gaps. J. M. Meek. Inst E E J 93 pt 2:97-110 bibliog(p109-10); Discussion. 110-15 Ap '46
Method to determine distribution voltage drop and power loss. Elec World 124:156 D 8 '45
Motor voltage considerations in refineries. E. Kun. Nat Pet N 38 pt 2:R132-3 F 6 '46; Same. Pet Eng 17:66 F '46; Same. il Pet Refiner 25:113-14 F '46; Same. Oil & Gas J 44:86+ Mr 2 '46
Use of kva.-distance constants for voltage drop calculations. N. H. Erlandson. Elec World 126:96 Ag 17 '46
Voltage drop on secondary circuits with unbalanced condition; charts. P. W. Choate. Elec World 125:158 Ap 13; 88 Ap 27; 126 My 11 '46
See also
High voltages
VOLTAGE regulation
Adjustable-voltage control; basic principles and circuits. E. U. Lassen. il diags Product Eng 17:[no 7] 142-7 Jl '46
Automatic voltage regulation. bibliog il Elec R (Lond) 138:258-9 F 15 '46
Automatic voltage regulation. E. T. Norris. bibliog il Electrician 136:281-3 F 1 '46
Capacitor stabilization of arc-welding transformers. J. H. Blankenbuehler and R. V. Lester. diags Elec Eng 65:Trans 54-5 F '46
Capacitors on 24 kv. an adjunct to condenser serving large furnace load. E. R. Smith and others. il diag Elec World 124:114-15 N 10 '45
Motor-driven automatic timer matches generator voltage with process cycle; power for anodizing. A. R. Wismer. il diag Power 90: 161-3 Mr '46
Quick guide to rural voltage drops. H. N. Muller, jr. and D. L. Whitehead. diags Elec World 125:55-7 Mr 30 '46
Series capacitor overcomes bad voltage fluctuation. C. F. Myers. diag Elec World 125: 82 Mr 30 '46
Stabilization of X-ray tube current and voltage. A. F. LeMieux and W. W. Beeman. bibliog diags R Sci Instr 17:130-2 Ap '46
Strip voltage improved by field-boosting generator. R. G. Gehlsen. diag Coal Age 51: 86-7 Je '46
Voltage stabilization; use of thermionic valves for wattmeter testing. W. Easton. il diag Elec R (Lond) 138:1013-15 Je 28 '46
VOLTAGE regulators
Characteristics of lamps as applied to the non-linear bridge, used as the indicator in voltage stabilizers. G. N. Patchett. il diags Inst E E J 93 pt 3:305-22 bibliog(p320) S '46

VOLTAGE regulators—*Continued*
Constant 6 volt d.c. supply. C. C. Springer. il diag Radio N 35:44-5+ Je '46
Constant voltage from Diesel generator. il diag Machine Design 18:107 S '46
Desirable design features for voltage regulators. J. A. Rawls. diags Elec World 125: 52-4 Mr 30 '46
D-c power systems for aircraft. R. H. Kaufmann and H. J. Finison. il diags Gen Elec R 48:56-9 D '45; 49:51-7 Mr; 46-54 My '46
Distribution system economics; regulators and shunt capacitors used on lines in light load areas. O. B. Falls, jr. Elec West 95: 80-3 D '45
Electronic a-c voltage regulator. L. D. Harris. diags Electronics 19:150-1 Ja '46
Exciter-regulator for aircraft alternators. P. T. Hadley and others. il diags Electronics 19:120-2 Jl '46
Generation and regulation of electric power in aircraft; a survey of design features of generators and their control. I. O. Hockmeyer. bibliog il diags Inst E E J 93 pt 2: 9-14 F '46
Grinding collector rings helps regulator performance. A. V. Kilpatrick. il Power Pl Eng 49:104 O '45
Guides for operation of transformers, regulators, and reactors. Elec Eng 64:Trans 797-805 N '45
Instability in d-c aircraft systems. H. B. Bunce and others. il diags Elec Eng 64: Trans 786-91 N '45
Multi-voltage regulated power supplies. J. R. Mentzer. diags Electronics 19:132-3 S '46
Nonlinear circuit element applications. H. E. Kallmann. bibliog diags Electronics 19:130-6 Ag '46
Servicing the new Delco regulator. W. H. Crouse. il diags Bus Transportation 25:74-9 Je '46
Storage battery charging and full-floating operation. I. F. Freed. il Elec World 125: 92-5 F 16 '46
Theory of the non-linear bridge circuit as applied to voltage stabilizers. G. N. Patchett. bibliog diags Inst E E J 93 pt 3:16-22 Ja '46; Discussion. 93 pt 3:343 S '46
See also
Rototrol

Testing

Insulation tests of induction regulators. J. C. Parker. Elec World 126:68-9 Jl 20 '46

VOLTAGE standards
240v standard; implications discussed at meeting of I.E.E. Electrician 136:1449-50 My 31 '46; Engineering 161:571 Je 14 '46
Voltage standardisation. Elec R (Lond) 138: 251, 304 F 15-22 '46
Voltage standardisation; decision to adopt 240V. Electrician 136:399-400 F 15 '46
Voltage standardisation; explanation by commissioners. Electrician 136:596+ Mr 8 '46

VOLTAMETERS
Aluminum coulometer. M. Tosterud and R. B. Mason. Electrochem Soc Trans 90 (preprint 16):229-34 '46
Coulometric analysis. J. J. Lingane. diags Am Chem Soc J 67:1916-22 N '45

VOLTMETERS
Correction formula for voltmeter loading. R. E. Lafferty. diags Inst Radio Eng Proc 34:358 Je '46
Electrostatic generating voltmeter for measurement of very small e.m.f.'s. S. A. Scherbatskoy and R. E. Fearon. Phys R 70:96 Jl 1 '46
Frequency compensated a-c ammeters and voltmeters. J. M. Whittenton and C. A. Wilkinson. il diags Elec Eng 65:Trans 761-4 N '46
Megavoltmeter for induction electron accelerators. W. F. Westendorp. il diag R Sci Instr 17:215-17 Je '46
Meter for high voltage measurement. H. Alfvén and S. Eklund. il diags R Sci Instr 17:353-6 O '46
Voltmeter water stage indicator. il diag Elec World 125:118+ Je 8 '46

VOLTMETERS, Vacuum tube
Bridge circuits with a non-linear element. M. Levy. diags Wireless Eng 23:3-7 Ja '46
Distortion analyzer; Hewlett-Packard's newest instrument. il R Sci Instr 17:201 My '46
Electronic volt-ohmmeter. H. H. Arnold. il diags Radio N 34:48-50+ N '45
Flame radiation measuring instrument; efficiency of open-hearth furnace checked with vacuum-tube voltmeter connected to radiation pyrometer. E. M. Yard. bibliog il diags Electronics 19:102-4 N '46
General Electric vacuum-tube voltmeter. il R Sci Instr 17:245-6 Je '46
High impedance pulse voltmeter. D. E. Howes. diag R Sci Instr 16:322 N '45
High-resistance d-c voltmeter. D. L. Waidelich. diags Electronics 19:158-60 Mr '46
Home-built vacuum tube voltmeter. N. M. Smith. il plan diag Radio N 36:48-9+ Jl '46
Integrating meter for measurement of fluctuating voltages. H. E. Haynes. il diag Soc Motion Picture Eng J 46:128-33 F '46
Inverse vacuum-tube voltmeter. S. H. Dike. diags Electronics 19:140+ Ag '46
Machine gun rate-of-fire indicator; non-military uses indicated. A. D. Peterson. il diags Electronics 18:134-8 D '45
Pulse response of diode voltmeters. A. Easton. il diags Electronics 19:146-9 Ja '46
R.f. probe design; primarily for use with electronic voltmeter. D. F. McAvoy. il diags Radio N 35:35-7+ Mr '46
Resistance measurement by vacuum tube voltmeter. diags Elec World 126:128 S 28 '46
Sensitive r-f voltmeter; Ballantine Model 304. il R Sci Instr 17:161-2 Ap '46
Suppressed-range recording peak voltmeter. F. G. Brockman. diag R Sci Instr 17:177-9 My '46

VOLUME
Pressure-volume relation for cylindrical tubes with elastometric walls; the human aorta. A. L. King. bibliog J Ap Phys 17:501-5 Je '46
Pulpwood volume measured by water displacement. il diags Paper Ind 28:526-7 Jl '46
Recent work in the field of high pressures; mechanical effects of high pressure. P. W. Bridgman. bibliog Rs Mod Phys 18:10-27 Ja '46
Volume of oxygen in a cylinder; chart. Eng N 136:1004 Je 27 '46; Same. Welding J 24: 1177 D '45

VOLUMETRIC analysis
Amperometric microtitration of very dilute chromate solutions using the rotating platinum electrode. I. M. Kolthoff and D. R. May. Ind & Eng Chem Anal ed 18:208-9 Mr '46
Amperometric titration of chloride, bromide, and iodide using the rotating platinum electrode. H. A. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:355-8 Je '46
Amperometric titration of cyanide with silver nitrate, using the rotating platinum electrode. H. A. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:574-5 S '46
Amperometric titration of mercaptans with silver nitrate using the rotating platinum electrode. I. M. Kolthoff and W. E. Harris. bibliog diags Ind & Eng Chem Anal ed 18: 161-2 Mr '46
Amperometric titration of mixtures of halides using the rotating platinum electrode. H. A. Laitinen, W. P. Jennings and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:358-9 Je '46
Analysis of hydrofluoric-nitric acid stainless steel pickling bath. W. E. McKee and W. F. Hamilton. bibliog Ind & Eng Chem Anal ed 17:310-12 My '45; Same. Metal Finishing 43: 332-3+ Ag '45; Abstract. Steel 118:110-12 Je 10 '46
Analysis of organoselenium compounds. J. D. McCullough, T. W. Campbell and N. J. Krilanovich. bibliog diag Ind & Eng Chem Anal ed 18:638-9 O '46
Argentimetric estimation of high-molecular quaternary ammonium halides. A. S. DuBois. bibliog Ind & Eng Chem Anal ed 17:744-5 N '45
Assay of hydroquinone; comparison of the iodometric and cerometric titrations. I. M. Kolthoff and T. S. Lee. bibliog Ind & Eng Chem Anal ed 18:452 Jl '46

VOLUMETRIC analysis—*Continued*
Conductometric titrations with organic reagents; determination of copper with cupferron, and iron with sulfosalicylic acid. J. F. Cerwin and H. V. Moyer. bibliog Ind & Eng Chem Anal ed 18:302-4 My '46
Consumption of NaOH and Na_2S in kraft pulping. P. B. Borlew and T. A. Pascoe. bibliog Paper Tr J 123:178-80 O 10 '46
Copper alkyl phthalates for the estimation of mercaptans. E. Turk and E. E. Reid. bibliog Ind & Eng Chem Anal ed 17:713-14 N '45
Determination of acid in the presence of aluminum. R. P. Graham. bibliog Ind & Eng Chem Anal ed 18:472-4 Ag '46
Determination of alkyl disulfides in the absence and presence of mercaptans. I. M. Kolthoff and others. bibliog diag Ind & Eng Chem Anal ed 18:442-4 Jl '46
Determination of basic nitrogen in hydrocarbon feed stocks. L. Donn and H. Levin. diags Ind & Eng Chem Anal ed 18:593-5 O '46
Determination of critical concentrations for micelle formation in solutions of cationic soaps by changes in the color and fluorescence of dyes. M. L. Corrin and W. D. Harkins. J Chem Phys 14:641 O '46
Determination of critical concentrations for the formation of soap micelles by the spectral behavior of pinacyanol chloride. M. L. Corrin and others. bibliog J Chem Phys 14:480-6 Ag '46
Determination of ethers and esters of ethylene glycol; modified alkoxyl analysis. P. W. Morgan. bibliog diag Ind & Eng Chem Anal ed 18:500-4 Ag '46
Determination of metallic copper in cuprous oxide-cupric oxide mixtures. I. Baker and R. S. Gibbs. Ind & Eng Chem Anal ed 18: 124-7 F '46
Determination of moisture in sugar solutions with Karl Fischer reagent. F. W. Zerban and L. Sattler. il diag Ind & Eng Chem Anal ed 18:138-9 F '46
Determination of reducing sugars; mathematical expression of reducing action in the Lane and Eynon and volumetric ferricyanide methods. F. W. Zerban, W. J. Hughes and C. A. Nygren. bibliog Ind & Eng Chem Anal ed 18:64-5 Ja '46
Determination of small amounts of soaps or fatty acids on cotton materials. C. L. Hoffpauir and J. H. Kettering. bibliog Am Dyestuff Rep 35:265-6 My 20 '46
Determination of some aromatic amines and substituted ureas in smokeless powder; improved volumetric bromination procedure. T. D. Waugh, G. Harbottle and R. M. Noyes. Ind & Eng Chem Anal ed 18:636-7 O '46
Determination of 4-vinyl-1-cyclohexene (butadiene dimer) in recycle styrene. H. A. Laitinen, A. S. O'Brien and S. Wawzonek. bibliog Ind & Eng Chem Anal ed 17:769-72 D '45
Determination of water content in oils. M. M. Acker and H. A. Frediani. bibliog Ind & Eng Chem Anal ed 17:793-4 D '45
Differential reduction of iron and tin. A. C. Simon and others. Ind & Eng Chem Anal ed 18:496-7 Ag '46
Direct volumetric determination of the organic sulfonate content of synthetic detergents. T. U. Marron and J. Schifferli. bibliog Ind & Eng Chem Anal ed 18:49-50 Ja '46
Effect of pH on hydrolysis rate of chloroacetic acid. L. F. Berhenke and E. C. Britton. bibliog Ind & Eng Chem 38:544-6 My '46
Effect of solvents on the critical concentration for micelle formation of cactionic soaps. M. L. Corrin and W. D. Harkins. J Chem Phys 14:640 O '46
Electrometric method for the estimation of sucrose and reducing sugars. S. E. Coalstad. diag Soc Chem Ind J 65:230-2 Ag '46
Estimation of salts of weak acids by direct titration in a mixed solvent. S. R. Palit. bibliog Ind & Eng Chem Anal ed 18:246-51 Ap '46
Higher aliphatic acid chlorides; estimation of yield in the preparation of lauroyl chloride. R. R. Ackley and G. C. Tesoro. bibliog Ind & Eng Chem Anal ed 18:444-5 Jl '46
Improved analysis of fuming and concentrated sulphuric acid by water titration. J. C. D. Brand. Chem Soc J p585-8 Jl '46
Improvements in the potentiometric titration of chlorides. R. P. Yeck and G. H. Kissin. bibliog diags Ind & Eng Chem Anal ed 17: 692-3 N '45
Mercurous perchlorate as a volumetric reagent for iron. W. Pugh. Chem Soc J p588-9 S '45
Method for calcium-sequestering value of phosphate water conditioners. B. C. Hafford, F. Leonard and R. W. Cummins. Ind & Eng Chem Anal ed 18:411-15 Jl '46
Method for the determination of iron in welding fume samples. R. G. Keenan and B. L. Minderman. bibliog J Ind Hygiene 28:32-6 Mr '46
New method for determination of manganese; based on potentiometric titration of manganous ion with permanganate ion in neutral pyrophosphate solution. J. J. Lingane and R. Karplus. bibliog Ind & Eng Chem Anal ed 18:191-4 Mr '46
Potentiometric determination of sodium sulphide in sulphate pulp black liquor. P. B. Borlew and T. A. Pascoe. bibliog Paper Tr J 122:31-4 Mr 7 '46
Rapid analysis of Fischer synthesis catalyst. C. H. Hale. diag Pet Refiner 25:117-20 Je '46
Rapid method for determination of copper in steel; especially suitable for foundry control. F. B. Clardy, J. C. Edwards and J. L. Leavitt. bibliog Ind & Eng Chem Anal ed 17:791-2 D '45
Rapid method for the determination of beta- and gamma-cellulose. N. S. Lea. Paper Tr J 122:47-8 F 7 '46
Routine analysis of sodium-potassium alloys. S. L. Walters and R. R. Miller. diags Ind & Eng Chem Anal ed 18:468-9 Ag '46
Semimicrodetermination of saponification equivalent by Rieman's double-indicator method. D. Ketchum. Ind & Eng Chem Anal ed 18:273-4 Ap '46
South African fish products; periodic acid as a reagent in the analysis of the unsaponifiable fractions of natural fats. M. L. Karnovsky and W. S. Rapson. bibliog Soc Chem Ind J 65:138-40 My '46
Titrimetric procedures using the Karl Fischer reagent. G. Wernimont. bibliog diags Can Chem & Process Ind 30:122+ My '46
Use of bromate in volumetric analysis; determination of arsenic and antimony by the Györy method. G. F. Smith. bibliog Am Cer Soc J 29:143-5 My 1 '46
Use of high-frequency oscillators in titrations and analyses. F. W. Jensen and A. L. Parrack. bibliog diag Ind & Eng Chem Anal ed 18:595-9 O '46
Volumetric determination of aluminum applied to analyses of silica-alumina catalysts. M. N. Hale. bibliog Ind & Eng Chem Anal ed 18:568-9 S '46
Volumetric determination of magnesium in magnesium carbonate ores. L. R. Williams. bibliog Ind & Eng Chem Anal ed 18:542-4 S '46
Volumetric quantitative determination of SOONa group in sodium benzene sulfinate. L. Ackerman. Ind & Eng Chem Anal ed 18:243 Ap '46
Water content of powders determined by rapid method. W. P. Turner, jr. bibliog il diag Food Ind 18:502-5 Ap '46

See also
Colorimetric analysis

Apparatus

Reaction vessel for maintaining constant pH continuous electrometric titration during sodium amalgam reductions. N. Sperber and D. R. Briggs. diag Ind & Eng Chem Anal ed 18:74-5 Ja '46

Study and teaching

Illustration and demonstration in elementary volumetric analysis. C. C. Meloche and R. J. Carney. bibliog J Chem Educ 23:198-201 Ap '46

VOLUNTARY chain systems
Better selling, better merchandising dominate Red & White expansion plan. R. O. Harb. il plan Sales Management 56:80+ F 1 '46

See also Independent grocers alliance of America

VOLUNTEER state life insurance company
Premium rates revised; no change in values or settlement options. Life Ins Courant 50: 530 N '45

VOROSHILOV, Klimenti, 1881-
Politburo. V. Krachenko. por Fortune 34:99+ S '46

VORTEX motion
Vortex frequency and flow pattern in the wake of two parallel cylinders at varied spacing normal to an air stream. H. M. Spivack. bibliog diags J Aeronautical Sci 13:289-301 Je '46

VOTING
Voter turnout in America is lower than in any other large democracy. Iron Age 158: 148-50 Ag 8 '46

VOUCHERS
Types and scope of audits of public vouchers. E. E. Naylor. bibliog J Account 81:404-16 My '46
Work simplification, a case study of vouchers payable. J. D. Anderson. flow chart N A C A Bul 27:979-87 Je 1 '46

VOZNESENSKI, Nikolai
Politburo. V. Kravchenko. Fortune 34:234 S '46

VULCANIZATION
Alkylphenol sulfides as vulcanizing agents. G. M. Wolf and others. bibliog Ind & Eng Chem 38:1157-66 N '46
Balancing the vulcanization of GR-S and natural rubber in GR-S-rubber mixtures. A. P. Stubbs and C. R. Johnson. Rubber Age 59:567-9 Ag '46
Comparison of natural and synthetic hard rubbers; ebonites. G. G. Winspear and others. bibliog il Ind & Eng Chem 38:687-94 Jl '46
Early studies on the fractionation of rubber. H. P. Stevens. bibliog Rubber Age 59:310-12 Je '46
Electronic vulcanizer speeds production of many rubber units. Sci Am 174:32 Ja '46
Electronic vulcanizing on commercial basis; manufacture of Foamex mattresses. il Electronics 19:164+ Ja '46
Heating and vulcanizing rubber and similar resins with high-frequency current. V. L. Smithers. il India Rubber World 113:505-7+ Ja '46
Influence of polar compounds on hydrated calcium silicate and GR-S vulcanizates. F. W. Gage. Rubber Age 58:343-6+ D '45
Microscopic studies of lyogels; vulcanization of rubber. E. A. Hauser and D. S. Le Beau. bibliog il J Phys Chem 50:171-6 My '46
Non-sulphur vulcanization; experimental study. T. Alfrey and others. bibliog India Rubber World 113:653-8 F '46
Plastic molds for electronic vulcanizing; resin-impregnated glass fiber fabric molds. il Mod Plastics 23:142-5 Jl '46
Polymerization of drying oils; rubberlike product from vegetable oils, Norepol. J. C. Cowan, W. C. Ault and H. M. Teeter. bibliog flow sheet il Ind & Eng Chem 38:1138-44 N '46
Rapid vulcanization of saturated acrylic elastomers. W. C. Mast and others. bibliog il India Rubber World 113:223-8+ N '45
Role of carbon in oxidation of GR-S vulcanizates. H. Winn, J. R. Shelton and D. Turnbull. bibliog Ind & Eng Chem 38:1052-6 O '46
Rubber, polyisoprenes and allied compounds; the formation of dialkyl sulphide dihalides and its bearing on the problem of determining the unsaturation of vulcanised rubber. G. F. Bloomfield. Soc Chem Ind J 64: 274-8 O '45
Structural changes in vulcanization of Buna S. M. H. Keck and L. E. Cheyney. bibliog Ind & Eng Chem 37:1084-9 N '45
Sulfurization of unsaturated compounds. H. E. Westlake, jr. bibliog(94 references) Chem R 39:230-4 O '46
Vulcanization of GR-S by the Peachey process. A. T. McPherson. Rubber Age 59: 323 Je '46
Vulcanization reactions in butyl rubber; action of dinitroso, dioxime, and related compounds. J. Rehner, jr. and P. J. Flory. bibliog Ind & Eng Chem 38:500-6 My '46

Accelerators
Alkaline materials as accelerators for GR-S. J. Breckley. India Rubber World 114:663-5 Ag '46

Testing
State of cure of neoprene vulcanizates: measurement by the T-50 test. D. B. Forman and R. R. Radcliff. bibliog Ind & Eng Chem 38:1048-52 O '46

VULCANIZED fiber
Manufacture of vulcanized fibre in Germany. G. M. Kline and R. Richardson. il Mod Plastics 23:196-9 Ap '46

VULCANIZERS
Two vulcanizer accidents. il Locomotive 46: 2-3 Ja '46

VULPINIC acid
Molecular rearrangements; case of a thermal reversible α-diketone-γ-lactone rearrangement; some experiments with vulpinic acid and related compounds. A. Schönberg and A. Sina. Chem Soc J p601-4 Jl '46

W

WADDING
K-C wadding mill in Canada is now in full operation. il Paper Ind 27:1171-2 N '45
New crepe wadding mill in operation; Kimberly-Clark installation at Kapuskasing. W. F. Cook. il Pulp & Pa of Can 46:995-6 D '45

WAGE deductions
Accounting for payroll deductions. D. A. Hamilton. Am Gas Assn Proc 1945:105-6
Future of payroll savings; Trust company of New Jersey, Jersey City plan for sale of certificates of deposit. F. W. Hetzel. il Banking 38:90-1 Ja '46
Pay day savings club, Erie county savings bank of Buffalo, N.Y. M. Austin. Banking 38:68-9 F '46
Payroll savings allotment plan; Buffalo savings bank. A. M. Maischoss and J. G. Nassoy. il Banking 38:70-1+ Mr '46

WAGE differentials
Wage diversity and its theoretical implications. R. A. Lester. R Econ Stat 28:152-9 Ag '46
Wage rate differentials: comparative data for Los Angeles and other urban areas. R. MacFarlane. (Research memorandum no. 1) 164p bibliog(p163-4) pa $1.50 Haynes foundation, 2324 South Figueroa st, Los Angeles 7 '46

WAGE dividends. See Profit sharing

WAGE fixing
See also
Wage scales

WAGE fixing, Government
See also
Minimum wage
Wages—Regulation

WAGE incentive plans. See Wage payment plans

WAGE negotiators
Qualified wage negotiator. J. F. Sembower. Management R 35:115-17 Ap '46

WAGE payment plans
Applying wage incentives to job shop operation; Edo aircraft corporation. R. P. Wright. diags Factory Management 104: 113-16 Ja '46
Bundy's cost saving plan adds to employee base pay. W. G. Patton. Iron Age 158:92-4 O 31 '46

WAGE payment plans—*Continued*
Cost controls need readjustment. C. E. Westover. Foundry 74:102-3+ Ap '46
Current and future trends of wage incentives and wage payment. G. W. Chane. N A C A Bul 28:271-9 O 15 '46
Direct incentives for labor the key to industrial peace W. G. Lightbowne. Comm & Fin Chr 163:724+ F 7 '46
Do incentives pay? J. W. Nickerson. N A C A Bul 27:1193-1201 Ag 15 '46
Incentive boost; machinists' union paper praises agreement at Apex. Bsns W p102+ O 26 '46
Incentive plans must be properly applied. J. C. Lewis. Cer Ind 46:62-3 Mr '46
Incentive system for repair welding steel castings. W. S. Hansen. il Foundry 74:150+ O '46
Incentive wages. A. Ramond. Paper Ind 27: 1106+ O '45
Incentives for clerical and indirect workers; abstract. J. W. Nickerson. Management R 34:422-3 N '45
Installing an incentive wage plan. C. M. Reinherr and P. Griek. N A C A Bul 27: 383-400 Ja 1 '46
Is the rate of output right? R. M. Barnes. Factory Management 103:310+ D '45
Job evaluation principles; building wage structure. H. S. Wharen. Am Mach 90: 116-20 Ag 1 '46
Job evaluation systems in chemical industry is recommended. W. von Pechmann. Ind & Eng Chem 38:sup87-8 Ap '46
Labor's share in productivity. J Account 82: 1-4 Jl '46
Manpower problem in petroleum refineries solved by job evaluation and wage incentive. Pet Refiner 24:170+ N '45
Piper incentive pay contract points way to industrial peace. Aviation N 5:20 Mr 11 '46
Problems in the administration of wages. L. G. Reynolds. Advanced Management 11:2-8 Mr '46
Profit motive for workers can correct production lag; Lincoln electric co. J. F. Lincoln. Comm & Fin Chr 164:2133+ O 24 '46
Profit sharing vs production incentives. A. Ramond. Automotive & Aviation Ind 95: 15+ Ag 15 '46; Same cond. Factory Management 104:288+ Je '46
Requirements of a successful incentive plan. E. A. Cyrol. Management R 35:177-9 My '46
Senator Knowland's pay-as-you-earn plan for wage adjustments. E. Blair. Barron's 25:4 N 12 '45
Sensible wage incentives. G. M. Fitzgerald. N A C A Bul 28:135-43 S 15 '46
Setting time standards without a stopwatch; Springfield armory. R. A. Olsen. il Factory Management 104:92-6 F '46
Three wage plans that worked; job descriptions, job evaluations, regular wage rate reviews, plus careful instruction of foremen. R. W. Collett. il Am Bsns 16:20-1+ Ap '46
Union interest in engineering techniques. W. Gomberg. Harvard Bsns R 24 no 3:356-65 [Ap] '46
Wage incentive practices in 65 plants. Factory Management 104:126-8 S '46
Wage incentive system benefits workers and management; job welding shop. C. E. Sommarstrom and J. J. Baer. il Automotive & Aviation Ind 93:24-5+ D 15 '45
Wage incentives aid spinning production. C. M. Bowden. il Textile World 96:96-8 Ag '46
Wage incentives encourage better housekeeping; Passaic, N.J. plant, United States rubber company. R. W. Gibbs and W. G. Weeks. il Factory Management 103:136-40 D '45
Wage incentives, the way out. W. R. Donnell. Automotive & Aviation Ind 95:18-19+ Ag 1 '46
Wage incentives; their sound application in a peacetime economy. J. K. Louden. Mech Eng 68:712-16+ Ag '46; Same cond. Factory Management 104:320+ Ja '46
Wage incentives; what they are, how they work, why they are effective. il Am Mach 90:97-108 Ja 3 '46
Which incentive plan is best for you? H. B. Rogers. Am Mach 90:104-8 O 10 '46
Why wage incentive plans fail. J. A. Piacitelli. Am Mach 90:133-4 S 26 '46

See also
Bonus system
Overtime
Payrolls
Profit sharing
Salesmen—Salaries and commissions
Wages—Dismissal wage

Group bonus
Engineering wage incentives. W. M. Mirisch. Management R 35:184-6 My '46

Guaranty of earnings
Annual steel wage to be important labor issue in 1947. T. Campbell. Iron Age 157: 93-4 Mr 28 '46
Annual wage for packers? packinghouse workers new contracts. Bsns W p86+ Jl 6 '46
Annual wage plans in the United States. bibliog Int Labour R 53:49-58 Ja-F '46
Annual wages; OWMR to study plans. Bsns W p92+ Ap 20 '46
Challenge of annual wages. S. Barkin. Personnel J 24:369-73 Ap '46
Goal of steady employment; annual wage inapplicable to automobile industry. H. Ford, 2d. Comm & Fin Chr 164.1454+ S 19 '46; Same cond. Am Mach 90:188+ N 7 '46; Abstract. Iron Age 158:84+ S 26 '46
Guaranteed annual wage will be new labor battlecry. J. L. Snider. Iron Age 158:134+ N 7 '46
Guaranteed annual wages. F. E. Coho. bibliog N A C A Bul 27:1046-55 Jl 1 '46
Guaranteed pay faces a crisis; pace-setting plans at Hormel and Procter & Gamble. Bsns W p92+ O 19 '46
Industry weighs regularized jobs against guaranteed annual wages. Am Mach 90:152 O 24 '46
Labor's next aim; annual wage. Bsns W p19-21 Ag 31 '46
Management's approach to the annual wage. J. L. Snider. Harvard Bsns R 24 no 3:326-38 [Ap] '46
Management's responsibility toward stabilized employment. R. R. Deupree. Manuf Rec 115-50-1+ Mr '46; Abstract. Soap & San Chem 21:45 N '45
Pay plan aids men in dull season; Chase bottling company. R. McDaniel. Am Bsns 16:22 Je '46
Steadying the worker's income. E. E. Witte. Harvard Bsns R 24 no 3:306-25 [Ap] '46
Steel industry considered as guinea pig in annual wage study. Steel 119:76-7 Jl 1 '46
Utility unions and the annual wage. Elec World 125:97 My 25 '46

WAGE scales
Are labor-management relations based on economic principles? Congress should set up job evaluation standards to determine wages. J. Levy and S. J. Levy. Comm & Fin Chr 164:2085+ O 24 '46
Fixing rates for new employees without union negotiation. M. M. Shipman and P. E. Anderson. Oil Paint & Drug Rep 150:3+ Ag 19 '46
For wage equity; job catalog completed by Big Steel and C.I.O. union. Bsns W p106+ O 5 '46
How to get comparative wage figures. Management R 35:328-32 Ag '46
Job evaluation may help to minimize stoppages. C. W. Risberg. il Food Ind 18: 489-91 Ap '46
Provide wage scales information; printing plants' contract provisions. Inland Ptr 117: 80 Je '46
Wage administration. E. J. Redmon. Personnel J 24:380-3 Ap '46
Wage and salary administration in the transition; abstract. S. L. H. Burk. Management R 35:325-7 Ag '46
Wage curves. L. Cohen. bibliog Personnel J 24:384-6 Ap '46
Wages under national and regional collective bargaining; experience in seven industries. R. A Lester and E. A. Robie. 103p bibliog (p101-3) pa $1.50 Industrial relations section, Princeton univ, Princeton, N.J. '46

WAGE stabilization board, National. See National wage stabilization board

WAGE tax. See Taxation—Philadelphia; Taxation—Toledo, Ohio

WAGES

Accounting in wage disputes. J Account 81: 89-90 F '46

Fortune management poll; two-thirds deny that profits and wages should be linked. Fortune 33:197 Mr '46

Higher wages, no price increases? L. C. Hill. Factory Management 103:284+ D '45

How much more? U.A.W. undecided on new Chrysler wage demands. Bsns W p98-100 S 21 '46

Labor's wage policy in our transitional controlled price economy. S. Barkin. Advanced Management 11:17-20 Mr '46

Rigidity of payrolls held threat to continuation of free enterprise. D. R. G. Cowan. Steel 119:122-3 N 11 '46

U.A.W. changes its tune. Bsns W p90+ O 26 '46

What labor can gain by boosting output. Factory Management 104:214+ Ap '46

What the factory worker really thinks. Factory Management 103:83-5 D '45

See also

Bonus system
Executives—Salaries
Family allowances
Labor and laboring classes
Minimum wage
Overtime
Payrolls
Pensions, Industrial
Profit sharing
Railroads—Wages
Salaries
Salesmen—Salaries and commissions
Wage payment plans
Wage scales

Dismissal wage

Severance pay policy. Management R 35:114 Ap '46

Economic aspects

Attacks new wage-price policy. R. R. Wason. Comm & Fin Chr 163:973 F 21 '46

Books and ideas; what economics teaches and questions it asks. J. Davenport and K. Bloch. Fortune 34:29+ N '46

Business conditions; strikes and wages. Nat City Bank p13-16 F '46

Forced wage increases nullified by higher prices; Guaranty trust co. Comm & Fin Chr 164:80+ Jl 4 '46

Maintaining labor's purchasing power. Nat City Bank p130-6 D '45; Excerpt. Comm & Fin Chr 162:3165+ D 27 '45

More fallacies about wages and social welfare. F. E. Lee. Comm & Fin Chr 164:335+ Jl 18 '46

Only source of high wages is greater output. il Factory Management 104:82-7 F '46

Plain talk needed to avert new round of strikes; union rank-and-file misled on real effect of wage boosts. H. S. Taylor. Barron's 26:3 S 30 '46

Preview of a debacle; artificial wage increases. A. Slater. Comm & Fin Chr 162: 2325+ N 15 '45

Problems in the administration of wages. L. G. Reynolds. Advanced Management 11: 2-8 Mr '46

Productivity, prices, and a sound wage level; economic equilibrium must be based on a proper correlation. J. D. Gill and B. A. Stainton. Min & Met 27:463-5 S '46

Profitability and payrolls. Trusts & Estates 83:306-9 O '46

Puzzling factors in wage increase demands. Pub Util 38:179-81 Ag 1 '46

Science's contribution to higher wages. H. S. Coffin. il Mag of Wall St 79:146-7+ N 9 '46

Second wave of wage demands building up. J. Hirsch. Barron's 26:3+ F 11 '46

Sees failure of "costs up-prices down" policy. L. P. Ayres Comm & Fin Chr 162: 2321+ N 15 '45

Squeezing the source of wages. Trusts & Estates 83:206-8 S '46

Strikes and the cost of living. H. S. Percival. Pub Util 37:415-22 Mr 28 '46

Union labor's views in wage controversy. S. Barkin. Factory Management 104:312+ F '46

Unions' lip service to unfettered private enterprise misleading. C. H. Grattan. Barron's 26:3+ O 14 '46

Wage-price policy and employment. S. H. Slichter. Comm & Fin Chr 163:711+ F 7 '46

Wages and prices. Nat City Bank p118-21 N '45

Wages and prices; effects of wars on the economy. A. W. Gray. Credit & Fin Management 48:20-4 S '46

Wages during the transition period. J. Backman and M. R. Gainsbrugh. Trusts & Estates 81:494-5 D '45

Wages, prices and the forgotten people. M. L. Davey. Manuf Rec 115:108+ Ja '46

What are fair wages? J. E. LeRossignol. Comm & Fin Chr 163:2214+ Ap 25 '46; Same cond. Credit & Fin Management 48: 30-4 Jl '46

What do strikes cost labor? il Am Bsns 16: 16-17+ Ag '46

Law

Bonus issue clarified. Bsns W p103 Mr 30 '46

Door-to-door pay. Bsns W p94-6 S 21 '46

Employee bonus plans and the wage and hour law; overtime requirements. M. M. Shipman. Oil Paint & Drug Rep 150:3+ O 14 '46

Geographical aspects of a minimum wage; must be adjusted to economic characteristics of geographical regions. J. V. Van Sickle. Harvard Bsns R 24 no 3:277-94 [Ap] '46

Newspapers lose; U.S. Supreme court holds publishers subject to wage-hour law. Bsns W p102+ F 16 '46

Pay proper wages, it's cheaper. Inland Ptr 117:53-4 Ag '46

Portal pay; accomplished fact? Bsns W p86+ O 19 '46

Second-round solution; District 50 drops campaign at Dow Chemical for hourly increase in return for retroactive portal-to-portal pay. Bsns W p84 N 2 '46

See also

Minimum wage

Regulation

Ability to pay theory; text of letter sent to President Truman by F. Rising. Automotive & Aviation Ind 94:40 Ja 15 '46

A. F. of L. wants no fluctuating wage policy. W. Green. Comm & Fin Chr 163:528+ Ja 31 '46

Are labor-management relations based on economic principles? Congress should set up job evaluation standards to determine wages. J. Levy and S. J. Levy. Comm & Fin Chr 164:2085+ O 24 '46

Attacks President's wage-earnings policy. I. Mosher. Comm & Fin Chr 162:3137+ D 27 '45

Back pay specter. Bsns W p98+ S 14 '46

Building lid tilts. Bsns W p80+ Ag 31 '46

Caution against discontinuance of employee bonus plans. M. M. Shipman. Oil Paint & Drug Rep 150:3+ S 23 '46

C.I.O. adopts wage armistice. Bsns W p87 Jl 27 '46

Congressional action on textile wage advance opposed. W. P. Jacobs. Textile World 95: 137+ N '45

Differential wage rates lead to statism. F. R. Fairchild. Comm & Fin Chr 164:383+ Ag 15 '46

Doomed formula? fact finding receives setback when G.M. withdraws from hearings. Bsns W p96 Ja 5 '46

Economic fallacies of the ability-to-pay wage. I. Wright. Comm & Fin Chr 163:4+ Ja 3 '46

Effect of the new wage-price policy on the electrical manufacturing industry. Elec World News ed 126:12-13 Mr 23 '46

Effect of wage decisions on oil jobbers. H. Fuller. Nat Pet N 38:42+ Jl 3 '46

Executive order on prices and wages. H. S. Truman. Steel 118:57+ F 25 '46

Fact-finding and ability to pay. Nat City Bank p2-5 Ja '46

Fact-finding board reports on General Motors dispute. Comm & Fin Chr 163:292-3 Ja 17 '46

Fact finding, newest fixture on the American labor scene. J. Hirsch. Barron's 26:3+ Ja 7 '46

Fallacious wage, profit formula; results of ability to pay base for wage increases. J. Backman. Trusts & Estates 81:427-8 D '45

WAGES—Regulation—*Continued*
Government intervention and wages. Trusts & Estates 82:143-4 F '46
Industrial profits in a Bowles market. J. L. Beals. Barron's 26:3+. Mr 18 '46
Intensify NWSB drive on high building wages; WAB lists construction wage controls. Eng N 136:673 Ap 25 '46
Modification of wage-price policy during transition period. Mo Labor R 62:397-8 Mr '46
Modified wage-price policy; statement by the President and text of executive order. Comm & Fin Chr 163:1005+ F 21 '46
Needed: a new labor policy. L. Wolman. Comm & Fin Chr 163:829+ F 14 '46; Abstract. Trusts & Estates 82:214 F '46
New price policy hits profits; wage-price policy. Bsns W p15-17 F 23 '46
New wage-price policy; comments on President Truman's address. J. Backman. Trusts & Estates 81:345-7 N '45
New wage-price policy will help material flow; questions and answers on regulations. Iron Age 157:112-14 Mr 14; 114+ Mr 21 '46
New wage rules. Bsns W p102-3 Je 1 '46
OPA revival reinstates wage, salary controls. M. M. Shipman and P. E. Anderson. Oil Paint & Drug Rep 150:3+ Ag 12 '46
Partial answer; NWSB takes stand on wage-premium policy. Bsns W p95-6 Ap 27 '46
Policy defined; Bowles outlines procedure for seeking price relief and wage-increase approval. Bsns W p97-8+ Mr 16 '46
Policy takes shape; amplifying new wage-price program. Bsns W p17 Mr 2 '46
Pre-approval of wage increases is still required for pricing purposes. Steel 118:90-1 Je 17 '46
President's wage-price executive order; text. Factory Management 104:222+ Ap '46
Prices imperil wage pattern. Bsns W p98+ Ag 24 '46
Relation of price and wage control; statement by chairman of the National wage stabilization board. Mo Labor R 63:104-5 Jl '46
Renovated capitalism; regulating labor monopoly. M. V. Jones. J Bsns 18 pt 2:37-57 O '45
Scrap the present crazy-quilt stabilization. W. Green. Comm & Fin Chr 163:1688+ Mr 28 '46
Secretary of labor issues fact finding directions. Comm & Fin Chr 162:3170-1 D 27 '45
Senator Murray proposes punitive measures against wage cuts. Comm & Fin Chr 162: 2625 N 29 '45
Stabilization office issues regulations on wage-price policy. Comm & Fin Chr 162: 2881+ D 13 '45
Statements on wage-price policy; with text of supplementary wage salary regulations. C. Bowles. Comm & Fin Chr 163:1397+ Mr 14 '46
Steel wage impasse; radio address by B. F. Fairless; letter by P. Murray to Secretary Schwellenbach. Comm & Fin Chr 162:2497+ N 22 '45
Truman favors fact-finding authority to examine books; holds earnings relevant in fixing wages; General Motors statement. Comm & Fin Chr 162:3170 D 27 '45
Wage board gets new life. Bsns W p19-20 Mr 9 '46
Wage-cut ruling of NWSB. Bsns W p95 N 2 '46
Wage fixing in Argentina. Int Labour R 53: 245-8 Mr-Ap '46
Wage guideposts; fact-finding recommendations in G. M. and oil disputes. Bsns W p9+ Ja 19 '46
Wage lid tilted; builders push up pay. Bsns W p94-6 Jl 6 '46
Wage patterns. Bsns W p89-91 F 2 '46
Wage policy, and the role of fact-finding boards. H. M. Douty. bibliog Mo Labor R 62:537-49 Ap '46
Wage-price formula, will it work? W. Gates. il Mag of Wall St 77:686-8+ Mr 16 '46
Wage-price policy. Survey of Cur Bsns 26:4-6 Mr '46
Wage regulation in Belgium, autumn of 1945. Mo Labor R 62:475 Mr '46
WSB wage-price decision affecting Detroit milk dealers. Comm & Fin Chr 163:2137 Ap 18 '46
Wage stabilisation in New Zealand. A. R. Low. Int Labour R 53:170-85 Mr-Ap '46
Wage warning; OES rules out second-round pay increases. Bsns W p82-3 Ag 17 '46
Wages and prices. H. Hazlitt. Comm & Fin Chr 163:2070+ Ap 18 '46
Wages, profits and prices. H. L. Lutz. Comm & Fin Chr 163:1+ Ja 3 '46
Wartime wages, income, and wage regulation in agriculture; comparative wages and wage regulation. M. Sworzyn. Mo Labor R 63: 195-204 Ag '46
What they say about fact-finding; statements by Board, General Motors and U.A.W. Comm & Fin Chr 163:50-1, 53 Ja 3 '46

Statistics

Annual averages of earnings and hours, 1944 and 1945. Mo Labor R 63:311-14 Ag '46
Construction wage rates and trends, 1913-1945. Eng N 136:589+ Ap 18 '46
Employment and earnings in the Philadelphia knitted-outerwear industry, 1944 and 1945. G. E. Votava. Mo Labor R 63:205-10 Ag '46
How labor has fared; hourly and weekly earnings and hours worked per week, by years, 1899-1945, by months, 1941-1945; tabulations and charts. Automotive & Aviation Ind 94:68-70 Mr 15 '46
Labor during the war years. L. B. Schwellenbach. Iron Age 157:82-5+ Ja 3 '46
Labor wary in free market; wage rates respond to strike settlements. Bsns W p72+ Jl 13 '46
Recent developments in earnings in slaughtering and meat packing. E. J. Polinsky. Mo Labor R 63:45-53 Jl '46
Retail wages rise, 1939-1945; graph. Bsns W p80 Mr 23 '46
Statistics of the general level of wages in various countries; hourly rates or earnings; daily, weekly or monthly earnings; yearly 1929-1944; monthly Sept. 1944-Sept. 1945 [when available]. Int Labour R 53:134-45 Ja-F '46 [cont quarterly 2d month of each quarter]
Textile wages move up, while others are moving down. J. M. Gambatese. Textile World 96:141 Je '46
Trend of factory earnings, 1939 to December 1945. Mo Labor R 62:472-3 Mr '46 [cont monthly]
Utility pay, 20 percent above average of manufacturing industries. Elec World 125: 94-5 My 25 '46
Wage diversity and its theoretical implications. R. A. Lester. R Econ Stat 28:152-9 Ag '46
Wage rates in the building trades in 46 cities; tabulation. Sheet Metal Worker 37: 92 Ja '46
Wage structure in machine-tool industry, January 1945. D. L. Helm and T. P. Kanninen. Mo Labor R 62:933-44 Je '46
Wage structure of the fabricated structural-steel industry, January 1945. J. W. Bloch and E. Bunn. Mo Labor R 62:621-30 Ap '46
Wages and salaries, employment, and average annual earnings per full-time employee in private industries, 1942-45; tabulation. Survey of Cur Bsns 26:32 O '46
Wages and salaries, employment and average annual earnings per full-time employee in private industries, 1943-44; tabulation. Survey of Cur Bsns 25:23 N '45
Wartime wages, income, and wage regulation in agriculture. M. Sworzyn. Mo Labor R 63:36-44, 195-204 Jl-Ag '46
Weekly earnings and the cost of living; United States, 1914-1920 and 1939-1945; chart. Factory Management 103:97 D '45

Argentina

Wage fixing in Argentina. Int Labour R 53: 245-8 Mr-Ap '46

Australia

Wage question in Australia. Economist 150: 459 Mr 23 '46

Belgium

Wage regulation in Belgium, autumn of 1945. Mo Labor R 62:475 Mr '46

WAGES—*Continued*

California

Metal trades manufacturers of southern California protest handicap of high labor costs. R. T. Reinhardt. Iron Age 158:78+ S 19 '46

Egypt

Wages and hours in Egyptian textile industry, 1943 and 1945. Mo Labor R 62:945 Je '46

France

French wage increase set. Bsns W p97-8 Ag 3 '46

Great Britain

Average weekly metal industry wage $21.80 in Great Britain; other labor statistics. Iron Age 157:102 Mr 28 '46

Costs and efforts. Economist 150:81-2 Ja 19 '46

Electrical industry wages; hours of work and average earnings for one week of July, 1945. Elec R (Lond) 138:426 Mr 15 '46

Engineering wage demands. Economist 149: 918 D 22 '45

Farm-workers' wages. Economist 150:9 Ja 5 '46

Hours and earnings in the United Kingdom, January 1945. Mo Labor R 61:999-1002 N '45

Wage rates in the British engineering industry, 1945. Mo Labor R 62:474 Mr '46

Wage recommendations for British cotton-spinning industry. Mo Labor R 62:476 Mr '46

Wages reviewed. Economist 150:224-5 F 9 '46

Greece

Inflation of the cost of living and wages in Greece during the German occupation. S. Agapitides. Int Labour R 52:643-51 D '45

Illinois

Earnings of women in Illinois industries, June 1945. Mo Labor R 61:953-4 N '45

Netherlands

Living standards during German occupation. W. F. D. Fortman. Ann Am Acad 245:79-86 My '46

New York (city)

Wage rates per hour, New York city; building trades; 1874-1945. Eng N 136:599 Ap 18 '46

New York (state)

Earnings of women and male minors in New York retail stores, 1945. Mo Labor R 62:230-2 F '46

N.Y. five-year wage stabilization plan; master agreement covering building construction. Sheet Metal Worker 37:84 Ap '46

New Zealand

Wage stabilisation in New Zealand. A. R. Low. Int Labour R 53:170-85 Mr-Ap '46

Philadelphia

Employment and earnings in the Philadelphia knitted-outerwear industry, 1944 and 1945. G. E. Votava. Mo Labor R 63:205-10 Ag '46

Puerto Rico

Puerto Rico wage orders under Fair labor standards act. Mo Labor R 61:1202-3 D '45

Quebec

Woods workers wages as defined by the Quebec regional war labour board. Pulp & Pa of Can 46:1015 D '45

United States

Adjustments in top hourly wage rates of transit operators; effected since Aug. 18, 1945; tabulation. Mass Transportation 42: 168+ Ap '46

Average hourly earnings in oil industry 46.7c above January, 1941, figures. Nat Pet N 38:14 Mr 27 '46

Construction workers; how many and at what wages? il Eng N 136:187-90 F 7 '46

Earnings of employes of urban transportation industry; compared with those in other industries; tabulation. Mass Transportation 42:159 Ap '46

Earnings on tugboats and barges in New York harbor, January 1945. M. L. Plunkett. Mo Labor R 61:1192-1200 D '45

Explains report on wages in auto industry. H. A. Wallace. Comm & Fin Chr 163:1839 Ap 4 '46

Factors affecting earnings in chemistry and chemical engineering. C. E. Taylor. Mo Labor R 62:879-94 Je '46; Same, with additional data. U S Bur Labor Statistics Bul 881:1-22; pa 10c Supt. of doc. '46

Factory workers in the transition period. Bsns W p16 F 2 '46

Hours of work and earnings in aviation occupations; air lines, fixed-base operators and Civil aeronautics administration. H. Wood and others. Mo Labor R 63:186-94 Ag '46

Industry opposes basing factory wage rates on company profits. L. Westrate. Automotive & Aviation Ind 93:17+ N 15 '45

New pay demands loom. Bsns W p90+ O 12 '46

Plating and polishing industry; straight-time average hourly earnings. E. B. Harris and others. Metal Finishing 43:454-6 N '45

Postwar increases in basic wage rates. F. M. Jones and E. K. Buschman. Mo Labor R 63:342-5 S '46

Public looks to Democrats to keep wages up; Gallup poll. Iron Age 158:101 Jl 11 '46

Slow but sure; M.E.S.A. locals accept 10¢ hourly raises. Bsns W p96-7 Ja 5 '46

Today's wage issue tied to consumer prices. A. F. Hinrichs. Sales Management 56:144 Ja 1 '46

Toward normalcy. Bsns W p94+ O 26 '46

Trends in urban wage rates, April to October 1945. F. M. Jones and E. K. Buschman. Mo Labor R 62:289-95 F '46

Union wage rates of city streetcar and bus operators, July 1, 1945. H. Abowitz and A. V. Simi. Mo Labor R 62:112-17 Ja '46; Same, with additional tabulations. (Rates paid in each city, p6-11.) U S Bur Labor Statistics Bul 856:1-11 '45

Union wages and hours in the baking industry, July 1, 1945. J. P. Corkery and A. V. Simi. Mo Labor R 62:451-7 Mr '46; Same, with additional data. U S Bur Labor Statistics Bul 871:1-64; pa 15c Supt. of doc. '46

Union wages and hours in the building trades, July 1, 1945. J. P. Corkery and H. M. Abowitz. Mo Labor R 62:276-89 F '46; Same, with additional data. U S Bur Labor Statistics Bul 862:1-70; pa 15c Supt. of doc. '46

Union wages and hours in the printing trades, July 1, 1945. D. H. Gerrish and H. M. Abowitz. Mo Labor R 62:631-42 Ap '46; Same, with additional data. U S Bur Labor Statistics Bul 872:1-15; pa 10c Supt. of doc. '46

Union wages and hours of motortruck drivers and helpers, July 1, 1945. D. Gerrish and others. Mo Labor R 62:104-12 Ja '46; Same, with additional tabulations. (Union scale of wages and hours, by cities, p8-42). U S Bur Labor Statistics Bul 874:1-42; pa 10c Supt. of doc. '46

Wage increases form pattern. Bsns W p86 Ag 10 '46

Wage patterns for 1946. Bsns W p100 Ap 20 '46

Wage rates and relative economy and fitness in the transportation industry. D. H. Mater. J Bsns 18:183-208 O '45

Wage rise averages 11½ cents for all workers since V-J day; with tabulated estimated distribution of workers selected according to increases, Aug. 18, 1945, to May 1, 1946. E. Clague. Steel 119:46-7 S 30 '46

Wage structure in bituminous-coal mining, fall of 1945. P. Brown and A. Kouzian. Mo Labor R 62:550-9 Ap '46

Wage structure in foundries, January 1945. J. F. Lacıskey; W. C. Quant. Mo Labor R 63:61-7 Jl '46

Wage structure in machine-tool industry, January 1945. D. L. Helm and T. P. Kanninen. Mo Labor R 62:933-44 Je '46

Wage structure in the machinery industries, January 1945. L. M. David. Mo Labor R 62:265-76 F '46

Wage structure of commercial job electroplating shops. G. W. Grupp. Metal Finishing 44:486-7 N '46

WAGES—United States—*Continued*
Wage structure of electroplating and polishing industry, January 1945. J. W. Bloch. Mo Labor R 62:767-76 My '46
Wage structure of the electric light and power industry, July 1945. J. W. Bloch. Mo Labor R 63:369-79 S '46
Wage structure of the fabricated structural-steel industry, January 1945. J. W. Bloch and E. Bunn. Mo Labor R 62:621-30 Ap '46
Wage structure of the machine-tool accessories industry, January 1945. L. M. David. Mo Labor R 62.438-50 Mr '46
Wage structure of the structural clay products industry, October 1945. J. M. Sherman. Mo Labor R 63:210-16 Ag '46
Wages in the basic lumber industry, 1944. V. S. Baril and others. U S Bur Labor Statistics Bul 854:1-47; pa Supt. of doc. '46
Wages move steadily upward. Bsns W p93-4+ D 15 '45
Wages of office workers in metalworking industries, January 1945. L. M. David. Mo Labor R 63:54-60 Jl '46
Wallace answers Romney; upholds report of his department that wages in auto industry can be higher, without affecting prices. Comm & Fin Chr 162:2370+ N 15 '45
War and postwar wages, prices, and hours, 1914-23 and 1939-44. W. Bowden. Mo Labor R 61:613-18, 864-75 O-N '45
What I see ahead in labor relations. L. B. Schwellenbach. Factory Management 103: 88-91 N '45
Where wage demands are the thickest. Factory Management 104:236+ Ap '46
Why GM rejected claims of government agencies on 25 per cent wage increases. Automotive & Aviation Ind 93:36+ N 15 '45

See also
Wages—Regulation
Wages—Statistics

WAGNER-ELLENDER-TAFT bill. See Housing laws—United States

WAGNER-MURRAY-DINGELL bill. See Insurance, Health—Legislation, Proposed

WAGNER rearrangement. See Molecular rearrangements

WAGON jobbers. See Jobbers, Wagon

WAKE Forest college, North Carolina
Accepts $10,750,000 endowment fund. F. L. Walker. il Manuf Rec 115:40+ S '46

WAKSMAN, Selman Abraham, 1888-
Discovery of streptomycin. por Fortune 34: 104-5 Jl '46

WALCHEREN, Netherlands
Closing the breaches in Walcheren dykes. P. Jansen. il maps plan Engineer 181:249-50, 265-6, 286-8 Mr 15-29 '46
La submersion de l'île de Walcheren (Pays-Bas); sa reconquête sur la mer. A. Bijls. il map plan diags Génie Civil 123:257-9 O 1 '46

WALDEN inversion
Carbohydrate phosphoric esters; the alkaline hydrolysis of α-methylglucopyranoside-6-phosphate, methylglucofuranoside-3-phosphates and *iso*-propylidene glucofuranose-3- and -6-phosphates. E. E. Percival and E. G. V. Percival. Chem Soc J p874-6 D '45

WALDORF system, inc.
Sales and profit margins up. Barron's 26:6 Je 3 '46

WALES

See also
Electricity supply—Wales

Economic conditions

New South Wales? Economist 150:760-2 My 11 '46

Industries and resources

Industrial load building; electrical survey in north Wales. il map Elec R (Lond) 138:159-65 F 1 '46
South Wales and the future of the chemical industry. D. D. Howat. Chem Age (Lond) 53:381-4, 405-9 O 27-N 3 '45
Wales going in for watch making; project to introduce alternative employment to mining villages. For Comm W 21:42 N 10 '45

WALGREEN company
Mexican venture; acquires two stores and right to manufacture. Bsns W p80+ Je 8 '46

WALKER, William
Sketch. por Electrician 136:1645 Je 21 '46

WALKS, Concrete

Heating

Gas heating system melts snow from theatre sidewalk. il Am Gas Assn Mo 28:207 My '46
How design snow melting coils? il Heating-Piping 18:101-2 S '46

WALKWAYS. See Floors; Sidewalks; Stairways

WALL board
Company founded on sales policies sticks to them after 20 years; National Gypsum. il Sales Management 56:46+ My 1 '46
Insulating board; Foamboard. il Chem Ind 58:808 My '46
Low cost wallboards made from waste and by-products; Excelite. il Arch Forum 84:170 Je '46
28 ways to use insulating board. il diags Am Bld 68:92-3 My '46

WALL paper. See Wallpaper

WALL Street
Help wanted in Wall Street; expanding business offers opportunities for returning service men. J. P. Broderick. Barron's 26:19 Ja 7 '46
Union is closing in on Street. Bsns W p65-6 Ag 3 '46

WALLACE, Henry Agard, 1888-
Byrnes and Wallace. Economist 151:441-2 S 21 '46; Same. Iron Age 158:119+ O 10 '46
Commerce department news. Steel 118:118-19 Ap 1 '46
How's business? Barron's 26:1 S 23 '46
Program for the Department of commerce; interview with H. A. Wallace. L. Velie. por Dun's R 53:14-17+ O '45
Resigns from Cabinet at Truman's request. por Comm & Fin Chr 164:1547+ S 26 '46
Stop obstructing Russia. por Comm & Fin Chr 164:1453+ S 19 '46
Wallace and the pseudo-liberal delusions about Russia. E. Lyons. Comm & Fin Chr 164:1529+ S 26 '46

WALLACEBURG, Ontario

Water supply

New water-filtration plant for Wallaceburg. N. G. McDonald. il plan Water & Sewage 83:11-14+ D '45

WALLBOARD. See Wall board

WALLPAPER
New wallpaper, Varlon, made with synthetic resin. Bsns W p68 Ja 12 '46
Store sales zoom when Trimz tries out new demonstration plan. J. H. Rasmussen. il Sales Management 55:46+ D 15 '45
Wallpaper built on thermoplastics. il Mod Plastics 23:140-1 Ap '46

Cleaning

Paint and wallpaper cleaners. M. A. Lesser. bibliog Soap & San Chem 21:37-40 D '45

WALLPAPER trimmers. See Trimmers, Paper hangers'

WALLS
Acoustic ratings of wall types; time saver standards. R. J. Tinkham. diags Arch Rec 99:115+ My '46
Better wall is coming. R. L. Davison. il diags Arch Rec 100:119-23 O '46
Finishes for exterior walls. il diag Arch Forum 85:125 Jl '46
Frame walls. il diag Arch Forum 85:115 Jl '46
Guides to improved framed walls for houses. A. D. Freas. diags Eng N 137:519-22 O 17 '46
Heat losses through wetted walls. E. C. Willey. plan diags Heating-Piping 18:103-6 Je '46
Inside wall surface temperatures; chart; reference data. Heat & Ven 42:88a-88b N '45
Periodic heat flow; composite walls or roofs. C. O. Mackey and L. T. Wright, jr. Heating-Piping 18:107-10 Je '46

WALLS—*Continued*
Temperature patterns and heat transfer for a wall containing a submerged metal member. C. F. Kayan. bibliog diags Refrig Eng 51:533-7+ Je '46; Discussion. 52:143+ Ag '46

See also
Parapets

WALLS, Brick
Brick design in cavity wall lab draws national attention; Benjamin electric mfg. co. il plans Brick & Clay Rec 109:25-7 Ag '46

Correction factors for estimating the required number of facing brick in various bonds. Brick & Clay Rec 108:37 Ja '46

Interlocking cavity wall uses only two units. diags Brick & Clay Rec 108:25 Je '46

Pointers on cavity wall construction. diags Brick & Clay Rec 108:37 Ja '46

Pointers on cavity wall construction. diags Brick & Clay Rec 108:29 Je '46

Practical methods to avoid cracked walls. T. H. McKaig. il diags Eng N 137:523-5 O 17 '46

Preventing leaky walls. L. A. Palmer. Brick & Clay Rec 107:32 O '45

Tilt-up walls for homebuilding. il Brick & Clay 108:22 Ap '46

WALLS, Concrete
Better detail plates; wall construction details for urban stores. R. J. Alexander. diags Am Bld 67:94-5 D '45

Computation table for standard 16 in. concrete block. Brick & Clay Rec 109:30 S '46

Concrete walls. il plans diags Arch Forum 85:111-13 Jl '46

Heat transmission of various types of concrete masonry walls; tabulation. Brick & Clay Rec 109:24 O '46

High concrete walls partition building into curing chambers for linoleum; Congoleum-Nairn, inc. il diags Eng N 136:978-80 Je 27 '46

Length of concrete masonry walls by stretchers; tabulation. Brick & Clay Rec 109:25 O '46

Shooting concrete into walls cuts lumber use and labor costs. il diags Eng N 137:48-50 Jl 11 '46

Unusual expansion joints used in high concrete walls. A. Zweig. il diag Civil Eng 16: 401-2 S '46

See also
Retaining walls, Concrete

WALLS, Interior
Progress, 1926-1946; walls, partitions. il Am Bld 68:106-9 O '46

See also
Partitions

Cleaning

Paint and wallpaper cleaners. M. A. Lesser. bibliog Soap & San Chem 21:37-40 D '45

WALNUT shells
Burrs blasted by shell; walnut shell flour used to deburr precise and fragile hydraulic parts for aircraft. W. L. Lewis. il Am Mach 89:104-5 D 20 '45

WALNUTS, Fossil
Walnuts from the late tertiary of Ecuador. R. W. Brown. bibliog Am J Sci 244:554-6, pl 1 Ag '46

WALSH, Arthur, 1896-
Portrait. Bsns W p70 Ag 31 '46

WALTER, Herbert Eugene, 1867-1945
Sketch. C. T. Brues. Science 102:554-5 N 30 '45

WALTHAM watch company
Sharp output rise due. Barron's 26:7 S 23 '46

WAR
American public foresees no peace in our time; Gallup poll. Iron Age 157:103 Ap 11 '46

Are we headed for war? A. A. Berle, jr. Comm & Fin Chr 164:1657+ O 3 '46

Fortune survey; has fear of war increased? Fortune 34:6 Jl '46

Fortune survey; war in 25-30 years? Fortune 32:303+ D '45

Is there a standard to which the wise and the honest can repair? A. J. Carlson. Science 103:377-82 Mr 29 '46

See also
Advertising and war
Aeronautics, Military
Air raids
Biological warfare
Chemical warfare
Communication, Military
Military engineering
Military occupation
Munitions
Peace
Prisoners of war
Railroads in war

also names of wars, e.g. World war, 1939-1945

also subdivision War problems or War measures under special subjects, e.g. Electric utilities—War problems; Petroleum industry and trade—War problems; Waterworks—War measures

Economic aspects

Wages and prices; effects of wars on the economy. A. W. Gray. Credit & Fin Management 48:20-4 S '46

See also
European war, 1913-1918—Economic aspects
World war, 1939-1945—Economic aspects

Labor problems

See also
World war, 1939-1945—Labor problems

WAR, Psychology of
Wartime unity of purpose; object lessons for administration and management. C. L. Richey. Advanced Management 11:62-9 Je '46

WAR agencies employees protective association
Group cover for government employes abroad expands. Nat Underw (Life ed) 50:2 Ag 30 '46

Insurance idea pays. Bsns W p78 Ja 26 '46

WAR and science
Another chain reaction. K. Chamberlain. Science 103:158-60 F 8 '46

Civilian research for military problems; abstract. W. A. Noyes, jr. Chem & Met Eng 53:256+ Jl '46

German scientists made startling advances in war research; abstract. C. F. Green. Franklin Inst J 241:164-5 F '46

Science and the Civil war. I. B. Cohen. il diag Tech R 48:167-70+ Ja '46

Scientific and engineering progress; insurance against aggression and depression. K. T. Compton. Chem & Eng N 24:1328-32 My 25 '46; Abstract. Metal Prog 49:1195-7 Je '46

Scientist and the war. J. H. Hildebrand. Chem & Eng N 23:2317-21 D 25 '45

Scientist in wartime. E. Appleton. Engineer 180:417-19, 432-3, 454-5 N 23-D 7 '45

Times call for mobilization of engineers and scientists. H. S. Aurand. il Civil Eng 16: 475-6 N '46

See also
World war, 1939-1945—Science and the war

WAR and women
Effects of war casualties on economic responsibilities of women. J. M. Hooks. bibliog Mo Labor R 62:181-6 F '46

WAR areas trade office. See United States—International trade, Office of—War areas trade office

WAR assets administration
Appoints WAA regional administrative heads. map Iron Age 157:112-13 Ap 25 '46

For sale at site. Bsns W p22+ Je 15 '46

Shock absorbers; cushion impact of surplus sales on producing industry. Bsns W p21 My 4 '46

WAA faces overhauling. Bsns W p19 O 5 '46

WAA sets up group to furnish expert analysis and advice. Iron Age 158:131 S 19 '46

WAA to aid small business. Comm & Fin Chr 163:3537 Je 27 '46

WAC's big sale; new method of disposal gets first test at Port Hueneme. il Bsns W p21-2 Mr 2 '46

WAR assets administration—*Continued*
War assets disposal creates insurance demand; war projects joint rating plan applicable to insurance operations. Nat Underw 50:1+ O 10 '46; Correction 50:10 O 24 '46

WAR claims. See World war, 1939-1945—Claims

WAR contracts. See Contracts, Government

WAR contracts price adjustment board
Denies a single penny from contract renegotiations was returned on contract terminations; letter to Senator Mead by members of War contracts price adjustment board. E. H. Barker and others. Comm & Fin Chr 164:1062 Ag 22 '46

WAR crimes
Can we curb the irresponsibles? L. K. Frank. Science 103:349-51 Mr 22 '46

WAR criminals. See World war, 1939-1945—War criminals

WAR damage corporation
Bill to remit war damage premiums filed in Congress. Nat Underw 50:3 Ap 11 '46
Insurers must wait for share in WDC profits. Nat Underw 50:8 Ag 1 '46
RFC gives account of war risk insurance. Comm & Fin Chr 164:1021 Ag 22 '46
Results for war period. Nat Underw 50:15 My 16 '46
WDC to discontinue issuing policies. Nat Underw 50:6 Mr 7 '46

WAR death claims. See Insurance, Life—War death claims

WAR debts. See Debts, Public

WAR finance
British white paper on war finance; text. Fed Res Bul 32:723-48 Jl '46
War financing; some implications for the future. D. W. Bell. Comm & Fin Chr 162: 2462+ N 22 '45

See also
Bonds, Government—United States
Finance—Great Britain

War loan drives

Ambassadors of thrift; banks' war bond selling record. il Banking 38:72+ Ja '46
American bankers association Victory loan campaigner. F. M. Knight. Banking 38:72+ N '45
Biggest sales campaign of all time; story of the war loan drives. R. H. Ganly. Ptr Ink 214:52+ Mr 15 '46
Last of the war loans. Banking 38:72 D '45
Victory loan. Nat City Bank p123-4 N '45
Victory loan results. Burroughs Clearing House 30:26+ Ja '46
Victory loan results. Nat City Bank p5-6 Ja '46
Victory loan sales total $21,144,000,000. Comm & Fin Chr 163:174 Ja 10 '46
Victory loan; with tabulation giving comparison of sales of securities in the eight war loans, by classes of investors and by issues. Fed Res Bul 32:119-20 F '46

WAR labor board, National. See National war labor board

WAR loan drives. See War finance—War loan drives

WAR measures

See also
Electric utilities—War problems
Enemy property
Gas industry—War measures
Lighting—War measures
Prices—Regulation
Railroads in war
Rationing
Waterworks—War measures

WAR memorials
Living memorials; center for ex-servicemen, Union, N.J. il plans Am Bld 68:72-3 Ja '46

WAR production board. See United States—War production board

WAR reprint service. See Josiah Macy junior foundation—War reprint service

WAR reserves. See Reserves

WAR risk insurance. See Insurance, War risk

WAR shipping administration
Insurance valuation held worthless in WSA transaction. Nat Underw 50:4 Ag 15 '46
Maritime renewal; government aids U.S. water carriers. Bsns W p22+ Je 29 '46
WSA is discontinued by act of Congress. Weekly Underw 155:542 S 7 '46
WSA policy governing chartering. Marine Eng 51:122-3 Ap '46
WSA to reinsure Great Lakes coal carriers in Dec. Nat Underw 49:4 N 22 '45

WAR veterans. See Veterans

WARD, Charles Allen, 1887-
Expansion by the calendar; proposed stock offering by Brown & Bigelow. por Bsns W p64+ Ag 10 '46

WARD, Henry Baldwin, 1865-1945
Sketch. W. W. Cort. Science 102:658-60 D 28 '45

WARD-LEONARD control. See Electric control

WAREHOUSE receipts
Financing solution for small business. S. D. Hart. Burroughs Clearing House 30:10 Ag '46
How to get field warehousing loans. S. Hart. Banking 38:43+ Ja '46
Ten loans made possible by field warehouse security. S. D. Hart. il Bankers Mo 63: 322-4 Jl '46
Warehouse receipt financing. R. L. Gordon. Am Inst Banking Bul 27:13-14+ O '45

WAREHOUSEMEN'S liability insurance. See Insurance, Warehousemen's liability

WAREHOUSES
Amount of insurance on goods in storage doesn't limit negligence claim. Nat Underw 50:2 Jl 18 '46
Design live loads in buildings. J. W. Dunham. plans Am Soc C E Proc 72:429-43 Ap '46; Discussion. 72:1161-4 O '46
Efficient reconditioning and material handling program developed at warehouse; Phillips petroleum co. P. Reed. il Oil & Gas J 44:81-2+ Ja 12 '46
Navy storehouse built of precast concrete parts. A. M. Amirikian. il Concrete 54:3-5+ Jl '46
Operations of the warehouse department at Climax. A. Stazicker. Min & Met 27:358-9 Je '46
Precast structural members facilitate speedy erection of rigid-frame buildings; one-story warehouse at Mechanicsburg, Pa. W. M. Angas. il diags Eng N 136:546-8 Ap 18 '46
Structurally advanced design, fabrication and assembly methods used in warehouse construction yield speed and cost reduction. il diags Arch Forum 85:197 Jl '46
Warehouse building at Hungry Horse government camp, Kalispell, Mont.; unit prices. Eng N 137:394+ S 19 '46
Warehouse bulge. Bsns W p34 Ap 20 '46
Warehouse offices are cooled by water on the roof; Production steel co., Detroit. il plan Arch Forum 85:102 O '46

See also
Cold storage warehouses
Storage

Advertising

Forgotten link in low cost distribution; Lehigh warehouse and transportation co. injecting modern sales thinking into old industry. J. L. Cooke. il Sales Management 56:143-4+ Mr 15 '46
Problem of advertising a modern warehousing enterprise: Lehigh and Lackawanna warehouses and transportation company. W. B. Golovin. il Ind Marketing 31:42+ Mr '46
Warehouse adopts distribution costs as advertising theme; Lehigh & Lackawanna campaign. Ptr Ink 214:67-8 Mr 15 '46

WAREHOUSES, Jobbers'
New building to cut handling costs; Hibbard, Spencer, Bartlett & company, wholesale hardware one-story plant. E. Whitmore. il Am Bsns 16:18-20 Je '46
Taking a big bite out of costs; two-story office and warehouse building, Brunswig drug company, wholesalers, Los Angeles. il Am Bsns 16:18-19 S '46
Wholesalers' committees aid industrial marketing; National electrical wholesalers association apparatus and warehousing committees. C. G. Pyle. Ind Marketing 30:46+ O '45

WAREHOUSING
18 ways public warehouse service can ease distribution headaches. map Sales Management 57:104+ Jl 15 '46
Merchandise warehouse in distribution. P. W. Frenzel. Ind Marketing 31:34+ F '46
Warehousing today's extra glass container production. il Cer Ind 46:65-7 My '46
See also
Warehouse receipts

Service
Warehouse adopts distribution costs as advertising theme; Lehigh & Lackawanna campaign. Ptr Ink 214:67-8 Mr 15 '46

WARM air heating. See Heating, Warm air

WARNER, John Christian, 1897-
Warner receives Pittsburgh award, 1945. pors Chem & Eng N 24:621-3 Mr 10 '46
Warner to receive Pittsburgh section award. por Chem & Eng N 24:141 Ja 25 '46

WARNER and Swasey company
Warner & Swasey more than doubles earnings; expands product line. Iron Age 157: 114 Mr 7 '46

WARNER brothers
Presentation of scroll to Warner brothers. D. E. Hyndman. il Soc Motion Picture Eng J 47:127-31 Ag '46

WARNER brothers pictures, inc.
Annual report. Comm & Fin Chr 163:357 Ja 21 '46

WARPING machines
Sipp-Eastwood new all-metal high-speed warper. il Rayon 27:158 Mr '46

WARREN, S. D., company
Preferred stock offered. Comm & Fin Chr 162:2992 D 17 '45

WARREN petroleum corporation
Warren Petroleum takes over Hanlon companies. Nat Pet N 38:8 My 22 '46
Warren Petroleum's purchase of Hanlon companies combines two leaders in natural gasoline industry. E. Lamm. il Nat Pet N 38:22+ Je 5 '46

WARSAW
Warsaw's new plan. il maps plan Arch Forum 84:106-12+ Je '46

WARSAW convention. See International conference on private law affecting air questions, 2d, Warsaw, 1929

WARSHIPS
A-bomb vs. surface ships. P. Swain. Aviation 45:41+ Ag '46; Same abr. Mech Eng 68: 896 O '46
Naval construction in 1945. F. McMurtrie. il diag Engineer 181:18-20, supp2, 40-2, supp4 Ja 4-11 '46
Stability of naval vessels; simplified method of approximating maximum range. M. I. Mantell. Marine Eng 51:109-11 Jl '46
See also
Airplane carriers
Submarine boats

Mine sweepers
Acoustic mines fired by pneumatic-tool beats. R. G. Skerrett. il Comp Air Mag 51:160-1 Je '46
Propelling machinery for H.M. coastal minesweepers. il diags Engineering 161:369-70, 372 Ap 19 '46

Reconversion
Proposed conversion of light cruiser to 28-knot express liner. A. R. Anderson and M. Costagliola. il plans Marine Eng 51:104-7 F '46

Great Britain
H.M.S. Carnarvon; reminiscences of a naval engineer. E. C. Smith. il diags Engineering 160:485-7, 509-11 D 14-21 '45
H.M.S. Vanguard. il Engineer 181:455-7 My 17; 182:271-3 S 27 '46
H.M.S. Vanguard; many electrical applications. Electrician 137:721-3 S 13 '46
H.M.SS. Minerva and Magnificent, 1914-1917. E. C. Smith. il map Engineering 162:73-5, 147-9 Jl 26, Ag 16 '46
Naval armaments vessel Flintlock. il diags Engineer 182:208-9 S 6 '46
Naval construction in 1945. F. McMurtrie. il Engineer 181:18-20, supp 2 Ja 4 '46
Repair and upkeep of H.M. ships and vessels in war. G. S. Bassett. il Engineer 181: 357-9, 389-91, 414-15, 439 Ap 19-My 10 '46; Same abr. Engineering 161:405-8, 414-16, 437-8 Ap 26-My 10 '46; Discussion. Engineer 181:364-5 Ap 19 '46; Engineering 161: 402-4 Ap 26 '46
Royal navy at the outbreak of war; abstract. S. V. Goodall. Engineering 161:376; Discussion. 377 Ap 19 '46
Welded destroyers; abstract. Materials & Methods 24:990 O '46

United States
Dehumidification protects U. S. navy's inactive fleet. T. H. Urdahl and E. B. Queer. il diags Heating-Piping 18:71-5 Mr '46; Same cond. Marine Eng 51:123-4 Je '46; Abstract. Mech Eng 68:562 Je '46
Dry air preserves fleet. il Heat & Ven 42: 96+ N '45
Inside story of navy and high-pressure steam; abstract. H. G. Bowen. Blast F & Steel Pl 34:114 Ja '46
Navy develops a new corrosion-protection technique. J. Anthony. il diag Iron Age 157:104-5 Ap 18 '46
Nuclear energy as a power source; United States navy's interest. H. G. Bowen. Mech Eng 68:779-81 S '46; Abstract. Marine Eng 51:138+ Jl '46
Packaging the United States reserve fleets; sprayed plastics and dehumidifiers for protection. il Engineering 162:132, 138-40 Ag 9 '46
U.S.S. Des Moines launched at Fore river. il Marine Eng 51:77-8 O '46

WASHERS (machinery)
Assembles washer to bolt; patent assigned to National lock washer co. diag Machine Design 17:174 D '45
Lockwasher breakage resulting from hydrogen embrittlement. W. L. Fleischmann. il diags Product Eng 17:[no 7] 150-2 Jl '46

WASHING apparatus
Mechanical barrel washer launders 60-80 drums an hour. flow diag il diags Nat Pet N 38 pt 2:R502-3 Jl 3 '46
Motor-driven car washer cuts cost. il Elec World 126:132+ O 12 '46
New devices improve cleaning and effect economies. J. R. Perry. il Food Ind 18:1518-22+ O '46

WASHING machines
Automatic laundry machine hookups; possibility of cross connections. diags Dom Eng 168:154-5 O '46
Chemical engineering in the laundry industry. F. C. Harwood. il diags Inst Chem Eng Trans 20:44-52; Discussion. 52-4 '42
Easy Washer packages a training plan in manuals, guides and visuals. il Sales Management 55:53-4+ N 15 '45
Hot water for the automatic washer. C. A. Thorp and R. A. Siskin. il diags Am Gas Assn Mo 28:308-10 Jl-Ag '46
Protective films in new merchandising roles. F. C. Edelston. il Mod Packaging 19:156-8 Mr '46
Washing machines; second report; Bendix and Maytag. il Consumers Res Bul 17:8-12 My '46

Advertising
Bendix, with $90,000,000 backlog, trains heavy guns on washer market. J. S. Sayre. il Sales Management 55:35-7 D 1 '45
Point-of-purchase promotion plus merchandising use of product and other high spots in 1946 campaign of Bendix home appliances. H. E. Green. Ptr Ink 213:29-30+ D 14 '45
Solves problem of sustaining interest in new product; previews of Launderall. il Ptr Ink 217:102 O 11 '46

Rating
Full-size washers. il Consumers Res Bul 18: 13-14 Jl; 9-10 O '46
Report on test of a small or portable washer; Electro-Mite. il Consumers Res Bul 18: 14-15 Ag '46; Correction. 18:20-1 S '46

WASHING machines—*Continued*

Testing

Washing machines; a preliminary report. il Consumers Res Bul 17:10-12 F '46

WASHING machines (for metal parts)

Double action cleaning machines. R. Mawson. diags Steel 119:118+ S 2 '46

Parts washer insures thoroughly clean units for Diesel assembly. il Sci Am 175:222 N '46

WASHING machines, Electric

Aerowash washing machine. il Electrician 137: 319 Ag 2 '46

Automatic home laundry. il diags Machine Design 18:155-7 S '46

Dual-purpose washer; crockery and clothes cleansing. il Elec R (Lond) 138:507 Mr 29 '46

Hot water for washers; surveys show requirements. Heat & Ven 43:102-3 Ja '46

Laundry appeal; Apex electrical mfg. co. il Bsns W p18 F 2 '46

Washer maker pre-sells '46 output before factory turns a wheel; F. L. Jacobs co. D. G. Baird. il Sales Management 56:69+ Ja 1 '46

Advertising

Westinghouse takes the blue out of blue Monday; Reference handbook on modern home laundering. Sales Management 56: 136 Ja 15 '46

Manufacture

Air-powered assembly tools; manufacture of washing machines; Apex electrical mfg. co. il Steel 119:100-2+ Jl 1 '46

WASHINGTON, D.C.

Architecture

Portfolio of work by Berla & Abel. il plans Arch Forum 85:81-93 Ag '46

Rapid transit

Answers of 5000 Washington folks re transit offer much thought. E. C. Giddings. Mass Transportation 41:385-6 D '45

Washington preview; transit riders view and vote their preferences. il Bus Transportation 24:70-1 D '45

Streets

Snow and ice control in the District of Columbia. W. A. Xanten. il Roads & Sts 89: 104-6 Jl '46

Water supply

More water for the Nation's capital. Eng N 136:430-1 Mr 21 '46

Unique propeller pump installation increases flow in gravity water tunnel. D. M. Radcliffe. il diag Eng N 136:724-6 My 2 '46

WASHINGTON (state)

See also

Irrigation—Washington (state)
Lead mines and mining—Washington (state)
Zinc mines and mining—Washington (state)

Industries and resources

Power company takes lead in area industrial development; Puget Sound power & light co. C. T. Bakeman. il Elec World 125:56-7 F 2 '46

WASHINGTON academy of sciences

Officers for 1946. Science 103:426 Ap 5 '46

WASHINGTON award

Washington award for 1946 presented to Vannevar Bush. il Western Soc E J 51:54-65 Je '46

Washington award will go to Dr V. Bush. Elec World 125:108 F 16 '46

WASHINGTON gas light company

New issue of preferred exchanged and sold. Comm & Fin Chr 162:3122 D 24 '45

WASHINGTON life insurance company

Farm borrower group disappoints; only $12 million in force on government agency obligors. Nat Underw (Life ed) 49:4 D 7 '45

WASHINGTON state college, Pullman

Establishment of Washington state institute of technology and Institute of agricultural sciences. Science 103:141 F 1 '46

WASHINGTON (state) university, Seattle

Home economics building

University of Washington campus home management house provides student laboratory in home economics. il plans Arch Forum 84:128-30 Je '46

WASHINGTON university, St Louis

Washington university, college of engineering; evolution of a policy. A. W. Buchan. il J Eng Educ 36:250-5 D '45

WASHROOMS. See Lavatories

WASON, Robert Ross

N A.M. sizes up the new era; new president. por(cover) Bsns W p19-20 D 8 '45

Portrait. Comm & Fin Chr 162:3171 D 27 '45

WASTE

Waste elimination is price ceiling answer. A. J. Edgar Iron Age 157:118-21 My 30 '46

See also

Canneries—Waste
Coal waste
Conservation of resources
Cotton waste
Exhaust steam
Metal waste
Paper mills—Waste
Rubber waste
Salvage (waste, etc.)
Scrap metal
Spoilage
Trade waste
Waste fuel
Waste heat
Waste paper
Waste products
Water waste
Wood waste

WASTE, Utilization of

Cooperative study of inter- and intraindustry pollution problems yields far better results than independent efforts. H. R. Murdock. Ind & Eng Chem 38:sup83-4 F '46

Disposal of solid and liquid waste materials, by-product recovery in fruit and vegetable plants; abstract. N. H. Sanborn. Chem & Eng N 24:1060 Ap 25 '46

Magnesium-base sulfite pulping process; one solution of problems involved in stream pollution. H. R. Murdock. Ind & Eng Chem 38: sup83-4 My '46

Reclamation of wet process waste; use of metallurgical by-product liquors. A. G. Arend. il diags Chem Age (Lond) 55:15-18 Jl 6 '46

Recovery and utilization of oil from oil-field waste emulsion. J. W. Horne and others. U S Bur Mines Rep of Invest 3869:1-16, pl 1-11 '46

Recovery and utilization of process chemicals in the viscose rayon industry. P. W. Frisk. il diag Rayon 27:461-3 S '46

Research in the design of lagoons has been stimulated by developments in the use of chemicals for processing waste. H. R. Murdock. Ind & Eng Chem 37:sup 97-8 D '45

Waste conference, 2d, Purdue, Jan. 10-11. Chem & Eng N 24:356-7 F 10 '46

Ways to utilize spent pickle liquor. H. R. Murdock. Ind & Eng Chem 38:sup81-2 Ap '46

See also

Salvage (waste, etc.)
Scrap metal
Sewage sludge as fertilizer
Sulfite liquor
Waste fuel
Waste products
Wood waste

WASTE disposal. See Sewage disposal; Trade waste

WASTE fuel

Boiler experience burning refinery waste fuels. E. G. Gothberg. il Elec World 126: 52-3 Ag 3 '46

Boiler fireman's handbook; waste fuels firing. J. R. Darnell. diags Power Pl Eng 50:100-2 My '46

Fuel and fertilizer from sewage; aim of German treatment plants. A. J. Fischer. il map Civil Eng 16:448-50 O '46

Heat recovery in pulp and paper mills; evaporating and burning waste sulphite liquor. F. Setterwall. Pulp & Pa of Can 46:1004-5 D '45

Unburned furfural residue creates disposal problem; fired along with powdered coal in boilers of Cedar Rapids power plant. Elec World 125:110+ Mr 2 '46

WASTE heat

Condensing by compression; a locomotive experiment. H. Holcroft. il diag Engineer 182: 202-3, 227-9, 248-9 S 6-20 '46

WASTE heat—*Continued*

Engine exhaust heats building. il diag Oil & Gas J 45:115 Jl 13 '46

Gas engine power for sewage-treatment plants. A. J. Burdoin. diags Water & Sewage 84:19-23+ Ag '46; Same. Boston Soc C E J 33:29-52 Ja '46

Heat recovery improves Diesel engine operation; abstracts. W. C. Burgy. Heating-Piping 18:95 S '46; Machine Design 18:174 Ag '46

How can waste heat in laundry be reclaimed? diags Power 90:548-50 Ag '46

Improved heat and chemical recovery in the alkaline pulping processes. G. H. Tomlinson and others. diags Pulp & Pa of Can 47: 71-7 Ag '46

Metal recuperators. Chem Age (Lond) 54:177-9 F 16 '46

Recovery of waste heat with heat pumps. C. E. Simpson. diags Pulp & Pa of Can (Convention no) 47:135-8+ [F] '46; Excerpts. Paper Ind 27:1714-15 F '46

Utilization of waste heat in the carbonizing industries. J. G. King and F. J. Dent. diags Gas J (Lond) 247:435-7+ Mr 13 '46

Waste heat powers cement plant; Universal atlas cement co. flow diag il Power 90: 393-6 Je '46

Waste heat recovery in refinery process equipment. G. Armistead, jr. diags Oil & Gas J 45:100+ Ag 10 '46

Waste hot gun-barrel water utilized to heat tank bottoms. N. Williams. il plan diags Oil & Gas J 44:82-5 Mr 16 '46

See also

Blast furnace gas
Coke-oven gas
Furnaces, Recuperative and regenerative
Heat exchangers
Sewage sludge—Gas production

WASTE paper

Brochure reports waste paper campaign. Ptr Ink 215:36 Ap 12 '46

De-inking of waste papers. H. O. Ware and R. T. Mashburn. bibliog Paper Tr J 122:25-9 Je 27 '46; Same cond. Paper Ind 28:1043-5 O '46

Mechanized waste handling at one-third the old cost; Dixie cup company, Chicago. R. F. Hahn. il Factory Management 104:130-1 Je '46

Washing of deinked stock; results of sodium hexametaphosphate treatment. H. P. Bailey and A. H. Nadelman. bibliog diag Paper Tr J 122:47-8 Mr 28 '46; Same cond. Paper Ind 28:1048 O '46

WASTE products

Method of utilizing waste from plate glass grinding; patent. diags Glass Ind 27:78-9 F '46

Prospective postwar costs of producing alcohol from ethylene, molasses, grain, waste sulphite liquor, and wood waste. R. D. Tousley. bibliog il Pulp & Pa of Can 47: 48-55 Ja '46

Protein feed from sulphite waste liquor; production of Torula yeast. R. D. Walker, jr. and R. A. Morgen. bibliog diag Paper Tr J 123:43-7 Ag 8 '46

Reclamation of waste at Beaumont refinery of Magnolia petroleum company. J. L. Heath and P. Giblin. il diag Pet Refiner 25: 117-20 S '46

Trim waste line; paper industry is getting big tonnage yield of byproducts. Bsns W p32+ N 24 '45

See also

Bark
Blast furnace gas
Chemurgy
Citrus fruit—By-products
Coal waste
Coke manufacture—By products
Coke-oven gas
Corncobs
Cottonseed
Farm produce—By-products
Flax straw
Flue dust
Flue gas
Lignin
Meadol
Metal waste
Paper making—By-products
Petroleum refining—By-products
Rags
Rubber waste
Salvage (waste, etc.)
Scrap metal
Sewage sludge
Slag
Smelter fumes
Straw
Sulfite liquor
Tailings
Trade waste
Waste, Utilization of
Waste paper
Wood waste

WATCH factories

Watch case factory; reclamation of precious metals lost in manufacturing process leads to novel arrangements in new plant; I. D. Watch case company, Jamaica, L.I. il plans diag Arch Forum 84:115-17 My '46

WATCHES

Bill would limit Swiss watch imports; Watch assemblers assn. sees violation of trade pact. Comm & Fin Chr 163:615 Ja 31 '46

Family quarrel; U.S. watchmakers urge restrictions on Swiss shipments. Bsns W p31-2+ Ap 20 '46

Historical display proves good public relations; 100 historic watches shown by U.S. time corp. Ptr Ink 216:52 S 6 '46

Swiss watch shipments; exchange of memoranda between U.S. and Switzerland. For Comm W 23:43-4 My 4 '46

Switzerland; clocks and watches; complete control of exportation and industry provided. For Comm W 23:35 Je 22 '46

Watch and instrument threads; tables; reference book sheet. Am Mach 90:155 My 23 '46

Why you should watch the watch companies; with comparative analysis of leading companies. P. Dobbs. il Mag of Wall St 79:32-3+ O 12 '46

Advertising

How television fits into Elgin's 1946 ad campaign. Sales Management 57:40 S 15 '46

U.S. watch companies step up advertising for American market. Ptr Ink 215:60+ My 31 '46

Manufacture

Practical precision in miniature; Hamilton Watch, American Bosch, and Kollsman Instrument reveal secrets involved in drilling 0.004-in. holes and tapping 0.008-in. ones. H. S. Wharen. il diags Am Mach 90:103-7 My 23 '46

See also

Watch factories

Repair

No time for time; watch repair backlog. Bsns W p36+ D 22 '45

WATCHMAKERS

Business aids social service school; help Jewish vocational service train watchmakers. N. Green. il Am Bsns 16:30+ Mr '46

Jewelry school; Kansas City watchmaking classes jump from 80 to 1,050 students. il Bsns W p20 S 21 '46

See also

Bulova school of watchmaking
Watches

WATER

Absorption of slow mesotrons in lead, iron, aluminum, and water. H. P. Koenig. diags Phys R 69:590-6 Je 1 '46

Boiling and condensing film coefficients for water and normal hexane. D. L. Katz and others. flow sheet il Pet Refiner 25:93-6 S '46

Corrosiveness of water to metals; study of electrochemical equilibria; practical application. T. R. Camp. N E Water Works Assn J 60:188-216, 282-93 Je, S '46

Determination of water content in oils. M. M. Acker and H. A. Frediani. bibliog Ind & Eng Chem Anal ed 17:793-4 D '45

Free evaporation into air of water from a free horizontal quiet surface. L. M. K. Boelter, H. S. Gordon and J. R. Griffin. bibliog flow diags diags Ind & Eng Chem 38: 596-600 Je '46

Hydrology in relation to economic geology. O. E. Meinzer. Econ Geol 41:1-12 Ja '46

Hydrology in the Civil engineering curriculum. H. W. Wood, jr. J Eng Educ 36:519-21 Ap '46

Low-pressure properties of water from -160 to 212 F. J. A. Goff and S. Gratch. bibliog Heating-Piping 18:125-36 F '46

Shock wave pressures in water produced by impact of small spheres. J. H. McMillen. bibliog il diags Phys R 68:198-209 N 1 '45

Slowing down of low energy neutrons in water; determination of photo-neutron energies. R. D. O'Neal. bibliog Phys R 70:1-4 Jl 1 '46

WATER—*Continued*

Surfaces of solids; adsorbed films of water and normal heptane on the surface of graphite. W. D. Harkins, G. Jura and E. H. Loeser. bibliog Am Chem Soc J 68:554-7 Ap '46

Water and its impurities. Oil & Gas J 45: 93-4 N 2 '46

Water spectrum near one-centimeter wavelength. C. H. Townes and F. R. Merritt. bibliog Phys R 70:558 O 1 '46

Weak associations in water and in aniline. R. Parshad. J Chem Phys 14:348 My '46

Weight of water in pounds per cubic foot for various temperatures. chart (p 108) Power Pl Eng 50:99 Jl '46

See also

Air conditioning equipment—Water requirements
Cooling of water
Cooling water
Dehydration
Drinking water systems
Drying
Erosion
Feed water
Floods
Humidity
Hydraulic engineering
Hydraulics
Hydrolysis
Ice on rivers, lakes, etc.
Irrigation
Lakes
Moisture
Pumping
Rain and rainfall
Rivers
Sea water
Solution (chemistry)
Steam
Water supply and other headings beginning Water
Waterways
Waves
Wells

Analysis

Accuracy in water testing. Power 90:436+ Jl '46

Break-point chlorination and its control. A. E. Griffin. bibliog Pub Works 77:33-4 O '46

Colorimetric determination of iron in water with *o*-phenanthroline. D. H. Caldwell and R. B. Adams. bibliog Am Water Works Assn J 38:727-30 Je '46

Determination of calcium content and total hardness of water; nephelometric-photometric procedure. A. Saifer and F. D. Clark. bibliog Ind & Eng Chem Anal ed 17: 757-9 D '45

Determination of free chlorine and chloramine in water by use of para-aminodimethylaniline. A. T. Palin. bibliog Water & Sewage 84:22+ F '46; Abstract. Am Water Works Assn J 38:892 Jl '46

Determination of the pH of water. F. R. McCrumb. Water Works & Sewerage 92: 344 N '45

Direct reading scale for Hellige turbidimeter. A. A. Hirsch. il diag Water & Sewage Works 93:84-5 F '46

Effect of temperature on the pH of natural waters. W. F. Langelier. chart Am Water Works Assn J 38:179-85 F '46

Estimation of ammonium picrate in wastes from bomb- and shell-loading plants; some reactions of ammonium picrate in water and sewage. C. C. Ruchhoft and F. I. Norris. bibliog Ind & Eng Chem Anal ed 18:480-3 Ag '46

Extensive water analysis in cycling fields yields useful information on corrosion. Oil & Gas J 44:270 Mr 30 '46

Mathematics as a tool in the water-works laboratory. H. A. Thomas, jr. N E Water Works Assn J 60:153-61 Je '46

Method for hardness of water; abstract. S. M. Drachev. Soap & San Chem 21:70 N '45

Proposed methods of test for dissolved oxygen in industrial waters. diags Am Soc T M Proc 45:360-8 '45

Standard methods for the examination of water and sewage; summary of recommended changes for ninth edition. J. F. Norton. Am Water Works Assn J 37: 1341-3 D '45

Bacteriology

Bacterial oxidation of ammonia in circulating water. J. C. Hill. Am Water Works Assn J 38:980-2 Ag '46

Basic factors in the pollution of sub-surface water. L. C. MacMurray. bibliog Water & Sewage Works 93:R24-5 Ap '46

Fluorescence of drinking waters as evidence of sewage pollution. R. A. McLean and M. L. Speas. bibliog Am Water Works Assn J 38:355-60 Mr '46

Reduction of sulphates in oil-field water. F. B. Plummer and I. W. Walling. bibliog il Pet Eng (Ref annual) 17:169+ Jl 1 '46

Simple method for preservation and transmission of samples of water required for bacteriological analysis; abstract. W. Steuer. Am Water Works Assn J 38:447 Mr '46

Water-borne disease outbreaks during 1944. Pub Works 77.27-8 F '46

Why chlorination of Vancouver water has been discontinued. E. A. Cleveland. map Water & Sewage 84:20-2+ Je '46

Deactivation and deaeration

Cold water vacuum deaeration. S. T. Powell. bibliog il diags Water & Sewage Works 93:93-7 Mr '46

Recent developments in corrosion control. S. T. Powell and others. il diags Am Water Works Assn J 38:815-21 Jl '46

Water-treatment question box; purpose of a deaerator. K. M. Herstein and J. S. G. Shotwell. diags Power 90:707 O '46

Electric properties

Electrical properties of salt-water solutions over the frequency range 1-4000 mc/s. R. Cooper. bibliog diags Inst E E J 93 pt 3: 69-75 Mr '46

Hardness

Determination of calcium content and total hardness of water; nephelometric-photometric procedure. A. Saifer and F. D. Clark. bibliog Ind & Eng Chem Anal ed 17:757-9 D '45

Important problem of hard water; with discussion of borax as a water softener. Consumers Res Bul 17:30-3 Mr '46

Influence of mixing water hardness on air-entrainment. C. E. Wuerpel. Am Concrete Inst J 17:401-2 F '46

Sequestration of calcium and magnesium in the presence of alkaline detergents. E. H. Mann and C. C. Ruchhoft. Pub Health Rep 61:539-45 Ap 12 '46

Soap consumption in hard water; Sommer laboratories lather tests. maps Soap & San Chem 22:48-9+ O '46

Heavy water

Solubility of cadmium sulfate in H_2O-D_2O mixtures. L. H. Brickwedde. bibliog J Res Nat Bur Stand 36:377-83 Ap '46

Optical properties

Optics of distilled and natural water. E. O. Hulburt. Opt Soc Am J 35:698-705 N '45

Synthesis

Qualitative synthesis of water by volume; a classroom demonstration. S. Schenberg. diag J Chem Educ 22:537-8 N '45

Testing

How to test water for stability. C. A. Noll. il Power 90:709 O '46

WATER, Distilled

Aqua destillata, its cost and convenience. H. Gee. il Food Ind 18:180-2+ F '46

Changes in distilled water stored in glass ampoules; abstract. A. L. Hinson and others. Cer Ind 46:72 Je '46

Compression distillation of sea water. R. G. Skerrett. il diag Comp Air Mag 51:123-6 My '46

Distilling apparatus for production of pure water. F. E. Holmes. diags Ind & Eng Chem Anal ed 18:277 Ap '46

Economic features of low-pressure evaporating and distilling plants; with cost data. M. L. Ireland, jr. Marine Eng 50:159-64; Discussion. 168-71 D '45

How to produce pure water by compression distillation. A. Latham, jr. il diag Power Pl Eng 50:78-80 F '46

Making heat work overtime. D. H. Killeffer. il diag Sci Am 175:153-6 O '46

Sea water distilled. Bsns W p43 F 9 '46

Water demineralizer installation for an army laboratory; treating water to be distilled. plan Pub Works 77:27-8 Ja '46

Water distillation makes successful use of vapor recompression. il Chem & Met Eng 53:129 Ja '46

WATER, Underground
L'alimentation des sources dans les terrains cristallins. Génie Civil 123:207-8 Ag 1 '46
Basic factors in the pollution of sub-surface water. L. C. MacMurray. bibliog Water & Sewage Works 93:R24-5 Ap '46
Chasing water pockets; soft spots in railroad tracks. il diags Sci Am 173:298-300 N '45
Common well nomograph. I. J. Hooks and H. Gray. Civil Eng 16:175-6 Ap '46
General principles of artificial groundwater recharge. O. E. Meinzer. bibliog Econ Geol 41:191-201 My '46
Ground water for industrial use in the United States. J. B. Graham. bibliog maps Paper Tr J 123:35-41 Ag 1 '46
Ground water supply and its production. W. M. Lewis. il diags Paper Tr J 123:43-7 S 12 '46
Interactions between interstitial and injected water; a review. A. J. W. Headlee. Oil & Gas J 44:219-20+ N 17 '45
La méthode de Porchet pour la reconnaissance des nappes aquifères. A. Vibert. Génie Civil 123:279-80 O 15 '46
Physical, chemical and bacteriological changes in ground water due to unfiltered surface water; abstract. W. Austen. Am Water Works Assn J 38:438 Mr '46
Recharge and depletion of ground-water supplies. C. L. McGuinness. bibliog(47 titles) map Am Soc C E Proc 72:963-84 S '46
Skimming trench solves a coral island water supply problem; installation on Tinian island. J. P. Lawlor. il diags Eng N 136:993-5 Je 27 '46
Utilization of ground-water storage in stream system development. H. Conkling. maps Am Soc C E Proc 71:33-62 bibliog(p60-2) Ja '45; Discussion. bibliog 71:351-7, 563-78, 761-8, 902-7, 1128-40; 72:227-32 Mr-Je, S '45, F '46

See also
Artesian wells
Hot springs
Petroleum—Water problem
Wells

California
Reclaimed sewage to replace ground water in Los Angeles area. Civil Eng 16:498 N '46

Florida
Artificial recharge of artesian limestone at Orlando, Florida. A. G. Unklesbay and H. H. Cooper, jr. bibliog maps Econ Geol 41: 293-307 Je '46

Great Britain
Underground waters; abstract. E. B. Bailey. Am Water Works Assn J 38:437 Mr '46

Kansas
Geology and ground-water resources of Grant, Haskell, and Stevens counties, Kansas. T. G. McLaughlin and H. A. Stoltenberg. State Geological Survey of Kansas [Lawrence] Bul 61:1-221, fold maps (pl 1-3) pl 4-12 bibliog(p213-17) '46

Kentucky
Artificial recharge of glacial sand and gravel with filtered river water at Louisville, Kentucky. W. F. Guyton. bibliog maps diags Econ Geol 41:644-58 S '46

Long Island
Artificial recharge of ground water on Long Island, New York. M. L. Brashears, jr. il map Econ Geol 41:503-16 Ag '46

New Jersey
Artificial recharge of productive groundwater aquifers in New Jersey. H. C. Barksdale and G. D. Debuchananne. maps Econ Geol 41:726-37 N '46

Ontario
Survey of groundwater resources; wells and springs in southern Ontario. A. K. Watt. maps Water & Sewage 84:60-5+ Ap '46

Virginia
Genesis of ground waters in the coastal plain of Virginia. D. J. Cederstrom. bibliog maps Econ Geol 41:218-45 My '46

WATER collectors, Ranney. See Ranney water collectors

WATER conduits
Cavitation; experiences of the Bureau of reclamation. J. E. Warnock. il diags Am Soc C E Proc 71:1041-56 S '45; Discussion. D. A. Abrams. bibliog 72:1123-9 O '46
Coaster gate and handling equipment for river outlet conduits in Shasta dam. J. E. Warnock and H. J. Pound. il diags A S M E Trans 68:199-206 Ap '46
Gonflement d'une conduite forcée métallique noyée dans une masse de béton indéfinie. il diags Génie Civil 123:27 Ja 15 '46
Hydraulic design of conduit intakes in dams. B. O. McCoy. diags Boston Soc C E J 33: 174-84 Jl '46

See also
Aqueducts

WATER conduits, Concrete
Use U-shaped conduit for airport drainage. il Eng N 136:256 F 14 '46

WATER conservation
Artificial recharge of glacial sand and gravel with filtered river water at Louisville, Kentucky. W. F. Guyton. bibliog maps diags Econ Geol 41:644-58 S '46
Artificial recharge of ground water on Long Island, New York. M. L. Brashears, jr. il map Econ Geol 41:503-16 Ag '46
Conservation of municipal water supplies in air-conditioning systems. N. C. Ebaugh. il diags Am Water Works Assn J 38:206-14 F '46
Correlating flood control and water supply, Los Angeles coastal plain. F. B. Laverty. il maps Am Soc C E Proc 71:831-48 Je '45; Discussion. 71:1439-42; 72:697-704 N '45, My '46
Ways to save water in the food plant. I. Reichman. il diag Food Ind 17:1310-12+, 1484-6+ N-D '45

WATER consumption

See also
Water meters
Water waste

WATER coolers, Electric. See Electric water coolers

WATER cooling. See Cooling of water

WATER cooling towers. See Cooling towers

WATER departments
Collecting 100% of the water accounts in Benton, Illinois. H. Garner. il Pub Works 77: 23+ Je '46
South Milwaukee, Wis. also collects 100% of its water bills. E. Welbes. Pub Works 77:29 Je '46

WATER distribution
Characteristic deficiencies of water distribution systems. R. G. Kincaid and R. E. McDonnell. diag Am Water Works Assn J 38:1151-60 O '46
Checking the distribution system; pitometer surveys. H. Breimeister. Am Water Works Assn J 38:239-43 F '46
Cold water piping in industrial plants. H. D. Unwin. il diags Heat & Ven 43:73-8 Ag; 75-80 S; 79-81 O; 85-8 N '46 (to be cont)
La distribution d'eau thermominérale de Dax (Landes). plan Génie Civil 123:50-1 F 15 '46
Distribution system problems; panel discussion. M. E. Driftmier and others. Am Water Works Assn J 38:643-6 My '46
Distribution system records. R. S. Banks. il Am Water Works Assn J 38:783-5 Je '46
Financing water mains in newly opened areas; with particular reference to requirements of real estate developers; Milton, Mass. W. P. Melley. diags Water Works & Sewerage 92:358-60 D '45
How control village water system from pressure? diags Power Pl Eng 49:124+ N '45
Large water main construction by city of Chicago supplies western suburbs. W. W. De Berard. il Water & Sewage Works 93: 380-2 O '46
Milwaukee's 73-year old water tower gets face lifting. J. E. Hubel. il Water & Sewage Works 93:378-9 O '46
Planned improvements for St Louis; with cost data. T. J. Skinker and E. E. Easterday. plans diags Am Water Works Assn J 38:826-37 Jl '46

WATER distribution—*Continued*

Present-day scope of pitometer surveys. E. S. Cole. Am Water Works Assn J 37:181-8 F '45; Same cond. il Water & Sewage Works 93:137-9 Ap '46

Restoring Manila's water system to service. L. K. Clark. il maps Am Water Works Assn J 38:608-24 My '46

Wartime capital improvement; Fort Worth, Tex. W. S. Mahlie and U. Stephens. diags Am Water Works Assn J 38:491-8 Ap '46

Water quality in distribution systems; abstract. M. C. Smith. Water & Sewage Works 93:387 O '46

See also

Aqueducts
Drinking water systems
Hydrants
Hydraulics
Pumping stations
Water conduits
Water hammer
Water pipes
Waterworks

Cost

Costs of laying water pipe. Pub Works 77:26 My '46

Metropolitan water district financing and the cost of metropolitan water. K. R. Kennison. N E Water Works Assn J 60:162-80; Discussion. 180-1 Je '46

Cross connections

Automatic laundry machine hookups; possibility of cross connections. diags Dom Eng 168:154-5 O '46

Back-siphon hazards; pollution to drinking water in beauty shops. il Dom Eng 167: 116 Ap '46

City ordinance against cross-connections. H. H. Caswell. Am Water Works Assn J 38: 460-4 Ap '46

Control of cross-connections. L. E. Wickersham. Am Water Works Assn J 38:1026-30 S '46

Cross-connections and back siphonage. A. T. Dempster. Am Water Works Assn J 38: 465-71 Ap '46

Cross-connection and plumbing hazard elimination in Ann Arbor. H. H. Caswell. plans diags Pub Works 77:24-6 Ag '46

Cross-connections at army installations; abstract. H. H. Gerstein. Am Water Works Assn J 38:579-81 Ap '46

Disease virus back-siphoned through plumbing. il Dom Eng 168:116-17 O '46

Epidemic set-off by serious cross connection; industrial plant in Indiana. plan Dom Eng 167:95+ My '46

New ASSE research project; polio by back-siphonage. il Dom Eng 168:82 Ag '46

Potential hazards to the purity of a building's water supply; position of shut-off valve and drainage. Dom Eng 167:117+ Ap '46

Practices of city water departments in regard to cross connections. diags Pub Works 77:22-3 Mr; 22-3 My '46; 27-8 Je '46

Saddest story and greatest proof; death from amebic dysentery, resulting from cross connection. W. R. Stewart. Dom Eng 168:84+ Jl '46

Southern California cross connection research laboratory seeks the solution to water pollution. il Dom Eng 168:98-101+ Ag '46

Vacuums in potable water supplies; abstract. Am Water Works Assn J 38:581-2 Ap '46

Water-borne outbreak of gastroenteritis in an industry. L. Louis. map Pub Works 77: 33 My '46

WATER fleas. See Cladocera

WATER flow

Critical flow in circular conduits analyzed by nomograph. F. T. Mavis. Eng N 136:361-2 Mr 7 '46

Displacement capacities of mixing impellers. J. H. Rushton and others. diags Am Inst Chem Eng Trans 42:441-54 Je '46

Flow in a channel of definite roughness. R. W. Powell. bibliog il diag Am Soc C E Proc 70.1521-44 D '44; Discussion. 71:948-53, 1259-62; 72:245-8 Je, O '45, F '46

Flow of water in pipes. D. E. Stearns. Am Water Works Assn J 38:731-8 Je '46

Heat transfer and friction of water in an annular space. F. G. Carpenter and others. bibliog diags Am Inst Chem Eng Trans 42:165-87 Ap '46; Discussion. 42:1015-20 O-D '46

Hydraulics for the practical water works man. R. W. Angus. il diags Water & Sewage Works 93.261-6, 295-8, 336-8 Jl-S '46 (to be cont)

Modified gate valve for control of water flow. G. R. Robertson. diags Ind & Eng Chem Anal ed 18:459 Jl '46

WATER fronts

Plans for civic development in downtown area of Janesville, Wisconsin; program to rebuild business area along both sides of river bank. il plan Am Bld 67:84-5+ N '45

Sea-land transfer. R. J. Neutra. il plans Arch Rec 100:74-87 S '46

WATER gages

Beware of boiler-water level; it may play you false. H. M Spring. diags Power 90:771-3 N '46

Water gage method of measuring angles of inclination. plan Marine Eng 51:164+ F '46

WATER gas. See Gas, Water

WATER hammer

Check-valves and water-hammer risk. H. A. Knudson. il Eng N 137:310-12 S 5 '46

Pneumatic surge tank solves water hammer problem; experience at Bath, Maine. M. A. Libby. il diag Water & Sewage Works 93: 98-9 Mr '46

WATER heaters

Fiberglas sales props show industrials jig-time way to insulate water heaters. il Sales Management 56:41 Ap 15 '46

Large volume water heating; how to select and install correct types of systems for specific purposes. M. B. Mackay. Am Gas J 164:37-41+ Ja; 21-6 F; 35-9+ Mr; 20-1, 52 Ap; 42-3+ My; 40-2 Je; 165:39-41+ Jl; 31-3 Ag; 27-9 S; 55-8 O, 31-3 D '46; 166:29-30+ Ja '47

Use tank or tankless type of water heater? diags Heating-Piping 18:87-8 Ag; 90 O '46

See also

Electric water heaters
Feed water heaters
Gas water heaters
Hot water supply
Steam water heaters

WATER hyacinth

Herbicidal action of 2,4-dichlorophenoxyacetic acid on the water hyacinth, eichornia crassipes. E. M. Hildebrand. bibliog Science 103:477-9 Ap 19 '46

WATER in the body

Determination of total body water and solids with isotopes. F. D. Moore. bibliog Science 104:157-60 Ag 16 '46

Rate of water loss from the respiratory tract of man living in a subtropical climate. G. E. Burch. bibliog Science 102:619-20 D 14 '45; Discussion. C. F. Brooks. 103:281 Mr 1 '46

WATER laws and legislation

Pollution bill faces Congressional test. Eng N 136:932-3 Je 13 '46

Responsibility for industrial and municipal wastes. A. Wolman. Am Water Works Assn J 38:883-7 Jl '46; Abstract. Water & Sewage Works 93:271 Jl '46

Rural land-use legislation in the states; the war years. H. Walker, jr. bibliog J Land & Pub Util Econ 22:238-42 Ag '46

See also

Water rights
Waterworks—Laws and regulations

Great Britain

Digest of the British water act of 1945. H. B. Shaw. Am Water Works Assn J 38:85-128 Ja '46

WATER leakage

See also

Water pipes—Leakage

WATER level indicators

Boiler water indication out of dark into light; placed on boiler instrument panel. il diag Elec World 124:114+ N 24 '45

Boilers damaged by low water. Marine Eng 51:127+ My '46

Telemarking; long-distance transmission of information on water levels. C. F. Wertz. il Water & Sewage Works 93:182-3 My '46

WATER level indicators—*Continued*
Voltmeter water stage indicator. il diag Elec World 125:118+ Je 8 '46

See also
Water gages

WATER measurement

See also
Flow meters
Pitometers
Stream measurement
Water flow
Water meters
Weirs (measuring)

WATER meters
Choosing a primary device for flow measurement. L. K. Spink. N E Water Works Assn J 60:15-20 Mr '46
Concentric orifices. D. R. Taylor. bibliog diag Water & Sewage Works 93:129-36 Ap '46
Installation and maintenance of services and meters; Winnipeg; with cost data. W. D. Hurst. il plan diags Water & Sewage Works 93:163-72 My '46
Meter cephalalgia; committee report. Am Water Works Assn J 38:853-8 Jl '46
New Jersey section, AWWA, hears experts on metering. Water & Sewage Works 93:190 My '46
Pittsburgh-Empire compound meter. il Pub Works 76:64 N '45
Unaccounted-for water; discussion. Water & Sewage 84:81-2+ Ap '46

See also
Pitometers

Installation

Setting water meters; relative advantages of curb and basement settings; meter box used in Denver, Colo. H. L. McLaughlin. diag Pub Works 76:29-30 N '45

Length of service

Portland, Maine, survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:267-76 F '46
St Paul, Minnesota, survival and retirement experience with water works facilities, as of Dec. 31, 1941. Am Water Works Assn J 38:413-21 Mr '46

Manufacture

Problems for the water works manufacturer. W. F. Rockwell. Am Water Works Assn J 38:999-1004 S '46

Repair

Meter maintenance and repair. H. L. Londo. il Am Water Works Assn J 38:779-82 Je '46

Standards

American water works association tentative standard specifications for cold water meters; current type. Am Water Works Assn J 38:541-50 Ap '46

WATER pipes
Design of first flexible pipe joint resulted from study of lobster's tail; James Watt's invention used in Clyde River pipe line in 1810. M. N. Baker. il diags Eng N 136:722-3 My 2 '46
Device for feeding lime solution into mains. E. T. Cranch. il Water & Sewage Works 93:R115 Ap '46
Inspection of water works materials. H. A. Price. il Am Water Works Assn J 38:472-9 Ap '46
When cold water lines ran hot; engineer's experience in locating cause for this trouble in an office building. J. J. Woolfenden. Heat & Ven 43:92-3 F '46

See also
Aqueducts
Hot water heating
Hot water supply
Pipe fittings
Pipe joints
Pipe laying
Pipes
Plumbing
Siphons
Water distribution
Water hammer
Waterworks

Cleaning

Cleaning a large water main; cleaning machine used in Cape Town, South Africa. G. H. Lunt. Pub Works 76:38+ N '45
Cleaning of water mains in Charlotte; abstract. J. L. Greenlee. Water Works & Sewerage 92:362-3 D '45
Main cleaning. W. Cotten. il Am Water Works Assn J 38:45-8 Ja '46; Same. Water & Sewage Works 93:21-2 Ja '46
Reconditioning of the Rochester conduit. L. B. Smith. il Am Water Works Assn J 38: 69-75 Ja '46
Scraping of large mains; abstract. J. F. Bailey. Am Water Works Assn J 38:308 F '46
Unique and effective sewer cleaner; also useful for removing soft deposits from water pipes. M. W. Loving. il diags Water & Sewage Works 93:321-2 Ag '46
Use of inhibitors in cleaning metallic pipe. A. Abrams and C. L. Wagner. Water & Sewage Works 93:R161 Ap '46

Corrosion

Anaerobic corrosion of buried iron pipes; abstract. O. B. Wilson. Am Water Works Assn J 38:1212-13 O '46
Anaerobic corrosion of steel pipe due to nitrate. D. H. Caldwell and J. B. Ackerman. bibliog Am Water Works Assn J 38:61-4 Ja '46
Corrosion of water pipes depends on composition of water. Eng N 135:863 D 27 '45
Corrosiveness of water to metals; study of electrochemical equilibria; practical application. T. R. Camp. N E Water Works Assn J 60:188-216, 282-93 Je, S '46
Pipe corrosion caused by air lift; sewage-treatment plant of the Greater Winnipeg sanitary district. L. R. Sowerby. il diag Water & Sewage 84:15-16 Ja '46
Use of inhibitors in cleaning metallic pipe. A. Abrams and C. L. Wagner. Water & Sewage Works 93:R161 Ap '46

See also
Water pipes—Protection

Deposits

Preventing sand and sediment deposits. O. A. Gierlich. Am Water Works Assn J 38:772-4 Je '46

Electric grounding

Water works industry's attitude on grounding and stray current problems. C. F. Meyerherm. Am Water Works Assn J 37: 1298-9 D '45

Failures

How to prevent breaks in cast-iron pipe. T. F. Wolfe. diags Am Waters Assn J 38: 765-71 Je '46

Freezing

Electric heating prevents freezing on exposed water line. A. R. Gruehr. diags Eng N 135:743 N 29 '45

Leakage

Cement joints minimize leakage in cast-iron water lines at Dallas. K. F. Hoefle. il Eng N 136:726-7 My 2 '46
Present-day scope of pitometer surveys. E. S. Cole. Am Water Works Assn J 37:181-8 F '45; Same cond. il Water & Sewage Works 93:137-9 Ap '46
Unaccounted-for water; discussion. Water & Sewage 84:81-2+ Ap '46

Length of service

Jamaica, New York; survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:247-54 F '46
Norwich, New York, survival and retirement experience with water works facilities as of Dec. 31, 1940. Am Water Works Assn J 37:1344-54 D '45
Philadelphia, Pennsylvania, survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:277-305 F '46
Portland, Maine, survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:256-67 F '46
Rochester (suburban), New York, survival and retirement experience with water works facilities as of Dec. 31, 1940. Am Water Works Assn J 37:1361-73 D '45

WATER pipes—Length of service—*Continued*
Sag Harbor, New York, survival and retirement experience with water works facilities as of Dec. 31, 1940. Am Water Works Assn J 37:1355-60 D '45
St Paul, Minnesota, survival and retirement experience with water works facilities, as of Dec. 31, 1941. Am Water Works Assn J 38:401-13 Mr '46
San Francisco, California, survival and retirement experience with water works facilities as of December 31, 1940. Am Water Works Assn J 38:647-61 My '46
Scranton, Pennsylvania, survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:422-36 Mr '46
Springfield, Massachusetts, survival and retirement experience with water works facilities, as of December 31, 1942. Am Water Works Assn J 38:662-85 My '46
Summit, New Jersey; survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:131-51 Ja '46
Syracuse (suburban), New York, survival and retirement experience with water works facilities as of Dec. 31, 1940. Am Water Works Assn J 37:1374-84 D '45
West Palm Beach, Florida; survival and retirement experience with water works facilities, as of December 31, 1940. Am Water Works Assn J 38:562-76 Ap '46

Lining

Advantages of cement linings for cast-iron pipe; with cost data. T. F. Wolfe. Am Water Works Assn J 38:11-15 Ja '46; Same. Water & Sewage Works 93:23-5 Ja '45
Concrete lining prevents corrosion of pipe; Homer mine of the M. A. Hanna co. diags Eng & Min J 147:104+ Je '46
Development of plastic coatings for corrosion protection in the water-works industry. A. B. Smith. N E Water Works Assn J 60:117-27; Discussion. 127-31 Je '46
Mechanically applied cement mortar used to reline 31-in water main. G. W. Jones. il Eng N 137:506-8 O 17 '46
Reconditioning of the Rochester conduit. L. B. Smith. il Am Water Works Assn J 38: 69-75 Ja '46

Protection

Application of magnesium for cathodic protection. F. M. Ruffing. il diag N E Water Works Assn J 59:325-34 D '45
Designing water pipe for long life and high carrying capacity; abstract. G. H. Garrett. Nat Pet N 38 pt 2:R454 Je 5 '46
Principles and practice of corrosion prevention in waterworks pipelines; abstract. N. J. Pugh. Am Water Works Assn J 38:1215-17 O '46

See also
Water pipes—Freezing

Repair

New method for cutting cast-iron pipe. W. R. LaDue. plan Am Water Works Assn J 38:345-7 Mr '46
Repairing a cracked water main and other devices. M. Maffitt. Pub Works 76:34 D '45

Service pipes

Improvised curb box. W. R. LaDue. diag Am Water Works Assn J 38:1144-5 O '46
Installation and maintenance of services and meters, Winnipeg; with cost data. W. D. Hurst. il plan diags Water & Sewage Works 93:163-72 My '46
Sizing and installation of services. G. Roden. Am Water Works Assn J 38:637-42 My '46

Sterilization

Chlorination of mains and the defects of yarn as a jointing material. E. W. Taylor and L. C. Whiskin. diags Water & Sewage 84:28-9+ Je; 25-6+ Ag '46; Abstract. Am Water Works Assn J 38:890-1 Jl '46; Correction. 38:1218 O '46
Design and calibration of an apparatus for the chlorination of mains; abstract. R. J. Bell. Am Water Works Assn J 38:891 Jl '46
Sterilization of new water mains; abstract. W. H. Austin. Am Water Works Assn J 38:893 Jl '46

Tables, calculations, etc.

Cold water piping in industrial plants. H. D. Unwin. diags Heat & Ven 43:73-8 Ag; 75-80 S; 79-81 O; 85-8 N '46 (to be cont)
Flow of water in pipe; abstract. J. Hinds. Eng N 136:847 My 30 '46
Flow of water in pipes. D. E. Stearns. Am Water Works Assn J 38:731-8 Je '46; Abstract. Water & Sewage Works 93:179-80 My '46
Hazen-Williams hydraulic slide rule; instructions for its use. Water & Sewage Works 93:255-6 Je '46
Hydraulics for the practical water works man. R. W. Angus. il diags Water & Sewage Works 93:261-6, 295-8, 336-8 Jl-S '46 (to be cont)

Testing

Hydrant-flow and pipe-condition tests. S. Keith. il N E Water Works Assn J 60:68-82 Mr '46

WATER pipes, Brass
Corrosion of yellow brass pipes in domestic hot water systems, a metallographic study; abstract. E. P. Polushkin and H. L. Shuldener. Am Water Works Assn J 38: 152 Ja '46

WATER pipes, Concrete
Aqueduct for Salt Lake City. L. R. Dunkley. il map Civil Eng 16:160-2 Ap '46
Concrete pipe on Salt Lake aqueduct. L. R. Dunkley. il Concrete 54:10-13+ Ja '46
Prestressed reinforced concrete pipe. F. F. Longley. il diag N E Water Works Assn J 59:335-47 D '45; Same. Water Works & Sewerage 92:367-71 D '45
Use of native materials features construction of Puerto Rico water system. E. W. Whitlock. il map Civil Eng 16:434-7 O '46

Manufacture

Reinforced concrete spun pipes in Argentina. M. Ninci. bibliog diag Engineer 180:501-3, 523-4 D 21-28 '45

WATER pipes, Steel
Tentative standard specifications for field welding of steel water pipe joints. Am Water Works Assn J 38:391-400 Mr '46

WATER pollution
Activities of the National council for stream improvement, inc. H. W. Gehm. il Water & Sewage Works 93:289-93 Jl '46
Advances in sewage treatment and present status of the art; third progress report of the committee of Sanitary engineering division, 1944 and 1945. bibliog(165 titles) Am Soc C E Proc 72:799-855 Je '46
Aerating a river to reduce pollution by sulfite liquor; Flambeau river in Wisconsin. il plan Eng N 136:416-18 Mr 21 '46
Basic factors in the pollution of sub-surface water. L. C. MacMurray. bibliog Water & Sewage Works 93:R24-5 Ap '46
Chemical engineers' approach to industrial waste problems. J. E. Tarman. Am Water Works Assn J 38:333-41 Mr '46
Chemical manufacturers state stream-pollution objectives. Oil Paint & Drug Rep 148: 7+ N 26 '45
Chemical treatment in Los Angeles sewers; use of chlorinated hydrocarbon, Cloroben. R. F. Brown. Eng N 137:161-2 Ag 8 '46
Chemical warfare and water supplies. J. M. Sanchis. il Am Water Works Assn J 38: 1179-96 O '46
Chromates in animal nutrition. W. G. Gross and V. G. Heller. bibliog J Ind Hygiene 28:52-6 Mr '46
Clean-up of Pennsylvania's streams ordered. H. E. Moses. Civil Eng 16:282 Je '46
Coordination of pollution control by U.S. Public health service favored in statement by American society of civil engineers; text. Civil Eng 16:81 F '46
Disposal of industrial wastes. G. E. Symons. bibliog il diags Water Works & Sewerage 92.391-6 D '45
Disposal of petroleum refinery wastes. W. B. Hart. bibliog diags Nat Pet N 38 pt 2:R11-14+, R97+, R225+, R292-4+, R371-2+, R467-73, R512-14+, R587-8+ Ja 2, F 6, Mr 6, Ap 3, My 1, Je 5, Jl 3, Ag 7 '46 [cont as] Pet Processing 1:21-2+, 102-3+ S-O '46

WATER pollution—*Continued*
Effect of sewage-plant effluents on growth of plankton. J. B. Lackey. Water & Sewage 84:32+ Mr '46
Federation of sewage works associations and Canadian institute on sewage and sanitation; joint meeting, Toronto. Eng N 137: 489 O 17 '46
Fluorescence of drinking waters as evidence of sewage pollution. R. A. McLean and M. L. Speas. bibliog Am Water Works Assn J 38:355-60 Mr '46
Inadequate Denver sewage treatment charged by state; action threatened. Eng N 135:690 N 22 '45
Infectious hepatitis. R. F. Feemster. N E Water Works Assn J 60:32-40; Discussion. 40-2 Mr '46
Large-scale sewage chlorination receives pilot plant test at Hyperion; southern California beach contamination problem. Eng N 136:802 My 16 '46
Mapping the field of contamination over an ocean sewer outfall. A. M. Rawn and H. K. Palmer. il map Water & Sewage Works 93: 363-6 S '46
Minnesota creates new commission for water pollution control. Eng N 135:659 N 15 '45
Missouri River development program. L. A. Pick. map Am Water Works Assn J 38: 859-67 Jl '46
National council for stream improvement takes over waste abatement activities of Wisconsin pulp manufacturers. Pub Works 76:44 D '45
1945 progress report on pollution of Oregon streams. F. Merryfield and W. G. Wilmott. il Oregon State College Eng Exp Sta [Corvallis] Bul Ser no 19:1-59 Je '45 (pa 40c)
Ohio River valley water sanitation compact. F. H. Waring. map Civil Eng 16:195-6 My '46
Okinawa; DDT and water treatment. A. E. Stilson. map Am Water Works Assn J 38: 625-36 My '46
Pennsylvania pollution drive aids in coal recovery. il Eng N 136:886 Je 6 '46
Pennsylvania streams drive brings results. Eng N 136:831 My 30 '46
Pennsylvania's program for stream pollution; abstract. H. E. Moses. Water & Sewage Works 93:393 O '46
Plankton productivity of certain southeastern Wisconsin lakes as related to fertilization. J. B. Lackey and C. N. Sawyer. Water & Sewage 84:18+ F '46
Polio program gets action in Miami. il Dom Eng 167:102-4 Je '46
Polluted streams cleared up by aeration. R. G. Tyler. Civil Eng 16:348-9 Ag '46
Pollution abatement study and developments in New York state. Pub Works 77:35 O '46
Pollution bill faces Congressional test. Eng N 136:932-3 Je 13 '46
Potomac River basin commission issues an introductory report. Pub Works 76:47 D '45
Present condition of the Ohio river. A. R. Todd. flow diag Am Water Works Assn J 38:41-4 Ja '46; Same. Water & Sewage Works 93:79-80 F '46
Present status of the pulp, paper, and paperboard industry's stream improvement program. R. L. Winget. Paper Tr J 122:124+ F 28 '46; Same cond. Paper Ind 28:433-4 Je '46
Problems of the spring overturn in stratified lakes. E. S. Deevey, jr. bibliog N E Water Works Assn J 60:182-7 Je '46
Proof of polio in water. J. A. Toomey, W. S. Takacs and H. M. Weaver. Dom Eng 168: 82-3 Jl '46
Protection against pollution of water supplies drawn from ground water and spring water; abstract. E. F. Hofmann. Am Water Works Assn J 38:438 Mr '46
Raw water quality as affected by pollution; symposium. Water Works & Sewerage 92: 336-8 N '45
Responsibility for industrial and municipal wastes. A. Wolman. Am Water Works Assn J 38:883-7 Jl '46; Abstract. Water & Sewage Works 93:271 Jl '46
Schistosomiasis, an overseas water-borne disease. bibliog Pub Works 77:26-7+ Jl '46
Screen clogging by a rare species of algae; dichotomosiphon tuberosus. W. W. De Berard and J. R. Baylis. il Water & Sewage Works 93:223-4 Je '46
Some problems in the bacteriology of rivers; abstract and discussion. C. L. Hannay. Chem & Ind p64-5 F 9 '46
Stream pollution and federal legislation; abstract. J. K. Hoskins. Water & Sewage Works 93:316-17 Ag '46
Stream pollution control in Indiana. R. B. Wiley. Am Water Works Assn J 38:1041-5 S '46
Stream pollution in southwestern Pennsylvania. L. S. Morgan. Am Water Works Assn J 38:713-16 Je '46
Subsoil pollutants in mine villages. Coal Age 51:102 S '46
Treatment and disposal of waste waters containing chromate. J. Grindley. Soc Chem Ind J 64:339-44 D '45
Twenty years experience with the dissolved oxygen absorption test in China. W. E. Abbott. Soc Chem Ind J 65:87-90 Mr '46
Urge Mahoning Valley communities to build sewage disposal plants. Eng N 135:838 D 20 '45
Washington cities fight pollution with new sewage plant program. Eng N 137:52 Jl 11 '46
Waste waters from suction gas plants; abstract. H. J. Bandt. Am Water Works Assn J 38:791-2 Je '46
Water quality and pollution control in western Pennsylvania. C. H. Young. map Am Water Works Assn J 38:511-24 Ap '46
Water standards for Potomac River basin. map Eng N 136:991-2 Je 27 '46
Why does sewage treatment lag? R. E. Thompson. bibliog Water & Sewage 84:30+ S '46

See also
Algae
Sewage disposal
Trade waste
Water—Bacteriology
Water distribution —Cross connections
Water purification
Water supply—Salt water intrusion

WATER power
See also
Hydroelectric plants
Hydroelectric power
Tidal power
Turbines

Canada
Tidal power in Canada. Elec R (Lond) 138:342 Mr 1 '46
Water power in Canada. Electrician 136:1576 Je 14 '46

China
Reclamation Bureau engineers to aid huge China power, irrigation project; Yangtze River project. map Eng N 135:771 D 13 '45

Portugal
Tripartite power. Bsns W p106+ Ja 5 '46

Sweden
Swedish water power resources; abstracts. Elec R (Lond) 139:368 S 6 '46; Electrician 137:736 S 13 '46

WATER purification
Activated silica sol in water treatment. F. R. MacGonagle. bibliog diags Paper Ind 28: 533-4+ Jl '46
Additions to Miami water supply system. C. F. Wertz. flow diag il plan Am Water Works Assn J 38:326-32 Mr '46
Algae control in water supplies. M. Gelfand. il Power Pl Eng 50:63-5 Ja '46
Army water supply in World war II. W. A. Hardenbergh. Am Water Works Assn J 38:952-8 Ag '46
Chemical treatment of water; are public fears justified? N. J. Howard. Water & Sewage 84:26+ Mr '46
Enemy water supply equipment. C. W. Karstens. il Am Water Works Assn J 38:959-68 Ag '46
Good town water supplied by new Princess-Elkhorn plant, David, Ky; Filt-R-Stil units. il diag Coal Age 51:88-9 Je '46; Abstract. Pub Works 77:21+ Jl '46
How activated carbon is used by cities in water purification; replies to questionnaire. flow diag Pub Works 77:24-5 S '46

WATER purification—*Continued*

Improvements to water works at Mobile, Ala. A. N. Beck. il Civil Eng 16:17-19 Ja '46

London's water supply; safeguarding its purity in war. E. F. W. Mackenzie. il Water Works & Sewerage 92:353-7 D '45

Making water potable for community. diag Chem & Eng N 24:1574 Je 10 '46

Okinawa; DDT and water treatment. A. E. Stilson. Am Water Works Assn J 38:630-2 My '46

Performance of sedimentation basins. J. D. Walker. Am Water Works Assn J 38:1078-82 S '46

Pre-determining effective dosage of copper sulphate in algae control. W. D. Monie. il diag Water & Sewage Works 93:173-6 My '46

Present status of water treatment; with cost data. A. E. Berry. il Water & Sewage 84: 17-20+ Mr '46

Process water for rayon. L. B. Miller. bibliog flow sheet il diags Rayon 26:657-62 D '45

Purification of water. G. Carter. Chem & Ind p314-16 Ag 24 '46

Quality of process water used in kraft paper manufacture. L B. Miller. Paper Tr J 122: 59-60 My 16 '46; Same cond. Paper Ind 28: 576+ Jl '46

Removal of DDT from water supplies. J. A. Carollo. Am Water Works Assn J 37:1310-17; Discussion. H. E. Jordan. 1317 D '45

Sedimentation and the design of settling tanks in the field of water and sewage treatment. T. R. Camp. bibliog diags Am Soc C E Proc 71:445-86 Ap '45; Discussion. 71:1148-50, 1379-86; 72:249-50, 413-18, 668-74 S, N '45, F-Mr, My '46

Steel plant is serviced by modern water works; mills of Kaiser co, Fontana. G. E. Stedman. il Steel 118:116-18+ F 25 '46

Treatment and preparation of water in rayon textile mills. W. S. Habbart. il Rayon 26: 579-81 N '45

Treatment of water for food manufacturing purposes; discussion of Food group. Chem & Ind p111-12 Mr 9 '46

Use of sodium hexametaphosphate (Calgon) as applied to the treatment of chalk well waters; abstract. E. G. B. Gledhill and A. W. H. McCanlis. Am Water Works Assn J 38:310-12 F '46

Uses and limitations of de-ionized water; abstract. W. S. Morrison. Chem Eng 53: 250+ Ag '46

Variety of treatment methods utilized by French water company. M. N. Baker. il diags Eng N 137:380-1 S 19 '46

Water and sewage chemists meet; abstracts of semi-annual meeting papers, Division of water, sewage and sanitation chemistry of American chemical society. Water & Sewage Works 93:197 My '46

Water purification division, A.W.W.A., holds three sessions. Water & Sewage Works 93:299-302 Ag '46

Water-purification problems; discussion. Water & Sewage 84:90+ Ap '46

Water supply for the Stilwell road. C. W. Christenson. il Pub Works 77:19-22+ Ap '46

Water-supply practice in Germany, 1945. A. E. Gorman. il diag N E Water Works Assn J 60:139-45 Je '46

Water treatment in refineries. R. W. Kelly. Pet Refiner 25:143-4 Ag '46

Water treatment problems from the public health viewpoint. E. S. Hoyt. Am Water Works Assn J 38:724-6 Je '46

Why and wherefore of water conditioning. il Rayon 27:321-3 Je '46

See also

Feed water purification
Filters and filtration
Filtration plants
Resinous products—Water treatment
Sea water—Desalting
Water softening

Aeration

Aerating a river to reduce pollution by sulfite liquor; Flambeau river in Wisconsin. il plan Eng N 136:416-18 Mr 21 '46

Polluted streams cleared up by aeration. R. G. Tyler. Civil Eng 16:348-9 Ag '46

Chlorination

Break-point chlorination and its control. A. E. Griffin. bibliog Pub Works 77:33-4 O '46

Break-point chlorination increases manganese removal in sand filters; Baltimore's Montebello filtration plant. S. E. Edwards and G. B. McCall. Eng N 137:167-8 Ag 8 '46; Same cond. Water & Sewage Works 93: 303-5 Ag '46

Breakpoint chlorination of military water supplies in the Fourth service command. Pub Works 77:19-20 F '46

Break-point chlorination of water; abstract. A. T. Palin. Am Water Works Assn J 38: 892-3 Jl '46

Case for break-point chlorination. R. N. Clark. il Civil Eng 16:157-9 Ap '46

Chlorination; installations in Canada. Water & Sewage 84.6+ Jl '46

Chlorination of mains and the defects of yarn as a jointing material. E. W. Taylor and L. C. Whiskin. diags Water & Sewage 84: 28-9+ Je; 25-6+ Ag '46; Abstract. Am Water Works Assn J 38:890-1 Jl '46; Correction. 38:1218 O '46

Control of taste and odor from industrial waste; with cost data. C. D. Adams. Am Water Works Assn J 38:702-9; Discussion. 710-12 Je '46

Design and calibration of an apparatus for the chlorination of mains; abstract. R. J. Bell. Am Water Works Assn J 38:891 Jl '46

Elimination of tastes and odors from an army post water supply. F. H. Stover. map Pub Works 76:30+ D '45

Experience with break-point chlorination in Connecticut. F. O. A. Almquist. N E Water Works Assn J 60:269-81 S '46; Abstract. Water & Sewage Works 93:272 Jl '46

How to control marine growths in circulating water systems. J. G. Dobson. il Power Pl Eng 50:70-5 Ag '46

In-plant chlorination. J. E. Hall and C. C. Blundell. Food Ind 18:520 Ap '46

Inactivation of partially purified poliomyelitis virus in water by chlorination. S. G. Lensen and others. bibliog Am Water Works Assn J 38:1069-77 S '46

Influence of pH and temperature on the survival of coliforms and enteric pathogens when exposed to chloramine. C. T. Butterfield and E. Wattie. bibliog diags Pub Health Rep 61:157-92 F 8 '46; Abstract. Water & Sewage 84:30+ Je; 17-18+ Ag '46

Practical measures for taste control; water supply of Larchmont, N.Y. H. T. Hotchkiss and V. A. Mascia. il Pub Works 76: 20-2 N '45

Program disc regulation of chlorine feed. E. W. Barbee. il diag Am Water Works Assn J 38:1064-8 S '46

Recording residual chlorine. J. R. Baylis and others. il diag Am Water Works Assn J 38: 1057-63 S '46; Abstracts. Eng N 136:846 My 30 '46; Water & Sewage Works 93:301 Ag '46

Super chlorination; round table discussion. Water Works & Sewerage 92:340 N '45

Surface water supplies on Guam. G. H. Abplanalp. il map diag Eng N 135:382-7 S 20 '45; Abstract. Water & Sewage 84:22-3+ Ja '46

What happens to branch distribution? chlorinator feed problem. diags Power 90:50-1 Ja '46

Why chlorination of Vancouver water has been discontinued. E. A. Cleveland. map Water & Sewage 84:20-2+ Je '46

Coagulation

Activated silica for winter use of activated carbon; abstract. H. R. Hay. Pub Works 76:53-4 D '45

Coagulation and benefits from good floc formation. R. W. Ockershausen. Am Water Works Assn J 37:1305-9 D '45

Coagulation with ferric salts; with particular reference to ferric sulphate. J. B. Nickel. Water & Sewage Works 93:147-8 Ap '46; Same. Am Water Works Assn J 38:755-60 Je '46

Electronic principle of water purification. F. E. Stuart. diags N E Water Works Assn J 60:236-54 S '46

WATER purification—Coagulation—*Continued*

Electronic water purification. F. E. Stuart. il Water & Sewage 84:24-6+ My '46

Improvements in the coagulation of surface waters with activated silica. L. L. Klinger. bibliog il plan diags Paper Tr J 122:44-50 Ap 11 '46

Improving water plant operation with activated silica. H. R. Hay. bibliog Water & Sewage Works 93:353-8, 389-92 S-O '46

Iron salts as coagulants. J. E. Kerslake and others. bibliog Am Water Works Assn J 38:1161-9 O '46; Abstract. Water & Sewage Works 93:302 Ag '46

Jar test for determining the chemical dosage of coagulants; abstract. J. B. Nickel. Water Works & Sewerage 92:336 N '45

Mississippi River clarification plant provides large volume of clear water at high rate of flow; Baton Rouge plant of Ethyl corporation. G. F. Moore. flow diag il Pet Refiner 25:134-6 S '46

New concept of coagulation. H. R. Hay. il Water & Sewage Works 93:225-6 Je '46

Preparation of water for filtration. E. S. Hopkins. bibliog il diag Pub Works 77:19-21+ S '46

Use of activated silica in the coagulation of highly colored water. R. E. Noreus. Paper Ind 27:1416-18 D '45

Color removal

Use of activated silica in the coagulation of highly colored water. R. E. Noreus. Paper Ind 27:1416-18 D '45

Corrosion control

Anaerobic corrosion of steel pipe due to nitrate. D. H. Caldwell and J. B. Ackerman. bibliog Am Water Works Assn J 38: 61-4 Ja '46

Chemical equilibria in water treatment. W. F. Langelier. bibliog fold charts Am Water Works Assn J 38:169-78 F '46

Cold water vacuum deaeration. S. T. Powell. bibliog il diags Water & Sewage Works 93: 93-7 Mr '46

Corrosiveness of water to metals. T. R. Camp. N E Water Works Assn J 60:282-93 S '46

Recent developments in corrosion control. S. T. Powell and others. bibliog il diags Am Water Works Assn J 38:808-23; Discussion. B. A. Poole. 823-5 Jl '46; Abstracts. Eng N 136:848 My 30 '46; Water & Sewage Works 93:300-1 Ag '46

Scale and corrosion prevention by chemical conditioning of water; polyphosphates used by army. R. T. Hanlon and D. Newton. flow diags Pub Works 77:31-4+ Ap '46

Sodium hexametaphosphate as a corrosion inhibitor for Ottawa tap water. M. Cohen. bibliog il diag Electrochem Soc Trans 89 (preprint 17):193-207 '46

Study of corrosion control with sodium hexametaphosphate. P. E. Pallo. bibliog diag Am Water Works Assn J 38:499-510 Ap '46

Threshold treatment of water; corrosion control and scale prevention with Calgon. G. B. Hatch and O. Rice. il Water & Sewage 84.22-3+ My '46

Use of calgon at the Bristol, Conn. filter plant. I. L. Newell. Water & Sewage Works 93:71-2 F '46

Water treatment. G. H. Pearson. Blast F & Steel Pl 34:1156 S '46

See also

Water supply—Corrosiveness

Demineralization

Purification of water by demineralization. J. W. Massell. il Rayon 27:425-7 Ag '46

Water demineralizer installation for an army laboratory; treating water to be distilled. plan Pub Works 77:27-8 Ja '46

Electrolytic treatment

Electronic water purification. F. E. Stuart. il Water & Sewage 84:24-6+ My '46

Sterilization of water supplies; use of silver and aluminum electrodes in combination with a sand filter. W. J. Marshall. il Water & Sewage 84:15-16+ Ag '46

Two-compartment cell softens water electrolytically. L. Streicher. il diags Civil Eng 16:312-13 Jl '46

Filtration

See Filtration plants

Fluorine removal

Water treatment with Amberlites. il Water & Sewage 84:50-1 F '46

Iron removal

Water softening in North York; problems of iron removal; efficiency of zeolite; with cost data. G. H. Baker. il Water & Sewage 84:68-9+ Ap '46

Manganese removal

Break-point chlorination increases manganese removal in sand filters; Baltimore's Montebello filtration plant. S. E. Edwards and G. B. McCall. Eng N 137:167-8 Ag 8 '46; Same cond. Water & Sewage Works 93: 303-5 Ag '46

Odor removal

See Water purification—Taste and odor removal

Patents

Evaluation of professional objectives in the design of sanitary engineering works; with reference to influences of proprietary equipment and processes upon development of effective and economical plans. Am Soc C E Proc 72:69-82 Ja '46

Water and sewage patents (cont). Water Works & Sewerage 92:397-8 D '45; [cont as] Water & Sewage Works 93:86-9, 239, 333, 402 Mr, Je, Ag, O '46

Silver process

Use of silver in sterilizing water for Burma road. S. F. Benton. Power Pl Eng 50:99 Ja '46

Swimming pool water

Heating and purifying swimming pool water. diags Power Pl Eng 50:106 Jl '46

Taste and odor removal

Comprehensive survey of the taste and odor control problem; abstract. H. N. Lendall. Water & Sewage Works 93:384-6 O '46

Control of taste and odor from industrial waste; with cost data. C. D. Adams. Am Water Works Assn J 38:702-9 Je '46; Abstract. Water & Sewage Works 93:230-1 Je '46; Discussion. Am Water Works Assn J 38:710-12 Je '46; Water & Sewage Works 93:231 Je '46

Elimination of tastes and odors from an army post water supply. F. H. Stover. map Pub Works 76:30+ D '45

Milestones in taste and odor control. W. A. Welch. Am Water Works Assn J 38:57-60 Ja '46; Abstract. Water & Sewage Works 93:18 Ja '46

New ideas in applying copper sulphate to reservoirs. E. P. Stewart and others. il Pub Works 77:18-19 Ag '46

Practical measures for taste control; water supply of Larchmont, N.Y. H. T. Hotchkiss and V. A. Mascia. il Pub Works 76: 20-2 N '45

Removal of taints from water. F. Howard and E. C. R. Spooner. Chem & Ind p 186-88 My 11 '46

Taste and odor control with chlorine dioxide. R. J. Mounsey and C. Hagar. flow diag Am Water Works Assn J 38:1051-6 S '46

Taste control in Canada. il Water & Sewage 84:8+ Jl '46

Tastes and odors due to synthetic rubber wastes; abstract. C. R. Placak and C. C. Ruchhoft. Pub Works 77:34 Ja '46

Treatment with chlorine dioxide; control of tastes and odors. W. D. MacLean. il Water & Sewage 84:21+ My '46

WATER rates

British water rate practice; abstract. L. W. F. Millis. Am Water Works Assn J 38:129-30 Ja '46

Construction costs and water rates. L. R. Howson. Am Water Works Assn J 38:739-49 Je '46; Same. Water & Sewage Works 93:205-10 Je '46

Metered water rate schedules. G. B. Schunke. bibliog Am Water Works Assn J 38:838-43; Discussion. 844-52 Jl '46

WATER rates—*Continued*
New developments in water rates. C. H. Capen, jr. Am Water Works Assn J 38: 525-30 Ap '46
Water-rate structure in Canada. W. Storrie. Water & Sewage 84:70+ Ap '46; Same. Am Water Works Assn J 38:693-701 Je '46

WATER rights
California and Nevada withdraw from interstate Colorado River basin group. Eng N 137:285 S 5 '46
Mexican water treaty. M. G. Glaeser. J Land & Pub Util Econ 22:1-9 F '46 (to be cont)
Must pay N Y. for Niagara water use. Eng N 136:527 Ap 18 '46

WATER sampling
How to take a dissolved oxygen test sample; illustrated instructions. C. A. Noll. Power 90:338 My '46
Mathematics as a tool in the water-works laboratory. H. A. Thomas, jr. N E Water Works Assn J 60:153-61 Je '46
Stream sampling in extreme cold. R. N. Clark. Pub Works 77:38-9 Ag '46

WATER scoops. See Locomotives—Water scoops

WATER screw. See Archimedean screw

WATER softening
Change in steam-process needs compels water-treatment revisions; Dow magnesium plant. J. P. Warren. flow diags Power 90: 250-1 Ap '46
Future of the lime-soda water softening process; abstract. W. F. Gerrard. Am Water Works Assn J 38:313-14 F '46
Important problem of hard water; with discussion of borax as a water softener. Consumers Res Bul 17:30-3 Mr '46
Los Angeles makes its own zeolite. il Eng N 136:732-3 My 2 '46
Method for calcium-sequestering value of phosphate water conditioners. B. C. Hafford, F. Leonard and R. W. Cummins. Ind & Eng Chem Anal ed 18:411-15 Jl '46
Organic treatment of boiler water; internal use of reagents. B. H. Houseman. Chem Age (Lond) 53:493-5 N 24 '45
Replaces lime with caustic soda for dependable water-softener operation; with cost data; Pittsburgh plate glass co. T. W. Heiskell. il diag Power 90:747-9+ N '46
Soft water for the oil industry. F. H. Love. il Pet Eng 17:59-60 S '46
Soft water rinse improves aluminum finishes. R. S. Herwig. il diag Iron Age 158:58-9 Jl 11 '46
Two-compartment cell softens water electrolytically. L. Streicher. il diags Civil Eng 16:312-13 Jl '46
Water softeners. M. Lesser. bibliog Soap & San Chem 21:32-4+ N '45
Water softening in North York; problems of iron removal; efficiency of zeolite; with cost data. G. H. Baker. il Water & Sewage 84:68-9+ Ap '46
Water softening time shortened; lime-soda ash process; Accelator system. A. C Embshoff. il diags Power Pl Eng 50:68-70 Je '46
Water treatment in Etobicoke; use of Calgon; respective merits of lime-soda-ash and zeolite processes. F. McArthur. il Water & Sewage 84:66-7+ Ap '46
Why and wherefore of water conditioning; Zeolite process. il Rayon 27.321-3 Je '46
You may find increased profits in domestic water conditioning. il map Dom Eng 168:138-41+ O '46

WATER storage
L'accumulation de l'eau dans les glaciers. J. Duclaux. Génie Civil 123:100 Ap 15 '46
La construction des barrages souterrains. M. Guembel. Génie Civil 123:161 Je 15 '46
Irrigation needs for Northwest estimated. L. McAllister. il map Civil Eng 16:353-5 Ag '46
Utilization of ground-water storage in stream system development. H. Conkling. maps Am Soc C E Proc 71:33-62 bibliog(p60-2) Ja '45; Discussion. bibliog 71:351-7, 563-78, 761-8, 902-7, 1128-40; 72:227-32 Mr-Je, S '45, F '46

See also
Reservoirs
Water tanks

WATER supply
General principles of artificial ground-water recharge. O. E. Meinzer. bibliog Econ Geol 41:191-201 My '46

See also
Aqueducts
Artesian wells
Cooling of water
Dams
Feed water
Filters and filtration
Filtration plants
Hot water supply
Hydrants
Hydraulic engineering
Irrigation
Plumbing
Pumping machinery
Pumping stations
Railroads—Water supply
Rain and rainfall
Reservoirs
Rivers
Water distribution and other headings beginning Water
Waterworks
Wells

Corrosiveness
Corrosiveness of water to metals. T. R. Camp. N E Water Works Assn J 60:188-216, 282-93 Je, S '46
Water supply of Eglin field, Fla.; study in corrosivity and non-corrosiveness of natural waters. A. B. Uzzle, jr. il plan Water & Sewage Works 93:359-62 S '46

Fluorine content
Dental caries experience in relocated children exposed to water containing fluorine. H. Klein. Pub Health Rep 60:1462-7 D 7 '45; Same. Water & Sewage 84:17+ Ja '46

Iron content
Colorimetric determination of iron in water with o-phenanthroline. D. H. Caldwell and R. B. Adams. bibliog Am Water Works Assn J 38:727-30 Je '46

Nitrate content
Anaerobic corrosion of steel pipe due to nitrate. D. H. Caldwell and J. B. Ackerman. bibliog Am Water Works Assn J 38: 61-4 Ja '46

Salt water intrusion
Baltimore's salty ground water blamed on faulty well structures. Eng N 137:313 S 5 '46

Standards
Public health service drinking water standards, 1946. Pub Health Rep 61:371-84 Mr 15 '46; Same. N E Water Works Assn J 60:83-98 Mr '46; Same. Water & Sewage 84:25-7+ Je '46; Same abr. Am Water Works Assn J 38:361-70 Mr '46; Same abr. Water & Sewage Works 93:140-2 Ap '46
Water standards for Potomac River basin. map Eng N 136:991-2 Je 27 '46

Alberta, Canada
Water supply problems in Alberta. D. B. Menzies. map Am Water Works Assn J 38: 227-33 F '46

Arizona
Power, irrigation water shortage seen in Arizona surveys of federal agencies. Eng N 136:529 Ap 18 '46

Australia
Australian water resources; abstract. J. D. Lang. Engineering 162:174 Ag 23 '46

Brazil
Dug wells lined with concrete and tile solve Amazon water supply problem. J. A. Logan and J. L. Hummel. il diags Eng N 136:908-11 Je 13 '46

California
Correlating flood control and water supply, Los Angeles coastal plain. F. B. Laverty. il maps Am Soc C E Proc 71:831-48 Je '45; Discussion. 71:1439-42; 72:697-704 N '45, My '46

See also
Central Valley project, California

Canada
Chlorination; installations in Canada. Water & Sewage 84:6+ Jl '46
Directory of Canadian waterworks systems. Water & Sewage 84:22+ Jl '46

WATER supply—Canada—*Continued*
Government officials in charge of Canadian public water supply and sewerage undertakings. Water & Sewage 84:20 Jl '46
Legislation affecting waterworks systems in Canada; discussion. Water & Sewage 84: 76+ Ap '46
Small waterworks systems in Canada, list. Water & Sewage 84:124+ Jl '46
Taste control in Canada. il Water & Sewage 84:8+ Jl '46
Water filtration plants in Canada. il Water & Sewage 84:4+ Jl '46
Water-rate structures in Canada. W. Storrie. Water & Sewage 84:70+ Ap '46; Same. Am Water Works Assn J 38:693-701 Je '46
Waterworks systems increase in number in Canada during past quarter century. Water & Sewage 84:3+ Jl '46

China
Water supply in the Asiatic-Pacific theater. E. B. Cobb. N E Water Works Assn J 60:60-7 Mr '46

Florida
Water supply of Eglin field, Fla.; study in corrosivity and non-corrosiveness of natural waters. A. B. Uzzle, jr. il plan Water & Sewage Works 93:359-62 S '46
See also Water, Underground—Florida

France
La distribution d'eau thermominérale de Dax (Landes). plan Génie Civil 123:50-1 F 15 '46
Variety of treatment methods utilized by French water company. M. N. Baker. il diags Eng N 137:380-1 S 19 '46

Germany
Water-supply practice in Germany, 1945. A. E. Gorman. il diag N E Water Works Assn J 60:132-52 Je '46

Great Britain
British water rate practice; abstract. L. W. F. Millis. Am Water Works Assn J 38:129-30 Ja '46
Digest of the British water act of 1945. H. B. Shaw. Am Water Works Assn J 38: 85-128 Ja '46
See also Water, Underground—Great Britain

Guam
Surface water supplies on Guam. G. H. Abplanalp. il map diag Eng N 135:382-7 S 20 '45; Abstract. Water & Sewage 84:22-3+ Ja '46

Illinois
Illinois state water survey completing half-century of service. Eng N 135:867 D 27 '45

Indiana
Stream pollution control in Indiana. R. B. Wiley. Am Water Works Assn J 38:1041-5 S '46

Islands of the Pacific
Water supply in the Asiatic-Pacific theater. E. B. Cobb. N E Water Works Assn J 60:54-60 Mr '46

Italy
Sanitation and public-health experiences in Europe; Sicily, southern Italy, Sardinia, and southern France. L. W. Trager. N E Water Works Assn J 60:47-50 Mr '46

Latin America
Co-operative sanitation in the Americas. H. B. Gotaas. Am Water Works Assn J 38: 969-72 Ag '46
Water-supply problems in Latin America. C. I. Sterling, jr. N E Water Works Assn J 60:221-6 S '46

Mexico
Mexico modernizes water systems to improve public health. A. E. Stuntz. il Pub Works 77:31-2+ O '46

Minnesota
Minnesota creates new commission for water pollution control. Eng N 135:659 N 15 '45

Missouri valley
Missouri River development program. L. A. Pick. map Am Water Works Assn J 38: 859-67 Jl '46

New Jersey
Artificial recharge of productive groundwater aquifers in New Jersey. H. C. Barksdale and G. D. Debuchananne. maps Econ Geol 41:726-37 N '46

New York (state)
Municipal water works organization in New York state. E. J. Rowe and C. A. Engelder. Am Water Works Assn J 38:455-9 Ap '46

Pennsylvania
Clean-up of Pennsylvania's streams ordered. H. E. Moses. Civil Eng 16:282 Je '46
Pennsylvania pollution drive aids in coal recovery. il Eng N 136:886 Je 6 '46
Stream pollution in southwestern Pennsylvania. L. S. Morgan. Am Water Works Assn J 38:713-16 Je '46
Water quality and pollution control in western Pennsylvania. C. H. Young. map Am Water Works Assn J 38:511-24 Ap '46

Saskatchewan
Water problems in Saskatchewan. J. G. Schaeffer. maps Am Water Works Assn J 38:537-40 Ap '46

United States
Classification of municipal water supplies in the United States. map Pub Works 77:27 My '46
This year's water; snow tells the story. il map Elec West 96:60-2 My '46

Venezuela
See also
Caracas, Venezuela—Water supply

Virginia
See also
Water, Underground—Virginia

Western states
Expanding reclamation program harnessing western rivers for irrigation, power production, flood control, and other purposes; with cost data. K. Markwell. il Civil Eng 16:207-9 My '46

Wisconsin
Surface water supplies of Wisconsin. O. J. Muegge. map Am Water Works Assn J 38: 717-23 Je '46

WATER supply, Rural
Another water system problem; redesign the control. diags Power Pl Eng 50:100+ Ap; 108 Je '46
Automatic pressure water systems. C. Neitzke. Edison Elec Inst Bul 14:307-10 S '46
Tips on selling water systems. Dom Eng 168: 101-7+ Jl '46
Water and electricity supplies on farms; National farm survey of England and Wales. Engineering 162:210 Ag 30 '46

WATER supply engineering
Carvin's Cove water supply project for Roanoke, Va; with cost data. L. R. Howson. map Am Water Works Assn J 38: 480-90 Ap '46
Design and construction of Geist reservoir. C. Allen. il map plan diags Am Water Works Assn J 37:1318-40 D '45
Improvements to water works at Mobile, Ala. A. N. Beck. il Civil Eng 16:17-19 Ja '46
Master plan for water and sanitary sewer utilities, Dallas, Texas; with cost data; abstract. H. A. Hunter. Am Water Works Assn J 38:165-7 Ja '46
More water for the Nation's capital. Eng N 136:430-1 Mr 21 '46
Obtaining satisfactory deep well water supplies. F. E. Harley. il Pub Works 77:22-3 O '46
Philadelphia looks to upland sources for its new water supply. map Eng N 136:138-9 Ja 24 '46

WATER supply engineering—*Continued*
Planned improvements for St Louis; with cost data. T. J. Skinker and E. E. Easterday. plans diags Am Water Works Assn J 38:826-37 Jl '46
Restoring Manila's water system to service. L. K. Clark. il maps Am Water Works Assn J 38:608-24 My '46
South America's biggest water supply job; Caracas, Venezuela. E. J. Cleary. il map Eng N 136:297-301 F 21 '46
Unique propeller pump installation increases flow in gravity water tunnel at Washington, D.C. D. M. Radcliffe. il diag Eng N 136:724-6 My 2 '46
Use of native materials features construction of Puerto Rico water system. E. W. Whitlock. il map Civil Eng 16:434-7 O '46
Water problems in Saskatchewan. J. G. Schaeffer. maps Am Water Works Assn J 38:537-40 Ap '46
Water supply and sewage works for the atomic bomb city, Oak Ridge. G. E. Crosby and P. B. Streander. il diag Eng N 135: 819-22 D 13 '45
Water supply developments in Boston, Mass.; with cost data. K. R. Kennison. il N E Water Works Assn J 60:294-325 S '46
Water supply problems in Alberta, Canada. D. B. Menzies. map Am Water Works Assn J 38:227-33 F '46
Water-supply problems in Latin America. C. I. Sterling, jr. N E Water Works Assn J 60:221-6 S '46

See also
Aqueducts
Dams
Filters and filtration
Hot water supply
Hydraulic engineering
Irrigation
Pipe laying
Plumbing
Pumping stations
Reservoirs
Siphons
Water distribution and other headings beginning Water
Waterworks
Wells

WATER supply for armies
Army water supply in World war II. W. A. Hardenbergh. Am Water Works Assn J 38:952-8 Ag '46
Breakpoint chlorination of military water supplies in the Fourth service command. Pub Works 77:19-20 F '46
Canning drinking water; container and processing problems. W. J. Mutschler. flow sheet il Food Ind 18:1351-3 S '46
Chemical warfare and water supplies. J. M. Sanchis. il Am Water Works Assn J 38: 1179-96 O '46
Compression distillation of sea water. R. G. Skerrett. il diag Comp Air Mag 51:123-6 My '46
Cross-connections at army installations; abstract. H. H. Gerstein. Am Water Works Assn J 38:579-81 Ap '46
Development of water supplies for military projects. R. W. Putnam. Am Water Works Assn J 38:595-607 My '46
Elimination of tastes and odors from an army post water supply. F. H. Stover. map Pub Works 76:30+ D '45
Enemy water supply equipment. C. W. Karstens. il Am Water Works Assn J 38: 959-68 Ag '46
Scale and corrosion prevention by chemical conditioning of water; polyphosphates used by army. R. T. Hanlon and D. Newton. flow diags Pub Works 77:31-4+ Ap '46
Skimming trench solves a coral island water supply problem; installation on Tinian island. J. P. Lawlor. il diags Eng N 136:993-5 Je 27 '46
Surface water supplies on Guam. G. H. Abplanalp. il map diag Eng N 135:382-7 S 20 '45; Abstract. Water & Sewage 84:22-3+ Ja '46
Water supply for the Stilwell road. C. W. Christenson. il Pub Works 77:19-22+ Ap '46
Water supply in the Asiatic-Pacific theater. E. B. Cobb. N E Water Works Assn J 60:54-67 Mr '46
Water supply of Eglin field, Fla.; study in corrosivity and non-corrosiveness of natural waters. A. B. Uzzle, jr. il plan Water & Sewage Works 93:359-62 S '46
Waterfronts of World war II. W. W. Hassler. il Water & Sewage Works 93:105-10 Mr '46

WATER supply for canneries
In-plant chlorination. J. E. Hall and C. C. Blundell. Food Ind 18:520 Ap '46

WATER supply for factories
Artificial recharge of glacial sand and gravel with filtered river water at Louisville, Kentucky. W. F. Guyton. bibliog maps diags Econ Geol 41:644-58 S '46
Carrier supervisory control of pumping station over power cable; starch plant of United States sugar corporation. W. A. Derr and others. il diags Elec Eng 65:Trans 699-705 N '46
Cold water piping in industrial plants. H. D. Unwin. il diags Heat & Ven 43:73-8 Ag; 75-80 S; 79-81 O; 85-8 N '46 (to be cont)
Control of fouling organisms in fresh- and salt-water circuits; mollusks, bryozoa, sponges, barnacles, and tunicates. J. G. Dobson. il A S M E Trans 68:247-60 bibliog(106 titles, p258-60); Discussion. 260-5 Ap '46
Emergency handling of steel plant water service. G. E. Stedman. il Steel 119:122-4 Jl 8 '46
Epidemic set-off by serious cross connection; industrial plant in Indiana. plan Dom Eng 167:95+ My '46
Features of contractual agreement for use of sewage effluent as industrial water; conditions and rate schedules in agreement between city of Baltimore and Bethlehem steel co. N. D. Kenny. il Water Works & Sewerage 92:388-90 D '45
Ground water for industrial use in the United States. J. B. Graham. bibliog maps Paper Tr J 123:35-41 Ag 1 '46
High iron content in the water of Crystal City, Mo.; Ranney well system for Pittsburgh plate glass co W. Wheatly. il diags Pub Works 77:36+ Ja '46
Industrial requirements for water. H. E. Jordan. Am Water Works Assn J 38:65-8 Ja '46
Industry converts sewage works effluent into water supply for Sparrows Point plant of the Bethlehem steel co. W. P. Hill. il Water Works & Sewerage 92:383-7 D '45
Peacetime tank maneuvers; water tanks at Bayer co. plant and General Electric plant. il Eng N 136:89 Ja 17 '46
Quenching-water requirements of induction-heated part. B. R. Miller. il Mech Eng 68: 617-18 Jl '46
Steel plant is serviced by modern water works; mills of Kaiser co, Fontana. G. E. Stedman. il Steel 118:116-18+ F 25 '46
Uses and limitations of de-ionized water; abstract. W. S. Morrison. Chem Eng 53: 250+ Ag '46
Water-borne outbreak of gastroenteritis in an industry. L. Louis. map Pub Works 77: 33 My '46
Water for the Holston Ordnance plant. il Eng N 137:100-1 Jl 25 '46
Water requirements of industry. L. B. Miller. Paper Ind 28:586 Jl '46
Water softening time shortened; lime-soda ash process; Accelator system. A. C. Embshoff. il diags Power Pl Eng 50:68-70 Je '46

WATER supply for food factories
Ion exchanges in the food industry. E. L. Holmes. Chem & Ind p234 Je 22 '46
Ways to save water in the food plant. I. Reichman. il diag Food Ind 17:1310-12+, 1484-6+ N-D '45

WATER supply for mines
Winter diamond drilling; supplying water to diamond drills in sub-zero weather at the Francoeur. J. M. Gardner. Can Min J 67:172 Mr '46

WATER supply for paper mills
Activated silica sol in water treatment. F. R. MacGonagle. bibliog diags Paper Ind 28: 533-4+ Jl '46
Dilution factor in brown stock washing. J. R. Lientz. flow sheet il diag Paper Ind 28:806-9 S '46
Effect of chlorides and iron salts on bursting strength; abstract. L. G. Cottrall and J. L. Gartshore. Paper Ind 27:1910 Mr '46
Ground water for industrial use in the United States. J. B. Graham. bibliog maps Paper Tr J 123:35-41 Ag 1 '46

WATER supply for paper mills—*Continued*
Ground water supply and its production. W. M. Lewis. il diags Paper Tr J 123:43-7 S 12 '46
Improvements in the coagulation of surface waters with activated silica. L. L. Klinger. bibliog il plan diags Paper Tr J 122:44-50 Ap 11 '46
Quality of process water used in kraft paper manufacture. L. B. Miller. Paper Tr J 122: 59-60 My 16 '46; Same cond. Paper Ind 28: 576+ Jl '46
Reclaimer treatment of white and waste waters. S. B. Applebaum. il diags Paper Tr J 122:31-3 Je 6 '46; Same cond. Paper Ind 28:582+ Jl '46
Savannah gets $13,000,000 paper mill industry; plans $4,000,000 water supply. R. M. Nelson. il Manuf Rec 115:40-1+ My '46
Specifications for chemical composition of process water for kraft paper manufacture; TAPPI tentative standard E 601 s-46. Paper Tr J 123:50 Ag 15 '46
Studies of rosin sizing; use of sulfuric acid. D. Price and D. D. Cameron. bibliog Pulp & Pa of Can (Convention no) 47:142-8 [F] '46
Use of activated silica in the coagulation of highly colored water. R. E. Noreus. Paper Ind 27:1416-18 D '45
Washing of deinked stock; results of sodium hexametaphosphate treatment. H. P. Bailey and A. H. Nadelman. bibliog diag Paper Tr J 122:47-8 Mr 28 '46; Same cond. Paper Ind 28:1048 O '46
Water filtration plant; KVP plant. J. F. McCallum. il Pulp & Pa of Can 47:92-3 O '46
Water requirements of industry. L. B. Miller. Paper Ind 28:586 Jl '46
White water reuse and disposal. H. A. Morrison. bibliog diags Paper Tr J 122:41-3 Ap 11 '46; Same cond. Paper Ind 28:580+ Jl '46

WATER supply for petroleum industry
Mississippi River clarification plant provides large volume of clear water at high rate of flow; Baton Rouge plant of Ethyl corporation. G. F. Moore. flow diag il Pet Refiner 25:134-6 S '46
Soft water for the oil industry. F. H. Love. il Pet Eng 17:59-60 S '46
Water treatment in refineries. R. W. Kelly. Pet Refiner 25:143-4 Ag '46

WATER supply for plating
Significance of water in the plating room. Z. Irenas. bibliog Metal Finishing 44:195-7 My '46
Water and electrodeposition. F. R. Morral. bibliog il Metal Finishing 44:472-5 N '46

WATER supply for power plants
Algae control in water supplies. M. Gelfand. il Power Pl Eng 50:63-5 Ja '46
Change in steam-process needs compels water-treatment revisions; Dow magnesium plant. J. P. Warren. flow diags Power 90: 250-1 Ap '46
Control of fouling organisms in fresh- and salt-water circuits; molusks, Bryozoa, sponges, barnacles, and tunicates. J. G. Dobson. il A S M E Trans 68:247-60 bibliog (106 titles, p258-60) Ap '46; Abstract. Power Pl Eng 50:70-5 Ag '46; Discussion. A S M E Trans 68:260-5 Ap '46
Evaporators generate clean steam from impure water for many uses. J. B. Forbes. il diags Power 90:151-3 Mr '46
How to test water for stability. C. A. Noll. il Power 90:709 O '46
How to test water in the boiler room. E. O. Davis. il Power Pl Eng 49:72-7 O '45
Recirculating canal reduces ice hazard; Bayside steam plant of the Wisconsin public service corp. G. Hrubesky. map Elec World 125:84 Ap 27 '46
Water softening time shortened; lime-soda ash process; Accelator system. A. C. Embshoff. il diags Power Pl Eng 50:68-70 Je '46
Water treating problems; abstract. R. W. Kelly. Oil & Gas J 45:71 Je 29 '46
See also
Feed water purification

WATER supply for refrigerating plants
How small refrigeration plants can operate with less water. W. E. Patten. diags Power Pl Eng 49:88-91 O '45

WATER supply for ships
Descaling of salt water evaporators. Marine Eng 51:109-10 S '46
Economic features of low-pressure evaporating and distilling plants; with cost data. M. L. Ireland, jr. Marine Eng 50:159-64; Discussion. 168-71 D '45
Feedwater treatment. E. Novak. Marine Eng 51:138-42 Ap '46

WATER supply for textile mills
Process water for rayon. L. B. Miller. bibliog flow sheet il diags Rayon 26:657-62 D '45
Purification of water by demineralization. J. W. Masselli. il Rayon 27:425-7 Ag '46
Random notes on water characteristics. A. N. Patterson. Rayon 27:376 Jl '46
Treatment and preparation of water in rayon textile mills. W. S. Habbart. il Rayon 26: 579-81 N '45
Water requirements in textiles; abstract. L. B. Miller. Rayon 27:152 Mr '46
Why and wherefore of water conditioning. il Rayon 27:321-3 Je '46

WATER tanks
Elevated tank design simplified by conical base and tubular legs; Winona lake, Ind. il Eng N 137:309 S 5 '46
Peacetime tank maneuvers; water tanks at Bayer Co. plant and General Electric plant. il Eng N 136:89 Ja 17 '46
Something new in wash tanks. il Water & Sewage Works 93:398 O '46

WATER tanks, Concrete
Basic principles of the design and construction of reservoirs and tanks in reinforced concrete; abstract. G. P. Manning. Am Water Works Assn J 38:686 My '46
Two-way prestressed concrete water storage tank. J. R. Carr. il diag Eng N 135:434-9 O 4 '45; Discussion. 136:872, 1006 My 30, Je 27 '46

WATER tanks, Steel
Fluted central column new feature in tank design; elevated water supply tank for Washington, D.C. il Eng N 136:734-6 My 2 '46
Method of reconditioning elevated water tanks. W. E. Huddleston. il Pet Refiner 25: 141-2 O '46

Cathodic protection
How cathodic protection prevents pipe and tank corrosion. bibliog diags Power Pl Eng 50:83-5+ Je '46

WATER use in air conditioning. See Air conditioning equipment—Water requirements

WATER vapor
Atmospheric absorption measurements with a microwave radiometer. R. H. Dicke and others. bibliog diags Phys R 70:340-8 S 1 '46
Effect of water vapor on magnesium alloys during heat treatment. R. F. Thomson and others. il Metal Prog 50:67-71 Jl '46
Equilibrium water vapor content of compressed gases. E. G. Hammerschmidt. bibliog Gas Age 97:24-5+ Je 27 '46; Same. Am Gas J 165:21-3 Ag '46
Reaction of an aluminium-magnesium alloy with water vapour, and the absorption of hydrogen. R. Eborall and C. E. Ransley. il diag Engineering 161:428-32, 438-9 My 3-10 '46
Sorption of water vapor at low pressure on the surface of some cold-rolled steels at 20°. M. H. Armbruster. Am Chem Soc J 68:1342-7 Jl '46
Temperature dependence of water vapor permeability of organic polymer films. P. M. Doty, W. H. Aiken and H. Mark. bibliog diag Ind & Eng Chem 38:788-91 Ag '46
Theory of a microwave spectroscope. W. E. Lamb, jr. bibliog diag Phys R 70:308-17 S 1 '46
Water vapor absorption of electromagnetic radiation in the centimeter wave-length range. G. E. Becker and S. H. Autler. diag Phys R 70:300-7 S 1 '46

WATER waste
Present-day scope of pitometer surveys. E. S. Cole. Am Water Works Assn J 37:181-8 F '45; Same cond. il Water & Sewage Works 93:137-9 Ap '46
Water waste surveys. H. E. Beckwith. Am Water Works Assn J 38:49-52 Ja '46

WATERING of lawns
See also
Sprinklers

WATERMAN airlines
Waterman airlines expands services to Caribbean area; increased intrastate and nonscheduled cargo flights. Aviation N 5:30 Je 3 '46

WATERPROOF sheets. See Sheets, Waterproof

WATERPROOFING
Aquella; criticism of Reader's Digest article; C.R.'s tests. Consumers Res Bul 17:20-2 My '46
Asphaltic reservoir linings prove successful. A. H. Benedict. il Pub Works 76:15-17+ D '45
Emulsion for waterproofing. Ry Age 121:15 Jl 6 '46
Multi-purpose seal coat protects waterworks structures, both concrete and metal; filter plants at Atlanta, Ga. P. Weir. il Eng N 136:728-31 My 2 '46
Trade practice rules drawn for waterproofing industry. Concrete 54:10 N 4 '46
Waterproofing bituminous mixes. H. P. Pearson. il Roads & Bridges 84:68-9+ O '46
Waterproofing definition argued before FTC. Oil Paint & Drug Rep 150:3+ Jl 22 '46
Waterproofing treatment protects New York public library against moisture penetration. il Arch Forum 85:195 Jl '46
See also
Paper board—Water resistance

WATERPROOFING of textiles
Army's water repellent clothing. J. E. Simpson il Am Dyestuff Rep 35:243-52, 272+ My 20-Je 3 '46
Quartermaster fights the weather; tentage, and water resistant clothing. W. M. Lee. Am Dyestuff Rep 35:72-6 F 11 '46
Rayon material; formaldehyde treatment for increasing water resistance; British patent. Am Dyestuff Rep 35:503 O 21 '46
Reviews progress in watertight cottons. F. T. Peirce. Textile Col 68:18-19 Ja '46; Same abr. Rayon 27:26-7 Ja '46
Water repellents for military textiles. H. N. Mitchell. Textile Col 68:16-17 S '46
Water-resistant treatments in Germany. R. A. Pingree. Am Dyestuff Rep 35:124-7 Mr 11 '46
Waterproofing textiles; increasing the stability of emulsions; U.S. patent. Am Dyestuff Rep 35:504 O 21 '46
See also
Cotton fabrics—Water resistance
Textile fabrics—Water resistance

Testing
Drop-penetration apparatus for evaluating water repellent fabrics. A. M. Sookne and others. bibilog diags Am Dyestuff Rep 35: 295-8+ Je 17 '46

WATERSHEDS
Agricultural flood control program; review of the watershed investigations and reports. H. H. Wooten. bibliog J Land & Pub Util Econ 22:35-47 F '46
Developments in the control of erosion. J. S. Longwell. Am Water Works Assn J 38: 1125-6 O '46
Erosion control on watershed lands. C. B. Brown. il map Am Water Works Assn J 38: 1127-37 O '46
Evaluation of returns from forest lands. R. C. Hawley. Am Water Works Assn J 38: 1105-10 O '46
Forest influences on reservoir watersheds. E. N. Munns. Am Water Works Assn J 38:1111-24 O '46
Practical forestry as it relates to watershed areas. E. E. Minor. Am Water Works Assn J 38·1103-4 O '46

Protection
Program for the Committee on watersheds. Am Water Works Assn J 38:1099-1102 O '46

Recreational use
Public use of reservoir lands and waters. L. S. Finch. bibliog Am Water Works Assn J 38:1138-43 O '46

WATERWAYS
See also
Railroads—Waterways competition
River traffic
St Lawrence waterway and power project

United States
Adequate user tolls for waterways urged. Ry Age 119:868+ N 24 '45
Economic uses of our inland waterways. E. B. Black. Am Water Works Assn J 38:868-77 Jl '46
See also
Inland waterways corporation
Rivers—United States

WATERWORKS
Additions to Miami water supply system. C. F. Wertz. flow diag il plan Am Water Works Assn J 38:326-32 Mr '46
American water works association annual meeting, 66th, St Louis, May 6-10; abstracts of papers. Eng N 136:846-8 My 30 '46; Water & Sewage 84:27-8+ My; 17-19+ Je '46
A.W.W.A. holds most successful convention of all time. Water & Sewage Works 93:267-71 Jl '46
Canadian waterworks conference at Niagara falls. il Water & Sewage 84:43-53+ Ap '46
Current waterworks development. il diags Eng N 136:715-36 My 2 '46
Developments in water supply in 1945. L. N. Thompson. il diag Water & Sewage Works 93:1-10 Ja '46; Same cond. Water & Sewage 84:11-16+ F '46
Evaluation of professional objectives in the design of sanitary engineering works; with reference to influences of proprietary equipment and processes upon development of effective and economical plans. Am Soc C E Proc 72:69-82 Ja '46; Abstract. Pub Works 77:44-5+ Ap '46; Discussion. Am Soc C E Proc 72:901-5 Je '46
Four states section AWWA 29th meeting. Water & Sewage Works 93:73-5 F '46
How control village water system from pressure? J. E. Sullivant. diags Power Pl Eng 49:122+ D '45
Illinois water plant operators 14th conference, Springfield, Dec. 5-6. Water & Sewage Works 93:86-7 F '46
Improvements to water works at Mobile, Ala. A. N. Beck. il Civil Eng 16:17-19 Ja '46
Joint West Virginia water meeting, Wheeling, Nov. 15-16. Water & Sewage Works 93:26-30 Ja '46
Maine water association meets in Bath. Water Works & Sewerage 92:329-30 N '45
Maine water utilities ass'n, annual meeting, Portland, Feb. 12-13. Water & Sewage Works 93:102-4 Mr '46
Meeting of North Carolina section of AWWA jointly with the North Carolina sewage works assn. Water Works & Sewerage 92: 361-6 D '45
Michigan section AWWA and Michigan conference on water purification hold joint meeting in Grand Rapids. Water Works & Sewerage 92:339-41 N '45
New Jersey section AWWA 6th annual meeting, Atlantic City, Nov. 8-10. Water Works & Sewerage 92:380-2 D '45
N.Y. section, AWWA, spring meeting, Elmira, March 28-29. Water & Sewage Works 93:177-81 My '46
North Dakota water and sewage works 17th conference, Fargo, Nov. 8-9. Water Works & Sewerage 92:377-9 D '45
Pennsylvania water works operators association, 19th annual meeting, State College, August 26. Water & Sewage Works 93: 383-8 O '46
Service to small plant operators; how it can be obtained from chemical manufacturers. C. F. Bingham. Water Works & Sewerage 92:375-6 D '45
Status of major projects, 1946. il Eng N 136: 231 F 7 '46
Survey of elementary mathematics for water and sewage works operators. W. K. Eglof. diags Water & Sewage Works 93:187-9, 233-5, 280-2, 399-41, 406-7 My-Jl, S-O '46
Thirty-eighth annual meeting of Indiana section AWWA, Lafayette, Ind. April 2-3. il Water & Sewage Works 93:227-31 Je '46

WATERWORKS—*Continued*

Virginia section, AWWA, meeting, Roanoke, Nov. 8-9. Water & Sewage Works 93:15-20 Ja '46

Water and sewage works reference and data section. bibliog il diags Water & Sewage Works 93:R1-276 Ap '46

Water supply in Frankfurt, Germany. K. S. Watson. il map Water & Sewage Works 93:257-60 Jl '46

Waterworks systems increase in number in Canada during past quarter century. Water & Sewage 84:3+ Jl '46

Western Pennsylvania section AWWA, 6th annual meeting, Pittsburgh, Sept. 14. Water Works & Sewerage 92:335-8 N '45

See also

Aqueducts
Dams
Filters and filtration
Filtration plants
Hydrants
Pumping stations
Pumps
Reservoirs
Water distribution
Water purification
Water supply engineering

Accounting

Accounting under city council; methods at Guelph, Ont. H. S. Nicklin. Water & Sewage 84:118+ Ap '46

Accounting under commission; methods at Windsor, Ont. S. H. Gillett. Water & Sewage 84:114+ Ap '46; Same. Am Water Works Assn J 38:786-90 Je '46

Customer accounting. M. S. Dutton. il Am Water Works Assn J 37:1273-9 D '45

Bibliography

A.W.W.A. publications. Am Water Works Assn J 37:1425-8 D '45

Information on water and sewage works problems; where to find it; revised. L. H. Enslow. Water & Sewage Works 93:R13-14 Ap '46

Papers scheduled at A.W.W.A. section meetings; titles and authors. Am Water Works Assn J 37:1395-1405 D '45

Waterworks digest. Published in monthly numbers of Public works

Combination with electric plants

Water and electricity do mix; City light and water utilities, Kalamazoo, Mich. E. E. Norman. il Am Water Works Assn J 38: 342-4 Mr '46

Costs

Construction costs and water rates. L. R. Howson. Am Water Works Assn J 38:739-49 Je '46; Same. Water & Sewage Works 93:205-10 Je '46

Water and sewage works; recent federal loans; estimated cost of completed projects listed by states. Water & Sewage Works 93:118+ Ap '46

Directories

Directory of Canadian waterworks systems. Water & Sewage 84:22+ Jl '46

Small waterworks systems in Canada, list. Water & Sewage 84:124+ Jl '46

Electric equipment

Recording residual chlorine. J. R. Baylis and others. il diag Am Water Works Assn J 38: 1057-63 S '46

Employees

Des Moines pension and retirement system. Am Water Works Assn J 38:589-94 My '46

Developing better managers. H. W. Lundin. Am Water Works Assn J 38:907-10 Ag '46

Employee pension and retirement systems. D. L. Maffitt. Am Water Works Assn J 38: 911-13 Ag '46

Employee training and rating. S. C. Casteel. Am Water Works Assn J 38:903-6 Ag '46

Practical problems involved in employing returned servicemen. J. I. Hennessy. Am Water Works Assn J 38:76-84 Ja '46

Records for personnel work. P. B. Niles. Am Water Works Assn J 38:901-2 Ag '46

Training plant operators at Fort George G. Meade. A. M. Tawney. Am Water Works Assn J 38:234-8 F '46

Union relations with private ownership. V. H. Ely. Am Water Works Assn J 38:921-9 Ag '46

Utility employees' profit-sharing plan; Waukesha, Wis. A. P. Kuranz. Am Water Works Assn J 38:451-4 Ap '46; Same. Water & Sewage Works 93:143-4 Ap '46

Waterworks systems; accident prevention and compensation for injury; discussion. il Water & Sewage 84:47-53+ Ap '46

Equipment

Baffling sedimentation basins. R. W. Hayden. flow diag Am Water Works Assn J 38.16-17; Discussion. W. J. Murdoch. 18-21 Ja '46; Abstract. Water Works & Sewerage 92:335-6 N '45

Classified index of products used in waterworks and sewerage field. Water & Sewage Works 93:R2-12 Ap '46

Development of plastic coatings for corrosion protection in the water-works industry. A. B. Smith. N E Water Works Assn J 60:117-27; Discussion. 127-31 Je '46

Dredge cleans waterworks basin without interrupting service in Philadelphia. il diags Eng N 137:314-15 S 5 '46

How to order surplus water and sanitation property at a discount; with directory of offices for surplus property disposal. il Pub Works 77:25-6 Mr '46

Manufacturers and agents of sewerage and waterworks equipment; addresses; products index. Water & Sewage 84:129-31 Jl '46

New materials and equipment for water works. S. B. Morris and L. L. Camy. Am Water Works Assn J 38:993-8 S '46; Same. Water & Sewage Works 93:349-52 S '46

New water-filtration plant for Wallaceburg, Ont. N. G. McDonald. il plan Water & Sewage 83:11-14+ D '45

Organic coatings in water-works maintenance. D. R. Meserve. N E Water Works Assn J 60:227-35 S '46

Practical carbon feeder. V. Opie. il diag Water Works & Sewerage 92:373-4 D '45

Program disc regulation of chlorine feed. E. W. Barbee. il diag Am Water Works Assn J 38:1064-8 S '46

Sales engineers' viewpoint on tendering for water works equipment. W. Storrie. Am Water Works Assn J 37:1289-92 D '45

Summit, New Jersey; survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 38:131-51 Ja '46

Water works intakes. C. B. Burdick. diags Am Water Works Assn J 38:315-25 Mr '46

Extension rules

Distribution system problems; panel discussion. M. E. Driftmier and others. Am Water Works Assn J 38:643-6 My '46

Financing of water-main pipe extensions. W. C. Conroy. N E Water Works Assn J 60:1-14 Mr '46

Finance

Financing of water-main pipe extensions. W. C. Conroy. N E Water Works Assn J 60:1-14 Mr '46

Financing water mains in newly opened areas; with particular reference to requirements of real estate developers; Milton, Mass. W. P. Melley. diags Water Works & Sewerage 92:358-60 D '45

Metropolitan water district financing and the cost of metropolitan water. K. R. Kennison. N E Water Works Assn J 60:162-80; Discussion. 180-1 Je '46

Water works annual reports. Am Water Works Assn J 38:895-900 Jl '46

See also

Water rates

Laboratories

Providing incubator space; Kansas City water laboratory. H. W. Poston. il diag Water & Sewage Works 93:184-5 My '46

Laws and regulations

Chicago's sale of water to outside municipalities. W. A. Weigel. Am Water Works Assn J 38:531-6 Ap '46

City ordinance against cross-connections. H. H. Caswell. Am Water Works Assn J 38: 460-4 Ap '46

Legislation affecting waterworks systems in Canada; discussion. Water & Sewage 84: 76+ Ap '46

WATERWORKS—Laws and regulations—*Continued*
Municipal water works organization in New York state. E. J. Rowe and C. A. Engelder. Am Water Works Assn J 38:455-9 Ap '46

Maintenance and repair

Maintenance problems. A. A. Ulrich. Am Water Works Assn J 37:1300-4 D '45
Scheduled maintenance program for water works. H. O. Hartung and W. V. Weir. Am Water Works Assn J 38:930-46; Discussion. 946-51 Ag '46

Management

Detecting illegitimate uses of water from utility pipe lines. W. Stava. Am Water Works Assn J 38:53-6 Ja '46
Guides and checks on water works operation. L. R. Howson. Am Water Works Assn J 38:1-9 Ja '46; Same. Water & Sewage Works 93:11-14 Ja '46; Discussion. J. E. Kerslake. Am Water Works Assn J 38:9-10 Ja '46
Increasing the sale of revenue water. J. W. Myers, jr. Am Water Works Assn J 38: 215-22 F '46
Relationship of the utility operator to the village officials. I. M. Hoover. Am Water Works Assn J 37:1267-9 D '45
Sizing and installation of services. G. Roden. Am Water Works Assn J 38:637-42 My '46
Unaccounted-for water; discussion. Water & Sewage 84:81-2+ Ap '46

Municipal ownership

Municipal water works organization in New York state. E. J. Rowe and C. A. Engelder. Am Water Works Assn J 38:455-9 Ap '46
Utility employees' profit-sharing plan; Waukesha, Wis. A. P. Kuranz. Am Water Works Assn J 38:451-4 Ap '46; Same. Water & Sewage Works 93:143-4 Ap '46

Power

Internal-combustion engines in waterworks and sewage plants. A. M. Boehm. N E Water Works Assn J 60:27-31 Mr '46

Public relations

Public relations in the water works field. E. L. Filby. Am Water Works Assn J 37:1270-2 D '45
Public relations in water works management. M. K. Jones. Am Water Works Assn J 38:203-5 F '46; Same. Water & Sewage Works 93:76-8 F '46
Small town water man glances at consumer relations. E. J. Bear. Water & Sewage Works 93:81 F '46
Willing water. A. H. Ullrich. Water & Sewage Works 93:273-5 Jl '46

Purchasing

Inspection of water works materials. H. A. Price. il Am Water Works Assn J 38:472-9 Ap '46

Records

Condensed operating record. Water & Sewage Works 93:232 Je '46
Distribution system records. R. S. Banks. il Am Water Works Assn J 38.783-5 Je '46
Installation and maintenance of services and meters, Winnipeg; with cost data. W. D. Hurst. il plan diags Water & Sewage Works 93:163-72 My '46

Safety measures

Waterworks systems; accident prevention and compensation for injury; discussion. il Water & Sewage 84:47-53+ Ap '46

Service charges

Stop those nuisance charges! E. E. Norman. Am Water Works Assn J 38:1031-5; Discussion. 1035-40 S '46

War measures

Dramatic war years at Halifax: how allied navies and 100% increase in population were supplied with water from a broken-down plant. H. W. L. Doane. il map Water & Sewage 84:55-9+ Ap '46; Same. Am Water Works Assn J 38:799-807 Jl '46
London's water supply; safeguarding its purity in war. E. F. W. Mackenzie. il Water Works & Sewerage 92:353-7 D '45
Meter reading, billing and commercial practices under wartime conditions. K. F. Hoefle. il Am Water Works Assn J 38:775-8 Je '46
Restoring Manila's water system to service. L. K. Clark. il maps Am Water Works Assn J 38:608-24 My '46

WATERWORKS equipment association
Annual meeting, Niagara Falls, Ontario, April 10. Water & Sewage 84:54+ Ap '46

WATSON, Philip J., jr. 1886-1946
Sketch. por Ry Age 121:755 N 9 '46

WATT hour meters
Meter ratchet has low-friction action. J. S. Lineback. diags Elec World 124:102 N 24 '45
Single-phase meters used for three-phase balanced loads. C. E. Myers. diags Elec World 126:132 S 28 '46
Three devices simplify meter lead preparation. il Elec World 125:118+ Je 22 '46

Testing

Automatic assembly gives watthour meter accuracy; photo-electronic method F. Strattner. il Elec World 126:79-80 O 12 '46
Corrosion of watthour meters in ocean beach areas. A. D. Irion and R. M. Stevens. il Elec World 125:63-5 Ap 27 '46
Meter insulation tester has safety feature. F. H. Rogers. il Elec World 126.89 Jl 20 '46
Shop tested meters get final use test. J. L. Haley. il Elec World 126:127 S 28 '46
Test board socket speeds production. W. T. R. Ward. il diags Elec World 124:102 N 24 '45

WATTMETERS
Air-flow uht watt-meter. Z. W. Wilchinsky and R. H. Kyser. il diags Electronics 19:128-9 O '46
Microwave wattmeter. diag Electronics 19: 164+ N '46
Unbalanced three-phase loads; wattmeter measurement of power factor. G. W. Stubbings. diag Elec R (Lond) 138:647-8 Ap 26 '46
Watts and vars on a single chart. C. D. Price. diags Elec World 125:120+ Mr 16 '46

Testing

Voltage stabilization; use of thermionic valves for wattmeter testing. W. Easton. il diag Elec R (Lond) 138:1013-15 Je 28 '46

WATTS, Arthur Simeon, 1876-
Retiring professor and chairman of Department of ceramic engineering at Ohio state university. bibliog(98 titles) Am Cer Soc Bul 25:244-7 Jl 15 '46

WAUKESHA, Wisconsin

Water supply

Utility employees' profit-sharing plan. A. P. Kuranz. Am Water Works Assn J 38:451-4 Ap '46; Same. Water & Sewage Works 93: 143-4 Ap '46

WAVE guides
Aerials and wave guides for radar; abstracts of papers at Radiolocation convention. Electrician 136:799-800 Mr 29 '46
Anomalous attenuation in waveguides. J. Kemp. diags Wireless Eng 23:211-16 Ag '46; Discussion. D. A. Bell. 23.287-8 O '46
Electroforming microwave components. F. Hassell and F. Jenks. il Electronics 19:134-8 Mr '46
Engineering approach to wave guides. T. Moreno. il Electronics 19:99-103 My '46
Flexible wave guides. A. R. Anderson and A. M. Winchell. bibliog il Electronics 19:104-9 Ag '46
Lowering of electrical breakdown field strength at microwave frequencies due to externally-applied magnetic field. D. Q. Posin. Phys R 69:541 My 1 '46
Minimum attenuation in waveguides. E. N. Phillips. diags Electronics 19:137-9 Ja '46
New method for measuring dielectric constant and loss in the range of centimeter waves. S. Roberts and A. von Hippel. bibliog diags J Ap Phys 17:610-16 Jl '46
Theory and experimental behaviour of right-angled junctions in rectangular-section wave guides. J. T. Allanson and others. Inst E E J 93 pt 3:177-87 My '46

WAVE guides—*Continued*
Transmission, reflection, and guiding of an exponential pulse by a steel plate in water. M. F. M. Osborne and S. D. Hart. il Acoustical Soc Am J 17:1-18 Jl '45; 18:170-84 Jl '46
Universal optimum-response curves for arbitrarily coupled resonators. P. I. Richards. diags Inst Radio Eng Proc 34:624-9 S '46
Wave guide acceleration of particles. E. L. Hudspeth. diag Phys R 69:671 Je 1 '46
Waveguide-output magnetrons with quartz transformers. L. Malter and J. L. Moll. diags RCA R 7:414-21 S '46
Wave guide transmission systems. T. Moreno. il diags Electronics 19:136-41 Je '46
Wave guides for piping television programs. S. J. Mallory. il map diags Radio N 34:36-7+ D '45
Waveguides without metal walls; abstract. R. M. Whitmer. Electronics 19:222 O '46
See also
Radio conductors

WAVE mechanics
Asymmetric rotor; punched-card methods of constructing band spectra. G. W. King, P. C. Cross and G. B. Thomas. bibliog J Chem Phys 14:35-42 Ja '46
Atomic physics and the strength of metals. N. F. Mott. Engineering 161:558-60 Je 14 '46
Heavy-electron pair theory in the limit of strong coupling. J. M. Blatt. bibliog Phys R 69:285-97 Ap 1 '46
Inelastic photo-dissociation of the deuteron. J. M. Jauch. bibliog Phys R 69:275-85 Ap 1 '46
Note concerning the Coriolis contribution to the energy of a symmetric polyatomic molecule. H. H. Nielsen. Phys R 70:184-6 Ag 1 '46
Pressure broadening of spectral lines. H. M. Foley. bibliog Phys R 69:616-28 Je 1 '46
Problem of quantization of higher order equations. G. Rayski. Phys R 70:573-4 O 1 '46
Quantum effects in the interaction of electrons with high frequency fields and the transition to classical theory. L. P. Smith. diag Phys R 69:195-210 Mr 1 '46
Redundant zeros in the discrete energy spectra in Heisenberg's theory of characteristic matrix. S. T. Ma. Phys R 69:668 Je 1 '46
Relativistic interaction of electrons on Podolsky's generalized electrodynamics. D. J. Montgomery. Phys R 69:117-24 F 1 '46
Resonance reactions and anomalous scattering. E. P. Wigner. Phys R 70:15-33 Jl 1 '46
Some factors influencing the ultraviolet absorption spectra of polynuclear aromatic compounds; a general survey. R. J. Jones. bibliog Am Chem Soc J 67:2127-50 D '45
Theory of the non-tetrahedral carbon atom. G. H. Duffey. J Chem Phys 14:342-3 My '46
Upper and lower bounds to Rayleigh's frequency for a vibrating system. W. J. Taylor. J Chem Phys 14:570 S '46
Vibrational levels of an anharmonic oscillator. D ter Haar. bibliog Phys R 70:222-3 Ag 1 '46

WAVEMETERS
Cavity-resonator wavemeters. L. Essen. il diags Wireless Eng 23:126-32 My '46
Frequency measurements at u.h.f. R. Endall. il diags Radio N 36:50-2+ S '46

WAVES
Measurement of ocean waves generated by atomic bombs; Bikini Atoll test plans. N. J. Holter. il diags Electronics 19:94-8 My '46
Seismic sea waves. D. L. Thornton. Engineering 161:484-5 My 24 '46
Shock wave pressures in water produced by impact of small spheres. J. H. McMillen. bibliog il diags Phys R 68:198-209 N 1 '45
Theoretical calculation of wave profiles, and of the resistance of hulls; summary and discussion. R. Guilloton. Engineering 161: 532-3 Je 7 '46
See also
Electric waves — Shock waves
Radio waves — Sound waves

WAX removers
Veeco and Waxoff, floor wax removers. Consumers Res Bul 17:26 Je '46

WAXED paper. See Paper, Waxed

WAXED paper institute
Annual meeting, New York, Feb. 27-28. Paper Tr J 122:34 Mr 14 '46

WAXES
Dry wax lapping. C. J. Dauber. il Metal Prog 49:347-8 F '46
Ester waxes from British lignite and peat. C. M. Cawley and J. G. King. Soc Chem Ind J 64:237-42 S '45
Germans invented continuous band filter to produce an oil-free hard wax. J. P. Jones. il diags Nat Pet N 38 pt 2:R344-6+ My 1 '46
Industrial use of petroleum waxes. J. C. Dean. il Pet Refiner 25:87-91 My '46; Abstract. Sci Am 175:117-19 S '46
Mercurial fungicide wax problems. W. F. Horner, F. R. Koppa and H. W. Herbst. il Ind & Eng Chem 37:1069-73 N '45
Microcrystalline waxes, their manufacture, properties and uses in the paper industry. B. H. Clary. flow chart il Paper Ind 27: 1679-82 F '46
New range of waxes. Chem Age (Lond) 54: 258 Mr 9 '46
Petroleum's myriad uses make it vital to U.S.; use of wax emulsions; abstract. J. C. Dean. Nat Pet N 38:26 Ja 9 '46
Some German solvent extraction developments; commercial methods for manufacturing wax; tr. by J. P. Jones. E. Terres. Nat Pet N 38 pt 2:R273-4+ Ap 3 '46
Synthetic wax; abstract. F. D. Snell and A. F. Guiteras. Soap & San Chem 22:159 Ap '46
Synthetic waxes; German process. Oil Paint & Drug Rep 150:45 O 28 '46
Use of selective solvents to extract fractions from synthetic oil from coal; tr. by J. P. Jones. E. Terres. flow sheets il Nat Pet N 38 pt 2:R84-8 F 6 '46
Using wax emulsions to improve ceramic production. il Cer Ind 46:73-4 F '46
Wax drawing compound. E. A. Bunting. il Steel 118:88-9+ F 11 '46
Wax masking for selective copper plating. C. E. Ernst. il Metal Prog 48:1099-1101 N '45; Same. Metal Finishing 44:155-6 Ap '46
See also
Cotton wax
Floor wax
Paraffin

Testing
Tensile strength of paraffin waxes. F. W. Padgett and R. B. Killingsworth. bibliog il diags Paper Tr J 122:37-43 My 9 '46

WAYBILLS
Micro-filming speeds waybill handling; Rock Island's installation of photographic equipment. il Ry Age 120:867-9 Ap 27 '46

WAYLITE. See Concrete—Aggregate

WAYNE pump company
Sales rise waits on supplies. Barron's 26:1+ Je 24 '46
Thumbnail stock appraisal. Mag of Wall St 77:277 D 8 '45

WAYNE university
Campus and student center for Detroit's municipal university. il maps plans Arch Forum 83:122-4 N '45

WEALTH
Financial resources of individuals and business near $250 billions. Trusts & Estates 81:400 N '45

WEAPONS
See also
Flame throwers
Guns
Rifles

WEATHER
Cold weather and the grid. Elec R (Lond) 138:172 F 1 '46; Electrician 136:279-80 F 1 '46
Effects of weather on power-system operation. J. S. Forrest. Inst E E J 93 pt 1:161-3; Discussion. 169-76 Ap '46
Weather affects chill depth. E. Wisbrun. chart Foundry 74:108-9+ F '46
Weather-compensated control for radiant heating. J. A. Cutler. Heat & Vent 43:81-2 Jl '46

WEATHER—*Continued*
Weather cycle; long term records show past winters more severe and may be so again. Heat & Ven 43:91 Je '46

See also
Atmospheric electricity
Meteorology, Aeronautic
Rain and rainfall
Snow
Winds

WEATHER and aviation. See Meteorology, Aeronautic

WEATHER cycles. See Weather forecasting

WEATHER forecasting
Globecasting weather; can air carriers gain anything from the atom bomb test? S. Bangs. Air Transport 4:33-5 Ag '46
Pin-pointing the weather. A. Haden. map Spectator (Property ed) 12:15+ O 24 '46
Radar for weather man. Electronics 19:210+ Je '46
Radio-sondes and thunderstorm forecasting. R. M. Poulter. Inst E E J 93 pt 1:167-9 Ap '46
Static d-f reveals storm location. il Electronics 19:212+ F; 224+ Ap '46
Storm finder; static direction device enabled planes to avoid bad weather. Bsns W p31 Ja 5 '46
Sun's radiation and the weather. Science 102: supl2 N 16 '45
Weather cycles and their causes. H. P. Gillette. il Water & Sewage Works 93:252-4 Je '46; Roads & Sts 89:104+ Ap '46
Weather forecasting by radio and radar. H. B. Brooks. il Electronics 19:84-7 O '46
Weather statistics and utility problems. A. J. Drummond. bibliog Inst E E J 93 pt 1:164-7 Ap '46
Weatherman uses training in gliders on forecasts; theory that air patterns over Lake Erie can be used to predict extent of snowstorm. Aviation N 4:8 D 31 '45

See also
Radio meteorographs

WEATHER forecasts
Business is using forecasts of Weather bureau as an aid. S. C. Saunders. il Dom Comm 34:17-21 O '46
Fire weather records and forecasts; abstract. I. C. McQueen. il Pulp & Pa of Can 47:99-100 Jl '46
Gas production system is aided by the weatherman; Weather bureau provides the Cincinnati gas and electric co. with estimate of anticipated mean temperature. Gas Age 97:24 F 7 '46
Radio teletype in the AACS. R. Lambe. il Radio N 35:52-3+ Mr '46
Weather and electric power systems. J. S. Forrest and others. bibliog il map Inst E E J 93 pt 1:161-76 Ap '46; Abstracts. Electrician 135:444-6 O 26 '45; Elec R (Lond) 137:584-5, 621-2 O 26-N 2 '45
Weather profit; commercial applications of meteorology Bsns W p72+ Mr 30 '46

WEATHER maps
More work needed to develop facsimile weather map network. A. McSurely. Aviation N 5:29 Ap 15 '46

WEATHER rooms. See Testing laboratories—Weather rooms

WEATHERCAST, inc.
Weather prophets for profit; veterans all. Bsns W p108 F 23 '46

WEATHERING
Dyeing of cotton with mineral khaki; the effect of exposure to weathering agencies on yarns pigmented with copper, chromium and iron compounds. E. Race and F. M. Rowe. bibliog il diags Soc Dyers & Col J 62:19-29 Ja '46
Effect of weathering on rotproofed cordage. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 35:218+ My 6 '46
How different types of dyestuffs affect the rate of deterioration of cloth exposed to weathering; presented by Southeastern section. Am Dyestuff Rep 35:29-37 Ja 14 '46
Interference-free weatherometer; accelerated weathering applied to plastic and rubber and measured with photoelectric equipment. W. B. R. Agnew. il diag Electronics 18: 160-1 D '45

WEATHERING of rubber. See Rubber—Aging

WEAVER'S knot. See Knots and splices

WEAVING
Activity recorder charts weaver efficiency; total loom stops, warp and filling stops by machine. C. S. Parsons. Textile World 96: 127+ Ap '46
Carpet manufacture; Brussels, Wilton and Axminster carpets. W. J. Hopkins. pl diags Textile Inst J 37:P61-71 Ap '46
Control of weave-room seconds requires systematic check-ups. H. I. Jackson. Textile World 95:102-3 D '45
Double-index dobby-chain barrel on wrong time. P. G. Alexander. diags Rayon 27:475 S '46
Floor stiffening overcomes vibration. C. J. Shannon. diags Textile World 96:97 Ja '46
Let's knot, and let's do it the right way. il Textile World 96:101-5 Je '46; Reply. C. S. Bicksler. 96:186+ Jl '46
Phototube weft straightening in textile industry. il diags Electronics 18:316+ N '45; Abstract. Sci Am 174:61 F '46
Proper start means longer loom life. E. P. Schremp. il diag Textile World 96:149+ Ap '46
Scaffolding threads in yarn and cloth structure; use of alginate rayon. A. Johnson. il Textile Inst J 36:P203-15; Discussion. P216 D '45
Strong yarns require special filling bobbins. H. E. Wenrich. il Textile World 96:127+ Ja '46
Terry effect, fancy to eye, is simple to produce. T. Hargreaves. diags Textile World 96:106-7 Je; 117+ Ag '46

See also
Cotton weaving
Looms
Rayon weaving
Shuttles
Textile fabrics

WEBB, James Edwin, 1906-
Budget director. Bsns W p8 Ag 3 '46

WEBB institute of naval architecture
Admiral Robinson new administrator. Marine Eng 51:141 Ja '46

WEBB-POMERENE act. See Export associations

WEBBING, Cotton. See Cotton webbing

WEDGE prisms. See Prisms

WEEDS

See also
Poison ivy
Ragweed
Water hyacinth

Control
Chemical weed control. R. F. Goudey. bibliog Am Water Works Assn J 38:186-202 F '46
Chemical weed control for roads. M. B. Williams. il Roads & Bridges 84:94-5+ Ap '46
Control of aquatic weeds; Benoclor. A. H. Haverlee. il Soap & San Chem 21:35-7 N '45
2,4-D and weed control. il Consumers Res Bul 18:22-4 Ag '46
Le désherbage des champs de céréales par poudrage de colorants nitrés dispersés dans la terre d'infusoires. I. A. Pastac. bibliog Génie Civil 123:7-9 Ja 1 '46
Flame cultivator cuts cotton hoeing costs. il Manuf Rec 115.38+ Mr '46
How to kill weeds and sterilize soil. M. A. McCall and L. W. Kephart. Elec World 125: 120 My 11 '46
Period of effective weed control by the use of 2,4-dichlorophenoxyacetic acid. P. C. Marth and J. W. Mitchell. Science 104:77-9 Jl 26 '46
Plant growth regulators. Science 103:469 Ap 19 '46
Rapid estimation of the phytocidal action of chemicals. H. R. Offord. bibliog Science 103: 474-6 Ap 19 '46
Roadside weed eradication. T. L. Kennedy. il Roads & Bridges 84:111+ Mr '46
Status of plant-growth substances and herbicides in 1945. F. A. Gilbert. bibliog(175 titles) Chem R 39:199-218 O '46
Treatment of muck and manure with 2,4-dichlorophenoxyacetic acid to inhibit germination of weed seeds. C. L. Hamner and others. Science 103:476-7 Ap 19 '46

WEEDS—Control—*Continued*
Use of 2,4-dichlorophenoxyacetic acid as a selective herbicide in the tropics. J. van Overbeek and I. Vélez. Science 103:472 Ap 19 '46
War on weeds. E. M. Hildebrand. Science 103: 465-8 bibliog(p492) Ap 19 '46
Weed killing; petroleum spray leaves no residual taste in vegetables. Sci Am 173: 363 D '45
Weeds are killed by electrocution. il Elec World 125:124+ Je 8 '46
Weeds doomed; quantity production and decreasing cost of 2,4-D. Bsns W p62+ F 2 '46
Weeds on spot; research on chemical kin of 2, 4-D. Bsns W p34+ Ag 31 '46
Wider application of 2,4-D foreseen. Chem Ind 58:866 My '46

WEEK-end houses
Weekend house on steep rural slope in Mt Pleasant, N.Y. il plans Arch Forum 83: 92-3 D '45

WEEKS, Ralph Emerson, 1878-
Portrait. Bsns W p22 Mr 9 '46

WEICK, Fred Ernest, 1899-
Weick and his Ercoupe. por Fortune 33:182 F '46

WEIDMAN, Samuel, 1870-1945
Memorial. C. E. Decker. bibliog por(pl 12) Geol Soc Proc 1945:275-7 Je '46

WEIGHING
Filling-weight control with X and R charts. H. P. Goode and F. B. MacKenzie. il Mod Packaging 20:118-22+ O '46
Should there be a final automatic check on glass batch correctness. il diags Cer Ind 45:64+ N '45
Weight control a valuable tool of process industries; Chem. & Met. report. D. M. Considine. bibliog il diags Chem & Met Eng 53: 125-36 Ap '46 [reprint 25c]
See also
Locomotives—Weighing
Scales

WEIGHING machines
Chips don't chip; new, high speed, accurate weigher permits packaging of potato chips and similar products with minimum breakage. il Mod Packaging 19:116-19 My '46
See also
Scales

WEIGHT (physiology)
Jolly fat man fortunate to be insured on any basis; influence of body weight on mortality. Life Ins Courant 50:518-19 N '45

WEIGHTS and measures
Conversion factors; European to U.S. engineering units; tabulation; engineering file facts. R. S. Burpo, jr, comp. Materials & Methods 24:421 Ag '46
Conversion of British currency, measures, and weights to a decimal system. W. H. Gibson. Textile Inst J 36:P177-81 N '45
Deterioration of analytical weights. A. F. H. Ward. Chem & Ind p393 D 15 '45
Formulas for determining the weights of castings; data sheet. Foundry 74:135-6 S; 171-2 O; 137-8 N '46
Weight of water in pounds per cubic foot for various temperatures. chart(p108) Power Pl Eng 50:99 Jl '46
Weights of small seamless copper tubes; engineering file facts; table. Materials & Methods 22:1787 D '45
See also
Balances
Electric measurements
Gages
Measuring instruments
Metric system
Specific gravity
Wood measurement

WEINBERG, Sidney James, 1891-
Weinberg, WPB aides awarded merit medal. por Comm & Fin Chr 164:1535+ S 26 '46

WEIRS (measuring)
Flow of liquids through vertical circular orifices and triangular weirs. F. W. Greve. il diag Purdue Univ Eng Exp Sta, Research Ser 95:1-67 '45 (pa 50c)
Some problems and considerations in open channel flow measurement. R. E. Sprenkle. il diags Water Works & Sewerage 92:345-9 N '45
Table giving the discharge over weirs. diags Power Pl Eng 50:114 Je '46

WELCOME wagon service company
Good neighbors unlimited. F. Smith. Adv & Sell 38:35+ D '45
New born babes to get gift products in new Welcome Wagon Service. il Ptr Ink 214:124 Mr 22 '46

WELD, Louis Dwight Harvell, 1882-1946
Pioneered in marketing research. por Ptr Ink 216:41 Jl 12 '46
Sketch. por Dun's R 54:36 Ag '46

WELDING
Adjustable jig clamps angle iron for welding frames. C. Vicenzi. diags Am Mach 90:124 Ja 3 '46
Application of fabricated construction to machine design. F. Koenigsberger. bibliog il diags Inst Mech Eng J & Proc 152:Proc 245-61 D '45; Same abr. Engineer 177:355-6, 364-6 My 5-12 '44; Discussion. Inst Mech Eng J & Proc 152:Proc 262-74 D '45; Engineer 177:345-7 My 5 '44
Application of welding on the railroads. L. E. Grant. Welding J 25:644-5 Jl '46
Automatic welding in steel plant maintenance; abstracts. H. E. Holman. Iron Age 158:76 O 10 '46; Steel 119:132+ O 14 '46
Castings and weldings. C. D. Gibb. il diags Engineer 181:591-4 Je 28 '46; Same. Engineering 162:84, 93-5 Jl 26 '46
Causes and prevention of defects in welding. F. S. Dever. il Welding J 25:860-4 S '46
Combining metal forms simplifies production. R. J. Wolf. il diags Materials & Methods 22:1739-43 D '45
Design of welded parts. R. J. Wolf and C. Eiwen. il diag Product Eng 17:[no 7] 122-3 Jl '46
Design of weldments for best results at lowest costs. I. A. Oehler. il diags Product Eng 17:86-9 Ag '46
Designing welded machinery parts. G. L. Snyder. il diags Steel 118:124-7+ F 4; 98-100+ F 11; 100-2+ F 18 '46; Same. Welding J 25:105-18 F '46; Same. A S M E Trans 68:293-307 My '46; Same cond. Machine Design 18:135-42 Ja '46; Same cond. Mach 52: 157-60 Ja; 167-71 F '46
Fusion-welded boiler on D.&H. locomotive; construction, inspection, repairs, etc. G. S. Edmonds. il Mech Eng 68:619-21 Jl '46
Fusion-welded locomotive boilers; Bureau of locomotive inspection rules. J. M. Hall. Ry Age 120:816-17 Ap 20 '46; Same. Mech Eng 68:624+ Jl '46
Institute of welding; expansion of scope and activities. A. Dyson. Chem Age (Lond) 55:449 O 12 '46
Introducing welding supplies dealers; added service to sheet metal contractors. il Sheet Metal Worker 37:51-2 S '46
Knowledge of welding of great value to chemical plant supervisor. C. O. Brown. Ind & Eng Chem 38:89-90 S '46
Locomotive boilers; welded construction. J. Partington. il Mech Eng 68:622-4 Jl '46
Modern welding for maintenance. C. W. Brett. il Chem Age (Lond) 53:589-91 D 22 '45
New equipment. il Iron Age 157:69-70 Ja 24; 87-90 Ap 4; 82-4 Je 20; 158-65-8 O 24 '46
New view of welding; metallurgical features in welded steels; abstract. H. O'Neill. Chem Age (Lond) 54:19 Ja 5 '46
New welding technique; powder welding; abstract. C. B. Clason. Materials & Methods 24:718 S '46
Observations on the appearance welding of malleable castings. H. A. Schwartz and others. il Am Soc T M Proc 45:618-25; Discussion. 625-8 '45
Piping, equipment maintenance simplified by welding process; brewery experience. F. A. Westbrook. il Heating-Piping 17:553-4 O-N '45
Selection of welding processes. W. J. Campbell. Welding J 25:704-6 Ag '46
33d annual review number. il Am Mach 90: 154-9 Ja 17 '46
This elusive character called weldability. W L. Warner. Welding J 25:sup185-8 Mr '46

WELDING—*Continued*

Try welding in manufacture of machinery. diags Diesel Power 24:330-1 Mr '46

Types of welds, types of metals and welding symbols are discussed. C. O. Brown. diags Ind & Eng Chem 38:sup73-4 O '46

War turns a page in metal processing. il Am Mach 90:97-100 Ja 31 '46

Welded design as applied to lightweight army and navy structures. H. A. Oldenkamp. il Welding J 25:33-7 Ja '46

Welded gas holders with panel type lifts. R. Kraus. il diags Welding J 24:1135-9 D '45

Welded locomotive boilers; abstract. R. B. McColl. Mech Eng 68:825 S '46

Welded pedestal bearings for large electric motors. E. W. Sjoquist. il diags Steel 118: 112-14 Je 3 '46

Welded pressure vessels in the oil industry. J. C. Holmberg. il Welding J 25:329-32 Ap '46

Welded valves; abstract. E. Califro. Materials & Methods 23:1658+ Je '46

Welding equipment. il Factory Management 103:160+ N '45

Welding, flame cutting for efficient maintenance and low cost. A. D. Stout, jr. il Coal Age 51:94-8 S; 97-100 O; 100-4 N '46

Welding in Great Britain. A. Dyson. Engineering 162:356 O 11 '46; Abstract. Electrician 137:994 O 11 '46

Welding jet engine parts. W. J. Campbell. il diags Iron Age 158:46-9 S 5 '46

Welding, joining, fastening, 1945. T. C. Du Mond. il Materials & Methods 23:135-7 Ja '46

Welding locomotive boilers. il Steel 119:104 Ag 12 '46

Welding precious metals. F. W. Meyers, jr. il Iron Age 158:59-62 Ag 22 '46

Welding progress. H. E. Linsley. il Iron Age 157:136-8+ Ja 3 '46

Welding with powdered metal. il Iron Age 157:69 Je 20 '46; Same. Mech Eng 68:818-19 S '46

What technical men expect in 1946; joining and welding. Steel 118:306-8+ Ja 7 '46

See also

Airplanes—Welding operations
Aluminum—Welding
Brazing
Bronze welding
Electric welding
Electric welding, Arc
Hard facing
Lead burning
Magnesium—Welding
Manipulators, Welding
Oxyacetylene welding
Piping (power plants)—Welding
Rail joints—Welding
Shipbuilding—Welding operations
Steel—Welding
Steel, Structural—Welding

Bibliography

Current welding literature. Welding J 25:37-8 Ja '46 [cont monthly]

Failures

Crack sensitivity of chromium-nickel stainless weld metal. R. D. Thomas, jr. il Metal Prog 50:474-9 S '46

Critical review of the weld stress problem. J. T. Norton and D. Rosenthal. bibliog Welding J 25:sup277-82 My '46

DeForest brittle temperature research. P. R. Shepler. bibliog il diag Welding J 25:sup 321-32 Je '46

Investigation of failures in a welded bridge. H. Busch and W. Reuleke. il diags Welding J 25:sup463-6 Ag '46

Problem of fracture; failure of welded steel structures and recommended research. J. H. Hollomon. bibliog il diags Welding J 25:sup 534-83 S '46

Quantitative measurement of the cracking tendency in welds. R. D. Stout and others. bibliog il diags Welding J 25:sup522-31 S '46

Some improvements resulting from studies of welded ship failures. D. B. Bannerman, jr. and R. T. Young. il plans diags Welding J 25:223-36 Mr '46

Welded ship failures traced. il Iron Age 156: 49 N 29 '45

Hygienic aspects

Fume control vital in welding. D. Hanna. il Safety Eng 91:27-8+ Ap '46

Lethal gases from welding, burning, cutting. H. K. Sessions. il Safety Eng 91:63-4 My '46

Method for the determination of iron in welding fume samples. R. G. Keenan and B. L. Minderman. bibliog J Ind Hygiene 28:32-6 Mr '46

Symptoms developed in workers cutting and welding galvanized iron; abstract. T. E. P. Gocher. Ind Med 15:462-4 Jl '46

See also

Electric welding, Arc—Hygienic aspects

Inspection

Magnetic inspection of welds; abstract. G. C. Close. Materials & Methods 23:1666 Je '46

Patents

Abstracts of current welding patents. V. L. Oldham. Welding J 24:1220+; 25:80+, 178+, 282+, 372+, 480, 668+, 784+, 896+, 1014+ D '45-My, Jl-O '46

Safety measures

Eye protection on the make; making welders' goggle lenses and plates. il Safety Eng 91:22-3+ Je '46

Safety code for welding, burning and heating; Norfolk navy shipyard, Portsmouth, Va. il Safety Eng 91:22+ F '46

Safety in welding. Dom Eng 167:130 Mr '46

Watch welding-accident hazards. H. W. Boggess. Oil & Gas J 45:105 Je 29 '46

Welding hazards and safeguards. H. W. Boggess. Oil & Gas J 45:131 Je 15 '46

Standards

Codes for arc and gas welding in building construction. L. M. Dalcher. il diags Welding J 25:829-32 S '46

Bibliography

Welding codes, standards and specifications; list with prices. Welding J 25:823 S '46

Stresses

Analyzing stresses in welding H-section trusses. il Steel 119:99+ Jl 22 '46; Iron Age 158:45 Jl 25 '46; Civil Eng 16:371 Ag '46

Controlled low-temperature stress relieving. T. W. Greene and A. A. Holzbaur. il diags Welding J 25:sup171-85 Mr '46

Critical review of the weld stress problem. J. T. Norton and D. Rosenthal. bibliog Welding J 25:sup277-82 My '46

Effect of certain block and other special welding procedures on residual welding stresses. F. Jonassen and others. diags Welding J 25: sup492-6 S '46

Effect of metallurgical changes due to welding upon the fatigue strength of carbon-steel plates. W. M. Wilson and others. il Welding J 25:sup425-50 Ag '46

Effect of peening upon residual welding stresses. E. P. DeGarmo and others. il diags Welding J 25:sup616-23 O '46

Effect of temperature gradients upon the introduction of residual stresses in weldments of steel castings. J. R. Stitt. il Welding J 25:sup485-7 Ag '46

Effect of weld length upon the residual stresses of unrestrained butt welds. E. P. DeGarmo and others. diags Welding J 25: sup485-7 Ag '46

Method for the measurement of residual welding stresses. J. L. Meriam and others. il Welding J 25:sup340-3 Je '46

Nondestructive measurement of residual and enforced stresses by means of X-ray diffraction. G. Sachs and others. bibliog(73 titles) il diags Welding J 25:sup400-12 Jl '46

Note on design stresses in class I welded pressure vessels. S. F. Dorey. Inst Mech Eng J & Proc 154:32-3 Je '46; Same. Engineer 178:489-90, 508-9 D 22-29 '44; Discussion. Inst Mech Eng J & Proc 154:33-51, pl 1-2 Je '46

Practical electric resistance strain gage procedures for structural tests on ships. W. V. Bassett. il Am Soc T M Proc 45:651-66 bibliog(p666); Discussion. 667-70 '45

Proportioning of weld sizes. C. M. Leavitt. Welding J 25:121-9 F '46

WELDING—Stresses—*Continued*
Redistribution of residual welding stresses by tensile loading along a Unionmelt weld joining two 3-ft. x 12-ft. x 1-in. plates. J. L. Meriam and others. il diags Welding J 25:sup697-9 O '46; Discussion. 26:sup191-2 Mr '47
Reduction of residual welding stresses by the use of austenitic electrode. F. Jonassen and others. diags Welding J 25:sup489-91 S '46
Residual stresses in intersecting butt welds. E. P. DeGarmo and others. il plan diags Welding J 25:sup451-63 Ag '46
Residual stresses in welded structures; report of an investigation. W. M. Wilson and C. Hao. il diags Ill U Eng Exp Sta Bul 361:1-78 '46 (pa 75c)
Ship stresses relieved by oxyacetylene machine. il Manuf Rec 114:52+ N '45
Some causes of brittle failures in welded mild steel structures. H. E. Kennedy. il diags Welding J 24:sup588-98 N '45
Some considerations in the design of class I pressure vessels. E. J. Heeley. il diags Pet Refiner 24:141-50 N '45; Same. Inst Mech Eng J & Proc 154:22-31 Je '46; Same cond. Engineer 178:490-1, 508-9 D 22-29 '44; Discussion. Inst Mech Eng J & Proc 154:33-51, pl 1-2 Je '46
Straining of deposited weld metal during cooling. E. P. DeGarmo. il diags Welding J 24:sup561-3 N '45; Same. Iron Age 156:48-50 D 20 '45; Discussion. Welding J 25:sup 76+ F '46
Stress relief of weldments for machining stability. J. R. Stitt. il diags Ohio State Univ Eng Exp Sta Bul 121:1-47 '44; 123:1-23 '45 (pa ea 50c); Same. Welding J 24: sup331-49 Je '45; 25:sup30-9 Ja '46
Work of the Admiralty ship welding committee. A. L. Ayre and G. M. Boyd. Engineering 161:509, 549-50 My 31-Je 7 '46; Abstract. Metal Prog 50:514+ S '46

Study and teaching

Educational films; list of movies and slide films on welding. Welding J 25:770, 772 Ag '46

Symbols

Standard welding symbols; proposed revision. diags Welding J 25:612-41 Jl '46

Testing

Improved testing methods for uniform quality of materials and welds. C. O. Brown. Ind & Eng Chem 38:sup73-4 N '46

Thermit process

Repair of rolling-mill pinion by thermit welding. il Engineering 161:32-3 Ja 11 '46

X ray inspection

Interpreting spotweld radiographs. R. C. McMaster. il Steel 119:104-7 O 14 '46
Nondestructive measurement of residual and enforced stresses by means of X-ray diffraction. G. Sachs and others. bibliog(73 titles) il diags Welding J 25:sup400-12 Jl '46
Radiography of spot welds in light alloy and ferrous sheet materials. R. C. McMaster and F. C. Lindvall. il Welding J 25:851-60 S '46
Some results of advances in welding and radiography on the welding of pressure vessels. O. R. Carpenter. il diag Welding J 25: 531-42 Je '46
Testing welds; practice in Holland; abstract and discussion. Van Ouwerkerk. Elec R (Lond) 138:14 Ja 4 '46

WELDING, Electric. See Electric welding

WELDING, Oxyacetylene. See Oxyacetylene welding

WELDING, Subaqueous. See Electric welding, Arc—Subaqueous welding

WELDING laboratories
U.S. engineering experiment station welding laboratory. M. A. Hansen. il Welding J 25: 900+ S '46

WELDING machines
Huge welder ups production 3,000%. il Bsns W p57 Ag 10 '46

WELDING manipulators. See Manipulators, Welding

WELDING research
Council of the British welding research association. Chem Age (Lond) 54:615 Je 1 '46
DeForest brittle temperature research. P. R. Shepler. bibliog il diag Welding J 25:sup 321-32 Je '46
Investigation of the effect of welding on the transition temperature of navy high-tensile, low-alloy steels. G. G. Luther and others. bibliog il diags Welding J 25:sup634-45 O '46
Investigation of the spot welding of aluminum alloys using magnetic energy storage equipment provided by the Sciaky brothers. W. F. Hess and others. diags Welding J 24:sup629-43 D '45
Research on welding in the United States. A. C. Weigel. Engineering 162:357 O 11 '46; Same abr. Chem Age (Lond) 55:473-4 O 19 '46
Welding explores new field; industry pushes research program. Bsns W p50+ D 29 '45
Welding research as applied in the South. W. W. Austin, jr. and E. N. Kemler. Welding J 25:sup630-3 O '46
Welding research problems. Welding J 25: sup250-6 Ap '46

WELDING research council. See Engineering foundation—Welding research council

WELDING rods
German welding rod manufacture. C. G. Merritt. Iron Age 157:66-70 Je 6 '46

WELDING shops
Coordination of engineering and production in the manufacture of welded products. E. C. Brekelbaum. il diags Welding J 25:975-9 O '46
So you're starting your own welding shop. H. Ullmer. il Welding J 25:406-9 My '46
Utilize waste space in fabricating shop by locating welding generators overhead. il Nat Pet N 38 pt 2:R416+ Je 5 '46
Wage incentive system benefits workers and management; job welding shop. C. E. Sommarstrom and J. J. Baer. il Automotive & Aviation Ind 93:24-5+ D 15 '45

WELFARE work in industry
Burnie plan in paper mill in northern Tasmania. Ind Med 14:808+ O '45
Unions increase demands for employer-financed benefits. C. H. Grattan. Barron's 25:3+ D 10 '45
Welfare functions of the French works committees. Int Labour R 53:397-401 My-Je '46
Welfare plan continued; Jack & Heintz precision industries. Bsns W p87 My 4 '46
Welfare provisions for miners in six foreign countries. Mo Labor R 62:862-7 Je '46

See also
Company towns
Employees' benefit plans
Employment management
Employment systems
Insurance, Group—Employees insurance
Medical service, Industrial
Pensions, Industrial
Profit sharing
Recreation
Saving
Unemployment—Relief measures

WELL drilling contracts
Obtaining satisfactory deep well water supplies. F. E. Harley. il Pub Works 77:22-3 O '46

WELLPOINT system
Wellpoints dewater Denison Dam closure area. T. C. Gill. il diag Civil Eng 16:108-10 Mr '46

WELLS, Roger Clark, 1877-1944
Memorial. W. T. Schaller. bibliog por(pl 13) Geol Soc Proc 1945:279-84 Je '46

WELLS, Theresa Booth
Portrait. Ptr Ink 216:41 S 27 '46

WELLS
Charge U.S. Geological survey competes with private interests in well drilling; Minnesota well drillers association. Eng N 136: 327 Mr 7 '46
Dug wells lined with concrete and tile solve Amazon water supply problem. J. A. Logan and J. L. Hummel. il diags Eng N 136:908-11 Je 13 '46
Ground water supply and its production. W. M. Lewis. il diags Paper Tr J 123:43-7 S 12 '46

WELLS—*Continued*
High iron content in the water of Crystal City, Mo.; Ranney well system for Pittsburgh plate glass co. W. Wheatly. il diags Pub Works 77:36+ Ja '46

Obtaining satisfactory deep well water supplies. F. E. Harley. il Pub Works 77:22-3 O '46

Preventing sand and sediment deposits. O. A. Gierlich. Am Water Works Assn J 38:772-4 Je '46

Purchase and maintenance of deep-well pumps. L. J. Alexander. Am Water Works Assn J 38:1197-207; Discussion. T. E. Larson. 1207-9 O '46

Recovering well capacity with chlorine. W. E. Huston. Am Water Works Assn J 38: 761-3; Discussion. 763-4 Je '46

Rehabilitation of sandstone wells. J. B. Millis. Am Water Works Assn J 38:31-6; Discussion. 37-40 Ja '46

San Francisco, California, survival and retirement experience with water works facilities, as of December 31, 1940. Am Water Works Assn J 38:650-2 My '46

Scituate, Mass. builds wells of non-corrosive materials; transite screen and well pipe. W. J. Lumbert. il diags Pub Works 76:25-6 N '45

Survey of groundwater resources; wells and springs in southern Ontario. A. K. Watt. maps Water & Sewage 84:60-5+ Ap '46

Useful life of water wells; panel discussion, American water works assn. Eng N 136: 847-8 My 30 '46

See also
Gas, Natural
Petroleum—Well drilling
Water, Underground

WELLS, Artesian. See Artesian wells

WENTZEL, Olivia, 1922-
Lead-pipe cinch says lady plumbing apprentice. por Dom Eng 168:85 Jl '46

WERKENTHIN, Theodore A.
Sketch. por Rubber Age 59:174 My '46

WEST, James, 1882-
Sketch. por Inland Ptr 118:69 O '46

WEST
Trend to South and West is found in population and business survey. Heat & Ven 43: 98+ Je '46

Economic conditions

Marketing in the West; post-war possibilities. N. W. Engle. Ptr Ink 214:30-1 F 22 '46

WEST Indian cherry. See Barbados cherries

WEST INDIES
See also
Cotton—West Indies

WEST INDIES, British

Economic conditions

News by countries. For Comm W 21:22-4 D 22 '45; 22:25 Ja 26 '46

WEST INDIES, French
See also
Martinique

WEST PALM BEACH, Florida

Water supply

West Palm Beach, Florida; survival and retirement experience with water works facilities, as of December 31, 1940. Am Water Works Assn J 38:562-76 Ap '46

WEST POINT military academy. See United States military academy, West Point

WEST VIRGINIA
See also
Coal mines and mining—West Virginia
Gas, Natural—West Virginia

Geological survey

West Virginia Geological survey collection of drill cuttings. J. H. C. Martens and F. W. Truscott. Am Assn Pet Geologists Bul 30: 350-2 Mr '46

WESTERN air lines
Indestructible airline. S. Bangs. il Air Transport 4:24-8 Je '46

WESTERN auto supply company
Plans big expansion. Barron's 26:7 S 9 '46
Western Auto in high gear. Bsns W p46-8 Ag 17 '46

WESTERN growers experimental institute
Grower packaging of produce; California leads the way. il plan Mod Packaging 19: 103-9+ My '46

WESTERN hemisphere
See also
Pan Americanism

WESTERN Maryland railway
Bonds authorized. Comm & Fin Chr 162:2521 N 26 '45
Equipment trusts offered. Comm & Fin Chr 164:2061 O 21 '46

WESTERN Pacific railroad
Bonds authorized conditionally. Comm & Fin Chr 163:2202 Ap 22 '46

WESTERN petroleum refiners association
Annual meeting, 34th, Fort Worth. Nat Pet N 38:12-14+ Ap 3 '46

WESTERN society of engineers
Annual meeting, 76th, Chicago, June 4. Western Soc E J 50:99-110 S '45
Year book, containing the constitution, by-laws, membership roster, and the administrative and operating organization. Western Soc E J 50:1-76 pt 2 S '45

WESTERN underwriters association
Annual meeting, Chicago. Nat Underw 50:1+ My 2; 3+ My 16 '46
W.U.A. gets reports from loss and forms committees at Asheville, N.C., meeting. Nat Underw 50:2 S 19 '46

WESTERN union telegraph company
Annual report. Comm & Fin Chr 163:1617 Mr 25 '46
Strike costs told. Bsns W p86+ Ap 20 '46
Telegraph rate increase for Western Union granted. Pub Util 38:192-3 Ag 1 '46
Western Union adopts radio. Pub Util 36:716-17 N 22 '45

WESTINGHOUSE, George, 1846-1914
A.S.M.E. holds convocation to honor George Westinghouse. por Mech Eng 68:372 Ap '46
Centennial forum honors Westinghouse. Ry Age 120:1068+ My 25 '46
Electric power, foundation of industrial empire; achievements of Westinghouse. C. W. Kellogg. Metal Prog 49:1193-5 Je '46
George Westinghouse centennial. J Eng Educ 36:589 My '46
George Westinghouse centennial forum. il Chem & Met Eng 53:155 Je '46
George Westinghouse; individualist. J. K. B. Hare. por Elec Eng 65:442-5 O '46
Practical genius. F. Davin. por Nat Safety N 54:92-3+ O '46

WESTINGHOUSE, George, award in engineering education
George Westinghouse award in engineering education. J Eng Educ 36:595-6 My '46
George Westinghouse award: James Norman Goodier. J Eng Educ 37:5-6 S '46

WESTINGHOUSE, George, educational foundation
Science and life in the world; forum, May 16-18. Science 103:662-6 My 31 '46
Science writers annual award. Science 103: 136 F 1 '46

WESTINGHOUSE air brake company
Annual report. Comm & Fin Chr 163:1330 Mr 11 '46
Thumbnail stock appraisal. Mag of Wall St 77:276 D 8 '45
Williams heads W.A.B. and U.S. & S; other officers. Ry Age 120:825 Ap 20 '46

WESTINGHOUSE electric corporation
$30,000,000 debentures offered. Comm & Fin Chr 164:1332 S 9 '46

WESTINGHOUSE electric international company
Westinghouse bazaar; International division, general-importing business. Fortune 33: 162+ Je '46
Westinghouse's foreign policy. Bsns W p113-14 Je 1 '46

WESTINGHOUSE science writing award
Science writers annual award. Science 103:136 F 1 '46

WESTMINSTER bank
Statement by the chairman, R. E. Beckett. Economist 150:153 Ja 26 '46

WESTPHALIA, Iowa
Villages don't have to die. L. Haystead. Fortune 32:192+ D '45

WETTING
Jones-Ray effect, wettability, and zeta-potential. H. M. Cassel. bibliog J Chem Phys 14: 462 Jl '46
Wetting of steel surfaces by esters of unsaturated fatty acids. N. F. Miller. bibliog il diags J Phys Chem 50:300-19 Jl '46

WETTING, Heat of
Moisture relationships of jute; adsorption isotherm and heat of wetting. W. G. Macmillan and others. bibliog Textile Inst J 37:T13-24 F '46
Surface area of powders; heat of wetting of metal surfaces by oils. H. H. Herbst. bibliog diag Pet Refiner 25:121-5 Mr '46

WETTING agents
Use of wetting agents in histological fixatives. R. L. Chermock and H. E. Muller. Science 103:731-2 Je 21 '46
Wetting-agent concentration in water solution determined by the drop-number method. J. P. Harmon. 4pls U S Bur Mines Information Circ 7351:1-6 '46

WEYERHAEUSER, Rudolph Michael, 1868-1946
Sketch. Am Bld 68:144 Ag '46

WHALE meat
British using whale meat, say it's first-class eating. For Comm W 25:26 O 19 '46

WHALE oil
Elusive whales. Fortune 33:230 My '46
Whale oil and whaling. C. E. Lund. il For Comm W 22:6-8+ F 2 '46

WHALING
Elusive whales. Fortune 33:230 My '46
Norway whalers make ready. For Comm W 24:38 S 21 '46
Whale oil and whaling. C. E. Lund. il For Comm W 22:6-8+ F 2 '46

WHALING vessels
Balaena; floating whale factory ship. Marine Eng 51:132+ Je '46
Whale factory ship Balaena. il Engineer 182: 328-9 O 11 '46
Whaling factory ships, Southern Venturer and Norhval. il plan Engineer 180:456-8, 488-9 D 7-14 '45

WHARTON, John Franklin, 1894-
Lives of John F. Wharton. por Fortune 33: 192+ My '46

WHARVES
Loading with water to design capacity forces steel cylinders below driven depth; wharf built on San Francisco Bay plant of Bethlehem steel co., shipbuilding division. il diag Eng N 136:974-7 Je 27 '46
Piers and wharves on steel cylinders. E. H. Harlow. il Eng N 137:33-5 Jl 11 '46

WHARVES, Concrete
Concrete wharf deck built on creosoted wood piles. il Eng N 137:185 Ag 8 '46
Cyclopean pier construction; explosives loading pier, Long Beach, Calif. K. P. Peel. il diags Eng N 136:282-4 F 21 '46

WHEAT
Agricultural planning achieves magnificent failure; grain and meat by-passing normal outlets. H. S. Taylor. Barron's 26:3 Jl 1 '46
Agriculture department finds wheat scarcity despite huge carryover. Barron's 26:5 O 14 '46
Changes in the viscosity and baking properties of soft wheat flours milled from new crop wheats upon storage; abstract. W. H. Hanson. Food Ind 18:607 Ap '46
Cut in livestock feeding needed to make good on wheat export pledge. Barron's 26:5 F 4 '46
Department of agriculture moves to meet wheat-export goal. For Comm W 22:40 F 16 '46
Duration of world's grain shortage to be determined in next six months. Barron's 26: 7 Ap 1 '46
Evaluation of malts for production of alcohol from wheat. C. B. Thorne and others. bibliog Ind & Eng Chem 37:1142-4 N '45
Flour rule stands; 80% order. Bsns W p17 Mr 9 '46
Food scandal. il map Fortune 33:88-95 My '46
Golden lure of wheat may presage another dust bowl. il Bsns W p42 Jl 20 '46
High demand for U. S. wheat now threatens sharp decline in carryover. Barron's 26:7 Ja 21 '46
Improved wheat outlook narrows supply-demand starvation gap. Barron's 26:5 Je 17 '46
Pinch in wheat. Bsns W p29-30 Ja 26 '46
Residues in wheat flour fumigated with methyl bromide. S. E. Lewis and K. Eccleston. bibliog Soc Chem Ind J 65:149-52 My '46
Sorption of methyl bromide by wheat. F. P. W. Winteringham and A. Harrison. bibliog Soc Chem Ind J 65:140-9 My '46
Subsoil moisture promises another record crop year. Food Ind 18:711 My '46
This hungry world. map Bsns W p109 Ap 20 '46
Too little bread; government seeks to ease the pinch. Bsns W p21 Je 8 '46
Union embargo; Kansas City local refuses to load CCC wheat destined for Mexico, urging milling in U.S. Bsns W p20 Je 8 '46
U.S. wheat exports boom. Barron's 25:9 N 26 '45
U S. wheat; world's salvation. Bsns W p15 F 16 '46
Wheat for our liberated Allies; basic facts as to effects and prospects. J. A. Stillwell. For Comm W 22:21 Mr 2 '46
Wheat plan augurs more belt-tightening. Bsns W p17 My 18 '46
Wheat pressure; CCC offer of 30c premium to draw grain from farms. Bsns W p16 Ap 27 '46
Wheat rationing within industry. Bsns W p16 Ap 13 '46
Wheat shortage may continue into 1947. Barron's 26:5 My 6 '46
World still needs bumper wheat crops. Barron's 25:7 D 24 '45

See also
Flour trade

Analysis
Adsorption of aneurin (vitamin B_1) on sand. H. N. Ridyard. bibliog diag Soc Chem Ind J 65:92-5 Mr '46

Drying
Drying of wheat; phosphatase activity as an index of heat damage in cereals. J. B. Hutchinson and R. G. Booth. bibliog Soc Chem Ind J 65:235-7 Ag '46

Heat damage
Drying of wheat; phosphatase activity as an index of heat damage in cereals. J. B. Hutchinson and R. G. Booth. bibliog Soc Chem Ind J 65:235-7 Ag '46

Statistics
Agricultural department report on winter wheat and rye acreage sown for 1946 crop. Comm & Fin Chr 162:3177 D 27 '45
Where the United States' wheat goes. Bsns W p20 Je 8 '46

Storage
Effect of moisture content, temperature and length of storage on the development of sick wheat in sealed containers; abstract. E. P. Carter and G. Y. Young. Food Ind 18:123 Ja '46
Steel silos for grain. Engineering 162:247 S 13 '46

Brazil
Production, international trade, and consumption of wheat in Brazil; ten year averages 1901-1940, yearly 1941-1945. For Comm W 21:30 D 15 '45

Canada
British violate loan agreement in British-Canadian wheat agreement. A. Andresen. Comm & Fin Chr 164:741+ Ag 8 '46
Trade capstone; Anglo-Canadian wheat pact. Bsns W p100 Ag 3 '46
Wheat agreement with the United Kingdom concluded. For Comm W 24:34 Ag 17 '46

WHEAT farming corporation
Ex-grain grower. Bsns W p22+ Mr 30 '46

WHEAT germ oil
Treatment of myopathies and industrial injuries with wheat germ oil. M. Ant. Ind Med 15:399+ Je '46
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats which contain linolenic as well as linoleic and oleic acids. F. D. Gunstone and T. P. Hilditch. Soc Chem Ind J 65: 10-11 Ja '46

WHEATSTONE bridge
Automatic recorder for resistance thermometry. D. R. Stull. bibliog il diag R Sci Instr 16:318-21 N '45
Characteristics of lamps as applied to the non-linear bridge, used as the indicator in voltage stabilizers. G. N. Patchett. il diags Inst E E J 93 pt 3:305-22 bibliog(p320) S '46
Controlling the beam antenna; applying Wheatstone bridge principle. E. Harris. diags Radio N 36:60+ Ag '46
Simplified bridge analysis. J. H. Miller. diags Product Eng 17:118 O '46
Theory of the non-linear bridge circuit as applied to voltage stabilizers. G. N. Patchett bibliog diags Inst E E J 93 pt 3:16-22 Ja '46; Discussion. 93 pt 3:343 S '46

WHEELBARROWS
Developments of motorized wheelbarrows; abstract. J. W. Akam. Brick & Clay Rec 108:40 My '46

WHEELER, Homer Jay, 1861-1945
Sketch. C. O. J. Wheeler. Science 103:751-2 Je 28 '46

WHEELER bill. See Railroad law

WHEELING, West Virginia
Water supply
Present condition of the Ohio river. A. R. Todd. flow diag Am Water Works Assn J 38:41-4 Ja '46; Same. Water & Sewage Works 93:79-80 F '46

WHEELING steel corporation
Thumbnail stock appraisal. Mag of Wall St 77:455 Ja 19 '46

WHEELS
See also
Airplanes—Wheels
Car wheels
Flywheels
Gearing
Grinding wheels
Handwheels
Pulleys

WHEELS, Aluminum
Centrifugal casting aluminum wheels; abstracts. L. Northcott and O. R. J. Lee. Metals & Alloys 22:494 Ag '45; Metal Prog 48:1128 N '45
Maker of wheels for carrier planes spots peacetime market; Northrop Gaines trucks. il Sales Management 55:119+ D 1 '45

WHISKY
American Scotch designation allowed by Illinois commission. il Bsns W p82+ My 11 '46
Bigger whisky inventories threaten sharper competition. B. W. Corrado. Barron's 26: 7+ Ag 26 '46
Distillers prepare for bigger sales; they will push blended whiskies to eke out small aged stocks. B. W. Corrado. Barron's 25:13 N 26 '45
Scotch drought. Bsns W p21 F 9 '46
Scotch whiskey; report from Scotland. il map Fortune 33:134-45+ Je '46
Spuds to whisky. Bsns W p22+ Jl 20 '46
Whisky stores up. Bsns W p18 Jl 27 '46
See also
Insurance, Fire—Whisky risks
Manufacture
Recent advances in alcohol distillation methods. E. D. Unger. il Chem Ind 58:778-80 My '46

WHISTLES
Fifty horsepower siren. R. C. Jones. il map diags Acoustical Soc Am J 18:371-87 O '46

WHITE, Harry D.
Portrait. Bsns W p101 F 2 '46

WHITE, John W.
Business abroad. Fortune 34:224 S '46

WHITE, S. S., dental manufacturing company
Diversified issues. Mag of Wall St 78.461 Jl 20 '46

WHITE
White paint aids good housekeeping. J. L. Yates. il Foundry 74:106-9+ Jl '46

WHITE House
White House expansion. il Arch Forum 84: 10 F '46

WHITE metals
Foaming of bearing metal during casting. E. A. Wolfenden. Metal Prog 50:479-80 S '46

WHITNEY, John Hay, 1904-
Portrait. Bsns W p21 Je 15 '46
Whitney luck to be tried in a new field; to supply risk capital to help develop medium and smaller-sized enterprises. por Bsns W p70 F 23 '46

WHITNEY, Richard, 1888-
Ramie comeback; Whitney's Florida mill to process fiber for textile use. por Bsns W p26-8 F 23 '46

WHITNEY, Willis Rodney, 1868-
Appreciation based on Broderick's recent biography. D. C. Jackson. pors Mech Eng 68:705-8 Ag '46

WHITTLE, Frank, 1907-
Portrait. Fortune 34:142 S '46

WHITTEMORE, Laurence F. 1894-
Boston & Maine's Whittemore to assume presidency of Federal reserve bank of Boston. por Ry Age 120:328 F 9 '46

WHOLESALE druggists association, National. See National wholesale druggists association

WHOLESALE prices. See Prices, Wholesale

WHOLESALE trade
Statistics
Fourteen important ratios for 24 wholesale trades, 1944; table. R. A. Foulke. Dun's R 53:18 N '45
How long do retail and wholesale establishments tend to survive? statistics on age, size and survival power. U S Bur For & Dom Com, Economic (Small Bsns) Ser 54: 1-61 '46
Wholesale sales, Sales Management estimates; ranking of the leading 200 cities. Sales Management 56:116 My 10 '46

WHOLESALER (term)
By way of definition. Aesop Glim. Ptr Ink 217:68 O 11 '46

WHOLESALERS. See Jobbers

WHOLESALERS, National association of. See National association of wholesalers

WICHITA industrial research foundation
Foundation is now accepting projects for investigation from industry. Chem & Eng N 24:1422 My 25 '46

WIDMAN-STOERMER reaction
Cinnolines; the Richter reaction. K. Schofield and J. C. E. Simpson. Chem Soc J p512-20 Ag '45

WIEN bridge
Audio oscillators; two versions of Wien bridge oscillator. il diags Radio N 36:38-40+ Ag '46

WIJS solution
Anomalous behavior of methyl 12-hydroxy-9,10-octadecenoates in rapid iodine number determinations. P. S. Skell and S. B. Radlove. bibliog Ind & Eng Chem Anal ed 18:67-8 Ja '46

WILCOX electric company
Stocks offered. Comm & Fin Chr 163:1485 Mr 18 '46

WILCOX-GAY corporation
Debentures offered. Comm & Fin Chr 163:113 Ja 7 '46

WILDCAT drilling. See Petroleum—Prospecting

WILDLIFE
See also
Airplanes in wildlife service

WILKES-BARRE, Pennsylvania

Rapid transit

Riding stimulant; patronage increase and other advantages prompt Wilkes-Barre management to expand use of trolley bus. E. C. Hoffman. il Bus Transportation 25:37-9 Mr '46

WILKINSON, Allen Z.

Ad-man-of-the-year. Ind Marketing 31:113 Ja '46

WILLGERODT reaction

Retention of the carbon skeleton in the Kindler-Willgerodt reaction. E. M. Shantz and D. Rittenberg. Am Chem Soc J 68:2109 O '46

Studies on the Willgerodt reaction; some extensions of the reaction. J. A. King and F. H. McMillan. bibliog Am Chem Soc J 68: 525-6 Mr '46

Studies on the Willgerodt reaction; the mechanism of the reaction. J. A. King and F. H. McMillan. bibliog Am Chem Soc J 68: 632-6 Ap '46

Studies on the Willgerodt reaction; use of simple aliphatic compounds. J. A. King and F. H. McMillan. bibliog Am Chem Soc J 68:1369-73 Jl '46

Willgerodt and Kindler reactions; amides from acetylenes and olefins; studies relating to the reaction mechanisms. M. Carmack and D. F. DeTar. bibliog Am Chem Soc J 68:2029-33 O '46

Willgerodt reaction. W. G. Dauben and others. Am Chem Soc J 68:2117 O '46

Willgerodt reaction; a study of reaction conditions with acetophenone and other ketones. D. F. DeTar and M. Carmack. bibliog Am Chem Soc J 68:2025-9 O '46

Willgerodt reaction; acetylenes, olefins, and tertiary carbinols. D. B. Pattison and M. Carmack. bibliog Am Chem Soc J 68:2033-5 O '46

WILLIAMS, Albert Nathaniel, 1888-

Williams heads W.A.B. and U.S. & S. por Ry Age 120:825 Ap 20 '46

WILLIAMS, Arnold

Portrait. Spectator (Life ed) 153:1 My '46

WILLIAMS, Robert R. 1886-

ACS candidates for 1947. por Chem & Eng N 24:2746 O 25 '46

WILLIAMS Deacon's bank, limited

Statement by the chairman. G. P. Dewhurst. Economist 150:155 Ja 26 '46

WILLIAMSBURG, Virginia

Colonial Williamsburg. il Manuf Rec 115:36-7+ Je '46

WILLIS bill. See Scientific research—Legislation, Proposed

WILLOW RUN lease. See Kaiser-Frazer corporation

WILLOW RUN workers. See Airplane factories—Employees; Automobile factories—Employees

WILLS, George E.

Power personalities. por Power 90:687 O '46

WILLS

Album of wills; text by J. W. Irwin; cartoons by B. Kirkpatrick. Banking 39:44-5 Ag '46

Direction to bank to pay deposit on death held testamentary disposition. Banking Law J 63:388-9 My '46

National estates week; proposal for concerted effort on need for wills and revision. B. S. DeBoice. Trusts & Estates 83:389-91 O '46

Review of wills by nominated fiduciaries. H. S. Koster. Trusts & Estates 82:217 F '46

Standard clauses for wills; tested forms for testamentary trusts. R. R. Neuhoff. Trusts & Estates 82:285-90, 373-9, 479-86, 569-75; 83:45-52, 131-7 Mr-Jl, S '46

Testamentary aspects of life insurance contracts. D. Olson. Life Ins Courant 51:166-72 Ap '46

See also

Executors and administrators

Probate law

WILLYS-OVERLAND motors, inc.

Annual report. Comm & Fin Chr 163:358 Ja 21 '46

By its bootstraps. il Bsns W p26+ O 12 '46

Preferred stock offered. Comm & Fin Chr 164:326 Jl 15 '46

Willys-Overland; jeep-riding auto independent. il Fortune 34:80-7+ Ag '46

WILSON, Horace H.

Cited for assistance in National service life insurance program. East Underw 47:3+ F 8 '46

WILSON, Irving W., 1890-

Men who make aluminum. por Fortune 33:107 My '46

WILSON and company

Preferred stock offered. Comm & Fin Chr 162:3123 D 24 '45

WILSON cloud chamber

Report on the Wilson cloud chamber and its applications in physics. N. N. Das Gupta and S. K. Ghosh. il diags Rs Mod Phys 18: 225-90 bibliog(p285-90) Ap '46

WIMPFHEIMER, Clarence

Shut up, Clarence! Local 110, Textile workers union of America and American velvet co. Fortune 34.188+ N '46

WINCHES

Raising a smokestack with a makeshift winch. H. B. McDermid. diag Power Pl Eng 50:91 Ap '46

Stinger attachment on winch truck widens material handling efficiency. il Pet Refiner 25:152+ Je '46

WINCHES, Electric

Unit-type cargo winch control for open deck installation. il Marine Eng 50:205 N '45

WIND. See Winds

WIND instruments

Analyses of the tones of a few wind instruments. F. A. Saunders. Acoustical Soc Am J 18:395-401 O '46

Dependence of tuning of wind instruments on temperature. R. W. Young. bibliog Acoustical Soc Am J 17:187-91 Ja '46

WIND power

New wind power unit planned for Vermont. Elec World News ed 125:7-8 F 23 '46; Same. Power 90:271+ Ap '46

Power sources other than atomic with future possibilities. E. Podolsky. Mech Eng 68: 656 Jl '46

Watts from wind. Bsns W p50-1 N 24 '45

Wind turbines seen cheap power source. il Eng N 137:150 Ag 8 '46

WIND pressure

Design of bridges against wind. D. B. Steinman. il diags Civil Eng 15:469-72, 501-4, 558-60; 16:20-3, 66-8 O '45-F '46

Engineers report destruction of navy hangars due to unprecedented wind load; abstract. Franklin Inst J 242:62 Jl '46

Winds beyond design assumptions wrecked Navy's timber hangars; inquiry into hurricane damage at Richmond, Fla. il Eng N 137:22 Jl 11 '46

WIND recorders

Continuous wind recorders. R. L. Ives. il diags R Sci Instr 17:416-25 O '46

WIND RIVER mountains

Geology of the northwestern Wind River mountains, Wyoming. C. L. Baker. bibliog map Geol Soc Bul 57:565-96, fold map (pl 1) pl 2-11 Je '46

WIND tunnels

Beech, Cessna give new wind tunnel. Aviation N 4:28 N 26 '45

Electric equipment for Cornell variable density wind tunnel. C. C. Clymer and M. A. de Ferranti. il diags Elec Eng 65:Trans 554-63 Ag-S '46

Free-spinning wind-tunnel tests of a low-wing monoplane with systematic changes in wings and tails. O. Seidman and A. I. Neihouse. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:243-62 '41

Kochel wind tunnels are rebuilt by navy. il plan Aviation N 6:9 O 28 '46

NACA wind tunnel for supersonic research. il Product Eng 17:143-4 S '46

Navy rebuilding German test tunnels for experiments in supersonic speeds. diag Eng N 137:550 O 24 '46

New N.A.C.A. transonic wind tunnel. il Aeronautical Eng R 5:73 S '46

WIND tunnels—*Continued*
New wind tunnel opened by NACA. il Aviation N 6:11-12 Jl 15 '46
Precision tachometer for use in wind-tunnel testing. R. K. Fairley and H. L. Clark. il diags A S M E Trans 68:719-22 O '46
Preliminary wind-tunnel investigation of an N.A.C.A. 23012 airfoil with various arrangements of venetian-blind flaps. C. J. Wenzinger and T. A. Harris. bibliog diags U S Nat Advisory Com for Aeronautics 1940:197-212 '41
Proposed air engineering development center. diag plans Product Eng 17:132-4 O '46
Some recent advances in ballistics; supersonic wind tunnels. J Ap Phys 16:774-5 D '45
Les souffleries étrangères à grande vitesse. P. Poisson-Quinton. diags Génie Civil 123: 121-3 My 15 '46
Supersonic tunnel, Ames aeronautical laboratory at Moffett field. il Aero Digest 53:59 Ag '46
Supersonic wind tunnel laboratory; Aberdeen proving ground. G. M. Barnes. il Mech Eng 67:827-33+ D '45
Supersonic wind tunnels completed at Aberdeen. il Product Eng 16:856-8 D '45
Tests of NACA 0025 and 0035 airfoils in the full-scale wind tunnel. W. K. Bullivant. bibliog il diags U S Nat Advisory Com for Aeronautics 1941:91-107 '42
Vertical wind tunnel, Wright field, Dayton. il Elec Eng 65:265-6 Je '46
Wind she blow like hurricane; power supply for wind tunnels of the Ames aeronautical laboratory, Moffett Field, Calif. D. I. Anzini. il diags Elec West 95:69-72 N '45
Wind-tunnel investigation of effect of interference on lateral-stability characteristics of four NACA 23012 wings, an elliptical and a circular fuselage and vertical fins. R. O. House and A. R. Wallace. bibliog diags U S Nat Advisory Com for Aeronautics 1941:31-50 '42
Wind-tunnel investigation of NACA 23012, 23021, and 23030 airfoils equipped with 40-percent-chord double slotted flaps. T. A. Harris and I. G. Recant. bibliog diags U S Nat Advisory Com for Aeronautics 1941:321-51 '42
Wind-tunnel investigation of spoiler, deflector, and slot lateral-control devices on wings with full-span split and slotted flaps. C. J. Wenzinger and F. M. Rogallo. bibliog diags U S Nat Advisory Com for Aeronautics 1941:51-80 '42
Wind tunnel provides test conditions for engines and propellers. il Sci Am 175:74 Ag '46

WIND turbines. See Wind power

WINDING machines
Electronic drive for windup reels. K. P. Puchlowski. il diags Elec Eng 65:Trans 585-91 Ag-S '46
Jones and Laughlin winds over 4000 miles of wire per day; use of General Electric Thy-mo-trol units. il diag Steel 118:106 Je 24 '46; Same, without il. Blast F & Steel Pl 34:749 Je '46; Same. Elec World 126: 100+ O 12 '46
Wire-winding equipment for use in making steel cable; Thy-mo-trol equipment. P. Somerville and others. il diags Gen Elec R 49:14-19 My '46

Control
Electronic equipment facilitates wire-rope manufacture. P. Somerville, L. R. Hunt and J. D. Campbell. il diags Mach 52:171-5 Ja '46

Tension control
Automatic tension control improves production. J. H. Gepfert. il diag Machine Design 18:153-4 My '46
Constant tension drive for winding yarns, by Walter Kidde & co. il Machine Design 18: 107 F '46
Magnetic wire recorder tensioning mechanism. il diags Product Eng 17:372 My '46
Tension and density control being produced by Kidde on winding machines. il Textile World 95:141-2 D '45
Tricot requires careful warping. O. B. Graham. il diags Textile World 96:116-17+ O '46

WINDOW cleaning

Safety measures
Window cleaning anchors. V. L. White. diags Nat Safety N 53:103-4 Je '46
See also
Safety belts

WINDOWLESS construction
Air conditioning a Canadian windowless textile mill. G. L. Wiggs. il plan diags Heating-Piping 18:118-22 Jl '46
High concrete walls partition building into curing chambers for linoleum; Congoleum-Nairn, inc. il diags Eng N 136:978-80 Je 27 '46
Should textile mills be windowless? R. A. Palmer. il Textile World 96:121+ Ja '46
Windowless shops? discussion. A. Silvester and others. Am Mach 90:170+ My 9; 188+ Je 6 '46

WINDOWS
Insulating window; multi-glazed with sealed inter-pane space. il Sci Am 175:130 S '46
Insulating window unit; Twindow. il Ry Age 121:16 Jl 6 '46
Light distribution from rectangular sources. P. Moon and D. E. Spencer. bibliog diags Franklin Inst J 241:195-227 Mr '46
Modular coordination applied to masonry small homes. H. C. Plummer and E. F. Wanner. diags Brick & Clay Rec 108:29-30 My '46
New-type double-glazed window insulating unit developed. il Am Cer Soc Bul 25:362 S 15 '46
Pittsburgh Plate develops new type double-glazed windows. il Cer Ind 47:55 Ag '46
Progress, 1926-1946; doors, windows. il diags Am Bld 68:110-13 O '46
Today's house; door and window openings. il diags Arch Forum 85:121 Jl '46
Transmission of solar radiation through flat glass under summer conditions. G. V. Parmelee. bibliog diags Heating-Piping 17: 562-73; Discussion. 573-6 O-N '45
Window details for the brickbuilder; illustrations. Brick & Clay Rec 109:23 Ag '46
See also
Airplanes—Windows
Show windows
Stained glass
Windowless construction

WINDS
Airport wind instrument; Friez Aerovane, combined anemometer and wind vane. il Aero Digest 53:59 Ag '46
Desert ripples. R. L. Ives. pl diag Am J Sci 244:492-501 Jl '46
Effective gust structure at low altitudes as determined from the reactions of an airplane. P. Donely. bibliog il diags U S Nat Advisory Com for Aeronautics 1940:263-71 '41
Wind analysis for airport design. S. B. Solot. il Civil Eng 16:122-4 Mr '46
See also
Hurricanes
Insurance, Tornado
Tornadoes
Wind pressure

WINDSHIELDS
Nonfogging glass; windshield free from icing. il Bsns W p58+ Ag 10 '46
See also
Airplanes—Windshields
Automobiles—Windshields

WINDSOR, Ontario

Water supply
Accounting under commission; methods at Windsor. S. H. Gillet. Water & Sewage 84:114+ Ap '46; Same. Am Water Works Assn J 38:786-90 Je '46

WINE
French wine industry's future still uncertain. G. M. Strauss. il For Comm W 24:8-9+ Ag 10 '46
Labels with a purpose; Quebec's government-bottled wines and liquors. il Mod Packaging 20:110-11 O '46
New labels for Roma linked to the old. il Mod Packaging 19:114-15 Ap '46
Production of wine, Gironde department, France, 1939-1945. For Comm W 22:26 Mr 9 '46

WINE—*Continued*
Production of wine in Italy during the crop years, 1936-37 to 1944-45. For Comm W 21: 24 D 8 '45
Wine, champagne, cognac: French output and trade. J. Kobler. il map For Comm W 21: 9+ D 8 '45
Wine industry in British Guiana. For Comm W 22:26 Mr 9 '46
Wine institute girds for Xmas promotion. Sales Management 55:71+ N 15 '45
Wine prices skid; California wine industry is cutting prices. Bsns W p36+ N 17 '45
Wine production in South Africa. For Comm W 25:21 N 2 '46

Advertising

Roma road show depicts role of wine as aid to gracious living; technicolor film showing broadcast performance. il Sales Management 56:97+ Mr 15 '46

Manufacture

By-products

How tartrates are recovered from winery wastes. Z. Halperin. flow sheet il Food Ind 17:1181-2+, 1291+ O-N '45
L'hydrolyse des lies de vin en vue d'en extraire le tartre. A. Baouman. Génie Civil 123:173-4 Jl 1 '46

Prices

Wine prices skid; California wine industry is cutting prices. Bsns W p36+ N 17 '45

WINKLER test. See Oxygen—Analysis

WINNE, Harry A. 1888-
General electric co. executive. por(cover) Bsns W p8 Ag 31 '46

WINNIPEG, Manitoba

Rapid transit

Winnipeg opens its books on trolley coach costs for 1941-45; financial results of street car, motor bus and trolley bus operations per vehicle, 1941-1945. C. H. Dahl. Mass Transportation 42:298-9 Jl '46

Sewerage

Efficiency of elutriation process. G. C. Laidlaw. Water & Sewage 84:24+ Ja '46
Sewage treatment at Winnipeg; summary of operating data. il Water & Sewage 83:15-16+ D '45

Water supply

Installation and maintenance of services and meters; with cost data. W. D. Hurst. il plan diags Water & Sewage Works 93:163-72 My '46

WINTER, Thelma Frazier
To live with and enjoy; figurines of Thelma Frazier Winter. il Cer Ind 45:78+ N '45

WINTER
Fires are worse in winter; equipment must be protected. il Nat Safety N 52:34+ N '45
Stream sampling in extreme cold. R. N. Clark. Pub Works 77:38-9 Ag '46
Winter drivers warned: prepare for snow, ice. il Safety Eng 90:46 N '45

See also
Sewage disposal plants—Winter operation

WINTER construction
Protection of masonry in cold weather. C. H. Bach. il Brick & Clay Rec 109:30 O '46

WINTER flying. See Aviation—Winter flying

WINTER sunshine. See Sunshine

WIRE

See also
Electric wire
Trolley wire

Manufacture

Hot-dip galvanizing practice. W. H. Spowers, jr. il plans diags Steel 119:114+ O 28; 118-20+ N 4 '46
Modern wire-drawing equipment produces ten times more wire. H. C. Boynton. Steel 118: 267 Ja 7 '46
Shaped wire and its applications. V. H. Godfrey. il Steel 118:90-1+ Je 24 '46

See also
Wire, Steel—Manufacture
Wire forming machines
Wire drawing

Testing

Study of work-hardening and reannealing of iron. M. Balicki. diags Iron & Steel Inst J 151:181-224, bibliog(71 titles, p221-3) no 1 '45

WIRE, Copper
Formulas and chart for determining the properties of copper wire in the American wire gage; reference book sheet. C. P. Nachod. Product Eng 17:159, 161 Ag '46
High temperature solder effect on copper wire. Elec World 125:118 F 16 '46
Synthetic insulation stripped faster from fine copper leads; effect of solder temperature. V. Canziani. il Am Mach 90:135-8 S 26 '46

WIRE, Electric. See Electric wire

WIRE, Steel
Scratches on spring wire. A. Oreffice. Metal Prog 50:309 Ag '46
Steel industry statistics; finished steel; comp. by the American iron and steel institute. Steel 117:insert S13-14 D 17 '45

Manufacture

New method developed for processing wire and strip in molten glass; cleaning ferrous metal coated with lead. J. J. Caugherty. diags Steel 114:102-4+ Je 18 '44; Abstract. Cer Ind 47:61-2 Jl '46
Some problems in high-speed fine steel wire drawing. S. C. Avallone. il Steel 118:88-90 Ap 22 '46; Same. Iron Age 157:64-5 Ap 11 '46

Testing

Report of Wire inspection committee on field tests of wire and wire products. Am Soc T M Proc 45:70-86, fold pl 1-3 '45

Welding

Flash welding of hard-drawn high-carbon steel wire. R. W. Bennett and R. D. Williams. il diag Welding J 25:sup658-68 O '46

WIRE association
Annual meeting, 17th, Buffalo, Oct. 21-24. Steel 119:48 O 28; 180+ N 11 '46

WIRE cloth
Interrupted rotating motion with quick take-up action; machine that produces a woven-wire fabric. L. Kasper. diags Mach 52:189-90 F '46
Related industries; comparison between paper making and wire weaving industries. A. W. Doig. diags Pulp & Pa of Can 46:1006-7 D '45
Woven wire conveyor belts. il Mech Handling 33:338-9 Je '46

WIRE cutting machines
Equipment for steel wool manufacture. il diags Mach 52:165-7 My '46

WIRE drawing
Diamond dies for wire drawing; illustrations with text. C. K. Wall. Materials & Methods 23:717-19 Mr '46
Mill practice; care of dies; abstract. R. R. Preston. Steel 119:180 N 11 '46
Rolling, wire drawing, extruding, 1945. H. A. Knight. Materials & Methods 23:120-2 Ja '46
Some problems in high-speed fine steel wire drawing. S. C. Avallone. il Steel 118:88-90 Ap 22 '46; Same. Iron Age 157:64-5 Ap 11 '46

WIRE forming machines
Automatic variable-lift cam mechanism. L. Kasper. diag Mach 53:178 S '46
Interrupted rotating motion with quick take-up action; machine that produces a woven-wire fabric. L. Kasper. diags Mach 52:189-90 F '46
Irregular intermittent motion; machine that fabricates wire screening. L. Kasper. diags Mach 52:181-2 My '46
Wire forms and stampings make good partners. H. Chase. il Iron Age 158:48-54 O 17 '46

WIRE forms. See Wire products

WIRE handling
Wire reels; redesigned for fabrication from alloy steel. il diag Steel 117:108 N 26 '45

WIRE products
Wire and ribbon forms. H. Chase. il Materials & Methods 24:628-32 S '46
Wire forms and stampings make good partners. H. Chase. il Iron Age 158:48-54 O 17 '46

WIRE rope
It may be you could use a slightly larger rope; with table for calculating minimum sheave and drum diameters. il Min Cong J 32:42 S '46
Longer life from wire ropes. il diags Mech Handling 33:78-83 F '46
Making retired wire lines deliver. H. Allen. il Pet Eng 17:90 Mr '46
Wire ropeways. R. Saxton. diags Mech Handling 33:402-4 Jl '46

See also
Cables

Lubrication

Lubricating wire rope and chain. J. Roe. il Rock Prod 49:57 Mr '46
Lubrication for wire rope. Nat Safety N 53: 117 Mr '46
Ropes lubricated during hoisting cycle. W. Vassar. diags Eng & Min J 146:104 N '45

Manufacture

Electronic equipment facilitates wire-rope manufacture. P. Somerville, L. R. Hunt and J. D. Campbell. il diags Mach 52:171-5 Ja '46
Jones and Laughlin winds over 4000 miles of wire per day; use of General Electric Thy-mo-trol units. il diag Steel 118:106 Je 24 '46; Same, without il. Blast F & Steel Pl 34:749 Je '46; Same. Elec World 126:100+ O 12 '46
Manufacture of steel for basic rope wire; abstract. R. D. Hindson. Steel 119:240+ N '46
Manufacture of wire rope. il Engineer 180: 437-9 N 30 '45
Wire-winding equipment for use in making steel cable; Thy-mo-trol equipment. P. Somerville and others. il diags Gen Elec R 49:14-19 My '46

Safety measures

Safe practices in mine hoisting. D. Harrington and J. H. East, jr. bibliog il diags U S Bur Mines Miners' Circ 61:1-55 '46
Steel sinews. W. I. Lex. il Nat Safety N 54: 32-3+ S '46
Wire rope. Nat Safety N 53:109-10 Mr '46

WIRED radio. See Radio broadcasting—Wired radio; Radio communication—Wire connections

WIRTZ, William Willard, 1912-
New wage-increase patterns of industry. por(cover) Bsns W p8 Ap 27 '46
Portrait. Bsns W p92 Ja 5 '46

WISCONSIN

See also
Electricity supply—Wisconsin
Forests and forestry—Wisconsin
Lead mines and mining—Wisconsin
Zinc mines and mining—Wisconsin

WISCONSIN academy of sciences, arts and letters
Annual meeting, 76th, Madison, April 12-13. Science 104:14 Jl 5 '46

WISCONSIN central railway
Big cash fund may change Wisconsin Central plan. F. M. Stern. Barron's 26:9 Ag 26 '46
Proposed reorganization. Comm & Fin Chr 164:871 Ag 12 '46

WISCONSIN electric power company
Securities offered. Comm & Fin Chr 164:56 Jl 1 '46

WISCONSIN power and light company
Exchange offer. Comm & Fin Chr 162:2314 N 12 '46

WISCONSIN river
Storage reservoir capacity on the Wisconsin river to be doubled. M. W. Kyler. map Civil Eng 16:455-6 O '46

Power utilization

Floods harnessed. Bsns W p28 Ap 13 '46

WISCONSIN university
Education of planners at the University of Wisconsin. R. U. Ratcliff. J Land & Pub Util Econ 21:320-1 N '45

WITT, Arno O.
Personalities in industrial advertising. por Ind Marketing 31:70 Je '46

WOLFF-KISHNER reaction
Higher hydrocarbons; the Wolff-Kishner reaction. F. C. Whitmore and others. bibliog Am Chem Soc J 67:2059-61 D '45
Wolff-Kishner reaction at atmospheric pressure. C. H. Herr, F. C. Whitmore and R. W. Schiessler. bibliog Am Chem Soc J 67: 2061-3 D '45

WOMAN
Effects of war casualties on economic responsibilities of women. J. M. Hooks. bibliog Mo Labor R 62:181-6 F '46

See also
Advertising—Women, Appeal to
Business women
Insurance, Life—Women as prospects

Diseases

Thiamine deficiency and high estrogen findings in uterine cancer and in menorrhagia. J. E. Ayre and W. A. G. Bauld. bibliog Science 103:441-5 Ap 12 '46

Employment

Child service centers; experiment in services to employees. Ind Med 15:239-40 Mr '46
Earnings of women and male minors in New York retail stores, 1945. Mo Labor R 62: 230-2 F '46
Earnings of women in Illinois industries, June 1945. Mo Labor R 61:953-4 N '45
Equal pay for women workers. M. L. Plunkett. Mo Labor R 63:380-9 S '46
Fortune survey; women in America. Fortune 34:5-6+ Ag; 5-6 S '46
Jobs that women in advertising do best; P.I. jury reports. V. J. Dallaire. Ptr Ink 217:53-4+ N 1 '46
Postwar decrease in railroad employment of women. Mo Labor R 63:90-1 Jl '46
State labor laws for women with wartime modifications, December 15, 1944; explanation and appraisal. U S Women's Bur Bul 202, no5:1-66; pa 15c Supt of doc. '46
Suggestions from women workers. A. Tinney. il Am Bsns 16.20-1+ Jl '46
U.S. Women's bureau recommendations on rate for the job principle. Mo Labor R 62:230 F '46
Women in New York retail and service jobs, 1945. Mo Labor R 62:931-2 Je '46
Women in the labor force. il Bsns W p92-4 D 29 '45

Safety aspects

Health for women in industry; studies and surveys, New York state labor department. il Safety Eng 91:68-9 F '46

Australia

Experience of the Women's employment board in Australia. A. W. Foster. Int Labour R 52:632-42 D '45

Occupations

Physicians' and dentists' assistants. M. W. Zapoleon and E. Katcher. il U S Women's Bur Bul 203, no 11:1-15 bibliog(p14-15); pa 10c Supt. of doc. '45
Vocational guide for women. L. C. Longarzo. 119p $2.50 Catholic youth organization of the archdiocese of New York, 35 E. 51st st, New York '45

See also
Nurses and nursing
Office workers
Women as chemists
Women as dentists
Women as executives
Women as plumbers
Women in advertising

Social and moral questions

Fortune survey; women in America. Fortune 34:5-6+ Ag; 5-6 S '46

WOMEN as bank employees. See Bank employees

WOMEN as bankers
Wartime gain in women bank officers. C. S. Pepper. Banking 39:124-5 O '46

WOMEN as chemists
Petroleum engineering and refining are her strong suit; E. Perez. Nat Pet N 38:14 Je 12 '46
Wanted: more library chemists. E. L. Schulze. bibliog J Chem Educ 23:176-8 Ap '46

WOMEN as dentists
Outlook for women in occupations in the medical and other health services; women dentists. U S Women's Bur Bul 203 no 9:1-21 bibliog(p18-21) '45

WOMEN as executives
Management training program; Radcliffe college. Personnel J 24:362-8 Ap '46
Sees need for more women in wool fabric field. J. Morrow. Textile Col 68:20-1 Mr '46

WOMEN as plumbers
Lead-pipe cinch says lady plumbing apprentice, Miss O. Wentzel. Dom Eng 168:85 Jl '46

WOMEN as purchasers
Don't neglect women in your public relations efforts. W. Jordan. Ptr Ink 217:92+ N 8 '46
How women of 18-30 look at merchandise. B. D. Beck. Adv & Sell 39:49+ S '46

WOMEN in advertising
Never the twain shall meet; is there an advertising deadlock between men's and women's minds? B. Kidd. Adv & Sell 38:54+ D '45
N.Y. ad women distribute prizes. Ptr Ink 215:114 My 10 '46
Personalities in industrial advertising. Ind Marketing 31:78 Ag '46
Woman ad rep says some ad men are too uppity. Ptr Ink 216:119 S 20 '46
Women in advertising are here to stay; P.I. jury reports. V. J. Dallaire. Ptr Ink 217: 37-8 O 25; 53-4+ N 1 '46
Women in advertising organize for educational work under A.N.A. sponsorship. E. M. Housman. Ptr Ink 215:77+ Ap 5 '46

WOMEN'S apparel
See also
Dresses

Advertising

Eight department stores bunch Wilkens fashion ads in one magazine. il Ptr Ink 215:99 Ap 5 '46

Transportation

Air potentials in the N.Y. women's apparel industry; study directed by L. H. Brittin; reviewed by R. H. Rush. Air Transport 4:37 N '46

WOMEN'S apparel shops
Air conditioning women's apparel stores; Lerner stores corp. B. A. Jacobi. il Heat & Ven 43:65-8 F '46
Ingenuity in small spaces; Pat Darling shops, Baltimore. il plans Arch Rec 99:108-11 F '46
Women's apparel shop hides behind four-story architectural trade mark; Virginia Dare store, Kansas City, Mo. il plans Arch Forum 85:140 O '46
Women's apparel shop in Brooklyn, N.Y. il plan Arch Forum 83:82-3 D '45
Women's specialty shop uses a concentration of light as customer come-on; Graysons shop, Hollywood. il plan Arch Forum 85: 132-3 O '46

WOMEN'S clubs
Women's clubs welcome an honest business approach. T. B. Wells. il Ptr Ink 216:41-3 S 27 '46

WOMEN'S international democratic federation
First congress. Int Labour R 53:218-19 Mr-Ap '46

WOMEN'S periodicals
Three magazines help Mr & Mrs America design their homes-of-tomorrow. il Sales Management 56:88-90 F 1 '46

WOMEN'S shops. See Women's apparel shops

WOOD, Gar, industries. See Gar Wood industries, inc.

WOOD, Henry G.
Sketch. C. Axman. East Underw 47:13 Je 14 '46

WOOD, Robert E. 1879-
Head of Sears, Roebuck & co. por(cover) Bsns W p8 O 19 '46

WOOD
Acrylics and wood combined. il Mod Plastics 23:130-1 D '45; Abstract. Sci Am 174:58 F '46
Processes must mature; DMU treated wood. E. L. Cady. il Sci Am 175:6-8 Jl '46
Rate of temperature change in short-length round timbers. J. D. MacLean. A S M E Trans 68:1-16 bibliog(p 14) Ja '46
Thermosetting adhesives for wood; properties, techniques and applications. P. C. Fuller and R. L. Hiller. il diags Product Eng 17:[no 7] 84-9 Jl '46
Upgrading natural wood values through chemical processing and utilization of wastes from the woodworking industries. H. R. Murdock. Ind & Eng Chem 38:sup81-2 Mr '46
Wood fiber base plastic; Duron. il Mod Plastics 23:248 Ap '46
Wood for storage battery separators. L. V. Peakes, jr. and others. il Ind & Eng Chem 38:780-8 Ag '46
X-ray diffraction studies of orientations especially following high compression and impregnation of wood cellulose; abstract. G. L. Clark and J. A. Howsmon. Am Dyestuff Rep 34:539 D 17 '45

See also

Aspen	Lumbering
Bark peeling	Pine
Bridges, Wooden	Plywood
Cellulose	Redwood
Concrete-wood slabs	Spruce
Douglas fir	Tanks, Wood
Forests and forestry	Wood construction
Holocellulose	Wood preservation
Lignin	Wood pulp
Lumber	

Analysis

Chemical composition of wood barks. G. H. Segall and C. B. Purves. bibliog(64 references) 47:149-61 [F] '46
Chemistry of western pines; distribution and nature of acetone soluble extractives in ponderosa pine. A. B. Anderson. bibliog il Ind & Eng Chem 38:450-4 Ap '46
Chlorite holocellulose, its fractionation and bearing on summative wood analysis and on studies on the hemicelluloses. L. E. Wise and others. bibliog Paper Tr J 122: 35-43 Ja 10 '46
Extraneous components of American pulpwoods. I. H. Isenberg and others. bibliog(120 references) Paper Ind 28:816-22 S '46

Chemistry

Chain length measurements on nitrated cellulosic constituents of wood. R. L. Mitchell. bibliog il Ind & Eng Chem 38:843-50 Ag '46
Chemical utilization of wood; abstract. A. J. Stamm. Chem & Met Eng 53:248+ Mr '46
Chemicals grow on trees; wood-tar products. D. H. Killeffer. il Sci Am 175:18-20 Jl '46
Chemistry of western pines; effect of solvents on extractives from ponderosa pine. A. B. Anderson. Ind & Eng Chem 38:759-61 Jl '46
Recent advances in the chemistry of wood. F. H. Yorston. bibliog Pulp & Pa of Can (Convention no) 47:131-4 [F] '46
Wooden wealth; potentialities of wood as a chemical storehouse. H. C. E. Johnson. il diag Sci Am 174:201-3 My '46

See also
Wood distillation

Decay

Decay a hazard in basementless houses on wet sites; protection of substructure timbers by use of asphalt roll roofing as soil cover. J. D. Diller. il Am Bld 69:92+ Jl '46
Rot spotter; Torque screw pole tester. diag Elec West 97:58 Jl '46
Under floor condensation causes decay of wood. il Heat & Ven 43:91 F '46

WOOD—Decay—*Continued*
Wood soil contact culture technique for laboratory study of wood-destroying fungi, wood decay and wood preservation. J. Leutritz, jr. bibliog il diag Bell System Tech J 25:102-35 Ja '46

Drying

See Wood drying

Moisture content

Methods used for the measurement of the moisture content of wood. M. E. Dunlap. Am Soc T M Proc 45:269-74 '45
Staybwood; heat-stabilized wood. A. J. Stamm, H. K. Burr and A. A. Kline. bibliog Ind & Eng Chem 38:630-4 Je '46

Shrinking and swelling

Wood treatment with urea resin-forming systems (dimensional stability). M. A. Millett and A. J. Stamm. bibliog Mod Plastics 24: 150-3+ O '46

Staining

See Stains and staining (wood)

Strength

Factors affecting the strength of timber; abstract. T. K. May. Pub Works 77.33 F '46

Testing

Electrical resistivity of resin-treated wood and laminated hydrolyzed-wood and paper-base plastics. R. C. Weatherwax and A. J. Stamm. bibliog diag Elec Eng 64:Trans 833-8 D '45
Report of Committee D-7 on wood. Am Soc T M Proc 45:265-8 '45

WOOD, Compressed
Electrical resistivity of resin-treated wood and laminated hydrolyzed-wood and paper-base plastics. R. C. Weatherwax and A. J. Stamm. bibliog diag Elec Eng 64:Trans 833-8 D '45

WOOD, Laminated
Electrical resistivity of resin-treated wood and laminated hydrolyzed-wood and paper-base plastics. R. C. Weatherwax and A. J. Stamm. bibliog diag Elec Eng 64:Trans 833-8 D '45
Glued-laminated arches with sawed laminations; drill hall, Coast guard academy, New London, Conn. E. A. Dubin. bibliog il diags Mech Eng 67:813-19+ D '45; Discussion. 68:472-3 My '46
Glue-line stresses in laminated wood. A. G. H. Dietz and others. diags A S M E Trans 68.329-35 My '46
Laminated arches for dignified economy; church in Santa Ana, Calif. il plan Arch Rec 100:108-9 O '46
Laminated wood for sleigh construction. D. E. Kennedy and W. E. Wakefield. Pulp & Pa of Can 47:58-9 Ja '46
Manufacturing laminated lumber; development of processes and machines for production system. R. B. Taylor. flow diag il Mech Eng 68:539-42 Je '46
New materials from wood; combinations with plastics. Barron's 26:5 Mr 18 '46
TVA flooring; cull hardwoods used in laminated product. il Bsns W p58+ D 15 '45

See also
Plywood

Testing

Tests on creosoted laminated stringers; Douglas fir beams for railroad bridge. O. H. Schrader, jr. il Eng N 135:650-3 N 15 '45

WOOD as fuel
Stack losses from wood fuel; charts. E. C. Willey. Heat & Ven 42:67 N '45

See also
Boilers—Wood firing; Wood waste

WOOD boxes. See Boxes, Wood

WOOD construction
Factors in planning and constructing boardwalks. H. Garnjobst, jr. il diags Pub Works 77:24-5+ O '46
Glued-laminated arches with sawed laminations; drill hall, Coast guard academy, New London, Conn. E. A. Dubin. bibliog il diags Mech Eng 67:813-19+ D '45; Discussion. 68:472-3 My '46
Guides to improved framed walls for houses. A. D. Freas. diags Eng N 137:519-22 O 17 '46
Laminated arches for dignified economy; church in Santa Ana, Calif. il plan Arch Rec 100:108-9 O '46
Lank-Teco truss. il Ry Age 121:16 Jl 6 '46
Posts under signal tower replaced during operation. il diags Eng N 135:892 D 27 '45
Pressure treated wood; a modern material for engineering structures. R. H. Mann. bibliog il Boston Soc C E J 32:175-93 O '45
Timber hangar's collapse in Florida hurricane investigated. D. E. Carberry. il map plan Civil Eng 16:387-90 S '46

See also
Airplanes—Materials—Wood; Bridges, Wooden; Plywood; Tanks, Wood; Wood—Decay

Concrete joints

Concrete connectors for timber joints found successful under test. M. Miller. il diag Eng N 137:364 S 19 '46

Design

Design of plywood I-beams. H. J. Hansen. bibliog Am Soc C E Proc 72:749-58 Je '46
Timber beam loads determined by nomograph. I. J. Hooks. Civil Eng 16:459 O '46

Tables, calculations, etc.

Hankinson formula applications for stresses at timber joints. F. C. Smith. Eng N 135: 50 Jl 12 '45; Discussion. C. J. Hogue. 136: 1005 Je 27 '46

WOOD containers

See also
Boxes, Wood

WOOD distillation
Chemicals grow on trees; wood-tar products. D. H. Killeffer. il Sci Am 175:18-20 Jl '46
Feeding yeasts from wood sugar stillage. E. F. Kurth and V. H. Cheldelin. bibliog Ind & Eng Chem 38:617-19 Je '46
New products from wood carbonization. A. W. Goos and A. A. Reiter. bibliog il Ind & Eng Chem 38:132-5 F '46
Soviet research on wood distillation chemicals. Chem & Met Eng 53:194 Mr '46
Yeasts from wood sugar stillage. E. F. Kurth. bibliog Ind & Eng Chem 38:204-7 F '46

WOOD drying
New process seasons ties overnight. flow diag il Ry Age 120.494-7, 538-41 Mr 9-16 '46
Poles seasoned quickly in hydrocarbon atmosphere. M. S. Hudson. il diags Elec World 126:90-3 S 14; 107-8 S 28 '46
What amount of heat for two dry kilns? plant making veneer crates and hampers for fruit and vegetable trade. Heating-Piping 18.89 O '46

WOOD dust
Dust explosions in wood-working plants. E. A. Blair. Safety Eng 90:38-9+ D '45

WOOD finishing
Paper plastics surfacing. W. B. Darling. Mod Plastics 24:97-100 O '46
Postwar wood finishes and specialized wood treatment. H. E. Smith. Mech Eng 68:425-6 My '46
Recent developments in wood finishes. P. S. Kennedy. Mech Eng 68:212-14 Mr '46

See also
Lacquer and lacquering; Varnish and varnishing

WOOD grinders

See also
Pulpstones

WOOD handling
And now robot tie handlers; plant of the Southern wood preserving company. il diag Ry Age 121:55-8 Jl 13 '46
Pulpwood production tools. M. H. Collet. il Paper Ind 27:1203-6+ N '45
Wood handling; Brompton pulp and paper company. R. Rouse. il Pulp & Pa of Can 47: 66-7 Jl '46

WOOD measurement
Pulpwood volume measured by water displacement. il diags Paper Ind 28:526-7 Jl '46

WOOD preservation

Acute creosote shortage hampers wood preserving. Ry Age 120:969 My 11 '46

American wood preservers' association, annual meeting, Cincinnati, April 23-25. Ry Age 120:909-12 My 4 '46

Asidbar; method developed by Koppers wood preserving technical department. Ry Age 119:902 D 1 '45; Rayon 26:611 N '45; Sci Am 173:306 N '45

Big lumber treating plants slated for South Carolina, Maryland. Manuf Rec 115:121+ Ja '46

La conservation des bois par imprégnation de composés arsénifères; le procédé suédois Boliden Génie Civil 123:267-8 O 1 '46

Earth wearing surface does not impair durability of treated wood bridge floor. Pub Works 77:24 Ap '46

French have new method for preserving telephone and telegraph poles. For Comm W 22:40 F 23 '46

Poles seasoned quickly in hydrocarbon atmosphere. M. S. Hudson. il diags Elec World 126:90-3 S 14; 107-8 S 28 '46

Postwar wood finishes and specialized wood treatment. H. E. Smith. Mech Eng 68:425-6 My '46

Preservation of wood; operation of the open-tank treatment in Sweden. B. Häger. Chem Age (Lond) 54:365-7 Ap 6 '46

Preservative treatment of various species for poles and crossarms. J. D. MacLean. Elec Eng 65:Trans 549-53 Ag-S '46

Preservatives for wood; abstract. J. O. Blew, jr. Materials & Methods 24:168 Jl '46

Pressure treated wood; a modern material for engineering structures. R. H. Mann. bibliog il Boston Soc C E J 32:175-93 O '45

Sap stream preservative. Elec World 124:144 N 10 '45; Sci Am 174:79 F '46

Staybwood; heat-stabilized wood. A. J. Stamm, H. K. Burr and A. A. Kline. bibliog Ind & Eng Chem 38:630-4 Je '46

Tests on creosoted laminated stringers; Douglas fir beams for railroad bridge. O. H. Schrader, jr. il Eng N 135:650-3 N 15 '45

Treated timber curbs and bench slats used in Central park, New York. Pub Works 77:36 F '46

Treated wood for bridge sidewalks. Pub Works 76:26 N '45

Treated wood; market for future. Bsns W p54-6 My 4 '46

Treatment of southern pine poles; abstract. J. A. Vaughan. Elec World 125:69 F 2 '46

Wood preservation up slightly in 1945. il Ry Age 121:472-4 S 21 '46

Wood soil contact culture technique for laboratory study of wood-destroying fungi, wood decay and wood preservation. J. Leutritz, jr. bibliog il diag Bell System Tech J 25:102-35 Ja '46

WOOD preservers' association, American. See American wood preservers' association

WOOD products

Better use of forest materials. F. J. Hanrahan. Mech Eng 68:544+ Je '46

Cellulosic materials and the plastics industry; wood, woodpulp and paper for manufacture of plastic materials. S. W. Blake. il Pulp & Pa of Can 46:925-7 N '45

Chemicals from wood; abstract. L. P. Kyrides. Chem & Met Eng 53:258+ F '46

Chemicals grow on trees; wood-tar products. D. H. Killeffer. il Sci Am 175:18-20 Jl '46

New products from wood carbonization. A. W. Goos and A. A. Reiter. bibliog il Ind & Eng Chem 38:132-5 F '46

Timber products research secrets; technical developments of U.S. Forest products laboratory. il Eng N 135:678-80 N 15 '45

Wooden wealth; potentialities of wood as a chemical storehouse. H. C. E. Johnson. il diag Sci Am 174:201-3 My '46

See also

Alcohol
Cellulose
Masonite
Terpenes
Wood pulp

WOOD pulp

Available pulp timber stands in the Lake states. E. L. Demon. Paper Ind 28:1032+ O '46

Available pulp timber stands of the West coast. H. J. Andrews. Paper Ind 28:1036+ O '46

Canada's economy drive turns sawdust to pulpwood use. Paper Tr J 122:12 My 9 '46

Carboxymethyl cellulose, a new use for chemical pulps. Pulp & Pa of Can 47:87-8 Ag '46

Chain length measurements on nitrated cellulosic constituents of wood. R. L. Mitchell. bibliog il Ind & Eng Chem 38:843-50 Ag '46

Chemical characteristics of wood pulps; abstract. L. Hebbs. Paper Ind 27:1428 D '45

Easily hydrating pulp from poplar wood. K. W. Fries. Paper Tr J 122:43-4 My 23 '46; Same. Paper Ind 28:120+ Ap '46

Effect of alkaline pulping on the acetylating properties of wood pulp. J. W. McKinney. bibliog Paper Tr J 122:58-62 Ja 24 '46

Experimental sulphite pulping of eastern white pine. C. O. Skoggard and C. E. Libby. bibliog Paper Tr J 123:41-6 Jl 25 '46

Extraneous components of American pulpwoods. I. H. Isenberg and others. bibliog(120 references) Paper Ind 28:816-22 S '46

Finland's prospects for forest-products exports; what's the outlook in vital wood-pulp field? R. P. Donogh. il For Comm W 22:3-5+ Mr 23 '46; Same. Paper Ind 28:104+ Ap '46

Groundwood department, pulp drying and shipping; KVP company. W. H. Peterson. il Pulp & Pa of Can 47.85 O '46

Hardwood paper; semichemical process promises economies. il Bsns W p54+ D 15 '45

Hardwood pulping reviewed at Northeastern conference. Chem & Eng N 24:2778-9 O 25 '46

Heavy wood pulp demand exceeds notably high 1945 output. O. F. Swanson. Paper Tr J 122:76+ F 28 '46

Hemicelluloses; their significance in pulping; abstract. G. Jayme. Paper Ind 28:446 Je '46

Hydrolysis and catalytic oxidation of cellulosic materials; structural components of various cellulosic materials. R. F. Nickerson and J. A. Habrle. Ind & Eng Chem 38:299-301 Mr '46

Importance of hemicellulose in wood pulp. R. Vincent. bibliog Paper Tr J 122:53-7 Ja 24 '46

Manufacture of high alpha pulps in wartime Germany. J. N. McGovern. bibliog Paper Ind 28:988-90 O '46

Plant proves its sound design and high efficiency in changing fuel situation; wood waste mixed with other fuel at pulp plant of Weyerhaeuser timber co. T. W. Stewart. flow diag il Power 90:450-2 Jl '46

Pulp and paper industry. R. K. Ferguson. Comm & Fin Chr 162:2327+ N 15 '45

Pulp bleaching. L. E. Russell. diags Paper Ind 28:528-32+ Jl '46

Pulp preforms; abstract. H. C. Martin. Paper Ind 28:300 My '46

Pulpwood production tools. M. H. Collet. il Paper Ind 27:1203-6+ N '45

Refined neutral sulphite semichemical pulps from Douglas fir. H. E. Peterson and others. il Paper Tr J 121:37-42 Jl 12 '45; Same cond. Paper Ind 27:418-20 D '45

Relation of the chemical composition of fibres to their papermaking properties. J. M. Limerick and A. J. Corey. bibliog Pulp & Pa of Can 47:62-4+ Mr '46

Review of the cellulose-water relationship and pulp beating theories. H. B. Marshall and A. M. Johnson. Pulp & Pa of Can 47:65-6+ Mr '46

Some national and international aspects of the pulp situation. J. Ritchie. Paper Ind 28:572+ Jl '46

Southern forests as a source of pulpwood. J. W. Cruikshank. map Paper Ind 28:1028+ O '46

Study of saw mill waste. R. R. Duffy. Pulp & Pa of Can (Convention no) 47:276 [F] '46

Sulphite process; its position in chemical and paper fields today. R. Vincent. Paper Tr J 122:136+ F 28 '46

Sulphite pulping and pulps. S. E. Ekman. diag Paper Tr J 123:46-50 Ag 22 '46; Same cond, without diag. Paper Ind 28:888+ S '46

Sulphite yield from wood. J. C. W. Evans. bibliog Pulp & Pa of Can 47:55-7 Mr '46

WOOD pulp—*Continued*
Survey of available wood stands in the United States: symposium. Paper Tr J 123:116+ O 10 '46
Utilization of wood wastes; pulp for paper. J. K. Russell. bibliog Pulp & Pa of Can (Convention no) 47:277-8 [F] '46
Yellowing of pulp; abstract. H. W. Giertz. Paper Ind 27:1428 D '45

See also
Paper
Paper making
Wood grinders

Analysis
Hemicellulose of wood pulps; abstract. F. J. Greenane. Paper Ind 27:1428 D '45

Prices
Lift pulp prices. Bsns W p105-6 Ap 27 '46

Statistics
U.S. imports of wood pulp with cumulative imports of wood pulp from VE day. For Comm W 21:37 N 24 '45 [cont irregularly]
Wood pulp overseas imports by week endings June 29, 1945 to date; chart. For Comm W 22:34 F 2 '46

Testing
Effect of age on poplar wood on its pulping properties; abstract. G. Jayme and F. Reh. Paper Ind 28:300 My '46
Effect of continuous liquor flow in pulping by the sulphate process. S. L. Schwartz and M. W. Bray. bibliog diag Paper Tr J 123:42-8 O 24 '46
Effect of damaged chips on pulp quality. C. A. Anderson. Pulp & Pa of Can 47:43 Ja '46
Evaluation and classification of sulphite pulps. E. G. Ingalls. Paper Tr J 122:47-8 Ap 25 '46; Same. Paper Ind 28:892+ S '46
Extractives in poplar wood and in chemical pulps from poplar; abstract. G. Jayme and L. Rothamel. Paper Ind 28:300 My '46
Investigation of T.S. (TAPPI) permanganate number. R. Bourgon. Pulp & Pa of Can (Convention no) 47:125-8 [F] '46; Excerpts. Paper Ind 27:1713-14 F '46
Rapid measurement of an index of fibre length. R. de Montigny and P. Zborowski. diag Pulp & Pa of Can (Convention no) 47:99-112, 115 [F] '46; Same cond. Paper Ind 28:882+ S '46; Correction. Pulp & Pa of Can (Convention no) 47:294 [F] '46
Simple method for predicting the brightness of mixed pulp furnishes. W. J. Foote. bibliog Paper Tr J 122:35-7 F 21 '46
Studies of dielectric properties of chemical pulps. C. Delevanti, jr., P. B. Hansen and D. O. Adams. bibliog diags Paper Tr J 121:35-43 D 27 '45; 122:43-52 F 14 '46; Excerpts, pt 1. Paper Ind 28:288-90 My '46; Same cond, pt 2. Paper Ind 27:1894-8 Mr '46

WOOD research
Chlorite holocellulose, its fractionation and bearing on summative wood analysis and on studies on the hemicelluloses. L. E. Wise and others. bibliog Paper Tr J 122:35-43 Ja 10 '46
Recent advances in the chemistry of wood. F. H. Yorston. bibliog Pulp & Pa of Can (Convention no) 47:131-4 [F] '46
Wood research in Germany. il Chem & Eng N 24:652-3 Mr 10 '46
Wood research; Timber engineering company laboratory, Washington, D.C. Franklin Inst J 241:163-4 F '46

WOOD research institute
Organized for long-range investigations for individual companies. Chem & Eng N 24: 1814 Jl 10 '46

WOOD saccharification
Fermentation of Douglas fir hydrolyzate by S. cerevisiae. E. E. Harris and others. Ind & Eng Chem 38:896-904 S '46
Madison wood sugar process. E. E. Harris and E. Beglinger. bibliog diags Ind & Eng Chem 38:890-5 S '46; Abstract. Chem & Met Eng 53:268+ Ap '46
Production of wood sugar in Germany and its conversion to yeast and alcohol. J. F. Saeman and others. il diags Paper Tr J 123:38-46 S 19 '46; Abstract. Pulp & Pa of Can 47:106 S '46

WOOD seasoning. See Wood drying

WOOD storage
Fire protection of pulpwood. O. W. Stewart. il diag Pulp & Pa of Can 47:82-5 S '46

WOOD tanks. See Tanks, Wood

WOOD waste
Burning waste wood in suspension without grates or Dutch ovens. J. P. Badenhausen. plan diags Power Pl Eng 49:82-4 N '45
Chemical utilization of wood; abstract. A. J. Stamm. Chem & Met Eng 53:248+ Mr '46
Conversion of wood waste to usable fiber with the Bauer refiner. D. H. Kincaid. il diags Pulp & Pa of Can (Convention no) 47: 195-202 [F] '46; Excerpt. Paper Ind 27:1893 Mr '46
Fermentation of Douglas fir hydrolyzate by S. cerevisiae. E. E. Harris and others. Ind & Eng Chem 38:896-904 S '46
Fibre from waste wood. J. W. Church. Pulp & Pa of Can (Convention no) 47:275 [F] '46; Same. Paper Ind 27:1577-8 Ja '46
Madison wood sugar process. E. E. Harris and E. Beglinger. bibliog diags Ind & Eng Chem 38:890-5 S '46
More than half of the wood used in veneer production becomes waste during processing. H. R. Murdock. Ind & Eng Chem 38:sup 83-4 Ag '46
Plant proves its sound design and high efficiency in changing fuel situation; wood waste mixed with other fuel at pulp plant of Weyerhaeuser timber co. T. W. Stewart. flow diag il Power 90:450-2 Jl '46
Study of saw mill waste. R. R. Duffy. Pulp & Pa of Can (Convention no) 47:276 [F] '46
Upgrading natural wood values through chemical processing and utilization of wastes from the woodworking industries. H. R. Murdock. Ind & Eng Chem 38:sup81-2 Mr '46
Utilization of wood wastes; pulp for paper; manufacture of oxalic acid and alcohol. J. K. Russell. bibliog Pulp & Pa of Can (Convention no) 47:277-9 [F] '46

See also
Bark

WOODALL industries, inc.
Preferred stock offered. Comm & Fin Chr 163:234 Ja 14 '46

WOODEN bridges. See Bridges, Wooden

WOODEN sidewalks. See Sidewalks, Wooden

WOODIS, Winifred Arthur
Scientific printing educator. H. E. King. por Inland Ptr 117:78 Ap '46

WOODLOTS
Trees, the new cash crop. L. Haystead. map Fortune 34:212+ O '46

WOODRUFF, Robert Winship, 1889-
Portrait. Bsns W p31 My 25 '46

WOODWARD, Arthur Smith, 1864-1944
Memorial. C. J. Stubblefield. por(pl 14) Geol Soc Proc 1945:285-309 bibliog(p291-309) Je '46

WOODWORK
Joints in a jiffy; electronic heating. J. Markus. il diags Sci Am 174:245-8 Je '46
Progress, 1926-1946; stock woodwork. il Am Bld 68:114-15 O '46

WOODWORKING machinery
Single automatic woodworking process, using raw lumber, eliminates normal dimensional limitations of solid wood panels. il Arch Forum 84:160 F '46

Safety measures
Guard for jointers. il Safety Eng 91:63 F '46
Power feed rip-saw guard. F. H. Rouner. il diag Safety Eng 92:28-9 Ag '46

WOODWORKING shops
Manufacturing laminated lumber; development of processes and machines for production system. R. B. Taylor. flow diag il Mech Eng 68:539-42 Je '46

WOODWORKING shops—*Continued*

Heating and ventilation

Design of exhaust systems. F. H. Stebbins. il plan diags Sheet Metal Worker 37:54-6+ Ap; 47-9 My; 38-9 Je; 49-51 Jl; 47-8+ Ag; 46-8 S '46

Management

Management problems in the woodworking industries. J. A. Willard. Mech Eng 68:544 Je '46

Safety measures

Dust explosions in wood-working plants. E. A. Blair. Safety Eng 90:38-9+ D '45

WOOL

Criticism of some theories of multi-molecular adsorption applied to wool; abstract. G. A. Gilbert. Am Dyestuff Rep 35:453 S 23 '46

Frictional properties of wool fibres in relation to felting. L. Bohm. bibliog il Soc Dyers & Col J 61:278-83 N '45

Growth changes in tender wool. W. R. Lang. bibliog Textile Inst J 36:T243-52 O '45

Pulling wool by the use of enzymes; Arazym NSL. Am Dyestuff Rep 35:257-8 My 20 '46

See also

Blankets
Dyes and dyeing—Wool
Felt
Rayon yarn—Wool mixtures
Woolen and worsted fabrics

Analysis

Rapid method for the determination of vegetable matter in wool. G. C. LeCompte. Am Dyestuff Rep 34:469-70+ N 19 '45

Blending

Mechanical blending proves effective for wool. G. Zellnik. il diags Textile World 96:123+ My '46

Chemistry

Chemical constitution and physical properties of bisulphited wool. E. G. H. Carter and others. bibliog Soc Dyers & Col J 62:203-8+ Jl '46

Cholesterol from wool alcohols. C. W. Picard and D. E. Seymour. Soc Chem Ind J 64:304-5 N '45

Combination of wool protein with heavy metal salts as a function of pH. K. S. LaFleur. bibliog il Am Dyestuff Rep 35: 383-6+ Ag 12 '46

Data on wool-acid-water relationships. K. S. LaFleur. bibliog Am Dyestuff Rep 34:443-7+ N 5 '45

Division of the combined cystine of wool into four sub-fractions differing in chemical reactivity; abstract. H. Phillips. Am Dyestuff Rep 35:453 S 23 '46

New approach to the problem of the structure of proteins: an investigation of the partial hydrolysate of wool; abstract. A. J. P. Martin. Am Dyestuff Rep 35:453 S 23 '46

Chlorination

Wet chlorination of wool textiles and mixtures. W. A. Edwards. Rayon 27:479-82 S '46

Wet chlorination treatments to reduce wool felting; abstract. Am Dyestuff Rep 35:477 O 7 '46

Damage

Measurement of damage in wool materials; the degree of modification produced by treating wool fabrics with buffered acid and alkaline solutions. C. S. Whewell and D. M. Bee. Soc Dyers & Col J 62:178-80 Je '46

Felting

Determination of milling and felting shrinkage on small samples of fabrics and loose fibre. N. H. Chamberlain and J. Menkart. il diags Soc Dyers & Col J 61:286-91 N '45

Frictional properties of wool fibres in relation to felting. L. Bohm. bibliog il Soc Dyers & Col J 61:278-83 N '45

Non-felting wool; patent. Am Dyestuff Rep 35:457 S 23 '46

Wet chlorination treatments to reduce wool felting; abstract. Am Dyestuff Rep 35:477 O 7 '46

Fluorination

Action of fluorine and fluorides on wool; abstract. R. F. Hudson and P. Alexander. Am Dyestuff Rep 35:455 S 23 '46

Moisture content

Heat and water vapour transfer through fabrics. S. Baxter. bibliog diags Textile Inst J 37:T39-57 Mr '46; Correction. 37:T140 My '46

Moisture adsorption of textile yarns at low temperatures R. C. Darling and H. S. Belding. bibliog Ind & Eng Chem 38:524-9 My '46

Wool; regain of moisture; U.S. patent. diags Am Dyestuff Rep 35:504-5 O 21 '46

Prices

Wool price policy hanging fire. Barron's 25:6 D 5 '45

Standards

Wool standards bill. Textile Col 68:30+ Je '46

Sulfur content

Chemical constitution and physical properties of bisulphited wool. E. G. H. Carter and others. bibliog Soc Dyers & Col J 62:203-8+ Jl '46

WOOL, Artificial

Germans spin synthetics to resemble worsted yarn. D. B. Wicker. il Textile World 96:105-6 My '46

Preparation of vegetable albumen from castor plant; abstract. M. C. Tartakovski and V. D. Matveev. Chem & Met Eng 53:278+ F '46

See also

Aralac

WOOL, Effect of acids on

Data on wool-acid-water relationships. K. S. LaFleur. bibliog Am Dyestuff Rep 34:443-7+ N 5 '45

WOOL, Unshrinkable

Effectiveness of oxidation anti-shrink treatments to acid and alkali milling; abstract. P. Alexander. Am Dyestuff Rep 35:455 S 23 '46

Friction between keratin surfaces as affected by some shrinkproofing treatments. M. Lipson and P. Howard. bibliog il Soc Dyers & Col J 62:29-32 Ja '46

Shrinkproofing resin exhausted from bath. I. G. Sanford. il Textile World 96:137+ S '46

Tootal Broadhurst Lee company's new anti-shrink process for woolens. F. C. Wood. il Textile Col 67:122-3 N '45

Use of polymers to make wool unshrinkable; anhydrocarboxyglycine. A. W. Baldwin and others bibliog Soc Dyers & Col J 62:4-9 Ja '46; Abstract. Am Dyestuff Rep 35:183 Ap 8 '46

WOOL carding

Clothing on woolen cards is key to good yarn. W. J. Crofts. il Textile World 96: 131+ S '46

Fibre breakage in worsted carding. P. P. Townend and E. Spiegel. il diag Textile Inst J 37:T58-76 Mr '46

New drives to carding machines. il Mech Handling 33:237-8 Ap '46

Wider wool cards, answer to cost and production problems. G. Zellnik. il Textile World 95:115-17 N '45

Woolen card-room layout reduces costs. G. Zellnik. plans Textile World 95:110-11 D '45

WOOL drying

Change in condensate return on dryers saves fuel; Denston felt & hair co. A. Welz. il diags Textile World 96:100-1 Ag '46

WOOL fat

Wool scouring, wool grease recovery and other byproduct recovery in Germany. Am Dyestuff Rep 35:255-7 My 20 '46

Wool wax alcohols; their properties and utilisation in industry. Chem Age (Lond) 55: 371-5, 416-18 S 28-O 5 '46

WOOL oiling

Application of dust-laying oil to fabrics; wool and cotton hospital bedding. C. H. Bayley and others. il Can Chem & Process Ind 30:43-6 S '46

Cellulose glycolates for lubricating wool; patent. Am Dyestuff Rep 35:459 S 23 '46

WOOL oiling—*Continued*
Industrial safety gleanings; fire risk from wool oils. Chem Age (Lond) 54:189 F 16 '46
Special characteristics of a self-scouring wool lubricant. A. Moscowitz. Am Dyestuff Rep 35:310-11 Je 17 '46

WOOL scouring
Chemical control gives improved wool scouring; bicarbonate concentration a critical factor. A. L. Dubeau and G. P. Vincent. Am Dyestuff Rep 35:469-71 O 7 '46
Wool scouring, wool grease recovery and other byproduct recovery in Germany. Am Dyestuff Rep 35:255-7 My 20 '46

WOOL trade
Higher wool prices. Barron's 26:8 S 9 '46
Run, sheep, run! some strangers are after your markets! American wool council. il Sales Management 56:62-3 F 15 '46
Wool in the world economy. G. Blau. Textile Inst J 37:P454-6 S '46
Wool stock threat debunked. Barron's 26:5 Jl 22 '46

See also
Wool—Prices

Advertising
How to protect a quality label; Stroock fabrics guard prestige by limiting outlets, by educational advertising and by constant vigilance. E. M. Murphy. il Ptr Ink 215: 59-60+ Ap 5 '46
Single book accomplishes a three-fold purpose; Uxbridge worsted co. il Ptr Ink 213:44+ D 28 '45

Insurance requirements
Wool growers' and buyers' policy. Spectator (Property ed) 11:28 D 20 '45

Statistics
Activities of the National association of wool manufacturers for 1944; statistics of the industry and other matters relating to the wool textile industry. 665p pa $10 National assn. of wool manufacturers, 80 Federal st, Boston '45

Australia
Australian wool industry. For Comm W 21: 38 D 15 '45; 25:46 O 19 '46

China
Wool production in China. K. Chang. map Textile Inst J 37:P51-6 Mr '46

Great Britain
Export angles of Britain's woolen-worsted industry. D. Skalka. il For Comm W 21:11-13+ D 29 '45
Imports of wool and wool manufactures into the United Kingdom, 1938 and 1944-1945. For Comm W 22:40 F 23 '46
Three bags full. Economist 151:381 S 7 '46
Wool textiles in 1945. Economist 150:sup14 Mr 23 '46

New Zealand
New Zealand wool production, 1939-1945. For Comm W 22:37 Ja 5 '46

United States
Government wool losses narrowed. Barron's 26:5+ O 21 '46
Plan to dump wool. Barron's 26:7 Mr 25 '46
Prop under wool; Truman-indorsed program. Bsns W p21 Mr 23 '46
Trend in woolen-worsted industry. D. Skalka. Dom Comm 34:25-7+ Mr '46

WOOLEN and worsted fabrics
Wool color chart, spring 1947. Textile Col 68: 24+ S '46

See also
Blankets
Felt

Defects
Careful adjustments will reduce seconds due to mispicks. E. P. Shremp. il Textile World 96:129+ Je '46

Heat transmission
Heat and water vapour transfer through fabrics. S. Baxter. bibliog diags Textile Inst J 37:T39-57 Mr '46; Correction. 37:T140 My '46

Permeability
Heat and water vapour transfer through fabrics. S. Baxter. bibliog diags Textile Inst J 37.T39-57 Mr '46; Correction. 37:T140 My '46

Shrinkage
Control of pH aids shrinkproofing. H. Barnes. il Textile World 96:127+ Je '46
Determination of milling and felting shrinkage on small samples of fabrics and loose fibre. N. H. Chamberlain and J. Menkart. il diags Soc Dyers & Col J 61:286-91 N '45; Abstract. Am Dyestuff Rep 35:181 Ap 8 '46
Tootal Broadhurst Lee company's new anti-shrink process for woolens. F. C. Wood. il Textile Col 67:122-3 N '45
Washable woolens for the army; abstract. H. F. Clapman. Textile Col 67:123+ N '45
Wet chlorination of wool textiles and mixtures. W. A. Edwards. Rayon 27:479-82 S '46

Testing
Measurement of damage in wool materials; the degree of modification produced by treating wool fabrics with buffered acid and alkaline solutions. C. S. Whewell and D. M. Bee. Soc Dyers & Col J 62:178-80 Je '46

WOOLEN and worsted finishing
All-wool suits to offer coolness in hot weather; Monsanto's Resloom. D. Powers. Rayon 27:198 Ap '46
Much expected from textile finishes. il Textile World 96:111-12 F '46
Special slide rule solves woolen-finishing problems. H. E. Blanchard. il Textile World 96:99+ Ag '46
Three new wool treating chemicals; Dexolene, Maxitol and Oridex D. Chem Eng 53: 145-6 Ag '46
Wool napping shows little change. E. P. Schremp. il diags Textile World 96:125+ O '46
Woolen and worsted processing in Germany. H. D. Grimes. Am Dyestuff Rep 35:253-8 My 20 '46

WOOLEN and worsted machinery
Flax can be run on cotton and worsted machinery. S. A. G. Caldwell. il Textile World 96:106-7+ Ja '46
Mechanical blending proves effective for wool. G. Zellnik. il diags Textile World 96:123+ My '46
Running rayon on the woolen system. J. T. Drennen and T. A. Boswell. il Textile World 95:100-1 D '45; 96:100-1+ Ja; 147+ F; 133+ Mr '46
Wool napping shows little change. E. P. Schremp. il diags Textile World 96:125+ O '46

WOOLEN and worsted manufacture

See also
Dyes and dyeing—Wool
Wool carding
Woolen and worsted machinery
Woolen and worsted mills
Woolen and worsted spinning

By-products
Wool scouring, wool grease recovery and other byproduct recovery in Germany. Am Dyestuff Rep 35:255-7 My 20 '46

Germany
Woolen and worsted processing in Germany. H. D. Grimes. Am Dyestuff Rep 35:253-8 My 20 '46

WOOLEN and worsted mills
Carding mill connected with life of Abraham Lincoln; early wool mill restored in New Salem village. C. C. Hall. il Textile World 96:141+ F '46
Demand for mills affects quarter of industry; with list of mill mergers and acquisitions, Jan. 1944-June 1946. W. B. Dall. plan Textile World 96:101-6+ Jl '46

Accounting
Determination and disposition of raw material price variances in a woolen mill. C. W. Von Dreele. N A C A Bul 28:215-24 O 1 '46

WOOLEN and worsted mills—*Continued*

Employees

Absenteeism and turnover; how North Star controls them. R. E. Hibbs. il Textile World 96:153+ S '46

Incentive plan for spinners increases production and pay. F. E. Cleyn. il Textile World 96:107 Jl '46

Sees need for more women in wool fabric field. J. Morrow. Textile Col 68:20-1 Mr '46

See also

Carpet factories—Employees

Equipment

Change in condensate return on dryers saves fuel; Denston felt & hair co. A. Welz. il diags Textile World 96:100-1 Ag '46

Woolen mill saves labor with unique conveyor. il diags Textile World 96:120-1 Ap '46

See also

Woolen and worsted machinery

Layout

Woolen card-room layout reduces costs. G. Zellnik. plans Textile World 95:110-11 D '45

Power

Constant appraisal promotes active plant betterment; Forstmann woolen co. il Power 90:154-6 Mr '46

WOOLEN and worsted printing

Printing of woolens. W. D. Baird. Am Dyestuff Rep 34:508-9 D 3 '45

WOOLEN and worsted shrinkage. See Woolen and worsted fabrics—Shrinkage

WOOLEN and worsted spinning

Incentive plan for spinners increases production and pay. F. E. Cleyn. il Textile World 96:107 Jl '46

Making worsted yarn by the cotton system. Rayon 27:478 S '46

Processing rayon and wool fibers on cotton system. E. C. Gwaltney. Rayon 26:645-6 D '45; Same cond. Textile World 95:242 N '45

Ring spinning frames adapted to woolens in Germany. J. T. Truslow. il diag Textile World 96:109-10 My '46

Worsted yarns effectively spun on cotton frames. F. A. Cleyn. il Textile World 96: 123+ Mr '46

WOOLEN and worsted weaving

Careful adjustments will reduce seconds due to mispicks. E. P. Shremp. il Textile World 96:129+ Je '46

Loomfixers' manual; wool section (cont). E. P. Schremp. diags Textile World 96:178 Jl '46

Mixed filling causes bars in worsted cloth. Textile World 96:180+ S '46

WOOLEN and worsted yarn

Clothing on woolen cards is key to good yarn. W. J. Crofts. il Textile World 96: 131+ S '46

See also

Rayon yarn—Wool mixtures

Cotton mixtures

Cotton-and-wool knitting yarns multiply spinning costs. P. M. Thomas. il Textile World 95:108-10+ N '45

WOOLWORTH, F. W., company

Annual report. Comm & Fin Chr 163:1076 F 25 '46

Financial position. H. S. Coffin. Mag of Wall St 77:630 Mr 2 '46

Thumbnail stock appraisal. Mag of Wall St 77:276 D 8 '45

Woolworth in Germany. Fortune 33:235 Je '46

WORCESTER, Massachusetts

Rapid transit

Cuts and color; presentation of advertising and annual reports by Worcester street railway. J. C. MacMurray. il Bus Transportation 25:33-5 F '46

WORCESTER foundation for experimental biology

Annual meeting, 1946. Science 104:163-4 Ag 16 '46

WORK, Right to. See Right to labor

WORK clothes

Durable flameproofing suitable for cotton outer garments. K. S. Campbell and J. E. Sands. bibliog il Textile World 96:118-19+ Ap '46

$8,000,000,000 textile industry: is it ripe for brand name promotion? J. C. Cumming. il Sales Management 55:154+ D 15 '45

This merchandising stunt has been good for 60 years; Sweet-Orr proves quality of merchandise by staging tug-o'-war battles. R. L. Sweet. Ptr Ink 217:50-1 O 11 '46

Tradition upheld; Sweet-Orr & co., family company, sticks to work clothing. il Bsns W p30+ O 5 '46

WORK simplification. See Labor saving devices; Motion study

WORKERS' education. See Education of workers

WORKING papers. See Accountants—Working papers

WORKMEN'S compensation

Aviation compensation questions treated for A.M.A. buyers group. K. R. Thompson. Nat Underw 50:26 Mr 14 '46

Claims bureau forms workmen's compensation committee; national medium for analyzing administration of acts. Nat Underw 50:17 Jl 11 '46; East Underw 47:32 Jl 5 '46

Compensable hernia; problems in the average state. W. L. Ritter. bibliog Ind Med 15:5-8 Ja '46

Compensation conference action; seven national organizations form new group to analyze special problems. Weekly Underw 155:5+ Jl 6 '46

Compensation legislation in 1945. Nat Safety N 53:46+ Ap '46

Congress should preempt compensation air law field. K. R. Thompson. East Underw 46:35 D 21 '45

Fight grows against U.S. Employes compensation commission abolition. Nat Underw 50:23 Je 20 '46

Gas company employes have unusual accidents; recent court decisions. L. T. Parker. Am Gas J 164:32-3 Je '46

Jurisdictional questions in field of Longshoremen, Jones and state compensation acts. R. E. Coughlan, jr. Nat Underw 50:26 N 7 '46

Liberalization trends in workmen's compensation seen in 1947 legislative sessions. East Underw 47:28+ Ap 5 '46

No consistent program is followed to amend compensation acts. R. Fondiller. East Underw 47:28 Ag 30 '46

Pleasure craft liability risks; protection and indemnity and Longshoremen's and harbor workers' compensation act. E. N. Muller, jr. il Spectator (Property ed) 12:10-14+ Jl 25 '46

Seeks better compensation administration. W. Merrick. East Underw 47:32 N 8 '46

State workmen's compensation legislation in 1945. A. Acee. Mo Labor R 62:61-4 Ja '46

U.S. orders mines to get comp and O.D. cover; operators may no longer treat any state law as elective. Nat Underw 50:15 Ag 22 '46

Workmen's compensation for seamen. M. D. Kossoris and J. Zisman. Mo Labor R 62: 851-61 Je '46

Workmen's compensation law does not bar action against employer for wilful and wanton assault on employee. Weekly Underw 155:707-9 S 21 '46

See also

Accidents, Industrial
Employers' liability
Insurance, Workmen's compensation

Second injury funds

Explains N.Y. second injury fund. H. D. Sayer. East Underw 47:35 O 18 '46; Abstract. Nat Underw 50:20 O 17 '46

Second injury fund law proposal. Nat Underw 49:28 D 27 '45

WORKMEN'S compensation—*Continued*

Great Britain

Industrial injuries. Economist 151:216-7 Ag 17 '46

Kentucky

Kentucky mine disaster revives issue of compensation laws; Mandatory act cannot be debated until 1949 under state rule. Nat Underw 50:20-1 Ja 3 '46

Louisiana

Knee injury preventing employee from working as carpenter warrants total and permanent disability award. Weekly Underw 155: 53 Jl 6 '46

Michigan

Medical board part of Michigan compensation act unconstitutional. Nat Underw 50: 32 Ap 4 '46

Michigan state bar asks act revision. Nat Underw 50:14 S 5 '46; East Underw 47:36 S 20 '46

New York (state)

Compensation law changes are recommended by Ives committee. East Underw 47:31 Mr 29 '46

Domestic servants in New York now under compensation act. Nat Underw 50:19+ Ap 11 '46

Employee of uninsured sub-contractor may maintain negligence action against general contractor. Weekly Underw 155:173 Jl 20 '46

N.Y. gets, passes more workmen's compensation bills. Nat Underw 50:6 Ap 25 '46

Payment to special funds where deceased employee leaves no dependents does not constitute compensation and death benefits. Weekly Underw 155:971 O 19 '46

Reorganization of procedures in New York state, 1943-1946. M. Donlon. East Underw 47:29 Ag 30 '46

Ontario

Waterworks systems: accident prevention and compensation for injury; discussion. il Water & Sewage 84:47-53+ Ap '46

Pennsylvania

Children abandoned by father may recover compensation for death of grandfather, who supported them. Weekly Underw 154:1519 Je 8 '46

Coal firms lose; Pennsylvania high court upholds Workmen's compensation act of 1937. Bsns W p84 Jl 13 '46

WORKMEN'S compensation insurance. See Insurance, Workmen's compensation

WORKPLACE layout

Standardized work area and accessories; AC spark plug division, General Motors. P. W. Rhame. diags Factory Management 104: 139-41 S '46

WORLD broadcasting system, inc.

Chicago music; Muzak invades new market. Bsns W p57 F 9 '46

WORLD fairs. See Exhibitions

WORLD federation of trade unions

Machinery for world federation of trade unions. B. Stern. Mo Labor R 62:47-54 Ja '46

Second conference, Paris, Sept. 25 to Oct. 8, 1945. Int Labour R 52:552-7 N '45

World federation of trade unions and the representation of non-governmental bodies in the United nations organisation. Int Labour R 53:276-8 Mr-Ap '46

WORLD health organization

Charter for world health. T. Parran. Pub Health Rep 61:1265-8 pl 1 Ag 30 '46

Constitution; text. Pub Health Rep 61:1268-77 Ag 30 '46

World health organization. East Underw 47:31 Ag 16 '46

World health organization. Pub Health Rep 61:1259-65 Ag 30 '46

World health organization. M. B. Shimkin. Science 104:281-3 S 27 '46

WORLD trade center, New York (proposed)

Governor Dewey names World trade corporation directors. Comm & Fin Chr 164:268 Jl 11 '46

Will New York take up London's financial leadership? I. Wright. Comm & Fin Chr 164:605+ Ag 1 '46

WORLD trade policy office. See United States—International trade, Office of—World trade policy office

WORLD trade promotion office. See United States—International trade, Office of—World trade promotion office

WORLD war, 1914-1918. See European war, 1914-1918

WORLD war, 1939-1945

See also

Reconstruction (World war, 1939-1945)

Aerial operations

Air war and the utilities; vulnerable German power system never a primary target. T. N. Sandifer. Pub Util 36:766-70 D 6 '45

D'Olier report on bombing survey. East Underw 47:10 Jl 5 '46

Here is the Allied bombing record. il Aviation 44:106-7+ D '45

How German plants were knocked out by strategic bombs. R. P. Russell and H. D. Dale. il Chem & Met Eng 53:150-3 F '46

Impact of strategic air attack on the German rubber industry. E. W. Pittman and others. India Rubber World 113:647-52+ F '46

Prefab target; Antonin Raymond duplicates Japanese workers houses for U. S. army. il diag Arch Forum 84:11 Ja '46

Role of air technical intelligence in defeat of the Luftwaffe. Aero Digest 51:40+ D 1 '45

Story from marine squadron 533. R. W. Harvey. il Aero Digest 51:40+ N 15 '45

Bibliography

Official war publications, guide to state, federal, and Canadian publications. J. K. Wilcox. v 9 236p pa Bur. of public administration, Univ. of California, Berkeley '45

Casualties

Effects of war casualties on economic responsibilities of women. J. M. Hooks. bibliog Mo Labor R 62:181-6 F '46

List of army dead and missing reported. Comm & Fin Chr 164:254 Jl 11 '46

Mortality figures for Great Britain, Russia, Germany, France and Japan. Spectator (Life ed) 153:37 Ap '46

Claims

Philippine damage fund increased in House amendments. Nat Underw 50:4+ Ap 18 '46

Polish government accepting claims for war damage. For Comm W 23:17 Je 29 '46

Propose half billion for Philippine war damage. Nat Underw 49:5-6 N 8 '45

Recovery in American claims abroad. W. B. Cowles. Harvard Bsns R 25 no 1:92-110 [O] '46

See also

World war, 1939-1945—Reparations

Commerce

Foreign economic administration activities in the chemicals field. M. Williams. bibliog Chem & Eng N 23:2322-7 D 25 '45

Compensation of war victims

German regulations covering war damages. Weekly Underw 153:1467-8 D 22 '45

Destruction of property

Building damage and reconstruction in France. Mo Labor R 61:925-9 N '45

Diplomatic history

Secret U.S.-British Yalta pact with Russia; Kurile islands given to Soviet. Comm & Fin Chr 163:1007 F 21 '46

Economic aspects

Consumers' expenditures in war and transition. V. L. Bassie. R Econ Stat 28:117-30 Ag '46

WORLD war, 1939-1945—Economic aspects —*Continued*
Impact of the war on civilian consumption in the United Kingdom, the United States and Canada; summary of report to Combined production and resources board. Economist 149:637-44 N 3 '45
War and postwar wages, prices, and hours, 1914-23 and 1939-44. W. Bowden. Mo Labor R 61:863-81 N '45

Food question
Some recent developments in human feeding. J. Drummond. il Food Ind 18:327-30+ Mr '46

Jews
Jews under the Nazi regime in the Netherlands. J. F. Krop. Ann Am Acad 245:28-32 My '46

Labor problems
Employment situation in foreign countries. M. H. Schoenfeld and others. Mo Labor R 62:6-24, 187-210 Ja-F '46
Foreign labour in the United States during the war. J. Henderson. Int Labour R 52: 609-31 D '45
Manufacturing employment, September 1939-March 1946. Mo Labor R 63:1-7 Jl '46
War and postwar wages, prices, and hours, 1914-23 and 1939-44. W. Bowden. Mo Labor R 61:613-23, 863-81 O-N '45
Wartime labor force of Houston ordnance plant; Dickson gun plant. W. T. Watson and E. V. Doane. Mo Labor R 62:458-72 Mr '46
Wartime labor force of St Paul propeller plant. E. B. Harris. Mo Labor R 62:93-103 Ja '46
Wartime methods of labour-management consultation in the United States and Great Britain. Int Labour R 52:309-34 O '45

Lend-lease operations
Disposition of machine tool orders at close of lend-lease revealed by U. S. Am Mach 90:148f Mr 14 '46
Final settlement of Turkey's lend lease. Comm & Fin Chr 163:2707 My 16 '46
Foreign economic administration activities in the chemicals field. M. Williams. bibliog Chem & Eng N 23:2322-7 D 25 '45
Fortune survey. Fortune 32:310 D '45
Lend-lease aid from March, 1941, to October 1, 1945; tables and charts. Automotive & Aviation Ind 94:92 Mr 15 '46
Lend-lease and surplus-property agreement signed with India. For Comm W 23:20 Je 8 '46
Mead committee and lend lease settlements. H. M. Bratter. Comm & Fin Chr 163:2082+ Ap 18 '46
Memorandum of understanding between the United States and France regarding settlement for lend-lease, reciprocal aid, surplus war property, and claims; text. For Comm W 23:52 Je 15 '46
President reports lend lease to Congress. Comm & Fin Chr 163:1011 F 21 '46
President reports on lend-lease. Comm & Fin Chr 163:3534 Je 27 '46
Turkish lend-lease settlement agreement; text. Comm & Fin Chr 163:3210+ Je 13 '46
U.S.-British pacts to settle lend-lease and other debts. Comm & Fin Chr 163:2135 Ap 18 '46
U.S.-United Kingdom statement on lend lease settlement. Comm & Fin Chr 162: 2929 D 13 '45
War period foreign transactions of the United States government. G. L. Bach. Survey of Cur Bsns 26:7-15+ Mr '46

Maps
War in maps; an atlas of The New York Times maps; text by Francis Brown. 4th rev & enl ed 197p $2.50 Oxford university press, 114 Fifth av, New York 11 '46

Medical and sanitary affairs
Health conditions in certain large cities of the Far East after liberation. H. R. O'Brien. map Pub Health Rep 61:1339-50 S 13 '46
Impact of the war on medicine. A. N. Richards. Science 103:575-8 My 10 '46
Summary of twenty-two trinitrotoluene fatalities in World war II. W. J. McConnell and R. H. Flinn. bibliog J Ind Hygiene 28:76-86 My '46

Naval operations
War against the U-boats. il Engineer 182: 235-6, 258 S 13-20 '46

Peace
See also
Peace conference, 1946, Paris

Personal narratives
Reminiscences of a submarine officer. B. R. Van Buskirk. East Underw 47:35 Ap 26; 42 My 10 '46

Petroleum supply
Address; navy's interest in petroleum and petroleum products. B. Moreell. Am Pet Inst Proc 25(1):51-6 '45
Address; oil's part in the war. J. H. Doolittle. Am Pet Inst Proc 25(1):41-4 '45
History of tankers lauds role played in supplying oil for World war II. Nat Pet N 38: 50+ Ap 10 '46
Navy's Norfolk petroleum pool entitled to large share of oil-at-war's victory. R. E. Bjorkback. Nat Pet N 37:34+ D 19 '45
Oil's war story: plenty, when and where needed. H. D. Ralph and C. J. Deegan. Oil & Gas J 44:172-84 N 17 '45
Petroleum in wartime. F. H. Garner. 2pls diag Inst Pet J 32:256-68 My '46
San Pedro naval depot's 188 million bbls. of oil powered Pacific war machine to victory. Nat Pet N 38:48 Ap 10 '46
World and its wars run on oil with aid from Quartermaster Fuels and lubes division. R. E. Bjorkback. Nat Pet N 37:28+ D 12 '45

Prices
Postwar price structure. S. M. Livingston. Survey of Cur Bsns 25:12-22 N '45; Same. Comm & Fin Chr 162:3132+ D 27 '45
Wartime prices, price control, and rationing in foreign countries; reprinted from Monthly Labor Review, Oct. and Nov. 1945, with additional data. U S Bur Labor Statistics Bul 851:1-36; pa 10c Supt. of doc. '45

Reparations
Excess German plants going for reparations. J. R. Hight. Iron Age 157:118-19 F 14 '46
Netherlands presents war reparations bill. Comm & Fin Chr 162:2624 N 29 '45
Reparations problems. I. Lubin. Comm & Fin Chr 162:2323+ N 15 '45
War losses and reparations. R. F. Loree. Comm & Fin Chr 162:2452+ N 22 '45

Science and the war
Contribution to Nazi war machine by German scientists; abstract. L. E. Simon. Iron Age 158:151-3 Ag 1 '46
Engineering evolution from war to a peacetime world. L. K. Sillcox. Mech Eng 68: 101-6+ F '46; Same abr. J Eng Educ 36: 1-10 F '46
Geologists' place in service. P. H. Price. Am Assn Pet Geologists Bul 30:1115-22 Jl '46
Geophysicists' part in the war effort. C. A. Heiland. il Min & Met 27:111-14 F '46
Impact of the war on science. L. J. Briggs. Elec Eng 65:8-10 Ja '46; Same. il Ind Stand 17:8-11 Ja '46
Ottawa detective agency; Japanese balloon bombs; identification of ballast sand. W. M. Bonham. il diags Can Min J 67:769-73 Ag '46
Royal society conversazione; exhibits demonstrate applications of science to warfare. Engineering 160:428 N 23 '45
Science and the war effort. V. Bush. Western Soc E J 51:62-5 Je '46; Same cond. Power Pl Eng 50:53+ Ap '46
Scientific research and development; activities of the Ministry of supply. Engineer 182:97-8 Ag 2 '46
Scientist and the war. J. H. Hildebrand. Chem & Eng N 23:2317-21 D 25 '45
Scientist in wartime. E. Appleton. Engineer 180:417-19, 432-3, 454-5 N 23-D 7 '45

WORLD war, 1939-1945—Science and the war —*Continued*
Team work in research; flame throwers and fog dispersal. C. H. Lander. diags Engineer 180.353-5 N 2 '45; Same. Engineering 161:23, 33-4 Ja 4-11 '46
Where is the long hair? war explodes popular misconception of research men. P. M. Morse. il Tech R 48:107-8+ D '45
See also United States—Scientific research and development, Office of

Shipping
Allied and neutral shipping losses analyzed in annual report of Liverpool underwriters association. East Underw 47:1+ F 8 '46
Axis might have defeated U.S. tanker fleet if brains and teamwork hadn't been on our side. R. E. Bjorkback. il map Nat Pet N 38:30+ My 22 '46
Half of requisitioned foreign tonnage sunk during the war. Marine Eng 51:148+ Ap '46

Strategy
Campaign of liberation 1944-45. map Economist 151:484-6, 533-5, 574-5, 615-16 S 28-O 19 '46

Supplies
Coordinating research council; simplifying the fuels and lubricants problems of our armed forces. K. G. Mackenzie. Nat Pet N 37 pt 2:R958+ D 5 '45
European coal control at S.H.A.E.F.; June 1944 to July 1945. W. R. Gordon. map Can Min J 67:779-87 Ag '46
Wartime dependence on foreign minerals. A. M. Bateman. Econ Geol 41:308-27 Je '46

War criminals
Goering in the dock. Economist 150:484-5 Mr 30 '46
Nuremberg judgment. Economist 151:530-2 O 5 '46
Nuremberg trial. Q. Wright. Ann Am Acad 246:72-80 Jl '46
Nürnberg novelty; men guilty of crimes will be punished, but will law have been made? Fortune 32:140-1 D '45; Discussion. 33:10+ F '46
Political consequences of the Nuremberg trial. N. Doman. Ann Am Acad 246:81-90 Jl '46
Recording the war trials in four languages. il Electronics 19:202+ My '46

Belgium
Return of the government. A. Wauters. Ann Am Acad 247:1-4 S '46

Canada
Canadian engineers' contribution to victory. A. G. L. McNaughton. Mech Eng 67:839-42 D '45

France
Building damage and reconstruction in France. Mo Labor R 61:925-9 N '45

Germany
German scientists made startling advances in war research; abstract. C. F. Green. Franklin Inst J 241:164-5 F '46
Germany was badly run. J. K. Galbraith. il Fortune 32:173-9+ D '45
How German plants were knocked out by strategic bombs. R. P. Russell and H. D. Dale. il Chem & Met Eng 53:150-3 F '46

Great Britain
British electrical engineers and the second World war. P. Dunsheath. Inst E E J 93 pt 1:17-27 Ja '46; Same cond. Engineering 160:335, 360-1, 383-4 O 26-N 9 '45; Same cond. Engineer 180:280-1, 302-5 O 12-19 '45
Photographic reconnaissance and the invasion of England. A. C. Bell. Engineering 161: 568-9, 580-1 Je 14-21 '46

Hawaiian Islands
Blackout in Hawaii. W. J. Holmes. il Illum Eng 41:312-24 Ap '46

Japan
Mission to Tokyo. K. T. Compton. Tech R 48:99-102+ D '45

Netherlands
See also
Netherlands—German occupation

Pacific ocean
Story from marine squadron 533. R. W. Harvey. il Aero Digest 51:40+ N 15 '45
Water supply in the Asiatic-Pacific theater. E. B. Cobb. N E Water Works Assn J 60: 54-67 Mr '46

Philippine Islands
War and science in the Philippines. J. L. Gressitt. Science 102:537-8 N 23 '45

United States
Fortune survey; laurels for warriors. Fortune 33:222 Ja '46
Selective service in World war II. P. W. Hale. Elec Eng 64:402-3 N '45
See also
Pearl Harbor investigations and reports

WORM gearing. See Gearing, Worm

WORMS, Intestinal and parasitic
See also
Schistosomiasis

WORTHITE
Phosphoric acid vs. materials of chemical plant construction. W. E. Pratt. il Chem & Met Eng 53:221 Jl '46

WOULFE, Henry F.
Portrait. Bsns W p73 D 15 '45

WOUNDS
Place of chemotherapy in the treatment of traumatic wounds. J. W. Hirshfeld. Ind Med 15:87-8 F '46
Surgical drainage in infected wounds. F. T. McCormick. bibliog Ind Med 15:88-9 F '46
Treatment of injuries to the hand, with particular reference to nerve and tendon repair. M. L. Mason. Ind Med 15:323-5 My '46
Wound healing and early ambulation. V. T. Williams and D. Piper. bibliog Ind Med 15:581-4 O '46
See also
Surgical dressings
Trauma

WRAPPING machines
Vegetable wrapping machines. il Mod Packaging 19:148 Ja '46

WRAPPING materials
Acetate adhesion; welding with solvents. il Mod Packaging 19:120-1+ Jl '46
Films for produce; their physical characteristics and requirements. H. Platenius. il Mod Packaging 20:139-43+ O '46
Foil bread wrappers, trial runs and storage tests. il Mod Packaging 19:110-11 Ja '46

WRAPPING paper
Blocking resistance of paper and flexible materials; TAPPI tentative standard T 477 m-46. Paper Tr J 122:39-40 Je 13 '46
Improving peacetime packages; work of Paper section, National bureau of standards. B. W. Scribner. il Dom Comm 34:14-16 Je '46
Protective value of asphalt-laminated paper against insects; abstract. H. L. Sweetman and A. I. Bourne. Paper Ind 27:1428 D '45
Sanitary code for food wrappings. J. R. Sanborn. Pulp & Pa of Can 47:33-5 My '46
Tight-wrapped shipping containers; Kraft paper wrapping for fiber containers. Food Ind 18:344 Mr '46
White mineral oil and petrolatum in the manufacture of specialty papers. R. K. Rhodes. Paper Tr J 123:59-62 S 26 '46
See also
Glassine
Paper, Waxed

Testing
Moldability (crease retention) of wrapping paper; revision of TAPPI official standard T 446 m-42. Paper Tr J 123:28 O 17 '46
Moldable paper products. H. R. Alley. diags Paper Ind 28:262+ My '46; Same. Paper Tr J 122:120+ Je 20 '46

WRAPPING paper, Decorative
Feminine letter writers set styles for stationery box wraps. il Mod Packaging 19:112-17+ Je '46

WRECK trains. See Railroads—Wreck trains

WRECKING
Demolition of tripod sheers at Chatham dockyard. il Engineer 181:171-2 F 22 '46; diags Engineering 161:320-1, 324 Ap 5 '46
Quick method of tower demolition keeps wreckage near base area. il Eng N 135: 688-9 N 22 '45

See also
Chimneys—Wrecking
Concrete—Wrecking
Gas holders—Wrecking
Ships—Demolition

WRENCHES
Accles and Pollock silentgrip box-spanner wrenches. il diags Engineering 162:33 Jl 12 '46
Air wrench speeds tire changing. il Coal Age 51:161 My '46
Note on torque wrenches. il diags Diesel Power 24:1088-9+ S '46
Pneumatic impact wrenches. il diags Engineering 162:128-9 Ag 9 '46
Rotates pipe in either direction without removal from pipe; patent. diags Pet Processing 1:124 O '46
Six safety rules to use with your wrench; illustrations. Dom Eng 167:129 My '46

Manufacture
Statistical control applied to wrench manufacture. F. J. Robbins. Metal Prog 50:287-90 Ag '46

WRIGHT, Charles A. H.
President, Chemical institute of Canada. por(cover) Chem & Eng N 24:1901 Jl 25 '46

WRIGHT, Frank Lloyd, 1869-
Modern gallery; Wright's model of proposed Guggenheim museum of non-objective art. por Arch Forum 84:81-8 Ja '46
Wright's houses; two residences, built for himself. G. Nelson. il por Fortune 34:116-25 Ag '46

WRIGHT brothers
New historical booklet by A. F. Zahm disregards Wrights' aviation contribution; O. Wright cites record in answer. A. McSurely. Aviation N 5:10 Mr 11 '46
Twelve seconds for the Wrights; Kitty Hawk experiments. J. Hettich. pors Aero Digest 52:28+ Ap '46

WRIGLEY, Philip Knight, 1895-
Wrigley: chews all he bit off. Bsns W p80+ N 17 '45

WRIGLEY, William, jr., company
American Chicle vs. Wrigley. R. Carleson. il Mag of Wall St 79:141-3+ N 9 '46
Wrigley: chews all he bit off. Bsns W p80+ N 17 '45

WRIT of amparo. See Amparo (writ)—Mexico

WRONG, Humphrey Hume, 1894-
Canada's new ambassador to the U.S. por Bsns W p117 S 14 '46

WURSTER, Mrs William Wilson. See Bauer, Catherine

WÜSTITE
System iron-oxygen; equilibrium and thermodynamics of liquid oxide and other phases. L. S. Darken and R. W. Gurry. bibliog il Am Chem Soc J 68:798-816 My '46

WYANDOTTE chemicals corporation
Into the organics. Bsns W p70 Ag 17 '46
Wyandotte chemical corporation, entering organic field. il Chem & Eng N 24:2234 Ag 25 '46

WYATT, Wilson Watkins, 1905-
Housing expediter; a home-town report. Bsns W p16 D 22 '45
Mr Wyatt builds his castle. Fortune 34:3 Jl '46
Mr Wyatt's shortage; how the housing expediter hopes to end it. por Fortune 33: 104-9+ Ap '46
Succeeds Blandford as National housing administrator. por Am Bld 68:104 Mr '46
Wyatt asks ceilings on building lots. Bsns W p7 F 2 '46
Wyatt program; with organization chart. Arch Forum 84:94-7 Ap '46

X

X RAY apparatus
Characteristics of commercial X-ray intensifying screens. Pub Health Rep 61:312 Mr 1 '46
Electrical and allied developments of 1945; X-ray equipment. G. Bartlett. il Gen Elec R 49:50-1 Ja '46
50 years of X-ray progress in Europe. J. H. van der Tuuk. il Elec Eng 64:444-8 D '45
High-temperature X-ray powder diffraction apparatus; abstract. H. F. McMurdie and A. Van Valkenburg. Brick & Clay Rec 108:66 My '46
How to translate a blueprint job into lucid selling English; Westinghouse sells X-ray equipment with three dimensional models. il Sales Management 57:42-3 S 15 '46
Light, compact X-ray generator of high efficiency for mass radiography of the chest. R. H. Morgan and E. G. Murphy. diags Pub Health Rep 61.982-9, pl 1-2 Jl 5 '46
New eye for industry; millionth of a second X-ray equipment. E. L. Cady. il Sci Am 174:110-12 Mr '46
100,000,000 electron volts; new super X-ray generator. J. Markus. il Sci Am 174:12-13 Ja '46
100 million volt betatron makes most powerful X-rays. il Power Pl Eng 50:61+ Ap '46
Portable X-ray unit utilizes magnesium. W. Kes. il Materials & Methods 24:626-7 S '46
Quality control with 2,000,000-volt X-ray unit; manufacturing bombs and new type of shell. G. A. Van Brunt. il plans Factory Management 104:141-4 Ja '46
Rotating sample holder for X-ray diffraction studies. E. F. Champaygne. il R Sci Instr 17:345 S '46
Two million volt X-ray inspection equipment; inspecting loaded shells and bombs at Elwood ordnance plant. D. Goodman. il diag Metal Prog 49:327-32 F '46
X-ray equipment development; new electromedical apparatus. il Electrician 136:1170-1 My 3 '46
X-ray industry expects $35 million sales yearly. D. Goodman. il Ind Marketing 31:49-50+ S '46

See also
Electron accelerator
Metals—X ray inspection
X ray tubes

Safety measures
Electricity in factories; precautions in use of X rays. Electrician 135:628 D 7 '45
Invisible industrial hazard. S. R. Warren, jr. bibliog il diag Elec Eng 65:499-507 N '46
New X-ray code to protect workers. S. Dahlberg and R. P. Gleason. il Ind Stand 17: 109-12 My '46; Same. Nat Safety N 54:28-9+ Ag '46; Abstract. Steel 119:81 S 30 '46

X RAY contrast mediums. See Radiography

X RAY inspection. See Metals—X ray inspection

X RAY tubes
Evolution of electrical high tension equipment for X-ray tubes; abstract. C. C. Paterson. Electrician 135:529 N 16 '45
50 years of X-ray progress in Europe. J. H. van der Tuuk. il Elec Eng 64:444-8 D '45
Machlett high-intensity X-ray tube. diag R Sci Instr 17:41-2 Ja '46
Production control with 2,000,000-volt X-rays; testing shells and bombs; plant of Sanderson & Porter. D. Goodman. il diags Electronics 19:146-9 F '46
Some experiences with the X ray. W. D. Coolidge. Elec Eng 64:423-6 D '45
Source of high-intensity X-rays; abstract. G. L. Clark. Electronics 19:228+ Mr '46
X-ray history and development. W. D. Coolidge and E. E. Charlton. bibliog diags Elec Eng 64:427-32 D '45

Manufacture
Gas heat-treats giant X-ray tubes. il Am Gas Assn Mo 28:345 Jl-Ag '46
Metallurgical aspects of X ray tube manufacture. M. J. Zunick. bibliog il diags Iron Age 157:56-9 Ap 11 '46; Same. Glass Ind 27: 238-41+ My '46

X RAY tubes—Manufacture—*Continued*
Some materials and methods for X-ray and power tube manufacture. C. F. Lindsay. il Materials & Methods 23:406-11 F '46

Power supply

Stabilization of X-ray tube current and voltage. A. F. LeMieux and W. W. Beeman. bibliog diags R Sci Instr 17:130-2 Ap '46

X RAYS
Auger transitions. F. R. Hirsh, jr. bibliog Phys R 69:32 Ja 1 '46
Characteristic X-rays excited by beta-particles. J. E. Edwards and M. L. Pool. il diags Phys R 69:549-55 Je 1 '46
Multiple nuclear disintegrations induced by 100-mev X-rays. G. C. Baldwin and G. S. Klaiber. bibliog il Phys R 70:259-70 S 1 '46
Production of heavily ionizing particles by X-rays generated by a 100-mev betatron. M. Schein and others. il Phys R 70:435-6 S 1 '46
Scientific importance of X rays. L. H. Garland. il Elec Eng 64:437-44 D '45
X-ray aids industrial health; dental surveys. il Safety Eng 92:68-9 Ag '46
X-ray methods and applications; abstract. D. E. Palin. Chem & Ind p175 Ap 27 '46
X-rays and pure science; abstract. L. Bragg. Electrician 135:528 N 16 '45

See also
Crystallography—X ray studies
Diagnosis, Radioscopic
Metals—X ray inspection
Radiography
Welding—X ray inspection
X ray apparatus
X ray tubes

Absorption

Absorption measurements for broad beams of 1- and 2-million-volt X-rays. G. Singer and others. bibliog J Res Nat Bur Stand 37: 147-50 Ag '46
Determination of tetraethyllead in gasoline by X-ray absorption. M. V. Sullivan and H. Friedman. il diag Ind & Eng Chem Anal ed 18:304-6 My '46
Thickness measurement of thin coatings by X-ray absorption. H. Friedman and L. S. Birks. diags R Sci Instr 17:99-101 Mr '46
X-ray line absorption in the *M*-series for 62-Sm. K. C. Rule. Phys R 68:246-9 D 1 '45

Biological effect

Biophysical factors in X-ray use. G. Failla. il Ind Stand 17:112-16 My '46

Diffraction

Controlling quality with X-ray spectrometer. J. S. Bühler. il diags Rock Prod 49:68-9+ My '46
Correction of diffraction amplitudes for Lorentz and polarization factors. M. J. Buerger and G. E. Klein. bibliog J Ap Phys 17:285-306 Ap '46; Correction. 17:743 S '46
Correction of X-ray powder diffraction films for non-uniform shrinkage. H. H. Claassen and K. E. Beu. R Sci Instr 17:307 Ag '46
Design of a microdensitometer. J. C. M. Brentano. bibliog il R Sci Instr 16:309-15 N '45
Diffraction of X-rays by aqueous solutions of hexanolamine oleate. S. Ross and J. W. McBain. bibliog Am Chem Soc J 68:296-9 F '46
Diffraction of X-rays by sodium oleate and hexanolamine oleate. S. Ross and J. W. McBain. bibliog Am Chem Soc J 68:547-50 Ap '46
Geiger counter used in powder metallurgy. E. S. Kopecki. il diags Iron Age 157:48-51 F 28 '46
Manufacturing control employing X-ray diffraction method. F. G. Firth. Am Cer Soc J 28:363 D 1 '45
Nondestructive measurement of residual and enforced stresses by means of X-ray diffraction. G. Sachs and others. bibliog(73 titles) il diags Welding J 25:sup400-12 Jl '46
Parafocusing properties of microcrystalline powder layers in X-ray diffraction applied to the design of X-ray goniometers. J. C. M. Brentano. bibliog il diags J Ap Phys 17:420-34 Je '46
Particle size determination from X-ray line broadening. L. S. Birks and H. Friedman. bibliog il J Ap Phys 17:687-92 Ag '46
Physics research division broadens its activities. G. M. Webb and others. il Pet Eng 18: 228+ O '46
Reaction between ferric oxide and barium carbonate in the solid phase; identification of phases by X-ray diffraction. M. Erchak, jr., I. Fankuchen and R. Ward. bibliog pl Am Chem Soc J 68:2085-93 O '46
Routine quantitative analysis by X-ray diffraction. J. W. Ballard and H. H. Schrenk. bibliog 5pls U S Bur Mines Rep of Invest 3888:1-10 '46
Structure of soap micelles indicated by X-rays and the theory of molecular orientation; aqueous solutions. W. D. Harkins, R. W. Mattoon and M. L. Corrin. bibliog 2pl Am Chem Soc J 68:220-8 F '46
Study of oxide cathodes by X-ray diffraction methods. A. Eisenstein. bibliog il diags J Ap Phys 17:434-43 Je '46
Study of oxide cathodes by X-ray diffraction methods; oxide coating composition. A. Eisenstein. bibliog il J Ap Phys 17:654-63 Ag '46
Tabulated diffraction data for tetragonal isomorphs. L. K. Frevel, H. W. Rinn and H. C. Anderson. bibliog Ind & Eng Chem Anal ed 18:83-93 F '46
X-ray diffraction and magnetic studies of unreduced ferric oxide Fischer-Tropsch catalysts. L. J. E. Hofer, W. C. Peebles and W. E. Dieter. bibliog Am Chem Soc J 68:1953-6 O '46
X-ray diffraction data for compounds in the system CaO-MgO-SiO_2. C. B. Clark. Am Cer Soc J 29:25-30 Ja 1 '46
X-ray diffraction investigation of sodium pectate. K. J. Palmer and M. B. Hartzog. bibliog il Am Chem Soc J 67:2122-7 D '45
X-ray diffraction procedures. D. Goodman. il diag Can Chem & Process Ind 30:37-9+ S '46; Same. Iron Age 158:55-8 S 19 '46
X ray diffraction studies of electrodeposits. T. Voyda. Iron Age 158:61 Jl 25 '46
X-ray diffraction studies of orientations especially following high compression and impregnation of wood cellulose; abstract. G. L. Clark and J. A. Howsmon. Am Dyestuff Rep 34:539 D 17 '45
X-ray diffraction study of notch-bend test. J. T. Norton and others. bibliog il diags Welding J 25:sup269-76 My '46
X-ray identification and crystallography of aldehydes and ketones as the 2,4-dinitrophenylhydrazones. G. L. Clark, W. I. Kaye and T. D. Parks. bibliog Ind & Eng Chem Anal ed 18:310-13 My '46
X-ray investigation of glycerides; diffraction analysis of 1-monoarachidin (1-monoeicosanoate). S. S. Sidhu and B. F. Daubert. Am Chem Soc J 68:1975-6 O '46
X-ray investigation of glycerides; diffraction analyses of symmetrical monoöleyl-disaturated triglycerides. L. J. Filer, jr. and others. bibliog Am Chem Soc J 68:167-71 F '46
X-ray investigation of glycerides; diffraction analyses of synthetic triacid triglycerides. L. J. Filer, jr. and others. bibliog Am Chem Soc J 67:2085-9 D '45

History

50 years of X-ray progress in Europe. J. H. van der Tuuk. il Elec Eng 64:444-8 D '45
Fifty years of X-rays. Engineering 160:380-1 N 9 '45
Röntgen commemoration; fiftieth anniversary of the discovery of X-rays. Electrician 135:527 N 16 '45
Some experiences with the X ray. W. D. Coolidge. Elec Eng 64:423-6 D '45
X-ray history and development. W. D. Coolidge and E. E. Charlton. bibliog diags Elec Eng 64:427-32 D '45
X rays an early Institute topic; excerpts from papers presented at meetings a half century ago. Elec Eng 64:435-6 D '45
X-rays' golden jubilee. D. Goodman. Metal Prog 48:1096-8 N '45

Industrial applications

Application of X-ray analysis to structural problems in textiles; abstract. R. E. Rundle. Am Dyestuff Rep 34:526+ D 17 '45; Same. Rayon 26:637-8 D '45

X RAYS—Industrial applications—*Continued*
Continuous gaging with X ray micrometer. R. C. Woods and F. Fua. il diags Iron Age 156:50-1 N 29 '45
Friction drive solves problem; machine used for X-ray inspection of artillery shells. F. Rumble. il diag Machine Design 18:116-17 Ap '46
Industrial radiology. W. J. Wiltshire. Electrician 135:531 N 16 '45
Industrial X-ray. Sci Am 175:225 N '46
Industrial X-ray developments. C. D. Moriarty. il Elec Eng 64:433-5 D '45
New eye for industry; millionth of a second X-ray equipment. E. L. Cady. il Sci Am 174:110-12 Mr '46
New method for measurement of oil saturation in cores; abstract. R. L. Boyer and others. diag Oil & Gas J 45:90+ O 5 '46
Phototube sees X-rays; inspection of parts for internal defects. diag Electronics 19: 180+ N '46
Radiography with multimillion-volt X-rays. H. R. Clauser. bibliog il Materials & Methods 23:706-9 Mr '46
Röntgen ceramics; past, present, and future. G. L. Clark. bibliog Am Cer Soc J 29:177-86 Jl 1 '46; Abstract. Cer Ind 46:57-8 Je '46
X-ray analyzer; General electric X-ray photometer. Sci Am 175:133 S '46
X-ray eyes on the inspection line. il Mod Packaging 19:164-5 Mr '46
X-ray inspection of armored cable. il Elec West 97:70-1 Ag '46
See also
Metals—X ray inspection
X rays—Diffraction

Measurement

Design of a microdensitometer. J. C. M. Brentano. bibliog il R Sci Instr 16:309-15 N '45

Physiological effect

Invisible industrial hazard. S. R. Warren, jr. bibliog il diag Elec Eng 65:499-507 N '46
X-ray-induced depolymerization of thymonucleohistone and of sodium thymonucleate. A. H. Sparrow and F. M. Rosenfeld. bibliog Science 104:245-6 S 13 '46

Protection

Absorption measurements for broad beams of 1- and 2-million volt X-rays. G. Singer and others. bibliog J Res Nat Bur Stand 37:147-50 Ag '46

Scattering

Measurement and analysis of small-angle X-ray scattering. M. H. Jellinek, E. Solomon and I. Fankuchen. bibliog il Ind & Eng Chem Anal ed 18:172-5 Mr '46

Therapeutic use

Scientific importance of X rays. L. H. Garland. Elec Eng 64:443-4 D '45

X-ROX
New use for rock; hydrated silica from western volcanic deposits. Bsns W p52+ Jl 27 '46

XANTHATES
See also
Cellulose xanthate

XANTHENE
Photochemical reactions in sunlight; (a) reaction of ethylenes with phenanthraquinone and with benzil; (b) a new type of photochemical equilibrium. A. Schönberg and A. Mustafa. Chem Soc J p551-3 S '45

XANTHIC acid
Chemistry of xanthic acid derivatives; the interaction of carboxylic acid chlorides and potassium ethyl xanthate. G. Bulmer and F. G. Mann. Chem Soc J p677-80 O '45
Chemistry of xanthic acid derivatives; the interaction of sulphonyl chlorides and potassium ethyl xanthate. G. Bulmer and F. G. Mann. Chem Soc J p680-6 O '45
Chemistry of xanthic acid derivatives; the preparation and comparative properties of isomeric xanthates and dithiocarbonates. G. Bulmer and F. G. Mann. Chem Soc J p666-74 O '45
Chemistry of xanthic acid derivatives; the thermal decomposition of disulphurdicarbothionic esters. G. Bulmer and F. G. Mann. Chem Soc J p674-7 O '45

XANTHINE
Synthesis and properties of 1 : 7-dialkyl xanthines. F. G. Mann and J. W. G. Porter. Chem Soc J p751-60 N '45

XANTHONE
Action of Grignard reagents; replacement of the oxygen atoms of ketones by two hydrocarbon radicals by the action of Grignard reagents. A. Schönberg and W. Asker. Chem Soc J p609-10 Jl '46

XANTHOPHYL
See also
Carotenoids

Analysis

Conditions affecting the sequence of organic compounds in Tswett adsorption columns. H. H. Strain. bibliog Ind & Eng Chem Anal ed 18:605-9 O '46

XENIUM
Simple method of measuring a small noncondensable impurity in Xe or other condensable gas. C. Kenty. diag R Sci Instr 17:158-9 Ap '46

XENON
Ionization by fission fragments in nitrogen, argon, and xenon. N. O. Lassen. bibliog Phys R 68:230-1 N 1 '45
New band system in the green excited in a mixture of xenon and oxygen and the energy of dissociation of CO. C. Kenty and others. il Phys R 69:36 Ja 1 '46

XENOPSYLLA cheopis. See Fleas as carriers of infection

XENYLGLYCOLIC acid
Alkamine esters of substituted *p*-xenylglycolic acids. J. A. Faust, R. F. Feldkamp and M. L. Moore. bibliog Am Chem Soc J 67: 1897-8 N '45

XYLALDEHYDE
Synthesis of di-(2,4-xylyl)-acetic acid. R. C. Fuson and M. L. Ward. bibliog Am Chem Soc J 68:521-2 Mr '46

XYLAN
Comparative estimations of carbonyl and carboxyl groups in chromium trioxide and hypochlorous acid oxycelluloses and oxyxylans. B. Meesook and C. B. Purves. bibliog Paper Tr J 123:35-42 O 31 '46

XYLENE
Conductometric investigation of electrolytic solutions in hydrocarbons. A. Gemant. bibliog J Chem Phys 14:424-34 Jl '46
Course of the reaction at 100° C in the systems xylene/oxygen and aromatic-free mineral oil/xylene/oxygen. D. J. W. Kreulen. bibliog Inst Pet J 32:525-8 Ag '46
Dealkylation of dialkylbenzenes; use of superatmospheric pressure and alumina-silica catalyst in the presence of benzene. W. M. Kutz and B. B. Corson. bibliog flow sheet il Ind & Eng Chem 38:761-4 Jl '46
Determination of ascorbic acid; application of the indophenol-xylene extraction method to determination in large numbers of tomato and tomato juice samples. W. L. Nelson and G. F. Somers. bibliog diag Ind & Eng Chem Anal ed 17:754-6 D '45
Heats, equilibrium constants and free energies of formation of the alkylbenzenes. W. J. Taylor and others. bibliog J Res Nat Bur Stand 37:95-122 Ag '46
Petroleum provides new hydrocarbons for the chemical industry. C. C. Crawford. il Chem Ind 59:469-73 S '46
Phthalic anhydride from ortho-xylene; abstract. H. Vesper and G. L. Parkhurst. flow diag Pet Processing 1:84-5 O '46
Phthalic anhydride from o-xylene; Oronite chemical co. il diag Chem Ind 59:68-9 Jl 46
Phthalic anhydride from petroleum breaks a coal-tar tradition. J. R. Callaham. flow sheet(p138-41) il Chem Eng 53:116-19 Ag '46
Principles of reactor design; toluene from benzene plus xylenes. L. N. Johanson and K. M. Watson. bibliog flow diag diag Nat Pet N 38 pt 2:R629-30+ Ag 7 '46; [cont as] Pet Processing 1:67+ S '46

XYLENE—*Continued*

Statistics

Xylene output, July 1, 1944-June 30, 1945. Oil Paint & Drug Rep 149:35 Je 17 '46

XYLIDENE

Physiological effect

Comparison of the physiological effects of monomethylaniline and xylidene; abstract. J. F. Treon. Ind Med 15:483 Ag '46

XYLOFURANOSE

Trityl derivatives of xylofuranose. R. J. McIlroy. Chem Soc J p100-1 F '46

XYLOPYRANOSIDOADENINE

Experiments on the synthesis of purine nucleosides; the synthesis of 9-*d*-xylopyranosido-2-methylthioadenine and its conversion into 9-*d*-xylopyranosidoadenine. G. A. Howard, B. Lythgoe and A. R. Todd. Chem Soc J p556-61 S '45

XYLOSE

Preliminary study of the polyuronide hemicellulose of phormium tenax (N.Z. flax). R. J. McIlroy, G. S. Holmes and R. P. Mauger. Chem Soc J p796-9 N '45

Analysis

Quantitative estimation of xylose. L. J. Breddy and J. K. N. Jones. Chem Soc J p738-9 N '45

Y

YACHTS and yachting

Motorboating and yachting riding wave of popularity. J. Jackson. il Dom Comm 34: 24-8 Ag '46

YALE and Towne manufacturing company

General strike; Stamford's labor holiday in sympathy with Yale & Towne strikers. il Bsns W p100-2 Ja 12 '46

YALE university

Celebration of return of Yale university's collections to peacetime use. Science 104: 366 O 18 '46

Silliman college. J Chem Educ 23:342 Jl '46

YAMS. See Sweet potatoes

YANGTZE river, China

China plans an unprecedented dam for power, irrigation and navigation on the Yangtze river. il map Eng N 136:310-11 F 28 '46

Yangtze River dam project. il Engineer 182: 294-5 O 4 '46

YARN

Chlorination of mains and the defects of yarn as a jointing material. E. W. Taylor and L. C. Whiskin. diags Water & Sewage 84:28-9+ Je; 25-6+ Ag '46; Abstract. Am Water Works Assn J 38:890-1 Jl '46; Correction. 38:1218 O '46

Dielectric heating cuts twist-setting and drying time. C. N. Batsel. il diag Textile World 96:139+ S '46

Moisture adsorption of textile yarns at low temperatures. R. C. Darling and H. S. Belding. bibliog Ind & Eng Chem 38:524-9 My '46; Discussion. 38:1203-4 N '46

Scaffolding threads in yarn and cloth structure; use of alginate rayon. A. Johnson. il Textile Inst J 36:P203-15; Discussion. P216 D '45

Tricot requires careful warping. O. B. Graham. il diags Textile World 96:116-17+ O '46

See also

Cotton yarn
Rayon yarn
Woolen and worsted yarn

Standards

Standard yarn numbering system proposed to help electrical industry. A. A. New. il Ind Stand 17:261-2 O '46

Tables, calculations, etc.

Hosiery yarn conversion table. Rayon 27:404 Ag '46

Testing

Standard testing of yarns and fabrics. A. W. Bayes. Textile Inst J 36:P182-5; Discussion. P185-6 N '45

See also

Cotton yarn—Testing

YARNALL, D. Robert, 1878-

Portrait. Mech Eng 68:57 Ja '46
Portrait. Power 90:754-5 N '46

YEARBOOKS (statistical, historical, etc.)

Associated press news annual: 1945. R. Landstrom. 565p pa $4 Rinehart & co, 232 Madison av, New York '46

YEASTS

Activity of modified proteins as antigens in cultures of a yeast. S. W. Fox and M. J. Ward. Am Chem Soc J 68:2118 O '46

Continuous cultivation of micro-organisms. W. A. Moor. diags Science 102:594-5 D 7 '45

Effect of spices and flavoring materials on growth of yeasts; abstract. A. H. Webb and F. W. Tanner. Food Ind 17:1402 N '45

La fabrication et l'utilisation des levures. Génie Civil 123:281-2 O 15 '46

Feeding yeasts from wood sugar stillage. E. F. Kurth and V. H. Cheldelin. bibliog Ind & Eng Chem 38:617-19 Je '46

Fermentation of Douglas fir hydrolyzate by S. cerevisiae. E. E. Harris and others. Ind & Eng Chem 38:896-904 S '46

German research reports. Oil Paint & Drug Rep 150:7+ Ag 12 '46

Group of Wisconsin mills plan reclamation yeast plant; utilization of waste sulphite liquor. Paper Ind 28:620+ Ag '46

Maca, selling through Kraft, cracks 85% of food store outlets; Northwestern yeast company abandons distribution through own sales force. Q. D. Pierce. il Sales Management 56:43-4+ Ja 1 '46

Peptide nature of vitamin Bc conjugate from yeast. J. J. Pfiffner and others. Am Chem Soc J 68:1392 Jl '46

Production of wood sugar in Germany and its conversion to yeast and alcohol. J. F. Saeman and others. il diags Paper Tr J 123:38-46 S 19 '46; Abstract. Pulp & Pa of Can 47:106 S '46

Properties of a virus inactivator from yeast. W. N. Takahashi. Science 104:377 O 18 '46

Protein feed from sulphite waste liquor; production of Torula yeast. R. D. Walker, jr. and R. A. Morgen. bibliog diag Paper Tr J 123:43-7 Ag 8 '46

Proteins from wood. Chem & Eng N 24:1570 Je 10 '46

Sugar tolerance of four strains of distillers' yeast; abstract. W. D. Gray. Food Ind 17: 1401 N '45

Tank trucks haul yeast and malt; glass-lined and stainless steel tanks used by Boston brewer; platform trucks for economy in beer and ale deliveries. il Food Ind 18:201-2 F '46

Yeasts from wood sugar stillage. E. F. Kurth. bibliog Ind & Eng Chem 38:204-7 F '46

YELLOW

That second color works wonders, but use it wisely! G. J. Church. il Inland Ptr 117: 77 Ap '46

See also

Carotenoids

YELLOW fever

Notice to air travelers regarding yellow fever immunization. Pub Health Rep 61:785 My 31 '46

YELLOW river, China

Engineers winning battle to close dikes on Yellow river in China. il map Eng N 137: 268-9 Ag 29 '46

Turning back the Yellow river to its prewar channel. O. J. Todd. il map Eng N 137: 572-6 O 31 '46

Yellow River project (China) being rushed. For Comm W 23:21 My 11 '46

YELLOWKNIFE, Canada

Golden trail to Yellowknife. C. H. Vivian. il maps Comp Air Mag 51:230-6 S '46

YEMEN, Arabia

Yemen government interested in establishing direct trade with United States. For Comm W 24:21 Jl 6 '46

YOHIMBINE
Constitution of yohimbine. G. R. Clemo and G. A. Swan. Chem Soc J p617-21 Jl '46

YORK safe and lock company
Diebold annexes York's line. Bsns W p76+ Ja 12 '46

YOUNG, Clarence Marshall, 1889-
Young takes oath as member of CAB. Aviation N 5:38 Mr 4 '46

YOUNG, James Webb, 1886-
Advertising's man of the year. por Adv & Sell 39:40 Ja '46

YOUNG, Robert Ralph, 1897-
New Young plan? Bsns W p16-17 D 29 '45
Robert R. Young and his Chesapeake & Ohio ads. E. J. Dever, jr. por Ptr Ink 216:48-50+ Ag 16 '46
Young takes walk. Bsns W p18 O 19 '46

YOUNG'S modulus. See Elasticity

YOUTH
Belgian youth movements and problems. C. Van der Bruggen and L. C. Picalausa. Ann Am Acad 247:111-16 S '46

See also
Advertising—Youth, Appeal to
Junior achievement movement

YTTERBIUM

Analysis

Observations on the rare earths; extraction of ytterbium from rare earth mixtures with sodium amalgam. T. Moeller and H. E. Kremers. bibliog Ind & Eng Chem Anal ed 17:798-800 D '45

YTTRIUM
Observations on the rare earths; hydrolysis studies upon yttrium and certain rare earth (III) sulfate solutions at 25° C. T. Moeller. bibliog J Phys Chem 50:242-50 My '46

YUGOSLAVIA

See also
Leather industry and trade—Yugoslavia
Mines and mineral resources—Yugoslavia
Shoe industry and trade—Yugoslavia
Textile industry—Yugoslavia

Economic conditions

Progress in Jugoslavia. Economist 150:97-8 Ja 19 '46

Foreign relations

United States

Patterson scores Yugoslavia for attacks on American transport planes. Comm & Fin Chr 164:1139 Ag 29 '46

Politics and government

Jugoslav elections. Economist 149:680-2 N 10 '45
Jugoslav republic. Economist 149:822-3 D 8 '45
What happened in Jugoslavia, 1941-1945. Economist 151:96-7 Jl 20 '46

Z

ZAVARITSKY, A. N.
Work of A. N. Zavaritsky. W. G. Cass. Chem & Eng N 24:1123 Ap 25 '46

ZEA mays. See Corn

ZECKENDORF, William, 1905-
Grapefruit out of lemons; Webb & Knapp real estate business. por Fortune 33:218 Ap '46

ZEEMAN effect
Zeeman effect in the spectrum of chlorine I. J. B. Green and J. T. Lynn. Phys R 69: 165-9 Mr 1 '46

ZEIN
Pigment printing method (zein dispersion) U.S. patent. P. Wengraf. Am Dyestuff Rep 35:398 Ag 12 '46
Zein fibers; preparation by wet spinning. C. B. Croston, C. D. Evans and A. K. Smith. il diag Ind & Eng Chem 37:1194-8 D '45
Zein for finishing textiles; patent. Am Dyestuff Rep 35:504 O 21 '46

Bibliography

Zein, its use in coatings; annotated bibliography. T. T. Collins, jr. Paper Ind 27:1694-7, 1810-16 F-Mr '46

ZEMURRAY, Samuel
Portrait. Bsns W p44 My 4 '46

ZEOLITES
Los Angeles makes its own zeolite. il Eng N 136:732-3 My 2 '46
Soft water for the oil industry. F. H. Love. il Pet Eng 17:59-60 S '46
Water softening in North York; problems of iron removal; efficiency of zeolite; with cost data. G. H. Baker. il Water & Sewage 84: 68-9+ Ap '46
Water treatment in Etobicoke; use of Calgon; respective merits of lime-soda-ash and zeolite processes. F. McArthur. il Water & Sewage 84:66-7+ Ap '46

ZHDANOV, Andrei, 1896-
Politburo. V. Kravchenko. Fortune 34:228 S '46

ZINC
Characteristics of a silver-peroxide-zinc primary cell. I. A. Denison. diag Electrochem Soc Trans 90 (preprint 26):323-38 '46
Characteristics of the silver oxide-zinc-alkali primary cell. J. C. White and others. Electrochem Soc Trans 90 (preprint 20): 273-9 '46
Élaboration du zinc à partir d'un minerai quelconque et de carbure de calcium. L. Hackspill and M. L. Jungfleisch. Génie Civil 123:248-9 S 15 '46
Internal friction and plastic extension of zinc single crystals. T. A. Read and E. P. T. Tyndall. J Ap Phys 17:713-20 S '46
Photoelectric properties of metals in a finely divided state. L. J. Reimert. bibliog Opt Soc Am J 36:278-83 My '46
Rate of dissolution of magnesium and zinc in acids. C. V. King, H. Wishinsky and H. Bloodgood. bibliog Am Chem Soc J 68:238-9 F '46
Reduction of pentaerythrityl tetrabromide in ethanol with zinc; isolation of spiropentane. V. A. Slabey. bibliog Am Chem Soc J 68: 1335-6 Jl '46
Values of the optical constants for beryllium, magnesium, and zinc. R. O. Bock. Phys R 68:210-13 N 1 '45
Zinc extrusions. L. E. Browne. il Steel 118: 96+ Ja 14 '46
Zinc extrusions attain commercial status. H. Chase. il Materials & Methods 22:1724-7 D '45

Analysis

Internal standard method of spectrographic analysis as applied to the determination of lead in high purity zinc. L. Griffith and J. N. Kirkbride. diags Soc Chem Ind J 65:39-48 F '46
Polarographic analysis of zinc in aluminum alloys. F. R. De Paola. il Iron Age 158:36-40 O 3 '46
Routine control of brass plating processes; polarographic, electrochemical, and chemical analysis of plating solutions and deposits. H. E. Zentler Gordon and E. R. Roberts. bibliog diag Electrochem Soc Trans 90 (preprint 2):9-22 '46
Separation and identification of cobalt, nickel, zinc, and manganese. R. K. McAlpine. J Chem Educ 23:298-300 Je '46
Separation of cadmium from zinc by electrochemical means. W. H. Hammond. bibliog(204 reference) diags Electrochem Soc Trans 88 (preprint 27):297-323 '45
Some applications of vacuum distillation technique in the analysis of alloys. J. W. Price. bibliog Soc Chem Ind J 64:283-5 O '45
Systematic polarographic metal analysis; determination of tin, lead, nickel, and zinc in copper-base alloys. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 18:429-32 Jl '46

Prices

Zinc at New York, monthly 1929-1945; tabulation. Iron Age 157:252 Ja 3 '46

Protection

Finish durability improved with vitreous phosphate coating; Banox process. C. T. Roland and H. I. Rosenbloom. il Steel 118: 122+ Je 17 '46

ZINC alloys
Aircraft manufacturing technique applied to bus building; American car & foundry co. R. B. Stubbs. il Mach 52:168-75 D '45
Applied finishes for zinc alloy die castings. il Product Eng 17:389-91 My '46
Cleaning zinc alloys; abstract. F. Hazel and W. Stericker. Materials & Methods 24:456+ Ag '46
Corrosion-resisting properties of electrodeposited tin-zinc alloys. R. M. Angles and R. Kerr. il Engineering 161:289-92, 300 Mr 29 '46
Die casting; materials used. H. Chase. Materials & Methods 22:1444 N '45
Electrodeposition of tin-zinc alloys; abstract. R. M. Angles. Engineering 161:427 My 3 '46
Expansion in die casting; Cleveland hardware and forging co. J. Parina, jr. il Steel 118: 96-7+ F 11 '46
Forming heavy plate with Kirksite dies; Curtiss-Wright corp. L. R. Pistoles. il Iron Age 157:74-5 Mr 14 '46
German practice in extruding zinc alloys. S. Tour. Iron Age 157:54 Je 27 '46
Lead-zinc for cable sheaths; abstract. M. Pfender and R. Schulze. Materials & Methods 22:1484 N '45
New zinc-conductor alloy; abstract. W. Deisinger and R. Reinbach. Materials & Methods 22:1478+ N '45
Pickling and bright dipping copper-zinc alloys. G. B. Hogaboom. diags Metal Finishing 44:198-201 My '46
Preparing die castings for plating; Die casting division of Electric auto-lite co. H. Chase. il Iron Age 157:58-61 My 23 '46
Producing 70 tons of die castings daily; Electric auto-lite co. H. Chase. il plan Iron Age 157:76-80 My 9 '46
Production plating of zinc die casting; Electric auto-lite co. H. Chase. il Iron Age 157: 34-8 My 30 '46
Tips on cleaning of zinc die castings. C. H. Jeglum. Materials & Methods 24:425 Ag '46
Zinc alloy molds for short runs. il Mod Plastics 23:150 Ag '46
Zinc-base bearing metals; abstract. M. von Schwarz. Materials & Methods 22:1802 D '45
Zinc-base die material; Kirksite A; abstract. W. W. Richmond. Materials & Methods 24:686+ S '46
Zinc extrusions. L. E. Browne. il Steel 118: 96+ Ja 14 '46
Zinc extrusions attain commercial status. H. Chase. il Materials & Methods 22:1724-7 D '45
See also
Brass

Analysis
Spectrographic analysis of zinc-base alloys. L. Larrieu. il diags Ind & Eng Chem Anal ed 18:403-7 Jl '46

ZINC carbonate
La reprise de l'exploitation de la calamine en Afrique du Nord. C. Saint-Jacques. diag Génie Civil 123:248 S 15 '46

ZINC chloride
Condensation of acetylene by molten salts. P. C. Johnson and S. Swann, jr. bibliog diags Ind & Eng Chem 38:990-6 O '46
Low temperature dry cells. E. Otto and others. diag Electrochem Soc Trans 90 (preprint 17):235-47 '46

ZINC chromate
Chromates in animal nutrition. W. G. Gross and V. G. Heller. bibliog J Ind Hygiene 28:52-6 Mr '46
Zinc yellow, a corrosion-inhibitive pigment. W. F. Spengeman and D. H. Lawson. il Paint·Oil & Chem R 108:9-10+ O 4 '45

ZINC coating
Zinc coating for shafts and submerged structures; with cost data; abstract. K. Stangeland and L. McWilliams. Am Water Works Assn J 38:162 Ja '46
Zinc coating structural members. il Steel 119: 122 S 2 '46

ZINC compounds
What's ahead in raw materials; zinc pigments. E. V. Gent. Paint Oil & Chem R 108:52 N 1 '45

ZINC industry and trade
Zinc and sulphuric acid; the Imperial smelting corporation at war. Chem Age (Lond) 53:595 D 22 '45

Statistics
Zinc. C. R. Ince. Eng & Min J 147:78-9 F '46
Zinc industry; annual review and forecast. E. V. Gent. il Min Cong J 32:47-50 F '46

Japan
Bombs curb Jap zinc plant. A. F. Matthews Eng & Min J 147:64 O '46

United States
Zinc industry; annual review and forecast. E. V. Gent. il Min Cong J 32:47-50 F '46
Zinc industry; review of 1945. W. E. Milligan. Min & Met 27:82-3 F '46

ZINC iodide
Transference numbers and activity coefficients in zinc iodide solutions at 25°. R. H. Stokes and B. J. Levien. bibliog Am Chem Soc J 68:1852-4 S '46

ZINC metallurgy
Diamond drilling features Mountain Copper's mining. J. B. Huttl. flow sheet diags Eng & Min J 147:66-8 S '46
Élaboration du zinc à partir d'un minerai quelconque et de carbure de calcium. L. Hackspill and M. L. Jungfleisch. Génie Civil 123:248-9 S 15 '46
Flexible flowsheet treats varying lead-zinc ore; Mammoth-St Anthony, ltd. C. E. Craven. il Eng & Min J 146:85-9 N '45
New Calumet mines; geology, mining and milling of a lead-zinc ore. D. C. McLaren. Can Min J 67:239-41 Ap '46
La reprise de l'exploitation de la calamine en Afrique du Nord. C. Saint-Jacques. diag Génie Civil 123:248 S 15 '46
Ten months milling at Moulton Hill. A. C. King and T. V. Lord. flow sheets il diags Can Min J 67:841-56 S '46
Vinegar Hill zinc plant produces zinc and lead flotation concentrates and sulphuric acid. G. H. Pett. flow sheets il Min Cong J 31:22-7 N '45

ZINC mines and mining
Great lead and zinc mines. W. R. Ingalls. Min & Met 27:469-73 S '46

California
Diamond drilling features Mountain Copper's mining. J. B. Huttl. flow sheet il diags Eng & Min J 147:64-8 S '46

Colorado
Exploration of the Big Four zinc-silver mine, Summit county. R. B. McCulloch and W. P. Huleatt. U S Bur Mines Rep of Invest 3884:1-7, pl 1-4 '46

Idaho
Activity in the Pine Creek area. H. W. Ingalls. flow sheet il map Min Cong J 32:40-4 Jl '46
Clark Fork lead-zinc district, Bonner county, Idaho. S. H. Lorain. 6pls U S Bur Mines Rep of Invest 3992:1-10 '46

Illinois
Mining lead and zinc in the upper Mississippi valley. R. J. Brodhead. il map Explosives Eng 24:77-83 My '46

Kansas-Oklahoma-Missouri district
New equipment and methods in metal mining; developments in the Tri-state. S. S. Clarke. il Min Cong J 32:96-8 F '46
Tri-state zinc-lead ore reserves. O. Ruhl. pl U S Bur Mines Rep of Invest 3922:1-7 '46

Missouri
Exploration for zinc and lead ore, Phelps lease, Jasper county, Missouri. L. C. Brichta. U S Bur Mines Rep of Invest 3941: 1-44, pl 1-2 '46

Morocco
Moroccan mine develops unusual classifier design. E. J. Breton. flow sheet diag Eng & Min J 147:77-8 Ja '46

ZINC mines and mining—*Continued*

Nevada

Exploration of the Mount Hope mine, Eureka county, Nevada. E. J. Matson. 16pls U S Bur Mines Rep of Invest 3928:1-7 '46

New York (state)

Zinc mining along the St Lawrence. T. Marvin. il maps plans diags Explosives Eng 24:45-52+ Mr '46

Quebec

New Calumet mines; geology, mining and milling of a lead-zinc ore. D. C. McLaren. flow sheet il map diag Can Min J 67:233-41 Ap '46

Tennessee

Exploration of Stiner and Bunch Hollow zinc properties, Powell River area, Union and Claiborne counties. R. L. Sayrs. U S Bur Mines Rep of Invest 3856:1-4, pl 1-4 '46

Open-pit zinc mine in northeastern Tennessee. W. Black and E. L. Ohle. il Eng & Min J 147:91-3 Ag '46

Structural control of ore bodies in the Jefferson City area. A. L. Brokaw and C. L. Jones. maps Econ Geol 41:160-5 Mr '46

Utah

Examination of the Wah Wah lead-zinc mine, Beaver county. R. L. Jones and W. C. Dunham. U S Bur Mines Rep of Invest 3853:1-14, pl 1-8 '46

Washington (state)

Grandview mine; American zinc, lead & smelting company. flow sheet il map diags Min Cong J 32:26-31 Ja '46

Wisconsin

Exploration of the new Dale Rundell zinc mine, Mifflin district, Iowa county, Wis. F. C. Lincoln. pl U S Bur Mines Rep of Invest 3912:1-8 '46

Mining lead and zinc in the upper Mississippi valley. R. J. Brodhead. il map Explosives Eng 24:77-83 My '46

Vinegar Hill zinc plant produces zinc and lead flotation concentrates and sulphuric acid. G. H. Pett. flow sheets il Min Cong J 31:22-7 N '45

ZINC nitrate

Osmotic and activity coefficients of zinc nitrate, zinc perchlorate and magnesium perchlorate; transference numbers in zinc perchlorate solutions. R. H. Stokes and B. J. Levien. bibliog diag Am Chem Soc J 68: 333-7 F '46

ZINC ores

Structural control of ore bodies in the Jefferson city area, Tennessee. A. L. Brokaw and C. L. Jones. maps Econ Geol 41:160-5 Mr '46

ZINC oxides

Production of methyl vinyl ketone from methylvinylcarbinol; zinc oxide with cupric or cuprous oxide as catalyst. J. J. Kolfenbach and others. bibliog Ind & Eng Chem 37:1178-80 D '45

Thoria-alumina catalyst best for isoparaffin synthesis, zinc oxide is less efficient, for use in the Fischer-Tropsch reaction. il Oil & Gas J 44:86+ Ja 19 '46

ZINC perchlorate

Osmotic and activity coefficients of zinc nitrate, zinc perchlorate and magnesium perchlorate; transference numbers in zinc perchlorate solutions. R. H. Stokes and B. J. Levien. bibliog diag Am Chem Soc J 68:333-7 F '46

ZINC plating

Colorimetric determination of molybdenum in zinc cyanide plating solutions. L. Silverman and others. Metal Finishing 44:426-8 O '46

Electroplating of aluminum and its alloys. M. Raskin. flow chart il Metal Finishing 44:337-9 Ag '46

Electroplating on aluminum. bibliog flow sheet il Steel 118:142-4+ My 6 '46

High-speed zinc plating; abstract. A. E. Carlson and M. J. Krane. Materials & Methods 23.226+ Ja '46

Protective value of electro-tin as an undercoating. S. Wernick. Metal Finishing 44:13-15, 67+ Ja-F '46

See also

Corronizing

ZINC silicates

Fluorescence of phosphors in rare gases. N. C. Beese. Opt Soc Am J 36:493-7 S '46

Thermoluminescence and conductivity of phosphors. R. C. Herman and C. F. Meyer. bibliog J Ap Phys 17:743-8 S '46

ZINC sulfate

Inactivation of penicillin by zinc salts. H. Eisner and B. Porzecanski. Science 103:629-30 My 17 '46

ZINC sulfide

Preparation and characteristics of zinc sulfide phosphors sensitive to infra-red. G. R. Fonda. diag Opt Soc Am J 36:382-9 Jl '46

Thermoluminescence and conductivity of phosphors. R. C. Herman and C. F. Meyer. bibliog J Ap Phys 17:743-8 S '46

See also

Sphalerite

ZINC yellow. See Zinc chromate

ZIONISM

War over Zionism. Economist 149:828-9 D 8 '45

ZIPPERS. See Fastenings

ZIRCON

Characteristics of zircon porcelains; abstract. R. Russell, jr. and W. C. Mohr. Cer Ind 46:55 My '46

Development of zircon as a versatile ceramic material. N. R. Thielke and H. W. Jamison. bibliog Am Cer Soc Bul 24:452-6 D 15 '45

Ductile zirconium from zircon sand. W. J. Kroll and others. bibliog flow sheet diags Electrochem Soc Trans 89 (preprint 29):365-76 '46

Role of refractories in peacetime production; zircon refractories. il Brick & Clay Rec 108: 69 Ja '46

ZIRCONIUM

Ductile zirconium from zircon sand. W. J. Kroll, A. W. Schlechten and L. A. Yerkes. bibliog flow sheet diags Electrochem Soc Trans 89 (preprint 29):365-76 '46; Abstract. Chem & Eng N 24:1201 My 10 '46

Effect of composition on properties of cone 11 zirconium silicate-opacified glazes. R. R. Danielson. bibliog Am Cer Soc J 29: 282-7 O 1 '46

Use of zirconium in the vacuum tube. A. N. Rogers. bibliog Electrochem Soc Trans 88 (preprint 19):205-10 '45

Zirconium metal, its manufacture, fabrication and properties. D. B. Alnutt and C. L. Scheer. bibliog diag Electrochem Soc Trans 88 (preprint 30):357-66 '45

Analysis

Fractional separation of hafnium and zirconium by means of triethylphosphate. H. H. Willard and H. Freund. bibliog Ind & Eng Chem Anal ed 18:195-7 Mr '46

Bibliography

Survey of literature on the metallurgy of zirconium. W. J. Kroll and A. W. Schlechten. U S Bur Mines Information Circ 7341: 1-50 '46

ZIRCONIUM alloys

Zirconium alloys; abstract. G. Volkert. Materials & Methods 22:1476 N '45

ZIRCONIUM oxide

Crucible failure in the induction melting process. A. Gemant and J. Sticher. diag J Ap Phys 16:661-7 N '45

Miniature sun; new lamp using molten zirconium oxide. Bsns W p50+ Mr 16 '46

Studies of binary and ternary combinations of magnesia, calcia, baria, beryllia, alumina, thoria, and zirconia in relation to their use as porcelains. R. F. Geller and others. bibliog pls diags J Res Nat Bur Stand 36:277-312 Mr '46

ZIRCONIUM tetrachloride
Comparison of zirconium tetrachloride with aluminum chloride as a Friedel-Crafts catalyst. H. W. Heine, D. L. Cottle and H. L. Van Mater. Am Chem Soc J 68:524 Mr '46

ZISMAN apparatus
Modified Zisman apparatus for measuring contact potential differences in air; plate driven by radio loudspeaker and null point determined with oscillograph instead of earphones. S. Rosenfeld and W. M. Hoskins. diags R Sci Instr 16:343-5 D '45

ZONING
Constitutionality of zoning challenged in Virginia. J. E. Mason. J Land & Pub Util Econ 22:77-8 F '46
New York set-back; Moses zoning amendment meets final defeat in courts. Arch Forum 85:14 S '46
New zoning ordinance for Los Angeles. il Arch Forum 85:12 Ag '46

ZOOLOGISTS
See also
Ward, Henry Baldwin

ZOOLOGISTS, American society of. See American society of zoologists

ZOOLOGY
Nomenclature
Correction on the nomenclature of human plasmodium. C. W. Sabrosky. Science 104: 401-2 O 25 '46
Misuse of the Linnaean system of nomenclature. A. B. Leonard. Science 104:17 Jl 5 '46
Misuse of the Linnaean system of nomenclature. J. B. Knight and R. E. Blackwelder. Science 104:277-8 S 20 '46
Opinion 152 of the International commission of zoological nomenclature. W. F. Rapp, jr. Science 102:17-18 Jl 6 '45; Discussion. J. C. Bradley. 104:256-7 S 13 '46
Work of the International commission on zoological nomenclature. F. Hemming. Science 103:655-6 My 24 '46
See also
Neotype (term)

ZOTTU, Paul D.
John Wesley Hyatt award. por Mod Plastics 23:113 My '46

UNIVERSAL LIBRARY
114 395
UNIVERSAL LIBRARY